



Product brochure

# MagnaGear XTR<sup>®</sup> gear reducers





With expertise, and a comprehensive portfolio of products and life-cycle services, we help value-minded industrial customers improve their energy efficiency and productivity.





# MagnaGear XTR reducers

## Rugged and reliable

The Dodge® MagnaGear XTR® is a power-dense reducer that offers increased reliability in a compact, heavy-duty package.

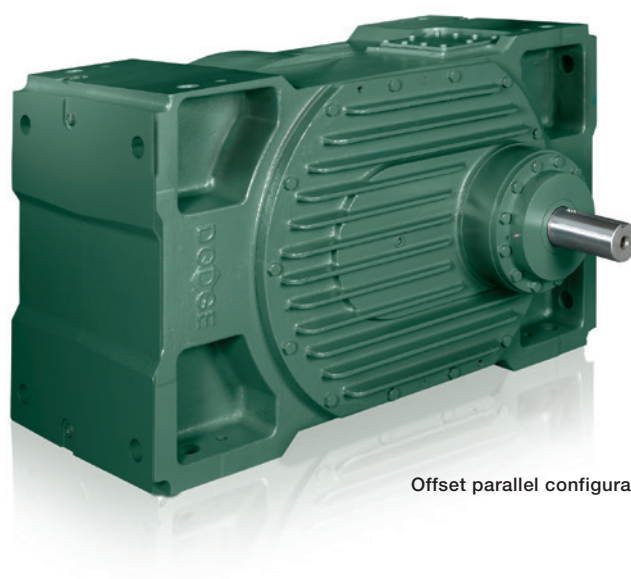
With 12 case sizes, MagnaGear XTR reducers cover a torque range of 11,300 Nm to 395,000 Nm, and a range of input ratings from 20 kW to 3240 kW, making this reducer line well suited for a variety of high torque applications.

Engineered with Dodge planetary, helical, or bevel helical gearing, the MagnaGear XTR is designed to perform in challenging environments. With features like industry leading bearing ratings, standard dual seal systems and EP lubricant compatible backstops, this reducer is built to provide maximum uptime and long-term value.

The MagnaGear XTR reducer is the ideal solution for the tough applications found in the mining, aggregate and grain industries.



Right angle configuration



Offset parallel configuration

# MagnaGear XTR reducers

## Engineered to perform

### Longer-life bearings

MagnaGear XTR reducers feature heavy-duty bearings with an unadjusted L-10 rating that is over twice that of most gear reducer manufacturers.

### Tandem lip seals

MagnaGear XTR reducer's standard premium quality lip seals provide high temperature protection and twice the sealing power to contain lubricant and protect against contaminants.

### Power-dense design

The heavy-duty, power-dense design gives you more power in less space with proven Dodge planetary gearing.

### MagnaGear XTR advantages

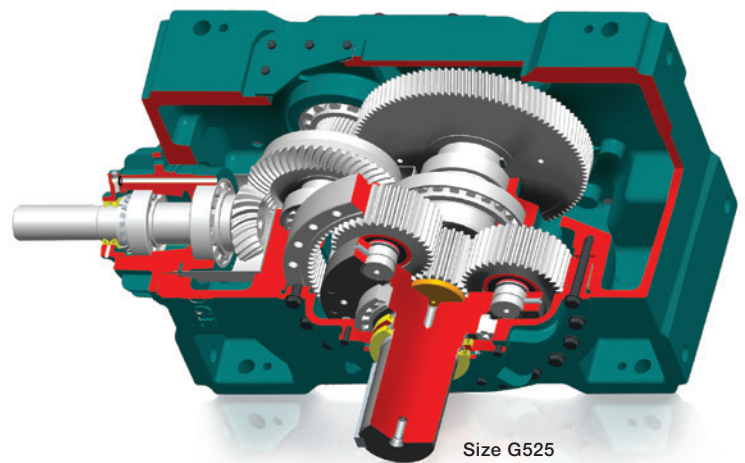
- Maximum reliability
- Proven Dodge reducer technology
- Longer bearing life
- Premium seal arrangement
- DIN grade 6 gearing designed with FEA (Finite Element Analysis) computer modeling
- Improved heat dissipation
- Lower total cost of ownership
- Easy maintenance
- Backstops are synthetic and EP oil compatible

### Universal housing

A MagnaGear XTR housing with multiple mounting pads allows a variety of mounting configurations and is flippable to minimize spares. Flippable housing is optional on sizes G1400 and larger.

### Finned bevel input

Housing has a finned bevel input for maximum heat dissipation.



# MagnaGear XTR reducers

## Engineered to perform

### 12 case sizes

With their rugged cast-iron housings, the Dodge MagnaGear XTR reducers offer a variety of ratings and convenient sizes to fit most applications.

### Higher torque capacities

Unmatched in their features and capabilities, Dodge MagnaGear XTR reducers cover a torque range of 11,300 Nm to 395,000 Nm in a power dense design.

### Multiple configurations for the perfect fit

Dodge MagnaGear XTR reducers are available in parallel shaft or right-angle configurations with solid or hollow output shafts. The hollow shaft option, sizes G600, G390 and below, features the Dodge patented twin-tapered bushing system, which minimizes wobble for longer life and is also easy to install and remove. This solution offers significant advantages over shrink disk systems. They also come in several mounting configurations including swing-base and tunnel housings to suit your applications. The universal flippable housing gives you the option of right hand or left hand mounting for flexibility and minimizing spares. Flippable housing is optional on sizes G1400 and larger.

### Engineered to handle the toughest environments

MagnaGear XTR reducers complement the Dodge gear family of products and are ideal for bulk material handling in dirty, dusty, harsh environments. They can be found in the mining, aggregate, grain, power plant, and wood products industries in a wide range of applications including:

- Conveyors
- Bucket elevators
- Crushers/breakers
- Feeders
- Mills/kilns



Parallel				
Magnagear XTR model	Nm	kW rating range	Hp	Gear ratio
G100	11630	20 - 190	40 - 290	8:1 - 63:1
G150	18750	40 - 300	60 - 460	8:1 - 63:1
G210	25760	60 - 420	90 - 640	8:1 - 63:1
G285	35810	90 - 610	140 - 930	8:1 - 63:1
G390	49140	120 - 830	190 - 1270	8:1 - 63:1
G525	64280	360 - 1040	560 - 1540	8:1 - 28:1
G600	74340	190 - 1160	300 - 1720	8:1 - 63:1
G700	83830	470 - 1450	730 - 2130	8:1 - 28:1
G920	110270	630 - 1900	970 - 2840	8:1 - 28:1
G1400	150660	590 - 1730	950 - 2810	12:1 - 40:1
G2100	233130	910 - 2680	1470 - 4350	12:1 - 40:1
G3500	389240	1530 - 3080	2470 - 5010	18:1 - 40:1

Approximate power ratings at 1.0 SF

Assumes 1450 RPM for kW ratings and 1750 RPM for Hp ratings

Right angle				
MagnaGear XTR model	Nm	kW rating range	Hp	Gear ratio
G100	11630	20 - 120	40 - 190	12:1 - 63:1
G150	18640	40 - 200	70 - 310	12:1 - 63:1
G210	25640	60 - 280	100 - 430	12:1 - 63:1
G285	35810	90 - 360	140 - 560	12:1 - 63:1
G390	44510	110 - 430	170 - 660	12:1 - 63:1
G525	68240	170 - 680	260 - 1010	12:1 - 63:1
G600	78520	190 - 680	300 - 1010	12:1 - 63:1
G700	89140	220 - 940	340 - 1380	12:1 - 63:1
G920	117500	300 - 1200	460 - 1760	12:1 - 63:1
G1400	153210	390 - 1860	600 - 2880	12:1 - 63:1
G2100	237180	600 - 2790	940 - 4320	12:1 - 63:1
G3500	396110	1030 - 3240	1600 - 5010	18:1 - 63:1



# MagnaGear XTR reducers

## Options and accessories

### Twin-tapered bushings

The patented twin-tapered bushing system provides easy-on/easy-off mounting for hollow shaft reducer sizes G600, G390 and below. A tapered bore in both sides of the reducer's output hub fits snugly against a matching taper on the outer surface of the bushing. This helps deliver maximum torque and shock load capability, reduces wobble, eliminates driven shaft damage and keeps reducers from seizing to the driven shaft.

Twin-tapered bushings can be utilized on commercial grade shafts, which is an advantage over shrink disk systems that require extremely tight shaft tolerances.

### Tandem seals

On most competitive units, two seals are offered only as an option. However, two seals are standard equipment on the Dodge MagnaGear XTR reducer. Working together, these seals provide high temperature protection and twice the sealing power. They feature an inner seal and an excluder seal to prevent contamination. Plus, they incorporate premium seal material for longer life while minimizing shaft wear. The standard purgeable grease cavity provides the additional protection needed for long life.

### Condition monitoring

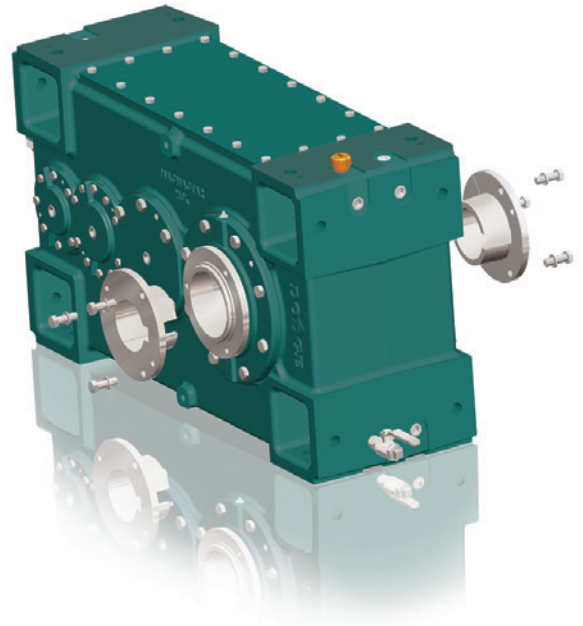
Provisions for three-axis heat/vibration monitoring assure reliable performance.

### Unique cooling system

System's design keeps unit cooler so it runs longer and smoother, helps lower energy usage for greater savings.

### Power-matched components

Components are power matched for optimum performance at a lower installed cost.



The Dodge twin-tapered bushing system is featured on hollow shaft reducers G600, G390 and below.



# MagnaGear XTR reducers

## Options and accessories

In addition to their proven technology and high-performance design features, Dodge MagnaGear XTR reducers offer a complete line of engineered accessories for greater versatility.

- Internal lift-off style backstops
- Shaft fans
- Electric fans
- Alternative cooling packages
- Swing-base mounts
- Tunnel drive configurations
- Torque arms
- Base plates
- Variety of input and output couplings



### DM moment couplings

Dodge DM moment couplings are specifically designed for shaft mounting MagnaGear XTR drive systems, making the rigid connection between the output shaft of the gearbox and driven equipment. These couplings are capable of handling both the required application torque and the bending moment forces of the suspended weight of a drive package, including the gearbox, motor, high-speed coupling, and swing base.

- Male and female hubs manufactured from 4140 alloy steel
- Engineered to meet the most rigorous applications
- Allows for alignment-free drive by eliminating the time consuming process of aligning the gearbox assembly to the head pulley shaft
- Quickly disconnect large drive packages for maintenance



# Contact:

[www.new.abb.com/mechanical-power-transmission](http://www.new.abb.com/mechanical-power-transmission)

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9AKK106449 EN 11-2016