

# ETHANOL AGITATOR & MIXER DRIVES

## CONE DRIVE RENEWABLE ENERGY GEARING SOLUTIONS



MADE IN  
USA

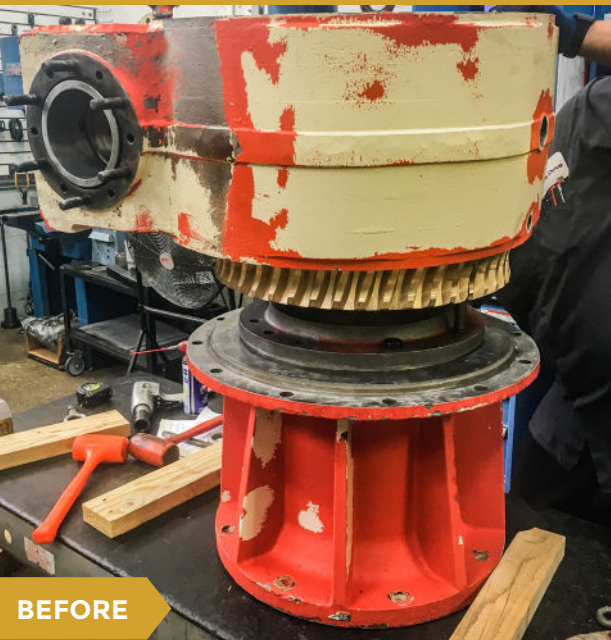
### RUGGED PERFORMER

#### MORE TEETH... MORE TORQUE... MORE TECH

Cone Drive's double-enveloping design handles demanding mixer and agitator applications better than traditional worm gearing. With double-enveloping gearing, the worm "wraps around" the gear, putting up to eight times more teeth area in contact than conventional worm gearing. Cone Drive has decades of extensive experience in providing solutions for mixer and agitator applications, supplying OEMs and end users with gearboxes, open gearing and gearsets, as well as on-site service in critical upstream, mid-stream and downstream applications.

### THE CONE DRIVE DIFFERENCE

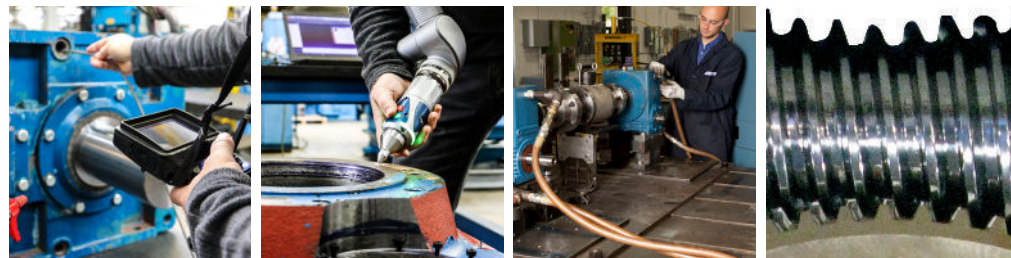
- ▶ High durability - reduced downtime
- ▶ High static torque
- ▶ High torsional stiffness
- ▶ Customized ratios
- ▶ Greater accuracy and precision
- ▶ Smooth running
- ▶ High shock load - 300% overload capacity
- ▶ Self locking aid with higher ratios
- ▶ On-site testing facility
- ▶ Design flexibility
- ▶ Ability to adapt NEMA, Servo or hydraulic motors
- ▶ Full service engineering group to suit customer demands
- ▶ The Cone Drive Service Center provides complete reverse engineering, build, and inspection services to suit customer demands



BEFORE



AFTER



World leader in worm gear technology.

## DOUBLE-ENVELOPING GEAR



MADE IN  
USA

### TECHNOLOGY ROOTED IN RENAISSANCE THINKING

DaVinci sketched the superior design of the double-enveloping worm gear over 500 years ago. In the 1920's, Samuel Cone developed efficient techniques to produce it, thus revolutionizing industrial capacity forever. At Cone Drive, we've been refining the design and manufacturing process ever since.

### CONE DRIVE DOUBLE-ENVELOPING DESIGN DIFFERENCE

With a standard cylindrical worm gearset, only one-to-two gear teeth are in contact with the worm. With Cone's double-enveloping design, the worm "wraps around" the gear putting three-to-eleven teeth in contact with the worm. That means the total load is distributed among more teeth, greatly increasing torque, load carrying capacity and shock load resistance.

# MORE TEETH MORE TORQUE MORE TECH

*to keep you moving.*

### THE DIFFERENCE: DOUBLE-ENVELOPING TECHNOLOGY

### EFFICIENCY AT EVERY TURN

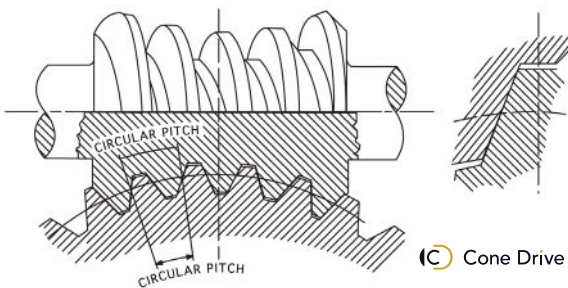
With the most efficient worm gear geometry, the improved torque throughput allows a dramatically smaller gearset to produce the same amount of torque. Cone Drive gearsets can save on size, weight, space—and horsepower for horsepower—cost less than standard cylindrical gearing.

### DESIGN DRIVING TODAY'S INDUSTRY

Cone Drive's double-enveloping gear design drives equipment in nearly every industry: mining, steel, aerospace, automotive, printing, packaging, renewables, medical and many more.

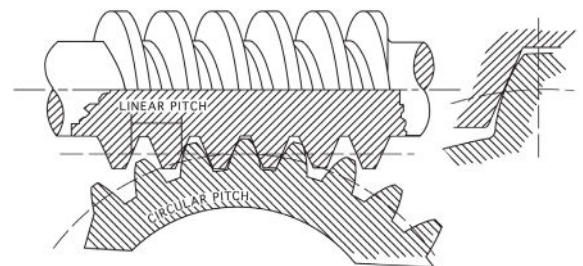


## CONE DRIVE DOUBLE-ENVELOPING GEAR




Total load is distributed among more teeth and surface area, greatly increasing torque, load carrying capacity and shock load resistance. Double-enveloping gearsets are more efficient and in a torque-for-torque comparison, are smaller and lighter than standard cylindrical gearsets.




## STANDARD CYLINDRICAL GEAR



Total load is concentrated to only one-or-two teeth, decreasing torque, load carrying capacity and shock load resistance. As a result, it requires larger, heavier gearsets to produce comparable torque capacity.



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