Worm Gear Speed Reducers

Single, Double and Triple Worm Gearing

Reliability and Versatility

Over the years, Delroyd Worm Gear Speed Reducers have developed an unmatched reputation for reliability and versatility. These years of experience assure you of a proven design and reliable service.

The exclusive use of the involute helicoid thread form (with leaving side contact) on the worm & gear, provides for high efficiencies and long service life. The hardened, ground and polished alloy steel worm develops a smooth, work hardened surface on the bronze gear. For this reason, the worm gears wear in and improve with prolonged service while other gears are wearing out.

Delroyd offers a wide selection of model configurations, sizes, ratios and accessories from our standard product line.

Call Our Toll-Free Application Hotline:

800-432-0121

Delroyd Worm Gear®
Altra Industrial Motion

Standard Features

- Single, Double and Triple Reductions
- 2” to 20” Center Distances
- Ratios of 5:1 to 175,000:1
- Drywell Construction on Vertical Units
- Multi-Mounting Configurations
- Solid Shaft and Hollow Shaft Designs
- Fan Cooled
- Oil Level Sight Glass
- 30,000 PSI Gray Cast Iron Housings
- High Strength Alloy Steel on Input and Output Shafts
- Centrifugally Cast Phosphorous Bronze Gears
- High Shock Load Capacity
- “C” Face Motor Flanges
- Motor Scoops

If You Think It Can’t Be Done, Call Us!

800-432-0121

ADVANTAGES OF DELROYD WORM GEARING

COMPACTNESS AND HIGH RATIO REDUCTION

Single reduction worm gearing offers high ratio reduction with few moving parts in a close-coupled compact drive. Input and output shafts can be extended in either or both directions in horizontal or vertical arrangements adaptable to any mounting requirement. Efficient motor speeds are reduced to slow speed requirements of many industrial machines in one reduction.

Double reduction units give a wider ratio range beyond practical single reduction limits. Compact right angle or parallel shaft arrangements are provided with the same versatility of shaft extensions.

LONG, QUIET LIFE

All worm gears are made from phosphor bronze. The hardened, ground and polished alloy steel worm develops a smooth, work hardened surface on the bronze. For this reason, worm gears wear in and improve with prolonged service. Two or more teeth are in contact with the worm at all times, transmitting power by a continuous, quiet and shockless action. The flow of torque is smooth and free from angular velocity changes, therefore vibration, pulsation, and chatter are thus eliminated.

HIGH SHOCK LOAD CAPACITY

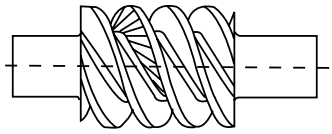
The Delroyd worm gear tooth form is such that the gear teeth are under a crushing, rather than a bending load. For this reason, extremely high momentary shock loads, damaging to many forms of gearing, can be successfully withstood. High momentary overloads seldom cause failure, as worm gear ratings are figured on the wear resistance of the gear teeth.

SAFETY AND EASE OF MAINTENANCE

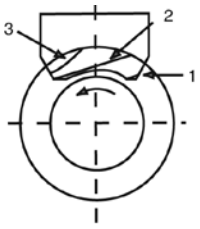
The few moving parts are completely enclosed assuring complete lubrication and the hazards of exposed moving parts are avoided. This proven design allows operation with minimum attention even under the most adverse conditions.

INTERCHANGEABILITY OF COMPONENTS

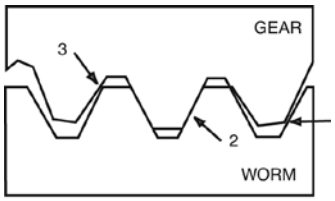
Standard parts are always available. All parts are manufactured to be interchangeable by use of limit gages retained as reference standards, to assure precision and uniformity. The need for matched gearing is thus avoided. Worms and gears of different ratios can be readily interchanged if revision of speeds becomes necessary.



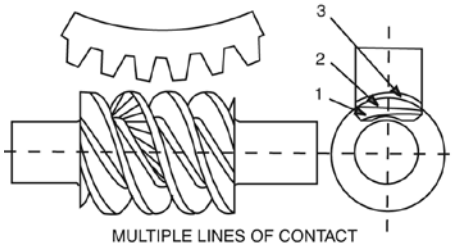
INVOLUTE HELICOID
STRAIGHT LINE GENERATION



PROPER CONTACT



CLOSENESS OF CONTACT



MULTIPLE LINES OF CONTACT

The involute helicoid ensures accuracy of profile and shape necessary to obtain proper contact and closeness of contact. More load carrying capacity, better accuracy, and longer life than any other thread form are assured. Note: above diagrams show 3 teeth in contact (1, 2, 3).

Conservative Delroyd ratings are based on more contact and greater torque arm in a given space. Delroyd contact is less sensitive to mounting dimension variations than any other thread form. Delroyd worms or gears can be replaced as interchangeable components without hours of lapping and running-in.

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www.delroyd.com

2221 Niagara Falls Boulevard
Niagara Falls, NY 14302 - USA
716-298-4100