The Cameron portfolio of MAXTORQUE* high-performance valve products includes worm gears that feature patented autolocking technology. These high-performance worm gear solutions include the self-locking characteristics of conventional gearboxes, which means that less work is required to actuate valves, leading to an improved HSE profile and worker efficiency on manual valves and smaller actuators on motorized valves.

**High efficiency**

Featuring a double-enveloping worm design, MAXTORQUE worm gear products
- reduce turns to close by up to 75%, increasing operational efficiency
- reduce rim pull, improving worker HSE profile
- increase closing speed by up to 75%, improving process control
- reduce required input torque, minimizing cost of actuation packages
- reduce weight and piping loads with smaller actuation packages
- reduce backlash, minimizing seepage around the ball or disc and reducing fluttering.

**Durability in design**

MAXTORQUE worm gear products are engineered with
- 6 to 13+ teeth in contact compared with 1.23 to 2.98 for standard gears, which produces higher torque capability and significantly less backlash
- novel tooth shape and high-contact ratio that produce low contact and bending stress
- bronze alloy gear for increased lubricity, strength, and corrosion resistance
- variety of housing material options
- high-graphite-based grease for smooth operation
- roller bearings versus traditional needle bearings
- bronze bearing on output
- double-sealing O-ring system that reduces fluid and particulate ingress into the gear.
MAXTORQUE Worm Gear Products

- Ductile iron housing
- Double sealed (IP68)
- Multistart, double-enveloping worm gear set
- Bronze worm gear
- Input sealing system
- Patent-awarded autolock

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<th>Handwheel Diameter, in</th>
<th>Ratio</th>
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<th>Break Rim Pull, lbf</th>
<th>Turns to Close</th>
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