Cone Drive
BY TIMKEN



SERIES HP

POWER TRANSMISSION SOLUTIONS

Precision. Motion Control. Technology.

Product Range

Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are your source for drive solutions.

INDUSTRIAL SOLUTIONS

MODEL HP
Worm gearbox with double-enveloping worm gearing. Available in single, double and triple reductions



MODEL HP-A
Universal metric housing featuring double-enveloping gearing & drywell feature



SERIES B
Industrial duty worm gearbox featuring Conex gearing



DUO DRIVE
Dual gears on parallel output shafts



SLEWING SOLUTIONS
Versatile slew bearings and slew drives featuring external, internal and without teeth options in a low profile, ready-to-install package



STAINLESS
Right angle, IP-69K rated for the food processing market



DOUBLE-ENVELOPING WORM GEAR SET
Available in standard sizes, ratios and backlash options along with custom worm gear sets



PRECISION MOTION SOLUTIONS

SERIES W
Precision right angle servo gearbox



MODEL RG
Moderate precision right angle servo gearbox



SERIES S
Value engineered right angle servo gearbox



SERIES LE / P
In-line helical geared motors & reducers and precision planetary servo gearbox



HARMONIC
Cone Drive Harmonic Solutions® offer the ultimate in precision motion control technology



STAINLESS SERVO
Smooth, contoured stainless steel housing (316), IP69K rated right angle gearbox



HP SERVO
This double-enveloping worm gearing, high torque gearbox meets the most demanding needs as servo motor capacities increase



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GENERAL INFORMATION

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Cone Drive reserves the right to improve or change product design and specifications without notice.

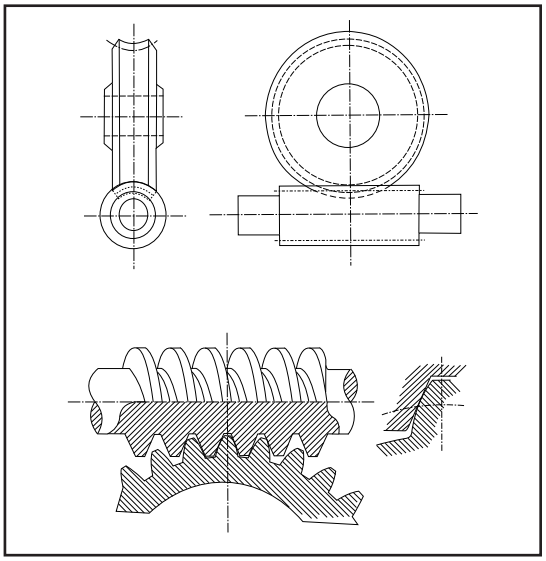
The Cone Drive Advantage

The element that distinguishes Cone Drive products from all the others is the double enveloping design. The term "double-enveloping" is an apt description, as the worm and gear wrap around each other. This greatly increases load carrying capacity by providing more tooth area contact and more teeth in mesh than other worm gear designs.

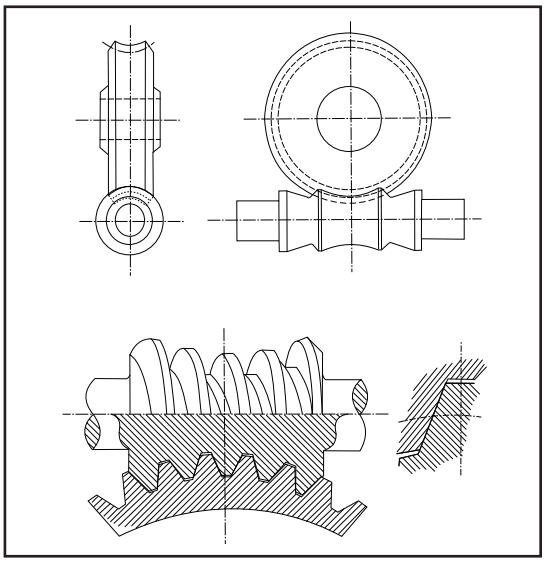
This design difference leads to many advantages, among them:

- Extra torque with no increase in size, or conversely, smaller, more reliable speed reducers
- High shock resistance, and the ability to withstand heavy starting and stopping loads
- Low backlash due to the inherent precision of the double-enveloping design
- Increased durability and longer gear life
- Design flexibility resulting from smaller and lighter envelopes

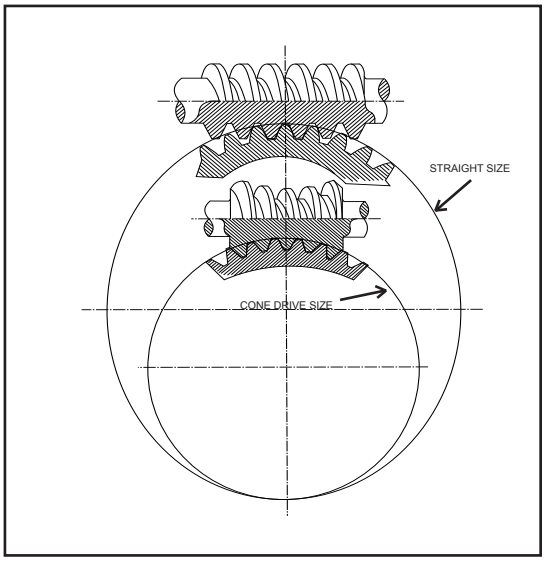
Simply stated, a Cone Drive speed reducer is a small machine doing the work of a big one.



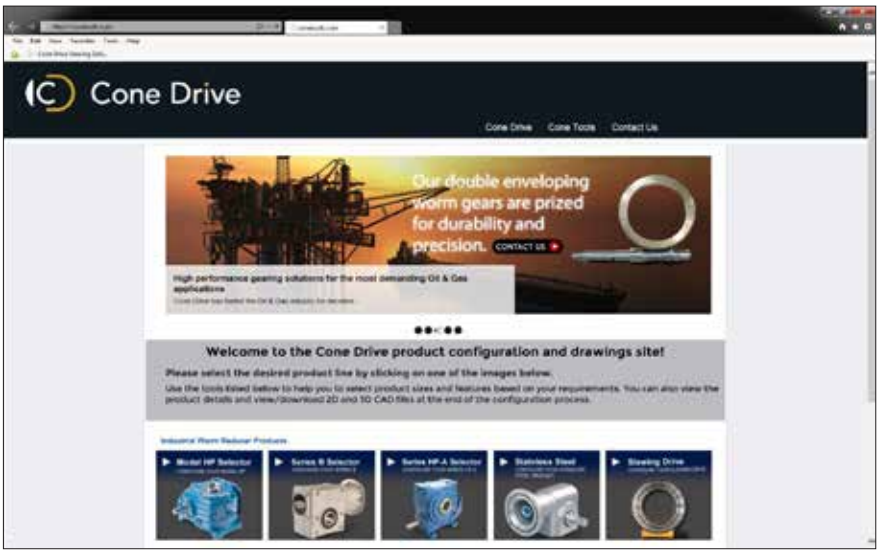
The mesh of common Cylindrical worm gearing provides one to one and one-half gear teeth in contact with the worm.



The Cone Drive double-enveloping design typically provides contact between one-eighth of the total number of teeth on the gear and the worm.



The Cone Drive design gear set can carry loads which would require cylindrical worm gearing to be much larger and heavier.



Cone Drive Drawing Downloads

Visit ***www.ConeDrive.com***

Download 2-D or 3-D models of standard single or double reduction reducers



Products Drawings & Models

Available for Download Include:

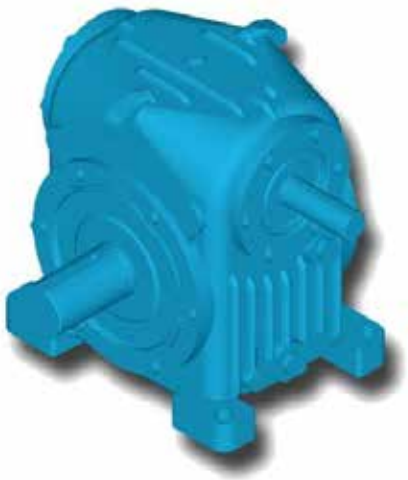
Model HP

Model HP Servo

Series B

AccuDrive (Servo rated range)

Model HP-A



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Cone Drive Products Overview

Shown below are just a few of the many thousands of styles and configurations available from Cone Drive. This page will introduce you to the many possibilities.

Cone Drive®
Double Enveloping Worm Gears and Speed Reducers

Single Reduction Sizes
17 standard center distance sizes, from 1.5 through 28 inches.
Ratios: From 5:1 through 70:1.

Double Reduction Sizes:
15 standard center distances, from 2 through 10 inches in primary unit and 3 through 24 inches in secondary unit.
Ratios: Up to 4900:1

Triple Reduction Sizes:
15 standard center distances, from 2 through 5 inches in primary unit and 3 through 10 inches in secondary unit, and 6 through 24 in tertiary unit.
Ratios: Up to 343,000:1

Helical/Worm Reducer Sizes:
Nine standard center distance sizes from 2.5 through 10 inches in worm secondary.
Ratios: From 1:1 through 4:1 in helical primary, 5:1 through 70:1 in worm secondary, allowing 34 standard output ratios from 5:1 though 280:1, special ratios available.

Helical/Worm D-Flanged Gearheads:
Helical/worm double reduction speed reducer, modified NEMA D flange for electric motor mount, motor sold separately.

Gear Set Styles:
Solid Shaft, hollow shaft, ring and flange.
Sizes: 17 standard center distance sizes, from 1.5 through 28 inches, special sizes available through 52 inches.
Ratios: From 3:1 through 240:1.

Also Available,
Custom Design Speed Reducers, Low Backlash and Precision Gear Sets and Speed Reducers.

Series B

The Cone Drive solution for low cost applications. The Series B drops in to many competitors foot print however, with it's Conex™ worm gear geometry, the Series B offers the highest ratings in the industry. Available in both single and double reductions.
Sizes: From 1.33 inch to 3.54 inch centers
Ratios: From 5:1 through 60:1 (single reduction) and up to 3600:1 for double reductions.

Series W

Quiet operating right-angle precision gearhead is designed to compliment high precision servo systems, nominal positioning accuracy of six arcminutes, or true zero backlash gearing option available. Choose from solid or hollow output shafts, inch or metric shaft dimensions,speed range up to 6000 RPM, factory filled with synthetic lubricant and sealed for life.
Sizes: Five standard center distances from 38 through 89 millimeters.
Ratios: From 5:1 through 60:1, special ratios available.

Model RG

Designed to compliment the Series W as an alternative where high levels of precision are not required when driven by a servo motor. Available with solid or hollow output shafts, inch or metric, speed range up to 4000 RPM, factory filled with synthetic lubricant and sealed for life.
Sizes: Five standard sizes 1.500 inch through 3.500 inch.
Ratios: From 5:1 through 60:1, special ratios available.

Series S

The Series S is a value engineered right-angle servo reducer ideal where a servo rated reducer is required in a less demanding positioning application. The Series S is an all aluminium housing with a plug-in output shaft.
Sizes: Five sizes available from 1.33 to 3.54 inches.
Ratios: From 5:1 through 60:1

AccuDrive®

ZERO BACKLASH gear set has a unique two pieces pre-loaded to eliminate backlash for accurate and positive rotation positioning.
Sizes: Center distances from 2 through 32 inches, special sizes available.
Ratios: From 5:1 through 180:1, special ratios available.

Special Purpose Speed Reducers

DuoDrive® Pinch Roll Reducers

Available in solid or hollow output shafts, comprised of one worm (input shaft) driving two gears on parallel output shafts.
Sizes: Center distance sizes from 2 through 24 inches.
Ratios: From 5:1 through 60:1, special ratios available.

Extruder Drives

The Cone Drive Extruder Drive has rigid housing and shafts, tapered roller thrust bearing, and is designed for screw pressure up to 10,000 P.S.I.
Sizes: Seven standard center distance sizes, from 3.5 through 10 inches.
Ratios: From 5:1 through 70:1, special ratios available.

How To Order

When you order or request a quotation for a Cone Drive unit, you will need to provide some basic information. Please provide complete information.

How to Order Example: **SHU** **40 - 2** **15 to 1** **1800 RPM** **87086660010**

- Model
- Size
- Assembly, Mounting No.
- Overall Ratio
- Input Speed*
- Serial No. (if available for replacement or rebuild)

If you require an Application Review, you may wish to provide...

1. Input power (HP)
2. Output torque requirement
3. Service factor (duty cycle)
4. Application data
5. Special requirements
6. Sketch or drawing
7. Hollow shaft bore size (when required)

*Standard units are set up for 1750 RPM. If input is to be other than 1750, the information should be made to Cone Drive to ensure proper bearing and oil level settings are defined.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Making a selection for your application

We look forward to serving you. Please phone us at 1-888-994-2663 for help specifying gear ratio, speed, duty cycle, and backlash. Or tell us about your application by faxing us the information below to 1-888-907-2663. Our dedicated teams are waiting for your call.

1. **APPLICATION:**
   - General type of application or machine.
   - Specific consideration; eg. positioning accuracy, shock loading, or self-locking.
2. **DUTY CYCLE:**
   - Continuous or intermittent

     If continuous:
     - Hours per week

     If intermittent:
     - How many starts and stops per hour.
     - Average “on” time per hour.
3. **RATIO AND OPERATING SPEED:**
   - Variable or continuous speed input.
   - Preferred input speed.
   - Desired output speed.
4. **LOADING:**
   - Horsepower or torque available or required for starting, running, and stopping.
   - General type of driving motor; eg. AC motor, servo motor, or hydraulic motor.
   - Special load classification; eg. shock loading, reversing, potential for emergency stops.
   - Unusually high inertia loading at the input or output shaft.
   - Overhung and/or thrust loading on shafts.
5. **ENVIRONMENTAL:**
   - Any unusual environmental conditions such as high or low temperature, grit or other contaminants, or wet or spray exposure.
6. **CONFIGURATION:**
   - With or without a Cone Drive supplied drive motor.
   - Flange mounting provisions for the drive motor.
   - Solid or hollow output shaft.
   - Special modifications, dimensions, or features desired.

If Cone Drive is to provide the motor, please provide the following information:

1. Horsepower (HP)
2. RPM
3. Frame Size
4. Phase
5. Cycle (Hertz)
6. Voltage
7. Enclosure
8. Type
9. Design
10. Duty
11. Percent slip
12. Brake rating
13. Conduit box location when exact location is required (see view)

If customer is to furnish and mount the motor, please provide the following information so that the correct motor adaptor and coupling will be provided.

1. Horsepower (HP)
2. Frame size
3. Speed
4. Motor pilot diameter
5. Motor shaft dimensions
6. Brake rating (when units or motors are to be equipped with brakes having a torque rating that exceeds the unit or motor rating, the brake rating must be used to select unit size.
7. Complete coupling information (if alternate coupling is required and is not being furnished by Cone Drive)

Selection Procedure

The Procedure for Determining Speed Reducer Load Capacity is as Follows:

1. Determine the proper service factor by matching your duty requirements with the "Service Factor" chart in this section.

2. Determine the actual input horsepower required to drive the reducer. In case of operating worm speed under 100 RPM. use only output torque ratings. Multiply this horsepower or torque value by the appropriate service factor rather than adjust the ratings in the Catalog. This will give you the adjusted horsepower or torque required.

3. Find the ratio by dividing the speed of the input shaft by the speed of the output shaft.

4. Referring to the Selection guide in this section or the mechanical horsepower ratings charts in the Traditional Products Section, select a unit, at the given worm RPM and ratio, having a corresponding mechanical rating (or one slightly in excess) to the adjusted horsepower or torque.

5. Check the actual input horsepower to be transmitted (horsepower before applying service factor) against the thermal rating listed in the same table as in 4 above. The thermal rating defines the maximum horsepower which can be transmitted continuously (30 minutes or longer). This is based on an oil sump temperature rise of 100°F above ambient, and must not exceed 200°F. If the thermal rating is a lower value than the mechanical rating, choose the unit on the basis of the thermal rating. Exceptions to this rule are applications, where operation is intermittent and does not permit thermal build-up. For applications involving multiple cycles the average horsepower required should be compared with the thermal rating of the reducer. Where water-cooled units are used, thermal ratings can be obtained from our Traverse City, Michigan office; where fan cooled units are used, use the fan cooled thermal ratings shown on the fan cooled pages in the Traditional Products Section.

6. If either input or output shaft is connected to driver or driven mechanism other than by direct shaft coupling, calculate overhung load requirements (Chain Pull) by dividing the torque demand by the pitch radius of the sprocket, sheave, spur or helical gear used. Multiply by the following factor:

Type of Drive	Overhung Load Factor
Chain Sprocket	1.00
Spur or helical gearing	1.25
"V" belt sheave	1.50
Flat belt sheave	2.50

As modified by the applicable service factor, this load may not exceed the overhung load rating listed under Chain Pull in the HP. and Torque Ratings Tables. The Chain Pull figures are based on the center of the load being no further from the center line of the reducer than one-half the keyway length on the output shaft extension. When Chain Pull approaches full rated capacity as listed, use heat-treated foundation bolts (150,000 PSI tensile strength).

7. Cone Drive's Application Engineering Department is available to assist you with selection of the reducer for your application. Computer programs and technical personnel are available to discuss your application. We invite you to forward all pertinent data to Cone Drive's Traverse City, Michigan office or your local representative for our full review and selection assistance.

Horsepower, Speed and Torque Relationship

Formula 1: $P = \frac{T_W n}{63{,}000}$

Formula 2: $T_W = \frac{P \cdot 63{,}000}{n}$

Formula 3: $T_G = T_W \cdot m_G \cdot \eta$

Definitions

M_G = gear ratio $\frac{N_G}{N_W}$

n = rotational speed of worm (rpm)

P = power input to worm (Horsepower)

T_W = input torque (inch pounds)

T_G = output torque (inch pounds)

η = efficiency (percent)

Cone Drive reserves the right to improve or change product design and specifications without notice.

Service Factors (Duty Cycle)

Service Factors

Duty Cycle	Hours/Day	Uniform	Moderate Shock	Heavy Shock	Extreme Shock
	1/2	0.8	0.9	1.0	1.2
	2	0.9	1	1.2	1.3
	10	1	1.3	1.5	1.7
	24	1.3	1.5	1.7	2

For continuous operation thermal ratings must be considered.
See Rating Charts in reducer section.

Example 1
10 HP 1750 RPM motor input, 10 hr per day service with moderate shock loading. This requires a **1.3 service factor**. Selection of a reducer from the Mechanical HP ratings charts is based on 10 HP x 1.3 = 13.00 HP. Thermal ratings shown in the ratings charts must be adequate for 13 HP input.

Example 2
5 HP 1750 RPM motor input, uniform loading operating approximately 2 hour per day. This requires a 0.9 service factor. Selection of a reducer from mechanical HP ratings charts in based on 5 HP * 0.9 =4.5 Hp. Thermal consideration is not required.

Cone Drive Worm Gears Work in Any Environment

Cone Drive double-enveloping worm gear reducers are operating in extreme environments all over the world.

Here are more examples:

- **Food Processing and Chemical Mixing**
  The reducer is designed to withstand corrosion and protect the mixture from contamination.
- **Coal Mining**
  Feeder breaker drives are built to survive the dust, dirt, grim and shock loads, and do it all in a severely limited space.
- **Marine Applications**
  Naval ship capstans and winches driven by Cone Drives shed the effects of salt water spray.
- **Taconite and Phosphate Handling**
  Cone Drive has solved the problem of fine dust working its way into gearboxes, which can contaminate lubricants and ruin gear sets.

Efficiency

The values shown in the following table are approximate. Overall Reducer efficiencies which have been determined and substantiated by extensive dynamometer testing. They are for a complete reducer and include all losses within the unit from oil churning, oil seals and bearings. The efficiencies shown are based on the catalog ratings with the unit at normal operating temperature and with an approved lubricant. Varying conditions such as extremely cold or hot ambient temperatures, and excessively high or low loading will affect the efficiency of the reducer. **If the reducer is required to start under load, consideration must be given to the starting efficiency, which would be less than the running efficiency.** For additional information on efficiency under abnormal temperatures and loading and for starting efficiencies, please contact Cone Drive.

Efficiency (Percent) - Single Reduction

SIZE	RPM	RATIO									
		5	10	15	20	25	30	40	50	60	70
20 thru 35	1750	92	90	88	85	84	80	76	73	70	69
	1150	92	90	88	84	84	80	76	73	70	69
	870	92	89	87	83	83	79	75	72	69	68
	580	91	87	85	83	81	75	72	70	66	65
	300	91	86	82	78	77	72	67	64	61	60
	200	90	85	81	77	75	70	63	60	59	58
	100	89	83	79	75	71	68	61	54	53	52
40 thru 80	1750	95	93	91	88	87	83	79	76	73	72
	1150	95	93	91	87	87	83	79	76	73	72
	870	95	92	90	86	86	82	78	75	72	71
	580	94	90	88	86	84	78	75	73	69	68
	300	94	89	85	81	80	75	70	67	64	63
	200	93	88	84	80	78	73	66	63	62	61
	100	92	86	82	78	74	71	64	57	56	55
100 thru 150	1750	97	95	93	90	89	85	81	78	75	74
	1150	97	95	93	89	89	85	81	78	75	74
	870	97	94	92	88	88	84	80	77	74	73
	580	96	92	90	88	86	80	77	75	71	70
	300	96	91	87	83	82	77	70	69	66	65
	200	95	90	86	82	80	75	68	65	64	63
	100	94	88	84	80	76	73	66	59	58	57
180 thru 280	1750	97	95	95	93	89	85	81	78	75	74
	1150	97	95	93	89	89	85	81	78	75	74
	870	97	94	92	88	88	84	80	77	74	73
	580	96	92	90	88	86	80	77	75	71	70
	300	96	91	87	83	83	77	72	69	66	65
	200	95	90	86	82	80	75	68	65	64	63
	100	94	88	84	80	76	73	66	59	58	57

The overall efficiency of the above units is equal to the product of the efficiencies of each stage at the input speed to that stage.

Double reduction overall efficiency = Primary efficiency x secondary efficiency.

Triple reduction overall efficiency = Primary efficiency x secondary efficiency x tertiary efficiency.

Helical/worm overall efficiency = .97 x worm gear efficiency.

Gearmotor overall efficiency = .97 x worm gear efficiency.

Note: (1) Helical gearing efficiency equals approximately 97% regardless of speed or ratio. (2) Efficiency for worm gearing is determined at the speed the worm is operating.

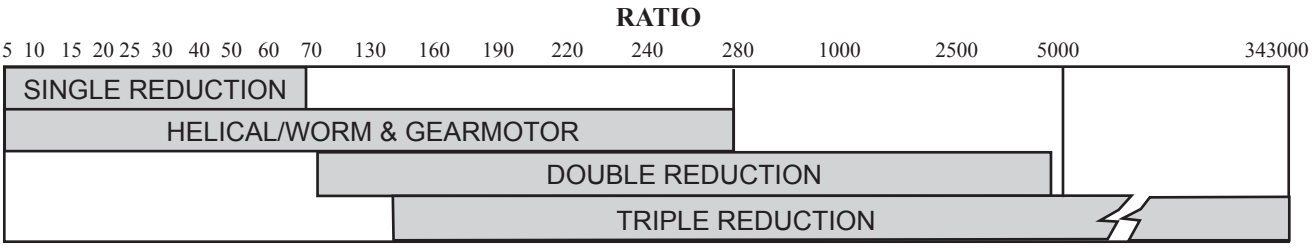
Example: Size 30-60 reducer 225:1 ratio operating at 1750 RPM input speed. The 15:1 ratio primary efficiency is 88% at 1750 RPM. The 15:1 ratio secondary efficiency is 83% at 117 RPM. Overall efficiency is 88% x 83% = 73%.

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Selection Guide

The table below illustrates the range of standard available reductions which can be provided on each type of reducer.

Cone Drive speed reducers are available in six basic combinations.
1. Single reduction worm gear reducers. See pages 32 - 65
2. Double reduction worm gear reducers. See pages 78 - 105
3. Gearmotors. See pages 146 - 163
4. Helical/worm speed reducer. See pages 118 - 135



When input and output shaft speeds are calculated and motor horse power is known, the selection charts presented on the following pages may be used as a guide to rapidly approximate the size and type of reducer required. Refer to pages 114 - 116 for triple reduction units.

To use these charts, read across the output speed line to the motor horsepower column, on the appropriate input rpm chart. The number presented is the approximate size Cone Drive speed reducer recommended. Refer then to this size and type reducer in the individual unit rating tables on pages 32 through 163.

*This selection guide is based on Class 1 mechnical horsepower ratings only. Thermal capacity must be considered.

SINGLE REDUCTION REDUCER 1750 RPM

MINIMUM REDUCER SIZE FOR INPUT FOR INPUT HORSEPOWER SHOWN BASED ON MECHANICAL H.P. RATING*

OUTPUT SPEED	RATIO	MOTOR HORSEPOWER												
		1	1.5	2	3	5	7.5	10	15	20	25	30	50	75
350.0	5	15	15	15	20	25	25	30	35	35	40	40	50	60
175.0	10	15	15	20	20	25	30	30	35	40	50	50	60	70
116.7	15	15	15	20	25	30	30	35	40	50	50	50	70	80
87.5	20	15	20	25	25	30	35	35	40	50	50	60	70	80
70.0	25	20	20	25	25	30	35	40	50	50	60	60	80	100
58.3	30	20	25	25	30	35	40	40	50	60	60	70	80	100
43.7	40	20	25	30	30	35	40	50	60	70	70	80	100	120
35.0	50	25	25	30	35	40	50	50	60	70	80	80	100	120
29.2	60	25	30	30	35	40	50	60	70	80	80	100	120	-
25.0	70	-	-	50	50	50	50	60	70	80	100	100	120	-

SINGLE REDUCTION REDUCER 1150 RPM

MINIMUM REDUCER SIZE FOR INPUT FOR INPUT HORSEPOWER SHOWN BASED ON MECHANICAL H.P. RATING*

OUTPUT SPEED	RATIO	MOTOR HORSEPOWER												
		1	1.5	2	3	5	7.5	10	15	20	25	30	50	75
230.0	5	15	15	20	20	25	30	30	35	40	40	50	60	70
115.0	10	15	15	20	25	30	30	35	40	50	50	50	60	70
76.7	15	15	15	20	25	30	35	35	40	50	50	60	70	80
57.5	20	15	20	25	25	30	35	40	50	50	60	60	80	100
46.0	25	20	25	25	30	35	40	50	50	60	60	70	80	100
38.3	30	20	25	25	30	35	40	50	50	60	70	70	100	100
28.8	40	25	25	30	35	40	50	50	60	70	80	80	100	120
23.0	50	25	30	30	35	40	50	60	70	80	80	100	100	120
19.2	60	25	30	35	35	50	50	60	70	80	100	100	120	150
16.4	70	-	-	50	50	50	60	70	80	80	100	100	120	-

HELICAL / WORM REDUCER, 1750 RPM
GEARMOTOR & DOUBLE REDUCTION REDUCER

MINIMUM REDUCER SIZE FOR INPUT HORSEPOWER SHOWN BASED ON MECHANICAL H. P. RATING*

Output Speed	Ratio		Motor Horsepower											
			1	2	3	5	7.5	10	15	20	25	30	50	70
350	5	1 x 5	25	25	25	25	30	30	35	35	50	50	50	70
233.3	7.5	1.5 x 5	25	25	25	25	30	35	35	40	50	50	70	70
194.4	9	1.8 x 5	25	5	25	25	30	35	35	50	50	50	70	70
175	10	1 x 10	25	25	25	30	35	35	50	50	50	50	70	80
140	12.5	2.5 x 5	25	25	25	30	35	35	50	50	50	50	70	80
116.7	15	1.5 x 10	25	25	25	30	35	35	40	50	50	60	70	80
97.2	18	1.8 x 10	25	25	25	30	35	35	50	50	50	60	70	80
87.5	20	4 x 5	25	25	30	30	35	40	50	60	60	70	80	
77.8	22.5	1.5 x 15	25	25	30	35	35	40	50	50	60	70	80	
70	25	2.5 x 10	25	25	30	35	35	40	50	50	60	60		
58.3	30	1.5 x 20	25	25	30	35	40	50	50	60	70	70		
48.6	36	1.8 x 20	25	30	30	35	40	50	60	60	70	70		
43.8	40	4 x 10	25	30	30	35	40	50	50	60	70	70		
38.9	45	1.8 x 25	25	30	35	40	50	50	60	70	70	80		
35	50	2.5 x 20	25	30	35	40	50	50	60	70	70	80		
29.2	60	4 x 15	25	30	35	40	50	50	60	70	70	80		
24.3	72	1.8 x 40	30	35	40	50	60	60	70	80				
23.3	75	2.5 x 30	25	35	35	50	50	60	70	80	80			
		5 x 15	20-30	20-30	20-35	25-40	30-60	30-60	35-70	35-70	40-80	50-100	60-120	70-150
21.9	80	4 x 20	25	35	35	50	50	60	70	70	80			
19.4	90	1.8 x 50	30	35	40	50	60	70	80					
17.5	100	4 x 25	30	35	40	50	60	60	70	80				
		5 x 20	20-30	20-35	25-70	25-50	30-60	30-60	35-70	40-80	40-80	50-100	60-120	70-150
14.6	120	4 x 30	30	35	40	50	60	70	80					
14	125	5 x 25	20-30	20-35	25-40	25-50	30-60	30-70	40-80	40-80	50-100	50-100	60-120	70-150
11.7	150	10 x 15	20-30	20-35	25-40	30-60	30-60	35-70	40-80	50-100	50-100	50-100	70-150	70-150
10.9	160	4 x 40	35	40	50	60	70	70	80					
10	175	2.5 x 70	50	50	50	60	70	80						
8.8	200	4 x 50	35	50	50	60	70	80						
		10 x 20	20-35	25-40	25-50	30-60	35-70	35-70	40-80	50-100	50-100	60-120	70-150	80-180
7.8	225	15 x 15	20-35	25-40	25-50	30-60	35-70	40-70	50-100	50-100	60-120	60-120	70-150	
7.3	240	4 x 60	35	50	50	70	80	80						
7	250	10 x 25	20-35	25-50	30-60	30-70	30-70	40-80	50-100	50-100	60-120	60-120	70-150	80-180
6.3	280	4 x 70	50	50	60	70	80							

Note: Sizes shown not shaded are for helical/worm reducers and gear motors. Sizes shaded are for double reduction worm gear speed reducers.

Cone Drive reserves the right to improve or change product design and specifications without notice.

DOUBLE REDUCTION REDUCER 1750 RPM

MINIMUM REDUCER SIZE FOR INPUT HORSE POWER SHOWN BASED ON MECHANICAL H.P. RATING*

Output Speed	Ratio		MOTOR HORSEPOWER											
			1	2	3	5	7.5	10	15	20	25	30	50	75
5.8	300	15X20	20-35	25-50	25-50	30-60	35-70	40-80	50-100	50-100	60-120	60-120	70-150	
5	350	5X70	25-50	25-50	30-60	30-70	40-80	50-100	60-120	60-120				
4.7	375	15X25	25-40	25-50	30-60	30-70	50-100	50-100	50-100	60-120	60-120	60-120	70-150	
4.4	400	20X20	25-40	25-50	30-60	35-70	40-80	50-100	50-100	60-120	60-120	70-150	80-180	
3.9	450	15X30	25-40	25-50	30-60	30-70	50-100	50-100	60-120	60-120	60-120	70-150	80-180	
3.5	500	20X25	25-40	25-50	30-60	35-70	40-80	50-100	50-100	60-120	70-150	70-150	80-180	
2.9	600	20X30	25-40	30-60	30-60	40-80	50-100	50-100	60-120	70-150	70-150	70-150	80-180	
2.8	625	25X25	25-50	30-60	30-70	40-80	50-100	50-100	60-120	60-120	70-150	70-150		
2.5	700	10X70	25-50	30-60	30-70	50-100	50-100	60-120						
2.3	750	25X30	25-50	30-60	30-70	40-80	50-100	50-100	60-120	70-150	80-180	80-180		
2.2	800	20X40	25-50	30-60	35-70	40-80	50-100	60-120	70-150	70-150	70-150	80-180		
1.9	900	30X30	25-50	30-70	35-70	50-100	50-100	50-100	70-150	70-150	70-150	80-180		
1.8	1000	40X25	25-50	30-70	35-70	50-100	50-100	60-120	70-150	70-150	80-180			
1.7	1050	15X70	30-60	30-70	40-80	50-100	60-120	60-120	80-180					
1.5	1200	40X30	25-50	30-70	40-80	50-100	60-120	60-120	70-150	70-150	80-180			
1.4	1250	50X25	25-50	35-70	40-80	50-100	60-120	60-120	70-150	80-180				
1.3	1400	20X70	30-60	40-80	50-100	50-100	60-120	70-150	80-180					
1.2	1500	50X30	30-60	35-70	50-100	50-100	60-120	70-150	70-150	80-180				
1.1	1600	40X40	30-60	40-80	50-100	50-100	60-120	70-150	70-150	80-180	80-180			
1.0	1750	30-70	30-70	40-80	50-100	50-100	60-120	70-150	80-180					
.97	1800	30-60	30-70	40-80	50-100	60-120	60-120	70-150	80-180					
.88	2000	50X40	30-60	40-80	50-100	60-120	70-150	70-150	80-180	80-180				
.83	2100	30X70	30-70	50-100	50-100	60-120	60-120	70-150	80-180					
.73	2400	40X60	30-70	50-100	50-100	60-120	70-150	70-150	80-180					
.70	2500	50X50	30-70	50-100	50-100	60-120	70-150	70-150	80-180					
.63	2800	40X70	30-70	50-100	50-100	60-120	70-150	70-150	80-180					
.58	3000	30-70	30-70	60-120	60-120	60-120	70-150	80-180	80-180					
.50	3500	50X70	40-80	50-100	60-120	70-150	70-150	80-180						
.49	3600	60X60	40-80	50-100	60-120	70-150	70-150	80-180						
.42	4200	60X70	40-80	50-100	60-120	70-150								
.36	4900	70X70	50-100	60-120	60-120									

*This selection guide is based on mechanical H. P. ratings only. Thermal capacity must be considered.

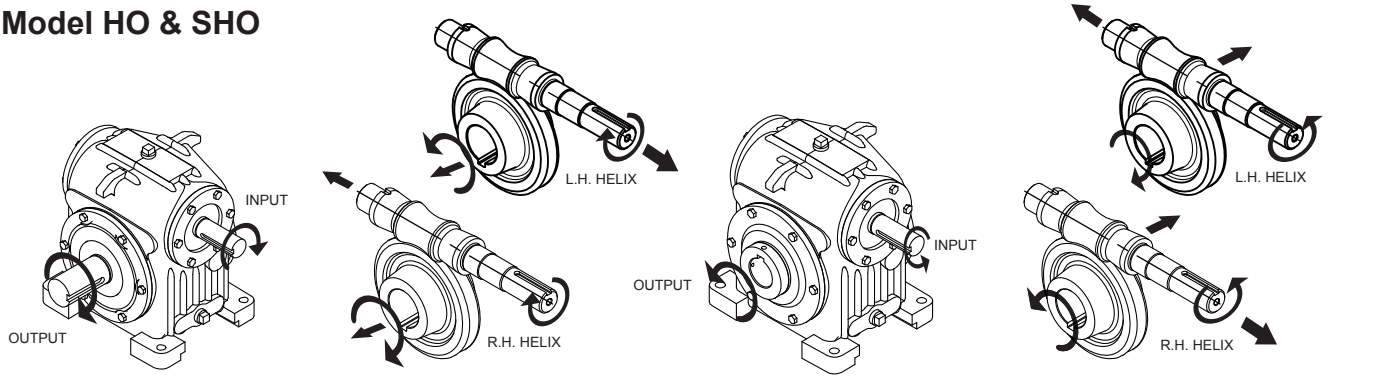
Cone Drive Shaft Rotation and Thrust Direction

Shaft rotations shown for standard right hand and left hand helix gear sets.

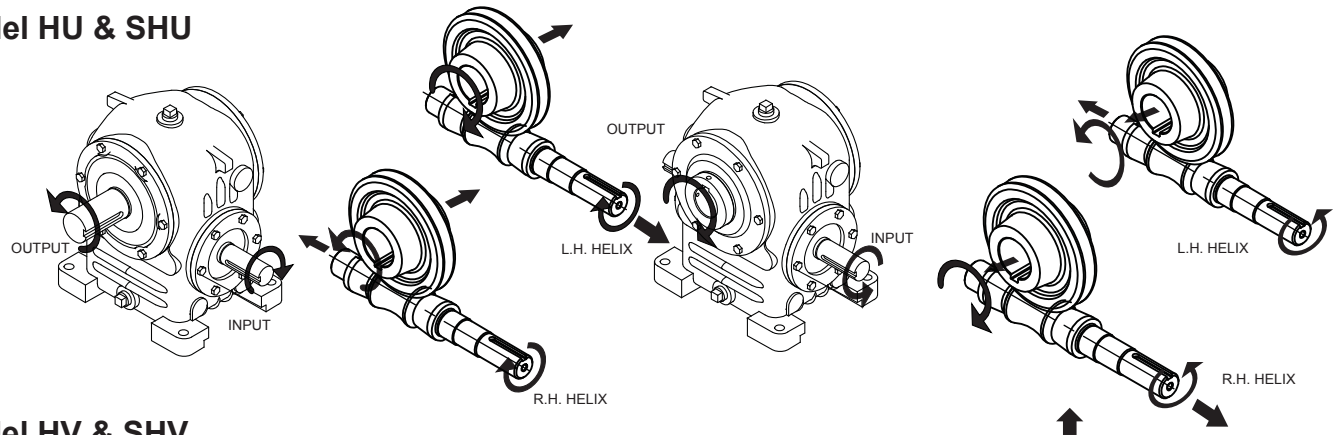
Many ratios can be furnished with left hand helix, see section G tool charts and under additional ratios for availability and tool numbers.

When a reducer is built with a left hand helix gear set the output shaft will rotate in opposite direction shown for a right hand helix gear set.

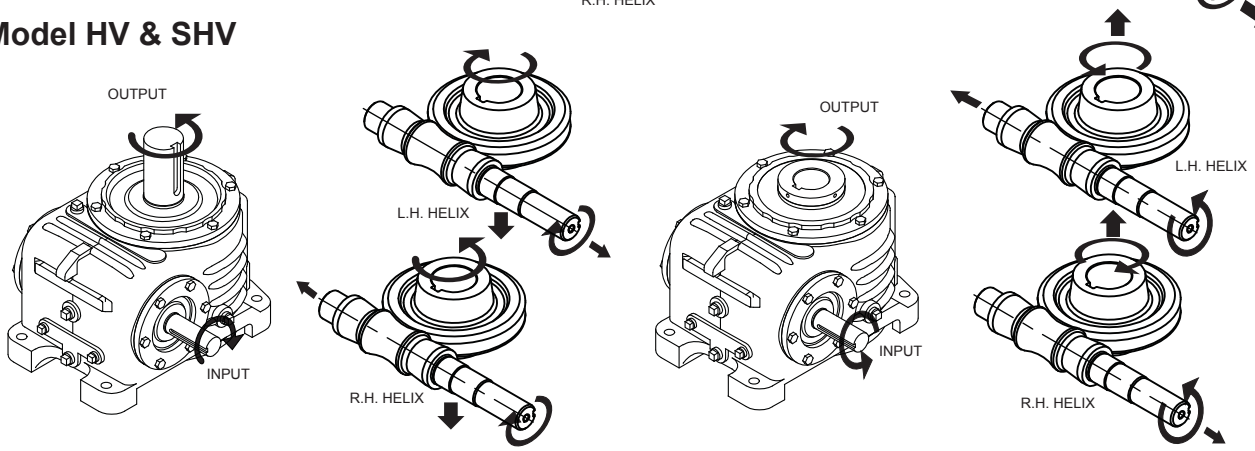
Model HO & SHO



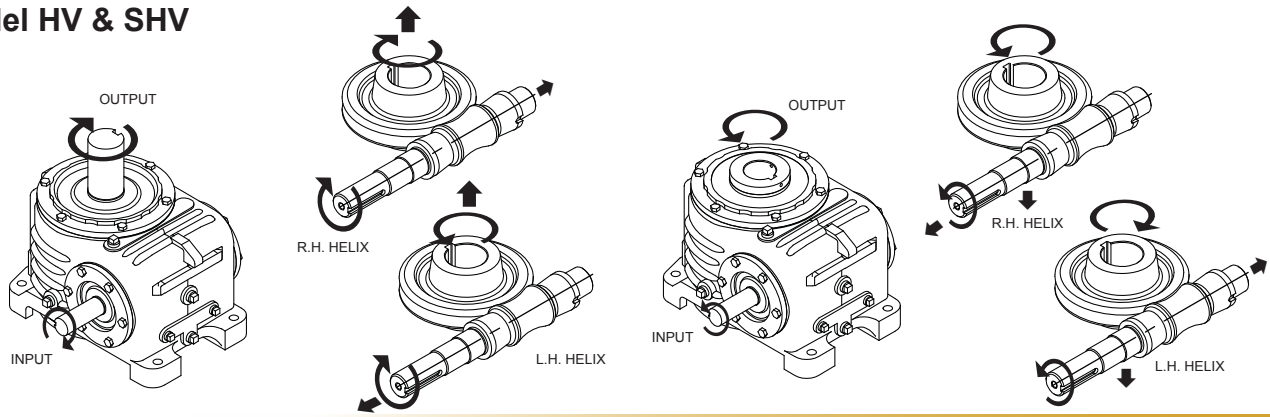
Model HU & SHU



Model HV & SHV



Model HV & SHV



Cone Drive reserves the right to improve or change product design and specifications without notice.

WK² Rotational Inertia of Moving Parts (LB-IN²)

REFERRED TO HIGH SPEED SHAFT
Single Reduction Worm - **Solid** Low Speed Shaft
Single Extended High and Low Speed Shafts

Ratio	UNIT SIZE															
	15	20	25	30	35	40	50	60	70	80	100	120	150	180	220	240
4															15700	
5	0.116	0.532	1.06	2.62	5.80	9.86	20.2	52.0	102	168	547	1160	2000	5550		17300
5 5/8															8800	
7															6300	
8														3180		9040
10	0.096	0.365	0.772	1.80	3.36	6.52	12.6	29.5	48.4	92.2	313	590	1000	2640	4000	
14															2910	
15	0.092	0.334	0.719	1.65	2.90	5.90	11.2	25.3	38.4	78.0	270	484	818	2100		5270
20	0.091	0.323	0.700	1.59	2.74	5.69	10.7	23.9	34.9	73.0	254	447	753	1910	2340	4620
25		0.318	0.691	1.57	2.67	5.59	10.5	23.2	33.3	70.7	247	430	723	1820	2140	4310
30	0.090	0.315	0.687	1.55	2.63	5.53	10.3	22.8	32.4	69.5	244	421	707	1770	2030	4150
40	0.090	0.313	0.682	1.54	2.59	5.48	10.2	22.5	31.5	68.2	240	412	691	1730	2030	3980
50	0.089	0.311	0.680	1.53	2.57	5.45	10.2	22.3	31.1	67.7	238	408	683	1710	1920	3910
60	0.089	0.311	0.678	1.53	2.56	5.44	10.1	22.2	30.9	67.4	237	405	679	1690	1870	
70							10.1	22.2	30.8	67.2	237	404				

ADDITIONAL WK FOR DOUBLE EXTENDED WORM (HIGH SPEED SHAFT) (ADD DIRECTLY TO ABOVE FIGURES)

15	20	25	30	35	40	50	60	70	80	100	120	150	180	220	240
0.008	0.017	0.028	0.103	0.241	0.727	0.775	1.62	3.11	3.94	5.74	16.5	36.5	80.0	165	309

ADDITIONAL WK FOR DOUBLE EXTENDED SOLID GEARSHAFT (LOW SPEED SHAFT)
DIVIDE FIGURE BY SQUARE OF RATIO AND ADD TO ABOVE FIGURES

15	20	25	30	35	40	50	60	70	80	100	120	150	180	220	240
0.013	0.116	0.189	0.511	1.29	4.05	7.83	18.2	27.7	31.69	60.4	332	772	1580	3910	6650

Single Reduction Worm - Hollow Low Speed Shaft
Single Extended High and Low Speed Shafts

RATIO	UNIT SIZE										
	20	25	30	35	40	50	60	70	80	100	120
5	0.565	1.40	3.99	7.58	12.8	27.5	64.4	133	206	518	1170
10	0.373	0858	2.14	3.80	7.25	14.4	32.6	56.1	102	306	593
15	0.337	0.757	1.80	3.10	6.23	12.0	26.7	41.8	82.1	266	486
20	0.325	0.722	1.68	2.86	5.87	11.21	24.6	36.8	75.3	253	448
25	0.319	0.705	1.62	2.74	5.70	10.8	23.7	34.5	72.2	246	431
30	0.316	0.696	1.59	2.68	5.61	10.6	23.2	33.2	70.4	243	421
40	0.313	0.687	1.56	2.62	5.53	10.3	22.7	32.0	68.8	239	412
50	0.312	0.683	1.55	2.59	5.48	10.2	22.4	31.4	68.0	238	408
60	0.311	0.681	1.54	2.58	5.46	10.2	22.3	31.1	67.5	237	405
70						10.2	22.2	30.9	67.3	236	404

ADDITIONAL WK² FOR DOUBLE EXTENDED WORM (HIGH SPEED SHAFT)
ADD DIRECTLY TO ABOVE FIGURES

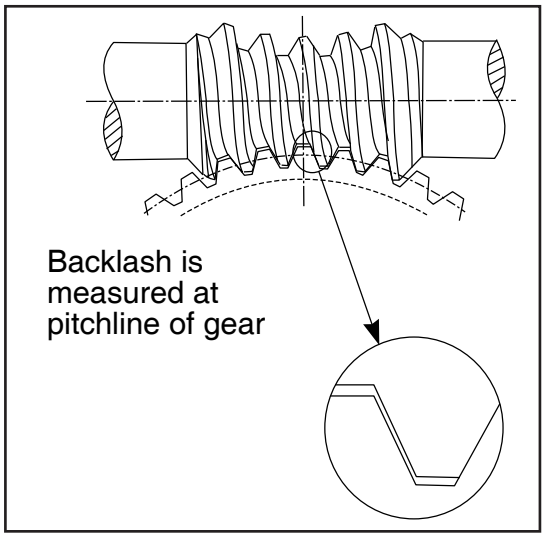
20	25	30	35	40	50	60	70	80	100	120
.0017	0.028	0.103	0.241	0.727	0.775	1.62	3.11	3.94	5.74	16.5

*ROTATIONAL INERTIAS LISTED DETERMINED AT HIGH SPEED SHAFT AND INCLUDE ALL MOVING PARTS IN STANDARD REDUCERS.
DOUBLE REDUCTION INERTIA AT HIGH SPEED SHAFT = SECONDARY WK²/(PRIMARY RATIO)²+ PRIMARY WK².
CONVERT FIGURES TO LB-IN-SEC² BY DIVIDING BY 386 IN/SEC² (GRAVITY).

For Extra Precision… Cone Drive's Low Backlash Gearing

The inherent accuracy of Cone Drive's standard product line fulfills a broad range of precision drive requirements. But, for those applications that demand more precision we have a low backlash gear set to suit your needs. As Cone Drive's manufacturing processes lend themselves to generating precision gearing, these low backlash gear sets and reducers can be obtained at very little additional expense.

A standard Cone Drive gear unit provides about half the backlash of other standard gear units. Cone Drive also offers low backlash and zero backlash gearing.



Measuring Backlash:

Backlash is measured at the pitchline of the gear by rotating the output shaft while holding the input shaft stationary. Bearings are set at zero end play for measurement, then adjusted afterwards according to loading, speed and duty cycle.

Double Enveloping:

Cone Drive's unique double-enveloping worm gear sets are double throated. This allows each element to envelop the other to provide area contact between the worm and gear. This design provides more output torque than cylindrical worm gearing for a given center distance. Double enveloping worm gearing also provides multiple tooth contact which will substantially reduce wear and allow extended life of the gear set.

Zero Backlash Gear Set** **.000"**
Low Backlash Gear Set* **(refer to page 17)** **.000" — .002"** **for Unit Size 15-80**
Assembled Reducer* **with Low Backlash Gear Set** **(refer to page 17)** **.000 — .004"**

* at pitchline of gear.

•• does not include worm bearing end play.

Cone Drive's Low Backlash Gear Sets and Reducers offer:

- Accuracy
- Minimum Backlash
- Smooth Motion

Application Assistance:

To assure optimum performance, Cone Drive's application engineers are available to provide further explanations of precision characteristics under operating conditions. All reducers provided with low backlash gear sets require a review of loading speed and duty cycle so that bearings and lubrication can be given proper consideration.

Backlash

The following chart lists the backlash for standard reducers. Backlash is defined as the amount of movement at the pitch line of the gear with the worm locked and the gear set on exact center distance. When the gear set is assembled into a machine or reducer, the assembled backlash may fall outside of the limits shown in the table depending on worm and gear bearing looseness, and the actual center distance on which the gear set is mounted. Backlash is measured at the pitch line of the gear and is not dependent on ratio. Backlash is generally not measured at the worm because the amount of rotation of the worm with gear locked is a function of ratio.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Standard Backlash

SIZE	RPM INPUT											
	100-499			500-999			1000-2000			2001-3000		
	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES
15	0.009	0.44	26	0.009	0.44	26	0.011	0.54	32	0.012	0.59	35
20	0.009	0.32	19	0.009	0.32	19	0.011	0.40	24	0.013	0.47	28
25	0.009	0.26	16	0.009	0.26	16	0.011	0.32	19	0.013	0.38	23
30	0.009	0.22	13	0.009	0.22	13	0.011	0.26	16	0.013	0.31	19
35	0.010	0.20	12	0.010	0.20	12	0.012	0.25	15	0.014	0.29	17
40	0.010	0.18	11	0.011	0.20	12	0.013	0.23	14	0.015	0.27	16
50	0.011	0.16	9	0.012	0.17	10	0.014	0.20	12	0.016	0.23	14
60	0.012	0.14	9	0.013	0.16	9	0.015	0.18	11	0.017	0.20	12
70	0.013	0.13	8	0.015	0.15	9	0.018	0.18	11	0.019	0.19	12
80	0.014	0.12	7	0.016	0.14	8	0.019	0.17	10	0.020	0.18	11
100*	0.024	0.17	10	0.024	0.17	10	0.024	0.17	10	0.024	0.17	10
120*	0.026	0.15	9	0.026	0.15	9	0.026	0.15	9	0.026	0.15	9
150*	0.030	0.15	9	0.030	0.15	9	0.030	0.15	9	0.030	0.15	9
180*	0.030	0.12	7	0.030	0.12	7	0.030	0.12	7	0.030	0.12	7
220*	0.031	0.10	6	0.031	0.10	6	0.031	0.10	6	0.031	0.10	6
240*	0.036	0.11	7	0.036	0.11	7	0.036	0.11	7	0.036	0.11	7
280*	0.036	0.09	5	0.036	0.09	5	0.036	0.09	5	0.036	0.09	5

Nominal Backlash values in inches, degrees, and arcminutes for standard backlash reducers.
Backlash in inches is measured at pitch line.
**This worm is mounted in a type TDO double locked up tapered roller bearing with a fixed spacer which can be ground to reduce end play for low speeds. Contact Cone Drive.*

SIZE	RPM INPUT											
	100-499			500-999			1000-2000			2001-3000		
	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES	INCHES	DEGREES	ARC MINUTES
15	0.003	0.15	9	0.003	0.15	9	0.005	0.24	15	0.006	0.29	18
20	0.003	0.11	6	0.003	0.11	6	0.005	0.18	11	0.007	0.25	15
25	0.003	0.09	5	0.003	0.09	5	0.005	0.15	9	0.007	0.20	12
30	0.003	0.07	4	0.003	0.07	4	0.005	0.12	7	0.007	0.17	10
35	0.003	0.06	4	0.003	0.06	4	0.005	0.10	6	0.007	0.14	9
40	0.003	0.05	3	0.004	0.07	4	0.006	0.11	6	0.008	0.14	9
50	0.003	0.04	3	0.004	0.06	3	0.006	0.09	5	0.008	0.11	7
60	0.003	0.04	2	0.004	0.05	3	0.006	0.07	4	0.008	0.10	6
70	0.003	0.03	2	0.005	0.05	3	0.008	0.08	5	0.009	0.09	6
80	0.003	0.03	2	0.005	0.04	3	0.008	0.07	4	0.009	0.08	5
100*	0.012	0.08	5	0.012	0.08	5	0.012	0.08	5	0.012	0.08	5
120*	0.012	0.07	4	0.012	0.07	4	0.012	0.07	4	0.012	0.07	4
150*	0.012	0.06	4	0.013	0.06	4	0.013	0.06	4	0.013	0.06	4
180*	0.012	0.05	3	0.013	0.05	3	0.013	0.05	3	0.013	0.05	3
220*	0.012	0.04	2	0.013	0.04	2	0.013	0.04	2	0.013	0.04	2
240*	0.012	0.04	2	0.013	0.04	2	0.013	0.04	2	0.013	0.04	2
280*	0.012	0.03	2	0.013	0.03	2	0.013	0.03	2	0.013	0.03	2

Nominal Backlash values in inches, degrees, and arcminutes for low backlash reducers.
Backlash in inches is measured at pitch line.
*This worm is mounted in a type TDO double locked up tapered roller bearing with a fixed spacer which can be ground to reduce end play for low speeds. Contact Cone Drive.

Horsepower, Speed and Torque Relationship

Formula 1: $P = \frac{T_W n}{63{,}000}$

Formula 2: $T_W = \frac{P \cdot 63{,}000}{n}$

Formula 3: $T_G = T_W \cdot m_G \cdot n$

Definitions

m_G = gear ratio $\frac{N_G}{N_W}$

n = rotational speed of worm (rpm)

P = power input to worm (horsepower)

T_W = input torque (inch pounds)

T_G = output torque (inch pounds)

n = efficiency (percent)

Example 1

Select a reducer for a conveyor.

Service 8-10 hours per day
5 hp motor at 1750 rpm
43.75 rpm output speed
6.74 inch diameter chain sprocket on output shaft.

Unit to be a vertical reducer with output shaft through a feet side. wall mounted. right hand assembly, worm over gear and extended to the right.

Application is a uniformly loaded conveyor to be operated 10 hours a day. From the Service Factor Chart we find that this qualifies for a 1 service factor.

The driver is a 5 hp motor, operating at 1750 rpm. Since the service factor in this case is 1, we need not determine the adjusted horsepower requirement. since the worm speed is over 100 rpm, we use the input horsepower rating rather than the output torque.
Our conveyor shaft must have a speed of 43.75 rpm. We divide 1750 (rpm of input shaft) by 43.75 (rpm of output shaft) to get a reduction of 40 to 1.
From the Rating Tables we find that a standard size 35, 40:1 ratio speed reducer will transmit 5.6 hp, at 1750 rpm.

Also we find that the size 35, 40:1 ratio unit will have a fan thermal hp rating of 5.6 hp at 1750 rpm. Since the actual power to be transmitted is 5 hp at 1750 rpm, the unit will be adequate to handle the applied load.

However, the output shaft is connected with a chain drive sprocket having a pitch diameter of 6.74 inches or a radius of 3.37 inches. The efficiency of 79% is found on page 10. The torque load on the output shaft is found, from formulae 2 and 3 to be

$$\frac{63000 \times 5 \text{ hp} \times .79 \times 40}{1750}$$

which gives us a torque load on the sprocket of 5688 in. -lbs.

$$\text{Overhung load} = \frac{\text{torque}}{\text{sprocket radius}} \text{ or } \frac{5688}{3.37}$$

for a required chain pull capacity of 1688 lbs. In the rating tables the size 35, 40:1 speed reducer we have chosen has a chain pull rating of 3500 lbs. , more than sufficient for the job.

To order this reducer proceed as follows:
Specify quantity required. model designation, size, mounting position designation as selected from the hand of assembly and mounting position pages, then the ratio and loading requirements of horsepower speed and service factor. Example: FHV 35-Z8B, 40:1 ratio, 5 hp at 1750 rpm service factor 1, conveyor drive.

Example 2
Application is an intermittent positioner drive, operating one hour per day at service factor of 0.8. The unit must deliver 72500 in. lbs. at 23 rpm. The adjusted output torque is 72,500 x 0.8 = 58,000 in lbs. With a motor speed of 1150, the ratio required is 1150/23 = 50:1.

Referring to the rating tables we find that a size 80, 50:1 ratio unit at 1150 rpm has an output torque rating of 59,905 in.-lbs. This is the smallest size unit meeting the adjusted output torque requirement.

The required input hp to produce the 72,500 in.-lbs. output torque is found using formulae 1,2 and 3. The estimated operating efficiency of 76% is taken from the table on page 10. Thus the motor size nearest our requirement is 25 hp at 1150 rpm, which will be adequate due to the intermittent cycle of the application. the thermal capacity of this unit is 13.3 hp, which we have been able to disregard due to the intermittent service.

In selecting the reducer, refer to size 80, section 2 which shows three styles of standard reducers. We have determined that a worm-under unit is the most suitable. The unit description would therefore, be HU 80, then shaft arrangement from the hand of assembly and mounting position pages, followed by the ratio 50:1, 25 hp at 1150 rpm, service factor slope mounted, send sketch or detailed description.

Should the application be continous the thermal HP rating would dictate either a larger unit or additional cooling.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Example 3
Select a speed reducer to drive a vertical bucket hoist, operating 8 hours per day at multiple cycles. This requires a 1 Service Factor.

The following are the load and operating conditions:

3000# Line load on hoist
800# Weight of bucket
300# Weight of chain or cable
400# Add 10% for friction
4500# Total load to be raised
12.44" Drum diameter = 39.07" Circumference
19 FPM lifting speed
Service-8 hours per day...uniform load
Output or drum RPM=$\frac{19 \times 12}{39.07}$ =5.8 rpm
Output torque required =
$\frac{4500\# \times 12.44}{2}$ = 28,000 in.-lbs.
Total reduction, using a 1750 rpm motor, would be $\frac{1750}{5.8}$ = 302:1 ratio
The high ratio indicates a double reduction reducer would be necessary with a 1750 rpm motor. Referring to the double-reduction reducer ratings, we would select a 300 to 1 ratio, providing a 5.83 rpm output speed.

Checking the output torque rating. we find that unit size 25-50 has a catalog rating of 35,830 in.-lbs., which would handle the load requirement of 28,000 in.-lbs., using a 5 hp, 1750 rpm motor. This is determined by knowing that an input horsepower of 4.8 will deliver 35,830 in.-lbs. O.T. Thus we require (4.8 x 28,000) / 35,830 or 3.75 hp.

The 4500 lbs. load is going to be hung on the output shaft, such that the load is at the center of the keyway. We can check the ability of the unit to handle this "chain pull" by referring to the ratings in single-reduction reducer section under size 50 and 20:1 ratio.

The input rpm to the secondary unit would be 1750 divided by the primary ratio or approximately 100 rpm. A quick check of the chain pull rating tells us that we have a capacity of 7,180 lbs. at 100 rpm.
Our requirement is
Chain Pull = (28,000 / 6.22) or 4,500 lbs.

Chain pull is satisfactory. If the chain pull had exceeded the allowable of 7,180 lbs., an outboard bearing on an extended output shaft would have solved the problem.

If the drum is to be mounted on the output shaft. such that that load of chain pull concentration is further away from the reducer than half the length of the standard gearshaft keyway, the problem should be referred to our Engineering Department for further investigation.

If the drum is to be connected to the reducer by means of a flexible coupling. no consideration need be given to the question of "chain pull" because the load is applied as torque only.

If other than 8-hour-per-day uniform service is to be applied, the correct service factor should be selected from the service factor char, and the size required refigured.

You will find the double reduction unit available in several configurations and shaft extensions. This application requires a primary having worm (input) over gear, and a secondary unit with worm under gear (model OU). This unit s to be supplied with a single extended input and output shaft. It is therefore necessary to specify these requirements. See the notes on dimension sheets, and the hand of assembly and mounting position pages.

To order the reducer proceed as follows:
Specify quantity required model designation, size, hand of assembly and mounting position, plus overall ratio and loading requirements.

Example:
1 OU 25-50 A1, 300: 1 ratio, 5 hp at 1750 rpm, service factor 1, bucket hoist.

General Information

PROPER APPLICATION OF CONE DRIVE PRODUCTS

Cone Drive products, including gear sets and reducers, are designed and built to rigorous specifications. However, Cone Drive must have adequate application information in order to properly design and build products which meet the needs of its customers.

Consequently, in any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive reserves the right to specify minimum service factors, stress levels, speed limitations, etc. for drives of this nature and will not be responsible for applications of our products that have not been reviewed or approved in writing prior to installation or for products installed or used in a manner different than originally specified by the customer.

RATINGS

Ratings for standard reducers as well as standard and special gear sets are shown in this catalog. These ratings allow for starting and **momentary** peak overloads of up to 300% of the catalog rating (service factor = 1). Ratings for worm speeds above 100 RPM not shown in the tables may be obtained by direct interpolation. The output torque ratings for worm speeds of 100 RPM or less are considered to be constant. Horsepower ratings for ratios, sizes, or speeds not shown in the catalog may be obtained by contacting Cone Drive.

The thermal power rating of a speed reducer is the maximum allowable continuous input power with the reducer running in a 100°F ambient condition. The maximum permissible internal operating temperature is 200°.

The thermal power rating can often be increased with optional water cooling coils or external heat exchanger. In cases of unusually high or low ambient temperatures, please consult Cone Drive Engineering for assistance.

SELF-LOCKING

It is a common misconception that all worm gears are self-locking or non-overhauling. Actually, worm gear ratios up to 15:1 will overhaul quite freely. Ratios from 20:1 to 40:1 can generally be considered as overhauling with difficulty (particularly from rest). Ratios above 40:1 may or may not overhaul depending on loading, lubrication and the amount of vibration present. Cone Drive cannot guarantee any worm gear ratio to be self-locking. There have been instances where single reduction ratios as high as 100:1 have overhauled. Therefore, it is not acceptable to rely on a worm gear to prevent movement in a system. Whenever a load must be stopped or held in place, a positive mechanical device must be incorporated into the system to prevent rotation of the gear set.

BACKDRIVING OR OVERHAULING

Applications such as wheel drives that require a brake on the motor or input shaft to decelerate a high inertial load require special attention to brake selection. Whenever possible, these applications should utilize freely overhauling ratios (15:1 or less). If self-locking ratios are used with a brake, the gear set can, under certain conditions, lock-up during decelerations and impose severe shock loading on the reducer and driven equipment. Each reduction should be limited to 15:1 or less to allow the reducer to overhaul. Contact Cone Drive for specific information on backdriving efficiency and brake selection.

BEARINGS

All standard Cone Drive reducers are furnished with antifriction bearings. When tapered roller bearings are used, axial endplay is built into the worm or gearshaft in accordance with the bearing manufacturer's recommendations for the specified operating speed and duty cycle. Typically, size 20 thru size 80 worm bearings will have from .003 to .007 axial endplay built in at assembly. This endplay will decrease as the unit approaches operating temperature. If we are not advised of the specific operating speed and duty cycle, the bearings will be set for continuous service at 1750 RPM input speed. If intermittent service is specified, bearing endplay will be reduced accordingly.

All standard output shaft mountings use tapered roller bearings. Overhung load (or chain pull) ratings shown in the single reduction ratings charts (see Traditional Products Section). The chain pull rating shown are the acceptable loads which can be applied to a standard solid output shaft (gearshaft) at the midpoint of the extension keyway length. The indicated load is that load which will produce a min. bearing (L10) life of 5000 hrs. or a shaft material limiting value, whichever is the limiting. Due to improved steel processing our tapered roller bearing supplier issued a rating supplement in late 1982 for many bearings up thru 7.125 in. bore increasing the basic radial rating (BRR). They have also introduced environmental factors (L10A) which are rating modifiers for operating temperature (ft) and viscosity (fv).

Our catalog chain pull ratings have not been revised at this time and will continue to be based on L-10 life calculations until such time as the effect of the new environmental factors can be reviewed.

In the event you have an application operating at maximum overhung load using a reducer loaded to maximum mechanical capacity, please consult Cone Drive engineering for bearing life review.

Cone Drive reserves the right to improve or change product design and specifications without notice.

General Information (continued)

OVERHUNG LOAD CAPACITY (Chain Pull)

The output shaft chain pull capacities are tabulated in the single reducer ratings tables. The same values apply and should be used for double and triple reduction and helical worm reducers. To determine chain pull ratings for these units calculate the worm speed of the final reduction and refer to the appropriate unit size, ratio and speed in the single reduction section. The chain pull values shown are calculated with the load applied at the center of the keyway. For other locations please contact Cone Drive.

The input shafts are equipped with high capacity bearings suitable for belt and primary gear drives. For specific information in input shaft chain pull capacity, please contact Cone Drive.

STAIRSTEPPING

Self-locking ratios (generally 40:1 and higher) are susceptible to the phenomenon of “stairstepping” when backdriving or overhauling. “Stairstepping”, which is an erratic rotation of the gear set, occasionally occurs when the gear set is backdriven at worm speeds less than the theoretical lockup speed of the gear set. This erratic rotation of the gear set can be amplified by the rest of the drive train creating a very undesirable operating condition. “Stairstepping” can occur on hoists, or other drives where there is a high inertial load at the output shaft. Contact Cone Drive for specific information.

The preceding comments on backdriving or overhauling and stairstepping are intended as a general guide when selecting ratios for applications where high inertial loads are present at the reducer output shaft. Ratios outside of the specified ranges have been successfully used in many applications where brake size and backdriving efficiency were carefully analyzed or where prototype testing and experience with specific applications confirmed their suitability.

Design Assistance and Customer Service

Cone Drive can save your designers time and money. Our application engineers are experienced in all phases of power transmission. We welcome the opportunity to review and assist you in selecting the right reducer for your application We’ll help you benefit from the advantages of design flexibility with our limitless range of sizes, styles and ratios.

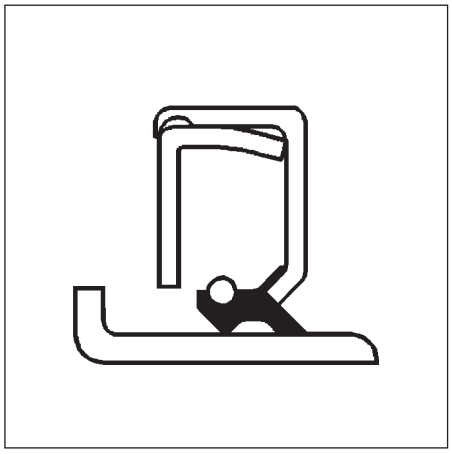
Cone Drive sales representatives and engineers are problem solvers. They are with you to review your situation first hand, and working as a team with our application engineers, find the right solution.

When you place an order with Cone Drive, our entire business and manufacturing system is “on deadline” for your order. Our high degree of computer integration means that order processing, materials planning, manufacturing, and shipping become and interconnected, highly efficient mechanism. Virtually all information about your order is immediately available at any time, anywhere in the plant. This boils down to one important fact, when you call Cone Drive, there’s no guessing.

Cone Drive service does not end when you receive shipment. Should you require assistance with installation or repair, our field service representatives are there when you need them.

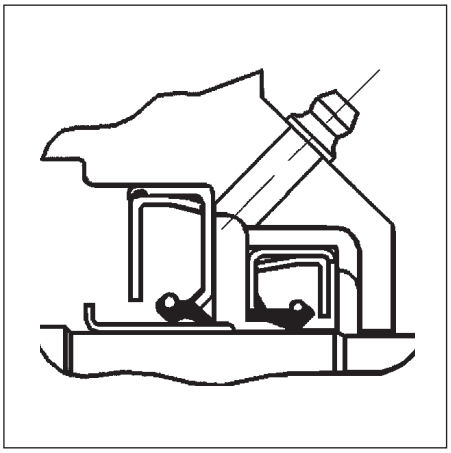
Oil Seals

Cone Drive standard speed reducers are furnished with the highest quality available oil seals. The following types are most generally used.



Wear Ring Double Lip Type

Wear Ring Double Lip Type: Consists of a conventional double lip seal with a steel wear sleeve that is pressed on the shaft to provide a specially prepared sealing surface for the oil seal lips. This seal provides an effective proven sealing method and also eliminates seal lip wear on the shaft itself.



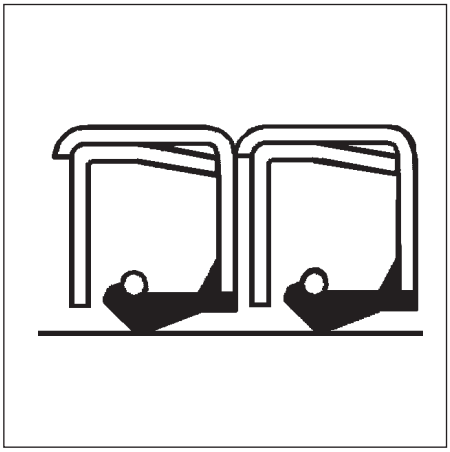
"Taconite" Seal Type

Taconite Seal Type: Consists of a double seal arrangement with special cap which embodies grease channels, a grease fitting and purge hole. This arrangement provides a cavity between seals, and around the outside seal for grease packing and purging. The taconite seal is optional at extra cost. This seal is used in areas requiring protection against outside contaminants such as coal dust, cement dust, taconite, water and steam.



Standard Single Lip Type

Standard Type A: A conventional single lip seal which seals directly on a specially prepared shaft surface.



This type seal will be used singularly or tandem to suit sealing requirement.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Lubrication Data

Lubrication is very important for successful operation of Cone Drive gearsets and speed reducers. Inadequate lubrication can result in increased power consumption, added maintenance and gearset failure. Please review the following recommendations and the "Approved List of Lubricants" shipped with all Cone Drive gearsets and speed reducers. Cone Drive recommends only those lubricants listed or any lubricant which meets all the requirements of AGMA (American Gear Manufacturers Association) 9004-D94 "Lubrication of Industrial Enclosed Gear Drives" as it applies to double enveloping worm gearing. Use of other lubricants can result in gearset failure which will not be covered under warranty. See reducers nameplate for the recommended lubricant.

TYPE OF OIL

Lubricating oils for use in gear units should be high quality well refined steam cylinder petroleum oils. They must not be corrosive to gears, to ball, roller or sleeve bearings; they must be neutral in reaction; free from grit or abrasives; and have good defoaming properties. As they may be subject to high operating temperatures, they must have good resistance to oxidation.

For worm-gears additions of 3 percent to 10 percent of acidless tallow or similar animal fats are desirable.

AMBIENT TEMPERATURE

The oils shown in the table on the following page are for use in an ambient temperature range of approximately 15° to 125°F with the low end of the range depending on the pour point of the specific oil used. If the ambient temperature will be below or above this range please contact Cone Drive for specific recommendations on proper lubricant as well as proper oil seal and shim materials.

OIL SUMP TEMPERATURES

The maximum recommended oil sump temperature is 200°F. Where reducers will be used at maximum ambient and full catalog rating. Contact Cone Drive for lubrication recommendations.

SLUDGE

It is necessary that the oil be clean and free from sludge at all times to obtain long life from a gear unit.

Sludge in gear units may be caused by excessive heat, from dust and dirt and other contaminates and by the presence of moisture or chemical fumes. Therefore, every precaution should be taken to prevent water and foreign particles from entering the gear case.

Cone Drive Reducers are Shipped without Oil.*

At assembly all reducers are treated with a rust inhibitor. This treatment coats all internal parts and will protect the reducer for a period of 30 days. If the unit is to be stored longer than 30 days, see long term storage instructions.

Oil Change

If an approved synthetic lubricant is used, it should be changed after 5000 hours of operation or once per year, whichever occurs first. If a recommended steam cylinder oil is used, the change interval should be after 2500 hours of operation or every six months, whichever occurs first. These change intervals are recommended for units operating under favorable conditions. Where operating conditions are severe, such a rapid rise and fall in temperature of the gear case with accompanied sweating of the inside walls and resulting formation of sludge, or where operation is in moist or dusty atmospheres, or in the presence of chemical fumes or extended running at sump temperatures in excess of 180° F, it may be necessary to change the oil at intervals of one to three months. It is recommended a sampling program be established with your lubricant manufacturer where reducers are exposed to the severe operating conditions, mentioned above.

OIL LEVEL

Cone Drive reducers are furnished with a bronze colored hex head pipe plug to indicate oil level. An oil level tag is affixed to the unit near the oil level indicator. Oil level should always be checked with the unit stopped. Estimated oil capacities for standard reducers, are listed in this section.

ATTACHABLE HELICAL PRIMARY, DOUBLE AND TRIPLE REDUCTIONS REDUCERS

These units utilize separate housings and are furnished with separate oil sumps. It is important that all sumps are filled to the proper oil level.

GREASE PACKED BEARINGS

Bearings that are at least partially submerged in oil or oiled by internal oil scoops do not require special maintenance. However, bearings that are not lubricated as above require grease lubrication. Grease fittings and internal retainers are furnished when required. They should be greased with a high quality lithium base NLGI #2 or NLGI #3 bearing grease at normal maintenance intervals depending on the duty cycle of the reducer.

EXTREME PRESSURE (E.P.) LUBRICANTS

Extreme Pressure (E.P.) lubricants or cylinder oils with sulphur-phosphorus additives are not acceptable and should not be used in Cone Drive Speed reducers or worm gearing.

Lubrication Data

Viscosity

Oils recommended for AGMA 7 comp., 8 comp., and 8A comp. must have a minimum viscosity index of 90.

AGMA Lubricant Number	VISCOSITY RANGE		
	ASTM System		
	SUS @210°F	SUS @100°F	CST @ 40°C
7 COMP*	125 - 150	1919 - 2346	ISO460 (414-506)
8 COMP*	150 - 190	2837 - 3467	ISO680 (612-748)
8A COMP*	190 - 250	2236	ISO460
SHC634	215	2236	ISO460

*Compounded with 3 to 10 percent of acidless tallow or other suitable animal fats. Refer to Cone Drive approved list of lubricants for specific oils that meet the above specifications.

RECOMMENDED LUBRICANTS							
REDUCER SIZES	Worm Speed Up To RPM	AMBIENT TEMPERATURE °F		WORM SPEED ABOVE RPM	AMBIENT TEMPERATURE °F		AGMA Standard Specification of Industrial Enclosed Gearing (9005). *Pour Point of the oil used should be less than the minimum ambient temperature expected. These lubricants are satisfactory for sump temperatures up to 200°F.
		*14-50	50-125		*14-50	50-125	
20 thru 60	700	8 comp.	8A comp.	700	8 comp.	8 comp.	
70 thru 120	450	8 comp.	8A comp.	450	8 comp.	8 comp.	
150 thru 180	300	8 comp.	8A comp.	300	8 comp.	8 comp.	
220 thru 240	250	8 comp.	8A comp.	250	8 comp.	8 comp.	
280	200	8 comp.	8A comp.	200	8 comp.	8 comp.	

Limiting Speeds for Splash Type Lubrication

The maximum sliding velocity for splash lubrication is 2000 ft. per minute. If the gear set sliding velocity exceeds this value special lubrication provisions are required. Please contact Cone Drive Engineering for specific recommendations.

The ratings charts in the following section are blocked to indicate acceptable operating speeds with splash lubrication for standard reducers and gear sets.

The sliding velocity for standard reducers or gear sets is determined by multiplying the factor from the table by the speed of the worm in RPM.

Sliding Velocity - "V" in ft. per min.

Example:
4.000 C.D. 20:1 Ratio
at 3000 RPM:

"V" = Sliding Velocity (Ft/Min.)
"V" = .489 x 3000
"V" = 1467 Ft/Min.

SLIDING VELOCITY FACTOR										
RATIO										
Size	C.D.	5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	70:1
20	2.000	.291	.261	.253	.250	.249	.248	.247	.247	.246	.246
25	2.500	.377	.334	.324	.249	.320	.319	.318	.318	.317	
30	3.000	.457	.382	.369	.363	.362	.361	.360	.359	.359	.359
35	3.500	.533	.453	.439	.433	.431	.430	.429	.428	.428	.428
40	4.000	.613	.512	.495	.489	.486	.485	.484	.483	.483	.482
50	5.000	.722	.632	.612	.605	.600	.598	.597	.596	.595	.595
60	6.000	.888	.763	.740	.731	.726	.724	.723	.722	.722	.722
70	7.000	1.050	.860	.827	.818	.812	.809	.807	.806	.805	.805
80	8.000	1.180	.920	.882	.870	.863	.860	.857	.856	.855	.855
100	10.000	1.468	1.138	1.095	1.080	1.070	1.070	1.070	1.060	1.060	1.060
120	12.000	1.760	1.362	1.308	1.292	1.282	1.278	1.273	1.271	1.270	1.270
150	15.000	2.200	1.635	1.565	1.542	1.530	1.528	1.522	1.518	1.516	
180	18.000	2.535	1.865	1.775	1.743	1.728	1.720	1.715	1.711	1.706	

Cone Drive reserves the right to improve or change product design and specifications without notice.

Oil Capacities

Approximate Quantities in Quarts & Gallons

Single Reduction Reducers - Floor Mounted Position

UNIT SIZE		20	25	30	35	40	50	60	70	80	100	120	150	180
WORM OVER GEAR	HO SHO	1 Qt	1 1/2 Qt.	2 1/2 Qt.	1 Gal.	1 1/2 Gal.	2 1/2 Gal.	3 3/4 Gal.	6 1/2 Gal.	10 1/2 Gal.	19 Gal.	45 Gal.		
	ALT OIL LEVEL	1/2 Qt.	1 Qt.	1 1/2 Qt.	2 1/2 Qt.	1 Gal.	1 3/4 Gal.	2 1/2 Gal.	4 Gal.	6 1/2 Gal.	12 1/2 Gal.	26 Gal.		
WORM UNDER GEAR	HU SHU	1/2 Qt.	1 Qt.	1 1/2 Qt.	3 1/2 Qt.	1 1/2 Gal.	2 1/4 Gal.	3 1/4 Gal.	5 1/4 Gal.	7 3/4 Gal.	15 Gal.	30 Gal.	45 Gal.	70 Gal.
VERTICAL HV OUTPUT SHAFT SHV		1 Qt.	1 Qt.	1 1/2 Qt.	2 1/2 Qt.	1 Gal.	1 3/4 Gal.	2 3/4 Gal.	5 Gal.	6 1/2 Gal.	14 Gal.	26 Gal.	50 Gal.	80 Gal.

Double Reduction Reducers - Floor Mounted Position

UNIT SIZE	20/30	20/35	25/40	25/50	30/60	30/70	35/70	40/70	40/80	50/100	60/120	70/150	80/180
OO-UO-VO OOS-UOS-VOS	3 Qt.	1 1/2 Qt.	1 3/4 Gal.	2 3/4 Gal.	4 1/4 Gal.	7 Gal.	7 1/4 Gal.	7 1/2 Gal.	11 1/2 Gal.	20 3/4 Gal.	47 1/2 Gal.		
OU-UU-VU	2 1/2 Qt.	1 Gal.	1 3/4 Gal.	2 1/2 Gal.	4 Gal.	5 1/4 Gal.	5 1/2 Gal.	6 Gal.	8 1/2 Gal.	16 Gal.	30 Gal.	50 Gal.	76 Gal.
OUS-UUS-VUS			1 1/4 Gal.	2 Gal.	3 1/4 Gal.	6 1/4 Gal.	6 1/2 Gal.	7 Gal.	9 3/4 Gal.	18 1/2 Gal.	34 Gal.		
OV-UV-VV OVS-UVS-VVS	2 Qt.	2 Qt.											

Gearmotors & Helical/Worm Reducers - All Positions

UNIT SIZE		25	30	35	40	50	60	70	80
ALL MODELS MOUNTED WITH WORM UNDER GEAR	STANDARD SHAFT HOLLOW SHAFT	2 Qt.	2 1/2 Qt.	1 1/4 Gal.	2 1/4 Gal.	3 Gal.	4 1/4 Gal.	7 Gal.	8 1/2 Gal.
ALL MODELS MOUNTED WITH WORM OVER GEAR		1 1/2 Qt.	1 1/4 Gal.	2 Gal.	2 1/4 Gal.	4 Gal.	5 Gal.	9 Gal.	11 Gal.
ALL MODELS MOUNTED WITH VERTICAL OUTPUT SHAFT		2 1/2 Qt.	3 1/2 Qt.	1 1/2 Gal.	2 1/4 Gal.	3 Gal.	3 3/4 Gal.	8 Gal.	10 1/4 Gal.
ALL MODELS MOUNTED WITH INPUT END UP		4 Qt.	1 1/4 Gal.	2 1/4 Gal.	3 Gal.	5 1/4 Gal.	6 3/2 Gal.	13 1/2 Gal.	16 Gal.
ALL MODELS MOUNTED WITH INPUT END DOWN		3 1/2 Qt.	1 Gal.	1 3/4 Gal.	2 1/2 Gal.	3 1/2 Gal.	4 3/4 Gal.	8 3/4 Gal.	10 1/2 Gal.

Important: Do not overfill units. Fill to center line of oil gauge or to pipe plug identified with oil level sticker. Oil capacities will vary due to mounting positions or type of gearshaft mounting used, such as solid shaft, hollow shaft or spread bearings. Each reducer is built and oil levels are set at the factory for a specific mounting position.

Approved List of Lubricants for Cone Drive Double-Enveloping Worm Gear Speed Reducers & Gear Sets

WORM SPEED (RPM)	† AMBIENT TEMPERATURE	
	-10 °C to +10 °C (14 °F to 50 °F)	-10 °C to +50 °C (50 °F to 125 °F)
0-700	8 Comp.	8A Comp.
0-450	8 Comp.	8A Comp.
0-300	8 Comp.	8A Comp.
0-200	8 Comp.	8A Comp.

(‡) WORM SPEED ABOVE (RPM)	† AMBIENT TEMPERATURE
	-10 °C to +50 °C (14 °F to 125 °F)
700	8 Comp.
450	8 Comp.
300	8 Comp.
200	8 Comp.

AGMA LUBRICANT NUMBER	VISCOSITY RANGE		
	ASTM SYSTEM		ISO GRADE
	SUS@210 °F	SUS@100 °F	CST@40 °F
7 Comp.	125-150	1919-2346	ISO460 (414-506)
8 Comp.	150-190	2837-3467	ISO680 (612-748)
8A Comp.	190-250	4171-5098	ISO1000(900-1100)

	AGMA #8 COMPOUND (NON-E.P)			AGMA #8 COMPOUND (NON-E.P)		
MANUFACTURER	BRAND NAME	P.P.F.	SUS@210°F	BRAND NAME	P.P.F.	SUS@210°F
Mobil Oil Corp.	600W Super Cylinder Oil	10	155	Extra Hecla Super Cylinder Oil	20	198
Amoco	Cylinder Oil 680	15	200	Cylinder Oil 1000	15	243
BP Oil NOT AVAILABLE IN THE U.S				Energo DC-C 1000	6	1000 CST
Behnke Lubricants Inc.	Jax Super Cylinder	30	190	Jax Super Cylinder	15	243
Bel-Ray Company, Inc.	Stream Cylinder Oil 150	5	167	Steam Cylinder Oil 250	10	205
Bel-Ray Company, Inc.	No-Tox worm Gear Lube (FOOD GRADE H1) Oil ISO 680	5	216	No-Tox Worm Gear Lube (FOOD GRADE H1) OIL ISO 1000	5	292
Cato Oil and Grease Corp.	Mystik Power Lube #680	5	212	Mystik Power Lube #1000	5	315
Century Lubricating Oils, Inc.	Garwal #680	35	183			
Chevron Products Comp.	Cylinder Oil W-ISO #680	10	191	Cylinder Oil W-ISO #1000	10	252
Citgo Petroleum Corp.	Cylinder Oil #680-7	15	193			
Conoco Inc.	Inca Oil #680	30	165	Inca Oil #1000	35	211
Dryden Oil Company Inc.	Worm Gear Oil #680	20	180	Worm Gear #1000	20	222
Engineered Lubricants	Enlubol SCO-3400	15	685CST	Enlubol SCO-193 Comp.	15	916CST
Exxon Company	Cylesstic TK 680	20	184	Cylesstic TK 1000	30	227
Fina Oil Company	Cylan Steam Cyl. Oil 680	20	175			
Fiske Brothers Refining	Lubriplate CP-8	22	160	Lubriplate CP-8A	35	230
Fiske Brothers Refining	*Lubriplate SPO-288	20	173			
Huls	PQ-AGMA#8	10	175			
Imperial/Esso Oil	Cylesso TK 680	37	680 CST	Cylesso TK 1000	37	925 CST
Kendall Motor Oil Company	Kendco 155 Comp.	25	177	Kendco 206 Comp.	35	229
Lubrication Engineers	680 Almasol	15	191			
Lyndell Lubricants	Modoc #175	30	190			
Mobil Oil Corp.	600W Super Cyl. Oil	20	155	Extra Hecla Super Cyl.Oil	30	200
Pennzoil Products Company	Cylinder Oil #680	30	680 CST	Cylinder Oil #1000	30	1000 CST
Pennzoil Products Company	Cylinder Oil #6-NR	36	680 CST			
Philips 66 Company	Hector 630-S	10	172			
Primrose Oil Company				243 Cylinder Oil #8A	15	220
Schaeffer Mfg. Company	#147 Steam Cylinder Oil	10	190			
Shell Oil Products Company	Valvata J-680	20	650 CST			
Sunoco	Sun Gear Oil 8c	10	677			
Texaco Lubricants Company	Vanguard 680	20	190	Vanguard 1000	25	220

Cone Drive reserves the right to improve or change product design and specifications without notice.

APPROVED SYNTHETIC LUBRICANTS:	
MANUFACTURER	**BRAND NAME**
Henkel Corp./Emery Group	*Emery-2843 Synthetic Lubricant
Keystone / Atochem	*Keystone KSL-367 Synthetic Lubricant
Mobil Oil Corp.	*Mobil SH634 Synthetic Lubricant
Texaco Lubricants Co.	*Pinnacle 460Synthetic Lubricant

BEARING GREASE: High quality lithium base NLGI #2 or NLGI #3

NOTES:

Note #1.....The listed synthetic lubricants are acceptable for use as an AGMA #7, AGMA #8 and AGMA #8A. AGMA #7 lubricants are primarily used in force feed lubrication systems or other special applications.

Note #2.....Worm gears operating at a sliding velocity in excess of 10 m/s (2,000 ft. per min.) may require force feed lubrication. For force feed lubrication recommendations. see Cone Drive Product Catalog or contact Cone Drive Engineering.

Note #3.....Major oil companies, not on the above list, do not have products which meet the requirements of AGMA. #9005-D94

Note #4.....Manufacturers listed above, in bold print, have product available world wide. Contact a listed manufacturer for availability in your area.

Note #5.....All lubricants are listed per the manufacturers recommendation.

Note #6.....(*)This is a special lubricant, not an AGMA compound

Note #7.....Centistoke viscosity values are at 40 centigrade

Note #8.....If a Cone Drive reducer is to be operated at an input rpm other than that shown on the name plate, contact Cone Drive Engineering Department for recommendations.

Note #9.....For double and triple reduction reducers an ISO 1000 (AGMA #8A) lubricant can be used in the primary as well as the final reduction stages.

Note #10.....Pour point of the oil used should be 5 C (9 F) less than the minimum ambient temperature expected. For special temperature or operating conditions, contact Cone Drive Engineering Department for the proper lubrication selection.

Note #11.....AGMA specifications require a viscosity index (VI) of 90 (min.). However, lubricants listed with a VI of less than 90 may be used if a recommended lubricant with a VI of 90 (min.) is not available.

Material Specifications

GEARS

For normal worm speeds up to 3600 rpm, or 2000 feet per minute sliding velocity, Cone Drive gear units rated in accordance with our standard formulae, we recommend our standard gear bronze. Gears are chill or centrifugally cast bronze according the following specifications.

Chemical:

Tin	10.00% to 12.00 %
Impurities	.50% Max.
Phosphorus	.05% - .25%
Copper	Remainder

Mechanical:*

Tensile strength	45,000 Lbs./ Sq.In.Min
Yield Point	25,000 Lbs./ Sq. In. Min.
Elongation in 2"	14% Min.

*Gear mechanical properties are test bar values.

**Worm mechanical properties are typical for 1" rounds having 32 Rc surface hardness.

WORMS

Worm threads are cut integral with the worm shaft from #4150 resulphurized steel within the limitations of the chemical specifications shown below.

Chemical:

Carbon	.48% - 53%
Manganese	.75% - 1.30%
Phosphorus	.035% Max
Sulphur	.06% - .10%
Silicon	.15% - .35%
Chromium	.60% - 1.10%
Molybdenum	.15% - .25%

Mechanical:**

Tensile strength	140,000 Lbs./ Sq. In. Min.
Yield Point	120,000 Lbs./ Sq. In. Min.
Reduction in area…	40%
Elongation in 2"	12%

Housing, Caps & Carriers

Housing, Caps & Carriers size 1.5 through size 120 are generally supplied in cast iron. Larger sizes are supplied in welded steel or cast iron at our option.

Solid Output Shafts

Output shafts for size 1.5 through size 60 are cold drawn steel. Size 70 and greater are heat treated alloy steel, the same as the worm material in the listing above.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive
BY TIMKEN

TRADITIONAL PRODUCTS

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Cone Drive reserves the right to improve or change product design and specifications without notice.

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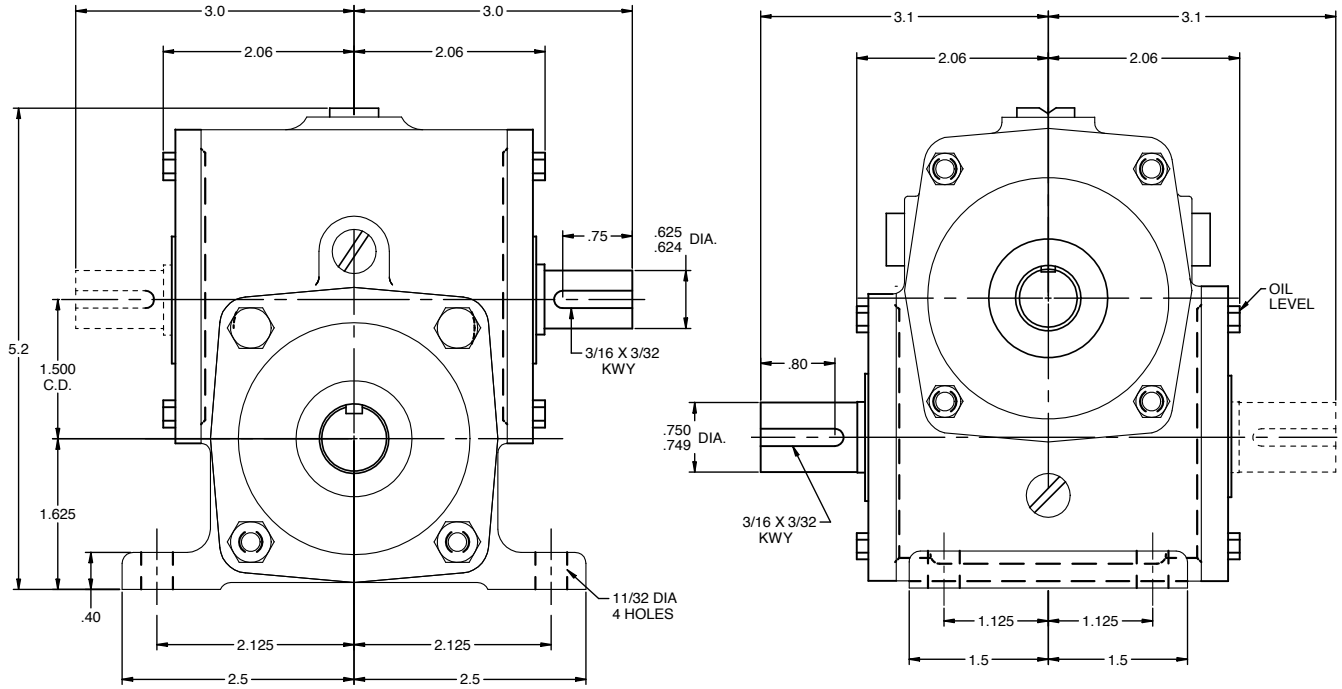
Helical/Worm D-Flange Gearheads

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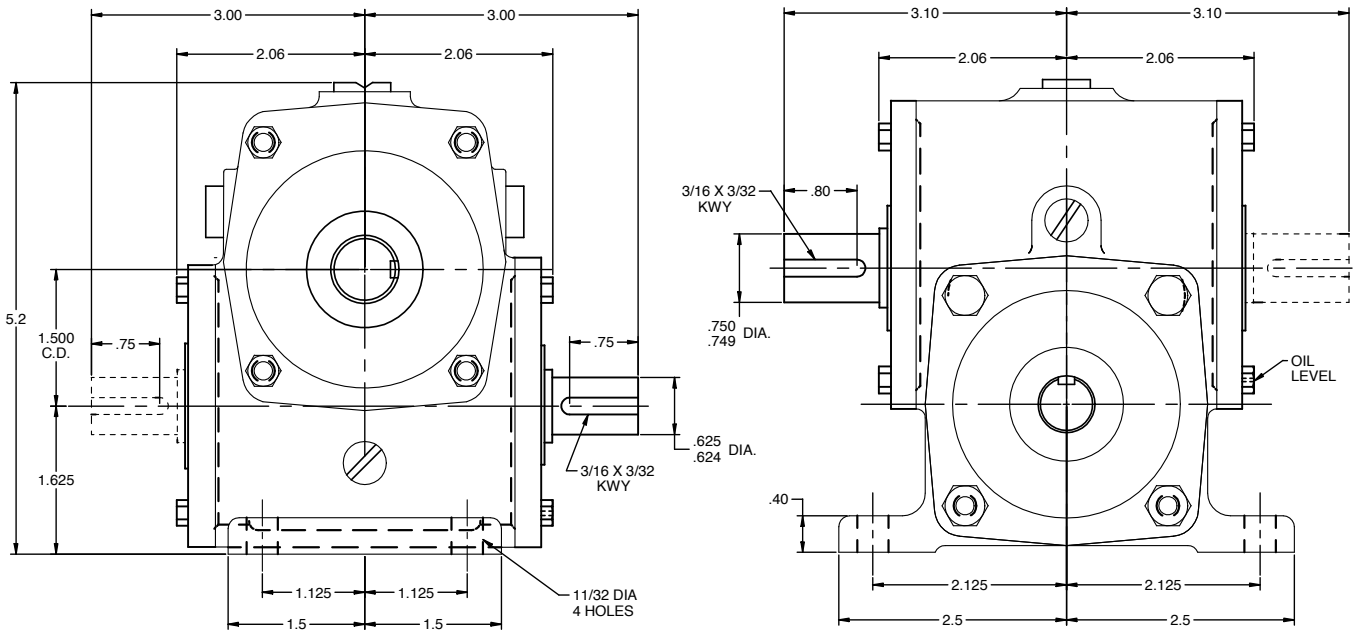
Cone Drive Single Reduction Units - 1.500" C.D. Solid Shaft

Size 15

Model HO 15 Worm Over Gear net wt. 11 lbs



Model HU 15 Worm Under Gear net wt. 11 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 1.500" C.D. Solid Shaft

Size 15 - Motorizing

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	0.24	0.45	0.64	1.13	1.35	1.58	1.94	2.51
	Efficiency	89	90	91	91	91	92	92	92
	O.T.	670	635	610	560	540	530	490	420
10	Me.HP	0.16	0.31	0.44	0.78	0.94	1.10	1.37	1.81
	Efficiency	83	85	86	87	87	89	90	90
	O.T.	860	825	800	745	720	715	675	590
15	Me.HP	0.13	0.25	0.36	0.63	0.76	0.89	1.11	1.48
	Efficiency	79	81	82	85	85	87	88	88
	O.T.	990	955	925	880	855	845	805	705
20	Me.HP	0.10	0.19	0.27	0.49	0.58	0.68	0.85	1.14
	Efficiency	75	77	78	83	83	83	84	85
	O.T.	955	930	895	880	850	825	785	700
30	Me.HP	0.07	0.13	0.18	0.33	0.40	0.46	0.58	0.77
	Efficiency	68	70	72	75	75	79	80	80
	O.T.	880	855	835	805	780	795	760	665
40	Me.HP	0.05	0.10	0.14	0.25	0.30	0.35	0.43	0.58
	Efficiency	61	63	67	72	75	75	76	76
	O.T.	795	770	785	775	785	760	725	635
50	Me.HP	0.04	0.08	0.11	0.20	0.24	0.28	0.35	0.46
	Efficiency	54	60	64	70	70	72	73	73
	O.T.	705	735	750	755	735	730	700	610
60	Me.HP	0.03	0.06	0.09	0.16	0.20	0.23	0.29	0.39
	Efficiency	53	59	61	66	66	69	70	70
	O.T.	695	725	715	710	690	700	670	585

Key: Me.HP = Mech. Input Power (HP) O.T. = Output Torque (In. Lb.)

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions.

Unless specified, standard reducers are supplied with right-hand helix gear sets.

Reducers are designed for shaft rotation in either direction.

See General information section.

All units can be motorized.

Other ratios are available on request.

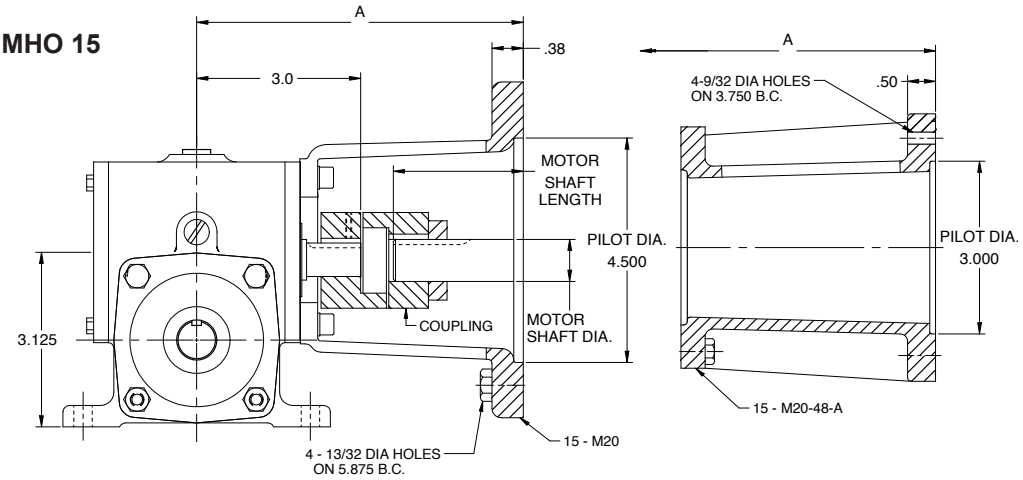
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:

It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Shown

Model MHO 15



NEMA C Face Motors

DIMENSIONS							
MOTOR					REDUCER		
FRAME SIZE	PILOT DIA.	SHAFT LGTH.	SHAFT DIA.	SHAFT KWY	A	FLGE. DIA.	COUPLING NUMBER
48C	3.000	1.68	.500	FLAT	5.20	4.25	15-140-050/062
56C	4.500	2.06	.625	3/16	5.58	6.50	15-140-062
143TC 145TC	4.500	2.12	.875	3/16	5.58	6.50	15-140-062/088

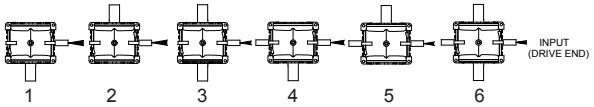
When ordering specify frame size used.

Remarks: Reducer can be shipped with or without motor to suit requirements. Adapter flange will extend below footline of reducers.

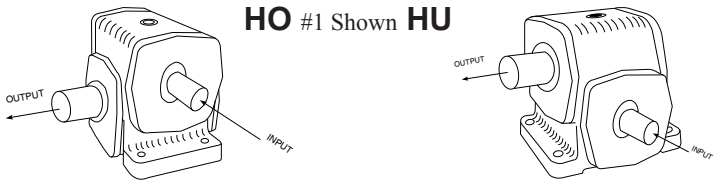
15-M20
Model MHO approx. .187
Model MHU approx. 1.687
15-M20-48A
Model MHU approx. .50
Used w/15-M20-48A

Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. The hand of assembly is always determined as a floor mounted unit.



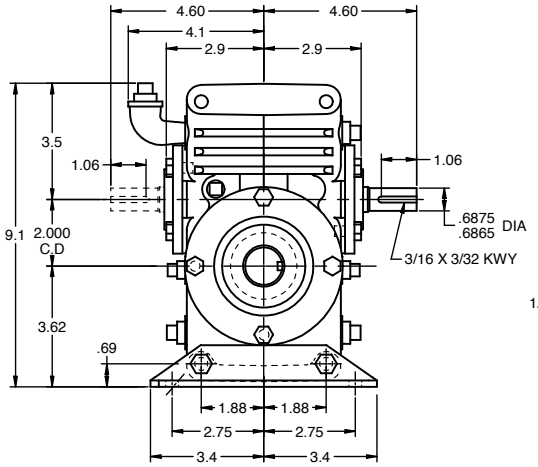
HO #1 Shown **HU**

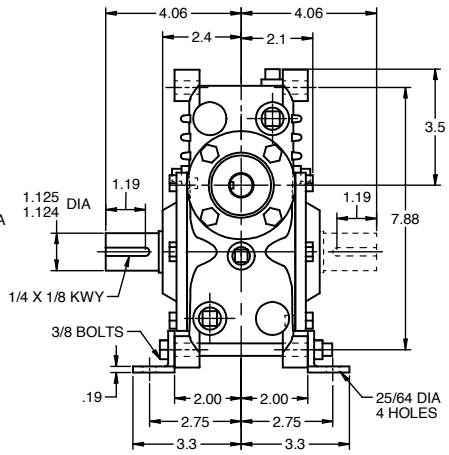


Cone Drive Single Reduction Units - 2.000" C.D.

Size 20 Solid Shaft

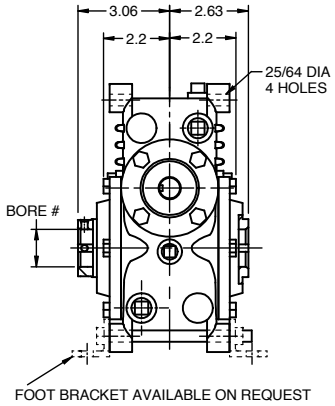
Model HO Worm Over Gear net wt. 26 lbs





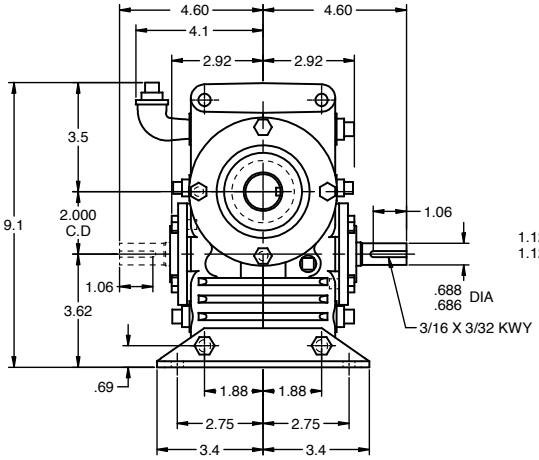
Hollow Shaft

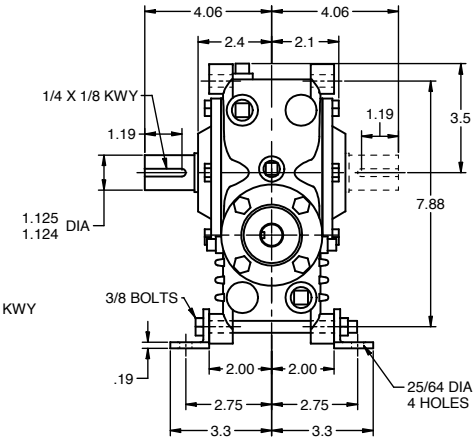
SHO net wt. 27 lbs



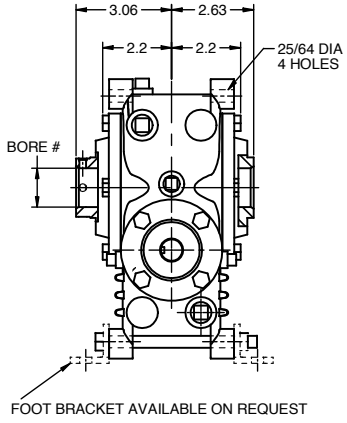
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 26 lbs



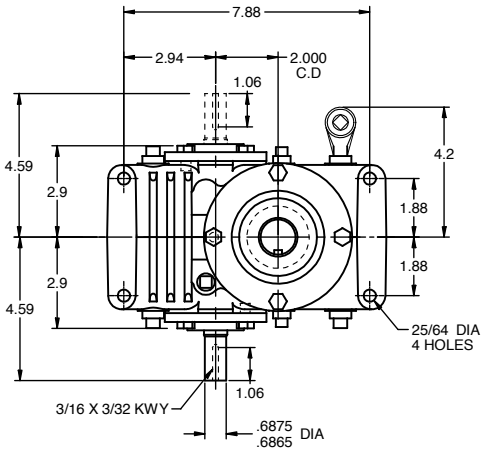


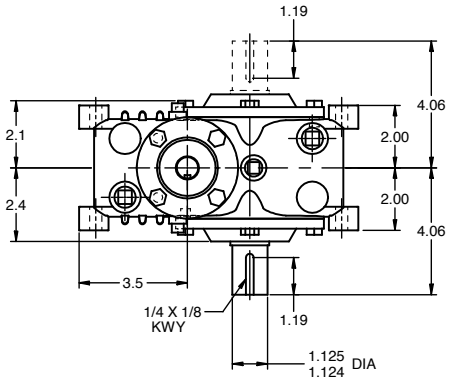
SHU net wt. 27 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

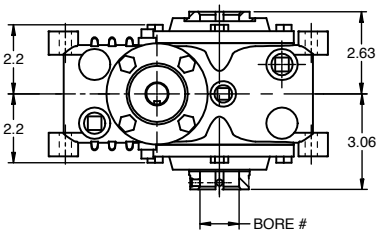
Model HV Worm Horizontal Gear Shaft Vertical net wt. 26 lbs





INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 27 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT MAY EXTEND ON EITHER SIDE

WHEN REVIEWING END OF SHAFT MODEL, REFER TO COMPLETE DIMENSIONS ON SAME SOLID SHAFT MODEL SHOWN AT LEFT.

Cone Drive Single Reduction Units - 2.000" C.D.

Size 20

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	0.47	0.88	1.25	2.21	2.62	3.02	3.64	4.59
	Th.HP	0.40	0.73	1.04	1.84	2.18	2.52	3.03	3.43
	Efficiency	89	90	91	91	91	92	92	92
	O.T.	1,330	1,250	1,200	1,095	1,045	1,010	920	760
10	Me.HP	0.32	0.61	0.86	1.53	1.83	2.11	2.57	3.28
	Th.HP	0.25	0.47	0.66	1.18	1.40	1.63	1.98	2.53
	Efficiency	83	85	86	87	87	89	90	90
	O.T.	1,700	1,630	1,560	1,450	1,390	1,365	1,270	1,065
15	Me.HP	0.26	0.49	0.70	1.24	1.48	1.72	2.10	2.69
	Th.HP	0.18	0.33	0.47	0.83	0.99	1.15	1.40	1.79
	Efficiency	79	81	82	85	85	87	88	88
	O.T.	1,965	1,880	1,810	1,715	1,655	1,625	1,515	1,280
20	Me.HP	0.20	0.38	0.54	0.95	1.13	1.32	1.61	2.06
	Th.HP	0.13	0.25	0.36	0.63	0.76	0.88	1.07	1.38
	Efficiency	75	77	78	83	83	83	84	85
	O.T.	1,900	1,830	1,755	1,715	1,650	1,585	1,485	1,265
25	Me.HP	0.16	0.30	0.43	0.77	0.91	1.06	1.30	1.66
	Th.HP	0.11	0.20	0.29	0.51	0.61	0.71	0.87	1.11
	Efficiency	71	75	77	81	81	83	84	84
	O.T.	1,810	1,795	1,745	1,685	1,625	1,595	1,495	1,260
30	Me.HP	0.14	0.25	0.36	0.64	0.77	0.89	1.09	1.40
	Th.HP	0.09	0.17	0.24	0.43	0.51	0.59	0.73	0.93
	Efficiency	68	70	72	75	75	79	80	80
	O.T.	1,745	1,685	1,645	1,570	1,510	1,530	1,430	1,210
40	Me.HP	0.10	0.19	0.27	0.48	0.58	0.67	0.82	1.05
	Th.HP	0.07	0.13	0.18	0.32	0.38	0.45	0.55	0.70
	Efficiency	61	63	67	72	75	75	76	76
	O.T.	1,570	1,525	1,535	1,515	1,515	1,460	1,365	1,155
50	Me.HP	0.08	0.15	0.22	0.39	0.46	0.54	0.66	0.84
	Th.HP	0.05	0.10	0.15	0.26	0.31	0.36	0.44	0.56
	Efficiency	54	60	64	70	70	72	73	73
	O.T.	1,395	1,455	1,470	1,475	1,420	1,405	1,315	1,110
60	Me.HP	0.07	0.13	0.18	0.32	0.39	0.45	0.55	0.71
	Th.HP	0.05	0.09	0.12	0.22	0.26	0.30	0.37	0.47
	Efficiency	53	59	61	66	66	69	70	70
	O.T.	1,370	1,435	1,400	1,395	1,340	1,350	1,265	1,070

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

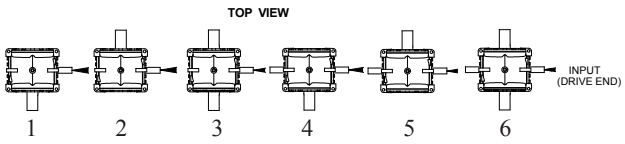
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
1.375*	20-S60-106	1/4 X 1/8
1.250*	20-S60-104	1/4 X 1/8
1.1875*	20-S60-103	1/4 X 1/8
1.125*	20-S60-102	1/4 X 1/8
1.000*	20-S60-100	1/4 X 1/8

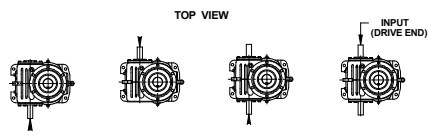
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

CAUTION:

It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

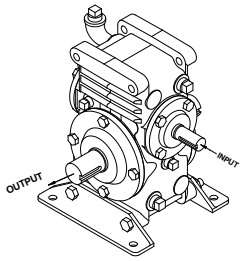
Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. (Ceiling and wall mounted units follow in this section.)
The hand of assembly is always determined as a floor mounted unit.



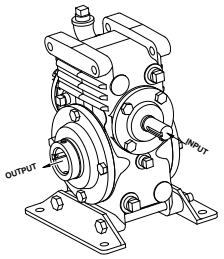


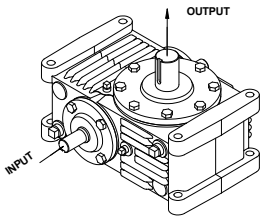
GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

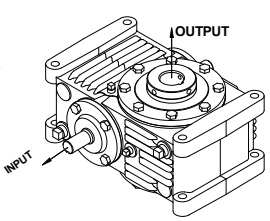


HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





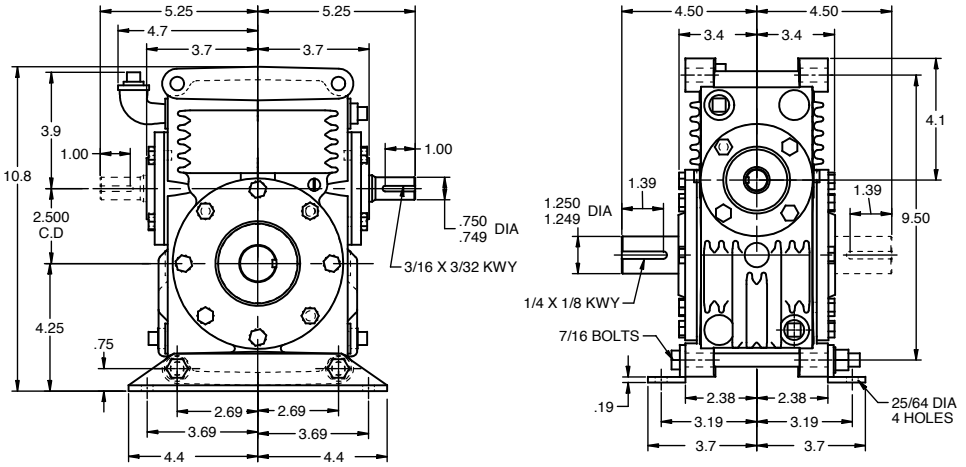
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 2.500" C.D.

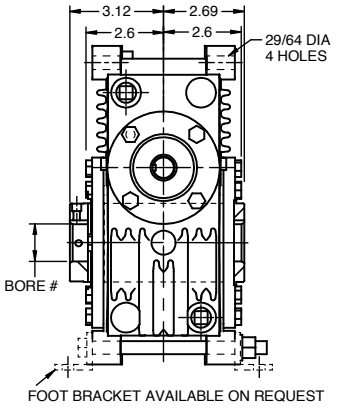
Size 25 Solid Shaft

Model HO Worm Over Gear net wt. 45 lbs



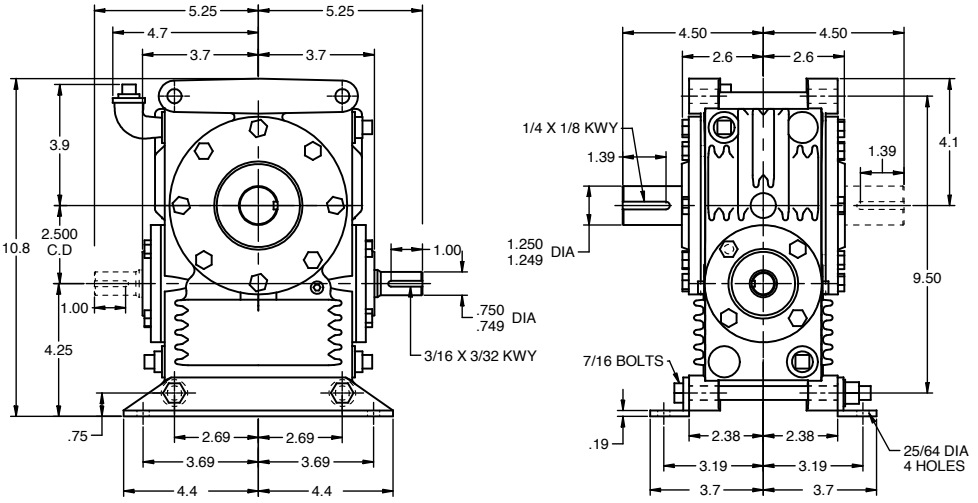
Hollow Shaft

SHO net wt. 46 lbs

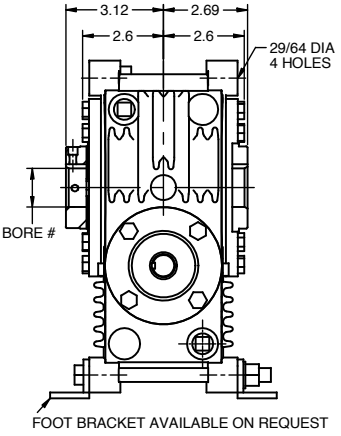


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 45 lbs

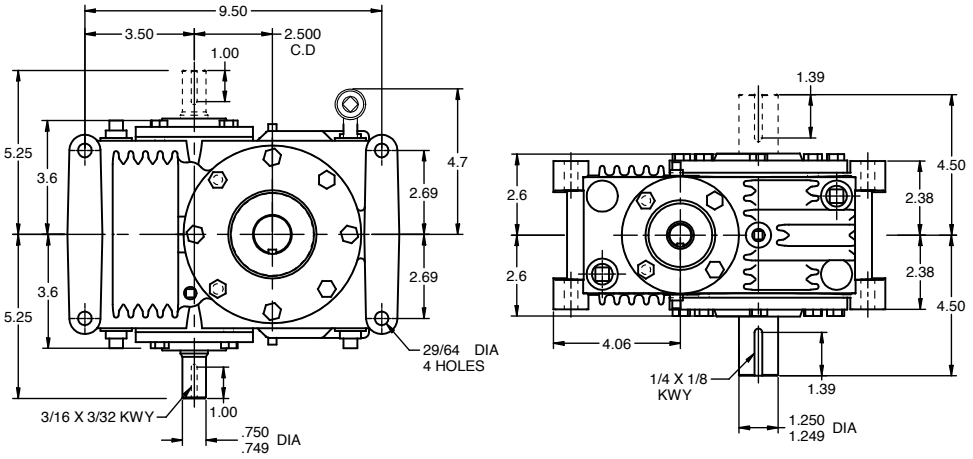


SHU net wt. 46 lbs



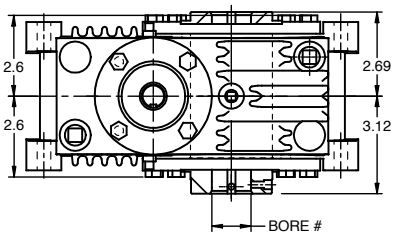
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 45 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 46 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 2.500" C.D.

Size 25

AGMA Horsepower & Output Torque Ratings for 1.0 Service Factor									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	0.94	1.72	2.45	4.22	4.95	5.60	6.56	8.23
	Th.HP	0.78	1.43	2.04	3.52	4.02	4.20	4.54	5.00
	Efficiency	89	90	91	91	91	92	92	92
	O.T.	2,625	2,440	2,345	2,090	1,975	1,870	1,655	1,365
10	Me.HP	0.65	1.19	1.69	2.95	3.49	3.97	4.72	5.93
	Th.HP	0.50	0.91	1.30	2.27	2.68	3.06	3.63	4.01
	Efficiency	83	85	86	87	87	89	90	90
	O.T.	3,375	3,180	3,050	2,790	2,655	2,560	2,330	1,925
15	Me.HP	0.52	0.96	1.37	2.39	2.83	3.24	3.86	4.83
	Th.HP	0.35	0.64	0.91	1.60	1.89	2.16	2.57	3.22
	Efficiency	79	81	82	85	85	87	88	88
	O.T.	3,895	3,675	3,535	3,320	3,165	3,060	2,795	2,300
20	Me.HP	0.40	0.74	1.05	1.83	2.17	2.48	2.96	3.71
	Th.HP	0.27	0.49	0.70	1.22	1.45	1.66	1.98	2.47
	Efficiency	75	77	78	83	83	83	84	85
	O.T.	3,770	3,575	3,435	3,310	3,155	2,990	2,730	2,270
25	Me.HP	0.32	0.59	0.84	1.48	1.75	2.00	2.39	2.99
	Th.HP	0.21	0.40	0.56	0.98	1.17	1.33	1.59	2.00
	Efficiency	71	75	77	81	81	83	84	84
	O.T.	3,595	3,505	3,415	3,250	3,100	3,010	2,750	2,265
30	Me.HP	0.27	0.50	0.71	1.24	1.46	1.68	2.00	2.52
	Th.HP	0.18	0.33	0.47	0.82	0.98	1.12	1.34	1.68
	Efficiency	68	70	72	75	75	79	80	80
	O.T.	3,460	3,290	3,210	3,025	2,885	2,880	2,640	2,180
40	Me.HP	0.20	0.37	0.53	0.93	1.10	1.26	1.51	1.90
	Th.HP	0.13	0.25	0.35	0.62	0.74	0.84	1.01	1.26
	Efficiency	61	63	67	72	75	75	76	76
	O.T.	3,115	2,970	3,000	2,920	2,900	2,745	2,515	2,080
50	Me.HP	0.16	0.30	0.43	0.75	0.89	1.01	1.21	1.52
	Th.HP	0.11	0.20	0.28	0.50	0.59	0.68	0.81	1.01
	Efficiency	54	60	64	70	70	72	73	73
	O.T.	2,765	2,835	2,875	2,845	2,715	2,645	2,420	2,000
60	Me.HP	0.14	0.25	0.36	0.62	0.74	0.85	1.01	1.27
	Th.HP	0.09	0.17	0.24	0.42	0.49	0.56	0.67	0.85
	Efficiency	53	59	61	66	66	69	70	70
	O.T.	2,715	2,795	2,740	2,685	2,560	2,535	2,330	1,920

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

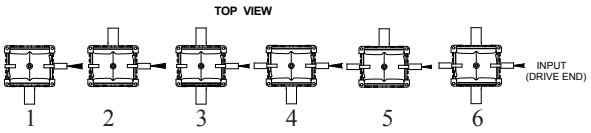
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
2.000*	25-S60-200	1/4 X 1/8
1.9375*	25-S60-115	1/4 X 1/8
1.6875*	25-S60-111	3/8 X 3/16
1.4375*	25-S60-107	3/8 X 3/16
1.250*	25-S60-104	1/4 X 1/8
1.1875*	25-S60-103	1/4 X 1/8

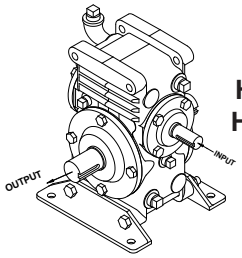
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

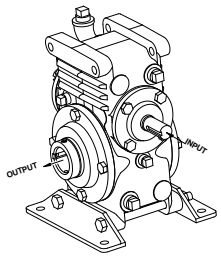
Hand of Assembly Floor Mounted Units

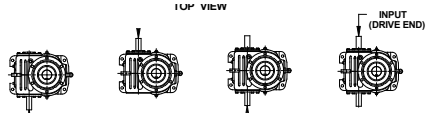
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.





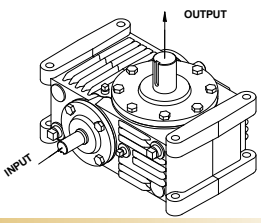
HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown



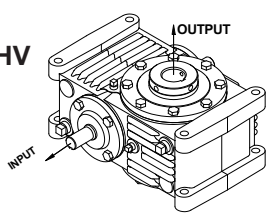


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C



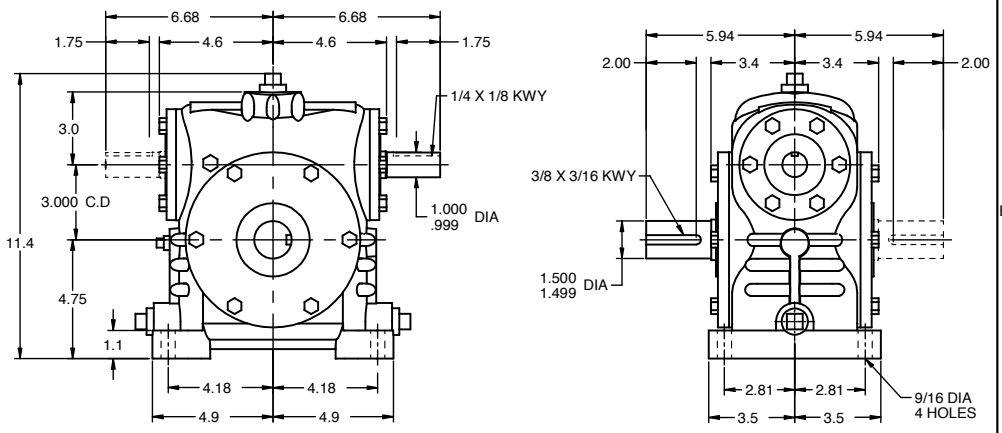
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 3.000" C.D.

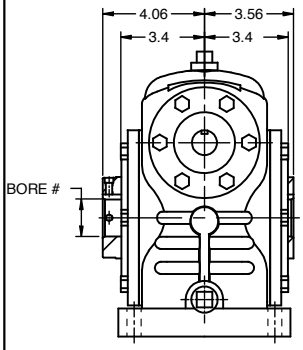
Size 30 Solid Shaft

Model HO Worm Over Gear net wt. 73 lbs



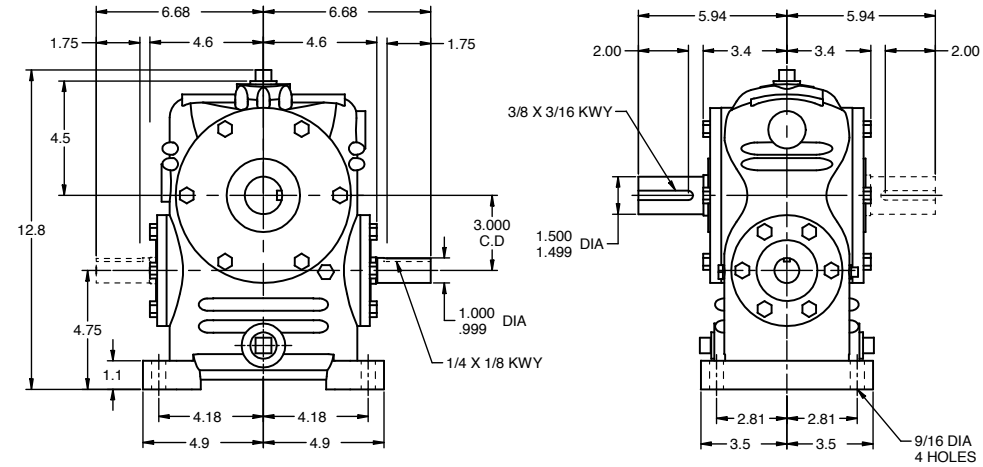
Hollow Shaft

SHO net wt. 92 lbs

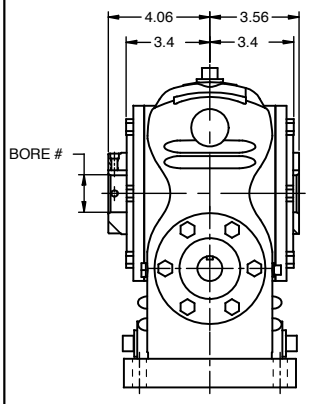


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 83 lbs

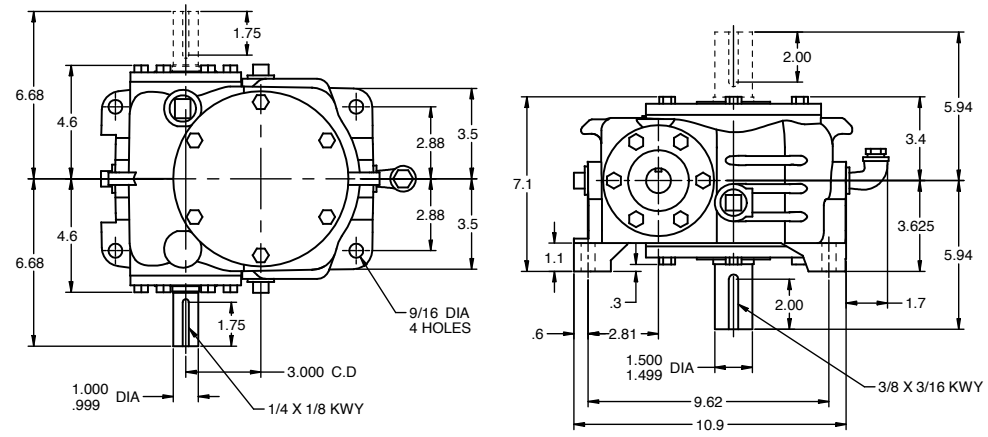


SHU net wt. 90 lbs



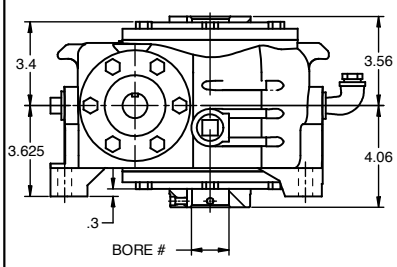
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 74 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 89 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 3.000" C.D.

Size 30

AGMA Horsepower & Output Torque Ratings for 1.0 Service Factor									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	1.66	3.03	4.32	7.26	8.37	9.34	10.80	13.58
	Th.HP	1.37	2.03	2.55	3.63	4.06	4.25	4.59	5.05
	Th.HP Fan								
	Efficiency	89	90	91	91	91	92	92	92
	O.T.	4,645	4,300	4,130	3,590	3,335	3,115	2,725	2,250
10	Me.HP	1.15	2.11	3.00	5.17	6.05	6.84	8.03	10.05
	Th.HP	0.88	1.62	2.31	3.19	3.38	3.61	3.80	4.05
	Th.HP Fan								
	Efficiency	83	85	86	87	87	89	90	90
	O.T.	6,005	5,650	5,425	4,890	4,610	4,415	3,965	3,255
15	Me.HP	0.93	1.71	2.43	4.20	4.93	5.59	6.57	8.22
	Th.HP	0.62	1.14	1.62	2.71	2.87	2.99	3.12	3.33
	Th.HP Fan								
	Efficiency	79	81	82	85	85	87	88	88
	O.T.	6,930	6,530	6,275	5,825	5,500	5,285	4,755	3,910
20	Me.HP	0.71	1.31	1.86	3.23	3.79	4.30	5.07	6.34
	Th.HP	0.47	0.87	1.24	2.15	2.53	2.73	2.81	2.90
	Th.HP Fan								
	Efficiency	75	77	78	83	83	83	84	85
	O.T.	6,730	6,350	6,105	5,820	5,505	5,175	4,670	3,880
25	Me.HP	0.57	1.06	1.50	2.60	3.05	3.46	4.09	5.11
	Th.HP	0.38	0.70	1.00	1.73	2.03	2.29	2.34	2.43
	Th.HP Fan								
	Efficiency	71	75	77	81	81	83	84	84
	O.T.	6,415	6,235	6,070	5,715	5,410	5,210	4,705	3,865
30	Me.HP	0.48	0.88	1.26	2.18	2.56	2.91	3.43	4.29
	Th.HP	0.32	0.59	0.84	1.45	1.70	1.94	2.11	2.17
	Th.HP Fan								
	Efficiency	68	70	72	75	75	79	80	80
	O.T.	6,175	5,850	5,705	5,335	5,035	4,995	4,515	3,710
40	Me.HP	0.36	0.67	0.95	1.64	1.93	2.19	2.58	3.23
	Th.HP	0.24	0.44	0.63	1.09	1.28	1.46	1.72	1.93
	Th.HP Fan								
	Efficiency	61	63	67	72	75	75	76	76
	O.T.	5,555	5,280	5,325	5,135	5,060	4,755	4,300	3,535
50	Me.HP	0.29	0.53	0.76	1.32	1.55	1.76	2.07	2.60
	Th.HP	0.19	0.36	0.51	0.88	1.03	1.17	1.38	1.73
	Th.HP Fan								
	Efficiency	54	60	64	70	70	72	73	73
	O.T.	4,930	5,045	5,100	5,015	4,745	4,585	4,140	3,415
60	Me.HP	0.24	0.45	0.63	1.10	1.29	1.47	1.73	2.17
	Th.HP	0.16	0.30	0.42	0.73	0.86	0.98	1.15	1.44
	Th.HP Fan								
	Efficiency	53	59	61	66	66	69	70	70
	O.T.	4,845	4,965	4,865	4,735	4,480	4,400	3,975	3,275

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

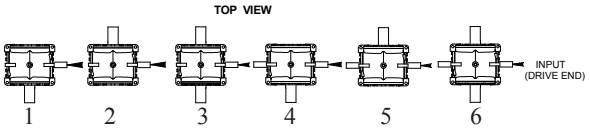
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
2.500*	30-S60-208	3/8 X 3/16
2.4375*	30-S60-207	3/8 X 3/16
2.1875*	30-S60-203	1/2 X 1/4
1.9375*	30-S60-115	1/2 X 1/4
1.6875*	30-S60-111	3/8 X 3/16
1.500*	30-S60-108	3/8 X 3/16

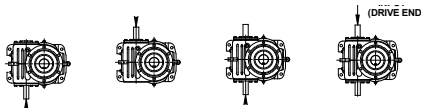
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

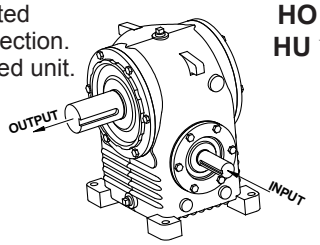


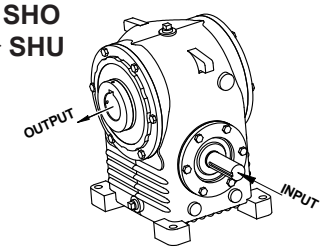


GEARSHAFT EXTENDED

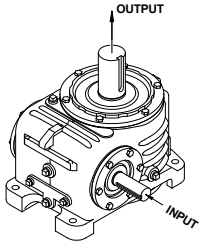
Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

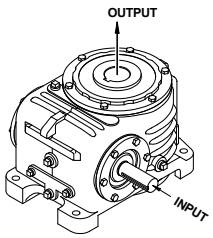
HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





HV Vertical **SHV**
#7A Shown

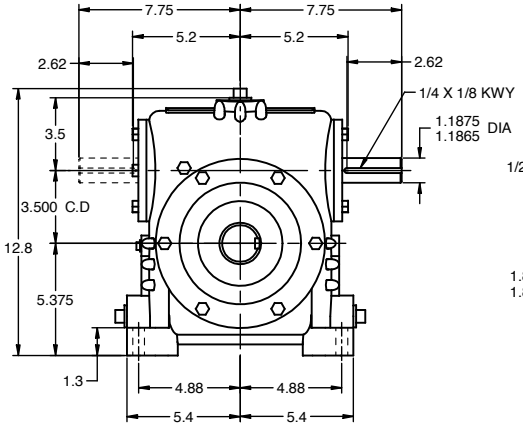


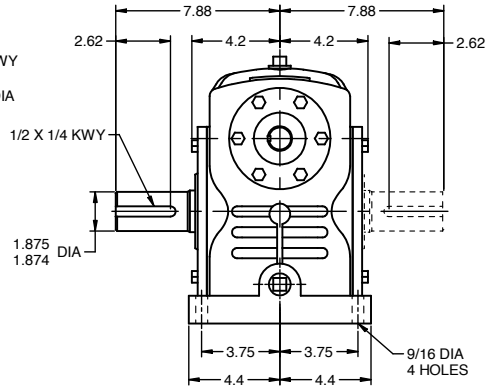


Cone Drive Single Reduction Units - 3.500" C.D.

Size 35 Solid Shaft

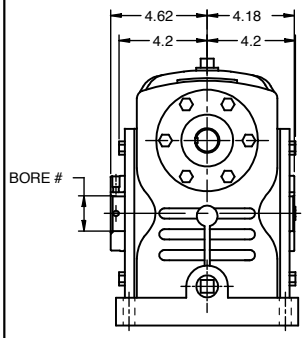
Model HO Worm Over Gear net wt. 122 lbs





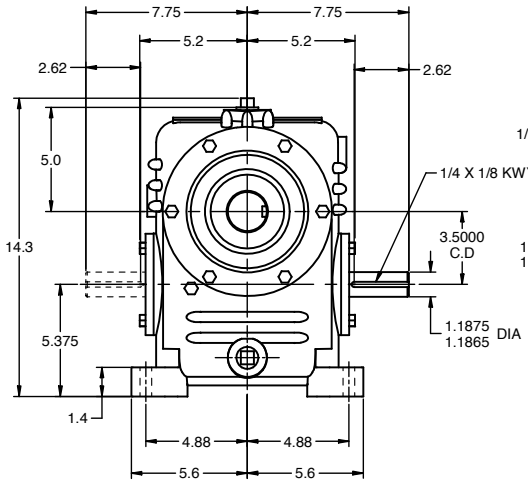
Hollow Shaft

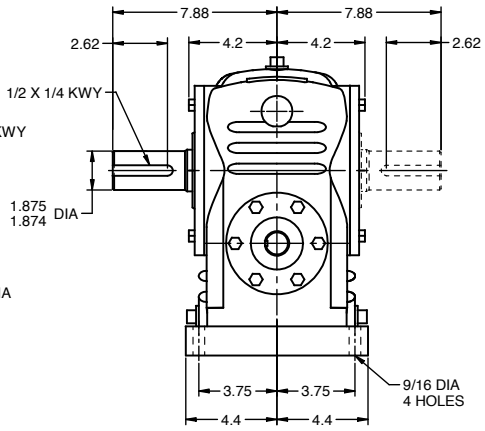
SHO net wt. 126 lbs



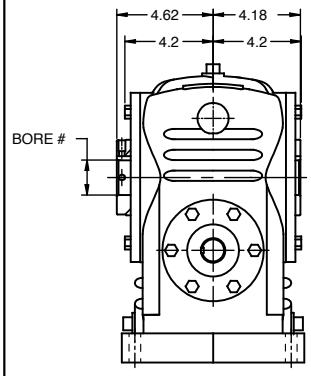
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 134 lbs



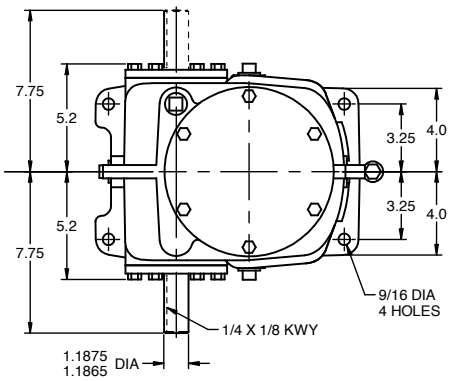


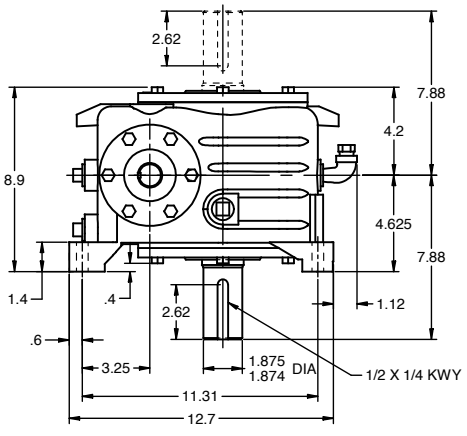
SHU net wt. 140 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

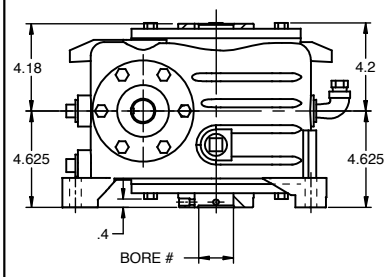
Model HV Worm Horizontal Gear Shaft Vertical net wt. 120 lbs





INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 123 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 3.500" C.D.

Size 35

AGMA Horsepower & Output Torque Ratings for 1.0 Service Factor									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	3.06	5.59	7.91	12.97	14.79	16.37	19.11	23.54
	Th.HP	2.55	4.41	5.68	8.09	9.06	9.77	10.55	11.61
	Th.HP Fan	3.06	5.59	7.91	12.97	14.79	16.37	19.11	23.21
	Efficiency	89	90	91	91	91	92	92	92
	O.T.	8,595	7,930	7,565	6,410	5,890	5,455	4,815	3,900
10	Me.HP	2.12	3.88	5.53	9.30	10.73	12.00	13.92	17.37
	Th.HP	1.63	2.98	4.26	6.57	7.19	7.67	8.25	8.80
	Th.HP Fan	2.12	3.88	5.53	9.30	10.73	12.00	13.92	17.37
	Efficiency	83	85	86	87	87	89	90	90
	O.T.	11,095	10,385	9,995	8,795	8,170	7,735	6,865	5,630
15	Me.HP	1.71	3.14	4.48	7.56	8.76	9.81	11.40	14.27
	Th.HP	1.14	2.09	2.98	5.04	5.84	6.54	7.60	6.95
	Th.HP Fan	1.71	3.14	4.48	7.56	8.76	9.81	11.40	13.91
	Efficiency	79	81	82	85	85	87	88	88
	O.T.	12,805	12,025	11,565	10,470	9,775	9,275	8,245	6,785
20	Me.HP	1.31	2.40	3.43	5.80	6.73	7.55	8.76	10.98
	Th.HP	0.88	1.60	2.29	3.87	4.48	5.03	5.58	5.82
	Th.HP Fan	1.31	2.40	3.43	5.80	6.73	7.55	8.76	10.98
	Efficiency	75	77	78	83	83	83	84	85
	O.T.	12,410	11,655	11,235	10,465	9,775	9,080	8,065	6,725
25	Me.HP	1.06	1.94	2.77	4.68	5.43	6.10	7.07	8.84
	Th.HP	0.71	1.29	1.84	3.12	3.62	4.06	4.64	4.82
	Th.HP Fan	1.06	1.94	2.77	4.68	5.43	6.10	7.07	8.84
	Efficiency	71	75	77	81	81	83	84	84
	O.T.	11,830	11,445	11,185	10,305	9,625	9,165	8,140	6,690
30	Me.HP	0.89	1.62	2.32	3.93	4.55	5.11	5.93	7.41
	Th.HP	0.59	1.08	1.54	2.62	3.03	3.41	3.95	4.17
	Th.HP Fan	0.89	1.62	2.32	3.93	4.55	5.11	5.93	7.41
	Efficiency	68	70	72	75	75	79	80	80
	O.T.	11,390	10,740	10,515	9,610	8,960	8,770	7,795	6,405
40	Me.HP	0.67	1.22	1.74	2.96	3.42	3.85	4.47	5.57
	Th.HP	0.44	0.81	1.16	1.97	2.28	2.57	2.98	3.64
	Th.HP Fan	0.67	1.22	1.74	2.96	3.42	3.85	4.47	5.57
	Efficiency	61	63	67	72	75	75	76	76
	O.T.	10,245	9,695	9,810	9,250	8,980	8,365	7,445	6,100
50	Me.HP	0.53	0.98	1.40	2.37	2.75	3.09	3.59	4.50
	Th.HP	0.36	0.65	0.93	1.58	1.83	2.06	2.39	3.00
	Th.HP Fan	0.53	0.98	1.40	2.37	2.75	3.09	3.59	4.50
	Efficiency	54	60	64	70	70	72	73	73
	O.T.	9,095	9,255	9,395	9,020	8,425	8,055	7,170	5,915
60	Me.HP	0.45	0.82	1.17	1.98	2.29	2.58	2.99	3.75
	Th.HP	0.30	0.54	0.78	1.32	1.53	1.72	1.99	2.50
	Th.HP Fan	0.45	0.82	1.17	1.98	2.29	2.58	2.99	3.75
	Efficiency	53	59	61	66	66	69	70	70
	O.T.	8,940	9,115	8,970	8,515	7,955	7,730	6,885	5,680

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Fan cooling can be supplied on models HU and HV only.
Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

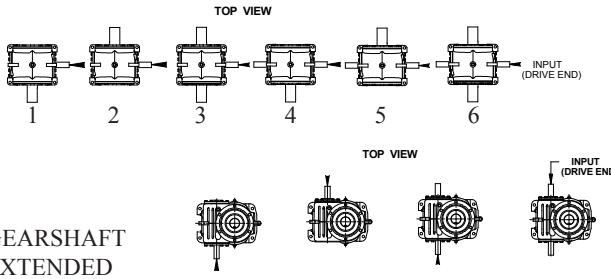
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
2.750*	35-S60-212	3/8 X 3/16
2.6875*	35-S60-211	3/8 X 3/16
2.500*	35-S60-208	3/8 X 3/16
2.4375*	35-S60-207	5/8 X 5/16
2.1875*	35-S60-203	1/2 X 1/4
1.9375*	35-S60-115	1/2 X 1/4
1.6875*	35-S60-111	3/8 X 3/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

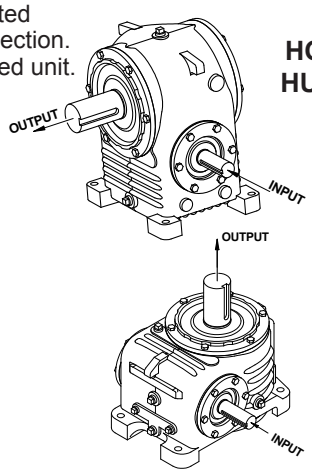
Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

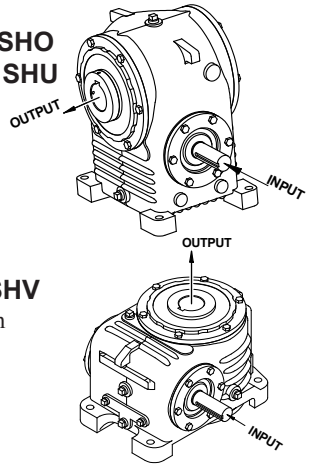


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C



HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown

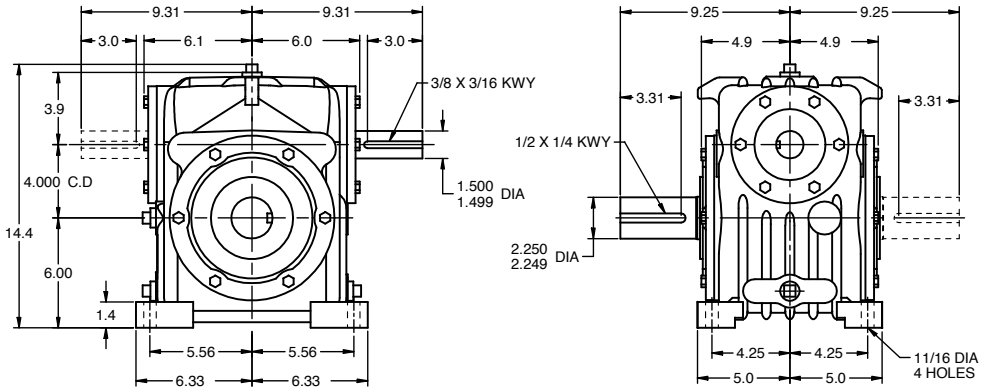


HV Vertical **SHV**
#7A Shown

Cone Drive Single Reduction Units - 4.000" C.D.

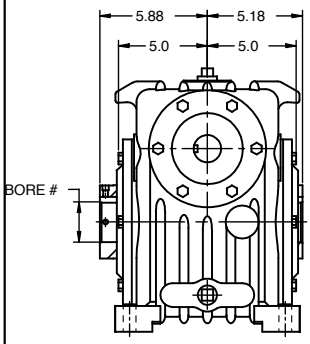
Size 40 Solid Shaft

Model HO Worm Over Gear net wt. 175 lbs



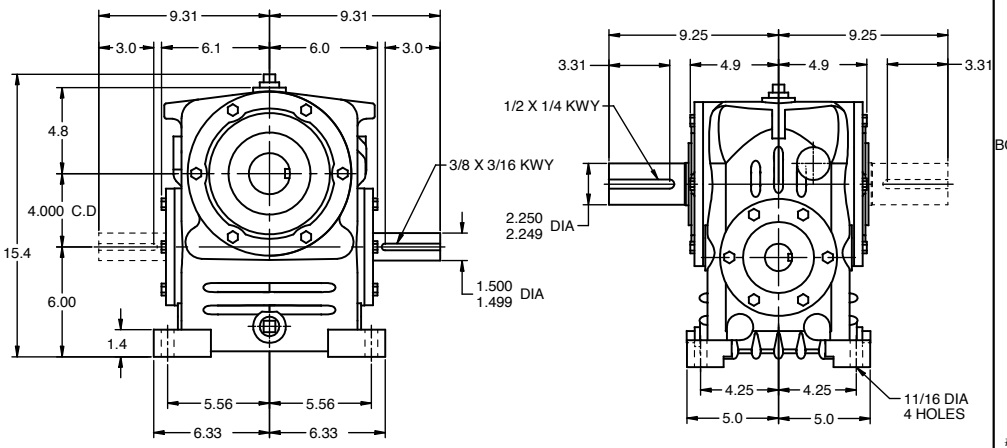
Hollow Shaft

SHO net wt. 185 lbs

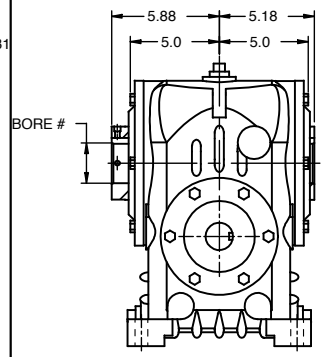


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 187 lbs

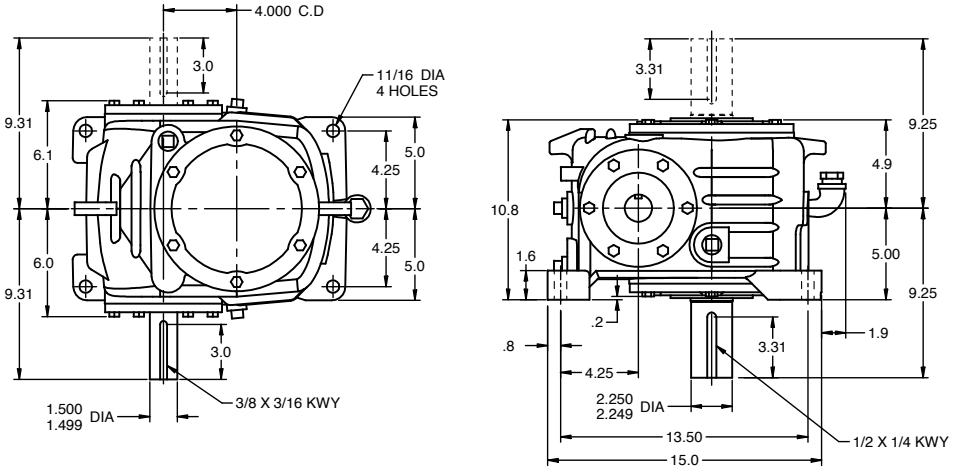


SHU net wt. 197 lbs



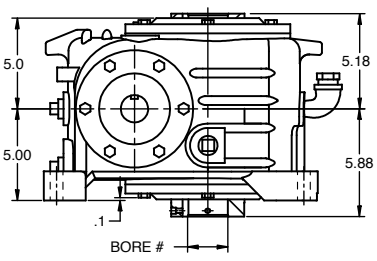
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 170 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 180 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 4.000" C.D.

Size 40

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM 100	200	300	580	720	870	1150	1750
5	Me.HP	4.39	8.03	11.27	17.98	20.30	22.40	25.99	31.84
	Th.HP	3.53	5.35	6.88	9.80	10.97	11.83	12.78	14.06
	Th.HP Fan	4.39	8.03	11.27	17.98	20.30	22.40	25.56	28.12
	Efficiency	92	93	94	94	94	95	95	95
	O.T.	12,715	11,770	11,130	9,180	8,350	7,710	6,765	5,445
10	Me.HP	3.06	5.58	7.92	13.07	14.96	16.59	19.30	23.88
	Th.HP	2.35	4.29	5.80	7.96	8.71	9.30	9.99	10.66
	Th.HP Fan	3.06	5.58	7.92	13.07	14.96	16.59	19.30	21.33
	Efficiency	86	88	89	90	90	92	93	93
	O.T.	16,570	15,475	14,800	12,780	11,785	11,055	9,835	8,000
15	Me.HP	2.47	4.51	6.42	10.65	12.22	13.57	15.73	19.58
	Th.HP	1.65	3.01	4.28	7.10	8.15	7.46	7.89	8.42
	Th.HP Fan	2.47	4.51	6.42	10.65	12.22	13.57	15.73	16.85
	Efficiency	82	84	85	88	89	90	91	91
	O.T.	19,160	17,920	17,180	15,270	14,280	13,270	11,770	9,625
20	Me.HP	1.90	3.46	4.91	8.17	9.39	10.45	12.10	15.08
	Th.HP	1.26	2.31	3.28	5.45	6.19	6.50	6.76	7.05
	Th.HP Fan	1.90	3.46	4.91	8.17	9.39	10.45	12.10	14.10
	Efficiency	78	80	81	86	86	86	87	88
	O.T.	18,635	17,430	16,720	15,275	14,130	13,020	11,535	9,555
25	Me.HP	1.53	2.79	3.96	6.60	7.58	8.44	9.80	12.14
	Th.HP	1.02	1.86	2.64	4.40	5.05	5.47	5.62	5.84
	Th.HP Fan	1.53	2.79	3.96	6.60	7.58	8.44	9.80	11.69
	Efficiency	74	78	80	84	84	86	87	87
	O.T.	17,800	17,135	16,655	15,050	13,930	13,140	11,675	9,510
30	Me.HP	1.28	2.34	3.32	5.54	6.36	7.07	8.23	10.21
	Th.HP	0.85	1.56	2.21	3.69	4.24	4.71	4.91	5.05
	Th.HP Fan	1.28	2.34	3.32	5.54	6.36	7.07	8.23	10.11
	Efficiency	71	73	75	78	81	82	83	83
	O.T.	17,170	16,125	15,700	14,080	13,535	12,595	11,230	9,155
40	Me.HP	0.96	1.76	2.50	4.17	4.79	5.33	6.19	7.68
	Th.HP	0.64	1.17	1.67	2.78	3.19	3.55	4.13	4.41
	Th.HP Fan	0.96	1.76	2.50	4.17	4.79	5.33	6.19	7.68
	Efficiency	64	66	70	75	76	78	79	79
	O.T.	15,540	14,620	14,715	13,575	12,730	12,045	10,720	8,735
50	Me.HP	0.77	1.41	2.01	3.34	3.84	4.28	4.97	6.16
	Th.HP	0.52	0.94	1.34	2.23	2.56	2.85	3.31	3.92
	Th.HP Fan	0.77	1.41	2.01	3.34	3.84	4.28	4.97	6.16
	Efficiency	57	63	67	73	74	75	76	76
	O.T.	13,880	13,990	14,125	13,250	12,430	11,610	10,340	8,425
60	Me.HP	0.64	1.18	1.68	2.79	3.20	3.57	4.14	5.14
	Th.HP	0.43	0.78	1.12	1.86	2.14	2.38	2.76	3.43
	Th.HP Fan	0.64	1.18	1.68	2.79	3.20	3.57	4.14	5.14
	Efficiency	56	62	64	69	71	72	73	73
	O.T.	13,655	13,790	13,510	12,540	11,940	11,160	9,945	8,105

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangement follows in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

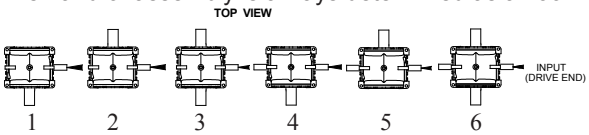
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
2.9375*	40-S60-215	5/8 X 5/16
2.6875*	40-S60-211	5/8 X 5/16
2.4375*	40-S60-207	5/8 X 5/16
2.1875*	40-S60-203	5/8 X 5/16

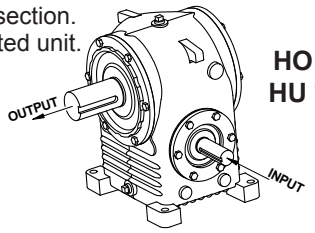
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

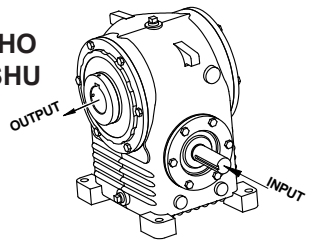
Hand of Assembly Floor Mounted Units

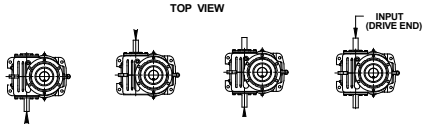
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.





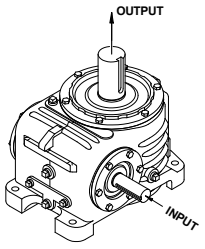
HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown



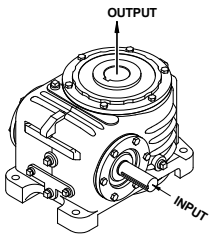


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C



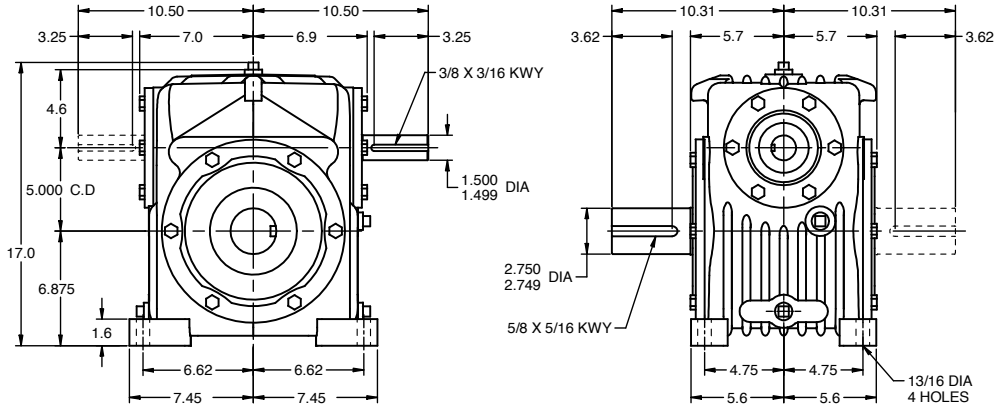
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 5.000" C.D.

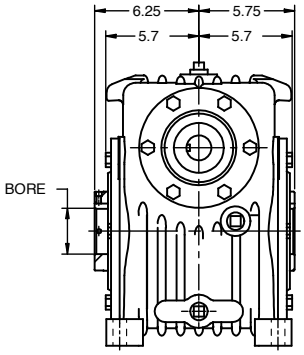
Size 50 Solid Shaft

Model HO Worm Over Gear net wt. 290 lbs



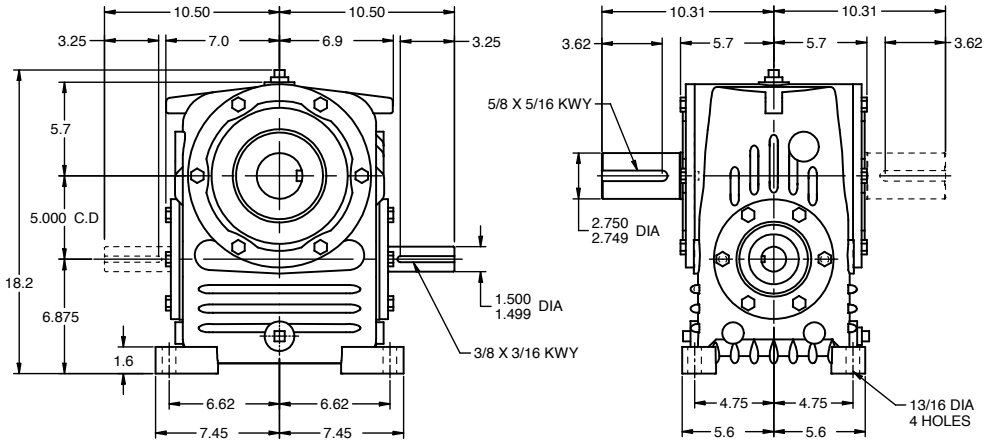
Hollow Shaft

SHO net wt. 302 lbs

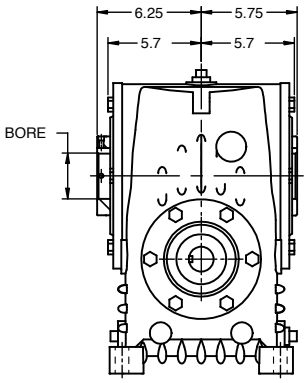


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 305 lbs

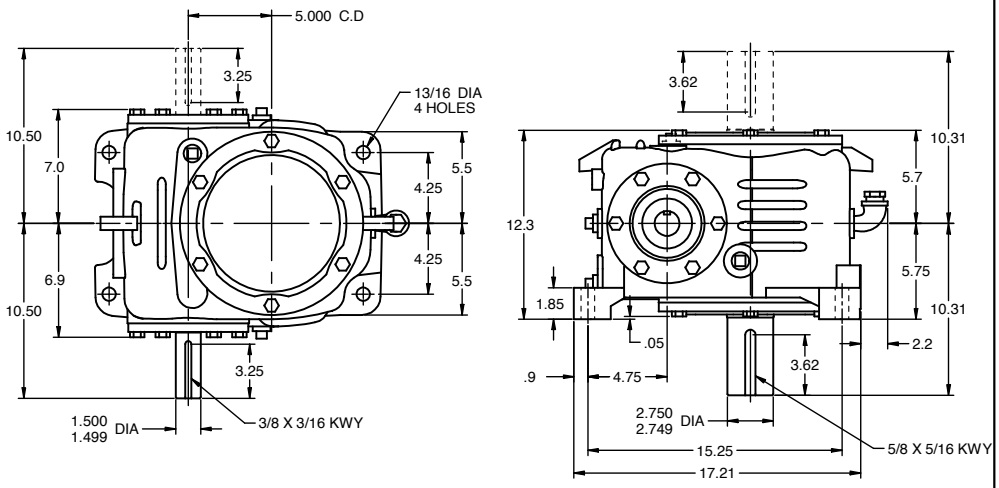


SHU net wt. 317 lbs



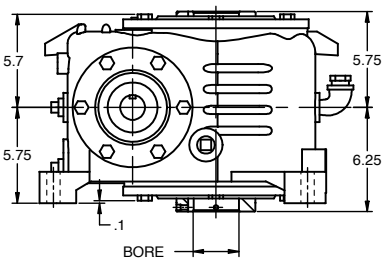
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 295 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 307 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 5.000" C.D.

Size 50

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		**100**	**200**	**300**	**580**	**720**	**870**	**1150**	**1750**
5	Me.HP	8.72	15.91	22.03	33.96	37.97	42.19	48.26	58.80
	Th.HP	4.41	6.67	8.59	12.24	13.70	14.77	15.96	17.55
	Th.HP Fan	8.72	13.35	17.18	24.48	27.39	29.54	31.91	35.10
	Efficiency	92	93	94	94	94	95	95	95
	O.T.	25,270	23,305	21,750	17,340	15,620	14,515	12,560	10,060
10	Me.HP	6.02	11.02	15.43	24.48	27.54	30.43	35.34	43.33
	Th.HP	3.93	5.64	7.24	9.93	10.87	11.60	12.47	13.31
	Th.HP Fan	6.02	11.02	14.48	19.86	21.75	23.21	24.95	26.62
	Efficiency	86	88	89	90	90	92	93	93
	O.T.	32,630	30,555	28,850	23,930	21,690	20,275	18,010	14,510
15	Me.HP	4.87	8.93	12.51	20.00	22.53	24.86	28.85	35.33
	Th.HP	3.25	5.95	6.08	8.22	8.81	9.31	9.85	10.52
	Th.HP Fan	4.87	8.93	12.16	16.44	17.61	18.63	19.69	21.03
	Efficiency	82	84	85	88	89	90	91	91
	O.T.	37,735	35,450	33,500	28,675	26,325	24,310	21,575	17,365
20	Me.HP	3.72	6.83	9.58	15.36	17.27	19.06	22.19	27.33
	Th.HP	2.48	4.36	5.37	7.29	7.72	8.11	8.43	8.80
	Th.HP Fan	3.72	6.83	9.58	14.59	15.45	16.22	16.87	17.60
	Efficiency	78	80	81	86	86	86	87	88
	O.T.	36,590	34,415	32,600	28,695	25,995	23,740	21,155	17,315
25	Me.HP	3.00	5.51	7.73	12.40	13.98	15.43	17.93	22.09
	Th.HP	2.00	3.67	4.63	6.33	6.60	6.82	7.02	7.29
	Th.HP Fan	3.00	5.51	7.73	12.40	13.21	13.64	14.04	14.59
	Efficiency	74	78	80	84	84	86	87	87
	O.T.	35,005	33,840	32,480	28,280	25,690	24,030	21,365	17,300
30	Me.HP	2.52	4.62	6.49	10.41	11.74	12.97	15.07	18.51
	Th.HP	1.68	3.08	4.01	5.46	5.75	5.97	6.13	6.31
	Th.HP Fan	2.52	4.62	6.49	10.41	11.50	11.95	12.25	12.62
	Efficiency	71	73	75	78	81	82	83	83
	O.T.	33,765	31,840	30,670	26,460	24,965	23,100	20,555	16,595
40	Me.HP	1.89	3.48	4.88	7.83	8.83	9.75	11.33	13.92
	Th.HP	1.26	2.32	3.25	5.22	4.90	5.14	5.32	5.50
	Th.HP Fan	1.89	3.48	4.88	7.83	8.83	9.75	10.64	11.00
	Efficiency	64	66	70	75	76	78	79	79
	O.T.	30,520	28,915	28,700	25,515	23,485	22,035	19,615	15,835
50	Me.HP	1.52	2.79	3.92	6.28	7.10	7.82	9.12	11.17
	Th.HP	1.01	1.86	2.61	3.84	4.06	4.27	4.57	4.89
	Th.HP Fan	1.52	2.79	3.92	6.28	7.10	7.82	9.12	9.78
	Efficiency	57	63	67	73	74	75	76	76
	O.T.	27,255	27,675	27,545	24,900	22,985	21,240	18,980	15,275
60	Me.HP	1.27	2.33	3.27	5.25	5.92	6.53	7.61	9.32
	Th.HP	0.84	1.55	2.18	3.39	3.58	3.79	4.13	4.40
	Th.HP Fan	1.27	2.33	3.27	5.25	5.92	6.53	7.61	8.80
	Efficiency	56	62	64	69	71	72	73	73
	O.T.	26,810	27,270	26,345	23,620	22,085	20,420	18,255	14,695
70	Me.HP	1.09	2.00	2.80	4.51	5.08	5.60	6.53	8.00
	Th.HP	0.72	1.33	1.87	3.00	3.36	3.51	3.81	3.91
	Th.HP Fan	1.09	2.00	2.80	4.51	5.08	5.60	6.53	7.81
	Efficiency	55	61	63	68	70	71	72	72
	O.T.	26,365	26,870	25,970	23,310	21,800	20,165	18,030	14,510

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

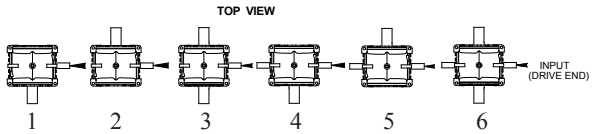
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
3.4375*	50-S60-307	5/8 X 5/16
3.1875*	50-S60-303	5/8 X 5/16
2.750*	50-S60-212	5/8 X 5/16

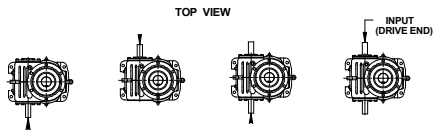
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

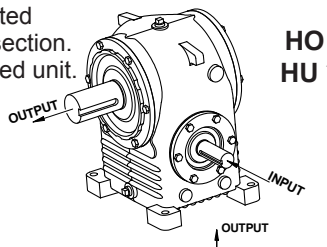
Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

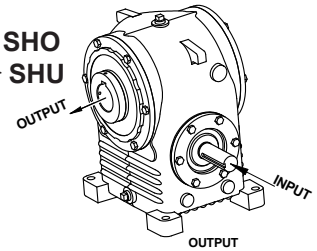


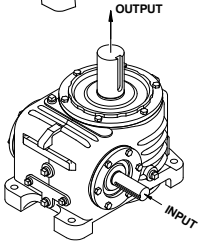


GEARSHAFT EXTENDED				
Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

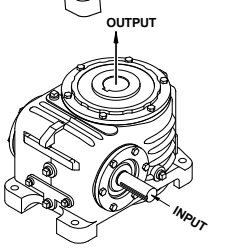


HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





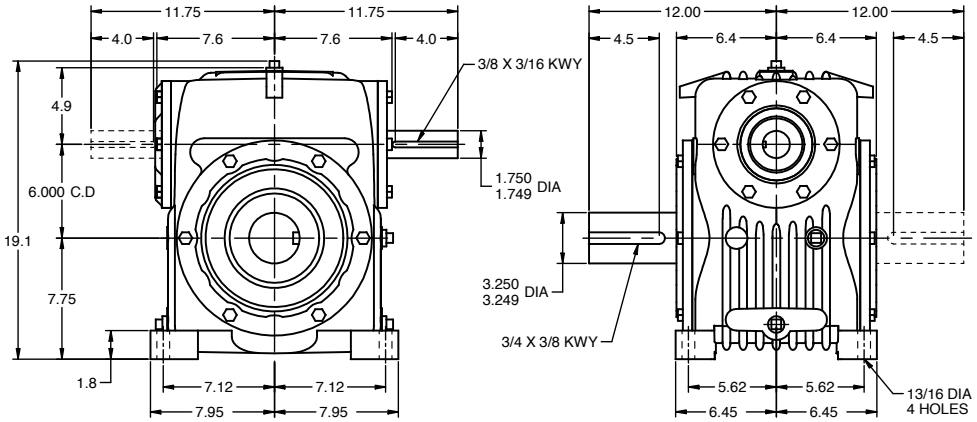
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 6.000" C.D.

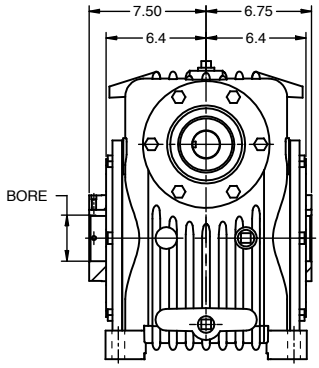
Size 60 Solid Shaft

Model HO Worm Over Gear net wt. 388 lbs



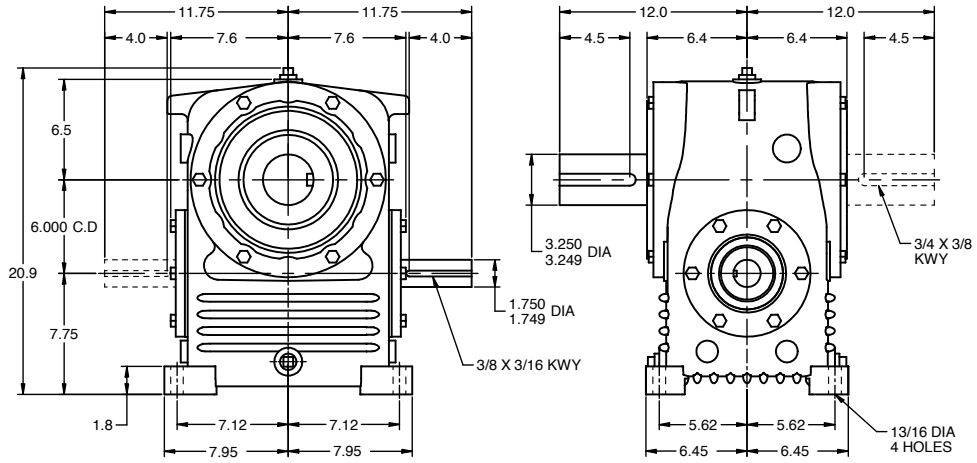
Hollow Shaft

SHO net wt. 403 lbs

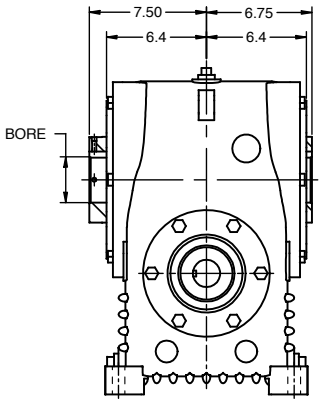


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITER SIDE

Model HU Worm Under Gear net wt. 396 lbs

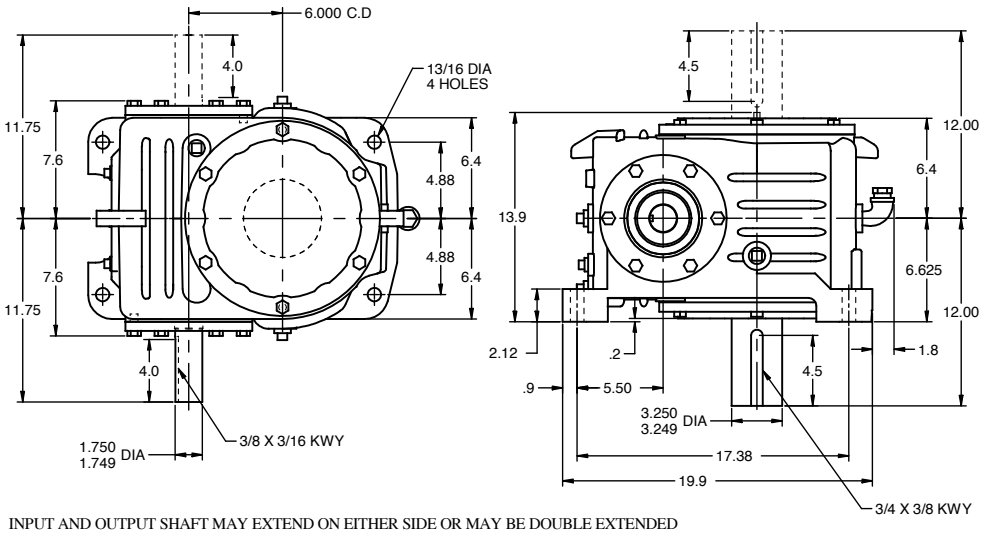


SHU net wt. 411 lbs



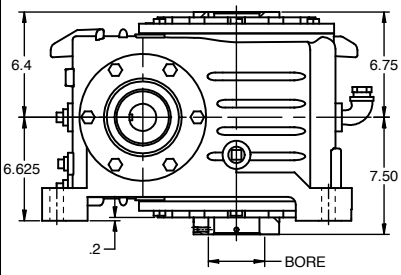
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 418 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 433 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 6.000" C.D.

Size 60

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM 100	200	300	580	720	870	1150	1750
5	Me.HP	13.31	24.04	32.79	48.28	54.33	59.84	68.35	79.85
	Th.HP	6.28	9.51	12.24	17.44	19.51	21.04	22.73	25.01
	Th.HP Fan	12.57	19.02	24.48	34.87	39.03	42.09	45.47	50.01
	Efficiency	92	93	94	94	94	95	95	95
	O.T.	38,575	35,215	32,365	24,650	22,345	20,585	17,785	13,660
10	Me.HP	9.23	16.82	23.23	35.27	39.53	43.82	50.62	60.62
	Th.HP	5.59	8.04	10.32	14.15	15.49	16.53	17.77	18.97
	Th.HP Fan	9.23	16.07	20.64	28.30	30.99	33.07	35.54	37.93
	Efficiency	86	88	89	90	90	92	93	93
	O.T.	49,995	46,630	43,425	34,480	31,135	29,195	25,790	20,295
15	Me.HP	7.46	13.63	18.87	28.85	32.30	35.75	41.22	49.71
	Th.HP	4.97	7.00	8.66	11.71	12.54	13.27	14.03	14.98
	Th.HP Fan	7.46	13.63	17.32	23.42	25.09	26.54	28.06	29.96
	Efficiency	82	84	85	88	89	90	91	91
	O.T.	57,820	54,100	50,535	41,370	37,735	34,945	30,825	24,430
20	Me.HP	5.72	10.44	14.46	22.17	24.76	27.57	31.62	38.50
	Th.HP	3.82	6.21	7.65	10.39	11.00	11.55	12.02	12.54
	Th.HP Fan	5.72	10.44	14.46	20.78	22.01	23.11	24.03	25.08
	Efficiency	78	80	81	86	86	86	87	88
	O.T.	56,250	52,615	49,185	41,415	37,270	34,345	30,145	24,395
25	Me.HP	4.61	8.42	11.67	17.94	20.05	22.27	25.55	31.01
	Th.HP	3.07	5.28	6.60	9.02	9.41	9.72	10.00	10.39
	Th.HP Fan	4.61	8.42	11.67	17.94	18.82	19.44	20.00	20.78
	Efficiency	74	78	80	84	84	86	87	87
	O.T.	53,725	51,740	49,000	40,925	36,850	34,680	30,450	24,280
30	Me.HP	3.87	7.06	9.77	15.03	16.85	18.66	21.41	26.09
	Th.HP	2.58	4.40	5.72	7.77	8.20	8.51	8.73	8.99
	Th.HP Fan	3.87	7.06	9.77	15.03	16.39	17.02	17.46	17.98
	Efficiency	71	73	75	78	81	82	83	83
	O.T.	51,910	48,685	46,185	38,205	35,825	33,245	29,210	23,385
40	Me.HP	2.91	5.31	7.35	11.33	12.67	14.07	16.10	19.62
	Th.HP	1.93	3.54	4.76	7.55	6.98	7.32	7.58	7.84
	Th.HP Fan	2.91	5.31	7.35	11.33	12.67	14.07	15.16	15.67
	Efficiency	64	66	70	75	76	78	79	79
	O.T.	46,920	44,135	43,225	36,925	33,700	31,800	27,875	22,320
50	Me.HP	2.33	4.26	5.90	9.09	10.16	11.29	12.92	15.74
	Th.HP	1.55	2.83	3.90	5.47	5.79	6.09	6.50	6.97
	Th.HP Fan	2.33	4.26	5.90	9.09	10.16	11.29	12.92	13.93
	Efficiency	57	63	67	73	74	75	76	76
	O.T.	41,900	42,245	41,480	36,035	32,905	30,660	26,890	21,530
60	Me.HP	1.95	3.55	4.92	7.58	8.48	9.42	10.78	13.13
	Th.HP	1.29	2.36	3.28	4.83	5.10	5.40	5.89	6.27
	Th.HP Fan	1.95	3.55	4.92	7.58	8.48	9.42	10.78	12.54
	Efficiency	56	62	64	69	71	72	73	73
	O.T.	41,220	41,630	39,675	34,105	31,610	29,470	25,860	20,705
70	Me.HP	1.67	3.05	4.22	6.51	7.28	8.09	9.25	11.27
	Th.HP	1.10	2.03	2.81	4.31	4.79	5.00	5.43	5.56
	Th.HP Fan	1.67	3.05	4.22	6.51	7.28	8.09	9.25	11.13
	Efficiency	55	61	63	68	70	71	72	72
	O.T.	40,535	41,010	39,110	33,655	31,205	29,100	25,540	20,450

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

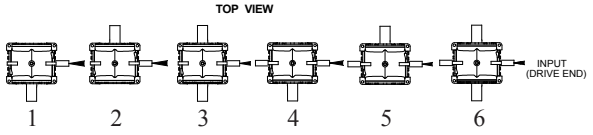
STANDARD HOLLOW GEAR SHAFT BORES

BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
3.9375*	60-S60-315	3/4 X 3/8
3.4375*	60-S60-307	3/4 X 3/8
2.9375*	60-S60-215	3/4 X 3/8

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

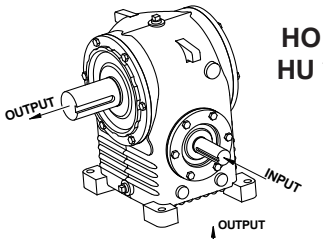
CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

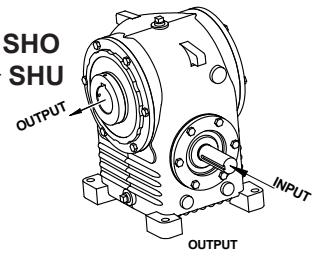


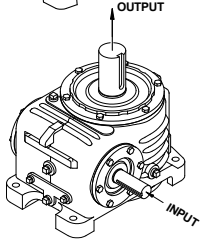
GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

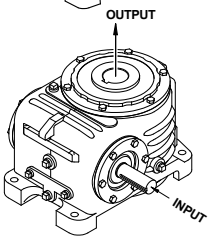


HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





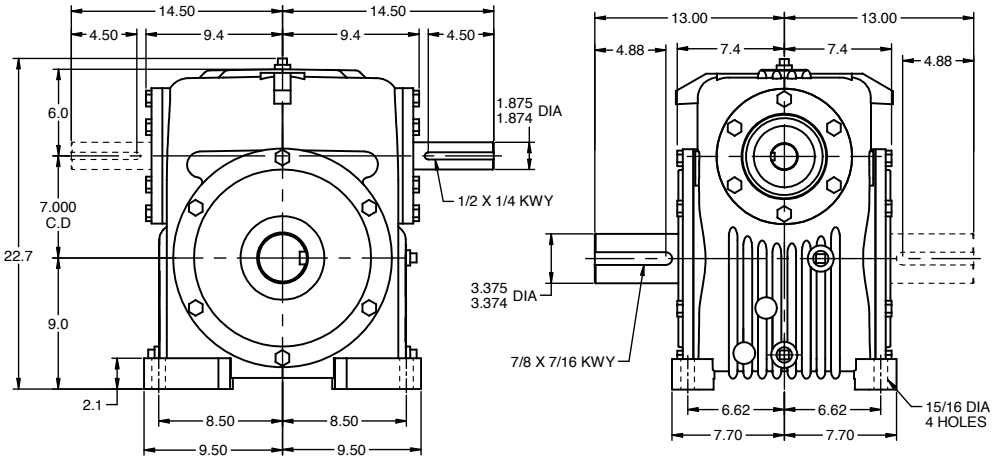
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 7.000" C.D.

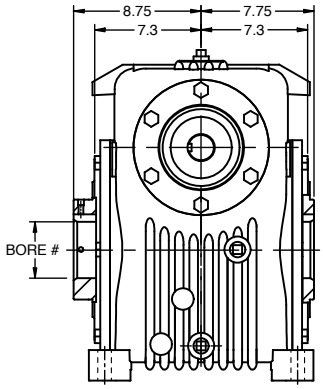
Size 70 Solid Shaft

Model HO Worm Over Gear net wt. 535 lbs



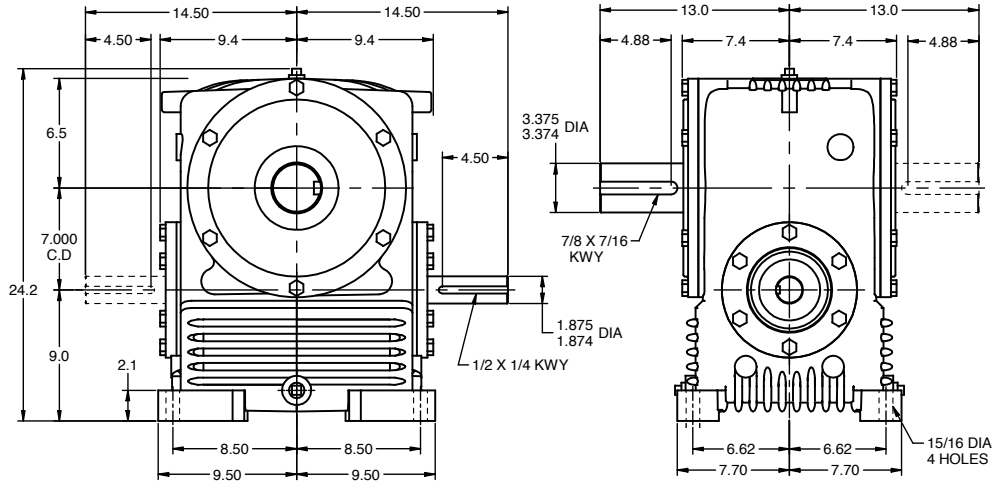
Hollow Shaft

SHO net wt. 560 lbs

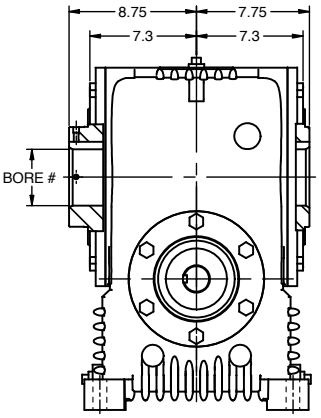


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 605 lbs

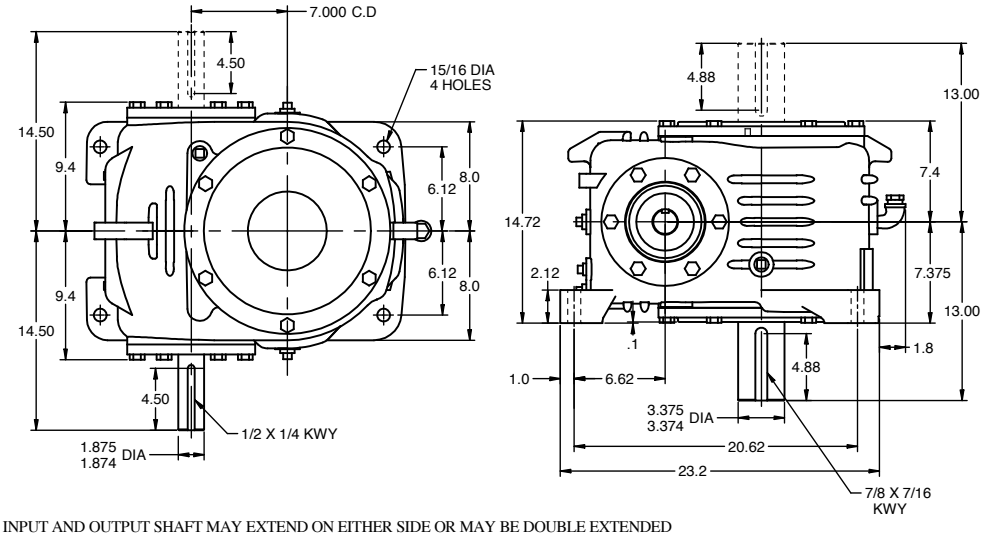


SHU net wt. 630 lbs



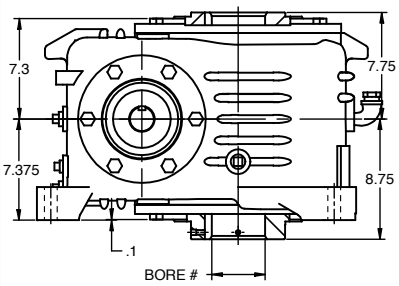
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 600 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 625 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 7.000" C.D.

Size 70

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	20.90	37.29	49.72	72.10	80.50	88.26	100.23	115.65
	Th.HP	8.49	12.85	16.54	23.55	26.36	28.43	30.71	33.78
	Th.HP Fan	16.97	25.69	33.07	47.11	52.73	56.86	61.42	67.56
	Efficiency	92	93	94	94	94	95	95	95
	O.T.	60,560	54,625	49,080	36,810	33,110	30,360	26,085	19,780
10	Me.HP	14.56	26.41	36.12	53.50	60.30	66.52	76.21	88.78
	Th.HP	7.56	10.86	13.94	19.11	20.93	22.34	24.01	25.62
	Th.HP Fan	14.56	21.71	27.88	38.23	41.86	44.67	48.01	51.24
	Efficiency	86	88	89	90	90	92	93	93
	O.T.	78,910	73,210	67,510	52,305	47,485	44,320	38,830	29,725
15	Me.HP	11.80	21.44	29.41	43.92	49.45	54.64	62.55	73.96
	Th.HP	7.87	9.46	11.70	15.82	16.95	17.93	18.95	20.24
	Th.HP Fan	11.80	18.92	23.40	31.64	33.89	35.85	37.91	40.48
	Efficiency	82	84	85	88	89	90	91	91
	O.T.	91,425	85,110	78,740	62,970	57,760	53,415	46,775	36,345
20	Me.HP	9.03	16.42	22.57	33.75	38.02	41.77	47.99	56.80
	Th.HP	5.17	8.39	10.34	14.04	14.87	15.61	16.23	16.94
	Th.HP Fan	9.03	16.42	20.68	28.08	29.73	31.22	32.47	33.88
	Efficiency	78	80	81	86	86	86	87	88
	O.T.	88,795	82,780	76,790	63,055	57,220	52,030	45,750	35,995
25	Me.HP	7.28	13.25	18.18	27.32	30.71	33.85	38.93	45.96
	Th.HP	4.16	7.13	8.91	12.19	12.71	13.13	13.51	14.04
	Th.HP Fan	7.28	13.25	17.82	24.38	25.42	26.26	27.03	28.08
	Efficiency	74	78	80	84	84	86	87	87
	O.T.	84,815	81,405	76,360	62,325	56,425	52,710	46,390	35,990
30	Me.HP	6.10	11.10	15.26	22.89	25.73	28.36	32.62	38.68
	Th.HP	4.06	5.94	7.72	10.50	11.07	11.50	11.79	12.14
	Th.HP Fan	6.10	11.10	15.26	21.00	22.14	23.00	23.59	24.29
	Efficiency	71	73	75	78	81	82	83	83
	O.T.	81,815	76,600	72,115	58,185	54,705	50,530	44,495	34,680
40	Me.HP	4.58	8.36	11.48	17.21	19.35	21.33	24.62	29.09
	Th.HP	2.61	4.78	6.42	11.38	9.43	9.88	10.24	10.59
	Th.HP Fan	4.58	8.36	11.48	17.21	18.87	19.77	20.47	21.18
	Efficiency	64	66	70	75	76	78	79	79
	O.T.	73,945	69,565	67,485	56,095	51,465	48,195	42,615	33,095
50	Me.HP	3.68	6.71	9.21	13.84	15.52	17.11	19.75	23.34
	Th.HP	2.09	3.83	5.26	7.39	7.82	8.22	8.79	9.41
	Th.HP Fan	3.68	6.71	9.21	13.84	15.52	16.45	17.58	18.82
	Efficiency	57	63	67	73	74	75	76	76
	O.T.	66,035	66,580	64,770	54,885	50,245	46,465	41,110	31,925
60	Me.HP	3.07	5.60	7.68	11.55	12.95	14.28	16.48	19.56
	Th.HP	1.75	3.18	4.45	6.52	6.89	7.29	7.96	8.47
	Th.HP Fan	3.07	5.60	7.68	11.55	12.95	14.28	15.91	16.94
	Efficiency	56	62	64	69	71	72	73	73
	O.T.	64,960	65,610	61,950	51,950	48,275	44,665	39,540	30,845
70	Me.HP	2.63	4.81	6.59	9.91	11.11	12.25	14.14	16.79
	Th.HP	1.49	2.74	3.79	5.82	6.47	6.76	7.34	7.52
	Th.HP Fan	2.63	4.81	6.59	9.91	11.11	12.25	14.14	15.04
	Efficiency	55	61	63	68	70	71	72	72
	O.T.	63,885	64,640	61,065	51,265	47,655	44,105	39,050	30,465

Key: Me.HP = Mech. Input Power (HP) Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.) Th.HP Fan = Thermal Input Power - Fan

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

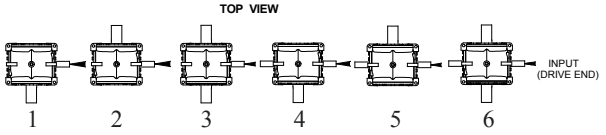
STANDARD HOLLOW GEAR SHAFT BORES

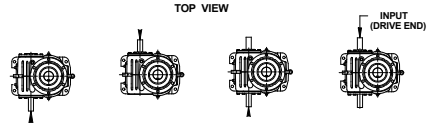
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

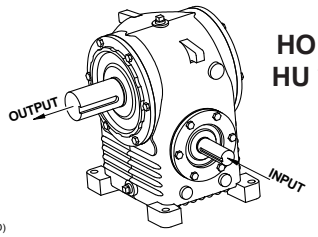
Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.



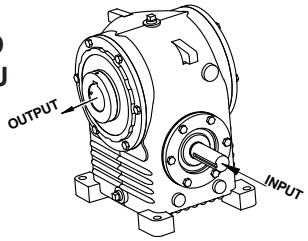


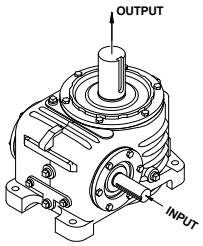
GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

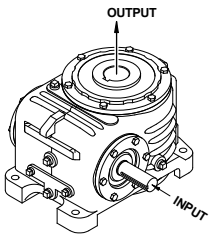


HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





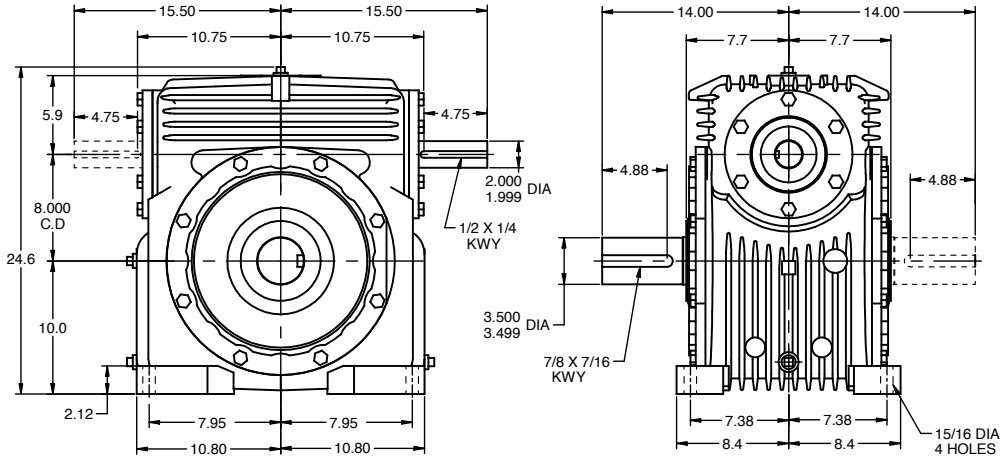
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 8.000" C.D.

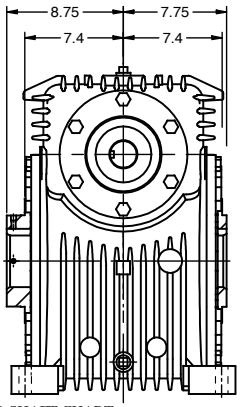
Size 80 Solid Shaft

Model HO Worm Over Gear net wt. 690 lbs



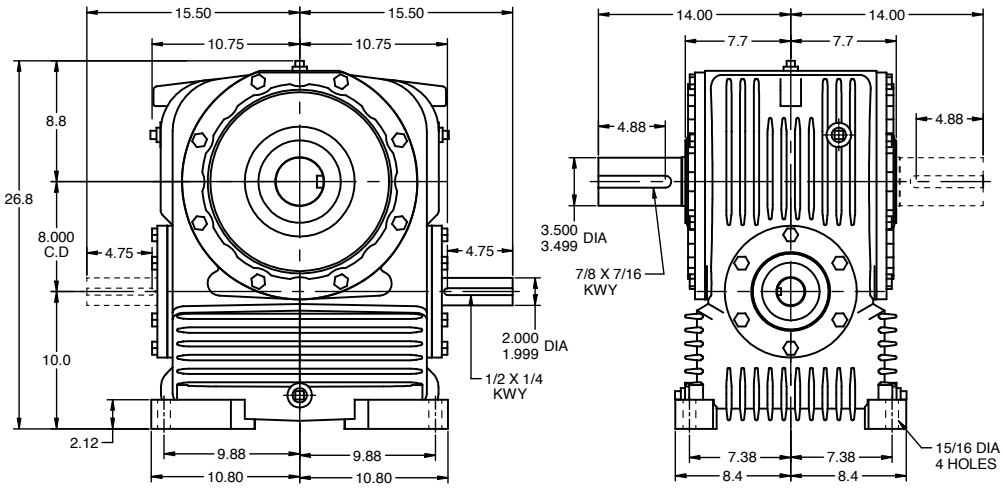
Hollow Shaft

SHO net wt. 720 lbs

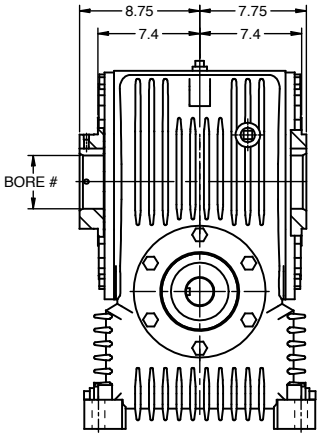


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HU Worm Under Gear net wt. 880 lbs

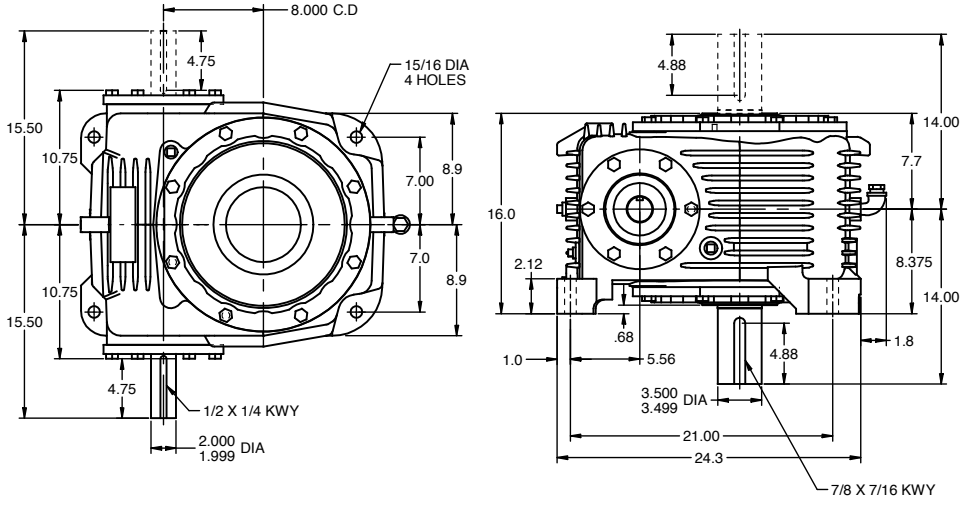


SHU net wt. 910 lbs



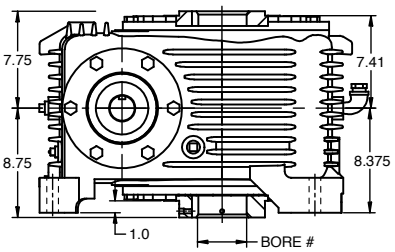
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model HV Worm Horizontal Gear Shaft Vertical net wt. 725 lbs



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 755 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

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Cone Drive Single Reduction Units - 8.000" C.D.

Size 80

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	31.03	54.63	71.62	102.29	114.21	124.91	139.75	161.85
	Th.HP	12.90	19.52	25.13	35.79	40.06	43.20	46.67	51.33
	Th.HP Fan	25.79	39.04	50.25	71.59	80.12	86.40	93.33	102.67
	Efficiency	92	93	94	94	94	95	95	95
	O.T.	89,915	80,025	70,695	52,225	46,970	42,965	36,370	27,680
10	Me.HP	21.74	39.24	53.17	77.78	87.61	96.01	110.52	128.53
	Th.HP	11.48	16.50	21.18	29.05	31.81	33.94	36.48	38.93
	Th.HP Fan	21.74	33.00	42.36	58.09	63.61	67.88	72.96	77.87
	Efficiency	86	88	89	90	90	92	93	93
	O.T.	117,795	108,785	99,370	76,040	68,995	63,960	56,310	43,035
15	Me.HP	17.64	31.93	43.47	64.06	72.10	79.69	91.11	105.66
	Th.HP	11.76	14.37	17.78	24.04	25.75	27.24	28.80	30.76
	Th.HP Fan	17.64	28.74	35.56	48.07	51.50	54.48	57.60	61.51
	Efficiency	82	84	85	88	89	90	91	91
	O.T.	136,710	126,715	116,395	91,850	84,225	77,905	68,135	51,925
20	Me.HP	13.49	24.45	33.37	49.37	55.45	61.32	69.91	81.57
	Th.HP	7.85	12.75	15.71	21.33	22.59	23.72	24.67	25.74
	Th.HP Fan	13.49	24.45	31.42	42.67	45.18	47.44	49.33	51.48
	Efficiency	78	80	81	86	86	86	87	88
	O.T.	132,560	123,245	113,525	92,230	83,445	76,370	66,645	51,685
25	Me.HP	10.88	19.70	26.93	39.97	44.92	49.38	56.73	66.01
	Th.HP	6.33	10.84	13.54	18.53	19.31	19.95	20.53	21.33
	Th.HP Fan	10.88	19.70	26.93	37.05	38.62	39.91	41.07	42.67
	Efficiency	74	78	80	84	84	86	87	87
	O.T.	126,825	120,980	113,115	91,175	82,540	76,890	67,595	51,690
30	Me.HP	9.12	16.53	22.61	33.49	37.74	41.64	47.70	55.57
	Th.HP	6.08	9.03	11.73	15.96	16.82	17.47	17.92	18.45
	Th.HP Fan	9.12	16.53	22.61	31.91	33.65	34.95	35.84	36.91
	Efficiency	71	73	75	78	81	82	83	83
	O.T.	122,340	114,045	106,830	85,120	80,255	74,180	65,075	49,820
40	Me.HP	6.86	12.43	17.00	25.25	28.38	31.31	35.87	41.99
	Th.HP	3.97	7.26	9.76	16.83	14.34	15.02	15.56	16.09
	Th.HP Fan	6.86	12.43	17.00	25.25	28.38	30.04	31.11	32.18
	Efficiency	64	66	70	75	76	78	79	79
	O.T.	110,575	103,385	99,975	82,285	75,500	70,750	62,105	47,775
50	Me.HP	5.50	9.97	13.64	20.25	22.77	25.12	28.78	33.68
	Th.HP	3.18	5.81	8.00	11.24	11.89	12.50	13.35	14.30
	Th.HP Fan	5.50	9.97	13.64	20.25	22.77	24.99	26.71	28.60
	Efficiency	57	63	67	73	74	75	76	76
	O.T.	98,745	98,950	95,950	80,305	73,710	68,210	59,905	46,080
60	Me.HP	4.59	8.32	11.38	16.90	19.00	20.96	24.01	28.11
	Th.HP	2.66	4.84	6.76	9.91	10.47	11.08	12.09	12.87
	Th.HP Fan	4.59	8.32	11.38	16.90	19.00	20.96	24.01	25.74
	Efficiency	56	62	64	69	71	72	73	73
	O.T.	97,140	97,510	91,775	76,005	70,820	65,570	57,615	44,320
70	Me.HP	3.94	7.14	9.77	14.51	16.31	17.99	20.61	24.12
	Th.HP	2.27	4.17	5.76	8.84	9.83	10.27	11.15	11.42
	Th.HP Fan	3.94	7.14	9.77	14.51	16.31	17.99	20.61	22.85
	Efficiency	55	61	63	68	70	71	72	72
	O.T.	95,535	96,065	90,460	75,000	69,915	64,745	56,905	43,775

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

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STANDARD HOLLOW GEAR SHAFT BORES

BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

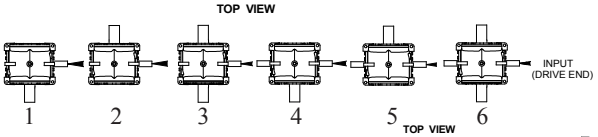
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

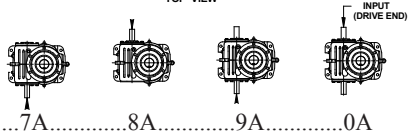
CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Key:
Me.HP = Mech. Input Power (HP)
Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)
Th.HP Fan = Thermal Input Power - Fan

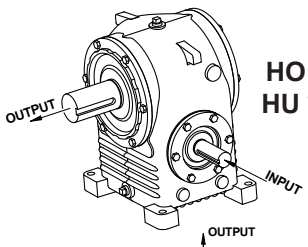
Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

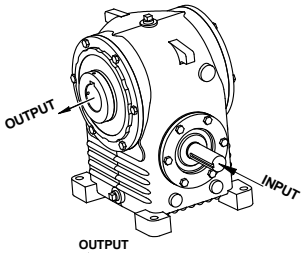


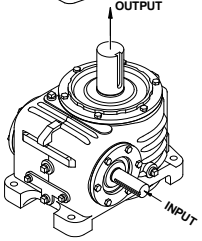


GEARSHAFT EXTENDED				
Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

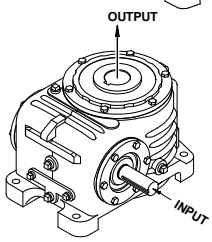


HO Worm Over **SHO**
HU Worm Under **SHU**
#1 Shown





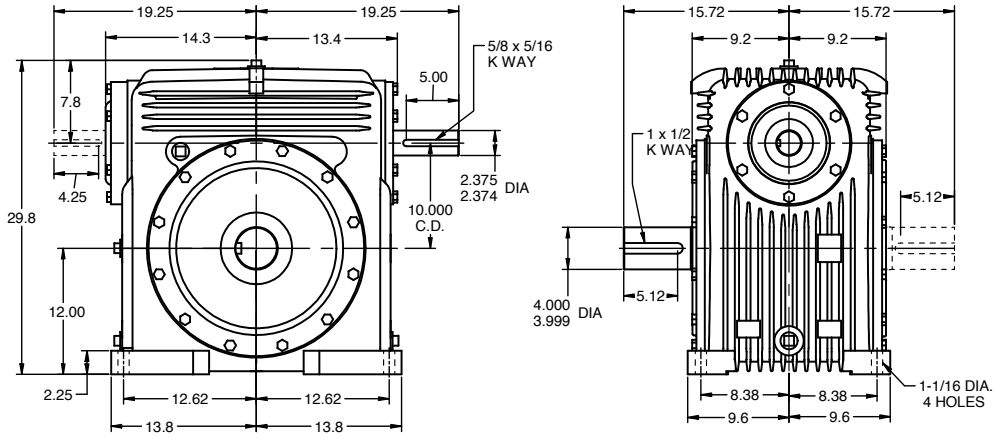
HV Vertical **SHV**
#7A Shown



Cone Drive Single Reduction Units - 10.000" C.D.

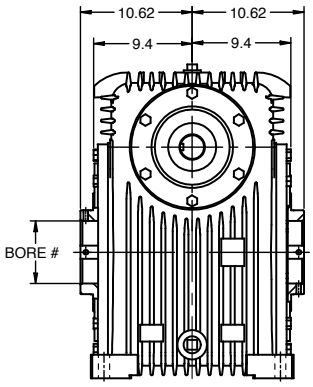
Size 100 Solid Shaft

Model HO Worm Over Gear net wt. 1360 lbs.



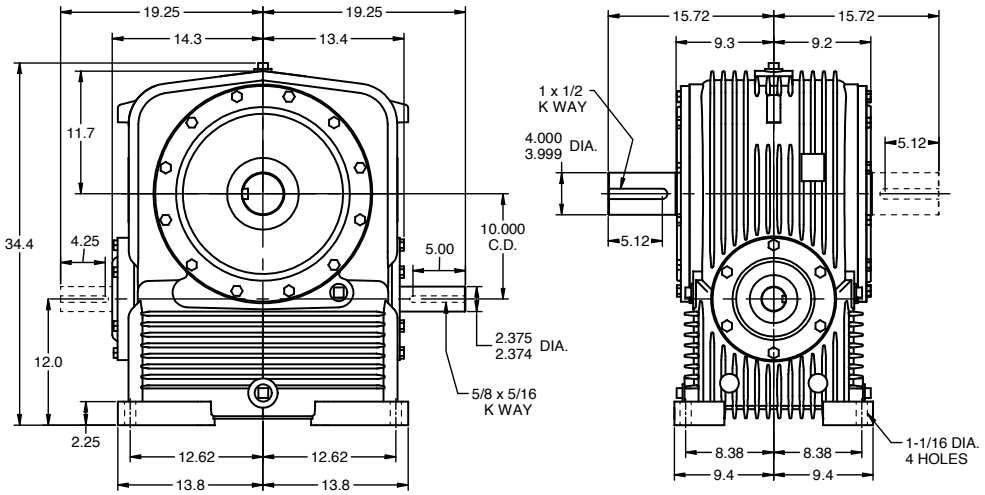
Hollow Shaft

SHO net wt. 1435 lbs.

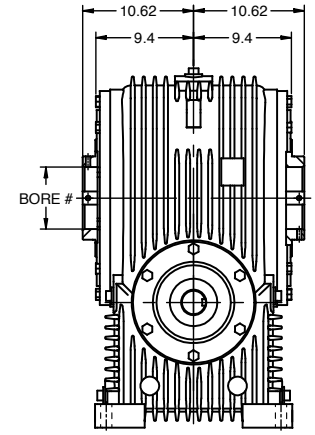


SEE GEAR SHAFT CHART

Model HU Worm Under Gear net wt. 1680 lbs.

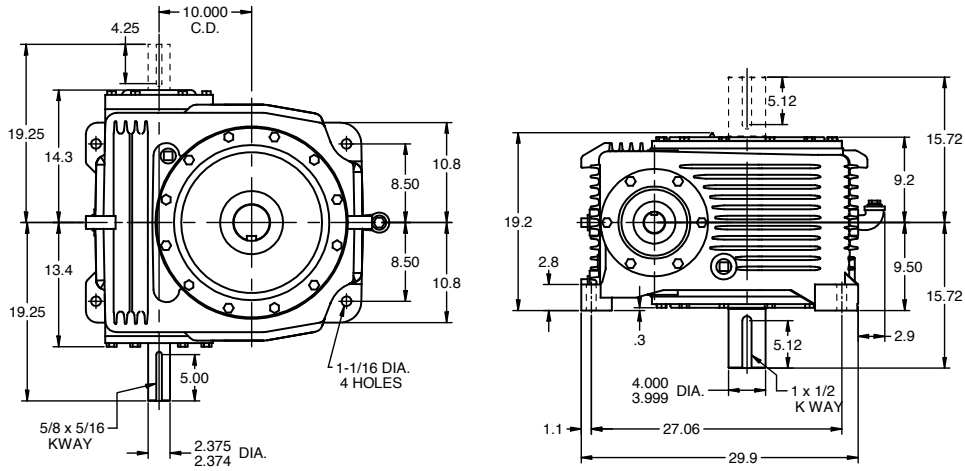


SHU net wt. 1755 lbs.

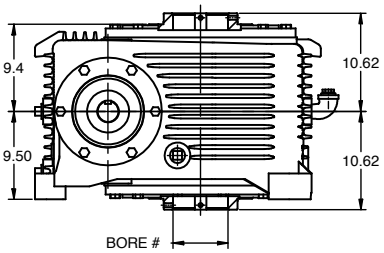


SEE GEAR SHAFT CHART

Model HV Worm Horizontal Gear Shaft Vertical net wt. 1550 lbs.



SHV net wt. 1625 lbs.



SEE GEAR SHAFT CHART

INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 10.000" C.D.

Size 100

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR									
		Worm RPM							
Ratio to 1		100	200	300	580	720	870	1150	1750
5	Me.HP	58.05	98.65	125.54	177.07	196.63	213.20	231.67	272.58
	Th.HP	23.59	36.51	48.34	68.86	77.07	86.19	93.10	102.42
	Th.HP Fan	47.17	73.02	96.68	137.72	154.14	172.38	186.21	204.83
	Efficiency	94	95	96	96	97	97	97	97
	O.T.	171,875	147,605	126,550	92,320	83,450	74,880	61,555	47,595
10	Me.HP	40.93	72.26	95.47	136.70	152.42	166.98	188.26	216.10
	Th.HP	19.47	28.48	36.98	51.36	58.17	62.07	68.23	72.82
	Th.HP Fan	38.94	56.97	73.95	102.73	116.34	124.14	136.46	145.64
	Efficiency	88	90	91	92	94	94	95	95
	O.T.	226,900	204,850	182,450	136,605	125,365	113,665	97,980	73,910
15	Me.HP	33.10	58.81	77.98	112.16	125.72	137.56	155.67	179.16
	Th.HP	16.13	24.04	29.93	41.50	44.96	48.17	51.71	55.22
	Th.HP Fan	32.26	48.07	59.85	83.00	89.91	96.35	103.43	110.45
	Efficiency	84	86	87	90	92	92	93	93
	O.T.	262,765	238,975	213,695	164,470	151,805	137,465	118,965	89,975
20	Me.HP	25.35	45.14	60.01	86.25	96.74	106.30	119.51	138.49
	Th.HP	12.77	20.90	25.86	36.18	38.31	40.22	42.18	44.44
	Th.HP Fan	25.35	41.80	51.71	72.36	76.61	80.44	84.36	88.89
	Efficiency	80	82	83	88	88	88	89	90
	O.T.	255,535	233,170	209,185	164,895	148,985	135,485	116,545	89,745
25	Me.HP	20.45	36.42	48.44	69.88	77.92	85.62	97.06	111.55
	Th.HP	10.17	17.63	22.19	30.98	32.30	33.84	35.11	36.48
	Th.HP Fan	20.34	35.25	44.39	61.97	64.59	67.67	70.23	72.96
	Efficiency	76	80	82	86	88	88	89	89
	O.T.	244,825	229,470	208,520	163,190	149,995	136,400	118,315	89,350
30	Me.HP	17.14	30.52	40.58	58.54	65.28	71.73	81.32	93.46
	Th.HP	11.12	14.48	18.91	25.95	27.69	28.90	29.79	30.68
	Th.HP Fan	17.14	28.96	37.81	51.91	55.38	57.79	59.59	61.36
	Efficiency	73	75	77	80	84	84	85	85
	O.T.	236,430	216,285	196,860	152,620	143,950	130,905	113,605	85,795
40	Me.HP	12.89	22.95	30.52	44.03	49.09	53.94	61.16	70.28
	Th.HP	6.25	11.49	15.55	28.98	23.32	24.43	25.39	26.26
	Th.HP Fan	12.51	22.95	30.52	44.03	46.63	48.85	50.78	52.53
	Efficiency	66	68	72	77	80	80	81	81
	O.T.	214,330	196,625	184,570	147,290	137,460	125,005	108,550	81,975
50	Me.HP	10.34	18.44	24.59	35.52	39.63	43.42	49.46	56.68
	Th.HP	4.97	9.16	12.67	18.01	19.15	20.14	21.58	23.11
	Th.HP Fan	9.94	18.31	24.59	35.52	38.31	40.27	43.16	46.22
	Efficiency	59	65	69	75	77	77	78	78
	O.T.	192,110	188,815	178,120	144,685	133,520	121,070	105,680	79,585
60	Me.HP	8.63	15.39	20.51	29.64	33.07	36.24	41.27	47.30
	Th.HP	4.15	7.61	10.65	15.76	16.71	17.72	19.38	20.64
	Th.HP Fan	8.30	15.22	20.51	29.64	33.07	35.44	38.76	41.27
	Efficiency	58	64	66	71	74	74	75	75
	O.T.	189,105	186,160	170,605	137,150	128,485	116,505	101,750	76,630
70	Me.HP	7.40	13.21	17.61	25.44	28.39	31.10	35.42	40.60
	Th.HP	3.54	6.54	9.07	14.03	15.65	16.39	17.83	18.27
	Th.HP Fan	7.08	13.09	17.61	25.44	28.39	31.10	35.42	36.54
	Efficiency	57	63	65	70	73	73	74	74
	O.T.	186,095	183,495	168,245	135,400	126,920	115,085	100,530	75,705

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

Fan cooling can be supplied with water cooling coils in oil sump.

Units can be supplied with water cooling coils in oil sump.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

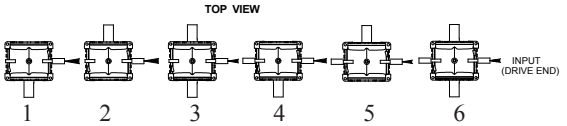
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
5.9375	100-S61-515	1 1/4 X 7/16

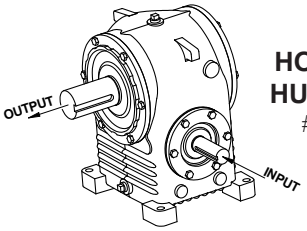
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

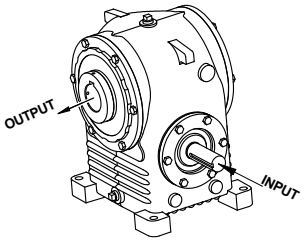
Key:
Me.HP = Mech. Input Power (HP)
Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)
Th.HP Fan = Thermal Input Power - Fan

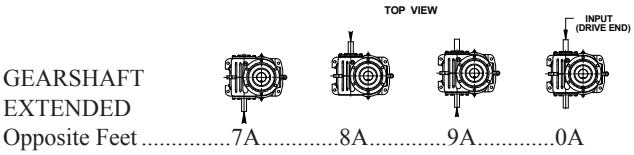
Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.





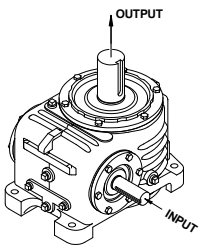
HO Worm Over **SHO**
HU Worm Under **SHU**
#3 Shown at right
#1 Shown at left



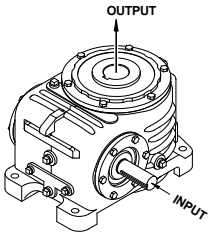


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C



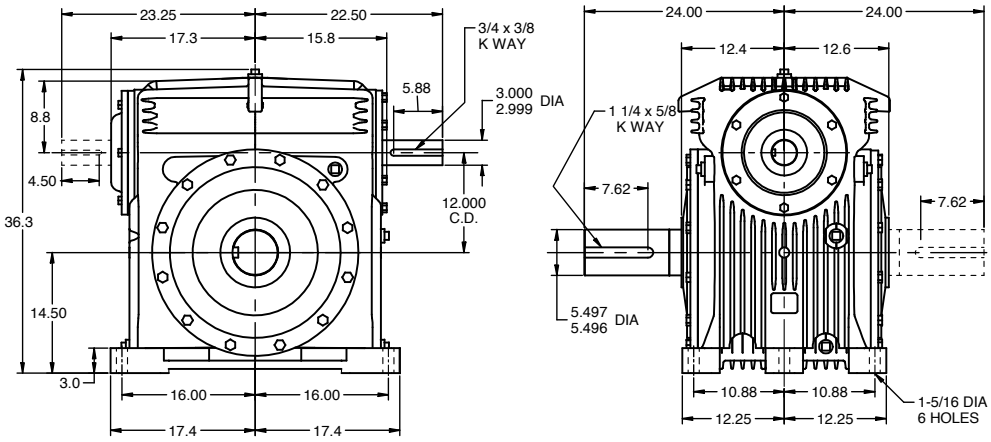
HV Vertical **SHV**
#7A Shown at left
#7C Shown at right



Cone Drive Single Reduction Units - 12.000" C.D.

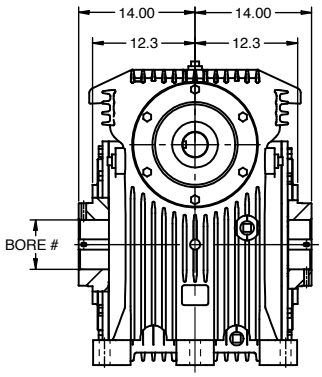
Size 120 Solid Shaft

Model HO Worm Over Gear net wt. 2635 lbs.



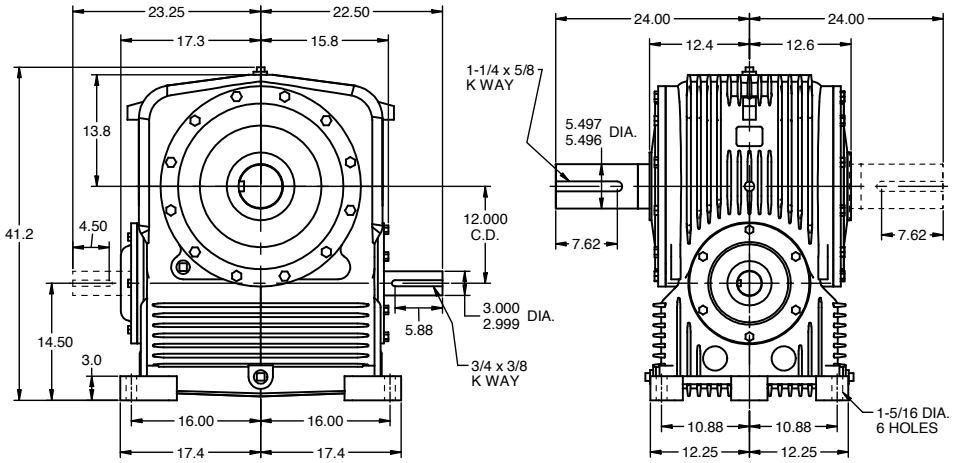
Hollow Shaft

SHO net wt. 2635 lbs.

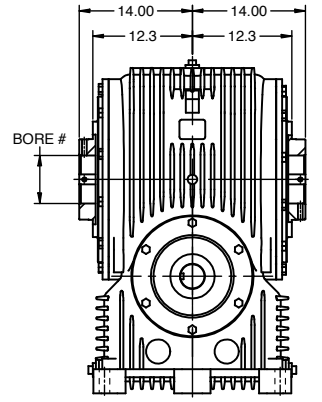


SEE GEAR SHAFT CHART

Model HU Worm Under Gear net wt. 2775 lbs.

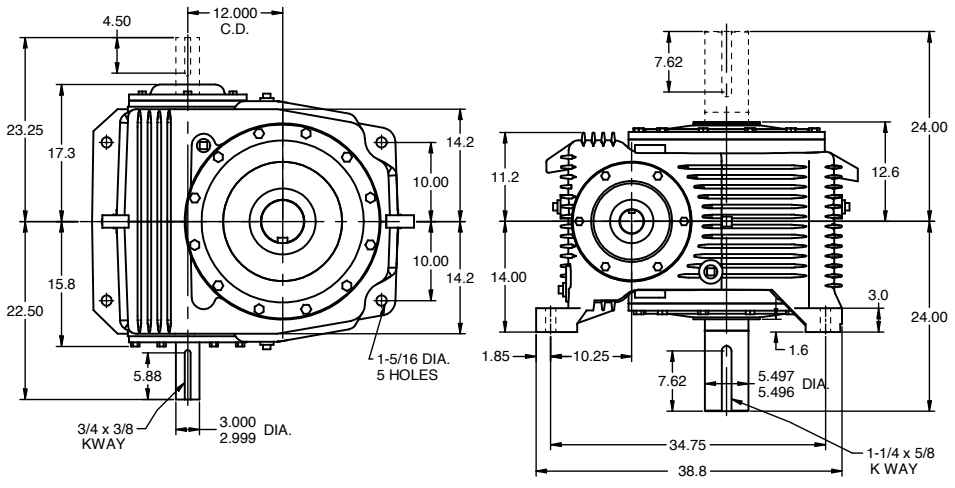


SHU net wt. 2775 lbs.



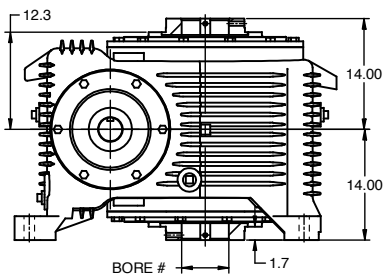
SEE GEAR SHAFT CHART

Model HV Worm Horizontal Gear Shaft Vertical net wt. 2995 lbs.



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

SHV net wt. 2995 lbs.



SEE GEAR SHAFT CHART

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 12.000" C.D.

Size 120

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

		Worm RPM						
Ratio to 1		100	200	300	580	720	870	1150
5	Me.HP	97.66	160.36	199.46	279.03	307.46	322.92	360.54
	Th.HP	32.97	51.04	67.58	96.27	107.74	120.49	130.16
	Th.HP Fan	65.95	102.09	135.16	192.54	215.49	240.99	260.33
	Efficiency	94	95	96	96	97	97	97
	O.T.	289,165	239,940	201,055	145,480	130,480	113,415	95,795
10	Me.HP	69.42	119.50	153.17	218.02	240.67	263.11	287.25
	Th.HP	27.22	39.82	51.69	71.81	81.32	86.78	95.39
	Th.HP Fan	54.45	79.64	103.39	143.62	162.64	173.55	190.78
	Efficiency	88	90	91	92	94	94	95
	O.T.	384,890	338,790	292,715	217,870	197,955	179,100	149,495
15	Me.HP	56.15	97.31	125.83	179.16	198.25	217.23	237.20
	Th.HP	22.55	33.60	41.84	58.02	62.85	67.35	72.30
	Th.HP Fan	45.10	67.20	83.68	116.03	125.70	134.69	144.59
	Efficiency	84	86	87	90	92	92	93
	O.T.	445,755	395,415	344,835	262,720	239,385	217,080	181,275
20	Me.HP	43.08	74.85	96.65	137.85	152.65	167.39	183.95
	Th.HP	17.85	29.22	36.15	50.58	53.55	56.23	58.97
	Th.HP Fan	35.70	58.44	72.30	101.16	107.11	112.46	117.94
	Efficiency	80	82	83	88	88	88	89
	O.T.	434,270	386,660	336,930	263,530	235,085	213,335	179,375
25	Me.HP	34.70	60.41	78.21	111.03	123.39	135.35	148.86
	Th.HP	14.21	24.64	31.03	43.31	45.15	47.31	49.09
	Th.HP Fan	28.43	49.28	62.05	86.63	90.30	94.61	98.18
	Efficiency	76	80	82	86	88	88	89
	O.T.	415,355	380,555	336,700	259,285	237,520	215,625	181,445
30	Me.HP	29.07	50.61	65.68	93.02	103.38	113.40	125.30
	Th.HP	15.55	20.24	26.43	36.28	38.71	40.40	41.65
	Th.HP Fan	29.07	40.48	52.87	72.57	77.43	80.80	83.30
	Efficiency	73	75	77	80	84	84	85
	O.T.	401,110	358,695	318,615	242,500	227,950	206,930	175,040
40	Me.HP	21.90	38.06	49.39	70.40	78.29	85.61	94.23
	Th.HP	8.74	16.07	21.74	40.52	32.60	34.15	35.50
	Th.HP Fan	17.49	32.13	43.48	70.40	65.19	68.30	71.00
	Efficiency	66	68	72	77	80	80	81
	O.T.	364,260	326,090	298,725	235,515	219,220	198,380	167,250
50	Me.HP	17.57	30.59	39.71	56.47	62.80	68.67	75.58
	Th.HP	6.95	12.80	17.72	25.18	26.78	28.15	30.17
	Th.HP Fan	13.90	25.60	35.44	50.37	53.55	56.30	60.34
	Efficiency	59	65	69	75	77	77	78
	O.T.	326,495	313,165	287,710	230,010	211,565	191,450	161,490
60	Me.HP	14.66	25.53	33.14	47.12	52.40	57.30	63.07
	Th.HP	5.80	10.64	14.90	22.03	23.36	24.78	27.10
	Th.HP Fan	11.60	21.28	29.79	44.07	46.71	49.55	54.19
	Efficiency	58	64	66	71	74	74	75
	O.T.	321,390	308,755	275,570	218,035	203,590	184,235	155,485
70	Me.HP	12.58	21.91	28.44	40.44	44.98	49.18	54.13
	Th.HP	4.95	9.15	12.68	19.61	21.88	22.91	24.93
	Th.HP Fan	9.90	18.30	25.37	39.22	43.76	45.82	49.86
	Efficiency	57	63	65	70	73	73	74
	O.T.	316,270	304,340	271,755	215,250	201,110	181,990	153,615

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Units can be supplied with water cooling coils.

All units can be motorized. Motor adapter to be located at extension end of input shaft.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

STANDARD HOLLOW GEAR SHAFT BORES

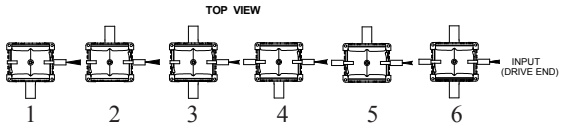
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
7.9375	120-S61-715	1 1/2 X 1/2

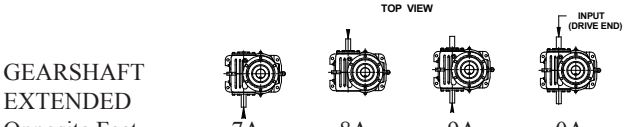
Special hollow gear shaft bore sizes are available at additional cost.
Bore Tolerance: +.004, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Key:
Me.HP = Mech. Input Power (HP)
Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)
Th.HP Fan = Thermal Input Power - Fan

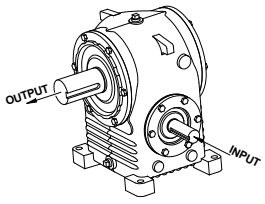
Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.



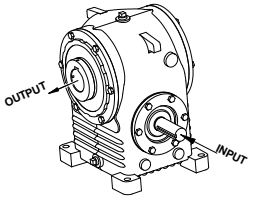


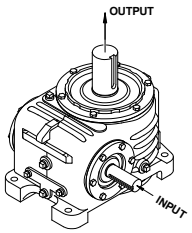
GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

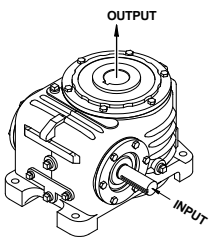


HO Worm Over **SHO**
HU Worm Under **SHU**
#3 Shown at right
#1 Shown at left





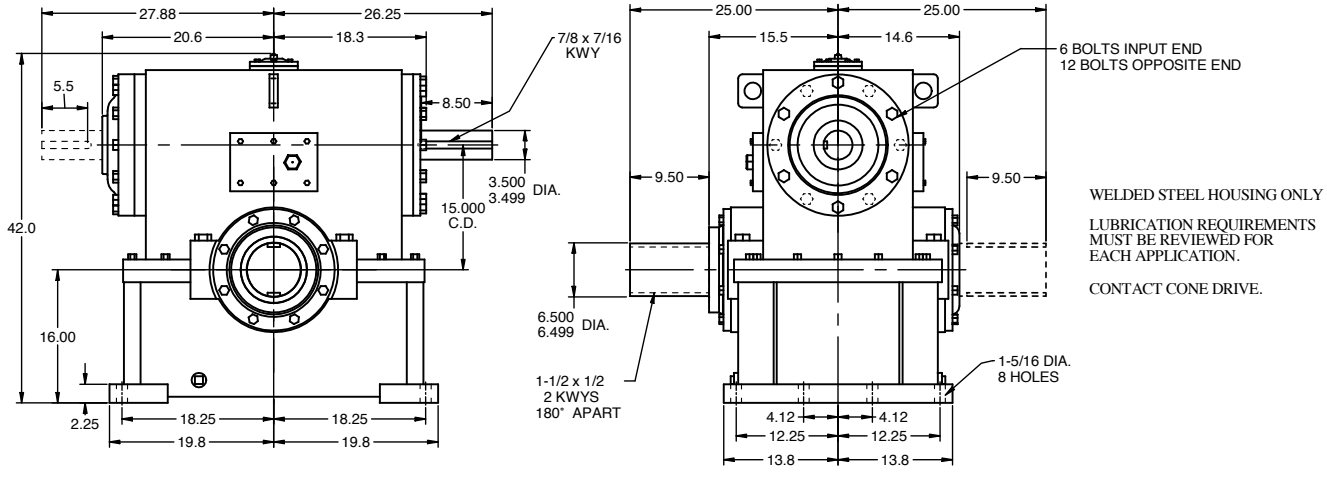
HV Vertical **SHV**
#7A Shown at left
#7C Shown at right



Cone Drive Single Reduction Units - 15.000" C.D.

Size 150 Solid Shaft

Model HO Worm Over Gear net wt. 4000 lbs

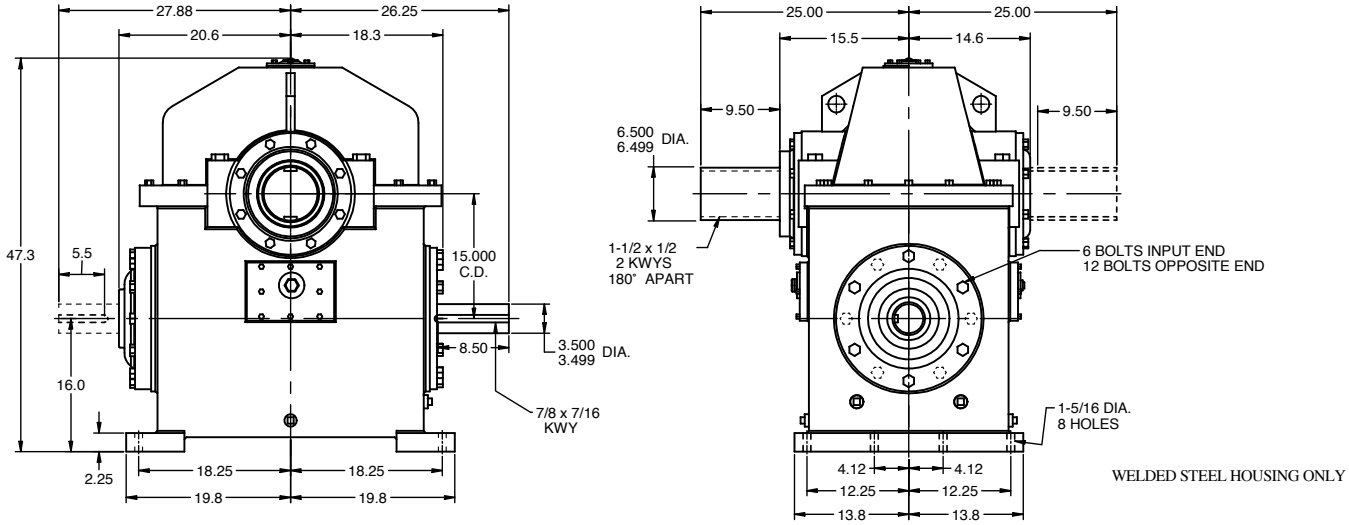


WELDED STEEL HOUSING ONLY

LUBRICATION REQUIREMENTS MUST BE REVIEWED FOR EACH APPLICATION.

CONTACT CONE DRIVE.

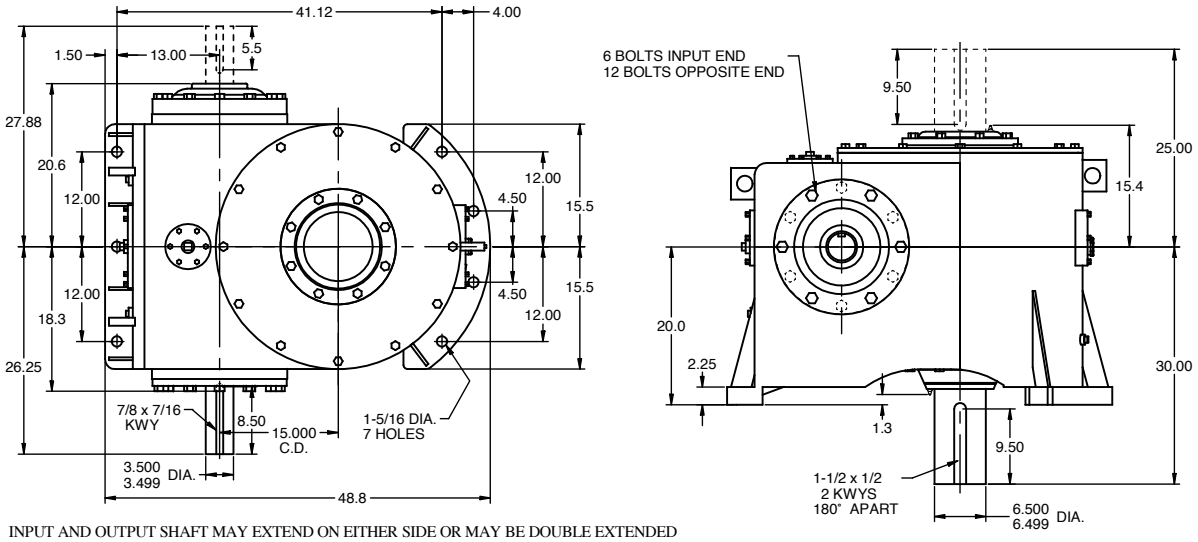
Model HU Worm Under Gear net wt. 4000 lbs



WELDED STEEL HOUSING ONLY

Model HV Worm Horizontal Gear Shaft Vertical net wt. 4000 lbs

WELDED STEEL HOUSING ONLY



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 15.000" C.D.

Size 150

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR								
		Worm RPM						
Ratio to 1		100	200	300	580	720	870	1750
5	**Me.HP**	**149.00**	**223.00**	**290.00**	**396.00**	**423.00**	**453.00**	**501.00**
	Th.HP	23.60	35.50	45.60	65.50	73.00	78.50	85.40
	O.T.	**442000**	**349000**	**291000**	**207000**	**178000**	**159000**	**133000**
	C.P.	7351	9998	12333	15977	17778	18583	19323
10	**Me.HP**	**99.30**	**166.00**	**208.00**	**293.00**	**322.00**	**343.00**	**378.00**
	Th.HP	21.00	30.00	38.20	53.10	58.00	61.30	66.60
	O.T.	**550000**	**469000**	**396000**	**294000**	**262000**	**232000**	**195000**
	C.P.	41201	31629	30724	29523	29263	29572	29571
15	**Me.HP**	**70.10**	**118.00**	**149.00**	**210.00**	**232.00**	**250.00**	**272.00**
	Th.HP	18.30	26.20	32.50	43.80	47.20	49.50	52.40
	O.T.	**557000**	**480000**	**407000**	**308000**	**277000**	**249000**	**208000**
	C.P.	52000	52000	52000	46313	44395	43259	41720
20	**Me.HP**	**53.70**	**90.50**	**114.00**	**161.00**	**178.00**	**191.00**	**210.00**
	Th.HP	16.50	23.20	28.80	38.60	41.20	43.00	45.00
	O.T.	**541000**	**467000**	**398000**	**307000**	**275000**	**245000**	**205000**
	C.P.	52000	52000	52000	52000	52000	52000	50186
25	**Me.HP**	**43.30**	**73.10**	**92.40**	**131.00**	**144.00**	**155.00**	**170.00**
	Th.HP	13.85	19.80	24.70	33.70	35.20	36.30	37.40
	O.T.	**522000**	**460000**	**400000**	**303000**	**274000**	**246000**	**207000**
	C.P.	52000	52000	52000	52000	52000	52000	52000
30	**Me.HP**	**36.30**	**61.30**	**77.50**	**110.00**	**121.00**	**130.00**	**143.00**
	Th.HP	10.50	16.40	21.30	29.20	30.60	31.80	32.50
	O.T.	**501000**	**436000**	**376000**	**286000**	**261000**	**238000**	**199000**
	C.P.	52000	52000	52000	52000	52000	52000	52000
40	**Me.HP**	**27.30**	**46.20**	**58.40**	**82.50**	**91.30**	**98.20**	**108.00**
	Th.HP	8.60	13.80	17.90	24.70	26.20	27.30	28.40
	O.T.	**455000**	**396000**	**354000**	**276000**	**251000**	**227000**	**191000**
	C.P.	52000	52000	52000	52000	52000	52000	52000
50	**Me.HP**	**21.90**	**37.10**	**46.90**	**66.30**	**73.40**	**78.90**	**86.40**
	Th.HP	7.50	12.00	15.40	20.60	21.70	22.80	24.30
	O.T.	**408000**	**380000**	**339000**	**271000**	**244000**	**219000**	**185000**
	C.P.	52000	52000	52000	52000	52000	52000	52000
60	**Me.HP**	**18.30**	**30.90**	**39.20**	**55.40**	**61.30**	**65.90**	**72.20**
	Th.HP	6.00	10.50	13.10	18.00	19.10	20.20	22.10
	O.T.	**401000**	**374000**	**327000**	**256000**	**233000**	**212000**	**178000**
	C.P.	52000	52000	52000	52000	52000	52000	52000

Key: **Me.HP** = Mechanical horsepower **O.T.** = Output torque in Lb. in.
Th.HP =Thermal horsepower **C.P.** = Chain-pull in pounds.

Ratings to the right of heavy line require pressure lubrication. Contact Cone Drive.

Hollow Gear Shaft

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Units can be supplied with water cooling coils in oil sump.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

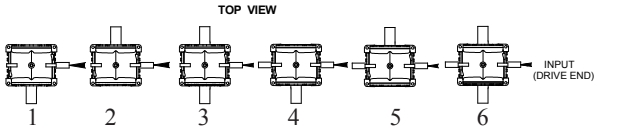
Refer to page 26 for lubrication information.

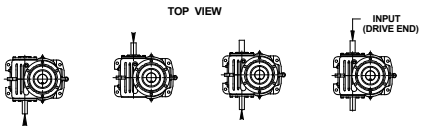
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CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hand of Assembly Floor Mounted Units

When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

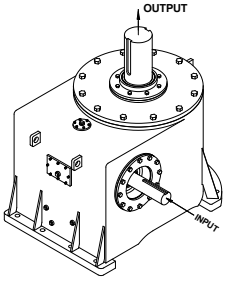


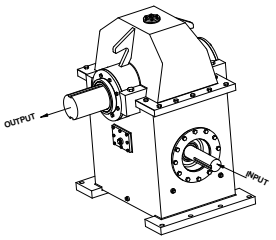


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

HO Worm Over
HU Worm Under
#1 Shown



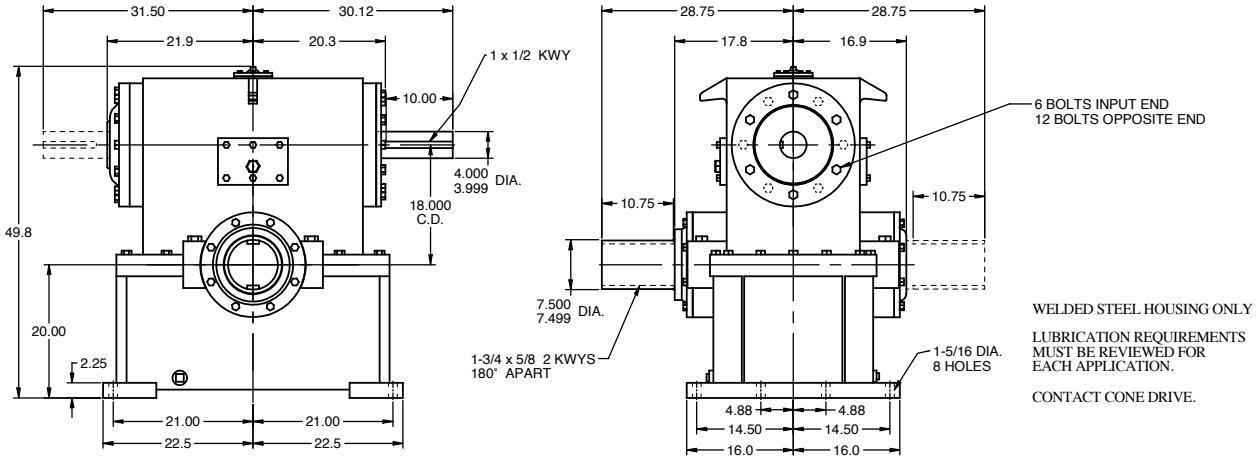


HV Vertical
#7A Shown

Cone Drive Single Reduction Units - 18.000" C.D.

Size 180 Solid Shaft

Model HO Worm Over Gear net wt. 5500 lbs

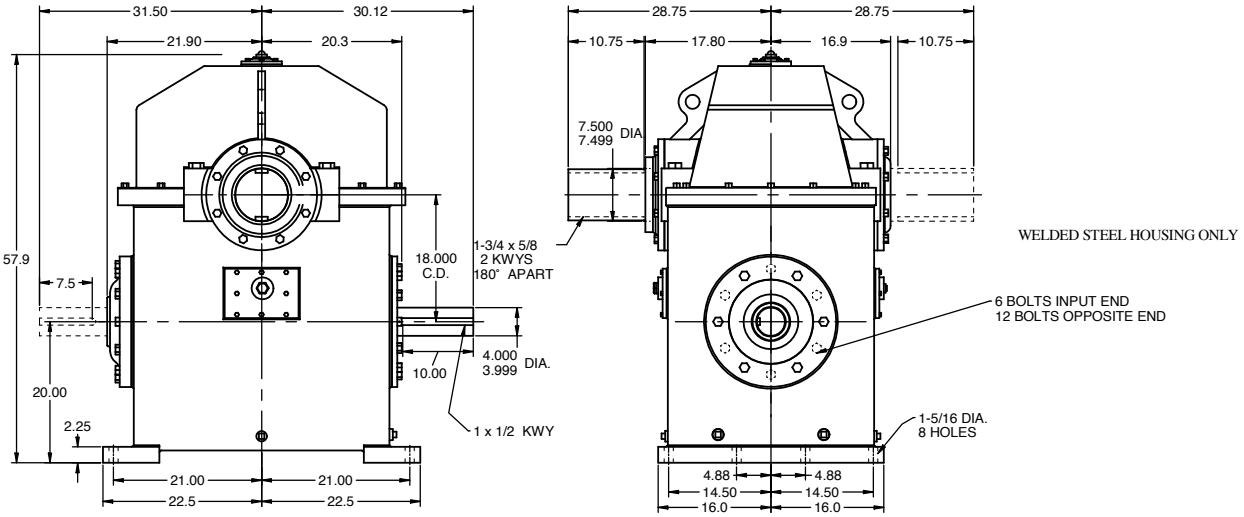


WELDED STEEL HOUSING ONLY

LUBRICATION REQUIREMENTS MUST BE REVIEWED FOR EACH APPLICATION.

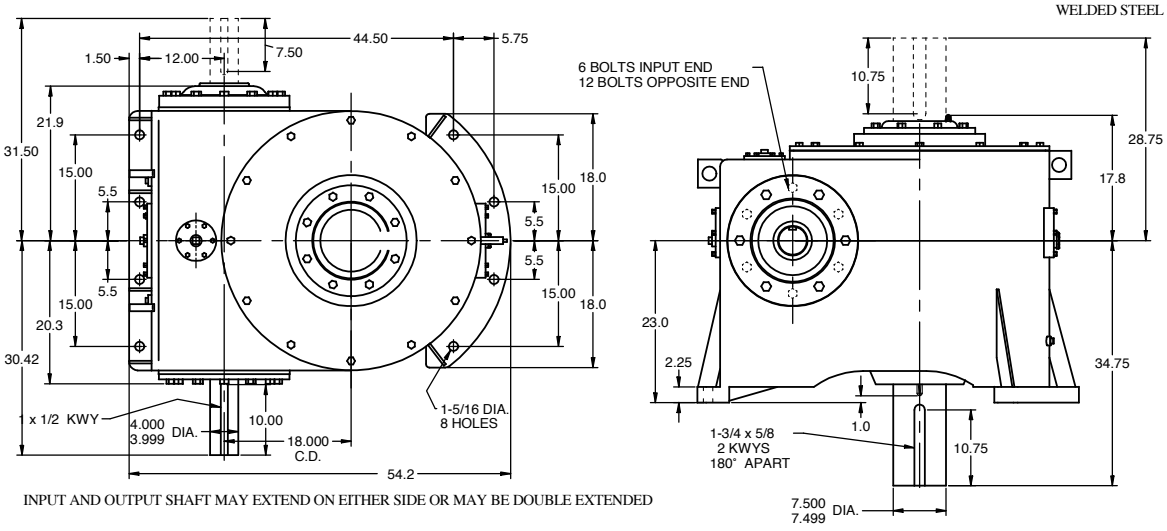
CONTACT CONE DRIVE.

Model HU Worm Under Gear net wt. 5500 lbs



WELDED STEEL HOUSING ONLY

Model HV Worm Horizontal Gear Shaft Vertical net wt. 5500 lbs



WELDED STEEL HOUSING ONLY

INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 18.000" C.D.

Size 180

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR								
		Worm RPM						
Ratio to 1		100	200	300	580	720	870	1150
5	**Me.HP**	**236.00**	**356.00**	**440.00**	**577.00**	**624.00**	**669.00**	**733.00**
	Th.HP	33.00	49.80	64.00	92.00	105.00	110.00	119.50
	O.T.	**700000**	**532000**	**441000**	**301000**	**263000**	**234000**	**195000**
	C.P.	7418	10371	12117	16716	17904	18532	19474
8	**Me.HP**	**193.00**	**309.00**	**385.00**	**535.00**	**577.00**	**615.00**	**681.00**
	Th.HP	30.84	45.30	57.75	81.50	92.10	96.20	103.85
	O.T.	**878000**	**716000**	**600000**	**437000**	**381000**	**338000**	**285000**
	C.P.	13893	11705	13958	17012	18558	20001	20804
10	**Me.HP**	**161.00**	**261.00**	**326.00**	**455.00**	**493.00**	**524.00**	**581.00**
	Th.HP	29.40	42.20	53.60	74.50	83.50	87.00	93.40
	O.T.	**894000**	**738000**	**621000**	**457000**	**402000**	**355000**	**300000**
	C.P.	32023	25614	26034	25941	26144	26926	26891
15	**Me.HP**	**114.00**	**187.00**	**234.00**	**328.00**	**358.00**	**379.00**	**419.00**
	Th.HP	25.70	36.70	46.00	61.50	67.90	69.50	73.00
	O.T.	**904000**	**760000**	**639000**	**481000**	**428000**	**380000**	**320000**
	C.P.	63254	50106	46800	41592	40312	39778	38237
20	**Me.HP**	**87.30**	**144.00**	**180.00**	**253.00**	**277.00**	**292.00**	**324.00**
	Th.HP	23.10	32.60	40.40	54.30	58.80	60.40	63.30
	O.T.	**880000**	**742000**	**627000**	**481000**	**427000**	**375000**	**316000**
	C.P.	72250	66257	60595	51989	49948	48805	46244
25	**Me.HP**	**70.50**	**116.00**	**145.00**	**205.00**	**224.00**	**237.00**	**262.00**
	Th.HP	19.40	27.90	34.60	47.40	50.50	50.60	52.50
	O.T.	**849000**	**733000**	**629000**	**476000**	**424000**	**375000**	**319000**
	C.P.	72250	72250	70287	59370	57078	55070	51917
30	**Me.HP**	**59.10**	**97.60**	**122.00**	**172.00**	**188.00**	**199.00**	**220.00**
	Th.HP	14.70	23.20	29.80	41.00	44.10	44.60	45.60
	O.T.	**815000**	**694000**	**591000**	**448000**	**405000**	**363000**	**308000**
	C.P.	72250	72250	72250	67162	63548	61154	57346
40	**Me.HP**	**44.50**	**73.50**	**92.00**	**129.00**	**142.00**	**150.00**	**166.00**
	Th.HP	12.00	19.40	25.20	35.00	37.80	38.30	40.00
	O.T.	**739000**	**630000**	**558000**	**432000**	**390000**	**347000**	**295000**
	C.P.	72250	72250	72250	72250	72250	69938	65338
50	**Me.HP**	**35.70**	**59.10**	**73.90**	**104.00**	**114.00**	**121.00**	**133.00**
	Th.HP	10.50	16.80	21.60	29.00	31.20	31.90	34.10
	O.T.	**663000**	**605000**	**533000**	**424000**	**379000**	**335000**	**285000**
	C.P.	72250	72250	72250	72250	72250	72250	71671
60	**Me.HP**	**29.80**	**49.30**	**61.70**	**86.80**	**95.10**	**101.00**	**111.00**
	Th.HP	8.40	14.70	18.40	25.30	27.30	28.40	31.10
	O.T.	**653000**	**597000**	**515000**	**401000**	**362000**	**324000**	**275000**
	C.P.	72250	72250	72250	72250	72250	72250	72250

Key: **Me.HP** = Mechanical horsepower **O.T.** = Output torque in Lb. in.
Th.HP =Thermal horsepower **C.P.** = Chain-pull in pounds.

Ratings to the right of heavy line require pressure lubrication. Contact Cone Drive.

Hollow Gear Shaft

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

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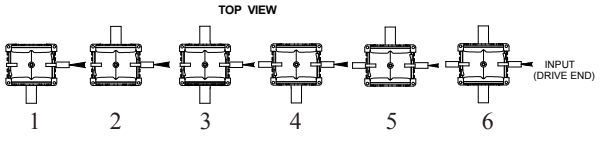
Refer to page 26 for lubrication information.

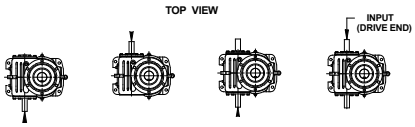
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Hand of Assembly Floor Mounted Units

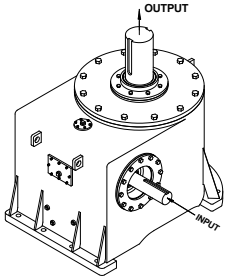
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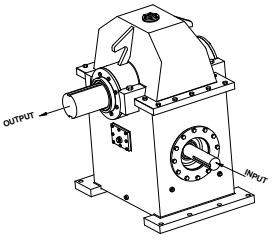




GEARSHAFT EXTENDED				
Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

HO Worm Over
HU Worm Under
#1 Shown



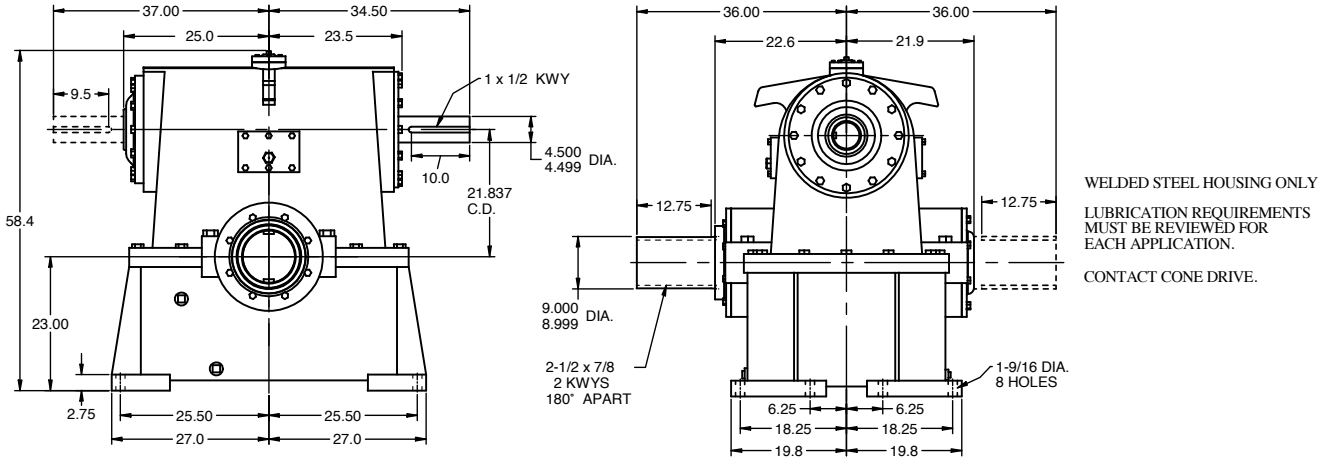


HV Vertical
#7A Shown

Cone Drive Single Reduction Units - 21.837" C.D.

Size 220 Solid Shaft

Model HO Worm Over Gear net wt. 8700 lbs

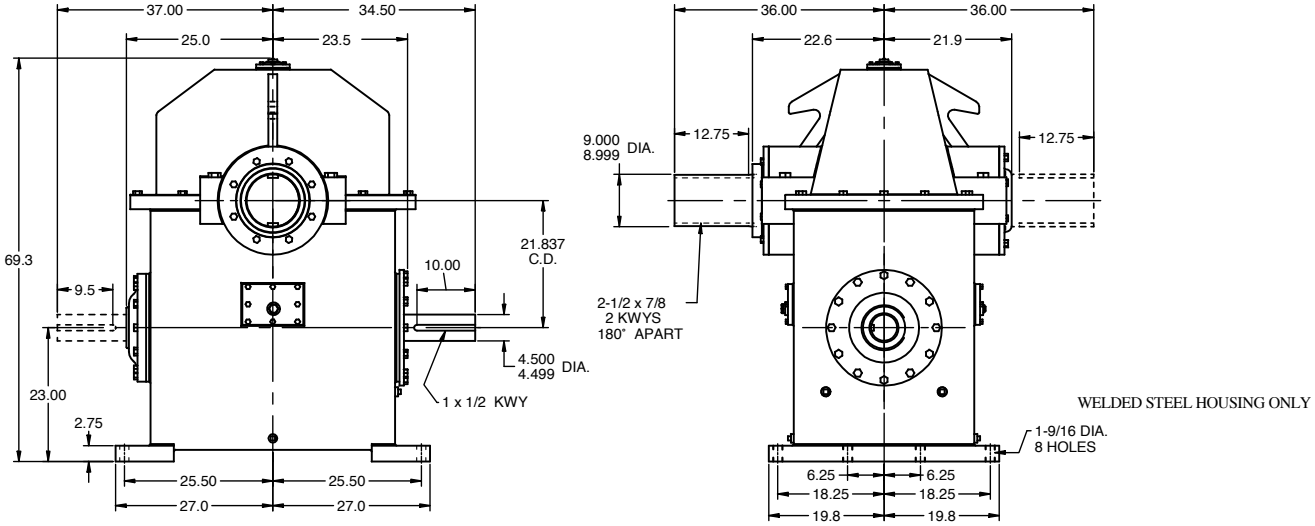


WELDED STEEL HOUSING ONLY

LUBRICATION REQUIREMENTS MUST BE REVIEWED FOR EACH APPLICATION.

CONTACT CONE DRIVE.

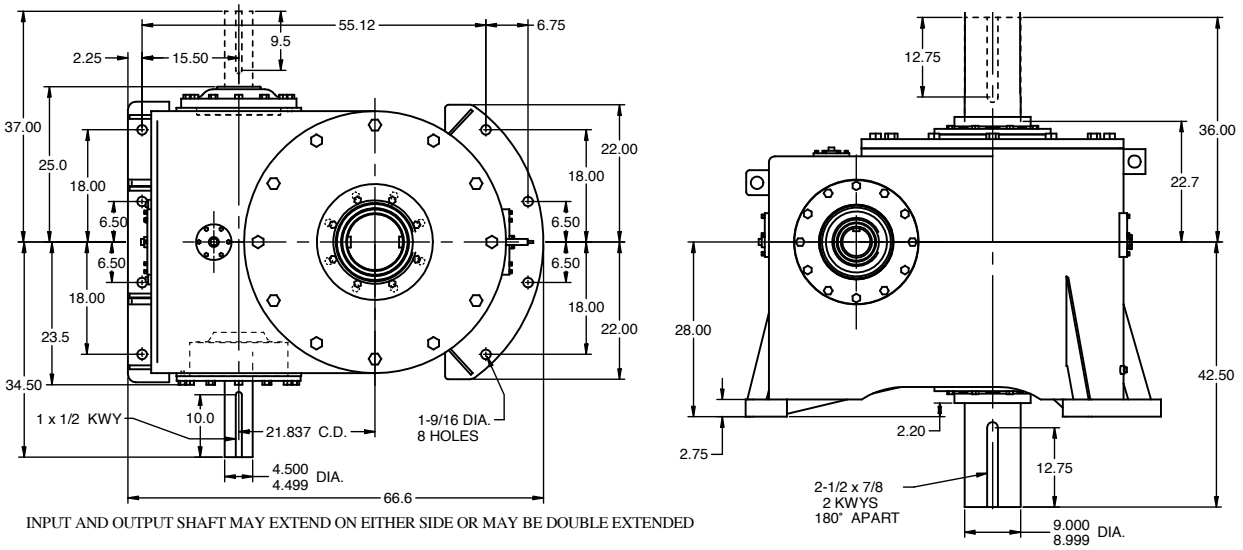
Model HU Worm Under Gear net wt. 8700 lbs



WELDED STEEL HOUSING ONLY

Model HV Worm Horizontal Gear Shaft Vertical net wt. 8700 lbs

WELDED STEEL HOUSING ONLY



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

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Cone Drive Single Reduction Units - 21.837" C.D.

Size 220

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR								
		Worm RPM						
Ratio to 1		100	200	300	580	720	870	1150
4	**Me.HP**	**439.00**	**642.00**	**789.00**	**1010.00**	**1090.00**	**1160.00**	**1230.00**
	Th.HP	52.14	79.45	101.95	147.40	164.50	177.30	193.00
	O.T.	**105000**	**777000**	**639000**	**425000**	**372000**	**328000**	**265000**
	C.P.	50991	44613	41397	32050	19461	18856	13363
5.625	**Me.HP**	**394.00**	**589.00**	**732.00**	**955.00**	**1033.00**	**1106.00**	**1212.00**
	Th.HP	50.28	75.45	96.75	138.40	153.90	165.20	179.80
	O.T.	**1301000**	**985000**	**825000**	**557000**	**487000**	**435000**	**361000**
	C.P.	52572	45115	42919	16490	15537	14022	11792
7	**Me.HP**	**254.00**	**541.00**	**673.00**	**896.00**	**965.00**	**1030.00**	**1140.00**
	Th.HP	48.72	72.10	92.20	131.20	145.00	155.40	168.50
	O.T.	**1430000**	**1110000**	**926000**	**646000**	**562000**	**501000**	**419000**
	C.P.	69239	56238	51189	23643	20001	18543	22144
10	**Me.HP**	**281.00**	**445.00**	**554.00**	**764.00**	**819.00**	**875.00**	**970.00**
	Th.HP	45.30	64.75	82.60	115.00	125.50	133.50	144.00
	O.T.	**1559000**	**1262000**	**1059000**	**764000**	**673000**	**596000**	**505000**
	C.P.	28915	25625	26485	28068	29723	30532	30855
14	**Me.HP**	**212.00**	**339.00**	**422.00**	**585.00**	**631.00**	**673.00**	**745.00**
	Th.HP	40.74	58.23	72.84	98.80	106.70	112.30	119.50
	O.T.	**1580000**	**1350000**	**1130000**	**818000**	**713000**	**631000**	**532000**
	C.P.	63447	50465	47842	43995	43116	43112	41994
20	**Me.HP**	**150.00**	**238.00**	**296.00**	**408.00**	**436.00**	**467.00**	**518.00**
	Th.HP	35.50	49.70	62.00	83.60	89.00	92.90	97.10
	O.T.	**1510000**	**1230000**	**1030000**	**776000**	**673000**	**599000**	**505000**
	C.P.	87350	74220	66150	59655	58180	56630	53710
25	**Me.HP**	**121.00**	**192.00**	**239.00**	**330.00**	**354.00**	**378.00**	**419.00**
	Th.HP	30.00	42.90	53.50	72.80	76.00	78.50	81.00
	O.T.	**1460000**	**1210000**	**1040000**	**767000**	**670000**	**600000**	**511000**
	C.P.	100609	90078	80874	69478	67469	65178	61377
30	**Me.HP**	**102.00**	**162.00**	**201.00**	**277.00**	**297.00**	**318.00**	**353.00**
	Th.HP	22.60	35.60	46.10	63.20	66.40	68.80	70.50
	O.T.	**1400000**	**1150000**	**974000**	**723000**	**641000**	**581000**	**493000**
	C.P.	103800	103424	92645	79134	75116	72503	68070
40	**Me.HP**	**76.50**	**122.00**	**152.00**	**209.00**	**225.00**	**240.00**	**266.00**
	Th.HP	18.60	30.00	38.80	53.40	56.70	59.10	61.50
	O.T.	**1270000**	**1040000**	**919000**	**700000**	**618000**	**556000**	**472000**
	C.P.	103800	103800	103800	91362	86720	83107	77762
45	**Me.HP**	**68.10**	**109.00**	**135.00**	**187.00**	**200.00**	**214.00**	**237.00**
	Th.HP	17.40	27.95	36.00	48.95	51.75	54.15	57.05
	O.T.	**1210000**	**1020000**	**900000**	**693000**	**610000**	**547000**	**465000**
	C.P.	103800	103800	103800	99407	91711	87052	81795
50	**Me.HP**	**61.40**	**97.90**	**122.00**	**168.00**	**181.00**	**193.00**	**214.00**
	Th.HP	16.20	25.90	33.20	44.50	47.00	49.40	52.60
	O.T.	**1140000**	**1000000**	**879000**	**687000**	**601000**	**537000**	**457000**
	C.P.	103800	103800	103800	101220	96200	92068	85458

Hollow Gear Shaft

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Units can be supplied with water cooling coils in oil sump.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

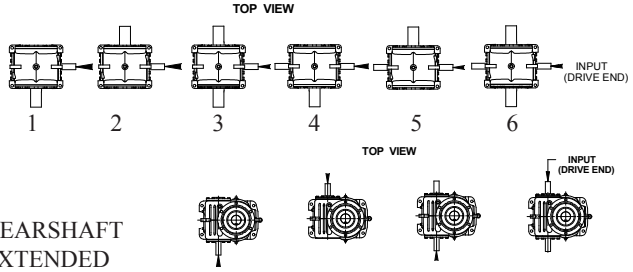
Key:

Me.HP = Mechanical horsepower
O.T. = Output torque in Lb. in.
Th.HP =Thermal horsepower
C.P. = Chain-pull in pounds.

Ratings to the right of heavy line require pressure lubrication. Contact Cone Drive.

Hand of Assembly Floor Mounted Units

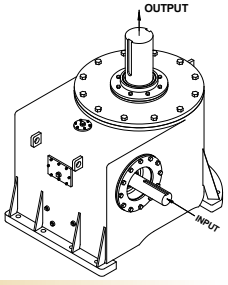
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

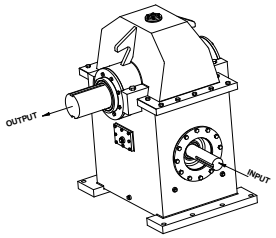


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

HO Worm Over
HU Worm Under
#1 Shown



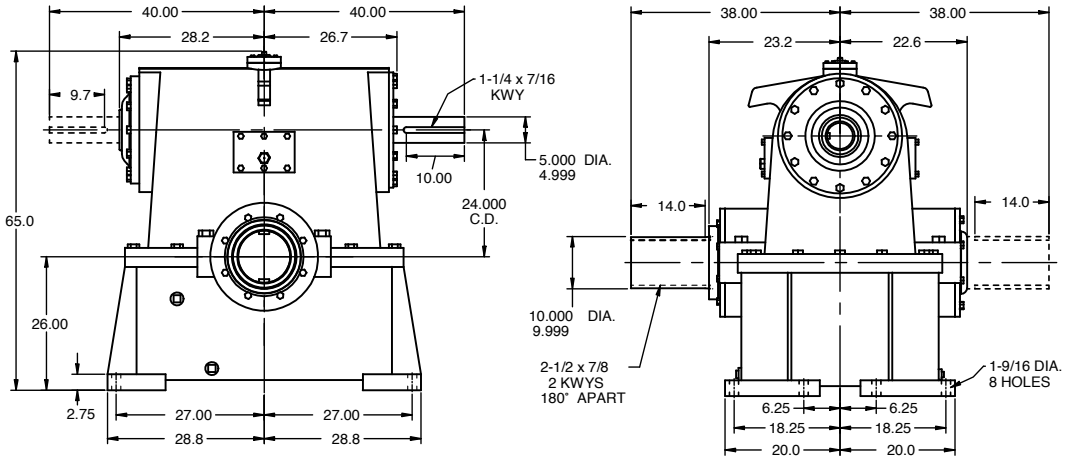


HV Vertical
#7A Shown

Cone Drive Single Reduction Units - 24.000" C.D.

Size 240 Solid Shaft

Model HO Worm Over Gear net wt. 11,000 lbs

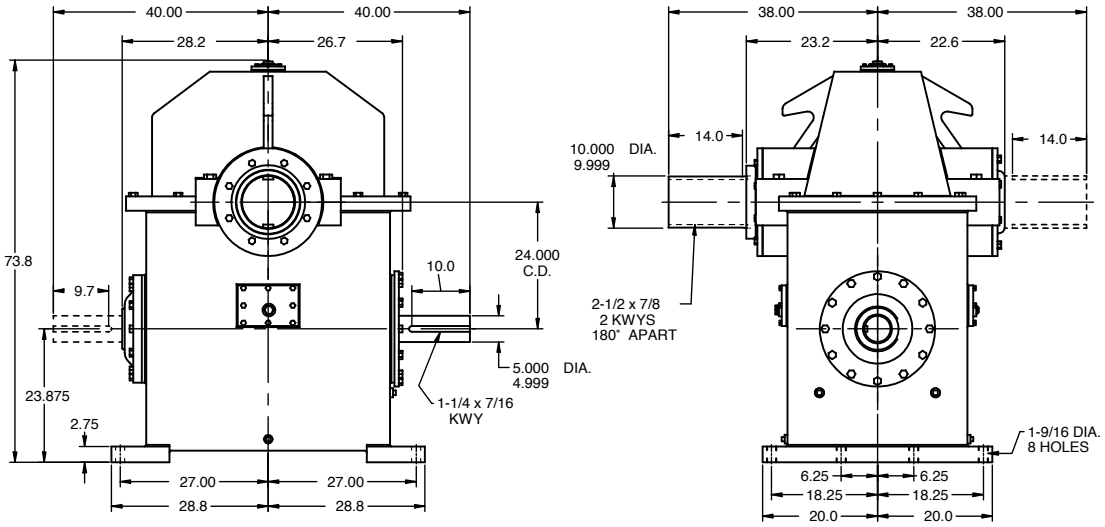


WELDED STEEL HOUSING ONLY

LUBRICATION REQUIREMENTS MUST BE REVIEWED FOR EACH APPLICATION.

CONTACT CONE DRIVE.

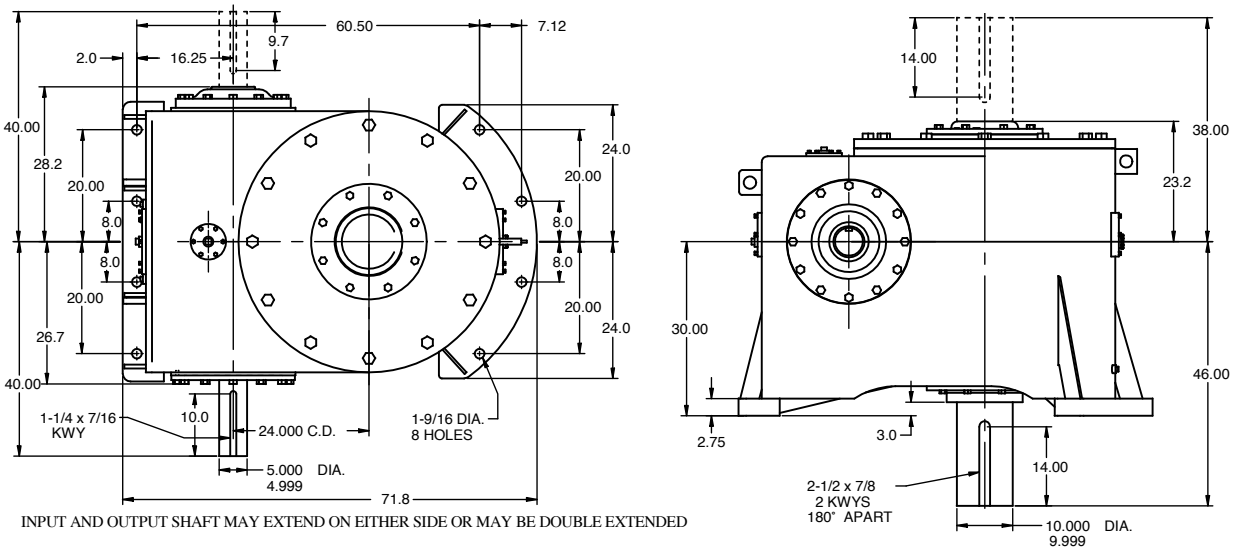
Model HU Worm Under Gear net wt. 11,000 lbs



WELDED STEEL HOUSING ONLY

Model HV Worm Horizontal Gear Shaft Vertical net wt. 11,000 lbs

WELDED STEEL HOUSING ONLY



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive Single Reduction Units - 24.000" C.D.

Size 240

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR								
		Worm RPM						
Ratio to 1		100	200	300	580	720	870	1150
5	**Me.HP**	**495.00**	**720.00**	**883.00**	**1117.00**	**1209.00**	**1282.00**	**1348.00**
	Th.HP	59.50	89.60	115.20	165.00	184.20	198.40	215.50
	O.T.	**1465000**	**1078000**	**890000**	**583000**	**508000**	**450000**	**358000**
	C.P.	61913	53807	49379	13341	10115	9446	14866
8	**Me.HP**	**412.00**	**617.00**	**770.00**	**1007.00**	**1090.00**	**1165.00**	**1280.00**
	Th.HP	55.54	81.14	103.90	146.40	161.50	172.90	187.10
	O.T.	**1876000**	**1431000**	**120200**	**819000**	**723000**	**643000**	**537000**
	C.P.	73116	62369	56980	16348	9347	12247	15874
15	**Me.HP**	**245.00**	**374.00**	**466.00**	**623.00**	**667.00**	**716.00**	**785.00**
	Th.HP	46.25	66.00	82.20	110.50	119.00	124.70	132.20
	O.T.	**1944000**	**1520000**	**1276000**	**914000**	**797000**	**716000**	**600000**
	C.P.	41267	39080	39023	39876	40656	40508	40416
20	**Me.HP**	**188.00**	**288.00**	**358.00**	**481.00**	**515.00**	**552.00**	**607.00**
	Th.HP	41.50	58.50	72.60	97.30	104.00	108.80	113.20
	O.T.	**1895000**	**1487000**	**1249000**	**920000**	**793000**	**704000**	**592000**
	C.P.	73478	61173	58719	53694	53686	52899	51261
25	**Me.HP**	**152.00**	**233.00**	**290.00**	**390.00**	**417.00**	**447.00**	**492.00**
	Th.HP	34.90	50.00	62.30	85.00	88.75	91.60	94.40
	O.T.	**1815000**	**1467000**	**1247000**	**911000**	**784000**	**713000**	**600000**
	C.P.	85407	82151	74443	67883	64751	62631	60079
30	**Me.HP**	**127.00**	**196.00**	**243.00**	**328.00**	**351.00**	**376.00**	**414.00**
	Th.HP	26.40	41.50	53.80	73.60	77.40	80.30	82.20
	O.T.	**1756000**	**1387000**	**1180000**	**855000**	**764000**	**686000**	**578000**
	C.P.	97709	96270	88827	76726	73941	70945	67598
40	**Me.HP**	**96.00**	**147.00**	**183.00**	**247.00**	**264.00**	**283.00**	**312.00**
	Th.HP	21.70	34.90	45.30	62.40	66.10	68.90	71.80
	O.T.	**1594000**	**1263000**	**1108000**	**827000**	**740000**	**657000**	**554000**
	C.P.	104971	118076	106122	90866	86350	82843	77817
50	**Me.HP**	**77.00**	**118.00**	**147.00**	**198.00**	**212.00**	**227.00**	**251.00**
	Th.HP	18.90	30.20	38.80	51.90	54.80	57.60	61.30
	O.T.	**1429000**	**1211000**	**1065000**	**808000**	**715000**	**634000**	**535000**
	C.P.	118934	124683	122758	102154	96493	92744	86833

Key: **Me.HP** = Mechanical horsepower **O.T.** = Output torque in Lb. in.
Th.HP = Thermal horsepower **C.P.** = Chain-pull in pounds.
Ratings to the right of heavy line require pressure lubrication. Contact Cone Drive.

Hollow Gear Shaft

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Units can be supplied with water cooling coils in oil sump.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

For additional available ratios and left-hand helix gearing Contact Cone Drive.

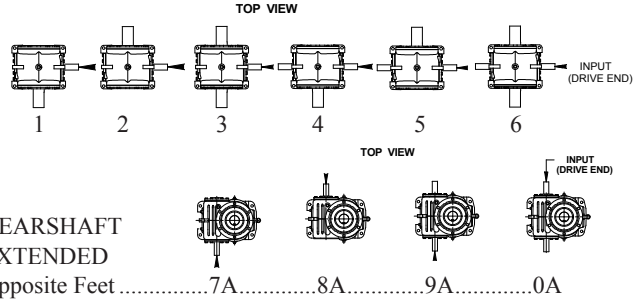
Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hand of Assembly Floor Mounted Units

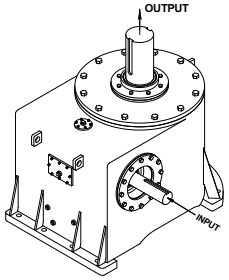
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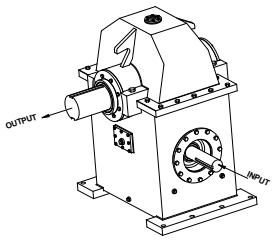


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

HO Worm Over
HU Worm Under
#1 Shown



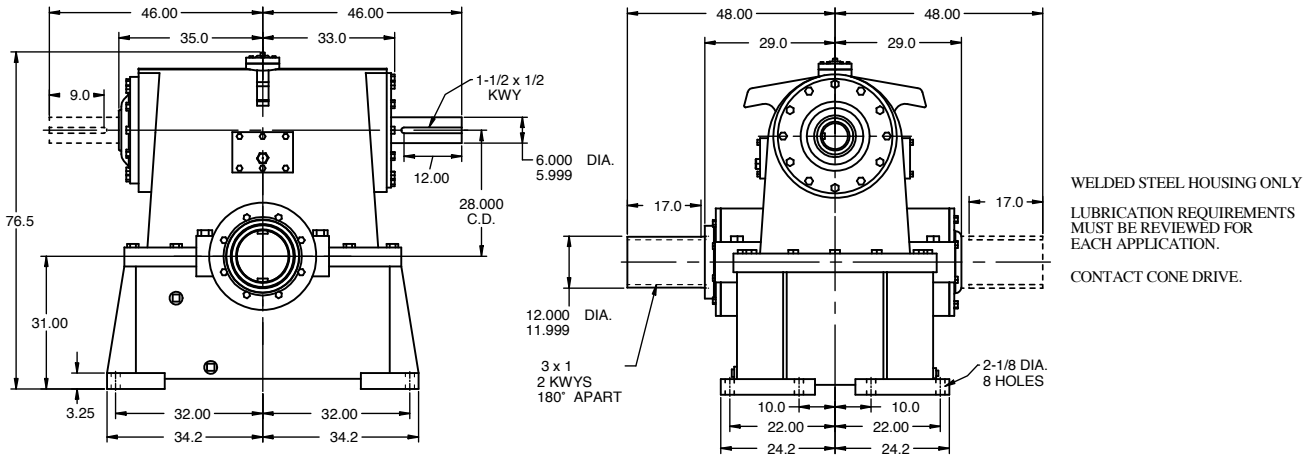


HV Vertical
#7A Shown

Cone Drive Single Reduction Units - 28.000" C.D.

Size 280 Solid Shaft

Model HO Worm Over Gear net wt. 18,500 lbs

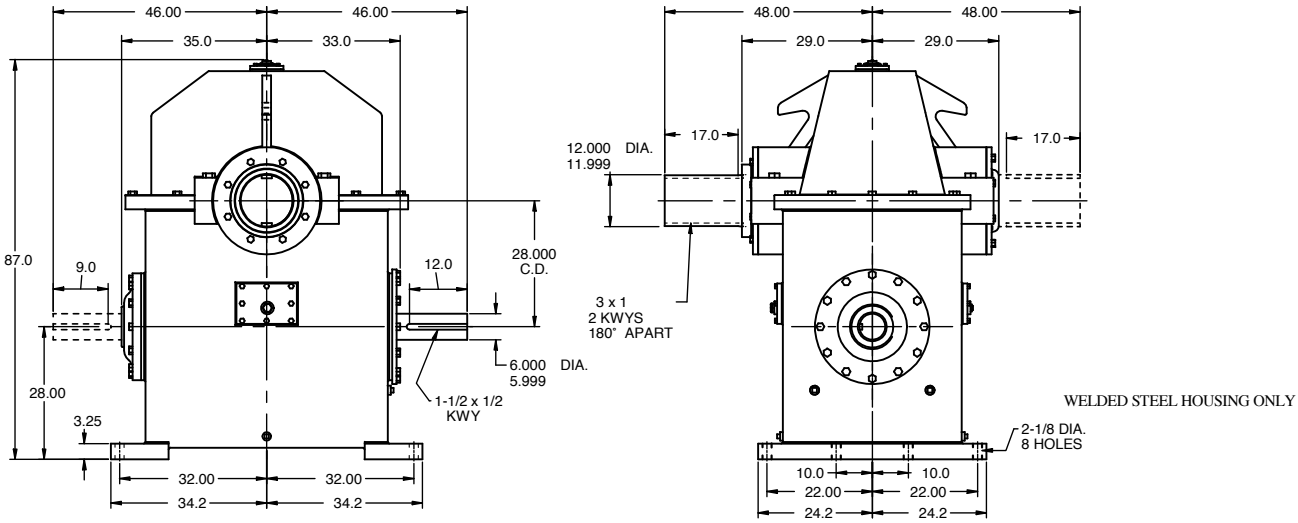


WELDED STEEL HOUSING ONLY

LUBRICATION REQUIREMENTS MUST BE REVIEWED FOR EACH APPLICATION.

CONTACT CONE DRIVE.

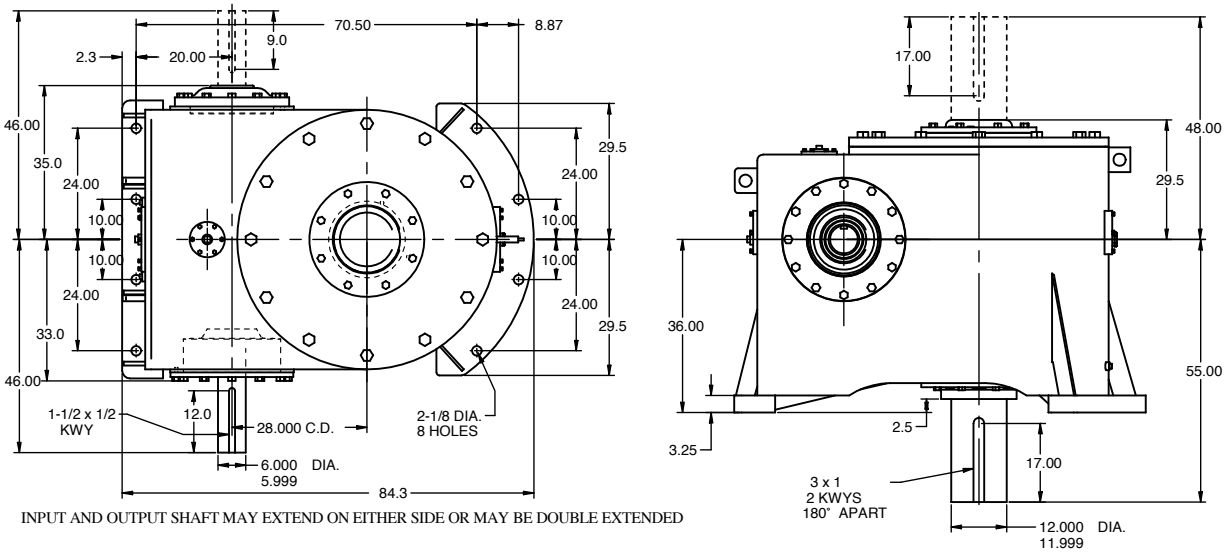
Model HU Worm Under Gear net wt. 18,500 lbs



WELDED STEEL HOUSING ONLY

Model HV Worm Horizontal Gear Shaft Vertical net wt. 18,500 lbs

WELDED STEEL HOUSING ONLY



INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Single Reduction Units - 28.000" C.D.

Size 280

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR						
		Worm RPM				
Ratio to 1		100	200	300	580	720
10	Me.HP	513	763	941	1220	1320
	O.T.	2850000	2150000	1790000	1220000	1070000
15	Me.HP	365	545	674	877	950
	O.T.	2900000	2220000	1840000	1290000	1140000
20	Me.HP	281	420	519	677	733
	O.T.	2830000	2170000	1810000	1290000	1130000
*25	Me.HP	225	336	416	544	589
	O.T.	2690000	2120000	1790000	1270000	1120000
30	Me.HP	190	285	353	461	498
	O.T.	2620000	2030000	1710000	1200000	1070000
*40	Me.HP	142	213	264	346	375
	O.T.	2370000	1830000	1600000	1160000	1040000
50	Me.HP	114	171	212	276	299
	O.T.	2130000	1760000	1530000	1130000	995000

Key: **Me.HP** = Mechanical horsepower
O.T. = Output torque in Lb. in.

NOTE: THERMAL H.P. AND CHAIN PULL RATINGS MAY BE OBTAINED BY CONTACTING CONE DRIVE.
*TOOLING CHARGE REQUIRED FOR THESE RATIOS.

Hollow Gear Shaft

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Units can be supplied with water cooling coils in oil sump.

All standard units are supplied with right-hand helix gear sets. Units are designed for shaft rotation in either direction.

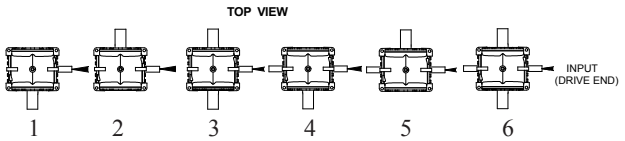
For additional available ratios and left-hand helix gearing Contact Cone Drive.

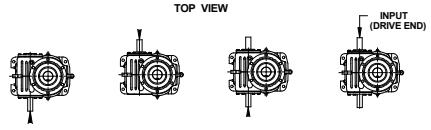
Refer to page 26 for lubrication information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hand of Assembly Floor Mounted Units
When ordering, specify the assembly number required, selected from diagrams. Ceiling and wall mounted units follow in this section. The hand of assembly is always determined as a floor mounted unit.

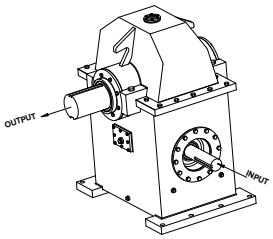


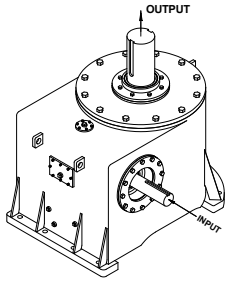


GEARSHAFT EXTENDED

Opposite Feet	7A	8A	9A	0A
Thru Feet	7B	8B	9B	0B
Both Sides	7C	8C	9C	0C

HO Worm Over
HU Worm Under
#1 Shown



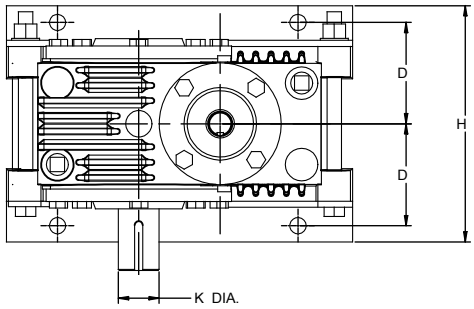


HV Vertical
#7A Shown

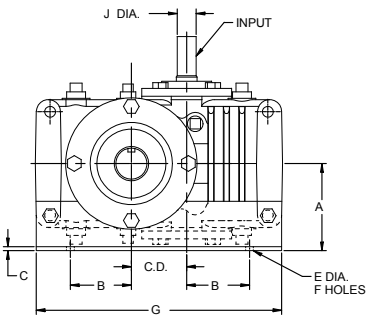
Cone Drive Single Reduction Units

Vertical Worm Reducer - Size 20 to 120

Shown
Model VH



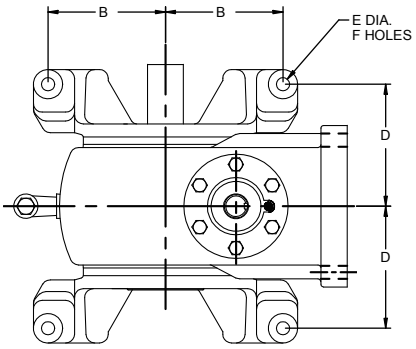
Model SVH Hollow Shaft

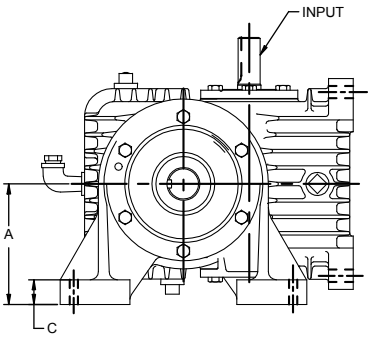


STANDARD UNIT WITH SPECIAL FOOT ANGLES DETAIL – 13VR & 13VL.

Size	C.D.	A	B	C	D	E	F	G	H	J	K	FOR DIMENSIONS NOT SHOWN SEE THIS SECTION. SIZE 20 & 25.
20	2.000	3.12	2.06	.187	2.750	.406	4	9.00	6.50	.6875	1.125	
25	2.500	3.87	2.62	.187	3.187	.406	4	10.75	7.25	.7500	1.250	

Shown
Model VHU



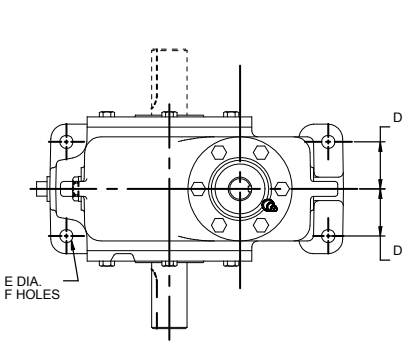


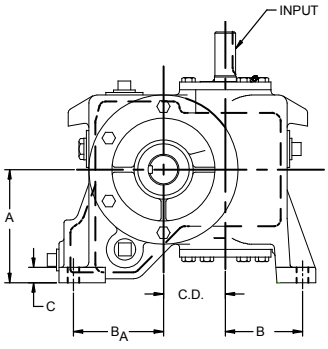
Model SVHU Hollow Shaft

Standard HU or SHU units with foot brackets detail No. 16.
For dimensions not shown see this section for reducer and foot brackets.
For ceiling and wall mounted units see assembly and mounting positions following in this section

Size	C.D.	A	B	C	D	E	F
30	3.000	5.50	5.00	1.2	5.25	.562	4
35	3.500	6.50	6.000	1.3	6.50	.562	4
40	4.000	7.50	6.75	1.5	7.75	.687	4
50	5.000	8.50	7.50	1.8	8.25	.812	4
60	6.000	8.50	8.25	1.5	9.00	.812	4
70	7.000	13.75	10.00	1.5	9.75	.937	4
80	8.000	15.50	11.50	1.8	10.31	.937	4

Shown
Model VH





Model SVH Hollow Shaft

All details are standard stocked items except for housings which are manufactured only as required. All dimensions subject to change at final design. Refer to this section for shaft and carrier dimensions.

Ceiling and wall mounted units follow in this section.

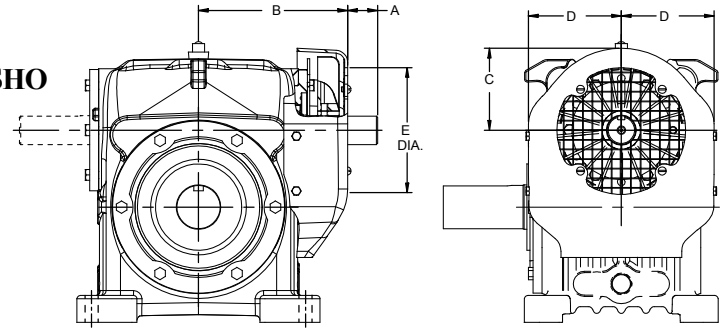
Size	C.D.	A	B	BA	C	D	E	F
30	3.000	5.500	3.750	4.375	.75	2.000	.562	4
35	3.500	6.500	4.000	5.000	.75	3.000	.562	4
40	4.000	7.250	5.000	5.500	1.50	3.250	.687	4
50	5.000	8.000	5.625	6.750	1.70	3.750	.812	4
60	6.000	9.000	6.125	7.500	1.70	4.375	.812	4
70	7.000	11.000	6.750	8.875	2.12	5.250	.937	4
80	8.000	12.500	7.125	9.875	2.12	5.250	.937	4
100	10.000	16.000	8.250	11.750	2.37	7.000	1.062	4
120	12.000	18.500	10.125	14.000	2.75	9.250	1.312	6

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Fan Cooling for Single Reduction Units

Ratings follow in this section.

Models FHO, FSHO



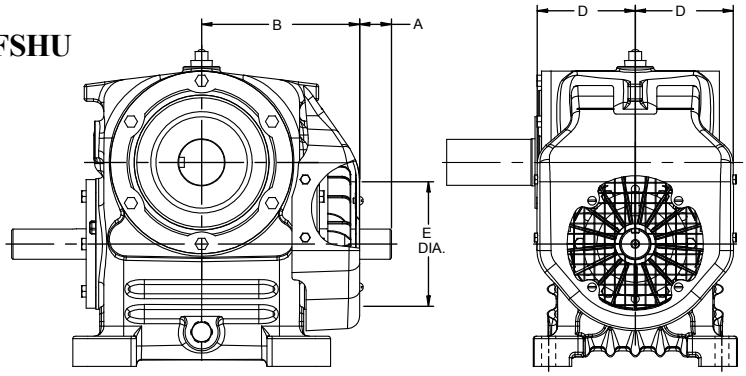
Size	A	B	C	D	E
30	0.89	5.80	3.18	3.18	4.94
35	1.31	6.44	3.75	3.75	4.94
40	1.69	7.62	4.68	4.87	4.75
50	1.88	8.62	4.87	5.75	4.75
60	2.30	9.46	6.00	6.50	6.50
70	3.00	11.50	7.00	7.31	6.50
80	2.62	12.87	7.43	7.87	10.50
100	3.62	15.62	8.43	9.50	10.50

For dimensions not shown see Models HO & SHO.

Fan and cover can be mounted at either end of reducer.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Models FHU, FSHU



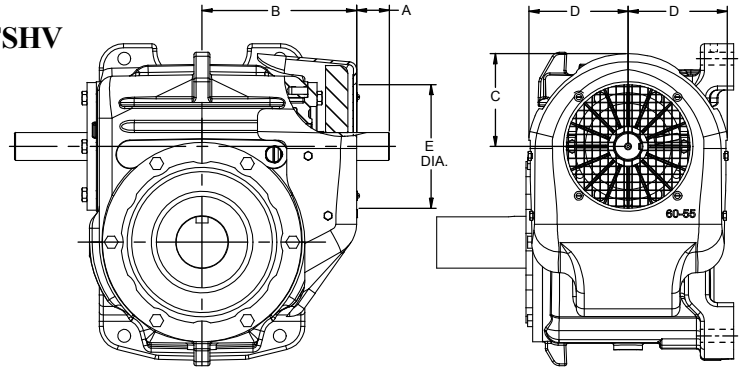
Size	A	B	D	E
30	0.89	5.80	3.75	4.94
35	1.50	6.25	4.38	4.50
40	1.69	7.62	5.25	4.75
50	1.88	8.62	6.00	4.75
60	2.30	9.46	6.75	6.50
70	3.00	11.50	7.75	6.50
80	2.37	13.12	8.50	10.50
100	3.37	15.87	9.00	10.50

For dimensions not shown see Models HU & SHU.

Fan and cover can be mounted at either end of reducer.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Models FHV, FSHV



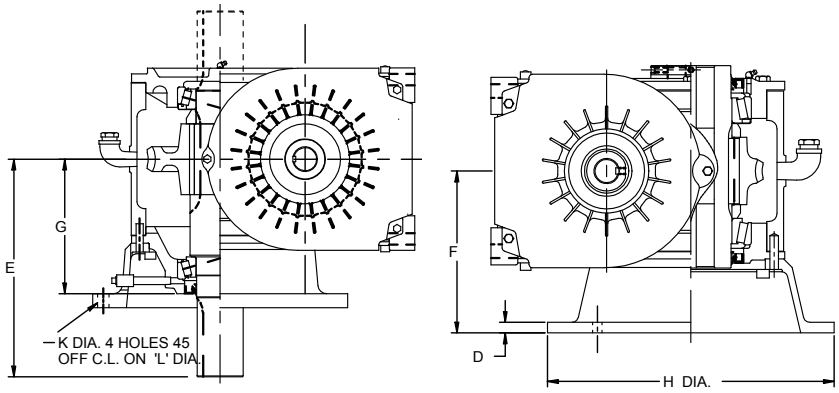
Size	A	B	C	D	E
30	0.89	6.69	3.18	3.18	4.94
35	1.50	6.75	4.25	4.25	4.25
40	1.69	7.62	4.68	4.87	4.75
50	1.88	8.62	4.87	5.75	4.75
60	2.30	9.46	6.00	6.50	6.50
70	3.00	11.50	7.00	7.31	6.50
80	2.62	13.20	7.43	7.87	10.50
100	3.62	15.62	8.43	9.50	10.50

For dimensions not shown see Models HV & SHV.

Fan and cover can be mounted at either end of reducer.

Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Models FHUV, FSHUV



Size	D	E	F	G	H	K	L
35	.44	10.25	7.25	6.25	11.75	.562	10.50
40	.50	11.25	7.50	6.62	12.75	.687	11.50
50	.62	13.62	9.62	8.62	17.00	.812	15.50
60	1.00	15.38	10.50	9.62	18.00	.812	16.50
70	1.25	19.38	14.00	12.50	22.00	.937	20.25
80	1.25	19.38	14.00	12.87	24.00	.937	22.25
100	1.50	24.00	17.50	16.50	29.25	1.062	27.00

For dimensions not shown see Models FHU, FSHU, HU, & SHU.

Fan and cover can be mounted at either end of reducer.

This style reducer is considered a vertical unit.

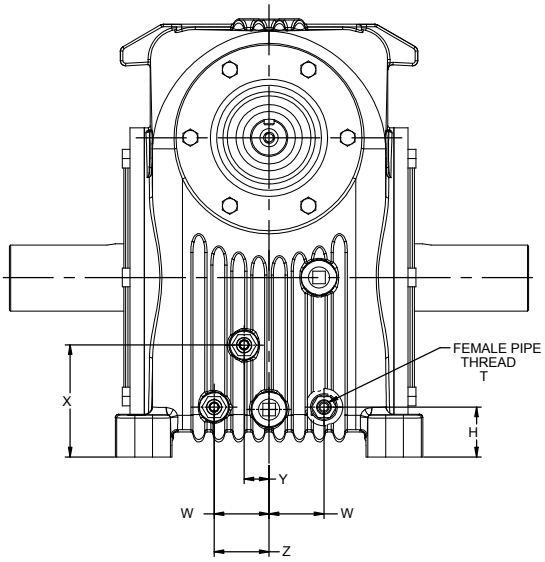
Important: Do not restrict air intake flow to fan when attaching coupling, clutch or sheaves to input shaft.

Note: State on order when double extended worm is through fan cover or cut flush.

Cone Drive Water Cooling for Single Reduction Units

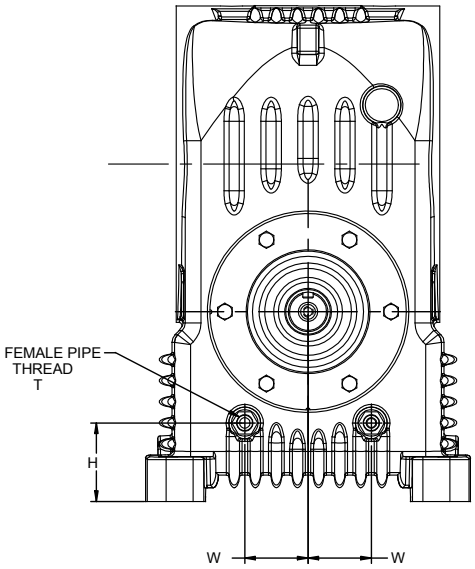
Inlet and Outlet Locations

WHO and WSHO



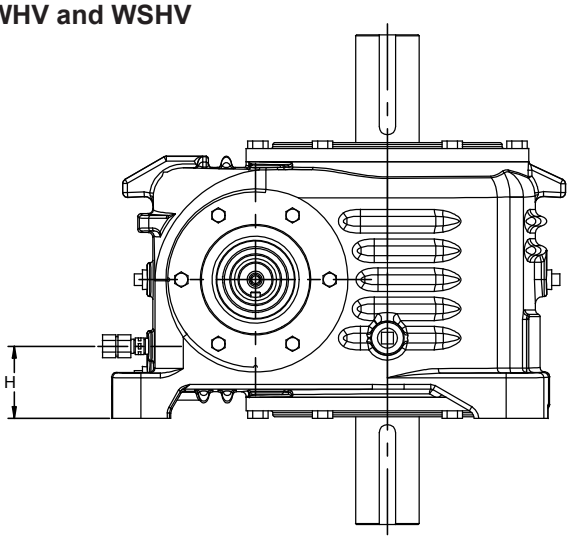
COOLING COIL INLET & OUTLET ARE LOCATED AT END OF HOUSING OPPOSITE INPUT SHAFT.
SEE CAUTION NOTE BELOW

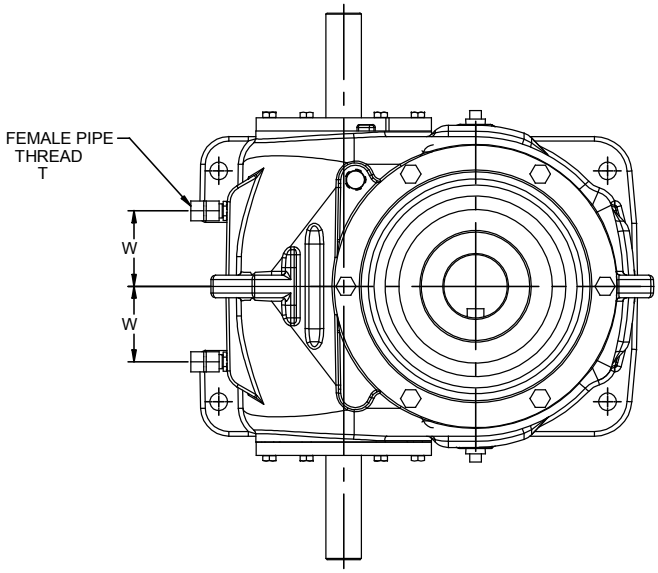
WHU and WSHU



COOLING COIL INLET & OUTLET ARE LOCATED AT END OF HOUSING OPPOSITE INPUT SHAFT.
SEE CAUTION NOTE BELOW

WHV and WSHV





CAUTION: Before connecting water lines to reducer read caution tag attached to reducer.

APPROX DIM.	Size 40			Size 50			Size 60			size 70			size 80			size 100			size 120			size 150			size 180			size 220			size 240			size 280		
	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV	HO	HU	HV
H	2.1	2.2	3.0	2.4	2.2	3.0	2.5	2.8	3.8	2.5	3.7	3.9	3.5	4.2	4.8	4.0	4.0	5.0	6.2	6.2	10.5	9.0	6.0	11.5	7.5	7.5	13.5	10.5	8.2	15.2	12.0	10.0	17.7	12.0	12.0	18.0
W	1.7	2.1	2.2	2.0	2.4	2.2	2.5	2.5	2.8	–	3.0	4.0	2.5	2.5	4.5	3.8	4.2	6.0	4.2	4.0	6.5	4.0	7.1	8.5	5.5	7.7	8.5	6	7.4	11.0	8.0	9.5	11.0	10.0	10.0	12.0
X										5.6																										
Y										1.2																										
Z										2.8																										
T	3/8 - 18 NPT																		1 - 11 1/2 NPT																	

COOLING COILS MAY BE SUPPLIED IN EITHER PLAIN OR FINNED O.D. TUBING.
FOR THERMAL RATING OF REDUCERS EQUIPPED WITH COOLING COILS, CONTACT CONE DRIVE.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Water Cooled Thermal Horsepower Ratings

Size 40 through 120

Size 40 to 60 - Water Cooling
TRU-FIN Th HP Rating

Model	Ratio to 1	RPM				
		580	720	870	1150	1750
WHO 40	5	-	-	-	-	26
WHV 40*	5	-	-	-	20.5	21.8
	10	-	-	-	-	16.2
WHO 50	5	-	29	33	34	36
	10	-	-	23	25	26
	15	-	-	-	-	21
	20	-	-	-	-	16
	25	-	-	-	-	14
	30	-	-	-	-	12
WHO 60	5	-	43	50	51	54
	10	-	-	-	38	39
	15	-	-	-	-	31
	20	-	-	-	-	24
WHU 60	25	-	-	-	57	59
	10	-	-	-	-	44
WHV 60	5	-	-	-	53	55
	10	-	-	-	-	40
	15	-	-	-	-	32
	20	-	-	-	-	25

Size 120 - Water Cooling
TRU-FIN Th HP Rating

Model	Ratio to 1	RPM							
		100	200	300	580	720	870	1150	1750
WHO 120	5	68	91	116	144	157	179	189	189
	10	47	63	77	100	118	122	135	135
	15	–	52	62	82	91	95	103	103
	20	–	44	53	72	76	78	82	84
	25	–	38	46	62	67	68	71	71
	30	–	32	39	51	56	58	59	59
	40	–	–	33	44	48	49	51	51
	50	–	–	–	37	40	41	44	44
	60	–	–	–	–	–	36	39	39
	70	–	–	–	–	–	–	–	37
WHV 120	10	–	–	–	144	183	185	216	–
	15	–	–	–	116	129	141	158	–
	20	–	–	–	–	101	102	110	–
WD 120	5	–	173.96	218.49	235.29	243.09	306.13	311.83	312.13
	10	77.67	97.36	112.2	134.75	170.16	172.26	200.12	200.12
	15	–	73.48	83.01	108.94	120.78	131.75	146.71	146.71
	20	–	59.58	66.62	92.61	95.31	96.27	103.47	110.02
	25	–	52.76	60.78	79.9	85.71	90.39	96.99	96.99
	30	–	42.74	49.2	60.62	68.84	71.78	75.39	75.39
	40	–	34.15	40.85	52.32	58.7	59	61.91	61.91
	50	–	30.6	36.2	46.22	50.04	50.46	53.2	53.2
	60	–	–	32.23	40.02	43.06	44.75	47.48	47.48
	70	–	–	–	36.17	39.49	41.45	43.9	44.93

Size 70 to 100 - Water Cooling
TRU-FIN Th HP Rating

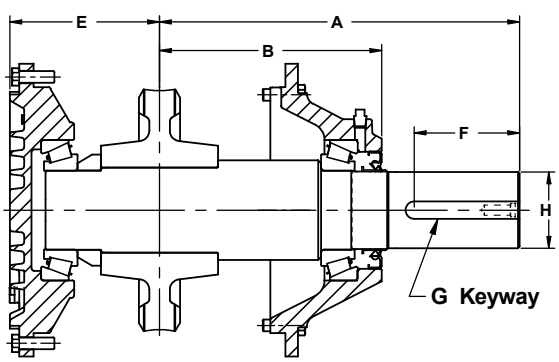
Model	Ratio to 1	INPUT RPM							
		100	200	300	580	720	870	1150	1750
WHO 70	5	–	–	–	–	–	–	–	88
	10	–	–	–	–	–	–	–	65
WHU 70	5	–	–	–	–	–	–	78	81
	10	–	–	–	–	–	–	58	59
	15	–	–	–	–	–	–	–	46
	20	–	–	–	–	–	–	–	37
WD 70	5	69	82	98	105	108	126	128	131
	10	42	51	58	68	82	83	94	95
	15	34	40	44	57	61	67	73	74
	20	28	33	36	49	50	50	54	58
	25	24	29	33	43	45	48	51	52
	30	21	24	27	32	36	38	40	41
	35	17	19	23	28	32	32	34	34
	40	14	18	20	26	27	28	29	30
	50	13	17	18	22	24	25	26	27
	60	13	16	18	20	22	23	24	25
WHO 80	5	–	–	–	–	–	–	115	120
	10	–	–	–	–	–	–	–	88
	15	–	–	–	–	–	–	–	70
WD 80	5	–	–	–	–	–	–	–	–
	10	64	76	86	–	–	–	–	–
	15	50	59	65	82	89	–	–	–
	20	–	–	52	71	72	72	78	85
	25	–	–	–	62	66	69	–	75
	30	–	–	–	–	53	55	–	59
	35	–	–	–	–	–	–	–	–
	40	–	–	–	–	–	–	–	–
	50	–	–	–	–	–	–	–	–
WD 100	5	–	–	–	–	–	–	–	–
	10	–	–	–	140	–	180	212	215
	15	–	–	–	–	124	–	155	157
	20	–	–	–	–	–	98	106	114
	25	–	–	–	–	–	–	–	102
	30	–	–	–	–	–	–	77	78
	35	–	–	–	–	–	–	–	63
	40	–	–	–	–	–	–	–	55
	50	–	–	–	–	–	–	–	-

IMPORTANT: Water cooled thermal horsepower ratings listed have ratings less than the mechanical horsepower ratings. All other models or models not shown are equal to or exceed the mechanical horsepower ratings.

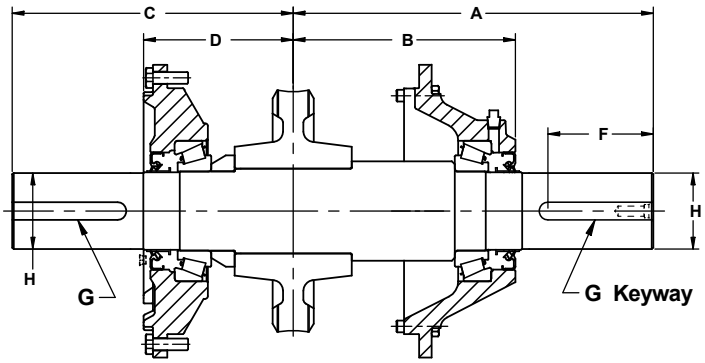
*These ratings are based on the use of plain
(non-finned) cooling coils.

Contact Cone Drive for water cooled thermal horsepower ratings on Unit Size 150 and up.

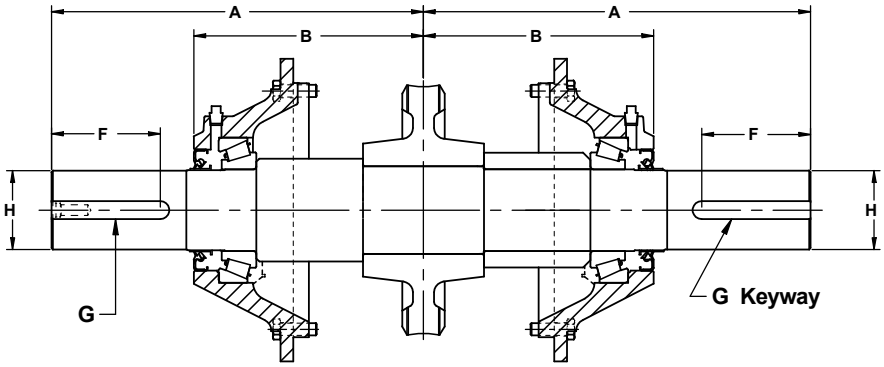
Cone Drive Steeple Bearings for Single Reduction Units



" R " MOUNTING



" S " MOUNTING



" T " MOUNTING

REDUCER SIZE	CENTER DISTANCE	A	B	C	D	E	F	G	H DIA.
25	2.500	7.88	4.9	4.50	2.6	2.6	1.38	1/4 x 1/8	1.250 1.249
30	3.000	8.62	5.9	5.94	3.4	3.4	2.00	3/8 x 3/16	1.500 1.499
35	3.500	10.25	6.3	7.88	4.2	4.2	2.68	1/2 x 1/4	1.875 1.874
40	4.000	11.25	6.6	9.25	4.9	4.9	3.31	1/2 x 1/4	2.250 2.249
50	5.000	13.62	8.6	10.31	5.6	5.6	3.62	5/8 x 5/16	2.750 2.749
60	6.000	15.38	9.6	12.00	6.3	6.4	4.62	3/4 x 3/8	3.250 3.249
70	7.000	19.38	12.5	13.00	7.4	7.4	4.88	7/8 x 7/16	3.375 3.374
80	8.000	19.38	12.9	14.00	7.8	7.8	4.88	7/8 x 7/16	3.500 3.499
100	10.000	24.00	16.5	15.72	9.4	9.4	5.12	1 x 1/2	4.000 3.999
120	12.000	36.00	22.6	24.00	12.6	12.4	9.62	1 1/4 x 5/8	5.497 5.496

When ordering, specify model size, hand of assembly, and steeple bearings using the letter designation R, S, or T for the mounting configuration required.

For R and T mountings, use the standard hand of assembly designation shown throughout the catalog for various sizes of reducers and mounting positions.

For double-extended S mountings on worm over and worm under units, specify steeple bearing on left (L) or right (R) of unit as viewed from the input end.

For S mounting on vertical gear shaft unit, specify steeple bearing opposite feet (U) or through feet (D).

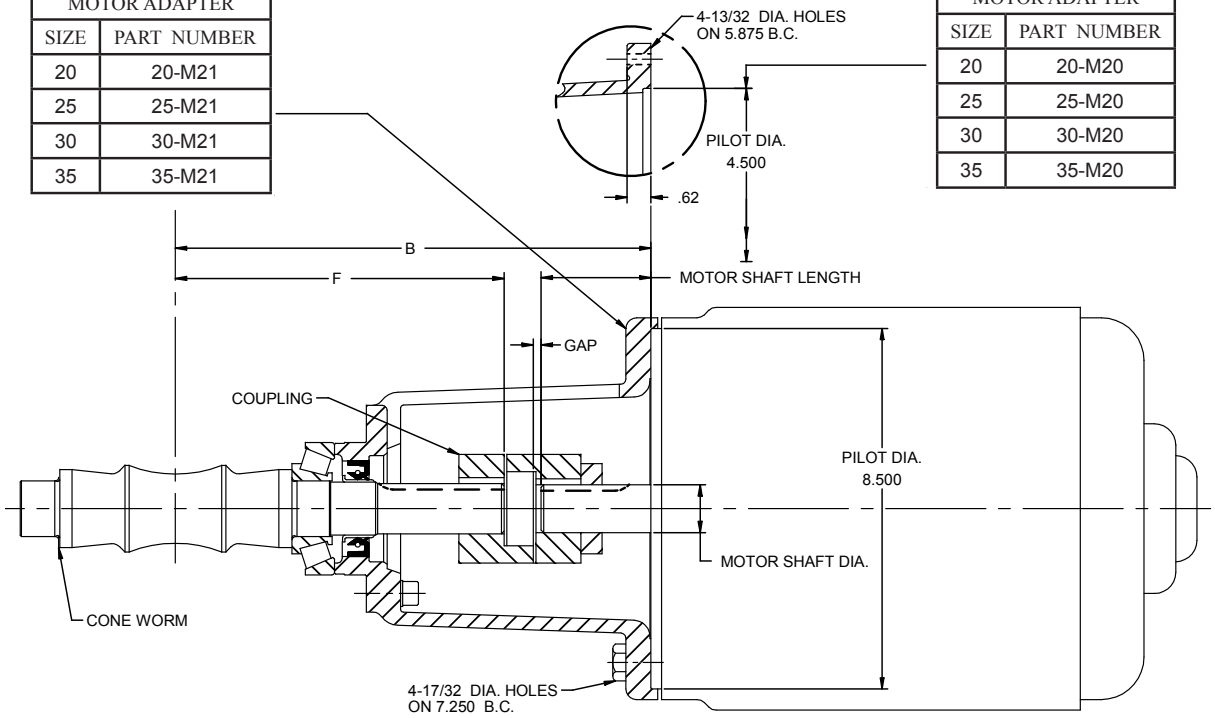
Cone Drive reserves the right to improve or change product design and specifications without notice.

Motor Adapters

For Cone Drive Standard Speed Reducer
Sizes 20 25 30 35
NEMA "C" Face Motors Adapters add letter "M" before model designation
When motor is mounted vertically above worm, Add-1 to motor adapter number. Which indicates grease packing of upper worm bearing. (Sizes 30 and 35 Only.) When motor is mounted vertically, a collar is provided for assembly on the worm or motor shaft to prevent the lower coupling half from sliding down the shaft.

MOTOR ADAPTER	
SIZE	PART NUMBER
20	20-M21
25	25-M21
30	30-M21
35	35-M21

MOTOR ADAPTER	
SIZE	PART NUMBER
20	20-M20
25	25-M20
30	30-M20
35	35-M20



Adapters are available or can be custom designed for motors not matching the NEMA "C" Face dimensions shown above: DC Motors, Servo Motors, Stepper Motors, Hydraulic Motors, Air Motors and others. Couplings other than the standard flexible elastomeric jaw type shown above are available for requirements such as low backlash and high stiffness. Please consult our Application Engineers or Sales Representatives for assistance.

Dimensions

MOTOR					B				F				GAP			
FRAME SIZE	PILOT DIA.	SHAFT			REDUCER SIZE				REDUCER SIZE				REDUCER SIZE			
		Lgth.	Dia.	Kwy.	20	25	30	35	20	25	30	35	20	25	30	35
56 C	4.50	2.06	.625	3/16	7.31	8.00	9.56	10.56	4.59	5.25	6.69	7.75	.06	.06	.06	0
143TC - 145TC	4.50	2.12	.875	3/16	7.31	8.00	9.56	10.56	4.59	5.25	6.69	7.75	0	0	0	† .06
182TC - 184TC	8.50	2.62	1.125	1/4	8.06	8.75	10.18	11.25	4.59	5.25	6.69	7.75	.12	.12	.12	.12
213TC - 215TC	8.50	3.12	1.375	5/16	–	8.75	10.18	11.25	–	4.88	6.31	7.12	–	.12	0	0

For double-extended worms, change part number from -200 to -250. † Recess coupling on motor shaft.

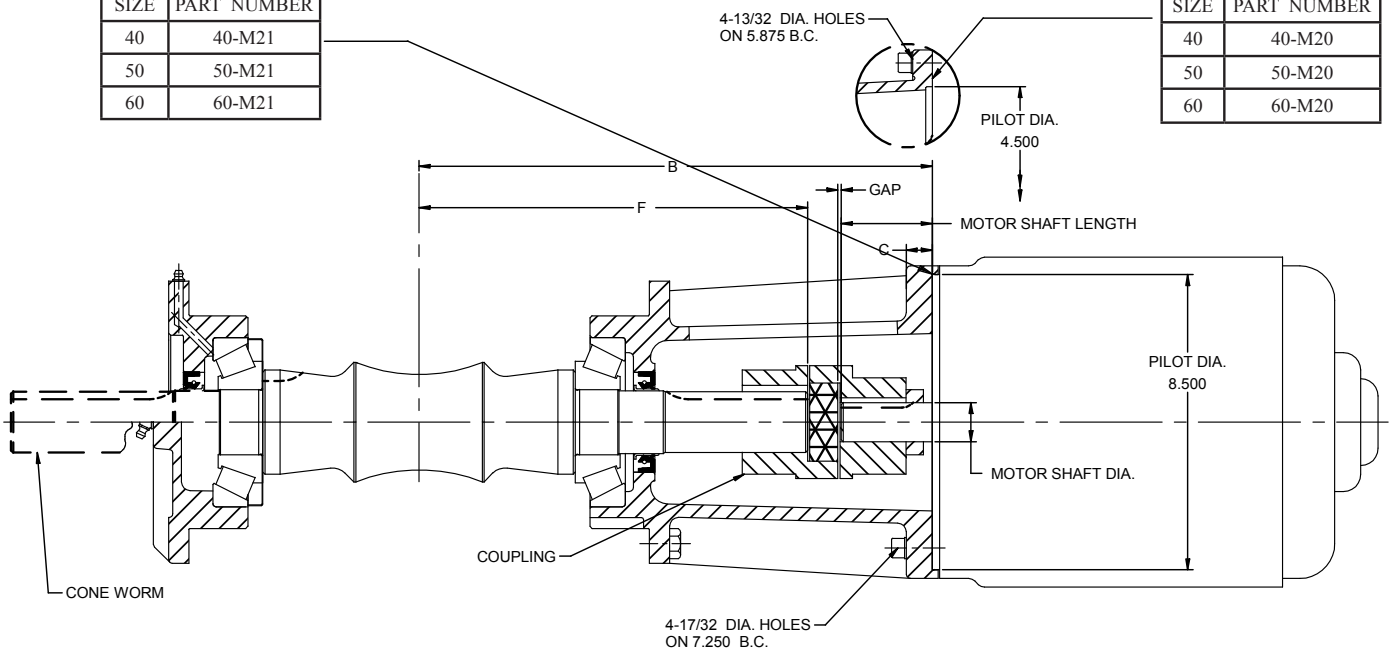
MOTOR FRAME SIZE	COUPLING NUMBER				WORM PART NUMBER			
	REDUCER SIZE				REDUCER SIZE			
	20	25	30	35	20	25	30	35
56 C	720001	720005	720105	720110	20-200	25-200	30-200	35-200
143TC - 145TC	720004	720007	720107	720112	20-200	25-200	30-200	35-200
182TC - 184TC	720102	720104	720109	720113	20-200	25-200	30-200	35-200
213TC - 215TC	–	720152	720154	720203	–	25-200-1	30-200-1	35-200-2

Motor Adapters

For Cone Drive Standard Speed Reducer
Sizes 40 50 60
NEMA "C" Face Motors Adapters add letter "M" before model designation
When motor is mounted vertically above worm, add-1 to motor adapter number, which indicates grease packing of upper worm bearing. When motor is mounted vertically, a collar is provided for assembly on the worm or motor shaft to prevent the lower coupling half from sliding down the shaft.

MOTOR ADAPTER	
SIZE	PART NUMBER
40	40-M21
50	50-M21
60	60-M21

MOTOR ADAPTER	
SIZE	PART NUMBER
40	40-M20
50	50-M20
60	60-M20



Adapters are available or can be custom designed for motors not matching the NEMA "C" Face dimensions shown above: DC Motors, Servo Motors, Stepper Motors, Hydraulic Motors, Air Motors and others. Couplings other than the standard flexible elastomeric jaw type shown above are available for requirements such as low backlash and high stiffness. Please consult our Application Engineers or Sales Representatives for assistance.

Dimensions

MOTOR					B			C	F			G
FRAME SIZE	PILOT DIA.	SHAFT			REDUCER SIZE				REDUCER SIZE			
		Lgth.	Dia.	Kwy.	40	50	60		40	50	60	
143TC - 145TC	4.50	2.12	.875	3/16	10.937	12.062	13.125	.62	7.875	9.000	10.062	.937
182TC - 184TC	8.50	2.62	1.125	1/4	12.562	13.687	14.750	.75	9.000	10.125	11.187	.937
213TC - 215TC	8.50	3.12	1.375	5/16	12.562	13.687	14.750	.75	8.500	9.625	10.687	.937
254TC - 256TC	8.50	3.75	1.625	3/8	12.562	13.687	14.750	.75	7.687	8.812	9.875	1.125

For double-extended worms, change part number from -200 to -250.

MOTOR FRAME SIZE	COUPLING NUMBER			WORM PART NUMBER		
	REDUCER SIZE			REDUCER SIZE		
	40	50	60	40	50	60
143TC - 145TC	720207	720207	720212	40-200-3	50-200-3	60-200-3
182TC - 184TC	720208	720208	720213	40-200-1	50-200-1	60-200-1
213TC - 215TC	720209	720209	720214	40-200-2	50-200-2	60-200-2
254TC - 256TC	720258	720258	720260	40-200-4	50-200-4	60-200-4

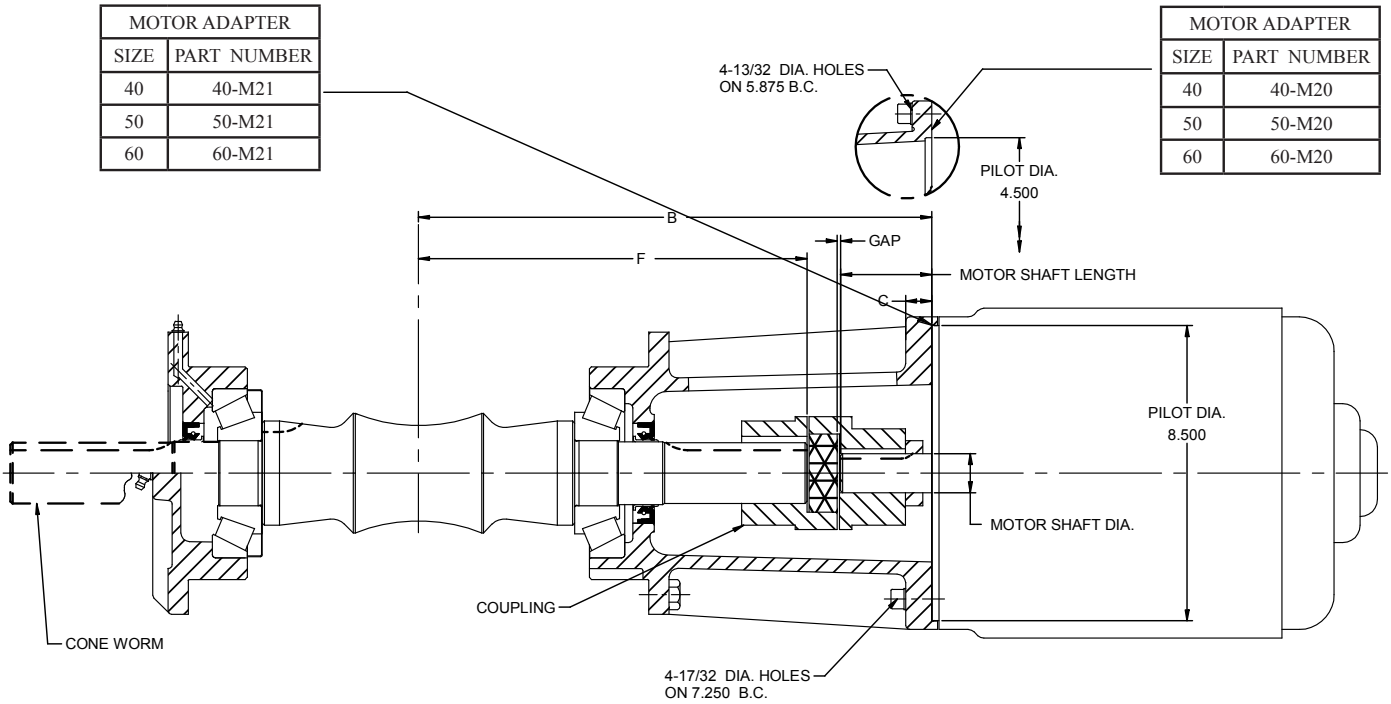
Cone Drive reserves the right to improve or change product design and specifications without notice.

Motor Adapters

For Cone Drive Standard Speed Reducer
Sizes 70 & 80
NEMA "C" Face Motors Adapters add letter "M" before model designation
When motor is mounted vertically above worm, add-1 to motor adapter number, which indicates grease packing of upper worm bearing. When motor is mounted vertically, a collar is provided for assembly on the worm or motor shaft to prevent the lower coupling half from sliding down the shaft.

MOTOR ADAPTER	
SIZE	PART NUMBER
40	40-M21
50	50-M21
60	60-M21

MOTOR ADAPTER	
SIZE	PART NUMBER
40	40-M20
50	50-M20
60	60-M20



Adapters are available or can be custom designed for motors not matching the NEMA "C" Face dimensions shown above: DC Motors, Servo Motors, Stepper Motors, Hydraulic Motors, Air Motors and others. Couplings other than the standard flexible elastomeric jaw type shown above are available for requirements such as low backlash and high stiffness. Please consult our Application Engineers or Sales Representatives for assistance.

Dimensions

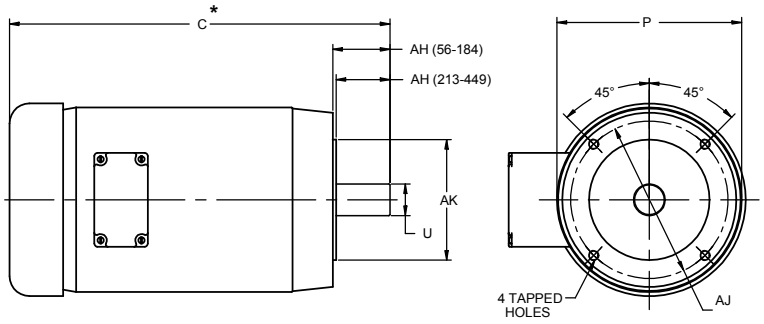
MOTOR					B		F		G
FRAME SIZE	PILOT DIA.	SHAFT			REDUCER SIZE		REDUCER SIZE		
		Lgth.	Dia.	Kwy.	70	80	70	80	
182TC - 184TC	8.500	2.625	1.125	1/4	17.12	18.49	13.375	14.75	1.120
213TC - 215TC		3.125	1.375	5/16			12.875	14.25	1.120
254TC - 256TC		3.750	1.625	3/8			12.250	13.62	1.120
284TC - 286TC	10.500	4.375	1.875	1/2			11.620	13.00	1.125

For double-extended worms, change part number from -200 to -250.

MOTOR FRAME SIZE	COUPLING P/N		WORM P/N		PLATE P/N	
	REDUCER SIZE		REDUCER SIZE		REDUCER SIZE	
	70	80	70	80	70	80
143TC - 145TC	720269	720264	70-200-1	80-200-1	MP5D-03	
182TC - 184TC	720270	720265	70-200-2	80-200-2		
213TC - 215TC	720301	720313	70-200-3	80-200-3		
254TC - 256TC	720303	720314	70-200-4	80-200-4	MP5D-04	

NEMA Motor Frames

(dimensions shown in inch)

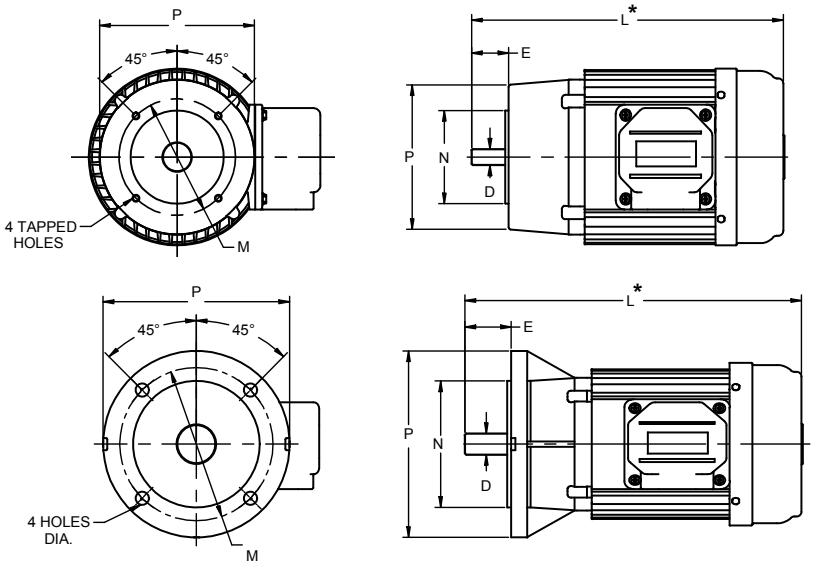


NEMA Frame	U Shaft Dia.	AH Shaft Length	AJ Bolt Circle	AK PilOt Dia.	P Diameter	C* Length (approx.)
48C	1/2	1 11/16	3 3/4	3	5 11/16	12.9
56C	5/8	2 1/16	5 7/8	4 1/2	6 5/8	11.4
143-145TC	7/8	2 1/8	5 7/8	4 1/2	6 5/8	13.4
182-184TC	1 1/8	2 5/8	7 1/4	8 1/2	7 7/8	16.5
213-215TC	1 3/8	3 1/8	7 1/4	8 1/2	9 9/16	19.8
254-256TC	1 5/8	3 3/4	7 1/4	8 1/2	12 15/16	23.7
284-286TC	1 7/8	4 3/8	9	10 1/2	14 5/8	27.8
324-326TC	2 1/8	5	11	12 1/2	16 1/2	30.3

*Note: motor length varies by motor manufacturer and horsepower. Dimensions are for reference only.

IEC Motor Frames

(dimensions shown in millimeters)



IEC Frame	D Shaft Dia.	E Shaft Length	M Bolt Circle	N Pilot Diameter	P Diameter	M Bolt Circle	N Pilot Diameter	P Diameter	L* Length (Inches) (approx.)
63	11	23	115	95	140	75	60	90	10.2
71	14	30	130	110	160	85	70	105	10.2
80	19	40	165	130	200	100	80	120	12.2
90	24	50	165	130	200	115	95	140	13.0
100	28	60	215	180	250	130	110	160	15.8
112	28	60	215	180	250	130	110	160	15.8
132	38	80	265	230	300	165	130	200	17.7
160	42	110	300	250	350	215	180	250	23.5

*Note: motor length varies by motor manufacturer and horsepower. Dimensions are for reference only.

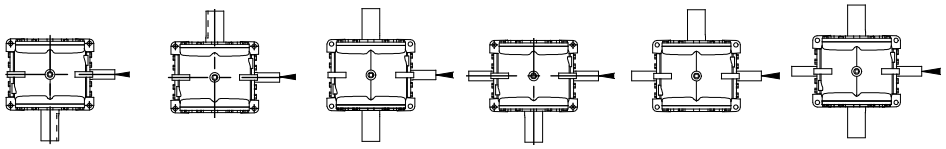
Cone Drive reserves the right to improve or change product design and specifications without notice.

Assembly & Mounting Position Numbers for Cone Drive Single Reduction Units

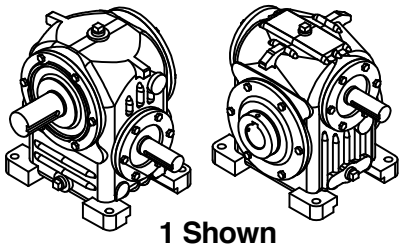
Models HU, SHU, HO, SHO

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.
Model Prefixes: F = Fan cooled W = Water cooled M = Motorized P = Pressure lube

Top View, Floor Mounted

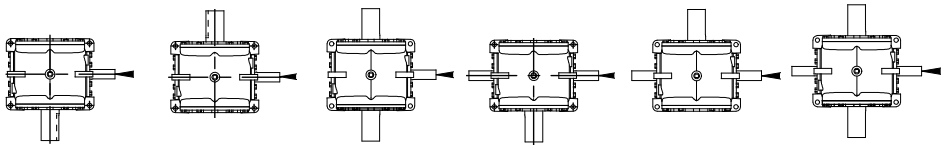


1.....2.....3.....4.....5.....6

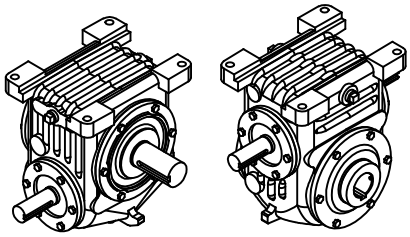


1 Shown

Ceiling Mounted

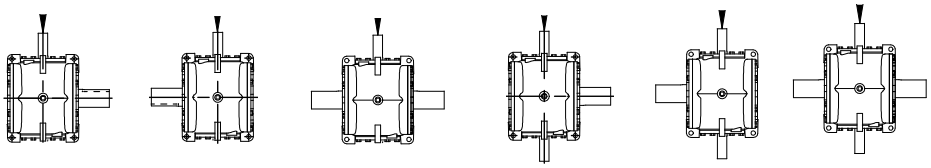


C1.....C2.....C3.....C4.....C5.....C6

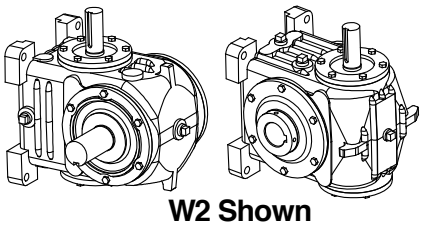


C1 Shown

Wall Mounted, Worm Vertical Up

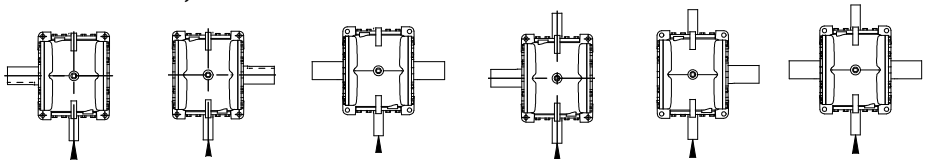


W1.....W2.....W3.....W4.....W5.....W6

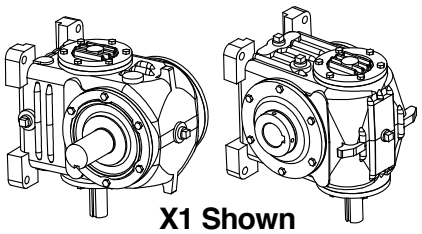


W2 Shown

Wall Mounted, Worm Vertical Down

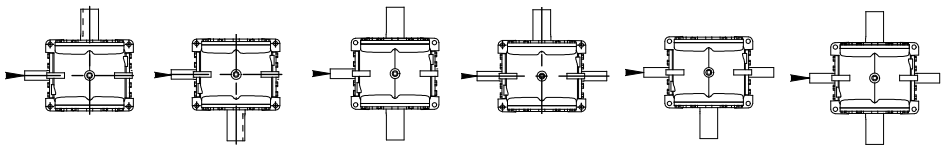


X1.....X2.....X3.....X4.....X5.....X6

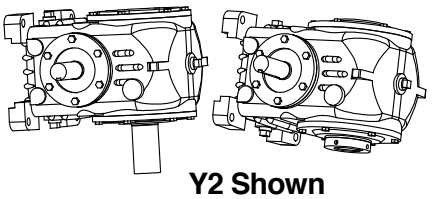


X1 Shown

Wall Mounted, Worm Horizontal to the Left

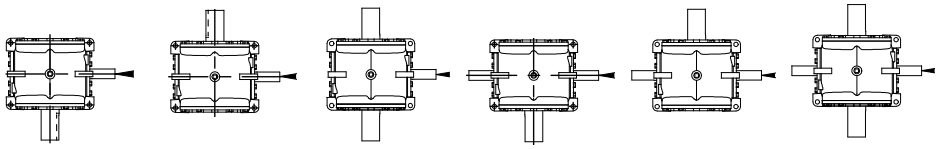


Y1.....Y2.....Y3.....Y4.....Y5.....Y6

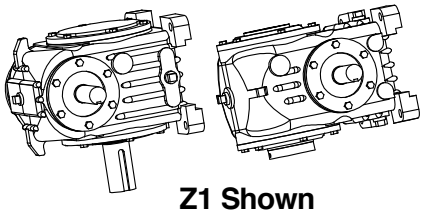


Y2 Shown

Wall Mounted, Worm Horizontal to the Right



Z1.....Z2.....Z3.....Z4.....Z5.....Z6



Z1 Shown

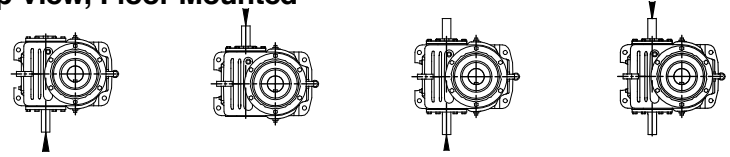
Assembly & Mounting Position Numbers for Cone Drive Single Reduction Units

A Gearshaft Extended Opposite Feet
B Gearshaft Extended Through Feet
C Gearshaft Double Extended

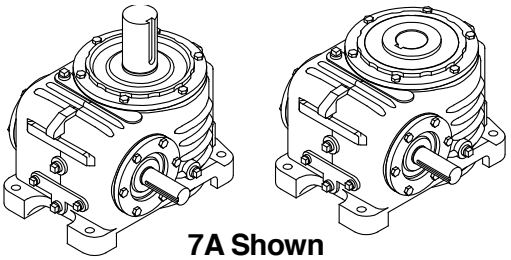
Models HV, SHV

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized P = Pressure lube
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.

Top View, Floor Mounted

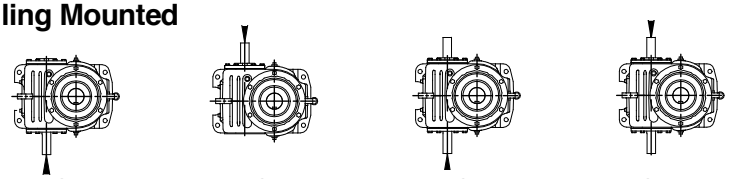


7A.....8A.....9A.....0A
7B.....8B.....9B.....0B
7C.....8C.....9C.....0C

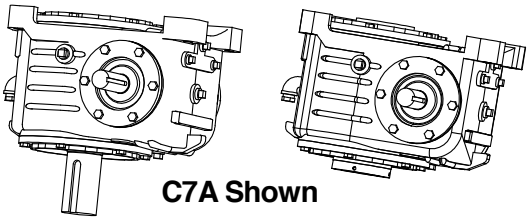


7A Shown

Ceiling Mounted

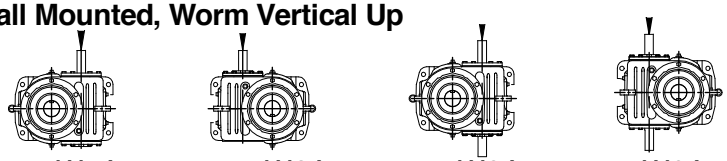


C7A.....C8A.....C9A.....C0A
C7B.....C8B.....C9B.....C0B
C7C.....C8C.....C9C.....C0C

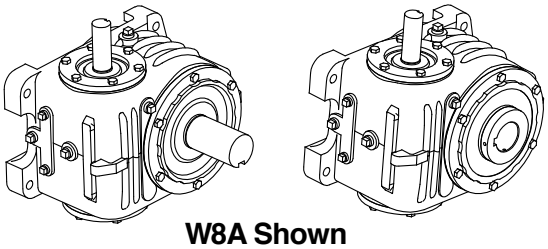


C7A Shown

Wall Mounted, Worm Vertical Up

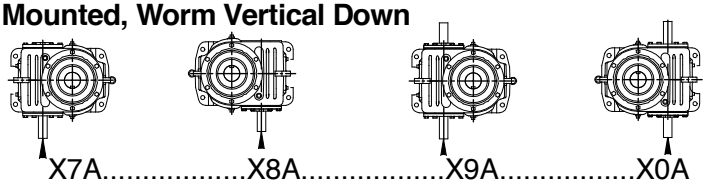


W7A.....W8A.....W9A.....W0A
W7B.....W8B.....W9B.....W0B
W7C.....W8C.....W9C.....W0C

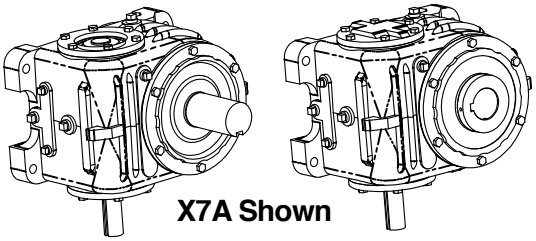


W8A Shown

Wall Mounted, Worm Vertical Down



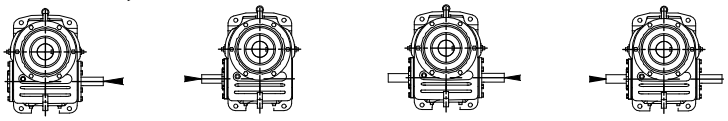
X7A.....X8A.....X9A.....X0A
X7B.....X8B.....X9B.....X0B
X7C.....X8C.....X9C.....X0C



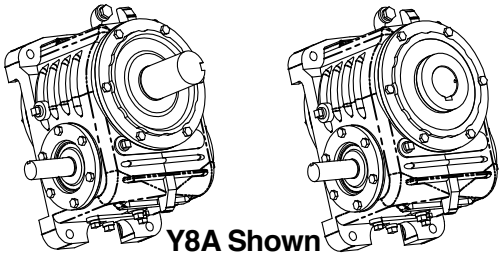
X7A Shown

Size 100 and larger - Contact Cone Drive Regarding Lubrication of Upper Worm Bearing

Wall Mounted, Worm Horizontal Under Gear

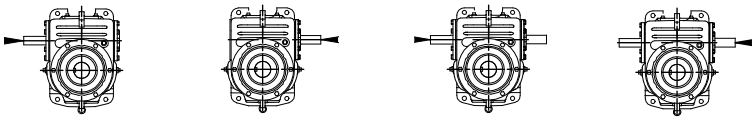


Y7A.....Y8A.....Y9A.....Y0A
Y7B.....Y8B.....Y9B.....Y0B
Y7C.....Y8C.....Y9C.....Y0C

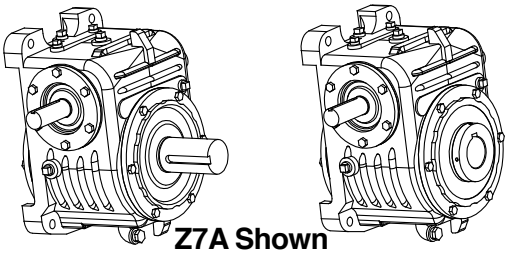


Y8A Shown

Wall Mounted, Worm Horizontal Over Gear



Z7A.....Z8A.....Z9A.....Z0A
Z7B.....Z8B.....Z9B.....Z0B
Z7C.....Z8C.....Z9C.....Z0C



Z7A Shown

Cone Drive reserves the right to improve or change product design and specifications without notice.

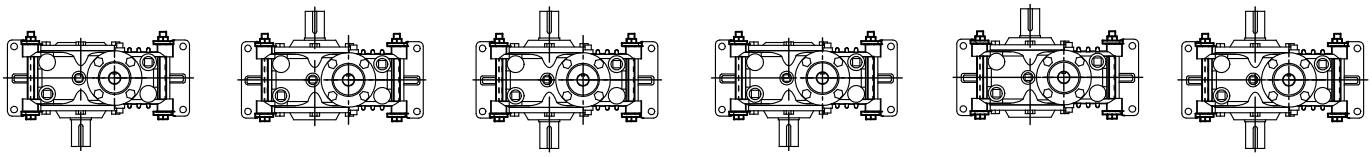
Assembly & Mounting Position Numbers for Cone Drive Single Reduction Units

Models VH, VHU, SVH, SVHU

Model Prefixes: F = Fan cooled W = Water cooled M = Motorized P = Pressure lube
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.

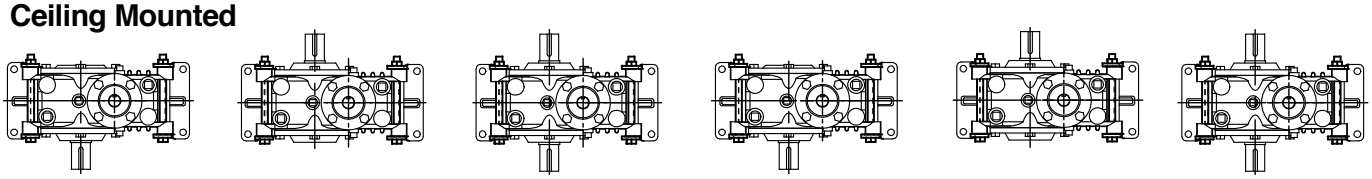
DIAGRAMS 1 THRU 3 HAVE SINGLE EXTENDED INPUT SHAFTS, THE INPUT END EXTENDS UP.
DIAGRAMS 4 THRU 6 HAVE DOUBLE EXTENDED INPUT SHAFTS
FOR INPUT END EXTENDING DOWN SPECIFY SAME WHEN ORDERING AND ADD LETTER "D" AFTER UNIT SIZE VH50D-1

Top View, Floor Mounted



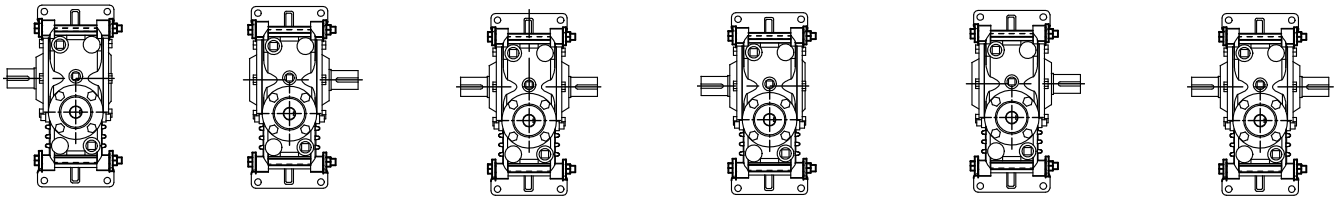
1.....2.....3.....4.....5.....6

Ceiling Mounted



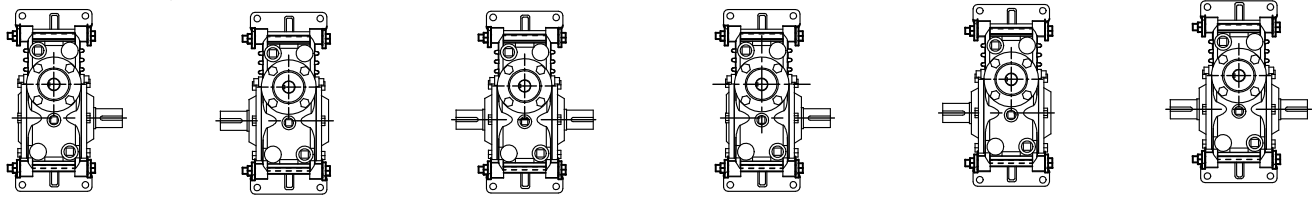
C1.....C2.....C3.....C4.....C5.....C6

Wall Mounted, Worm Under Gear



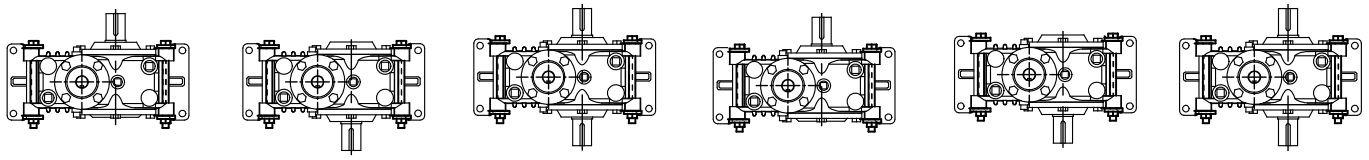
W1.....W2.....W3.....W4.....W5.....W6

Wall Mounted, Worm Over Gear



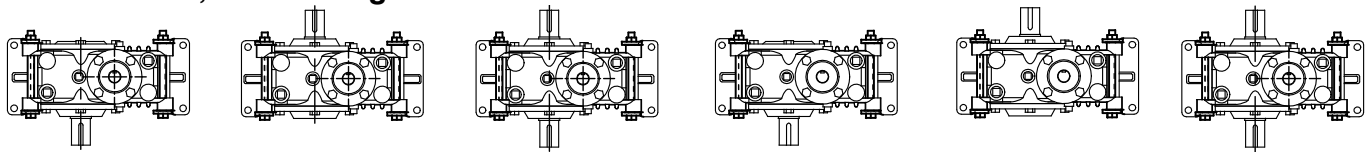
X1.....X2.....X3.....X4.....X5.....X6

Wall Mounted, Worm to the Left of Gear



Y1.....Y2.....Y3.....Y4.....Y5.....Y6

Wall Mounted, Worm to Right of Gear



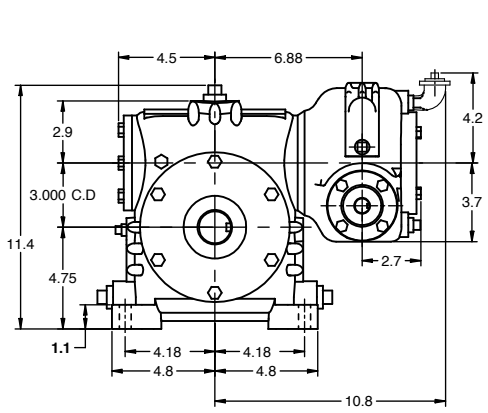
Z1.....Z2.....Z3.....Z4.....Z5.....Z6

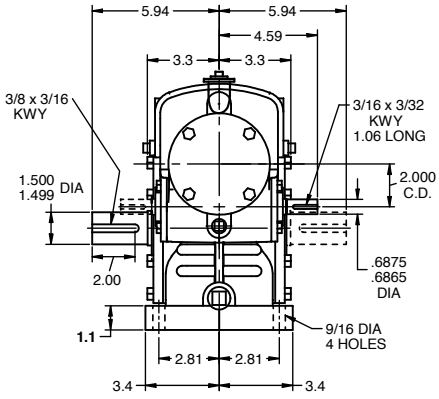
Cone Drive Double Reduction Units - 2.000" C.D. PRI./3.000" C.D. SEC.

Size 20-30

Solid Shaft

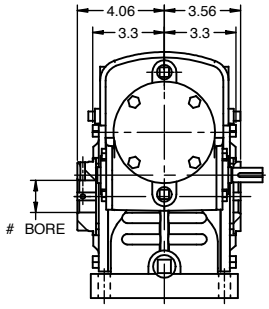
Model UO Shown, net. wt. 111 lbs, for all models
00 and VO configurations follow in this section.





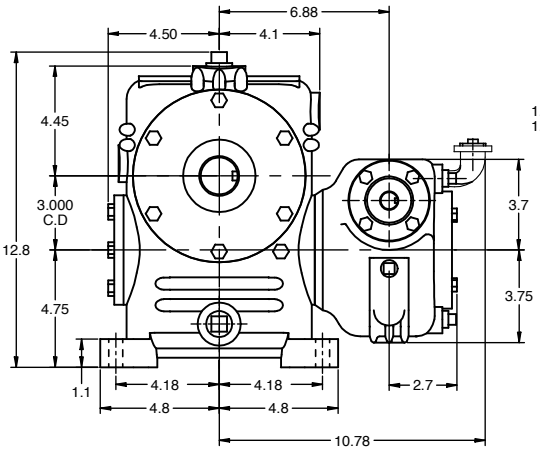
Hollow Shaft

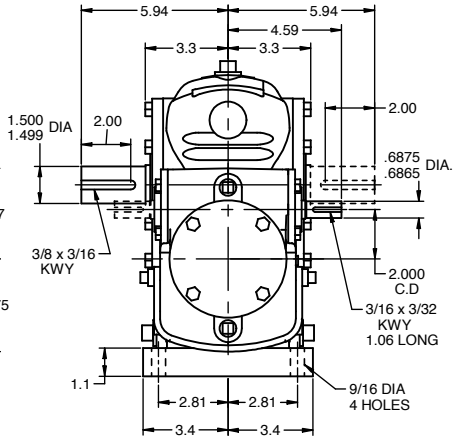
UOS net wt. 120 lbs



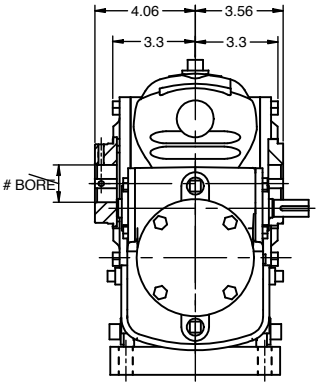
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 111 lbs for all models
UU and VU configurations follow in this section.



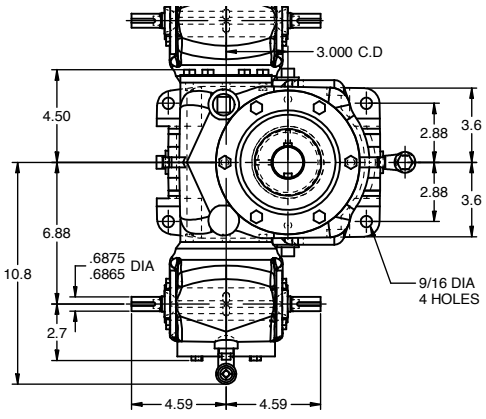


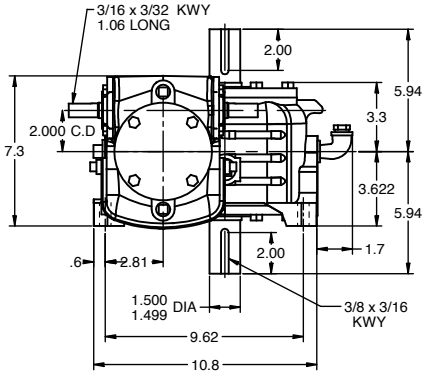
OUS net wt. 120 lbs



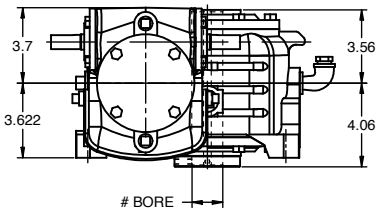
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 108 lbs for all models
UV and VV configurations follow in this section





OVS net wt. 120 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT

MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 2.000" C.D. PRI./3.000" C.D. SEC.

Size 20-30

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	0.23	1.2	1.6	2.1	3.0
	Th.HP	0.23	1.2	1.6	2.1	3.0
	O.T.	7,050	6,805	6,475	6,415	6,170
100 (5x20)	Me.HP	0.18	0.92	1.3	1.6	2.3
	Th.HP	0.18	0.92	1.3	1.6	2.3
	O.T.	6,695	6,585	6,285	6,235	5,990
125 (5x25)	Me.HP	0.14	0.74	1.0	1.3	1.9
	Th.HP	0.14	0.74	1.0	1.3	1.9
	O.T.	6,345	6,290	6,000	6,115	5,955
150 (10x15)	Me.HP	0.12	0.67	0.95	1.2	1.7
	Th.HP	0.12	0.67	0.95	1.2	1.7
	O.T.	6,920	6,960	6,925	6,840	6,475
200 (10x20)	Me.HP	0.09	0.51	0.73	0.89	1.3
	Th.HP	0.09	0.51	0.73	0.89	1.3
	O.T.	6,460	6,625	6,700	6,615	6,285
225 (15x15)	Me.HP	0.13	0.47	0.67	0.86	1.2
	Th.HP	0.13	0.47	0.67	0.86	1.2
	O.T.	6,920	7,140	6,960	6,990	6,805
250 (10x25)	Me.HP	0.08	0.41	0.58	0.72	1.0
	Th.HP	0.08	0.41	0.58	0.72	1.0
	O.T.	6,105	6,295	6,380	6,305	6,000
300 (15x20)	Me.HP	0.10	0.36	0.51	0.66	0.95
	Th.HP	0.10	0.36	0.51	0.66	0.95
	O.T.	6,460	6,800	6,625	6,760	6,585
375 (15x25)	Me.HP	0.08	0.29	0.41	0.53	0.77
	Th.HP	0.08	0.29	0.41	0.53	0.77
	O.T.	6,105	6,475	6,295	6,435	6,290
400 (20x20)	Me.HP	0.05	0.28	0.41	0.53	0.76
	Th.HP	0.05	0.28	0.41	0.53	0.76
	O.T.	6,305	6,795	6,770	6,625	6,700
450 (15x30)	Me.HP	0.07	0.24	0.34	0.44	0.64
	Th.HP	0.07	0.24	0.34	0.44	0.64
	O.T.	5,735	6,220	6,045	6,195	6,055
500 (25x20)	Me.HP	0.06	0.24	0.32	0.45	0.61
	Th.HP	0.06	0.24	0.32	0.45	0.61
	O.T.	6,305	6,845	6,740	6,720	6,835
600 (30x20)	Me.HP	0.06	0.21	0.29	0.38	0.56
	Th.HP	0.06	0.21	0.29	0.38	0.56
	O.T.	6,305	6,695	6,795	6,800	6,625
625 (25x25)	Me.HP	0.05	0.19	0.26	0.36	0.49
	Th.HP	0.05	0.19	0.26	0.36	0.49
	O.T.	5,845	6,495	6,400	6,385	6,510
750 (30x25)	Me.HP	0.05	0.17	0.24	0.31	0.45
	Th.HP	0.05	0.17	0.24	0.31	0.45
	O.T.	5845	6345	6450	6475	6295
800 (40x20)	Me.HP	0.07	0.16	0.26	0.30	0.45
	Th.HP	0.07	0.16	0.26	0.30	0.45
	O.T.	6305	6740	6845	6795	6770
900 (30x30)	Me.HP	0.04	0.14	0.20	0.26	0.37
	Th.HP	0.04	0.14	0.20	0.26	0.37
	O.T.	5,570	5,980	6,190	6,220	6,045
1000 (50x20)	Me.HP	0.07	0.17	0.22	0.27	0.37
	Th.HP	0.05	0.17	0.22	0.27	0.37
	O.T.	6,305	6,740	6,695	6,845	6,740
1200 (40x30)	Me.HP	0.04	0.11	0.17	0.21	0.30
	Th.HP	0.04	0.11	0.17	0.21	0.30
	O.T.	5,570	6,020	6,235	6,190	6,175
1250 (50x25)	Me.HP	0.06	0.14	0.17	0.21	0.29
	Th.HP	0.05	0.14	0.17	0.21	0.29
	O.T.	5,845	6,385	6,345	6,495	6,400

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1500 (50x30)	Me.HP	0.05	0.11	0.15	0.18	0.25
	Th.HP	0.05	0.11	0.15	0.18	0.25
	O.T.	5,570	6,020	5,980	6,235	6,140
1600 (40x40)	Me.HP	0.03	0.08	0.13	0.15	0.23
	Th.HP	0.03	0.08	0.13	0.15	0.23
	O.T.	4670	5230	5555	5520	5515
1800 (60x30)	Me.HP	0.05	0.08	0.12	0.15	0.22
	Th.HP	0.05	0.08	0.12	0.15	0.22
	O.T.	5,570	5,735	6,020	5,980	6,190
2000 (50x40)	Me.HP	0.04	0.09	0.11	0.13	0.19
	Th.HP	0.04	0.09	0.11	0.13	0.19
	O.T.	4,670	5,230	5,195	5,555	5,475
2400 (60x40)	Me.HP	0.04	0.06	0.09	0.11	0.17
	Th.HP	0.04	0.06	0.09	0.11	0.17
	O.T.	4,670	4,945	5,230	5,195	5,520
2500 (50x50)	Me.HP	0.03	0.07	0.09	0.11	0.15
	Th.HP	0.03	0.07	0.09	0.11	0.15
	O.T.	4,075	4,640	4,610	4,875	4,800
3000 (60x50)	Me.HP	0.03	0.05	0.07	0.09	0.13
	Th.HP	0.03	0.05	0.07	0.09	0.13
	O.T.	4,075	4,350	4,640	4,610	4,840
3600 (60x60)	Me.HP	0.03	0.04	0.06	0.08	0.11
	Th.HP	0.03	0.04	0.06	0.08	0.11
	O.T.	3,670	4,255	4,545	4,515	4,750

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.
For cap and carrier dimensions not shown, see mounting section.
Steeple bearing arrangements follow in this section.
All units can be motorized.
Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.
Set screw end of hollow shaft is considered the extension end.
Unless specified, standard reducers are supplied with right hand helix gear sets.
Reducers are designed for shaft rotation in either direction.
For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.
Divide input RPM by primary ratio to obtain secondary input RPM.
Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.
Hand of assembly views, follow in this section.
Refer to page 26 for lubrication information, efficiency and service factors.
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
2.500	30-S60-208	3/8 X 3/16
2.4375*	30-S60-207	3/8 X 3/16
2.1875*	30-S60-203	1/2 X 1/4
1.9375*	30-S60-115	1/2 X 1/4
1.6875*	30-S60-111	3/8 X 3/16
1.500*	30-S60-108	3/8 X 3/16

Special hollow gear shaft bore sizes are available at additional cost.
• AGMA Standard
Bore Tolerance: +.002, -.0002 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other mal-function of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

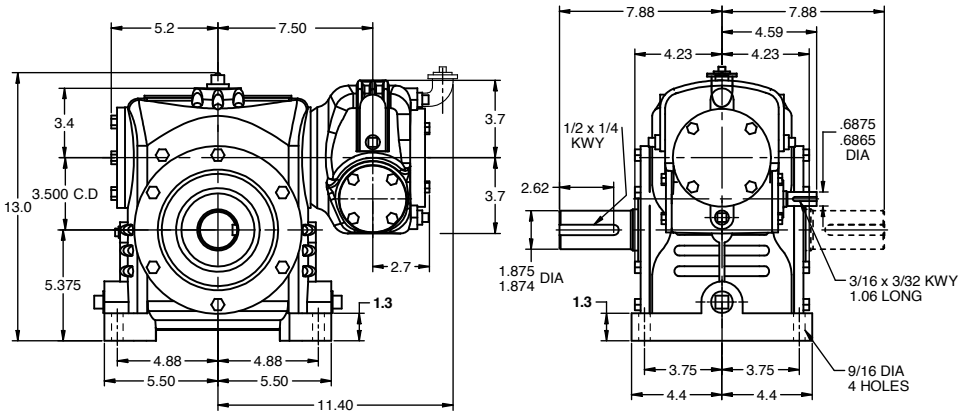
Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)
KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan **O.T.** = Output Torque (In. Lb.)

Cone Drive Double Reduction Units - 2.000" C.D. PRI./3.500" C.D. SEC.

Size 20-35

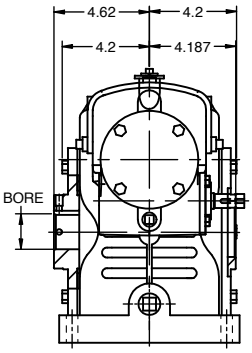
Solid Shaft

Model UO Shown, net. wt. 151 lbs, for all models
00 and VO configurations follow in this section.



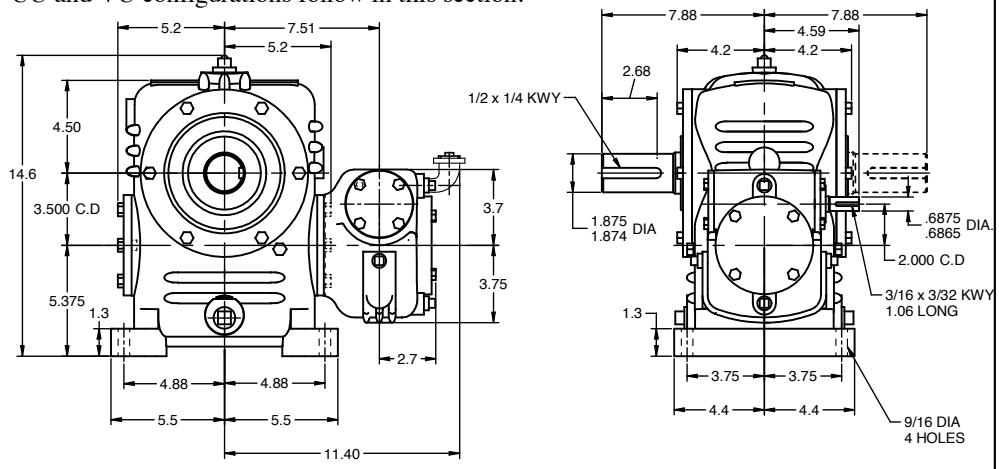
Hollow Shaft

UOS net wt. 158 lbs

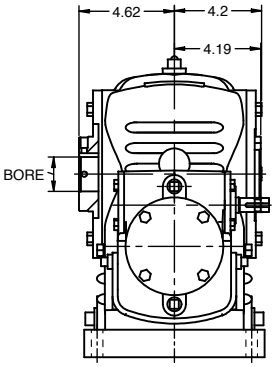


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 151 lbs for all models
UU and VU configurations follow in this section.

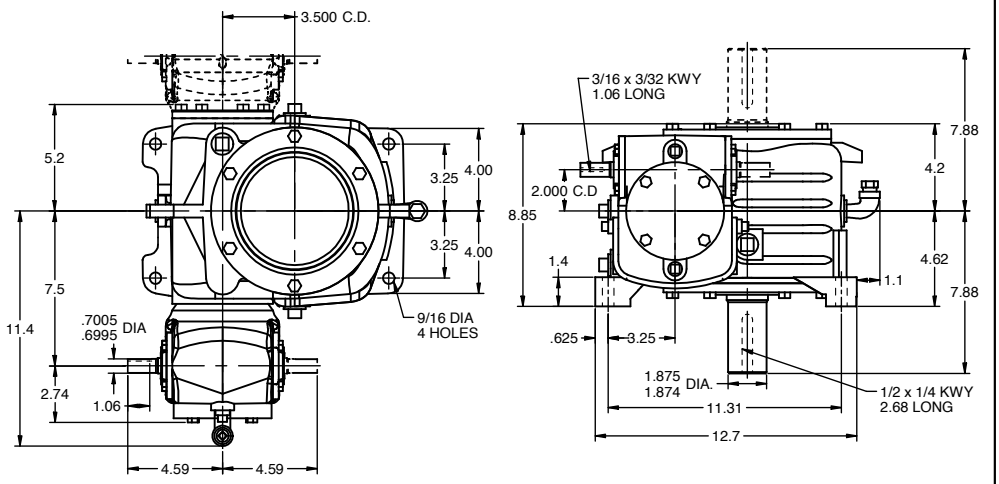


OUS net wt. 165 lbs

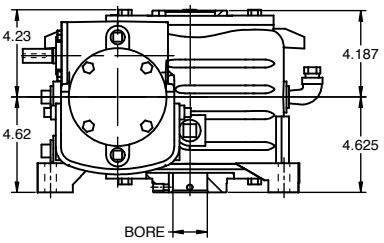


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 148 lbs for all models
UV and VV configurations follow in this section



OVS net wt. 155 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 2.000" C.D. PRI./3.500" C.D. SEC.

Size 20-35

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	0.43	2.2	3.0	3.6	4.6
	Th.HP	0.40	1.8	2.5	3.0	3.4
	O.T.	13,170	12,530	11,925	11,180	9,350
100 (5x20)	Me.HP	0.33	1.7	2.3	2.9	4.2
	Th.HP	0.33	1.7	2.3	2.9	3.4
	O.T.	12,510	12,165	11,560	11,440	10,960
125 (5x25)	Me.HP	0.26	1.4	1.9	2.4	3.4
	Th.HP	0.26	1.4	1.9	2.4	3.4
	O.T.	11,850	11,595	11,035	11,235	10,910
150 (10x15)	Me.HP	0.23	1.2	1.8	2.2	3.1
	Th.HP	0.23	1.2	1.6	2.0	2.5
	O.T.	13,020	12,905	12,760	12,630	11,925
200 (10x20)	Me.HP	0.18	0.95	1.3	1.7	2.4
	Th.HP	0.18	0.95	1.3	1.7	2.4
	O.T.	12,155	12,290	12,375	12,220	11,560
225 (15x15)	Me.HP	0.25	0.87	1.2	1.6	2.3
	Th.HP	0.18	0.83	1.1	1.4	1.8
	O.T.	13,020	13,280	12,905	12,955	12,530
250 (10x25)	Me.HP	0.14	0.76	1.1	1.3	1.9
	Th.HP	0.14	0.76	1.1	1.3	1.9
	O.T.	11,485	11,675	11,790	11,650	11,035
300 (15x20)	Me.HP	0.19	0.67	0.95	1.2	1.8
	Th.HP	0.18	0.67	0.95	1.2	1.8
	O.T.	12,155	12,700	12,290	12,525	12,165
375 (15x25)	Me.HP	0.15	0.54	0.76	0.99	1.4
	Th.HP	0.15	0.54	0.76	0.99	1.4
	O.T.	11,485	12,065	11,675	11,965	11,595
400 (20x20)	Me.HP	0.10	0.52	0.76	0.98	1.4
	Th.HP	0.10	0.52	0.76	0.98	1.4
	O.T.	11,860	12,680	12,610	12,290	12,375
450 (15x30)	Me.HP	0.13	0.45	0.64	0.83	1.2
	Th.HP	0.13	0.45	0.64	0.83	1.2
	O.T.	10,790	11,590	11,210	11,515	11,165
500 (25x20)	Me.HP	0.11	0.45	0.60	0.83	1.1
	Th.HP	0.11	0.45	0.60	0.83	1.1
	O.T.	11,860	12,785	12,610	12,465	12,715
600 (30x20)	Me.HP	0.11	0.39	0.55	0.71	1.0
	Th.HP	0.09	0.39	0.55	0.71	0.93
	O.T.	11,860	12,510	12,680	12,700	12,290
625 (25x25)	Me.HP	0.08	0.36	0.49	0.67	0.92
	Th.HP	0.08	0.36	0.49	0.67	0.92
	O.T.	10990	12140	11970	11845	12110
750 (30x25)	Me.HP	0.09	0.31	0.44	0.57	0.83
	Th.HP	0.09	0.31	0.44	0.57	0.83
	O.T.	10,990	11,850	12,040	12,065	11,675
800 (40x20)	Me.HP	0.10	0.31	0.48	0.57	0.83
	Th.HP	0.07	0.31	0.45	0.55	0.70
	O.T.	11,860	12,630	12,785	12,680	12,610
900 (30x30)	Me.HP	0.07	0.26	0.37	0.48	0.70
	Th.HP	0.07	0.26	0.37	0.48	0.70
	O.T.	10,480	11,170	11,550	11,590	11,210
1000 (50x20)	Me.HP	0.08	0.32	0.41	0.50	0.69
	Th.HP	0.05	0.26	0.36	0.44	0.56
	O.T.	11,860	12,630	12,510	12,785	12,610
1200 (40x30)	Me.HP	0.08	0.21	0.33	0.38	0.56
	Th.HP	0.07	0.21	0.33	0.38	0.56
	O.T.	10,480	11,280	11,650	11,550	11,505
1250 (50x25)	Me.HP	0.08	0.25	0.33	0.40	0.55
	Th.HP	0.05	0.25	0.33	0.40	0.55
	O.T.	10,990	11,965	11,850	12,140	11,970

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1500 (50x30)	Me.HP	0.08	0.21	0.27	0.33	0.46
	Th.HP	0.05	0.21	0.27	0.33	0.46
	O.T.	10,480	11,280	11,170	11,650	11,490
1600 (40x40)	Me.HP	0.06	0.16	0.25	0.29	0.42
	Th.HP	0.06	0.16	0.25	0.29	0.42
	O.T.	8,790	9,800	10,385	10,295	10,275
1800 (60x30)	Me.HP	0.07	0.15	0.22	0.28	0.42
	Th.HP	0.05	0.15	0.22	0.28	0.42
	O.T.	10,480	10,790	11,280	11,170	11,550
2000 (50x40)	Me.HP	0.07	0.16	0.21	0.25	0.35
	Th.HP	0.05	0.16	0.21	0.25	0.35
	O.T.	8,790	9,800	9,710	10,385	10,240
2400 (60x40)	Me.HP	0.07	0.11	0.16	0.21	0.31
	Th.HP	0.05	0.11	0.16	0.21	0.31
	O.T.	8,790	9,300	9,800	9,710	10,295
2500 (50x50)	Me.HP	0.06	0.13	0.17	0.20	0.28
	Th.HP	0.05	0.13	0.17	0.20	0.28
	O.T.	7,665	8,695	8,610	9,110	8,985
3000 (60x50)	Me.HP	0.06	0.09	0.13	0.17	0.25
	Th.HP	0.05	0.09	0.13	0.17	0.25
	O.T.	7,665	8,180	8,695	8,610	9,035
3600 (60x60)	Me.HP	0.05	0.08	0.11	0.14	0.21
	Th.HP	0.05	0.08	0.11	0.14	0.21
	O.T.	6,905	8,005	8,515	8,435	8,860

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.
For cap and carrier dimensions not shown, see mounting section.
Steeple bearing arrangements follow in this section.
All units can be motorized.
Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.
Set screw end of hollow shaft is considered the extension end.
Unless specified, standard reducers are supplied with right hand helix gear sets.
Reducers are designed for shaft rotation in either direction.
For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.
Divide input RPM by primary ratio to obtain secondary input RPM.
Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.
Hand of assembly views, follow in this section.
Refer to page 26 for lubrication information, efficiency and service factors.
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
2.750	35-S60-212	3/8 X 3/16
2.6875*	35-S60-211	3/8 X 3/16
2.500	35-S60-208	3/8 X 3/16
2.4375*	35-S60-207	5/8 X 5/16
2.1875*	35-S60-203	1/2 X 1/4
1.9375*	35-S60-115	1/2 X 1/4
1.6875*	35-S60-111	3/8 X 3/16

Special hollow gear shaft bore sizes are available at additional cost.
• AGMA Standard
Bore Tolerance: +.002, -.000 2 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

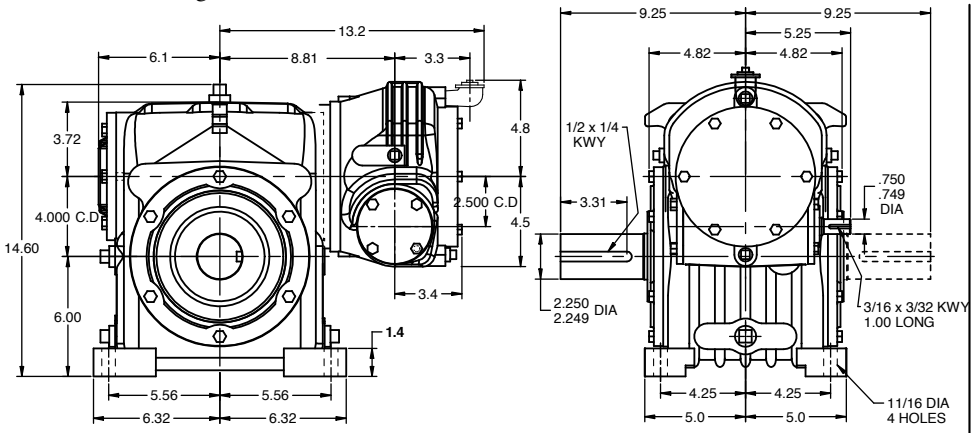
Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)
KEY: **Me.HP** = Mech. Input Power (HP) **Th.HP** = Ther. Input Power - No Fan **O.T.** = Output Torque (In. Lb.)

Cone Drive Double Reduction Units - 2.500" C.D. PRI./4.000" C.D. SEC.

Size 25-40

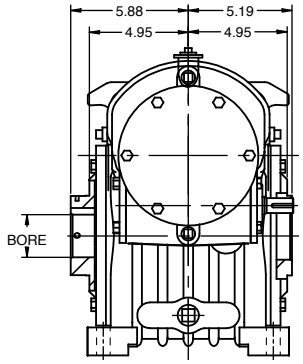
Solid Shaft

Model UO Shown, net. wt. 212 lbs, for all models
00 and VO configurations follow in this section.



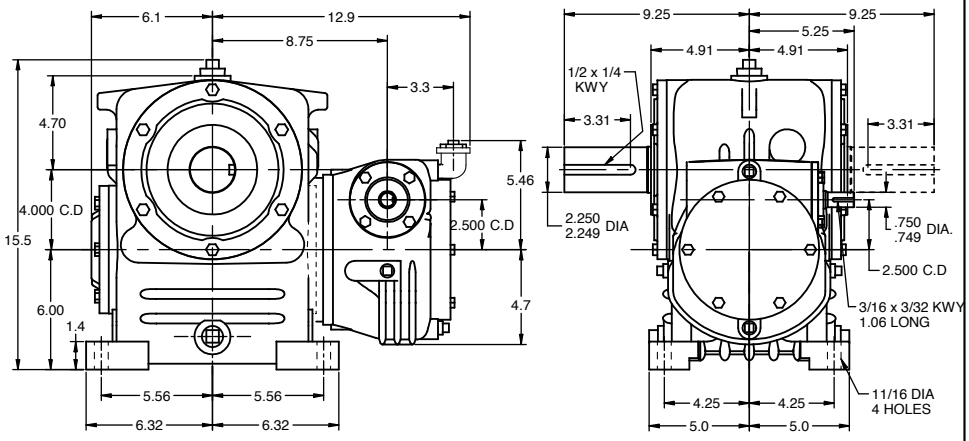
Hollow Shaft

UOS net wt. 222 lbs

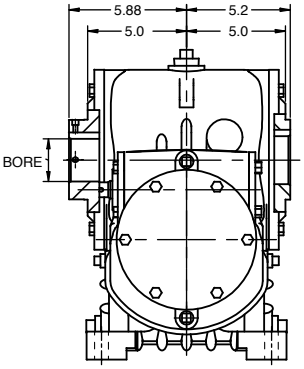


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 220 lbs for all models
UU and VU configurations follow in this section.

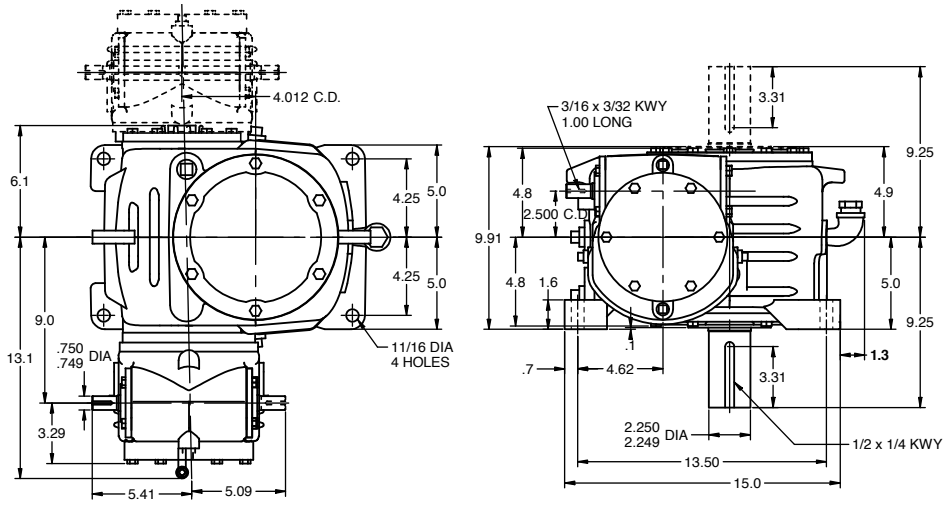


OUS net wt. 230 lbs



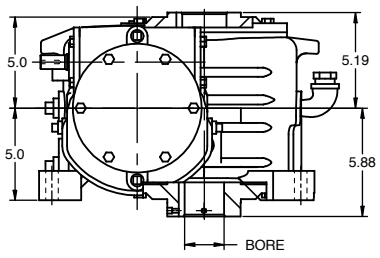
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 246 lbs for all models
UV and VV configurations follow in this section



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

OVS net wt. 256 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 2.500" C.D. PRI./4.000" C.D. SEC.

Size 25-40

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	0.62	3.2	4.4	5.6	7.9
	Th.HP	0.62	3.2	4.2	4.5	5.0
	O.T.	19,960	18,715	17,790	17,650	16,720
100 (5x20)	Me.HP	0.48	2.4	3.3	4.3	6.1
	Th.HP	0.48	2.4	3.3	4.3	5.0
	O.T.	19,005	18,145	17,280	17,165	16,270
125 (5x25)	Me.HP	0.38	2.0	2.7	3.4	4.9
	Th.HP	0.38	2.0	2.7	3.4	4.9
	O.T.	18,060	17,385	16,535	16,845	16,210
150 (10x15)	Me.HP	0.34	1.8	2.5	3.1	4.5
	Th.HP	0.34	1.8	2.5	3.1	4.0
	O.T.	19,780	19,460	19,130	18,830	17,790
200 (10x20)	Me.HP	0.26	1.4	1.9	2.4	3.4
	Th.HP	0.26	1.4	1.9	2.4	3.4
	O.T.	18,530	18,580	18,595	18,320	17,280
225 (15x15)	Me.HP	0.36	1.3	1.8	2.3	3.3
	Th.HP	0.35	1.3	1.8	2.3	3.2
	O.T.	19,780	20,030	19,460	19,365	18,715
250 (10x25)	Me.HP	0.21	1.1	1.6	1.9	2.8
	Th.HP	0.21	1.1	1.6	1.9	2.8
	O.T.	17,560	17,695	17,750	17,495	16,535
300 (15x20)	Me.HP	0.27	0.97	1.4	1.8	2.5
	Th.HP	0.27	0.97	1.4	1.8	2.5
	O.T.	18,530	19,125	18,580	18,820	18,145
375 (15x25)	Me.HP	0.22	0.78	1.1	1.4	2.0
	Th.HP	0.22	0.78	1.1	1.4	2.0
	O.T.	17,560	18,295	17,695	17,965	17,385
400 (20x20)	Me.HP	0.15	0.76	1.1	1.4	2.0
	Th.HP	0.15	0.76	1.1	1.4	2.0
	O.T.	18,155	19,220	18,990	18,580	18,595
450 (15x30)	Me.HP	0.18	0.65	0.93	1.2	1.7
	Th.HP	0.18	0.65	0.93	1.2	1.7
	O.T.	16,550	17,605	17,030	17,320	16,770
500 (25x20)	Me.HP	0.15	0.65	0.87	1.2	1.6
	Th.HP	0.15	0.65	0.87	1.2	1.6
	O.T.	18,155	19,405	19,085	18,855	19,105
600 (30x20)	Me.HP	0.16	0.57	0.79	1.0	1.5
	Th.HP	0.16	0.57	0.79	1.0	1.5
	O.T.	18,155	19,005	19,220	19,125	18,580
625 (25x25)	Me.HP	0.12	0.52	0.70	0.97	1.3
	Th.HP	0.12	0.52	0.70	0.97	1.3
	O.T.	16,895	18,470	18,160	17,955	18,235
750 (30x25)	Me.HP	0.13	0.46	0.64	0.83	1.2
	Th.HP	0.13	0.46	0.64	0.83	1.2
	O.T.	16,895	18,060	18,290	18,295	17,695
800 (40x20)	Me.HP	0.18	0.45	0.70	0.82	1.2
	Th.HP	0.13	0.45	0.70	0.82	1.2
	O.T.	18,155	19,215	19,405	19,220	18,990
900 (30x30)	Me.HP	0.11	0.38	0.54	0.70	1.0
	Th.HP	0.11	0.38	0.54	0.70	1.0
	O.T.	16,150	17,070	17,590	17,605	17,030
1000 (50x20)	Me.HP	0.16	0.46	0.59	0.72	0.99
	Th.HP	0.11	0.46	0.59	0.72	0.99
	O.T.	18,155	19,215	19,005	19,405	19,085
1200 (40x30)	Me.HP	0.12	0.30	0.47	0.56	0.81
	Th.HP	0.12	0.30	0.47	0.56	0.81
	O.T.	16,150	17,260	17,760	17,590	17,405
1250 (50x25)	Me.HP	0.16	0.37	0.48	0.58	0.80
	Th.HP	0.11	0.37	0.48	0.58	0.80
	O.T.	16,895	18,255	18,060	18,470	18,160

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1500 (50x30)	Me.HP	0.14	0.31	0.40	0.49	0.67
	Th.HP	0.11	0.31	0.40	0.49	0.67
	O.T.	16,150	17,260	17,070	17,760	17,465
1600 (40x40)	Me.HP	0.09	0.23	0.36	0.42	0.61
	Th.HP	0.09	0.23	0.36	0.42	0.61
	O.T.	13,680	15,110	15,920	15,765	15,630
1800 (60x30)	Me.HP	0.14	0.22	0.32	0.41	0.60
	Th.HP	0.09	0.22	0.32	0.41	0.60
	O.T.	16,150	16,550	17,260	17,070	17,590
2000 (50x40)	Me.HP	0.10	0.23	0.30	0.37	0.50
	Th.HP	0.10	0.23	0.30	0.37	0.50
	O.T.	13,680	15,110	14,945	15,920	15,655
2400 (60x40)	Me.HP	0.10	0.17	0.24	0.31	0.45
	Th.HP	0.09	0.17	0.24	0.31	0.45
	O.T.	13,680	14,380	15,110	14,945	15,765
2500 (50x50)	Me.HP	0.08	0.19	0.24	0.29	0.40
	Th.HP	0.08	0.19	0.24	0.29	0.40
	O.T.	12,040	13,495	13,350	14,070	13,835
3000 (60x50)	Me.HP	0.08	0.13	0.19	0.25	0.37
	Th.HP	0.08	0.13	0.19	0.25	0.37
	O.T.	12,040	12,755	13,495	13,350	13,970
3600 (60x60)	Me.HP	0.07	0.11	0.16	0.21	0.30
	Th.HP	0.07	0.11	0.16	0.21	0.30
	O.T.	10,935	12,495	13,240	13,095	13,720

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets.

Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views, follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
2.9375	40-S60-215	5/8 X 5/16
2.6875*	40-S60-211	5/8 X 5/16
2.4375*	40-S60-207	5/8 X 5/16
2.1875*	40-S60-203	5/8 X 5/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

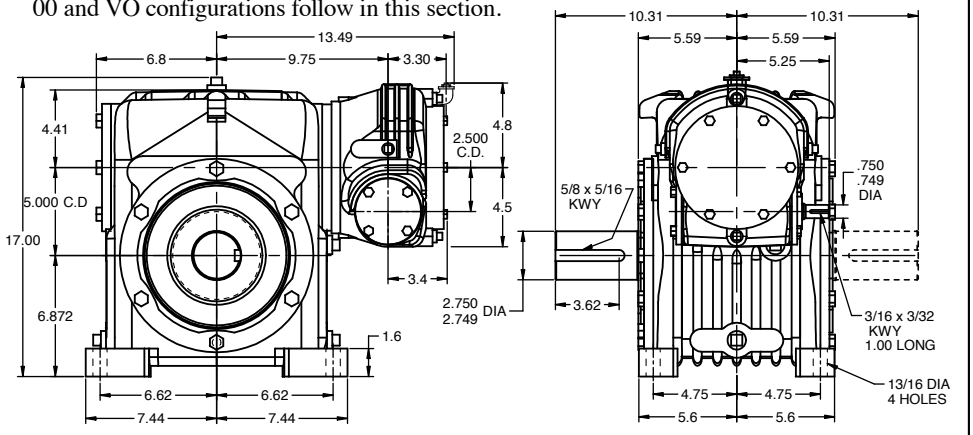
KEY: **Me.HP** = Mech. Input Power (HP) **Th.HP** = Ther. Input Power - No Fan **O.T.** = Output Torque (In. Lb.)

Cone Drive Double Reduction Units - 2.500" C.D. PRI./5.000" C.D. SEC.

Size 25 - 50

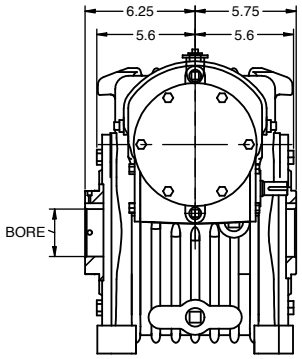
Solid Shaft

Model UO Shown, net. wt. 315 lbs, for all models
00 and VO configurations follow in this section.



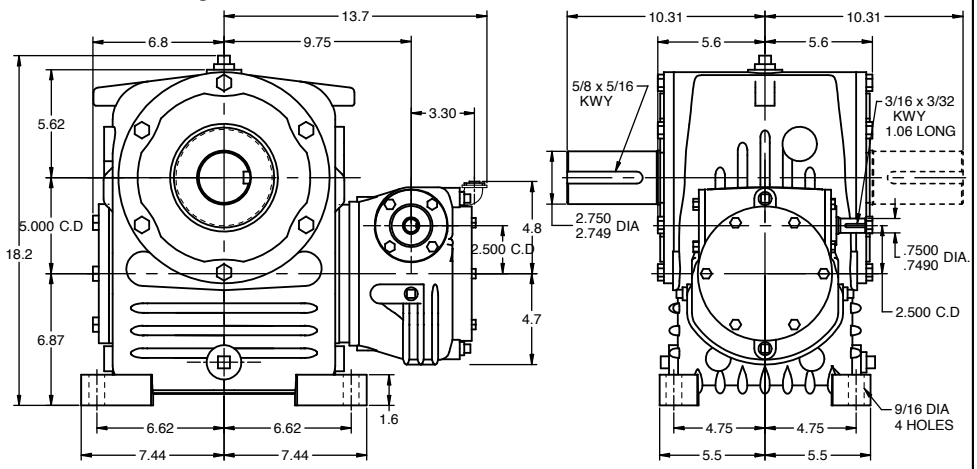
Hollow Shaft

UOS net wt. 327 lbs

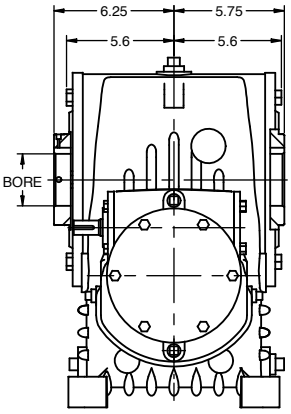


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 324 lbs for all models
UU and VU configurations follow in this section.

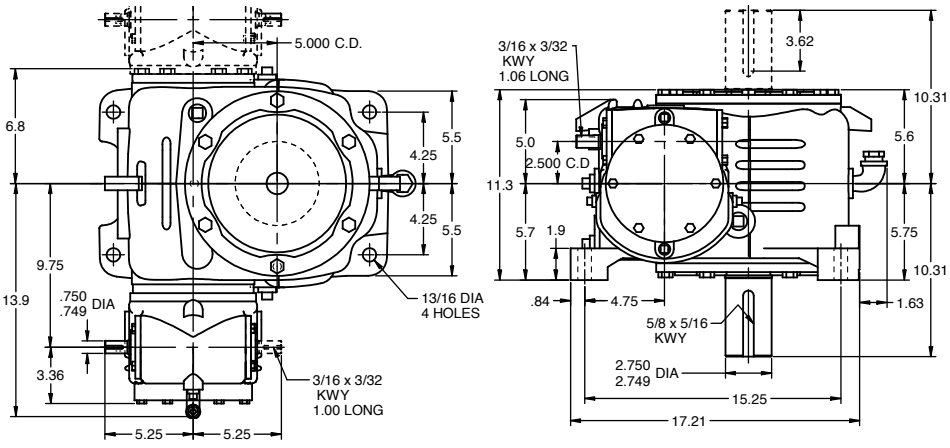


OUS net wt. 336 lbs

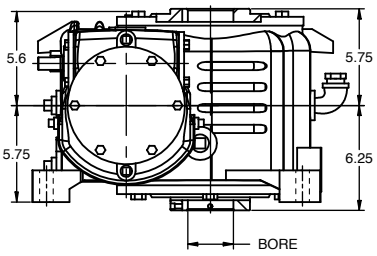


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 333 lbs for all models
UV and VV configurations follow in this section



OVS net wt. 345 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 2.500" C.D. PRI./5.000" C.D. SEC.

Size 25 - 50

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	0.94	4.2	5.6	6.6	8.2
	Th.HP	0.78	3.5	4.2	4.5	5.0
	O.T.	29,895	25,675	22,945	20,830	17,385
100 (5x20)	Me.HP	0.94	4.2	5.6	6.6	8.2
	Th.HP	0.78	3.5	4.2	4.5	5.0
	O.T.	37,232	32,563	29,100	26,450	22,086
125 (5x25)	Me.HP	0.77	3.9	5.3	6.6	8.2
	Th.HP	0.77	3.5	4.2	4.5	5.0
	O.T.	36,335	34,280	32,605	32,275	27,300
150 (10x15)	Me.HP	0.65	2.9	4.0	4.7	5.9
	Th.HP	0.50	2.3	3.1	3.6	4.0
	O.T.	37,465	33,065	31,105	28,660	23,680
200 (10x20)	Me.HP	0.53	2.7	3.8	4.7	5.9
	Th.HP	0.50	2.3	3.1	3.6	4.0
	O.T.	37,390	36,980	36,810	36,005	30,030
225 (15x15)	Me.HP	0.52	2.4	3.2	3.9	4.8
	Th.HP	0.35	1.6	2.2	2.6	3.2
	O.T.	39,915	39,345	36,265	33,960	28,290
250 (10x25)	Me.HP	0.42	2.2	3.1	3.8	5.4
	Th.HP	0.42	2.2	3.1	3.6	4.0
	O.T.	35,430	35,220	35,135	34,445	32,605
300 (15x20)	Me.HP	0.52	1.9	2.7	3.5	4.8
	Th.HP	0.35	1.6	2.2	2.6	3.2
	O.T.	37,390	38,200	36,980	37,330	35,830
350 (5x70)	Me.HP	0.28	1.4	1.9	2.4	3.5
	Th.HP	0.28	1.4	1.9	2.4	3.5
	O.T.	24,735	25,865	24,605	26,355	25,200
375 (15x25)	Me.HP	0.44	1.6	2.2	2.8	4.0
	Th.HP	0.35	1.6	2.2	2.6	3.2
	O.T.	35,430	36,380	35,220	35,630	34,280
400 (20x20)	Me.HP	0.29	1.5	2.2	2.8	3.7
	Th.HP	0.27	1.2	1.7	2.0	2.5
	O.T.	36,685	38,500	37,810	36,980	34,960
450 (15x30)	Me.HP	0.37	1.3	1.8	2.4	3.4
	Th.HP	0.35	1.3	1.8	2.4	3.2
	O.T.	33,395	35,010	33,890	34,350	33,065
500 (25x20)	Me.HP	0.31	1.3	1.7	2.4	3.0
	Th.HP	0.21	0.98	1.3	1.6	2.0
	O.T.	36,685	38,940	38,120	37,645	34,885
600 (20x30)	Me.HP	0.27	1.1	1.6	2.0	2.5
	Th.HP	0.18	0.82	1.1	1.3	1.7
	O.T.	36,685	38,245	38,500	38,200	32,265
625 (25x25)	Me.HP	0.25	1.1	1.4	1.9	2.6
	Th.HP	0.21	1.0	1.3	1.6	2.0
	O.T.	34,135	37,055	36,275	35,850	36,125
700 (10x70)	Me.HP	0.15	0.80	1.1	1.4	2.0
	Th.HP	0.15	0.80	1.1	1.4	2.0
	O.T.	22,445	26,005	26,340	25,990	24,605
750 (30x25)	Me.HP	0.26	0.92	1.3	1.6	2.4
	Th.HP	0.18	0.82	1.1	1.3	1.7
	O.T.	34,135	36,335	36,640	36,380	35,220
800 (40x20)	Me.HP	0.20	0.90	1.3	1.5	1.9
	Th.HP	0.13	0.62	0.84	1.0	1.3
	O.T.	36,685	38,670	38,940	36,660	30,715

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
900 (30x30)	Me.HP	0.22	0.77	1.1	1.4	2.0
	Th.HP	0.18	0.77	1.1	1.3	1.7
	O.T.	32,635	34,350	35,235	35,010	33,890
1000 (50x20)	Me.HP	0.16	0.75	1.0	1.2	1.5
	Th.HP	0.11	0.50	0.68	0.81	1.0
	O.T.	36,445	38,670	37,505	35,305	29,180
1050 (15x70)	Me.HP	0.16	0.56	0.80	1.0	1.5
	Th.HP	0.16	0.56	0.80	1.0	1.5
	O.T.	22,445	26,865	26,005	26,710	25,865
1200 (40x30)	Me.HP	0.20	0.61	0.95	1.1	1.6
	Th.HP	0.13	0.61	0.84	1.0	1.3
	O.T.	32,635	34,730	35,635	35,235	34,655
1250 (50x25)	Me.HP	0.16	0.75	0.96	1.2	1.5
	Th.HP	0.11	0.50	0.68	0.81	1.01
	O.T.	34,135	36,740	36,335	37,055	34,475
1400 (20x70)	Me.HP	0.09	0.44	0.64	0.83	1.2
	Th.HP	0.09	0.44	0.64	0.83	1.2
	O.T.	19,850	26,910	26,590	26,005	26,340
1500 (50x30)	Me.HP	0.16	0.62	0.80	0.98	1.3
	Th.HP	0.11	0.50	0.68	0.81	1.0
	O.T.	32,635	34,730	34,350	35,635	34,885
1600 (40x40)	Me.HP	0.18	0.46	0.72	0.84	1.2
	Th.HP	0.13	0.46	0.72	0.84	1.2
	O.T.	27,645	30,400	31,940	31,585	31,115
1750 (25x70)	Me.HP	0.09	0.38	0.51	0.70	0.95
	Th.HP	0.09	0.38	0.51	0.70	0.95
	O.T.	19,850	27,215	26,640	26,475	27,085
1800 (60x30)	Me.HP	0.14	0.45	0.63	0.82	1.2
	Th.HP	0.09	0.42	0.56	0.67	0.85
	O.T.	32,635	33,395	34,730	34,350	35,235
2000 (50x40)	Me.HP	0.16	0.47	0.60	0.74	1.0
	Th.HP	0.11	0.47	0.60	0.74	1.0
	O.T.	27,645	30,400	30,070	31,940	31,270
2100 (30x70)	Me.HP	0.09	0.33	0.46	0.60	0.87
	Th.HP	0.09	0.33	0.46	0.60	0.87
	O.T.	19,850	24,735	26,910	26,865	26,005
2400 (60x40)	Me.HP	0.14	0.34	0.48	0.62	0.91
	Th.HP	0.09	0.34	0.48	0.62	0.85
	O.T.	27,645	29,020	30,400	30,070	31,585
2500 (50x50)	Me.HP	0.16	0.38	0.48	0.59	0.81
	Th.HP	0.11	0.38	0.48	0.59	0.81
	O.T.	24,325	27,160	26,860	28,225	27,635
2800 (40x70)	Me.HP	0.11	0.26	0.41	0.48	0.70
	Th.HP	0.11	0.26	0.41	0.48	0.70
	O.T.	19,850	25,010	27,215	26,910	26,590
3000 (60x50)	Me.HP	0.14	0.27	0.38	0.50	0.73
	Th.HP	0.09	0.27	0.38	0.50	0.73
	O.T.	24,325	25,740	27,160	26,860	27,910
3600 (60x60)	Me.HP	0.14	0.22	0.32	0.41	0.61
	Th.HP	0.09	0.22	0.32	0.41	0.61
	O.T.	22,090	25,215	26,640	26,345	27,410
4200 (60x70)	Me.HP	0.12	0.19	0.27	0.36	0.52
	Th.HP	0.09	0.19	0.27	0.36	0.52
	O.T.	19,850	22,445	25,010	24,735	26,910

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
3.4375*	50-S60-307	5/8 X 5/16
3.1875*	50-S60-303	5/8 X 5/16
2.750	50-S60-212	5/8 X 5/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard - Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:
Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.
For cap and carrier dimensions not shown, see mounting section.
Steeple bearing arrangement follow in this section.
All units can be motorized.
Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.
Set screw end of hollow shaft is considered the extension end.
Unless specified, standard reducers are supplied with right hand helix gear sets.
Reducers are designed for shaft rotation in either direction.
For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.
Divide input RPM by primary ratio to obtain secondary input RPM.
Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.
Hand of assembly views follow in this section.
Refer to page 26 for lubrication information, efficiency and service factors.
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

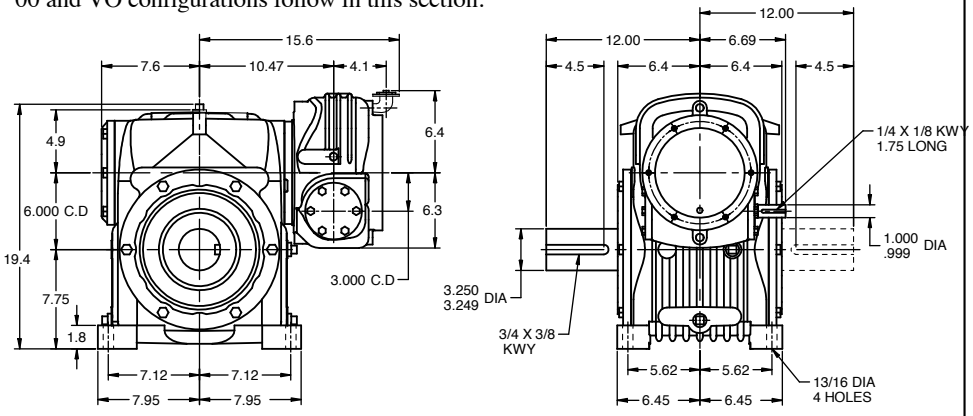
Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Double Reduction Units - 3.000" C.D. PRI./6.000" C.D. SEC.

Size 30 - 60

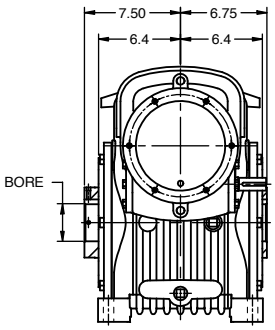
Solid Shaft

Model UO Shown, net. wt. 441 lbs, for all models
00 and VO configurations follow in this section.



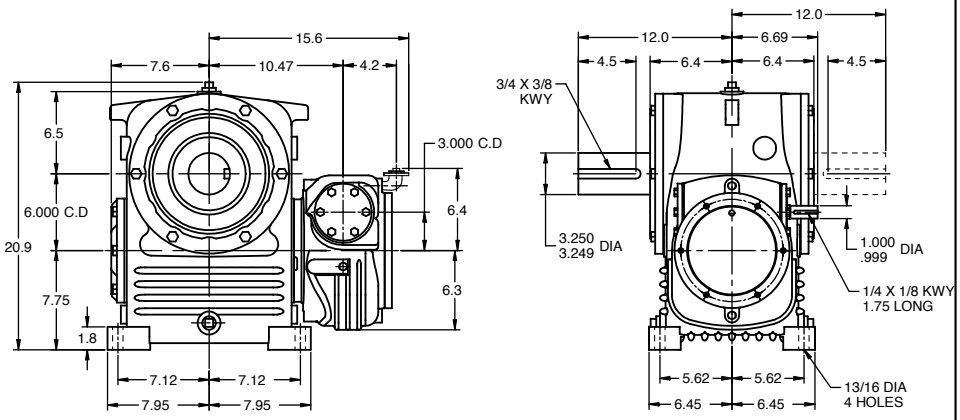
Hollow Shaft

UOS net wt. 456 lbs

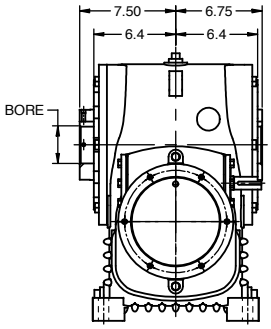


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 425 lbs for all models
UU and VU configurations follow in this section.

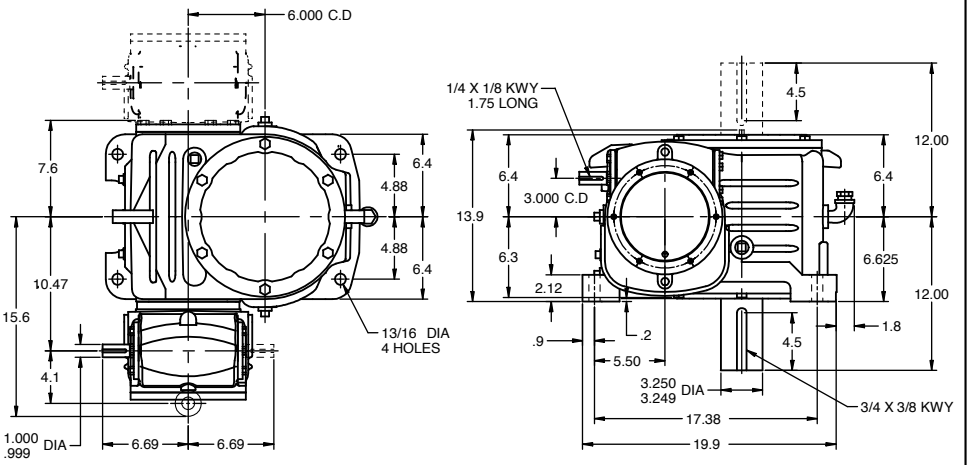


OUS net wt. 440 lbs



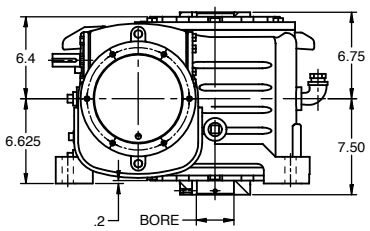
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 478 lbs for all models
UV and VV configurations follow in this section



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

OVS net wt. 493 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 3.000" C.D. PRI./6.000" C.D. SEC.

Size 30 - 60

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	1.66	7.26	9.34	10.80	13.58
	Th.HP	1.37	3.63	4.25	4.59	5.05
	O.T.	52,940	44,140	38,275	34,285	28,675
100 (5x20)	Me.HP	1.49	7.26	9.34	10.80	13.58
	Th.HP	1.37	3.63	4.25	4.59	5.05
	O.T.	59,455	54,875	48,545	43,535	36,435
125 (5x25)	Me.HP	1.20	5.93	8.17	10.27	13.58
	Th.HP	1.20	3.63	4.25	4.59	5.05
	O.T.	56,485	52,415	50,050	50,450	44,980
150 (10x15)	Me.HP	1.08	5.17	6.84	8.03	10.05
	Th.HP	0.88	3.19	3.61	3.80	4.05
	O.T.	62,495	57,950	53,595	48,715	40,035
200 (10x20)	Me.HP	0.82	4.20	5.85	7.17	10.05
	Th.HP	0.82	3.19	3.61	3.80	4.05
	O.T.	58,540	56,840	56,160	55,150	50,775
225 (15x15)	Me.HP	0.93	3.90	5.50	6.57	8.22
	Th.HP	0.62	2.71	2.99	3.12	3.33
	O.T.	62,495	61,895	59,530	57,735	48,040
250 (10x25)	Me.HP	0.66	3.39	4.72	5.78	8.35
	Th.HP	0.66	3.19	3.61	3.80	4.05
	O.T.	55,470	54,135	53,690	52,765	50,050
300 (15x20)	Me.HP	0.86	2.98	4.20	5.36	7.61
	Th.HP	0.62	2.71	2.99	3.12	3.33
	O.T.	58,540	59,100	56,840	57,155	54,875
350 (5x70)	Me.HP	0.44	2.15	2.96	3.72	5.15
	Th.HP	0.44	2.15	2.96	3.72	5.05
	O.T.	38,560	39,480	37,700	40,060	37,600
375 (15x25)	Me.HP	0.70	2.40	3.39	4.31	6.13
	Th.HP	0.62	2.40	2.99	3.12	3.33
	O.T.	55,470	56,285	54,135	54,555	52,415
400 (20x20)	Me.HP	0.46	2.34	3.41	4.35	6.13
	Th.HP	0.46	2.15	2.73	2.81	2.90
	O.T.	57,360	59,590	58,580	56,840	56,160
450 (15x30)	Me.HP	0.58	2.01	2.84	3.61	5.14
	Th.HP	0.58	2.01	2.84	3.12	3.33
	O.T.	52,285	54,165	52,170	52,595	50,560
500 (25x20)	Me.HP	0.49	2.03	2.69	3.70	4.99
	Th.HP	0.38	1.73	2.29	2.34	2.43
	O.T.	57,360	60,445	58,730	57,885	58,150
600 (30x20)	Me.HP	0.48	1.77	2.46	3.17	4.29
	Th.HP	0.32	1.45	1.94	2.11	2.17
	O.T.	57,360	59,455	59,590	59,100	54,865
625 (25x25)	Me.HP	0.39	1.63	2.18	2.99	4.02
	Th.HP	0.38	1.63	2.18	2.34	2.43
	O.T.	53,375	57,520	56,135	55,290	55,505
700 (10x70)	Me.HP	0.24	1.23	1.71	2.09	3.02
	Th.HP	0.24	1.23	1.71	2.09	3.02
	O.T.	35,140	40,035	40,250	39,745	37,700
750 (30x25)	Me.HP	0.41	1.43	1.98	2.55	3.68
	Th.HP	0.32	1.43	1.94	2.11	2.17
	O.T.	53,375	56,485	56,705	56,285	54,135
800 (40x20)	Me.HP	0.36	1.40	2.19	2.56	3.23
	Th.HP	0.24	1.09	1.46	1.72	1.93
	O.T.	57,360	60,290	60,445	59,590	52,260
900 (30x30)	Me.HP	0.34	1.20	1.66	2.14	3.09
	Th.HP	0.32	1.20	1.66	2.11	2.17
	O.T.	51,025	53,550	54,530	54,165	52,170
1000 (50x20)	Me.HP	0.29	1.32	1.76	2.07	2.60
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	57,360	60,290	59,455	60,425	49,800

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1050 (15x70)	Me.HP	0.25	0.87	1.23	1.56	2.22
	Th.HP	0.25	0.87	1.23	1.56	2.22
	O.T.	35,140	41,560	40,035	40,900	39,480
1200 (40x30)	Me.HP	0.36	0.95	1.48	1.73	2.51
	Th.HP	0.24	0.95	1.46	1.72	1.93
	O.T.	51,025	54,150	55,315	54,530	53,685
1250 (50x25)	Me.HP	0.29	1.16	1.49	1.81	2.48
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	53,375	57,280	56,485	57,520	56,135
1400 (20x70)	Me.HP	0.13	0.68	1.00	1.27	1.79
	Th.HP	0.13	0.68	1.00	1.27	1.79
	O.T.	31,040	41,645	41,315	40,035	40,250
1500 (50x30)	Me.HP	0.29	0.97	1.25	1.52	2.07
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	51,025	54,150	53,550	55,315	53,985
1600 (40x40)	Me.HP	0.29	0.71	1.11	1.30	1.89
	Th.HP	0.24	0.71	1.11	1.30	1.89
	O.T.	43,225	47,400	49,580	48,880	48,205
1750 (25x70)	Me.HP	0.14	0.59	0.79	1.08	1.46
	Th.HP	0.14	0.59	0.79	1.08	1.46
	O.T.	31,040	42,245	41,225	40,830	41,610
1800 (60x30)	Me.HP	0.24	0.70	0.99	1.28	1.87
	Th.HP	0.16	0.70	0.98	1.15	1.44
	O.T.	51,025	52,285	54,150	53,550	54,530
2000 (50x40)	Me.HP	0.29	0.73	0.94	1.14	1.56
	Th.HP	0.19	0.73	0.94	1.14	1.56
	O.T.	43,225	47,400	46,875	49,580	48,385
2100 (30x70)	Me.HP	0.15	0.52	0.72	0.92	1.33
	Th.HP	0.15	0.52	0.72	0.92	1.33
	O.T.	31,040	38,560	41,645	41,560	40,035
2400 (60x40)	Me.HP	0.24	0.53	0.74	0.97	1.41
	Th.HP	0.16	0.53	0.74	0.97	1.41
	O.T.	43,225	45,435	47,400	46,875	48,880
2500 (50x50)	Me.HP	0.26	0.59	0.75	0.92	1.25
	Th.HP	0.19	0.59	0.75	0.92	1.25
	O.T.	38,030	42,345	41,875	43,815	42,760
2800 (40x70)	Me.HP	0.16	0.41	0.64	0.75	1.09
	Th.HP	0.16	0.41	0.64	0.75	1.09
	O.T.	31,040	38,990	42,245	41,645	41,315
3000 (60x50)	Me.HP	0.24	0.42	0.60	0.78	1.13
	Th.HP	0.16	0.42	0.60	0.78	1.13
	O.T.	38,030	40,300	42,345	41,875	43,195
3600 (60x60)	Me.HP	0.22	0.35	0.50	0.65	0.94
	Th.HP	0.16	0.35	0.50	0.65	0.94
	O.T.	34,540	39,475	41,535	41,075	42,420
4200 (60x70)	Me.HP	0.19	0.30	0.43	0.56	0.81
	Th.HP	0.16	0.30	0.43	0.56	0.81
	O.T.	31,040	35,140	38,990	38,560	41,645

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:
Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.
For cap and carrier dimensions not shown, see mounting section.
Steeple bearing arrangements follow in this section.
All units can be motorized.
Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.
Set screw end of hollow shaft is considered the extension end.
Unless specified, standard reducers are supplied with right hand helix gear sets.
Reducers are designed for shaft rotation in either direction.
For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.
Divide input RPM by primary ratio to obtain secondary input RPM.
Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.
Hand of assembly views, follow in this section.
Refer to page 26 for lubrication information, efficiency and service factors.
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
3.9375*	60-S60-315	3/4 X 3/8
3.4375*	60-S60-307	3/4 X 3/8
2.9375*	60-S60-215	3/4 X 3/8

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

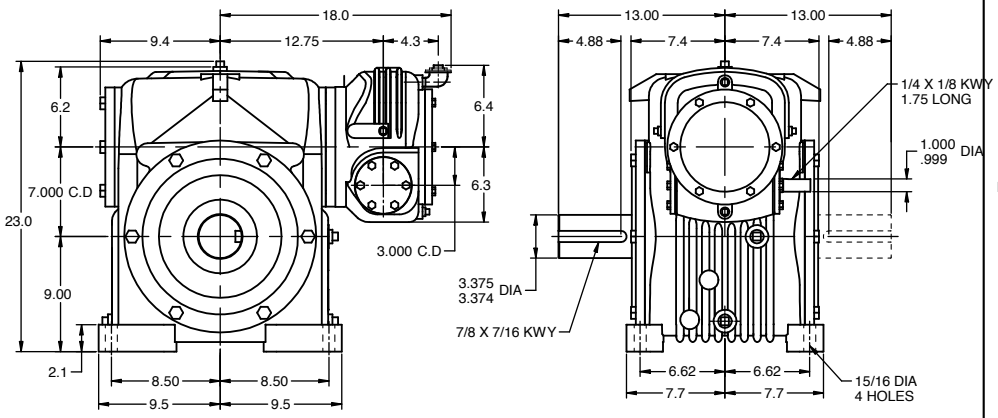
Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)
KEY: **Me.HP** = Mech. Input Power (HP) **Th.HP** = Ther. Input Power - No Fan **O.T.** = Output Torque (In. Lb.)

Cone Drive Double Reduction Units - 3.000" C.D. PRI./7.000" C.D. SEC.

Size 30-70

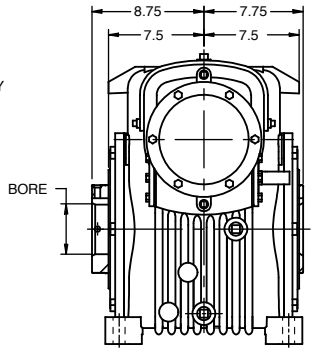
Solid Shaft

Model UO Shown, net. wt. 653 lbs, for all models
00 and VO configurations follow in this section.



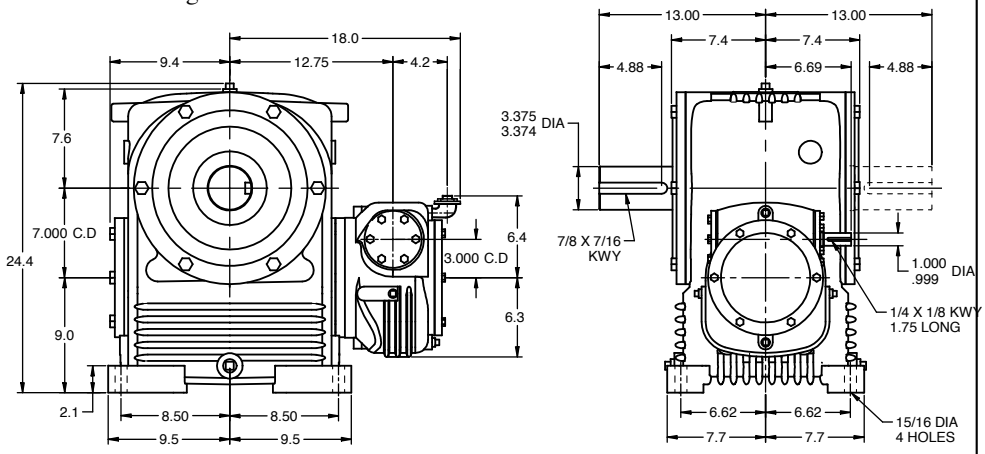
Hollow Shaft

UOS net wt. 678 lbs

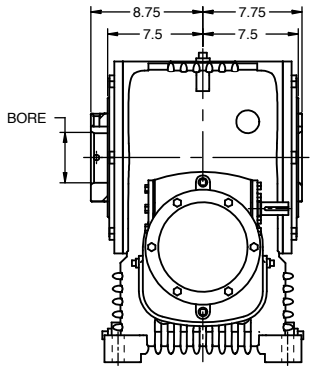


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 672 lbs for all models
UU and VU configurations follow in this section.

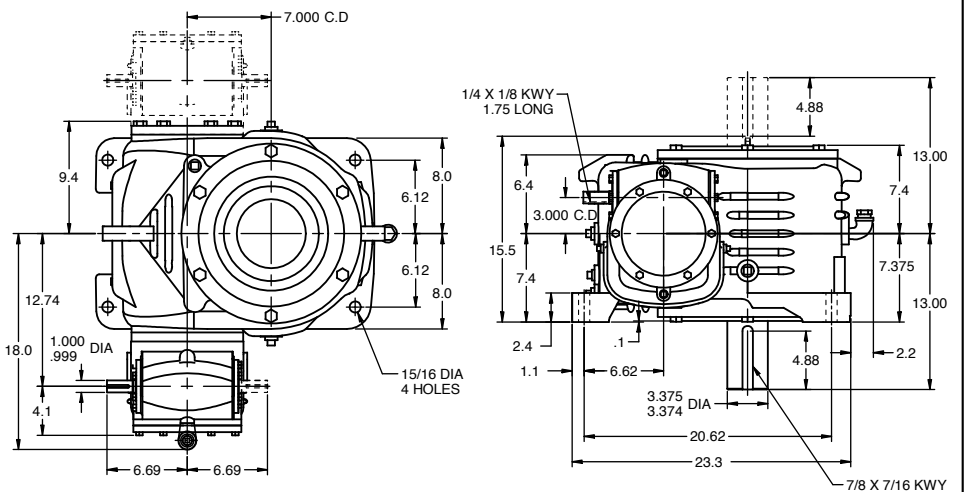


OUS net wt. 697 lbs

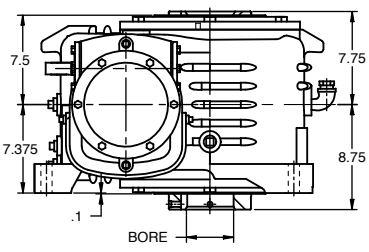


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 684 lbs for all models
UV and VV configurations follow in this section



OVS net wt. 709 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 3.000" C.D. PRI./7.000" C.D. SEC.

Size 30-70

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
100 (5x20)	Me.HP	1.66	7.26	9.34	10.80	13.58
	Th.HP	1.37	3.63	4.25	4.59	5.05
	O.T.	65,940	55,980	48,545	43,535	36,435
125 (5x25)	Me.HP	1.66	7.26	9.34	10.80	13.58
	Th.HP	1.37	3.63	4.25	4.59	5.05
	O.T.	77,785	66,385	57,565	53,060	44,980
200 (10x20)	Me.HP	1.15	5.17	6.84	8.03	10.05
	Th.HP	0.88	3.19	3.61	3.80	4.05
	O.T.	81,645	72,375	67,930	61,785	50,775
250 (10x25)	Me.HP	1.06	5.17	6.84	8.03	10.05
	Th.HP	0.88	3.19	3.61	3.80	4.05
	O.T.	88,655	85,575	80,500	73,275	60,215
300 (15x20)	Me.HP	0.93	4.20	5.59	6.57	8.22
	Th.HP	0.62	2.71	2.99	3.12	3.33
	O.T.	93,560	86,150	78,175	73,175	60,930
350 (5x70)	Me.HP	0.70	3.40	4.67	5.84	8.00
	Th.HP	0.70	3.40	4.25	4.59	5.05
	O.T.	61,445	62,510	59,550	62,880	58,400
375 (15x25)	Me.HP	0.93	3.83	5.38	6.57	8.22
	Th.HP	0.62	2.71	2.99	3.12	3.33
	O.T.	88,655	89,790	85,940	86,160	72,255
400 (20x20)	Me.HP	0.71	3.23	4.30	5.07	6.34
	Th.HP	0.47	2.15	2.73	2.81	2.90
	O.T.	88,780	84,920	76,520	69,095	59,750
450 (15x30)	Me.HP	0.93	3.21	4.50	5.71	8.13
	Th.HP	0.62	2.71	2.99	3.12	3.33
	O.T.	83,560	86,405	82,700	83,065	80,050
500 (25x20)	Me.HP	0.57	2.60	3.46	4.09	5.11
	Th.HP	0.38	1.73	2.29	2.34	2.43
	O.T.	84,615	83,435	75,995	69,565	59,445
600 (30x20)	Me.HP	0.48	2.18	2.91	3.43	4.29
	Th.HP	0.32	1.45	1.94	2.11	2.17
	O.T.	81,480	75,690	72,880	66,770	54,865
625 (25x25)	Me.HP	0.57	2.60	3.45	4.09	5.11
	Th.HP	0.38	1.73	2.29	2.34	2.43
	O.T.	85,655	91,650	89,035	82,255	70,450
700 (10x70)	Me.HP	0.38	1.95	2.71	3.31	4.77
	Th.HP	0.38	1.95	2.71	3.31	4.05
	O.T.	56,155	63,555	63,870	62,830	59,550
750 (30x25)	Me.HP	0.48	2.18	2.91	3.43	4.29
	Th.HP	0.32	1.45	1.94	2.11	2.17
	O.T.	85,655	89,280	86,110	78,950	64,875
800 (40x20)	Me.HP	0.36	1.64	2.19	2.58	3.23
	Th.HP	0.24	1.09	1.46	1.72	1.93
	O.T.	73,285	72,855	69,375	62,745	52,260
900 (30x30)	Me.HP	0.48	1.91	2.64	3.41	4.29
	Th.HP	0.32	1.45	1.94	2.11	2.17
	O.T.	81,880	85,335	86,880	86,405	74,510
1000 (50x20)	Me.HP	0.29	1.32	1.76	2.07	2.60
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	65,050	71,160	65,090	60,425	49,800

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1050 (15x70)	Me.HP	0.40	1.39	1.95	2.47	3.51
	Th.HP	0.40	1.39	1.95	2.47	3.33
	O.T.	56,155	66,300	63,555	64,800	62,510
1200 (40x30)	Me.HP	0.36	1.51	2.19	2.58	3.23
	Th.HP	0.24	1.09	1.46	1.72	1.93
	O.T.	81,880	86,535	88,140	85,090	70,975
1250 (50x25)	Me.HP	0.29	1.32	1.76	2.07	2.60
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	75,155	83,935	76,780	71,395	58,835
1400 (20x70)	Me.HP	0.22	1.09	1.58	2.02	2.84
	Th.HP	0.22	1.09	1.58	2.02	2.84
	O.T.	49,810	66,350	65,520	63,555	63,870
1500 (50x30)	Me.HP	0.29	1.32	1.76	2.07	2.60
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	81,880	86,535	85,335	81,950	67,535
1600 (40x40)	Me.HP	0.36	1.14	1.77	2.07	3.00
	Th.HP	0.24	1.09	1.46	1.72	1.93
	O.T.	69,360	75,750	79,005	77,875	76,670
1750 (25x70)	Me.HP	0.23	0.94	1.25	1.71	2.31
	Th.HP	0.23	0.94	1.25	1.71	2.31
	O.T.	49,810	67,310	65,385	64,735	66,050
1800 (60x30)	Me.HP	0.24	1.10	1.47	1.73	2.17
	Th.HP	0.16	0.73	0.98	1.15	1.44
	O.T.	81,880	83,560	83,135	75,110	64,845
2000 (50x40)	Me.HP	0.29	1.17	1.50	1.82	2.47
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	69,360	75,750	74,700	79,005	76,745
2100 (30x70)	Me.HP	0.24	0.83	1.14	1.47	2.12
	Th.HP	0.24	0.83	1.14	1.47	2.12
	O.T.	49,810	61,445	66,350	66,300	63,555
2400 (60x40)	Me.HP	0.24	0.84	1.19	1.54	2.17
	Th.HP	0.16	0.73	0.98	1.15	1.44
	O.T.	69,360	72,615	75,750	74,700	77,290
2500 (50x50)	Me.HP	0.29	0.94	1.20	1.46	1.99
	Th.HP	0.19	0.88	1.17	1.38	1.73
	O.T.	61,030	67,670	66,730	69,815	67,820
2800 (40x70)	Me.HP	0.26	0.65	1.02	1.19	1.72
	Th.HP	0.24	0.65	1.02	1.19	1.72
	O.T.	49,810	62,310	67,310	66,350	65,520
3000 (60x50)	Me.HP	0.24	0.67	0.95	1.24	1.80
	Th.HP	0.16	0.67	0.95	1.15	1.44
	O.T.	61,030	64,405	67,670	66,730	68,820
3500 (50x70)	Me.HP	0.29	0.67	0.86	1.05	1.42
	Th.HP	0.19	0.67	0.86	1.05	1.42
	O.T.	49,810	62,310	61,445	67,310	65,385
3600 (60x60)	Me.HP	0.24	0.56	0.80	1.03	1.50
	Th.HP	0.16	0.56	0.80	1.03	1.44
	O.T.	55,430	63,090	66,375	65,455	67,585
4200 (60x70)	Me.HP	0.24	0.48	0.68	0.88	1.29
	Th.HP	0.16	0.48	0.68	0.88	1.29
	O.T.	49,810	56,155	62,310	61,445	66,350

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Notes:
Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.
For cap and carrier dimensions not shown, see mounting section.
Steeple bearing arrangements follow in this section.
All units can be motorized.
Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.
Set screw end of hollow shaft is considered the extension end.
Unless specified, standard reducers are supplied with right hand helix gear sets.
Reducers are designed for shaft rotation in either direction.
For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.
Divide input RPM by primary ratio to obtain secondary input RPM.
Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.
Hand of assembly views follow in this section.
Refer to page 26 for lubrication information, efficiency and service factors.
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

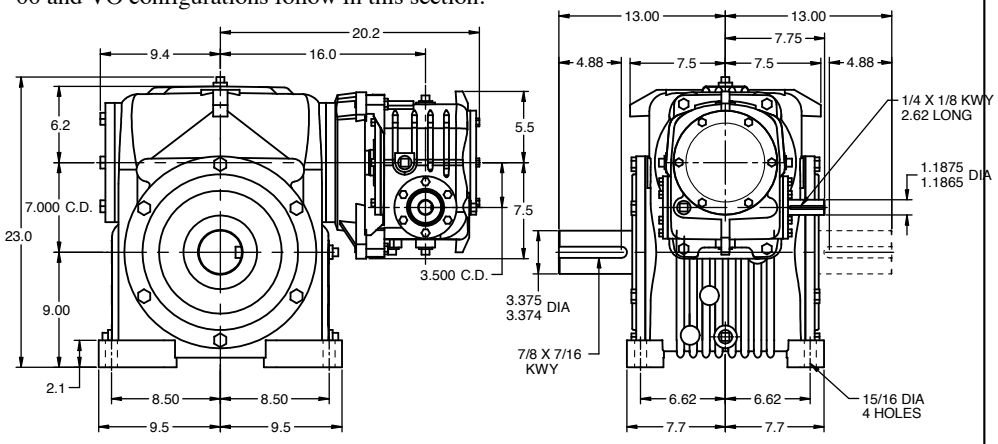
Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Double Reduction Units - 3.500" C.D. PRI./7.000" C.D. SEC.

Size 35-70

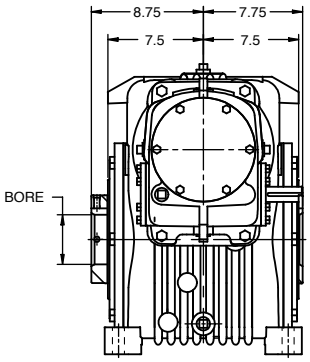
Solid Shaft

Model UO Shown, net. wt. 740 lbs, for all models
00 and VO configurations follow in this section.



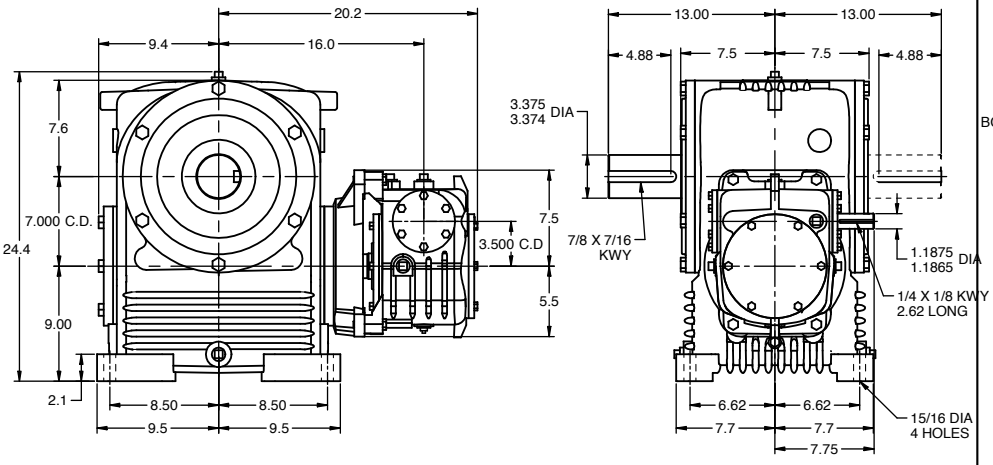
Hollow Shaft

UOS net wt. 765 lbs

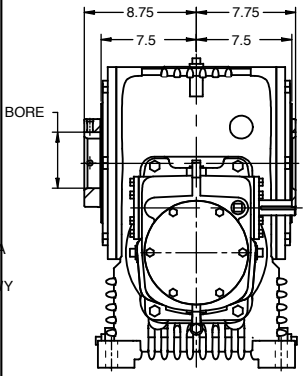


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 800 lbs for all models
UU and VU configurations follow in this section.

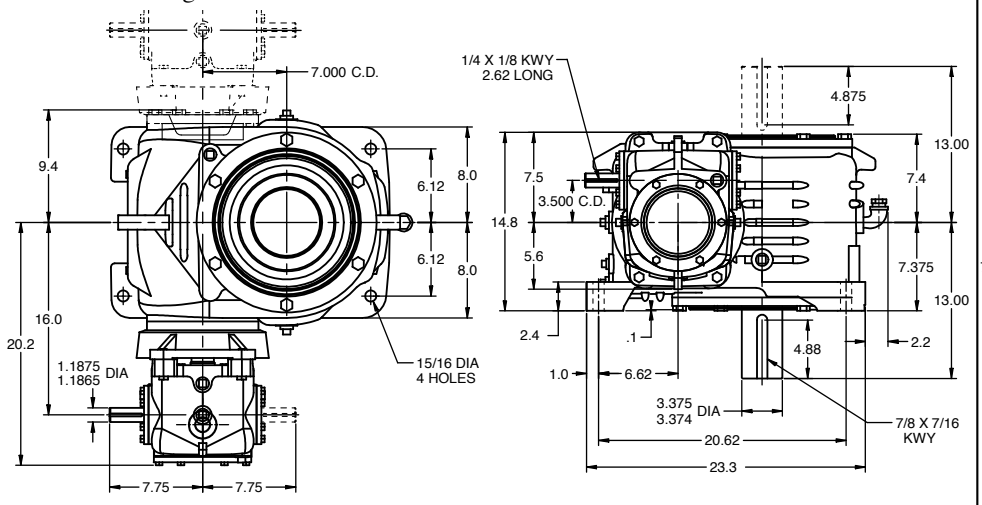


OUS net wt. 825 lbs

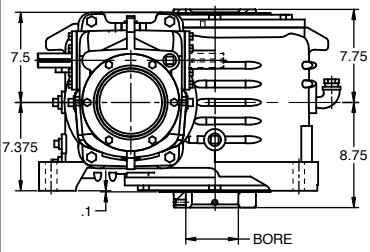


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 800 lbs for all models
UV and VV configurations follow in this section



OVS net wt. 825 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 3.500" C.D. PRI./7.000" C.D. SEC.

Size 35-70

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	3.06	12.97	16.37	19.11	23.54
	Th.HP	2.55	8.09	9.77	10.55	11.61
	O.T.	97,930	78,835	67,070	60,665	49,710
100 (5x20)	Me.HP	2.39	11.64	15.99	19.11	23.54
	Th.HP	2.39	8.09	9.77	10.55	11.61
	O.T.	95,010	86,735	82,620	77,035	63,160
125 (5x25)	Me.HP	1.92	9.39	12.90	16.11	22.05
	Th.HP	1.92	8.09	9.77	10.55	11.61
	O.T.	90,265	82,990	79,055	79,185	73,020
150 (10x15)	Me.HP	1.72	8.70	12.00	13.92	17.37
	Th.HP	1.63	6.57	7.67	8.25	8.80
	O.T.	99,880	94,215	91,655	84,410	69,205
200 (10x20)	Me.HP	1.32	6.67	9.26	11.33	16.35
	Th.HP	1.32	6.57	7.67	8.25	8.80
	O.T.	93,560	90,240	88,815	87,180	82,620
225 (15x15)	Me.HP	1.71	6.21	8.70	11.05	14.27
	Th.HP	1.14	5.04	6.16	6.51	6.95
	O.T.	99,880	98,450	94,215	93,005	83,420
250 (10x25)	Me.HP	1.06	5.38	7.48	9.14	13.19
	Th.HP	1.06	5.38	7.48	8.25	8.80
	O.T.	88,655	85,940	85,050	83,410	79,055
300 (15x20)	Me.HP	1.38	4.74	6.67	8.46	12.03
	Th.HP	1.14	4.74	6.16	6.51	6.95
	O.T.	93,560	94,005	90,240	90,270	86,735
375 (15x25)	Me.HP	1.11	3.83	5.38	6.81	9.71
	Th.HP	1.11	3.83	5.38	6.51	6.95
	O.T.	88,655	89,790	85,940	86,160	82,990
400 (20x20)	Me.HP	0.74	3.72	5.40	6.91	9.69
	Th.HP	0.74	3.72	5.03	5.58	5.82
	O.T.	92,050	94,660	92,890	90,240	88,815
500 (25x20)	Me.HP	0.78	3.23	4.29	5.86	7.90
	Th.HP	0.71	3.12	4.06	4.64	4.82
	O.T.	92,050	96,310	93,560	91,775	92,010
600 (30x20)	Me.HP	0.81	2.83	3.91	5.04	7.26
	Th.HP	0.59	2.62	3.41	3.95	4.17
	O.T.	92,050	95,010	94,660	94,005	90,240
800 (40x20)	Me.HP	0.67	2.24	3.49	4.06	5.57
	Th.HP	0.44	1.97	2.57	2.98	3.64
	O.T.	92,050	96,350	96,310	94,660	90,265
900 (30x30)	Me.HP	0.55	1.91	2.64	3.41	4.90
	Th.HP	0.55	1.91	2.64	3.41	4.17
	O.T.	81,880	85,335	86,880	86,405	82,700
1000 (50x20)	Me.HP	0.53	2.31	2.95	3.59	4.50
	Th.HP	0.36	1.58	2.06	2.39	3.00
	O.T.	92,050	96,350	95,010	96,310	86,305
1200 (40x30)	Me.HP	0.61	1.51	2.36	2.75	3.99
	Th.HP	0.44	1.51	2.36	2.75	3.64
	O.T.	81,880	86,535	88,140	86,880	85,385
1250 (50x25)	Me.HP	0.53	1.86	2.38	2.89	3.93
	Th.HP	0.36	1.58	2.06	2.39	3.00
	O.T.	85,655	91,540	90,265	91,650	89,035
1500 (50x30)	Me.HP	0.53	1.56	1.99	2.42	3.29
	Th.HP	0.36	1.56	1.99	2.39	3.00
	O.T.	81,880	86,535	85,335	88,140	85,620
1800 (60x30)	Me.HP	0.45	1.12	1.58	2.05	2.98
	Th.HP	0.30	1.12	1.58	1.99	2.50
	O.T.	81,880	83,560	86,535	85,335	86,880

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Thermal Input Power - No Fan
O.T. = Output Torque (In. Lb.)

CAUTION:

It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets.

Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views, follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important:

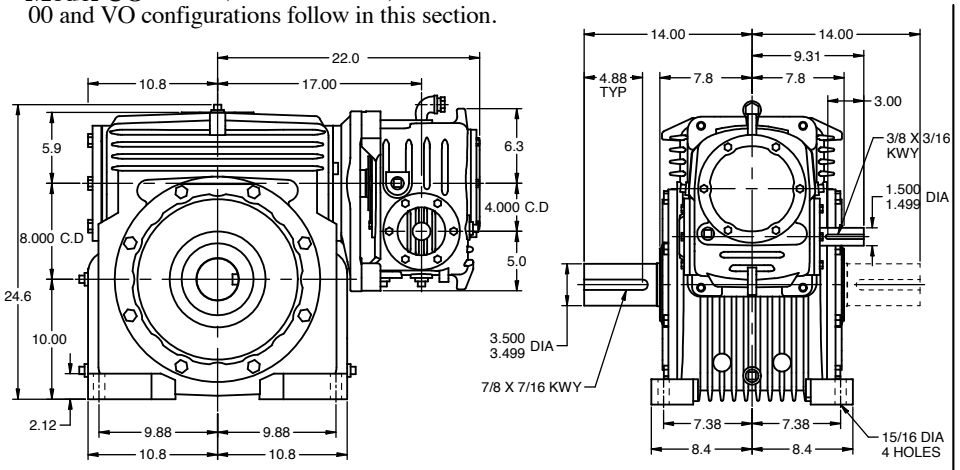
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Double Reduction Units - 4.000" C.D. PRI./8.000" C.D. SEC.

Size 40 - 80

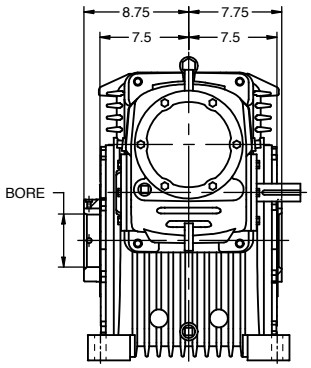
Solid Shaft

Model UO Shown, net. wt. 950 lbs, for all models
00 and VO configurations follow in this section.



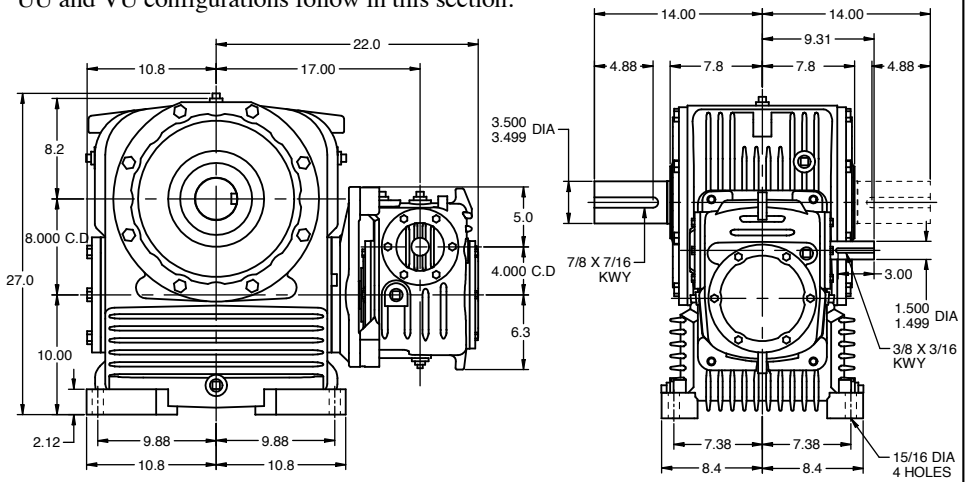
Hollow Shaft

UOS net wt. 980 lbs

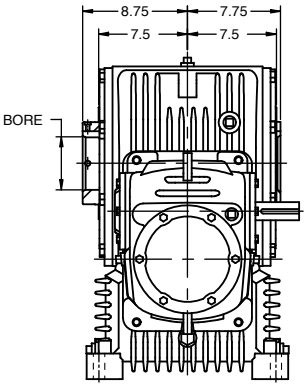


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 1050 lbs for all models
UU and VU configurations follow in this section.

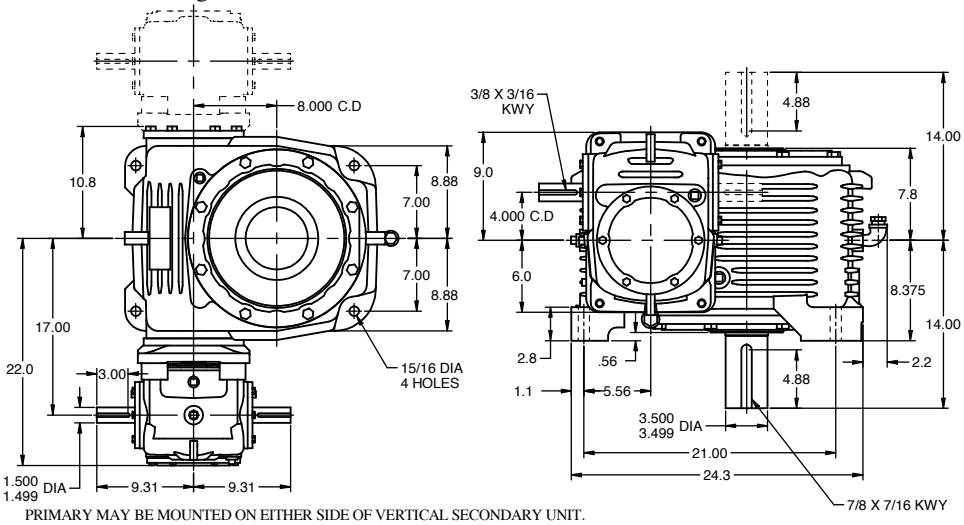


OUS net wt. 1080 lbs



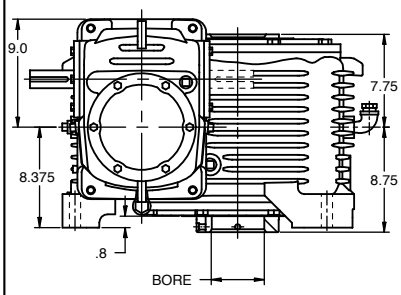
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 965 lbs for all models
UV and VV configurations follow in this section



PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

OVS net wt. 995 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 4.000" C.D. PRI./8.000" C.D. SEC.

Size 40 - 80

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	4.39	17.98	22.40	25.99	31.84
	Th.HP	3.53	9.80	11.83	12.78	14.06
	O.T.	144,945	112,900	94,785	85,220	69,415
100 (5x20)	Me.HP	3.47	16.84	22.40	25.99	31.84
	Th.HP	3.47	9.80	11.83	12.78	14.06
	O.T.	142,620	129,680	120,210	108,220	88,200
125 (5x25)	Me.HP	2.79	13.57	18.61	23.23	31.47
	Th.HP	2.79	9.80	11.83	12.78	14.06
	O.T.	135,495	123,865	117,735	117,860	107,630
150 (10x15)	Me.HP	2.49	12.57	16.59	19.30	23.88
	Th.HP	2.35	7.96	9.30	9.99	10.66
	O.T.	149,940	140,720	134,280	120,965	98,350
200 (10x20)	Me.HP	1.91	9.64	13.37	16.37	23.56
	Th.HP	1.91	7.96	9.30	9.99	10.66
	O.T.	140,450	134,790	132,605	130,125	123,040
225 (15x15)	Me.HP	2.47	8.97	12.57	15.73	19.58
	Th.HP	1.65	6.58	7.46	7.89	8.42
	O.T.	149,940	147,320	140,720	138,875	118,375
250 (10x25)	Me.HP	1.54	7.76	10.77	13.21	19.01
	Th.HP	1.54	7.76	9.30	9.99	10.66
	O.T.	133,085	128,365	126,570	124,500	117,735
300 (15x20)	Me.HP	2.00	6.86	9.64	12.21	17.40
	Th.HP	1.65	6.58	7.46	7.89	8.42
	O.T.	140,450	140,665	134,790	134,790	129,680
350 (5x70)	Me.HP	1.01	4.91	6.75	8.42	11.44
	Th.HP	1.01	4.91	6.75	8.42	11.44
	O.T.	92,230	93,305	88,845	93,595	86,265
375 (15x25)	Me.HP	1.61	5.52	7.76	9.85	14.01
	Th.HP	1.61	5.52	7.46	7.89	8.42
	O.T.	133,085	133,965	128,365	128,865	123,865
400 (20x20)	Me.HP	1.07	5.38	7.80	9.97	13.98
	Th.HP	1.07	5.38	6.50	6.76	7.05
	O.T.	138,565	141,870	138,985	134,790	132,605
450 (15x30)	Me.HP	1.35	4.64	6.50	8.26	11.74
	Th.HP	1.35	4.64	6.50	7.89	8.42
	O.T.	125,440	129,300	123,530	124,235	119,485
500 (25x20)	Me.HP	1.13	4.66	6.23	8.46	11.36
	Th.HP	1.02	4.40	5.47	5.62	5.84
	O.T.	138,565	143,945	140,835	137,305	136,975
600 (30x20)	Me.HP	1.17	4.09	5.64	7.27	10.21
	Th.HP	0.85	3.69	4.71	4.91	5.05
	O.T.	138,565	142,620	141,870	140,665	134,790
625 (25x25)	Me.HP	0.91	3.75	5.02	6.83	9.16
	Th.HP	0.91	3.75	5.02	5.62	5.84
	O.T.	128,940	136,980	134,025	130,965	130,950
700 (10x70)	Me.HP	0.56	2.81	3.91	4.79	6.89
	Th.HP	0.56	2.81	3.91	4.79	6.89
	O.T.	84,300	94,935	95,205	93,940	88,845
750 (30x25)	Me.HP	0.95	3.29	4.54	5.86	8.42
	Th.HP	0.85	3.29	4.54	4.91	5.05
	O.T.	128,940	135,495	135,010	133,965	128,365
800 (40x20)	Me.HP	0.96	3.23	5.02	5.86	7.68
	Th.HP	0.64	2.78	3.55	4.13	4.41
	O.T.	138,565	144,430	143,945	141,870	129,245
900 (30x30)	Me.HP	0.79	2.76	3.81	4.92	7.05
	Th.HP	0.79	2.76	3.81	4.91	5.05
	O.T.	123,260	128,095	129,835	129,300	123,530
1000 (50x20)	Me.HP	0.77	3.32	4.25	4.97	6.16
	Th.HP	0.52	2.23	2.85	3.31	3.92
	O.T.	138,565	144,430	142,620	143,945	122,985
1050 (15x70)	Me.HP	0.58	2.01	2.81	3.57	5.07
	Th.HP	0.58	2.01	2.81	3.57	5.07
	O.T.	84,300	99,215	94,935	96,765	93,305
1200 (40x30)	Me.HP	0.88	2.18	3.38	3.95	5.73
	Th.HP	0.64	2.18	3.38	3.95	4.41
	O.T.	123,260	129,720	131,730	129,835	127,375
1250 (50x25)	Me.HP	0.77	2.67	3.42	4.15	5.68
	Th.HP	0.52	2.23	2.85	3.31	3.92
	O.T.	128,940	137,220	135,495	136,980	134,025
1400 (20x70)	Me.HP	0.31	1.57	2.28	2.91	4.09
	Th.HP	0.31	1.57	2.28	2.91	4.09
	O.T.	74,980	99,150	98,035	94,935	95,205
1500 (50x30)	Me.HP	0.77	2.24	2.87	3.47	4.76
	Th.HP	0.52	2.23	2.85	3.31	3.92
	O.T.	123,260	129,720	128,095	131,730	128,885
1600 (40x40)	Me.HP	0.66	1.64	2.56	2.97	4.31
	Th.HP	0.64	1.64	2.56	2.97	4.31
	O.T.	104,410	113,555	118,585	116,375	114,375
1750 (25x70)	Me.HP	0.33	1.36	1.82	2.47	3.32
	Th.HP	0.33	1.36	1.82	2.47	3.32
	O.T.	74,980	101,035	98,425	96,705	98,175
1800 (60x30)	Me.HP	0.64	1.60	2.27	2.95	4.28
	Th.HP	0.43	1.60	2.27	2.76	3.43
	O.T.	123,260	125,440	129,720	128,095	129,835
2000 (50x40)	Me.HP	0.74	1.68	2.16	2.62	3.58
	Th.HP	0.52	1.68	2.16	2.62	3.58
	O.T.	104,410	113,555	112,130	118,585	115,525
2100 (30x70)	Me.HP	0.34	1.19	1.65	2.13	3.05
	Th.HP	0.34	1.19	1.65	2.13	3.05
	O.T.	74,980	92,230	99,150	99,215	94,935
2400 (60x40)	Me.HP	0.64	1.21	1.71	2.22	3.22
	Th.HP	0.43	1.21	1.71	2.22	3.22
	O.T.	104,410	109,005	113,555	112,130	116,375
2500 (50x50)	Me.HP	0.59	1.35	1.73	2.10	2.87
	Th.HP	0.52	1.35	1.73	2.10	2.87
	O.T.	91,870	101,435	100,165	104,795	102,090
2800 (40x70)	Me.HP	0.38	0.94	1.47	1.71	2.48
	Th.HP	0.38	0.94	1.47	1.71	2.48
	O.T.	74,980	93,405	101,035	99,150	98,035
3000 (60x50)	Me.HP	0.61	0.97	1.37	1.78	2.58
	Th.HP	0.43	0.97	1.37	1.78	2.58
	O.T.	91,870	96,685	101,435	100,165	102,845
3600 (60x60)	Me.HP	0.51	0.81	1.14	1.48	2.15
	Th.HP	0.43	0.81	1.14	1.48	2.15
	O.T.	83,435	94,710	99,500	98,250	101,000
4200 (60x70)	Me.HP	0.43	0.69	0.98	1.27	1.85
	Th.HP	0.43	0.69	0.98	1.27	1.85
	O.T.	74,980	84,300	93,405	92,230	99,150

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

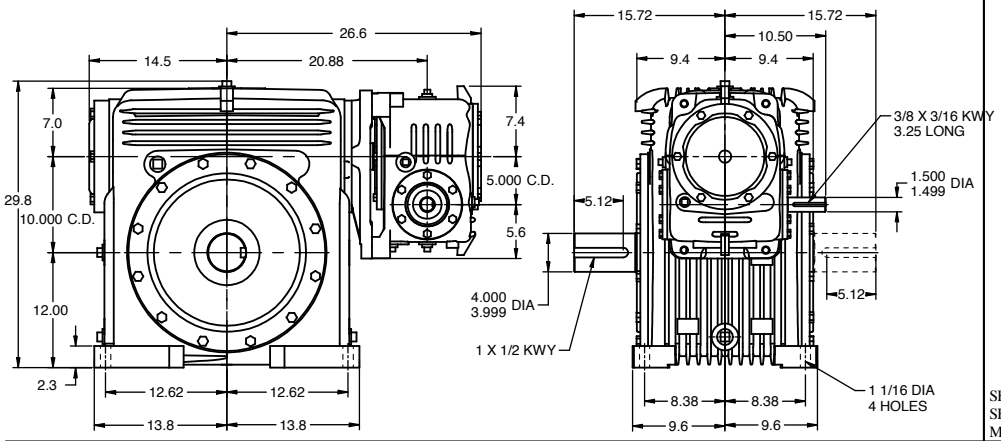
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

Cone Drive Double Reduction Units - 5.000" C.D. PRI./10.000" C.D. SEC.

Size 50-100

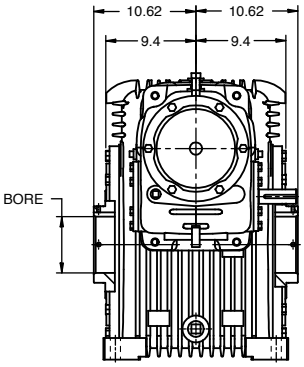
Solid Shaft

Model UO Shown, net. wt. 1755 lbs, for all models
00 and VO configurations follow in this section.



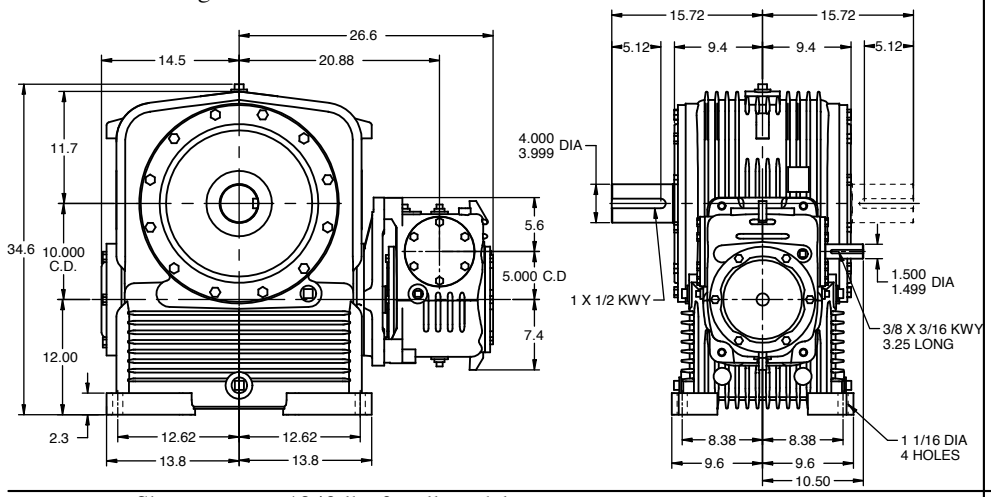
Hollow Shaft

UOS net wt. 1805 lbs

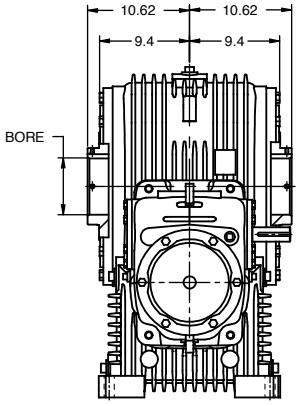


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 1995 lbs for all models
UU and VU configurations follow in this section.

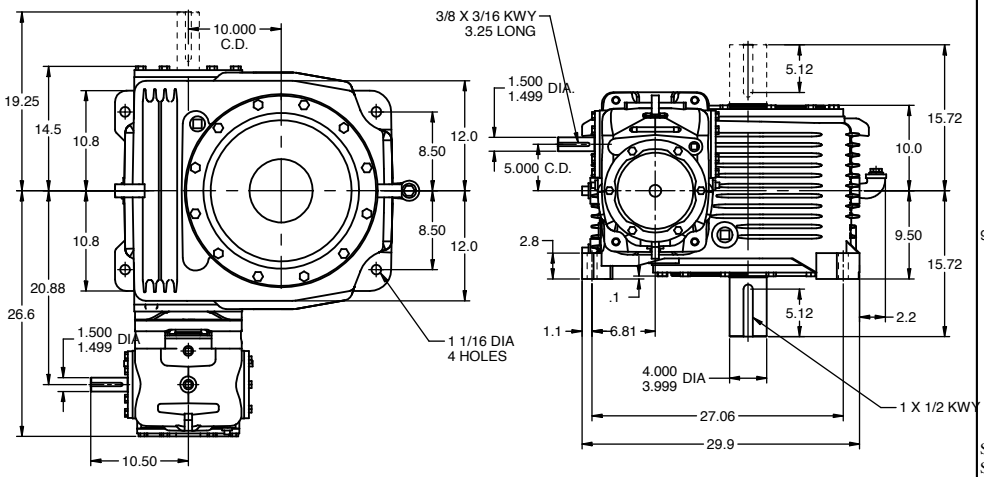


OUS net wt. 2045 lbs

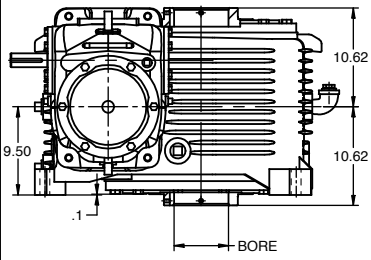


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 1940 lbs for all models
UV and VV configurations follow in this section



OVS net wt. 1990 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 5.000" C.D. PRI./10.000" C.D. SEC.

Size 50-100

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	8.59	33.96	42.19	48.26	58.80
	Th.HP	4.41	12.24	14.77	15.96	17.55
	O.T.	291,370	218,465	182,835	162,010	131,225
100 (5x20)	Me.HP	6.57	31.64	42.19	48.26	58.80
	Th.HP	4.41	12.24	14.77	15.96	17.55
	O.T.	277,970	249,835	232,170	205,965	166,925
125 (5x25)	Me.HP	5.31	25.53	34.52	42.56	56.00
	Th.HP	4.41	12.24	14.77	15.96	17.55
	O.T.	265,665	239,375	224,285	221,525	196,305
150 (10x15)	Me.HP	4.78	23.55	30.43	35.34	43.33
	Th.HP	3.93	9.93	11.60	12.47	13.31
	O.T.	295,335	270,360	252,375	226,895	182,800
200 (10x20)	Me.HP	3.66	18.03	25.14	30.86	43.33
	Th.HP	3.66	9.93	11.60	12.47	13.31
	O.T.	277,285	259,000	255,805	251,590	232,125
225 (15x15)	Me.HP	4.87	16.91	23.55	28.85	35.33
	Th.HP	3.25	8.22	9.31	9.85	10.52
	O.T.	295,335	284,725	270,360	267,220	218,780
250 (10x25)	Me.HP	2.94	14.57	20.28	24.86	35.26
	Th.HP	2.94	9.93	11.60	12.47	13.31
	O.T.	263,215	247,825	244,915	240,630	224,285
300 (15x20)	Me.HP	3.83	12.95	18.03	22.94	32.68
	Th.HP	3.25	8.22	9.31	9.85	10.52
	O.T.	277,285	272,740	259,000	259,700	249,835
350 (5x70)	Me.HP	1.92	9.26	12.52	15.44	20.36
	Th.HP	1.92	9.26	12.52	15.44	17.55
	O.T.	183,400	182,270	170,800	177,155	158,435
375 (15x25)	Me.HP	3.09	10.43	14.57	18.47	26.37
	Th.HP	3.09	8.22	9.31	9.85	10.52
	O.T.	263,215	260,135	247,825	248,220	239,375
400 (20x20)	Me.HP	2.06	10.25	14.72	18.65	26.28
	Th.HP	2.06	7.29	8.11	8.43	8.80
	O.T.	274,950	277,780	269,405	259,000	255,805
450 (15x30)	Me.HP	2.59	8.74	12.21	15.48	22.09
	Th.HP	2.59	8.22	9.31	9.85	10.52
	O.T.	248,595	250,640	238,780	239,580	231,165
500 (25x20)	Me.HP	2.17	8.84	11.75	15.97	21.34
	Th.HP	2.00	6.33	6.82	7.02	7.29
	O.T.	274,950	280,655	272,850	266,075	264,025
600 (30x20)	Me.HP	2.26	7.75	10.75	13.73	18.51
	Th.HP	1.68	5.46	5.97	6.13	6.31
	O.T.	274,950	277,970	277,780	272,740	252,200
625 (25x25)	Me.HP	1.75	7.12	9.49	12.86	17.22
	Th.HP	1.75	6.33	6.82	7.02	7.29
	O.T.	256,465	267,490	260,830	253,785	252,775
700 (10x70)	Me.HP	1.07	5.27	7.35	9.01	12.79
	Th.HP	1.07	5.27	7.35	9.01	12.79
	O.T.	169,760	184,885	185,645	183,225	170,800
750 (30x25)	Me.HP	1.82	6.27	8.66	11.06	15.80
	Th.HP	1.68	5.46	5.97	6.13	6.31
	O.T.	256,465	265,665	264,750	260,135	247,825
800 (40x20)	Me.HP	1.89	6.17	9.52	11.16	13.92
	Th.HP	1.26	5.22	5.14	5.32	5.50
	O.T.	274,950	283,970	280,655	277,780	240,690
900 (30x30)	Me.HP	1.52	5.25	7.26	9.26	13.24
	Th.HP	1.52	5.25	5.97	6.13	6.31
	O.T.	245,570	251,610	254,930	250,640	238,780
1000 (50x20)	Me.HP	1.52	6.28	7.82	9.12	11.17
	Th.HP	1.01	3.84	4.27	4.57	4.89
	O.T.	274,950	283,970	277,970	280,655	229,115
1050 (15x70)	Me.HP	1.12	3.79	5.27	6.70	9.56
	Th.HP	1.12	3.79	5.27	6.70	9.56
	O.T.	169,760	194,665	184,885	188,150	182,270
1200 (40x30)	Me.HP	1.69	4.17	6.42	7.53	10.83
	Th.HP	1.26	4.17	5.14	5.32	5.50
	O.T.	245,570	255,940	257,570	254,930	247,965
1250 (50x25)	Me.HP	1.52	5.11	6.52	7.87	10.74
	Th.HP	1.01	3.84	4.27	4.57	4.89
	O.T.	256,465	270,230	265,665	267,490	260,830
1400 (20x70)	Me.HP	0.60	2.99	4.30	5.46	7.69
	Th.HP	0.60	2.99	4.30	5.46	7.69
	O.T.	152,650	196,515	191,995	184,885	185,645
1500 (50x30)	Me.HP	1.52	4.28	5.46	6.59	9.00
	Th.HP	1.01	3.84	4.27	4.57	4.89
	O.T.	245,570	255,940	251,610	257,570	251,160
1600 (40x40)	Me.HP	1.27	3.13	4.83	5.66	8.14
	Th.HP	1.26	3.13	4.83	5.32	5.50
	O.T.	209,290	225,040	231,675	229,300	223,405
1750 (25x70)	Me.HP	0.63	2.58	3.44	4.66	6.24
	Th.HP	0.63	2.58	3.44	4.66	6.24
	O.T.	152,650	198,550	193,605	189,625	191,595
1800 (60x30)	Me.HP	1.27	3.07	4.34	5.61	8.15
	Th.HP	0.84	3.07	3.79	4.13	4.40
	O.T.	245,570	248,595	255,940	251,610	254,930
2000 (50x40)	Me.HP	1.43	3.22	4.11	4.96	6.77
	Th.HP	1.01	3.22	4.11	4.57	4.89
	O.T.	209,290	225,040	221,235	231,675	225,910
2100 (30x70)	Me.HP	0.66	2.27	3.14	4.01	5.72
	Th.HP	0.66	2.27	3.14	4.01	5.72
	O.T.	152,650	183,400	196,515	194,665	184,885
2400 (60x40)	Me.HP	1.27	2.31	3.26	4.22	6.13
	Th.HP	0.84	2.31	3.26	4.13	4.40
	O.T.	209,290	217,100	225,040	221,235	229,300
2500 (50x50)	Me.HP	1.15	2.58	3.29	3.98	5.43
	Th.HP	1.01	2.58	3.29	3.98	4.89
	O.T.	185,165	201,890	198,480	205,635	200,520
2800 (40x70)	Me.HP	0.73	1.80	2.78	3.25	4.68
	Th.HP	0.73	1.80	2.78	3.25	4.68
	O.T.	152,650	186,550	198,550	196,515	191,995
3000 (60x50)	Me.HP	1.17	1.85	2.62	3.38	4.92
	Th.HP	0.84	1.85	2.62	3.38	4.40
	O.T.	185,165	193,495	201,890	198,480	203,530
3600 (60x60)	Me.HP	0.97	1.55	2.18	2.82	4.10
	Th.HP	0.84	1.55	2.18	2.82	4.10
	O.T.	168,930	189,715	198,195	194,845	200,025
4200 (60x70)	Me.HP	0.84	1.33	1.88	2.42	3.52
	Th.HP	0.84	1.33	1.88	2.42	3.52
	O.T.	152,650	169,760	186,550	183,400	196,515

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
5.9375	100-S61-515	1-1/4 X 7/16

Special hollow gear shaft bore sizes are available at additional cost.
Bore Tolerance: +.004, -.000
2 set screws at long end of shaft.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

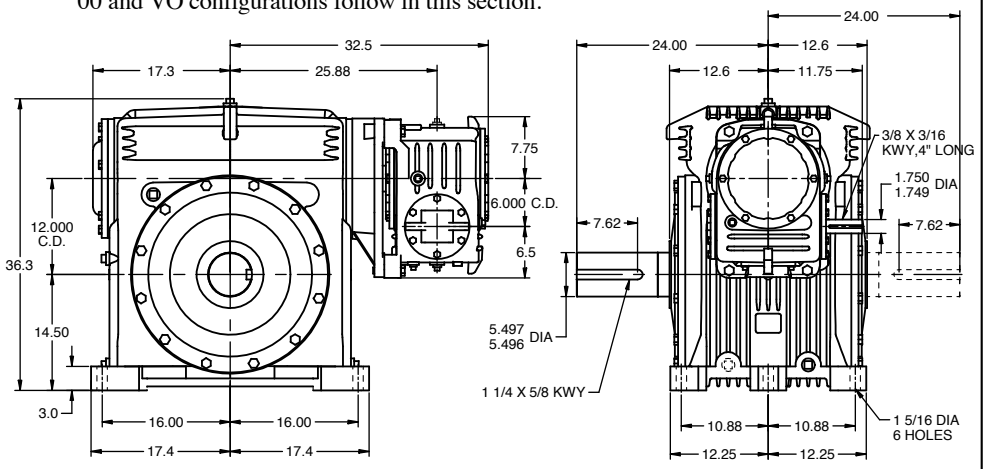
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

Cone Drive Double Reduction Units - 6.000" C.D. PRI./12.000" C.D. SEC.

Size 60-120

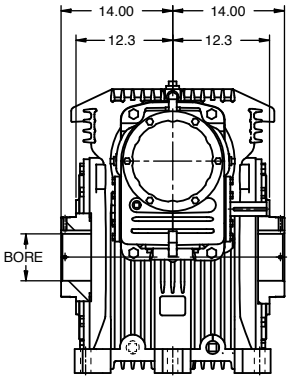
Solid Shaft

Model UO Shown, net. wt. 3370 lbs, for all models
00 and VO configurations follow in this section.



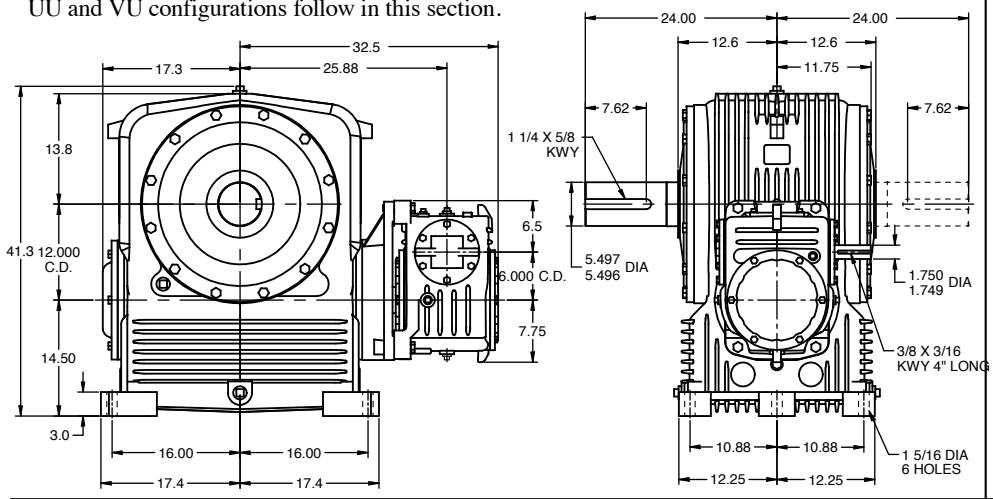
Hollow Shaft

UOS net wt. 3420 lbs

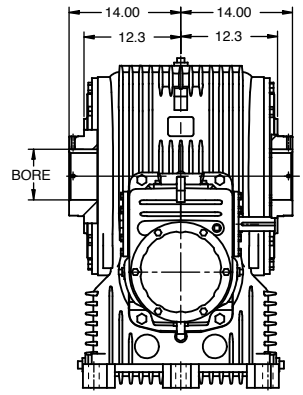


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OU Shown net wt. 3510 lbs for all models
UU and VU configurations follow in this section.

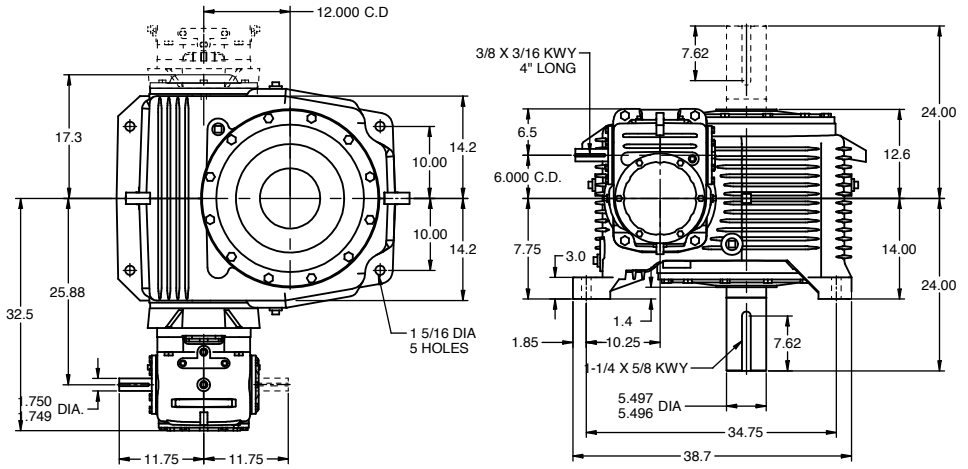


OUS net wt. 3560 lbs

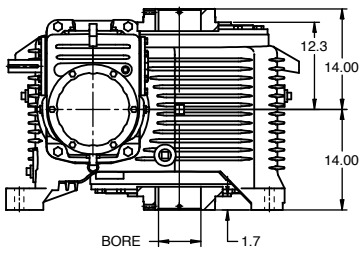


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model OV Shown net wt. 3315 lbs for all models
UV and VV configurations follow in this section.



OVS net wt. 3400 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 6.000" C.D. PRI./12.000" C.D. SEC.

Size 60-120

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	13.31	48.28	59.84	68.35	79.85
	Th.HP	6.28	17.44	21.04	22.73	25.01
	O.T.	451,330	310,590	259,340	229,425	178,200
100 (5x20)	Me.HP	11.24	48.28	59.84	68.35	79.85
	Th.HP	6.28	17.44	21.04	22.73	25.01
	O.T.	475,385	394,400	329,320	291,675	226,675
125 (5x25)	Me.HP	9.05	43.06	57.65	68.35	79.85
	Th.HP	6.28	17.44	21.04	22.73	25.01
	O.T.	452,385	403,720	374,620	355,700	279,930
150 (10x15)	Me.HP	8.23	35.27	43.82	50.62	60.62
	Th.HP	5.59	14.15	16.53	17.77	18.97
	O.T.	508,205	418,900	363,470	324,945	255,715
200 (10x20)	Me.HP	6.29	30.53	42.66	50.62	60.62
	Th.HP	5.59	14.15	16.53	17.77	18.97
	O.T.	477,145	438,570	434,100	412,630	324,715
225 (15x15)	Me.HP	7.46	28.80	35.75	41.22	49.71
	Th.HP	4.75	11.71	13.27	14.03	14.98
	O.T.	508,205	484,980	424,570	383,760	307,800
250 (10x25)	Me.HP	5.07	24.67	34.42	42.01	58.89
	Th.HP	5.07	14.15	16.53	17.77	18.97
	O.T.	452,935	419,680	415,635	406,625	374,620
300 (15x20)	Me.HP	6.60	22.02	30.53	38.87	49.71
	Th.HP	4.75	11.71	13.27	14.03	14.98
	O.T.	477,145	463,855	438,570	440,110	390,860
350 (5x70)	Me.HP	3.29	15.61	20.91	25.35	32.50
	Th.HP	3.29	15.61	20.91	22.73	25.01
	O.T.	313,670	307,420	285,305	290,895	252,840
375 (15x25)	Me.HP	5.31	17.76	24.67	31.31	44.48
	Th.HP	4.75	11.71	13.27	14.03	14.98
	O.T.	452,935	443,115	419,680	420,660	403,720
400 (20x20)	Me.HP	3.55	17.42	24.95	31.59	38.50
	Th.HP	3.55	10.39	11.55	12.02	12.54
	O.T.	475,150	472,015	456,630	438,570	385,375
450 (15x30)	Me.HP	4.45	14.88	20.67	26.27	37.33
	Th.HP	4.45	11.71	13.27	14.03	14.98
	O.T.	427,775	426,940	404,365	406,700	390,575
500 (25x20)	Me.HP	3.75	15.18	20.02	25.55	31.01
	Th.HP	3.07	9.02	9.72	10.00	10.39
	O.T.	475,150	481,995	464,880	449,405	383,580
600 (30x20)	Me.HP	3.87	13.25	18.27	21.41	26.09
	Th.HP	2.58	7.77	8.51	8.73	8.99
	O.T.	475,150	475,385	472,015	443,930	355,445
625 (25x25)	Me.HP	3.02	12.23	16.13	21.79	29.19
	Th.HP	3.02	9.02	9.72	10.00	10.39
	O.T.	443,200	459,385	443,075	430,020	428,555
700 (10x70)	Me.HP	1.83	8.95	12.48	15.23	21.36
	Th.HP	1.83	8.95	12.48	15.23	18.97
	O.T.	292,115	313,610	315,065	309,635	285,305
750 (30x25)	Me.HP	3.15	10.67	14.76	18.83	26.09
	Th.HP	2.58	7.77	8.51	8.73	8.99
	O.T.	443,200	452,385	451,230	443,115	419,680
800 (40x20)	Me.HP	2.91	10.61	14.07	16.10	19.62
	Th.HP	1.93	7.55	7.32	7.58	7.84
	O.T.	475,150	487,880	476,955	418,095	339,225
900 (30x30)	Me.HP	2.64	8.94	12.37	15.78	22.41
	Th.HP	2.58	7.77	8.51	8.73	8.99
	O.T.	424,370	428,460	434,495	426,940	404,365
1000 (50x20)	Me.HP	2.33	9.09	11.29	12.92	15.74
	Th.HP	1.55	5.47	6.09	6.50	6.97
	O.T.	475,150	487,880	447,575	403,295	322,910
1050 (15x70)	Me.HP	1.92	6.43	8.95	11.35	16.13
	Th.HP	1.92	6.43	8.95	11.35	14.98
	O.T.	292,115	330,575	313,610	318,870	307,420

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1200 (40x30)	Me.HP	2.91	7.16	11.03	12.84	18.33
	Th.HP	1.93	7.16	7.32	7.58	7.84
	O.T.	424,370	439,720	442,345	434,495	419,635
1250 (50x25)	Me.HP	2.33	8.78	11.10	12.92	15.74
	Th.HP	1.55	5.47	6.09	6.50	6.97
	O.T.	443,200	464,275	452,385	459,385	382,110
1400 (20x70)	Me.HP	1.04	5.09	7.30	9.25	13.05
	Th.HP	1.04	5.09	7.30	9.25	12.54
	O.T.	263,800	334,930	325,950	313,610	315,065
1500 (50x30)	Me.HP	2.33	7.35	9.30	11.32	15.29
	Th.HP	1.55	5.47	6.09	6.50	6.97
	O.T.	424,370	439,720	428,460	442,345	426,640
1600 (40x40)	Me.HP	2.20	5.38	8.30	9.65	13.83
	Th.HP	1.93	5.38	7.32	7.58	7.84
	O.T.	361,680	386,635	397,875	390,810	379,270
1750 (25x70)	Me.HP	1.09	4.43	5.85	7.89	10.58
	Th.HP	1.09	4.43	5.85	7.89	10.39
	O.T.	263,800	340,985	329,890	320,810	324,845
1800 (60x30)	Me.HP	1.95	5.29	7.46	9.56	13.13
	Th.HP	1.29	4.83	5.40	5.89	6.27
	O.T.	424,370	427,775	439,720	428,460	422,380
2000 (50x40)	Me.HP	2.33	5.53	7.02	8.51	11.50
	Th.HP	1.55	5.47	6.09	6.50	6.97
	O.T.	361,680	386,635	378,385	397,875	383,750
2100 (30x70)	Me.HP	1.14	3.88	5.34	6.82	9.70
	Th.HP	1.14	3.88	5.34	6.82	8.99
	O.T.	263,800	313,670	334,930	330,575	313,610
2400 (60x40)	Me.HP	1.95	3.98	5.61	7.22	10.45
	Th.HP	1.29	3.98	5.40	5.89	6.27
	O.T.	361,680	373,580	386,635	378,385	390,810
2500 (50x50)	Me.HP	1.98	4.44	5.63	6.83	9.25
	Th.HP	1.55	4.44	5.63	6.50	6.97
	O.T.	319,985	346,860	339,460	353,160	341,665
2800 (40x70)	Me.HP	1.26	3.09	4.77	5.55	7.94
	Th.HP	1.26	3.09	4.77	5.55	7.84
	O.T.	263,800	320,510	340,985	334,930	325,950
3000 (60x50)	Me.HP	1.95	3.19	4.50	5.79	8.38
	Th.HP	1.29	3.19	4.50	5.79	6.27
	O.T.	319,985	332,960	346,860	339,460	346,890
3600 (60x60)	Me.HP	1.68	2.66	3.75	4.83	6.99
	Th.HP	1.29	2.66	3.75	4.83	6.27
	O.T.	291,930	326,455	340,510	333,245	340,920
4200 (60x70)	Me.HP	1.44	2.29	3.22	4.15	6.00
	Th.HP	1.29	2.29	3.22	4.15	6.00
	O.T.	263,800	292,115	320,510	313,670	334,930

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
7.9375	120-S61-715	1-1/2 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
Bore Tolerance: +.004, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangement follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

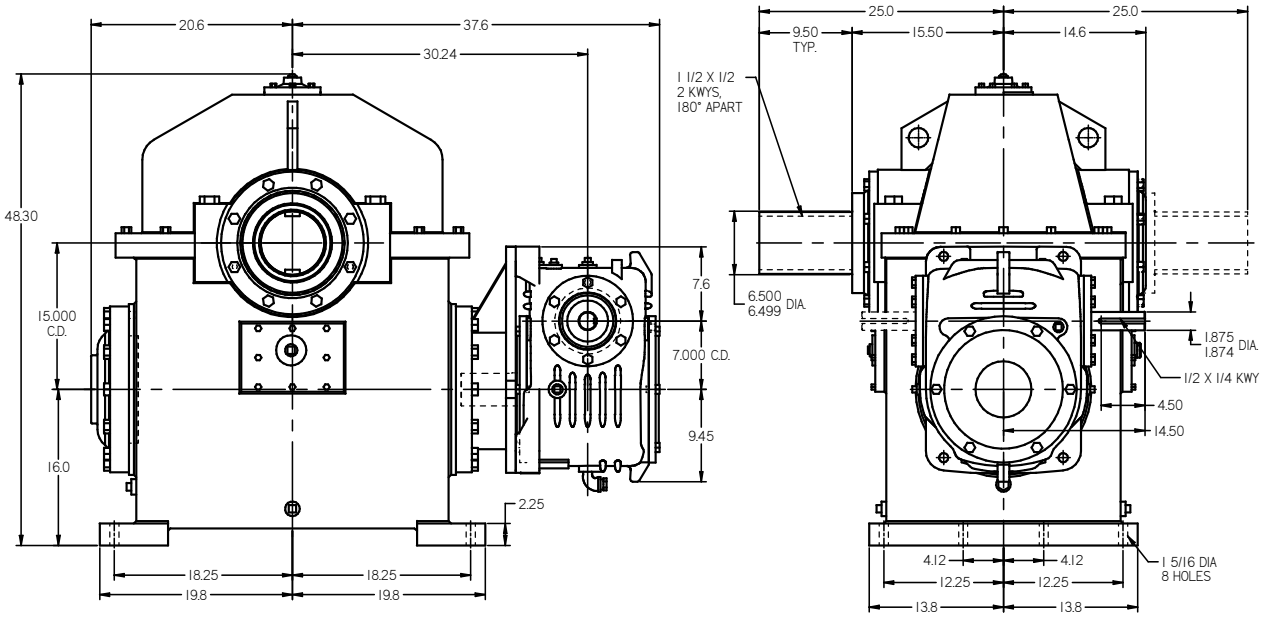
Cone Drive Double Reduction Units - 7.000" C.D. PRI./15.000" C.D. SEC.

Size 70-150
Solid Shaft

Alternate

UU & VU

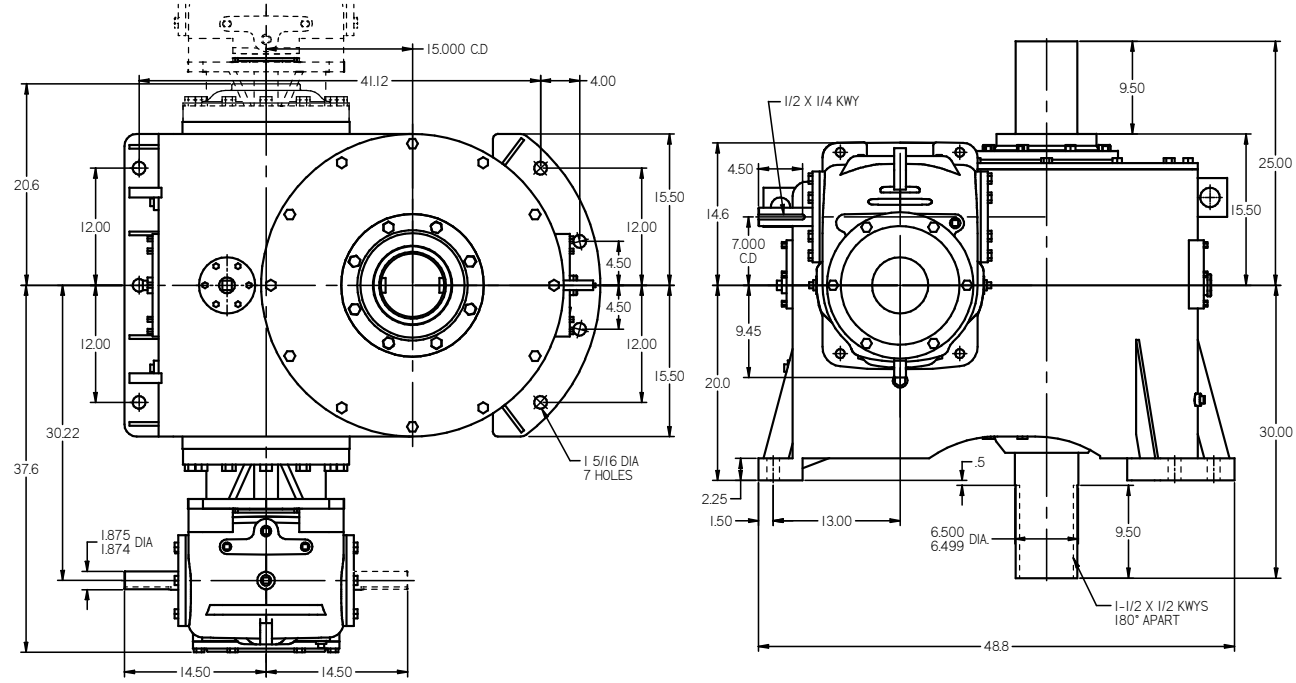
Model OU Shown.



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Shown
Model OV

Alternate
UV & VV approx. net wt. 4500 lbs.



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 7.000" C.D. PRI./15.000" C.D. SEC.

Size 70-150

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	16.20	60.00	73.90	83.60	96.40
	Th.HP	8.50	20.40	25.00	28.09	31.00
	O.T.	557,000	388,000	325,000	282,000	218,000
100 (5x20)	Me.HP	12.50	60.00	73.90	83.60	96.40
	Th.HP	8.50	19.30	23.40	27.00	31.00
	O.T.	541,000	494,000	413,000	358,000	278,000
125 (5x25)	Me.HP	10.30	51.90	70.30	83.60	96.40
	Th.HP	8.50	19.00	23.40	23.00	29.00
	O.T.	522,000	510,000	477,000	440,000	344,000
150 (10x15)	Me.HP	8.89	41.10	51.20	58.70	68.40
	Th.HP	7.55	18.96	20.00	21.00	25.70
	O.T.	557000	500000	425000	376000	296000
200 (10x20)	Me.HP	8.89	41.10	51.20	58.70	68.40
	Th.HP	6.89	18.96	18.50	19.40	23.00
	O.T.	541000	541000	540000	477000	376000
225 (15x15)	Me.HP	6.34	29.30	36.50	41.90	49.20
	Th.HP	6.34	15.80	15.00	17.00	20.00
	O.T.	557000	512000	442000	390000	307000
250 (10x25)	Me.HP	5.67	28.60	41.50	52.50	68.40
	Th.HP	5.67	15.90	16.50	16.40	21.00
	O.T.	522000	522000	522000	511000	456000
300 (15x20)	Me.HP	4.95	24.60	35.30	41.90	49.20
	Th.HP	4.95	15.80	17.80	18.75	20.02
	O.T.	541,000	541,000	541,000	494,000	390,000
375 (15x25)	Me.HP	4.13	20.00	28.60	37.10	49.20
	Th.HP	4.13	15.80	15.92	15.75	16.87
	O.T.	522,000	522,000	522,000	522,000	466,000
400 (20x20)	Me.HP	3.98	19.20	28.00	32.20	37.90
	Th.HP	3.98	13.90	15.00	15.00	16.00
	O.T.	541,000	541,000	541,000	480,000	382,000
450 (15x30)	Me.HP	3.49	16.80	24.00	31.10	45.10
	Th.HP	3.49	12.35	12.00	14.00	16.00
	O.T.	501,000	501,000	501,000	501,000	487,000
500 (25x20)	Me.HP	3.35	15.70	22.80	29.50	37.90
	Th.HP	3.35	13.90	15.50	16.20	16.29
	O.T.	522,000	522,000	522,000	522,000	456,000
600 (30x20)	Me.HP	2.83	13.20	19.10	24.70	36.40
	Th.HP	2.83	13.20	12.65	12.50	14.00
	O.T.	501,000	501,000	501,000	501,000	501,000
625 (25x25)	Me.HP	2.87	13.00	18.60	23.90	30.70
	Th.HP	2.87	13.00	12.50	12.50	13.00
	O.T.	522,000	522,000	522,000	522,000	451,000
700 (10x70)	Me.HP	1.76	6.62	8.23	9.46	11.20
	Th.HP	1.76	6.08	6.75	7.30	7.70
	O.T.	327,000	272,000	240,000	214,000	169,000
750 (30x25)	Me.HP	2.56	11.70	16.40	21.10	25.80
	Th.HP	2.56	10.00	10.45	11.70	12.15
	O.T.	522,000	522,000	522,000	522,000	430,000
800 (40x20)	Me.HP	2.54	11.30	14.30	16.40	19.40
	Th.HP	2.54	8.90	9.50	10.00	10.65
	O.T.	541,000	541,000	485,000	432,000	341,000
900 (30x30)	Me.HP	2.15	9.83	13.70	17.70	25.80
	Th.HP	2.15	9.83	10.45	11.70	12.15
	O.T.	501,000	501,000	501,000	501,000	492,000
1000 (50x20)	Me.HP	2.19	9.28	13.10	16.40	19.40
	Th.HP	2.19	8.90	9.85	10.25	10.65
	O.T.	522,000	522,000	522,000	509,000	404,000
1050 (15x70)	Me.HP	1.76	6.62	8.23	9.46	11.20
	Th.HP	1.76	6.08	6.75	7.30	7.70
	O.T.	450,000	391,000	346,000	308,000	243,000
1200 (40x30)	Me.HP	1.83	7.80	11.00	14.10	19.40
	Th.HP	1.83	7.80	9.85	10.25	10.65
	O.T.	501,000	501,000	501,000	501,000	463,000

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1250 (50x25)	Me.HP	2.01	7.70	11.10	13.20	15.60
	Th.HP	2.01	7.70	7.43	8.77	9.45
	O.T.	522,000	522,000	522,000	486,000	386,000
1400 (20x70)	Me.HP	1.76	6.62	8.23	9.46	11.20
	Th.HP	1.76	6.08	6.75	7.30	7.70
	O.T.	541,000	489,000	435,000	388,000	306,000
1500 (50x30)	Me.HP	1.68	6.46	9.28	11.90	15.60
	Th.HP	1.68	6.46	8.25	8.77	9.45
	O.T.	501,000	501,000	501,000	501,000	442,000
1600 (40x40)	Me.HP	1.47	6.11	8.55	10.90	16.10
	Th.HP	1.47	6.11	8.00	9.50	10.00
	O.T.	455,000	455,000	455,000	455,000	455,000
1750 (25x70)	Me.HP	1.54	6.06	8.23	9.46	11.20
	Th.HP	1.54	6.06	6.50	7.30	7.70
	O.T.	522,000	522,000	508,000	454,000	361,000
1800 (60x30)	Me.HP	1.45	5.83	8.11	10.40	13.00
	Th.HP	1.45	5.83	7.30	7.50	8.00
	O.T.	501,000	501,000	501,000	501,000	421,000
2000 (50x40)	Me.HP	1.35	5.09	7.25	9.24	13.60
	Th.HP	1.35	5.09	6.65	8.56	8.50
	O.T.	455,000	455,000	455,000	455,000	455,000
2100 (30x70)	Me.HP	1.28	5.14	7.11	9.13	11.20
	Th.HP	1.28	5.14	6.50	6.75	7.70
	O.T.	501,000	501,000	501,000	501,000	412,000
2400 (60x40)	Me.HP	1.14	3.88	5.34	6.82	9.70
	Th.HP	1.16	4.61	6.36	7.00	7.70
	O.T.	455,000	455,000	455,000	455,000	455,000
2500 (50x50)	Me.HP	1.18	4.15	5.89	7.49	11.00
	Th.HP	1.18	4.15	5.89	7.49	8.50
	O.T.	408,000	408,000	408,000	408,000	408,000
2800 (40x70)	Me.HP	1.03	4.08	5.59	7.14	10.50
	Th.HP	1.03	4.08	5.59	7.14	7.50
	O.T.	455,000	455,000	455,000	455,000	455,000
3000 (60x50)	Me.HP	1.02	3.76	5.17	6.59	9.70
	Th.HP	1.02	3.76	5.17	6.59	8.50
	O.T.	408,000	408,000	408,000	408,000	408,000
3500 (70x50)	Me.HP	0.91	3.35	4.55	5.80	8.53
	Th.HP	0.91	3.35	4.55	5.80	7.50
	O.T.	408,000	408,000	408,000	408,000	408,000
3600 (60x60)	Me.HP	0.94	3.27	4.50	5.71	8.32
	Th.HP	0.94	3.27	4.50	5.71	7.50
	O.T.	401,000	401,000	401,000	401,000	401,000
4200 (60x70)	Me.HP	0.84	29.30	3.98	5.04	7.35
	Th.HP	0.84	2.93	3.98	5.04	7.35
	O.T.	401,000	401,000	401,000	401,000	401,000

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

CAUTION:

It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hollow Gear Shafts

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they **must** be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized. Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

For hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

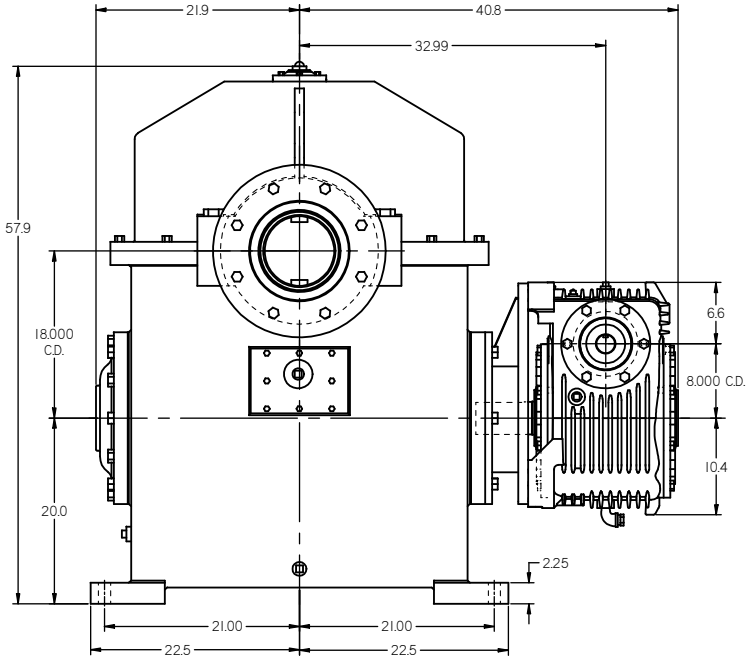
Important:

In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

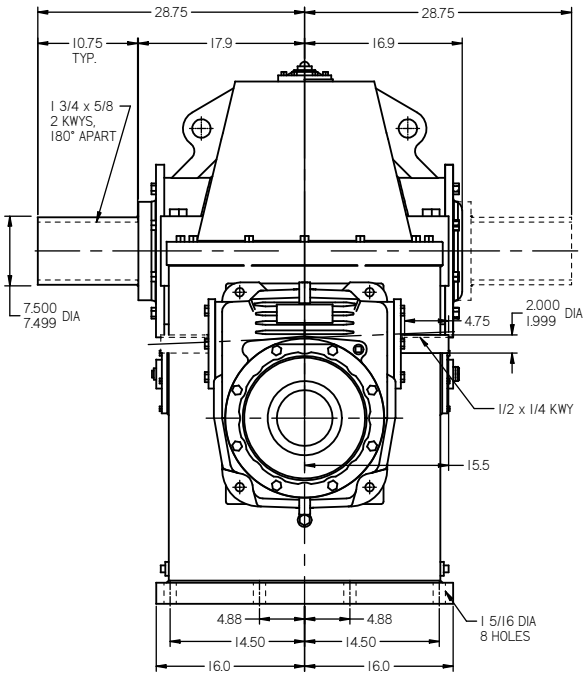
8.000" C.D. PRI./18.000" C.D. SEC.

Alternate

Model OU Shown.

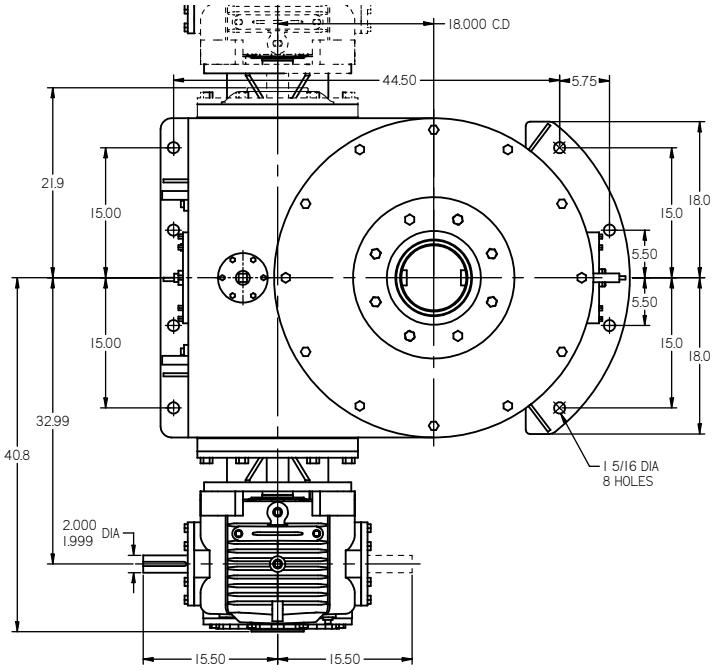


UU & VU approx. net wt. 5750 lbs.

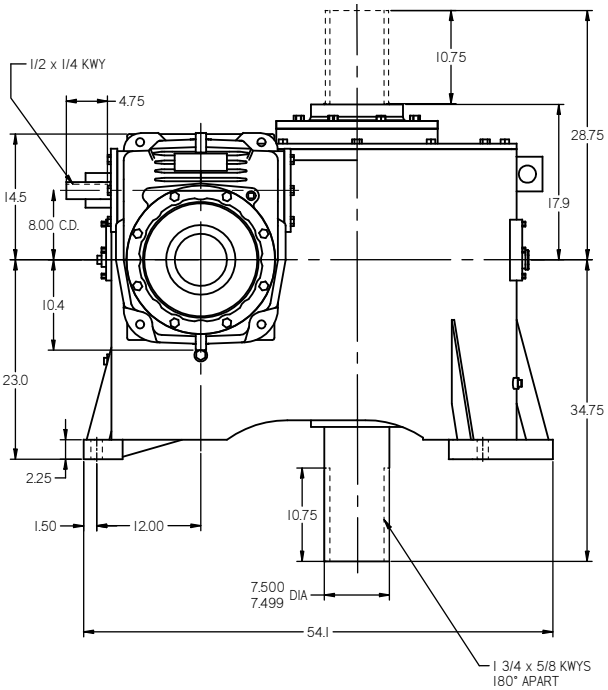


PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Shown
Model OV



Alternate
UV & VV approx. net wt. 5750 lbs.



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 8.000" C.D. PRI./18.000" C.D. SEC.

Size 80-180

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	25.90	85.30	104.00	116.00	134.00
	Th.HP	8.50	23.60	28.40	30.80	33.80
	O.T.	891,000	552,000	460,000	392,000	303,000
100 (5x20)	Me.HP	20.30	85.30	104.00	116.00	134.00
	Th.HP	8.50	23.60	28.40	30.80	33.80
	O.T.	880,000	702,000	584,000	497,000	388,000
125 (5x25)	Me.HP	16.70	84.20	104.00	116.00	134.00
	Th.HP	8.50	22.80	27.90	30.80	33.80
	O.T.	849,000	828,000	709,000	610,000	480,000
150 (10x15)	Me.HP	14.00	70.60	94.30	111.00	134.00
	Th.HP	8.50	17.56	22.82	27.37	33.80
	O.T.	815,000	792,000	724,000	658,000	537,000
200 (10x20)	Me.HP	11.20	57.30	74.40	85.10	98.70
	Th.HP	7.55	19.10	22.40	24.00	25.70
	O.T.	880,000	880,000	784,000	693,000	542,000
225 (15x15)	Me.HP	10.30	42.90	53.20	61.20	71.00
	Th.HP	6.60	15.80	17.80	18.90	20.20
	O.T.	904,000	749,000	645,000	569,000	443,000
250 (10x25)	Me.HP	9.22	46.50	67.40	85.10	98.70
	Th.HP	7.55	19.10	21.80	22.98	25.70
	O.T.	849,000	849,000	849,000	827,000	658,000
300 (15x20)	Me.HP	8.05	39.90	53.20	61.20	71.00
	Th.HP	6.60	15.80	17.80	18.90	20.20
	O.T.	880,000	880,000	817,000	721,000	563,000
375 (15x25)	Me.HP	6.71	32.60	46.60	60.40	71.00
	Th.HP	6.60	15.80	17.80	18.90	20.20
	O.T.	849,000	849,000	849,000	849,000	673,000
400 (20x20)	Me.HP	6.47	31.20	40.90	47.00	54.70
	Th.HP	5.95	13.90	15.50	16.20	16.90
	O.T.	880,000	880,000	792,000	702,000	551,000
450 (15x30)	Me.HP	5.68	27.30	39.10	50.70	71.00
	Th.HP	5.68	17.29	16.90	16.70	16.70
	O.T.	815,000	815,000	815,000	815,000	768,000
500 (25x20)	Me.HP	5.45	25.50	37.00	47.00	54.70
	Th.HP	5.45	13.90	15.50	16.20	16.90
	O.T.	849,000	849,000	849,000	834,000	658,000
600 (30x20)	Me.HP	4.60	21.40	31.10	40.20	54.70
	Th.HP	4.60	13.90	15.50	16.20	16.90
	O.T.	815,000	815,000	815,000	815,000	753,000
625 (25x25)	Me.HP	4.67	21.10	30.30	38.00	44.30
	Th.HP	4.67	12.15	13.10	13.50	14.20
	O.T.	849,000	849,000	849,000	830,000	651,000
700 (10x70)	Me.HP	2.63	9.69	12.00	13.80	16.10
	Th.HP	2.63	6.08	6.75	7.30	7.70
	O.T.	489,000	398,000	351,000	312,000	243,000
750 (30x25)	Me.HP	3.93	17.70	25.40	32.60	44.30
	Th.HP	3.93	12.15	13.10	13.50	14.20
	O.T.	815,000	815,000	815,000	815,000	745,000
800 (40x20)	Me.HP	3.66	16.50	23.80	30.60	44.70
	Th.HP	3.66	13.90	14.46	14.30	14.10
	O.T.	739,000	739,000	739,000	739,000	739,000
900 (30x30)	Me.HP	3.49	16.00	22.30	28.70	37.20
	Th.HP	3.49	10.00	10.45	11.70	12.15
	O.T.	815,000	815,000	815,000	815,000	709,000
1000 (50x20)	Me.HP	3.56	15.10	20.90	24.00	28.00
	Th.HP	3.06	8.90	9.85	10.25	10.60
	O.T.	849,000	849,000	834,000	744,000	583,000
1050 (15x70)	Me.HP	2.63	9.69	12.00	13.80	16.10
	Th.HP	1.75	6.08	6.75	7.30	7.70
	O.T.	672,000	572,000	506,000	450,000	350,000
1200 (40x30)	Me.HP	2.98	12.70	17.90	23.00	28.00
	Th.HP	2.98	8.90	9.85	10.25	10.65
	O.T.	815,000	815,000	815,000	815,000	667,000

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
1250 (50x25)	Me.HP	3.27	12.50	16.80	19.30	22.50
	Th.HP	2.47	7.43	8.25	8.77	9.45
	O.T.	849,000	849,000	794,000	710,000	556,000
1400 (20x70)	Me.HP	2.63	9.69	12.00	13.80	16.10
	Th.HP	1.75	6.08	6.75	7.30	7.70
	O.T.	811,000	716,000	636,000	566,000	442,000
1500 (50x30)	Me.HP	2.73	10.50	15.10	19.30	22.50
	Th.HP	2.47	7.43	8.25	8.77	9.45
	O.T.	815,000	815,000	815,000	811,000	636,000
1600 (40x40)	Me.HP	2.38	9.95	13.90	17.80	26.20
	Th.HP	2.38	8.90	9.85	10.25	10.65
	O.T.	739,000	739,000	739,000	739,000	739,000
1750 (25x70)	Me.HP	2.50	9.69	12.00	13.80	16.10
	Th.HP	2.50	6.08	6.75	7.30	7.70
	O.T.	849,000	834,000	743,000	663,000	520,000
1800 (60x30)	Me.HP	2.36	9.47	13.20	16.10	18.80
	Th.HP	2.36	6.48	7.30	7.95	8.50
	O.T.	815,000	815,000	815,000	774,000	607,000
2000 (50x40)	Me.HP	2.19	8.29	11.80	15.00	22.20
	Th.HP	2.19	7.30	6.90	8.77	9.45
	O.T.	739,000	739,000	739,000	739,000	739,000
2400 (60x40)	Me.HP	1.89	7.50	10.30	13.20	18.80
	Th.HP	1.89	6.48	7.30	7.95	8.50
	O.T.	739,000	739,000	739,000	739,000	712,000
2500 (50x50)	Me.HP	1.91	6.75	9.58	12.20	17.90
	Th.HP	1.91	5.76	8.25	8.77	9.45
	O.T.	663,000	663,000	663,000	663,000	663,000
2800 (40x70)	Me.HP	1.67	6.63	9.10	11.60	16.10
	Th.HP	1.67	5.67	6.75	7.30	7.70
	O.T.	739,000	739,000	739,000	739,000	696,000
3000 (60x50)	Me.HP	1.67	6.11	8.41	10.70	15.80
	Th.HP	1.67	5.12	7.30	7.95	8.50
	O.T.	663,000	663,000	663,000	663,000	663,000
3600 (60x60)	Me.HP	1.52	5.32	7.33	9.29	13.50
	Th.HP	1.52	4.27	6.30	7.95	8.50
	O.T.	653,000	653,000	653,000	653,000	653,000
4200 (60x70)	Me.HP	1.36	4.76	6.47	8.21	12.00
	Th.HP	1.36	3.66	5.42	7.04	6.55
	O.T.	653,000	653,000	653,000	653,000	653,000

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hollow Gear Shafts

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangement follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets.

Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

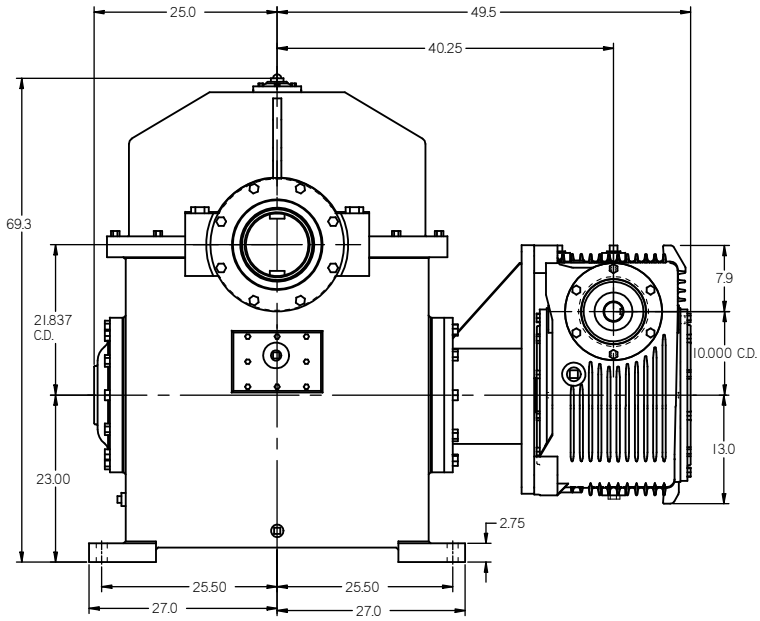
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Double Reduction Units - 10.000" C.D. PRI./21.837" C.D. SEC.

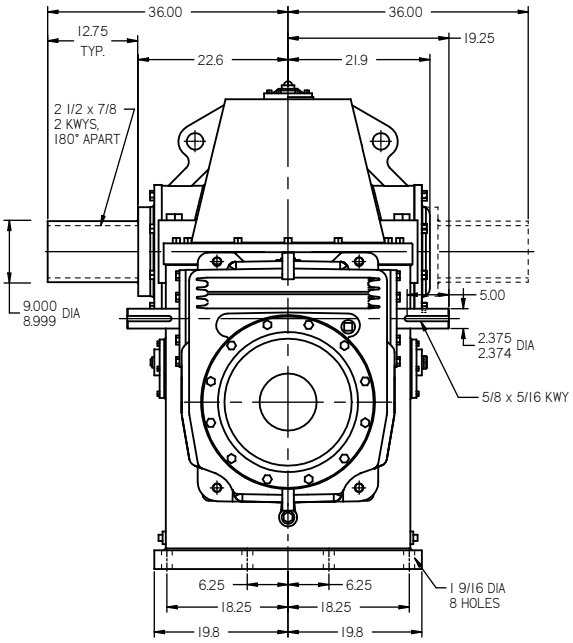
Size 100-220
Solid Shaft

Model OU Shown.



Alternate

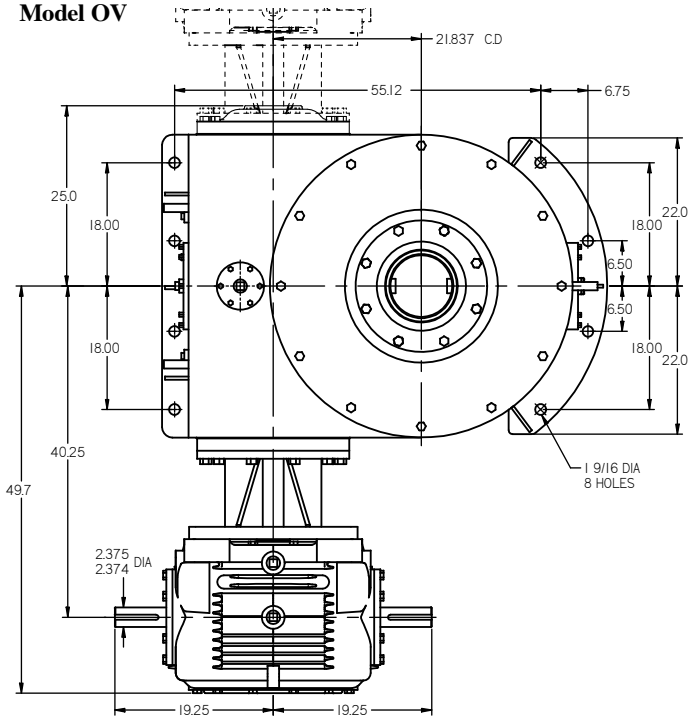
UU & VU



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

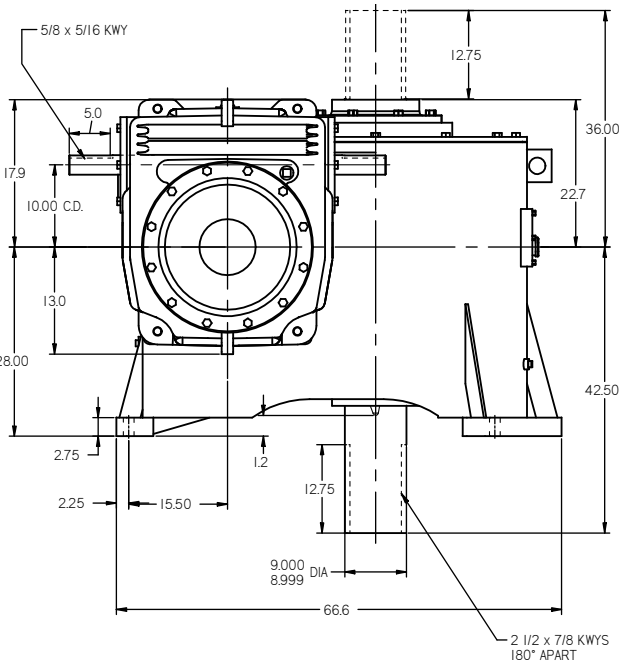
Shown

Model OV



Alternate

UV & VV



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Double Reduction Units - 10.000" C.D. PRI./21.837" C.D. SEC.

Size 100-220

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
70 (5x14)	Me.HP	47.80	148.00	178.00	194.00	–
	Th.HP	13.30	36.70	44.00	47.80	
	O.T.	1,580,000	923,000	752,000	629,000	
100 (5x20)	Me.HP	34.20	148.00	178.00	194.00	–
	Th.HP	13.20	36.70	44.00	47.80	
	O.T.	1,510,000	1,240,000	1,010,000	844,000	
125 (5x25)	Me.HP	28.10	141.00	177.00	194.00	–
	Th.HP	13.20	36.70	44.00	47.80	
	O.T.	1,460,000	1,420,000	1,210,000	1,030,000	
140 (10x14)	Me.HP	26.30	105.00	129.00	144.00	166.00
	Th.HP	11.80	29.80	34.40	37.30	39.80
	O.T.	1,580,000	1,230,000	1,030,000	888,000	691,000
200 (10x20)	Me.HP	19.90	96.30	129.00	144.00	166.00
	Th.HP	11.80	29.80	34.40	37.30	39.80
	O.T.	1,510,000	1,510,000	1,390,000	1,200,000	931,000
250 (10x25)	Me.HP	15.50	78.20	113.00	143.00	166.00
	Th.HP	11.80	29.80	32.97	34.71	39.80
	O.T.	1,460,000	1,460,000	1,460,000	1,420,000	1,110,000
300 (15x20)	Me.HP	13.50	67.10	91.90	104.00	119.00
	Th.HP	10.25	24.60	27.80	29.40	31.40
	O.T.	1,510,000	1,510,000	1,440,000	1,250,000	966,000
400 (20x20)	Me.HP	10.90	52.30	71.00	80.00	92.00
	Th.HP	9.22	21.60	24.10	25.20	26.30
	O.T.	1,510,000	1,510,000	1,370,000	180,000	931,000
450 (15x30)	Me.HP	9.54	45.90	65.70	85.20	119.00
	Th.HP	9.60	24.60	25.39	25.11	28.92
	O.T.	1,400,000	1,400,000	1,400,000	1,400,000	310,000
500 (20x25)	Me.HP	9.13	42.80	62.20	80.00	92.00
	Th.HP	9.13	21.60	24.10	25.20	26.30
	O.T.	1,460,000	1,460,000	1,460,000	1,400,000	1,110,000
600 (30x20)	Me.HP	7.71	35.90	52.20	67.60	92.00
	Th.HP	7.71	21.60	24.10	25.20	26.30
	O.T.	1,400,000	1,400,000	1,400,000	1,400,000	1,270,000
750 (30x25)	Me.HP	6.95	31.90	44.70	54.20	62.40
	Th.HP	5.88	16.40	17.80	18.20	18.80
	O.T.	1,460,000	1,460,000	1,460,000	1,380,000	1,070,000
800 (40x20)	Me.HP	6.14	27.80	40.00	51.50	75.10
	Th.HP	6.14	21.60	21.88	21.63	21.38
	O.T.	1,270,000	1,270,000	1,270,000	1,270,000	1,270,000
900 (30x30)	Me.HP	5.84	26.80	37.50	48.20	62.00
	Th.HP	5.84	16.40	17.80	18.20	18.80
	O.T.	1,400,000	1,400,000	1,400,000	1,400,000	1,190,000
1000 (50x20)	Me.HP	5.93	25.30	35.70	40.90	47.00
	Th.HP	4.82	13.85	15.30	15.90	16.55
	O.T.	1,460,000	1,460,000	1,460,000	1,300,000	1,000,000
1200 (40x30)	Me.HP	4.97	21.20	30.00	38.60	47.00
	Th.HP	4.82	13.85	15.30	15.90	16.55
	O.T.	1,400,000	1,400,000	1,400,000	1,400,000	1,150,000
1500 (50x30)	Me.HP	4.54	17.60	25.30	33.00	38.00
	Th.HP	4.21	11.55	12.80	13.60	14.10
	O.T.	1,400,000	1,400,000	1,400,000	1,370,000	1,080,000
1600 (40x40)	Me.HP	3.98	16.70	23.30	29.80	44.00
	Th.HP	3.98	13.85	15.30	15.90	16.55
	O.T.	1,270,000	1,270,000	1,270,000	1,270,000	1,270,000
1750 (25x70)	Me.HP	4.15	16.50	20.80	23.50	27.10
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,460,000	1,400,000	1,320,000	1,160,000	898,000
1800 (60x30)	Me.HP	3.91	15.80	22.10	27.00	32.00
	Th.HP	3.36	10.08	11.45	12.45	13.24
	O.T.	1,400,000	1,400,000	1,400,000	1,329,000	1,040,000

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
2000 (50x40)	Me.HP	3.64	13.90	19.80	25.20	37.10
	Th.HP	3.64	11.55	12.80	13.60	14.10
	O.T.	1,270,000	1,270,000	1,270,000	1,270,000	1,270,000
2100 (70x30)	Me.HP	3.46	14.00	19.30	24.00	27.10
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,400,000	1,400,000	1,400,000	1,300,000	1,030,000
2400 (60x40)	Me.HP	3.14	12.50	17.30	22.10	31.60
	Th.HP	3.14	10.08	11.45	12.45	13.24
	O.T.	1,270,000	1,270,000	1,270,000	1,270,000	1,230,000
2500 (50x50)	Me.HP	3.18	11.30	16.10	20.40	30.00
	Th.HP	3.18	11.30	12.80	13.60	14.10
	O.T.	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000
2800 (40x70)	Me.HP	2.78	11.10	15.20	19.50	27.10
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,270,000	1,270,000	1,270,000	1,270,000	1,200,000
3000 (60x50)	Me.HP	2.77	10.20	14.10	18.00	26.40
	Th.HP	2.77	10.20	11.45	12.45	13.24
	O.T.	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000
3500 (70x50)	Me.HP	2.47	9.10	12.40	15.80	23.20
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,140,000	1,140,000	1,140,000	1,140,000	1,140,000

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hollow Gear Shafts

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

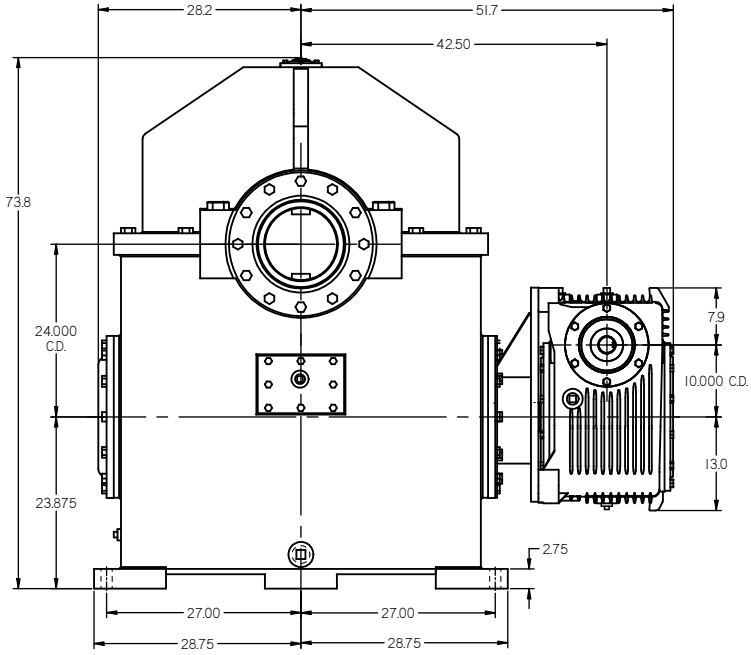
Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Double Reduction Units - 10.000" C.D. PRI./24.000" C.D. SEC.

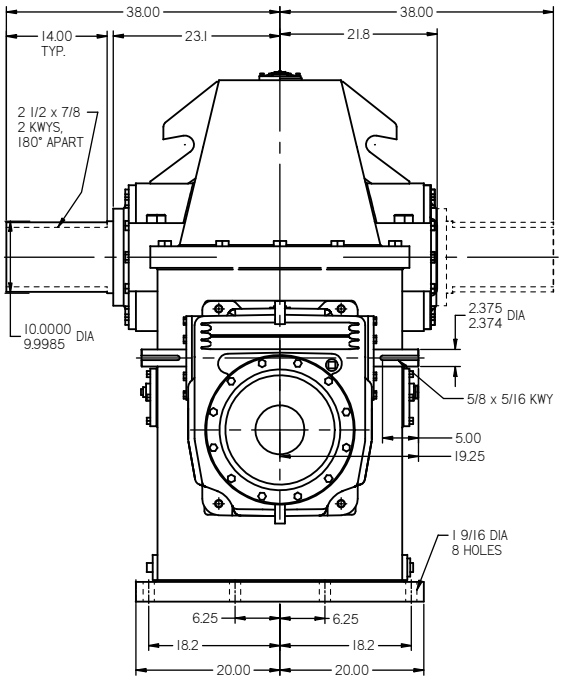
Size 100-240
Solid Shaft

Model OU Shown.



Alternate

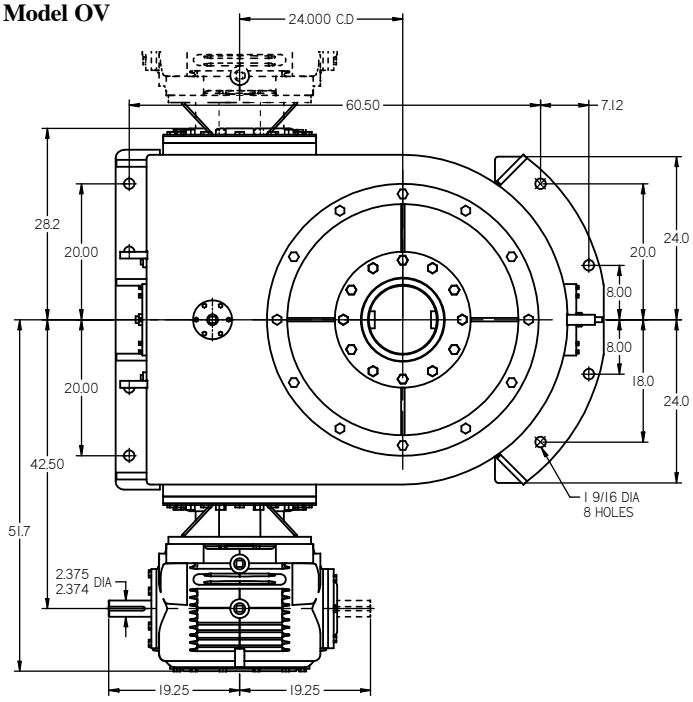
UU & VU



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

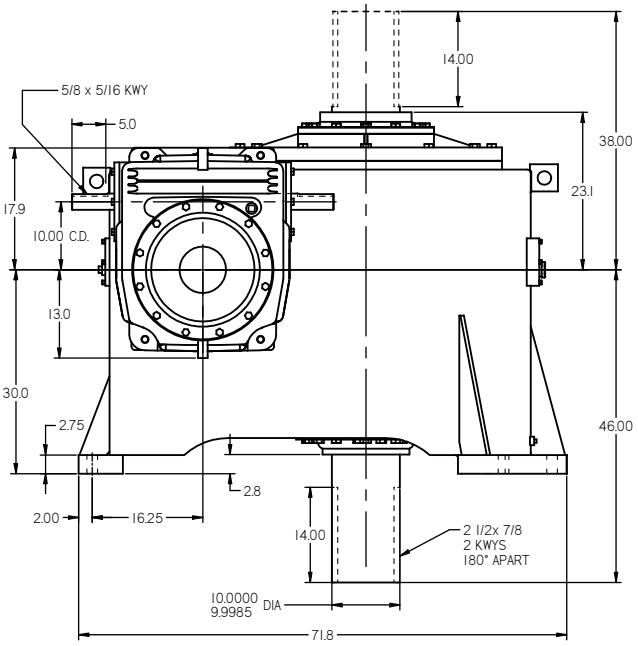
Shown

Model OV



Alternate

UV & VV approx. net wt. 5750 lbs.



PRIMARY UNIT HAS CAST IRON HOUSING.
SECONDARY UNIT HAS WELDED STEEL HOUSING.
PRIMARY MAY BE MOUNTED ON EITHER SIDE OF VERTICAL SECONDARY UNIT.
INPUT AND OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR MAY BE DOUBLE EXTENDED.

Cone Drive Double Reduction Units - 10.000" C.D. PRI./24.000" C.D. SEC.

Size 100-240

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
75 (5x15)	Me.HP	48.00	148.00	177.00	194.00	
	Th.HP	13.20	36.70	44.00	47.80	–
	O.T.	1,680,000	974,000	803,000	664,000	
100 (5x20)	Me.HP	44.00	148.00	177.00	194.00	
	Th.HP	13.20	36.70	44.00	47.80	-
	O.T.	1,900,000	1,240,000	1,020,000	844,000	
125 (5x25)	Me.HP	36.00	148.00	177.00	194.00	
	Th.HP	13.20	36.70	44.00	47.80	–
	O.T.	1,820,000	1,470,000	1,210,000	1,030,000	
150 (10x15)	Me.HP	31.00	105.00	129.00	145.00	166.00
	Th.HP	11.80	29.80	34.40	37.30	39.80
	O.T.	1,940,000	1,270,000	1,090,000	948,000	734,000
200 (10x20)	Me.HP	24.00	105.00	129.00	145.00	166.00
	Th.HP	11.80	29.80	34.40	37.30	39.80
	O.T.	1,900,000	1,590,000	1,390,000	1,200,000	933,000
250 (10x25)	Me.HP	20.00	101.00	129.00	145.00	166.00
	Th.HP	11.80	29.80	34.40	37.30	39.80
	O.T.	1,820,000	1,820,000	1,650,000	1,430,000	1,110,000
300 (15x20)	Me.HP	17.50	75.00	92.00	104.00	119.00
	Th.HP	10.25	24.60	27.80	29.40	31.40
	O.T.	1,900,000	1,640,000	1,400,000	1,250,000	958,000
400 (20x20)	Me.HP	13.80	57.00	71.00	80.00	92.00
	Th.HP	9.22	21.60	24.10	25.20	26.30
	O.T.	1,900,000	1,650,000	1,370,000	1,180,000	931,000
450 (15x30)	Me.HP	12.30	59.00	85.00	104.00	119.00
	Th.HP	10.25	24.60	27.80	29.33	28.92
	O.T.	1,760,000	1,760,000	1,760,000	1,710,000	1,310,000
500 (20x25)	Me.HP	11.40	54.00	71.00	80.00	92.00
	Th.HP	9.22	21.60	24.10	25.20	26.30
	O.T.	1,820,000	1,820,000	1,620,000	1,400,000	1,110,000
600 (20x30)	Me.HP	9.70	45.00	67.00	80.00	92.00
	Th.HP	9.22	21.60	24.10	25.20	26.30
	O.T.	1,760,000	1,760,000	1,760,000	1,610,000	1,270,000
750 (25x30)	Me.HP	8.20	39.00	54.00	65.00	74.00
	Th.HP	7.77	18.90	20.18	20.95	22.05
	O.T.	1,760,000	1,760,000	1,760,000	1,630,000	1,270,000
800 (20x40)	Me.HP	7.80	34.00	50.00	66.00	92.00
	Th.HP	7.80	21.60	24.10	25.20	24.94
	O.T.	1,590,000	1,590,000	1,590,000	1,590,000	1,530,000
900 (30x30)	Me.HP	7.10	35.00	47.00	54.00	62.00
	Th.HP	5.88	16.40	17.80	18.20	18.80
	O.T.	1,760,000	1,760,000	1,760,000	1,550,000	1,190,000
1000 (25x40)	Me.HP	6.50	30.00	41.00	53.00	74.00
	Th.HP	6.50	18.90	20.18	20.95	22.05
	O.T.	1,590,000	1,590,000	1,590,000	1,590,000	1,520,000
1200 (30x40)	Me.HP	5.70	27.00	36.00	47.00	62.00
	Th.HP	5.70	16.40	17.80	18.20	18.80
	O.T.	1,590,000	1,590,000	1,590,000	1,590,000	420,000
1500 (50x30)	Me.HP	5.30	23.00	29.00	33.00	38.00
	Th.HP	4.21	11.55	12.80	13.60	14.10
	O.T.	1,760,000	1,760,000	1,580,000	1,370,000	1,080,000
1600 (40x40)	Me.HP	4.70	22.00	30.00	37.00	47.00
	Th.HP	4.70	13.85	15.30	15.90	16.55
	O.T.	1,590,000	1,590,000	1,590,000	1,590,000	1,360,000
1800 (60x30)	Me.HP	4.50	19.70	24.00	27.00	32.00
	Th.HP	3.36	10.08	11.45	12.45	13.24
	O.T.	1,760,000	1,640,000	1,450,000	1,320,000	1,040,000
2000 (50x40)	Me.HP	4.20	18.10	25.00	33.00	38.00
	Th.HP	4.21	11.55	12.80	13.60	14.10
	O.T.	1,590,000	1,590,000	1,590,000	1,590,000	1,300,000

Ratio to 1		Worm RPM				
		100	580	870	1150	1750
2100 (70x30)	Me.HP	3.90	16.90	21.00	24.00	27.00
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,760,000	1,620,000	1,430,000	1,300,000	1,030,000
2400 (60x40)	Me.HP	3.60	16.90	23.00	27.00	32.00
	Th.HP	3.36	10.08	11.45	12.45	12.45
	O.T.	1,590,000	1,590,000	1,590,000	1,540,000	1,250,000
2500 (50x50)	Me.HP	3.30	14.60	20.00	26.00	38.00
	Th.HP	3.30	11.55	12.80	13.60	14.10
	O.T.	1,430,000	1,430,000	1,430,000	1,430,000	1,430,000
2800 (70x40)	Me.HP	3.10	14.70	20.00	24.00	27.00
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,590,000	1,590,000	1,590,000	1,520,000	1,230,000
3000 (60x50)	Me.HP	2.80	13.10	18.50	23.00	32.00
	Th.HP	2.80	10.08	11.45	12.45	13.24
	O.T.	1,430,000	1,430,000	1,430,000	1,430,000	138,000
3500 (70x50)	Me.HP	2.40	11.40	16.10	19.70	27.00
	Th.HP	1.94	8.58	10.50	11.30	11.95
	O.T.	1,430,000	1,430,000	1,430,000	1,430,000	1,360,000

Ratings shown are based on using the recommended synthetic lubricant (see approved lubricants)

KEY: **Me.HP** = Mech. Input Power (HP)
Th.HP = Ther. Input Power - No Fan
O.T. = Output Torque (In. Lb.)

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Hollow Gear Shafts

Hollow shaft units are not standard but can be manufactured to suit your requirements. Contact Cone Drive.

Notes:

Reducers may be used in floor, ceiling, or wall mounted positions, however they must be ordered for the position required so that suitable oil level, grease fittings, filler, and drains are provided.

For cap and carrier dimensions not shown, see mounting section.

Steeple bearing arrangements follow in this section.

All units can be motorized.

Model VU & VO with motor downward require special consideration for motor clearance. Contact Cone Drive.

Set screw end of hollow shaft is considered the extension end.

Unless specified, standard reducers are supplied with right hand helix gear sets. Reducers are designed for shaft rotation in either direction.

For output shaft chain pull capacity, see single reduction rating chart for secondary unit size.

Divide input RPM by primary ratio to obtain secondary input RPM.

Primary unit may be mounted with worm over, worm under, or worm vertical to the right or left of gear.

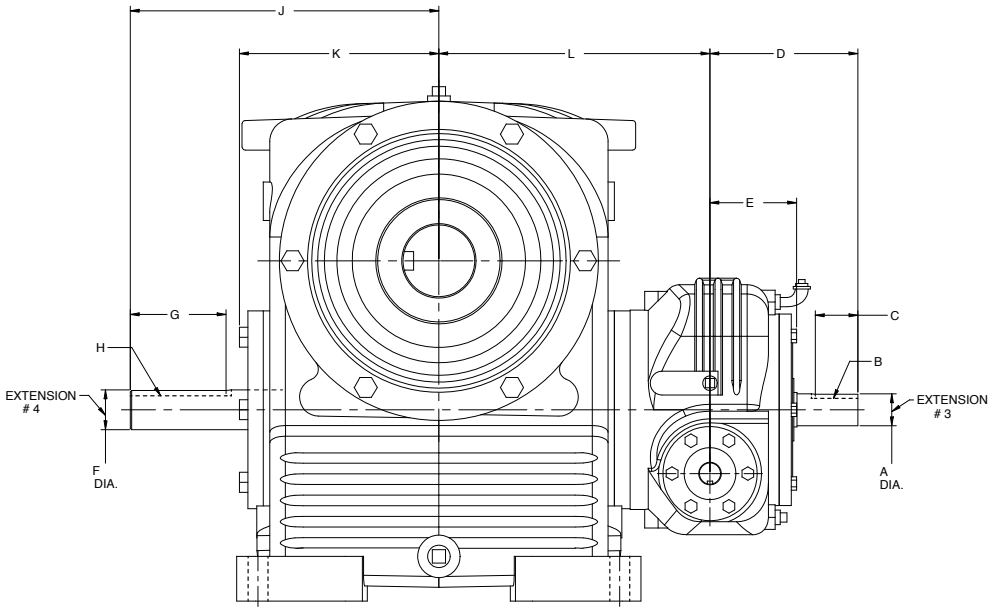
Hand of assembly views follow in this section.

Refer to page 26 for lubrication information, efficiency and service factors.

Reducer can be furnished with additional shaft extension at primary side cover and/or at end of secondary opposite primary.

Important:
In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Shaft Extensions for Cone Drive Double Reduction Units



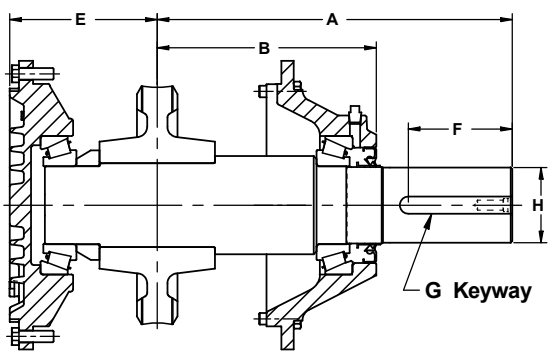
WORM SHAFTS WITH EXTENSIONS SHOWN ARE NON-STOCKED ITEMS MANUFACTURED TO THE INDIVIDUAL ORDER. WHEN ORDERING ADD SHAFT EXTENSION NUMER IN FRONT OF MOUNTING NUMBER.

EXAMPLE:	**OU30-60-3A4**	**EXTENSION FROM PRIMARY**
	OU30-60-4A4	**EXTENSION FROM SECONDARY**
	OU30-60-5A4	**EXTENSION FROM BOTH PRIMARY AND SECONDARY**

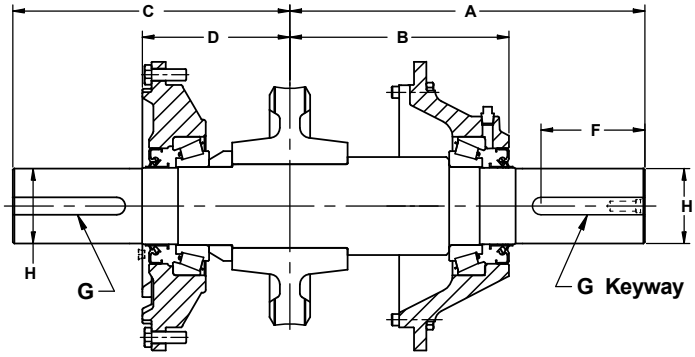
UNIT SIZE	PRIMARY SHAFT EXTENSION					SECOND SHAFT EXTENSION					
	A DIA	B KEYWAY	C	D	E	F DIA	G KEYWAY	H	J	K	L
20-30	.7495	3/16 x 3/32	1.25	4.37	2.8	.9995	1/4 x 1/8	1.75	6.68	4.6	6.88
20-35	.7495	3/16 x 3/32	1.25	4.37	2.8	1.1870	1/4 x 1/8	2.62	7.75	5.2	7.50
25-40	.8745	3/16 x 3/32	1.50	4.87	3.3	1.4995	3/8 x 3/16	3.00	9.31	6.1	8.81
25-50	.8745	3/16 x 3/32	1.50	4.87	3.3	1.4995	3/8 x 3/16	3.25	10.50	7.0	9.75
30-60	.9995	1/4 x 1/8	1.75	6.37	4.1	1.7495	3/8 x 3/16	4.00	11.75	7.6	10.47
30-70	.9995	1/4 x 1/8	1.75	6.37	4.1	1.8745	1/2 x 1/4	4.50	14.50	9.4	12.75
35-70	1.8745	1/2 x 1/4	2.68	7.87	4.2	1.8745	1/2 x 1/4	4.50	14.50	9.4	16.00
40-80	2.2495	1/2 x 1/4	3.31	9.25	4.9	1.9995	1/2 x 1/4	4.75	15.50	10.8	17.00
50-100	2.7495	5/8 x 5/16	3.62	10.31	5.7	2.3745	5/8 x 5/16	4.25	19.25	14.5	20.88
60-120	3.2495	3/4 x 3/8	4.50	12.00	6.4	2.9995	3/4 x 3/8	4.50	23.25	17.3	25.88
70-150	3.3745	7/8 x 7/16	4.87	13.00	7.4	3.4995	7/8 x 7/16	5.50	27.87	20.6	30.25
80-180	3.4995	7/8 x 7/16	4.87	14.00	7.8	3.9995	1" x 1/2	7.50	31.50	21.9	32.50
100-220	3.9995	1" x 1/2	5.12	15.72	9.4	4.4995	1" x 1/2	9.50	37.00	25.0	40.25
100-240	3.9995	1" x 1/2	5.12	15.72	9.4	4.9995	1-1/4 x 7/16	9.75	40.00	28.2	42.50

Cone Drive reserves the right to improve or change product design and specifications without notice.

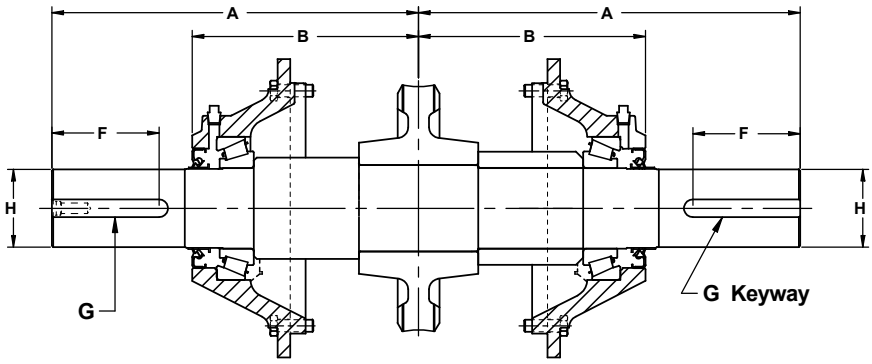
Cone Drive Steeple Bearings for Double Reduction Units



" R " MOUNTING



" S " MOUNTING



" T " MOUNTING

Reducer Size	Center Distance	A	B	C	D	E	F	G	H DIA
25	2.500	7.88	4.9	4.50	2.6	2.6	1.38	1/4 x 1/8	1.250 1.249
30	3.000	8.62	5.9	5.94	3.4	3.4	2.00	3/8 x 3/16	1.500 1.499
35	3.500	10.25	6.3	7.88	4.2	4.2	2.68	1/2 x 1/4	1.875 1.874
40	4.000	11.25	6.6	9.25	4.9	4.9	3.31	1/2 x 1/4	2.250 2.249
50	5.000	13.62	8.6	10.31	5.6	5.6	3.62	5/8 x 5/16	2.750 2.749
60	6.000	15.38	9.6	12.00	6.3	6.4	4.62	3/4 x 3/8	3.250 3.249
70	7.000	19.38	12.5	13.00	7.4	7.4	4.88	7/8 x 7/16	3.375 3.374
80	8.000	19.38	12.9	14.00	7.8	7.8	4.88	7/8 x 7/16	3.500 3.499
100	10.000	24.00	16.5	15.72	9.4	9.4	5.12	1 x 1/2	4.000 3.999
120	12.000	36.00	22.6	24.00	12.6	12.4	9.62	1-1/4 x 5/8	5.497 5.496

When ordering, specify model size, hand of assembly, and steeple bearings using the letter designation R, S, or T for the mounting configuration required.

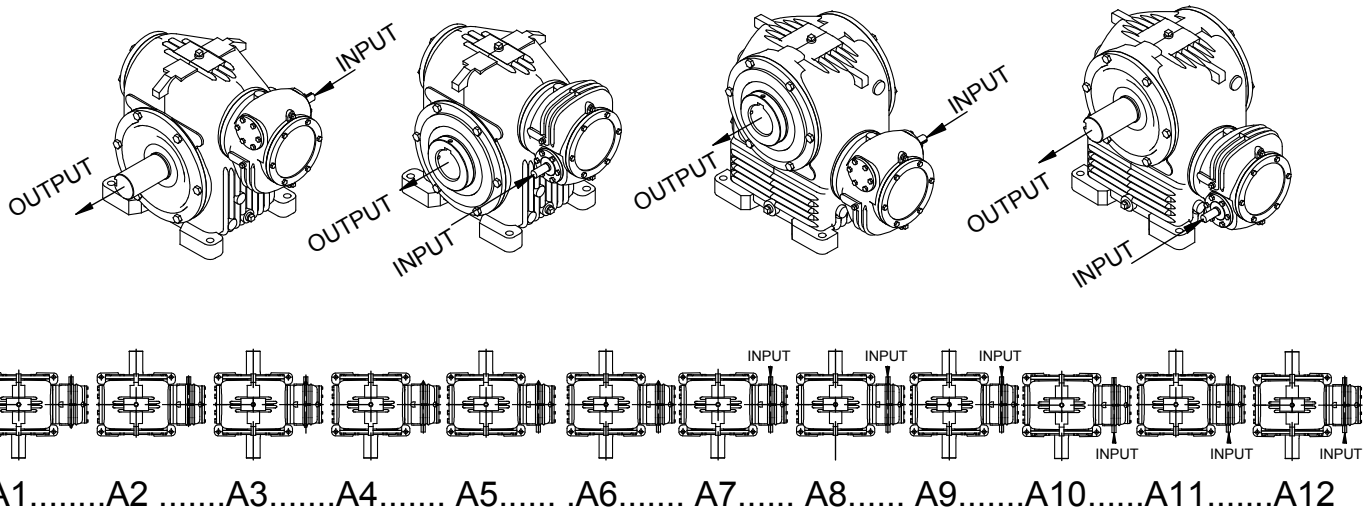
For R and T mountings, use the standard hand of assembly designation shown throughout the catalog for various sizes of reducers and mounting positions.

For double-extended S mountings on worm over and worm under units, specify steeple bearing on left (L) or right (R) of unit as viewed from the input end.

For S mounting on vertical gear shaft unit, specify steeple bearing opposite feet (U) or through feet (D).

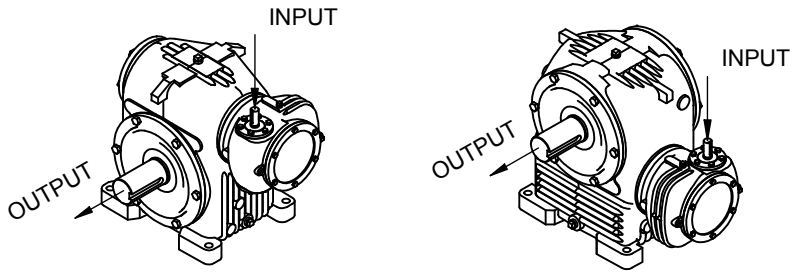
Assembly & Mounting Floor Mounted Position Numbers for Cone Drive Double Reduction Units

MODELS OO, OOS, UO, UOS, OU, OUS, UU, UUS
MODEL PREFIXES: F=FAN COOLED W=WATER COOLED M=MOTORIZED P=PRESSURE LUBE
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.

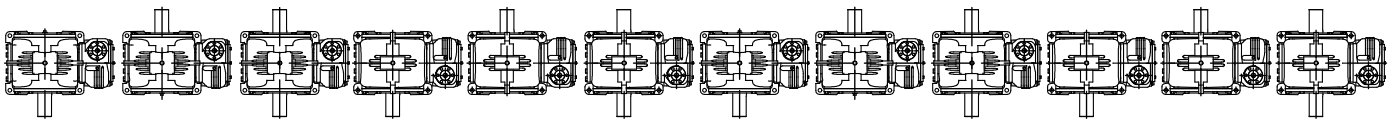


MODELS VO, VOS, VU*, VUS*
MODEL PREFIXES: F=FAN COOLED W=WATER COOLED M=MOTORIZED P=PRESSURE LUBE
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.

*NOTE: FOR MOTORIZING OF THESE UNITS. -2"/3" C.D. TO 3"/7" C.D. - SPECIAL PARTS MAY BE REQUIRED PLEASE CONTACT CONE DRIVE.



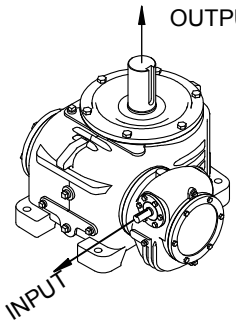
DIAGRAMS B1 THRU B6 HAVE SINGLE EXTENDED INPUT SHAFTS, THE INPUT END EXTENDS UP. DIAGRAMS B7 THRU B12 HAVE DOUBLE EXTENDED INPUT SHAFTS. THE INPUT END EXTENDS UP. FOR INPUT END EXTENDING DOWN SPECIFY SAME WHEN ORDERING AND ADD LETTER "D" AFTER PRIMARY SIZE, EXAMPLE: V040D-80B1

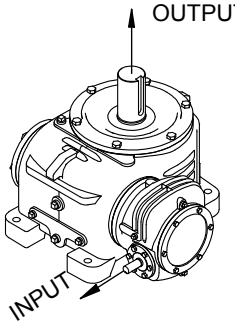


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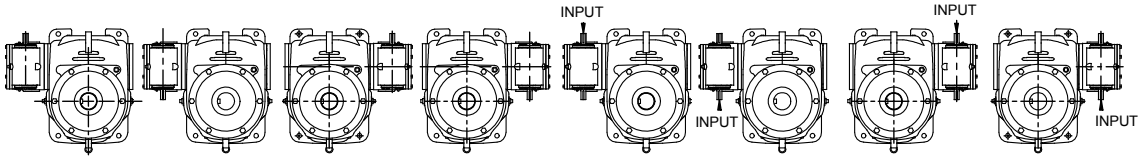
Assembly & Mounting Floor Mounted Position Numbers for Cone Drive Double Reduction Units

MODELS OV, OVS, UV, UVS
MODEL PREFIXES: F=FAN COOLED W=WATER COOLED M=MOTORIZED P=PRESSURE LUBE
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.



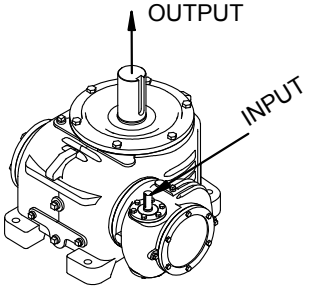


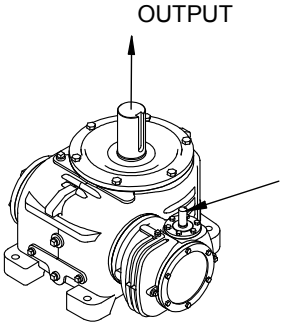
DIAGRAMS ABOVE HEAVY LINE MAY REQUIRE SPECIAL PARTS FOR MOTORIZING. PLEASE CONTACT CONE DRIVE.



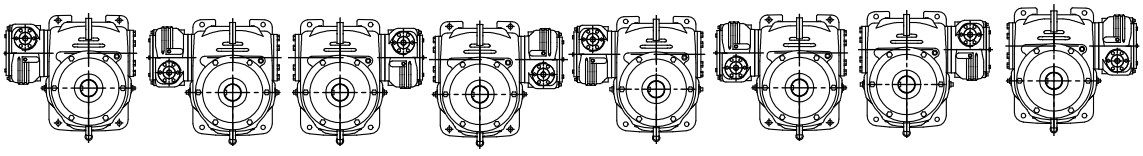
OPPOSITE FEET.....C1A.....C2A.....C3A.....C4A.....C5A.....C6A.....C7A.....C8A
THROUGH FEET.....C1B.....C2B.....C3B.....C4B.....C5B.....C6B.....C7B.....C8B
DOUBLE EXTENDED.....C1C.....C2C.....C3C.....C4C.....C5C.....C6C.....C7C.....C8C

MODELS VV, VVS
MODEL PREFIXES: F=FAN COOLED W=WATER COOLED M=MOTORIZED P=PRESSURE LUBE
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE.





DIAGRAMS D1 THRU D4 HAVE SINGLE EXTENDED INPUT SHAFTS, THE INPUT END EXTENDS UP. DIAGRAMS D5 THRU D8 HAVE DOUBLE EXTENDED INPUT SHAFTS. THE INPUT END EXTENDS UP.
FOR INPUT END EXTENDING DOWN SPECIFY SAME WHEN ORDERING AND ADD LETTER "D" AFTER PRIMARY SIZE, EXAMPLE: VV40D-80 DIA.



OPPOSITE FEET.....D1A.....D2A.....D3A.....D4A.....D5A.....D6A.....D7A.....D8A
THROUGH FEET.....D1B.....D2B.....D3B.....D4B.....D5B.....D6B.....D7B.....D8B
DOUBLE EXTENDED.....D1C.....D2C.....D3C.....D4C.....D5C.....D6C.....D7C.....D8C

Assembly & Mounting Position Numbers for Cone Drive Double Reduction Units

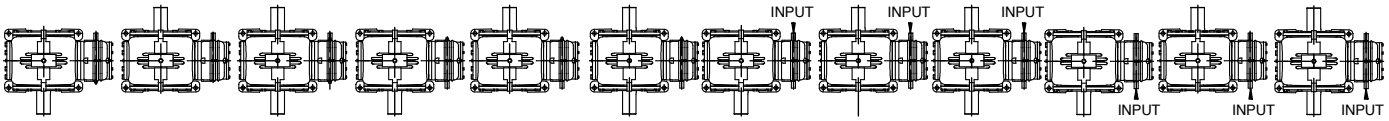
MODELS 00, 00S, OU, OUS, UO, UOS, UU, UUS, VO, VOS, VU, VUS

NOTE DISTINCTION BETWEEN VERTICAL WORM PRIMARIES AND OTHERS.

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAIR SIDE. DIAGRAMS 7 THRU 12 DOUBLE EXTENDED INPUT.

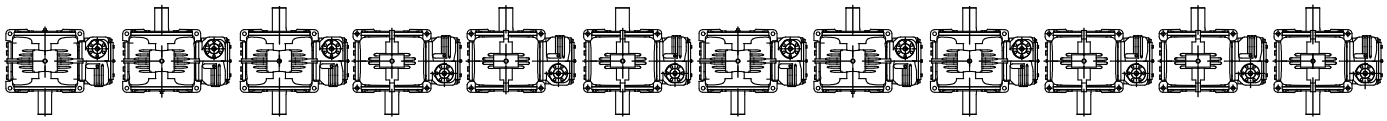
Ceiling Mounted - Output Shaft Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



E1.....E2 .....E3.....E4..... E5..... .E6..... E7..... E8..... E9.....E10.....E11.....E12

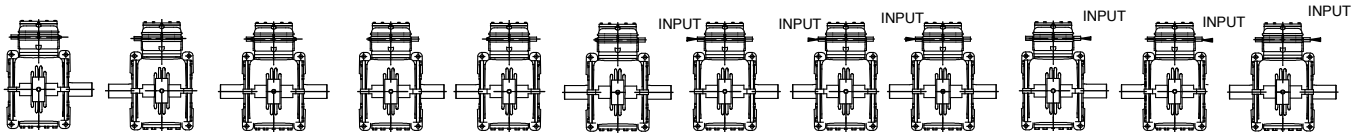
MODELS VO, VOS, VU, VUS



F1.....F2 .....F3.....F4..... F5..... .F6..... F7..... F8..... F9.....F10.....F11.....F12

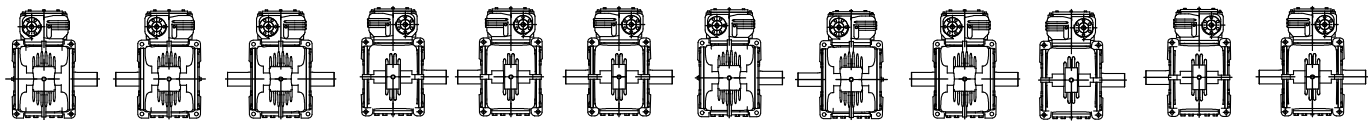
Wall Mounted - Primary Over Secondary - All Shafts Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



G1.....G2.....G3.....G4.....G5.....G6.....G7.....G8.....G9.....G10.....G11.....G12

MODELS VO, VOS, VU, VUS



H1.....H2 .....H3.....H4.....H5.....H6.....H7.....H8.....H9.....H10.....H11.....H12

Cone Drive reserves the right to improve or change product design and specifications without notice.

Assembly & Mounting Position Numbers for Cone Drive Double Reduction Units

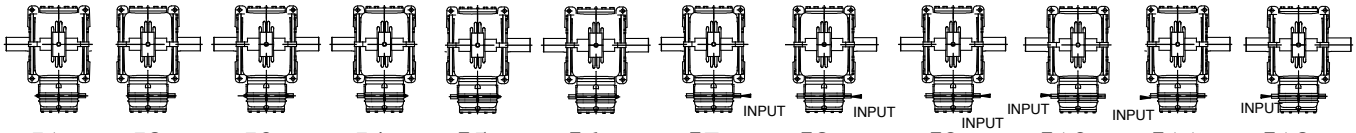
MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS, VO, VOS, VU, US

NOTE DISTINCTION BETWEEN VERTICAL WORM PRIMARIES AND OTHERS.

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAIR SIDE. DIAGRAMS 7 THRU 12 DOUBLE EXTENDED INPUT.

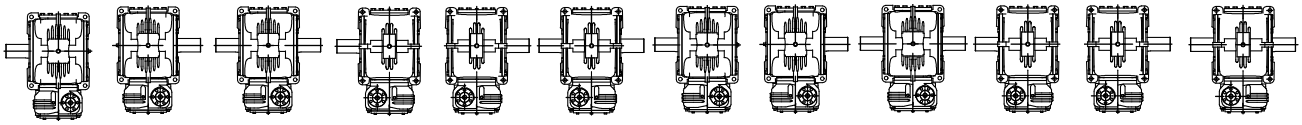
Wall Mounted - Primary Under Secondary - All Shafts Horizontal

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



I1.....I2 .....I3.....I4.....I5.....I6..... I7..... I8..... I9.....I10.....I11.....I12

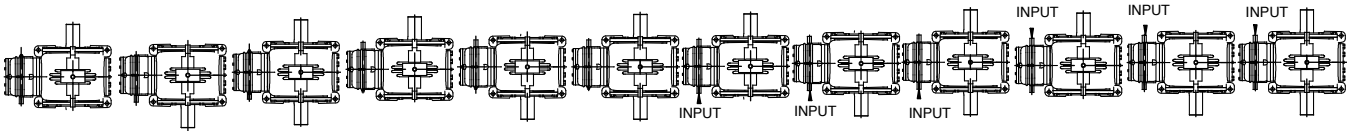
MODELS VO, VOS, VU, VUS



J1.....J2 .....J3.....J4..... J5..... .J6.....J7.....J8..... J9.....J10.....J11.....J12

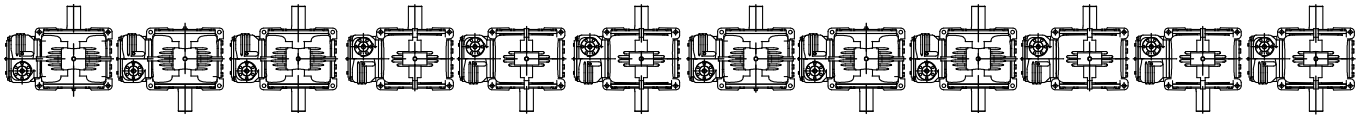
Wall Mounted - Primary to Left of Secondary - Output Shaft Vertical

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



K1.....K2.....K3.....K4.....K5.....K6.....K7.....K8.....K9.....K10.....K11.....K12

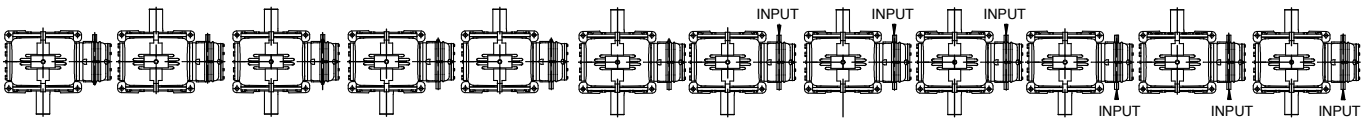
MODELS VO, VOS, VU, VUS



L1.....L2 .....L3.....L4.....L5.....L6.....L7.....L8.....L9.....L10.....L11.....L12

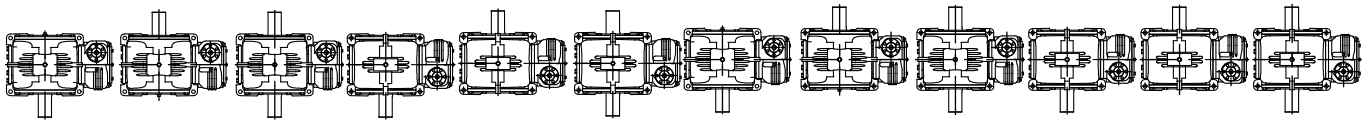
Wall Mounted - Primary to Right of Secondary - Output Shaft Vertical

MODELS OO, OOS, OU, OUS, UO, UOS, UU, UUS



M1.....M2 .....M3.....M4..... M5.....M6.....M7.....M8..... M9.....M10.....M11.....M12

MODELS VO, VOS, VU, VUS



N1.....N2 .....N3.....N4.....N5.....N6.....N7.....N8.....N9.....N10.....N11.....N12

Assembly and Mounting Position Numbers for Cone Drive Double Reduction Units

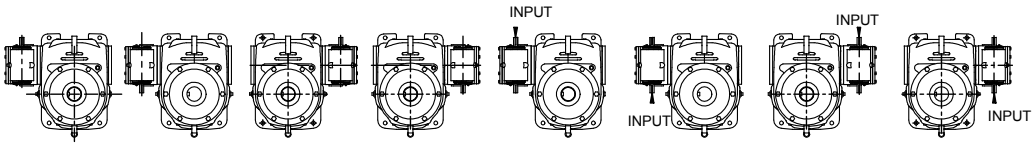
Models OV, OVS, UV, UVS, VV, VVS

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE. DIAGRAM 5 THRU 8 DOUBLE EXTENDED INPUT.

DIAGRAMS ABOVE HEAVY LINE MAY REQUIRE SPECIAL PARTS FOR MOTORIZING, PLEASE CONTACT CONE DRIVE.

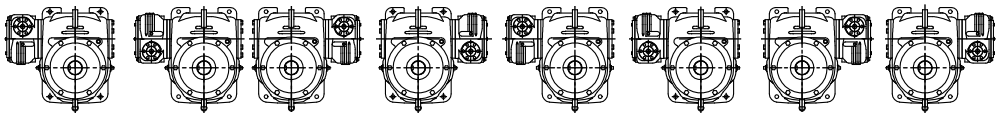
Ceiling Mounted
Output Shaft Vertical

OV, OVS, UV, UVS



OPPOSITE FEET	O1A	O2A	O3A	O4A	O5A	O6A	O7A	O8A
THROUGH FEET	O1B	O2B	O3B	O4B	O5B	O6B	O7B	O8B
DOUBLE EXTENDED	O1C	O2C	O3C	O4C	O5C	O6C	O7C	O8C

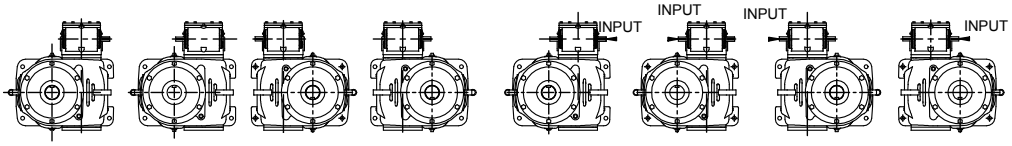
VV, VVS



OPPOSITE FEET	P1A	P2A	P3A	P4A	P5A	P6A	P7A	P8A
THROUGH FEET	P1B	P2B	P3B	P4B	P5B	P6B	P7B	P8B
DOUBLE EXTENDED	P1C	P2C	P3C	P4C	P5C	P6C	P7C	P8C

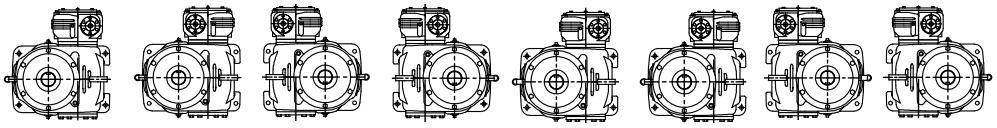
Wall Mounted - Primary Over Secondary
All Shafts Horizontal

OV, OVS, UV, UVS



OPPOSITE FEET	Q1A	Q2A	Q3A	Q4A	Q5A	Q6A	Q7A	Q8A
THROUGH FEET	Q1B	Q2B	Q3B	Q4B	Q5B	Q6B	Q7B	Q8B
DOUBLE EXTENDED	Q1C	Q2C	Q3C	Q4C	Q5C	Q6C	Q7C	Q8C

VV, VVS



OPPOSITE FEET	R1A	R2A	R3A	R4A	R5A	R6A	R7A	R8A
THROUGH FEET	R1B	R2B	R3B	R4B	R5B	R6B	R7B	R8B
DOUBLE EXTENDED	R1C	R2C	R3C	R4C	R5C	R6C	R7C	R8C

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Assembly and Mounting Position Numbers for Cone Drive Double Reduction Units

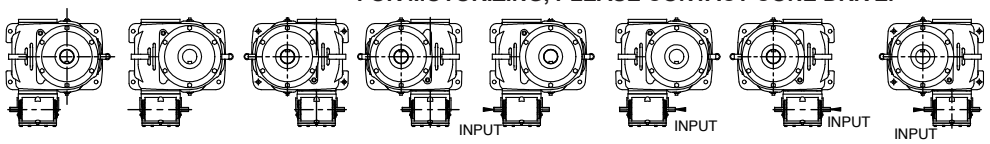
Models OV, VV, VVS, OVS, UV, UVS

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE. DIAGRAM 5 THRU 8 DOUBLE EXTENDED INPUT.

Wall Mounted - Primary Under Secondary All Shafts Horizontal

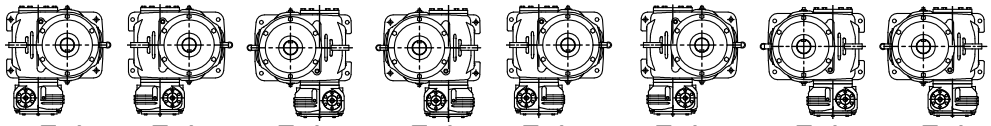
DIAGRAMS ABOVE HEAVY LINE MAY REQUIRE SPECIAL PARTS FOR MOTORIZING, PLEASE CONTACT CONE DRIVE.

OV, OVS, UV, UVS



OPPOSITE FEET	S1A	S2A	S3A	S4A	S5A	S6A	S7A	S8A
THROUGH FEET	S1B	S2B	S3B	S4B	S5B	S6B	S7B	S8B
DOUBLE EXTENDED	S1C	S2C	S3C	S4C	S5C	S6C	S7C	S8C

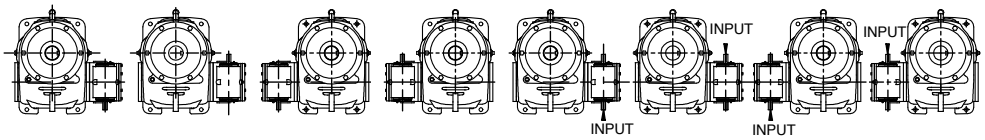
VV, VVS



OPPOSITE FEET	T1A	T2A	T3A	T4A	T5A	T6A	T7A	T8A
THROUGH FEET	T1B	T2B	T3B	T4B	T5B	T6B	T7B	T8B
DOUBLE EXTENDED	T1C	T2C	T3C	T4C	T5C	T6C	T7C	T8C

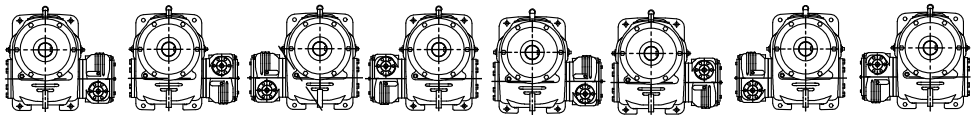
Wall Mounted - Secondary Worm Under Output Shaft Horizontal

OV, OVS, UV, UVS



OPPOSITE FEET	U1A	U2A	U3A	U4A	U5A	U6A	U7A	U8A
THROUGH FEET	U1B	U2B	U3B	U4B	U5B	U6B	U7B	U8B
DOUBLE EXTENDED	U1C	U2C	U3C	U4C	U5C	U6C	U7C	U8C

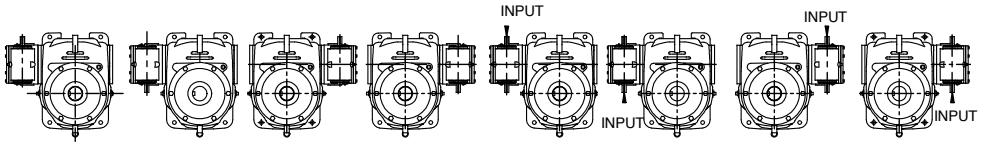
VV, VVS



OPPOSITE FEET	V1A	V2A	V3A	V4A	V5A	V6A	V7A	V8A
THROUGH FEET	V1B	V2B	V3B	V4B	V5B	V6B	V7B	V8B
DOUBLE EXTENDED	V1C	V2C	V3C	V4C	V5C	V6C	V7C	V8C

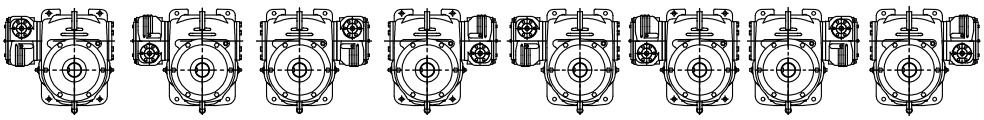
Wall Mounted - Secondary Worm Over Output Shaft Horizontal

OV, OVS, UV, UVS



OPPOSITE FEET	W1A	W2A	W3A	W4A	W5A	W6A	W7A	W8A
THROUGH FEET	W1B	W2B	W3B	W4B	W5B	W6B	W7B	W8B
DOUBLE EXTENDED	W1C	W2C	W3C	W4C	W5C	W6C	W7C	W8C

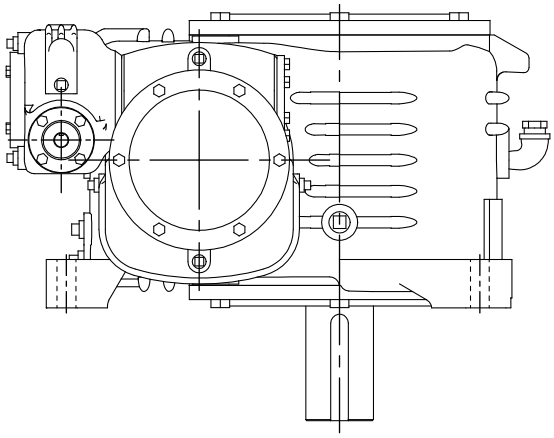
VV, VVS

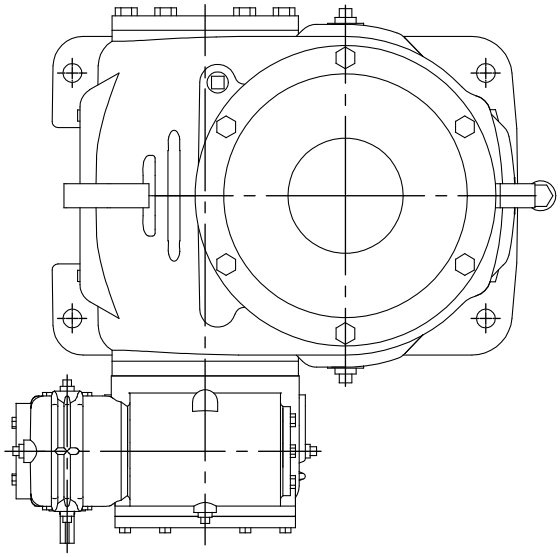


OPPOSITE FEET	X1A	X2A	X3A	X4A	X5A	X6A	X7A	X8A
THROUGH FEET	X1B	X2B	X3B	X4B	X5B	X6B	X7B	X8B
DOUBLE EXTENDED	X1C	X2C	X3C	X4C	X5C	X6C	X7C	X8C

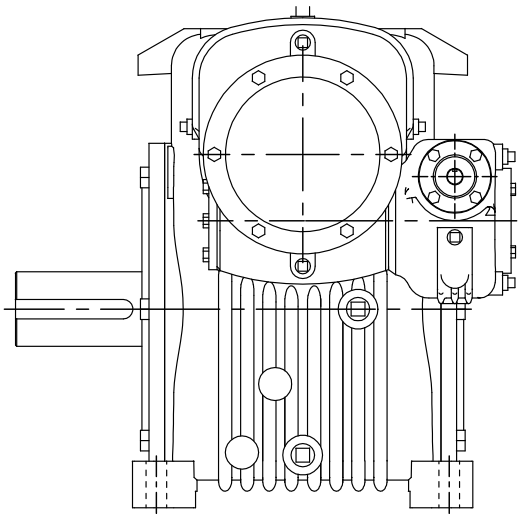
Cone Drive Triple Reduction Typical Configurations

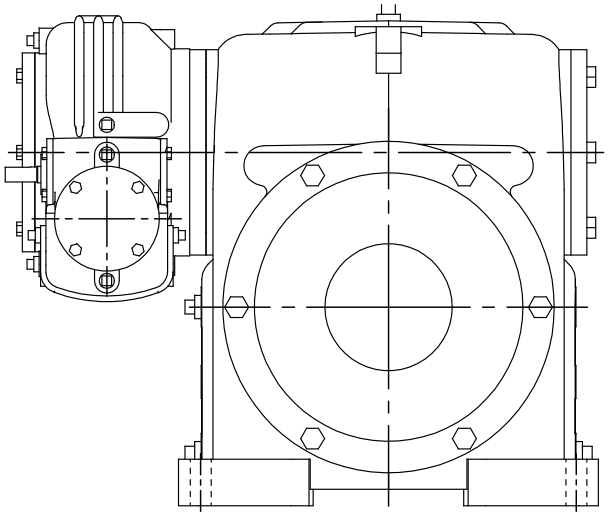
Model UOV Primary Worm Under Gear/Secondary Worm Over Gear/Tertiary Vertical Shaft





Model OUO Primary Worm Over Gear/Secondary Worm Under Gear/Tertiary Worm Over Gear





Cone Drive triple-reduction worm gear speed reducers consist of three single-reduction speed reducers combined into one assembly. Each worm gear set is enclosed in a heavily-ribbed heat dissipating house of our own special design. Heavy-duty tapered roller bearings provide anti-friction support of the worm and gear shafts. The unique advantages of the Cone Drive double enveloping worm gear set design contribute to the compact size, strength, and smooth operation of the assembly.

Standardization of parts and maximum use of interchangeable parts reduces cost and speeds delivery. We assemble our speed reducers to order from a stock of standard shelf-hardware parts.

A wide range of center-distance sizes and ratios, plus several standard options, as well as hollow and solid output shafts, enable us to configure a triple-reduction speed reducer to your specific requirements.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Many more sizes and configurations are available. Contact the Cone Drive sales office or your local representative for a configuration to suit your exact requirements.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Triple Reduction Units

AGMA torque ratings for 1.0 service factor at 1750 RPM input speed

SIZE 20 PRIMARY	SIZE 30 SECONDARY	SIZE 60 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	0.45	37,500
6,000:1	15 x 20 x 20	0.38	37,500
7,500:1	15 x 25 x 20	0.33	37,500
10,000:1	20 x 20 x 25	0.26	36,100
12,500:1	25 x 25 x 20	0.22	37,500
17,500:1	5 x 50 x 70	0.18	27,000
24,000:1	20 x 20 x 60	0.13	27,500
36,000:1	30 x 60 x 20	0.12	37,500
72,000:1	30 x 60 x 40	0.07	31,200
125,000:1	50 x 50 x 50	0.06	27,900
180,000:1	50 x 60 x 60	0.05	27,500

SIZE 20 PRIMARY	SIZE 30 SECONDARY	SIZE 70 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	0.69	57,500
6,000:1	15 x 20 x 20	0.61	59,200
7,500:1	10 x 25 x 30	0.50	54,700
10,000:1	20 x 20 x 25	0.41	57,000
12,500:1	25 x 25 x 20	0.32	55,400
17,500:1	5 x 50 x 70	0.29	42,700
24,000:1	20 x 20 x 60	0.21	43,400
36,000:1	10 x 60 x 60	0.18	43,400
72,000:1	30 x 60 x 40	0.11	49,400
125,000:1	50 x 50 x 50	0.09	44,100
180,000:1	50 x 60 x 60	0.07	43,400

SIZE 20 PRIMARY	SIZE 35 SECONDARY	SIZE 70 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	0.71	59,200
6,000:1	15 x 20 x 20	0.61	59,200
7,500:1	15 x 25 x 20	0.52	59,200
10,000:1	40 x 25 x 10	0.43	59,600
12,500:1	25 x 25 x 20	0.35	59,200
17,500:1	5 x 50 x 70	0.29	42,700
24,000:1	40 x 60 x 10	0.19	43,800
36,000:1	40 x 60 x 15	0.19	59,000
72,000:1	30 x 60 x 40	0.11	49,400
125,000:1	50 x 50 x 50	0.09	44,100
180,000:1	50 x 60 x 60	0.07	43,400

SIZE 25 PRIMARY	SIZE 40 SECONDARY	SIZE 80 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	1.02	88,500
6,000:1	15 x 20 x 20	0.87	88,500
7,500:1	15 x 25 x 20	0.74	88,500
10,000:1	40 x 25 x 10	0.61	89,600
12,500:1	25 x 25 x 20	0.50	88,500
17,500:1	5 x 50 x 70	0.41	63,800
24,000:1	40 x 60 x 10	0.27	66,800
36,000:1	40 x 60 x 15	0.27	90,000
72,000:1	30 x 60 x 40	0.16	73,800
125,000:1	50 x 50 x 50	0.12	65,900
180,000:1	50 x 60 x 60	0.10	64,900

SIZE 25 PRIMARY	SIZE 50 SECONDARY	SIZE 100 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	20 x 25 x 10	1.97	174,000
6,000:1	15 x 20 x 20	1.63	170,000
7,500:1	15 x 25 x 20	1.39	170,000
10,000:1	40 x 25 x 10	1.16	174,000
12,500:1	50 x 25 x 10	0.98	174,000
17,500:1	25 x 70 x 10	0.63	134,000
24,000:1	40 x 60 x 10	0.53	135,000
36,000:1	40 x 60 x 15	0.51	175,000
72,000:1	30 x 60 x 40	0.30	143,000
125,000:1	50 x 50 x 50	0.22	128,000
180,000:1	50 x 60 x 60	0.19	126,000

SIZE 30 PRIMARY	SIZE 60 SECONDARY	SIZE 120 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	3.25	289,000
6,000:1	15 x 20 x 20	2.77	289,000
7,500:1	15 x 25 x 20	2.35	289,000
10,000:1	20 x 20 x 25	1.88	279,000
12,500:1	25 x 25 x 20	1.57	289,000
17,500:1	5 x 50 x 70	1.28	211,000
24,000:1	20 x 20 x 60	0.95	214,000
36,000:1	40 x 60 x 15	0.82	280,000
72,000:1	30 x 60 x 40	0.50	243,000
125,000:1	50 x 50 x 50	0.38	217,000
180,000:1	50 x 60 x 60	0.32	214,000

For additional size see top of following page. Additional ratios from 125:1 to 216,000:1 are available. Ratings for other ratios and input speeds may be obtained by contacting the Cone Drive Sales office or your local representative for additional information.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Triple Reduction Units

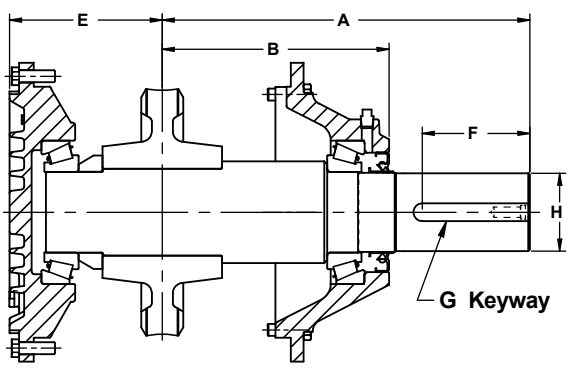
AGMA torque ratings for 1.0 service factor at 1750 RPM input speed.

SIZE 30 PRIMARY	SIZE 70 SECONDARY	SIZE 150 TERITARY		SIZE 30 PRIMARY	SIZE 70 SECONDARY	SIZE 150 TERITARY	
RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)	RATIO	RATIO COMBINATION	H.P. INPUT	OUTPUT TORQUE (LB. IN.)
5,000:1	10 x 25 x 20	6.08	541,000	5,000:1	10 x 25 x 20	9.57	880,000
6,000:1	15 x 20 x 20	5.18	541,000	6,000:1	15 x 20 x 20	8.14	880,000
7,500:1	15 x 25 x 20	4.41	541,000	7,500:1	15 x 25 x 20	6.93	880,000
10,000:1	20 x 20 x 25	3.51	522,000	10,000:1	20 x 20 x 25	5.52	849,000
12,500:1	25 x 25 x 20	2.95	541,000	12,500:1	25 x 25 x 20	4.63	880,000
17,500:1	25 x 70 x 10	1.53	325,000	17,500:1	25 x 70 x 10	2.20	485,000
24,000:1	20 x 20 x 60	1.77	401,000	24,000:1	20 x 20 x 60	2.79	653,000
36,000:1	30 x 60 x 20	1.59	538,000	36,000:1	30 x 60 x 20	2.28	803,000
72,000:1	30 x 60 x 40	0.95	455,000	72,000:1	30 x 60 x 40	1.48	739,000
125,000:1	50 x 50 x 50	0.72	408,000	125,000:1	50 x 50 x 50	1.12	663,000
180,000:1	50 x 60 x 60	0.60	401,000	180,000:1	50 x 60 x 60	0.94	653,000

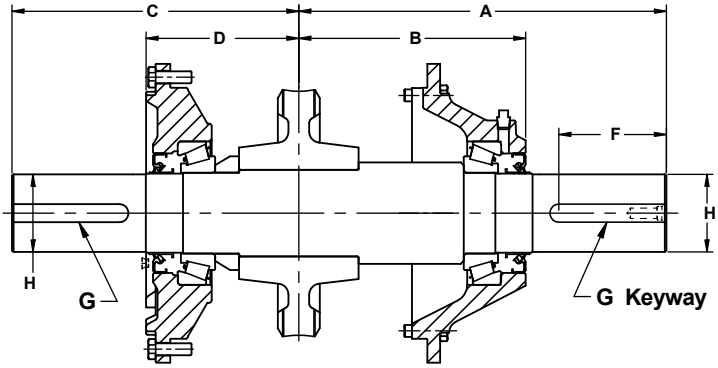
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive reserves the right to improve or change product design and specifications without notice.

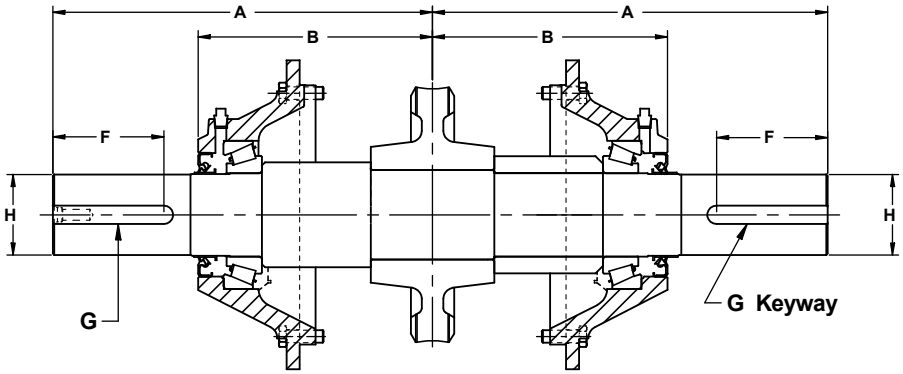
Steeple Bearings for Cone Drive Triple Reduction Units



" R " MOUNTING



" S " MOUNTING



" T " MOUNTING

Reducer Size	Center Distance	A	B	C	D	E	F	G	H DIA
25	2.500	7.88	4.9	4.50	2.6	2.6	1.38	1/4 x 1/8	1.250 1.249
30	3.000	8.62	5.9	5.94	3.4	3.4	2.00	3/8 x 3/16	1.500 1.499
35	3.500	10.25	6.3	7.88	4.2	4.2	2.68	1/2 x 1/4	1.875 1.874
40	4.000	11.25	6.6	9.25	4.9	4.9	3.31	1/2 x 1/4	2.250 2.249
50	5.000	13.62	8.6	10.31	5.6	5.6	3.62	5/8 x 5/16	2.750 2.749
60	6.000	15.38	9.6	12.00	6.3	6.4	4.62	3/4 x 3/8	3.250 3.249
70	7.000	19.38	12.5	13.00	7.4	7.4	4.88	7/8 x 7/16	3.375 3.374
80	8.000	19.38	12.9	14.00	7.8	7.8	4.88	7/8 x 7/16	3.500 3.499
100	10.000	24.00	16.5	15.72	9.4	9.4	5.12	1 x 1/2	4.000 3.999
120	12.000	36.00	22.6	24.00	12.6	12.4	9.62	1-1/4 x 5/8	5.497 5.496

When ordering, specify model size, hand of assembly, and steeple bearings using the letter designation R, S, or T for the mounting configuration required.

For R and T mountings, use the standard hand of assembly designation shown throughout the catalog for various sizes of reducers and mounting positions.

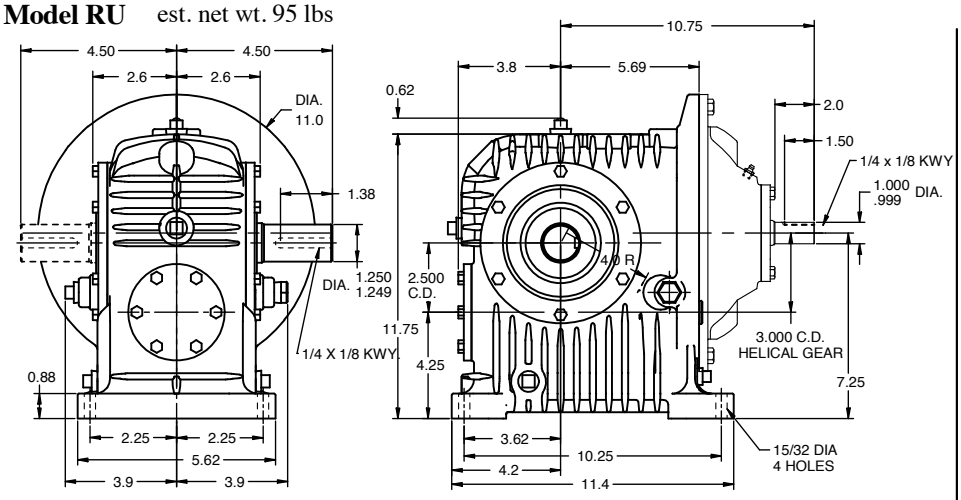
For double-extended S mountings on worm over and worm under units, specify steeple bearing on left (L) or right (R) of unit as viewed from the input end.

For S mounting on vertical gear shaft unit, specify steeple bearing opposite feet (U) or through feet (D).

Cone Drive Helical/Worm Speed Reducer - 2.500"C.D.

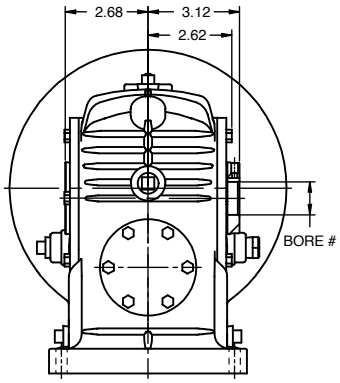
Size 25 Solid Shaft

Model RU est. net wt. 95 lbs



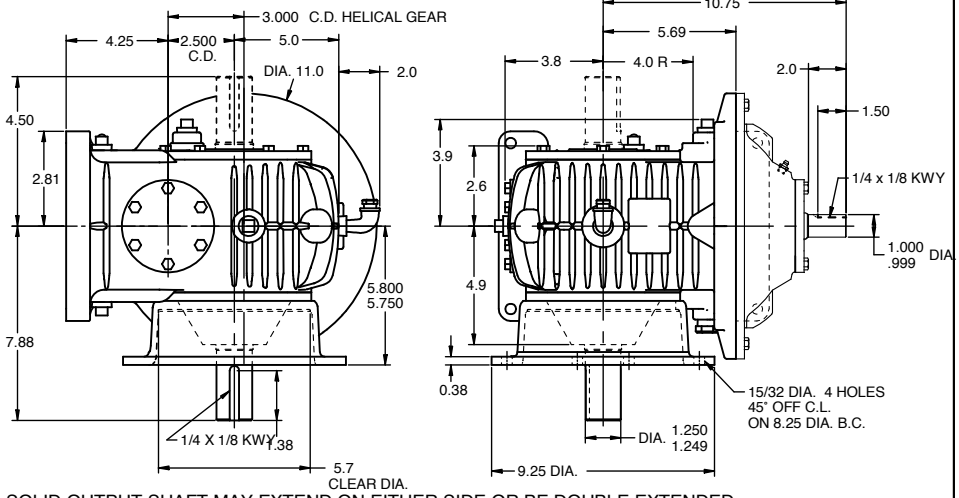
Hollow Shaft

SRU est. net wt. 95 lbs



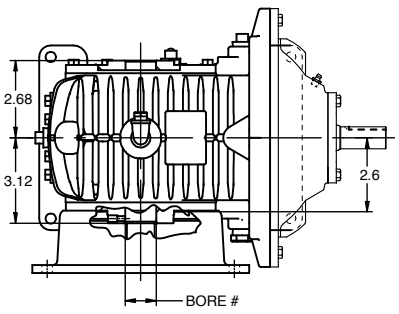
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 95 lbs



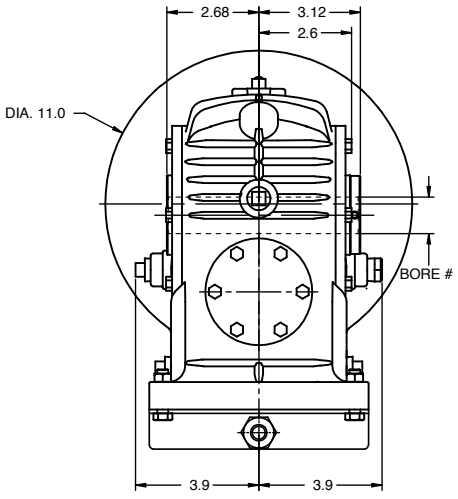
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 95 lbs

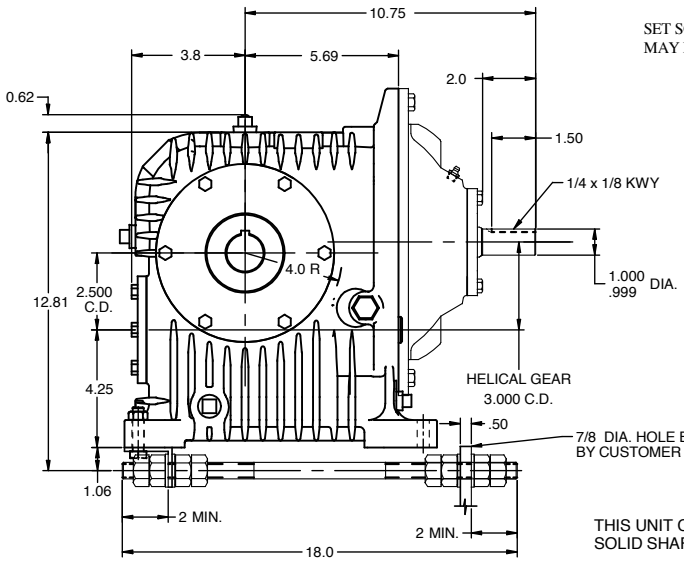


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 95 lbs



FOR DIMENSIONS NOT SHOWN SEE MODEL "RU" ABOVE



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED WITH
SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 25 3.000" C.D. HELICAL PRI./2.500" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	0.80	3.63	4.82	5.65	7.08
	Th.HP	0.80	3.63	4.82	5.65	7.08
	O.T.	2180	1740	1550	1380	1140
7.5:1 1.5 x 5	Me.HP	0.54	2.62	3.63	4.44	5.69
	Th.HP	0.54	2.62	3.63	4.44	5.69
	O.T.	2180	1880	1740	1620	1370
9:1 1.8 x 5	Me.HP	0.46	2.24	3.15	3.91	5.14
	Th.HP	0.46	2.24	3.15	3.91	5.14
	O.T.	2180	1920	1810	1710	1480
10:1 1 x 10	Me.HP	0.51	2.33	3.14	3.73	4.68
	Th.HP	0.51	2.33	3.14	3.73	4.68
	O.T.	2580	2150	1960	1770	1480
12.5:1 2.5 x 5	Me.HP	0.33	1.68	2.40	3.02	4.17
	Th.HP	0.33	1.68	2.40	3.02	4.17
	O.T.	2180	2000	1910	1820	1660
15:1 1.5 x 10	Me.HP	0.35	1.67	2.33	2.88	3.76
	Th.HP	0.35	1.67	2.33	2.88	3.76
	O.T.	2580	2280	2150	2030	1760
18:1 1.8 x 10	Me.HP	0.29	1.42	2.01	2.52	3.39
	Th.HP	0.29	1.42	2.01	2.52	3.39
	O.T.	2580	2320	2210	2110	1890
20:1 4 x 5	Me.HP	0.21	1.12	1.59	2.03	2.90
	Th.HP	0.21	1.12	1.59	2.03	2.90
	O.T.	2180	2110	2010	1950	1840
22.5:1 1.5 x 15	Me.HP	0.24	1.17	1.64	2.04	2.67
	Th.HP	0.24	1.17	1.64	2.04	2.67
	O.T.	2590	2310	2210	2100	1840
25:1 2.5 x 10	Me.HP	0.21	1.07	1.52	1.93	2.70
	Th.HP	0.21	1.07	1.52	1.93	2.70
	O.T.	2580	2400	2300	2230	2070
27:1 1.8 x 15	Me.HP	0.20	1.00	1.42	1.77	2.39
	Th.HP	0.20	1.00	1.42	1.77	2.39
	O.T.	2590	2340	2260	2170	1970
30:1 1.5 x 20	Me.HP	0.19	0.90	1.26	1.56	2.05
	Th.HP	0.19	0.90	1.26	1.56	2.05
	O.T.	2510	2260	2190	2070	1800
36:1 1.8 x 20	Me.HP	0.16	0.77	1.09	1.36	1.84
	Th.HP	0.16	0.77	1.09	1.36	1.84
	O.T.	2510	2280	2230	2150	1930
37.5:1 2.5 x 15	Me.HP	0.15	0.75	1.07	1.36	1.90
	Th.HP	0.15	0.75	1.07	1.36	1.90
	O.T.	2590	2420	2330	2280	2140
40:1 4 x 10	Me.HP	0.14	0.71	1.01	1.29	1.85
	Th.HP	0.14	0.71	1.01	1.29	1.85
	O.T.	2580	2510	2410	2350	2250
45:1 1.8 x 25	Me.HP	0.13	0.62	0.88	1.09	1.48
	Th.HP	0.13	0.62	0.88	1.09	1.48
	O.T.	2410	2270	2200	2120	1930
50:1 2.5 x 20	Me.HP	0.11	0.57	0.82	1.04	1.46
	Th.HP	0.11	0.57	0.82	1.04	1.46
	O.T.	2510	2340	2270	2240	2110
54:1 1.8 x 30	Me.HP	0.11	0.52	0.73	0.92	1.24
	Th.HP	0.11	0.52	0.73	0.92	1.24
	O.T.	2300	2120	2060	2000	1860
60:1 4 x 15	Me.HP	0.09	0.50	0.71	0.91	1.30
	Th.HP	0.09	0.50	0.71	0.91	1.30
	O.T.	2590	2530	2430	2370	2290
62.5:1 2.5 x 25	Me.HP	0.09	0.46	0.66	0.84	1.18
	Th.HP	0.09	0.46	0.66	0.84	1.18
	O.T.	2410	2320	2260	2220	2090
72:1 1.8 x 40	Me.HP	0.08	0.39	0.55	0.69	0.93
	Th.HP	0.08	0.39	0.55	0.69	0.93
	O.T.	2070	2000	1970	1920	1770
75:1 2.5 x 30	Me.HP	0.08	0.39	0.55	0.70	0.98
	Th.HP	0.08	0.39	0.55	0.70	0.98
	O.T.	2300	2170	2110	2070	1980

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.07	0.38	0.54	0.69	1.00
	Th.HP	0.07	0.38	0.54	0.69	1.00
	O.T.	2510	2450	2360	2290	2250
90:1 1.8 x 50	Me.HP	0.07	0.31	0.44	0.55	0.75
	Th.HP	0.07	0.31	0.44	0.55	0.75
	O.T.	1840	1910	1910	1870	1700
100:1 4 x 25	Me.HP	0.06	0.31	0.44	0.56	0.80
	Th.HP	0.06	0.31	0.44	0.56	0.80
	O.T.	2410	2370	2320	2290	2230
108:1 1.8 x 60	Me.HP	0.06	0.27	0.38	0.46	0.64
	Th.HP	0.06	0.27	0.38	0.46	0.64
	O.T.	1800	1835	1820	1785	1665
120:1 4 x 30	Me.HP	0.05	0.26	0.37	0.47	0.67
	Th.HP	0.05	0.26	0.37	0.47	0.67
	O.T.	2300	2250	2180	2140	2080
125:1 2.5 x 50	Me.HP	0.05	0.23	0.33	0.42	0.59
	Th.HP	0.05	0.23	0.33	0.42	0.59
	O.T.	1840	1900	1910	1920	1840
150:1 2.5 x 60	Me.HP	0.04	0.20	0.28	0.36	0.49
	Th.HP	0.04	0.20	0.28	0.36	0.49
	O.T.	1800	1880	1835	1820	1760
160:1 4 x 40	Me.HP	0.04	0.19	0.28	0.35	0.51
	Th.HP	0.04	0.19	0.28	0.35	0.51
	O.T.	2070	2030	1980	1990	1980
200:1 4 x 50	Me.HP	0.03	0.16	0.22	0.28	0.41
	Th.HP	0.03	0.16	0.22	0.28	0.41
	O.T.	1840	1880	1890	1900	1920
240:1 4 x 60	Me.HP	0.03	0.13	0.19	0.24	0.34
	Th.HP	0.03	0.13	0.19	0.24	0.34
	O.T.	1800	1845	1890	1850	1825

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.
All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.
Steeple bearing arrangements follow in this section.
When specified each unit can be supplied with a worm shaft extension located opposite the input end.
Set screw end of hollow shaft is considered the extension end.
Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.
Reducers are designed for shaft rotation in either direction.
For cap and carrier dimensions not shown see mounting section.
For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.
Refer to page 26 for lubrication information, efficiency, and service factors.
Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.
Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
2.000*	25-S60-200	1/4 X 1/8
1.9375*	25-S60-115	1/4 X 1/8
1.6875*	25-S60-111	3/8 X 3/16
1.4375*	25-S60-107	3/8 X 3/16
1.250*	25-S60-104	1/4 X 1/8
1.1875*	25-S60-103	1/4 X 1/8

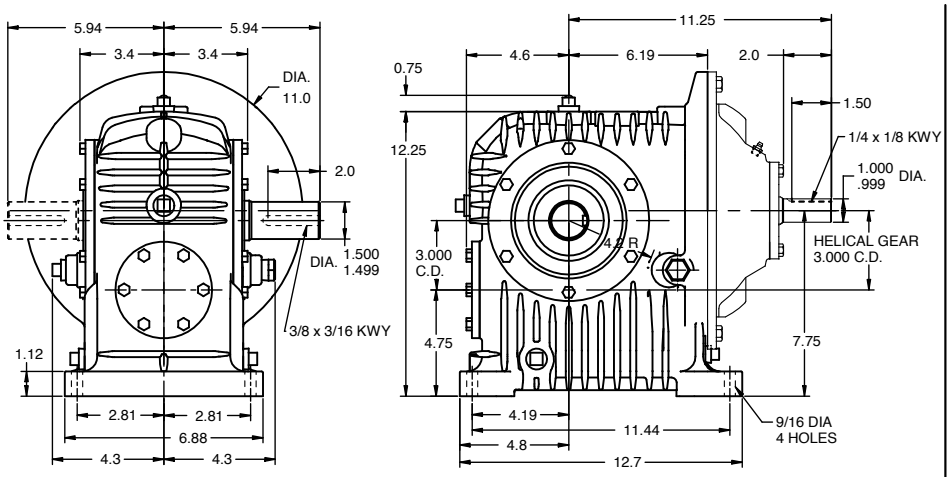
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducer - 3.000" C.D.

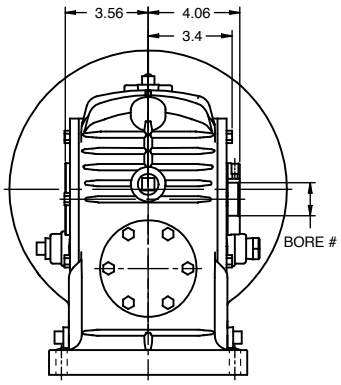
Size 30 Solid Shaft

Model RU est. net wt. 125 lbs.



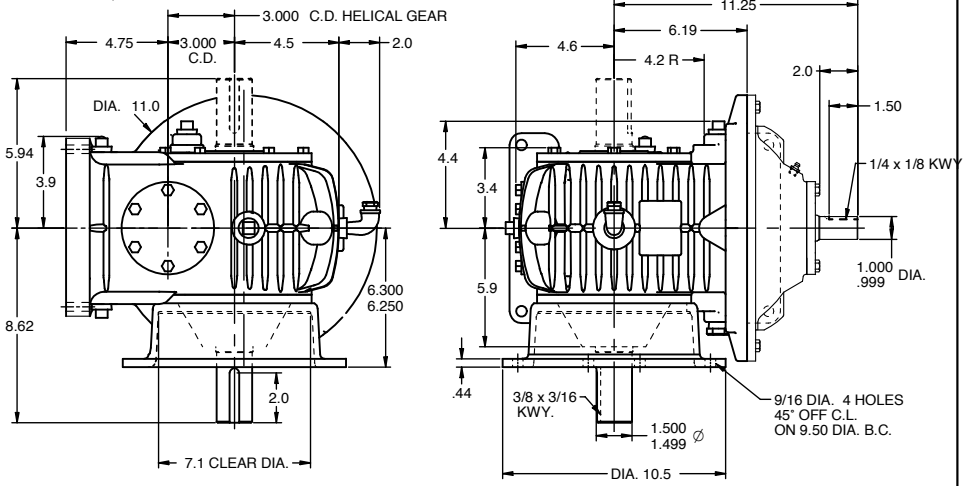
Hollow Shaft

SRU est. net wt. 125 lbs.



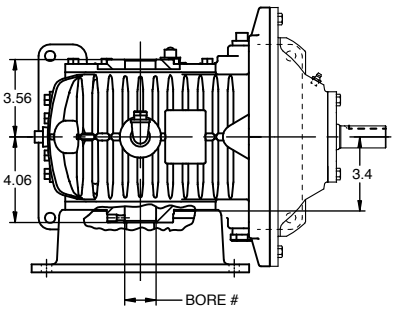
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 135 lbs.



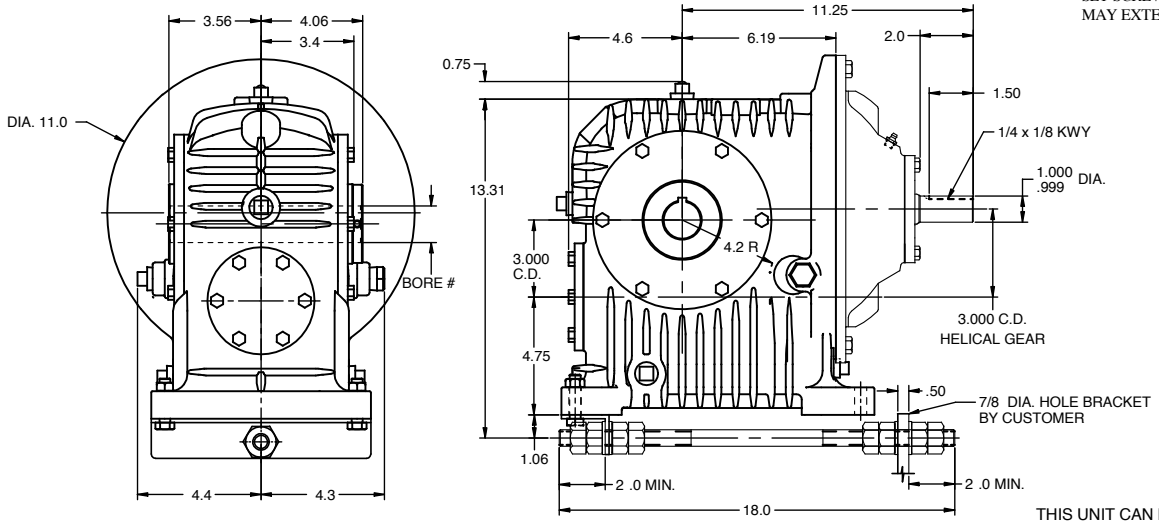
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 135 lbs.



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 130 lbs.



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

FOR DIMENSIONS NOT SHOWN SEE MODEL "RU" ABOVE

THIS UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 30 3.000" C.D. HELICAL PRI./3.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.42	6.24	8.03	9.34	11.7
	Th.HP	1.42	6.24	8.03	9.34	9.20
	O.T.	3870	3000	2590	2280	1880
7.5:1 1.5 x 5	Me.HP	0.97	4.57	6.24	7.47	9.41
	Th.HP	0.97	4.57	6.24	7.47	9.20
	O.T.	3870	3280	3000	2730	2270
9:1 1.8 x 5	Me.HP	0.81	3.94	5.45	6.66	8.53
	Th.HP	0.81	3.94	5.45	6.66	8.53
	O.T.	3870	3380	3140	2910	2460
10:1 1 x 10	Me.HP	0.91	4.09	5.43	6.35	7.96
	Th.HP	0.91	4.09	5.43	6.35	7.96
	O.T.	4600	3770	3380	3010	2510
12.5:1 2.5 x 5	Me.HP	0.59	2.97	4.20	5.25	7.08
	Th.HP	0.59	2.97	4.20	5.25	7.08
	O.T.	3870	3520	3340	3170	2820
15:1 1.5 x 10	Me.HP	0.62	2.96	4.09	4.99	6.40
	Th.HP	0.62	2.96	4.09	4.99	6.40
	O.T.	4600	4040	3770	3510	3000
18:1 1.8 x 10	Me.HP	0.52	2.53	3.55	4.40	5.78
	Th.HP	0.52	2.53	3.55	4.40	5.78
	O.T.	4600	4130	3910	3700	3230
20:1 4 x 5	Me.HP	0.35	1.97	2.80	3.58	5.05
	Th.HP	0.35	1.97	2.80	3.58	5.05
	O.T.	3550	3720	3550	3430	3200
22.5:1 1.5 x 15	Me.HP	0.43	2.08	2.89	3.54	4.55
	Th.HP	0.43	2.08	2.89	3.54	4.55
	O.T.	4620	4100	3880	3660	3140
25:1 2.5 x 10	Me.HP	0.38	1.90	2.70	3.41	4.70
	Th.HP	0.38	1.90	2.70	3.41	4.70
	O.T.	4600	4260	4090	3930	3610
27:1 1.8 x 15	Me.HP	0.36	1.78	2.50	3.11	4.11
	Th.HP	0.36	1.78	2.50	3.11	4.11
	O.T.	4620	4170	3990	3820	3390
30:1 1.5 x 20	Me.HP	0.33	1.59	2.22	2.72	3.50
	Th.HP	0.33	1.59	2.22	2.72	3.50
	O.T.	4470	4020	3860	3600	3090
36:1 1.8 x 20	Me.HP	0.28	1.36	1.92	2.39	3.16
	Th.HP	0.28	1.36	1.92	2.39	3.16
	O.T.	4470	4060	3940	3780	3330
37.5:1 2.5 x 15	Me.HP	0.26	1.34	1.90	2.40	3.32
	Th.HP	0.26	1.34	1.90	2.40	3.32
	O.T.	4620	4300	4140	4020	3740
40:1 4 x 10	Me.HP	0.24	1.26	1.80	2.29	3.27
	Th.HP	0.24	1.26	1.80	2.29	3.27
	O.T.	4600	4460	4280	4170	3970
45:1 1.8 x 25	Me.HP	0.23	1.10	1.55	1.92	2.55
	Th.HP	0.23	1.10	1.55	1.92	2.55
	O.T.	4300	4050	3890	3730	3340
50:1 2.5 x 20	Me.HP	0.20	1.02	1.46	1.84	2.55
	Th.HP	0.20	1.02	1.46	1.84	2.55
	O.T.	4470	4160	4040	3960	3690
54:1 1.8 x 30	Me.HP	0.19	0.92	1.29	1.61	2.14
	Th.HP	0.19	0.92	1.29	1.61	2.14
	O.T.	4110	3780	3630	3510	3200
60:1 4 x 15	Me.HP	0.17	0.89	1.26	1.61	2.31
	Th.HP	0.17	0.89	1.26	1.61	2.31
	O.T.	4620	4500	4330	4220	4050
62.5:1 2.5 x 25	Me.HP	0.17	0.82	1.18	1.48	2.06
	Th.HP	0.17	0.82	1.18	1.48	2.06
	O.T.	4300	4120	4030	3920	3660
72:1 1.8 x 40	Me.HP	0.14	0.69	0.97	1.21	1.61
	Th.HP	0.14	0.69	0.97	1.21	1.61
	O.T.	3700	3560	3480	3370	3050
75:1 2.5 x 30	Me.HP	0.14	0.69	0.98	1.24	1.72
	Th.HP	0.14	0.69	0.98	1.24	1.72
	O.T.	4110	3870	3760	3650	3470
80:1 4 x 20	Me.HP	0.13	0.68	0.97	1.23	1.77
	Th.HP	0.13	0.68	0.97	1.23	1.77
	O.T.	4470	4350	4190	4080	3980
90:1 1.8 x 50	Me.HP	0.12	0.56	0.78	0.97	1.29
	Th.HP	0.12	0.56	0.78	0.97	1.29
	O.T.	3280	3400	3380	3290	2940
100:1 4 x 25	Me.HP	0.11	0.55	0.78	0.99	1.43
	Th.HP	0.11	0.55	0.78	0.99	1.43
	O.T.	4300	4220	4130	4080	3940
108:1 1.8 x 60	Me.HP	0.10	0.46	0.65	0.81	1.08
	Th.HP	0.10	0.46	0.65	0.81	1.08
	O.T.	3230	3260	3200	3110	2830
120:1 4 x 30	Me.HP	0.09	0.46	0.65	0.83	1.19
	Th.HP	0.09	0.46	0.65	0.83	1.19
	O.T.	4110	4000	3880	3810	3680
125:1 2.5 x 50	Me.HP	0.09	0.42	0.59	0.75	1.04
	Th.HP	0.09	0.42	0.59	0.75	1.04
	O.T.	3280	3370	3400	3390	3230
150:1 2.5 x 60	Me.HP	0.07	0.35	0.50	0.63	0.87
	Th.HP	0.07	0.35	0.50	0.63	0.87
	O.T.	3230	3290	3260	3210	3070
160:1 4 x 40	Me.HP	0.07	0.35	0.49	0.63	0.90
	Th.HP	0.07	0.35	0.49	0.63	0.90
	O.T.	3700	3610	3520	3550	3510
200:1 4 x 50	Me.HP	0.06	0.28	0.39	0.50	0.72
	Th.HP	0.06	0.28	0.39	0.50	0.72
	O.T.	3280	3350	3370	3390	3400
240:1 4 x 60	Me.HP	0.05	0.23	0.33	0.42	0.60
	Th.HP	0.05	0.23	0.33	0.42	0.60
	O.T.	3230	3280	3300	3250	3230

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEAR SHAFT NUMBER**	**KEYWAY SIZE**
2.500*	30-S60-208	3/8 x 3/16
2.4375*	30-S60-207	3/8 x 3/16
2.1875*	30-S60-203	1/2 x 1/4
1.9375*	30-S60-115	1/2 x 1/4
1.6875*	30-S60-111	3/8 x 3/16
1.500*	30-S60-108	3/8 x 3/16

Special hollow gear shaft bore sizes are available at additional cost.

*AGMA Standard

Bore Tolerance: +.002, -.000

2 set screws at long end of shaft.

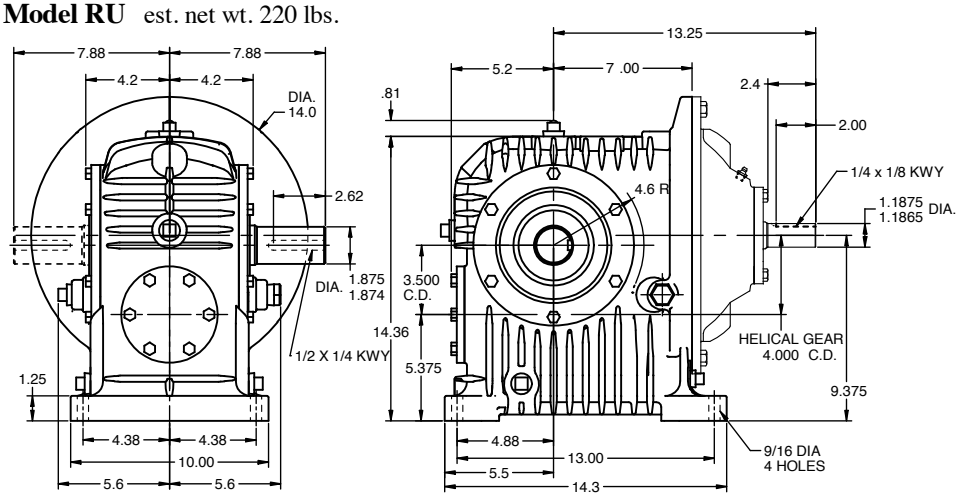
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducer - 3.500" C.D.

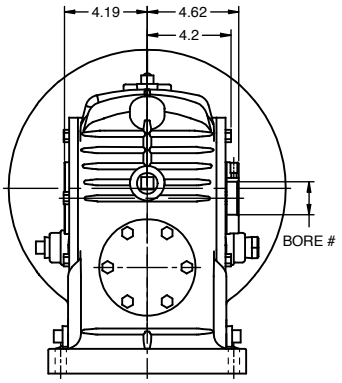
Size 35 Solid Shaft

Hollow Shaft

Model RU est. net wt. 220 lbs.

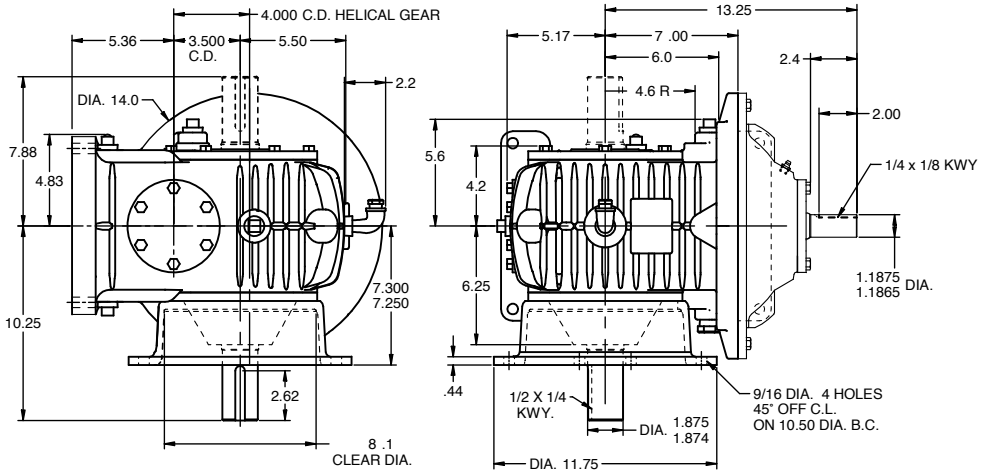


SRU est. net wt. 220 lbs.



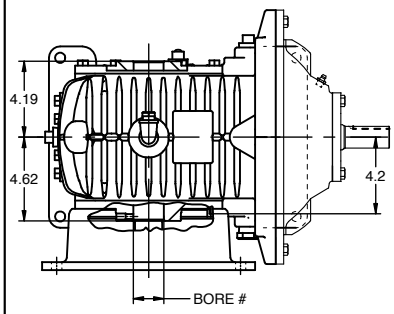
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 230 lbs.



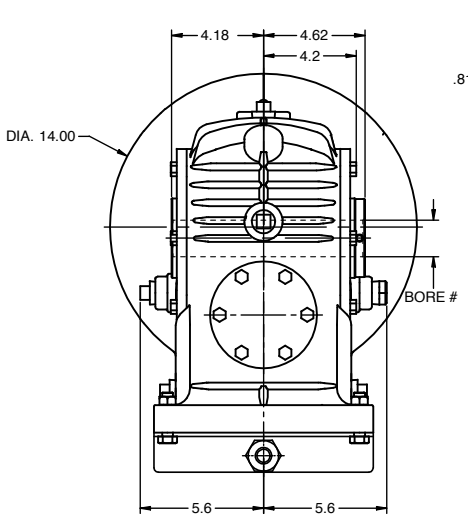
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 230 lbs.

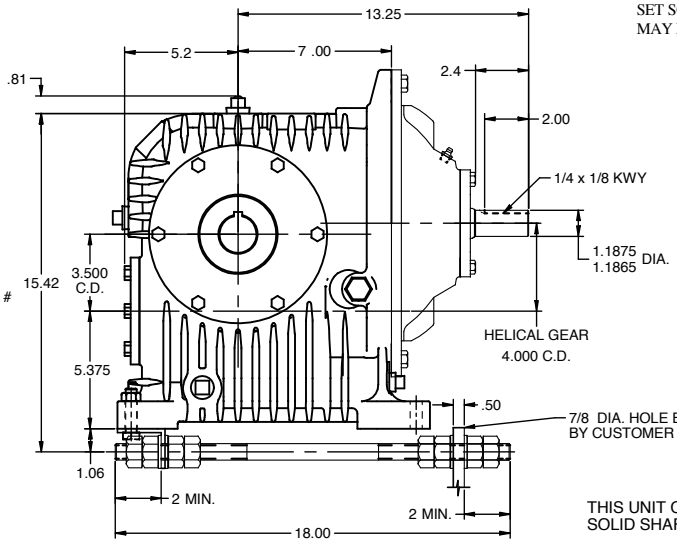


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 225 lbs.



FOR DIMENSIONS NOT SHOWN SEE MODEL "RU" ABOVE



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 35 4.000" C.D. HELICAL PRI./3.500" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.66	8.93	13.1	16.4	20.3
	Th.HP	1.66	8.93	11.7	11.9	12.2
	O.T.	4520	4290	4200	4000	3280
7.5:1 1.5 x 5	Me.HP	1.38	7.45	10.9	13.2	16.5
	Th.HP	1.38	7.45	10.1	10.7	12.2
	O.T.	5520	5340	5240	4800	3970
9:1 1.8 x 5	Me.HP	1.20	6.50	9.53	11.9	15.0
	Th.HP	1.20	6.50	9.53	10.2	12.2
	O.T.	5720	5580	5480	5180	4310
10:1 1 x 10	Me.HP	1.66	7.37	9.50	11.1	13.8
	Th.HP	1.66	7.37	9.30	10.2	10.3
	O.T.	8430	6790	5910	5250	4360
12.5:1 2.5 x 5	Me.HP	0.96	5.26	7.68	9.52	12.5
	Th.HP	0.96	5.26	7.68	9.20	10.4
	O.T.	6300	6240	6110	5750	4980
15:1 1.5 x 10	Me.HP	1.14	5.40	7.37	8.84	11.1
	Th.HP	1.14	5.40	7.37	8.84	10.2
	O.T.	8510	7370	6790	6220	5210
18:1 1.8 x 10	Me.HP	0.96	4.65	6.44	7.87	10.1
	Th.HP	0.96	4.65	6.44	7.87	10.1
	O.T.	8510	7580	7080	6600	5640
20:1 1 x 20	Me.HP	0.90	3.99	5.18	6.04	7.55
	Th.HP	0.90	3.99	5.18	6.04	7.55
	O.T.	8270	6950	6080	5390	4480
22.5:1 1.5 x 15	Me.HP	0.80	3.80	5.21	6.28	7.92
	Th.HP	0.80	3.80	5.21	6.28	7.92
	O.T.	8540	7490	7000	6480	5460
25:1 2.5 x 10	Me.HP	0.70	3.50	4.96	6.20	8.36
	Th.HP	0.70	3.50	4.96	6.20	8.36
	O.T.	8510	7840	7500	7150	6420
27:1 1.8 x 15	Me.HP	0.67	3.27	4.54	5.57	7.18
	Th.HP	0.67	3.27	4.54	5.57	7.18
	O.T.	8540	7650	7250	6830	5920
30:1 1.5 x 20	Me.HP	0.61	2.91	3.99	4.82	6.08
	Th.HP	0.61	2.91	3.99	4.82	6.08
	O.T.	8270	7340	6950	6390	5360
36:1 1.8 x 20	Me.HP	0.51	2.50	3.48	4.28	5.52
	Th.HP	0.51	2.50	3.48	4.28	5.52
	O.T.	8270	7450	7150	6770	5810
37.5:1 2.5 x 15	Me.HP	0.49	2.46	3.49	4.37	5.92
	Th.HP	0.49	2.46	3.49	4.37	5.92
	O.T.	8540	7920	7600	7310	6660
40:1 4 x 10	Me.HP	0.45	2.32	3.31	4.22	5.96
	Th.HP	0.45	2.32	3.31	4.22	5.96
	O.T.	8510	8210	7890	7680	7220
45:1 1.8 x 25	Me.HP	0.42	2.02	2.81	3.45	4.46
	Th.HP	0.42	2.02	2.81	3.45	4.46
	O.T.	7950	7440	7070	6690	5820
50:1 2.5 x 20	Me.HP	0.38	1.88	2.67	3.35	4.54
	Th.HP	0.38	1.88	2.67	3.35	4.54
	O.T.	8270	7660	7420	7200	6580
54:1 1.8 x 30	Me.HP	0.35	1.69	2.35	2.89	3.73
	Th.HP	0.35	1.69	2.35	2.89	3.73
	O.T.	7600	6950	6590	6300	5590
60:1 4 x 15	Me.HP	0.31	1.63	2.33	2.97	4.20
	Th.HP	0.31	1.63	2.33	2.97	4.20
	O.T.	8540	8270	7970	7780	7360
62.5:1 2.5 x 25	Me.HP	0.31	1.52	2.16	2.70	3.66
	Th.HP	0.31	1.52	2.16	2.70	3.66
	O.T.	7950	7580	7390	7120	6520
72:1 1.8 x 40	Me.HP	0.27	1.27	1.77	2.18	2.81
	Th.HP	0.27	1.27	1.77	2.18	2.81
	O.T.	6830	6540	6320	6050	5330
75:1 2.5 x 30	Me.HP	0.26	1.27	1.81	2.26	3.07
	Th.HP	0.26	1.27	1.81	2.26	3.07
	O.T.	7600	7120	6900	6640	6180

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.24	1.25	1.78	2.27	3.22
	Th.HP	0.24	1.25	1.78	2.27	3.22
	O.T.	8270	8010	7710	7520	7250
90:1 1.8 x 50	Me.HP	0.22	1.02	1.42	1.75	2.26
	Th.HP	0.22	1.02	1.42	1.75	2.26
	O.T.	6070	6240	6140	5900	5130
100:1 4 x 25	Me.HP	0.20	1.01	1.43	1.83	2.60
	Th.HP	0.20	1.01	1.43	1.83	2.60
	O.T.	7950	7770	7610	7510	7180
108:1 1.8 x 60	Me.HP	0.18	0.85	1.19	1.46	1.88
	Th.HP	0.18	0.85	1.19	1.46	1.88
	O.T.	5970	5990	5810	5580	4940
120:1 4 x 30	Me.HP	0.17	0.84	1.20	1.53	2.17
	Th.HP	0.17	0.84	1.20	1.53	2.17
	O.T.	7600	7360	7150	7010	6690
125:1 2.5 x 50	Me.HP	0.16	0.77	1.09	1.37	1.85
	Th.HP	0.16	0.77	1.09	1.37	1.85
	O.T.	6070	6210	6240	6160	5740
150:1 2.5 x 60	Me.HP	0.14	0.64	0.91	1.14	1.55
	Th.HP	0.14	0.64	0.91	1.14	1.55
	O.T.	5970	6050	5980	5840	5460
160:1 4 x 40	Me.HP	0.13	0.64	0.90	1.15	1.64
	Th.HP	0.13	0.64	0.90	1.15	1.64
	O.T.	6830	6650	6480	6530	6390
200:1 4 x 50	Me.HP	0.10	0.51	0.73	0.93	1.31
	Th.HP	0.10	0.51	0.73	0.93	1.31
	O.T.	6070	6160	6200	6240	6180
240:1 4 x 60	Me.HP	0.09	0.43	0.61	0.77	1.10
	Th.HP	0.09	0.43	0.61	0.77	1.10
	O.T.	5970	6040	6070	5990	5870

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
2.7500	35-S60-212	3/8 x 3/16
2.6875*	35-S60-211	3/8 x 3/16
2.500	35-S60-208	1/2 x 1/4
2.4375*	35-S60-207	1/2 x 1/4
2.1875*	35-S60-203	3/8 x 3/16
1.9375*	35-S60-115	3/8 x 3/16
1.6875*	35-S60-111	3/8 x 3/16

Special hollow gear shaft bore sizes are available at additional cost.

*AGMA Standard Bore Tolerance: +.002, -.000

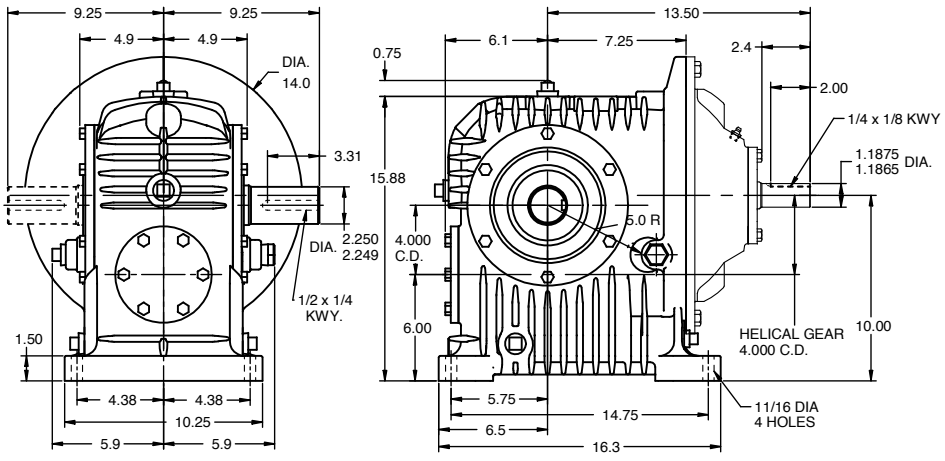
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducers - 4.000" C.D.

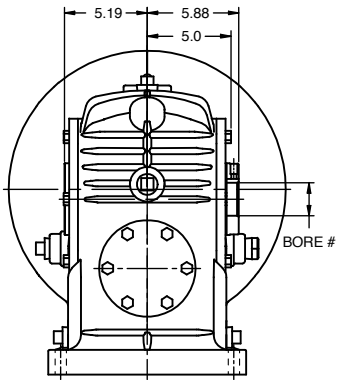
Size 40 Solid Shaft

Model RU est. net wt. 275 lbs.



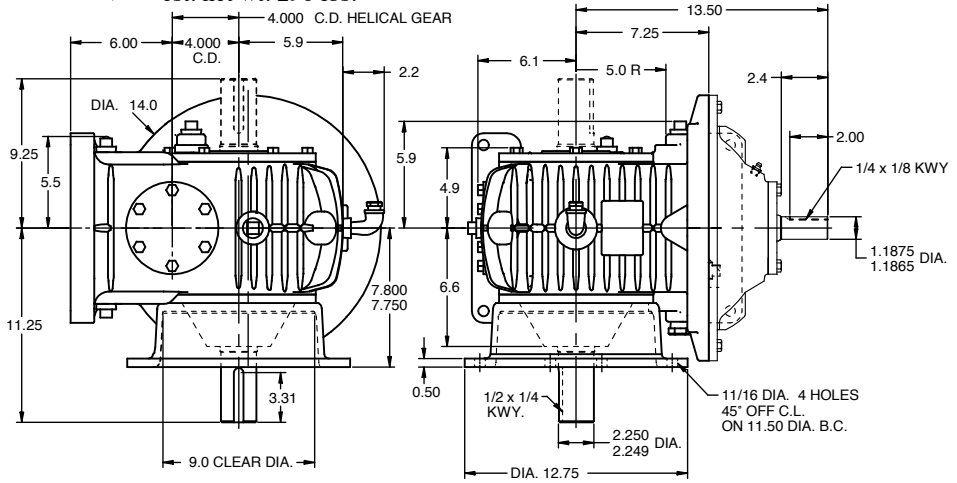
Hollow Shaft

SRU est. net wt. 275 lbs.



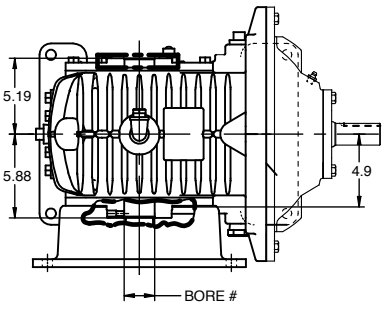
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 290 lbs.



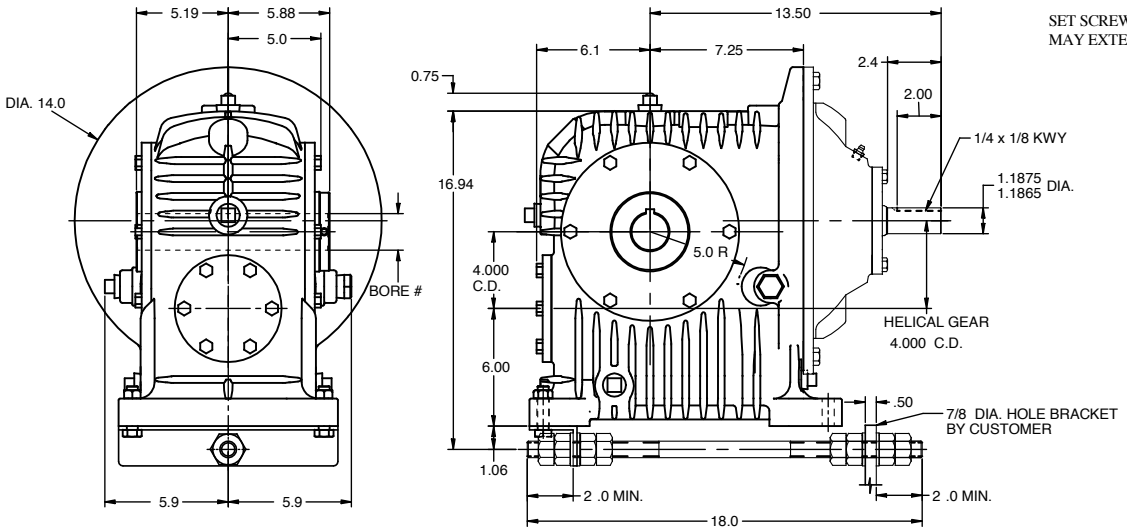
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 290 lbs.



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 280 lbs.



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

FOR DIMENSIONS NOT SHOWN SEE MODEL "RU" ABOVE

THIS UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 40 4.000" C.D. HELICAL PRI./4.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.66	8.93	13.1	16.9	24.9
	Th.HP	1.66	8.93	13.1	16.9	18.7
	O.T.	4670	4430	4340	4270	4140
7.5:1 1.5 x 5	Me.HP	1.38	7.45	10.9	14.2	20.9
	Th.HP	1.38	7.45	10.9	14.2	18.7
	O.T.	5710	5520	5410	5330	5190
9:1 1.8 x 5	Me.HP	1.2	6.5	9.53	12.4	18.3
	Th.HP	1.2	6.5	9.53	12.4	17.9
	O.T.	5920	5770	5660	5580	5440
10:1 1 x 10	Me.HP	1.66	8.93	13.1	15.3	19
	Th.HP	1.66	8.93	13.1	15.3	15.4
	O.T.	8730	8520	8400	7490	6190
12.5:1 2.5 x 5	Me.HP	0.96	5.26	7.72	10.0	14.8
	Th.HP	0.96	5.26	7.72	10.0	14.8
	O.T.	6520	6450	6350	6260	6110
15:1 1.5 x 10	Me.HP	1.38	7.45	10.3	12.3	15.4
	Th.HP	1.38	7.45	10.3	12.3	15.2
	O.T.	10700	10500	9860	8910	7440
18:1 1.8 x 10	Me.HP	1.20	6.50	9.13	11.0	13.9
	Th.HP	1.20	6.50	9.13	11.0	13.9
	O.T.	11100	11000	10400	9580	8050
20:1 1 x 20	Me.HP	1.30	5.62	7.17	8.34	10.4
	Th.HP	1.30	5.62	7.17	8.34	10.4
	O.T.	12400	10100	8720	7710	6380
22.5:1 1.5 x 15	Me.HP	1.15	5.43	7.33	8.70	10.9
	Th.HP	1.15	5.43	7.33	8.70	10.9
	O.T.	12800	11100	10200	9300	7790
25:1 2.5 x 10	Me.HP	0.96	5.04	7.07	8.80	11.6
	Th.HP	0.96	5.04	7.07	8.80	11.6
	O.T.	12200	11700	11100	10500	9240
27:1 1.8 x 15	Me.HP	0.97	4.69	6.45	7.82	9.91
	Th.HP	0.97	4.69	6.45	7.82	9.91
	O.T.	12800	11400	10700	9920	8460
30:1 1.5 x 20	Me.HP	0.88	4.16	5.62	6.68	8.40
	Th.HP	0.88	4.16	5.62	6.68	8.40
	O.T.	12400	10900	10100	9190	7670
36:1 1.8 x 20	Me.HP	0.74	3.59	4.94	5.99	7.62
	Th.HP	0.74	3.59	4.94	5.99	7.62
	O.T.	12400	11100	10500	9840	8300
37.5:1 2.5 x 15	Me.HP	0.70	3.54	4.99	6.21	8.26
	Th.HP	0.70	3.54	4.99	6.21	8.26
	O.T.	12800	11800	11200	10800	9620
40:1 4 x 10	Me.HP	0.61	3.18	4.60	5.91	8.47
	Th.HP	0.61	3.18	4.60	5.91	8.47
	O.T.	12100	11700	11400	11100	10600
45:1 1.8 x 25	Me.HP	0.60	2.89	3.99	4.84	6.15
	Th.HP	0.60	2.89	3.99	4.84	6.15
	O.T.	11900	11100	10400	9730	8330
50:1 2.5 x 20	Me.HP	0.54	2.71	3.82	4.76	6.35
	Th.HP	0.54	2.71	3.82	4.76	6.35
	O.T.	12400	11500	11000	10600	9530
54:1 1.8 x 30	Me.HP	0.50	2.42	3.34	4.06	5.16
	Th.HP	0.50	2.42	3.34	4.06	5.16
	O.T.	11400	10400	9740	9190	8010
60:1 4 x 15	Me.HP	0.45	2.35	3.35	4.25	5.98
	Th.HP	0.45	2.35	3.35	4.25	5.98
	O.T.	12800	12300	11900	11600	10900
62.5:1 2.5 x 25	Me.HP	0.44	2.19	3.08	3.84	5.13
	Th.HP	0.44	2.19	3.08	3.84	5.13
	O.T.	11900	11300	11000	10500	9450
72:1 1.8 x 40	Me.HP	0.38	1.82	2.52	3.05	3.88
	Th.HP	0.38	1.82	2.52	3.05	3.88
	O.T.	10300	9790	9360	8840	7650
75:1 2.5 x 30	Me.HP	0.37	1.83	2.58	3.22	4.30
	Th.HP	0.37	1.83	2.58	3.22	4.30
	O.T.	11400	10700	10300	9830	8990

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.35	1.80	2.56	3.26	4.58
	Th.HP	0.35	1.80	2.56	3.26	4.58
	O.T.	12400	12000	11500	11200	10700
90:1 1.8 x 50	Me.HP	0.31	1.46	2.02	2.45	3.12
	Th.HP	0.31	1.46	2.02	2.45	3.12
	O.T.	9240	9360	9110	8620	7380
100:1 4 x 25	Me.HP	0.28	1.45	2.06	2.63	3.70
	Th.HP	0.28	1.45	2.06	2.63	3.70
	O.T.	11900	11600	11400	11200	10600
108:1 1.8 x 60	Me.HP	0.26	1.22	1.68	2.05	2.60
	Th.HP	0.26	1.22	1.68	2.05	2.60
	O.T.	9100	9010	8640	8180	7110
120:1 4 x 30	Me.HP	0.24	1.21	1.73	2.20	3.10
	Th.HP	0.24	1.21	1.73	2.20	3.10
	O.T.	11400	11000	10700	10500	9920
125:1 2.5 x 50	Me.HP	0.23	1.10	1.56	1.94	2.60
	Th.HP	0.23	1.10	1.56	1.94	2.60
	O.T.	9240	9370	9330	9150	8380
150:1 2.5 x 60	Me.HP	0.20	0.92	1.30	1.62	2.17
	Th.HP	0.20	0.92	1.30	1.62	2.17
	O.T.	9100	9150	8950	8700	7990
160:1 4 x 40	Me.HP	0.18	0.91	1.30	1.66	2.33
	Th.HP	0.18	0.91	1.30	1.66	2.33
	O.T.	10300	10000	9770	9800	9490
200:1 4 x 50	Me.HP	0.15	0.73	1.04	1.33	1.87
	Th.HP	0.15	0.73	1.04	1.33	1.87
	O.T.	9240	9320	9360	9380	9200
240:1 4 x 60	Me.HP	0.13	0.61	0.87	1.11	1.56
	Th.HP	0.13	0.61	0.87	1.11	1.56
	O.T.	9100	9160	9170	9030	8760

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.
All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.
Steeple bearing arrangements follow in this section.
When specified each unit can be supplied with a worm shaft extension located opposite the input end.
Set screw end of hollow shaft is considered the extension end.
Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.
Reducers are designed for shaft rotation in either direction.
For cap and carrier dimensions not shown see mounting section.
For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.
Refer to page 26 for lubrication information, efficiency, and service factors.
Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.
Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
2.9375*	40-S60-215	5/8 X 5/16
2.6875*	40-S60-211	5/8 X 5/16
2.4375*	40-S60-207	5/8 X 5/16
2.1875*	40-S60-203	5/8 X 5/16

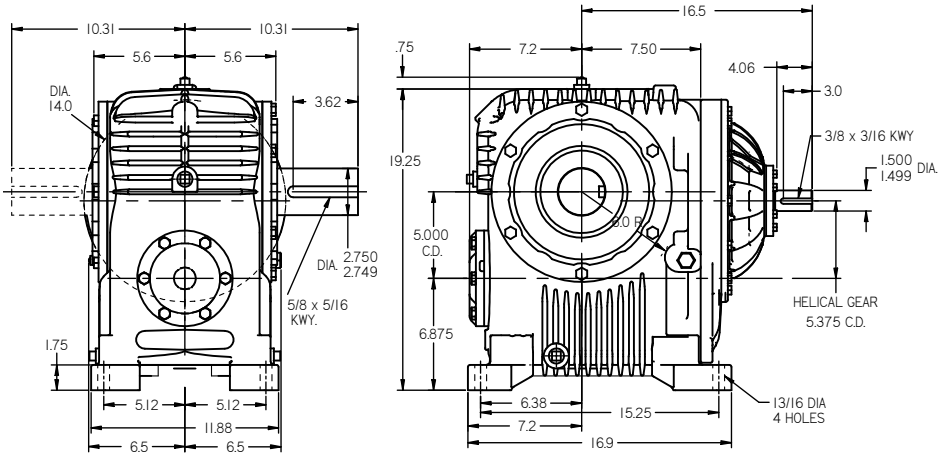
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducers - 5.000" C.D.

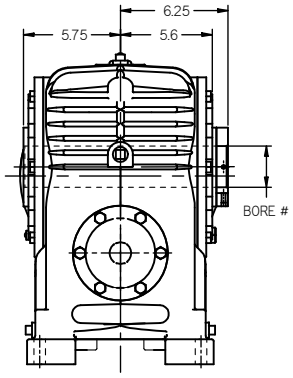
Size 50 - Solid Shaft

Model RU est. net wt. 430 lbs



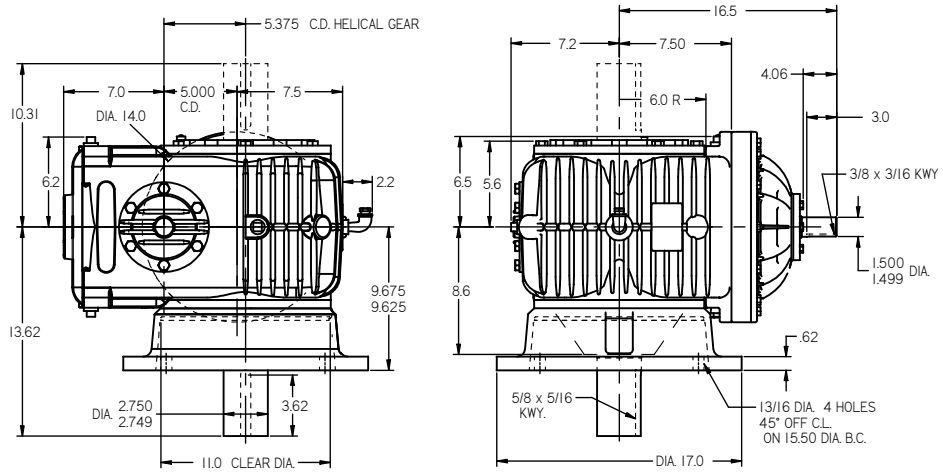
Hollow Shaft

SRU est. net wt. 430 lbs.



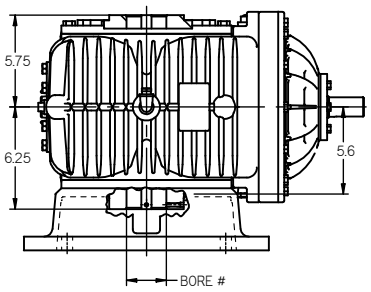
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 460 lbs



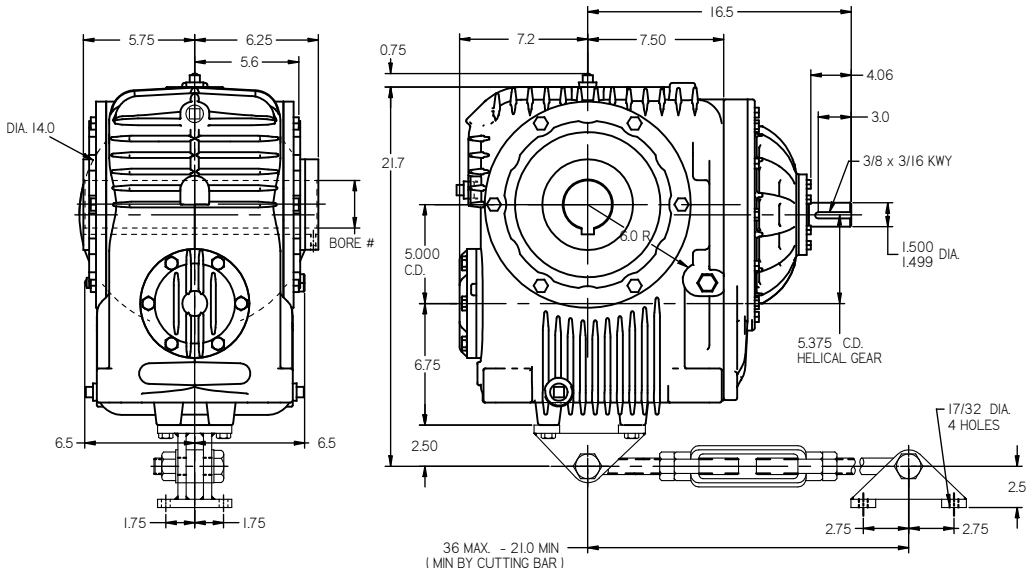
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 460 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 440 lbs



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 50 5.375" C.D. HELICAL PRI./5.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	3.91	20.8	30.4	39.2	48.8
	Th.HP	3.91	19.8	23.7	24.2	24.8
	O.T.	11000	10300	10100	9900	8140
7.5:1 1.5 x 5	Me.HP	3.23	17.3	25.3	32.7	41.1
	Th.HP	3.23	17.3	20.3	21.4	24.8
	O.T.	13400	12800	12500	12300	10200
9:1 1.8 x 5	Me.HP	2.82	15.2	22.2	28.8	37.6
	Th.HP	2.82	15.2	18.8	20.6	24.8
	O.T.	13900	13500	13200	13000	11200
10:1 1 x 10	Me.HP	3.91	19.3	24.1	28.0	34.3
	Th.HP	3.91	15.1	18.3	20.2	20.5
	O.T.	20600	18400	15500	13800	11200
12.5:1 2.5 x 5	Me.HP	2.27	12.3	18.0	23.4	31.5
	Th.HP	2.27	12.3	16.7	18.4	20.5
	O.T.	15400	15100	14800	14600	13000
15:1 1.5 x 10	Me.HP	3.23	14.9	19.3	22.6	28.3
	Th.HP	3.23	12.7	14.9	17.8	20.2
	O.T.	25000	21000	18400	16400	13700
18:1 1.8 x 10	Me.HP	2.71	12.9	17.3	20.4	25.6
	Th.HP	2.71	11.3	13.7	15.7	19.8
	O.T.	25100	21800	19700	17700	14800
20:1 1 x 20	Me.HP	2.57	10.6	13.2	15.3	18.9
	Th.HP	2.57	10.6	13.2	12.7	13.1
	O.T.	24500	19000	16000	14200	11600
22.5:1 1.5 x 15	Me.HP	2.27	10.5	13.7	16.0	20.1
	Th.HP	2.27	10.5	12.9	14.3	16.9
	O.T.	25200	21400	19100	17100	14300
25:1 2.5 x 10	Me.HP	1.98	9.91	13.7	16.7	21.5
	Th.HP	1.98	9.91	11.5	13.4	17.2
	O.T.	25100	23000	21500	20000	17100
27:1 1.8 x 15	Me.HP	1.91	9.11	12.3	14.5	18.2
	Th.HP	1.91	9.11	11.0	13.0	16.2
	O.T.	25200	22100	20200	18400	15500
30:1 1.5 x 20	Me.HP	1.74	8.04	10.6	12.3	15.4
	Th.HP	1.74	8.04	10.6	12.0	13.2
	O.T.	24500	21000	19000	16900	14100
36:1 1.8 x 20	Me.HP	1.46	6.98	9.40	11.2	14.0
	Th.HP	1.46	6.98	9.40	11.2	12.7
	O.T.	24500	21600	20000	18300	15300
37.5:1 2.5 x 15	Me.HP	1.39	6.97	9.68	11.9	15.3
	Th.HP	1.39	6.97	9.68	10.6	13.4
	O.T.	25200	23300	21800	20500	17800
40:1 4 x 10	Me.HP	1.26	6.59	9.37	11.8	16.2
	Th.HP	1.26	6.30	8.20	9.70	11.70
	O.T.	25100	24100	23200	22200	20300
45:1 1.8 x 25	Me.HP	1.19	5.63	7.59	9.01	11.3
	Th.HP	1.19	5.63	7.59	9.01	11.3
	O.T.	23600	21600	19800	18100	15300
50:1 2.5 x 20	Me.HP	1.07	5.33	7.41	9.10	11.7
	Th.HP	1.07	5.33	7.41	9.10	11.3
	O.T.	24500	22600	21400	20300	17600
54:1 1.8 x 30	Me.HP	1	4.72	6.36	7.55	9.48
	Th.HP	1	4.72	6.36	7.55	9.48
	O.T.	22600	20200	18500	17100	14700
60:1 4 x 15	Me.HP	0.88	4.63	6.60	8.32	11.5
	Th.HP	0.88	4.63	6.60	7.80	10.3
	O.T.	25200	24300	23400	22600	20800
62.5:1 2.5 x 25	Me.HP	0.87	4.30	5.98	7.35	9.49
	Th.HP	0.87	4.30	5.98	7.35	9.49
	O.T.	23600	22400	21300	20100	17500
72:1 1.8 x 40	Me.HP	0.76	3.55	4.79	5.69	7.14
	Th.HP	0.76	3.55	4.79	5.69	7.14
	O.T.	20400	19000	17800	16500	14100
75:1 2.5 x 30	Me.HP	0.73	3.60	5.01	6.16	7.95
	Th.HP	0.73	3.60	5.01	6.16	7.95
	O.T.	22600	21000	19900	18800	16600
80:1 4 x 20	Me.HP	0.68	3.54	5.05	6.37	8.79
	Th.HP	0.68	3.54	5.05	6.37	8.79
	O.T.	24500	23600	22700	21900	20500
90:1 1.8 x 50	Me.HP	0.61	2.85	3.84	4.57	5.73
	Th.HP	0.61	2.85	3.84	4.57	5.73
	O.T.	18200	18200	17400	16100	13600
100:1 4 x 25	Me.HP	0.56	2.86	4.07	5.14	7.09
	Th.HP	0.56	2.86	4.07	5.14	7.09
	O.T.	23600	22900	22500	21900	20400
108:1 1.8 x 60	Me.HP	0.52	2.38	3.21	3.81	4.79
	Th.HP	0.52	2.38	3.21	3.81	4.79
	O.T.	17900	17500	16500	15200	13100
120:1 4 x 30	Me.HP	0.47	2.39	3.41	4.3	5.94
	Th.HP	0.47	2.39	3.41	4.3	5.94
	O.T.	22600	21800	21200	20500	19000
125:1 2.5 x 50	Me.HP	0.45	2.18	3.03	3.72	4.81
	Th.HP	0.45	2.18	3.03	3.72	4.81
	O.T.	18200	18500	18100	17500	15500
150:1 2.5 x 60	Me.HP	0.39	1.82	2.53	3.11	4.01
	Th.HP	0.39	1.82	2.53	3.11	4.01
	O.T.	17900	18000	17400	16700	14800
160:1 4 x 40	Me.HP	0.36	1.8	2.57	3.24	4.47
	Th.HP	0.36	1.8	2.57	3.24	4.47
	O.T.	20400	19800	19300	19200	18200
175:1 2.5 x 70	Me.HP	0.33	1.56	2.17	2.67	3.44
	Th.HP	0.33	1.56	2.17	2.67	3.44
	O.T.	17600	17700	17100	16400	14600
200:1 4 x 50	Me.HP	0.29	1.45	2.06	2.6	3.59
	Th.HP	0.29	1.45	2.06	2.6	3.59
	O.T.	18200	18400	18500	18300	17700
240:1 4 x 60	Me.HP	0.25	1.21	1.72	2.17	3.00
	Th.HP	0.25	1.21	1.72	2.17	3.00
	O.T.	17900	18000	18100	17600	16800
280:1 4 x 70	Me.HP	0.22	1.04	1.48	1.86	2.57
	Th.HP	0.22	1.04	1.48	1.86	2.57
	O.T.	17600	17800	17800	17400	16600

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
3.4375*	50-S60-307	5/8 X 5/16
3.1875*	50-S60-303	5/8 X 5/16
2.750	50-S60-212	5/8 X 5/16

Special hollow gear shaft bore sizes are available at additional cost.

*AGMA Standard Bore Tolerance: +.003, -.000

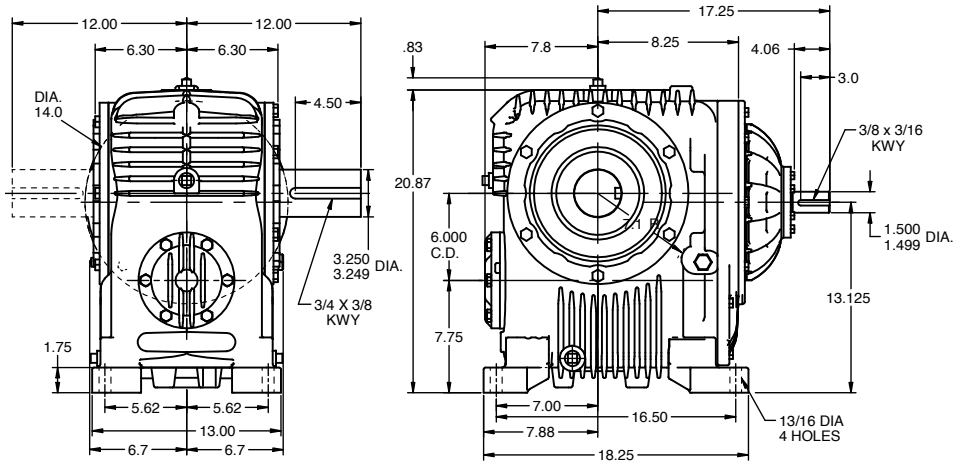
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducers - 6.000" C.D.

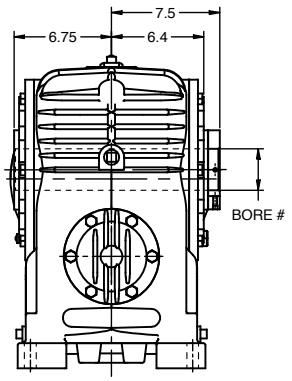
Size 60 Solid Shaft

Model RU est. net wt. 545 lbs



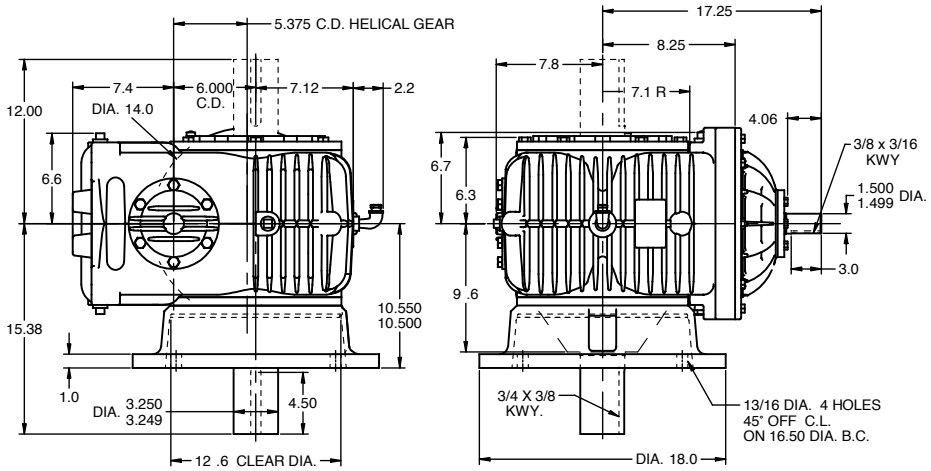
Hollow Shaft

SRU est. net wt. 545 lbs



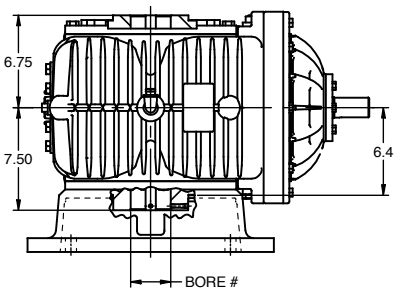
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 580 lbs



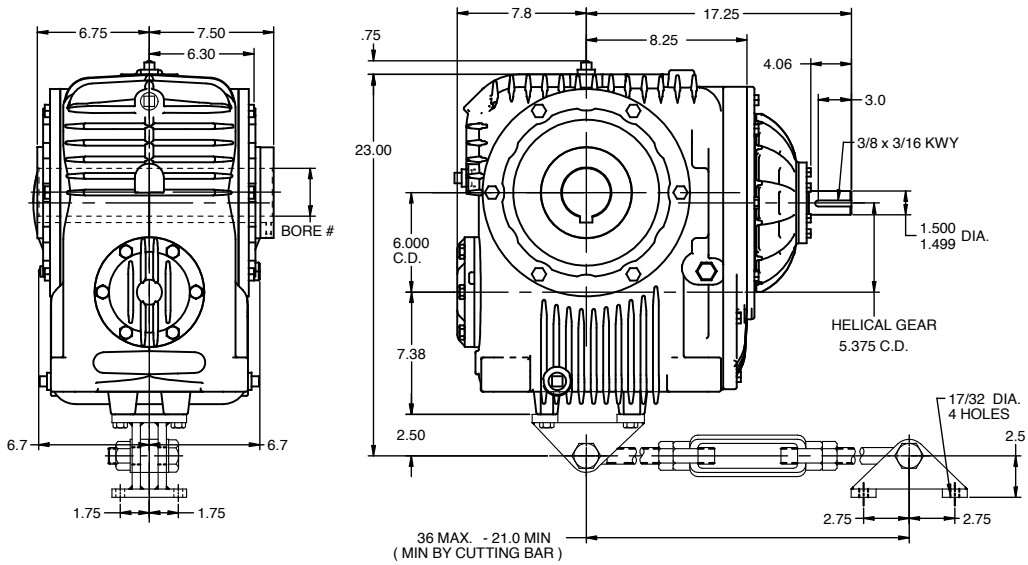
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 580 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 560 lbs



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 60 5.375" C.D. HELICAL PRI./6.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	3.91	20.8	30.4	39.2	57.4
	Th.HP	3.91	19.8	25.3	25.8	26.5
	O.T.	11000	10300	10100	9900	9580
7.5:1 1.5 x 5	Me.HP	3.23	17.3	25.3	32.7	48.1
	Th.HP	3.23	17.3	21.6	22.8	26.5
	O.T.	13400	12800	12500	12300	12000
9:1 1.8 x 5	Me.HP	2.82	15.2	22.2	28.8	42.3
	Th.HP	2.82	15.2	20.0	21.9	26.5
	O.T.	13900	13500	13200	13000	12600
10:1 1 x 10	Me.HP	3.91	20.8	30.4	39.2	47.9
	Th.HP	3.91	16.1	19.5	21.5	21.9
	O.T.	20600	19900	19500	19200	15600
12.5:1 2.5 x 5	Me.HP	2.27	12.3	18.0	23.4	34.1
	Th.HP	2.27	12.3	18.0	19.6	22.3
	O.T.	15400	15100	14800	14600	14100
15:1 1.5 x 10	Me.HP	3.23	17.3	25.3	32.5	40.3
	Th.HP	3.23	13.6	15.8	19.0	21.6
	O.T.	25000	24500	24100	23600	19500
18:1 1.8 x 10	Me.HP	2.82	15.2	22.2	28.8	36.9
	Th.HP	2.82	12.1	14.6	16.7	21.1
	O.T.	26100	25600	25300	25000	21300
20:1 1 x 20	Me.HP	3.91	15.2	19	21.9	26.4
	Th.HP	3.91	12.7	13.3	14.3	15.4
	O.T.	37300	27500	23000	20300	16200
22.5:1 1.5 x 15	Me.HP	3.23	15.6	19.8	23.1	28.7
	Th.HP	3.23	11.4	13.8	15.3	18.0
	O.T.	35800	31700	27600	24600	20400
25:1 2.5 x 10	Me.HP	2.27	12.3	18.0	23.4	30.9
	Th.HP	2.27	10.1	12.3	14.2	18.3
	O.T.	28700	28600	28200	27900	24600
27:1 1.8 x 15	Me.HP	2.82	13.7	17.9	20.9	26.2
	Th.HP	2.82	9.46	11.7	13.9	17.2
	O.T.	37400	33200	29600	26500	22300
30:1 1.5 x 20	Me.HP	2.67	11.9	15.2	17.7	22.0
	Th.HP	2.67	9.9	12.2	12.8	14.0
	O.T.	37500	31200	27500	24300	20100
36:1 1.8 x 20	Me.HP	2.24	10.5	13.8	16.1	20.1
	Th.HP	2.24	8.1	10.1	13.6	15.1
	O.T.	37500	32400	29300	26400	21900
37.5:1 2.5 x 15	Me.HP	2.13	10.6	14.5	17.4	22.0
	Th.HP	2.13	7.95	9.93	11.3	14.2
	O.T.	38600	35300	32600	30100	25600
40:1 4 x 10	Me.HP	1.45	7.47	10.8	13.8	19.8
	Th.HP	1.45	6.80	8.80	10.4	12.5
	O.T.	28700	27300	26600	25900	24800
45:1 1.8 x 25	Me.HP	1.82	8.47	11.1	13.0	16.3
	Th.HP	1.82	7.60	9.90	10.5	12.6
	O.T.	36100	32400	29000	26100	22000
50:1 2.5 x 20	Me.HP	1.63	8.10	11.1	13.4	16.9
	Th.HP	1.63	6.80	8.30	9.80	12.1
	O.T.	37500	34300	31900	29800	25300
54:1 1.8 x 30	Me.HP	1.52	7.09	9.31	10.9	13.6
	Th.HP	1.52	6.09	7.18	8.55	10.1
	O.T.	34500	30300	27200	24600	21200
60:1 4 x 15	Me.HP	1.35	7.10	10.0	12.6	16.9
	Th.HP	1.35	5.60	7.10	8.40	11.0
	O.T.	38600	37300	35700	34100	30700
62.5:1 2.5 x 25	Me.HP	1.33	6.54	8.95	10.8	13.6
	Th.HP	1.33	6.05	7.64	8.97	10.5
	O.T.	36100	33900	31900	29600	25100
72:1 1.8 x 40	Me.HP	1.16	5.34	7.01	8.19	10.3
	Th.HP	1.16	5.10	6.30	7.70	8.70
	O.T.	31200	28600	26100	23700	20200
75:1 2.5 x 30	Me.HP	1.12	5.48	7.5	9.05	11.4
	Th.HP	1.12	5.30	6.40	7.10	9.30
	O.T.	34500	31900	29800	27700	23900
80:1 4 x 20	Me.HP	1.04	5.43	7.69	9.62	13.0
	Th.HP	1.04	4.60	6.00	6.70	9.40
	O.T.	37500	36200	34600	33100	30300
90:1 1.8 x 50	Me.HP	0.94	4.28	5.63	6.57	8.24
	Th.HP	0.94	4.28	5.63	6.57	7.80
	O.T.	27900	27400	25400	23100	19500
100:1 4 x 25	Me.HP	0.85	4.38	6.2	7.76	10.5
	Th.HP	0.85	3.90	5.40	6.30	8.40
	O.T.	36100	35100	34200	33000	30000
108:1 1.8 x 60	Me.HP	0.79	3.58	4.70	5.49	6.88
	Th.HP	0.79	3.58	4.70	5.49	6.78
	O.T.	27500	26400	24100	21900	18800
120:1 4 x 30	Me.HP	0.72	3.67	5.20	6.50	8.77
	Th.HP	0.72	3.50	4.60	5.30	6.80
	O.T.	34500	33400	32200	31000	28100
125:1 2.5 x 50	Me.HP	0.69	3.31	4.53	5.47	6.90
	Th.HP	0.69	3.31	4.53	5.47	6.90
	O.T.	27900	28000	27100	25800	22300
150:1 2.5 x 60	Me.HP	0.59	2.76	3.78	4.57	5.77
	Th.HP	0.59	2.76	3.78	4.57	5.77
	O.T.	27500	27400	26000	24500	21200
160:1 4 x 40	Me.HP	0.56	2.76	3.91	4.89	6.60
	Th.HP	0.56	2.60	3.40	4.20	5.80
	O.T.	31200	30300	29400	28900	26900
175:1 2.5 x 70	Me.HP	0.51	2.37	3.25	3.92	4.95
	Th.HP	0.51	2.37	3.25	3.92	4.95
	O.T.	27000	27000	25600	24100	21000
200:1 4 x 50	Me.HP	0.45	2.22	3.14	3.92	5.30
	Th.HP	0.45	2.10	2.90	3.60	5.10
	O.T.	27900	28100	28100	27700	26000
240:1 4 x 60	Me.HP	0.39	1.85	2.62	3.28	4.42
	Th.HP	0.39	1.85	2.50	3.10	4.40
	O.T.	27500	27700	27600	26700	24800
280:1 4 x 70	Me.HP	0.33	1.59	2.25	2.81	3.80
	Th.HP	0.33	1.50	2.10	2.70	3.80
	O.T.	27000	27200	27200	26300	24400

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
3.9375*	60-S60-315	3/4 X 3/8
3.4375*	60-S60-307	3/4 X 3/8
2.9375*	60-S60-215	3/4 X 3/8

Special hollow gear shaft bore sizes are available at additional cost.

*AGMA Standard Bore Tolerance: +.003, -.000

2 set screws at long end of shaft.

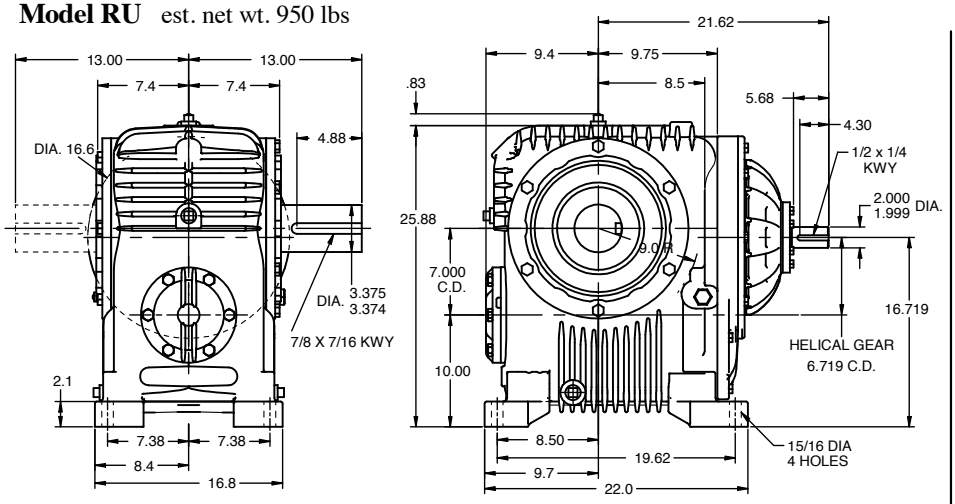
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducers - 7.000" C.D.

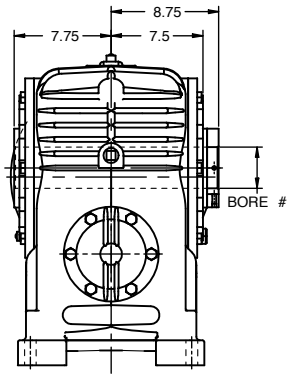
Size 70 Solid Shaft

Hollow Shaft

Model RU est. net wt. 950 lbs

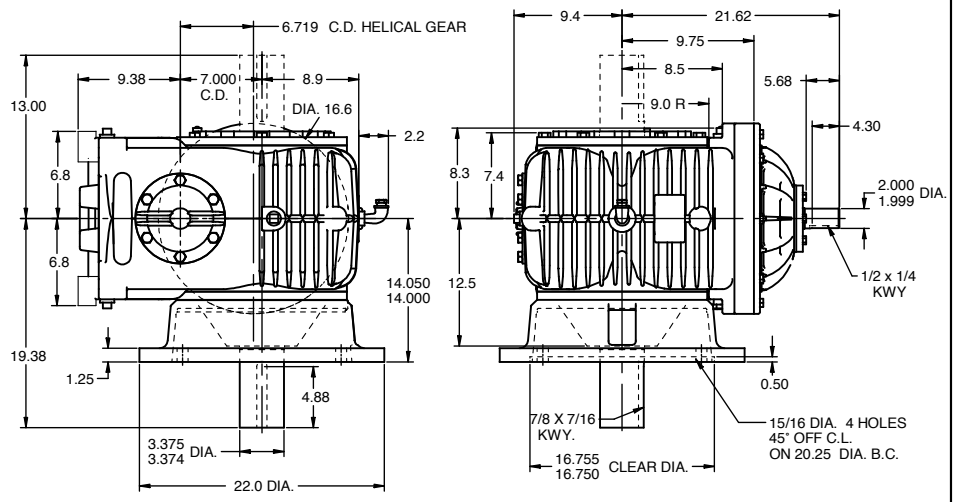


SRU est. net wt. 950 lbs



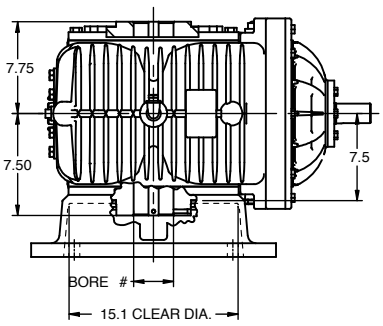
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 1000 lbs



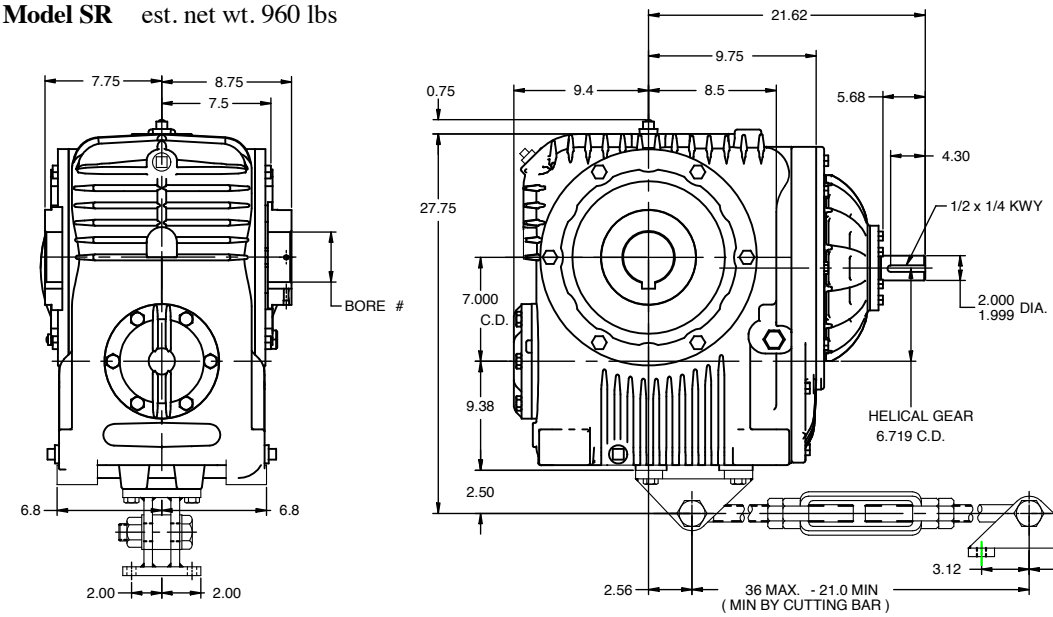
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SRV est. net wt. 1000 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 960 lbs



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 70 6.719" C.D. HELICAL PRI./7.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	9.23	48.8	70.9	86.2	99.4
	Th.HP	8.77	31.1	36.6	37.3	38.2
	O.T.	25900	24200	23600	21800	16600
7.5:1 1.5 x 5	Me.HP	7.24	38.6	56.2	71.5	86.7
	Th.HP	7.24	27.9	31.2	32.9	38.2
	O.T.	30000	28500	27900	26900	21600
9:1 1.8 x 5	Me.HP	6.67	35.7	52.0	65.1	80.5
	Th.HP	5.24	24.6	28.9	31.7	38.2
	O.T.	33000	31600	30900	29400	24000
10:1 1 x 10	Me.HP	9.23	42.4	52.7	60.5	70.6
	Th.HP	9.23	23.3	28.1	31.1	31.6
	O.T.	48500	40400	33900	29700	23000
12.5:1 2.5 x 5	Me.HP	5.37	28.9	42.3	54.2	68.4
	Th.HP	4.73	20.1	25.7	28.3	32.2
	O.T.	36400	35500	34700	33800	28200
15:1 1.5 x 10	Me.HP	7.24	33.9	42.4	49.3	61.0
	Th.HP	6.38	19.6	22.9	27.4	31.1
	O.T.	56100	47900	40400	35800	29500
18:1 1.8 x 10	Me.HP	6.57	30.0	38.5	44.7	55.7
	Th.HP	4.18	17.4	21.1	24.1	30.5
	O.T.	60600	50700	43800	38800	32100
20:1 1 x 20	Me.HP	6.21	23.2	28.9	33.2	39.1
	Th.HP	6.21	18.3	19.2	20.7	22.2
	O.T.	59200	41900	35100	30700	24000
22.5:1 1.5 x 15	Me.HP	5.50	24.1	30.2	35.1	43.5
	Th.HP	5.50	16.5	19.9	22.0	26.0
	O.T.	61100	49100	42100	37500	31000
25:1 2.5 x 10	Me.HP	4.80	23.5	31.6	37.4	46.9
	Th.HP	3.59	14.5	17.7	20.6	26.4
	O.T.	60600	54600	49500	44700	37300
27:1 1.8 x 15	Me.HP	4.61	21.3	27.4	31.9	39.7
	Th.HP	3.82	13.7	16.9	20.1	24.9
	O.T.	61100	51600	45300	40400	33900
30:1 1.5 x 20	Me.HP	4.22	18.5	23.2	27.0	33.4
	Th.HP	4.22	14.2	17.6	18.4	20.3
	O.T.	59200	48200	41900	37100	30500
36:1 1.8 x 20	Me.HP	3.54	16.3	21.0	24.5	30.5
	Th.HP	3.19	11.7	14.6	18.4	19.6
	O.T.	59200	50400	44800	40100	33300
37.5:1 2.5 x 15	Me.HP	3.36	16.6	22.4	26.6	33.5
	Th.HP	3.19	11.5	14.4	16.4	20.5
	O.T.	61100	55500	50500	46100	39000
40:1 4 x 10	Me.HP	3.06	16.0	22.4	27.7	36.4
	Th.HP	2.40	9.80	12.6	15.0	18.0
	O.T.	60600	58500	55300	52200	45600
45:1 1.8 x 25	Me.HP	2.87	13.2	17.0	19.8	24.7
	Th.HP	2.87	11.0	14.3	15.2	18.2
	O.T.	57000	50400	44400	39700	33400
50:1 2.5 x 20	Me.HP	2.59	12.7	17.2	20.4	25.7
	Th.HP	2.59	9.80	12.0	14.2	17.4
	O.T.	59200	53800	49500	45600	38600
54:1 1.8 x 30	Me.HP	2.41	11.0	14.3	16.6	20.7
	Th.HP	2.41	8.80	10.4	12.4	14.6
	O.T.	54700	47200	41600	37600	32200
60:1 4 x 15	Me.HP	2.14	11.2	15.8	19.6	25.9
	Th.HP	2.00	8.00	10.3	12.1	15.9
	O.T.	61100	59000	56100	53300	47000
62.5:1 2.5 x 25	Me.HP	2.11	10.3	13.9	16.5	20.8
	Th.HP	2.11	8.74	11.0	13.0	15.1
	O.T.	57000	53300	49500	45200	38300
72:1 1.8 x 40	Me.HP	1.84	8.31	10.7	12.5	15.6
	Th.HP	1.84	7.40	9.10	11.1	12.6
	O.T.	49400	44600	39900	36100	30700
75:1 2.5 x 30	Me.HP	1.77	8.61	11.7	13.9	17.4
	Th.HP	1.77	7.70	9.30	10.3	13.4
	O.T.	54700	50200	46300	42300	36400

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	1.65	8.60	12.1	15	19.9
	Th.HP	1.58	6.70	8.60	9.90	13.6
	O.T.	59200	57300	54400	51600	46400
90:1 1.8 x 50	Me.HP	1.48	6.67	8.61	10.0	12.5
	Th.HP	1.48	6.40	8.40	9.9	11.2
	O.T.	44100	42700	38900	35300	29600
100:1 4 x 25	Me.HP	1.35	6.93	9.75	12.1	16.1
	Th.HP	1.30	5.70	7.70	9.10	12.2
	O.T.	57000	55600	53700	51700	46100
108:1 1.8 x 60	Me.HP	1.25	5.57	7.19	8.37	10.5
	Th.HP	1.22	5.30	6.98	8.31	9.79
	O.T.	43400	41000	36900	33500	28600
120:1 4 x 30	Me.HP	1.13	5.81	8.17	10.2	13.5
	Th.HP	1.13	5.00	6.60	7.70	9.90
	O.T.	54700	52900	50700	48400	43200
125:1 2.5 x 50	Me.HP	1.10	5.20	7.04	8.38	10.5
	Th.HP	1.10	5.09	6.60	7.85	10.1
	O.T.	44100	44100	42100	39400	34000
150:1 2.5 x 60	Me.HP	0.93	4.34	5.88	6.99	8.79
	Th.HP	0.93	4.34	5.88	6.99	8.79
	O.T.	43400	43000	40400	37500	32400
160:1 4 x 40	Me.HP	0.88	4.37	6.14	7.65	10.1
	Th.HP	0.88	3.80	5.0	6.10	8.30
	O.T.	49400	47900	46200	45200	41300
175:1 2.5 x 70	Me.HP	0.80	3.72	5.04	6.00	7.55
	Th.HP	0.80	3.72	5.04	6.00	7.55
	O.T.	42700	42400	39800	36900	32000
200:1 4 x 50	Me.HP	0.71	3.51	4.93	6.14	8.14
	Th.HP	0.71	3.00	4.20	5.20	7.30
	O.T.	44100	44600	44200	43300	40000
240:1 4 x 60	Me.HP	0.61	2.93	4.12	5.13	6.80
	Th.HP	0.61	2.50	3.60	4.40	6.40
	O.T.	43400	43800	43300	41700	38100
280:1 4 x 70	Me.HP	0.53	2.51	3.53	4.40	5.84
	Th.HP	0.53	2.10	3.00	3.90	5.80
	O.T.	42700	43100	42700	41100	37500

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.

*AGMA Standard Bore Tolerance: +.003, -.000

2 set screws at long end of shaft.

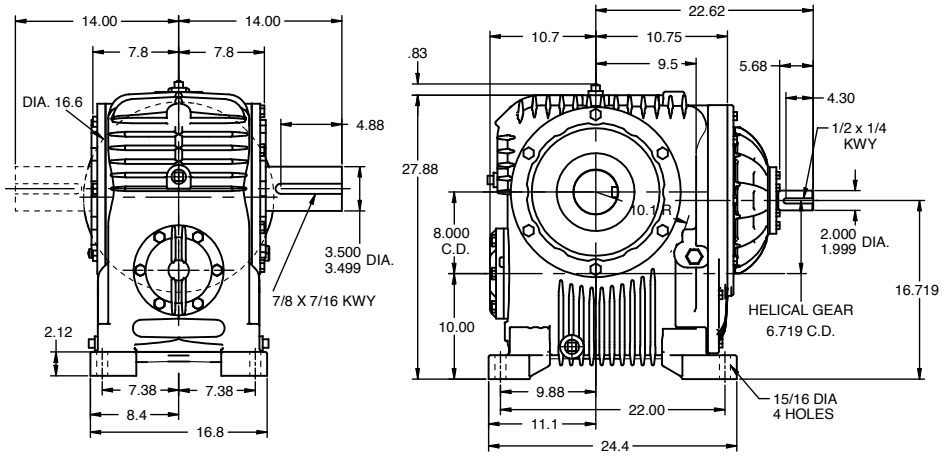
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducers - 8.000" C.D.

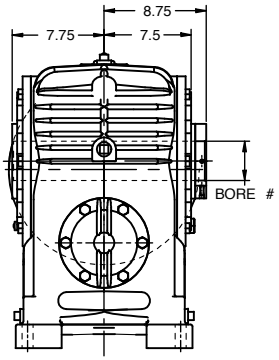
Size 80 Solid Shaft

Hollow Shaft

Model RU est. net wt. 1080 lbs

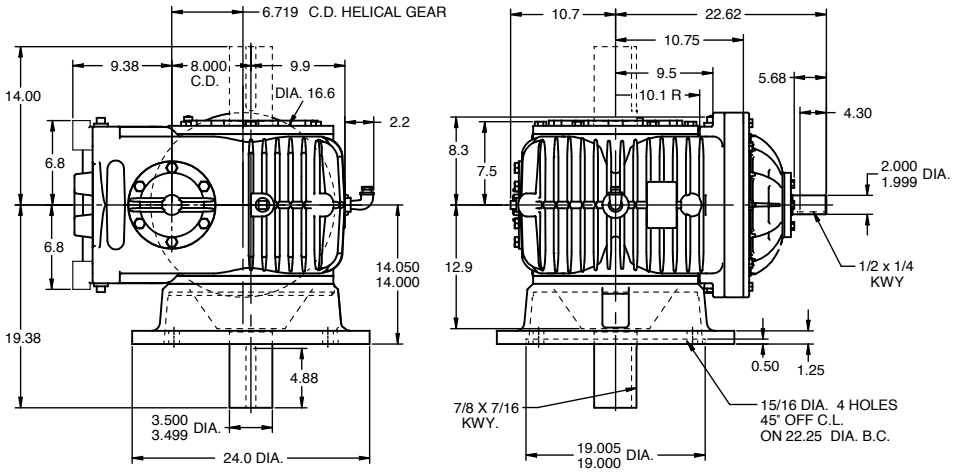


SRU est. net wt. 1080 lbs.



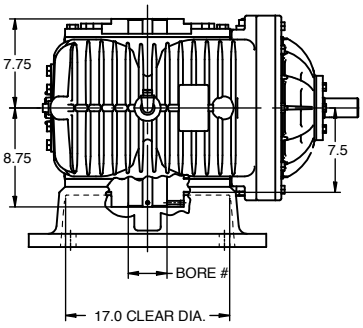
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model RV est. net wt. 1150 lbs



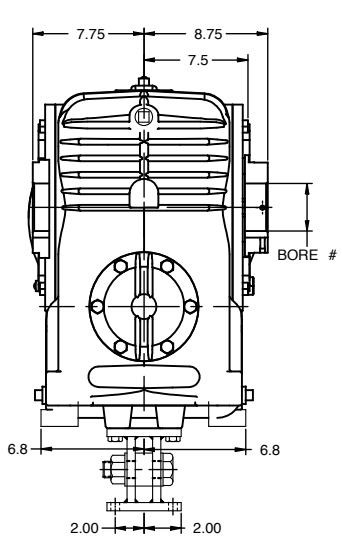
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

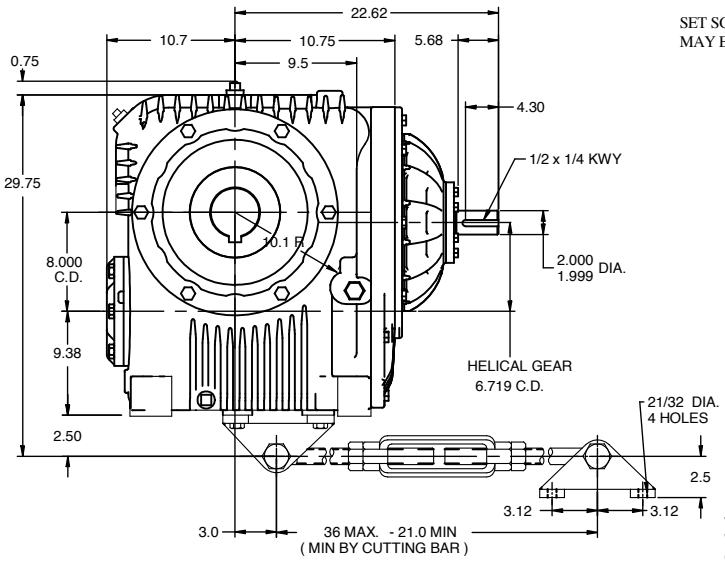
SRV est. net wt. 1150 lbs



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SR est. net wt. 1100 lbs





SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

THIS UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 80 6.719" C.D. HELICAL PRI./8.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	9.23	48.8	70.9	91.4	134
	Th.HP	8.77	33.4	39.2	40.0	41.0
	O.T.	25900	24200	23600	23100	22300
7.5:1 1.5 x 5	Me.HP	7.24	38.6	56.2	72.6	106
	Th.HP	7.03	29.9	33.5	35.3	41.0
	O.T.	30000	28500	27900	27300	26400
9:1 1.8 x 5	Me.HP	6.67	35.7	52	67.2	98.6
	Th.HP	5.61	26.4	31.0	33.9	41.0
	O.T.	33000	31600	30900	30300	29400
10:1 1 x 10	Me.HP	9.23	48.8	70.9	87.8	102
	Th.HP	8.77	25.0	30.1	33.3	33.9
	O.T.	48500	46500	45600	43100	33200
12.5:1 2.5 x 5	Me.HP	5.37	28.9	42.3	54.2	77.1
	Th.HP	5.37	21.5	27.5	30.4	34.5
	O.T.	36400	35500	34700	33800	31800
15:1 1.5 x 10	Me.HP	7.24	38.6	56.2	71.9	88.3
	Th.HP	6.84	21.0	24.5	29.4	33.4
	O.T.	56100	54500	53500	52300	42700
18:1 1.8 x 10	Me.HP	6.67	35.7	52.0	65.2	81.0
	Th.HP	4.48	18.7	22.6	25.9	32.7
	O.T.	61600	60100	59200	56600	46800
20:1 1 x 20	Me.HP	9.23	34.0	42.2	48.5	56.4
	Th.HP	6.88	19.7	20.6	22.2	23.9
	O.T.	88000	61300	51200	44900	34600
22.5:1 1.5 x 15	Me.HP	7.24	35.4	44.2	51.4	63.4
	Th.HP	6.04	17.7	21.3	23.6	27.9
	O.T.	80400	72100	61500	54900	45200
25:1 2.5 x 10	Me.HP	5.37	28.9	42.3	54.2	68.5
	Th.HP	3.85	15.6	19.0	22.1	28.3
	O.T.	67900	67100	66200	64800	54400
27:1 1.8 x 15	Me.HP	6.67	31.4	40.1	46.6	58
	Th.HP	4.1	14.7	18.1	21.5	26.7
	O.T.	88300	76200	66300	59100	49500
30:1 1.5 x 20	Me.HP	6.29	27.1	34.0	39.5	48.8
	Th.HP	5.30	15.3	18.9	19.8	21.7
	O.T.	88500	70900	61300	54200	44500
36:1 1.8 x 20	Me.HP	5.29	24.1	30.8	35.8	44.5
	Th.HP	3.43	12.5	15.7	21.0	22.0
	O.T.	88500	74400	65600	58700	48600
37.5:1 2.5 x 15	Me.HP	5.02	24.7	33.1	39	48.9
	Th.HP	3.42	12.3	15.4	17.6	22
	O.T.	91200	82400	74500	67600	57000
40:1 4 x 10	Me.HP	3.36	17.1	24.6	31.3	44.9
	Th.HP	2.58	11.8	14.4	17.2	20.2
	O.T.	66600	62700	60700	59000	56300
45:1 1.8 x 25	Me.HP	4.29	19.5	24.9	28.9	36.0
	Th.HP	3.04	11.8	15.4	16.3	19.5
	O.T.	85200	74500	65100	58100	48800
50:1 2.5 x 20	Me.HP	3.86	18.9	25.4	30.0	37.6
	Th.HP	2.89	10.5	12.9	15.2	18.7
	O.T.	88500	79900	73000	66900	56400
54:1 1.8 x 30	Me.HP	3.60	16.3	20.9	24.3	30.2
	Th.HP	2.75	9.44	11.1	13.2	15.6
	O.T.	81600	69800	60900	55000	47000
60:1 4 x 15	Me.HP	3.19	16.8	23.5	29.0	37.9
	Th.HP	2.15	8.60	11.0	12.9	17.1
	O.T.	91200	88100	83400	78800	68900
62.5:1 2.5 x 25	Me.HP	3.15	15.3	20.5	24.2	30.4
	Th.HP	2.54	9.37	11.8	13.9	16.2
	O.T.	85200	79200	72900	66300	56000
72:1 1.8 x 40	Me.HP	2.74	12.3	15.7	18.3	22.8
	Th.HP	2.30	7.90	9.80	11.9	13.5
	O.T.	73800	65900	58600	52900	44900
75:1 2.5 x 30	Me.HP	2.64	12.8	17.2	20.3	25.5
	Th.HP	1.98	8.20	10.0	11.1	14.4
	O.T.	81600	74600	68300	62100	53300

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	2.46	12.8	18.0	22.3	29.1
	Th.HP	1.69	7.20	9.20	10.3	14.6
	O.T.	88500	85500	80900	76500	68000
90:1 1.8 x 50	Me.HP	2.21	9.86	12.6	14.7	18.3
	Th.HP	1.62	6.90	9.00	10.6	12.1
	O.T.	65900	63100	57000	51600	43300
100:1 4 x 25	Me.HP	2.02	10.4	14.5	18.0	23.5
	Th.HP	1.39	6.10	8.30	9.70	13.1
	O.T.	85200	83100	80000	76500	67600
108:1 1.8 x 60	Me.HP	1.87	8.24	10.6	12.3	15.3
	Th.HP	1.31	5.68	7.72	9.08	10.5
	O.T.	64900	60700	54100	49000	41700
120:1 4 x 30	Me.HP	1.69	8.68	12.2	15.1	19.8
	Th.HP	1.23	5.40	7.10	8.30	10.6
	O.T.	81600	78900	75400	71800	63300
125:1 2.5 x 50	Me.HP	1.64	7.72	10.4	12.3	15.4
	Th.HP	1.54	5.45	7.07	8.42	10.8
	O.T.	65900	65500	62100	57800	49700
150:1 2.5 x 60	Me.HP	1.40	6.45	8.66	10.3	12.9
	Th.HP	1.31	4.64	6.35	7.39	9.46
	O.T.	64900	63900	59600	55000	47400
160:1 4 x 40	Me.HP	1.31	6.53	9.15	11.3	14.9
	Th.HP	0.96	4.00	5.40	6.50	9.00
	O.T.	73800	71600	68700	67100	60600
175:1 2.5 x 70	Me.HP	1.20	5.53	7.43	8.80	11.1
	Th.HP	1.15	4.20	6.20	7.20	9.30
	O.T.	63800	63000	58600	54200	46800
200:1 4 x 50	Me.HP	1.06	5.24	7.34	9.10	11.9
	Th.HP	0.79	3.20	4.50	5.60	7.80
	O.T.	65900	66600	65800	64200	58700
240:1 4 x 60	Me.HP	0.92	4.37	6.13	7.60	9.97
	Th.HP	0.72	2.70	3.80	4.70	6.90
	O.T.	64900	65400	64500	61800	55900
280:1 4 x 70	Me.HP	0.79	3.75	5.26	6.52	8.56
	Th.HP	0.69	2.30	3.20	4.20	6.30
	O.T.	63800	64400	63500	60900	55000

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.
All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.
Steeple bearing arrangements follow in this section.
When specified each unit can be supplied with a worm shaft extension located opposite the input end.
Set screw end of hollow shaft is considered the extension end.
Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.
Reducers are designed for shaft rotation in either direction.
For cap and carrier dimensions not shown see mounting section.
For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.
Refer to page 26 for lubrication information, efficiency, and service factors.
Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.
Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

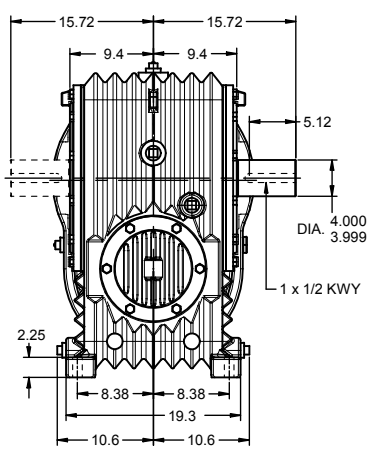
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

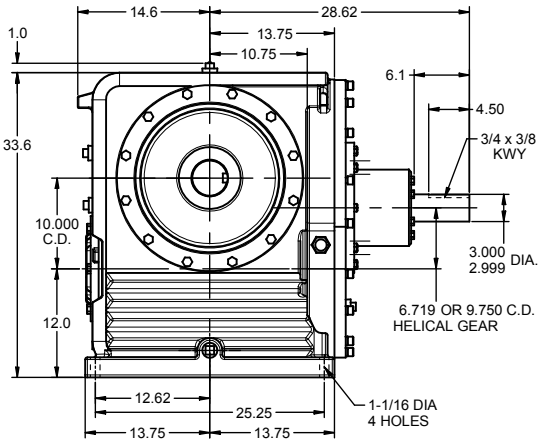
Cone Drive Helical/Worm Speed Reducers - 10.000" C.D.

Size 100 Solid Shaft

Model RU est. net wt. 1650 lbs

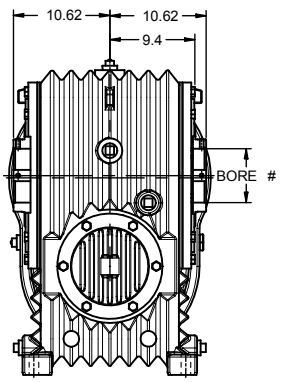
100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS





Hollow Shaft

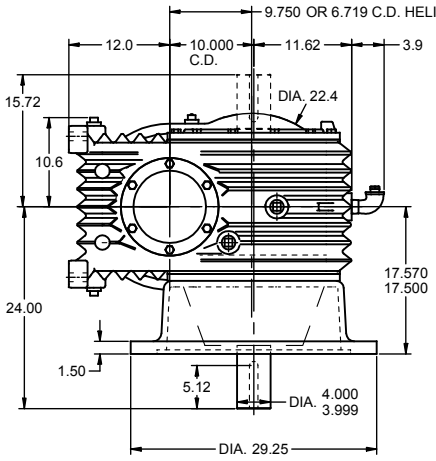
SRU est. net wt. 1650 lbs.

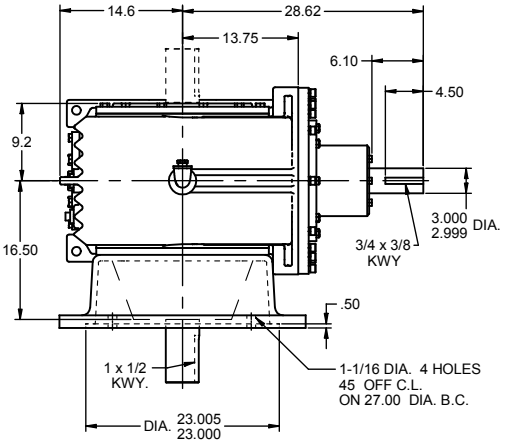


SEE GEAR SHAFT CHART

Model RV est. net wt. 1725 lbs

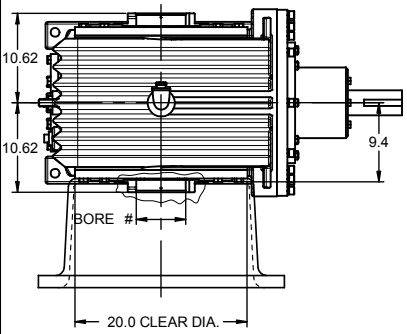
100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS





SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

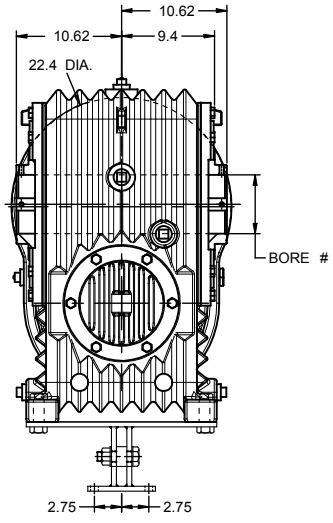
SRV est. net wt. 1725 lbs

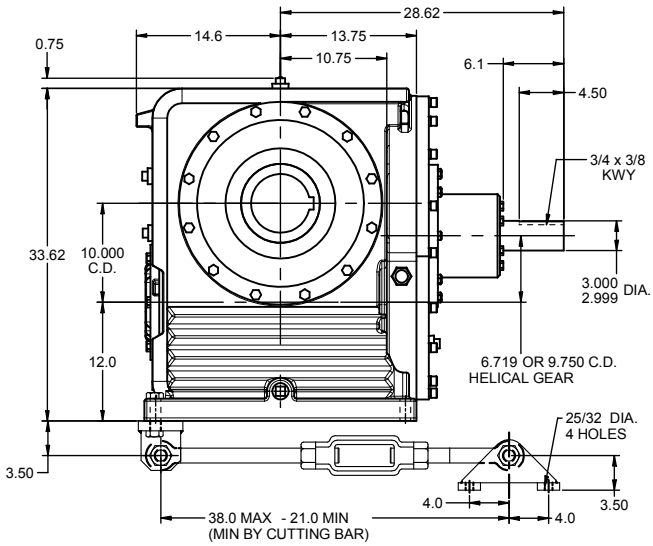


SEE GEAR SHAFT CHART

Model SR est. net wt. 1700 lbs

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS





SEE GEAR SHAFT CHART

NOTE: HOLLOW SHAFT IS DOUBLE EXTENDED.

THIS UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

TORQUE ARM BRACKET CAN BE MOUNTED ON EITHER END OF HOUSING.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm Speed Reducer

Size 100 6.719" or 9.750"C.D. HELICAL PRI./10.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

UNITS WITH 6.719" C.D. HELICALS						
TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
20:1 1 x 20	Me.HP	9.23	48.8	70.9	82.3	94.7
	Th.HP	8.30	24.1	25.3	27.4	29.7
	O.T.	90200	90000	88100	77900	59500
30:1 1.5 x 20	Me.HP	7.24	38.6	56.2	68.5	82.8
	Th.HP	6.40	18.5	23.2	24.3	26.9
	O.T.	104000	103000	104000	96300	77300
45:1 1.8 x 25	Me.HP	6.67	34.8	43.4	50.5	62.2
	Th.HP	3.60	14.1	18.7	19.8	24.0
	O.T.	136000	136000	116000	104000	86100
50:1 2.5 x 20	Me.HP	5.37	28.9	42.3	52.3	65.5
	Th.HP	3.50	12.6	15.5	18.5	22.9
	O.T.	126000	125000	125000	119000	101000
54:1 1.8 x 30	Me.HP	6.67	29.2	36.5	42.3	52.9
	Th.HP	3.00	11.4	13.5	16.3	19.3
	O.T.	156000	128000	109000	98400	83000
62.5:1 2.5 x 25	Me.HP	5.37	28	36.3	42.3	52.9
	Th.HP	3.00	11.4	14.6	17.3	20.3
	O.T.	149000	149000	132000	119000	99900
72:1 1.8 x 40	Me.HP	5.15	22	27.5	31.9	39.3
	Th.HP	2.70	9.20	11.5	14.1	16.0
	O.T.	143000	121000	105000	94700	79400
75:1 2.5 x 30	Me.HP	4.95	23.4	30.5	35.5	44.4
	Th.HP	2.30	9.70	11.7	13.1	17.3
	O.T.	158000	140000	124000	111000	95200
90:1 1.8 x 50	Me.HP	4.15	17.6	22	25.6	31.6
	Th.HP	1.90	8.00	10.6	12.5	14.2
	O.T.	128000	116000	102000	92500	76700
100:1 4 x 25	Me.HP	3.36	17.1	24.6	31.3	41.2
	Th.HP	1.60	7.10	9.80	11.6	15.7
	O.T.	146000	141000	139000	137000	121000
108:1 1.8 x 60	Me.HP	3.51	14.7	18.4	21.4	26.4
	Th.HP	1.50	6.70	9.20	10.9	12.6
	O.T.	126000	112000	97200	87900	74000
120:1 4 x 30	Me.HP	3.17	16.2	22.4	27.1	34.5
	Th.HP	1.40	6.30	8.30	9.70	12.5
	O.T.	158000	152000	142000	133000	114000
125:1 2.5 x 50	Me.HP	3.07	14.2	18.4	21.5	26.9
	Th.HP	1.80	6.50	8.40	10.1	13.1
	O.T.	128000	124000	113000	104000	89100
150:1 2.5 x 60	Me.HP	2.61	11.8	15.4	17.9	22.5
	Th.HP	1.50	5.50	7.50	8.80	11.4
	O.T.	126000	121000	109000	98900	85100
160:1 4 x 40	Me.HP	2.46	12.2	16.8	20.4	26
	Th.HP	1.10	4.70	5.90	7.60	10.5
	O.T.	143000	138000	130000	124000	109000
175:1 2.5 x 70	Me.HP	2.25	10.2	13.2	15.4	19.3
	Th.HP	1.60	4.80	7.10	8.40	10.9
	O.T.	124000	119000	107000	97500	84000
200:1 4 x 50	Me.HP	1.99	9.79	13.5	16.4	20.9
	Th.HP	0.90	3.70	5.20	6.50	9.10
	O.T.	128000	128000	125000	119000	106000
240:1 4 x 60	Me.HP	1.71	8.17	11.3	13.7	17.4
	Th.HP	0.80	3.10	4.40	5.40	8.00
	O.T.	126000	126000	122000	115000	101000
280:1 4 x 70	Me.HP	1.48	7.01	9.67	11.8	15.0
	Th.HP	0.80	2.60	3.70	4.80	7.20
	O.T.	124000	125000	121000	113000	99200

UNITS WITH 9.750" C.D. HELICALS*						
TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	34.9	151	182	199	231
	Th.HP	16.3	44.5	53.2	54.3	55.7
	O.T.	102000	78200	63000	52200	40200
7.5:1 1.5 x 5	Me.HP	28.4	124	153	174	201
	Th.HP	11.0	39.8	44.6	47.1	55.7
	O.T.	120000	93500	77400	66900	51100
9:1 1.8 x 5	Me.HP	25.4	112	139	160	189
	Th.HP	7.10	35.2	41.3	45.2	55.7
	O.T.	128000	102000	84600	73800	57500
10:1 1 x 10	Me.HP	31.8	107	131	148	170
	Th.HP	12.2	31.6	39.0	43.7	44.4
	O.T.	174000	106000	88000	75500	57800
12.5:1 2.5 x 5	Me.HP	20.6	94.2	118	137	169
	Th.HP	6.50	28.2	36.7	40.4	46
	O.T.	142000	117000	98100	86500	70500
15:1 1.5 x 10	Me.HP	21.9	87	108	125	149
	Th.HP	8.50	26.4	31.1	38.0	43.8
	O.T.	174000	126000	105000	92600	73700
18:1 1.8 x 10	Me.HP	18.4	78.6	98.0	114	139
	Th.HP	5.50	23.4	28.6	33.1	42.9
	O.T.	174000	136000	114000	101000	82200
22.5:1 1.5 x 15	Me.HP	15.4	62	77.1	89	107
	Th.HP	7.40	21.7	26.6	29.6	35.7
	O.T.	175000	129000	110000	97300	78200
25:1 2.5 x 10	Me.HP	13.6	64.2	82.8	96.2	120
	Th.HP	4.70	19.4	23.8	27.9	36.7
	O.T.	174000	151000	131000	117000	96800
27:1 1.8 x 15	Me.HP	12.9	56	69.9	81.2	99.8
	Th.HP	5.00	18.4	23.0	27.7	35.0
	O.T.	175000	139000	118000	105000	87000
36:1 1.8 x 20	Me.HP	9.93	43	53.7	62.4	76.8
	Th.HP	4.10	15.0	19.0	25.8	26.0
	O.T.	170000	136000	117000	105000	85700
37.5:1 2.5 x 15	Me.HP	9.50	45.5	58.9	68.6	85.8
	Th.HP	4.20	15.4	19.40	22.3	28.3
	O.T.	175000	154000	135000	121000	101000
40:1 4 x 10	Me.HP	8.56	44.4	60.9	73.6	92.9
	Th.HP	3.10	12.9	16.9	20.2	24.3
	O.T.	174000	166000	154000	142000	119000
60:1 4 x 15	Me.HP	59.9	31.3	43.1	52.2	65.3
	Th.HP	2.60	10.4	13.3	15.8	21.1
	O.T.	175000	168000	157000	145000	123000
80:1 4 x 20	Me.HP	4.62	24	33	40.1	50.9
	Th.HP	2.00	8.50	11.0	12.9	17.7
	O.T.	170000	164000	152000	141000	122000

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
5.9375	100-S61-515	1-1/4 X 7/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.004, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

All units can be motorized. VR & SVR units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All RV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

When specified each unit can be supplied with a worm shaft extension located opposite the input end. Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

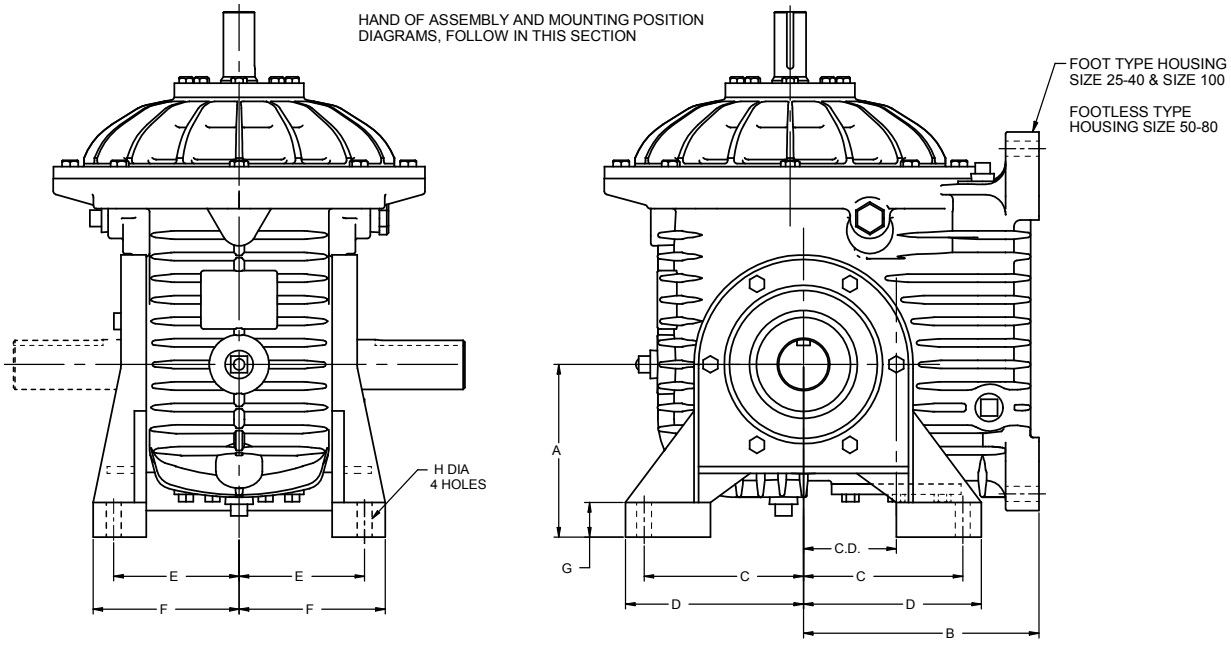
*Available at additional cost.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm Speed Reducer

Sizes 25 thru 100

Models VR & SVR Input Vertical-Horizontal Output Shaft
Special Foot Brackets

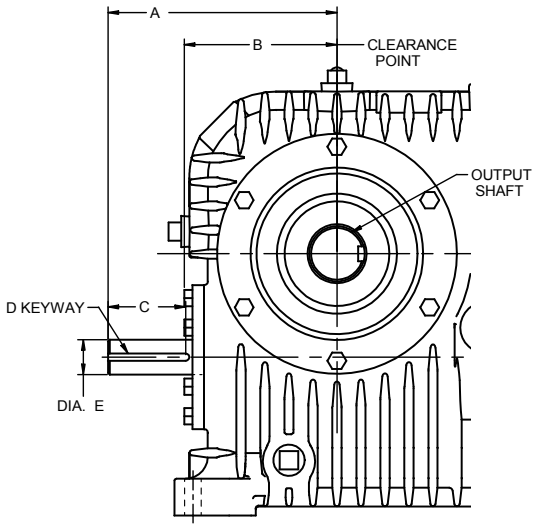


MODEL AVAILABLE IN ALL SOLID AND HOLLOW OUTPUT SHAFT CONFIGURATIONS.
FOR ALL OTHER DIMENSIONS REFER TO CORRESPONDING SIZE MODEL SR OR RU.

Reducer Size	Center Distance	A	B	C	D	E	F	G	H
25	2.500	4.50	6.75	4.25	4.8	4.75	5.4	0.9	15/32
30	3.000	5.50	7.75	5.00	5.7	5.25	5.9	1.2	9/16
35	3.500	6.50	8.87	6.00	6.7	6.50	7.2	1.3	9/16
40	4.000	7.50	10.00	6.75	7.6	7.75	8.6	1.5	11/16
50	5.000	8.50	11.8	7.50	8.4	8.25	9.2	1.8	13/16
60	6.000	8.50	13.4	8.25	9.1	9.00	9.9	1.5	13/16
70	7.000	13.75	16.4	10.00	11.3	9.75	10.8	1.5	15/16
80	8.000	15.50	17.4	11.50	12.8	10.30	11.3	1.8	15/16
100	10.000	19.50	22.0	14.50	16	13.10	14.3	2.3	1–1/16

Worm Extension Opposite Reducer Input

Reducer Size	Center Distance	A	B	C	D	E
25	2.500	5.25	3.8	1.00	3/16 x 3/32	0.750
30	3.000	6.69	4.6	1.75	1/4 x 1/8	1.000
35	3.500	7.75	5.2	2.62	1/4 x 1/8	1.188
40	4.000	9.31	6.1	2.75	3/8 x 3/16	1.500
50	5.000	10.50	7.2	2.75	3/8 x 3/16	1.500
60	6.000	11.75	7.8	3.50	3/8 x 3/16	1.750
70	7.000	14.50	9.4	4.50	1/2 x 1/4	1.875
80	8.000	15.50	10.8	4.75	1/2 x 1/4	2.000
100	10.000	19.25	14.5	4.20	5/8 x 5/16	2.375



FOR SHAFT SPEED DIVIDE INPUT SPEED BY HELICAL GEAR RATIO.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Fan & Water Cooling for Cone Drive Helical/Worm Speed Reducer

Model FRV, FRU, FSR, FSRU, FSRV
Fan Cooling

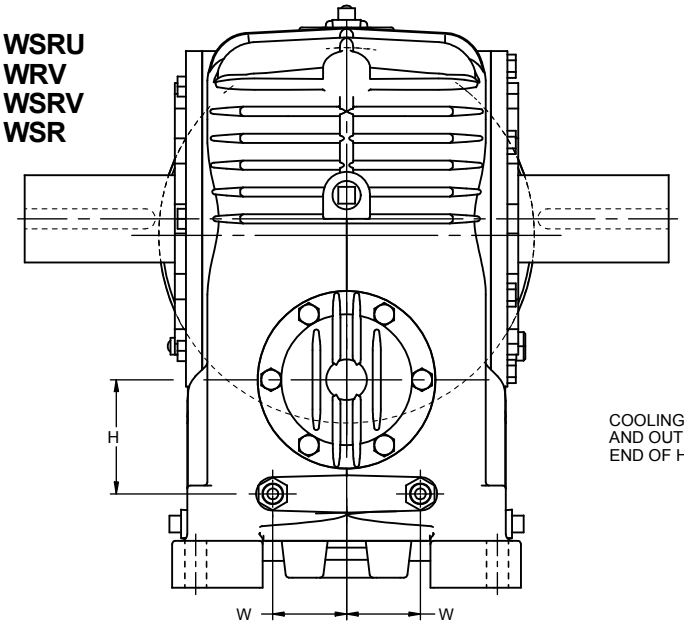
Cone Drive fan-cooled helical/worm double reduction speed reducers are available in all models size 40 through 100. They are identical with standard models except for the use of an extended worm shaft, fan and air-flow control cover. All size 40 fan-cooled models have thermal horsepower ratings equal to mechanical horsepower ratings, regardless of ratio.

CLEARANCE DIMESNION FROM CENTERLINE OF UNIT OVER FAN COVER						
SIZE	40	50	60	70	80	100
DIM	8.0	9.5	10.2	12.9	14.3	16.5

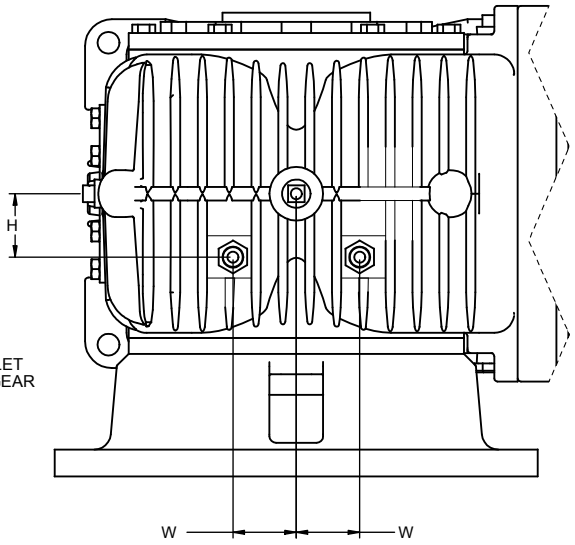
Water Cooling Inlet and Outlet Locations

WRU Shown

WSRU
WRV
WSRV
WSR



WRV and WSRV sizes 70-100 only



COOLING COIL INLET AND OUTLET AT GEAR END OF HOUSING

Floor Mounted Position Shown

MODELS	SIZE	W	H	FEMALE THREAD
WRU WRV WSR	40	2.43	3.50	3/8 - 18 NPT
WRU WRV WSR	50	2.25	3.75	3/8 - 18 NPT
WRU WRV WSR	60	2.06	4.44	3/8 - 18 NPT
WRU WSR	70	3.25	5.88	3/8 - 18 NPT
WRU WSR	80	3.25	5.88	3/8 - 18 NPT
WRU WSR	100	4.25	8.00	3/8 - 18 NPT

COOLING COILS MAY BE SUPPLIED IN EITHER PLAIN OR FINNED O.D. TUBING.

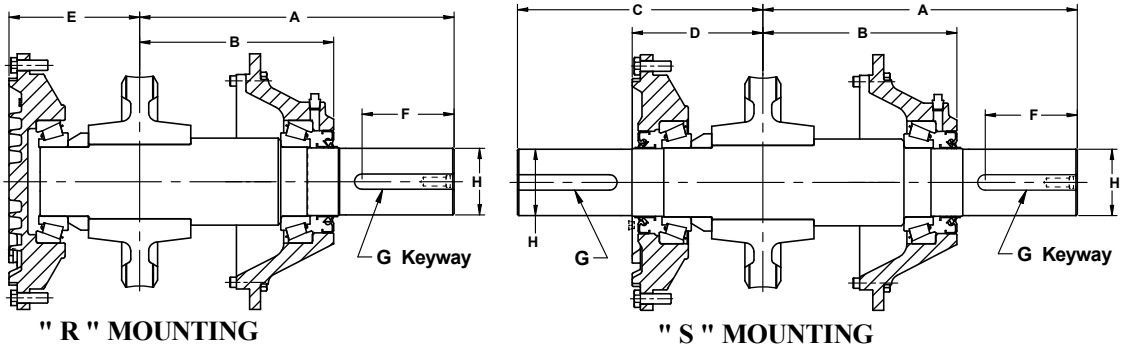
Floor Mounted Position Shown

MODELS	SIZE	W	H	FEMALE THREAD
WRV WSRV	70	3.00	3.75	3/8 - 18 NPT
WRV WSRV	80	3.50	3.75	3/8 - 18 NPT
WRV WSRV	100	5.00	4.25	3/8 - 18 NPT

IMPORTANT: WHEN ASSEMBLING EXTERNAL PIPING TO REDUCER INLET AND OUTLET FITTINGS A BACKUP WRENCH MUST BE USED ON REDUCER FITTINGS TO PREVENT TURNING TO AVOID DAMAGE TO COOLING COILS INSIDE UNIT.

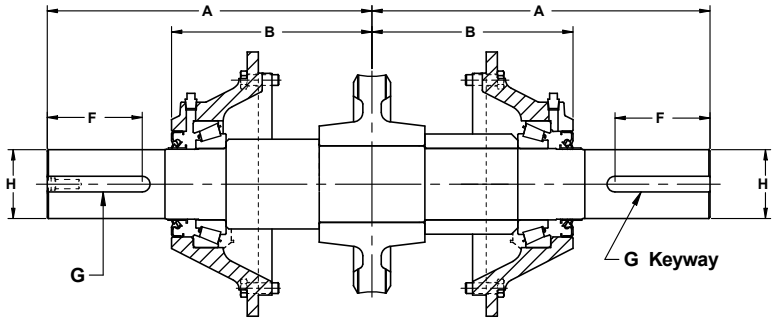
INLET AND OUTLET LOCATIONS MAY VARY DEPENDING ON MOUNTING POSITION OF UNIT.

Steeple Bearings for Cone Drive Helical/Worm Speed Reducers



" R " MOUNTING

" S " MOUNTING



" T " MOUNTING

Reducer Size	Center Distance	A	B	C	D	E	F	G	H DIA.
25	2.500	7.88	4.9	4.50	2.6	2.6	1.38	1/4 x 1/8	1.250 1.249
30	3.000	8.62	5.9	5.94	3.4	3.4	2.00	3/8 x 3/16	1.500 1.499
35	3.500	10.25	6.3	7.88	4.2	4.2	2.68	1/2 x 1/4	1.875 1.875
40	4.000	11.25	6.6	9.25	4.9	4.9	3.31	1/2 x 1/4	2.250 2.249
50	5.000	13.62	8.6	10.31	5.6	5.6	3.62	5/8 x 5/16	2.750 2.749
60	6.000	15.38	9.6	12.00	6.3	6.4	4.62	3/4 x 3/8	3.250 3.249
70	7.000	19.38	12.5	13.00	7.4	7.4	4.88	7/8 x 7/16	3.375 3.374
80	8.000	19.38	12.9	14.00	7.8	7.8	4.88	7/8 x 7/16	3.500 3.499
100	10.000	24.00	16.5	15.72	9.4	9.4	5.12	1 x 1/2	4.000 3.999

When ordering, specify model size, hand of assembly, and steeple bearings using the letter designation R, S, or T for the mounting configuration required.

For R and T mountings, use the standard hand of assembly designation shown throughout the catalog for various sizes of reducers and mounting positions.

For double-extended S mountings on worm over and worm under units, specify steeple bearing on left (L) or right (R) of unit as viewed from the input end.

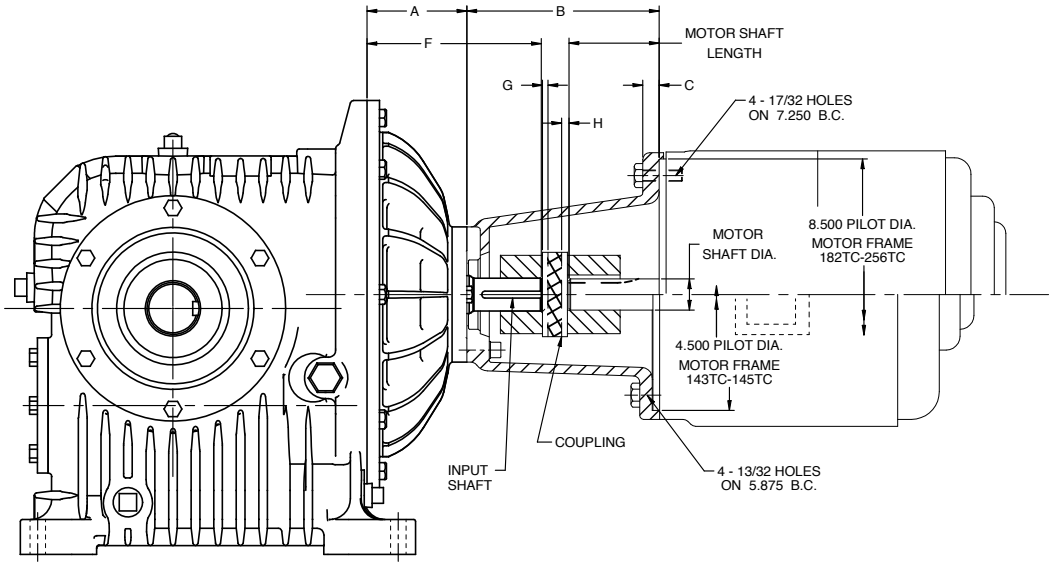
For S mounting on vertical gear shaft unit, specify steeple bearing opposite feet (U) or through feet (D).

Cone Drive reserves the right to improve or change product design and specifications without notice.

Motorizing for Cone Drive Standard Helical/Worm Reducers

Models RV, RU, SR, VR, SRU, SRV, SVR
NEMA "C" Face Motor

Add letter 'MA' before model designation.



General Information

Reducer dimensions precede in this section.

Motor bolts and coupling keys are furnished when mounted by Cone Drive.

Important

Note 1: Motor shaft length, frame 213TC-215TC, must be 2.250 (cut off) for reducer size 25 & 30 and standard length 3.125 for reducer sizes 35 & 40.

Note 2: Motor shaft length, frame 254TC-256TC to be 2.750 (cut off) for reducer sizes 35 & 40.

Note 3: input shaft detail number G60 required for all standard helical pinion ratios except 4:1 which requires shaft detail. G61. All dash number will remain the same.

Note 4: It is the purchaser's or user's responsibility to guard all shafting in accordance to OSHA requirements.

MOTOR FRAME SIZE	PILOT DIA.	SHAFT			A REDUCER SIZE			B REDUCER SIZE			C REDUCER SIZE		
		LGTH.	DIA.	KWY	25 & 30	35 & 40	50 & 60	25 & 30	35 & 40	50 & 60	25 & 30	35 & 40	50 & 60
143TC-145TC	4.500	2.125	.875	3/16	2.500	3.125	4.00	4.812	5.937	7.960	.56	.53	.400
182TC-184TC	8.500	2.625	1.125	1/4				5.531	6.562	9.060			.580
213TC - 215TC		Note 1	1.375	5/16									
254TC-256TC		Note 2	1.625	3/8	N.A			N.A			N.A		

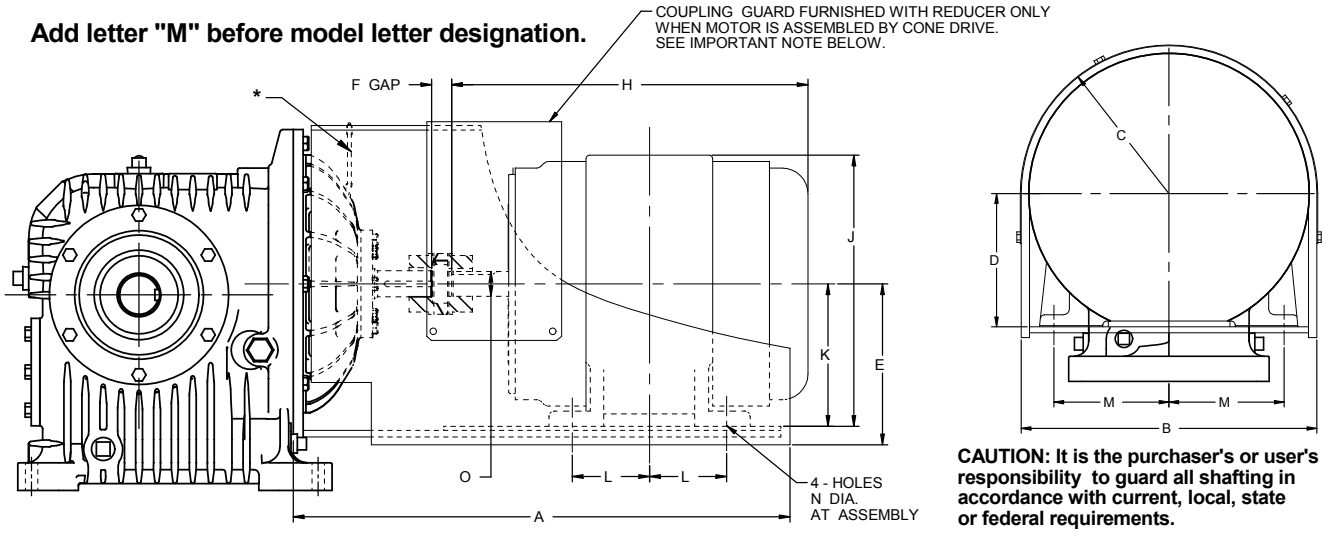
MOTORFRAME SIZE	F REDUCER SIZE			G REDUCER SIZE			H REDUCER SIZE			INPUT SHAFT (NOTE #3) REDUCER SIZE		
	25 & 30	35 & 40	50 & 60	25 & 30	35 & 40	50 & 60	25 & 30	35 & 40	50 & 60	25 & 30	35 & 40	50 & 60
143TC - 145TC	4.687	6.250	9.000	.00	.00	.00	.18	.00	.00	30-G60A-1	40-G60	53-G60
182TC - 184TC							.00	-.06	.56			
213TC - 215TC	5.062	5.812		.21	.12			.00	.00	30-G60A	40-G60-1	
254TC - 256TC	N.A	6.250	8.375	.00	.31					N.A	40-G60	53-G60-1

MOTOR ADAPTOR NUMBER					COUPLING NUMBER		
MOTORFRAME SIZE	REDUCER SIZE				REDUCER SIZE		
	25 & 30	35 & 40	50 & 60		25 & 30	35 & 40	50 & 60
143TC - 145TC	30-MG20	40-MG20	53-MG20-SW		720107	720112	720207
182TC - 184TC	30-MG21	40-MG21	53-MG21-SW		720109	720113	720208
213TC - 215TC					720201-1	720204	720209
254TC - 256TC	N.A				N.A	720254-1	720258

Motorizing for Cone Drive Standard Helical/Worm Reducers

Models RV, RU, SR, VR, SRU, SRV, SVR

Add letter "M" before model letter designation.



CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current, local, state or federal requirements.

MODEL SIZE	APPROX. BRACKET WEIGHT LBS. LESS MOTOR	FRAMES NEW NEMA	FRAMES OLD NEMA	A	B	C	D	E	FGAP	MOTOR SUPPORT BRACKET	GUARD COVER (supplied only with motor)
25 & 30	55	143T - 145T	**143 - 145**	16.0	12.0	5.75	3.56	4.38	TO SUIT COUPLING	30-G84	111500
	120	182T - 215T	**182 - 215**	23.0	14.8	6.00	5.31	6.25		30-G85	111503
35 & 40	85	143T - 145T	**143 - 145**	17.0	13.3	6.00	3.56	4.38		40-G84	111500
	150	182T - 215T	**182 - 215**	24.5	17.0	7.38	5.31	6.25		40-G85	111503
	190	254T - 286TS	**254U - 286U**	31.0	18.0	7.38	7.06	8.00		40-G86	111503
50 & 60	150	182T - 215T	**182-215**	25.8	17.0	7.62	5.31	6.31		40-G85	111503
	190	254T - 286T	**254U - 286U**	32.4	18.0	8.62	7.06	7.88		40-G86	111506
	270	324T - 326TS	**324US - 365US**	34.8	23.0	10.88	9.06	10.00		53-G87	111506
70 & 80	200	182T - 215T	**182 - 215**	27.2	19.0	8.88	5.31	6.50		67-G85	111503
	230	254T - 286TS	**254U - 286U**	33.2	19.0	8.88	7.06	8.00		67-G86	111506
	310	324T - 365TS	**324U - 365US**	39.6	23.0	10.88	9.06	10.00		67-G87	111506

MOTOR FRAME	H			J			K	L	M	N	O		HORSEPOWER	
	OPEN	TEFC	TEFC-XP	OPEN	TEFC	TEFC-XP				DIA.	DIA.	KEYWAY	1800 RPM	1200 RPM
143T	11.56	12.00		7.25	7.25		3.50	2.00	2.75	11/32	.875	3/16	1	.75
145T	12.56	13.00		7.25	7.25		3.50	2.50	2.75	11/32	.875	3/16	1.5 & 2	1
182T	13.75	14.62		9.38	9.38		4.50	2.25	3.75	13/32	1.125	1/4	3	1.5
184T	14.75	15.62		9.38	9.38		4.50	2.75	3.75	13/32	1.125	1/4	5	2
213T	15.94	17.75		10.31	12.00		5.25	2.75	4.25	13/32	1.375	5/16	7.5	3
215T	17.44	19.25		10.31	12.00		5.25	3.50	4.25	13/32	1.375	5/16	10	5
254T	20.56	21.81		12.62	13.62		6.25	4.12	5.00	17/32	1.625	3/8	15	7.5
256T	22.31	23.56		12.62	13.62		6.25	5.00	5.00	17/32	1.625	3/8	20	10
284TS	22.06	23.19		14.00	15.25		7.00	4.75	5.50	17/32	1.625	3/8	25	15
286TS	23.56	24.69		14.00	15.25		7.00	5.50	5.50	17/32	1.625	3/8	30	20
324TS	24.56	25.69		16.00	17.38		8.00	5.25	6.25	21/32	1.875	1/2	40	25
182	12.31	12.31*	14.19*	9.00	8.94*	9.31*	4.50	2.25	3.75	13/32	.875	3/16	1	.75
184	13.31	15.19*	15.19*	9.00	9.19*	9.38	4.50	2.75	3.75	13/32	.875	3/16	1.5 & 2	1 & 1.5
213	15.62	17.50	17.50	10.50	10.75	11.00	5.25	2.75	4.25	13/32	1.125	1/4	3	2
215	17.12	18.94	18.94	10.50	10.75	11.00	5.25	3.50	4.25	13/32	1.125	1/4	5	3
254U	20.62	21.56	21.56	12.62	13.06	13.12	6.25	4.12	5.00	17/32	1.375	5/16	7.5	5
256U	22.06	23.31	23.31	12.62	13.06	13.12	6.25	5.00	5.00	17/32	1.375	5/16	10	7.5
284U	23.69	24.81	24.81	14.00	14.62	14.62	7.00	4.75	5.50	17/32	1.625	3/8	15	10
286U	25.31	26.31	26.31	14.00	14.62	14.62	7.00	5.50	5.50	17/32	1.625	3/8	20	
324U	26.44	27.56	27.56	16.00	16.75	16.75	8.00	5.25	6.25	21/32	1.875	1/2	25	15
326U	27.94	29.06	29.06	16.00	16.75	16.75	8.00	6.00	6.25	21/32	1.875	1/2	30	10
364US	29.56	30.94	30.94	18.25	18.75	18.75	9.00	5.62	7.00	21/32	1.875	1/2	40	25
365US	27.56	31.94	31.94	18.25	18.75	18.75	9.00	6.12	7.00	21/32	1.875	1/2	50	30

Motor dimensions shown are for reference only and may vary with each manufacturer.
For all other dimensions see corresponding model size dimension pages. Unless otherwise specified, motor support bracket surface shall be under motor, except when mounted vertically.

*Frame 182 is TENV, frame 184 may be TENV.

Cone Drive reserves the right to improve or change product design and specifications without notice.

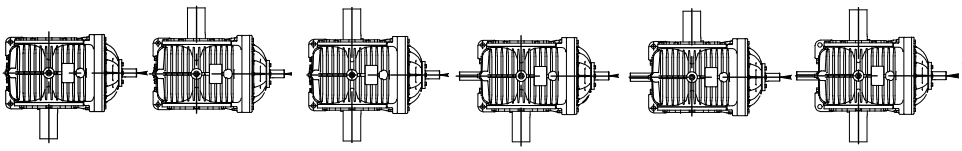
Assembly & Mounting Position Numbers for Cone Drive Helical/Worm Speed Reducers

Models RU, SRU, MRU, MSRU, SR, MSR - Solid & Hollow Shaft

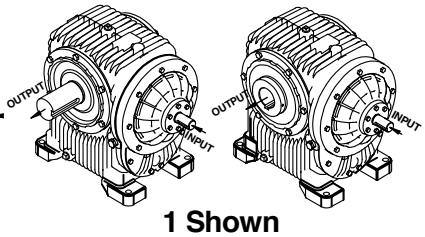
ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE

◀ = INPUT

Top View, Floor Mounted

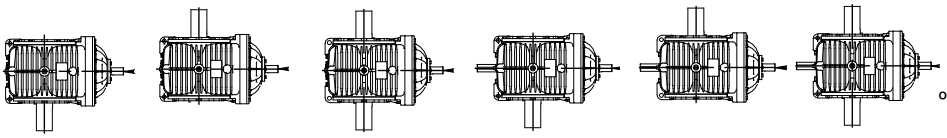


1.....2.....3.....4.....5.....6

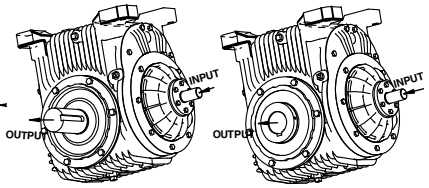


1 Shown

Ceiling Mounted

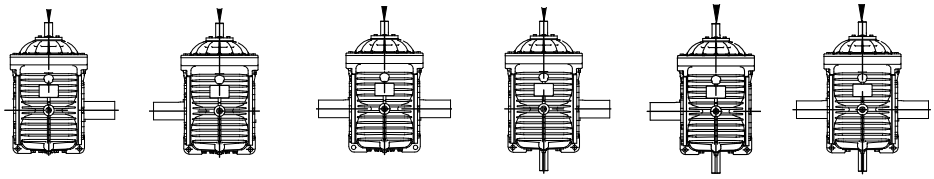


C1.....C2.....C3.....C4.....C5.....C6

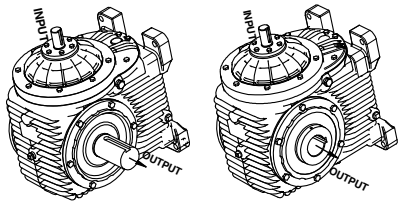


C2 Shown

Wall Mounted, Worm Vertical Up

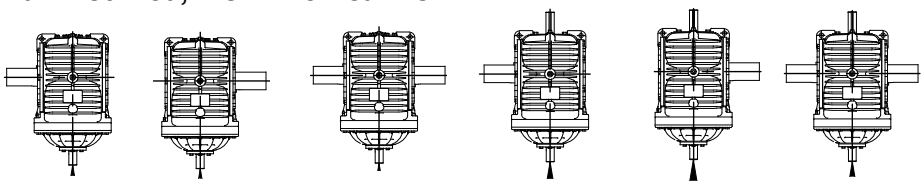


W1.....W2.....W3.....W4.....W5.....W6

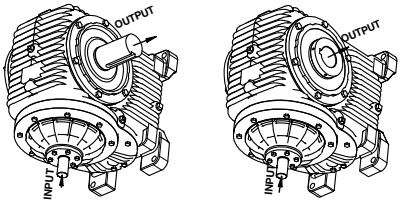


W1 Shown

Wall Mounted, Worm Vertical Down

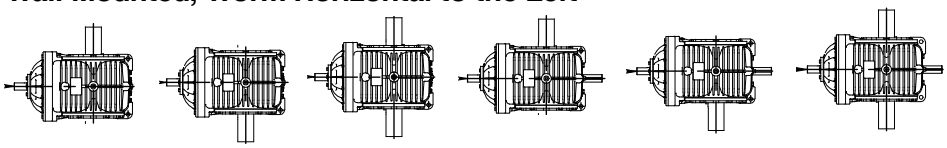


X1.....X2.....X3.....X4.....X5.....X6

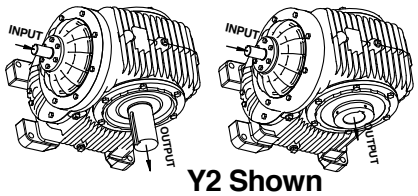


X2 Shown

Wall Mounted, Worm Horizontal to the Left

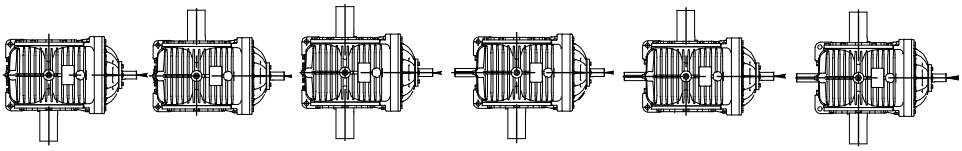


Y1.....Y2.....Y3.....Y4.....Y5.....Y6

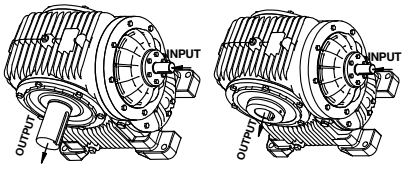


Y2 Shown

Wall Mounted, Worm Horizontal to the Right



Z1.....Z2.....Z3.....Z4.....Z5.....Z6



Z1 Shown

Assembly & Mounting Position Numbers for Cone Drive Helical/Worm Speed Reducers

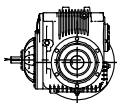
Models RV, SRV, MRV, MSRV - Solid & Hollow Shaft

ALL DIAGRAMS SHOW REDUCER WITH BASE ON FAR SIDE

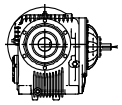
◀ = INPUT

RV	SRV	
A	A	Gearshaft Extended Opposite Base
BR	B	Gearshaft Extended Through Base
SD	C	Gearshaft Double Extended

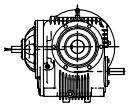
Floor Mounted - Top View



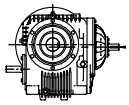
RV	SRV
1A	1A
1BR	1B
1SD	1C



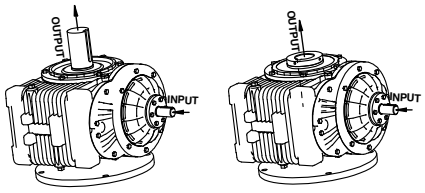
RV	SRV
2A	2A
2BR	2B
2SD	2C



RV	SRV
3A	3A
3BR	3B
3SD	3C

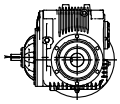


RV	SRV
4A	4A
4BR	4B
4SD	4C

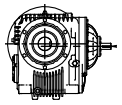


2A Shown

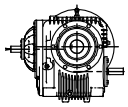
Ceiling Mounted



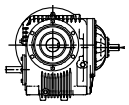
RV	SRV
C1A	C1A
C1BR	C1B
C1SD	C1C



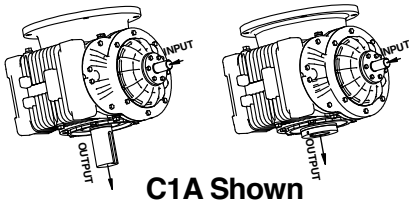
RV	SRV
C2A	C2A
C2BR	C2B
C2SD	C2C



RV	SRV
C3A	C3A
C3BR	C3B
C3SD	C3C

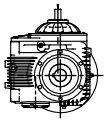


RV	SRV
C4A	C4A
C4BR	C4B
C4SD	C4C

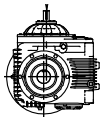


C1A Shown

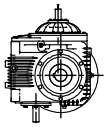
Wall Mounted - Input Shaft Up



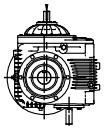
RV	SRV
W1A	W1A
W1BR	W1B
W1SD	W1C



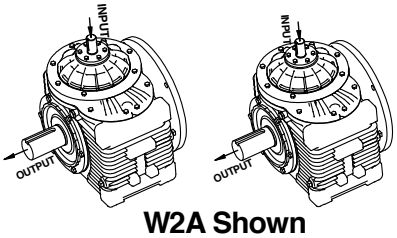
RV	SRV
W2A	W2A
W2BR	W2B
W2SD	W2C



RV	SRV
W3A	W3A
W3BR	W3B
W3SD	W3C

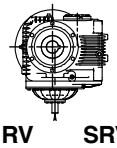


RV	SRV
W4A	W4A
W4BR	W4B
W4SD	W4C

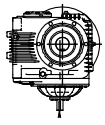


W2A Shown

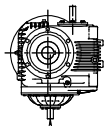
Wall Mounted - Input Shaft Down



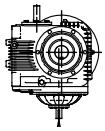
RV	SRV
X1A	X1A
X1BR	X1B
X1SD	X1C



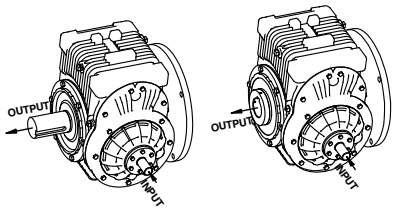
RV	SRV
X2A	X2A
X2BR	X2B
X2SD	X2C



RV	SRV
X3A	X3A
X3BR	X3B
X3SD	X3C

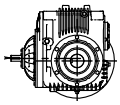


RV	SRV
X4A	X4A
X4BR	X4B
X4SD	X4C

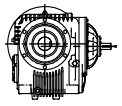


X1A Shown

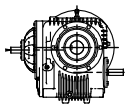
Wall Mounted - Worm Under



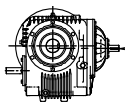
RV	SRV
Y1A	Y1A
Y1BR	Y1B
Y1SD	Y1C



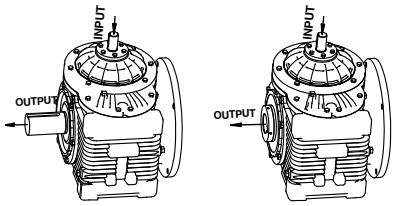
RV	SRV
Y2A	Y2A
Y2BR	Y2B
Y2SD	Y2C



RV	SRV
Y3A	Y3A
Y3BR	Y3B
Y3SD	Y3C

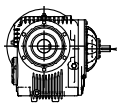


RV	SRV
Y4A	Y4A
Y4BR	Y4B
Y4SD	Y4C

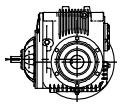


Y2A Shown

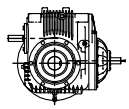
Wall Mounted - Worm Over



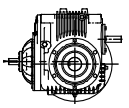
RV	SRV
Z1A	Z1A
Z1BR	Z1B
Z1SD	Z1C



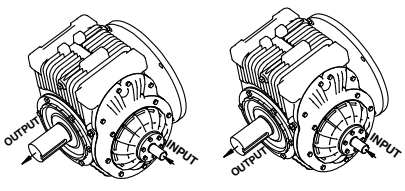
RV	SRV
Z2A	Z2A
Z2BR	Z2B
Z2SD	Z2C



RV	SRV
Z3A	Z3A
Z3BR	Z3B
Z3SD	Z3C



RV	SRV
Z4A	Z4A
Z4BR	Z4B
Z4SD	Z4C



Z1A Shown

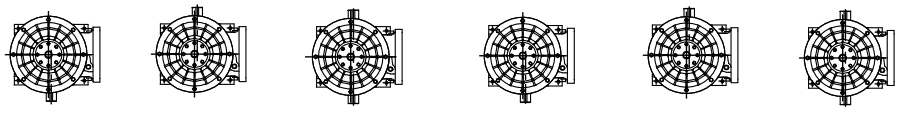
Cone Drive reserves the right to improve or change product design and specifications without notice.

Assembly & Mounting Position Numbers for Cone Drive Helical/Worm Speed Reducers

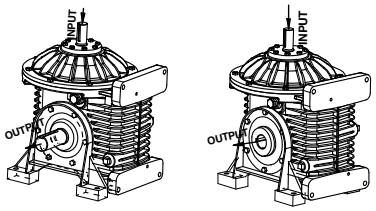
Models VR, SVR, MVR, MSVR - Solid & Hollow Shaft

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE. DIAGRAMS 4-6 HAVE SHAFT EXTENSION OPPOSITE INPUT END.

Top View, Floor Mounted

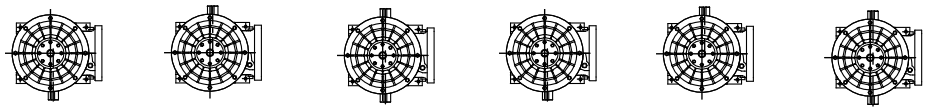


1.....2.....3.....4.....5.....6

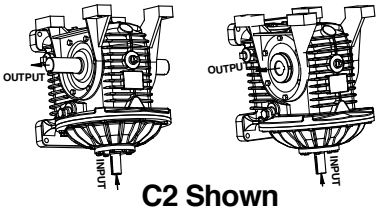


1 Shown

Ceiling Mounted

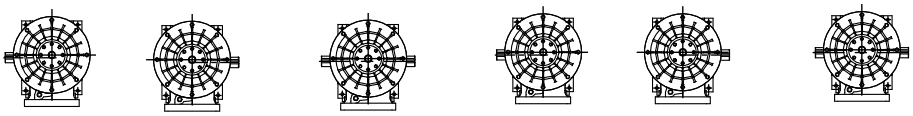


C1.....C2.....C3.....C4.....C5.....C6

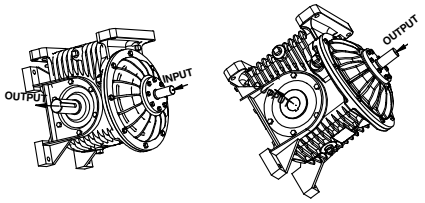


C2 Shown

Wall Mounted, Worm Under Horizontal Gearshaft

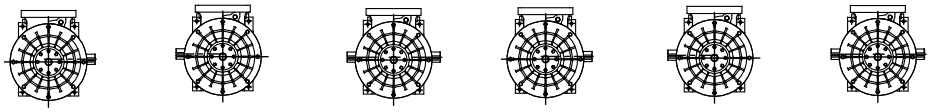


W1.....W2.....W3.....W4.....W5.....W6

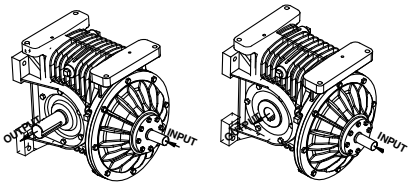


W1 Shown

Wall Mounted, Worm Over Horizontal Gearshaft

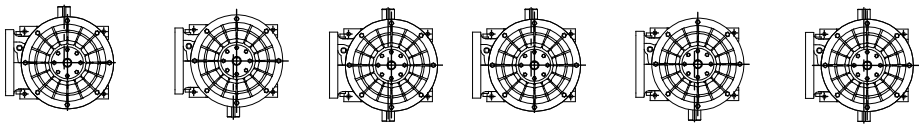


X1.....X2.....X3.....X4.....X5.....X6

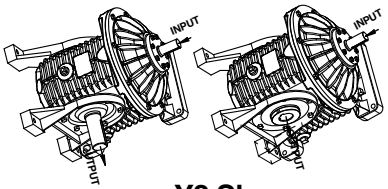


X2 Shown

Wall Mounted, Worm Left Vertical Gearshaft

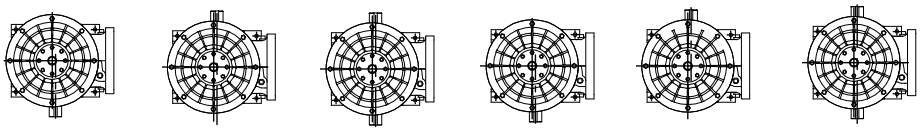


Y1.....Y2.....Y3.....Y4.....Y5.....Y6

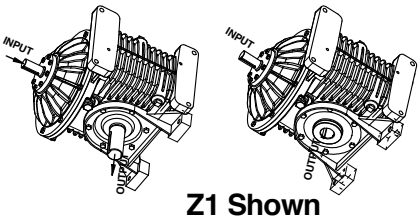


Y2 Shown

Wall Mounted, Worm Right Vertical Gearshaft



Z1.....Z2.....Z3.....Z4.....Z5.....Z6



Z1 Shown

Cone Drive reserves the right to improve or change product design and specifications without notice.

Helical/Worm Illustrations

Shown below are two Cone Drive helical/worm configurations

Helical/Worm Speed Reducer



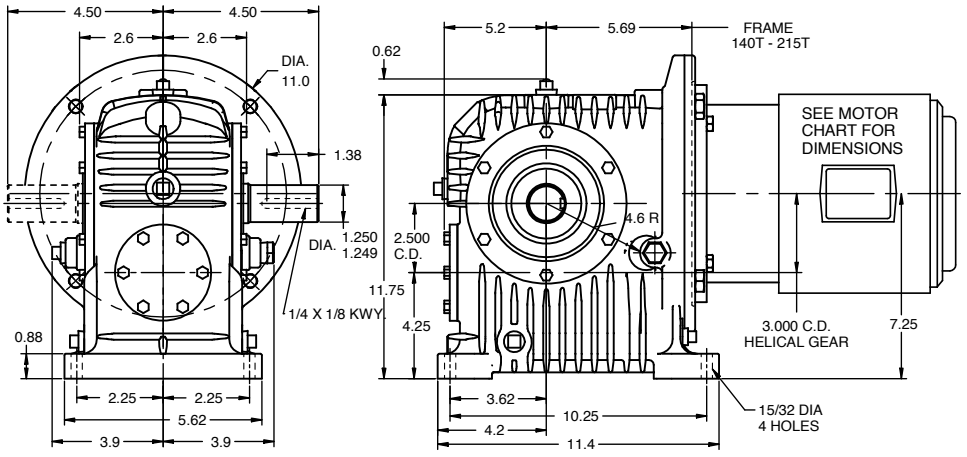
Helical/Worm D-Flange Gearhead



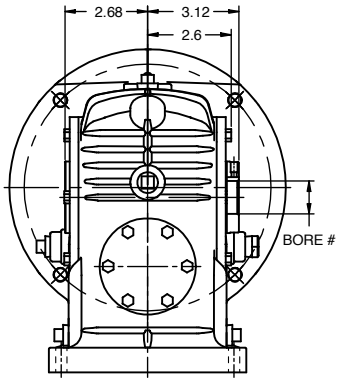
Cone Drive Helical/Worm D-Flange Gearhead - 2.500" C.D.

Size 25 Solid Shaft

Model MU est. wt. 70 lbs less motor

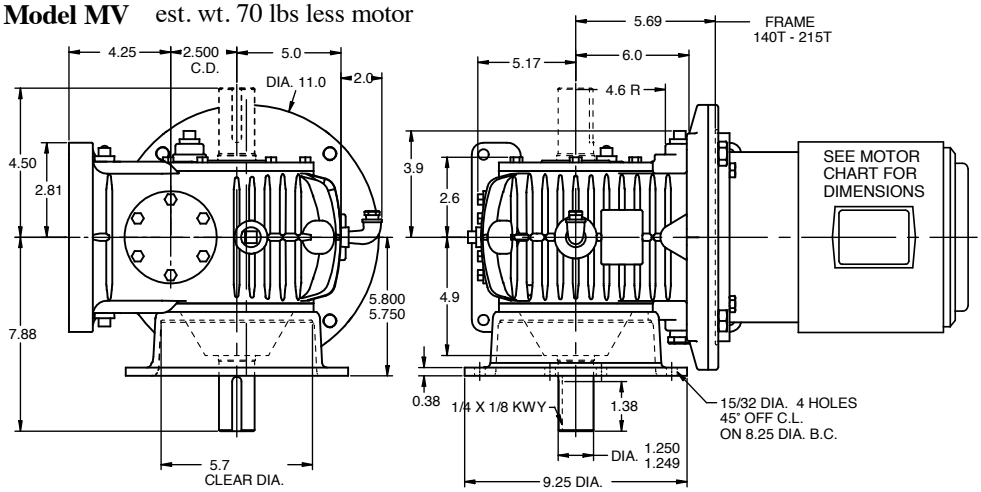


SMU est. wt. 70 lbs less motor



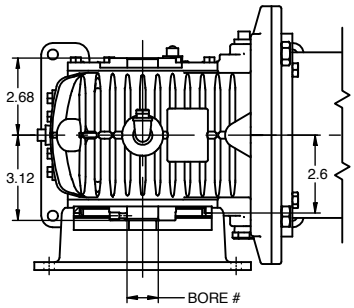
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 70 lbs less motor



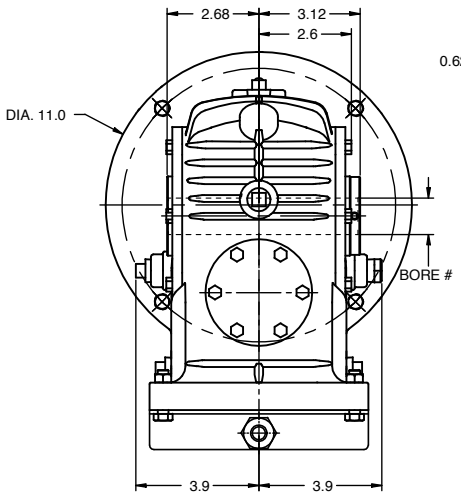
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

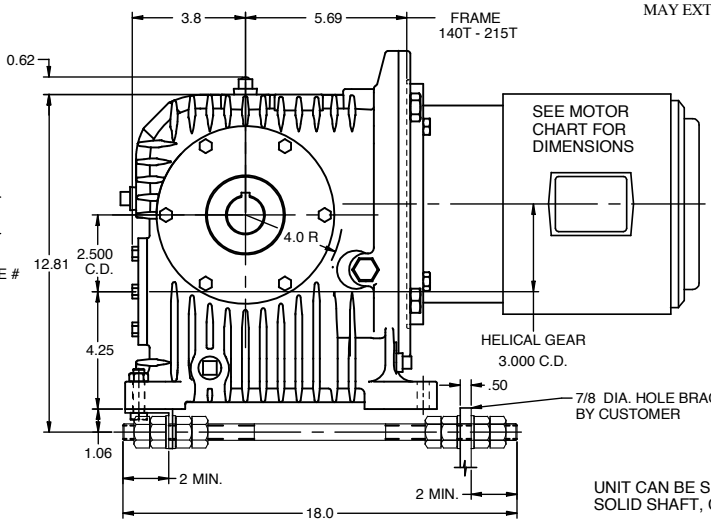
SMV est. wt. 70 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 70 lbs less motor





SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED WITH
SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 25 3.000" C.D. HELICAL PRI./2.500" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	0.80	3.63	4.82	5.65	7.08
	Th.HP	0.80	3.63	4.82	5.65	7.08
	O.T.	2180	1740	1550	1380	1140
7.5:1 1.5 x 5	Me.HP	0.54	2.62	3.63	4.44	5.69
	Th.HP	0.54	2.62	3.63	4.44	5.69
	O.T.	2180	1880	1740	1620	1370
9:1 1.8 x 5	Me.HP	0.46	2.24	3.15	3.91	5.14
	Th.HP	0.46	2.24	3.15	3.91	5.14
	O.T.	2180	1920	1810	1710	1480
10:1 1 x 10	Me.HP	0.51	2.33	3.14	3.73	4.68
	Th.HP	0.51	2.33	3.14	3.73	4.68
	O.T.	2580	2150	1960	1770	1480
12.5:1 2.5 x 5	Me.HP	0.33	1.68	2.40	3.02	4.17
	Th.HP	0.33	1.68	2.40	3.02	4.17
	O.T.	2180	2000	1910	1820	1660
15:1 1.5 x 10	Me.HP	0.35	1.67	2.33	2.88	3.76
	Th.HP	0.35	1.67	2.33	2.88	3.76
	O.T.	2580	2280	2150	2030	1760
18:1 1.8 x 10	Me.HP	0.29	1.42	2.01	2.52	3.39
	Th.HP	0.29	1.42	2.01	2.52	3.39
	O.T.	2580	2320	2210	2110	1890
20:1 4 x 5	Me.HP	0.21	1.12	1.59	2.03	2.90
	Th.HP	0.21	1.12	1.59	2.03	2.90
	O.T.	2180	2110	2010	1950	1840
22.5:1 1.5 x 15	Me.HP	0.24	1.17	1.64	2.04	2.67
	Th.HP	0.24	1.17	1.64	2.04	2.67
	O.T.	2590	2310	2210	2100	1840
25:1 2.5 x 10	Me.HP	0.21	1.07	1.52	1.93	2.70
	Th.HP	0.21	1.07	1.52	1.93	2.70
	O.T.	2580	2400	2300	2230	2070
27:1 1.8 x 15	Me.HP	0.20	1.00	1.42	1.77	2.39
	Th.HP	0.20	1.00	1.42	1.77	2.39
	O.T.	2590	2340	2260	2170	1970
30:1 1.5 x 20	Me.HP	0.19	0.90	1.26	1.56	2.05
	Th.HP	0.19	0.90	1.26	1.56	2.05
	O.T.	2510	2260	2190	2070	1800
36:1 1.8 x 20	Me.HP	0.16	0.77	1.09	1.36	1.84
	Th.HP	0.16	0.77	1.09	1.36	1.84
	O.T.	2510	2280	2230	2150	1930
37.5:1 2.5 x 15	Me.HP	0.15	0.75	1.07	1.36	1.90
	Th.HP	0.15	0.75	1.07	1.36	1.90
	O.T.	2590	2420	2330	2280	2140
40:1 4 x 10	Me.HP	0.14	0.71	1.01	1.29	1.85
	Th.HP	0.14	0.71	1.01	1.29	1.85
	O.T.	2580	2510	2410	2350	2250
45:1 1.8 x 25	Me.HP	0.13	0.62	0.88	1.09	1.48
	Th.HP	0.13	0.62	0.88	1.09	1.48
	O.T.	2410	2270	2200	2120	1930
50:1 2.5 x 20	Me.HP	0.11	0.57	0.82	1.04	1.46
	Th.HP	0.11	0.57	0.82	1.04	1.46
	O.T.	2510	2340	2270	2240	2110
54:1 1.8 x 30	Me.HP	0.11	0.52	0.73	0.92	1.24
	Th.HP	0.11	0.52	0.73	0.92	1.24
	O.T.	2300	2120	2060	2000	1860
60:1 4 x 15	Me.HP	0.09	0.50	0.71	0.91	1.30
	Th.HP	0.09	0.50	0.71	0.91	1.30
	O.T.	2590	2530	2430	2370	2290
62.5:1 2.5 x 25	Me.HP	0.09	0.46	0.66	0.84	1.18
	Th.HP	0.09	0.46	0.66	0.84	1.18
	O.T.	2410	2320	2260	2220	2090
72:1 1.8 x 40	Me.HP	0.08	0.39	0.55	0.69	0.93
	Th.HP	0.08	0.39	0.55	0.69	0.93
	O.T.	2070	2000	1970	1920	1770
75:1 2.5 x 30	Me.HP	0.08	0.39	0.55	0.70	0.98
	Th.HP	0.08	0.39	0.55	0.70	0.98
	O.T.	2300	2170	2110	2070	1980

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.07	0.38	0.54	0.69	1.00
	Th.HP	0.07	0.38	0.54	0.69	1.00
	O.T.	2510	2450	2360	2290	2250
90:1 1.8 x 50	Me.HP	0.07	0.31	0.44	0.55	0.75
	Th.HP	0.07	0.31	0.44	0.55	0.75
	O.T.	1840	1910	1910	1870	1700
100:1 4 x 25	Me.HP	0.06	0.31	0.44	0.56	0.80
	Th.HP	0.06	0.31	0.44	0.56	0.80
	O.T.	2410	2370	2320	2290	2230
108:1 1.8 x 60	Me.HP	0.06	0.27	0.38	0.46	0.64
	Th.HP	0.06	0.27	0.38	0.46	0.64
	O.T.	1800	1835	1820	1785	1665
120:1 4 x 30	Me.HP	0.05	0.26	0.37	0.47	0.67
	Th.HP	0.05	0.26	0.37	0.47	0.67
	O.T.	2300	2250	2180	2140	2080
125:1 2.5 x 50	Me.HP	0.05	0.23	0.33	0.42	0.59
	Th.HP	0.05	0.23	0.33	0.42	0.59
	O.T.	1840	1900	1910	1920	1840
150:1 2.5 x 60	Me.HP	0.04	0.20	0.28	0.36	0.49
	Th.HP	0.04	0.20	0.28	0.36	0.49
	O.T.	1800	1880	1835	1820	1760
160:1 4 x 40	Me.HP	0.04	0.19	0.28	0.35	0.51
	Th.HP	0.04	0.19	0.28	0.35	0.51
	O.T.	2070	2030	1980	1990	1980
200:1 4 x 50	Me.HP	0.03	0.16	0.22	0.28	0.41
	Th.HP	0.03	0.16	0.22	0.28	0.41
	O.T.	1840	1880	1890	1900	1920
240:1 4 x 60	Me.HP	0.03	0.13	0.19	0.24	0.34
	Th.HP	0.03	0.13	0.19	0.24	0.34
	O.T.	1800	1845	1890	1850	1825

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEARSHAFT NUMBER**	**KEYWAY SIZE**
2.000*	25-S60-200	1/4 X 1/8
1.9375*	25-S60-115	1/4 X 1/8
1.6875*	25-S60-111	3/8 X 3/16
1.4375*	25-S60-107	3/8 X 3/16
1.250*	25-S60-104	1/4 X 1/8
1.1875*	25-S60-103	1/4 X 1/8

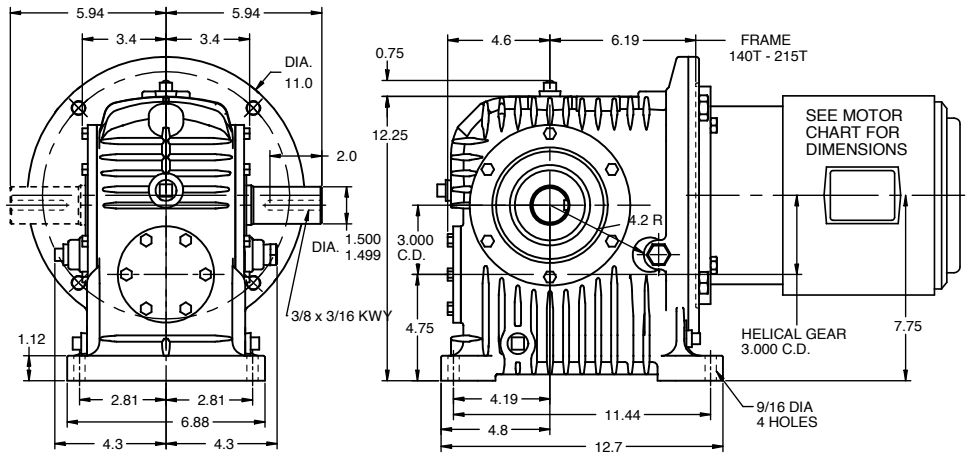
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 3.000" C.D.

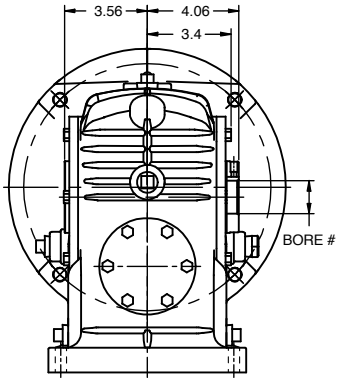
Size 30 Solid Shaft

Model MU est. wt. 100 lbs less motor



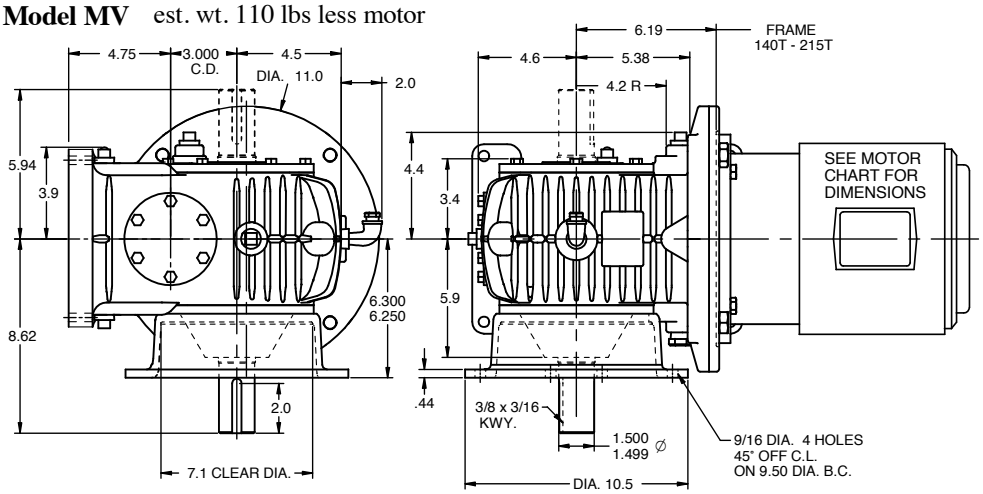
Hollow Shaft

SMU est. wt. 100 lbs less motor



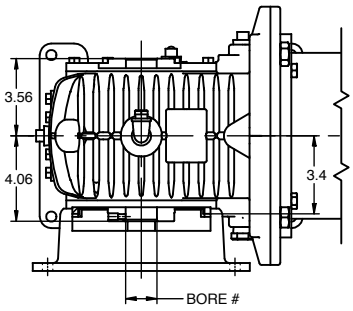
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 110 lbs less motor



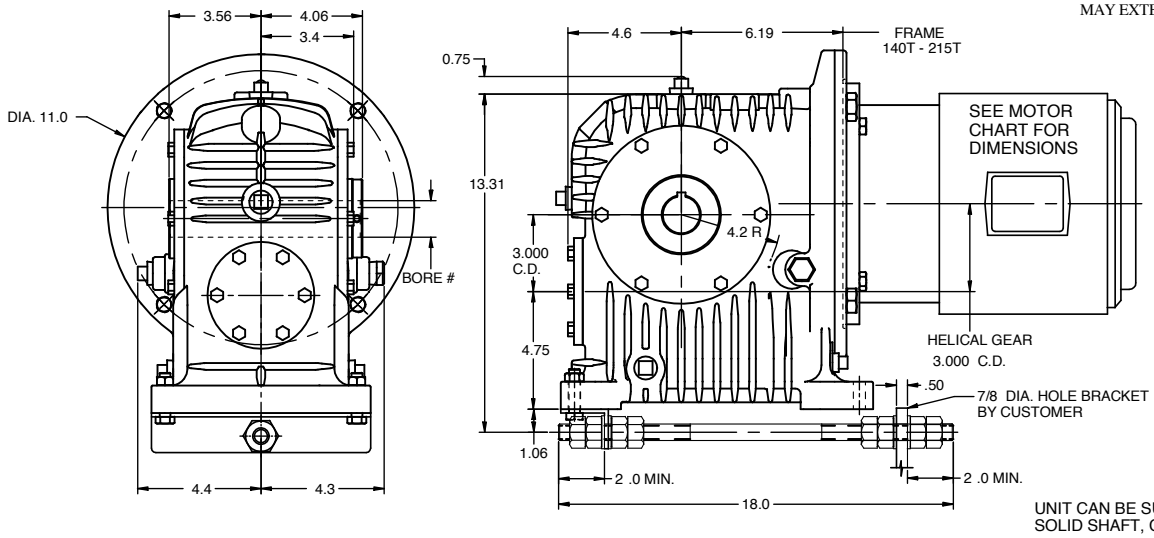
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 110 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 100 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED WITH
SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 30 3.000" C.D. HELICAL PRI./3.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.42	6.24	8.03	9.34	11.7
	Th.HP	1.42	6.24	8.03	9.34	9.20
	O.T.	3870	3000	2590	2280	1880
7.5:1 1.5 x 5	Me.HP	0.97	4.57	6.24	7.47	9.41
	Th.HP	0.97	4.57	6.24	7.47	9.20
	O.T.	3870	3280	3000	2730	2270
9:1 1.8 x 5	Me.HP	0.81	3.94	5.45	6.66	8.53
	Th.HP	0.81	3.94	5.45	6.66	8.53
	O.T.	3870	3380	3140	2910	2460
10:1 1 x 10	Me.HP	0.91	4.09	5.43	6.35	7.96
	Th.HP	0.91	4.09	5.43	6.35	7.96
	O.T.	4600	3770	3380	3010	2510
12.5:1 2.5 x 5	Me.HP	0.59	2.97	4.20	5.25	7.08
	Th.HP	0.59	2.97	4.20	5.25	7.08
	O.T.	3870	3520	3340	3170	2820
15:1 1.5 x 10	Me.HP	0.62	2.96	4.09	4.99	6.40
	Th.HP	0.62	2.96	4.09	4.99	6.40
	O.T.	4600	4040	3770	3510	3000
18:1 1.8 x 10	Me.HP	0.52	2.53	3.55	4.40	5.78
	Th.HP	0.52	2.53	3.55	4.40	5.78
	O.T.	4600	4130	3910	3700	3230
20:1 4 x 5	Me.HP	0.35	1.97	2.80	3.58	5.05
	Th.HP	0.35	1.97	2.80	3.58	5.05
	O.T.	3550	3720	3550	3430	3200
22.5:1 1.5 x 15	Me.HP	0.43	2.08	2.89	3.54	4.55
	Th.HP	0.43	2.08	2.89	3.54	4.55
	O.T.	4620	4100	3880	3660	3140
25:1 2.5 x 10	Me.HP	0.38	1.90	2.70	3.41	4.70
	Th.HP	0.38	1.90	2.70	3.41	4.70
	O.T.	4600	4260	4090	3930	3610
27:1 1.8 x 15	Me.HP	0.36	1.78	2.50	3.11	4.11
	Th.HP	0.36	1.78	2.50	3.11	4.11
	O.T.	4620	4170	3990	3820	3390
30:1 1.5 x 20	Me.HP	0.33	1.59	2.22	2.72	3.50
	Th.HP	0.33	1.59	2.22	2.72	3.50
	O.T.	4470	4020	3860	3600	3090
36:1 1.8 x 20	Me.HP	0.28	1.36	1.92	2.39	3.16
	Th.HP	0.28	1.36	1.92	2.39	3.16
	O.T.	4470	4060	3940	3780	3330
37.5:1 2.5 x 15	Me.HP	0.26	1.34	1.90	2.40	3.32
	Th.HP	0.26	1.34	1.90	2.40	3.32
	O.T.	4620	4300	4140	4020	3740
40:1 4 x 10	Me.HP	0.24	1.26	1.80	2.29	3.27
	Th.HP	0.24	1.26	1.80	2.29	3.27
	O.T.	4600	4460	4280	4170	3970
45:1 1.8 x 25	Me.HP	0.23	1.10	1.55	1.92	2.55
	Th.HP	0.23	1.10	1.55	1.92	2.55
	O.T.	4300	4050	3890	3730	3340
50:1 2.5 x 20	Me.HP	0.20	1.02	1.46	1.84	2.55
	Th.HP	0.20	1.02	1.46	1.84	2.55
	O.T.	4470	4160	4040	3960	3690
54:1 1.8 x 30	Me.HP	0.19	0.92	1.29	1.61	2.14
	Th.HP	0.19	0.92	1.29	1.61	2.14
	O.T.	4110	3780	3630	3510	3200
60:1 4 x 15	Me.HP	0.17	0.89	1.26	1.61	2.31
	Th.HP	0.17	0.89	1.26	1.61	2.31
	O.T.	4620	4500	4330	4220	4050
62.5:1 2.5 x 25	Me.HP	0.17	0.82	1.18	1.48	2.06
	Th.HP	0.17	0.82	1.18	1.48	2.06
	O.T.	4300	4120	4030	3920	3660
72:1 1.8 x 40	Me.HP	0.14	0.69	0.97	1.21	1.61
	Th.HP	0.14	0.69	0.97	1.21	1.61
	O.T.	3700	3560	3480	3370	3050
75:1 2.5 x 30	Me.HP	0.14	0.69	0.98	1.24	1.72
	Th.HP	0.14	0.69	0.98	1.24	1.72
	O.T.	4110	3870	3760	3650	3470
80:1 4 x 20	Me.HP	0.13	0.68	0.97	1.23	1.77
	Th.HP	0.13	0.68	0.97	1.23	1.77
	O.T.	4470	4350	4190	4080	3980
90:1 1.8 x 50	Me.HP	0.12	0.56	0.78	0.97	1.29
	Th.HP	0.12	0.56	0.78	0.97	1.29
	O.T.	3280	3400	3380	3290	2940
100:1 4 x 25	Me.HP	0.11	0.55	0.78	0.99	1.43
	Th.HP	0.11	0.55	0.78	0.99	1.43
	O.T.	4300	4220	4130	4080	3940
108:1 1.8 x 60	Me.HP	0.10	0.46	0.65	0.81	1.08
	Th.HP	0.10	0.46	0.65	0.81	1.08
	O.T.	3230	3260	3200	3110	2830
120:1 4 x 30	Me.HP	0.09	0.46	0.65	0.83	1.19
	Th.HP	0.09	0.46	0.65	0.83	1.19
	O.T.	4110	4000	3880	3810	3680
125:1 2.5 x 50	Me.HP	0.09	0.42	0.59	0.75	1.04
	Th.HP	0.09	0.42	0.59	0.75	1.04
	O.T.	3280	3370	3400	3390	3230
150:1 2.5 x 60	Me.HP	0.07	0.35	0.50	0.63	0.87
	Th.HP	0.07	0.35	0.50	0.63	0.87
	O.T.	3230	3290	3260	3210	3070
160:1 4 x 40	Me.HP	0.07	0.35	0.49	0.63	0.90
	Th.HP	0.07	0.35	0.49	0.63	0.90
	O.T.	3700	3610	3520	3550	3510
200:1 4 x 50	Me.HP	0.06	0.28	0.39	0.50	0.72
	Th.HP	0.06	0.28	0.39	0.50	0.72
	O.T.	3280	3350	3370	3390	3400
240:1 4 x 60	Me.HP	0.05	0.23	0.33	0.42	0.60
	Th.HP	0.05	0.23	0.33	0.42	0.60
	O.T.	3230	3280	3300	3250	3230

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	**GEAR SHAFT NUMBER**	**KEYWAY SIZE**
2.500*	30-S60-208	3/8 x 3/16
2.4375*	30-S60-207	3/8 x 3/16
2.1875*	30-S60-203	1/2 x 1/4
1.9375*	30-S60-115	1/2 x 1/4
1.6875*	30-S60-111	3/8 x 3/16
1.500*	30-S60-108	3/8 x 3/16

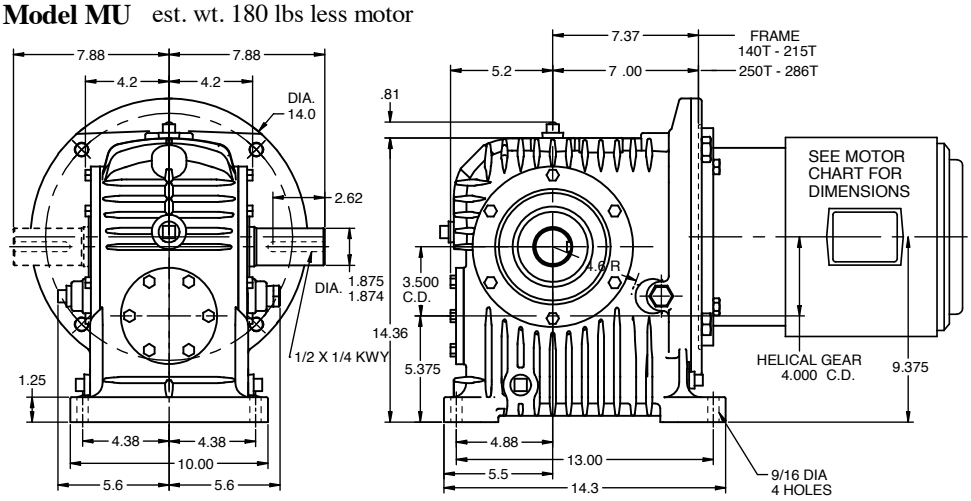
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

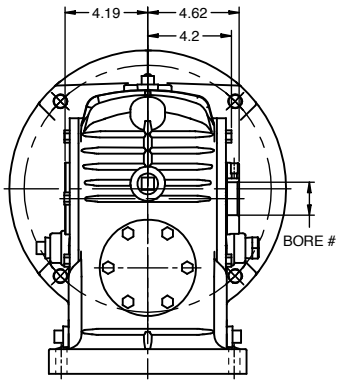
Cone Drive Helical/Worm D-Flange Gearhead - 3.500" C.D.

Size 35 Solid Shaft **Hollow Shaft**

Model MU est. wt. 180 lbs less motor

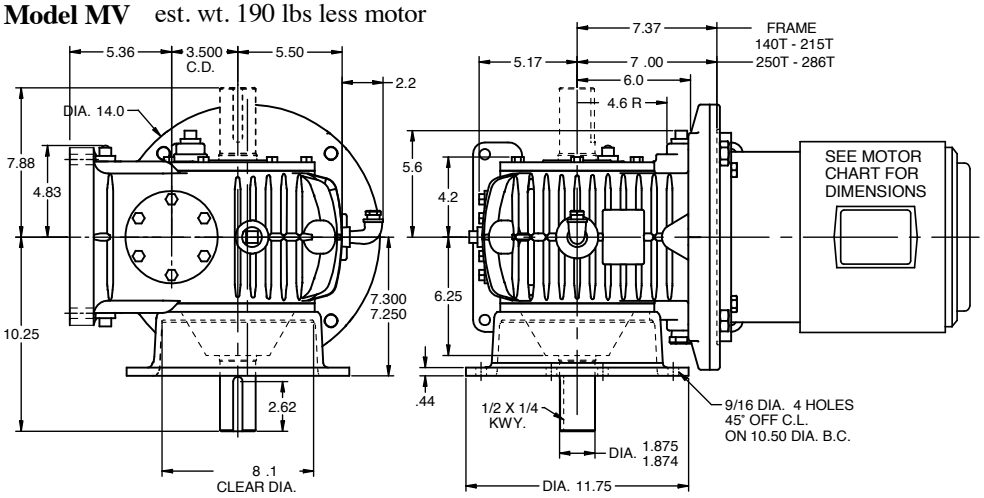


SMU est. wt. 180 lbs less motor



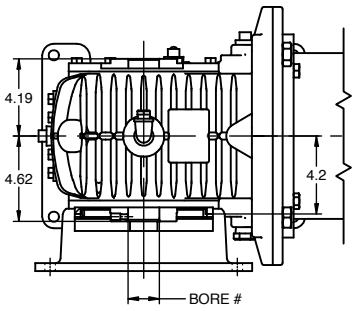
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 190 lbs less motor



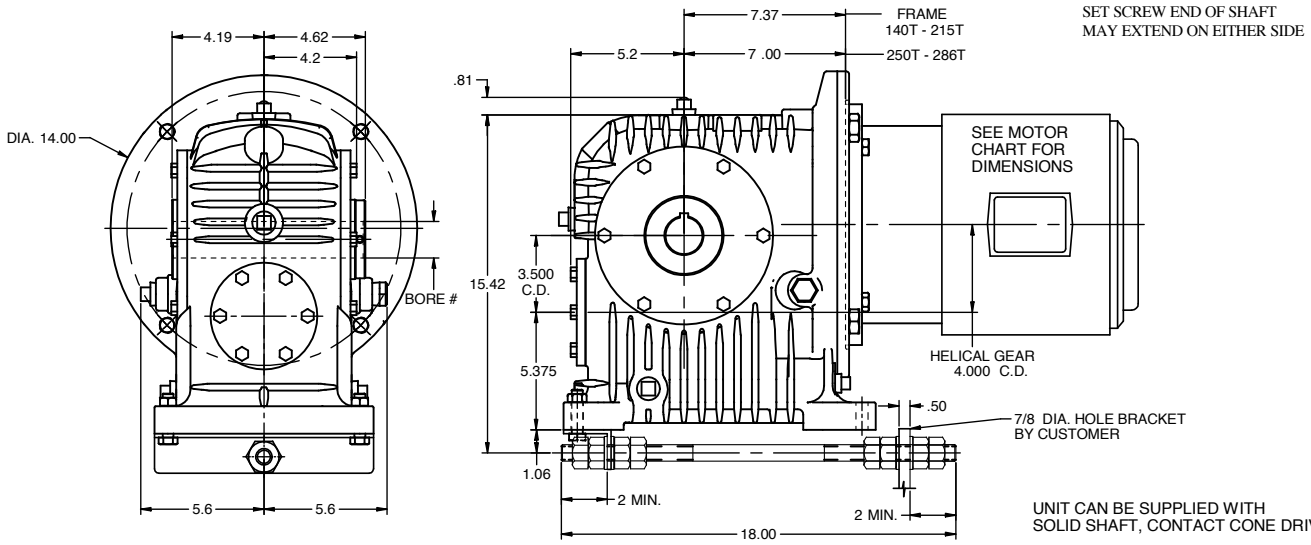
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 190 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 180 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 35 4.000" C.D. HELICAL PRI./3.500" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.66	8.93	13.1	16.4	20.3
	Th.HP	1.66	8.93	11.7	11.9	12.2
	O.T.	4520	4290	4200	4000	3280
7.5:1 1.5 x 5	Me.HP	1.38	7.45	10.9	13.2	16.5
	Th.HP	1.38	7.45	10.1	10.7	12.2
	O.T.	5520	5340	5240	4800	3970
9:1 1.8 x 5	Me.HP	1.20	6.50	9.53	11.9	15.0
	Th.HP	1.20	6.50	9.53	10.2	12.2
	O.T.	5720	5580	5480	5180	4310
10:1 1 x 10	Me.HP	1.66	7.37	9.50	11.1	13.8
	Th.HP	1.66	7.37	9.30	10.2	10.3
	O.T.	8430	6790	5910	5250	4360
12.5:1 2.5 x 5	Me.HP	0.96	5.26	7.68	9.52	12.5
	Th.HP	0.96	5.26	7.68	9.20	10.4
	O.T.	6300	6240	6110	5750	4980
15:1 1.5 x 10	Me.HP	1.14	5.40	7.37	8.84	11.1
	Th.HP	1.14	5.40	7.37	8.84	10.2
	O.T.	8510	7370	6790	6220	5210
18:1 1.8 x 10	Me.HP	0.96	4.65	6.44	7.87	10.1
	Th.HP	0.96	4.65	6.44	7.87	10.1
	O.T.	8510	7580	7080	6600	5640
20:1 1 x 20	Me.HP	0.90	3.99	5.18	6.04	7.55
	Th.HP	0.90	3.99	5.18	6.04	7.55
	O.T.	8270	6950	6080	5390	4480
22.5:1 1.5 x 15	Me.HP	0.80	3.80	5.21	6.28	7.92
	Th.HP	0.80	3.80	5.21	6.28	7.92
	O.T.	8540	7490	7000	6480	5460
25:1 2.5 x 10	Me.HP	0.70	3.50	4.96	6.20	8.36
	Th.HP	0.70	3.50	4.96	6.20	8.36
	O.T.	8510	7840	7500	7150	6420
27:1 1.8 x 15	Me.HP	0.67	3.27	4.54	5.57	7.18
	Th.HP	0.67	3.27	4.54	5.57	7.18
	O.T.	8540	7650	7250	6830	5920
30:1 1.5 x 20	Me.HP	0.61	2.91	3.99	4.82	6.08
	Th.HP	0.61	2.91	3.99	4.82	6.08
	O.T.	8270	7340	6950	6390	5360
36:1 1.8 x 20	Me.HP	0.51	2.50	3.48	4.28	5.52
	Th.HP	0.51	2.50	3.48	4.28	5.52
	O.T.	8270	7450	7150	6770	5810
37.5:1 2.5 x 15	Me.HP	0.49	2.46	3.49	4.37	5.92
	Th.HP	0.49	2.46	3.49	4.37	5.92
	O.T.	8540	7920	7600	7310	6660
40:1 4 x 10	Me.HP	0.45	2.32	3.31	4.22	5.96
	Th.HP	0.45	2.32	3.31	4.22	5.96
	O.T.	8510	8210	7890	7680	7220
45:1 1.8 x 25	Me.HP	0.42	2.02	2.81	3.45	4.46
	Th.HP	0.42	2.02	2.81	3.45	4.46
	O.T.	7950	7440	7070	6690	5820
50:1 2.5 x 20	Me.HP	0.38	1.88	2.67	3.35	4.54
	Th.HP	0.38	1.88	2.67	3.35	4.54
	O.T.	8270	7660	7420	7200	6580
54:1 1.8 x 30	Me.HP	0.35	1.69	2.35	2.89	3.73
	Th.HP	0.35	1.69	2.35	2.89	3.73
	O.T.	7600	6950	6590	6300	5590
60:1 4 x 15	Me.HP	0.31	1.63	2.33	2.97	4.20
	Th.HP	0.31	1.63	2.33	2.97	4.20
	O.T.	8540	8270	7970	7780	7360
62.5:1 2.5 x 25	Me.HP	0.31	1.52	2.16	2.70	3.66
	Th.HP	0.31	1.52	2.16	2.70	3.66
	O.T.	7950	7580	7390	7120	6520
72:1 1.8 x 40	Me.HP	0.27	1.27	1.77	2.18	2.81
	Th.HP	0.27	1.27	1.77	2.18	2.81
	O.T.	6830	6540	6320	6050	5330
75:1 2.5 x 30	Me.HP	0.26	1.27	1.81	2.26	3.07
	Th.HP	0.26	1.27	1.81	2.26	3.07
	O.T.	7600	7120	6900	6640	6180

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.24	1.25	1.78	2.27	3.22
	Th.HP	0.24	1.25	1.78	2.27	3.22
	O.T.	8270	8010	7710	7520	7250
90:1 1.8 x 50	Me.HP	0.22	1.02	1.42	1.75	2.26
	Th.HP	0.22	1.02	1.42	1.75	2.26
	O.T.	6070	6240	6140	5900	5130
100:1 4 x 25	Me.HP	0.20	1.01	1.43	1.83	2.60
	Th.HP	0.20	1.01	1.43	1.83	2.60
	O.T.	7950	7770	7610	7510	7180
108:1 1.8 x 60	Me.HP	0.18	0.85	1.19	1.46	1.88
	Th.HP	0.18	0.85	1.19	1.46	1.88
	O.T.	5970	5990	5810	5580	4940
120:1 4 x 30	Me.HP	0.17	0.84	1.20	1.53	2.17
	Th.HP	0.17	0.84	1.20	1.53	2.17
	O.T.	7600	7360	7150	7010	6690
125:1 2.5 x 50	Me.HP	0.16	0.77	1.09	1.37	1.85
	Th.HP	0.16	0.77	1.09	1.37	1.85
	O.T.	6070	6210	6240	6160	5740
150:1 2.5 x 60	Me.HP	0.14	0.64	0.91	1.14	1.55
	Th.HP	0.14	0.64	0.91	1.14	1.55
	O.T.	5970	6050	5980	5840	5460
160:1 4 x 40	Me.HP	0.13	0.64	0.90	1.15	1.64
	Th.HP	0.13	0.64	0.90	1.15	1.64
	O.T.	6830	6650	6480	6530	6390
200:1 4 x 50	Me.HP	0.10	0.51	0.73	0.93	1.31
	Th.HP	0.10	0.51	0.73	0.93	1.31
	O.T.	6070	6160	6200	6240	6180
240:1 4 x 60	Me.HP	0.09	0.43	0.61	0.77	1.10
	Th.HP	0.09	0.43	0.61	0.77	1.10
	O.T.	5970	6040	6070	5990	5870

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
2.7500	35-S60-212	3/8 x 3/16
2.6875*	35-S60-211	3/8 x 3/16
2.500	35-S60-208	3/8 x 3/16
2.4375*	35-S60-207	5/8 x 5/16
2.1875*	35-S60-203	1/2 x 1/4
1.9375*	35-S60-115	1/2 x 1/4
1.6875*	35-S60-111	3/8 x 3/16

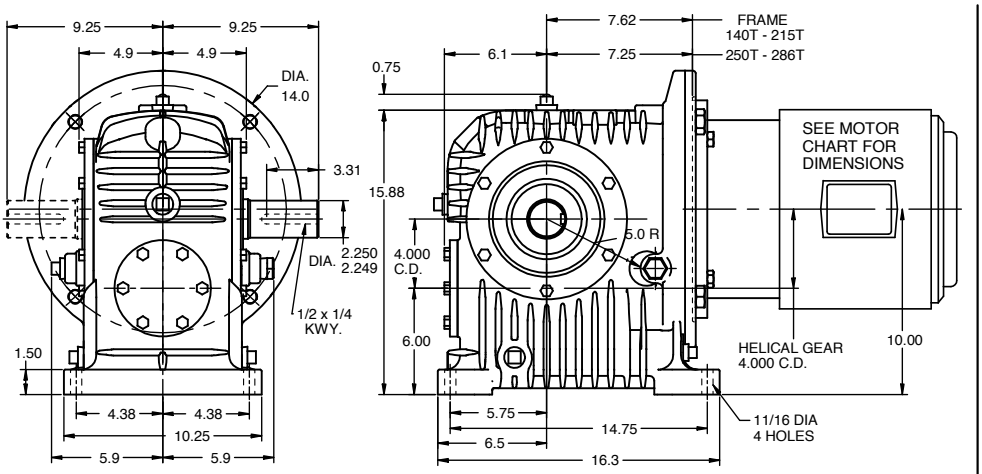
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.002, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage,damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 4.000" C.D.

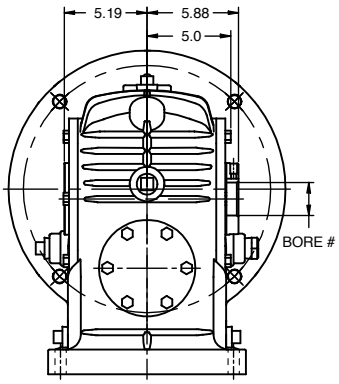
Size 40 Solid Shaft

Model MU est. wt. 230 lbs less motor



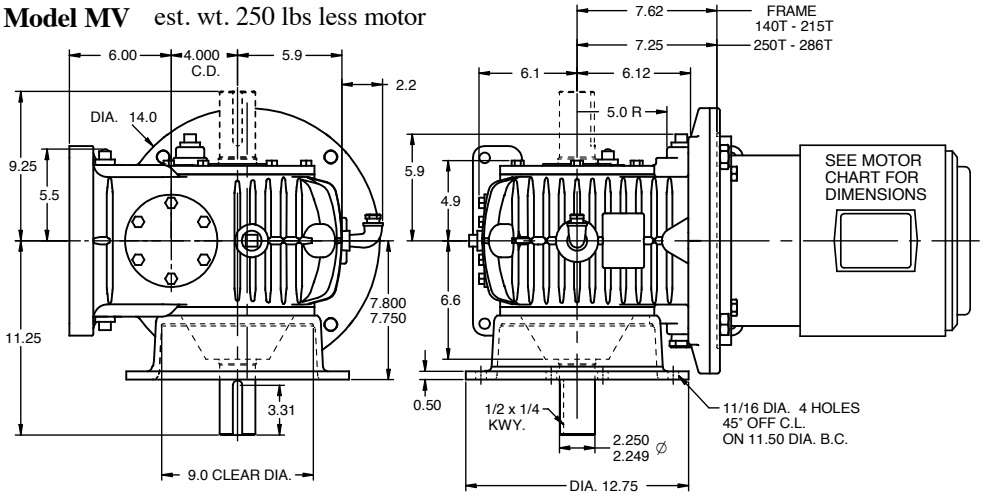
Hollow Shaft

SMU est. wt. 230 lbs less motor



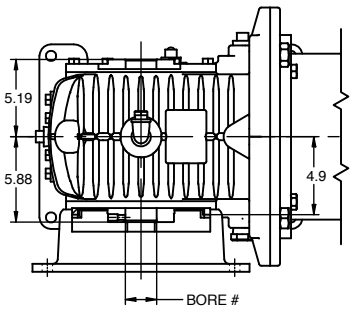
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 250 lbs less motor



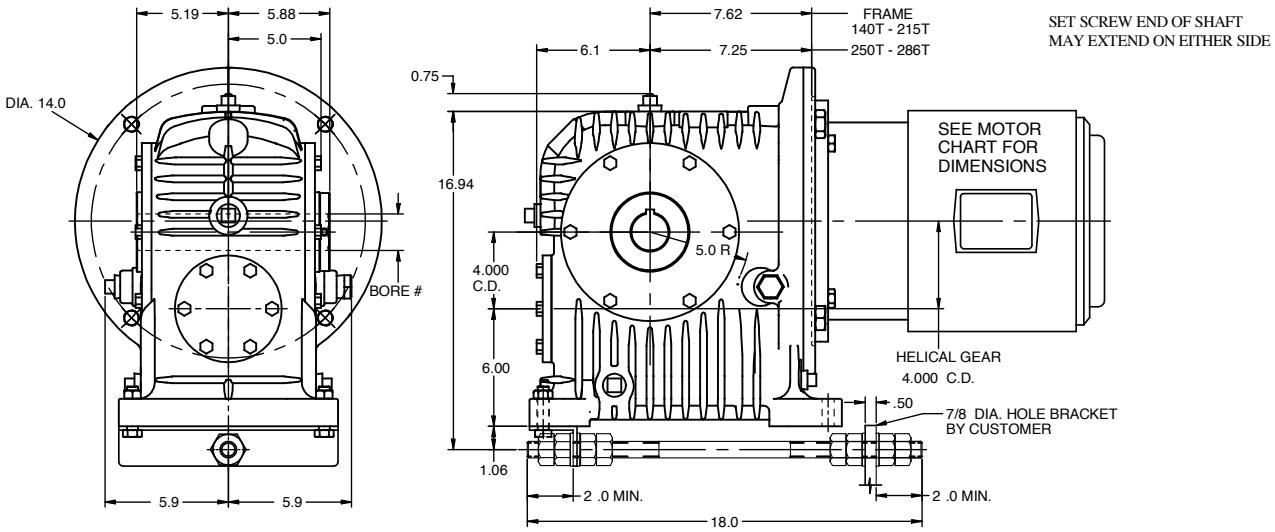
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 250 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 230 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED WITH
SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 40 4.000" C.D. HELICAL PRI./4.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	1.66	8.93	13.1	16.9	24.9
	Th.HP	1.66	8.93	13.1	16.9	18.7
	O.T.	4670	4430	4340	4270	4140
7.5:1 1.5 x 5	Me.HP	1.38	7.45	10.9	14.2	20.9
	Th.HP	1.38	7.45	10.9	14.2	18.7
	O.T.	5710	5520	5410	5330	5190
9:1 1.8 x 5	Me.HP	1.20	6.50	9.53	12.4	18.3
	Th.HP	1.20	6.50	9.53	12.4	17.9
	O.T.	5920	5770	5660	5580	5440
10:1 1 x 10	Me.HP	1.66	8.93	13.1	15.3	19
	Th.HP	1.66	8.93	13.1	15.3	15.4
	O.T.	8730	8520	8400	7490	6190
12.5:1 2.5 x 5	Me.HP	0.96	5.26	7.72	10.0	14.8
	Th.HP	0.96	5.26	7.72	10.0	14.8
	O.T.	6520	6450	6350	6260	6110
15:1 1.5 x 10	Me.HP	1.38	7.45	10.3	12.3	15.4
	Th.HP	1.38	7.45	10.3	12.3	15.2
	O.T.	10700	10500	9860	8910	7440
18:1 1.8 x 10	Me.HP	1.20	6.50	9.13	11.0	13.9
	Th.HP	1.20	6.50	9.13	11.0	13.9
	O.T.	11100	11000	10400	9580	8050
20:1 1 x 20	Me.HP	1.30	5.62	7.17	8.34	10.4
	Th.HP	1.30	5.62	7.17	8.34	10.4
	O.T.	12400	10100	8720	7710	6380
22.5:1 1.5 x 15	Me.HP	1.15	5.43	7.33	8.70	10.9
	Th.HP	1.15	5.43	7.33	8.70	10.9
	O.T.	12800	11100	10200	9300	7790
25:1 2.5 x 10	Me.HP	0.96	5.04	7.07	8.80	11.6
	Th.HP	0.96	5.04	7.07	8.80	11.6
	O.T.	12200	11700	11100	10500	9240
27:1 1.8 x 15	Me.HP	0.97	4.69	6.45	7.82	9.91
	Th.HP	0.97	4.69	6.45	7.82	9.91
	O.T.	12800	11400	10700	9920	8460
30:1 1.5 x 20	Me.HP	0.88	4.16	5.62	6.68	8.4
	Th.HP	0.88	4.16	5.62	6.68	8.4
	O.T.	12400	10900	10100	9190	7670
36:1 1.8 x 20	Me.HP	0.74	3.59	4.94	5.99	7.62
	Th.HP	0.74	3.59	4.94	5.99	7.62
	O.T.	12400	11100	10500	9840	8300
37.5:1 2.5 x 15	Me.HP	0.70	3.54	4.99	6.21	8.26
	Th.HP	0.70	3.54	4.99	6.21	8.26
	O.T.	12800	11800	11200	10800	9620
40:1 4 x 10	Me.HP	0.61	3.18	4.60	5.91	8.47
	Th.HP	0.61	3.18	4.60	5.91	8.47
	O.T.	12100	11700	11400	11100	10600
45:1 1.8 x 25	Me.HP	0.60	2.89	3.99	4.84	6.15
	Th.HP	0.60	2.89	3.99	4.84	6.15
	O.T.	11900	11100	10400	9730	8330
50:1 2.5 x 20	Me.HP	0.54	2.71	3.82	4.76	6.35
	Th.HP	0.54	2.71	3.82	4.76	6.35
	O.T.	12400	11500	11000	10600	9530
54:1 1.8 x 30	Me.HP	0.50	2.42	3.34	4.06	5.16
	Th.HP	0.50	2.42	3.34	4.06	5.16
	O.T.	11400	10400	9740	9190	8010
60:1 4 x 15	Me.HP	0.45	2.35	3.35	4.25	5.98
	Th.HP	0.45	2.35	3.35	4.25	5.98
	O.T.	12800	12300	11900	11600	10900
62.5:1 2.5 x 25	Me.HP	0.44	2.19	3.08	3.84	5.13
	Th.HP	0.44	2.19	3.08	3.84	5.13
	O.T.	11900	11300	11000	10500	9450
72:1 1.8 x 40	Me.HP	0.38	1.82	2.52	3.05	3.88
	Th.HP	0.38	1.82	2.52	3.05	3.88
	O.T.	10300	9790	9360	8840	7650
75:1 2.5 x 30	Me.HP	0.37	1.83	2.58	3.22	4.30
	Th.HP	0.37	1.83	2.58	3.22	4.30
	O.T.	11400	10700	10300	9830	8990

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	0.35	1.80	2.56	3.26	4.58
	Th.HP	0.35	1.80	2.56	3.26	4.58
	O.T.	12400	12000	11500	11200	10700
90:1 1.8 x 50	Me.HP	0.31	1.46	2.02	2.45	3.12
	Th.HP	0.31	1.46	2.02	2.45	3.12
	O.T.	9240	9360	9110	8620	7380
100:1 4 x 25	Me.HP	0.28	1.45	2.06	2.63	3.70
	Th.HP	0.28	1.45	2.06	2.63	3.70
	O.T.	11900	11600	11400	11200	10600
108:1 1.8 x 60	Me.HP	0.26	1.22	1.68	2.05	2.60
	Th.HP	0.26	1.22	1.68	2.05	2.60
	O.T.	9100	9010	8640	8180	7110
120:1 4 x 30	Me.HP	0.24	1.21	1.73	2.20	3.10
	Th.HP	0.24	1.21	1.73	2.20	3.10
	O.T.	11400	11000	10700	10500	9920
125:1 2.5 x 50	Me.HP	0.23	1.10	1.56	1.94	2.60
	Th.HP	0.23	1.10	1.56	1.94	2.60
	O.T.	9240	9370	9330	9150	8380
150:1 2.5 x 60	Me.HP	0.20	0.92	1.30	1.62	2.17
	Th.HP	0.20	0.92	1.30	1.62	2.17
	O.T.	9100	9150	8950	8700	7990
160:1 4 x 40	Me.HP	0.18	0.91	1.30	1.66	2.33
	Th.HP	0.18	0.91	1.30	1.66	2.33
	O.T.	10300	10000	9770	9800	9490
200:1 4 x 50	Me.HP	0.15	0.73	1.04	1.33	1.87
	Th.HP	0.15	0.73	1.04	1.33	1.87
	O.T.	9240	9320	9360	9380	9200
240:1 4 x 60	Me.HP	0.13	0.61	0.87	1.11	1.56
	Th.HP	0.13	0.61	0.87	1.11	1.56
	O.T.	9100	9160	9170	9030	8760

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Set screw end of hollow shaft is considered the extension end.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
2.9375*	40-S60-215	5/8 X 5/16
2.6875*	40-S60-211	5/8 X 5/16
2.4375*	40-S60-207	5/8 X 5/16
2.1875*	40-S60-203	5/8 X 5/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

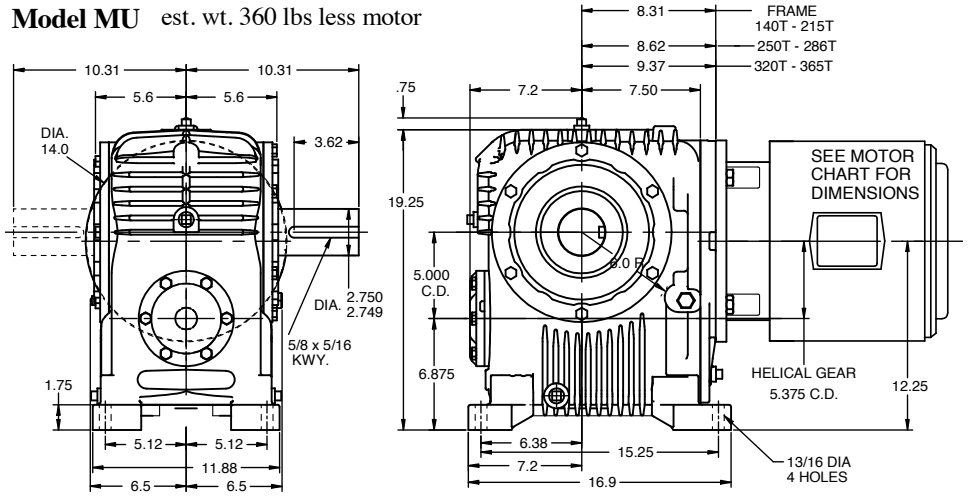
Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 5.000" C.D.

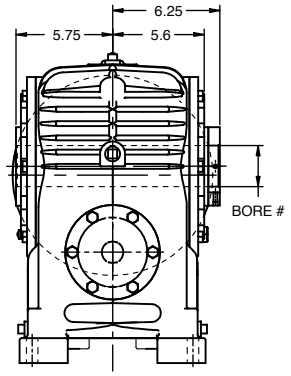
Size 50 Solid Shaft

Hollow Shaft

Model MU est. wt. 360 lbs less motor

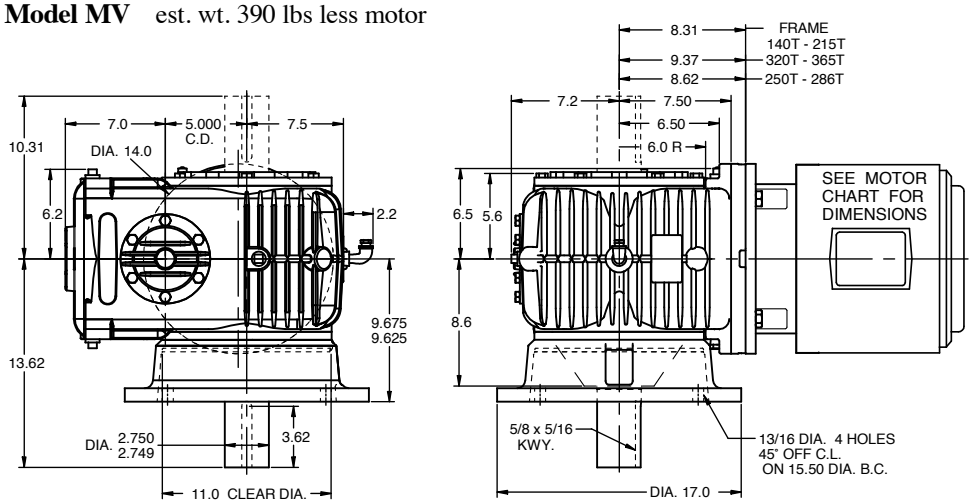


SMU est. wt. 360 lbs less motor

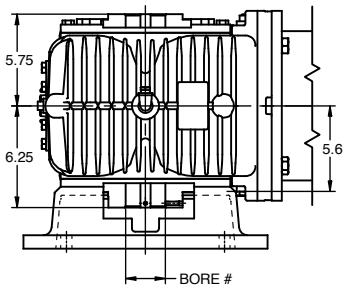


SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 390 lbs less motor



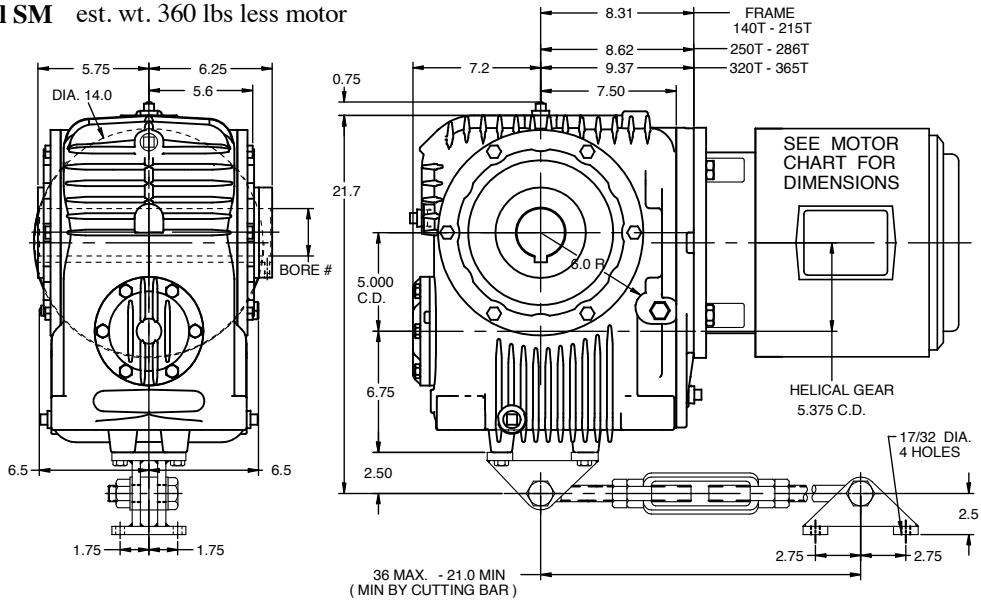
SMV est. wt. 390 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

Model SM est. wt. 360 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 50 5.375" C.D. HELICAL PRI./5.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	3.91	20.8	30.4	39.2	48.8
	Th.HP	3.91	19.8	23.7	24.2	24.8
	O.T.	11000	10300	10100	9900	8140
7.5:1 1.5 x 5	Me.HP	3.23	17.3	25.3	32.7	41.1
	Th.HP	3.23	17.3	20.3	21.4	24.8
	O.T.	13400	12800	12500	12300	10200
9:1 1.8 x 5	Me.HP	2.82	15.2	22.2	28.8	37.6
	Th.HP	2.82	15.2	18.8	20.6	24.8
	O.T.	13900	13500	13200	13000	11500
10:1 1 x 10	Me.HP	3.91	19.3	24.1	28	34.3
	Th.HP	3.91	15.1	18.3	20.2	20.5
	O.T.	20600	18400	15500	13800	11200
12.5:1 2.5 x 5	Me.HP	2.27	12.3	18.0	23.4	31.5
	Th.HP	2.27	12.3	16.7	18.4	20.5
	O.T.	15400	15100	14800	14600	13000
15:1 1.5 x 10	Me.HP	3.23	14.9	19.3	22.6	28.3
	Th.HP	3.23	12.7	14.9	17.8	20.2
	O.T.	25000	21000	18400	16400	13700
18:1 1.8 x 10	Me.HP	2.71	12.9	17.3	20.4	25.6
	Th.HP	2.71	11.3	13.7	15.7	19.8
	O.T.	25100	21800	19700	17700	14800
20:1 1 x 20	Me.HP	2.57	10.6	13.2	15.3	18.9
	Th.HP	2.57	10.6	13.0	12.7	13.1
	O.T.	24500	19000	16000	14200	11600
22.5:1 1.5 x 15	Me.HP	2.27	10.5	13.7	16.0	20.1
	Th.HP	2.27	10.5	12.9	14.3	16.9
	O.T.	25200	21400	19100	17100	14300
25:1 2.5 x 10	Me.HP	1.98	9.91	13.7	16.7	21.5
	Th.HP	1.98	9.91	11.5	13.4	17.2
	O.T.	25100	23000	21500	20000	17100
27:1 1.8 x 15	Me.HP	1.91	9.11	12.3	14.5	18.2
	Th.HP	1.91	9.11	11.0	13.0	16.2
	O.T.	25200	22100	20200	18400	15500
30:1 1.5 x 20	Me.HP	1.74	8.04	10.6	12.3	15.4
	Th.HP	1.74	8.04	10.6	12.0	13.2
	O.T.	24500	21000	19000	16900	14100
36:1 1.8 x 20	Me.HP	1.46	6.98	9.40	11.2	14
	Th.HP	1.46	6.98	9.40	11.2	12.7
	O.T.	24500	21600	20000	18300	15300
37.5:1 2.5 x 15	Me.HP	1.39	6.97	9.68	11.9	15.3
	Th.HP	1.39	6.97	9.68	10.6	13.4
	O.T.	25200	23300	21800	20500	17800
40:1 4 x 10	Me.HP	1.26	6.59	9.37	11.8	16.2
	Th.HP	1.26	6.30	8.20	9.70	11.7
	O.T.	25100	24100	23200	22200	20300
45:1 1.8 x 25	Me.HP	1.19	5.63	7.59	9.01	11.32
	Th.HP	1.19	5.63	7.59	9.01	11.3
	O.T.	23600	21600	19800	18100	15300
50:1 2.5 x 20	Me.HP	1.07	5.33	7.41	9.1	11.73
	Th.HP	1.07	5.33	7.41	9.1	11.3
	O.T.	24500	22600	21400	20300	17600
54:1 1.8 x 30	Me.HP	1.00	4.72	6.36	7.55	9.48
	Th.HP	1.00	4.72	6.36	7.55	9.48
	O.T.	22600	20200	18500	17100	14700
60:1 4 x 15	Me.HP	0.88	4.63	6.60	8.32	11.5
	Th.HP	0.88	4.63	6.60	7.80	10.3
	O.T.	25200	24300	23400	22600	20800
62.5:1 2.5 x 25	Me.HP	0.87	4.30	5.98	7.35	9.49
	Th.HP	0.87	4.30	5.98	7.35	9.49
	O.T.	23600	22400	21300	20100	17500
72:1 1.8 x 40	Me.HP	0.76	3.55	4.79	5.69	7.14
	Th.HP	0.76	3.55	4.79	5.69	7.14
	O.T.	20400	19000	17800	16500	14100
75:1 2.5 x 30	Me.HP	0.73	3.60	5.01	6.16	7.95
	Th.HP	0.73	3.60	5.01	6.16	7.95
	O.T.	22600	21000	19900	18800	16600
80:1 4 x 20	Me.HP	0.68	3.54	5.05	6.37	8.79
	Th.HP	0.68	3.54	5.05	6.37	8.79
	O.T.	24500	23600	22700	21900	20500
90:1 1.8 x 50	Me.HP	0.61	2.85	3.84	4.57	5.73
	Th.HP	0.61	2.85	3.84	4.57	5.73
	O.T.	18200	18200	17400	16100	13600
100:1 4 x 25	Me.HP	0.56	2.86	4.07	5.14	7.09
	Th.HP	0.56	2.86	4.07	5.14	7.09
	O.T.	23600	22900	22500	21900	20400
108:1 1.8 x 60	Me.HP	0.52	2.38	3.21	3.81	4.79
	Th.HP	0.52	2.38	3.21	3.81	4.79
	O.T.	17900	17500	16500	15200	13100
120:1 4 x 30	Me.HP	0.47	2.39	3.41	4.30	5.94
	Th.HP	0.47	2.39	3.41	4.30	5.94
	O.T.	22600	21800	21200	20500	19000
125:1 2.5 x 50	Me.HP	0.45	2.18	3.03	3.72	4.81
	Th.HP	0.45	2.18	3.03	3.72	4.81
	O.T.	18200	18500	18100	17500	15500
150:1 2.5 x 60	Me.HP	0.39	1.82	2.53	3.11	4.01
	Th.HP	0.39	1.82	2.53	3.11	4.01
	O.T.	17900	18000	17400	16700	14800
160:1 4 x 40	Me.HP	0.36	1.80	2.57	3.24	4.47
	Th.HP	0.36	1.80	2.57	3.24	4.47
	O.T.	20400	19800	19300	19200	18200
175:1 2.5 x 70	Me.HP	0.33	1.56	2.17	2.67	3.44
	Th.HP	0.33	1.56	2.17	2.67	3.44
	O.T.	17600	17700	17100	16400	14600
200:1 4 x 50	Me.HP	0.29	1.45	2.06	2.60	3.59
	Th.HP	0.29	1.45	2.06	2.60	3.59
	O.T.	18200	18400	18500	18300	17700
240:1 4 x 60	Me.HP	0.25	1.21	1.72	2.17	3.00
	Th.HP	0.25	1.21	1.72	2.17	3.00
	O.T.	17900	18000	18100	17600	16800
280:1 4 x 70	Me.HP	0.22	1.04	1.48	1.86	2.57
	Th.HP	0.22	1.04	1.48	1.86	2.57
	O.T.	17600	17800	17800	17400	16600

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEAR SHAFT NUMBER	KEYWAY SIZE
3.4375*	50-S60-307	5/8 X 5/16
3.1875*	50-S60-303	5/8 X 5/16
2.750	50-S60-212	5/8 X 5/16

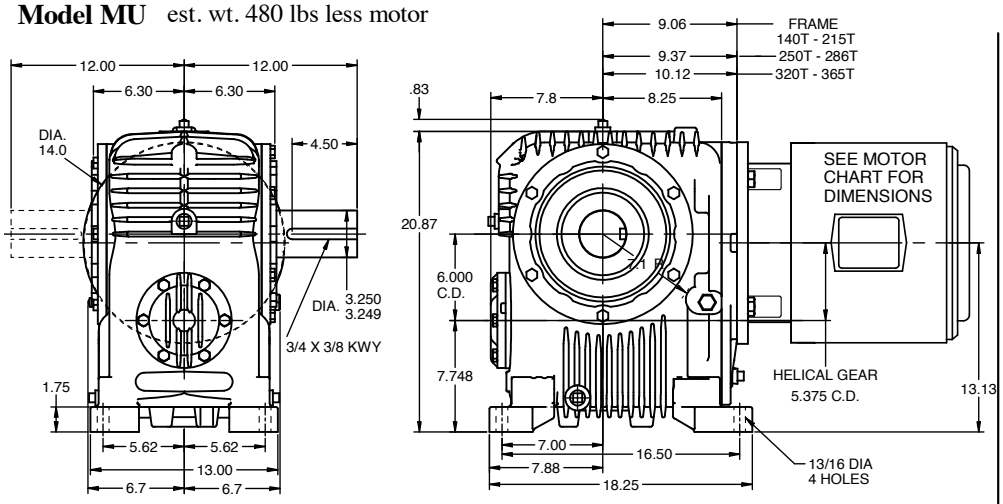
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 6.000" C.D.

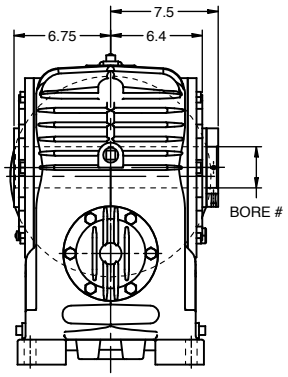
Size 60 Solid Shaft

Model MU est. wt. 480 lbs less motor



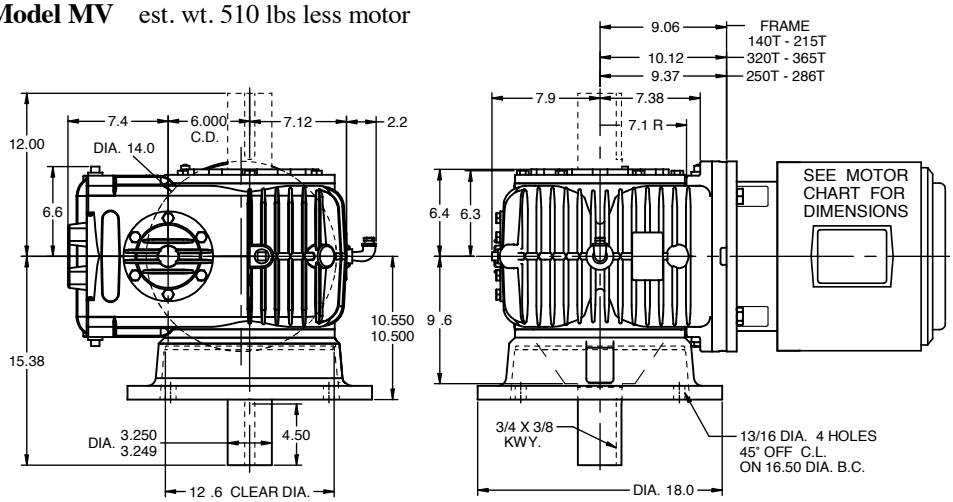
Hollow Shaft

SMU est. wt. 480 lbs less motor



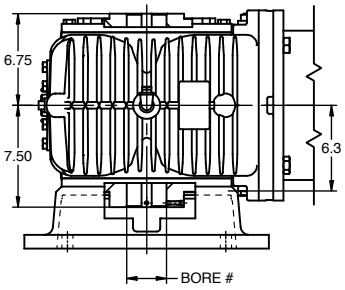
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 510 lbs less motor



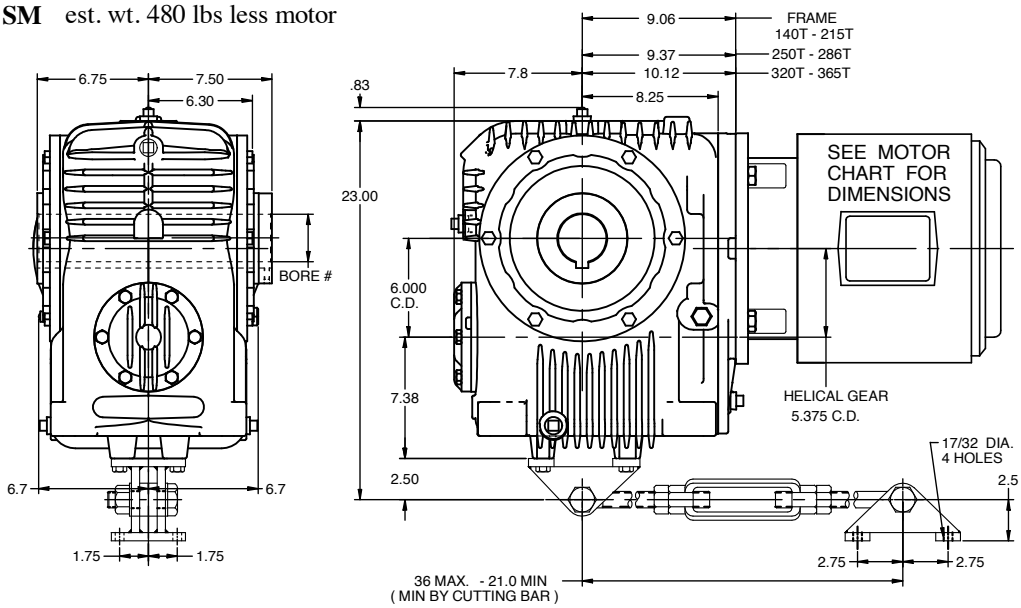
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 510 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 480 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 60 5.375" C.D. HELICAL PRI./6.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	3.91	20.8	30.4	39.2	57.4
	Th.HP	3.91	19.8	25.3	25.8	26.5
	O.T.	11000	10300	10100	9900	9580
7.5:1 1.5 x 5	Me.HP	3.23	17.3	25.3	32.7	48.1
	Th.HP	3.23	17.3	21.6	22.8	26.5
	O.T.	13400	12800	12500	12300	12000
9:1 1.8 x 5	Me.HP	2.82	15.2	22.2	28.8	42.3
	Th.HP	2.82	15.2	20.0	21.9	26.5
	O.T.	13900	13500	13200	13000	12600
10:1 1 x 10	Me.HP	3.91	20.8	30.4	39.2	47.9
	Th.HP	3.91	16.1	19.5	21.5	21.9
	O.T.	20600	19900	19500	19200	15600
12.5:1 2.5 x 5	Me.HP	2.27	12.3	18	23.4	31.1
	Th.HP	2.27	12.3	17.8	19.6	22.3
	O.T.	15400	15100	14800	14600	14100
15:1 1.5 x 10	Me.HP	3.23	17.3	25.3	32.5	40.3
	Th.HP	3.23	13.6	15.8	19.0	21.6
	O.T.	25000	24500	24100	23600	19500
18:1 1.8 x 10	Me.HP	2.82	15.2	22.2	28.8	36.9
	Th.HP	2.82	12.1	14.6	16.7	21.1
	O.T.	26100	25600	25300	25000	21300
20:1 1 x 20	Me.HP	3.91	15.2	19.0	21.9	26.4
	Th.HP	3.91	12.7	13.3	14.3	15.4
	O.T.	37300	27500	23000	20300	16200
22.5:1 1.5 x 15	Me.HP	3.23	15.6	19.8	23.1	28.7
	Th.HP	3.23	11.4	13.8	15.3	18
	O.T.	35800	31700	27600	24600	20400
25:1 2.5 x 10	Me.HP	2.27	12.3	18.0	23.4	30.9
	Th.HP	2.27	10.1	12.3	14.2	18.3
	O.T.	28700	28600	28200	27900	24600
27:1 1.8 x 15	Me.HP	2.82	13.7	17.9	20.9	26.2
	Th.HP	2.82	9.46	11.7	13.9	17.2
	O.T.	37400	33200	29600	26500	22300
30:1 1.5 x 20	Me.HP	2.67	11.9	15.2	17.7	22
	Th.HP	2.67	9.90	12.2	12.8	14
	O.T.	37500	31200	27500	24300	20100
36:1 1.8 x 20	Me.HP	2.24	10.5	13.8	16.1	20.1
	Th.HP	2.24	8.10	10.1	13.6	15.1
	O.T.	37500	32400	29300	26400	21900
37.5:1 2.5 x 15	Me.HP	2.13	10.6	14.5	17.4	22
	Th.HP	2.13	7.95	9.93	11.3	14.2
	O.T.	38600	35300	32600	30100	25600
40:1 4 x 10	Me.HP	1.45	7.47	10.8	13.8	19.8
	Th.HP	1.45	6.80	8.80	10.4	12.5
	O.T.	28700	27300	26600	25900	24800
45:1 1.8 x 25	Me.HP	1.82	8.47	11.1	13	16.3
	Th.HP	1.82	7.60	9.90	10.5	12.6
	O.T.	36100	32400	29000	26100	22000
50:1 2.5 x 20	Me.HP	1.63	8.10	11.1	13.4	16.9
	Th.HP	1.63	6.80	8.30	9.80	12.1
	O.T.	37500	34300	31900	29800	25300
54:1 1.8 x 30	Me.HP	1.52	7.09	9.31	10.9	13.6
	Th.HP	1.52	6.09	7.18	8.55	10.1
	O.T.	34500	30300	27200	24600	21200
60:1 4 x 15	Me.HP	1.35	7.1	10	12.6	16.9
	Th.HP	1.35	5.6	7.1	8.4	11
	O.T.	38600	37300	35700	34100	30700
62.5:1 2.5 x 25	Me.HP	1.33	6.54	8.95	10.8	13.6
	Th.HP	1.33	6.05	7.64	8.97	10.5
	O.T.	36100	33900	31900	29600	25100
72:1 1.8 x 40	Me.HP	1.16	5.34	7.01	8.19	10.3
	Th.HP	1.16	5.10	6.30	7.70	8.70
	O.T.	31200	28600	26100	23700	20200
75:1 2.5 x 30	Me.HP	1.12	5.48	7.5	9.05	11.4
	Th.HP	1.12	5.30	6.40	7.10	9.30
	O.T.	34500	31900	29800	27700	23900
80:1 4 x 20	Me.HP	1.04	5.43	7.69	9.62	13.0
	Th.HP	1.04	4.60	6.00	6.70	9.40
	O.T.	37500	36200	34600	33100	30300
90:1 1.8 x 50	Me.HP	0.94	4.28	5.63	6.57	8.24
	Th.HP	0.94	4.28	5.63	6.57	7.8
	O.T.	27900	27400	25400	23100	19500
100:1 4 x 25	Me.HP	0.85	4.38	6.20	7.76	10.5
	Th.HP	0.85	3.90	5.40	6.30	8.40
	O.T.	36100	35100	34200	33000	30000
108:1 1.8 x 60	Me.HP	0.79	3.58	4.70	5.49	6.88
	Th.HP	0.79	3.58	4.70	5.49	6.78
	O.T.	27500	26400	24100	21900	18800
120:1 4 x 30	Me.HP	0.72	3.67	5.20	6.50	8.77
	Th.HP	0.72	3.50	4.60	5.30	6.80
	O.T.	34500	33400	32200	31000	28100
125:1 2.5 x 50	Me.HP	0.69	3.31	4.53	5.47	6.90
	Th.HP	0.69	3.31	4.53	5.47	6.90
	O.T.	27900	28000	27100	25800	22300
150:1 2.5 x 60	Me.HP	0.59	2.76	3.78	4.57	5.77
	Th.HP	0.59	2.76	3.78	4.57	5.77
	O.T.	27500	27400	26000	24500	21200
160:1 4 x 40	Me.HP	0.56	2.76	3.91	4.89	6.60
	Th.HP	0.56	2.60	3.40	4.20	5.80
	O.T.	31200	30300	29400	28900	26900
175:1 2.5 x 70	Me.HP	0.51	2.37	3.25	3.92	4.95
	Th.HP	0.51	2.37	3.25	3.92	4.95
	O.T.	27000	27000	25600	24100	21000
200:1 4 x 50	Me.HP	0.45	2.22	3.14	3.92	5.30
	Th.HP	0.45	2.10	2.90	3.60	5.10
	O.T.	27900	28100	28100	27700	26000
240:1 4 x 60	Me.HP	0.39	1.85	2.62	3.28	4.42
	Th.HP	0.39	1.85	2.50	3.10	4.40
	O.T.	27500	27700	27600	26700	24800
280:1 4 x 70	Me.HP	0.33	1.59	2.25	2.81	3.80
	Th.HP	0.33	1.50	2.10	2.70	3.80
	O.T.	27000	27200	27200	26300	24400

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

Important: In any applications of Cone Drive products where breakage, damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

CAUTION:
It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
3.69375*	60-S60-315	3/4 X 3/8
3.4375*	60-S60-307	3/4 X 3/8
2.9375*	60-S60-215	3/4 X 3/8

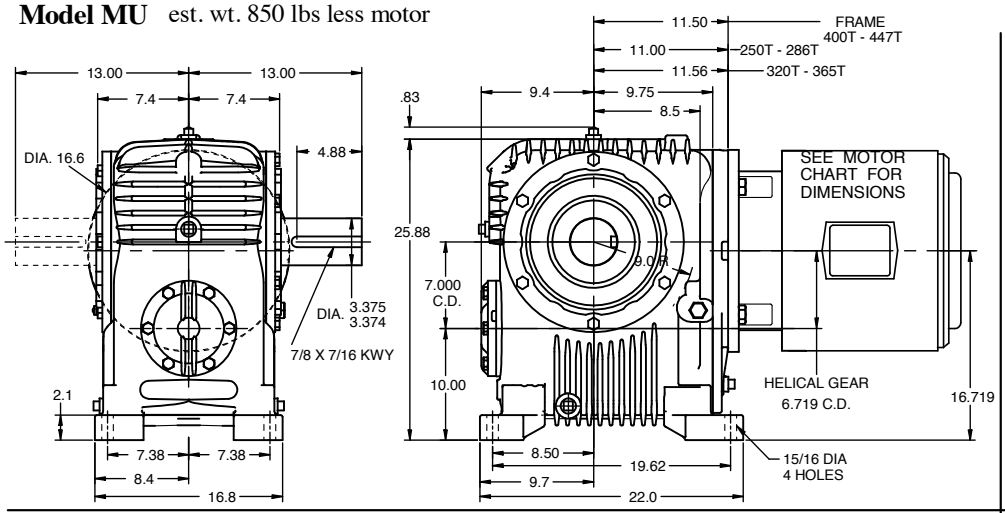
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Cone Drive Helical/Worm D-Flange Gearhead - 7.000" C.D.

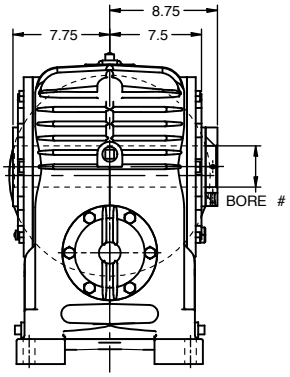
Size 70 Solid Shaft

Hollow Shaft

Model MU est. wt. 850 lbs less motor

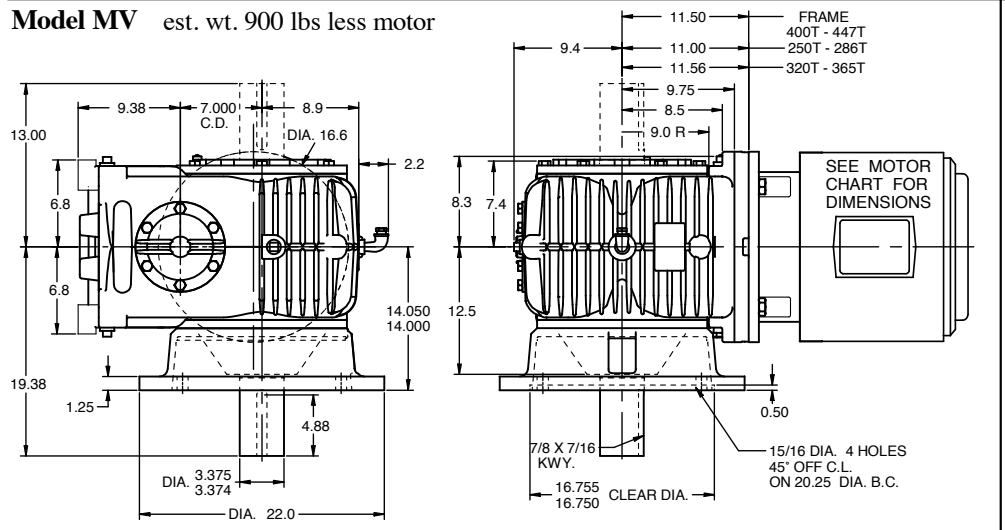


SMU est. wt. 850 lbs less motor



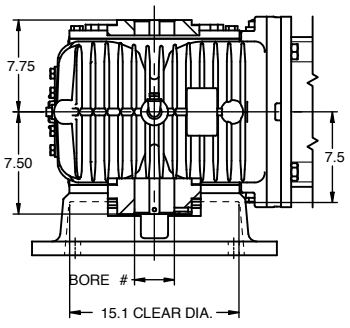
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 900 lbs less motor



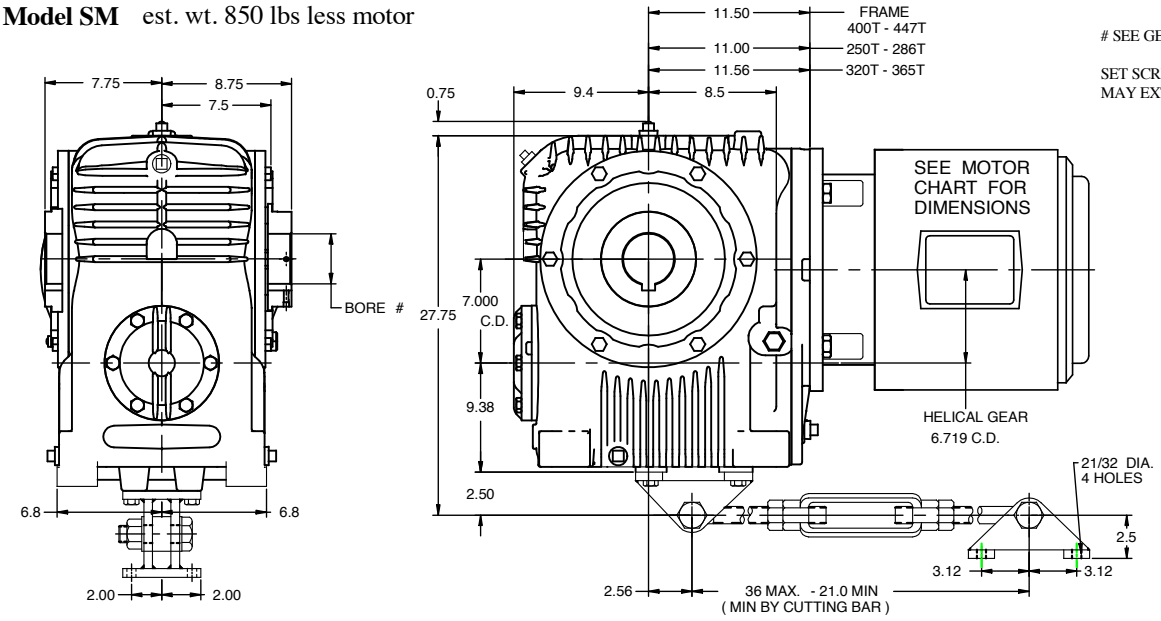
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 900 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 850 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 70 6.719" C.D. HELICAL PRI./7.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	Me.HP	9.23	48.8	70.9	86.2	99.4
	Th.HP	8.77	31.1	36.6	37.3	38.2
	O.T.	25900	24200	23600	21800	16600
7.5:1 1.5 x 5	Me.HP	7.24	38.6	56.2	71.5	86.7
	Th.HP	7.24	27.9	31.2	32.9	38.2
	O.T.	30000	28500	27900	26900	21600
9:1 1.8 x 5	Me.HP	6.67	35.7	52.0	65.1	80.5
	Th.HP	5.24	24.6	28.9	31.7	38.2
	O.T.	33000	31600	30900	29400	24000
10:1 1 x 10	Me.HP	9.23	42.4	52.7	60.5	70.6
	Th.HP	9.23	23.3	28.1	31.1	31.6
	O.T.	48500	40400	33900	29700	23000
12.5:1 2.5 x 5	Me.HP	5.37	28.9	42.3	54.2	68.4
	Th.HP	4.73	20.1	25.7	28.3	32.2
	O.T.	36400	35500	34700	33800	28200
15:1 1.5 x 10	Me.HP	7.24	33.9	42.4	49.3	61.0
	Th.HP	6.38	19.6	22.9	27.4	31.1
	O.T.	56100	47900	40400	35800	29500
18:1 1.8 x 10	Me.HP	6.57	30.0	38.5	44.7	55.7
	Th.HP	4.18	17.4	21.1	24.1	30.5
	O.T.	60600	50700	43800	38800	32100
20:1 1 x 20	Me.HP	6.21	23.2	28.9	33.2	39.1
	Th.HP	6.21	18.3	19.2	20.7	22.2
	O.T.	59200	41900	35100	30700	24000
22.5:1 1.5 x 15	Me.HP	5.50	24.1	30.2	35.1	43.5
	Th.HP	5.50	16.5	19.9	22.00	26
	O.T.	61100	49100	42100	37500	31000
25:1 2.5 x 10	Me.HP	4.80	23.5	31.6	37.4	46.9
	Th.HP	3.59	14.5	17.7	20.6	26.4
	O.T.	60600	54600	49500	44700	37300
27:1 1.8 x 15	Me.HP	4.61	21.3	27.4	31.9	39.7
	Th.HP	3.82	13.7	16.9	20.1	24.9
	O.T.	61100	51600	45300	40400	33900
30:1 1.5 x 20	Me.HP	4.22	18.5	23.2	27.0	33.4
	Th.HP	4.22	14.2	17.6	18.4	20.3
	O.T.	59200	48200	41900	37100	30500
36:1 1.8 x 20	Me.HP	3.54	16.3	21.0	24.5	30.5
	Th.HP	3.19	11.7	14.6	18.4	19.6
	O.T.	59200	50400	44800	40100	33300
37.5:1 2.5 x 15	Me.HP	3.36	16.6	22.4	26.6	33.5
	Th.HP	3.19	11.5	14.4	16.4	20.5
	O.T.	61100	55500	50500	46100	39000
40:1 4 x 10	Me.HP	3.06	16.0	22.4	27.7	36.4
	Th.HP	2.40	9.80	12.6	15.0	18.0
	O.T.	60600	58500	55300	52200	45600
45:1 1.8 x 25	Me.HP	2.87	13.2	17.0	19.8	24.7
	Th.HP	2.87	11.0	14.3	15.2	18.2
	O.T.	57000	50400	44400	39700	33400
50:1 2.5 x 20	Me.HP	2.59	12.7	17.2	20.4	25.7
	Th.HP	2.59	9.80	12.0	14.2	17.4
	O.T.	59200	53800	49500	45600	38600
54:1 1.8 x 30	Me.HP	2.41	11.0	14.3	16.6	20.7
	Th.HP	2.41	8.80	10.4	12.4	14.6
	O.T.	54700	47200	41600	37600	32200
60:1 4 x 15	Me.HP	2.14	11.2	15.8	19.6	25.9
	Th.HP	2.00	8.00	10.3	12.1	15.9
	O.T.	61100	59000	56100	53300	47000
62.5:1 2.5 x 25	Me.HP	2.11	10.3	13.9	16.5	20.8
	Th.HP	2.11	8.74	11.0	13.0	15.1
	O.T.	57000	53300	49500	45200	38300
72:1 1.8 x 40	Me.HP	1.84	8.31	10.7	12.5	15.6
	Th.HP	1.84	7.40	9.10	11.1	12.6
	O.T.	49400	44600	39900	36100	30700
75:1 2.5 x 30	Me.HP	1.77	8.61	11.7	13.9	17.4
	Th.HP	1.77	7.70	9.30	10.3	13.4
	O.T.	54700	50200	46300	42300	36400

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
80:1 4 x 20	Me.HP	1.65	8.60	12.1	15.0	19.9
	Th.HP	1.58	6.70	8.60	9.90	13.6
	O.T.	59200	57300	54400	51600	46400
90:1 1.8 x 50	Me.HP	1.48	6.67	8.61	10.0	12.5
	Th.HP	1.48	6.40	8.40	9.90	11.2
	O.T.	44100	42700	38900	35300	29600
100:1 4 x 25	Me.HP	1.35	6.93	9.75	12.1	16.1
	Th.HP	1.30	5.70	7.70	9.10	12.2
	O.T.	57000	55600	53700	51700	46100
108:1 1.8 x 60	Me.HP	1.25	5.57	7.19	8.37	10.5
	Th.HP	1.22	5.30	6.98	8.31	9.79
	O.T.	43400	41000	36900	33500	28600
120:1 4 x 30	Me.HP	1.13	5.81	8.17	10.2	13.5
	Th.HP	1.13	5.00	6.60	7.70	9.90
	O.T.	54700	52900	50700	48400	43200
125:1 2.5 x 50	Me.HP	1.10	5.20	7.04	8.38	10.5
	Th.HP	1.10	5.09	6.60	7.85	10.1
	O.T.	44100	44100	42100	39400	34000
150:1 2.5 x 60	Me.HP	0.93	4.34	5.88	6.99	8.79
	Th.HP	0.93	4.34	5.88	6.99	8.79
	O.T.	43400	43000	40400	37500	32400
160:1 4 x 40	Me.HP	0.88	4.37	6.14	7.65	10.1
	Th.HP	0.88	3.80	5.00	6.10	8.30
	O.T.	49400	47900	46200	45200	41300
175:1 2.5 x 70	Me.HP	0.80	3.72	5.04	6.00	7.55
	Th.HP	0.80	3.72	5.04	6.00	7.55
	O.T.	42700	42400	39800	36900	32000
200:1 4 x 50	Me.HP	0.71	3.51	4.93	6.14	8.14
	Th.HP	0.71	3.00	4.20	5.20	7.30
	O.T.	44100	44600	44200	43300	40000
240:1 4 x 60	Me.HP	0.61	2.93	4.12	5.13	6.80
	Th.HP	0.61	2.50	3.60	4.40	6.40
	O.T.	43400	43800	43300	41700	38100
280:1 4 x 70	Me.HP	0.53	2.51	3.53	4.4	5.84
	Th.HP	0.53	2.10	3.00	3.90	5.80
	O.T.	42700	43100	42700	41100	37500

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

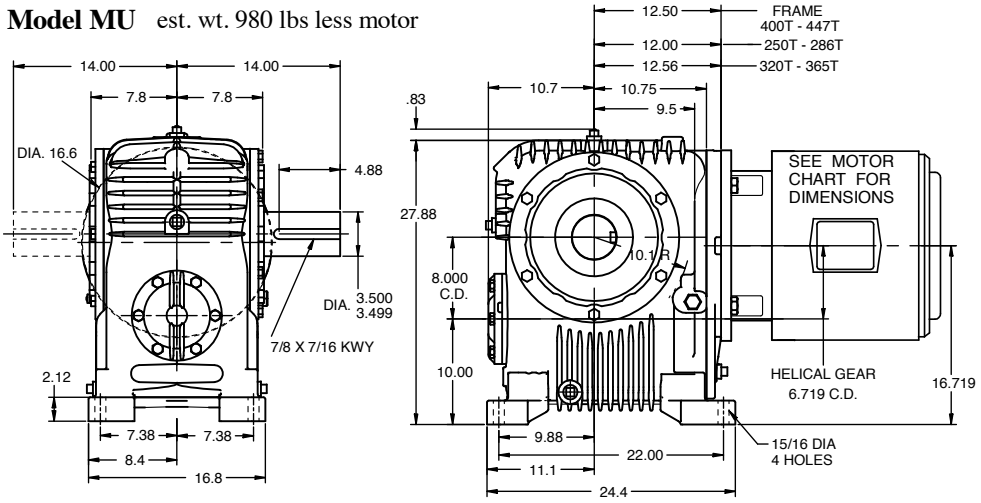
Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

Important: In any applications of Cone Drive products where breakage,damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 8.000" C.D.

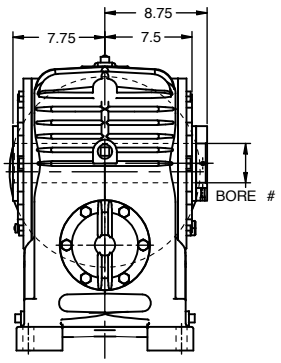
Size 80 Solid Shaft

Model MU est. wt. 980 lbs less motor



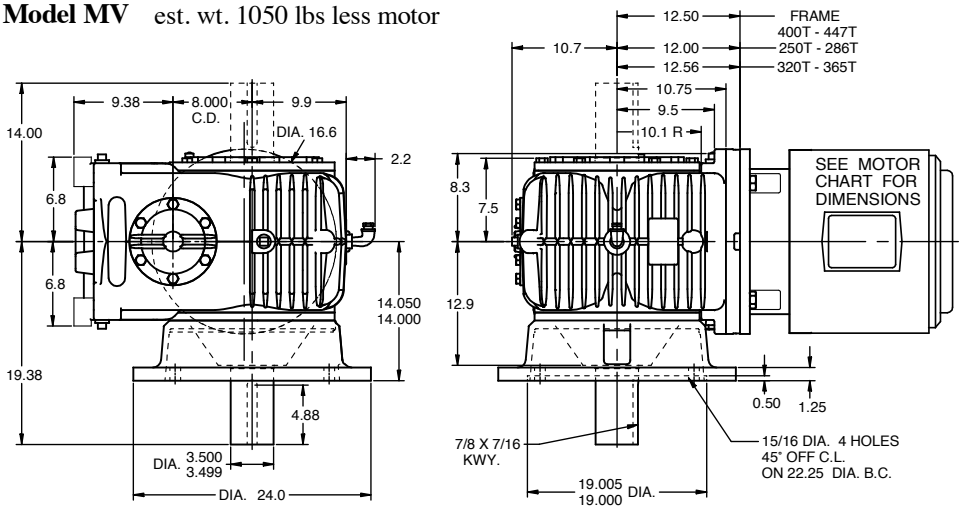
Hollow Shaft

SMU est. wt. 980 lbs less motor



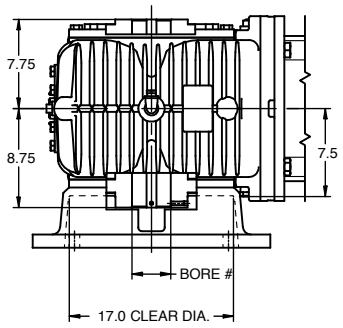
SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model MV est. wt. 1050 lbs less motor



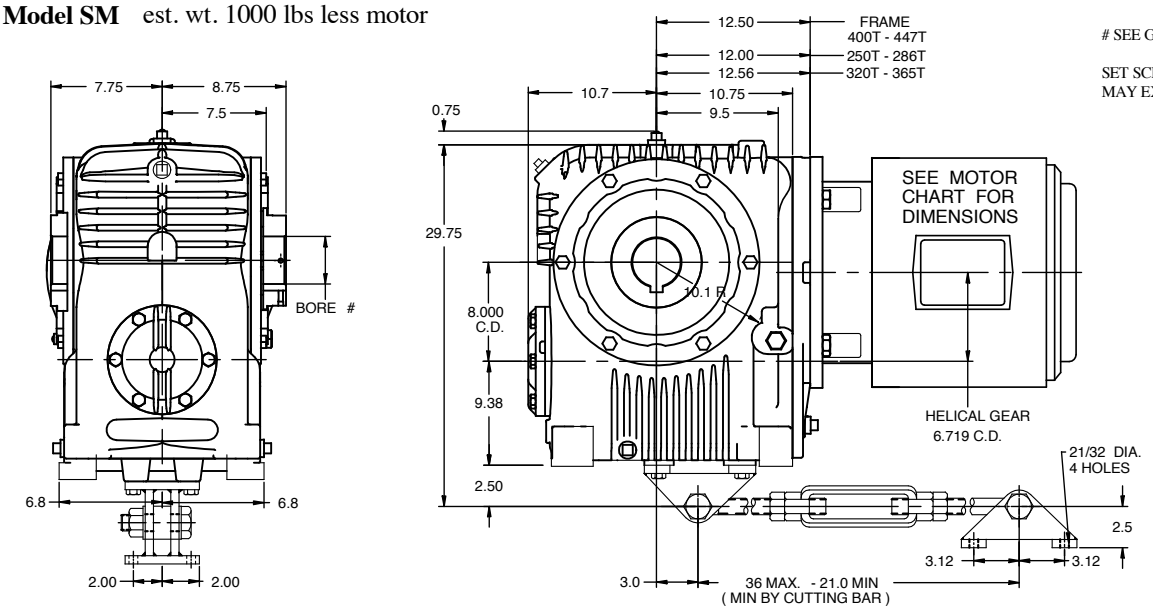
SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

SMV est. wt. 1050 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 1000 lbs less motor



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

UNIT CAN BE SUPPLIED
WITH SOLID SHAFT,
CONTACT CONE DRIVE

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 80 6.719" C.D. HELICAL PRI./8.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
5:1 1 x 5	Me.HP	9.23	48.8	70.9	91.4	134
	Th.HP	8.77	33.4	39.2	40.0	41.0
	O.T.	25900	24200	23600	23100	22300
7.5:1 1.5 x 5	Me.HP	7.24	38.6	56.2	72.6	106
	Th.HP	7.03	29.9	33.5	35.3	41.0
	O.T.	30000	28500	27900	27300	26400
9:1 1.8 x 5	Me.HP	6.67	35.7	52.0	67.2	98.6
	Th.HP	5.61	26.4	31.0	33.9	41.0
	O.T.	33000	31600	30900	30300	29400
10:1 1 x 10	Me.HP	9.23	48.8	70.9	87.8	102
	Th.HP	8.77	25.0	30.1	33.3	33.9
	O.T.	48500	46500	45600	43100	33200
12.5:1 2.5 x 5	Me.HP	5.37	28.9	42.3	54.2	77.1
	Th.HP	5.37	21.5	27.5	30.4	34.5
	O.T.	36400	35500	34700	33800	31800
15:1 1.5 x 10	Me.HP	7.24	38.6	56.2	71.9	88.3
	Th.HP	6.84	21.0	24.5	29.4	33.4
	O.T.	56100	54500	53500	52300	42700
18:1 1.8 x 10	Me.HP	6.67	35.7	52.0	65.2	81.0
	Th.HP	4.48	18.7	22.6	25.9	32.7
	O.T.	61600	60100	59200	56600	46800
20:1 1 x 20	Me.HP	9.23	34.0	42.2	48.5	56.4
	Th.HP	6.88	19.7	20.6	22.2	23.9
	O.T.	88000	61300	51200	44900	34600
22.5:1 1.5 x 15	Me.HP	7.24	35.4	44.2	51.4	63.4
	Th.HP	6.04	17.7	21.3	23.6	27.9
	O.T.	80400	72100	61500	54900	45200
25:1 2.5 x 10	Me.HP	5.37	28.9	42.3	54.2	68.5
	Th.HP	3.85	15.6	19.0	22.1	28.3
	O.T.	67900	67100	66200	64800	54400
27:1 1.8 x 15	Me.HP	6.67	31.4	40.1	46.6	58.0
	Th.HP	4.10	14.7	18.1	21.5	26.7
	O.T.	88300	76200	66300	59100	49500
30:1 1.5 x 20	Me.HP	6.29	27.1	34.0	39.5	48.8
	Th.HP	5.30	15.3	18.9	19.8	21.7
	O.T.	88500	70900	61300	54200	44500
36:1 1.8 x 20	Me.HP	5.29	24.1	30.8	35.8	44.5
	Th.HP	3.43	12.5	15.7	21.0	22.0
	O.T.	88500	74400	65600	58700	48600
37.5:1 2.5 x 15	Me.HP	5.02	24.7	33.1	39.0	48.9
	Th.HP	3.42	12.3	15.4	17.6	22.0
	O.T.	91200	82400	74500	67600	57000
40:1 4 x 10	Me.HP	3.36	17.1	24.6	31.3	44.9
	Th.HP	2.58	11.8	14.4	17.2	20.2
	O.T.	66600	62700	60700	59000	56300
45:1 1.8 x 25	Me.HP	4.29	19.5	24.9	28.9	36.0
	Th.HP	3.04	11.8	15.4	16.3	19.5
	O.T.	85200	74500	65100	58100	48800
50:1 2.5 x 20	Me.HP	3.86	18.9	25.4	30.0	37.6
	Th.HP	2.89	10.5	12.9	15.2	18.7
	O.T.	88500	79900	73000	66900	56400
54:1 1.8 x 30	Me.HP	3.60	16.3	20.9	24.3	30.2
	Th.HP	2.75	9.44	11.1	13.2	15.6
	O.T.	81600	69800	60900	55000	47000
60:1 4 x 15	Me.HP	3.19	16.8	23.5	29	37.9
	Th.HP	2.15	8.6	11	12.9	17.1
	O.T.	91200	88100	83400	78800	68900
62.5:1 2.5 x 25	Me.HP	3.15	15.3	20.5	24.2	30.4
	Th.HP	2.54	9.37	11.8	13.9	16.2
	O.T.	85200	79200	72900	66300	56000
72:1 1.8 x 40	Me.HP	2.74	12.3	15.7	18.3	22.8
	Th.HP	2.30	7.90	9.80	11.9	13.5
	O.T.	73800	65900	58600	52900	44900
75:1 2.5 x 30	Me.HP	2.64	12.8	17.2	20.3	25.5
	Th.HP	1.98	8.20	10.0	11.10	14.4
	O.T.	81600	74600	68300	62100	53300

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM				
		100	580	870	1150	1750
80:1 4 x 20	Me.HP	2.46	12.8	18.0	22.3	29.1
	Th.HP	1.69	7.20	9.20	10.3	14.6
	O.T.	88500	85500	80900	76500	68000
90:1 1.8 x 50	Me.HP	2.21	9.86	12.6	14.7	18.3
	Th.HP	1.62	6.90	9.00	10.6	12.1
	O.T.	65900	63100	57000	51600	43300
100:1 4 x 25	Me.HP	2.02	10.4	14.5	18.0	23.5
	Th.HP	1.39	6.10	8.30	9.70	13.1
	O.T.	85200	83100	80000	76500	67600
108:1 1.8 x 60	Me.HP	1.87	8.24	10.6	12.3	15.3
	Th.HP	1.31	5.68	7.72	9.08	10.5
	O.T.	64900	60700	54100	49000	41700
120:1 4 x 30	Me.HP	1.69	8.68	12.2	15.1	19.8
	Th.HP	1.23	5.40	7.1	8.30	10.6
	O.T.	81600	78900	75400	71800	63300
125:1 2.5 x 50	Me.HP	1.64	7.72	10.4	12.3	15.4
	Th.HP	1.54	5.45	7.07	8.42	10.8
	O.T.	65900	65500	62100	57800	49700
150:1 2.5 x 60	Me.HP	1.40	6.45	8.66	10.3	12.9
	Th.HP	1.31	4.64	6.35	7.39	9.46
	O.T.	64900	63900	59600	55000	47400
160:1 4 x 40	Me.HP	1.31	6.53	9.15	11.3	14.9
	Th.HP	0.96	4.00	5.40	6.50	9.00
	O.T.	73800	71600	68700	67100	60600
175:1 2.5 x 70	Me.HP	1.2	5.53	7.43	8.8	11.1
	Th.HP	1.15	4.20	6.20	7.20	9.3
	O.T.	63800	63000	58600	54200	46800
200:1 4 x 50	Me.HP	1.06	5.24	7.34	9.10	11.9
	Th.HP	0.79	3.20	4.50	5.60	7.80
	O.T.	65900	66600	65800	64200	58700
240:1 4 x 60	Me.HP	0.92	4.37	6.13	7.6	9.97
	Th.HP	0.72	2.70	3.80	4.70	6.90
	O.T.	64900	65400	64500	61800	55900
280:1 4 x 70	Me.HP	0.79	3.75	5.26	6.52	8.56
	Th.HP	0.69	2.30	3.20	4.20	6.30
	O.T.	63800	64400	63500	60900	55000

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

VM & SVM units supplied with special footbrackets which provides a vertical input and a horizontal output shaft reducer follow in this section.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
4.4375*	80-S60-407	1 X 1/2
3.9375*	80-S60-315	1 X 1/2

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.003, -.000
2 set screws at long end of shaft.

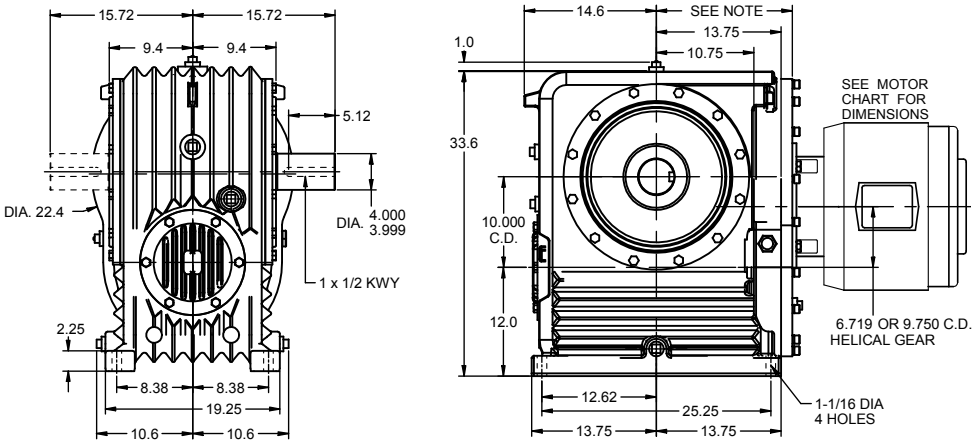
Important: In any applications of Cone Drive products where breakage,damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D-Flange Gearhead - 10.000" C.D.

Size 100 Solid Shaft

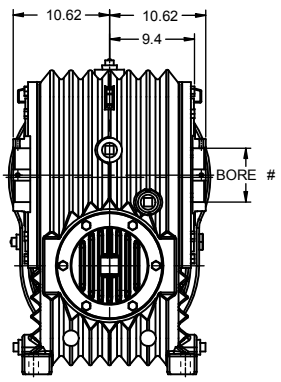
Model MU est. wt. 1600 lbs less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



Hollow Shaft

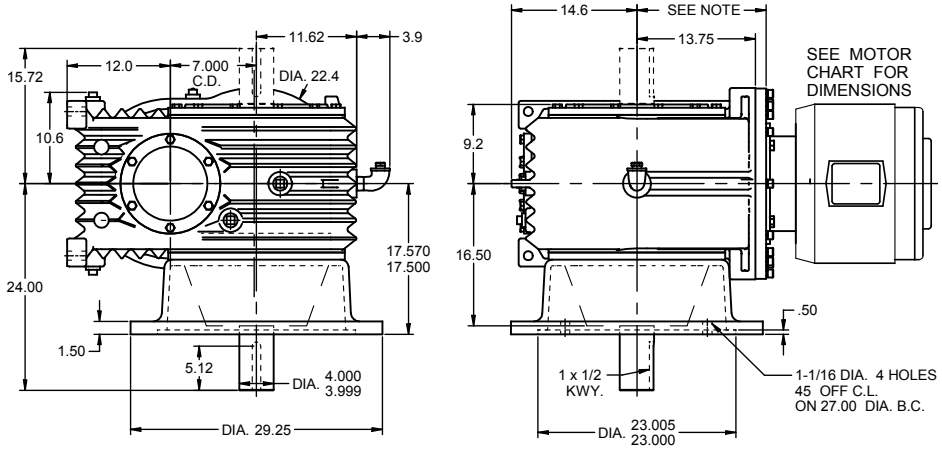
SMU est. wt. 1600 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

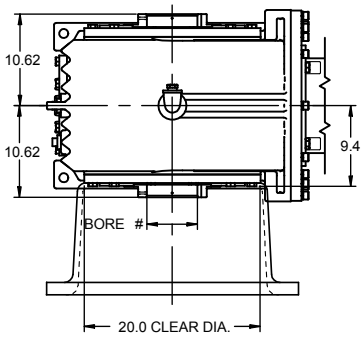
Model MV est. wt. 1675 lbs less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



SOLID OUTPUT SHAFT MAY EXTEND ON EITHER SIDE OR BE DOUBLE EXTENDED.

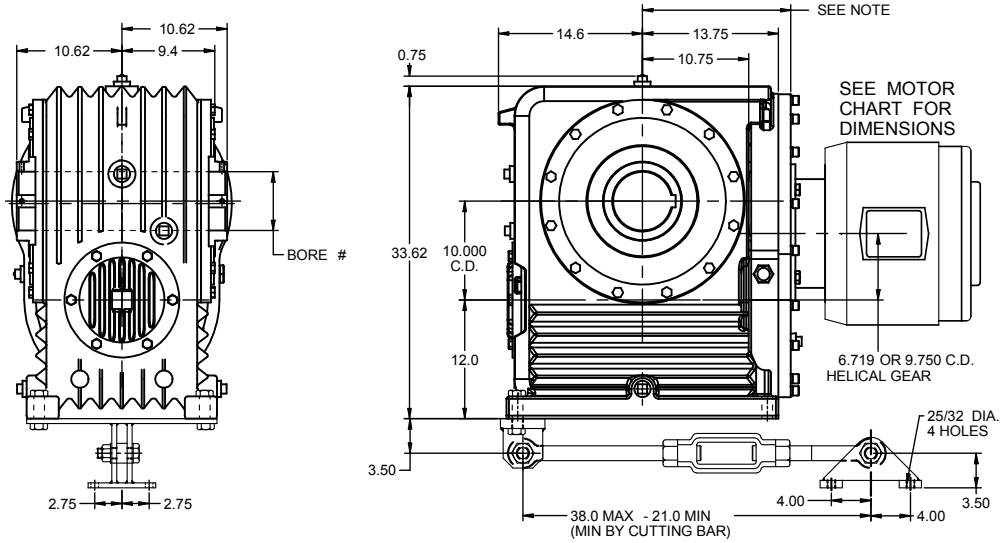
SMV est. wt. 1675 lbs less motor



SEE GEAR SHAFT CHART
SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

Model SM est. wt. 1650 lbs less motor

100 - 9.750 C.D. HELICALS
100 L - 6.719 C.D. HELICALS



SEE GEAR SHAFT CHART

SET SCREW END OF SHAFT
MAY EXTEND ON EITHER SIDE

NOTE: HOLLOW SHAFT IS DOUBLE EXTENDED.

UNIT CAN BE SUPPLIED WITH SOLID SHAFT, CONTACT CONE DRIVE

TORQUE ARM BRACKET CAN BE MOUNTED ON EITHER END OF HOUSING.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D-Flange Gearhead

Size 100 6.719" or 9.750"C.D. HELICAL PRI./10.000" C.D. WORM GEAR SEC.

AGMA HORSEPOWER & OUTPUT TORQUE RATINGS FOR 1.0 SERVICE FACTOR

UNITS WITH 9.750" C.D. HELICALS*

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
20:1 4 x 5	**Me.HP**	**9.23**	**48.8**	**70.9**	**82.3**	**94.7**
	Th.HP	8.30	24.1	25.3	27.4	29.7
	O.T.	**90200**	**90000**	**88100**	**77900**	**59500**
30:1 1.5 x 20	**Me.HP**	**7.24**	**38.6**	**56.2**	**68.5**	**82.8**
	Th.HP	6.40	18.5	23.2	24.3	26.9
	O.T.	**104000**	**103000**	**104000**	**96300**	**77300**
45:1 1.8 x 25	**Me.HP**	**6.67**	**34.8**	**43.4**	**50.5**	**62.2**
	Th.HP	3.60	14.1	18.7	19.8	24.0
	O.T.	**136000**	**136000**	**116000**	**104000**	**86100**
50:1 2.5 x 20	**Me.HP**	**5.37**	**28.9**	**42.3**	**52.3**	**65.5**
	Th.HP	3.50	12.6	15.5	18.5	22.9
	O.T.	**126000**	**125000**	**125000**	**119000**	**101000**
54:1 1.8 x 30	**Me.HP**	**6.67**	**29.2**	**36.5**	**42.3**	**52.2**
	Th.HP	3.30	11.4	13.5	16.3	19.3
	O.T.	**156000**	**128000**	**109000**	**98400**	**83000**
62.5:1 2.5 x 25	**Me.HP**	**5.37**	**28.0**	**36.3**	**42.3**	**52.9**
	Th.HP	3.00	11.4	14.6	17.3	20.3
	O.T.	**149000**	**149000**	**132000**	**119000**	**99900**
72:1 1.8 x 40	**Me.HP**	**5.15**	**22.0**	**27.5**	**31.9**	**39.3**
	Th.HP	2.70	9.20	11.5	14.1	16.0
	O.T.	**143000**	**121000**	**105000**	**94700**	**79400**
75:1 2.5 x 30	**Me.HP**	**4.95**	**23.4**	**30.5**	**35.5**	**44.4**
	Th.HP	2.30	9.70	11.7	13.1	17.3
	O.T.	**158000**	**140000**	**124000**	**111000**	**95200**
90:1 1.8 x 50	**Me.HP**	**4.15**	**17.6**	**22.0**	**25.6**	**31.6**
	Th.HP	1.90	8.00	10.6	12.5	14.2
	O.T.	**128000**	**116000**	**102000**	**92500**	**76700**
100:1 4 x 25	**Me.HP**	**3.36**	**17.1**	**24.6**	**31.3**	**41.2**
	Th.HP	1.60	7.10	9.80	11.6	15.7
	O.T.	**146000**	**141000**	**139000**	**137000**	**121000**
108:1 1.8 x 60	**Me.HP**	**3.51**	**14.7**	**18.4**	**21.4**	**26.4**
	Th.HP	1.50	6.70	9.20	10.9	12.6
	O.T.	**126000**	**112000**	**97200**	**87900**	**74000**
120:1 4 x 30	**Me.HP**	**3.17**	**16.2**	**22.4**	**27.1**	**34.5**
	Th.HP	1.40	6.30	8.30	9.70	12.5
	O.T.	**158000**	**152000**	**142000**	**133000**	**114000**
125:1 2.5 x 50	**Me.HP**	**3.07**	**14.2**	**18.4**	**21.5**	**26.9**
	Th.HP	1.80	6.50	8.40	10.1	13.1
	O.T.	**128000**	**124000**	**113000**	**104000**	**89100**
150:1 2.5 x 60	**Me.HP**	**2.61**	**11.8**	**15.4**	**17.9**	**22.5**
	Th.HP	1.50	5.50	7.50	8.80	11.4
	O.T.	**126000**	**121000**	**109000**	**98900**	**85100**
160:1 4 x 40	**Me.HP**	**2.46**	**12.2**	**16.8**	**20.4**	**26.0**
	Th.HP	1.10	4.70	5.90	7.60	10.5
	O.T.	**143000**	**138000**	**130000**	**124000**	**109000**
175:1 2.5 x 70	**Me.HP**	**2.25**	**10.2**	**13.2**	**15.4**	**19.3**
	Th.HP	1.60	4.80	7.10	8.40	10.9
	O.T.	**124000**	**119000**	**107000**	**97500**	**84000**
200:1 4 x 50	**Me.HP**	**1.99**	**9.79**	**13.5**	**16.4**	**20.9**
	Th.HP	0.90	3.70	5.20	6.50	9.10
	O.T.	**128000**	**128000**	**125000**	**119000**	**106000**
240:1 4 x 60	**Me.HP**	**1.71**	**8.17**	**11.3**	**13.7**	**17.4**
	Th.HP	0.80	3.10	4.40	5.40	8.00
	O.T.	**126000**	**126000**	**122000**	**115000**	**101000**
280:1 4 x 70	**Me.HP**	**1.48**	**7.01**	**9.67**	**11.8**	**15.0**
	Th.HP	0.80	2.60	3.70	4.80	7.20
	O.T.	**124000**	**125000**	**121000**	**113000**	**99200**

UNITS WITH 9.750" C.D. HELICALS*

TOTAL RATIO PRIMARY X SECONDARY		INPUT RPM 100	580	870	1150	1750
5:1 1 x 5	**Me.HP**	**34.9**	**151**	**182**	**199**	**231**
	Th.HP	16.3	44.5	53.2	54.3	55.7
	O.T.	**102000**	**78200**	**63000**	**52200**	**40200**
7.5:1 1.5 x 5	**Me.HP**	**28.4**	**124**	**153**	**174**	**201**
	Th.HP	11.0	39.8	44.6	47.1	55.7
	O.T.	**120000**	**93500**	**77400**	**66900**	**51100**
9:1 1.8 x 5	**Me.HP**	**25.4**	**112**	**139**	**160**	**189**
	Th.HP	7.10	35.2	41.3	45.2	55.7
	O.T.	**128000**	**102000**	**84600**	**73800**	**57500**
10:1 1 x 10	**Me.HP**	**31.8**	**107**	**131**	**148**	**170**
	Th.HP	12.2	31.6	39.0	43.7	44.4
	O.T.	**174000**	**106000**	**88000**	**75500**	**57800**
12.5:1 2.5 x 5	**Me.HP**	**20.6**	**94.2**	**118**	**137**	**169**
	Th.HP	6.50	28.2	36.7	40.4	46.0
	O.T.	**142000**	**117000**	**98100**	**86500**	**70500**
15:1 1.5 x 10	**Me.HP**	**21.9**	**87.0**	**108**	**125**	**149**
	Th.HP	8.50	26.4	31.1	38.0	43.8
	O.T.	**174000**	**126000**	**105000**	**92600**	**73700**
18:1 1.8 x 10	**Me.HP**	**18.4**	**78.6**	**98.0**	**114**	**139**
	Th.HP	5.50	23.4	28.6	33.1	42.9
	O.T.	**174000**	**136000**	**114000**	**101000**	**82200**
22.5:1 1.5 x 15	**Me.HP**	**15.4**	**62.0**	**77.1**	**89.0**	**107**
	Th.HP	7.40	21.7	26.6	29.6	35.7
	O.T.	**175000**	**129000**	**110000**	**97300**	**78200**
25:1 2.5 x 10	**Me.HP**	**13.6**	**64.2**	**82.8**	**96.2**	**120**
	Th.HP	4.70	19.4	23.8	27.9	36.7
	O.T.	**174000**	**151000**	**131000**	**117000**	**96800**
27:1 1.8 x 15	**Me.HP**	**12.9**	**56.0**	**69.9**	**81.2**	**99.8**
	Th.HP	5.00	18.4	23.0	27.7	35.0
	O.T.	**175000**	**139000**	**118000**	**105000**	**87000**
36:1 1.8 x 20	**Me.HP**	**9.93**	**43.0**	**53.7**	**62.4**	**76.8**
	Th.HP	4.10	15.0	19.0	25.8	26.0
	O.T.	**170000**	**136000**	**117000**	**105000**	**85700**
37.5:1 2.5 x 15	**Me.HP**	**9.50**	**45.5**	**58.9**	**68.6**	**85.8**
	Th.HP	4.20	15.4	19.4	22.3	28.3
	O.T.	**175000**	**154000**	**135000**	**121000**	**101000**
40:1 4 x 10	**Me.HP**	**8.56**	**44.4**	**60.9**	**73.6**	**92.9**
	Th.HP	3.10	12.9	16.9	20.2	24.3
	O.T.	**174000**	**166000**	**154000**	**142000**	**119000**
60:1 4 x 15	**Me.HP**	**59.9**	**31.3**	**43.1**	**52.2**	**65.3**
	Th.HP	2.60	10.4	13.3	15.8	21.1
	O.T.	**175000**	**168000**	**157000**	**145000**	**123000**
80:1 4 x 20	**Me.HP**	**4.62**	**24.0**	**33.0**	**40.1**	**50.9**
	Th.HP	2.00	8.50	11.0	12.9	17.7
	O.T.	**170000**	**164000**	**152000**	**141000**	**122000**

Me.HP = Mechanical horsepower Th.HP = Thermal horsepower

O.T. = Output torque in Lb. in.

STANDARD HOLLOW GEAR SHAFTS		
BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
5.9375	100-S61-515	1-1/4 X 7/16

Special hollow gear shaft bore sizes are available at additional cost.
*AGMA Standard
Bore Tolerance: +.004, -.000
2 set screws at long end of shaft.

CAUTION: It is the purchaser's or user's responsibility to guard all shafting in accordance with current local, state or federal requirements.

Notes:

For motor data refer to pages 71 and 72.

All MV units having shaft extended thru base side will be supplied with a steeple bearing mounting on base side, unless otherwise specified.

Steeple bearing arrangements follow in this section.

All units can be supplied with fan cooling.

When specified each unit can be supplied with a worm shaft extension located opposite the input end.

When specified, units can be supplied with water cooling coils in oil sump.

Unless otherwise specified, all reducers are supplied with a right hand helix worm gear set.

Reducers are designed for shaft rotation in either direction.

For cap and carrier dimensions not shown see mounting section.

For output shaft chain pull capacity, see single reduction rating chart for size unit required. Determine worm speed by dividing input speed by helical gear ratio.

Refer to page 26 for lubrication information, efficiency, and service factors.

Reducers may be used in floor, ceiling, or wall mounted positions, however, they must be ordered for the position required so that suitable oil level, grease fittings, filler and drains are provided.

Hand of assembly and mounting position diagrams follow in this section.

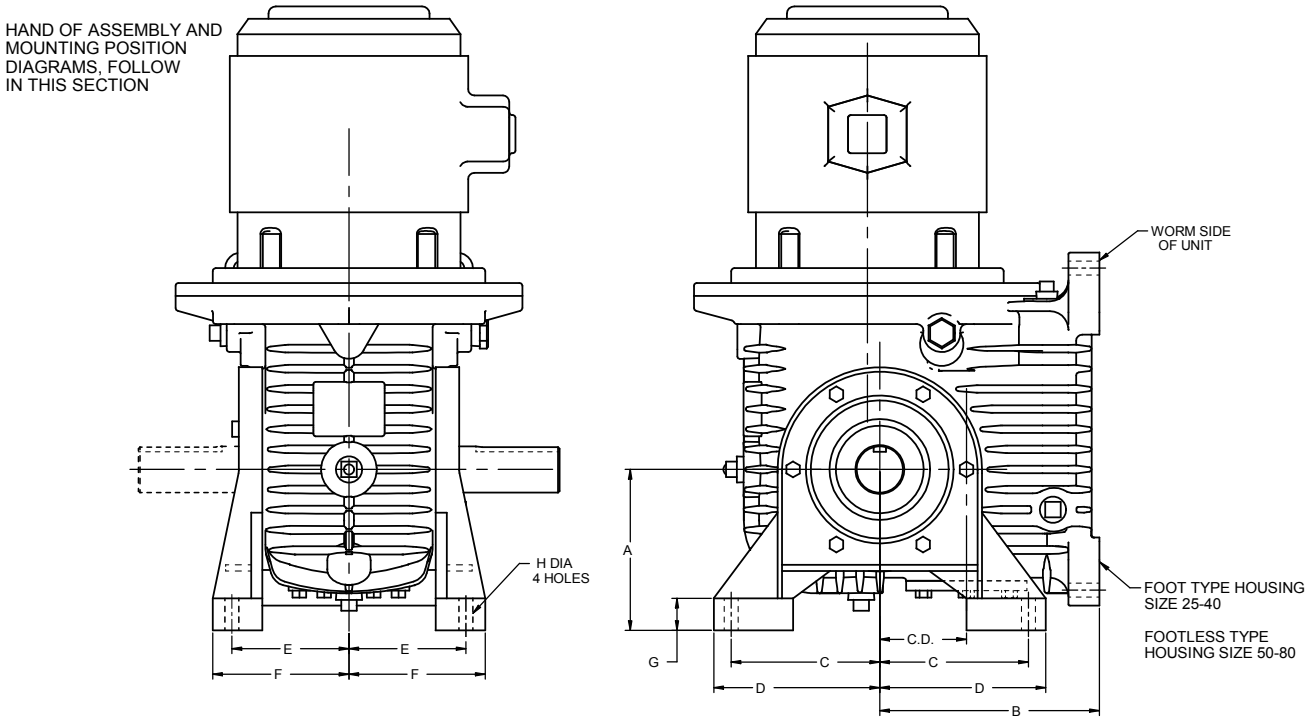
* Available at additional cost.

Important: In any applications of Cone Drive products where breakage,damage, disconnection, any other malfunction of any drive train component, or excessive wear could result in personal injury or property damage, a fail-safe device capable of stopping and holding the load in the event of such an occurrence must be incorporated after the drive train.

Cone Drive Helical/Worm D Flange Gearhead

Sizes 25 thru 80

Models VR & SVM Input Vertical-Horizontal Output Shaft
Special Foot Brackets

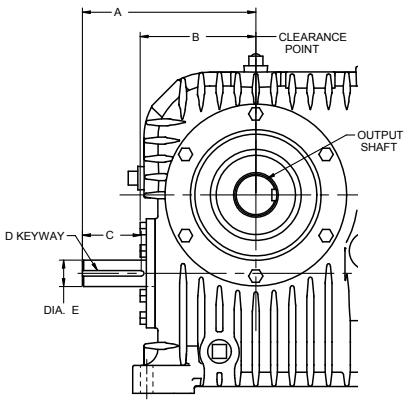


MODEL AVAILABLE IN ALL SOLID AND HOLLOW OUTPUT SHAFT CONFIGURATIONS.
FOR ALL OTHER DIMENSIONS REFER TO CORRESPONDING SIZE MODEL SM OR MU.

Reducer Size	Center Distance	A	B	C	D	E	F	G	H
25	2.500	4.50	6.25	4.25	4.8	4.75	5.4	0.9	15/32
30	3.000	5.50	7.75	5.00	5.7	5.25	5.9	1.2	9/16
35	3.500	6.50	8.87	6.00	6.7	6.50	7.2	1.3	9/16
40	4.000	7.50	10.00	6.75	7.6	7.75	8.6	1.5	11/16
50	5.000	8.50	11.8	7.50	8.4	8.25	9.2	1.8	13/16
60	6.000	8.50	13.4	8.25	9.1	9.00	9.9	1.5	13/16
70	7.000	13.75	16.4	10.00	11.3	9.75	10.8	1.5	15/16
80	8.000	15.50	17.4	11.50	12.8	10.30	11.3	1.8	15/16

Worm Extension Opposite Reducer Input

Reducer Size	Center Distance	A	B	C	D	E
25	2.500	5.25	3.8	1.00	3/16 x 3/32	0.750
30	3.000	6.69	4.6	1.75	1/4 x 1/8	1.000
35	3.500	7.75	5.2	2.62	1/4 x 1/8	1.1875
40	4.000	9.31	6.1	2.75	3/8 x 3/16	1.500
50	5.000	10.50	7.2	2.75	3/8 x 3/16	1.500
60	6.000	11.75	7.8	3.50	3/8 x 3/16	1.750
70	7.000	14.50	9.4	4.50	1/2 x 1/4	1.875
80	8.000	15.50	10.8	4.75	1/2 x 1/4	2.000
100	10.000	19.25	14.5	4.20	5/8 x 5/16	2.375



FOR SHAFT SPEED DIVIDE INPUT SPEED BY HELICAL GEAR RATIO.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Fan Cooling for Cone Drive Helical/Worm D Flange Gearhead

MODEL NUMBERS FMU, FMV, FSM, FSMU, FSMV

Cone Drive fan-cooled helical worm double reduction gearmotors are available in all models size 40 through 100. (see note below.) They are identical with standard models except for the use of an extended worm shaft, fan and air-flow control cover.

The control cover directs air over the lower portion of the reducer housing and the fins on the housing guide the air for maximum cooling efficiency.

Thermal horsepower ratings are naturally increased with fan cooling

All size 40 fan-cooled models have thermal horsepower ratings equal to mechanical horsepower ratings, regardless of ratio. In the rating table on this page are shown thermal horsepower ratings for certain ratios of size 50 through size 80 models. Any ratio and speed not listed is limited to the maximum thermal ratings found on ratings page of this section.

CLEARANCE DIMENSION FROM CENTERLINE OF UNIT OVER FAN COVER						
SIZE	40	50	60	70	80	100
DIM.	8.0	9.5	10.2	12.9	14.3	16.5

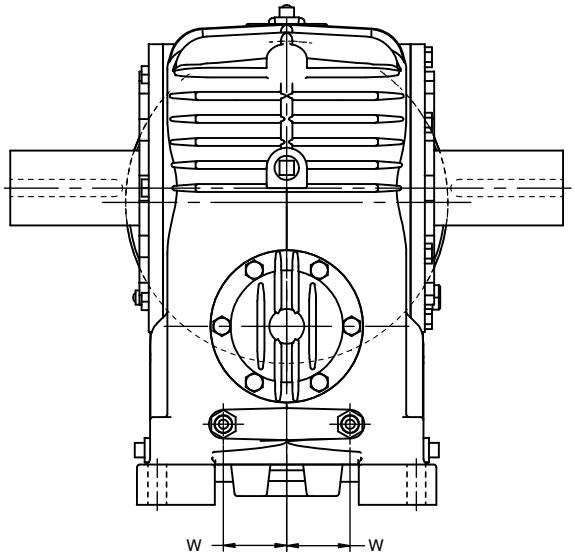
Thermal Ratings
of Fan Cooled Gearmotors

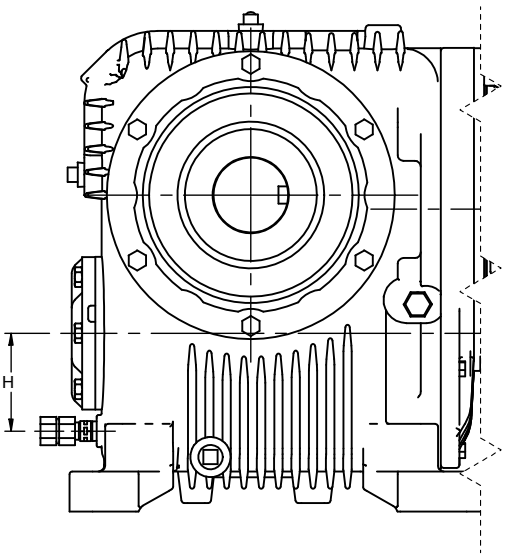
UNIT SIZE	TOTAL RATIO	INPUT RPM		
		870	1150	1750
40	ALL RATINGS ARE EQUAL TO MECHANICAL RATING OF SIZE 40 HELICAL/WORM D-FLANGE GEARHEAD IN THIS SECTION			
50	5:1	29.0	36.3	49.6
	7.5:1	23.3	25.7	37.0
	9:1	21.6	24.7	33.3
	10:1	23.8	28.0	34.4
	12.5:1		20.2	24.6
	15:1	17.1	21.4	28.3
60	5:1	29.0	37.5	53.0
	7:5:1	24.6	27.4	38.4
	9:1	22.1	26.3	35.8
	10:1	25.4	32.3	43.8
	12.5:1		21.6	26.8
	15:1	18.1	22.8	31.3
	18:1	16.9	20.0	28.5
70	5:1	47.6	56.0	76.4
	7.5:1	35.9	39.5	55.4
	9:1	33.2	38.0	51.6
	10:1	36.5	46.7	63.2
	12.5:1		31.1	38.6
	15:1	26.3	32.9	45.1
	18:1	24.3	28.9	41.2
	22.5:1	22.9	26.4	37.7
	25:1		22.6	31.7
	30:1	20.2	22.1	29.4
	36:1	16.8	22.1	26.5
	45:1	16.4	18.2	24.6
	50:1		15.6	20.9
	54:1	11.9	14.8	19.6
	72:1	10.8	12.5	15.6
80	5:1	51.0	60.0	82.0
	7.5:1	38.5	42.4	59.5
	9:1	35.7	40.7	55.4
	10:1	39.1	50.0	67.8
	12.5:1		33.4	41.4
	15:1	28.1	35.3	48.4
	18:1	26.0	31.1	44.1
	20:1	26.8	33.3	47.8
	22.5:1	24.5	28.3	40.5
	25:1		24.3	34.0
	30:1	21.7	23.8	31.5
	36:1	18.1	25.2	29.7
	37.5:1		19.3	26.4
	45:1	17.7	19.6	26.3
	50:1		16.7	22.4
	54:1	12.8	15.8	21.1
	72:1	11.3	14.3	18.2
100	CONTACT CONE DRIVE ENGINEERING FOR RATINGS			

Water Cooling Inlet and Outlet Locations for Cone Drive Helical/Worm D Flange Gearhead

Model MU Shown SMU, MV, SMV, SM

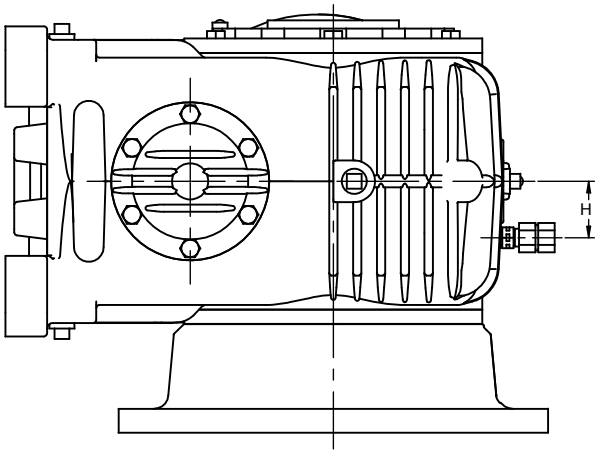
Floor Mounted Position Shown

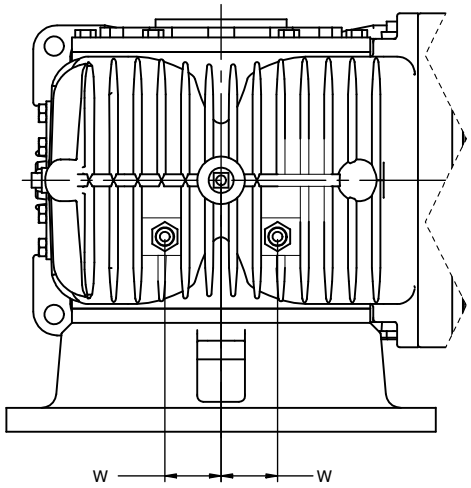




MV and SMV Shown Sizes 70-100 only

Floor Mounted Position Shown





MODELS	SIZE	W	H	FEMALE THREAD
MU MV SM	40	2.43	3.50	3/8 - 18 NPT
MU MV SM	50	2.25	3.75	3/8 - 18 NPT
MU MV SM	60	2.06	4.44	3/8 - 18 NPT
MU SM	70	3.25	5.88	3/8 - 18 NPT
MU SM	80	3.25	5.88	3/8 - 18 NPT
MU SM	100	4.25	8.00	3/8 - 18 NPT

MODELS	SIZE	W	H	FEMALE THREAD
MV	70	3.00	3.75	3/8 - 18 NPT
MV	80	3.50	3.75	3/8 - 18 NPT
MV	100	5.00	4.25	3/8 - 18 NPT

IMPORTANT: WHEN ASSEMBLING EXTERNAL PIPING TO REDUCER INLET AND OUTLET FITTINGS A BACKUP WRENCH MUST BE USED ON REDUCER FITTINGS TO PREVENT TURNING TO AVOID DAMAGE TO COOLING COIL INSIDE UNIT.

INLET AND OUTLET LOCATIONS MAY VARY DEPENDING ON MOUNTING POSITION OF UNIT. COOLING COILS SUPPLIED MAY BE EITHER PLAIN OR FINNED O.D. TUBING.

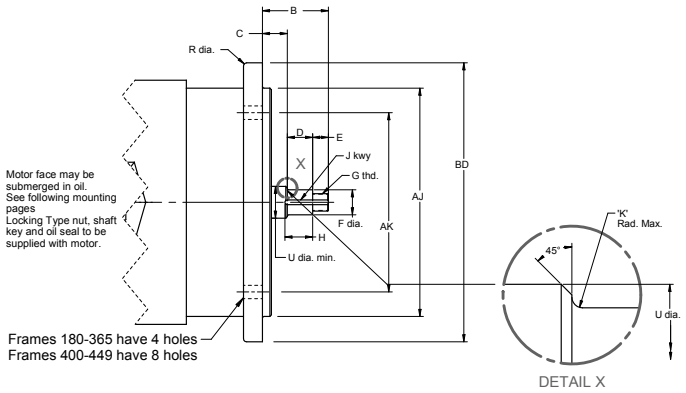
Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Helical/Worm D Flange Gearhead

Dimensions for Mounting NEMA 'D' Flange Motor

Standard Helical Stocked Ratios are: 1:1, 1.5:1, 1.8:1, 2.5:1, and 4:1. Other ratios are also available. For information Contact Cone Drive.

2.5:1 and 4:1 ratios are not available with all motor shaft sizes. See chart below.



FRAME	AK	AJ	BD	B	C	D	E	F +.0000 -.0005	G	H	K	J	U	R	RATIOS	HELICAL PINION DET.
REDUCER SIZES: 25 & 30, HELICAL C.D. 3.000																
180DZ-210DZ 140TDZ-184TDZ*	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	30-700
210TDZ-215TDZ*	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8 - 14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios but 2.5:1,4:1	30-710
210TDZ-215TDZ*	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	for ratios 2.5:1,4:1	30-700
REDUCER SIZES: 35 & 40, HELICAL C.D 4.000																
180DZ-210DZ 140TDZ-184TDZ	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2 - 20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	40-700
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8 - 14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	40-710
254UDZ-286UDZ 250TDZ-256TDZ*	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8 - 14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	40-710
REDUCER SIZES: 50 & 60, HELICAL C.D 5.375																
180DZ-210DZ 140TDZ-184TDZ	9.00	10.00	11.00	2.375	.968	.968	.44	.6697	1/2-20	1.00	.06	3/16 x 3/32	.88	.53	all ratios	53-700
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8-14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	53-710
254UDZ-286UDZ 250TDZ-256TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	53-710
280TDZ-286TDZ	11.00	12.50	14.00	3.875	.968	1.593	1.31	1.5013	1 1/4-12	1.68	.12	3/8 x 3/16	1.88	.81	all ratios but 4:1	53-720
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4 - 12	1.75	.12	3/8 x 3/16	1.88	.81	all ratios but 4:1	53-720
280TDZ-286TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	for 4:1 ratios	53-710
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	3.906	2.093	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	for 4:1 ratio	53-710
REDUCER SIZES: 70 & 80, 100L HELICAL C.D 6.719																
210TDZ-215TDZ	9.00	10.00	11.00	2.688	.875	1.062	.75	.9847	7/8-14	1.12	.06	3/16 x 3/32	1.38	.53	all ratios	67-715
254UDZ-286UDZ 250TDZ-256TDZ	11.00	12.50	14.00	3.094	1.281	1.218	.59	.9847	7/8-14	1.31	.06	3/16 x 3/32	1.50	.81	all ratios	67-715
280TDZ-286TDZ	11.00	12.50	14.00	3.875	.968	1.593	1.31	1.5013	1 1/4-12	1.68	.12	3/8 x 3/16	1.88	.81	all ratios	67-725
320UDZ-360UDZ 320TDZ-326TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4 -12	1.75	.12	3/8 x 3/16	1.88	.81	all ratios	67-725
360TDZ-365TDZ	14.00	16.00	18.00	5.000	1.875	1.687	1.44	1.875	1 1/2-12	1.88	.12	1/2 x 1/4	2.38	.81	all ratios but 4:1	67-730
400UDZ-445UDZ 400TDZ-445TDZ	18.00	20.00	22.00	5.000	1.812	1.687	1.50	1.875	1 1/2 -12	1.88	.12	1/2 x 1/4	2.38	.81	all ratios but 4:1	67-730
360TDZ-365TDZ	14.00	16.00	18.00	4.750	1.875	1.562	1.31	1.5013	1 1/4-12	1.75	.12	3/8 x 3/16	1.88	.81	for 4:1	67-725
400UDZ-445UDZ 400TDZ-445TDZ	18.00	20.00	22.00	4.688	1.812	1.562	1.31	1.5013	1 1/4 -12	1.75	.12	3/8 x 3/16	1.88	.81	for 4:1	67-725
REDUCER SIZE: 100, HELICAL C.D. 9.750																
324UDZ-365UDZ 324TDZ-365TDZ	14.00	16.00	18.00	4.75	1.250	2.687	.75	1.875	1.767-18 1.731P.D.	2.87	.06	1/2 x 1/4	2.38	.81	all ratios	97-735
400UDZ-445UDZ 400TDZ-449TDZ	18.00	20.00	22.00	5.375	1.875	2.687	.81	2.375	2.360-18 2.324P.D.	2.87	.06	5/8 x 5/16	2.81	.81	all ratios but 4:1	97-740
400UDZ-445UDZ 400TDZ-449TDZ	18.00	20.00	22.00	5.312	1.875	2.687	.75	1.875	1.767-18 1.731P.D.	2.87	.06	1/2 x 1/4	2.38	.81	all ratios	97-735

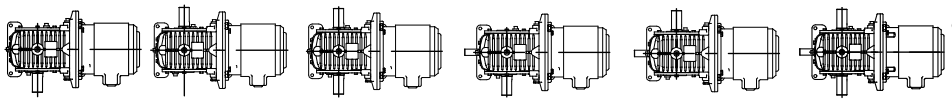
*Reducers marked with asterisk do not require motor adapters.

Assembly & Mounting Position Numbers for Cone Drive Helical/Worm D Flange Gearhead

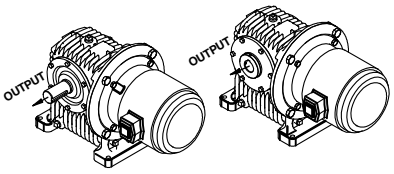
Models MU, SMU, MV, SMV, SM, Solid & Hollow Shaft

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE

Top View, Floor Mounted

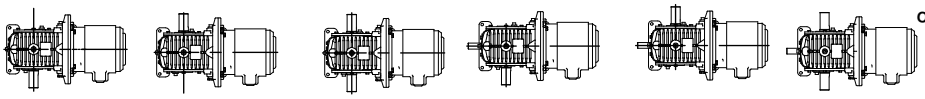


1.....2.....3.....4.....5.....6

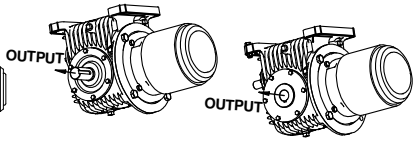


1 Shown

Ceiling Mounted*

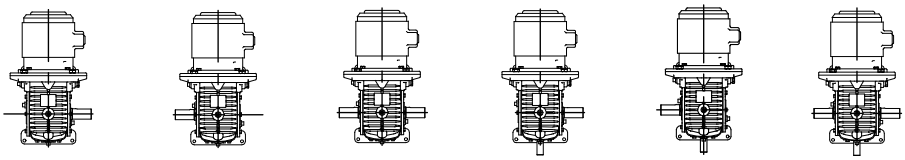


C1.....C2.....C3.....C4.....C5.....C6

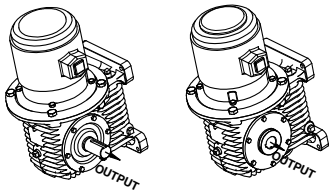


C2 Shown

Wall Mounted, Motor Up

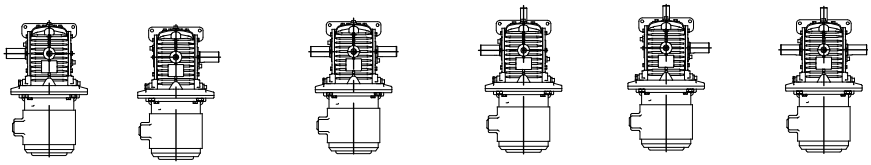


W1.....W2.....W3.....W4.....W5.....W6

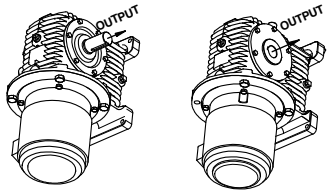


W1 Shown

Wall Mounted, Motor Down*

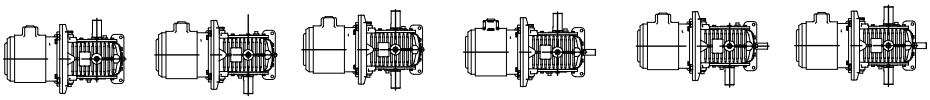


X1.....X2.....X3.....X4.....X5.....X6

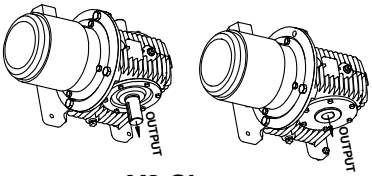


X2 Shown

Wall Mounted, Motor To Left*

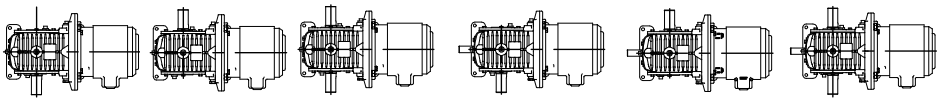


Y1.....Y2.....Y3.....Y4.....Y5.....Y6

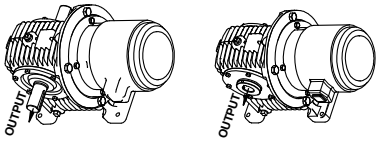


Y2 Shown

Wall Mounted, Motor To Right



Z1.....Z2.....Z3.....Z4.....Z5.....Z6



Z1 Shown

*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

Cone Drive reserves the right to improve or change product design and specifications without notice.

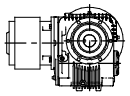
Assembly & Mounting Position Numbers for Cone Drive Helical/Worm D Flange Gearhead

Models MV, SMV - Solid & Hollow Shaft

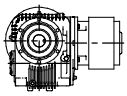
ALL DIAGRAMS SHOW REDUCER WITH BASE ON FAR SIDE

RV	SRV	
A	A	Gearshaft Extended Opposite Base
BR	B	Gearshaft Extended Through Base
SD	C	Gearshaft Double Extended

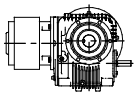
Floor Mounted - Top View*



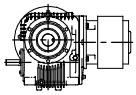
MV	SMV
1A	1A
1BR	1B
1SD	1C



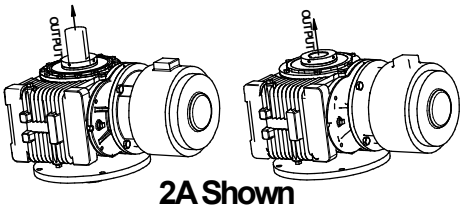
MV	SMV
2A	2A
2BR	2B
2SD	2C



MV	SMV
3A	3A
3BR	3B
3SD	3C

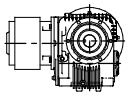


MV	SMV
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4BR	4B
4SD	4C

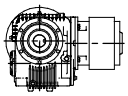


2A Shown

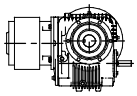
Ceiling Mounted*



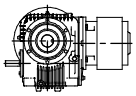
MV	SMV
C1A	C1A
C1BR	C1B
C1SD	C1C



MV	SMV
C2A	C2A
C2BR	C2B
C2SD	C2C



MV	SMV
C3A	C3A
C3BR	C3B
C3SD	C3C

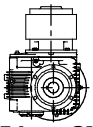


MV	SMV
C4A	C4A
C4BR	C4B
C4SD	C4C

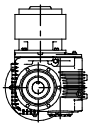


C1A Shown

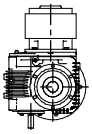
Wall Mounted - Motor Up



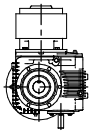
MV	SMV
W1A	W1A
W1BR	W1B
W1SD	W1C



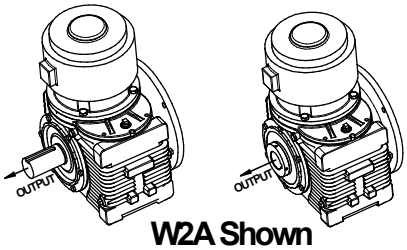
MV	SMV
W2A	W2A
W2BR	W2B
W2SD	W2C



MV	SMV
W3A	W3A
W3BR	W3B
W3SD	W3C

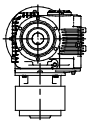


MV	SMV
W4A	W4A
W4BR	W4B
W4SD	W4C

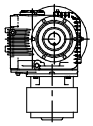


W2A Shown

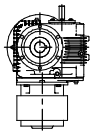
Wall Mounted - MotorDown*



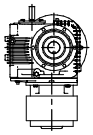
MV	SMV
X1A	X1A
X1BR	X1B
X1SD	X1C



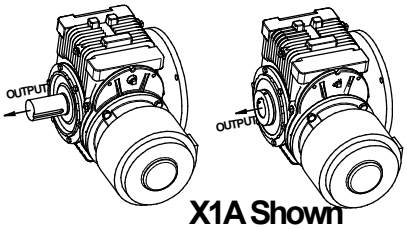
MV	SMV
X2A	X2A
X2BR	X2B
X2SD	X2C



MV	SMV
X3A	X3A
X3BR	X3B
X3SD	X3C

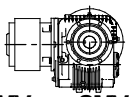


MV	SMV
X4A	X4A
X4BR	X4B
X4SD	X4C

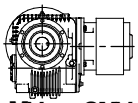


X1A Shown

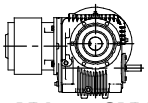
Wall Mounted - Worm Under



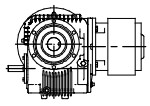
MV	SMV
Y1A	Y1A
Y1BR	Y1B
Y1SD	Y1C



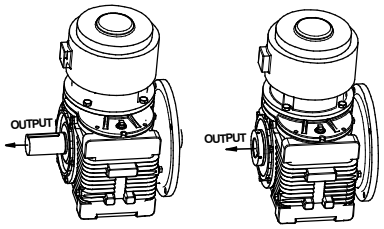
MV	SMV
Y2A	Y2A
Y2BR	Y2B
Y2SD	Y2C



MV	SMV
Y3A	Y3A
Y3BR	Y3B
Y3SD	Y3C

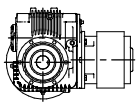


MV	SMV
Y4A	Y4A
Y4BR	Y4B
Y4SD	Y4C

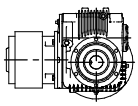


Y2A Shown

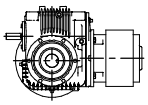
Wall Mounted - Worm Over



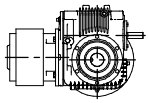
MV	SMV
Z1A	Z1A
Z1BR	Z1B
Z1SD	Z1C



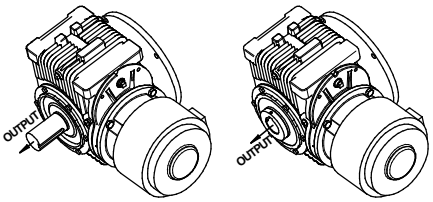
MV	SMV
Z2A	Z2A
Z2BR	Z2B
Z2SD	Z2C



MV	SMV
Z3A	Z3A
Z3BR	Z3B
Z3SD	Z3C



MV	SMV
Z4A	Z4A
Z4BR	Z4B
Z4SD	Z4C



Z1A Shown

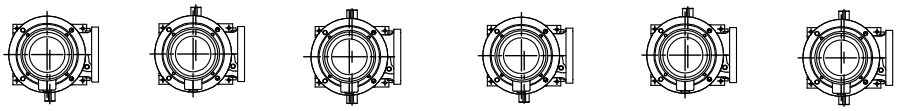
*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

Assembly & Mounting Position Numbers for Cone Drive Helical/Worm D Flange Gearhead

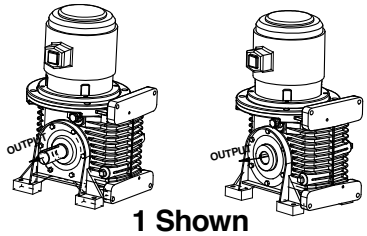
Models VM, SVM - Solid & Hollow Shaft

ALL DIAGRAMS SHOW REDUCER WITH FEET ON FAR SIDE. DIAGRAMS 4-6 HAVE SHAFT EXTENSION OPPOSITE MOTOR END.

Top View, Floor Mounted

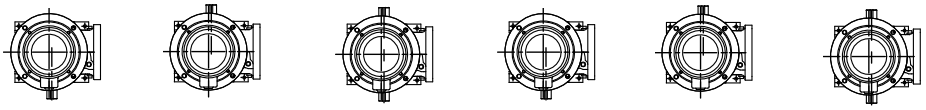


1.....2.....3.....4.....5.....6

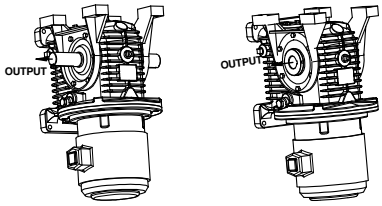


1 Shown

Ceiling Mounted*

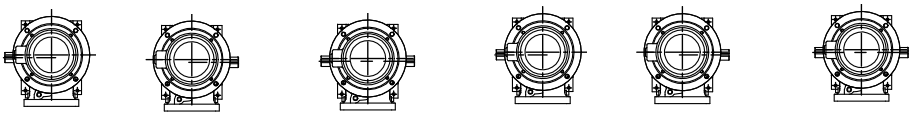


C1.....C2.....C3.....C4.....C5.....C6

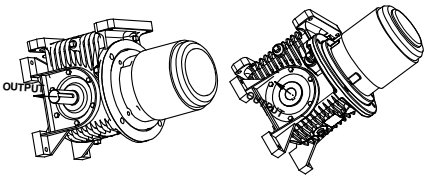


C2 Shown

Wall Mounted, Worm Under Horizontal Gearshaft

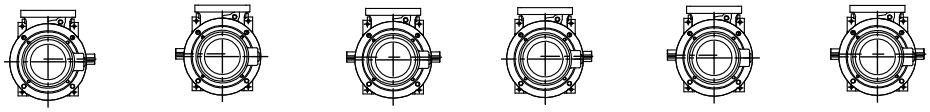


W1.....W2.....W3.....W4.....W5.....W6

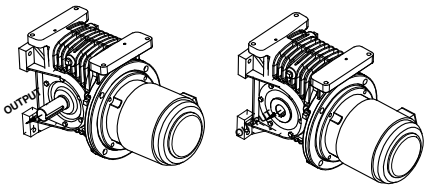


W1 Shown

Wall Mounted, Worm Over Horizontal Gearshaft*

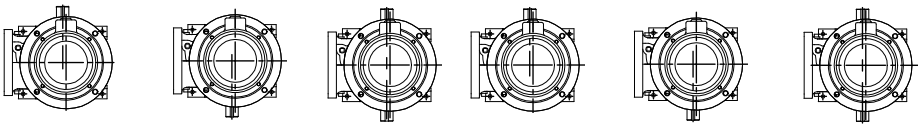


X1.....X2.....X3.....X4.....X5.....X6

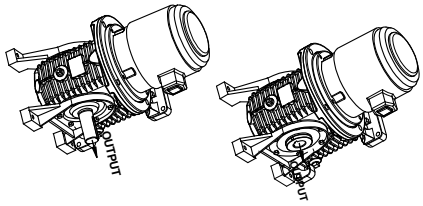


X2 Shown

Wall Mounted, Worm Left Vertical Gearshaft*

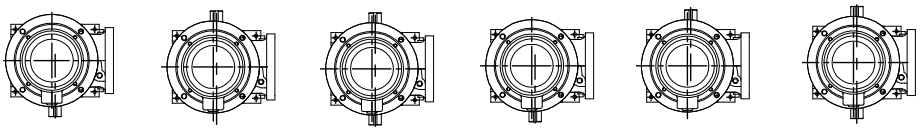


Y1.....Y2.....Y3.....Y4.....Y5.....Y6

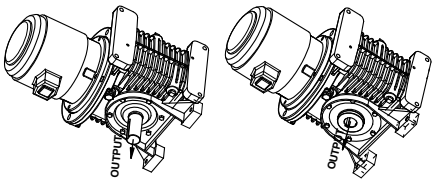


Y2 Shown

Wall Mounted, Worm Right Vertical Gearshaft*



Z1.....Z2.....Z3.....Z4.....Z5.....Z6



Z1 Shown

*Motor face may be submerged in oil. Contact motor supplier regarding shaft seal requirements.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive
BY TIMKEN

DOUBLE ENVELOPING

WORM GEAR SETS

Contents

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Cone Drive Gear Sets

Cone Drive gear sets are supplied in matched sets. Each set is inspected for tooth contact and smooth operation with the gears on the exact center distance, and with correct end position of worm and side position of gear. After inspection, an identifying set number is stamped on mating worm and gear. They should always be installed in sets, as marked.

The standardization of gear sets permits us to carry a quantity of stock "blanks," ready for final cutting to any of the ratios found in the tool charts on the following pages. Such standardization results in reduced costs as compared to "made-to-order" gear sets.

All standard Cone Drive gear sets have right hand-helix threads, however tooling is available for many left hand helix threads and other ratios in this section. For special center-distance and ratios see special gear sets in this section.

Where a Cone Drive gear set must be mounted in a specially designed housing, every effort should be made to follow the general design practice for Cone Drive reducers described in this catalog. If possible, standard mountings, such as those illustrated in this section should be used.

Where standard worm and gear blanks cannot be used, special designs can be developed by Cone Drive.

Selection of the proper gear set depends upon the service characteristics under which the gears are to operate.

WHAT IS BACKLASH?

Backlash is defined as: the amount of movement at the pitch line of the gear when the output shaft is rotated, while holding the input shaft stationary. Bearings are set at zero end play for measurement, then adjusted afterwards according to loading, speed, and duty cycle.

Backlash should not be measured at the worm, because the amount of worm rotation with the gear locked is a function of ratio and helix angle.

A differentiation should be made between the terms "low backlash" and "precision" ...precision is a function of concentricity, worm and gear pitch line runout, gear tooth spacing error, and mounting runout. A precision gear set is required to produce uniform, consistent backlash and speed.

Cone Drive Gear Sets - Tables of Backlash

Gearset Backlash - (Standard Backlash)

Size	Center Distance Inches	Inches	Degrees	Arc minutes
15	1.5	0.008	0.39	23
20	2	0.008	0.29	17
25	2.5	0.008	0.23	14
30	3	0.008	0.19	11
35	3.5	0.009	0.18	11
40	4	0.009	0.16	10
50	5	0.01	0.14	9
60	6	0.012	0.14	9
70	7	0.013	0.13	8
80	8	0.014	0.12	7
100	10	0.017	0.12	7
120	12	0.02	0.12	7
150	15	0.025	0.12	7
180	18	0.025	0.09	6
220	22	0.03	0.09	6
240	24	0.035	0.09	6
280	28	0.035	0.09	6

Notes:

Nominal Backlash values in inches, degrees, and arcminutes for low backlash and standard backlash. Backlash in inches is measured at pitch line. Size 100 and up worm is mounted in a type TDO double locked up tapered roller bearing with a fixed spacer which can be ground to reduce end play for low speeds. Contact Cone Drive.

Gearset Backlash - (Low Backlash)

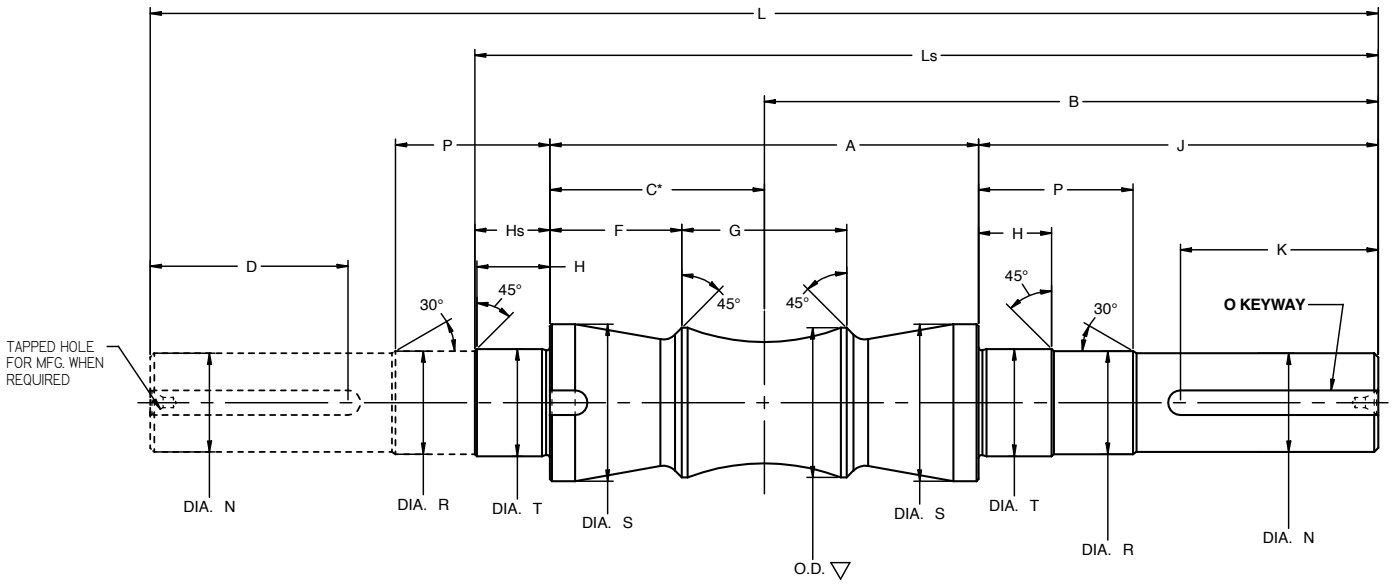
Size	Center Distance Inches	Inches	Degrees	Arc minutes
15	1.5	0.002	0.097	6
20	2	0.002	0.072	4
25	2.5	0.002	0.058	4
30	3	0.002	0.047	3
35	3.5	0.002	0.041	2
40	4	0.002	0.036	2
50	5	0.002	0.028	2
60	6	0.002	0.024	1
70	7	0.002	0.02	1
80	8	0.002	0.018	1
100	10	0.004	0.028	2
120	12	0.004	0.023	1
150	15	0.006	0.028	2
180	18	0.006	0.023	1
220	22	*	*	*
240	24	*	*	*
280	28	*	*	*

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Cone Drive - Standard Single and Double Extended Worms

Size 15 to 80

▽O.D. VARIES WITH RATIO, SEE TOOL CHART.
*DIMENSIONS HELD EXACT IN MANUFACTURING.
DASH LINE INDICATES DOUBLE EXTENDED WORM.
**THESE DIMENSIONS MAY VARY TO SUIT RATIO SELECTED



Size	C.D.	A	B	C*	D	F**	G**	H	J	K
15	1.500	2.000 ± .001	3.00	1.000	0.75	0.56	0.88	—	2.00	0.75
20	2.000	2.812 ± .001	4.59	1.406	1.06	0.78	1.25	0.83	3.19	1.06
25	2.500	4.187 ± .001	5.25	2.093	1.00	1.28	1.62	0.78	3.16	1.00
30	3.000	4.812 ± .001	6.68	2.406	1.75	1.40	2.00	0.90	4.28	1.75
35	3.500	5.500 ± .001	7.75	2.750	2.62	1.56	2.38	0.88	5.00	2.62
40F	4.000	6.500 ± .002	9.31	3.250	3.00	2.00	2.50	1.11	6.06	3.00
50F	5.000	8.500 ± .002	10.50	4.250	3.25	2.62	3.25	0.97	6.25	3.25
60F	6.000	9.000 ± .002	11.75	4.500	4.00	2.62	3.75	1.22	7.25	4.00
70F	7.000	9.000 ± .002	14.50	4.500	4.50	2.56	3.88	1.75	10.00	4.50
80F	8.000	10.250 ± .002	15.50	5.125	4.75	2.62	5.00	1.82	10.38	4.75

Size	L	N	O	P	R	S	T	HS	LS
15	6.00	0.625	3/16 x 3/32	0.97	—	1.00	0.7520	0.625	4.625
20	9.18	0.688	3/16 x 3/32	1.72	0.747	1.15	0.7520	0.846	6.840
25	10.50	0.750	3/16 x 3/32	1.72	0.875	1.38	0.9395	0.812	8.160
30	13.38	1.000	1/4 x 1/8	2.09	1.062	1.56	1.1270	0.932	10.030
35	15.50	1.188	1/4 x 1/8	1.96	1.250	1.84	1.3145	0.912	11.410
40F	18.62	1.500	3/8 x 3/16	2.34	1.563	2.37	1.6270	1.140	13.700
50F	21.00	1.500	3/8 x 3/16	2.25	1.563	2.75	1.7520	1.042	15.790
60F	23.50	1.750	3/8 x 3/16	2.53	1.813	3.00	1.8770	1.250	17.500
70F	29.00	1.875	1/2 x 1/4	2.82	2.125	3.81	2.7525	1.750	20.750
80F	31.00	2.000	1/2 x 1/4	2.94	2.125	4.125	3.0025	1.875	22.500

Cone Drive Standard Single & Double Extended Worms

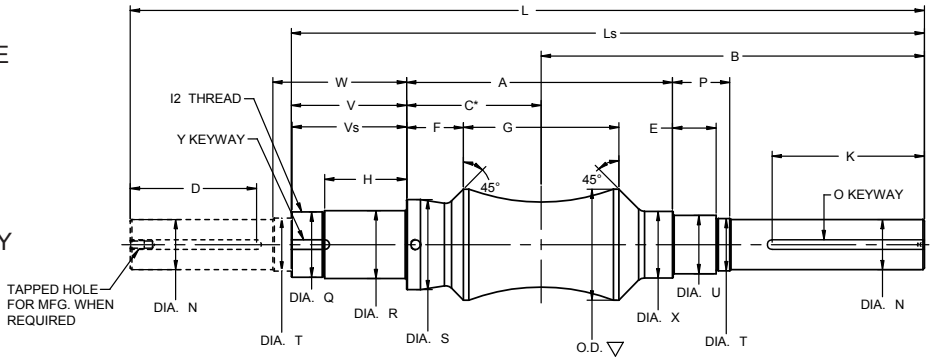
Size 100 to 280

▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSIONS HELD EXACT IN MANUFACTURING.

DASH LINE INDICATES DOUBLE EXTENDED WORM.

**THESE DIMENSIONS MAY VARY TO SUIT RATIO SELECTED



Size	C.D.	A	B	C*	D	E	F**	G**	H	J	K	L	N
100	10.000	12.875	19.25	6.625	4.25	1.53	3.560	6.12	4.38	13.00	5.00	38.50	2.375
120	12.000	14.812	22.5	7.625	4.5	1.81	3.880	7.50	6.25	15.31	5.88	45.75	3.000
150	15.000	19.500	26.25	9.750	5.5	2.00	5.120	9.25	7.12	16.50	8.50	54.12	3.500
180	18.000	20.750	30.12	10.375	7.5	2.50	4.750	11.25	7.12	19.75	10.00	61.62	4.000

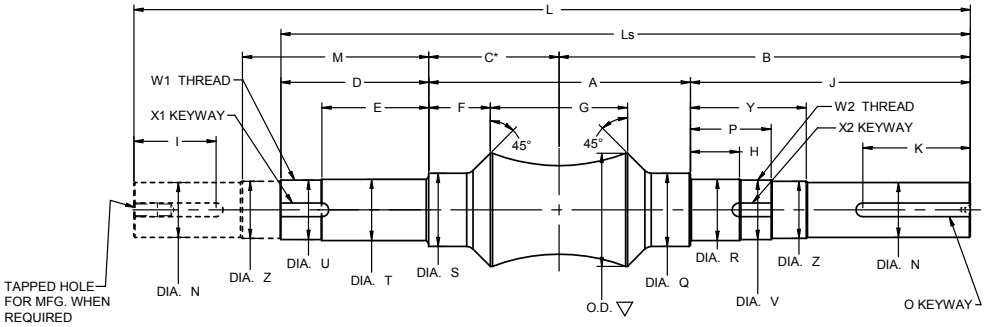
Size	O	P	Q	R	S	T	U	V	W	X	Y	Single Extended	
												LS	VS
100	5/8 x 5/16	2.59	3.340 - .011	3.349- .001	4.62	2.437	2.9536- .0006	6.25	7.31	3.50	5/8 x 3/16	32.12	6.25
120	3/4 x 3/8	3.12	3.918- .011	4.0025- .001	5.75	3.125	3.3475- .0008	8.5	9.68	4.00	3/4 x 7/32	38.62	8.50
150	7/8 x 7/16	—	4.325- .011	4.5025- .001	6.50	—	3.5443- .0008	9.37	—	4.00	3/8 x 3/16	45.38	9.37
180	1" x 1/2	—	4.716- .011	5.0025- .001	7.00	—	4.1349- .0008	9.88	—	4.75	3/8 x 3/16	50.38	9.88

▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSION HELD EXACT IN MANUFACTURING.

DASH LINE INDICATES DOUBLE EXTENDED WORM.

**THESE DIMENSIONS MAY VARY TO SUIT RATIO SELECTED



Size	C.D.	A	B	C*	D	E	F**	G**	H	I	J	K	L	M
220	21.837	24.000	34.50	12.125	10.38	7.38	5.15	14.00	3.88	9.50	22.62	10.00	71.50	-
240	24.000	26.375	40.00	13.750	10.12	7.12	5.75	16.00	5.06	9.75	27.38	10.00	80.00	15.12
280	28.000	33.375	46.00	17.375	13.50	10.00	8.38	18.00	5.50	9.00	30.00	13.00	94.00	18.25

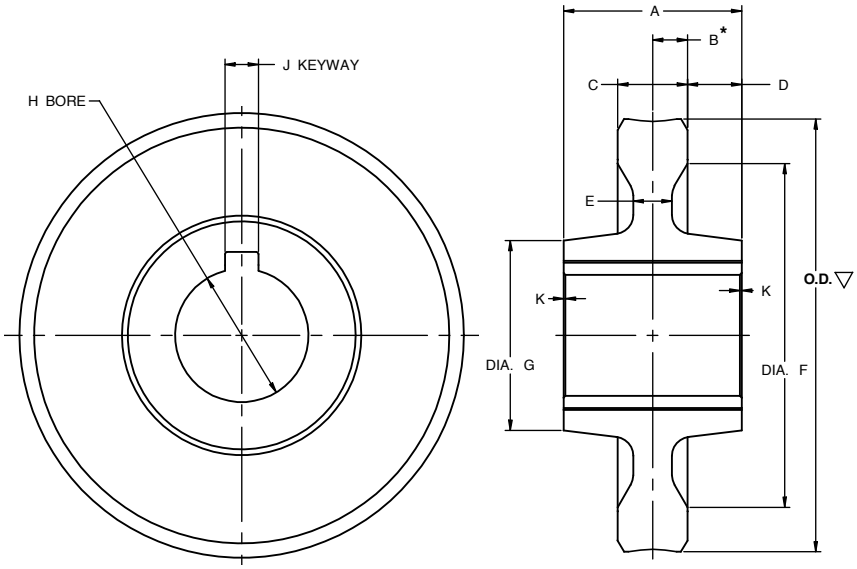
Size	N	O	P	Q	R	S	T	Y	Z	Ls	Locknut Threads & Keyway Data					
											Diameter					
											U	V	W1	W2	X1	X2
220	4.500	1" x 1/2	5.15	6.00	5.2525	8.12	6.1275	–	–	57	5.888 -.011	4.716 -.011	12	12	5/8 x 7/32	3/8 x 3/16
240	5.000	1 1/4 x 7/16	6.50	7.00	5.8775	8.25	6.3775	11.38	5.375	63.88	6.284 -.015	5.497 -.011	8	12	5/8 x 5/16	5/8 x 1/4
280	6.000	1 1/2 x 1/2	7.25	8.25	7.0025	10.25	8.0025	12.00	6.25	76.88	7.847 -.015	6.659 -.015	8	8	7/8 x 5/16	3/4 x 5/16

Cone Drive reserves the right to improve or change product design and specifications without notice.

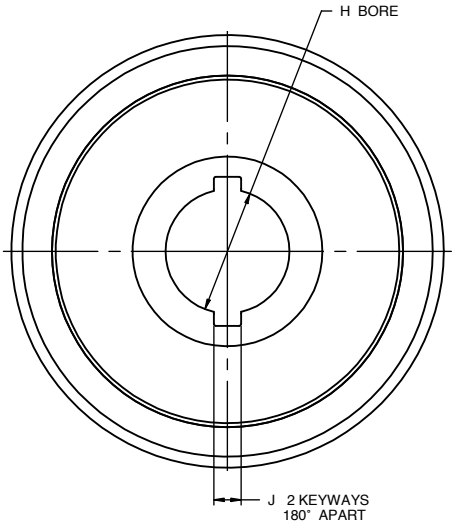
Cone Drive Standard Solid Shaft Gears

Size 15 to 120

Size 15 thru 35



Size 40 thru 120



▽ O.D. VARIES WITH RATIO, SEE TOOL CHART.
*DIMENSIONS HELD EXACT IN MANUFACTURING.

Note: Sets are matched with worm over, looking at worm from single extended end, the marked face of gear is to the left.

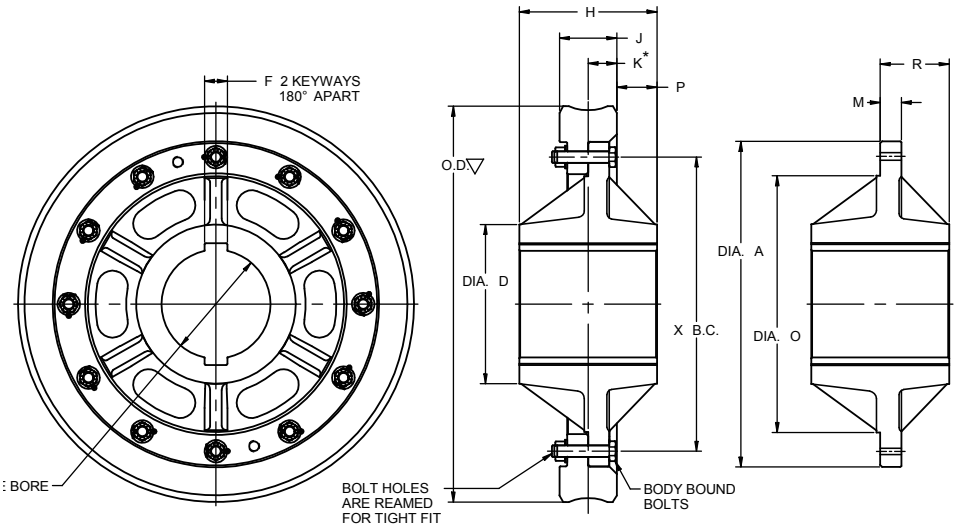
Note: Gear and hub construction will be one or more of several designs at Cone Drives option.

Size	C.D.	A	B*	C	D	E	Fmax.	G	H	J	K
15	1.500	2.000 ± .001	0.20	0.400	.80 ± .001	—	—	1.28	0.748	3/16 x 3/32	
20	2.000	1.750 ± .001	0.281	0.5625	.594 ± .001	—	—	1.75	1.250	1/4 x 1/8	
25	2.500	1.750 ± .001	0.375	0.750	.500 ± .001	—	—	2.00	1.250	1/4 x 1/8	.03 x 45°
30	3.000	2.625 ± .001	0.4375	0.875	.875 ± .001	0.50	4.00	2.62	1.625	3/8 x 3/16	
35	3.500	3.125 ± .001	0.5	1.000	1.062 ± .001	0.50	4.62	3.25	2.188	1/2 x 1/4	
40	4.000	3.625 ± .002	0.5625	1.125	1.250 ± .001	0.62	5.50	4.00	2.625	1/2 x 1/4	
50	5.000	4.250 ± .002	0.6875	1.375	1.4375 ± .001	0.75	6.88	4.50	3.125	5/8 x 5/16	
60	6.000	5.000 ± .002	0.875	1.750	1.625 ± .001	0.88	8.38	5.50	3.625	3/4 x 3/8	
70	7.000	5.000 ± .005	0.875	1.750	1.625 ± .002	1.00	9.62	6.12	4.000	7/8 x 7/16	.06 x 45°
80	8.000	5.750 ± .005	1.125	2.250	1.750 ± .002	1.25	11.09	6.12	4.000	7/8 x 7/16	
100	10.000	6.000 ± .005	1.375	2.750	1.625 ± .002	1.5	14.38	6.25	4.250	1 x 3/8	
120	12.000	6.750 ± .005	1.625	3.250	1.750 ± .002	1.75	17.25	9.00	6.125	1 1/4 x 7/16	

Cone Drive Standard Hub and Flange Type Gears

Size 150 to 280

Hub Type Spider & Gear Assembly



▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSIONS HELD EXACT IN MANUFACTURING.

Note: Sets are matched with worm over, looking at worm from single extended end, the marked face of gear is to the left.

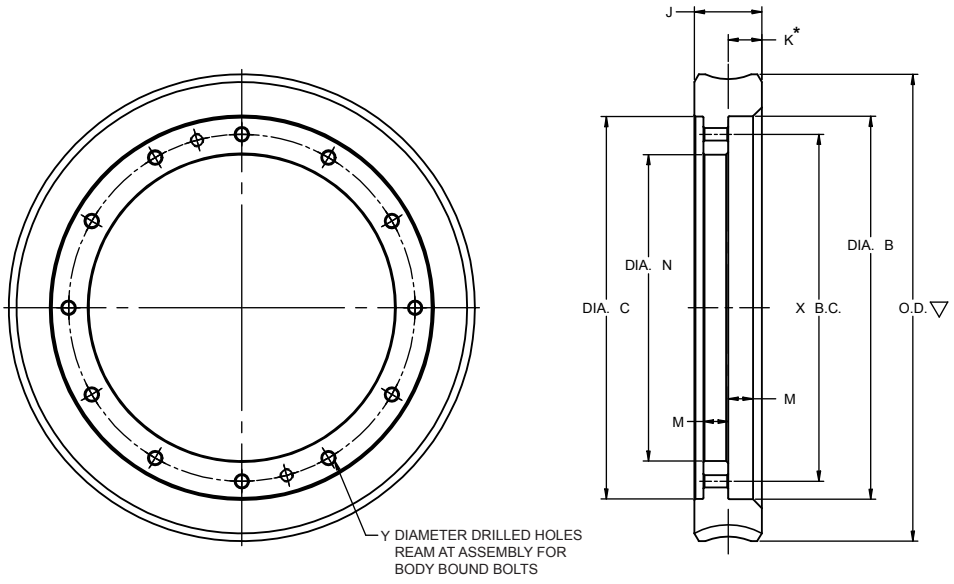
Size	C.D.	A	D	E	F	H	J	K*	M	O	P	R	X	Body Bound Bolts		For ratios up Thru 5:1 USE These Dimensions		
														NO.	SIZE	A	O	x
150	15.000	21.257	10.38	7.125	1 1/2 x 1/2	9.000	3.750	1.875	1.38	16.88	2.625	4.500	19.250	12	0.750	20.551	16.75	18.500
180	18.000	26.509	11.88	8.125	1 3/4 x 5/8	10.500	4.000	2.000	1.62	21.18	3.250	5.250	24.000	12	1.000	24.571	19.18	22.000
220	21.837	32.011	15.75	9.500	2 1/2 x 7/8	12.000	4.500	2.250	1.75	26.50	3.750	6.000	29.500	12	1.250	-	-	-
240	24.000	35.012	16.25	10.500	2 1/ x 7/8	14.000	5.000	2.500	2.00	28.75	4.500	7.000	32.000	18	1.250	31.762	25.5	28.750
280	28.000	41.014	20.00	13.250	3" x 1"	17.000	6.000	3.000	2.25	35.00	5.500	8.500	38.250	18	1.500			

Flange Type Gear

▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSIONS HELD EXACT IN MANUFACTURING.

Note: Sets are matched with worm over, looking at worm from single extended end, the marked face of gear is to the left.

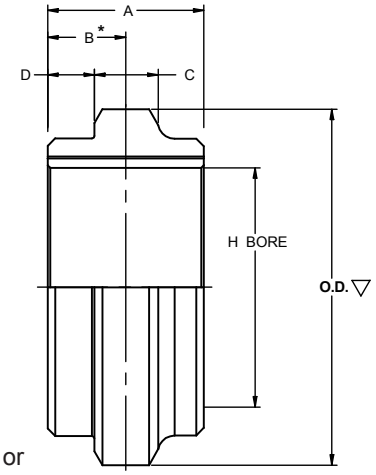


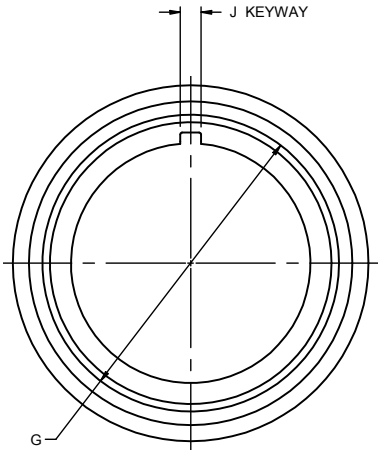
Size	C.D.	B	C	J	K*	M	N	X	Y	Bolts		For ratios up Thru 5:1 USE These Dimensions			
										NO.	SIZE	B	C	N	X
150	15.000	21.250 + .002	21.218	3.750	1.875	1.37	17.000	19.250	0.687	12	3/4	20.544	20.510	16.875	18.500
180	18.000	26.500 + .002	26.468	4.000	2.000	1.62	21.375	24.000	0.968	12	1"	24.562	24.530	19.375	22.000
220	21.837	32.000 + .003	31.968	4.500	2.250	1.75	27.000	29.500	1.218	12	1 1/4	—	—	—	—
240	24.000	35.000 + .003	34.968	5.000	2.500	2.00	29.000	32.000	1.218	18	1 1/4	31.750	31.720	25.750	28.750
280	28.000	41.000 + .004	42.000	6.000	3.000	2.25	35.500	38.250	1.468	18	1 1/2	—	—	—	—

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Hollow Shaft, Ring & Flange Type Gears

Hollow Shaft
Size 20 to 80





▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSIONS HELD EXACT IN MANUFACTURING.

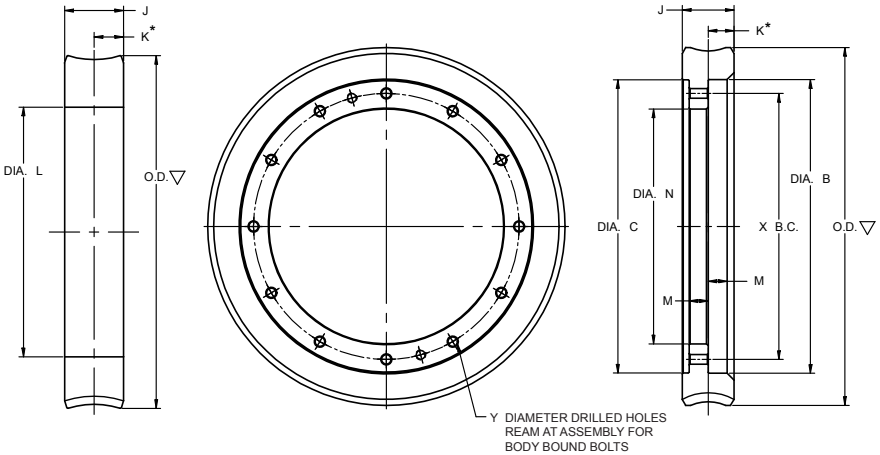
Note: Sets are matched with worm over, looking at worm from single extended end, the marked face of gear is to the left.

Note: Gear and Hub construction will be one or more of several designs at Cone Drives option.

Size	C.D.	A	B*	C	D	G	H	J
20	2.000	1.875 ± .001	0.9375	0.594	0.641	2.62	2.125	1/4 x 1/8
25	2.500	1.875 ± .001	0.9375	0.781	0.547	3.37	2.875	1/4 x 1/8
30	3.000	3.375 ± .001	1.6875	0.906	1.234	4.06	3.4375	3/8 x 3/16
35	3.500	4.000 ± .001	2.000	1.031	1.484	5.06	3.875	3/8 x 3/16
40	4.000	3.000 ± .002	1.500	1.187	0.906	5.62	4.375	5/8 x 5/16
50	5.000	4.000 ± .002	2.000	1.437	1.281	6.75	5.125	5/8 x 5/16
60	6.000	5.000 ± .002	2.500	1.812	1.593	8.12	6.000	3/4 x 3/8
70	7.000	5.000 ± .002	2.500	1.750	1.625	9.50	7.375	1 x 1/2
80	8.000	5.000 ± .002	2.500	2.250	1.375	9.62	7.375	1 x 1/2

Ring Type Size 70 to 120

Flange Type Size 40 to 120



▽O.D. VARIES WITH RATIO, SEE TOOL CHART.

*DIMENSIONS HELD EXACT IN MANUFACTURING.

Note: Sets are matched with worm over, looking at worm from single extended end, the marked face of gear is to the left.

These blanks are stocked and can be cut to any standard ratio desired.

Size	C.D.	B	C	J	K*	L	M	N	X	Y	Bolts	
											No.	SIZE
40	4.000	5.375 + .001	5.343	1.125	0.5625	—	0.438	4.000	4.750	11/32	6	3/8
50	5.000	6.500 + .001	6.468	1.375	0.6875	—	0.500	4.562	5.500	13/32	6	7/16
60	6.000	7.934 + .001	7.906	1.750	0.875	—	0.625	5.625	6.750	15/32	8	1/2
70	7.000	9.000 + .001	8.968	1.750	0.875	9.250	0.750	6.000	7.500	19/32	8	5/8
80	8.000	10.750 + .002	10.718	2.250	1.125	10.625	0.750	7.750	9.250	19/32	8	5/8
100	10.000	13.500 + .002	13.468	2.750	1.375	13.375	0.875	10.000	11.750	11/16	12	3/4
120	12.000	16.500 + .002	16.468	3.250	1.625	16.125	1.250	12.750	14.625	11/16	12	3/4

Cone Drive Standard Gear Sets

- Right Hand Tool Charts & Horsepower Ratings

C.D	TOOL CHART						AGMA MECHANICAL HORSEPOWER RATINGS									
	Ratio	Tool Number	GEAR		WORM		INPUT MECHANICAL H.P. RATINGS - 1.0 SERVICE FACTOR									
			Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	WORM SPEEDS									
							100	200	300	580	720	870	1150	1750	2400	3000
Size 15	5:1	71505	2.368	2.495	.632	.870	0.20	0.37	0.53	0.95	1.13	1.32	1.62	2.10	2.49	2.80
	10:1	71510	2.364	2.495	.636	.870	0.13	0.24	0.34	0.60	0.73	0.85	1.06	1.40	1.67	1.89
	15:1	71515	2.368	2.495	.632	.870	0.09	0.17	0.24	0.42	0.51	0.60	0.74	0.99	1.18	1.33
	20:1	71520	2.342	2.448	.658	.870	0.07	0.13	0.18	0.32	0.39	0.46	0.57	0.76	0.91	1.03
	30:1	71530	2.371	2.495	.629	.870	0.05	0.09	0.12	0.22	0.26	0.31	0.38	0.51	0.62	0.70
	40:1	71540	2.343	2.448	.657	.870	0.03	0.06	0.09	0.16	0.20	0.23	0.29	0.39	0.45	0.50
	50:1	71550	2.326	2.424	.674	.870	0.03	0.05	0.07	0.13	0.16	0.19	0.23	0.31	0.37	0.42
	60:1	71560	2.315	2.424	.685	.870	0.02	0.04	0.06	0.11	0.13	0.16	0.19	0.26	0.30	0.34
Size 20*	5:1	7205	3.170	3.350	.830	1.156	0.40	0.73	1.04	1.83	2.18	2.51	3.02	3.81	4.51	5.09
	10:1	7210	3.200	3.380	.800	1.156	0.25	0.47	0.66	1.18	1.40	1.62	1.98	2.52	2.99	3.38
	15:1	7215	3.200	3.380	.800	1.156	0.18	0.33	0.47	0.83	0.99	1.15	1.40	1.79	2.13	2.39
	20:1	7220	3.170	3.350	.830	1.156	0.13	0.25	0.36	0.63	0.76	0.88	1.07	1.38	1.63	1.84
	25:1	7225	3.220	3.420	.780	1.156	0.11	0.20	0.29	0.51	0.61	0.71	0.87	1.11	1.32	1.48
	30:1	7230	3.200	3.380	.800	1.156	0.09	0.17	0.24	0.43	0.51	0.59	0.73	0.93	1.11	1.25
	40:1	7240	3.170	3.350	.830	1.156	0.07	0.13	0.18	0.32	0.38	0.45	0.55	0.70	0.83	0.94
	50:1	7250	3.150	3.320	.850	1.156	0.05	0.10	0.15	0.26	0.31	0.36	0.44	0.56	0.67	0.75
	60:1	7260	3.134	3.280	.866	1.110	0.05	0.09	0.12	0.22	0.26	0.30	0.37	0.47	0.56	0.63
Size 25*	5:1	72505	3.930	4.170	1.070	1.500	0.78	1.43	2.04	3.52	4.13	4.68	5.48	6.87	8.06	9.00
	10:1	72510	3.980	4.230	1.020	1.500	0.49	0.91	1.30	2.26	2.67	3.05	3.62	4.54	5.36	6.00
	15:1	72515	3.980	4.230	1.020	1.500	0.35	0.64	0.91	1.59	1.89	2.16	2.57	3.22	3.81	4.26
	20:1	72520	3.930	4.170	1.070	1.500	0.27	0.49	0.70	1.22	1.44	1.65	1.97	2.48	2.93	3.30
	25:1	72525	4.000	4.270	1.000	1.500	0.21	0.40	0.56	0.98	1.16	1.33	1.59	2.00	2.36	2.64
	30:1	72530	3.980	4.230	1.020	1.500	0.18	0.33	0.47	0.82	0.98	1.12	1.33	1.68	1.98	2.21
	40:1	72540	3.930	4.170	1.070	1.500	0.13	0.25	0.35	0.62	0.73	0.84	1.00	1.26	1.49	1.67
	50:1	72550	3.890	4.080	1.110	1.500	0.11	0.20	0.28	0.50	0.59	0.68	0.81	1.01	1.20	1.34
	60:1	72560	3.880	4.080	1.120	1.500	0.09	0.17	0.24	0.42	0.49	0.56	0.67	0.85	1.00	1.12
Size 30*	5:1	7305	4.700	4.990	1.300	1.810	1.38	2.53	3.60	6.05	6.99	7.79	9.06	11.3	13.1	14.3
	10:1	7310	4.850	5.150	1.150	1.700	0.88	1.62	2.31	3.97	4.65	5.26	6.16	7.72	9.05	10.1
	15:1	7315	4.850	5.150	1.150	1.700	0.62	1.14	1.62	2.80	3.29	3.74	4.38	5.49	6.45	7.16
	20:1	7320	4.800	5.050	1.200	1.700	0.47	0.87	1.24	2.15	2.52	2.87	3.37	4.22	4.97	5.52
	25:1	7325	4.770	4.990	1.230	1.700	0.38	0.70	1.00	1.73	2.04	2.31	2.72	3.41	4.01	4.45
	30:1	7330	4.850	5.150	1.150	1.700	0.32	0.59	0.84	1.45	1.71	1.94	2.28	2.86	3.36	3.74
	40:1	7340	4.800	5.050	1.200	1.700	0.24	0.44	0.63	1.09	1.28	1.46	1.72	2.15	2.53	2.81
	50:1	7350	4.770	4.990	1.230	1.700	0.19	0.36	0.51	0.88	1.03	1.17	1.38	1.73	2.03	2.26
	60:1	7360	4.730	4.940	1.270	1.640	0.16	0.30	0.42	0.73	0.86	0.98	1.15	1.44	1.70	1.88
Size 35*	5:1	73505	5.480	5.800	1.520	2.130	2.55	4.67	6.60	10.8	12.3	13.7	15.9	19.7	22.6	24.2
	10:1	73510	5.630	5.980	1.370	2.040	1.63	2.98	4.24	7.14	8.27	9.21	10.7	13.4	15.6	17.0
	15:1	73515	5.630	5.980	1.370	2.040	1.14	2.10	2.99	5.05	5.85	6.54	7.62	9.53	11.1	12.2
	20:1	73520	5.570	5.900	1.430	2.040	0.88	1.60	2.28	3.87	4.49	5.03	5.86	7.33	8.56	9.38
	25:1	73525	5.530	5.800	1.470	2.040	0.71	1.29	1.84	3.13	3.62	4.06	4.73	5.92	6.91	7.59
	30:1	73530	5.630	5.980	1.370	2.040	0.59	1.08	1.54	2.62	3.04	3.40	3.96	4.96	5.80	6.36
	40:1	73540	5.570	5.900	1.430	2.040	0.44	0.82	1.16	1.97	2.29	2.56	2.99	3.74	4.37	4.80
	50:1	73550	5.530	5.800	1.470	2.040	0.36	0.65	0.93	1.58	1.83	2.06	2.40	3.00	3.51	3.85
	60:1	73560	5.500	5.760	1.500	2.040	0.30	0.55	0.78	1.32	1.53	1.72	2.00	2.51	2.93	3.21

*No tooling charges on 2" - 3.5" c.d

Cone Drive Standard Gear Sets - Right Hand Tool Charts & Horsepower Ratings

C.D	TOOL CHART						AGMA MECHANICAL HORSEPOWER RATINGS									
			GEAR		WORM		INPUT MECHANICAL H.P. RATINGS - 1.0 SERVICE FACTOR									
	Ratio	Tool Number	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	WORM SPEEDS									
							100	200	300	580	720	870	1150	1750	2400	3000
Size 40*	5:1	7405	6.270	6.680	1.730	2.400	3.66	6.70	9.40	15.0	16.9	18.7	21.7	26.7	29.8	32.4
	10:1	7410	6.450	6.840	1.550	2.270	2.35	4.29	6.09	10.0	11.5	12.7	14.8	18.4	21.2	22.7
	15:1	7415	6.450	6.840	1.550	2.270	1.65	3.02	4.29	7.11	8.15	9.06	10.5	13.1	15.1	16.2
	20:1	7420	6.400	6.740	1.600	2.270	1.26	2.31	3.28	5.45	6.26	6.96	8.09	10.1	11.6	12.5
	25:1	7425	6.340	6.680	1.660	2.270	1.02	1.86	2.65	4.40	5.05	5.62	6.53	8.13	9.40	10.2
	30:1	7430	6.450	6.840	1.550	2.270	0.85	1.56	2.22	3.69	4.24	4.71	5.48	6.82	7.88	8.50
	40:1	7440	6.400	6.740	1.600	2.270	0.64	1.17	1.67	2.78	3.19	3.55	4.12	5.14	5.94	6.42
	50:1	7450	6.340	6.680	1.660	2.270	0.51	0.94	1.34	2.23	2.56	2.85	3.31	4.12	4.77	5.15
	60:1	7460	6.310	6.620	1.690	2.270	0.43	0.79	1.12	1.86	2.14	2.38	2.76	3.44	3.98	4.30
Size 50*	5:1	7505	7.840	8.280	2.160	3.000	7.21	13.2	18.2	27.6	31.0	34.3	39.6	47.4	52.6	59.2
	10:1	7510	8.090	8.560	1.910	2.850	4.63	8.46	11.8	18.8	21.1	23.4	27.2	33.3	37.1	40.2
	15:1	7515	8.090	8.560	1.910	2.850	3.25	5.96	8.36	13.3	15.0	16.7	19.3	23.8	26.5	28.7
	20:1	7520	8.020	8.420	1.980	2.850	2.49	4.56	6.40	10.2	11.6	12.8	14.9	18.3	20.5	22.1
	25:1	7525	7.950	8.280	2.050	2.850	2.01	3.67	5.16	8.27	9.34	10.3	12.0	14.8	16.6	17.9
	30:1	7530	8.090	8.560	1.910	2.850	1.68	3.08	4.32	6.93	7.83	8.67	10.1	12.4	13.9	15.1
	40:1	7540	8.020	8.420	1.980	2.850	1.27	2.32	3.25	5.22	5.90	6.53	7.58	9.34	10.5	11.3
	50:1	7550	7.950	8.280	2.050	2.850	1.02	1.86	2.61	4.19	4.73	5.24	6.09	7.50	8.41	9.09
	60:1	7560	7.920	8.280	2.080	2.850	0.85	1.55	2.18	3.50	3.95	4.37	5.08	6.26	7.02	7.58
	70:1	7570	7.910	8.280	2.090	2.720	0.73	1.33	1.87	3.00	3.39	3.76	4.36	5.38	6.03	6.51
Size 60*	5:1	7605	9.410	9.975	2.590	3.437	11.1	21.0	27.3	40.4	45.3	50.1	57.5	66.8	75.0	81.2
	10:1	7610	9.580	10.200	2.420	3.437	7.08	12.9	17.8	27.1	30.4	33.7	38.8	46.4	51.6	56.2
	15:1	7615	9.700	10.310	2.300	3.437	4.98	9.10	12.6	19.2	21.6	23.9	27.6	33.2	36.8	40.0
	20:1	7620	9.580	10.200	2.420	3.437	3.81	6.96	9.64	14.8	16.6	18.4	21.2	25.6	28.4	31.0
	25:1	7625	9.540	10.100	2.460	3.437	3.07	5.61	7.78	11.9	13.4	14.9	17.2	20.7	22.9	24.9
	30:1	7630	9.700	10.310	2.300	3.437	2.57	4.70	6.52	10.0	11.3	12.5	14.4	17.4	19.2	20.9
	40:1	7640	9.580	10.200	2.420	3.437	1.94	3.54	4.90	7.54	8.47	9.38	10.8	13.1	14.5	15.7
	50:1	7650	9.540	10.100	2.460	3.437	1.55	2.84	3.93	6.05	6.80	7.53	8.70	10.5	11.6	12.7
	60:1	7660	9.470	9.975	2.530	3.437	1.30	2.37	3.28	5.05	5.68	6.29	7.26	8.79	9.72	10.6
	70:1	7670	9.450	9.975	2.550	3.313	1.11	2.03	2.82	4.34	4.87	5.40	6.23	7.55	8.35	9.08

All ratings to the right of heavy line require force feed lubrication.
*No tooling charges on 4" - 6" c.d

Cone Drive Standard Gear Sets - Right Hand Tool Charts & Horsepower Ratings

C.D	TOOL CHART						AGMA MECHANICAL HORSEPOWER RATINGS									
	Ratio	Tool Number	GEAR		WORM		INPUT MECHANICAL H.P. RATINGS - 1.0 SERVICE FACTOR									
			Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	WORM SPEEDS									
							100	200	300	580	720	870	1150	1750	2400	3000
Size 70	5:1	7705	10.980	11.600	3.020	4.000	17.5	31.1	41.6	60.0	67.3	73.9	83.6	96.4	108	116
	10:1	7710	11.330	11.930	2.670	3.687	11.2	20.3	27.7	41.1	46.2	51.2	58.7	68.4	76.9	83.5
	15:1	7715	11.270	11.810	2.730	3.687	7.88	14.3	19.6	29.3	32.9	36.5	41.9	49.2	55.1	59.9
	20:1	7720	11.330	11.930	2.670	3.687	6.03	11.0	15.0	22.5	25.3	28.0	32.2	37.9	42.4	46.1
	25:1	7725	11.250	11.810	2.750	3.687	4.86	8.83	12.2	18.2	20.5	22.6	26.0	30.7	34.3	37.1
	30:1	7730	11.190	11.700	2.810	3.687	4.07	7.40	10.2	15.3	17.2	19.0	21.8	25.8	28.8	31.3
	40:1	7740	11.330	11.930	2.670	3.687	3.06	5.57	7.66	11.5	12.9	14.3	16.4	19.4	21.7	23.5
	50:1	7750	11.250	11.810	2.750	3.687	2.46	4.47	6.15	9.23	10.4	11.5	13.2	15.6	17.4	18.9
	60:1	7760	11.190	11.700	2.810	3.687	2.05	3.73	5.13	7.71	8.66	9.58	11.0	13.0	14.6	15.8
	70:1	7770	11.150	11.600	2.850	3.687	1.76	3.20	4.41	6.62	7.43	8.23	9.46	11.2	12.5	13.5
Size 80	5:1	7805	12.550	13.210	3.450	4.625	25.9	45.5	59.6	85.3	95.2	104	116	134	150	158
	10:1	7810	13.200	13.960	2.800	4.125	16.7	30.1	40.9	60.0	67.4	74.4	85.1	98.7	111	120
	15:1	7815	13.060	13.750	2.940	4.125	11.8	21.3	29.0	42.9	48.2	53.2	61.2	71.0	79.8	86.0
	20:1	7820	13.200	13.960	2.800	4.125	9.00	16.3	22.2	33.0	37.0	40.9	47.0	54.7	61.4	66.6
	25:1	7825	13.100	13.750	2.900	4.125	7.26	13.1	18.0	26.6	29.9	33.1	38.0	44.3	49.7	54.0
	30:1	7830	13.060	13.750	2.940	4.125	6.08	11.0	15.1	22.4	25.1	27.8	31.9	37.2	41.7	45.3
	40:1	7840	13.200	13.960	2.800	4.125	4.58	8.29	11.3	16.8	18.9	20.9	24.0	28.0	31.4	34.1
	50:1	7850	13.100	13.750	2.900	4.125	3.67	6.65	9.10	13.5	15.2	16.8	19.3	22.5	25.3	27.3
	60:1	7860	13.090	13.750	2.910	4.125	3.07	5.55	7.59	11.3	12.7	14.0	16.1	18.8	21.1	22.8
	70:1	7870	13.040	13.750	2.960	3.960	2.63	4.77	6.52	9.69	10.9	12.0	13.8	16.1	18.1	19.6

All ratings to the right of heavy line require force feed lubrication.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Gear Sets - Right Hand Tool Charts & Horsepower Ratings

C.D	TOOL CHART						AGMA MECHANICAL HORSEPOWER RATINGS								
			GEAR		WORM		INPUT MECHANICAL H.P. RATINGS - 1.0 SERVICE FACTOR								
	Ratio	Tool Number	Pitch Dia.	Outside Dia.	Pitch Dia.	Outside Dia.	WORM SPEEDS								
							100	200	300	580	720	870	1150	1750	2400
Size 100	5:1	8005	15.700	16.500	4.300	5.600	48.5	82.3	105	148	164	178	194	226	245
	10:1	8010	16.400	17.250	3.600	5.062	31.4	55.5	73.2	105	117	129	144	166	186
	15:1	8015	16.400	17.250	3.600	5.062	22.1	39.2	52.1	74.8	83.7	91.9	104	119	133
	20:1	8020	16.450	17.350	3.550	5.062	16.9	30.1	40.0	57.5	64.4	70.7	79.8	91.8	103
	25:1	8025	16.400	17.250	3.600	5.062	13.6	24.3	32.3	46.5	52.1	57.2	64.6	74.3	83.3
	30:1	8030	16.300	17.050	3.700	5.062	11.4	20.3	27.1	39.0	43.7	48.0	54.2	62.4	70.0
	40:1	8040	16.450	17.250	3.550	5.062	8.60	15.3	20.4	29.4	32.9	36.1	40.9	47.0	52.7
	50:1	8050	16.400	17.250	3.600	5.062	6.90	12.3	16.4	23.6	26.4	29.0	32.8	37.8	42.3
	60:1	8060	16.330	17.050	3.670	5.062	5.76	10.3	13.7	19.7	22.1	24.2	27.4	31.6	35.4
	70:1	8070	16.280	17.050	3.720	5.000	4.94	8.80	11.7	16.9	18.9	20.8	23.5	27.1	30.4
Size 120	5:1	8205	18.820	19.750	5.180	6.750	81.3	134	167	235	257	271	300	346	366
	10:1	8210	19.700	20.600	4.300	6.187	53.2	91.8	118	167	186	202	221	258	283
	15:1	8215	19.700	20.600	4.300	6.187	37.5	65.0	83.9	119	133	145	159	185	205
	20:1	8220	19.840	20.880	4.160	6.187	28.7	49.8	64.4	91.9	102	111	122	143	158
	25:1	8225	19.700	20.600	4.300	6.187	23.1	40.2	52.1	74.3	82.7	90.1	99.1	115	128
	30:1	8230	19.610	20.420	4.390	6.187	19.4	33.7	43.7	62.4	69.4	75.7	83.2	97.0	108
	40:1	8240	19.840	20.880	4.160	6.187	14.6	25.4	32.9	47.0	52.2	57.0	62.7	73.0	81.1
	50:1	8250	19.700	20.600	4.300	6.187	11.7	20.4	26.4	37.7	41.9	45.8	50.4	58.7	65.2
	60:1	8260	19.640	20.420	4.360	6.187	9.77	17.0	22.1	31.5	35.0	38.2	42.1	49.0	54.4
	70:1	8270	19.590	20.420	4.410	6.000	8.39	14.6	18.9	27.0	30.1	32.8	36.1	42.1	46.7
Size 150	5:1	8505	23.600	24.750	6.400	8.625	149	233	290	396	423	453	501	554	601
	10:1	8510	24.900	26.100	5.100	7.320	99.3	166	208	293	322	343	378	438	467
	15:1	8515	24.800	25.900	5.200	7.320	70.1	118	149	210	232	248	272	316	339
	20:1	8520	24.800	25.900	5.200	7.320	53.7	90.5	114	161	178	191	210	244	262
	25:1	8525	24.900	26.100	5.100	7.320	43.3	73.1	92.4	131	144	155	170	197	212
	30:1	8530	24.800	25.900	5.200	7.320	36.3	61.3	77.5	110	121	130	143	166	179
	40:1	8540	25.000	26.300	5.000	7.320	27.3	46.2	58.4	82.5	91.3	98.2	108	125	135
	50:1	8550	24.900	26.100	5.100	7.320	21.9	37.1	46.9	66.3	73.4	78.9	86.4	100	108
	60:1	8560	24.800	25.900	5.200	7.320	18.3	30.9	39.2	55.4	61.3	65.9	72.2	83.9	90.4
Size 180	5:1	8805	28.250	29.375	7.750	10.400	236	356	440	577	624	669	733	799	886
	8:1	8808	30.300	31.600	5.700	8.437	193	310	385	535	577	615	681	770	824
	10:1	8810	30.300	31.600	5.700	8.437	161	261	326	455	493	524	581	661	705
	15:1	8815	30.200	31.400	5.800	8.437	114	187	234	328	358	379	419	482	511
	20:1	8820	30.200	31.400	5.800	8.437	87.3	144	180	253	277	292	324	374	395
	25:1	8825	30.300	31.600	5.700	8.437	70.5	116	145	205	224	237	262	303	320
	30:1	8830	30.200	31.400	5.800	8.437	59.1	97.6	122	172	188	199	220	255	269
	40:1	8840	30.400	31.800	5.600	8.437	44.5	73.5	92.0	129	142	150	166	192	203
	50:1	8850	30.300	31.600	5.700	8.437	35.7	59.1	73.9	104	114	121	133	154	163
	60:1	8860	30.200	31.400	5.800	8.437	29.8	49.3	61.7	86.8	95.1	101	111	129	136

All ratings to the right of heavy line require force feed lubrication.

Special Gear Sets

The special center-distance size and ratio gear sets listed herein supplement our standard gear set line which is cataloged in previous pages.

Whenever possible, a standard gear set should be considered because these gear sets are made in quantity runs and are in stock. If it is not possible to use a standard gear set, a gear set from this listing may be applicable. Price and delivery will exceed standard gear set price and delivery, and will depend on which of the two following categories the gear set falls in. Please contact our Sales Office for specific information.

The special gear sets listed in the tool charts on the following pages are divided into two categories:

I. Gear sets identified with an ** can be machined from standard blanks but are not to standard dimensions.

II. The balance of the gear sets are made from special blanks.

In instances where gear sets are not designed to Cone Drive standard proportions due to limitations on worm or gear configuration, the ratings have been revised accordingly. We recommend reviewing the specific application in these instances with an Application Engineer before proceeding with the design.

Cone Drive gear sets are supplied in individually matched sets.

Each set is inspected for tooth contact and smooth operation with the gears on exact center-distance, and with correct end position of worm and side position of gear. After inspection an identifying set number is stamped on mating worm and gear. They should always be installed in matched sets, as marked. Tooling for hundreds of gear set combinations is available: from 3:1 to 240:1, with center-distances from .606" through 52.0".

Where a Cone Drive designed speed reducer cannot be used because of product design, space limitations, etc., and the gear set must be mounted in a specially designed housing, every effort should be made to follow the general design practice for Cone Drive gearing described in the General Information. If possible, standard mountings such as those illustrated in the General Information should be used.

Selection of the proper gear set depends upon the service characteristics under which the gears are to operate. Refer to page 9 for service factor information.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Gear Set Mountings

Mountings for gear sets with center distances from 1.5″ through 28″ are detailed in this section.

The mounting assemblies shown in this section are dimensionally identical to the mountings used in standard Cone Drive Speed Reducers.

Worm mountings are for either single or double-extended shafts horizontally mounted. Vertical worm mountings are available but requirement should be reviewed by Cone Drive application engineers to insure proper lubrication for upper bearing.

Gearshaft mountings are for either single extended, double extended, steeple bearings, or hollow gearshafts. The second suffix letter of these mountings indicates that gearshaft is vertically mounted.

U = shaft extended up

D = shaft extended down

V = shaft double extended up and down

When the second suffix letter is an ‘O’ it indicates the worm to be mounted over the gear.

CENTER DISTANCE (C.D.) TOLERANCE

SIZE	C.D.	TOLER.
15 to 120	1.500 to 12.000	±.001
150 to 280	15.000 to 28.000	±.003

Listed tolerances are Cone Drive housing bore dimensions. Manufactured gear set center distance is exact.

Cone Drive will furnish all parts shown for the mounting assembly selected except for the Cone worm, gear and gearshaft. These items must be ordered separately.

For worm and gear dimensions refer to this section.

For gearshaft dimensions refer to this section.

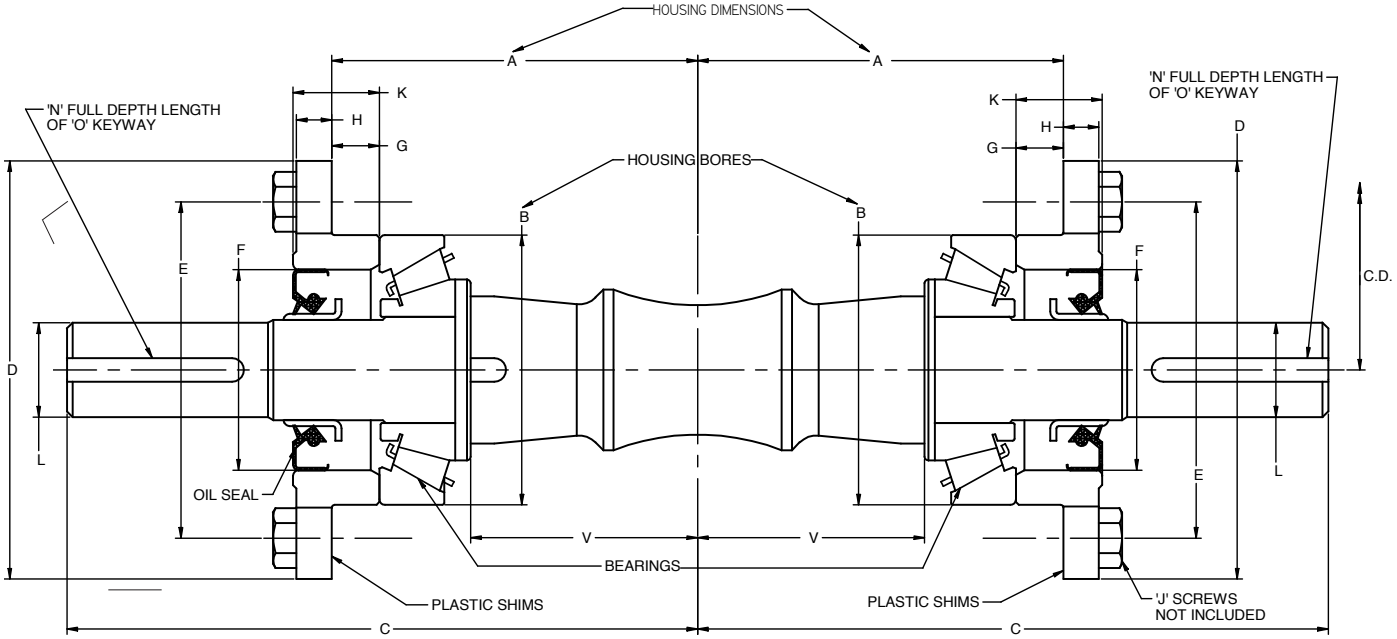
We furnish oilseals as shown for each type and if you require an alternate, please specify type required on your purchase order.

Cone Drive can supply either the complete mounting assembly or individual parts to meet your requirements.

Cone Drive Standard Worm Mountings and Bearings

Size 15 to 35

Standard "A" Mounting (Single Extended)
Standard "E" Mounting (Double Extended)
For Model HO, HU & HV



***Note:** SIZE 15 ONLY. THE WORM AND GEAR BEARING MOUNTINGS ARE IDENTICAL.

CARRIER DIMENSIONS NOT SHOWN FOLLOW IN THIS SECTION.

Size	C.D.	A	B	C	D	E	F	G	H	J
*15	1.500	1.650	2.601 ± .001	3.000	"3.10 square"	3.15	1.250	—	0.156	4-1/4 -20
20	2.000	2.4375	2.125 + .001	4.59	3.25	2.69	1.500	0.160	0.28	4-5/16-24
25	2.500	3.125	2.563 + .001	5.25	3.75	3.12	1.6875	0.161	0.33	4-5/16- 24
30	3.000	3.875	2.860 + .001	6.69	4.43	3.56	2.125	0.504	0.38	6-3/8- 24
35	3.500	4.500	3.125 + .002	7.75	4.87	4	2.250	0.754	0.38	6-3/8-24

Size	K	L	N	O	V	TAPERED ROLLER BEARING		OIL SEAL LIP TYPE
						CONE DRIVE PART NUMBER	MANUFACTURER NUMBER	
15	—	0.625	0.75	3/16 x 3/32	1.000	LM11949 LM11910	LM11949-CONE LM11910-CUP	075A125
20	0.700	0.6875	1.06	3/16 x 3/32	1.406	321075 321212	21075-CONE 21212-CUP	075W150
25	0.742	0.750	1.00	3/16 x 3/32	2.093	323092 323256	23092-CONE 23256-CUP	087W168
30	0.915	1.000	1.75	1/4 x 1/8	2.406	341126 341286	41126-CONE 41286-CUP	106W212
35	0.815	1.1875	2.62	1/4 x 1/8	2.750	343132 343312	43132-CONE 43312-CUP	125W225

STANDARD WORM MOUNTING COMPLETE MOUNTING PARTS - LESS WORM		SIZE 15	SIZE 20	SIZE 25	SIZE 30	SIZE 35
MOUNTING DESCRIPTION	SINGLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL	15A	20A	25A	30A	35A
	DOUBLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL BOTH ENDS	15E	20E	25E	30E	35E

Cone Drive part numbers are shown in bold print.
Mountings shown are for horizontally mounted worm.

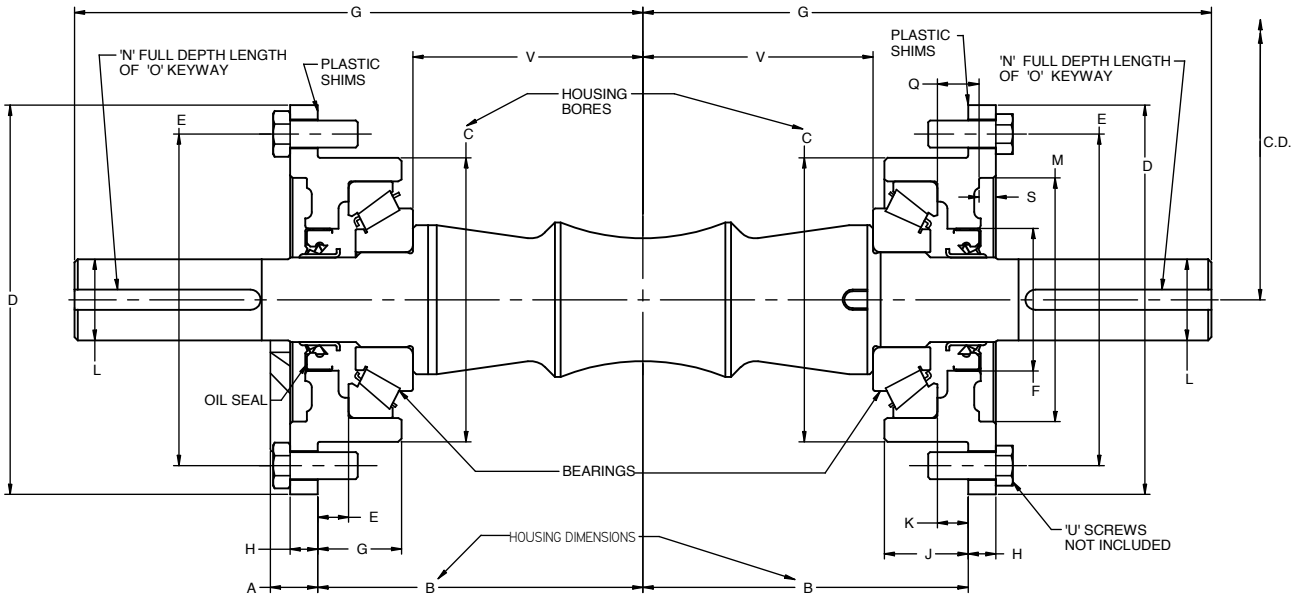
For vertical type mounting contact Cone Drive.
Additional parts are required to insure lubrication of upper bearings.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Worm Mountings and Bearings

Size 40 to 80

Standard "FA" Mounting (Single Extended)
Standard "FE" Mounting (Double Extended)
For Model HO, HU & HV



Note: ALL BOLT HOLES ARE SHOWN 30° OUT OF POSITION.

Size	C.D.	A	B	C	D	E	F	G	H	J	K	L
40F	4.000	0.88	5.187	4.625	6.38	5.375	2.625	9.31	0.437	1.56	.757±.002	1.500
50F	5.000	0.94	6.000	5.250	7.25	6.125	2.625	10.50	0.500	1.56	.570±.002	1.500
60F	6.000	1.00	6.625	6.125	8.12	7.000	2.875	11.75	0.560	1.72	.695±.002	1.750
70F	7.000	—	8.250	6.750	9.25	7.875	3.500	14.50	0.700	3.20	2.155±.005	1.875
80F	8.000	—	9.625	7.000	9.62	8.25	3.500	15.50	0.700	3.85	2.592±.005	2.000

Size	M	N	O	Q	S	U	V	TAPERED ROLLER BEARING		OIL SEAL LIP TYPE
								CONE DRIVE PART NUMBER	MANUFACTURER NUMBER	
40F	3.875	3.00	3/8 x 3/16	0.906	0.31	6-3/8-24	3.250	HM803146 HM803110	HM803146-CONE HM803110-CUP	156W262
50F	4.500	3.25	3/8 X 3/16	0.800	0.31	6-1/2-20	4.250	355175C 355437	55175C-CONE 55437-CUP	156W262
60F	5.000	4.00	3/8 X 3/16	0.962	0.43	6-1/2-20	4.500	372188C 372487	72188C-CONE 72487-CUP	181W287
70F	5.750	4.50	1/2 X 1/4	1.250	0.43	6-5/8-11	4.500	H913849 H913810	H913849-CONE H913810-CUP	212W350
80F	5.750	4.75	1/2 X 1/4	0.895	0.43	6-5/8-11	5.125	309285 309220	9285-CONE 9220-CUP	212W250

STANDARD WORM MOUNTING COMPLETE MOUNTING PARTS - LESS WORM		SIZE 40F	SIZE 50F	SIZE 60F	SIZE 70F	SIZE 80F
MOUNTING DESCRIPTION	SINGLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL	40FA	50FA	60FA	70FA	80FA
	DOUBLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL BOTH ENDS	40FE	50FE	60FE	70FE	80FE

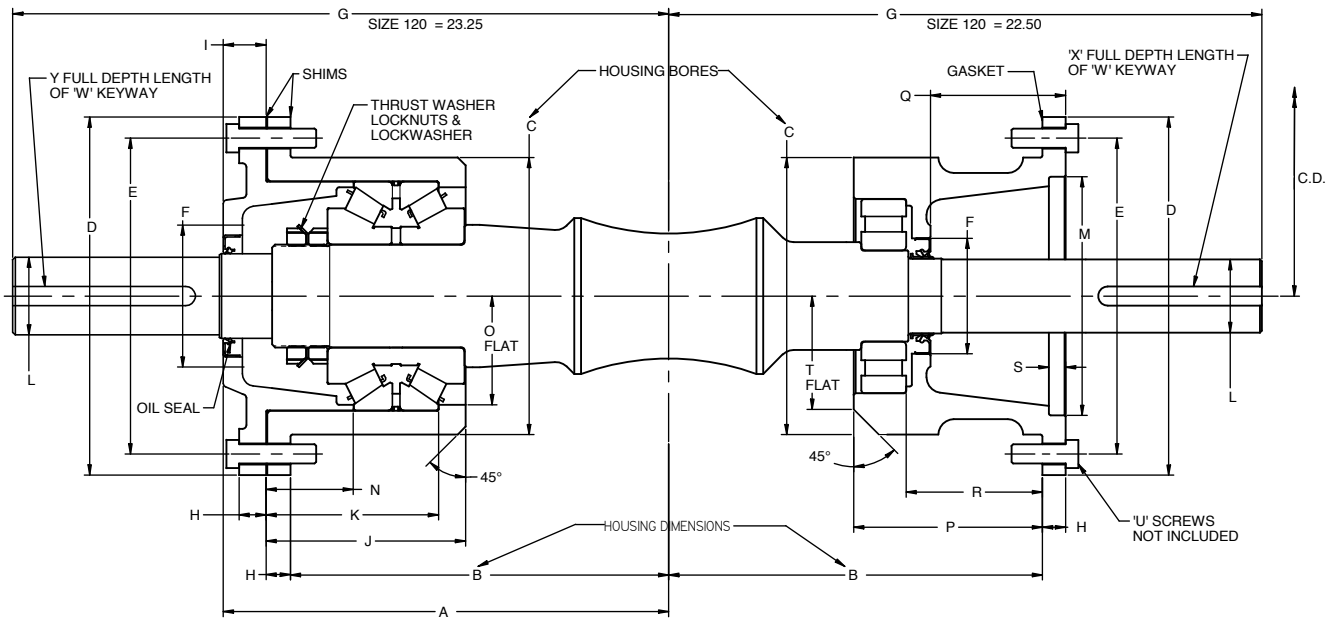
Cone Drive part numbers are shown in bold print.
Mountings shown are for horizontally mounted worm.

For vertical type mounting contact Cone Drive.
Additional parts are required to insure lubrication of upper bearings.

Cone Drive Standard Worm Mountings and Bearings

Size 100 to 120

Standard "A" Mounting (Single Extended)
Standard "E" Mounting (Double Extended)
For Model HO, HU & HV



ALL BOLT HOLES ARE SHOWN 30° OUT OF POSITION.

TAPER ROLLER BEARINGS HAVE PREGROUND SPACERS TO CONTROL ENDPLAY OF BEARING.

SIZE	C.D.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
100	10.000	14.44	12.250	9.000	11.62	10.25	3.750	19.25	0.750	0.7	6.44	5.555	2.375	7.750	2.843	3.6	6.125	4.386	4.50	0.54	3.1	6-5/8-11
120	12.000	17.19	14.500	11.875	14.87	13.25	4.750	SEE ABOVE	0.750	1.83	7.62	6.656	3.000	10.250	2.328	4.1	8.06	5.166	5.25	0.75	3.6	6-3/4-10

SIZE	W	X	Y	BEARING ACCESSORIES			TAPERED ROLLER THRUST BEARING			CYLINDRICAL ROLLER RADIAL BEARING	OIL SEAL LIP
				THRUST WASHER	LOCK NUT (2)	LOCK WASHER	ASSEMBLY CONE DRIVE NUMBER	CONSISTING OF			
								CONE AND CONE SPACER	**CUP AND CUP SPACER**		
100	5/8 x 5/16	5.00	4.25	NOT REQ'D	155017 AN-17	155217 W-17	335311	90334 (2) X-1-S 90334	90744 (2) Y-4-S90744	240315 U-1315-L	243W375
120	3/4 x 3/8	5.87	4.50	155320 K91520	155020 AN-20	155220 W-20	334879	HH923649 (2) K84216	HH923610 (2) K84217	245217 U-5217-L	312W475

STANDARD WORM MOUNTING COMPLETE MOUNTING PARTS - LESS WORM		**SIZE 100**	**SIZE 120**
MOUNTING DESCRIPTION	SINGLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL	100A	120A
	DOUBLE EXTENDED STANDARD WITH LIP TYPE OIL SEAL BOTH ENDS	100E	120E

Cone Drive part numbers are shown in bold print.
Mountings shown are for horizontally mounted worm.

For vertical type mounting contact Cone Drive.
Additional parts are required to insure lubrication of upper bearings.

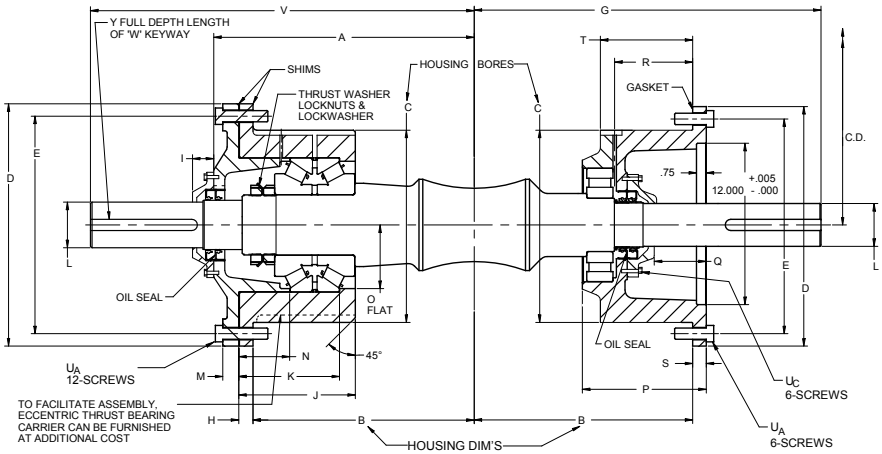
Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Worm Mountings and Bearings

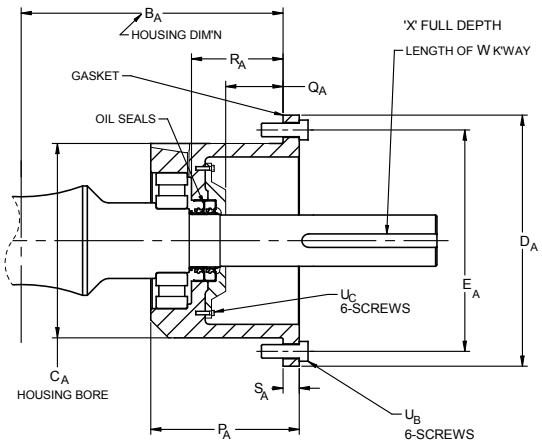
Size 150 to 180

Standard "A" Mounting (Single Extended)
Standard "E" Mounting (Double Extended)
For Model HO, HU & HV

Alternate "B" Mounting (Single Extended)
Alternate "H" Mounting (Double Extended)
Available on Special Order Only



STANDARD



Alternate Radial Bearing Carrier

NOTE: TAPERED ROLLER BEARINGS HAVE PRE-GROUND SPACERS TO CONTROL ENDPLAY OF BEARING.

SIZE	C.D.	A	B	C	D	E	G	H	I	J	K	L	M	N	O	P
150	15.000	20.50	16.750	13.500	17.00	15.25	26.25	0.937	1.00	8.12	6.850	3.500	1.00	1.900	5.3	7.75
180	18.000	21.68	18.500	14.500	18.38	16.38	30.12	1.000	1.06	9.25	7.913	4.000	1.00	2.963	5.1	9.25

SIZE	Q	R	S	T	V	W	X	Y	B_A	C_A	D_A	E_A	P_A	R_A	S_A	Q_A
150	3.37	4.87	0.750	5.5	27.87	7/8 x 7/16	8.50	5.50	15.750	7.750	9.75	8.75	6.50	3.87	0.500	2.12
180	4.06	5.47	1.000	6.4	31.50	1 x 1/2	10.00	7.50	17.125	9.000	11.50	10.25	7.38	4.09	0.500	2.18

The bearings shown are for illustration, Cone Drive will select bearings which are best suited for the application and meet the needs for performance and delivery.

STANDARD WORM MOUNTING COMPLETE MOUNTING PARTS - LESS WORM		SIZE 150	SIZE 180
MOUNTING DESCRIPTION	SINGLE EXTENDED STANDARD WITH LIP TYPE SEAL	150A	180A
	SINGLE EXTENDED ALTERNATE WITH LIP TYPE SEAL	150B	180B
	DOUBLE EXTENDED STANDARD WITH LIP TYPE SEAL BOTH ENDS	150E	180E
	DOUBLE EXTENDED ALTERNATE WITH LIP TYPE SEAL BOTH ENDS	150H	180H

Cone Drive part numbers are shown in bold print.
Mountings shown are for horizontally mounted worm.
For vertical type mounting contact Cone Drive.
Additional parts are required to insure lubrication of upper bearings.

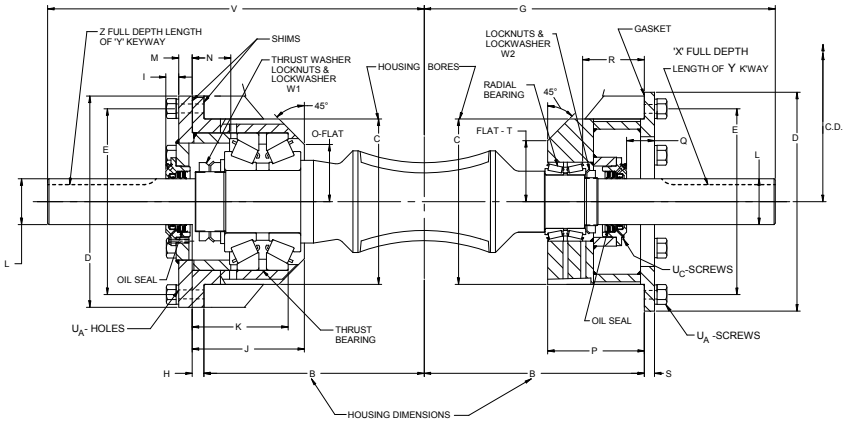
** Assemble 2 inner seals with lip inward and outer seal with lip outward.

Cone Drive Standard Worm Mountings and Bearings

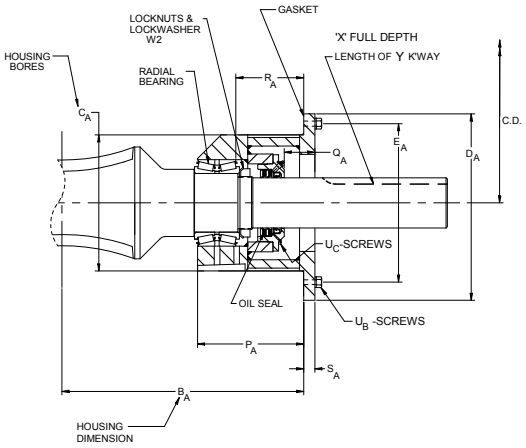
Size 220 to 280

Standard "A" Mounting (Single Extended)
Standard "E" Mounting (Double Extended)
For Model HO, HU & HV

Alternate "B" Mounting (Single Extended)
Alternate "H" Mounting (Double Extended)
Available on Special Order Only



Standard



Alternate Radial Bearing Carrier

NOTE: TAPERED ROLLER BEARINGS HAVE PRE-GROUND SPACERS TO CONTROL ENDPLAY OF BEARING.

SIZE	C.D.	B	C	D	E	G	H	I	J	K	L	M	N	O	P	Q
220	21.837	21.625	16.250	20.75	18.25	34.50	1.125	1.4	11.00	9.400	4.500	1.22	4.448	5.6	10.50	2.50
240	24.000	24.500	17.500	22.50	19.75	40.00	1.250	0.3	12.50	10.965	5.000	1.25	5.885	6.6	12.50	3.12
280	28.000	29.750	22.503	28.00	25.25	46.00	1.500	2.0	14.18	12.173	6.000	1.55	5.453	9.0	14.88	4.18

SIZE	R	S	T	U_{ABC}	V	X	Y	Z	B_A	C_A	D_A	E_A	P_A	Q_A	R_A	S_A
220	5.94	1.00	5.7	A-12-1 1/8-7 B-6-3/4-10 C-6-3/8-16	37.00	10.00	1 X 1/2	9.50	19.500	10.875	13.87	12.25	8.38	.37	3.81	1.00
240	7.06	1.00	6.5	A-12-1 1/4 -8 B- 8- 5/8-11 C- 6- 3/8-16	40.00	10.00	1 1/4 X 7/16	9.75	24.500	13.500	16.50	15.00	12.25	2.87	7.06	.75
280	8.50	1.50	8.5	A-12-1 1/2-6 C-6-3/4-10	46.00	13.00	1 1/2 X 1/2	9.00								

"The bearings shown are for illustration, Cone Drive will select bearings which are best suited for the application and meet the needs for performance and delivery."

STANDARD WORM MOUNTING COMPLETE MOUNTING PARTS - LESS WORM		SIZE 220	SIZE 240	SIZE 280
MOUNTING DESCRIPTION	SINGLE EXTENDED STANDARD WITH LIP TYPE SEAL	220A	240A	280A
	SINGLE EXTENDED ALTERNATE WITH LIP TYPE SEAL	220B	240B	
	DOUBLE EXTENDED STANDARD WITH LIP TYPE SEAL BOTH ENDS	220E	240E	280E
	DOUBLE EXTENDED ALTERNATE WITH LIP TYPE SEAL BOTH ENDS	220H	240H	

Cone Drive part numbers are shown in bold print.
Mountings shown are for horizontally mounted worm.
For vertical type mounting contact Cone Drive.

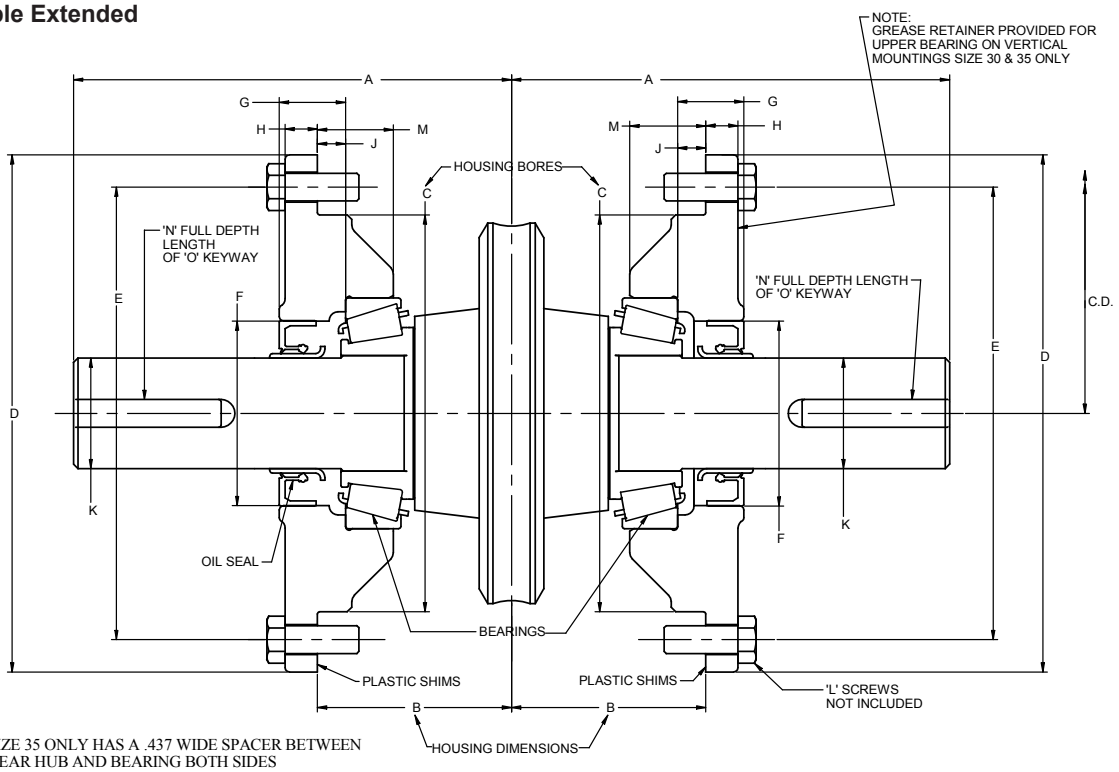
Additional parts are required to insure lubrication of upper bearings.
** Assemble 2 inner seals with lip inward and outer seal with lip outward.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Gearshaft Mountings and Bearings

Size 15 to 35

Single and Double Extended



Note: SIZE 35 ONLY HAS A .437 WIDE SPACER BETWEEN GEAR HUB AND BEARING BOTH SIDES

Size	C.D.	A	B	C	D	E	F	G	H	J
15	1.500	3.10	1.650	2.600+ .002	3.10	3.15	1.250	0.366	0.156	0.166
20	2.000	4.06	1.625	3.5005 + .0015	4.75	4.12	2.125	0.733	0.312	0.007
25	2.500	4.50	2.000	4.3755 + .0015	5.69	4.94	2.250	0.860	0.375	0.257
30	3.000	5.94	2.625	5.375 + .002	7.00	6.12	2.500	0.898	0.437	0.382
35	3.500	7.87	3.500	6.500 + .002	8.12	7.25	3.250	0.960	0.437	0.414

Size	**K**	**L**	**M**	**N**	**O**	TAPERED ROLLER THRUST BEARING		OIL SEAL LIP
						CONE DRIVE PART NUMBER	**MANUFACTURES PART NUMBER**	
15	0.75	4-1/4-20	0.50	0.80	3/16 x 3/32	LM11949 LM11910-CUP	LM11949-CONE LM11910-CUP	075A125
20	1.125	4-5/16-24	0.65	1.19	1/4 x 1/8	15117-CONE 15245-CUP	15117-CONE 15245-CUP	112W212
25	1.250	8-5/16-24	0.94	1.38	1/4 x 1/8	02875-CONE 02820-CUP	02875-CONE 02820-CUP	125W225
30	1.500	6-3/8-24	1.03	2.00	3/8 x 3/16	26881-CONE 26822-CUP	26881-CONE 26822-CUP	150W250
35	1.875	6-3/8-24	1.44	2.68	1/2 x 1/4	33890-CONE 33821-CUP	33890-CONE 33821-CUP	200W325

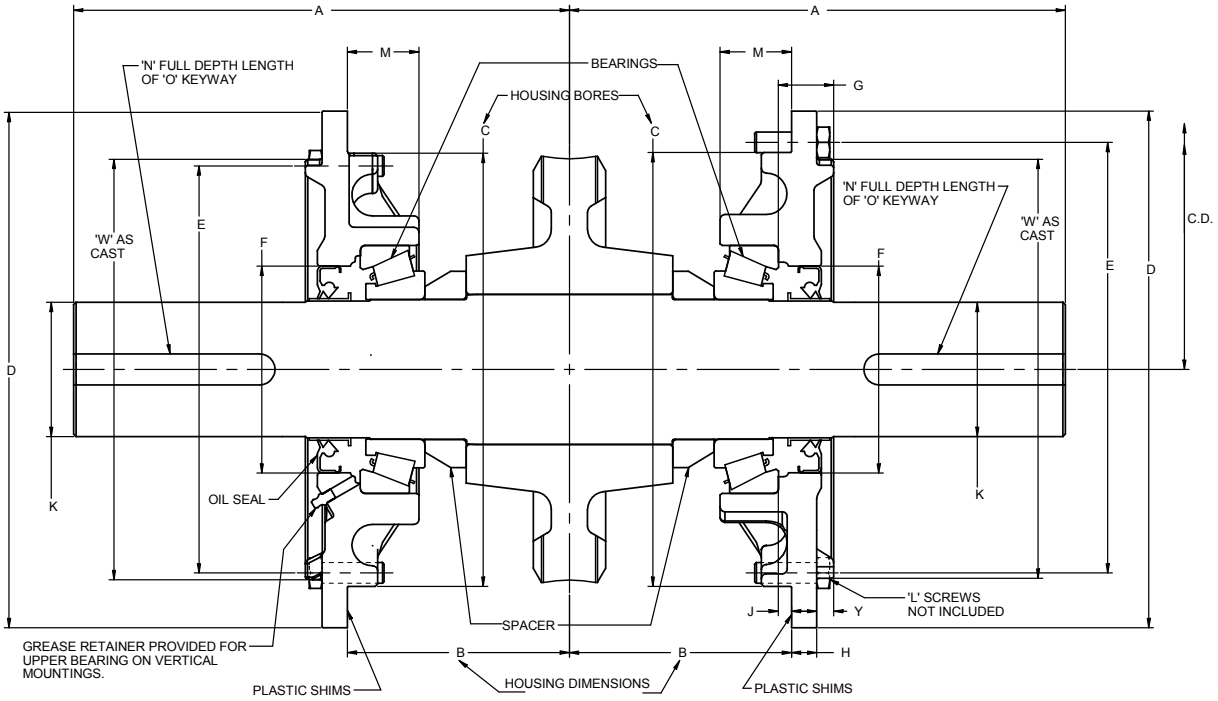
STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		**SIZE 15**	**SIZE 20**	**SIZE 25**	**SIZE 30**	**SIZE 35**
MOUNTING DESCRIPTION	SINGLE EXTENDED - HORIZONTAL	15J	20J	25J	30J	35J
	SINGLE EXTENDED - SHAFT VERTICAL UP			25JU	30JU	35JU
	SINGLE EXTENDED - SHAFT VERTICAL DOWN			25JD	30JD	35JD
	DOUBLE EXTENDED - HORIZONTAL	15K	20K	25K	30K	35K
	DOUBLE EXTENDED - SHAFT VERTICAL			25KV	30KV	35KV

Cone Drive part numbers are shown in bold print.

Cone Drive Standard Gearshaft Mountings and Bearings

Size 40 to 70

Single and Double Extended



Size	C.D.	A	B	C	D	E	F	G	H	J	K
40	4.000	9.25	4.125	7.250	9.00	8.00	3.750	1.050	0.437	.385± .002	2.25
50	5.000	10.31	4.750	9.000	11.00	9.87	4.500	1.102	0.500	.573 ± .002	2.75
60	6.000	12.00	5.375	10.500	12.50	11.38	5.000	1.045	0.593	.322 ± .002	3.25
70	7.000	13.00	6.250	12.500	15.00	13.75	5.250	1.140	0.687	.806 ± .005	3.375

Size	**L**	**M**	**N**	**O**	**W**	**Y**	TAPERED ROLLER THRUST BEARING		OIL SEAL LIP TYPE
							CONE DRIVE PART NUMBER	**MANUFACTURES PART NUMBER**	
40	6 - 3/8 - 24	1.56	3.31	1/2 x 1/4	7.12	0.19	303977 303920	3977-CONE 3920-CUP	231W375
50	6 - 1/2 - 20	1.87	3.62	5/8 x 5/16	9.00	0.19	300567 300563	567-CONE 563-CUP	281W450
60	6 - 1/2 - 20	1.75	4.5	3/4 x 3/8	10.25	0.41	300596 300592A	596-CONE 592A-CUP	331W500
70	6 - 5/8 - 11	2.43	4.87	7/8 x 7/16	12.25	0.32	300760 300752	760-CONE 752-CUP	350W525

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		**SIZE 40**	**SIZE 50**	**SIZE 60**	**SIZE 70**
MOUNTING DESCRIPTION	SINGLE EXTENDED - HORIZONTAL	40L	50L	60L	70L
	SINGLE EXTENDED - SHAFT VERTICAL UP	40LU	50LU	60LU	70LU
	SINGLE EXTENDED - SHAFT VERTICAL DOWN	40LD	50LD	60LD	70LD
	DOUBLE EXTENDED - HORIZONTAL	40M	50M	60M	70M
	DOUBLE EXTENDED - SHAFT VERTICAL	40MV	50MV	60MV	70MV

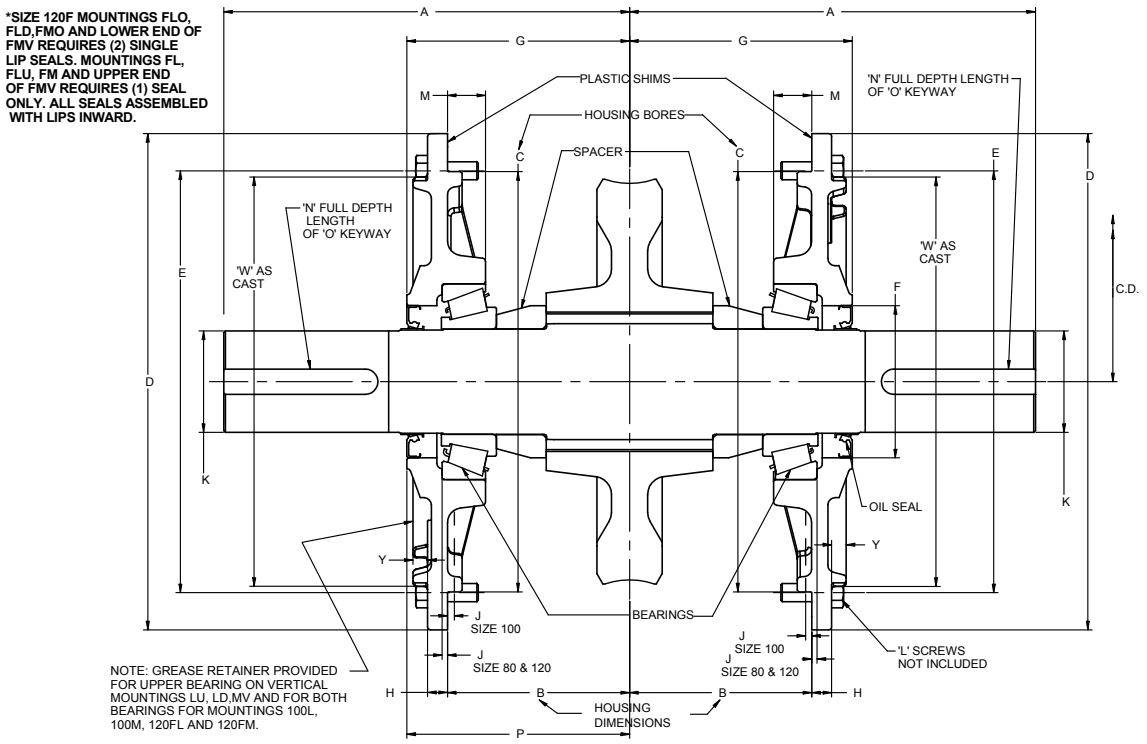
Cone Drive part numbers are shown in bold print.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Gearshaft Mountings and Bearings

Size 80 to 120

Single and Double Extended



Size	A	B	C	D	E	F	G	H	J	K	L Holes	M
80	14.00	6.250	14.500	17.12	15.75	5.250	7.68	0.687	0.186	3.500	8 5/8-11	1.31
100	15.72	8.000	17.750	20.50	19.12	6.000	9.00	0.812	0.652	4.000	12-5/8-11	2.03
120F	24.00	10.375	21.500	24.50	23.00	7.500	12.36	0.875	0.450	5.497	12-3/4-10	1.93

Size	**N**	**O**	**P**	**W**	**Y**	TAPERED ROLLER THRUST BEARING		OIL SEAL LIP TYPE
						CONE DRIVE PART NUMBER	**MANUFACTURES PART NUMBER**	
80	4.87	7/8 x 7/16	7.84	14.25	0.5	377362 377675	77362-CONE 77675-CUP	356W525
100	5.12	1 x 1/2	9.25	16.82	0.38	371412 371750	71412-CONE 71750-CUP	406W600
120F	7.62	1 1/4 x 5/8	12.5	20.5	—	EE107057 107105	EE107057-CONE 107105-CUP	550A750

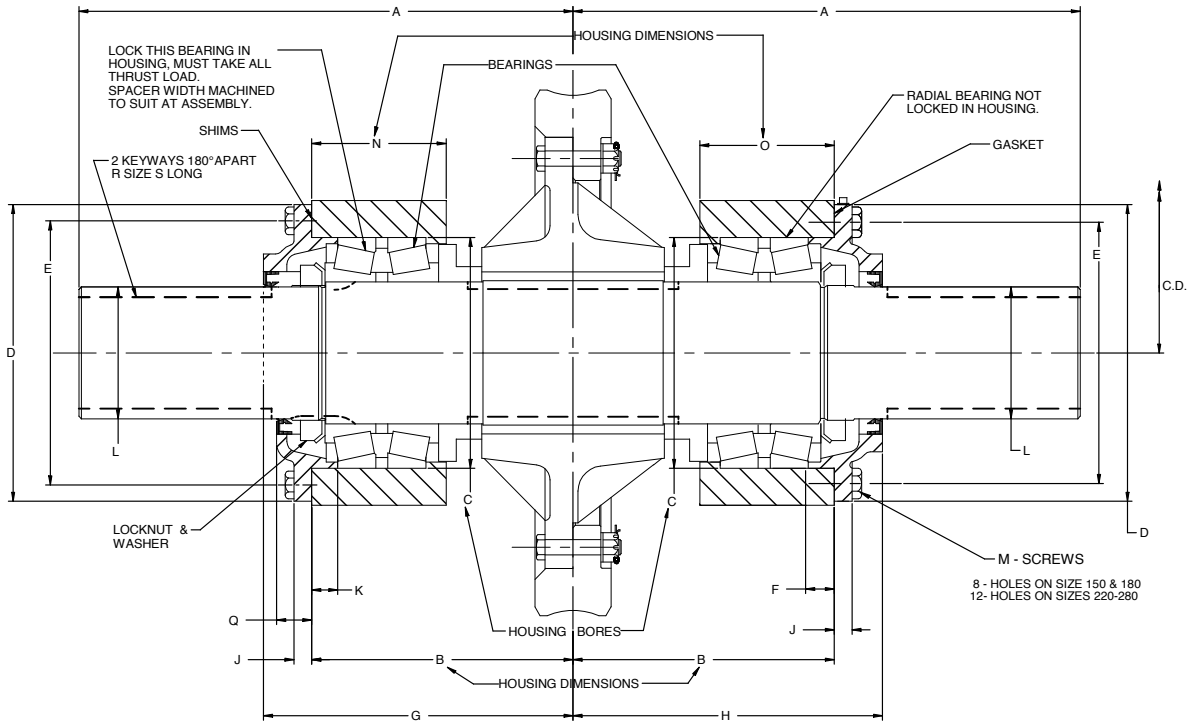
STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		**SIZE 80**	**SIZE 100**	**SIZE 120F**
MOUNTING DESCRIPTION	SINGLE EXTENDED - HORIZONTAL - WORM MOUNTED UNDER GEAR	80L	100L	120FL
	SINGLE EXTENDED - HORIZONTAL - WORM MOUNTED OVER GEAR	80LO	100LO	120FLO
	SINGLE EXTENDED - SHAFT VERTICAL UP	80LU	100LU	120FLU
	SINGLE EXTENDED - SHAFT VERTICAL DOWN	80LD	100LD	120FLD
	DOUBLE EXTENDED - HORIZONTAL - WORM MOUNTED UNDER GEAR	80M	100M	120FM
	DOUBLE EXTENDED - HORIZONTAL - WORM MOUNTED OVER GEAR	80MO	100MO	120FMO
	DOUBLE EXTENDED - SHAFT VERTICAL	80MV	100MV	120FMV

* See note above for size 120F.
Cone Drive part numbers are shown in bold print.

Cone Drive Standard Gearshaft Mountings and Bearings

Size 150 to 280

Horizontal Mounting Single and Double Extended



LOCATE LARGE END OF SPACERS TOWARD BEARINGS ON MOUNTING.

ALL OIL SEAL LIPS TO FACE INWARD.

Size	C.D.	A	B	C	D	E	F	G	H	J	K	L	M	N
150	15.000	25.00	12.875	11.377 + .002	14.62	12.87	1.000	15.50	15.50	.875	1.281	6.500	3/4 - 10	5.625
180	18.000	28.75	15.125	12.503 + .003	15.75	14.00	1.250	17.75	17.75	.875	1.531	7.500	3/4 - 10	5.875
220	21.837	36.00	19.750	14.003 + .003	18.00	16.12	1.812	22.62	22.62	1.000	2.156	9.000	1" x 8	6.500
240	24.000	38.00	19.500	15.753 + .003	20.50	18.50	1.500	23.12	23.12	1.125	1.781	10.000	1" x 8	6.000
280	28.000	48.00	26.500	19.003 + .003	24.00	21.50	2.750	29.00	29.00	1.250	3.028	12.000	1 1/4 x 7	8.000

The bearings shown are for illustration, Cone Drive will select bearings which are best suited for the application and meet the needs for performance and delivery.

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 150	SIZE 180	SIZE 220	SIZE 240	SIZE 280
MOUNTING DESCRIPTION	SINGLE EXTENDED - HORIZONTAL - WORM MOUNTED UNDER GEAR	150L	180L	220L	240L	280L
	SINGLE EXTENDED - HORIZONTAL - WORM MOUNTED OVER GEAR	150JO	180JO	220JO	240JO	280JO
	DOUBLE EXTENDED - HORIZONTAL - WORM MOUNTED UNDER GEAR	150K	180K	220K	240K	280K
	DOUBLE EXTENDED - HORIZONTAL - WORM MOUNTED OVER GEAR	150KO	180KO	220KO	240KO	280KO

For Vertical Mounting see following page.

Cone Drive part numbers are shown in bold print.

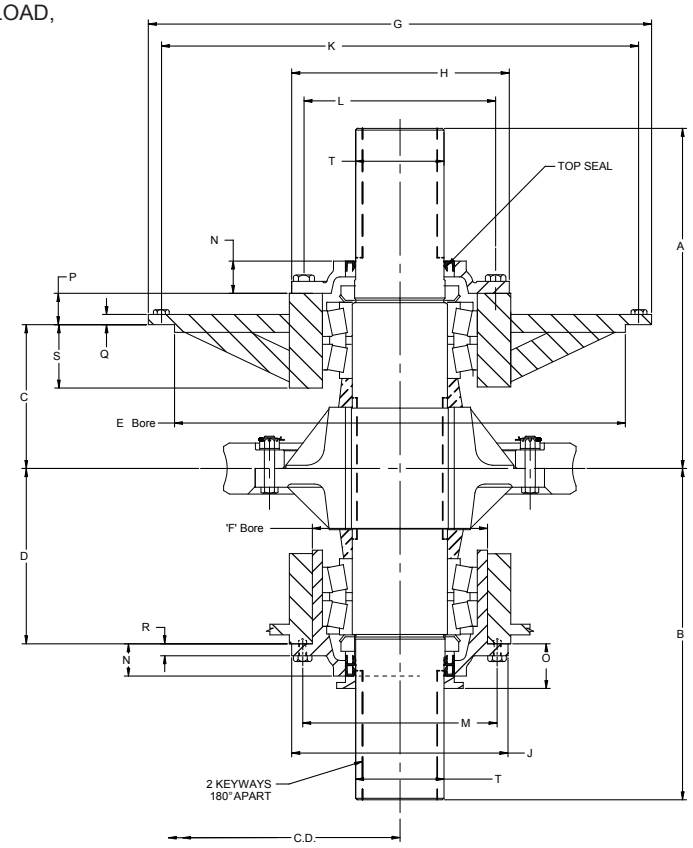
Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Gearshaft Mountings - Vertical

Size 150 to 280

UPPER BEARING IS LOCKED IN CARRIER MUST TAKE ALL THRUST LOAD, SPACER WIDTH MACHINED TO SUIT AT ASSEMBLY.

UPPER BEARING TO BE GREASE PACKED FOR LUBRICATION



SIZE	CARRIER BOLT HOLES			
	TOP		BOTTOM	
	NUMBER	DIA.	NUMBER	DIA.
150	12	5/8-11	8	3/4 - 10
180	12	5/8-11	8	3/4 - 10
220	12	1" - 8	8	1" - 8
240	12	1" - 8	8	1" - 8
280	16	1 1/4 X 7	12	1 1/4 - 7

SIZE	EXTENSION KEYWAYS	
	SIZE	LENGTH
150	(2) 1 1/2 x 1/2	9.50
180	(2) 1 3/4 x 5/8	8.00
220	(2) 2 1/2 x 7/8	8.00
240	(2) 2 1/2 x 7/8	8.00
280	(2) 3 x 1	12.00

SIZE	C.D.	A	B	C	D	E	F	G	H	J	K	L	M
150	15.000	25.00	30.00	11.500	14.000	27.000	13.500	29.9	14.7	17.0	28.37	12.87	15.25
180	18.000	28.75	34.75	12.750	16.500	32.750	14.500	35.8	15.8	18.5	34.12	14.00	16.37
220	21.837	36.00	42.50	16.000	21.625	39.500	16.750	44.0	18.0	21.2	41.50	16.12	19.00
240	24.000	38.00	46.00	17.000	22.125	44.000	18.750	49.5	20.5	23.3	46.75	18.50	21.00
280	28.000	48.00	55.00	21.500	26.250	50.500	22.500	56.0	23.0	27.8	53.00	21.50	24.75

The bearings shown are for illustration, Cone Drive will select bearings which are best suited for the application and meet the needs for performance and delivery.

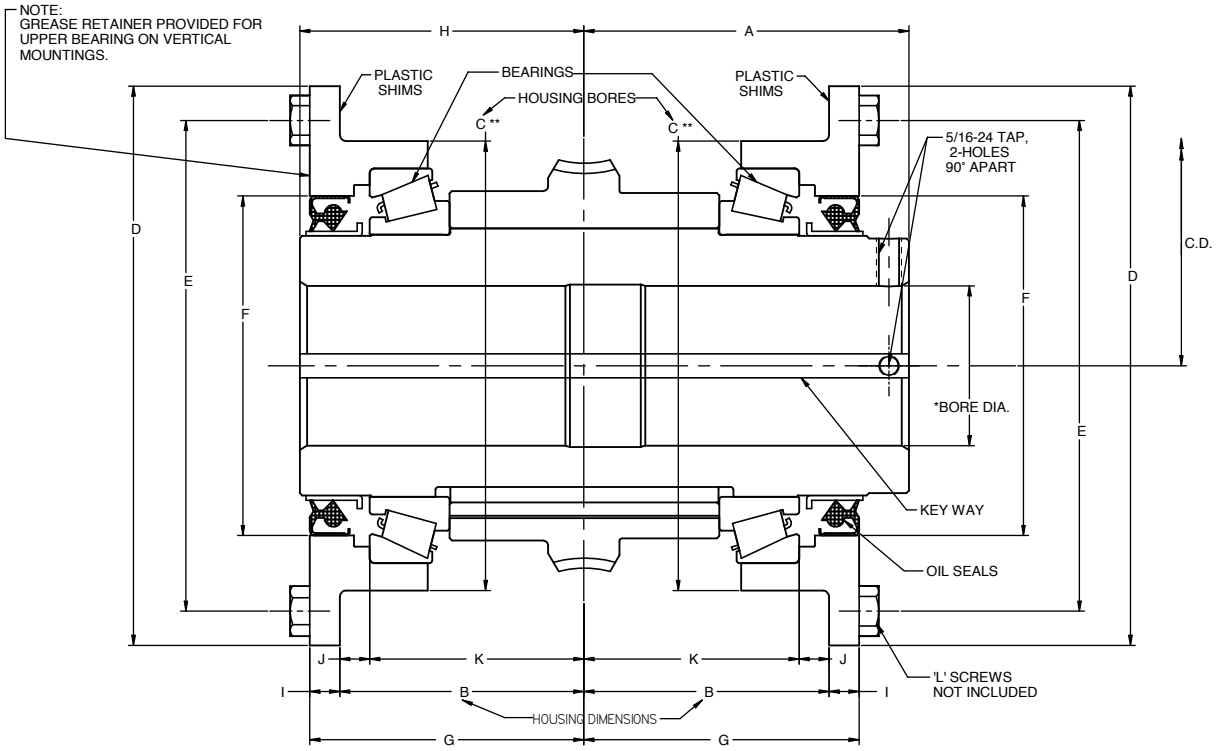
STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 150	SIZE 180	SIZE 220	SIZE 240	SIZE 280
MOUNTING DESCRIPTION	SINGLE EXTENDED - SHAFT VERTICAL UP	150NU	180NU	220NU	240NU	280NU
	SINGLE EXTENDED - SHAFT VERTICAL DOWN	150ND	180ND	220ND	240ND	280ND
	DOUBLE EXTENDED - SHAFT VERTICAL	150PV	180PV	220PV	240PV	280PV

For Gearshaft dimensions not shown contact Cone Drive.

Cone Drive part numbers are shown in bold print.

Cone Drive Standard Gearshaft Mountings and Bearings

Size 20 to 35



*SEE GEAR SHAFT CHART FOR BORE SIZES FOLLOWING IN THIS SECTION.
**ON SIZES 20 & 25 THE BEARINGS SET DIRECTLY IN HOUSING BORE.

Size	C.D.	A	B	C	D	E	F	G	H
20	2.000	3.06	1.625	± .0015 3.5005	4.75	4.12	2.687	2.43	2.62
25	2.500	3.12	2.000	± .0015 4.3755	5.69	4.94	3.500	2.41	2.68
30	3.000	4.06	2.625	± .002 5.375	7.00	6.12	4.250	3.38	3.56
35	3.500	4.62	3.500	± .002 6.500	8.12	7.25	4.750	3.94	4.18

SIZE	I	J	K	L HOLES		TAPERERED ROLLER BEARING		OIL SEAL LIP TYPE
				NO.	SIZE	CONE DRIVE PART NUMBER	**MANUFACTURES PART NUMBER**	
20	.375	-.118	1.750	4	5/16 - 24	300368 300362A	368-CONE 362A-CUP	193W268
25	.375	.203	-	8	5/16 - 24	30399A 30393AS	399A-CONE 393AS-CUP	262W350
30	.437	-0.56	2.687	6	3/8 - 24	327689 327620	27689-CONE 27620-CUP	325W425
35	.437	.382	-	6	3/8 - 24	342368 342584	42368-CONE 42584-CUP	362W475

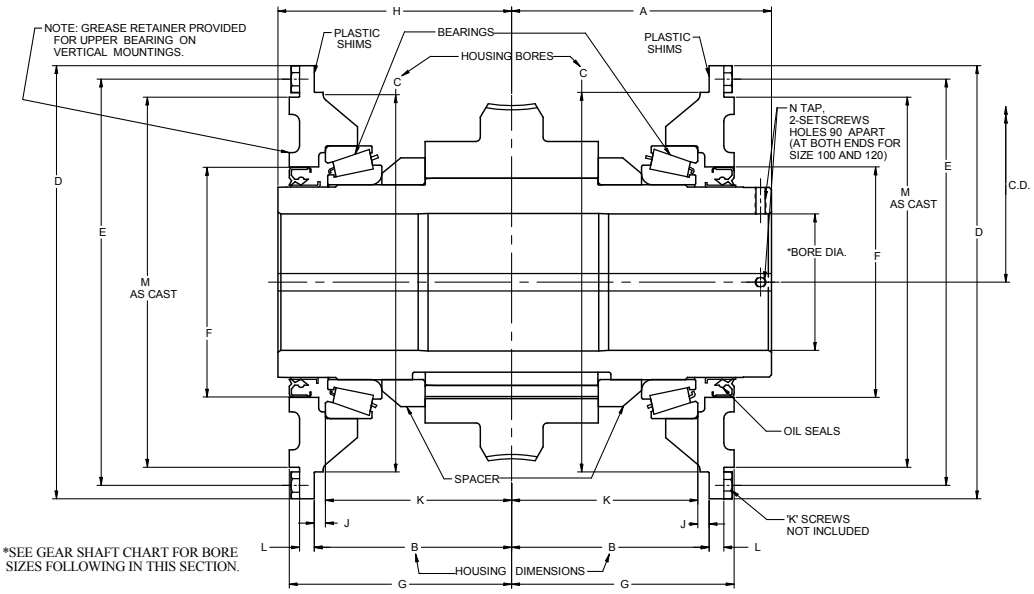
STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		**SIZE 20**	**SIZE 25**	**SIZE 30**	**SIZE 35**
MOUNTING DESCRIPTION	SINGLE EXTENDED - SHAFT HORIZONTAL	S20 J	S25 J	S30 J	S35 J
	SINGLE EXTENDED - SHAFT VERTICAL UP	S20 JU	S25 JU	S30 JU	S35 JU
	SINGLE EXTENDED - SHAFT VERTICAL DOWN	S20 JD	S25 JD	S30 JD	S35 JD

Cone Drive part numbers are shown in bold print.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Hollow Shaft Gear Mountings and Bearings

Size 40 to 120



Size	C.D.	A	B	C	D	E	F	G	H	J
40	4.000	5.87	± .001 4.125	7.250	9.00	8.00	5.000	5.00	5.19	± .002 .322
50	5.000	6.25	± .001 4.750	9.000	11.00	9.87	6.250	5.47	5.75	± .002 .386
60	6.000	7.50	± .001 5.375	10.500	12.50	11.38	6.625	6.38	6.75	± .002 .260
70	7.000	8.75	± .001 6.250	12.500	15.00	13.75	8.375	7.43	7.75	± .005 .270
80	8.000	8.75	± .001 6.250	14.500	17.12	15.75	8.375	7.43	7.75	± .005 .270
100	10.000	10.62	± .002 8.000	17.750	20.50	19.12	10.000	9.38	10.62	± .005 .300
120	12.000	14.00	± .002 10.375	21.500	24.50	23.00	11.750	12.25	14.00	± .005 .780

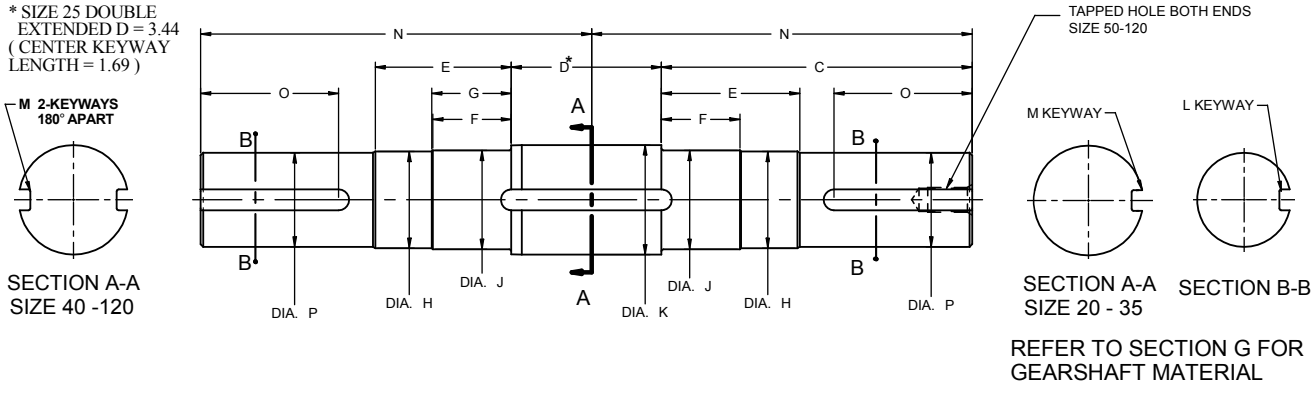
Size	K HOLES					TAPERED ROLLER BEARING		OIL SEAL LIP TYPE
	NO.	SIZE	L	M	N	CONE DRIVE PART NUMBER	**MANUFACTURES PART NUMBER**	
40	6	3/8 - 24	.47	–	5/16 - 24	356418 356650	56418-CONE 56650-CUP	400W500
50	6	1/2 - 20	.50	–	5/16 - 24	348286 348220	48286-CONE 48220-CUP	475W625
60	6	1/2 - 20	.58	10.25	5/16 -24	348685 348620	48685-CONE 48620-CUP	550W662
70	6	5/8 - 11	.68	12.38	1/2 -20	300760 300752	67790-CONE 67720-CUP	687W837
80	8	5/8 - 11	.68	14.38	1/2 - 20	367790 367720	67790-CONE 67720-CUP	687W837
100	12	5/8 - 11	.82	16.82	1/2 -20	367985 367920	67985-CONE 67920-CUP	800D1000
120	12	3/4 - 10	.80	–	1/2 - 20	LM451349 LM451310	LM451349-CONE LM451310-CUP	1000A1175(2)

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 40	SIZE 50	SIZE 60	SIZE 70	SIZE 80	SIZE 100	SIZE 120
MOUNTING DESCRIPTION	SINGLE EXTENDED - SHAFT HORIZONTAL	S40 J	S50 J	S60 J	S70 J	S80 J		
	SINGLE EXTENDED - SHAFT VERTICAL UP	S40 JU	S50 JU	S60 JU	S70 JU	S80 JU		
	SINGLE EXTENDED - SHAFT VERTICAL DOWN	S40 JD	S50 JD	S60 JD	S70 JD	S80 JD		
	DOUBLE EXTENDED - SHAFT HORIZONTAL						S100 K	S120 K
	DOUBLE EXTENDED - SHAFT VERTICAL						S100 KV	S120

Cone Drive part numbers are shown in bold print.

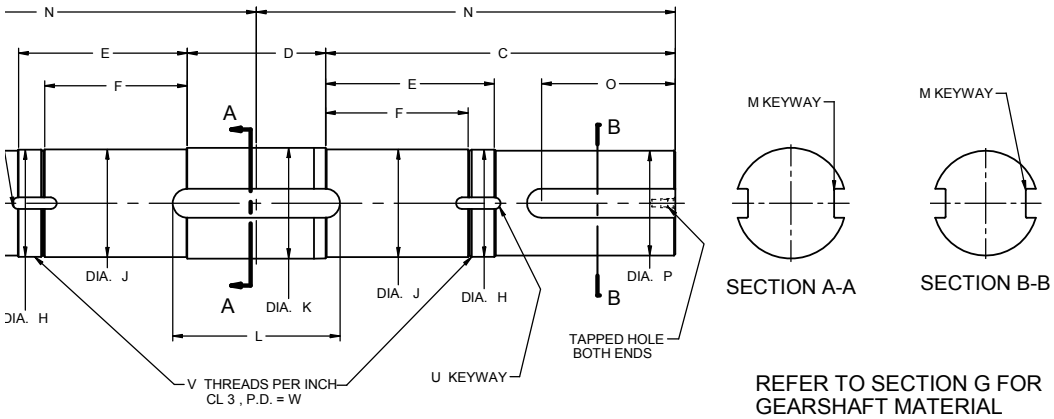
Cone Drive Standard Solid Gearshafts

Size 15 to 280



REFER TO SECTION G FOR GEARSHAFT MATERIAL

SIZE	C.D.	C	D	E	F	G	H ±.002	J -.001	K -.001	L	M	N	O	P -.001
15	1.500						.750	.750	.750	3/16 x 3/32	3/16 x 3/32	3.10	.80	.750
20	2.000	3.22	1.69		.843	.812		1.1825	1.2520	1/4 x 1/8	1/4 x 1/8	4.06	1.19	1.125
25	2.500	2.78	3.47						1.2520	1/4 x 1/8	1/4 x 1/8	4.50	1.38	1.250
30	3.000	4.66	2.56		1.00	1.03		1.5645	1.6270	3/8 x 3/16	3/8 x 3/16	5.93	2.00	1.500
35	3.500	6.38	3.00	2.81	1.50	1.53	2.000	2.0645	2.1900	1/2 x 1/4	1/2 x 1/4	7.87	2.68	1.875
40	4.000	7.45	3.60	3.26	1.88	1.91	2.3125	2.3642	2.6275	1/2 x 1/4	1/2 x 1/4	9.25	3.31	2.250
50	5.000	8.20	4.22	3.48	1.98	2.04	2.8125	2.8775	3.1275	5/8 x 5/16	5/8 x 5/16	10.31	3.62	2.750
60	6.000	9.51	4.97	3.86	2.32	2.38	3.3125	3.3775	3.6275	3/4 x 3/8	3/4 x 3/8	12.00	4.50	3.250
70	7.000	10.51	4.97	4.40	2.98	3.04	3.500	3.5650	4.0025	7/8 x 7/16	7/8 x 7/16	13.00	4.87	3.375
80	8.000	11.14	5.72	5.04	3.54	3.58	3.5625	3.6275	4.0025	7/8 x 7/16	7/8 x 7/16	14.00	4.87	3.500
100	10.000	12.78	5.87	6.34	4.38	4.41	4.0625	4.1275	4.253	1" x 1/2	1" x 3/8	15.72	5.12	4.000
120F	12.000	20.66	6.69	10.50	7.50	7.62	5.500	5.7540	6.128	1 1/4 x 5/8	1 1/4 x 7/16	24.00	7.62	5.497



REFER TO SECTION G FOR GEARSHAFT MATERIAL

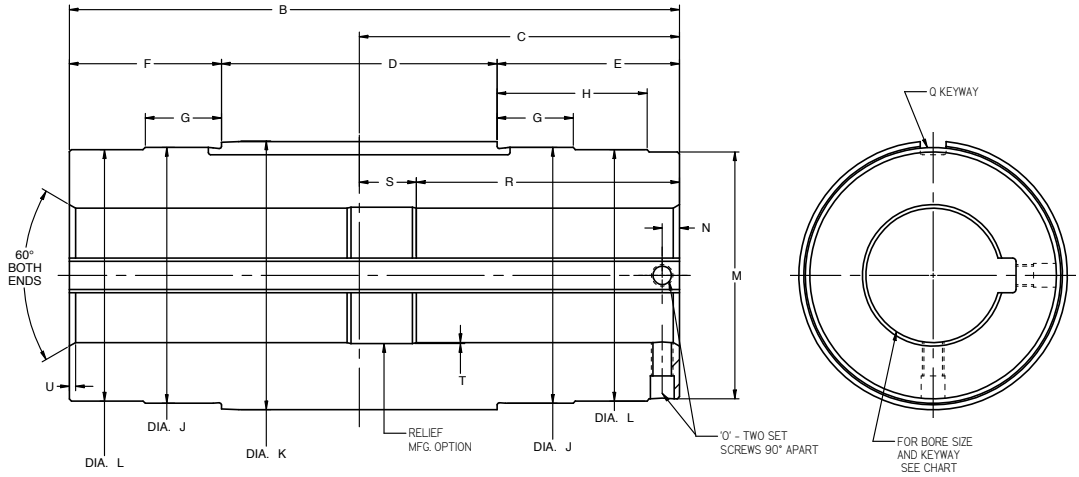
SIZE	C.D.	C	D	E	F	H ±.002	J -.001	K -.001	L	M	N	O	P -.001	U	V	W
150	15.000	20.56	8.88	9.44	7.75	6.659	7.0045	7.129	10.37	1 1/2 X 1/2	25.00	9.50	6.500	3/4 X 7/32	8	6.578
180	18.000	23.56	10.38	10.81	9.06	7.847	8.005	8.129	12.12	1 3/4 x 5/8	28.75	10.75	7.500	7/8 x 7/32	8	7.766
220	21.837	30.06	11.88	14.56	12.25	9.200	9.2555	9.504	14.37	2 1/2 x 7/8	36.00	12.75	9.000	1" x 7/32	8	9.119
240	24.000	31.06	13.88	14.06	11.56	10.200	10.256	10.504	16.37	2 1/2 x 7/8	38.00	14.00	10.000	1" x 7/32	8	10.119
280	28.000	39.56	16.88	18.56	15.94	12.875	13.0085	13.255	16.87	3 x 1"	48.00	17.00	12.000	1" x 1/4	8	12.794

Contact Cone Drive for additional gearshaft dimensions when required.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Hollow Gearshafts

Size 20 to 80



THIS SHAFT WILL USE A HOLLOW SHAFT GEAR. PRECEEDING IN THIS SECTION MATERIAL - CONE DRIVE OPTION - STEEL OR DUCTILE IRON.

BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
SIZE 20		
1.375*	20-S60-106	1/4 X 1/8
1.250*	20-S60-104	1/4 X 1/8
1.1875*	20-S60-103	1/4 X 1/8
1.125*	20-S60-102	1/4 X 1/8
1.000*	20-S60-100	1/4 X 1/8
SIZE 25		
2.000*	25-S60-200	1/4 X 1/8
1.9375*	25-S60-115	1/4 X 1/8
1.6875*	25-S60-111	3/8 X 3/16
1.4375*	25-S60-107	3/8 X 3/16
1.250*	25-S60-104	1/4 X 1/8
1.1875*	25-S60-103	1/4 x 1/8

BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
SIZE 30		
2.500	30-S60-208	3/8 X 3/16
2.4375*	30-S60-207	3/8 X 3/16
2.1875*	30-S60-203	1/2 X 1/4
1.9375*	30-S60-115	1/2 X 1/4
1.6875*	30-S60-111	3/8 X 3/16
1.500*	30-S60-108	3/8 x 3/16
SIZE 35		
2.750	35-S60-212	3/8 X 3/16
2.6875*	35-S60-211	3/8 X 3/16
2.500	35-S60-208	3/8 X 3/16
2.4375*	35-S60-207	5/8 X 5/16
2.1875*	35-S60-203	1/2 X 1/4
1.9375*	35-S60-115	1/2 x 1/4
1.6875*	35-S60-111	3/8 x 3/16

BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
SIZE 40		
2.9375*	40-S60-215	5/8 x 5/16
2.6875*	40-S60-211	5/8 x 5/16
2.4375*	40-S60-207	5/8 x 5/16
2.1875*	40-S60-203	5/8 x 5/16
SIZE 50		
3.4375*	50-S60-307	5/8 x 5/16
3.1875*	50-S60-303	5/8 x 5/16
2.750	50-S60-212	5/8 x 5/16
SIZE 60		
3.9375*	60-S60-315	3/4 x 3/8
3.4375*	60-S60-307	3/4 x 3/8
2.9375*	60-S60-215	3/4 x 3/8
SIZE 70 & 80		
4.4375*	80-S60-407	1 x 1/2
3.9375*	80-S60-315	1 x 1/2

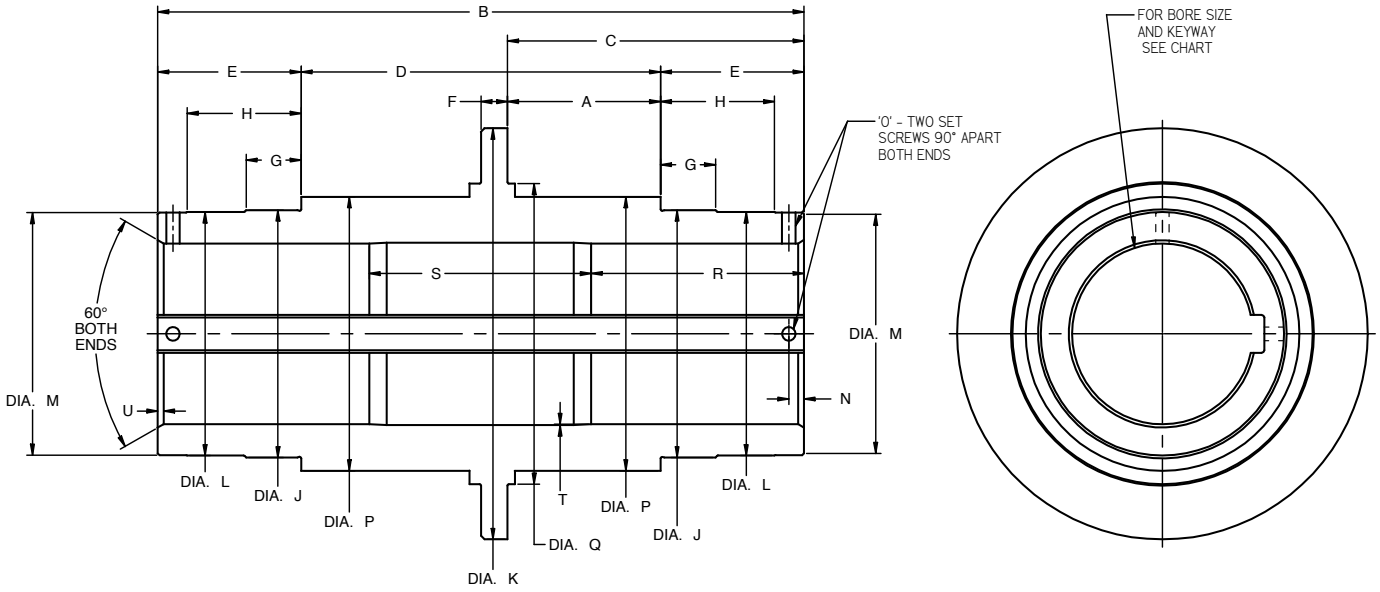
*AGMA Standard Bore Tolerance:
Size 20 thru 35 = +.002 – .000
Size 40 thru 80 = +.003 – .000

SIZE	C.D.	B +.030 -.030	C	D	E	F	G	H	J +.000 -.001
20	2.000	5.688	3.062	1.855	2.135	1.698	.86	1.666	2.0015
25	2.500	5.812	3.125	1.855	2.197	1.760	.82	1.730	2.6895
30	3.000	7.625	4.062	3.355	2.385	1.885	.98	1.870	3.2838
35	3.500	8.812	4.625	3.980	2.635	2.197	1.10	2.166	3.6900
40	4.000	11.062	5.875	2.980	4.385	3.697	2.26	3.635	4.1900
50	5.000	12.000	6.250	3.980	4.260	3.760	2.27	3.730	4.8775
60	6.000	14.250	7.500	4.980	5.010	4.260	2.52	4.200	5.6275
70	7.000	16.500	8.750	4.980	6.260	5.260	3.43	5.200	7.0025
80	8.000	16.500	8.750	4.980	6.260	5.260	3.43	5.200	7.0025

Size	K +.0005 -.0005	L +.002 -.002	M	N	O	Q	R	S	T	U
20	2.1270	1.937	1.875	.25	5/16 - 24	1/4 x 1/8				.09
25	2.8770	2.625	2.593	.25	5/16 - 24	1/4 x 1/8				.09
30	3.4395	3.250	3.188	.25	5/16 - 24	3/8 x 3/16				.09
35	3.8775	3.625	3.560	.25	5/16 - 24	3/8 x 3/16				.09
40	4.3775	4.000	3.980 - .010	.31	5/16 - 24	5/8 x 5/16	3.18	4.75	.03	.09
50	5.1275	4.750	4.730 - .010	.25	5/16 - 24	5/8 x 5/16	3.75	4.50	.03	.09
60	6.0025	5.500	5.480 - .010	.31	5/16 - 24	3/4 x 3/8	4.75	5.50	.03	.09
70	7.3775	6.875	6.850 - .010	.44	1/2 - 20	1 x 1/2	5.50	6.50	.03	.25
80	7.3775	6.875	6.850 - .010	.44	1/2 - 20	1 x 1/2	5.50	6.50	.03	.25

Cone Drive Standard Hollow Gearshafts

Size 100 to 120



BORE INCHES	GEARSHAFT NUMBER	KEYWAY SIZE
SIZE 100		
5.9375	100-S61-515	1-1/4X7/16
SIZE 120		
7.9375	120-S61-715	1-1/2X1/2

Bore Tolerance:

Size 100 thru 120 = +.004
-.000

THE SPIDER SHAFT WILL USE A FLANGE TYPE GEAR. PRECEDING IN THIS SECTION, MATERIAL - DUCTILE IRON.

Size	C.D	A ±.003	B	C	D +.010 -.000	E	F	G	H	J +.000 -.001
100	10.000	5.906	21.25	10.62	11.812	4.72	.88	1.81	3.75	8.1275
120	12.000	7.375	28.00	14.00	14.750	6.62	1.19	2.25	5.50	10.5050

Size	K +.010 -.000	L ±.002	M +.000 -.010	N	O	P	Q	R	S	T	U
100	13.505	8.000	7.975	.50	1/2 - 20	9.25	9.88	7.00	7.25	.03	.19
120	16.508	10.000	9.937	.50	1/2 - 20	11.37	12.62	9.00	10.00	.03	.19

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Steeple Gearshaft Mountings and Bearings

Size 25 to 120

Type R Single Extended Single Steeple

Note 1: Type **"RU"** mounting for vertical shaft, gearshaft extended up. See Note 6.

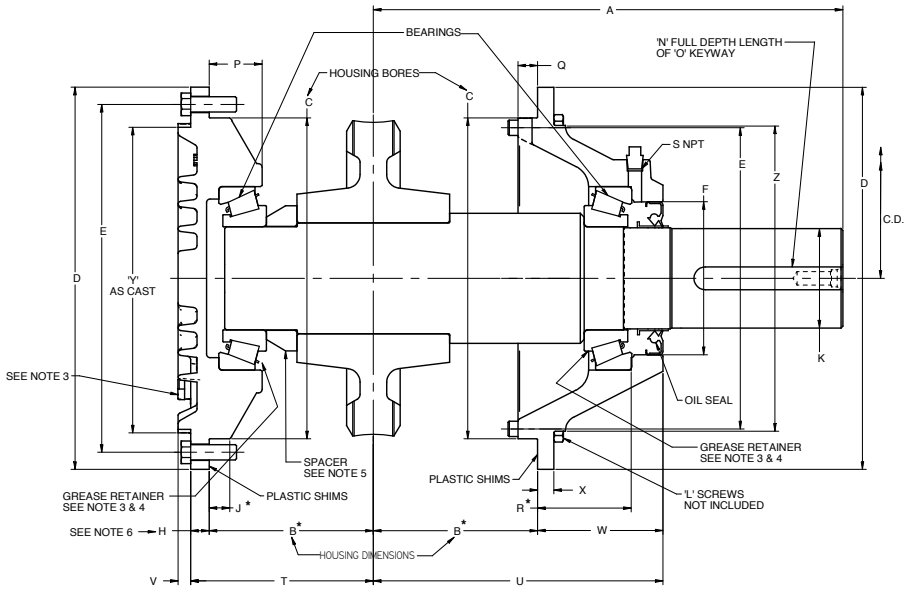
Note 2: Type **"RD"** mounting for vertical shaft, gearshaft extended down.

Note 3: When worm is mounted under gear oil level plug is located in carrier so that bearings dip in oil size 40-80. Sizes 100 -120 have grease retainers at each bearing.

Note 4: Grease retainer used on vertical mounted shaft at top end when steeple carrier is at top size 25 thru size 120. When st'd. carrier is at top size 30 thru size 120.

Note 5: Size 35 and larger has a spacer between gear and bearing.

Note 6: For **"RU"** mounting requiring a vertical base or foot brackets the "Y" and "H" dimensions must be machined to the "X" and "Z" dimensions.



*TOLERANCE FOR			
B	Size	25-80 100-120	± .001 ± .002
J	Size	25-35 40-60 70-120	± .001 ± .002 ± .005
R	Size	25-60 70-120	± .002 ± .005

Size	C.D.	A	B	C	D	E	F	H	J	K	L	N	O	P	Q
25	2.500	7.87	2.000	4.3755 + .0015	5.68	4.94	2.250	.31	.257	1.250	8 - 5/16 - 24	1.38	1/4 x 1/8	.94	.40
30	3.000	8.62	2.625	5.375 + .002	7.00	6.12	2.500	.38	.382	1.500	6 - 3/8 - 24	2.00	3/8 x 3/16	1.03	.50
35	3.500	10.25	3.500	6.500 + .002	8.12	7.25	3.250	.43	.414	1.875	6 - 3/8 - 24	2.68	1/2 x 1/4	1.43	.50
40	4.000	11.25	4.125	7.250 + .002	9.00	8.00	3.750	.43	.385	2.250	6 - 3/8 - 24	3.31	1/2 x 1/4	1.56	.53
50	5.000	13.62	4.750	9.000 + .002	11.00	9.87	4.500	.50	.573	2.750	6 - 1/2 - 20	3.62	5/8 x 5/16	1.87	.59
60	6.000	15.38	5.375	10.500 + .002	12.50	11.38	5.000	.59	.322	3.250	6 - 1/2 - 20	4.50	3/4 x 3/8	1.75	.66
70	7.000	19.38	6.250	12.500 + .002	15.00	13.75	5.250	.68	.806	3.375	6 - 5/8 - 11	4.87	7/8 x 7/16	2.43	.53
80	8.000	19.38	6.250	14.500 + .002	17.12	15.75	5.250	.68	.186	3.500	8 - 5/8 - 11	4.87	7/8 x 7/16	1.31	.50
100	10.000	24.00	8.000	17.750 + .002	20.50	19.12	6.000	.81	.652	4.000	12 - 5/8 -11	5.12	1 x 1/2	2.03	.50
120	12.000	36.00	10.375	21.500 + .002	24.50	23.00	7.500	.875	.450	5.497	12 - 3/4 -10	9.62	1-1/4 x 5/8	1.93	.875

SIZE	R	S	T	U	V	W	X	Y	Z	TAPERED ROLLER BEARINGS		OIL SEAL
25	1.990	1/4	2.31	4.87		2.835	.281		4.218 -.002	02875-CONE	02820-CUP	125W225
30	2.302	1/4	3.06	5.87		3.179	.343		5.343 - .002	26881-CONE	26822-CUP	150W250
35	1.771	1/4	3.81	6.25		2.710	.343		6.468 -.002	33890-CONE	33821-CUP	200W325
40	1.364	1/4	4.62	6.56	.25	2.393	.375	7.12	6.968 - .002	3977-CONE	3920-CUP	231W375
50	2.644	1/4	5.25	8.56	.31	3.730	.437	9.00	8.8125 - .002	567-CONE	563-CUP	281W450
60	3.078	1/4	5.94	9.56	.43	4.107	.531	10.25	9.999 - .002	596-CONE	592A-CUP	331W500
70	5.034	1/4	6.81	12.50	.38	6.174	.625	12.25	11.999 - .002	760-CONE	752-CUP	350W525
80	5.410	1/4	6.87	12.87	.71	6.625	.625	14.25	13.999 - .002	77362-CONE	77675-CUP	356W525
100	6.880	1/4	8.75	16.50	.38	8.500	.750	16.82	16.499 - .003	71412-CONE	71750-CUP	406W600
120	10.714	1/4	11.25	22.6	1.3	12.19	.88	20.50	—	EE107057	107105	550A750

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 25	SIZE 30	SIZE 35	SIZE 40	SIZE 50	SIZE 60	SIZE 70	SIZE 80	SIZE 100	SIZE 120
MOUNTING DESCRIPTION	SINGLE EXTENDED - HORIZONTAL WORM UNDER GEAR	25R	30R	35R	40R	50R	60R	70R	80R	100R	120R
	SINGLE EXTENDED - HORIZONTAL WORM OVER GEAR	25RO	30RO	35RO	40RO	50RO	60RO	70RO	80RO	100RO	120RO
	SINGLE EXTENDED - VERTICAL SHAFT UP	25RU	30RU	35RU	40RU	50RU	60RU	70RU	80RU	100RU	120RU
	SINGLE EXTENDED - VERTICALSHAFT DOWN	25RD	30RD	35RD	40RD	50RD	60RD	70RD	80RD	100RD	120RD

Cone Drive part numbers are shown in bold print. Contact Cone Drive for additional gearshaft dimensions when required.

Cone Drive Standard Steeple Gearshaft Mountings and Bearings

Size 25 to 120

Type S Double Extended – Single Steeple

Note 1: Type **"SU"** mounting for vertical shaft, longer gearshaft extended up. See Note 6.

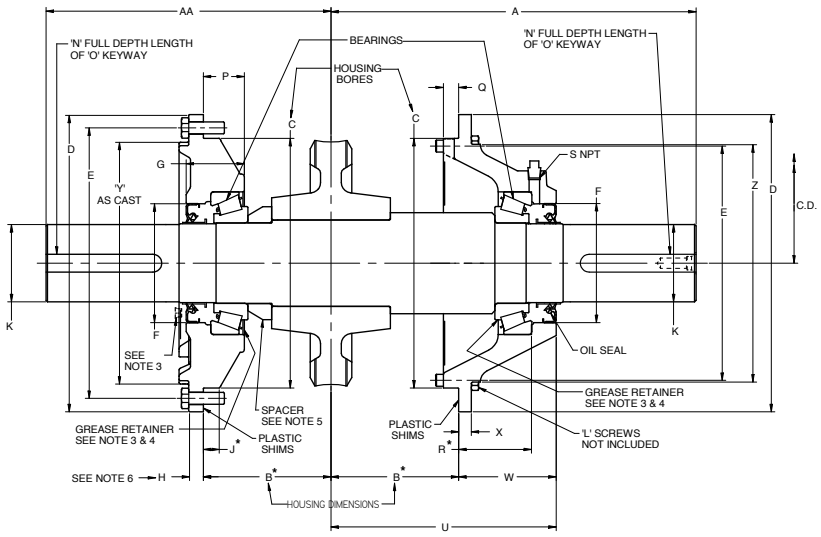
Note 2: Type **"SD"** mounting for vertical shaft, longer gearshaft extended down.

Note 3: When worm is mounted under gear oil level plug is located in carrier so that bearings dip in oil size 40-80. Sizes 100 -120 have grease retainers at each bearing.

Note 4: Grease retainer used on vertical mounted shaft at top end when steeple carrier is at top size 25 thru size 120. When st'd. carrier is at top size 30 thru size 120.

Note 5: Size 35 and larger has a spacer between gear and bearing.

Note 6: For **"SU"** mounting requiring a vertical base or foot brackets the "Y" and "H" dimensions must be machined to the "X" and "Z" dimensions.



*TOLERANCE FOR			
B	Size	25-80 100	± .001 ± .002
J	Size	25-35 40-60 70-120	± .001 ± .002 ± .005
R	Size	25-60 70-120	± .002 ± .005

Size	C.D.	AA	A	B	C	D	E	F	G	H	J	K	L	N	O
25	2.500	4.50	7.87	2.000	4.3755 + .0015	5.68	4.94	2.250	.860	.31	.257	1.250	8 - 5/16 - 24	1.38	1/4 x 1/8
30	3.000	5.94	8.62	2.625	5.375 +.002	7.00	6.12	2.500	.898	.38	.382	1.500	6 - 3/8 - 24	2.00	3/8 x 3/16
35	3.500	7.87	10.25	3.500	6.500 +.002	8.12	7.25	3.250	.960	.43	.414	1.875	6 - 3/8 - 24	2.68	1/2 x 1/4
40	4.000	9.25	11.25	4.125	7.250 +.002	9.00	8.00	3.750	1.050	.43	.385	2.250	6 - 3/8 - 24	3.31	1/2 x 1/4
50	5.000	10.31	13.62	4.750	9.000 +.002	11.00	9.87	4.500	1.102	.50	.573	2.750	6 - 1/2 - 20	3.62	5/8 x 5/16
60	6.000	12.00	15.38	5.375	10.500 +.002	12.50	11.38	5.000	1.045	.59	.322	3.250	6 - 1/2 - 20	4.50	3/4 x 3/8
70	7.000	13.00	19.38	6.250	12.500 +.002	15.00	13.75	5.250	1.140	.68	.806	3.375	6 - 5/8 - 11	4.87	7/8 x 7/16
80	8.000	14.00	19.38	6.250	14.500 +.002	17.12	15.75	5.250	1.213	.68	.186	3.500	8 - 5/8 - 11	4.87	7/8 x 7/16
100	10.000	15.72	24.00	8.000	17.750 +.002	20.50	19.12	6.000	1.625	.89	.652	4.000	12 - 5/8 -11	5.12	1 x 1/2
120	12.000	24.00	36.00	10.375	21.500 +.002	24.50	23.00	7.500	12.36	.875	.450	5.497	12 - 3/4 -10	9.62	1-1/4 x 5/8

SIZE	R	S	T	U	V	W	X	Y	Z	TAPERED ROLLER BEARINGS		OIL SEAL
25	.94	.40	1.990	1/4	4.87	2.835	.281		4.218 -.002	02875-CONE	02820-CUP	125W225
30	1.03	.50	2.302	1/4	5.87	3.179	.343		5.343 - .002	26881-CONE	26822-CUP	150W250
35	1.43	.50	1.771	1/4	6.25	2.710	.343		6.468 -.002	33890-CONE	33821-CUP	200W325
40	1.56	.53	1.364	1/4	6.56	2.393	.375	7.12	6.968 - .002	3977-CONE	3920-CUP	231W375
50	1.87	.59	2.644	1/4	8.56	3.730	.437	9.00	8.8125 - .002	567-CONE	563-CUP	281W450
60	1.75	.66	3.078	1/4	9.56	4.107	.531	10.25	9.999 - .002	596-CONE	592A-CUP	331W500
70	2.43	.53	5.034	1/4	12.50	6.174	.625	12.25	11.999 - .002	760-CONE	752-CUP	350W515
80	1.31	.50	5.410	1/4	12.87	6.625	.625	14.25	13.999 - .002	77362-CONE	77675-CUP	356W525
100	2.03	.50	6.880	1/4	16.50	8.500	.750	16.82	16.499 - .003	71412-CONE	71750-CUP	406W600
120	1.93	.875	10.714	1/4	22.6	12.19	.88	20.50	—	EE107057	107105	550A750

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 25	SIZE 30	SIZE 35	SIZE 40	SIZE 50	SIZE 60	SIZE 70	SIZE 80	SIZE 100	SIZE 120
MOUNTING DESCRIP-TION	SINGLE EXTENDED - HORIZONTAL WORM UNDER GEAR	25S	30S	35S	40S	50S	60S	70S	80S	100S	120S
	SINGLE EXTENDED - HORIZONTAL WORM OVER GEAR	25SO	30SO	35SO	40SO	50SO	60SO	70SO	80SO	100SO	120SO
	SINGLE EXTENDED - VERTICAL SHAFT UP	25SU	30SU	35SU	40SU	50SU	60SU	70SU	80SU	100SU	120SU
	SINGLE EXTENDED - VERTICALSHAFT DOWN	25SD	30SD	35SD	40SD	50SD	60SD	70SD	80SD	100SD	120SD

Cone Drive part numbers are shown in bold print. Contact Cone Drive for additional gearshaft dimensions when required.

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Standard Steeple Gearshaft Mountings and Bearings

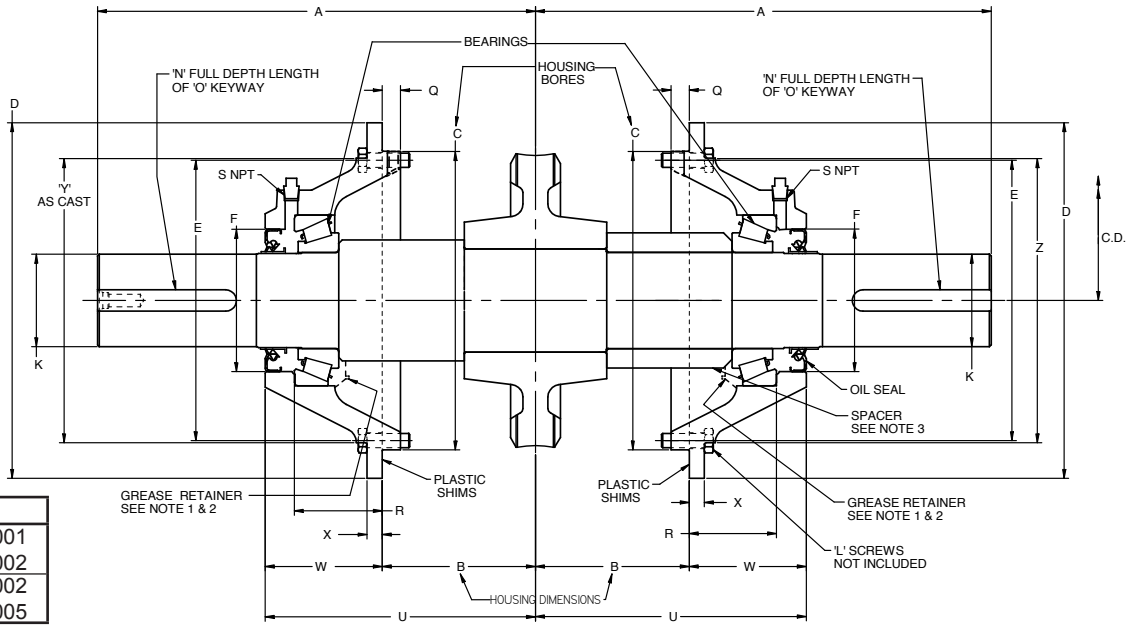
Size 25 to 120

Type T Double Extended Double Steeple

Note 1: Type **"TV"** mounting for vertical shaft. Upper bearing has grease retainer.

Note 2: When worm is mounted under gear oil level plug is located in carrier so that bearings dip in oil size 40-80. Size 100-120 have grease retainers at each bearing.

Note 3: Size 35 and larger has a spacer between gear and one bearing.



*TOLERANCE FOR			
B	Size	25-80	± .001
		100-120	± .002
R	Size	25-60	± .002
		70-120	± .005

Size	C.D.	A	B	C	D	E	F	K	L	N	O
25	2.500	7.87	2.000	4.3755 + .0015	5.68	4.94	2.250	1.250	8 - 5/16 - 24	1.38	1/4 x 1/8
30	3.000	8.62	2.625	5.375 +.002	7.00	6.12	2.500	1.500	6 - 3/8 - 24	2.00	3/8 x 3/16
35	3.500	10.25	3.500	6.500 +.002	8.12	7.25	3.250	1.875	6 - 3/8 - 24	2.68	1/2 x 1/4
40	4.000	11.25	4.125	7.250 +.002	9.00	8.00	3.750	2.250	6 - 3/8 - 24	3.31	1/2 x 1/4
50	5.000	13.62	4.750	9.000 +.002	11.00	9.87	4.500	2.750	6 - 1/2 - 20	3.62	5/8 x 5/16
60	6.000	15.38	5.375	10.500 +.002	12.50	11.38	5.000	3.250	6 - 1/2 - 20	4.50	3/4 x 3/8
70	7.000	19.38	6.250	12.500 +.002	15.00	13.75	5.250	3.375	6 - 5/8 - 11	4.87	7/8 x 7/16
80	8.000	19.38	6.250	14.500 +.002	17.12	15.75	5.250	3.500	8 - 5/8 - 11	4.87	7/8 x 7/16
100	10.000	24.00	8.000	17.750 +.002	20.50	19.12	6.000	4.000	12 - 5/8 -11	5.12	1 x 1/2
120	12.000	36.00	10.375	21.500 +.002	24.50	23.00	7.500	5.497	12 - 3/4 -10	9.62	1-1/4 x 5/8

SIZE	R	S	T	U	V	W	X	Y	Z	TAPERED ROLLER BEARINGS		OIL SEAL
25	.40	1.990	1/4	4.87	2.835	.281	4.218 -.002	02875-CONE	02820-CUP	125W225	02820-CUP	125W225
30	.50	2.302	1/4	5.87	3.179	.343	5.343 - .002	26881-CONE	26822-CUP	150W250	26822-CUP	150W250
35	.50	1.771	1/4	6.25	2.710	.343	6.468 -.002	33890-CONE	33821-CUP	200W325	33821-CUP	200W325
40	.53	1.364	1/4	6.56	2.393	.375	6.968 - .002	3977-CONE	3920-CUP	231W375	3920-CUP	231W375
50	.59	2.644	1/4	8.56	3.730	.437	8.8125- .002	567-CONE	563-CUP	281W450	563-CUP	281W450
60	.66	3.078	1/4	9.56	4.107	.531	9.999 - .002	596-CONE	592A-CUP	331W500	592A-CUP	331W500
70	.53	5.034	1/4	12.50	6.174	.625	11.999 0 .002	760-CONE	752-CUP	350W525	752-CUP	350W515
80	.50	5.410	1/4	12.87	6.625	.625	13.999 0 .002	77362-CONE	77675-CUP	356W525	77675-CUP	356W525
100	.50	6.880	1/4	16.50	8.500	.750	16.499 - .003	71412-CONE	71750-CUP	406W600	71750-CUP	406W600
120	.875	10.714	1/4	22.6	12.19	.88	—	EE107057	107105	550A750	107105	550A750

STANDARD GEARSHAFT MOUNTING COMPLETE MOUNTING PARTS - LESS GEAR & SHAFT		SIZE 25	SIZE 30	SIZE 35	SIZE 40	SIZE 50	SIZE 60	SIZE 70	SIZE 80	SIZE 100	SIZE 120
MOUNTING DESCRIP-TION	SINGLE EXTENDED - HORIZONTAL WORM UNDER GEAR	25T	30T	35T	40T	50T	60T	70T	80T	100T	120T
	SINGLE EXTENDED - HORIZONTAL WORM OVER GEAR	25TO	30TO	35TO	40TO	50TO	60TO	70TO	80TO	100TO	120TO
	SINGLE EXTENDED - VERTICAL SHAFT	25TV	30TV	35TV	40TV	50TV	60TV	70TV	80TV	100TV	120TV

Cone Drive part numbers are shown in bold print. Contact Cone Drive for additional gearshaft dimensions when required.

Cone Drive Pump and Worm Mountings

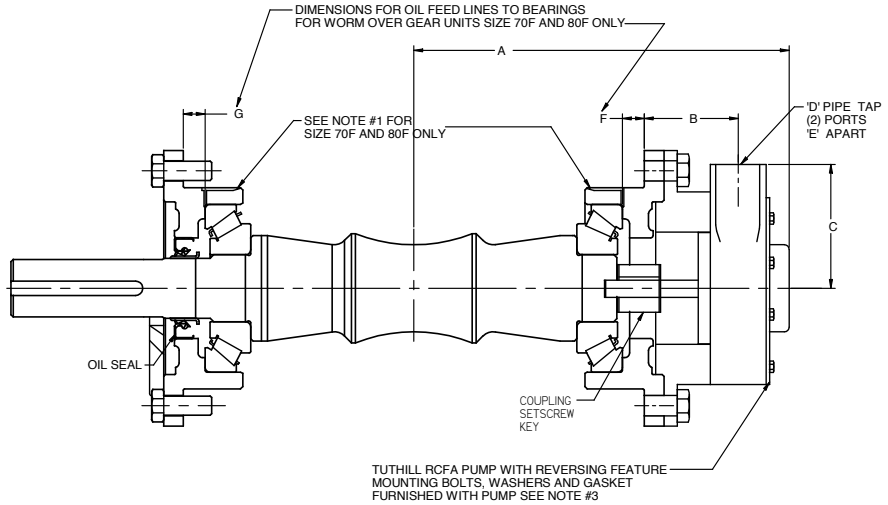
Size 40 to 80

Standard "FA" Mounting for Models HU and HV Size 40F thru 80F, HO 40F thru 60F, "FAO" Mounting for HO 70F - 80F.

NOTE 1: WORM OVER GEAR MODEL HO 70F & 80F UNITS MOUNTING AO REQUIRE CLOSED OIL GROOVES AS SHOWN.

NOTE 2: FOR DIMENSIONS NOT SHOWN SEE STANDARD MOUNTING SECTION.

NOTE 3: MOUNTING CAN BE FURNISHED WITH OR WITHOUT PUMP, PRICED ACCORDINGLY.



Size	C.D.	A	B	C	D	E	F	G	H	PUMP INFORMATION			
										CONE NUMBER	TUTHILL NUMBER	CAPACITY AT 50	
												1800 RPM	1200 RPM
40F	4.000	10.12	2.84	3.68	1" NPT	3.12				186000	#2	8 GPM	6 GPM
50F	5.000	10.96	2.93	3.68	1" NPT	3.12				186000	#2	8 GPM	6 GPM
60F	6.000	11.42	2.76	3.68	1" NPT	3.12				186000	#2	8 GPM	6 GPM
70F	7.000	12.875	2.54	4.87	1 1/4 NPT	4.12	1.80	1.80		186001	#3	17 GPM	11.5 GPM
80F	8.000	14.250	2.54	4.87	1 1/4 NPT	4.12	2.25	2.25		186001	#3	17 GPM	11.5 GPM

PUMP MOUNTING COMPLETE MOUNTING PARTS - LESS WORM	SIZE 40F	SIZE 50F	SIZE 60F	SIZE 70F	SIZE 80F
SINGLE EXTENDED STANDARD	P40FA	P50FA	P60FA	P70FA	P80FA
SINGLE EXTENDED WORM OVER				P70FAO	P80FAO

Cone Drive reserves the right to improve or change product design and specifications without notice.

Cone Drive Pump and Worm Mountings

Size 100 to 180

Standard "A" Mounting for Model HU Size 100 thru 180 and Model HV Size 100 thru 180

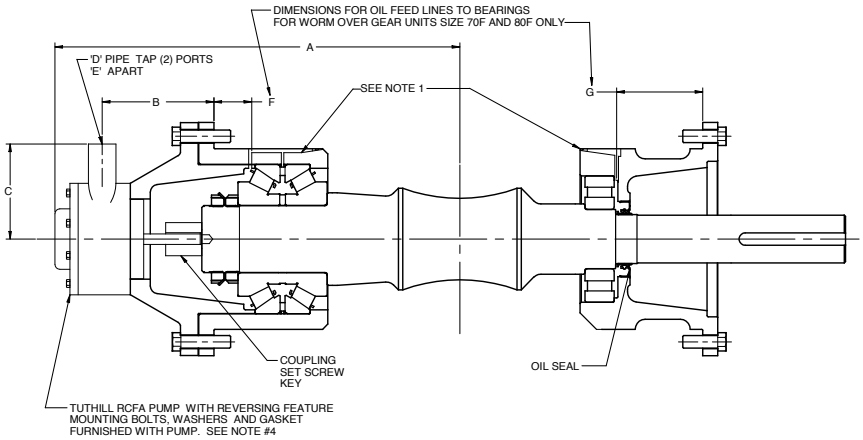
NOTE 1: WORM OVER GEAR MODEL HO UNITS MOUNTING AO, REQUIRE CLOSED OIL GROOVES AS SHOWN, SIZE 100 THRU 180.

NOTE 2: FOR DIMENSIONS NOT SHOWN SEE STANDARD WORM MOUNTINGS.

NOTE 3: ADAPTOR CAP FOR PUMP MAY BE MADE AS TWO PIECES INSTEAD OF ONE AS SHOWN.

NOTE 4: MOUNTING CAN BE FURNISHED WITH OR WITHOUT PUMP, PRICED ACCORDINGLY.

Standard "AO" Mounting for Model HO Size 100 thru 180



Size	C.D.	A	B	C	D	E	F	G	H	PUMP INFORMATION			
										CONE NUMBER	TUTHILL NUMBER	CAPACITY AT 50	
												1800 RPM	1200 RPM
100	10.000	19.81	5.25	4.87	1 1/4 NPT	4.12	3.25	4.38		186001	#3	17 GPM	11.5 GPM
120	12.000	23.75	6.59	4.12	1 1/2 NPT	3.75	3.75	5.19		186002	#4	36 GPM	23.5 GPM
150	15.000	26.75	7.34	4.12	1 1/2 NPT	3.75	3.50	4.87	3.75	186002	#4	36 GPM	23.5 GPM
180	18.000	27.87	6.72	4.12	1 1/2 NPT	3.75	4.38	5.50	4.09	186002	#4	36 GPM	23.5 GPM

PUMP MOUNTING COMPLETE MOUNTING PARTS - LESS WORM	SIZE 100	SIZE 120	SIZE 150	SIZE 180
SINGLE EXTENDED STANDARD	P100A	P120A	P150A	P180A
SINGLE EXTENDED WORM OVER	P100AO	P120AO	P150AO	P180AO

GLOBAL LOCATIONS

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