

MAGNAGEAR FAMILY

GEARING ENGINEERING CATALOG

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Dodge® MagnaGear catalog

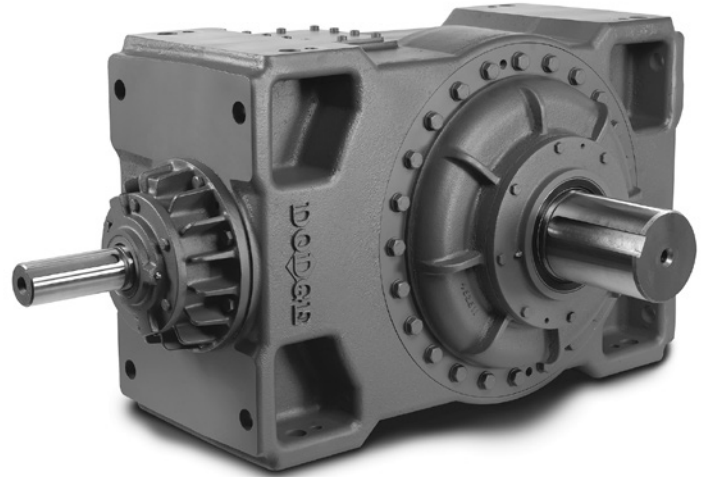
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FEATURES AND BENEFITS



Built to perform

For decades, Dodge® gear reducers have delivered reliability in the tough applications found in industries such as mining, aggregate and grain handling. Engineered with Dodge planetary and helical gearing designs, the MagnaGear XTR is an ideal solution for high torque applications in challenging environments. With design features like industry leading bearing ratings, standard dual seal systems and EP lubricant compatible backstops, the MagnaGear XTR is built to provide maximum uptime and long-term value.



A powerful solution

With 12 case sizes, MagnaGear XTR reducers cover a torque range of 100,000 in-lbs to 3,500,000 in-lbs (11,300 Nm to 395,000 Nm) in a power dense design. Input ratings range from 40 Hp to 5010 Hp at 60 Hz (20 kW to 3240 kW at 50 Hz), making this reducer line well suited for a variety of high torque applications. The MagnaGear XTR also has hollow shaft capabilities to 8 in (200 mm) and Dodge moment couplings can be used in shaft mounting applications up to an 18 in (465 mm) diameter.



FEATURES AND BENEFITS



Flippable housings to maximize utility of spare reducers (optional on sizes G1400 and above)

Large inspection covers for accessibility

Twice the bearing rating versus the competition

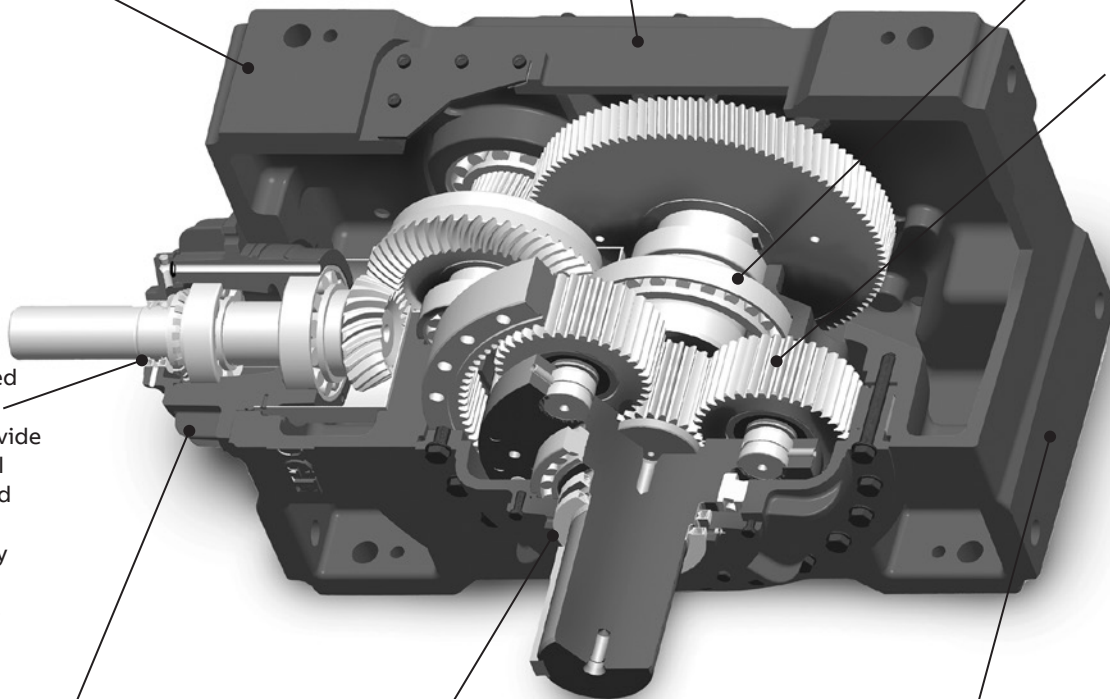
Top quality helical or planetary gearing for maximum power density

Oil seals manufactured from HNBR material provide superior seal life, improved synthetic oil compatibility and a wider temperature range

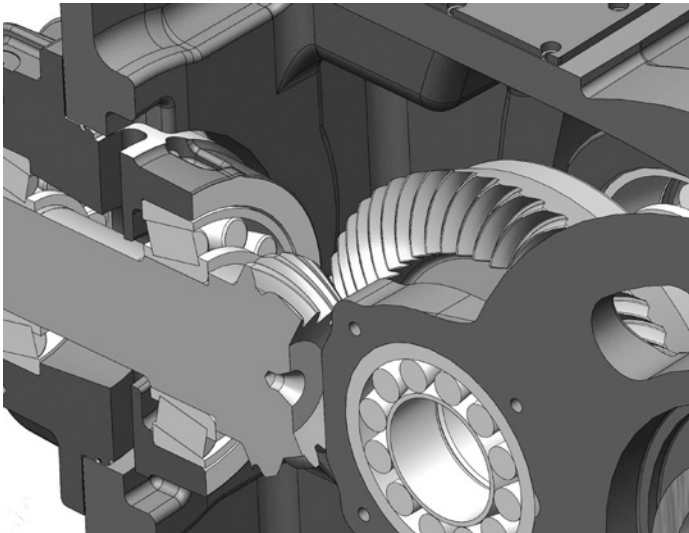
Finned housing design for maximum heat dissipation

Standard dual seal system with purgable grease cavity on input and output shafts

Magnetic oil plug and oil drain valve facilitate repeatable preventive maintenance checks. Flat surfaces in the housing casting allow for easy vibration testing

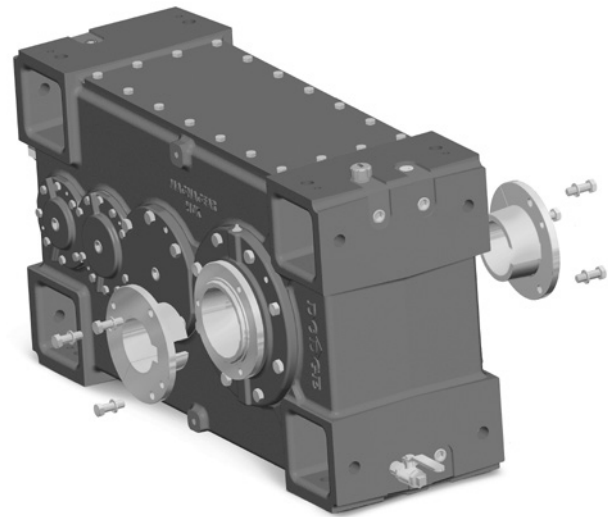
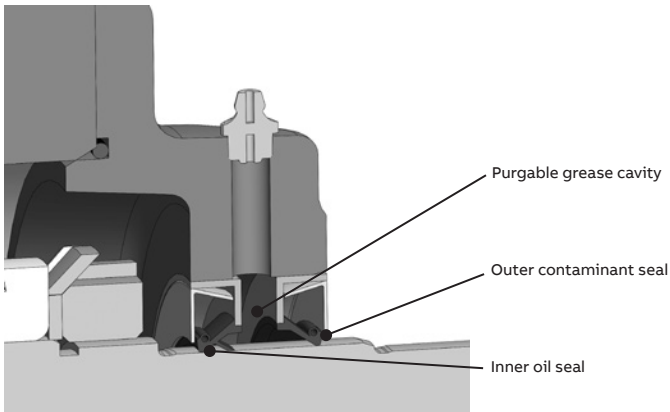


FEATURES AND BENEFITS



Heavy-duty bearing design

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



Twin-tapered bushing shaft mounting system

The twin-tapered bushing system, patented in 1974, is available on MagnaGear XTR sizes G100 through G390, as well as the G600. It can be used to mount the reducer on shaft diameters from 2-3/16 in to 8 in (60 mm to 200 mm).

This innovative system utilizes a tapered bore which allows for ease of installation and removal, even after the reducer has been in service for extended periods. Having a bushing on both sides of the reducer allows for maximum torque transmission and minimizes wobble. Twin-tapered bushings can be utilized on commercial grade shafts, which is an advantage over shrink disk systems that require extremely tight shaft tolerances.

Dual seal system

All MagnaGear XTR reducers feature a dual seal system on both the input and output shafts. The inner seal keeps the oil inside the gear reducer. The outer seal keeps contaminants out. In addition, a purgable grease cavity between the seals creates another barrier to capture any contaminants before they can enter the reducer.

The oil seal is made from HNBR material, which offers a wide operating temperature range and excellent compatibility with today's synthetic oils.

Parallel					
MagnaGear model	In-lb Torque rating	Hp Rating range	Nm Rating range	kW Rating range	Gear ratio
G100	103000	40 - 290	11630	20 - 190	8:1 - 63:1
G150	166000	60 - 460	18750	40 - 300	8:1 - 63:1
G210	227000	90 - 640	25760	60 - 420	8:1 - 63:1
G285	317000	140 - 930	35810	90 - 610	8:1 - 63:1
G390	435000	190 - 1270	49140	120 - 830	8:1 - 63:1
G525	569000	560 - 1540	64280	360 - 1040	8:1 - 28:1
G600	658000	300 - 1720	74340	190 - 1160	8:1 - 63:1
G700	742000	730 - 2130	83830	470 - 1450	8:1 - 28:1
G920	976000	970 - 2840	110270	630 - 1900	8:1 - 28:1
G1400	1333500	950 - 2810	150660	590 - 1730	12:1 - 40:1
G2100	2063500	1470 - 4350	233130	910 - 2680	12:1 - 40:1
G3500	3445000	2470 - 5010	389240	1530 - 3080	18:1 - 40:1

Right Angle					
MagnaGear model	In-lb Torque rating	Hp Rating range	Nm Rating range	kW Rating range	Gear ratio
G100	103000	40 - 190	11630	20 - 120	12:1 - 63:1
G150	165000	70 - 310	18640	40 - 200	12:1 - 63:1
G210	227000	100 - 430	25640	60 - 280	12:1 - 63:1
G285	317000	140 - 560	35810	90 - 360	12:1 - 63:1
G390	394000	170 - 660	44510	110 - 430	12:1 - 63:1
G525	604000	260 - 1010	68240	170 - 680	12:1 - 63:1
G600	695000	300 - 1010	78520	190 - 680	12:1 - 63:1
G700	789000	340 - 1380	89140	220 - 940	12:1 - 63:1
G920	1040000	460 - 1760	117500	300 - 1200	12:1 - 63:1
G1400	1356000	600 - 2880	153210	390 - 1860	12:1 - 63:1
G2100	2099000	940 - 4320	237180	600 - 2790	12:1 - 63:1
G3500	3506000	1600 - 5010	396110	1030 - 3240	18:1 - 63:1

Approximate power ratings at 1.0 SF Assumes 1800 RPM for Hp ratings and 1500 RPM for kW ratings

OPTIONS AND ACCESSORIES

Options and accessories

Desiccant breather with filter

The Dodge® desiccant breather delivers maximum protection for Dodge gearing operating in harsh environments. This breather protects lubricants from humidity and keeps out even the smallest particulates that can destroy the effectiveness of your reducer. The Hydra-Lock desiccant breather will reduce wear, extend oil and filter life and provide maximum value.

Foam pad

Reduces oil mist exhalation. Ensures outgoing air is evenly dispersed through the filters and desiccant.

Resilient polycarbonate body

Shock absorbing, clear casing provides reliable service and easy maintenance.

Desiccant material

Silica gel absorbs water from incoming air. Indicates condition by change of color from blue to pink.

Filter element

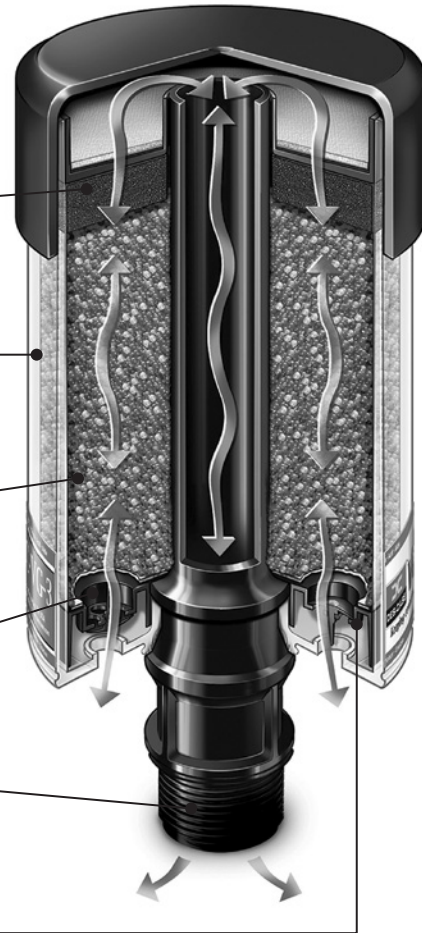
Patented polyester filter removes contamination to 3-micron.

Threaded mounting

Easily replaces standard filter/breather cap with one of several adapters.

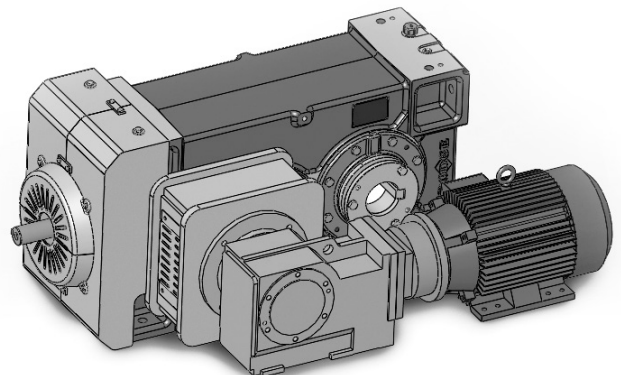
Interior Check Valve System

Provides system pressurization, protecting system integrity and reduction of particle contamination. Plugs keep unit inactive until use.



Inching drives

Inching drives allow the MagnaGear XTR to be operated at a lower than normal output speed (standard inching drive speed is 10% of normal output speed). A lower speed allows easy positioning of a conveyor belt or bucket elevator for inspection or repairs. In colder climates inching drives can be used to slowly move the entire system, preventing issues related to freezing equipment during times of non-production.



Mounting options

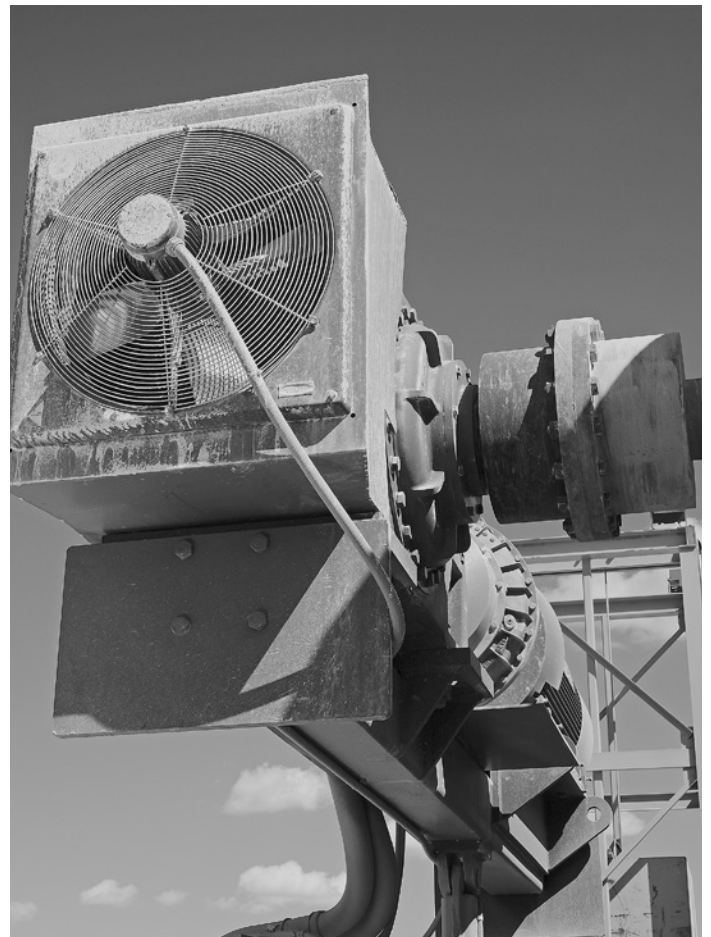
DM moment couplings

Highly engineered for rigorous applications

Dodge® moment couplings are specifically designed to make the rigid connection between the output shaft of the MagnaGear XTR and driven equipment. Highly engineered to meet the most rigorous application requirements, these couplings are capable of handling both the required application torque and the bending moment forces of the suspended weight of the drive package.

A cost saving option

Dodge moment couplings enable large gear boxes to become alignment-free drives, allowing customers to save money by eliminating the time consuming process of aligning a gearbox assembly to the head pulley shaft. These couplings also eliminate the expense associated with the additional structural fabrication required for base-mounted drives.



OPTIONS AND ACCESSORIES



Mounting options

Dodge® System-1

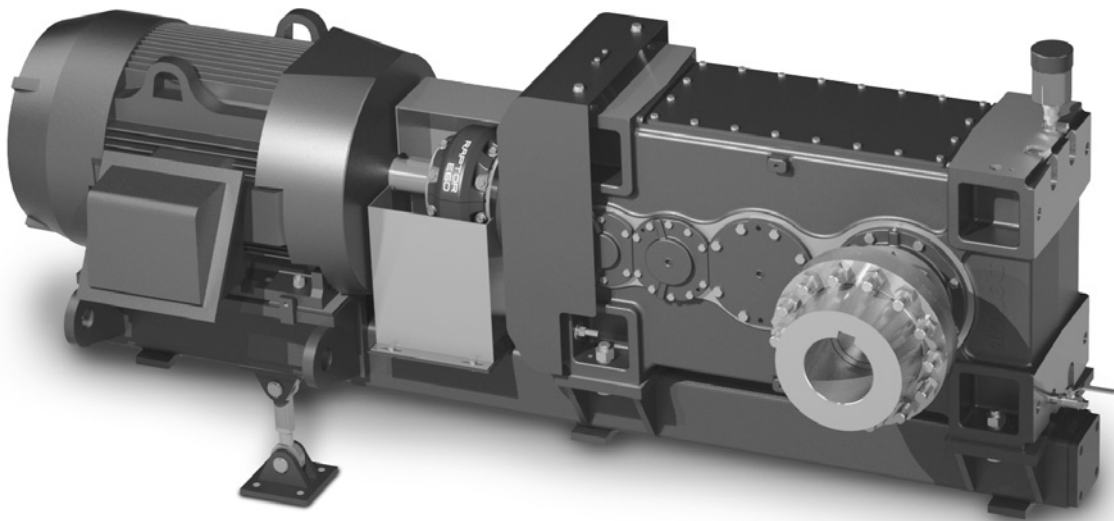
The Dodge System-1 team is a product marketing group that facilitates the design, quotation, and order processing of complete packaged drive solutions.

Consisting of engineering and product marketing specialists, the System-1 team can utilize the full complement of Baldor and Dodge technical resources to select the optimum system components. Choosing from the broadest mechanical and electrical product lines in the industry, the System-1 team can design and quote MagnaGear XTR packages including motors, couplings, mounted bearings and pulleys.

The System-1 team will ensure your drive package is correctly sized for the application with power matched components that are assembled to strict factory specifications.

Having one point of contact for quotations, order entry, shipping coordination and any warranty questions will save the time and money normally spent on project coordination.

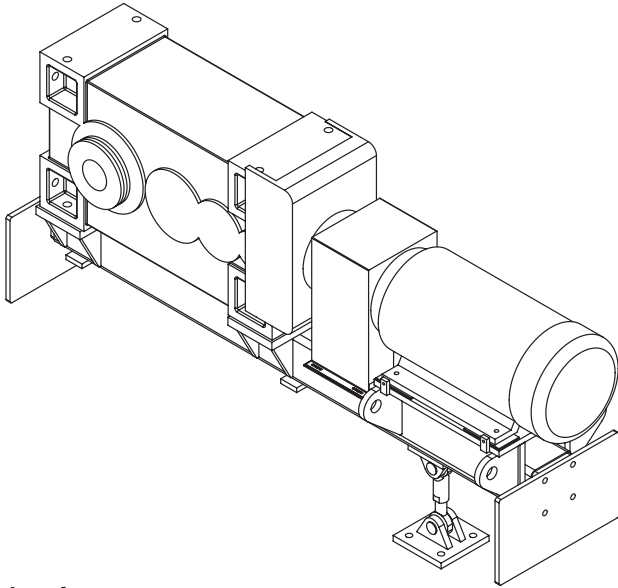
Contact System-1 for your next package opportunity and find out why we are the industry's proven single source provider for innovative drive system solutions.



Complete MagnaGear drive package including Baldor motor, MagnaGear XTR reducer, Raptor high speed coupling and Dodge DM moment coupling.

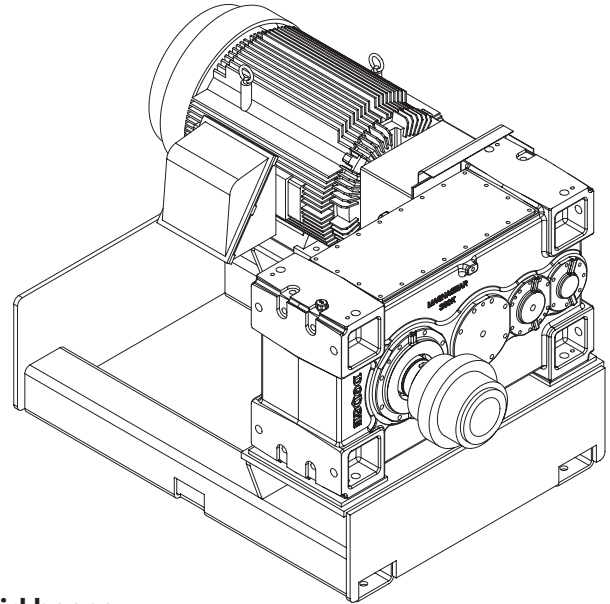
All mounted on a Dodge swingbase assembly and laser aligned at the factory before shipping.

Mounting options



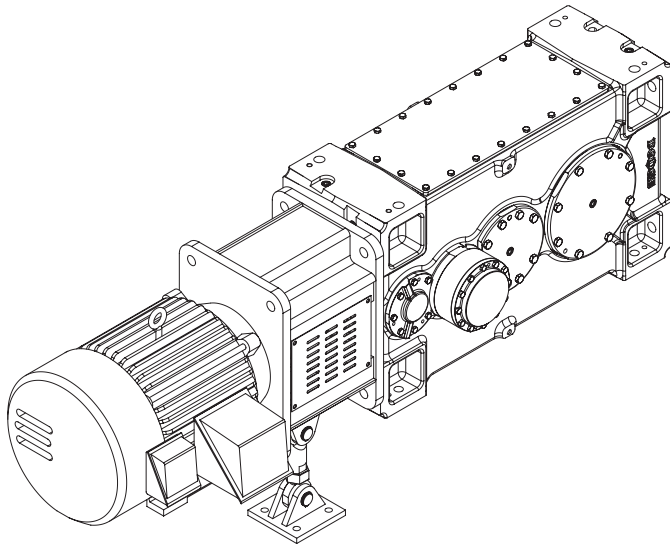
Swing bases

Swing bases are an ideal option for shaft mounting a MagnaGear XTR drive assembly. The swing base supports the foot mounted motor and drive coupling. The reducer is shaft mounted to the driven equipment using twin-tapered bushings or a Dodge moment coupling. Each swing base is designed and fabricated to meet the exact drive requirements.



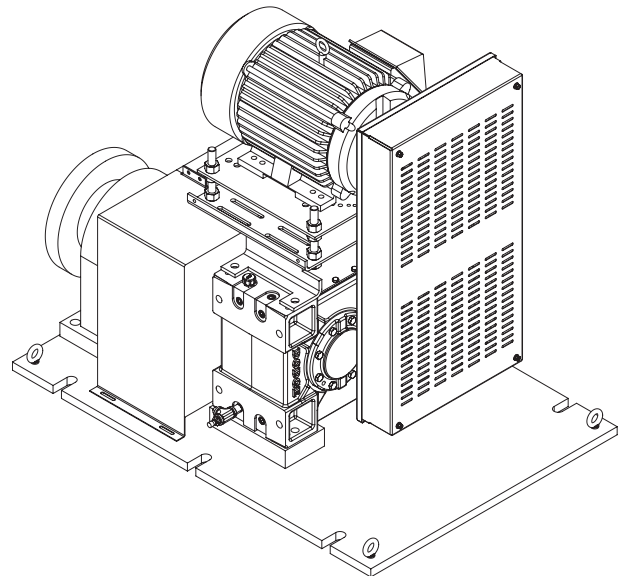
Solid bases

Solid bases allow the MagnaGear XTR reducer and motor to be mounted on a supporting structure. This eliminates the need for the driven equipment to support the drive.



Tunnel housings

Tunnel housings allow the drive motor to be flange mounted to the MagnaGear XTR in a shaft mount drive arrangement. The motor utilizes a C-face or D-flange (B5 or B14 flange) to mount to the tunnel housing. The reducer is also mounted to the tunnel housing. The MagnaGear XTR is shaft mounted to the driven equipment using twin-tapered bushings or a Dodge moment coupling. This convenient drive arrangement requires no shaft alignments.

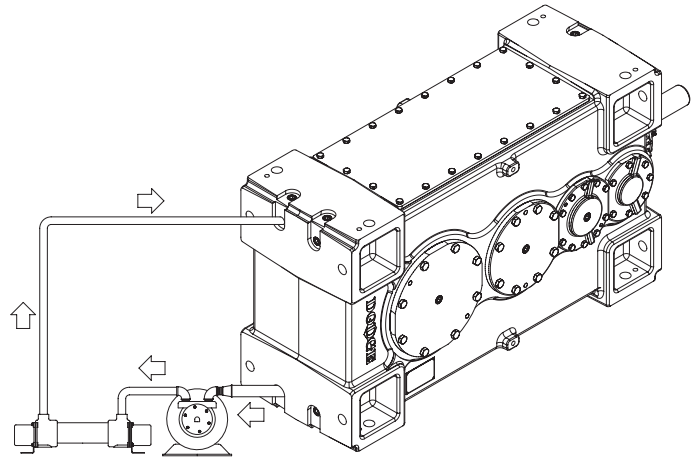
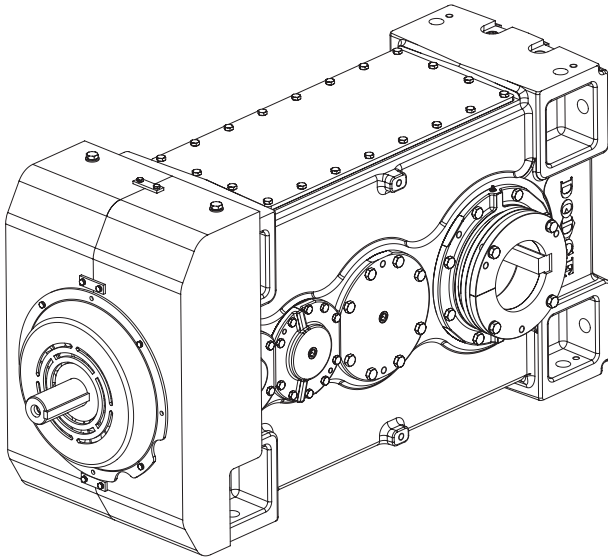


Top motor mounts

Top motor mounts provide a compact mounting arrangement when installation space is limited. The motor is mounted on top of the MagnaGear XTR and a belted connection is used to drive the input shaft. The belt connection can provide additional ratio to the system if a lower output speed is required.

OPTIONS AND ACCESSORIES

Mounting options

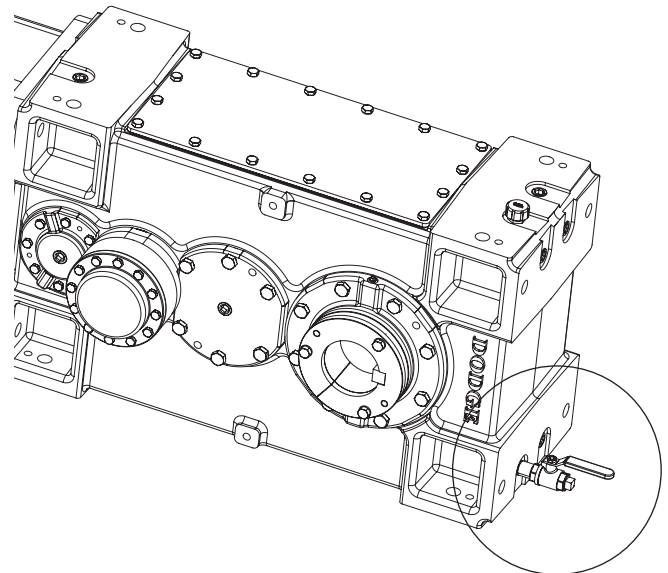
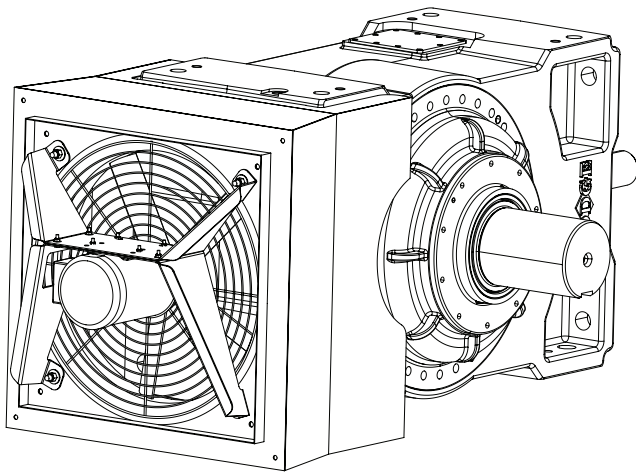


Shaft fans

Shaft fans are a convenient way to provide additional cooling to the gear reducer. Dual directional fans provide cooling in either direction of rotation. The uni-directional option provides more air flow, but can only be used in one direction of rotation.

Heat exchangers

Heat exchanger packages can provide cooling for the toughest thermal applications. Heat exchanger packages are designed for the specific application requirements and are available in oil to air and oil to water options.



Electric fans

When additional cooling beyond a shaft fan is required, electric fans provide a significant increase in air flow. Electric fan motors are available in a wide variety of voltages. Thermocouples can easily be included with the MagnaGear XTR to monitor the reducer oil temperature.

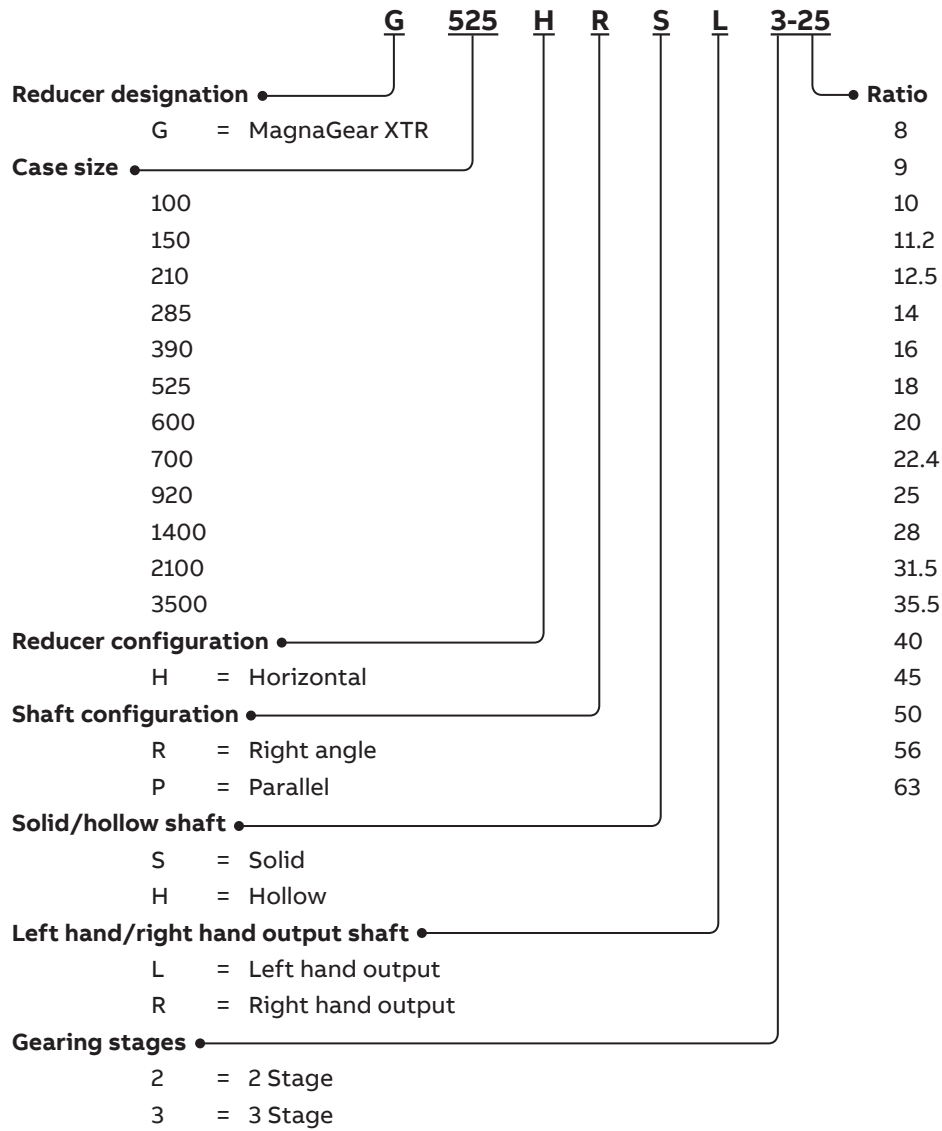
Condition monitoring provisions

All MagnaGear XTR reducers include a magnetic drain plug and oil drain valve which are helpful when monitoring the condition of the reducer oil. Flat tabs are cast in the housings in strategic locations to make it easier to take consistent vibration measurements.

NOMENCLATURE



MagnaGear XTR



Nomenclature example: G525HRSL3-25

SPECIFICATIONS



General specifications for MagnaGear XTR reducers to 3,500,000 in-lbs (395,000 Nm)

MagnaGear XTR speed reducers are a 2 or 3 stage reduction in a parallel or right angle shaft configuration. Gearing type is helical, bevel helical and planetary. Output shaft is solid or hollow with a twin tapered bushing. Mounting configurations include foot or shaft mounting and standard mounting accessories include solid base, swing base and tunnel housing. Cooling systems include a shaft mounted fan, electric fan or external cooling system with an oil to air or oil to water heat exchanger.

Gearing

MagnaGear XTR sizes G100 through G390 and G600 utilize helical or bevel helical gearing. Sizes G525 and G700 through G3500 utilize helical or bevel helical gearing with a planetary gear output.

Gear materials are a carburizing grade alloy steel which meets gear material grade MQ per ISO 6336. All gearing is case carburized to ensure a high surface durability and resilient tooth core for greater impact resistance and longer service life.

Bevel, helical, planet gears and sun pinion are ground after heat treating and carburizing to ISO grade 6 standard which is equivalent to AGMA A6 minimum quality level.

Castings

MagnaGear XTR housings for sizes G100 through G920 are constructed of Class 30 gray iron. Four machined surfaces provide flexible mounting options in a horizontal output shaft position.

G100 through G920 housings are a mono-block construction and can be flipped 180 degrees. MagnaGear XTR sizes G525, G700 and G920 have oversized assembly covers for ease of maintenance. G100 through G920 housings include cast cooling fins for greater thermal horsepower capabilities.

MagnaGear XTR housings for sizes G1400 through G3500 are constructed of ASTM A36 steel or equivalent. The capability to flip the reducer 180 degrees is optional on sizes G1400 through G3500.

G1400 through G3500 housings are a split case construction for ease of maintenance.

All housings include bolted end covers instead of bore plugs. Housings and assembly covers are precision matched to ensure proper gear alignment.

Pipe fittings and plugs are NPT.

Lubrication

Gearing is splash and dip lubricated. Bearings are lubricated by dip and by gravity feed. A pressure lubrication system may be required on sizes G1400 through G3500, depending on the application.

Mineral based EP oils are the preferred lubricant, suitable for operating temperatures up to 200°F (93°C) as well as for low ambient temperatures down to 25°F (-4°C). For applications outside this temperature range, synthetic lubricants which are suitable for operating temperatures up to 212°F (100°C) as well as for low ambient temperatures down to -15°F (-26°C) may be used.

Recommended oil viscosity ISO grade is 220EP to 320EP, depending on output RPM and ambient temperature.

MagnaGear XTR reducers are compatible with rust and oxidation inhibiting (R&O) and polyalpha olefin (PAO) lubricants

Bearings

Bearings are spherical roller type on planetary gears, all others are tapered roller type.

Bearings ratings are based on a minimum unadjusted L-10 life of 5,000 hours, providing a minimum 25,000 hour average life.

Sealing

Input and output shaft seals are a tandem radial lip arrangement. Between the tandem seals is a grease purge cavity.

Premium hydrogenated nitrile butadiene rubber (HNBR) oil seals are protected by an excluder lip auxiliary seal.

Shafts

MagnaGear XTR sizes G100 through G390 and G600 are available with a twin-tapered bushing hollow output shaft. The taper bushing is manufactured from ductile iron.

Shaft extensions are metric dimensions.

Backstops

Backstops are a centrifugal throw out, lift off design which eliminates sprag sliding and reduces wear. Backstops are integrally mounted on the input shaft of parallel MagnaGear XTR reducers or on the intermediate shaft of right angle reducers.

Backstops are lubricated by the oil in the reducer and are EP and synthetic oil compatible.

RECOMMENDED SERVICE FACTORS



MagnaGear XTR – recommended service factors

The service factors that follow are adapted from AGMA 6013-A06 Appendix A.

Applications which expose the gear drive to high starting torques, extreme repetitive shock, or where high energy loads must be absorbed as when stalling, require special consideration. Service factors for these special applications should be agreed upon by the user and DODGE since variations of the values in the table may be required.

Table 1 – Service Factors

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Agitators		
Pure liquids	1.00	1.25
Liquids & solids	1.25	1.50
Liquids - variable Density	1.25	1.50
Apron conveyors		
Uniformly loaded or fed	1.00	1.25
Heavy duty	1.25	1.50
Apron feeders	1.25	1.50
Assembly conveyors		
Uniformly loaded or fed	1.00	1.25
Heavy duty	1.25	1.50
Ball mills	▲	▲
Barge haul pullers	1.25	1.50
Barking		
Drums (coupling connected)		2.00
Mechanical		2.00
Bar screens (sewage)	1.25	1.25
Batchers (textile)	1.25	1.50
Belt conveyors		
Uniformly loaded or fed	1.00	1.25
Heavy duty	1.25	1.50
Belt feeders	1.25	1.50
Bending rolls (Machine)	1.25	1.50
Blowers		
Centrifugal	1.00	1.25
Lobe	1.25	1.50
Vane	1.25	1.50
Bottling machinery	1.00	1.25
Brewing & Distilling		
Bottling machinery	1.00	1.25
Brew kettles, cont. duty	1.25	1.25
Can filling machines	1.00	1.25
Cookers - cont. duty	1.25	1.25
Mash Tubs - cont. duty	1.25	1.25
Scale hoppers - frequent starts	1.25	1.50
Brick press (clay working)	1.75	2.00
Briquette machines (clay working)	1.75	2.00
Bucket		
Conveyors uniform	1.00	1.25
Conveyors heavy duty	1.25	1.50
Elevators cont.	1.00	1.25
Elevators uniform	1.00	1.25
Elevators heavy duty	1.25	1.50
Calendars		
Rubber		1.50
Textile	1.25	1.50
Cane knives		1.50
Can filling machines	1.00	1.25
Card machines (textile)	1.25	1.50
Car dumpers	1.75	2.00
Car pullers	1.25	1.50
Cement kilns	▲	▲

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Centrifugal		
Blowers, compressors, Discharge elevators, Fans or pumps	1.00	1.25
Chain conveyors		
Uniformly loaded or fed	1.00	1.25
Heavy duty	1.25	1.50
Chemical feeders (sewage)	1.25	1.25
Clarifiers	1.00	1.25
Classifiers	1.25	1.50
Clay working industry		
Brick press	1.75	2.00
Briquette machines	1.75	2.00
Pug mills	1.25	1.50
Collectors (sewage)	1.25	1.25
Compressors		
Centrifugal	1.00	1.25
Lobe	1.25	1.50
Reciprocating:		
Multi-cylinder	1.50	1.75
Single cylinder	1.75	2.00
Concrete mixers		
Continuous	1.25	1.50
Intermittent	1.25	1.50
Conveyors - uniformly loaded or fed:		
Apron assembly, belt, bucket, Chain, flight, oven, screw	1.00	1.25
Conveyors - heavy duty		
Not uniformly fed:		
Apron, assembly, belt, bucket, Chain, flight, oven, screw	1.25	1.50
Conveyors - severe duty		
Live roll reciprocating	†	†
Shaker	1.75	2.00
Cookers (brewing, distilling), (food)	1.25	1.25
Cooling tower fans	†	†
Cranes	†	†
Crushers		
Ore or stone	1.75	2.00
Sugar		1.50
Dewatering screens (sewage)	1.50	1.50
Disc feeders	1.00	1.25
Distilling (see brewing)		
Double acting pumps		
2 or more cylinders	1.25	1.50
Single cylinder	†	†
Dough mixer (food)	1.25	1.50
Draw bench (metal mills)		
Carriage & main drive	1.25	1.50

RECOMMENDED SERVICE FACTORS



MagnaGear XTR

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Dredges		
Cable reels, conveyors	1.25	1.50
Cutter head & jig drives	2.00	2.00
Maneuvering winches	1.25	1.50
Pumps	2.00	2.00
Screen drives	1.75	2.00
Stackers, utility winches	1.25	1.50
Dry dock cranes	†	†
Dryers & coolers		
(Mills, rotary)		1.50
Dyeing machinery (textile)	1.25	1.50
Elevators		
Bucket - uniform load	1.00	1.25
Bucket - heavy duty	1.25	1.50
Centrifugal discharge	1.00	1.25
Escalators	1.00	1.25
Freight	1.25	1.50
Gravity discharge	1.00	1.25
Manual lifts, passenger	†	†
Extruders		
General	1.50	1.50
Plastics		
Variable speed drive	1.50	1.50
Fixed speed drive	1.75	1.75
Rubber		
Continuous screw		
Operation	1.75	1.75
Intermittent screw		
Operation	1.75	1.75
Fans		
Centrifugal	1.00	1.25
Cooling towers	†	†
Forced draft	1.25	1.25
Induced draft	1.50	1.50
Large (mine, etc.)	1.50	1.50
Large industrial	1.50	1.50
Light (small diameter)	1.00	1.25
Feeders		
Apron, belt	1.25	1.50
Disc	1.00	1.25
Reciprocating	1.75	2.00
Screw	1.25	1.50
Flight		
Conveyors, uniform	1.00	1.25
Conveyors, heavy	1.25	1.50
Food industry		
Beet slicers	1.25	1.50
Bottling, can filling machine	1.00	1.25
Cereal cookers	1.00	1.25
Dough mixers, meat grinders	1.25	1.50
Generators (not welding)	1.00	1.25
Gravity discharge elevators	1.00	1.25
Hammer mills	1.75	2.00
Hoists (see cranes)	†	†
Induced draft fans	1.50	1.50
Kilns	▲	▲
Laundry		
Tumblers	1.25	1.50
Washers	1.50	2.00
Line shafts		
Driving processing equipment	1.25	1.50
Other line shafts, light	1	1.25
Live roll conveyors	†	†
Lobe blowers or compressors	1.25	1.50
Log hauls (lumber)		
Incline-well type	1.75	1.75
Looms (textile)	1.25	1.50

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Lumber industry		
Barkers - spindle feed	1.25	1.50
Barkers - main drive	1.75	1.75
Carriage drive	†	†
Conveyors		
Burner	1.25	1.50
Main or heavy duty	1.50	1.50
Main log	1.75	2.00
Re-saw merry-go-round	1.25	1.50
Slab	1.75	2.00
Transfer	1.25	1.50
Chains - floor	1.50	1.50
Chains - green	1.50	1.75
Cut-off saws - chain & drag	1.50	1.75
Debarking drums	1.75	2.00
Feeds - edger	1.25	1.50
Feeds - gang	1.75	1.75
Feeds - trimmer	1.25	1.50
Log deck	1.75	1.75
Log hauls - incline, well type	1.75	1.75
Log turning devices	1.75	1.75
Planer feed	1.25	1.50
Planer tilting hoists	1.25	1.50
Rolls - live - off bearing - roll cases	1.75	1.75
Sorting table, tippie hoist	1.25	1.50
Transfer - chain & craneway	1.50	1.75
Tray drives	1.25	1.50
Veneer lathe drives	†	†
Machine tools		
Auxiliary drives	1.00	1.25
Banding rolls	1.25	1.50
Main drives	1.25	1.50
Notching press (belted)	†	†
Plate planers	1.75	2.00
Punch press (geared)	1.75	2.00
Tapping machines	1.75	2.00
Mangle (textile)	1.25	1.50
Mash tubs (brewing & distilling)	1.25	1.25
Meat grinders (food)	1.25	1.50
Metal mills		
Draw bench carriages & main drives	1.25	1.50
Pinch, dryer & scrubber		
Rolls reversing	†	†
Slitters	1.25	1.50
Table conveyors,		
Non-reversing		
Group drives	1.50	1.50
Individual drives	2.00	2.00
Reversing	†	†
Wire drawing & flattening machines		
Wire winding machines	1.50	1.50
Mills, rotary		
Ball and rod mills		
With spur ring gear		2.00
With helical ring gear		1.50
Direct connected		2.00
Mills, rotary (continued)		
Cement kilns, dryers, coolers, pebble plain & wedge bar mills		1.50
Tumbling barrels	1.75	2.00
Mixers (also see agitators)		
Concrete, cont. & int.	1.25	1.50
Constant density	1.00	1.25
Variable density	1.25	1.50
Nappers (textile)	1.25	1.50
Oil industry		
Chillers	1.25	1.50
Oil well pumping	†	†
Paraffin filter press	1.25	1.50
Rotary kilns	1.25	1.50

RECOMMENDED SERVICE FACTORS



MagnaGear XTR

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Ore crushers	1.75	2.00
Oven conveyors		
Uniform	1.00	1.25
Heavy duty	1.25	1.50
Paper mills (1)		
Agitator (mixer)		1.50
Agitator for pure liquids		1.25
Barking drums, barkers - mechanical		2.00
Beater		1.50
Breaker stack		1.25
Calender (2)		1.25
Chipper		2.00
Chip feeder		1.50
Coating rolls		1.25
Conveyors -		
Chip, bark, chemical		1.25
Log (Incl. Slab)		2.00
Couch Rolls		1.25
Cutter		2.00
Cylinder molds		1.25
Dryers (2)		
Paper mach. & conveyor type		1.25
Embosser		1.25
Extruder		1.50
Fourdrinier rolls - lumpbreaker, wire turning,		
Dandy & return rolls		1.25
Jordan		1.50
Kiln drive		1.50
Mt. Hope & paper rolls		1.25
Platter		1.50
Presses (felt & suction)		1.25
Pulper		2.00
Reel (surface type) screens		1.25
Chip, rotary		1.50
Vibrating		2.00
Size press		1.25
Super calender (3)		1.25
Thickener & washer -		
AC motor		1.50
DC motor		1.25
Vacuum pumps		1.50
Wind & unwind stand		1.25
Winders (surface type)		1.25
Yankee dryer (2)		1.25
Passenger elevators	†	†
Pebble mills	▲	▲
Plastics industry		
Primary processing		
Intensive internal mixers		
Batch mixers	1.75	1.75
Continuous mixers	1.50	1.50
Batch drop mill - 2 smooth rolls	1.25	1.25
Continuous feed, holding & blend mill	1.25	1.25
Compounding mill	1.25	1.25
Calenders	1.50	1.50
Secondary processing		
Blow molders	1.50	1.50
Coating	1.25	1.25
Film	1.25	1.25
Pipe	1.25	1.25
Pre-plasticizers	1.50	1.50
Rods	1.25	1.25
Sheets	1.25	1.25
Tubing	1.25	1.50
Plate planers	1.75	2.00
Printing presses	†	†
Proportioning pumps	1.25	1.50
Pug mills (clay)	1.25	1.50

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Pullers (barge haul)	1.25	1.50
Pumps		
Centrifugal	1.00	1.25
Proportioning	1.25	1.50
Reciprocating		
Single act., 3 or more cylinder	1.25	1.50
Double act., 2 or more cylinder	1.25	1.50
Single act., 1 or 2 cylinder	†	†
Double act., 1 cylinder	†	†
Rotary: gear, lobe, vane	1.00	1.25
Punch press; (gear driven)	1.75	2.00
Reciprocating		
Conveyors, feeders	1.75	2.00
Reciprocating compressors		
Multi cylinder	1.50	1.75
Single cylinder	1.75	2.00
Reversing direction	†	†
Application	▲	▲
Rod mills		
Rotary		
Pumps	1.00	1.25
Screens (sand and gravel)	1.25	1.50
Rubber industry		
Intensive internal mixers	1.75	1.75
Batch mixers	1.50	1.50
Mixing mill - 2 smooth rolls (if using corrugated rolls, use the same service factors that are used for a cracker-warmer)	1.50	1.50
Batch drop mill - 2 smooth rolls	1.50	1.50
Cracker warmer - 2 rolls: 1 corrugated roll	1.75	1.75
Cracker - 2 corrugated rolls	2.00	2.00
Holding, feed & blend mill - 2 rolls	1.25	1.25
Refiner - 2 rolls	1.50	1.50
Calenders	1.50	1.50
Sand mullers	1.25	1.50
Screens		
Air washing	1.00	1.25
Rotary-sand or gravel	1.25	1.50
Traveling water intake	1.00	1.25
Screw conveyors		
Uniform	1.00	1.25
Heavy duty or feeder	1.25	1.50
Scum breakers (sewage)	1.50	1.50
Sewage disposal		
Bar screens	1.25	1.25
Chemical feeders	1.25	1.25
Collectors	1.25	1.25
Dewatering screens	1.50	1.50
Scum breakers	1.50	1.50
Slow or rapid mixers	1.50	1.50
Thickeners	1.50	1.50
Vacuum filters	1.50	1.50
Shaker conveyors	1.75	2.00
Sheeters (rubber)		1.50
Sinle acting pump		
1 or 2 cylinders	†	†
3 or more cylinders	1.25	1.50
Skip hoist	†	†
Slab pushers	1.50	1.50
Slitters (metal)	1.25	1.50
Sludge collectors (sewage)	1.25	1.25
Soapers (textile)	1.25	1.50
Spinners (textile)	1.25	1.50
Steering gears		
Stokers	1.00	1.25
Stone crushers	1.75	2.00
Sugar industry		
Cane knives, crushers mill		1.50

RECOMMENDED SERVICE FACTORS



MagnaGear XTR

Application	Service	
	3-10 Hrs./Day	10+ Hrs./Day
Table conveyors		
(Non-reversing)		
Group drives	1.50	1.50
Individual drives	2.00	2.00
Reversing	†	†
Tenter frames (textile)	1.25	1.50
Textile industry		
Batchers, calenders	1.25	1.50
Card machines	1.25	1.50
Dry cans, dryers	1.25	1.50
Dyeing machinery	1.25	1.50
Knitting machinery	†	†
Looms, mangles, nappers, pads	1.25	1.50
Range drives	†	†
Slashers, soapers, spinners	1.25	1.50
Tenter framers, washers, winders	1.25	1.50
Thickness (sewage)	1.50	1.50
Tumbling barrels	1.75	2.00
Vacuum filters (sewage)	1.50	1.50
Vane blowers	1.25	1.50
Winches (dredges)	1.25	1.50
Winders (textile)	1.25	1.50
Windglass	†	†
Wire		
Drawing machines	1.25	1.50
Winding machines	1.50	1.50

† Consult your local ABB sales office

▲ See Mill, rotary

- (1) Service factors for paper mill applications are applied to the nameplate rating of the electric motor at the motor rated base speed
- (2) Using anti-friction bearings only. Use 1.50 for sleeve bearings
- (3) When a super calender operates over a speed range of part constant horsepower and part constant torque and the constant horse power speed range is greater than 1.5:1, use a service factor of 1.00 at base speed. When operating at constant torque over the entire speed range or when the constant horsepower speed range is less than 1.5:1, a 1.25 service factor should be used.

Hp method of selection

Step 1: Determine service factor

Refer to the recommended service factor tables on pages 12 through 15.

Step 2: Calculate equivalent horsepower rating required

Multiply the actual horsepower to be transmitted by the service factor obtained from step 1.

Step 3: Calculate required ratio

Divide the high speed shaft RPM by the low speed shaft RPM.

Step 4: Determine unit size and ratio

Refer to the horsepower rating tables on page 20 for right angle and pages 26 and 27 for parallel. Find the correct reduction ratio in the left hand column. Select the row with the correct input speed and output speed in the next two columns, trace right on this row into the table and find the horsepower rating equal to or greater than the equivalent horsepower obtained from step 2.

Step 5: Check thermal ratings

Compare the actual horsepower to be transmitted (without service factor) with the thermal horsepower rating of the selected gear reducer by referring to the thermal horsepower rating tables on pages 22 through 25 for right angle and pages 30 through 33 for parallel. If the actual transmitted horsepower exceeds the thermal capacity, a shaft driven auxiliary cooling fan, electric auxiliary cooling fan or a heat exchanger may be added to provide additional thermal capacity. In some cases, a larger reducer may be required.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if external thrust loads or overhung loads are present.

Step 7: Check dimensions

See applicable pages for dimensions, weights and part numbers.

Horsepower method of selection example

A heavy-duty belt conveyor application requires the drive pulley to operate at 41 RPM. The electric motor which will be used to power the conveyor has a 150 Hp rating and operates at 1800 RPM. The duty cycle is 24 hours per day. Ambient conditions at the installation site are a temperature of 90 degrees Fahrenheit and an altitude of 5000 feet above sea level. A right angle shaft reducer suitable for shaft mounting is required.

Step 1: Determine service factor

From the recommended service factors table on page 12, locate "Conveyors - heavy duty". "Belt" is one of the types of conveyors listed. Under the column titled "10+ Hrs. /day service" find the recommended service factor which is 1.50.

Step 2: Calculate equivalent power rating

Multiply the motor horsepower rating by the service factor ($150 \times 1.50 = 225$) to get the equivalent rating of 225 Hp.

Step 3: Calculate required ratio

Divide the high speed shaft RPM by the low speed shaft RPM ($1800 / 41 = 43.9$) to get the required ratio of 43.9:1.

Step 4: Determine unit size and ratio

Refer to the horsepower ratings table for right angle shaft MagnaGear XTR reducers on page 20. The left column lists the available nominal ratios. Follow down the ratio column to the closest nominal ratio to the 43.9:1 required ratio and find 45:1. Find the row with an 1800 RPM input shaft speed and a 40 RPM output speed in the next two columns. Trace this row to the right until the horsepower rating equals or exceeds the calculated equivalent rating of 225 Hp and find 252 Hp listed under a MagnaGear XTR G390 reducer.

Hp method of selection

Step 5: Check thermal ratings

Refer to the thermal horsepower rating table for right angle MagnaGear XTR reducers with an 1800 RPM input speed and 80 degrees Fahrenheit ambient temperature on page 22. The left column lists the available nominal ratios in groups.

Locate the group of ratios that includes a 45:1 ratio and find the thermal ratings for the MagnaGear XTR G390 reducer. Using the table for an 80 degrees Fahrenheit ambient temperature, the thermal rating without a fan is 147 Hp, the thermal rating with a shaft fan is 223 Hp, the thermal rating with a uni-directional shaft fan is 290 Hp, and the thermal rating with an electric fan is 452 Hp.

These ratings must be adjusted for the actual ambient conditions. From the MagnaGear XTR thermal rating adjustment factor tables on page 19, find the multipliers for a 90 degrees Fahrenheit ambient temperature and 5000 feet altitude. Note the factor for a 90 degrees Fahrenheit ambient is 0.93 and the factor for a 5000 feet altitude is 0.90. (Interpolation can be used to determine factors for values between those listed in the tables). An additional factor for maximum allowable oil sump temperature is also provided.

To determine the actual thermal horsepower capacity of the reducer, multiply the thermal rating from the thermal horsepower rating table by the adjustment factors.

Actual thermal Hp capacity with no fan = $147 \times 0.93 \times 0.90 = 123$ Hp. Since 123 Hp is less than the input motor rating of 150 Hp, the reducer does not have adequate thermal capacity with no fan.

Actual thermal Hp capacity with a shaft fan = $223 \times 0.93 \times 0.90 = 187$ Hp. Since 187 Hp exceeds the input motor rating of 150 Hp, a shaft fan will provide adequate cooling for this application.

Note: If ambient temperature is 100 degrees Fahrenheit, use the 100 degrees Fahrenheit thermal ratings tables and no adjustment for temperature is required.

The 100 degrees Fahrenheit thermal ratings tables cannot be adjusted for other ambient temperatures using the thermal ratings adjustment factors on page 19.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if overhung or thrust loading exists.

Step 7: Find reducer and accessories

Refer to page 60 for Dodge MagnaGear XTR G390 right angle reducer part numbers. The part number for the hollow shaft reducer is 449494. The part number for the shaft fan is on page 61 and is 451526.

In order to shaft mount the reducer a twin tapered bushing kit is required. Page 61 gives these part numbers. A twin-tapered bushing kit part number 454130 would be used with a driven shaft diameter of 7 in. The exact ratio of the reducer is given on the horsepower ratings table on page 20 and is 44.224:1.

Step 8: Check accessories

Consult your local sales representative to confirm the availability of any accessories not listed.

Torque method of selection (in-lbs)

To begin the torque method of selection, determine the service factor, equivalent torque, and unit size using the same steps as outlined for the kilowatt method. However, in step 4 refer to the torque tables on page 21 for right angle and pages 28 and 29 for parallel to determine the gear reducer size. In step 5, in order to check the thermal ratings, convert the required torque without service factor to horsepower by using the following formula:

$$\text{Horsepower} = \frac{\text{Torque X Low Speed Shaft RPM}}{63025}$$

and compare the computed results with the thermal horsepower ratings table on pages 22 through 25 for right angle and pages 30 through 33 for parallel.

Torque method of selection example

Running 10 hours a day, a heavy duty bucket elevator requires 225,000 in-lb of torque at 42 RPM. The input motor speed is 1200 RPM. Ambient conditions at the installation are 95 degrees Fahrenheit ambient temperature and an altitude of 2000 feet. A reducer with a parallel shaft arrangement is required.

Step 1: Determine service factor

From the recommended service factor table on page 13, locate "Elevators – bucket – heavy duty" and under the column headed "3-10 Hrs./Day Service" locate the recommended service factor which is 1.50.

Step 2: Calculate equivalent torque

Multiply the system torque of 225,000 in-lb by the service factor of 1.50 (225,000 x 1.50 = 337,500) to get a 337,500 in-lb equivalent torque.

Step 3: Calculate required ratio

Divide the high speed shaft RPM by the low speed shaft RPM (1200 / 42 = 28.6) to get the required ratio of 28.6:1.

Step 4: Determine unit size and ratio

Refer to the torque table for parallel MagnaGear XTR reducers on pages 28 and 29. The left column lists the available nominal ratios. Follow down the ratio column to the closest nominal ratio to the 28.6:1 required ratio and find 28:1. Find the row with a 1200 r/min input shaft speed and a 43 RPM output speed in the next two columns. Trace to the right in this row until the torque equals or exceeds the calculated equivalent torque of 337,500 in-lb and find 419,000 in-lb listed under a MagnaGear XTR G390 reducer.

Step 5: Check thermal ratings

In order to use the MagnaGear XTR thermal tables, the required torque value without service factor (225,000 in-lb) must be converted to horsepower.

$$\text{Horsepower} = \frac{\text{Torque (in-lb)} \times \text{Low Speed Shaft RPM}}{63025}$$

$$\text{Horsepower} = \frac{225,000 \times (1200/28)}{63025} = 153 \text{ Hp}$$

Refer to the thermal horsepower rating table for parallel MagnaGear XTR reducers with a 1200 RPM input speed and an 80 degrees Fahrenheit ambient temperature on page 32. The left column lists the available nominal ratios in groups. Locate the group of ratios that includes a 28:1 ratio and find the thermal ratings for the MagnaGear XTR G390 reducer.

The thermal rating without a fan is 192 Hp, the thermal rating with a shaft fan is 266 Hp, and the thermal rating with an electric fan is 516 Hp. These ratings must be adjusted for ambient conditions.

From the MagnaGear XTR thermal horsepower rating adjustment factor tables on page 19, find the adjustment multipliers for a 95 degrees Fahrenheit ambient temperature and a 2000 feet altitude. Note the factor for a 95 degrees Fahrenheit ambient temperature is 0.90 and the factor for 2000 feet of altitude is 0.96 (Interpolation can be used to determine factors for values between those listed in the tables). An additional factor for maximum allowable oil sump temperature is also provided.

To determine the actual thermal horsepower capacity of the reducer, multiply the thermal horsepower given in the table by the adjustment factors. Actual thermal Hp capacity = 192*0.90*0.96 = 166 Hp. Since 166 Hp exceeds the calculated power required of 153 Hp, no additional cooling is required for this application.

Note: For 100°F ambient temperatures, refer to the note at the end of step 5 on page 17.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if overhung or thrust loading exists.

Step 7: Find reducer part number

Refer to page 60 to find the MagnaGear XTR G390 parallel shaft reducer with a 28:1 ratio. The part number for the reducer is 449564. The exact ratio of the reducer is given in the torque ratings table on pages 28 and 29, and is 28.767:1.

Step 8: Check accessories

Include any accessories that may be required. In the case of an elevator application, a backstop is often specified. If a MagnaGear XTR with an integral backstop is required, refer again to page 60. The part number for the reducer is now 449573.

THERMAL RATINGS ADJUSTMENT FACTORS



MagnaGear XTR

To determine the actual thermal Hp rating, multiply the rating from the 80°F thermal Hp tables by the appropriate factors from the tables below. Please note that temperature adjustment factors are only applicable to the thermal ratings from the 80°F ambient temperature tables.

Do not use with the 100°F ambient temperature tables.

Actual Thermal Hp = Thermal Hp Rating from table X B_{ref} X B_A X B_T

MagnaGear XTR thermal ratings	
Ambient temperature adjustment factors	
Required ambient temperature (°F)	B_{ref}
50	1.19
60	1.13
70	1.07
80	1.00
90	0.93
100	0.86
110	0.78
120	0.69

MagnaGear XTR thermal ratings	
Altitude adjustment factors	
Altitude (ft)	B_A
0 - Sea Level	1.00
2500	0.95
5000	0.90
7500	0.85
10000	0.81
12500	0.76
15000	0.72
17500	0.68

MagnaGear XTR thermal ratings	
Maximum allowable oil sump temperature adjustment factors	
Maximum oil sump temperature (°F)	B_T
185	0.81
200	1.00
220	1.13

Thermal rating selection example

A MagnaGear XTR G525 with a shaft fan, right angle, 25:1 ratio will be operated with an 1800 r/min input motor. Ambient conditions at the installation site are 90°F temperature and 5000 ft altitude. Duty cycle will be 12 hours of continuous operation per day, maximum allowable oil sump temperature is 200°F.

To calculate the actual thermal Hp rating, Find the rated thermal Hp from the right angle thermal Hp table for an 80°F ambient temperature and multiply by the appropriate rating factors. Interpolation can be used to determine factors for values between those listed in the tables.

Actual thermal Hp with no fan = 158 X 0.93 X 0.90 = 132 Hp

Actual thermal Hp with shaft fan = 361 X 0.93 X 0.90 = 302 Hp

Actual thermal Hp with uni-directional shaft fan = 469 X 0.93 X 0.90 = 393 Hp

Actual thermal Hp with electric fan = 634 X 0.93 X 0.90 = 531 Hp

RATINGS



MagnaGear XTR right angle shaft reducers – input power

Input power ratings in Hp

Nominal ratio	High speed shaft RPM	Low speed shaft RPM												Size
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	
12.5	Exact ratio		12.409	12.510	12.353	12.698	12.569	12.565	12.634	12.412	12.524	12.075	12.459	
	1800	144	205	326	451	582	685	1043	1043	1425	1817	2969	4451	
	1500	120	173	276	384	493	581	923	923	1262	1609	2500	3748	
	1200	96	141	225	312	401	473	784	785	1072	1367	2020	3028	
	1000	80	117	187	260	334	394	654	653	893	1139	1697	2546	
14.0	Exact ratio		13.998	14.112	13.962	14.409	14.401	14.026	13.944	13.895	13.882	13.945	14.035	
	1800	129	183	292	405	554	646	1043	1043	1425	1842	2590	3976	
	1500	107	155	247	343	469	547	877	923	1198	1550	2180	3347	
	1200	86	126	201	279	382	445	742	785	976	1285	1761	2703	
	1000	71	105	168	233	318	371	618	653	813	1071	1479	2273	
16.0	Exact ratio		15.657	15.784	15.634	16.414	16.193	15.706	15.928	15.605	15.621	16.172	16.366	
	1800	113	165	263	365	492	612	968	1043	1269	1667	2250	3436	
	1500	94	140	223	309	417	518	822	907	1078	1417	1893	2892	
	1200	75	114	182	252	339	422	669	785	878	1154	1527	2335	
	1000	63	95	151	210	283	352	557	653	731	962	1284	1962	
18.0	Exact ratio		18.230	18.378	17.630	18.224	17.789	17.659	17.343	17.600	17.415	18.142	18.008	18.260
	1800	100	144	229	327	447	584	870	1043	1138	1512	2016	3138	5162
	1500	83	122	194	277	379	495	738	907	966	1284	1696	2640	4345
	1200	67	99	158	225	309	403	601	725	786	1045	1369	2131	3509
	1000	56	83	132	188	257	336	501	604	655	871	1150	1791	2949
20.0	Exact ratio		20.390	20.556	19.620	20.346	20.144	19.545	19.652	19.603	19.620	19.632	20.772	20.112
	1800	90	130	207	297	405	547	793	936	1032	1357	1870	2739	4709
	1500	75	110	175	251	343	456	673	794	875	1152	1573	2304	3963
	1200	60	89	143	204	279	365	548	647	712	937	1269	1859	3200
	1000	50	74	119	171	233	304	456	539	594	781	1066	1562	2689
22.4	Exact ratio		22.543	22.726	22.960	22.761	21.959	21.693	21.910	22.068	21.823	22.197	22.822	22.229
	1800	80	118	189	257	365	494	722	848	926	1232	1663	2504	4282
	1500	67	100	160	218	310	411	612	719	785	1045	1398	2106	3602
	1200	54	82	130	177	252	329	498	585	639	850	1128	1699	2909
	1000	45	68	109	148	210	274	415	488	532	709	947	1427	2443
25.0	Exact ratio		24.670	24.870	25.552	25.308	25.151	25.369	24.327	25.910	24.642	25.258	25.458	24.672
	1800	72	109	174	233	322	446	611	771	800	1103	1470	2256	3877
	1500	60	92	147	197	273	372	518	654	678	935	1236	1897	3261
	1200	48	75	120	161	222	298	421	532	551	761	996	1530	2632
	1000	40	63	100	134	185	248	360	443	459	634	837	1285	2211
28.0	Exact ratio		28.105	28.333	28.528	28.254	29.115	28.775	27.489	28.859	28.884	27.776	28.841	27.522
	1800	64	97	154	210	300	383	557	690	725	954	1342	2002	3493
	1500	54	82	131	178	254	325	472	585	614	808	1128	1683	2938
	1200	43	67	106	145	207	264	384	475	499	657	909	1357	2371
	1000	36	56	89	121	172	220	320	396	416	548	763	1139	1991
31.5	Exact ratio		31.103	31.356	31.200	31.607	31.738	31.937	30.585	32.488	32.128	31.348	30.986	30.890
	1800	57	88	141	194	270	341	506	627	650	865	1195	1869	3129
	1500	48	75	119	164	229	289	429	531	551	733	1004	1571	2630
	1200	38	61	97	134	187	235	348	432	447	596	810	1267	2121
	1000	32	51	81	112	155	196	290	360	373	496	680	1063	1782
35.5	Exact ratio		35.030	35.314	35.609	34.998	36.351	35.626	35.814	35.669	36.277	35.589	35.565	34.932
	1800	51	79	126	172	246	307	458	504	597	774	1058	1638	2782
	1500	42	67	107	146	209	260	388	422	505	655	889	1376	2338
	1200	34	54	87	118	170	211	315	341	410	533	716	1110	1885
	1000	28	45	72	99	141	176	262	285	342	444	601	931	1583
40.0	Exact ratio		41.221	41.473	41.120	40.646	39.996	39.986	40.469	39.547	40.441	40.707	40.560	40.464
	1800	45	68	109	151	214	280	412	486	543	700	930	1444	2417
	1500	38	58	92	128	182	233	348	405	459	593	781	1213	2031
	1200	30	47	75	103	148	187	283	325	373	482	630	978	1637
	1000	25	39	62	87	123	156	236	271	311	401	528	820	1374
45.0	Exact ratio		46.655	47.033	46.800	45.705	44.224	44.806	44.902	44.258	45.888	44.7509	45.949	45.225
	1800	40	61	97	134	192	252	371	432	489	623	849	1281	2172
	1500	33	51	82	113	163	210	314	362	414	528	713	1076	1825
	1200	27	42	67	92	132	168	255	290	336	428	575	868	1471
	1000	22	35	55	77	110	140	212	242	280	357	482	727	1234
50.0	Exact ratio		49.770	50.174	49.969	51.828	49.188	49.768	49.598	49.911	50.191	49.442	49.366	50.878
	1800	36	57	91	124	171	228	336	393	438	574	772	1196	1940
	1500	30	48	77	105	145	190	284	326	370	486	648	1004	1630
	1200	24	39	63	85	118	152	231	261	301	394	522	809	1313
	1000	20	33	52	71	101	126	192	218	250	329	438	679	1102
56.0	Exact ratio		55.572	56.023	55.841	56.092	55.097	56.234	55.147	56.821	55.672	54.949	56.661	55.275
	1800	32	52	83	114	159	204	300	359	388	522	697	1047	1792
	1500	27	44	70	96	135	170	254	300	328	441	585	879	1505
	1200	21	35	56	78	109	136	206	240	266	358	471	708	1212
	1000	18	29	47	65	90	113	172	200	222	298	395	594	1017
63.0	Exact ratio		61.832	62.210	61.679	60.858	62.250	62.196	61.807	62.348	61.574	61.505	61.560	60.300
	1800	29	47	75	104	144	179	274	309	356	475	625	967	1648
	1500	24	39	63	87	121	150	231	257	301	402	525	812	1384
	1200	19	32	51	71	98	120	188	204	244	326	422	654	1114
	1000	16	27	43	59	83	100	156	170	204	272	354	548	935

RATINGS



MagnaGear XTR right angle shaft reducers – torque

Torque ratings in 1000 In-Lbs

Nominal ratio	High speed shaft RPM	Low speed shaft RPM	Size										
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100
12.5	Exact ratio		12.409	12.510	12.353	12.698	12.569	12.565	12.634	12.412	12.524	12.075	12.459
	1800	144	89	143	196	259	302	459	461	619	797	1266	1938
	1500	120	90	145	199	263	307	487	490	658	847	1266	1965
	1200	96	92	148	203	268	312	518	520	699	899	1283	1983
	1000	80	93	150	205	271	316	524	527	708	911	1292	2000
14.0	Exact ratio		13.998	14.112	13.962	14.409	14.401	14.026	13.944	13.895	13.882	13.945	14.035
	1800	129	90	144	198	279	326	512	511	693	896	1266	1956
	1500	107	91	147	201	284	331	517	543	699	904	1275	1974
	1200	86	93	149	205	289	337	547	577	712	937	1292	1991
	1000	71	94	151	207	293	341	554	585	721	949	1301	2009
16.0	Exact ratio		15.657	15.784	15.634	16.414	16.193	15.706	15.928	15.605	15.621	16.172	16.366
	1800	113	91	146	200	283	347	532	581	694	912	1275	1974
	1500	94	92	148	203	288	353	542	607	707	930	1283	1991
	1200	75	94	151	207	293	359	552	657	719	947	1301	2009
	1000	63	95	152	209	296	364	559	665	729	960	1310	2017
18.0	Exact ratio		18.230	18.378	17.630	18.224	17.789	17.659	17.343	17.600	17.415	18.142	18.008
	1800	100	92	147	202	285	364	538	634	701	922	1283	1983
	1500	83	93	150	205	290	370	548	661	714	939	1292	2000
	1200	67	95	153	209	296	377	557	660	727	956	1301	2018
	1000	56	96	155	212	299	382	565	669	736	969	1319	2036
20.0	Exact ratio		20.390	20.556	19.620	20.346	20.144	19.545	19.652	19.603	19.620	19.632	20.772
	1800	90	93	149	204	288	386	543	644	708	932	1283	1991
	1500	75	94	151	207	293	386	553	656	721	949	1301	2009
	1200	60	96	154	211	299	386	562	667	733	966	1310	2027
	1000	50	97	156	214	303	391	569	676	743	979	1319	2045
22.4	Exact ratio		22.543	22.726	22.960	22.761	21.959	21.693	21.910	22.068	21.823	22.197	22.822
	1800	80	93	150	206	291	380	548	651	716	941	1292	2000
	1500	67	95	153	210	296	380	558	662	728	958	1301	2018
	1200	54	97	155	214	302	380	567	674	741	975	1319	2036
	1000	45	98	157	217	306	384	574	682	750	987	1328	2053
25.0	Exact ratio		24.670	24.870	25.552	25.308	25.151	25.369	24.327	25.910	24.642	25.258	25.458
	1800	72	94	151	208	285	393	557	657	726	952	1301	2009
	1500	60	96	154	212	290	393	566	668	738	968	1310	2027
	1200	48	97	157	216	296	393	575	680	750	984	1319	2045
	1000	40	99	159	219	300	398	583	689	760	997	1328	2062
28.0	Exact ratio		28.105	28.333	28.528	28.254	29.115	28.775	27.489	28.859	28.884	27.776	28.841
	1800	64	95	153	210	296	390	561	664	732	965	1310	2018
	1500	54	97	156	214	302	397	571	675	745	981	1319	2036
	1200	43	98	158	218	307	404	580	687	757	997	1328	2053
	1000	36	100	160	221	311	410	587	696	766	1010	1336	2071
31.5	Exact ratio		31.103	31.356	31.200	31.607	31.738	31.937	30.585	32.488	32.128	31.348	30.986
	1800	57	96	154	212	299	378	566	670	740	973	1310	2027
	1500	48	98	157	216	305	385	575	682	752	990	1319	2045
	1200	38	99	160	220	310	392	584	692	764	1005	1336	2062
	1000	32	100	162	223	314	397	592	701	774	1018	1345	2080
35.5	Exact ratio		35.030	35.314	35.609	34.998	36.351	35.626	35.814	35.669	36.277	35.589	35.565
	1800	51	97	156	215	302	390	571	632	745	983	1319	2045
	1500	42	99	159	218	307	397	580	635	757	999	1328	2053
	1200	34	100	161	222	312	404	589	643	769	1015	1336	2071
	1000	28	101	163	225	316	409	597	651	779	1028	1345	2089
40.0	Exact ratio		41.221	41.473	41.120	40.646	39.996	39.986	40.469	39.547	40.441	40.707	40.560
	1800	45	98	158	217	305	392	576	689	751	992	1328	2053
	1500	38	100	161	221	310	392	585	689	763	1008	1336	2071
	1200	30	101	163	224	315	392	594	692	775	1023	1345	2080
	1000	25	103	165	227	319	397	602	701	785	1036	1354	2098
45.0	Exact ratio		46.655	47.033	46.800	45.705	44.224	44.806	44.902	44.258	45.888	44.7509	45.949
	1800	40	99	160	220	308	391	581	680	758	1002	1328	2062
	1500	33	101	162	223	313	391	590	684	770	1017	1345	2080
	1200	27	102	164	226	317	391	599	685	781	1033	1354	2089
	1000	22	103	167	229	321	396	607	694	791	1046	1363	2106
50.0	Exact ratio		49.770	50.174	49.969	51.828	49.188	49.768	49.598	49.911	50.191	49.442	49.366
	1800	36	100	161	221	311	392	586	683	765	1009	1336	2071
	1500	30	101	163	224	316	392	595	680	777	1024	1345	2080
	1200	24	102	165	228	320	392	604	681	788	1039	1354	2098
	1000	20	104	167	230	324	397	611	689	798	1053	1363	2115
56.0	Exact ratio		55.572	56.023	55.841	56.092	55.097	56.234	55.147	56.821	55.672	54.949	55.275
	1800	32	101	162	223	313	394	591	693	773	1017	1345	2080
	1500	27	102	164	226	317	394	600	695	784	1032	1354	2089
	1200	21	103	166	229	321	394	609	695	795	1047	1363	2106
	1000	18	104	168	232	325	399	617	704	806	1061	1372	2124
63.0	Exact ratio		61.832	62.210	61.679	60.858	62.250	62.196	61.807	62.348	61.574	61.505	61.560
	1800	29	101	163	224	306	391	596	668	778	1024	1345	2089
	1500	24	103	165	227	311	391	604	668	789	1040	1354	2098
	1200	19	104	167	230	314	391	613	664	800	1055	1363	2115
	1000	16	105	169	233	318	396	621	672	811	1068	1372	2124

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1800 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	95	124	156	173	184	179	227	208	238	340	448	599
	Dual directional shaft fan	164	212	267	305	325	425	447	493	495	772	914	
	Uni-directional shaft fan	213	276	347	397	423	553	581	641	644			
	Electric fan	305	396	498	580	618	709	850	822	942	1360	1792	2996
20 - 28	No cooling	84	109	138	153	163	158	201	184	210	340	406	599
	Dual directional shaft fan	139	180	227	259	276	361	380	419	421	772	827	
	Uni-directional shaft fan	181	234	295	337	359	469	494	545	547			
	Electric fan	273	354	445	519	553	634	760	735	841	1360	1622	2996
31.5 - 45	No cooling	76	99	124	138	147	143	181	166	190	307	366	599
	Dual directional shaft fan	112	145	183	209	223	291	307	338	339	623	668	
	Uni-directional shaft fan	146	189	238	272	290	379	399	439	441			
	Electric fan	223	289	365	425	452	518	528	601	689	1114	1328	2996
50 - 63	No cooling	67	86	109	121	129	125	159	145	166	269	321	599
	Dual directional shaft fan	94	121	153	175	186	243	256	282	284	521	558	
	Uni-directional shaft fan	122	158	199	227	242	317	333	367	369			
	Electric fan	199	258	326	379	404	463	555	537	615	995	1186	2809

MagnaGear XTR right angle shaft thermal ratings - 1800 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	82	106	134	148	158	154	196	179	205	292	385	515
	Dual directional shaft fan	141	182	230	263	280	366	384	424	426	664	786	
	Uni-directional shaft fan	183	237	299	341	364	475	500	551	554			
	Electric fan	263	340	429	499	532	610	731	707	810	1170	1541	2576
20 - 28	No cooling	72	94	118	131	140	136	173	158	181	292	349	515
	Dual directional shaft fan	120	155	195	223	238	311	327	360	362	664	712	
	Uni-directional shaft fan	155	201	254	290	309	404	425	468	470			
	Electric fan	235	304	383	446	475	545	654	632	724	1170	1395	2576
31.5 - 45	No cooling	65	85	107	118	126	123	156	143	163	264	315	515
	Dual directional shaft fan	96	125	158	180	192	251	264	291	292	536	574	
	Uni-directional shaft fan	125	163	205	234	249	326	343	378	380			
	Electric fan	192	249	313	365	389	446	454	517	592	958	1142	2576
50 - 63	No cooling	57	74	94	104	111	108	137	125	143	232	276	515
	Dual directional shaft fan	81	104	132	150	160	209	220	243	244	448	480	
	Uni-directional shaft fan	105	136	171	196	208	272	286	316	317			
	Electric fan	172	222	280	326	347	398	477	462	529	856	1020	2416

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1500 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	92	124	158	170	196	191	243	222	254	340	448	599
	Dual directional shaft fan	160	209	265	301	328	436	459	506	508	772	914	
	Uni-directional shaft fan	208	272	345	391	426	567	597	658	661			
	Electric fan	290	375	473	550	586	672	806	780	893	1360	1694	2996
20 - 28	No cooling	79	107	136	147	157	156	207	186	221	340	448	599
	Dual directional shaft fan	129	167	210	241	256	350	352	388	390	716	767	
	Uni-directional shaft fan	168	217	274	313	333	455	458	505	507			
	Electric fan	257	333	420	489	521	597	716	692	793	1263	1504	2996
31.5 - 45	No cooling	75	97	122	136	145	141	179	163	187	315	398	599
	Dual directional shaft fan	103	133	168	191	204	267	280	309	311	559	628	
	Uni-directional shaft fan	133	173	218	249	265	346	364	402	404			
	Electric fan	208	270	340	396	422	484	580	561	642	1023	1219	2889
50 - 63	No cooling	65	84	106	117	125	122	155	141	162	272	344	599
	Dual directional shaft fan	85	111	139	159	170	222	233	257	258	464	522	
	Uni-directional shaft fan	111	144	181	207	220	288	303	334	336			
	Electric fan	185	240	302	352	375	430	515	498	570	868	1034	2451

MagnaGear XTR right angle shaft thermal ratings - 1500 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	79	107	136	147	169	165	209	191	219	292	385	515
	Dual directional shaft fan	138	180	228	259	282	375	395	435	437	664	786	
	Uni-directional shaft fan	179	234	296	337	367	488	513	566	568			
	Electric fan	249	323	406	473	504	578	693	671	768	1170	1457	2576
20 - 28	No cooling	68	92	117	126	135	134	178	160	190	292	385	515
	Dual directional shaft fan	111	144	181	207	220	301	303	334	335	616	660	
	Uni-directional shaft fan	144	187	235	269	286	391	394	434	436			
	Electric fan	221	287	361	420	448	513	616	596	682	1086	1294	2576
31.5 - 45	No cooling	64	84	105	117	124	121	154	141	161	271	342	515
	Dual directional shaft fan	88	114	144	165	175	229	241	266	267	480	540	
	Uni-directional shaft fan	115	149	187	214	228	298	313	346	347			
	Electric fan	179	232	292	341	363	416	499	483	553	880	1048	2485
50 - 63	No cooling	56	72	91	101	107	105	133	121	139	234	296	515
	Dual directional shaft fan	73	95	120	137	146	191	200	221	222	399	449	
	Uni-directional shaft fan	95	124	156	178	190	248	260	287	289			
	Electric fan	159	206	260	302	322	369	443	429	491	747	890	2108

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1200 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	97	132	168	181	199	198	259	233	272	340	448	599
	Dual directional shaft fan	152	198	249	285	303	397	418	459	462	772	914	
	Uni-directional shaft fan	198	257	324	371	394	516	543	597	601			
	Electric fan	274	355	447	521	555	636	763	738	845	1278	1523	2996
20 - 28	No cooling	79	108	137	147	162	161	211	190	221	340	448	599
	Dual directional shaft fan	115	149	188	215	229	320	321	348	349	641	721	
	Uni-directional shaft fan	150	194	245	280	298	416	417	452	454			
	Electric fan	242	314	395	460	491	562	674	652	747	1129	1346	2996
31.5 - 45	No cooling	73	94	119	132	141	137	174	159	182	310	414	599
	Dual directional shaft fan	90	117	148	169	180	235	247	272	274	492	587	
	Uni-directional shaft fan	117	152	192	219	234	305	321	354	356			
	Electric fan	195	253	319	371	395	453	543	526	602	910	1084	2570
50 - 63	No cooling	62	80	101	112	119	116	147	134	154	262	350	574
	Dual directional shaft fan	76	98	124	141	151	197	207	228	229	413	521	
	Uni-directional shaft fan	98	128	161	184	196	256	269	297	298			
	Electric fan	174	226	285	331	353	405	485	469	537	777	925	2193

MagnaGear XTR right angle shaft thermal ratings - 1200 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	84	114	144	156	171	170	223	201	234	292	385	515
	Dual directional shaft fan	131	170	214	245	261	341	359	395	398	664	786	
	Uni-directional shaft fan	170	221	278	319	339	444	467	514	517			
	Electric fan	236	305	385	448	477	547	656	635	727	1099	1309	2576
20 - 28	No cooling	68	93	118	127	140	139	181	164	190	292	385	515
	Dual directional shaft fan	99	129	162	185	197	275	276	299	300	551	620	
	Uni-directional shaft fan	129	167	211	241	256	358	359	389	390			
	Electric fan	208	270	340	396	422	484	580	561	642	971	1157	2576
31.5 - 45	No cooling	63	81	102	114	121	118	150	137	156	266	356	515
	Dual directional shaft fan	78	101	127	145	155	202	212	234	235	423	505	
	Uni-directional shaft fan	101	131	165	189	201	263	276	305	306			
	Electric fan	168	218	274	319	340	390	467	452	518	783	933	2210
50 - 63	No cooling	53	69	87	96	102	100	126	116	132	225	301	493
	Dual directional shaft fan	65	84	106	122	130	169	178	196	197	355	448	
	Uni-directional shaft fan	85	110	138	158	168	220	231	255	256			
	Electric fan	150	194	245	285	304	348	417	404	462	668	796	1886

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1000 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	90	122	156	166	188	187	242	223	258	340	448	599
	Dual directional shaft fan	105	152	171	219	208	304	345	315	355	726	817	
	Uni-directional shaft fan	136	198	222	284	270	396	449	410	461			
	Electric fan	260	324	424	475	525	580	696	699	771	1208	1439	2996
20 - 28	No cooling	76	103	131	140	159	157	204	188	218	340	448	599
	Dual directional shaft fan	97	126	159	181	193	283	286	293	294	602	677	
	Uni-directional shaft fan	126	164	206	236	251	368	372	381	382			
	Electric fan	221	286	361	420	447	513	615	595	681	1061	1264	2995
31.5 - 45	No cooling	67	87	110	122	130	127	161	147	169	334	448	599
	Dual directional shaft fan	76	99	125	143	152	199	209	231	232	472	531	
	Uni-directional shaft fan	99	129	162	186	198	258	272	300	301			
	Electric fan	177	230	289	337	359	411	493	477	546	851	1014	2402
50 - 63	No cooling	57	74	93	103	110	107	136	124	142	282	382	566
	Dual directional shaft fan	64	83	105	120	127	167	175	193	194	388	437	
	Uni-directional shaft fan	83	108	136	156	166	217	228	251	252			
	Electric fan	159	206	259	302	322	369	442	428	490	730	869	2060

MagnaGear XTR right angle shaft thermal ratings - 1000 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	77	105	134	143	162	161	208	191	222	292	385	515
	Dual directional shaft fan	90	131	147	188	179	262	297	271	305	625	702	
	Uni-directional shaft fan	117	170	191	244	232	340	386	352	397			
	Electric fan	223	279	364	409	452	499	599	601	663	1038	1237	2576
20 - 28	No cooling	65	89	113	120	136	135	175	161	187	292	385	515
	Dual directional shaft fan	83	108	136	156	166	243	246	252	253	518	582	
	Uni-directional shaft fan	109	141	177	203	216	316	320	327	329			
	Electric fan	190	246	310	361	385	441	529	512	586	912	1087	2576
31.5 - 45	No cooling	58	75	95	105	112	109	138	127	145	287	385	515
	Dual directional shaft fan	66	85	107	123	131	171	180	198	199	406	456	
	Uni-directional shaft fan	85	111	140	160	170	222	234	258	259			
	Electric fan	152	197	249	290	309	354	424	410	470	732	872	2066
50 - 63	No cooling	49	64	80	89	95	92	117	107	122	243	328	487
	Dual directional shaft fan	55	72	90	103	110	143	151	166	167	334	376	
	Uni-directional shaft fan	72	93	117	134	143	186	196	216	217			
	Electric fan	137	177	223	260	277	317	380	368	421	628	748	1772

RATINGS



MagnaGear XTR parallel shaft reducers – input power

Input power ratings in Hp

Nominal ratio	High speed shaft RPM	Low speed shaft RPM											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
8.00	Exact Ratio		8.146	8.146	8.044	7.759	7.754	8.182	8.227	8.083	8.155			
	1800	225	301	479	664	966	1315	1587	1769	2196	2930			
	1500	188	256	408	566	823	1120	1405	1566	1953	2548			
	1200	150	209	333	462	672	915	1210	1331	1594	2080			
	1000	125	174	277	385	560	762	1008	1109	1329	1734			
9.00	Exact Ratio		9.189	9.189	9.091	8.838	8.719	9.133	9.113	9.048	9.039			
	1800	200	270	430	595	860	1184	1471	1648	2029	2719			
	1500	167	230	366	507	733	1009	1303	1460	1765	2314			
	1200	133	187	298	413	597	822	1095	1240	1440	1889			
	1000	111	156	249	344	497	685	913	1033	1200	1574			
10.00	Exact Ratio		10.278	10.278	10.180	9.813	9.579	10.227	10.372	10.161	10.172			
	1800	180	244	389	538	783	1089	1370	1510	1869	2456			
	1500	150	208	331	458	666	926	1213	1337	1590	2089			
	1200	120	169	269	373	542	753	989	1118	1296	1704			
	1000	100	141	224	311	451	628	824	931	1080	1420			
11.20	Exact Ratio		11.363	11.363	11.480	10.956	10.847	11.499	11.293	11.460	11.340			
	1800	161	223	356	483	709	974	1268	1421	1678	2228			
	1500	134	189	302	410	602	826	1091	1259	1426	1894			
	1200	107	154	245	334	489	672	889	1031	1162	1545			
	1000	89	128	204	278	408	560	741	859	969	1287			
12.5	Exact Ratio		12.435	12.435	12.776	12.256	11.824	12.727	12.797	12.764	12.776	12.402	12.367	
	1800	144	206	328	439	641	901	1171	1302	1522	2001	2895	4482	
	1500	120	174	278	372	543	764	995	1144	1293	1701	2437	3775	
	1200	96	142	226	303	442	621	810	915	1054	1386	1968	3050	
	1000	80	118	188	252	368	518	675	762	878	1119	1655	2564	
14.0	Exact Ratio		14.167	14.167	14.264	13.571	13.543	14.126	14.267	14.370	14.211	14.333	14.000	
	1800	129	182	291	397	584	797	1066	1209	1368	1810	2523	3986	
	1500	107	155	246	336	495	675	905	1032	1162	1539	2123	3355	
	1200	86	126	200	274	403	550	737	826	946	1254	1715	2710	
	1000	71	105	167	228	336	458	614	688	788	1045	1441	2278	
16.0	Exact Ratio		15.678	15.678	15.600	15.761	16.476	15.758	15.841	15.777	16.046	16.195	15.951	
	1800	113	166	265	366	510	667	965	1118	1257	1629	2247	3521	
	1500	94	141	225	310	432	566	819	932	1067	1383	1890	2964	
	1200	75	114	183	252	352	460	667	746	869	1126	1526	2393	
	1000	63	95	152	210	293	384	556	621	724	939	1282	2011	
18.0	Exact Ratio		17.657	17.657	17.804	17.722	18.325	17.686	17.900	17.492	17.888	17.829	17.684	18.270
	1800	100	149	238	324	459	606	869	995	1145	1476	2050	3193	5159
	1500	83	126	201	275	389	514	737	830	971	1253	1724	2686	4342
	1200	67	103	164	224	317	418	600	664	791	1020	1392	2169	3507
	1000	56	86	137	186	264	349	500	553	659	850	1169	1822	2947
20.0	Exact Ratio		20.737	20.737	20.560	20.096	20.526	19.818	19.861	19.576	20.297	19.722	19.714	20.262
	1800	90	128	205	284	409	546	784	900	1033	1316	1862	2879	4676
	1500	75	109	174	241	347	464	664	750	876	1117	1566	2422	3935
	1200	60	89	141	196	283	378	541	600	713	909	1264	1955	3177
	1000	50	74	118	163	236	315	450	500	594	757	1061	1642	2670
22.4	Exact Ratio		22.487	22.487	21.938	23.598	23.191	22.013	21.938	22.076	22.200	22.765	22.125	22.606
	1800	80	119	190	268	353	489	712	817	926	1213	1624	2678	4214
	1500	67	101	161	227	300	415	604	681	785	1029	1365	2252	3545
	1200	54	82	131	185	244	338	491	545	639	837	1101	1817	2862
	1000	45	69	110	151	203	282	409	454	532	698	925	1526	2404
25.0	Exact Ratio		25.343	25.500	24.802	25.187	25.405	24.873	25.235	25.132	24.624	25.562	25.034	25.403
	1800	72	106	170	239	333	449	637	704	823	1104	1453	2482	3771
	1500	60	90	144	203	282	381	540	595	697	936	1222	2087	3171
	1200	48	73	117	165	230	311	439	476	567	761	985	1684	2559
	1000	40	61	98	138	192	259	366	397	472	634	827	1414	2150
28.0	Exact Ratio		28.589	28.766	28.031	28.119	28.767	27.510	28.722	27.577	27.235	27.749	28.615	27.590
	1800	64	95	146	214	301	402	581	634	756	1006	1344	2292	3485
	1500	54	81	124	182	255	341	492	528	640	853	1129	1927	2931
	1200	43	66	101	148	208	278	400	423	520	694	911	1555	2365
	1000	36	55	88	123	173	231	333	352	434	578	764	1305	1986

RATINGS



MagnaGear XTR parallel shaft reducers – input power

Input power ratings in Hp

Nominal ratio	High speed shaft RPM	Low speed shaft RPM											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
31.5	Exact Ratio		31.975	32.174	31.389	31.457	31.359		31.274			31.659	31.500	31.500
	1800	57	86	132	193	271	371		585			1184	1840	3071
	1500	48	73	112	164	230	315		487			995	1546	2582
	1200	38	59	91	133	187	256		390			802	1247	2083
	1000	32	49	79	111	156	214		325			673	1047	1749
35.50	Exact Ratio		35.351	35.571	35.396	34.831	35.917		35.438			34.810	34.909	34.650
	1800	51	78	120	173	247	328		519			1081	1668	2803
	1500	42	66	102	147	210	278		433			908	1401	2356
	1200	34	54	83	119	170	226		346			732	1130	1901
	1000	28	45	72	99	142	188		288			614	948	1595
40.00	Exact Ratio		38.687	38.928	39.392	40.453	39.519		39.509			38.511	38.609	38.373
	1800	45	72	111	157	215	300		469			981	1514	2543
	1500	38	61	94	133	183	254		391			824	1272	2137
	1200	30	50	76	108	148	207		312			664	1025	1723
	1000	25	41	66	90	124	172		260			557	860	1446
45.00	Exact Ratio		44.074	44.348	43.980	45.487	43.697		43.867					
	1800	40	64	98	142	193	273		423					
	1500	33	54	83	120	164	232		353					
	1200	27	44	67	98	133	188		282					
	1000	22	37	59	81	111	157		235					
50.00	Exact Ratio		48.775	49.078	51.357	51.581	48.601		49.568					
	1800	36	58	90	123	172	248		377					
	1500	30	49	76	104	146	210		314					
	1200	24	40	61	84	118	170		251					
	1000	20	33	53	70	98	142		209					
56.00	Exact Ratio		54.933	55.274	54.897	55.825	54.439		54.999					
	1800	32	52	80	116	160	223		341					
	1500	27	44	68	98	135	189		284					
	1200	21	36	55	79	110	153		227					
	1000	18	30	48	66	91	127		189					
63.00	Exact Ratio		64.642	64.915	63.393	60.568	61.507		60.750					
	1800	29	45	69	101	144	199		309					
	1500	24	38	58	86	122	168		258					
	1200	19	31	47	69	99	136		206					
	1000	16	26	41	58	79	114		172					

RATINGS



MagnaGear XTR parallel shaft reducers – torque

Torque ratings in 1000 In-Lbs

Nominal ratio	High speed shaft RPM	Low speed shaft RPM											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
8.00	Exact Ratio		8.146	8.146	8.044	7.759	7.754	8.182	8.227	8.083	8.155			
	1800	225	85	137	187	263	357	455	510	621	837			
	1500	188	87	140	191	268	365	483	542	663	873			
	1200	150	89	142	195	274	373	520	575	677	891			
	1000	125	90	144	198	277	377	527	583	686	903			
9.00	Exact Ratio		9.189	9.189	9.091	8.838	8.719	9.133	9.113	9.048	9.039			
	1800	200	86	138	190	266	362	471	526	643	861			
	1500	167	88	141	194	272	370	500	558	671	879			
	1200	133	90	144	197	277	377	526	594	684	897			
	1000	111	91	146	200	281	382	532	602	693	909			
10.00	Exact Ratio		10.278	10.278	10.180	9.813	9.579	10.227	10.372	10.161	10.172			
	1800	180	87	140	192	269	365	491	549	665	875			
	1500	150	89	143	196	274	373	521	582	679	893			
	1200	120	90	145	199	279	379	531	609	692	911			
	1000	100	92	147	202	283	384	538	617	701	922			
11.20	Exact Ratio		11.363	11.363	11.480	10.956	10.847	11.499	11.293	11.460	11.340			
	1800	161	88	142	194	272	370	511	562	673	885			
	1500	134	90	144	198	277	377	527	597	687	903			
	1200	107	91	146	201	282	383	537	612	700	920			
	1000	89	92	148	204	285	388	544	620	709	932			
12.5	Exact Ratio		12.435	12.435	12.776	12.256	11.824	12.727	12.797	12.764	12.776	12.402	12.367	
	1800	144	89	143	196	275	373	522	583	680	895	1257	1938	
	1500	120	90	145	200	280	379	532	615	694	884	1266	1965	
	1200	96	92	148	203	285	386	542	615	707	901	1283	1983	
	1000	80	93	149	206	288	391	549	623	716	913	1292	2018	
14.0	Exact Ratio		14.167	14.167	14.264	13.571	13.543	14.126	14.267	14.370	14.211	14.333	14.000	
	1800	129	90	144	198	278	378	527	604	688	901	1266	1956	
	1500	107	91	147	202	282	384	537	619	701	919	1275	1974	
	1200	86	93	149	205	287	391	547	619	714	936	1292	1991	
	1000	71	94	151	208	291	396	554	627	723	948	1301	2009	
16.0	Exact Ratio		15.678	15.678	15.600	15.761	16.476	15.758	15.841	15.777	16.046	16.195	15.951	
	1800	113	91	146	200	282	385	533	620	694	915	1275	1965	
	1500	94	92	148	203	286	392	542	624	707	933	1283	1983	
	1200	75	94	150	207	291	398	552	624	720	949	1301	2009	
	1000	63	95	152	209	295	404	559	632	729	962	1310	2018	
18.0	Exact Ratio		17.657	17.657	17.804	17.722	18.325	17.686	17.900	17.492	17.888	17.829	17.684	18.270
	1800	100	91	147	202	285	389	538	624	701	925	1283	1974	3301
	1500	83	93	149	205	290	396	548	624	714	942	1292	2000	3337
	1200	67	94	152	209	295	403	557	624	726	958	1301	2018	3363
	1000	56	96	154	212	299	408	565	632	736	971	1310	2027	3390
20.0	Exact Ratio		20.737	20.737	20.560	20.096	20.526	19.818	19.861	19.576	20.297	19.722	19.714	20.262
	1800	90	93	149	204	288	393	544	626	708	935	1283	1991	3319
	1500	75	94	152	208	293	400	553	626	721	952	1301	2009	3346
	1200	60	96	154	212	298	407	563	626	733	969	1310	2027	3381
	1000	50	97	156	215	302	412	570	634	743	981	1319	2036	3408
22.4	Exact Ratio		22.487	22.487	21.938	23.598	23.191	22.013	21.938	22.076	22.200	22.765	22.125	22.606
	1800	80	93	150	206	292	397	549	628	716	943	1292	1991	3337
	1500	67	95	153	209	297	404	558	628	728	960	1310	2018	3363
	1200	54	96	155	213	303	412	568	628	741	976	1319	2027	3399
	1000	45	98	157	216	307	417	575	636	750	989	1328	2045	3425
25.0	Exact Ratio		25.343	25.500	24.802	25.187	25.405	24.873	25.235	25.132	24.624	25.562	25.034	25.403
	1800	72	94	152	208	294	400	555	622	724	952	1301	2000	3354
	1500	60	96	154	212	299	407	564	622	736	968	1310	2018	3381
	1200	48	98	157	215	304	414	573	622	748	984	1319	2036	3416
	1000	40	99	159	218	308	420	581	630	758	997	1336	2053	3443
28.0	Exact Ratio		28.589	28.766	28.031	28.119	28.767	27.510	28.722	27.577	27.235	27.749	28.615	27.590
	1800	64	95	154	210	296	405	559	637	730	960	1310	2027	3363
	1500	54	97	157	214	302	412	569	637	742	976	1319	2045	3399
	1200	43	99	159	218	307	419	578	637	754	992	1328	2062	3425
	1000	36	100	161	221	311	425	585	646	764	1005	1336	2080	3452

RATINGS



MagnaGear XTR parallel shaft reducers – torque

Torque ratings in 1000 In-Lbs

Nominal ratio	High speed shaft RPM	Low speed shaft RPM											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
31.5	Exact Ratio		31.975	32.174	31.389	31.457	31.359		31.274			31.659	31.500	31.500
	1800	57	96	155	212	299	408		641			1310	2018	3390
	1500	48	98	158	216	304	415		641			1328	2045	3416
	1200	38	99	161	220	310	422		641			1336	2062	3443
	1000	32	101	163	223	314	428		641			1345	2080	3469
35.50	Exact Ratio		35.351	35.571	35.396	34.831	35.917		35.438			34.810	34.909	34.650
	1800	51	97	157	215	301	412		644			1319	2036	3399
	1500	42	99	159	218	307	419		644			1328	2053	3434
	1200	34	100	162	222	312	426		644			1336	2071	3461
	1000	28	101	164	225	316	432		644			1345	2089	3487
40.00	Exact Ratio		38.687	38.928	39.392	40.453	39.519		39.509			38.511	38.609	38.373
	1800	45	98	158	217	305	415		649			1328	2045	3416
	1500	38	99	160	220	310	422		649			1336	2062	3443
	1200	30	101	163	224	315	429		649			1345	2080	3469
	1000	25	102	165	227	319	434		649			1354	2098	3496
45.00	Exact Ratio		44.074	44.348	43.980	45.487	43.697		43.867					
	1800	40	99	160	219	308	418		651					
	1500	33	100	162	222	313	425		651					
	1200	27	102	164	225	317	432		651					
	1000	22	103	166	228	322	437		651					
50.00	Exact Ratio		48.775	49.078	51.357	51.581	48.601		49.568					
	1800	36	100	161	221	311	422		654					
	1500	30	101	163	225	315	428		654					
	1200	24	102	165	228	320	434		654					
	1000	20	104	167	231	324	440		654					
56.00	Exact Ratio		54.933	55.274	54.897	55.825	54.439		54.999					
	1800	32	100	162	223	313	425		656					
	1500	27	102	164	226	317	432		656					
	1200	21	103	166	229	321	437		656					
	1000	18	104	169	232	325	443		656					
63.00	Exact Ratio		64.642	64.915	63.393	60.568	61.507		60.750					
	1800	29	102	164	225	306	429		658					
	1500	24	103	166	228	310	435		658					
	1200	19	104	168	231	314	440		658					
	1000	16	105	170	234	318	446		658					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1800 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	114	143	177	206	221	222	272	275	308			
	Dual directional shaft fan	220	268	343	415	452	470	490	544	585			
	Electric fan	378	471	585	698	818	931	969	1103	1239			
12.5 - 14	No cooling	111	140	173	202	216	217	266	277	307	390	498	
	Dual directional shaft fan	189	238	302	363	389	437	480	549	584	793	1089	
	Electric fan	361	466	575	681	762	931	960	1103	1239	1466	1919	
16 - 20	No cooling	105	133	164	191	205	206	252	262	291	372	475	673
	Dual directional shaft fan	179	225	286	344	368	414	454	520	553	793	1089	
	Electric fan	312	403	496	589	658	834	873	1071	1192	1400	1787	3559
22 - 28	No cooling	96	120	149	174	186	187	229	238	264	338	431	611
	Dual directional shaft fan	163	205	260	313	334	376	413	472	502	676	906	
	Electric fan	279	360	443	526	588	745	780	956	1064	1251	1596	3178
31.5 - 45	No cooling	92	116	143	167	179		221			325	415	588
	Dual directional shaft fan	139	175	223	268	286		353			662	887	
	Electric fan	240	310	382	453	506		671			1194	1523	3034
50 - 63	No cooling	82	104	128	150	160		198					
	Dual directional shaft fan	119	150	191	229	245		302					
	Electric fan	224	289	357	423	473		627					

MagnaGear XTR parallel shaft thermal ratings - 1800 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	98	123	152	177	190	191	234	236	265			
	Dual directional shaft fan	189	231	295	357	389	404	421	468	503			
	Electric fan	325	405	503	600	704	801	833	948	1066			
12.5 - 14	No cooling	96	120	149	174	186	187	229	238	264	336	428	
	Dual directional shaft fan	162	205	260	313	334	376	413	472	502	682	937	
	Electric fan	311	401	494	586	655	801	826	948	1066	1261	1650	
16 - 20	No cooling	91	114	141	165	176	177	217	226	250	320	408	579
	Dual directional shaft fan	154	194	246	296	317	356	390	447	476	682	937	
	Electric fan	268	346	427	506	566	717	751	921	1025	1204	1537	3060
22 - 28	No cooling	82	104	128	149	160	161	197	205	227	291	371	526
	Dual directional shaft fan	140	176	224	269	288	323	355	406	432	581	779	
	Electric fan	240	309	381	452	505	640	671	822	915	1076	1372	2733
31.5 - 45	No cooling	79	100	123	144	154		190			280	357	506
	Dual directional shaft fan	120	151	191	230	246		304			569	763	
	Electric fan	206	266	328	389	435		577			1027	1310	2609
50 - 63	No cooling	71	89	110	129	138		170					
	Dual directional shaft fan	102	129	164	197	211		260					
	Electric fan	193	249	307	364	407		539					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1500 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	110	143	175	206	239	234	296	275	308			
	Dual directional shaft fan	206	251	322	389	424	441	459	510	548			
	Electric fan	408	527	649	770	861	1052	969	1246	1170			
12.5 - 14	No cooling	110	143	176	206	226	217	265	276	306	396	519	
	Dual directional shaft fan	174	219	279	335	359	403	443	506	539	793	1089	
	Electric fan	339	438	540	640	716	874	902	1036	1164	1466	1919	
16 - 20	No cooling	102	133	164	192	211	217	259	275	297	381	519	676
	Dual directional shaft fan	164	206	262	315	337	379	416	476	507	775	1038	
	Electric fan	293	378	466	553	618	782	819	1005	1118	1313	1675	3336
22 - 28	No cooling	93	120	148	174	190	196	234	259	268	345	493	611
	Dual directional shaft fan	147	186	236	284	303	341	374	428	455	613	821	
	Electric fan	261	337	415	492	550	697	730	895	996	1171	1494	2975
31.5 - 45	No cooling	89	112	139	162	173		214			341	488	605
	Dual directional shaft fan	127	159	202	243	260		321			522	700	
	Electric fan	222	286	353	419	468		621			1115	1422	2833
50 - 63	No cooling	80	100	124	144	154		191					
	Dual directional shaft fan	108	136	173	208	223		275					
	Electric fan	208	268	330	392	438		581					

MagnaGear XTR parallel shaft thermal ratings - 1500 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	94	123	151	177	206	201	255	236	265			
	Dual directional shaft fan	177	216	277	335	364	379	395	439	472			
	Electric fan	351	453	558	662	740	905	833	1072	1006			
12.5 - 14	No cooling	95	123	151	177	194	186	228	237	263	341	446	
	Dual directional shaft fan	150	189	240	288	308	347	381	435	463	682	937	
	Electric fan	292	376	464	551	615	752	776	891	1001	1261	1650	
16 - 20	No cooling	88	114	141	165	181	187	223	236	255	328	446	581
	Dual directional shaft fan	141	178	226	271	290	326	358	409	436	666	892	
	Electric fan	252	325	401	475	531	673	704	864	962	1129	1440	2869
22 - 28	No cooling	80	103	127	149	164	169	201	223	231	296	424	525
	Dual directional shaft fan	127	160	203	244	261	293	322	368	392	527	706	
	Electric fan	224	290	357	423	473	600	628	770	857	1007	1285	2559
31.5 - 45	No cooling	77	96	119	139	149		184			293	419	520
	Dual directional shaft fan	109	137	174	209	224		276			449	602	
	Electric fan	191	246	304	360	403		534			959	1223	2436
50 - 63	No cooling	68	86	106	124	133		164					
	Dual directional shaft fan	93	117	149	179	192		237					
	Electric fan	179	230	284	337	377		500					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1200 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	119	154	190	223	245	234	300	275	308			
	Dual directional shaft fan	185	226	290	350	381	397	413	459	493			
	Electric fan	386	498	614	728	813	994	915	992	1105			
12.5 - 14	No cooling	116	150	185	217	238	234	292	275	308	396	519	
	Dual directional shaft fan	178	225	285	343	367	413	394	518	551	793	1089	
	Electric fan	320	412	509	603	674	824	850	976	1097	1466	1908	
16 - 20	No cooling	101	132	162	190	208	214	256	272	293	396	519	672
	Dual directional shaft fan	145	182	232	279	298	335	368	421	448	680	910	
	Electric fan	275	355	438	519	580	735	770	944	1051	1246	1589	3165
22 - 28	No cooling	88	116	145	171	192	198	231	260	270	378	510	605
	Dual directional shaft fan	129	163	207	249	266	299	328	375	399	537	720	
	Electric fan	244	316	389	461	516	653	684	839	934	1097	1400	2789
31.5 - 45	No cooling	85	107	133	155	166		204			358	482	572
	Dual directional shaft fan	112	141	179	216	231		285			522	700	
	Electric fan	207	268	330	392	438		581			1044	1332	2652
50 - 63	No cooling	74	97	115	139	144		178					
	Dual directional shaft fan	96	124	154	190	197		241					
	Electric fan	222	248	353	363	468		542					

MagnaGear XTR parallel shaft thermal ratings - 1200 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	102	133	163	192	210	201	258	236	265			
	Dual directional shaft fan	159	195	249	301	328	341	355	395	424			
	Electric fan	332	428	528	626	700	855	787	853	951			
12.5 - 14	No cooling	99	129	159	186	205	201	251	236	265	341	446	
	Dual directional shaft fan	153	193	246	295	316	355	339	445	474	682	937	
	Electric fan	275	355	437	519	580	709	731	839	943	1261	1641	
16 - 20	No cooling	87	113	139	163	179	184	220	234	252	341	446	578
	Dual directional shaft fan	125	157	199	240	256	288	316	362	385	585	783	
	Electric fan	237	305	376	446	499	632	662	812	904	1071	1367	2722
22 - 28	No cooling	76	100	125	147	165	170	199	224	232	325	439	520
	Dual directional shaft fan	111	140	178	214	229	257	282	323	343	462	619	
	Electric fan	210	271	335	397	444	562	588	722	803	944	1204	2398
31.5 - 45	No cooling	73	92	114	133	142		175			308	415	492
	Dual directional shaft fan	96	121	154	185	198		245			449	602	
	Electric fan	178	230	284	337	376		500			898	1145	2281
50 - 63	No cooling	64	83	99	120	124		153					
	Dual directional shaft fan	83	107	132	163	170		207					
	Electric fan	191	213	304	312	403		466					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1000 rpm (80°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	130	169	208	244	259	234	329	275	308			
	Dual directional shaft fan	169	220	271	319	337	305	353	359	403			
	Electric fan	364	456	580	632	694	849	781	847	944			
12.5 - 14	No cooling	112	145	179	210	230	226	283	266	298	396	519	
	Dual directional shaft fan	155	195	248	299	319	359	332	451	480	720	964	
	Electric fan	293	378	466	553	618	755	779	895	1006	1466	1919	
16 - 20	No cooling	97	126	155	181	199	205	245	260	280	396	519	729
	Dual directional shaft fan	130	163	207	249	266	300	309	376	400	601	805	
	Electric fan	251	325	400	475	531	672	704	863	961	1255	1601	3189
22 - 28	No cooling	83	112	140	165	187	193	219	254	255	396	519	630
	Dual directional shaft fan	108	136	173	208	222	250	274	314	334	501	671	
	Electric fan	223	288	355	421	470	596	624	765	851	1115	1423	2834
31.5 - 45	No cooling	82	103	127	149	159		194			396	519	598
	Dual directional shaft fan	100	126	160	192	205		253			475	636	
	Electric fan	193	249	307	364	407		544			1061	1354	2696
50 - 63	No cooling	71	93	111	134	138		170					
	Dual directional shaft fan	85	110	137	169	176		214					
	Electric fan	207	231	329	338	436		507					

MagnaGear XTR parallel shaft thermal ratings - 1000 rpm (100°F ambient)

Thermal power ratings in Hp

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	112	145	179	210	222	201	283	236	265			
	Dual directional shaft fan	146	189	233	274	290	262	304	309	347			
	Electric fan	313	392	499	544	597	730	672	728	812			
12.5 - 14	No cooling	96	125	154	181	198	195	243	229	256	341	446	
	Dual directional shaft fan	133	168	214	257	275	309	286	388	412	619	829	
	Electric fan	252	325	401	476	532	650	670	770	865	1261	1650	
16 - 20	No cooling	83	108	133	156	171	176	211	223	241	341	446	627
	Dual directional shaft fan	111	140	178	214	229	258	266	323	344	517	692	
	Electric fan	216	279	344	408	456	578	605	742	826	1079	1377	2743
22 - 28	No cooling	71	96	120	142	161	166	188	219	219	341	446	542
	Dual directional shaft fan	93	117	149	179	191	215	236	270	287	431	577	
	Electric fan	192	247	305	362	404	512	537	658	732	959	1224	2437
31.5 - 45	No cooling	70	89	109	128	137		167			341	446	514
	Dual directional shaft fan	86	108	137	165	176		218			408	547	
	Electric fan	166	214	264	313	350		467			913	1164	2319
50 - 63	No cooling	61	80	95	115	119		146					
	Dual directional shaft fan	73	95	118	145	151		184					
	Electric fan	178	199	283	290	375		436					

Kilowatt method of selection

Step 1: Determine service factor

Refer to the recommended service factor tables on pages 12 through 15.

Step 2: Calculate equivalent kilowatt rating required

Multiply the actual kilowatts to be transmitted by the service factor obtained from step 1.

Step 3: Calculate required ratio

Divide the high speed shaft r/min by the low speed shaft r/min.

Step 4: Determine unit size and ratio

Refer to the kilowatt rating tables on page 38 for right angle and pages 44 and 45 for parallel. Find the correct reduction ratio in the left hand column. Select the row with the correct input speed and output speed in the next two columns, trace right on this row into the table and find the kilowatt rating equal to or greater than the equivalent kilowatts obtained from step 2.

Step 5: Check thermal ratings

Compare the actual kilowatts to be transmitted (without service factor) with the thermal kilowatt rating of the selected gear reducer by referring to the thermal kilowatt rating tables on pages 40 through 43 for right angle and pages 48 through 51 for parallel. If the actual transmitted kilowatts exceed the thermal capacity, a shaft driven auxiliary cooling fan, electric auxiliary cooling fan or a heat exchanger may be added to provide additional thermal capacity. In some cases, a larger reducer may be required.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if external thrust loads or overhung loads are present.

Step 7: Check dimensions

See applicable pages for dimensions, weights and part numbers.

Kilowatt method of selection example

A heavy-duty belt conveyor application requires the drive pulley to operate at 41 r/min. The electric motor which will be used to power the conveyor has a 110 kW rating and operates at 1500 r/min. The duty cycle is 24 hours per day. Ambient conditions at the installation site are a temperature of 30 degrees Celsius and an altitude of 1500 meters above sea level. A right angle shaft reducer suitable for shaft mounting is required.

Step 1: Determine service factor

From the recommended service factors table on page 12, locate "Conveyors - heavy duty". "Belt" is one of the types of conveyors listed. Under the column titled "10+ Hrs. /day service" find the recommended service factor which is 1.50.

Step 2: Calculate equivalent power rating

Multiply the motor kilowatt rating by the service factor ($110 \times 1.50 = 165$) to get the equivalent rating of 165 kW.

Step 3: Calculate required ratio

Divide the high speed shaft r/min by the low speed shaft r/min ($1500 / 41 = 36.6$) to get the required ratio of 36.6:1.

Step 4: Determine unit size and ratio

Refer to the kilowatt ratings table for right angle shaft MagnaGear XTR reducers on page 38. The left column lists the available nominal ratios. Follow down the ratio column to the closest nominal ratio to the 36.6:1 required ratio and find 35.5:1. Find the row with a 1500 r/min input shaft speed and a 42 r/min output speed in the next two columns. Trace this row to the right until the kilowatt rating equals or exceeds the calculated equivalent rating of 165 kW and find 194 kW listed under a MagnaGear XTR G390 reducer.

Kilowatt method of selection

Step 5: Check thermal ratings

Refer to the thermal kilowatt rating table for right angle MagnaGear XTR reducers with a 1500 r/min input speed and 20 degrees Celsius ambient temperature on page 41. The left column lists the available nominal ratios in groups.

Locate the group of ratios that includes a 35.5:1 ratio and find the thermal ratings for the MagnaGear XTR G390 reducer. Using the table for a 20 degrees Celsius ambient temperature, the thermal rating without a fan is 116 kW, the thermal rating with a shaft fan is 164 kW, the thermal rating with a uni-directional shaft fan is 214 kW and the thermal rating with an electric fan is 340 kW.

These ratings must be adjusted for the actual ambient conditions. From the MagnaGear XTR thermal rating adjustment factor tables on page 37, find the multipliers for a 30 degrees Celsius ambient temperature and a 1500 meter altitude. Note the factor for a 30 degrees Celsius ambient is 0.89 and the factor for a 1500 meter altitude is 0.90. (Interpolation can be used to determine factors for values between those listed in the tables). An additional factor for maximum allowable oil sump temperature is also provided.

To determine the actual thermal kilowatt capacity of the reducer, multiply the thermal rating from the thermal kilowatt rating table by the adjustment factors.

Actual thermal kW capacity with no fan = $116 * 0.89 * 0.90 = 93$ kW. Since 93 kW is less than the input motor rating of 110 kW, the reducer does not have adequate thermal capacity with no fan.

Actual thermal kW capacity with a shaft fan = $164 * 0.89 * 0.90 = 131$ kW. Since 131 kW exceeds the input motor rating of 110 kW, a shaft fan will provide adequate cooling for this application.

Note: If ambient temperature is 40 degrees Celsius, use the 40 degrees Celsius thermal ratings tables and no adjustment for temperature is required.

The 40 degrees Celsius thermal ratings tables cannot be adjusted for other ambient temperatures using the thermal ratings adjustment factors on page 37.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if overhung or thrust loading exists.

Step 7: Find reducer and accessories

Refer to page 60 for Dodge MagnaGear XTR G390 right angle reducer part numbers. The part number for the hollow shaft reducer is 449492. The part number for the shaft fan is on page 61 and is 451526.

In order to shaft mount the reducer a twin tapered bushing kit is required. Page 61 gives these part numbers. A twin-tapered bushing kit part number 454137 would be used with a driven shaft diameter of 160 mm. The exact ratio of the reducer is given on the kilowatt ratings table on page 38 and is 36.351:1.

Step 8: Check accessories

Consult your local ABB office to confirm the availability of any accessories not listed.

Torque method of selection (kNm)

To begin the torque method of selection determine the service factor, equivalent torque, and unit size using the same steps as outlined for the kilowatt method. However, in step 4 refer to the torque tables on page 39 for right angle and pages 46 and 47 for parallel to determine the gear reducer size. In step 5, in order to check the thermal ratings, convert the required torque without service factor to kilowatts by using the following formula:

$$\text{Kilowatts} = \frac{\text{Torque X Low Speed Shaft r/min}}{9.5488}$$

and compare the computed results with the thermal kilowatt ratings table on pages 40 through 43 for right angle and pages 48 through 51 for parallel.

Torque method of selection example

Running 10 hours a day, a heavy duty bucket elevator requires 22.4 kNm of torque at 41 r/min. The input motor speed is 1000 r/min. Ambient conditions at the installation are 35 degrees Celsius ambient temperature and an altitude of 500 meters. A reducer with a parallel shaft arrangement is required.

Step 1: Determine service factor

From the recommended service factor table on page 13, locate "Elevators – bucket – heavy duty" and under the column headed "3-10 Hrs./Day Service" locate the recommended service factor which is 1.50.

Step 2: Calculate equivalent torque

Multiply the system torque of 22.4 kNm by the service factor of 1.50 (22.4 x 1.50 = 33.6) to get a 33.6 kNm equivalent torque.

Step 3: Calculate required ratio

Divide the high speed shaft r/min by the low speed shaft r/min (1000 / 41 = 24.4) to get the required ratio of 24.4:1.

Step 4: Determine unit size and ratio

Refer to the torque table for parallel MagnaGear XTR reducers on pages 46 and 47. The left column lists the available nominal ratios. Follow down the ratio column to the closest nominal ratio to the 24.4:1 required ratio and find 25:1. Find the row with a 1000 r/min input shaft speed and a 40 r/min output speed in the next two columns. Trace to the right in this row until the torque equals or exceeds the calculated equivalent torque of 33.6 kNm and find 34.8 kNm listed under a MagnaGear XTR G285 reducer.

Step 5: Check thermal ratings

In order to use the MagnaGear XTR thermal tables, the required torque value without service factor (22.4 kNm) must be converted to kilowatts:

$$\text{Kilowatts} = \frac{\text{Torque (kNm) X Low Speed Shaft r/min}}{9.5488}$$

$$\text{Kilowatts} = \frac{22.4 \times (1000/25)}{9.5488} = 94 \text{ kW}$$

Refer to the thermal kilowatt rating table for parallel MagnaGear XTR reducers with a 1000 r/min input speed and a 20 degrees Celsius ambient temperature on page 51. The left column lists the available nominal ratios in groups. Locate the group of ratios that includes a 25:1 ratio and find the thermal ratings for the MagnaGear XTR G285 reducer.

The thermal rating without a fan is 133 kW, the thermal rating with a shaft fan is 167 kW, and the thermal rating with an electric fan is 339 kW. These ratings must be adjusted for ambient conditions.

From the MagnaGear XTR thermal kilowatt rating adjustment factor tables on page 37, find the adjustment multipliers for a 35 degrees Celsius ambient temperature and a 500 meter altitude. Note the factor for a 35 degrees Celsius ambient temperature is 0.84 and the factor for 500 meters of altitude is 1.00 (Interpolation can be used to determine factors for values between those listed in the tables). An additional factor for maximum allowable oil sump temperature is also provided.

To determine the actual thermal kW capacity of the reducer, multiply the thermal kW given in the table by the adjustment factors. Actual thermal kW capacity = 133 * 0.84 * 1.00 = 112 kW. Since 112 kW exceeds the calculated power required of 94 kW, no additional cooling is required for this application.

Note: For 40°C ambient temperatures, refer to the note at the end of step 5 on page 35.

Step 6: Check overhung and thrust loads

Consult your local ABB sales office if overhung or thrust loading exists.

Step 7: Find reducer part number

Refer to page 58 to find the MagnaGear XTR G285 parallel shaft reducer with a 25:1 ratio. The part number for the reducer is 449417. The exact ratio of the reducer is given in the torque ratings table on pages 46 and 47, and is 25.187:1.

Step 8: Check accessories

Include any accessories that may be required. In the case of an elevator application, a backstop is often specified. If a MagnaGear XTR with an integral backstop is required, refer again to page 58. The part number for the reducer is now 449426.

THERMAL RATINGS ADJUSTMENT FACTORS



MagnaGear XTR

To determine the actual thermal kW rating, multiply the rating from the 20°C thermal kW tables by the appropriate factors from the tables below. Please note that temperature adjustment factors are only applicable to the thermal ratings from the 20°C ambient temperature tables.

Do not use with the 40°C ambient temperature tables.

Actual Thermal kW = Thermal kW Rating from Table X B_{ref} X B_A X B_T

MagnaGear XTR thermal ratings	
Ambient temperature adjustment factors	
Required ambient temperature (°C)	B_{ref}
10	1.10
15	1.05
20	1.00
25	0.95
30	0.89
35	0.84
40	0.79
45	0.72
50	0.54

MagnaGear XTR thermal ratings	
Altitude adjustment factors	
Altitude (m)	B_A
Sea level - 999	1.00
1000 - 1999	0.90
2000 - 2999	0.83
3000 - 3999	0.76
4000 - 5000	0.68

MagnaGear XTR thermal ratings	
Maximum allowable oil sump temperature adjustment factors	
Maximum oil sump temperature (°C)	B_T
85	0.81
93	1.00
104	1.13

Thermal rating selection example

A MagnaGear XTR G525 with a shaft fan, right angle, 25:1 ratio will be operated with a 1500 r/min input motor. Ambient conditions at the installation site are 30°C temperature and 1500 m altitude. Duty cycle will be 12 hours of continuous operation per day, maximum allowable oil sump temperature is 93°C.

To calculate the actual thermal kW rating, find the rated thermal kW from the right angle thermal kW table for a 20°C ambient temperature and multiply by the appropriate rating factors. Interpolation can be used to determine factors for values between those listed in the tables.

Actual thermal kW with no fan = 126 X 0.89 X 0.90 = 101 kW

Actual thermal kW with shaft fan = 282 X 0.89 X 0.90 = 226 kW

Actual thermal kW with uni-directional shaft fan = 366 X 0.89 X 0.90 = 293 kW

Actual thermal kW with electric fan = 481 X 0.89 X 0.90 = 385 kW

RATINGS



MagnaGear XTR right angle shaft reducers – input power

Input power ratings in kW

Nominal ratio	High speed shaft r/min	Low speed shaft r/min												Size
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	
12.5	Exact ratio		12.409	12.510	12.353	12.698	12.569	12.565	12.634	12.412	12.524	12.075	12.459	
	1800	144	153	243	336	434	511	778	778	1062	1355	2214	3319	
	1500	120	129	206	286	368	433	688	688	941	1200	1864	2795	
	1200	96	105	168	233	299	352	585	585	799	1019	1506	2258	
	1000	80	88	140	194	249	294	487	487	666	849	1266	1899	
14.0	Exact ratio		13.998	14.112	13.962	14.409	14.401	14.026	13.944	13.895	13.882	13.945	14.035	
	1800	129	137	218	302	413	482	778	778	1062	1374	1931	2965	
	1500	107	116	184	256	350	408	654	688	893	1156	1625	2496	
	1200	86	94	150	208	285	332	553	585	728	959	1313	2016	
	1000	71	78	125	173	237	277	461	487	606	799	1103	1695	
16.0	Exact ratio		15.657	15.784	15.634	16.414	16.193	15.706	15.928	15.605	15.621	16.172	16.366	
	1800	113	123	196	272	367	456	722	778	947	1243	1678	2563	
	1500	94	104	166	231	311	387	613	677	804	1057	1411	2157	
	1200	75	85	135	188	253	315	499	585	654	861	1139	1741	
	1000	63	71	113	156	211	262	416	487	545	717	957	1463	
18.0	Exact ratio		18.230	18.378	17.630	18.224	17.789	17.659	17.343	17.600	17.415	18.142	18.008	18.260
	1800	100	107	171	244	333	435	649	778	849	1128	1504	2340	3849
	1500	83	91	145	207	283	369	551	677	720	957	1265	1969	3240
	1200	67	74	118	168	230	301	448	541	586	780	1021	1589	2617
	1000	56	62	98	140	192	250	373	451	489	650	857	1335	2199
20.0	Exact ratio		20.390	20.556	19.620	20.346	20.144	19.545	19.652	19.603	19.620	19.632	20.772	20.112
	1800	90	97	154	221	302	408	592	698	770	1012	1395	2042	3512
	1500	75	82	131	187	256	340	502	592	653	859	1173	1718	2955
	1200	60	67	106	152	208	272	408	482	531	699	946	1386	2386
	1000	50	56	89	127	174	227	340	402	443	582	795	1165	2005
22.4	Exact ratio		22.543	22.726	22.960	22.761	21.959	21.693	21.910	22.068	21.823	22.197	22.822	22.229
	1800	80	88	141	191	272	368	538	632	691	919	1240	1867	3193
	1500	67	75	119	162	231	307	456	536	586	779	1043	1570	2686
	1200	54	61	97	132	188	245	371	437	476	634	841	1267	2169
	1000	45	51	81	110	157	204	309	364	397	528	706	1064	1822
25.0	Exact ratio		24.670	24.870	25.552	25.308	25.151	25.369	24.327	25.910	24.642	25.258	25.458	24.672
	1800	72	81	129	174	240	333	456	575	597	822	1096	1682	2891
	1500	60	69	110	147	204	277	386	488	506	697	921	1414	2432
	1200	48	56	89	120	166	222	314	397	411	567	743	1141	1963
	1000	40	47	75	100	138	185	268	331	343	473	624	958	1649
28.0	Exact ratio		28.105	28.333	28.528	28.254	29.115	28.775	27.489	28.859	28.884	27.776	28.841	27.522
	1800	64	72	115	157	223	285	415	514	540	711	1001	1493	2605
	1500	54	61	98	133	190	242	352	436	458	603	841	1255	2191
	1200	43	50	79	108	154	197	286	355	372	490	678	1012	1768
	1000	36	41	66	90	129	164	238	295	310	408	569	850	1484
31.5	Exact ratio		31.103	31.356	31.200	31.607	31.738	31.937	30.585	32.488	32.128	31.348	30.986	30.890
	1800	57	66	105	145	202	254	378	468	485	645	891	1394	2333
	1500	48	56	89	123	171	215	320	396	411	547	749	1172	1962
	1200	38	45	72	100	139	175	260	322	334	444	604	945	1582
	1000	32	38	60	83	116	146	216	268	278	370	507	793	1329
35.5	Exact ratio		35.030	35.314	35.609	34.998	36.351	35.626	35.814	35.669	36.277	35.589	35.565	34.932
	1800	51	59	94	128	184	229	341	376	445	577	789	1222	2074
	1500	42	50	80	109	156	194	289	315	377	489	663	1026	1744
	1200	34	41	65	88	127	158	235	255	306	397	534	828	1406
	1000	28	34	54	74	105	131	196	212	255	331	448	694	1181
40.0	Exact ratio		41.221	41.473	41.120	40.646	39.996	39.986	40.469	39.547	40.441	40.707	40.560	40.464
	1800	45	51	81	112	160	209	307	363	405	522	694	1077	1802
	1500	38	43	69	95	135	174	260	302	343	442	583	905	1514
	1200	30	35	56	77	110	139	211	243	278	359	470	729	1221
	1000	25	29	47	65	92	116	176	202	232	299	394	612	1025
45.0	Exact ratio		46.655	47.033	46.800	45.705	44.224	44.806	44.902	44.258	45.888	44.7509	45.949	45.225
	1800	40	45	72	100	143	188	276	322	365	465	633	955	1620
	1500	33	38	61	84	121	157	234	270	309	393	532	802	1361
	1200	27	31	50	68	99	125	190	217	251	319	429	647	1097
	1000	22	26	41	57	82	104	158	181	209	266	359	542	921
50.0	Exact ratio		49.770	50.174	49.969	51.828	49.188	49.768	49.598	49.911	50.191	49.442	49.366	50.878
	1800	36	43	68	93	128	170	251	293	326	428	575	892	1447
	1500	30	36	58	78	108	141	212	243	276	362	483	749	1215
	1200	24	29	47	64	88	113	172	195	224	294	389	603	979
	1000	20	24	39	53	76	94	143	162	187	245	326	506	822
56.0	Exact ratio		55.572	56.023	55.841	56.092	55.097	56.234	55.147	56.821	55.672	54.949	56.661	55.275
	1800	32	39	62	85	119	152	224	268	290	389	520	781	1336
	1500	27	33	52	72	100	127	189	224	245	329	436	656	1122
	1200	21	26	42	58	81	102	154	179	199	267	351	528	904
	1000	18	22	35	48	67	85	128	149	166	223	295	443	759
63.0	Exact ratio		61.832	62.210	61.679	60.858	62.250	62.196	61.807	62.348	61.574	61.505	61.560	60.300
	1800	29	35	56	77	107	134	204	230	266	354	466	721	1229
	1500	24	29	47	65	91	112	172	192	225	300	391	605	1032
	1200	19	24	38	53	73	89	140	152	182	243	315	488	831
	1000	16	20	32	44	62	74	117	127	152	203	264	409	697

RATINGS



MagnaGear XTR right angle shaft reducers – torque

Torque ratings in kNm

Nominal ratio	High speed shaft r/min	Low speed shaft r/min												Size
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
12.5	Exact ratio		12.409	12.510	12.353	12.698	12.569	12.565	12.634	12.412	12.524	12.075	12.459	
	1800	144	10.0	16.1	22.1	29.2	34.1	51.8	52.1	70.0	90.0	143	219	
	1500	120	10.2	16.4	22.5	29.7	34.7	55.1	55.4	74.4	95.6	143	222	
	1200	96	10.4	16.7	22.9	30.2	35.3	58.5	58.8	79.0	102	145	224	
	1000	80	10.5	16.9	23.2	30.6	35.7	59.3	59.6	80.0	103	146	226	
14.0	Exact ratio		13.998	14.112	13.962	14.409	14.401	14.026	13.944	13.895	13.882	13.945	14.035	
	1800	129	10.1	16.3	22.4	31.6	36.8	57.9	57.7	78.3	101	143	221	
	1500	107	10.3	16.6	22.7	32.1	37.4	58.4	61.3	79.0	102	144	223	
	1200	86	10.5	16.8	23.1	32.6	38.1	61.7	65.2	80.5	106	146	225	
	1000	71	10.6	17.1	23.4	33.1	38.6	62.6	66.0	81.5	107	147	227	
16.0	Exact ratio		15.657	15.784	15.634	16.414	16.193	15.706	15.928	15.605	15.621	16.172	16.366	
	1800	113	10.2	16.4	22.6	31.9	39.2	60.2	65.7	78.4	103	144	223	
	1500	94	10.4	16.7	22.9	32.5	39.9	61.3	68.6	79.8	105	145	225	
	1200	75	10.6	17.0	23.4	33.1	40.6	62.4	74.2	81.3	107	147	227	
	1000	63	10.7	17.2	23.7	33.5	41.1	63.2	75.2	82.3	108.4	148.0	229	
18.0	Exact ratio		18.230	18.378	17.630	18.224	17.789	17.659	17.343	17.600	17.415	18.142	18.008	18.260
	1800	100	10.4	16.7	22.8	32.2	41.1	60.8	71.6	79.3	104	145	224	373
	1500	83	10.5	16.9	23.2	32.8	41.8	61.9	74.7	80.7	106	146	226	377
	1200	67	10.7	17.2	23.6	33.4	42.6	63.0	74.6	82.1	108	147	228	380
	1000	56	10.9	17.5	23.9	33.8	43.1	63.8	75.6	83.2	109	149	230	383
20.0	Exact ratio		20.390	20.556	19.620	20.346	20.144	19.545	19.652	19.603	19.620	19.632	20.772	20.112
	1800	90	10.5	16.8	23.0	32.6	43.6	61.4	72.8	80.0	105	145	225	375
	1500	75	10.6	17.1	23.4	33.1	43.6	62.5	74.1	81.5	107	147	227	378
	1200	60	10.8	17.4	23.8	33.7	43.6	63.5	75.4	82.9	109	148	229	382
	1000	50	11.0	17.6	24.1	34.2	44.2	64.3	76.4	83.9	111	149	231	385
22.4	Exact ratio		22.543	22.726	22.960	22.761	21.959	21.693	21.910	22.068	21.823	22.197	22.822	22.229
	1800	80	10.5	17.0	23.3	32.9	42.9	61.9	73.5	80.9	106	146	226	377
	1500	67	10.7	17.3	23.7	33.5	42.9	63.0	74.8	82.3	108	147	228	380
	1200	54	10.9	17.6	24.2	34.1	42.9	64.1	76.1	83.7	110	149	230	384
	1000	45	11.1	17.8	24.5	34.5	43.4	64.9	77.1	84.8	112	150	232	387
25.0	Exact ratio		24.670	24.870	25.552	25.308	25.151	25.369	24.327	25.910	24.642	25.258	25.458	24.672
	1800	72	10.6	17.1	23.5	32.2	44.4	62.9	74.2	82.0	108	147	227	378
	1500	60	10.8	17.4	24.0	32.8	44.4	64.0	75.5	83.4	109	148	229	382
	1200	48	11.0	17.7	24.4	33.4	44.4	65.0	76.8	84.8	111	149	231	385
	1000	40	11.1	17.9	24.7	33.8	45.0	65.8	77.8	85.9	113	150	233	388
28.0	Exact ratio		28.105	28.333	28.528	28.254	29.115	28.775	27.489	28.859	28.884	27.776	28.841	27.522
	1800	64	10.7	17.3	23.8	33.5	44.1	63.4	75.0	82.8	109	148	228	380
	1500	54	10.9	17.6	24.2	34.1	44.9	64.5	76.3	84.1	111	149	230	384
	1200	43	11.1	17.9	24.6	34.7	45.7	65.5	77.6	85.5	113	150	232	387
	1000	36	11.3	18.1	25.0	35.2	46.3	66.3	78.6	86.6	114	151	234	390
31.5	Exact ratio		31.103	31.356	31.200	31.607	31.738	31.937	30.585	32.488	32.128	31.348	30.986	30.890
	1800	57	10.8	17.4	24.0	33.8	42.8	64.0	75.7	83.6	110	148	229	382
	1500	48	11.0	17.7	24.4	34.4	43.5	65.0	77.0	84.9	112	149	231	386
	1200	38	11.2	18.0	24.8	35.0	44.3	66.0	78.2	86.3	114	151	233	389
	1000	32	11.3	18.3	25.1	35.5	44.9	66.9	79.2	87.4	115	152	235	392
35.5	Exact ratio		35.030	35.314	35.609	34.998	36.351	35.626	35.814	35.669	36.277	35.589	35.565	34.932
	1800	51	10.9	17.6	24.3	34.1	44.1	64.5	71.4	84.2	111	149	231	384
	1500	42	11.1	17.9	24.7	34.7	44.9	65.6	71.7	85.6	113	150	232	386
	1200	34	11.3	18.2	25.1	35.2	45.6	66.6	72.6	86.9	115	151	234	391
	1000	28	11.5	18.4	25.4	35.7	46.2	67.4	73.5	88.0	116	152	236	394
40.0	Exact ratio		41.221	41.473	41.120	40.646	39.996	39.986	40.469	39.547	40.441	40.707	40.560	40.464
	1800	45	11.1	17.9	24.6	34.5	44.3	65.1	77.9	84.9	112	150	232	387
	1500	38	11.3	18.2	25.0	35.1	44.3	66.1	77.8	86.2	114	151	234	390
	1200	30	11.4	18.4	25.4	35.6	44.3	67.1	78.2	87.6	116	152	235	393
	1000	25	11.6	18.7	25.7	36.1	44.9	68.0	79.2	88.7	117	153	237	396
45.0	Exact ratio		46.655	47.033	46.800	45.705	44.224	44.806	44.902	44.258	45.888	44.7509	45.949	45.225
	1800	40	11.2	18.0	24.8	34.8	44.1	65.7	76.8	85.7	113	150	233	389
	1500	33	11.4	18.3	25.2	35.3	44.1	66.7	77.3	87.0	115	152	235	392
	1200	27	11.5	18.6	25.6	35.8	44.1	67.7	77.4	88.3	117	153	236	395
	1000	22	11.7	18.8	25.9	36.3	44.7	68.6	78.4	89.4	118	154	238	398
50.0	Exact ratio		49.770	50.174	49.969	51.828	49.188	49.768	49.598	49.911	50.191	49.442	49.366	50.878
	1800	36	11.3	18.1	25.0	35.1	44.3	66.2	77.2	86.4	114	151	234	391
	1500	30	11.4	18.4	25.4	35.7	44.3	67.2	76.8	87.8	116	152	235	394
	1200	24	11.6	18.7	25.7	36.1	44.3	68.2	76.9	89.0	117	153	237	397
	1000	20	11.7	18.9	26.0	36.6	44.9	69.1	77.9	90.2	119	154	239	399
56.0	Exact ratio		55.572	56.023	55.841	56.092	55.097	56.234	55.147	56.821	55.672	54.949	56.661	55.275
	1800	32	11.4	18.3	25.2	35.3	44.5	66.8	78.3	87.3	115	152	235	392
	1500	27	11.5	18.5	25.5	35.8	44.5	67.8	78.5	88.6	117	153	236	395
	1200	21	11.7	18.8	25.9	36.3	44.5	68.8	78.5	89.9	118	154	238	398
	1000	18	11.8	19.0	26.2	36.8	45.1	69.7	79.5	91.0	120	155	240	400
63.0	Exact ratio		61.832	62.210	61.679	60.858	62.250	62.196	61.807	62.348	61.574	61.505	61.560	60.300
	1800	29	11.4	18.4	25.4	34.6	44.2	67.3	75.5	87.9	116	152	236	393
	1500	24	11.6	18.7	25.7	35.1	44.2	68.3	75.5	89.2	117	153	237	396
	1200	19	11.7	18.9	26.0	35.5	44.2	69.2	75.0	90.4	119	154	239	399
	1000	16	11.9	19.1	26.3	36.0	44.8	70.1	76.0	91.6	121	155	240	402

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1800 r/min (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	77	100	125	139	148	144	183	167	192	274	361	483
	Dual directional shaft fan	132	171	215	246	262	342	360	397	399	622	736	
	Uni-directional shaft fan	171	222	280	320	341	445	468	516	519			
	Electric fan	246	319	401	467	498	571	685	662	758	1096	1443	2413
20 - 28	No cooling	68	88	111	123	131	128	162	148	169	274	327	483
	Dual directional shaft fan	112	145	183	209	223	291	306	337	339	622	666	
	Uni-directional shaft fan	145	189	238	272	289	378	398	439	440			
	Electric fan	220	285	359	418	445	510	612	592	678	1096	1307	2413
31.5 - 45	No cooling	61	79	100	111	118	115	146	134	153	247	295	483
	Dual directional shaft fan	90	117	148	169	180	235	247	272	273	502	538	
	Uni-directional shaft fan	117	152	192	219	233	305	321	354	355			
	Electric fan	180	233	294	342	364	418	501	484	555	897	1069	2413
50 - 63	No cooling	54	70	88	97	104	101	128	117	134	217	258	483
	Dual directional shaft fan	75	98	123	141	150	196	206	227	228	420	449	
	Uni-directional shaft fan	98	127	160	183	195	255	268	296	297			
	Electric fan	161	208	262	305	325	373	447	433	495	801	955	2263

MagnaGear XTR right angle shaft thermal ratings - 1800 r/min (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	61	79	99	110	117	114	145	132	151	216	285	381
	Dual directional shaft fan	104	135	170	194	207	271	284	314	315	491	581	
	Uni-directional shaft fan	135	176	221	253	269	352	370	408	410			
	Electric fan	194	252	317	369	393	451	541	523	599	865	1140	1906
20 - 28	No cooling	54	69	88	97	103	101	128	117	134	216	258	381
	Dual directional shaft fan	88	115	144	165	176	230	242	267	268	491	526	
	Uni-directional shaft fan	115	149	188	215	229	299	314	347	348			
	Electric fan	174	225	283	330	352	403	484	468	535	865	1032	1906
31.5 - 45	No cooling	48	63	79	88	93	91	115	106	121	196	233	381
	Dual directional shaft fan	71	93	117	133	142	185	195	215	216	397	425	
	Uni-directional shaft fan	93	120	151	173	184	241	254	280	281			
	Electric fan	142	184	232	270	288	330	396	383	438	709	845	1906
50 - 63	No cooling	42	55	69	77	82	80	101	93	106	171	204	381
	Dual directional shaft fan	60	77	97	111	119	155	163	180	180	331	355	
	Uni-directional shaft fan	77	100	127	145	154	201	212	234	235			
	Electric fan	127	164	207	241	257	295	353	342	391	633	754	1787

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1500 r/min (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	74	100	127	137	158	154	196	179	205	274	361	483
	Dual directional shaft fan	129	168	213	242	264	351	370	408	409	622	736	
	Uni-directional shaft fan	168	219	277	315	343	457	481	530	532			
	Electric fan	233	302	381	443	472	541	649	628	719	1096	1364	2413
20 - 28	No cooling	64	86	110	118	127	126	167	150	178	274	361	483
	Dual directional shaft fan	104	135	170	194	206	282	283	313	314	577	618	
	Uni-directional shaft fan	135	175	220	252	268	366	369	407	408			
	Electric fan	207	268	338	394	419	481	577	558	638	1017	1212	2413
31.5 - 45	No cooling	60	78	99	109	116	113	144	132	151	254	320	483
	Dual directional shaft fan	83	107	135	154	164	215	226	249	250	450	506	
	Uni-directional shaft fan	107	139	175	200	214	279	293	324	325			
	Electric fan	168	217	274	319	340	390	467	452	517	824	982	2327
50 - 63	No cooling	52	68	85	94	101	98	125	114	130	219	277	482
	Dual directional shaft fan	69	89	112	128	137	178	188	207	208	374	421	
	Uni-directional shaft fan	89	116	146	167	178	232	244	269	270			
	Electric fan	149	193	243	283	302	346	415	401	459	699	833	1974

MagnaGear XTR right angle shaft thermal ratings - 1500 r/min (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	59	79	100	108	125	122	155	141	162	216	285	381
	Dual directional shaft fan	102	133	169	192	209	278	292	322	323	491	581	
	Uni-directional shaft fan	132	173	219	249	271	361	380	419	420			
	Electric fan	184	239	301	350	373	428	513	496	568	865	1078	1906
20 - 28	No cooling	51	68	87	94	100	99	132	118	140	216	285	381
	Dual directional shaft fan	82	106	134	153	163	223	224	247	248	456	488	
	Uni-directional shaft fan	107	138	174	199	212	289	291	321	323			
	Electric fan	164	212	267	311	331	380	456	441	504	803	957	1906
31.5 - 45	No cooling	48	62	78	86	92	90	114	104	119	200	253	381
	Dual directional shaft fan	65	85	107	122	130	170	178	197	198	355	400	
	Uni-directional shaft fan	85	110	139	158	169	220	232	256	257			
	Electric fan	133	172	216	252	268	308	369	357	409	651	776	1838
50 - 63	No cooling	41	53	67	75	80	77	99	90	103	173	219	381
	Dual directional shaft fan	54	70	89	101	108	141	148	164	164	295	332	
	Uni-directional shaft fan	71	91	115	132	140	183	193	213	214			
	Electric fan	118	153	192	224	238	273	328	317	363	552	658	1560

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1200 r/min (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	78	106	135	146	160	160	209	188	219	274	361	483
	Dual directional shaft fan	123	160	200	230	244	320	337	370	372	622	736	
	Uni-directional shaft fan	160	207	261	298	317	416	438	481	484			
	Electric fan	221	286	360	420	447	512	614	595	681	1029	1226	2413
20 - 28	No cooling	64	87	110	119	131	130	170	153	178	274	361	483
	Dual directional shaft fan	93	120	152	173	185	258	259	280	281	516	580	
	Uni-directional shaft fan	121	157	197	225	240	335	336	364	365			
	Electric fan	195	253	318	371	395	453	543	525	601	910	1084	2413
31.5 - 45	No cooling	59	76	96	106	113	110	140	128	147	249	333	483
	Dual directional shaft fan	73	94	119	136	145	189	199	219	220	396	472	
	Uni-directional shaft fan	95	123	155	177	188	246	259	285	286			
	Electric fan	157	204	257	299	318	365	437	423	485	733	873	2070
50 - 63	No cooling	50	64	81	90	96	93	118	108	124	211	282	462
	Dual directional shaft fan	61	79	100	114	121	159	167	184	185	332	420	
	Uni-directional shaft fan	79	103	130	148	158	206	217	239	240			
	Electric fan	140	182	229	267	284	326	391	378	433	625	745	1766

MagnaGear XTR right angle shaft thermal ratings - 1200 r/min (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	62	84	107	115	127	126	165	148	173	216	285	381
	Dual directional shaft fan	97	126	158	181	193	253	266	292	294	491	581	
	Uni-directional shaft fan	126	164	206	236	251	328	346	380	382			
	Electric fan	174	226	285	331	353	405	485	470	538	813	969	1906
20 - 28	No cooling	51	69	87	94	103	103	134	121	141	216	285	381
	Dual directional shaft fan	73	95	120	137	146	204	204	221	222	408	458	
	Uni-directional shaft fan	95	124	156	178	190	265	266	287	289			
	Electric fan	154	200	252	293	312	358	429	415	475	719	856	1906
31.5 - 45	No cooling	46	60	76	84	89	87	111	101	116	197	263	381
	Dual directional shaft fan	57	75	94	107	114	149	157	173	174	313	373	
	Uni-directional shaft fan	75	97	122	140	149	194	204	225	226			
	Electric fan	124	161	203	236	251	288	345	334	383	579	690	1635
50 - 63	No cooling	39	51	64	71	76	74	94	86	98	167	223	365
	Dual directional shaft fan	48	62	79	90	96	125	132	145	146	263	332	
	Uni-directional shaft fan	63	81	102	117	125	163	171	189	190			
	Electric fan	111	144	181	211	225	257	309	299	342	494	589	1395

RATINGS



Right angle shaft reducers – thermal power

MagnaGear XTR right angle shaft thermal ratings - 1000 r/min (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	72	98	125	134	152	150	195	179	208	274	361	483
	Dual directional shaft fan	84	122	138	176	167	245	278	254	286	585	658	
	Uni-directional shaft fan	109	159	179	229	218	319	361	330	371			
	Electric fan	209	261	341	383	423	467	561	563	621	973	1159	2413
20 - 28	No cooling	61	83	106	113	128	127	164	151	175	274	361	483
	Dual directional shaft fan	78	101	128	146	155	228	230	236	237	485	545	
	Uni-directional shaft fan	102	132	166	190	202	296	299	306	308			
	Electric fan	178	231	290	338	360	413	495	479	549	854	1018	2412
31.5 - 45	No cooling	54	70	89	98	105	102	130	119	136	269	361	483
	Dual directional shaft fan	62	80	101	115	122	160	168	186	186	380	427	
	Uni-directional shaft fan	80	104	131	149	159	208	219	241	242			
	Electric fan	143	185	233	271	289	331	397	384	440	685	816	1934
50 - 63	No cooling	46	60	75	83	89	86	110	100	115	227	308	456
	Dual directional shaft fan	52	67	84	96	103	134	141	156	156	313	352	
	Uni-directional shaft fan	67	87	110	125	133	174	184	202	203			
	Electric fan	128	166	209	243	259	297	356	345	395	588	700	1659

MagnaGear XTR right angle shaft thermal ratings - 1000 r/min (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system	Size											
		100	150	210	285	390	525	600	700	920	1400	2100	3500
12.5 - 18	No cooling	57	78	99	106	120	119	154	142	164	216	285	381
	Dual directional shaft fan	67	97	109	139	132	194	220	201	226	462	520	
	Uni-directional shaft fan	86	126	141	181	172	252	285	261	293			
	Electric fan	165	206	269	302	334	369	443	445	490	768	915	1906
20 - 28	No cooling	48	65	83	89	101	100	129	119	138	216	285	381
	Dual directional shaft fan	62	80	101	115	123	180	182	186	187	383	431	
	Uni-directional shaft fan	80	104	131	150	160	234	237	242	243			
	Electric fan	141	182	229	267	285	326	391	379	433	675	804	1905
31.5 - 45	No cooling	43	56	70	78	83	81	102	94	107	213	285	381
	Dual directional shaft fan	49	63	79	91	97	126	133	147	147	300	338	
	Uni-directional shaft fan	63	82	103	118	126	164	173	191	191			
	Electric fan	113	146	184	214	228	262	314	304	348	541	645	1528
50 - 63	No cooling	36	47	59	66	70	68	87	79	91	180	243	360
	Dual directional shaft fan	41	53	67	76	81	106	112	123	123	247	278	
	Uni-directional shaft fan	53	69	87	99	105	138	145	160	161			
	Electric fan	101	131	165	192	205	235	281	272	312	464	553	1311

RATINGS



MagnaGear XTR parallel shaft reducers – input power

Input power ratings in kW

Nominal ratio	High speed shaft r/min	Low speed shaft r/min											Size			
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500		
8.00	Exact Ratio		8.146	8.146	8.044	7.759	7.754	8.182	8.227	8.083	8.155					
	1800	224	357	495	721	981	1184	1319	1637	2185	1637					
	1500	191	304	422	614	835	1048	1168	1456	1900	1456					
	1200	156	248	345	501	682	902	992	1189	1551	1189					
	1000	130	207	287	418	568	752	827	991	1293	991					
9.00	Exact Ratio		9.189	9.189	9.091	8.838	8.719	9.133	9.113	9.048	9.039					
	1800	200	201	321	444	641	883	1097	1229	1513	2027					
	1500	167	171	273	378	546	752	971	1088	1316	1726					
	1200	133	140	222	308	445	613	817	925	1074	1409					
	1000	111	116	185	257	371	511	681	771	895	1174					
10.00	Exact Ratio		10.278	10.278	10.180	9.813	9.579	10.227	10.372	10.161	10.172					
	1800	180	182	290	402	584	812	1022	1126	1394	1831					
	1500	150	155	247	341	496	690	904	997	1185	1558					
	1200	120	126	201	278	404	562	737	834	967	1271					
	1000	100	105	167	232	337	468	614	695	806	1059					
11.20	Exact Ratio		11.363	11.363	11.480	10.956	10.847	11.499	11.293	11.460	11.340					
	1800	161	166	265	361	529	726	946	1060	1251	1661					
	1500	134	141	225	306	449	616	813	939	1063	1412					
	1200	107	115	183	249	365	501	663	769	867	1152					
	1000	89	96	152	207	304	418	552	641	722	960					
12.5	Exact Ratio		12.435	12.435	12.776	12.256	11.824	12.727	12.797	12.764	12.776	12.402	12.367			
	1800	144	153	244	327	478	672	873	971	1135	1492	2159	3343			
	1500	120	130	207	277	405	570	742	853	964	1268	1817	2815			
	1200	96	106	168	226	330	463	604	682	786	1034	1468	2274			
	1000	80	88	140	188	275	386	504	569	655	835	1234	1912			
14.0	Exact Ratio		14.167	14.167	14.264	13.571	13.543	14.126	14.267	14.370	14.211	14.333	14.000			
	1800	129	136	217	296	436	594	795	902	1020	1350	1882	2972			
	1500	107	115	184	251	369	504	675	770	866	1147	1583	2502			
	1200	86	94	149	204	301	410	550	616	706	935	1279	2021			
	1000	71	78	125	170	250	342	458	513	588	779	1074	1699			
16.0	Exact Ratio		15.678	15.678	15.600	15.761	16.476	15.758	15.841	15.777	16.046	16.195	15.951			
	1800	113	124	198	273	381	498	720	834	937	1215	1675	2626			
	1500	94	105	167	231	323	422	611	695	796	1031	1409	2210			
	1200	75	85	136	188	263	343	497	556	648	840	1138	1785			
	1000	63	71	114	157	219	286	414	463	540	700	956	1500			
18.0	Exact Ratio		17.657	17.657	17.804	17.722	18.325	17.686	17.900	17.492	17.888	17.829	17.684	18.270		
	1800	100	111	177	241	342	452	648	742	853	1101	1529	2381	3847		
	1500	83	94	150	205	290	383	550	619	724	934	1286	2003	3238		
	1200	67	77	122	167	236	312	447	495	590	761	1038	1617	2615		
	1000	56	64	102	139	197	260	373	412	491	634	872	1359	2198		
20.0	Exact Ratio		20.737	20.737	20.560	20.096	20.526	19.818	19.861	19.576	20.297	19.722	19.714	20.262		
	1800	90	96	153	212	305	407	584	671	770	981	1389	2147	3487		
	1500	75	81	129	180	259	346	496	559	654	833	1168	1806	2934		
	1200	60	66	105	146	211	282	403	447	532	678	942	1458	2369		
	1000	50	55	88	122	176	235	336	373	443	565	791	1224	1991		
22.4	Exact Ratio		22.487	22.487	21.938	23.598	23.191	22.013	21.938	22.076	22.200	22.765	22.125	22.606		
	1800	80	89	142	200	263	365	531	609	691	904	1211	1997	3142		
	1500	67	75	120	169	224	309	450	508	586	767	1018	1679	2643		
	1200	54	61	98	138	182	252	366	406	476	624	821	1355	2134		
	1000	45	51	82	113	152	210	305	338	397	520	689	1138	1793		
25.0	Exact Ratio		25.343	25.500	24.802	25.187	25.405	24.873	25.235	25.132	24.624	25.562	25.034	25.403		
	1800	72	79	127	178	248	335	475	525	613	823	1084	1851	2812		
	1500	60	67	107	151	211	284	402	444	520	698	911	1556	2365		
	1200	48	55	87	123	172	232	327	355	423	568	735	1256	1909		
	1000	40	46	73	103	143	193	273	296	352	473	617	1055	1603		
28.0	Exact Ratio		28.589	28.766	28.031	28.119	28.767	27.510	28.722	27.577	27.235	27.749	28.615	27.590		
	1800	64	71	109	160	224	300	433	473	563	751	1002	1709	2599		
	1500	54	60	92	135	190	254	367	394	477	636	842	1437	2185		
	1200	43	49	75	110	155	207	298	315	388	517	679	1159	1764		
	1000	36	41	65	92	129	172	248	263	323	431	570	974	1481		

RATINGS



MagnaGear XTR parallel shaft reducers – input power

Input power ratings in kW

Nominal ratio	High speed shaft r/min	Low speed shaft r/min											Size		
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500	
31.5	Exact Ratio		31.975	32.174	31.389	31.457	31.359			31.274			31.659	31.500	31.500
	1800	57	64	98	144	202	277			436			883	1372	2290
	1500	48	54	83	122	172	235			363			742	1153	1925
	1200	38	44	68	99	140	191			291			598	930	1553
	1000	32	37	59	83	116	159			242			502	781	1304
35.5	Exact Ratio		35.351	35.571	35.396	34.831	35.917			35.438			34.810	34.909	34.650
	1800	51	58	90	129	184	244			387			806	1244	2091
	1500	42	49	76	109	156	207			323			677	1045	1757
	1200	34	40	62	89	127	168			258			546	842	1417
	1000	28	34	54	74	106	140			215			458	707	1190
40.0	Exact Ratio		38.687	38.928	39.392	40.453	39.519			39.509			38.511	38.609	38.373
	1800	45	54	83	117	161	224			350			732	1129	1896
	1500	38	46	70	99	136	190			291			615	949	1593
	1200	30	37	57	81	111	154			233			495	765	1285
	1000	25	31	49	67	92	128			194			415	642	1078
45.0	Exact Ratio		44.074	44.348	43.980	45.487	43.697			43.867					
	1800	40	48	73	106	144	204			316					
	1500	33	40	62	90	122	173			263					
	1200	27	33	50	73	99	140			210					
	1000	22	27	44	61	83	117			175					
50.0	Exact Ratio		48.775	49.078	51.357	51.581	48.601			49.568					
	1800	36	43	67	92	128	185			281					
	1500	30	37	56	78	109	156			234					
	1200	24	30	46	63	88	127			187					
	1000	20	25	40	52	73	106			156					
56.0	Exact Ratio		54.933	55.274	54.897	55.825	54.439			54.999					
	1800	32	39	60	86	119	166			254					
	1500	27	33	51	73	101	141			212					
	1200	21	27	41	59	82	114			169					
	1000	18	22	36	49	68	95			141					
63.0	Exact Ratio		64.642	64.915	63.393	60.568	61.507			60.750					
	1800	29	33	51	76	108	149			231					
	1500	24	28	43	64	91	126			192					
	1200	19	23	35	52	74	102			154					
	1000	16	19	31	43	59	85			128					

RATINGS



MagnaGear XTR parallel shaft reducers – torque

Torque ratings in kNm

Nominal ratio	High speed shaft r/min	Low speed shaft r/min											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
8.00	Exact Ratio		8.146	8.146	8.044	7.759	7.754	8.182	8.227	8.083	8.155			
	1800	225	9.6	15.4	21.1	29.7	40.4	51.4	57.6	70.2	94.5			
	1500	188	9.8	15.8	21.6	30.3	41.2	54.6	61.2	74.9	98.6			
	1200	150	10.0	16.1	22.1	30.9	42.1	58.8	65.0	76.5	101			
	1000	125	10.1	16.3	22.3	31.3	42.6	59.5	65.8	77.5	102			
9.00	Exact Ratio		9.189	9.189	9.091	8.838	8.719	9.133	9.113	9.048	9.039			
	1800	200	9.7	15.6	21.4	30.1	40.9	53.2	59.4	72.6	97.2			
	1500	167	9.9	16.0	21.9	30.7	41.8	56.5	63.1	75.8	99.3			
	1200	133	10.1	16.3	22.3	31.3	42.6	59.4	67.1	77.3	101			
	1000	111	10.3	16.5	22.6	31.7	43.1	60.2	68.0	78.3	103			
10.00	Exact Ratio		10.278	10.278	10.180	9.813	9.579	10.227	10.372	10.161	10.172			
	1800	180	9.9	15.8	21.7	30.4	41.3	55.4	62.0	75.2	98.8			
	1500	150	10.0	16.1	22.1	31.0	42.1	58.9	65.8	76.7	101			
	1200	120	10.2	16.4	22.5	31.6	42.8	60.0	68.8	78.2	103			
	1000	100	10.3	16.6	22.8	32.0	43.4	60.8	69.7	79.2	104			
11.20	Exact Ratio		11.363	11.363	11.480	10.956	10.847	11.499	11.293	11.460	11.340			
	1800	161	10.0	16.0	22.0	30.7	41.8	57.7	63.5	76.1	100			
	1500	134	10.1	16.3	22.4	31.3	42.6	59.5	67.5	77.6	102			
	1200	107	10.3	16.5	22.7	31.8	43.3	60.7	69.1	79.1	104			
	1000	89	10.4	16.8	23.0	32.2	43.8	61.5	70.0	80.1	105			
12.5	Exact Ratio		12.435	12.435	12.776	12.256	11.824	12.727	12.797	12.764	12.776	12.402	12.367	
	1800	144	10.0	16.1	22.2	31.1	42.1	59.0	65.9	76.9	101	142	219	
	1500	120	10.2	16.4	22.6	31.6	42.9	60.1	69.5	78.4	100	143	222	
	1200	96	10.4	16.7	22.9	32.1	43.6	61.2	69.5	79.8	102	145	224	
	1000	80	10.5	16.9	23.2	32.6	44.2	62.0	70.4	80.9	103	146	228	
14.0	Exact Ratio		14.167	14.167	14.264	13.571	13.543	14.126	14.267	14.370	14.211	14.333	14.000	
	1800	129	10.1	16.3	22.4	31.4	42.7	59.6	68.2	77.8	102	143	221	
	1500	107	10.3	16.6	22.8	31.9	43.4	60.7	69.9	79.2	104	144	223	
	1200	86	10.5	16.9	23.2	32.5	44.2	61.8	69.9	80.7	106	146	225	
	1000	71	10.6	17.1	23.5	32.9	44.8	62.6	70.8	81.7	107	147	227	
16.0	Exact Ratio		15.678	15.678	15.600	15.761	16.476	15.758	15.841	15.777	16.046	16.195	15.951	
	1800	113	10.2	16.4	22.6	31.8	43.5	60.2	70.1	78.5	103	144	222	
	1500	94	10.4	16.7	22.9	32.4	44.2	61.3	70.5	79.9	105	145	224	
	1200	75	10.6	17.0	23.3	32.9	45.0	62.4	70.5	81.4	107	147	227	
	1000	63	10.7	17.2	23.7	33.4	45.6	63.2	71.4	82.4	109	148	228	
18.0	Exact Ratio		17.657	17.657	17.804	17.722	18.325	17.686	17.900	17.492	17.888	17.829	17.684	18.270
	1800	100	10.3	16.6	22.8	32.2	43.9	60.8	70.5	79.2	104	145	223	373
	1500	83	10.5	16.9	23.2	32.7	44.7	61.9	70.5	80.7	106	146	226	377
	1200	67	10.7	17.2	23.6	33.3	45.5	63.0	70.5	82.1	108	147	228	380
	1000	56	10.8	17.4	23.9	33.7	46.1	63.8	71.4	83.1	110	148	229	383
20.0	Exact Ratio		20.737	20.737	20.560	20.096	20.526	19.818	19.861	19.576	20.297	19.722	19.714	20.262
	1800	90	10.5	16.8	23.1	32.5	44.4	61.4	70.7	80.0	106	145	225	375
	1500	75	10.6	17.1	23.5	33.1	45.2	62.5	70.7	81.5	108	147	227	378
	1200	60	10.8	17.4	23.9	33.7	46.0	63.6	70.7	82.9	109	148	229	382
	1000	50	11.0	17.7	24.2	34.2	46.6	64.4	71.6	83.9	111	149	230	385
22.4	Exact Ratio		22.487	22.487	21.938	23.598	23.191	22.013	21.938	22.076	22.200	22.765	22.125	22.606
	1800	80	10.5	16.9	23.2	33.0	44.9	62.0	70.9	80.9	107	146	225	377
	1500	67	10.7	17.2	23.6	33.6	45.7	63.1	70.9	82.3	108	148	228	380
	1200	54	10.9	17.5	24.1	34.2	46.5	64.1	70.9	83.7	110	149	229	384
	1000	45	11.0	17.8	24.4	34.6	47.1	65.0	71.8	84.8	112	150	231	387
25.0	Exact Ratio		25.343	25.500	24.802	25.187	25.405	24.873	25.235	25.132	24.624	25.562	25.034	25.403
	1800	72	10.6	17.1	23.5	33.2	45.2	62.7	70.3	81.8	108	147	226	379
	1500	60	10.8	17.4	23.9	33.8	46.0	63.7	70.3	83.2	109	148	228	382
	1200	48	11.0	17.7	24.3	34.4	46.8	64.8	70.3	84.6	111	149	230	386
	1000	40	11.2	18.0	24.7	34.8	47.4	65.6	71.2	85.7	113	151	232	389
28.0	Exact Ratio		28.589	28.766	28.031	28.119	28.767	27.510	28.722	27.577	27.235	27.749	28.615	27.590
	1800	64	10.8	17.4	23.7	33.5	45.7	63.2	72.0	82.4	108	148	229	380
	1500	54	10.9	17.7	24.2	34.1	46.6	64.2	72.0	83.8	110	149	231	384
	1200	43	11.1	18.0	24.6	34.7	47.4	65.3	72.0	85.2	112	150	233	387
	1000	36	11.3	18.2	24.9	35.1	48.0	66.1	72.9	86.3	114	151	235	390

RATINGS



MagnaGear XTR parallel shaft reducers – torque

Torque ratings in kNm

Nominal ratio	High speed shaft r/min	Low speed shaft r/min											Size	
			G100	G150	G210	G285	G390	G525	G600	G700	G920	G1400	G2100	G3500
31.5	Exact Ratio		31.975	32.174	31.389	31.457	31.359		31.274			31.659	31.500	31.500
	1800	57	10.9	17.5	24.0	33.8	46.1		72.4			148	228	383
	1500	48	11.0	17.9	24.4	34.4	46.9		72.4			150	231	386
	1200	38	11.2	18.1	24.8	35.0	47.7		72.4			151	233	389
	1000	32	11.4	18.4	25.2	35.4	48.3		72.4			152	235	392
35.50	Exact Ratio		35.351	35.571	35.396	34.831	35.917		35.438			34.810	34.909	34.650
	1800	51	11.0	17.7	24.2	34.1	46.6		72.8			149	230	384
	1500	42	11.1	18.0	24.7	34.7	47.4		72.8			150	232	388
	1200	34	11.3	18.3	25.1	35.2	48.2		72.8			151	234	391
	1000	28	11.5	18.5	25.4	35.7	48.8		72.8			152	236	394
40.00	Exact Ratio		38.687	38.928	39.392	40.453	39.519		39.509			38.511	38.609	38.373
	1800	45	11.0	17.8	24.5	34.5	46.9		73.3			150	231	386
	1500	38	11.2	18.1	24.9	35.1	47.7		73.3			151	233	389
	1200	30	11.4	18.4	25.3	35.6	48.5		73.3			152	235	392
	1000	25	11.5	18.6	25.6	36.1	49.1		73.3			153	237	395
45.00	Exact Ratio		44.074	44.348	43.980	45.487	43.697		43.867					
	1800	40	11.2	18.0	24.7	34.8	47.3		73.5					
	1500	33	11.3	18.3	25.1	35.3	48.1		73.5					
	1200	27	11.5	18.6	25.5	35.9	48.8		73.5					
	1000	22	11.6	18.8	25.8	36.3	49.4		73.5					
50.00	Exact Ratio		48.775	49.078	51.357	51.581	48.601		49.568					
	1800	36	11.2	18.2	25.0	35.1	47.7		73.9					
	1500	30	11.4	18.4	25.4	35.6	48.4		73.9					
	1200	24	11.6	18.7	25.7	36.1	49.0		73.9					
	1000	20	11.7	18.9	26.1	36.6	49.7		73.9					
56.00	Exact Ratio		54.933	55.274	54.897	55.825	54.439		54.999					
	1800	32	11.3	18.3	25.1	35.3	48.1		74.1					
	1500	27	11.5	18.6	25.5	35.8	48.8		74.1					
	1200	21	11.6	18.8	25.8	36.3	49.4		74.1					
	1000	18	11.8	19.1	26.2	36.8	50.0		74.1					
63.00	Exact Ratio		64.642	64.915	63.393	60.568	61.507		60.750					
	1800	29	11.5	18.5	25.4	34.6	48.5		74.4					
	1500	24	11.6	18.8	25.7	35.1	49.2		74.4					
	1200	19	11.7	19.0	26.0	35.5	49.7		74.4					
	1000	16	11.9	19.2	26.4	35.9	50.4		74.4					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1800 rpm (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	91	115	142	166	178	179	219	221	248			
	Dual directional shaft fan	177	216	276	334	364	379	395	438	471			
	Electric fan	304	380	471	562	659	750	918	888	998			
12.5 - 14	No cooling	90	113	139	163	174	175	214	223	247	314	401	
	Dual directional shaft fan	152	192	244	293	313	352	387	442	470	638	877	
	Electric fan	291	375	463	549	613	750	814	888	998	1181	1545	
16 - 20	No cooling	85	107	132	154	165	166	203	211	234	300	382	542
	Dual directional shaft fan	144	181	231	277	297	333	366	419	445	638	877	
	Electric fan	251	324	400	474	530	671	703	862	960	1128	1439	2866
22 - 28	No cooling	77	97	120	140	150	151	184	192	213	272	347	492
	Dual directional shaft fan	131	165	210	252	269	303	333	380	405	544	729	
	Electric fan	224	290	357	423	473	600	628	770	857	1007	1285	2559
31.5 - 45	No cooling	74	93	115	135	144		178			262	334	473
	Dual directional shaft fan	112	141	179	215	230		284			533	714	
	Electric fan	193	249	308	365	408		540			962	1227	2443
50 - 63	No cooling	66	84	103	121	129		159					
	Dual directional shaft fan	96	121	154	185	197		243					
	Electric fan	180	233	287	341	381		505					

MagnaGear XTR parallel shaft thermal ratings - 1800 rpm (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	72	91	112	131	140	141	173	175	196			
	Dual directional shaft fan	140	171	218	264	287	299	312	346	372			
	Electric fan	240	300	372	444	521	592	725	702	788			
12.5 - 14	No cooling	71	89	110	128	137	138	169	176	195	248	317	
	Dual directional shaft fan	120	151	192	231	247	278	305	349	371	504	693	
	Electric fan	230	296	366	434	485	592	643	702	788	933	1221	
16 - 20	No cooling	67	84	104	122	130	131	160	167	185	237	302	428
	Dual directional shaft fan	114	143	182	219	234	263	289	331	352	504	693	
	Electric fan	198	256	316	375	419	530	555	681	758	891	1137	2264
22 - 28	No cooling	61	77	95	111	118	119	146	152	168	215	274	389
	Dual directional shaft fan	103	130	166	199	213	239	263	300	320	430	576	
	Electric fan	177	229	282	335	374	474	496	608	677	796	1015	2022
31.5 - 45	No cooling	59	74	91	106	114		141			207	264	374
	Dual directional shaft fan	88	111	142	170	182		225			421	564	
	Electric fan	153	197	243	288	322		427			760	969	1930
50 - 63	No cooling	52	66	82	95	102		126					
	Dual directional shaft fan	76	95	121	146	156		192					
	Electric fan	143	184	227	269	301		399					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1500 rpm (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	88	115	141	166	193	188	238	221	248			
	Dual directional shaft fan	166	203	259	313	341	355	370	411	442			
	Electric fan	329	424	523	620	693	847	918	1004	942			
12.5 - 14	No cooling	89	115	141	166	182	174	213	222	247	319	418	
	Dual directional shaft fan	140	177	225	270	289	325	357	408	434	638	877	
	Electric fan	273	353	435	516	576	704	764	834	937	1181	1545	
16 - 20	No cooling	83	107	132	155	170	175	209	221	239	307	418	545
	Dual directional shaft fan	132	166	211	254	272	305	335	383	408	624	836	
	Electric fan	236	304	375	445	497	630	660	809	901	1057	1349	2686
22 - 28	No cooling	75	97	119	140	153	158	188	209	216	277	397	492
	Dual directional shaft fan	119	149	190	228	244	274	301	345	367	494	661	
	Electric fan	210	271	334	397	443	561	588	721	802	943	1203	2396
31.5 - 45	No cooling	72	90	112	130	139		172			275	393	487
	Dual directional shaft fan	102	128	163	196	210		259			421	564	
	Electric fan	179	231	284	337	377		500			898	1146	2282
50 - 63	No cooling	64	81	100	116	124		154					
	Dual directional shaft fan	87	110	140	168	180		221					
	Electric fan	167	216	266	316	353		468					

MagnaGear XTR parallel shaft thermal ratings - 1500 rpm (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	70	91	112	131	152	149	188	175	196			
	Dual directional shaft fan	131	160	205	248	269	280	292	325	349			
	Electric fan	260	335	413	490	548	669	725	793	744			
12.5 - 14	No cooling	70	91	112	131	144	138	169	176	195	252	330	
	Dual directional shaft fan	111	140	177	213	228	257	282	322	343	504	693	
	Electric fan	216	279	343	407	455	556	604	659	741	933	1221	
16 - 20	No cooling	65	85	104	122	134	138	165	175	189	243	330	430
	Dual directional shaft fan	104	131	167	201	215	241	265	303	322	493	660	
	Electric fan	186	240	296	352	393	498	521	639	712	835	1066	2122
22 - 28	No cooling	59	77	94	110	121	125	149	165	171	219	314	389
	Dual directional shaft fan	94	118	150	180	193	217	238	272	290	390	522	
	Electric fan	166	214	264	313	350	444	464	570	634	745	951	1893
31.5 - 45	No cooling	57	71	88	103	110		136			217	310	385
	Dual directional shaft fan	80	101	129	155	166		204			332	445	
	Electric fan	141	182	225	266	298		395			709	905	1803
50 - 63	No cooling	51	64	79	92	98		122					
	Dual directional shaft fan	69	87	110	133	142		175					
	Electric fan	132	170	210	249	279		370					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1200 rpm (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	96	124	153	180	197	188	242	221	248			
	Dual directional shaft fan	149	182	233	282	307	319	333	370	397			
	Electric fan	311	401	494	586	655	800	867	799	890			
12.5 - 14	No cooling	93	121	149	175	192	188	235	221	248	319	418	
	Dual directional shaft fan	144	181	230	276	296	332	317	417	444	638	877	
	Electric fan	257	332	410	486	543	664	720	786	883	1181	1536	
16 - 20	No cooling	82	106	130	153	168	173	206	219	236	319	418	541
	Dual directional shaft fan	117	147	187	225	240	270	296	339	361	547	733	
	Electric fan	222	286	353	418	467	592	620	760	846	1003	1280	2549
22 - 28	No cooling	71	94	117	138	154	159	186	210	217	305	411	487
	Dual directional shaft fan	104	131	167	200	214	241	264	302	322	433	580	
	Electric fan	197	254	313	372	415	526	551	676	752	884	1128	2246
31.5 - 45	No cooling	69	86	107	125	133		164			288	388	461
	Dual directional shaft fan	90	114	144	174	186		230			421	564	
	Electric fan	167	216	266	315	352		468			841	1073	2136
50 - 63	No cooling	60	78	93	112	116		143					
	Dual directional shaft fan	77	100	124	153	159		194					
	Electric fan	179	200	285	292	377		437					

MagnaGear XTR parallel shaft thermal ratings - 1200 rpm (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	76	98	121	142	156	149	191	175	196			
	Dual directional shaft fan	118	144	184	223	242	252	263	292	314			
	Electric fan	245	317	390	463	518	632	685	631	703			
12.5 - 14	No cooling	74	96	118	138	151	149	186	175	196	252	330	
	Dual directional shaft fan	114	143	182	218	233	263	251	330	351	504	693	
	Electric fan	203	262	324	384	429	524	569	621	698	933	1214	
16 - 20	No cooling	64	84	103	121	133	136	163	173	187	252	330	427
	Dual directional shaft fan	92	116	148	177	190	213	234	268	285	432	579	
	Electric fan	175	226	279	330	369	468	490	601	669	793	1011	2014
22 - 28	No cooling	56	74	92	109	122	126	147	166	172	241	324	385
	Dual directional shaft fan	82	103	132	158	169	190	209	239	254	342	458	
	Electric fan	156	201	248	294	328	416	435	534	594	698	891	1774
31.5 - 45	No cooling	54	68	84	99	105		130			228	307	364
	Dual directional shaft fan	71	90	114	137	147		181			332	445	
	Electric fan	132	170	210	249	278		370			664	847	1688
50 - 63	No cooling	47	61	73	89	92		113					
	Dual directional shaft fan	61	79	98	121	126		153					
	Electric fan	141	158	225	231	298		345					

RATINGS



Parallel shaft reducers – thermal power

MagnaGear XTR parallel shaft thermal ratings - 1000 rpm (20°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	105	136	168	197	208	188	265	221	248			
	Dual directional shaft fan	136	177	218	257	272	246	284	289	325			
	Electric fan	293	367	467	509	559	683	740	682	760			
12.5 - 14	No cooling	90	117	144	169	186	182	228	214	240	319	418	
	Dual directional shaft fan	125	157	200	240	257	289	267	363	386	580	777	
	Electric fan	236	305	376	445	498	608	660	721	810	1181	1545	
16 - 20	No cooling	78	101	125	146	160	165	197	209	226	319	418	587
	Dual directional shaft fan	104	131	167	201	215	241	249	303	322	484	648	
	Electric fan	203	261	322	382	427	541	567	695	774	1011	1290	2569
22 - 28	No cooling	67	90	113	133	151	156	176	205	205	319	418	508
	Dual directional shaft fan	87	110	139	167	179	201	221	253	269	404	541	
	Electric fan	179	232	286	339	379	480	503	616	686	898	1146	2283
31.5 - 45	No cooling	66	83	102	120	128		157			319	418	482
	Dual directional shaft fan	80	101	129	155	165		204			383	512	
	Electric fan	155	201	247	293	328		438			855	1090	2171
50 - 63	No cooling	57	75	89	108	111		137					
	Dual directional shaft fan	69	89	110	136	141		172					
	Electric fan	166	186	265	272	351		408					

MagnaGear XTR parallel shaft thermal ratings - 1000 rpm (40°C ambient)

Thermal power ratings in kW

Nominal ratio	Cooling system												Size
		100	150	210	285	390	525	600	700	920	1400	2100	3500
8 - 10	No cooling	83	108	132	155	165	149	209	175	196			
	Dual directional shaft fan	108	140	172	203	215	194	225	229	257			
	Electric fan	232	290	369	402	442	540	585	539	600			
12.5 - 14	No cooling	71	93	114	134	147	144	180	169	190	252	330	
	Dual directional shaft fan	99	124	158	190	203	228	211	287	305	458	614	
	Electric fan	186	241	297	352	393	481	521	569	640	933	1221	
16 - 20	No cooling	62	80	98	115	127	130	156	165	178	252	330	464
	Dual directional shaft fan	82	104	132	159	170	191	197	239	255	382	512	
	Electric fan	160	206	255	302	338	428	448	549	611	799	1019	2029
22 - 28	No cooling	53	71	89	105	119	123	139	162	162	252	330	401
	Dual directional shaft fan	69	87	110	132	141	159	174	200	213	319	427	
	Electric fan	142	183	226	268	299	379	397	487	542	710	905	1803
31.5 - 45	No cooling	52	66	81	95	101		124			252	330	380
	Dual directional shaft fan	63	80	102	122	131		161			302	405	
	Electric fan	123	158	195	232	259		346			675	861	1715
50 - 63	No cooling	45	59	70	85	88		108					
	Dual directional shaft fan	54	70	87	107	112		136					
	Electric fan	131	147	209	215	277		323					

PART NUMBERS



MagnaGear XTR G100 part numbers

G100 right angle shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G100HR3	12.5	448930	448945	448900	448915
	G100HR3	14	448931	448946	448901	448916
	G100HR3	16	448932	448947	448902	448917
	G100HR3	18	448933	448948	448903	448918
	G100HR3	20	448934	448949	448904	448919
	G100HR3	22.4	448935	448950	448905	448920
	G100HR3	25	448936	448951	448906	448921
	G100HR3	28	448937	448952	448907	448922
	G100HR3	31.5	448938	448953	448908	448923
	G100HR3	35.5	448939	448954	448909	448924
	G100HR3	40	448940	448955	448910	448925
	G100HR3	45	448941	448956	448911	448926
	G100HR3	50	448942	448957	448912	448927
	G100HR3	56	448943	448958	448913	448928
G100HR3	63	448944	448959	448914	448929	

G100 parallel shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G100HP2	8	449024	449037	448999	449012
	G100HP2	9	449025	449038	449000	449013
	G100HP2	10	449026	449039	449001	449014
	G100HP2	11.2	449027	449040	449002	449015
	G100HP2	12.5	449028	449041	449003	449016
	G100HP2	14	449029	449042	449004	449017
	G100HP2	16	449030	449043	449006	449018
	G100HP2	18	449032	449044	449007	449019
	G100HP2	20	449033	449045	449008	449020
	G100HP2	22.4	449034	449046	449009	449021
T R I P L E	G100HP3	25	448979	448988	448960	448969
	G100HP3	28	448980	448989	448961	448971
	G100HP3	31.5	448981	448990	448962	448972
	G100HP3	35.5	448982	448991	448963	448973
	G100HP3	40	448983	448992	448964	448974
	G100HP3	45	448984	448993	448965	448975
	G100HP3	50	448985	448994	448966	448976
	G100HP3	56	448986	448995	448967	448977
	G100HP3	63	448987	448996	448968	448978

PART NUMBERS



MagnaGear XTR G100 part numbers

MagnaGear G100 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G100HP2	Parallel	Double	8-22.4	454007
G100HP3	Parallel	Triple	25-63	454006
G100HR3	Right Angle	Triple	12.5-63	454005
G100HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	966194
G100HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966195

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G100	All	All	230/460	60	454096
All G100	All	All	575	60	454080
All G100	All	All	415	50	966203

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G100	All	All	All	964366

MagnaGear G100 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Twin tapered short shaft bushing kit part number	Minimum shaft and keyway length for short shaft bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)							
3-7/16	454062	17.13	272730	13.00	2.943	0.875	1.81
3-3/16	454063	17.13	272731	13.00	2.768	0.750	1.81
3	454064	17.13	272732	13.00	2.577	0.750	1.81
2-15/16	454065	17.13	272733	13.00	2.514	0.750	1.81
2-7/8	454066	17.13	272734	13.00	2.450	0.750	1.81
2-11/16	454067	17.13	272735	13.00	2.338	0.625	1.81
2-1/2	454068	17.13	272736	13.00	2.148	0.625	1.81
2-7/16	454069	17.13	272737	13.00	2.443	0.625	1.81
2-3/8	454070	17.13	272738	13.00	2.021	0.625	1.81
2-1/4	454071	17.13	272739	13.00	1.972	0.500	1.81
2-3/16	454072	17.13	272740	13.00	1.909	0.500	1.81
Metric (mm)							
90	454073	435	272741	330	81	25	46
85	454074	435	272742	330	76	22	46
80	454075	435	272743	330	71	22	46
75	454076	435	272744	330	68	20	46
70	454077	435	272745	330	63	20	46
65	454078	435	272746	330	58	20	46
60	454079	435	272747	330	53	18	46

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G100	Hollow	Inboard (split)	964555
All G100	Hollow	Outboard (solid)	964553

PART NUMBERS



MagnaGear XTR G150 part numbers

G150 right angle shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G150HR3	12.5	449077	449092	449047	449062
	G150HR3	14	449078	449093	449048	449063
	G150HR3	16	449079	449094	449049	449064
	G150HR3	18	449080	449095	449050	449065
	G150HR3	20	449081	449096	449051	449066
	G150HR3	22.4	449082	449097	449052	449067
	G150HR3	25	449083	449098	449053	449068
	G150HR3	28	449084	449099	449054	449069
	G150HR3	31.5	449085	449100	449055	449070
	G150HR3	35.5	449086	449101	449056	449071
	G150HR3	40	449087	449102	449057	449072
	G150HR3	45	449088	449103	449058	449073
	G150HR3	50	449089	449104	449059	449074
	G150HR3	56	449090	449105	449060	449075
G150HR3	63	449091	449106	449061	449076	

G150 parallel shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G150HP2	8	449170	449182	449146	449158
	G150HP2	9	449171	449183	449147	449159
	G150HP2	10	449172	449184	449148	449160
	G150HP2	11.2	449173	449185	449149	449161
	G150HP2	12.5	449174	449186	449150	449162
	G150HP2	14	449175	449187	449151	449163
	G150HP2	16	449176	449188	449152	449164
	G150HP2	18	449177	449189	449153	449165
	G150HP2	20	449178	449190	449154	449166
	G150HP2	22.4	449179	449191	449155	449167
T R I P L E	G150HP3	25	449126	449135	449107	449117
	G150HP3	28	449127	449136	449108	449118
	G150HP3	31.5	449128	449137	449110	449119
	G150HP3	35.5	449129	449138	449111	449120
	G150HP3	40	449130	449139	449112	449121
	G150HP3	45	449131	449140	449113	449122
	G150HP3	50	449132	449141	449114	449123
	G150HP3	56	449133	449142	449115	449124
	G150HP3	63	449134	449143	449116	449125

PART NUMBERS



MagnaGear XTR G150 part numbers

MagnaGear G150 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G150HP2	Parallel	Double	8-22.4	454010
G150HP3	Parallel	Triple	25-63	454009
G150HR3	Right Angle	Triple	12.5-63	454008
G150HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	966196
G150HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966197

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G150	All	All	230/460	60	454047
All G150	All	All	575	60	454049
All G150	All	All	415	50	966205

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G150	All	All	All	964366

MagnaGear G150 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Twin tapered short shaft bushing kit part number	Minimum shaft and keyway length for short shaft bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)							
4-7/16	454081	19.00	272750	14.28	3.880	1.000	2.06
4-3/16	454082	19.00	272751	14.28	3.627	1.000	2.06
3-15/16	454083	19.00	272752	14.28	3.373	1.000	2.06
3-7/16	454084	19.00	272753	14.28	2.943	0.875	2.06
3-3/16	454085	19.00	272754	14.28	2.768	0.750	2.06
3	454086	19.00	272755	14.28	2.577	0.750	2.06
2-15/16	454087	19.00	272756	14.28	2.514	0.750	2.06
Metric (mm)							
120	454088	483	272757	363	109	32	52
110	454089	483	272758	363	100	28	52
100	454090	483	272759	363	90	28	52
95	454091	483	272760	363	86	25	52
90	454092	483	272761	363	81	25	52
85	454093	483	272762	363	76	22	52
80	454094	483	272763	363	71	22	52
75	454095	483	272764	363	68	20	52

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G150	Hollow	Inboard (split)	964544
All G150	Hollow	Outboard (solid)	964542

PART NUMBERS



MagnaGear XTR G210 part numbers

G210 right angle shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G210HR3	12.5	449222	449237	449192	449207
	G210HR3	14	449223	449238	449193	449208
	G210HR3	16	449224	449240	449194	449209
	G210HR3	18	449225	449241	449195	449210
	G210HR3	20	449226	449242	449196	449211
	G210HR3	22.4	449227	449243	449197	449212
	G210HR3	25	449228	449244	449198	449213
	G210HR3	28	449229	449245	449199	449214
	G210HR3	31.5	449230	449246	449200	449215
	G210HR3	35.5	449231	449247	449201	449216
	G210HR3	40	449232	449248	449202	449217
	G210HR3	45	449233	449249	449203	449218
	G210HR3	50	449234	449250	449204	449219
	G210HR3	56	449235	449251	449205	449220
G210HR3	63	449236	449252	449206	449221	

G210 parallel shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G210HP2	8	449317	449329	449292	449305
	G210HP2	9	449318	449330	449293	449306
	G210HP2	10	449319	449331	449294	449307
	G210HP2	11.2	449320	449332	449295	449308
	G210HP2	12.5	449321	449333	449296	449309
	G210HP2	14	449322	449334	449297	449310
	G210HP2	16	449323	449335	449298	449311
	G210HP2	18	449324	449336	449299	449312
	G210HP2	20	449325	449337	449300	449313
	G210HP2	22.4	449326	449338	449301	449314
T R I P L E	G210HP3	25	449272	449281	449253	449262
	G210HP3	28	449273	449282	449254	449263
	G210HP3	31.5	449274	449283	449255	449264
	G210HP3	35.5	449275	449284	449256	449265
	G210HP3	40	449276	449285	449257	449267
	G210HP3	45	449277	449286	449258	449268
	G210HP3	50	449278	449287	449259	449269
	G210HP3	56	449279	449288	449260	449270
	G210HP3	63	449280	449289	449261	449271

PART NUMBERS



MagnaGear XTR G210 part numbers

MagnaGear G210 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G210HP2	Parallel	Double	8-22.4	454013
G210HP3	Parallel	Triple	25-63	454012
G210HR3	Right Angle	Triple	12.5-63	454011
G210HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	966198
G210HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966199

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G210	All	All	230/460	60	454044
All G210	All	All	575	60	454046
All G210	All	All	415	50	966207

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G210	All	All	All	964366

MagnaGear G210 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Twin tapered short shaft bushing kit part number	Minimum shaft and keyway length for short shaft bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)							
4-15/16	454099	20.63	272767	15.44	4.232	1.250	2.39
4-7/16	454100	20.63	272768	15.44	3.880	1.000	2.39
4-3/16	454101	20.63	272769	15.44	3.627	1.000	2.39
3-15/16	454102	20.63	272770	15.44	3.373	1.000	2.39
3-7/16	454103	20.63	272771	15.44	2.943	0.875	2.39
Metric (mm)							
130	454104	524	272772	392	118	40	61
125	454105	524	272773	392	114	32	61
120	454106	524	272774	392	109	32	61
110	454107	524	272775	392	100	28	61
100	454108	524	272776	392	90	28	61
95	454109	524	272777	392	86	25	61
90	454110	524	272778	392	81	25	61

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G210	Hollow	Inboard (split)	964339
All G210	Hollow	Outboard (solid)	964337

PART NUMBERS



MagnaGear XTR G285 part numbers

G285 right angle shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G285HR3	12.5	449339	449384	449369	449354
	G285HR3	14	449340	449385	449370	449355
	G285HR3	16	449341	449386	449371	449356
	G285HR3	18	449342	449387	449372	449357
	G285HR3	20	449343	449388	449373	449358
	G285HR3	22.4	449344	449389	449374	449359
	G285HR3	25	449345	449390	449375	449360
	G285HR3	28	449346	449391	449376	449361
	G285HR3	31.5	449347	449392	449377	449362
	G285HR3	35.5	449348	449393	449378	449363
	G285HR3	40	449349	449394	449379	449364
	G285HR3	45	449350	449395	449380	449365
	G285HR3	50	449351	449396	449381	449366
	G285HR3	56	449352	449397	449382	449367
G285HR3	63	449353	449398	449383	449368	

G285 parallel shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G285HP2	8	449461	449473	449437	449449
	G285HP2	9	449462	449474	449438	449450
	G285HP2	10	449463	449475	449439	449451
	G285HP2	11.2	449464	449476	449440	449452
	G285HP2	12.5	449465	449477	449441	449453
	G285HP2	14	449466	449478	449442	449454
	G285HP2	16	449467	449479	449443	449455
	G285HP2	18	449468	449480	449444	449456
	G285HP2	20	449469	449481	449445	449457
	G285HP2	22.4	449470	449482	449446	449458
T R I P L E	G285HP3	25	449417	449426	449399	449408
	G285HP3	28	449418	449427	449400	449409
	G285HP3	31.5	449419	449428	449401	449410
	G285HP3	35.5	449420	449429	449402	449411
	G285HP3	40	449421	449430	449403	449412
	G285HP3	45	449422	449431	449404	449413
	G285HP3	50	449423	449432	449405	449414
	G285HP3	56	449424	449433	449406	449415
	G285HP3	63	449425	449434	449407	449416

PART NUMBERS



MagnaGear XTR G285 part numbers

The reference for fan direction is looking towards the end of the input shaft of the reducer.

MagnaGear G285 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G285HP2	Parallel	Double	8-22.4	454015
G285HP3	Parallel	Triple	25-63	454014
G285HR3	Right Angle	Triple	12.5-63	451526
G285HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	454748
G285HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966200

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G285	All	All	230/460	60	454023
All G285	All	All	575	60	454025
All G285	All	All	415	50	966209

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G285	All	All	All	964366

MagnaGear G285 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Twin tapered short shaft bushing kit part number	Minimum shaft and keyway length for short shaft bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)							
6	454114	21.88	272780	16.09	5.155	1-1/2	2.39
5-15/16	454115	21.88	272781	16.09	5.091	1-1/2	2.39
5-7/16	454116	21.88	272782	16.09	4.740	1-1/4	2.39
4-15/16	454117	21.88	272783	16.09	4.232	1-1/4	2.39
4-7/16	454118	21.88	272784	16.09	3.880	1	2.39
4-3/16	454119	21.88	272785	16.09	3.627	1	2.39
3-15/16	454120	21.88	272786	16.09	3.373	1	2.39
Metric (mm)							
150	454121	556	272787	409	138	36	61
130	454122	556	272788	409	119	32	61
125	454123	556	272789	409	114	32	61
120	454124	556	272790	409	109	32	61
110	454125	556	272791	409	100	28	61
100	454126	556	272792	409	90	28	61

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G285	Hollow	Inboard (split)	964335
All G285	Hollow	Outboard (solid)	964333

PART NUMBERS



MagnaGear XTR G390 part numbers

G390 right angle shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G390HR3	12.5	449515	449530	449483	449498
	G390HR3	14	449516	449531	449484	449499
	G390HR3	16	449517	449532	449485	449500
	G390HR3	18	449518	449533	449486	449501
	G390HR3	20	449519	449534	449487	449502
	G390HR3	22.4	449520	449535	449488	449504
	G390HR3	25	449521	449536	449489	449506
	G390HR3	28	449522	449537	449490	449507
	G390HR3	31.5	449523	449538	449491	449508
	G390HR3	35.5	449524	449539	449492	449509
	G390HR3	40	449525	449540	449493	449510
	G390HR3	45	449526	449541	449494	449511
	G390HR3	50	449527	449542	449495	449512
	G390HR3	56	449528	449543	449496	449513
G390HR3	63	449529	449544	449497	449514	

G390 parallel shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G390HP2	8	449607	449619	449583	449595
	G390HP2	9	449608	449620	449584	449596
	G390HP2	10	449609	449621	449585	449597
	G390HP2	11.2	449610	449622	449586	449598
	G390HP2	12.5	449611	449623	449587	449599
	G390HP2	14	449612	449624	449588	449600
	G390HP2	16	449613	449625	449589	449601
	G390HP2	18	449614	449626	449590	449602
	G390HP2	20	449615	449627	449591	449603
	G390HP2	22.4	449616	449628	449592	449604
T R I P L E	G390HP3	25	449563	449572	449545	449554
	G390HP3	28	449564	449573	449546	449555
	G390HP3	31.5	449565	449574	449547	449556
	G390HP3	35.5	449566	449575	449548	449557
	G390HP3	40	449567	449576	449549	449558
	G390HP3	45	449568	449577	449550	449559
	G390HP3	50	449569	449578	449551	449560
	G390HP3	56	449570	449579	449552	449561
	G390HP3	63	449571	449580	449553	449562

PART NUMBERS



MagnaGear XTR G390 part numbers

MagnaGear G390 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G390HP2	Parallel	Double	8-22.4	454015
G390HP3	Parallel	Triple	25-63	454014
G390HR3	Right Angle	Triple	12.5-63	451526
G390HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	965285
G390HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	964019

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G390	All	All	230/460	60	454026
All G390	All	All	575	60	454028
All G390	All	All	415	50	966211

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G390	All	All	All	964366

MagnaGear G390 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Twin tapered short shaft bushing kit part number	Minimum shaft and keyway length for short shaft bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)							
7	454130	23.50	272795	16.78	6.139	1-3/4	2.39
6-1/2	454131	23.50	272796	16.78	5.662	1-1/2	2.39
6-7/16	454132	23.50	272797	16.78	5.599	1-1/2	2.39
6	454133	23.50	272798	16.78	5.155	1-1/2	2.39
5-15/16	454134	23.50	272799	16.78	5.091	1-1/2	2.39
5-7/16	454135	23.50	272800	16.78	4.740	1-1/4	2.39
4-15/16	454136	23.50	272801	16.78	4.232	1-1/4	2.39
Metric (mm)							
160	454137	597	272802	426	147	40	61
150	454138	597	272803	426	138	36	61
130	454139	597	272804	426	119	32	61
125	454140	597	272805	426	114	32	61

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G390	Hollow	Inboard (split)	963989
All G390	Hollow	Outboard (solid)	963988

PART NUMBERS



MagnaGear XTR G525 part numbers

G525 right angle shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G525HR3	12.5	449659	449674	449629	449644
	G525HR3	14	449660	449675	449630	449645
	G525HR3	16	449661	449676	449631	449646
	G525HR3	18	449662	449677	449632	449647
	G525HR3	20	449663	449678	449633	449648
	G525HR3	22.4	449664	449679	449634	449649
	G525HR3	25	449665	449680	449635	449650
	G525HR3	28	449666	449681	449636	449651
	G525HR3	31.5	449667	449682	449637	449652
	G525HR3	35.5	449668	449683	449638	449653
	G525HR3	40	449669	449684	449639	449654
	G525HR3	45	449670	449685	449640	449655
	G525HR3	50	449671	449686	449641	449656
	G525HR3	56	449672	449687	449642	449657
G525HR3	63	449673	449688	449643	449658	

G525 parallel shaft reducer part numbers						
Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G525HP2	8	449713	449725	449689	449701
	G525HP2	9	449714	449726	449690	449702
	G525HP2	10	449715	449727	449691	449703
	G525HP2	11.2	449716	449728	449692	449704
	G525HP2	12.5	449717	449729	449693	449705
	G525HP2	14	449718	449730	449694	449706
	G525HP2	16	449719	449731	449695	449707
	G525HP2	18	449720	449732	449696	449708
	G525HP2	20	449721	449733	449697	449709
	G525HP2	22.4	449722	449734	449698	449710
	G525HP2	25	449723	449735	449699	449711
	G525HP2	28	449724	449736	449700	449712

PART NUMBERS



MagnaGear XTR G525 part numbers

MagnaGear G525 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G525HP2	Parallel	Double	8-28	453954
G525HR3	Right Angle	Triple	12.5-63	453959
G525HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	965618
G525HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966097

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G525	All	All	230/460	60	454029
All G525	All	All	575	60	453389
All G525	All	All	415	50	966213

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G525	All	All	All	964368

PART NUMBERS



MagnaGear XTR G600 part numbers

G600 right angle shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G600HR3	12.5	448550	448565	448580	448595
	G600HR3	14	448551	448566	448581	448596
	G600HR3	16	448552	448567	448582	448597
	G600HR3	18	448553	448568	448583	448598
	G600HR3	20	448554	448569	448584	448599
	G600HR3	22.4	448555	448570	448585	448600
	G600HR3	25	448556	448571	448586	448601
	G600HR3	28	448557	448572	448587	448602
	G600HR3	31.5	448558	448573	448588	448603
	G600HR3	35.5	448559	448574	448589	448604
	G600HR3	40	448560	448575	448590	448605
	G600HR3	45	448561	448576	448591	448606
	G600HR3	50	448562	448577	448592	448607
	G600HR3	56	448563	448578	448593	448608
G600HR3	63	448564	448579	448594	448609	

G600 parallel shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G600HP2	8	448610	448629	448648	448667
	G600HP2	9	448611	448630	448649	448668
	G600HP2	10	448612	448631	448650	448669
	G600HP2	11.2	448613	448632	448651	448670
	G600HP2	12.5	448614	448633	448652	448671
	G600HP2	14	448615	448634	448653	448672
	G600HP2	16	448616	448635	448654	448673
	G600HP2	18	448617	448636	448655	448674
	G600HP2	20	448618	448637	448656	448675
	G600HP2	22.4	448619	448638	448657	448676
T R I P L E	G600HP3	25	448620	448639	448658	448677
	G600HP3	28	448621	448640	448659	448678
	G600HP3	31.5	448622	448641	448660	448679
	G600HP3	35.5	448623	448642	448661	448680
	G600HP3	40	448624	448643	448662	448681
	G600HP3	45	448625	448644	448663	448682
	G600HP3	50	448626	448645	448664	448683
	G600HP3	56	448627	448646	448665	448684
	G600HP3	63	448628	448647	448666	448685

PART NUMBERS



MagnaGear XTR G600 part numbers

MagnaGear G600 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G600HP2	Parallel	Double	8-22.4	448801
G600HP3	Parallel	Triple	25-63	448802
G600HR3	Right Angle	Triple	12.5-63	448803
G600HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	448804
G600HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	448805

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G600	All	All	230/460	60	448696
All G600	All	All	575	60	448698
All G600	All	All	415	50	966214

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G600	All	All	All	964368

MagnaGear G600 hollow bore twin tapered bushing information

Bore diameter	Twin tapered bushing kit part number	Minimum shaft and keyway length for standard bushing kit	Dimension F See hollow shaft drawings on pages 74, 84 and 86	Dimension K See hollow shaft drawings on pages 74, 84 and 86	Clearance required for bushing screw removal
Imperial (inch)					
8	448689	27.30	7.123	2	3.00
7	448688	27.30	6.139	1-3/4	3.00
6-1/2	448687	27.30	5.662	1-1/2	3.00
6	448686	27.30	5.155	1-1/2	3.00
Metric (mm)					
200	448695	693	185	45	76
190	448694	693	175	45	76
180	448693	693	165	45	76
170	448692	693	157	40	76
160	448691	693	147	40	76
155	448690	693	142	40	76

Hollow shaft covers

MagnaGear	Shaft type	Cover type	Part number
All G600	Hollow	Inboard (split)	966193
All G600	Hollow	Outboard (solid)	966191

PART NUMBERS



MagnaGear XTR G700 part numbers

G700 right angle shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G700HR3	12.5	449767	449782	449737	449752
	G700HR3	14	449768	449783	449738	449753
	G700HR3	16	449769	449784	449739	449754
	G700HR3	18	449770	449785	449740	449755
	G700HR3	20	449771	449786	449741	449756
	G700HR3	22.4	449772	449787	449742	449757
	G700HR3	25	449773	449788	449743	449758
	G700HR3	28	449774	449789	449744	449759
	G700HR3	31.5	449775	449790	449745	449760
	G700HR3	35.5	449776	449791	449746	449761
	G700HR3	40	449777	449792	449747	449762
	G700HR3	45	449778	449793	449748	449763
	G700HR3	50	449779	449794	449749	449764
	G700HR3	56	449780	449795	449750	449765
G700HR3	63	449781	449796	449751	449766	

G700 parallel shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G700HP2	8	449821	449833	449797	449809
	G700HP2	9	449822	449834	449798	449810
	G700HP2	10	449823	449835	449799	449811
	G700HP2	11.2	449824	449836	449800	449812
	G700HP2	12.5	449825	449837	449801	449813
	G700HP2	14	449826	449838	449802	449814
	G700HP2	16	449827	449839	449803	449815
	G700HP2	18	449828	449840	449804	449816
	G700HP2	20	449829	449841	449805	449817
	G700HP2	22.4	449830	449842	449806	449818
	G700HP2	25	449831	449843	449807	449819
	G700HP2	28	449832	449844	449808	449820

MagnaGear G700 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G700HP2	Parallel	Double	8-28	454020
G700HR3	Right Angle	Triple	12.5-63	454019
G700HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	965261
G700HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	965124

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G700	All	All	230/460	60	452097
All G700	All	All	575	60	452056
All G700	All	All	415	50	966215

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G700	All	All	All	964368

PART NUMBERS



MagnaGear XTR G920 part numbers

G920 right angle shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
T R I P L E	G920HR3	12.5	449875	449890	449845	449860
	G920HR3	14	449876	449891	449846	449861
	G920HR3	16	449877	449892	449847	449862
	G920HR3	18	449878	449893	449848	449863
	G920HR3	20	449879	449894	449849	449864
	G920HR3	22.4	449880	449895	449850	449865
	G920HR3	25	449881	449896	449851	449866
	G920HR3	28	449882	449897	449852	449867
	G920HR3	31.5	449883	449898	449853	449868
	G920HR3	35.5	449884	449899	449854	449869
	G920HR3	40	449885	449900	449855	449870
	G920HR3	45	449886	449901	449856	449871
	G920HR3	50	449887	449902	449857	449872
	G920HR3	56	449888	449903	449858	449873
	G920HR3	63	449889	449904	449859	449874

G920 parallel shaft reducer part numbers

Stages	Nomenclature	Ratio	Solid shaft	Solid shaft with backstop	Hollow shaft	Hollow shaft with backstop
D O U B L E	G920HP2	8	449929	449941	449905	449917
	G920HP2	9	449930	449942	449906	449918
	G920HP2	10	449931	449943	449907	449919
	G920HP2	11.2	449932	449944	449908	449920
	G920HP2	12.5	449933	449945	449909	449921
	G920HP2	14	449934	449946	449910	449922
	G920HP2	16	449935	449947	449911	449923
	G920HP2	18	449936	449948	449912	449924
	G920HP2	20	449937	449949	449913	449925
	G920HP2	22.4	449938	449950	449914	449926
	G920HP2	25	449939	449951	449915	449927
	G920HP2	28	449940	449952	449916	449928

MagnaGear G920 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G920HP2	Parallel	Double	8-28	454022
G920HR3	Right Angle	Triple	12.5-63	454021
G920HR3	Right Angle Uni-Directional (CW)	Triple	12.5-63	965804
G920HR3	Right Angle Uni-Directional (CCW)	Triple	12.5-63	966201

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

The reference for fan direction is looking towards the end of the input shaft of the reducer.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
All G920	All	All	230/460	60	454030
All G920	All	All	575	60	454032
All G920	All	All	415	50	966217

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G920	All	All	All	964368

PART NUMBERS



MagnaGear XTR G1400 part numbers

G1400 right angle shaft reducer part numbers			
Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G1400HR3	12.5	448294	448309
G1400HR3	14	448295	448310
G1400HR3	16	448296	448311
G1400HR3	18	448297	448312
G1400HR3	20	448298	448313
G1400HR3	22.4	448299	448314
G1400HR3	25	448300	448315
G1400HR3	28	448301	448316
G1400HR3	31.5	448302	448317
G1400HR3	35.5	448303	448318
G1400HR3	40	448304	448319
G1400HR3	45	448305	448320
G1400HR3	50	448306	448321
G1400HR3	56	448307	448322
G1400HR3	63	448308	448323

G1400 parallel shaft reducer part numbers			
Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G1400HP2	12.5	448250	448261
G1400HP2	14	448251	448262
G1400HP2	16	448252	448263
G1400HP2	18	448253	448264
G1400HP2	20	448254	448265
G1400HP2	22.4	448255	448266
G1400HP2	25	448256	448267
G1400HP2	28	448257	448268
G1400HP2	31.5	448258	448269
G1400HP2	35.5	448259	448270
G1400HP2	40	448260	448271

MagnaGear G1400 accessory part numbers				
Shaft driven fan kits				
MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G1400HP2	Parallel	Double	12.5-40	448520
G1400HR3	Right Angle	Triple	12.5-63	448521

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

Electric fan kits					
MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
G1400HP2	Parallel	All	230/460	60	448524
G1400HP2	Parallel	All	575	60	448526
G1400HP2	Parallel	All	415	50	448525
G1400HR3	Right Angle	All	230/460	60	448527
G1400HR3	Right Angle	All	575	60	448529
G1400HR3	Right Angle	All	415	50	448528

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather				
MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G1400	All	All	All	964370

PART NUMBERS



MagnaGear XTR G2100 part numbers

G2100 right angle shaft reducer part numbers

Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G2100HR3	12.5	448398	448413
G2100HR3	14	448399	448414
G2100HR3	16	448400	448415
G2100HR3	18	448401	448416
G2100HR3	20	448402	448417
G2100HR3	22.4	448403	448418
G2100HR3	25	448404	448419
G2100HR3	28	448405	448420
G2100HR3	31.5	448406	448421
G2100HR3	35.5	448407	448422
G2100HR3	40	448408	448423
G2100HR3	45	448409	448424
G2100HR3	50	448410	448425
G2100HR3	56	448411	448426
G2100HR3	63	448412	448427

G2100 parallel shaft reducer part numbers

Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G2100HP2	12.5	448354	448365
G2100HP2	14	448355	448366
G2100HP2	16	448356	448367
G2100HP2	18	448357	448368
G2100HP2	20	448358	448369
G2100HP2	22.4	448359	448370
G2100HP2	25	448360	448371
G2100HP2	28	448361	448372
G2100HP2	31.5	448362	448373
G2100HP2	35.5	448363	448374
G2100HP2	40	448364	448375

MagnaGear G2100 accessory part numbers

Shaft driven fan kits

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
G2100HP2	Parallel	Double	12.5-40	448530
G2100HR3	Right Angle	Triple	12.5-63	448531

Mechanical fan kit includes fan, fan shroud, fan guard and mounting hardware.

Electric fan kits

MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number
G2100HP2	Parallel	All	230/460	60	448534
G2100HP2	Parallel	All	575	60	448536
G2100HP2	Parallel	All	415	50	448535
G2100HR3	Right Angle	All	230/460	60	448537
G2100HR3	Right Angle	All	575	60	448539
G2100HR3	Right Angle	All	415	50	448538

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

Desiccant breather

MagnaGear	Shaft configuration	Reduction	Ratio	Part number
All G2100	All	All	All	964370

PART NUMBERS



MagnaGear XTR G3500 part numbers

G3500 right angle shaft reducer part numbers			
Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G3500HR3	12.5	448502	448517
G3500HR3	14	448503	448518
G3500HR3	16	448504	448519
G3500HR3	18	448505	448200
G3500HR3	20	448506	448201
G3500HR3	22.4	448507	448202
G3500HR3	25	448508	448203
G3500HR3	28	448509	448204
G3500HR3	31.5	448510	448205
G3500HR3	35.5	448511	448206
G3500HR3	40	448512	448207
G3500HR3	45	448513	448208
G3500HR3	50	448514	448209
G3500HR3	56	448515	448210
G3500HR3	63	448516	448211

G3500 parallel shaft reducer part numbers			
Nomenclature	Ratio	Solid shaft	Solid shaft with backstop
G3500HP2	12.5	448458	448469
G3500HP2	14	448459	448470
G3500HP2	16	448460	448471
G3500HP2	18	448461	448472
G3500HP2	20	448462	448473
G3500HP2	22.4	448463	448474
G3500HP2	25	448464	448475
G3500HP2	28	448465	448476
G3500HP2	31.5	448466	448477
G3500HP2	35.5	448467	448478
G3500HP2	40	448468	448479

Electric fan kits						
MagnaGear	Shaft configuration	Reduction	Voltage	Hz	Part number	
G3500HP2	Parallel	All	230/460	60	448544	
G3500HP2	Parallel	All	575	60	448546	
G3500HP2	Parallel	All	415	50	448545	
G3500HR3	Right Angle	All	230/460	60	448547	
G3500HR3	Right Angle	All	575	60	448549	
G3500HR3	Right Angle	All	415	50	448548	

Electrical fan kit includes fan, electric motor, fan shroud, fan guard and mounting hardware.

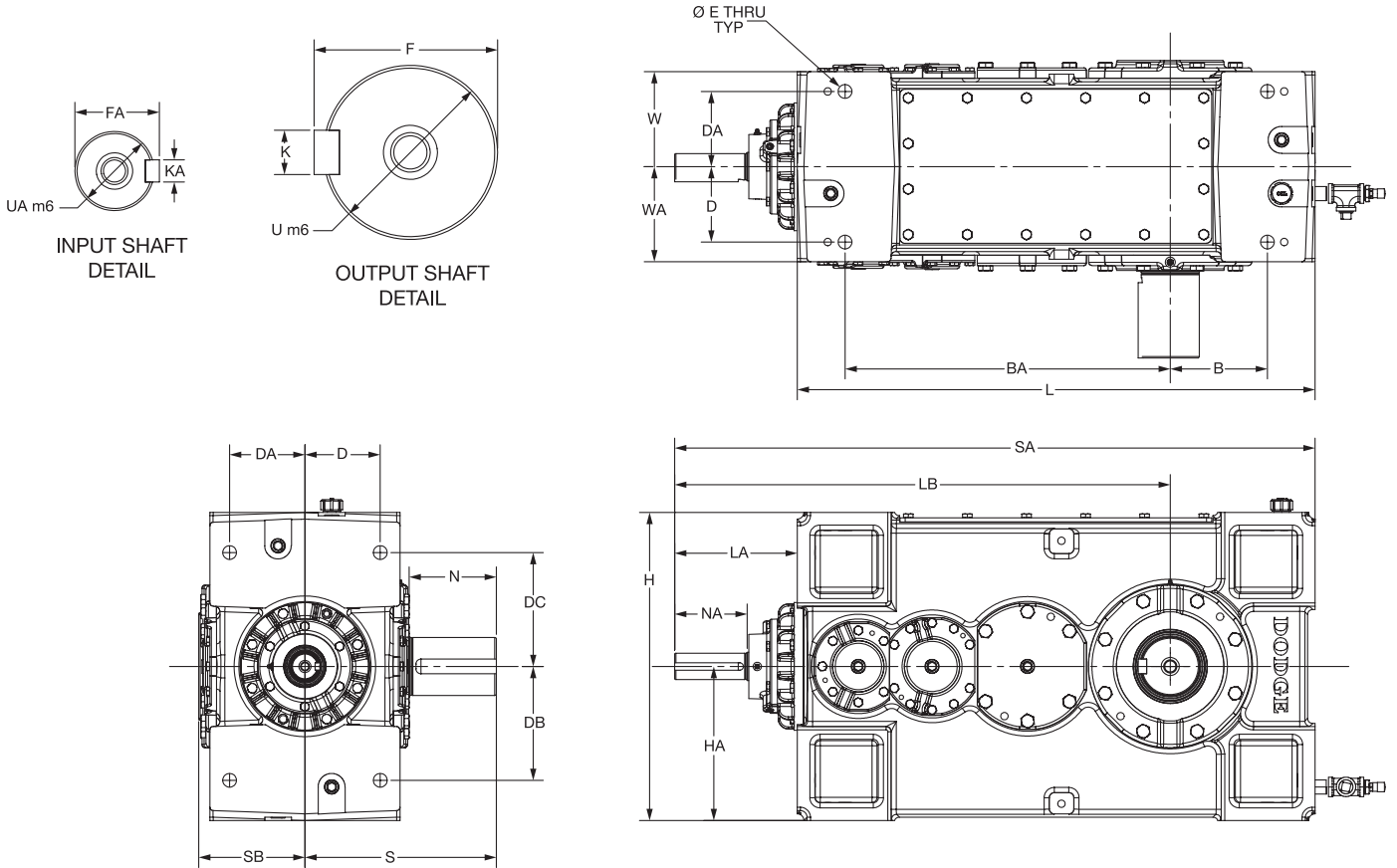
Desiccant breather					
MagnaGear	Shaft configuration	Reduction	Ratio	Part number	
All G3500	All	All	All	964370	

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G100, G150, G210, G285, G390 and G600 – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA	L	LA	LB
G100	inch	6.88	22.40	5.38	5.38	7.00	7.00	1.02	3.90	1.91	20.50	10.25	0.98	0.55	34.72	8.41	33.43
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	98.95	48.45	520.70	260.35	25.00	14.00	881.76	213.69	849.07
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	4.57	2.11	23.00	11.50	1.10	0.55	38.64	9.16	36.99
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	116.00	53.50	584.20	292.10	28.00	14.00	981.46	232.54	939.42
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	5.00	2.32	25.50	12.75	1.26	0.63	44.50	9.41	41.60
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	127.00	59.00	647.70	323.85	32.00	16.00	1130.30	239.12	1056.74
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	5.39	2.52	27.76	13.88	1.26	0.71	47.63	10.10	44.63
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	136.90	63.88	705.10	352.55	32.00	18.00	1209.80	256.59	1113.65
G390	inch	9.8	31.88	7.50	7.50	10.56	10.56	1.30	6.02	2.71	29.76	14.88	1.42	0.71	50.42	12.40	48.65
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	152.80	68.83	755.90	377.95	36.00	18.00	1280.67	314.96	1235.71
G600	inch	11.82	36.18	8.63	8.63	11.5	11.5	1.54	7.48	3.12	33.44	16.72	1.77	0.79	58.08	12.84	54.06
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	190.00	79.37	849.38	424.69	45.00	19.97	919.07	326.03	1373.12

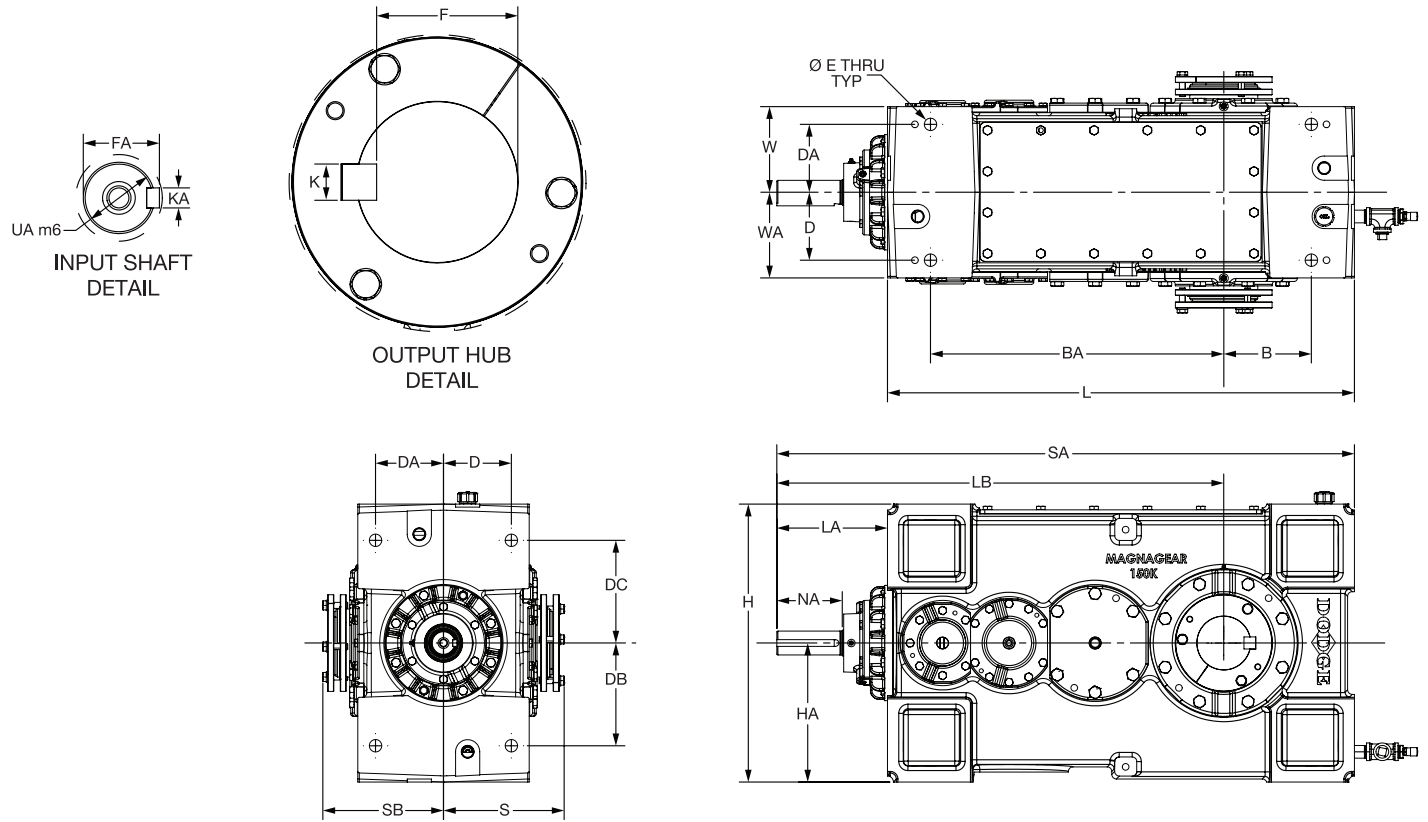
Reducer size	Units	N	NA	S	SA	SB	U	UA	W	WA	Weight	Units
G100	inch	6.00	5.58	13.18	43.13	7.33	3.7402 ± 0.0005	1.7720 ± 0.0004	6.50	6.50	1245	lbs
	mm	152.40	141.81	334.70	1095.45	186.23	95 m6	45 m6	165.00	165.00	565	kg
G150	inch	6.48	5.42	14.16	47.80	7.93	4.3307 ± 0.0005	1.9685 ± 0.0004	7.09	7.09	1714	lbs
	mm	164.58	137.54	359.73	1213.99	201.35	110 m6	50 m6	180.09	180.09	777	kg
G210	inch	7.00	5.94	15.41	53.91	8.34	4.7244 ± 0.0005	2.1662 ± 0.0004	7.50	7.50	2253	lbs
	mm	177.80	150.87	391.43	1389.42	211.84	120 m6	55 m6	190.50	190.50	1022	kg
G285	inch	7.38	6.55	16.30	57.73	8.94	5.1192 ± 0.0005	2.3630 ± 0.0004	8.00	8.00	2536	lbs
	mm	187.45	166.37	413.94	1466.39	227.08	130 m6	60 m6	203.20	203.20	1150	kg
G390	inch	8.07	6.86	17.89	62.82	9.51	5.7097 ± 0.0005	2.5599 ± 0.0004	9.00	9.00	3262	lbs
	mm	204.98	174.17	454.36	1595.63	241.43	145 m6	65 m6	228.60	228.60	1480	kg
G600	inch	12.00	7.43	23.33	70.92	11.22	7.0866 ± 0.0005	2.9536 ± 0.0004	10.48	10.48	5300	lbs
	mm	304.80	188.72	592.62	1801.28	284.86	180 m6	75 m6	266.21	266.21	2404	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G100, G150, G210, G285, G390 and G600 – hollow output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA	L	LA	LB
G100	inch	6.88	22.4	5.38	5.38	7.00	7.00	1.02	Page 53	1.91	20.50	10.25	Page 53	0.55	34.72	8.41	33.43
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	Page 53	48.45	520.70	260.35	Page 53	14.00	881.76	213.69	849.07
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	Page 55	2.11	23.00	11.50	Page 55	0.55	38.64	9.16	36.99
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	Page 55	53.50	584.20	292.10	Page 55	14.00	981.46	232.54	939.42
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	Page 57	2.32	25.50	12.75	Page 57	0.63	44.50	9.41	41.6
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	Page 57	59.00	647.70	323.85	Page 57	16.00	1130.30	239.12	1056.74
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	Page 59	2.52	27.76	13.88	Page 59	0.71	47.63	10.10	44.63
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	Page 59	63.88	705.10	352.55	Page 59	18.00	1209.80	256.59	1113.65
G390	inch	9.80	31.88	7.50	7.50	10.56	10.56	1.30	Page 61	2.71	29.76	14.88	Page 61	0.71	50.42	12.40	48.65
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	Page 61	68.83	755.90	377.95	Page 61	18.00	1280.67	314.96	1235.71
G600	inch	11.82	36.18	8.63	8.63	11.50	11.50	1.54	Page 65	3.12	33.44	16.72	Page 65	0.79	58.08	12.84	54.06
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	Page 65	79.37	849.38	424.69	Page 65	19.97	919.07	326.03	1373.12

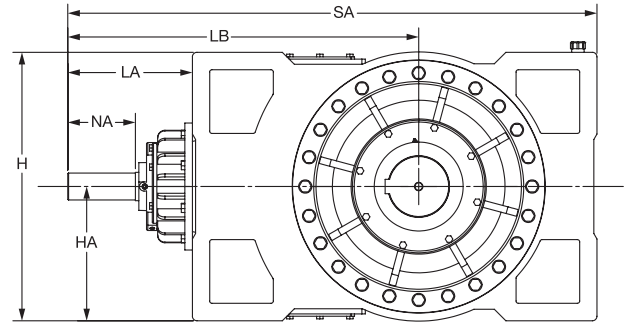
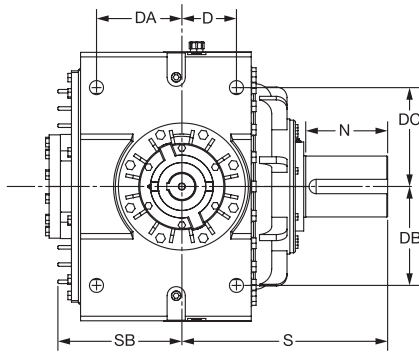
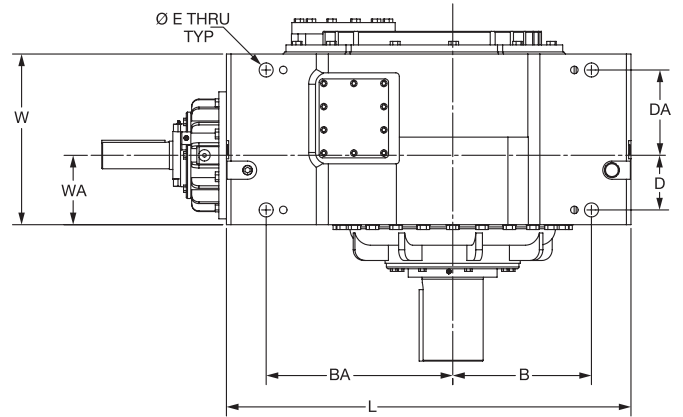
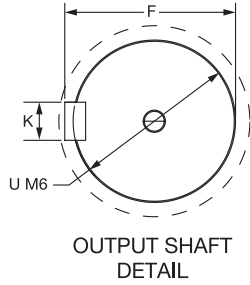
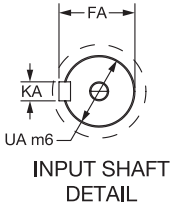
Reducer size	Units	NA	S	SA	SB	UA	W	WA	Weight	Units
G100	inch	5.58	9.14	43.13	9.19	1.7720 ± 0.0004	6.50	6.50	1210	lbs
	mm	141.81	232.11	1095.45	233.48	45 m6	165.00	165.00	549	kg
G150	inch	5.42	9.98	47.80	9.98	1.9685 ± 0.0004	7.09	7.09	1651	lbs
	mm	137.54	253.59	1213.99	253.59	50 m6	180.09	180.09	749	kg
G210	inch	5.94	10.88	53.91	10.88	2.1662 ± 0.0004	7.50	7.50	2175	lbs
	mm	150.87	276.35	1389.42	276.35	55 m6	190.50	190.50	987	kg
G285	inch	6.55	11.42	57.73	11.52	2.3630 ± 0.0004	8.00	8.00	2413	lbs
	mm	166.37	290.11	1466.39	292.62	60 m6	203.20	203.20	1095	kg
G390	inch	6.86	12.44	62.82	12.44	2.5599 ± 0.0004	9.00	9.00	3034	lbs
	mm	174.17	315.93	1595.63	315.93	65 m6	228.60	228.60	1376	kg
G600	inch	7.43	14.40	70.92	14.40	2.9536 ± 0.0004	10.48	10.48	5050	lbs
	mm	188.72	365.64	1801.28	365.64	75 m6	266.21	266.21	2291	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G525, G700 and G920 – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA	L	LA	LB
G525	inch	15.25	20.50	6.00	9.38	10.87	10.87	1.53	7.04	3.12	29.50	14.75	1.57	0.79	44.42	13.73	38.56
	mm	387.50	520.70	152.40	238.25	276.10	276.10	39.00	178.80	79.37	749.30	374.65	40.00	20.00	1128.27	348.74	979.42
G700	inch	17.13	23.50	7.00	10.00	11.87	11.87	1.77	7.87	3.54	32.00	16.00	1.77	0.87	49.37	13.74	41.68
	mm	434.98	596.90	177.80	254.00	301.50	301.50	45.01	199.82	89.83	812.80	406.40	45.00	22.00	1254.00	348.90	1058.55
G920	inch	19.44	24.50	7.91	10.25	12.50	12.50	2.05	8.90	3.73	36.00	18.00	1.97	0.98	55.13	16.41	46.54
	mm	493.78	622.30	200.91	260.35	317.50	317.50	51.99	226.07	94.74	914.40	457.20	50.00	25.00	1400.18	416.81	1182.12

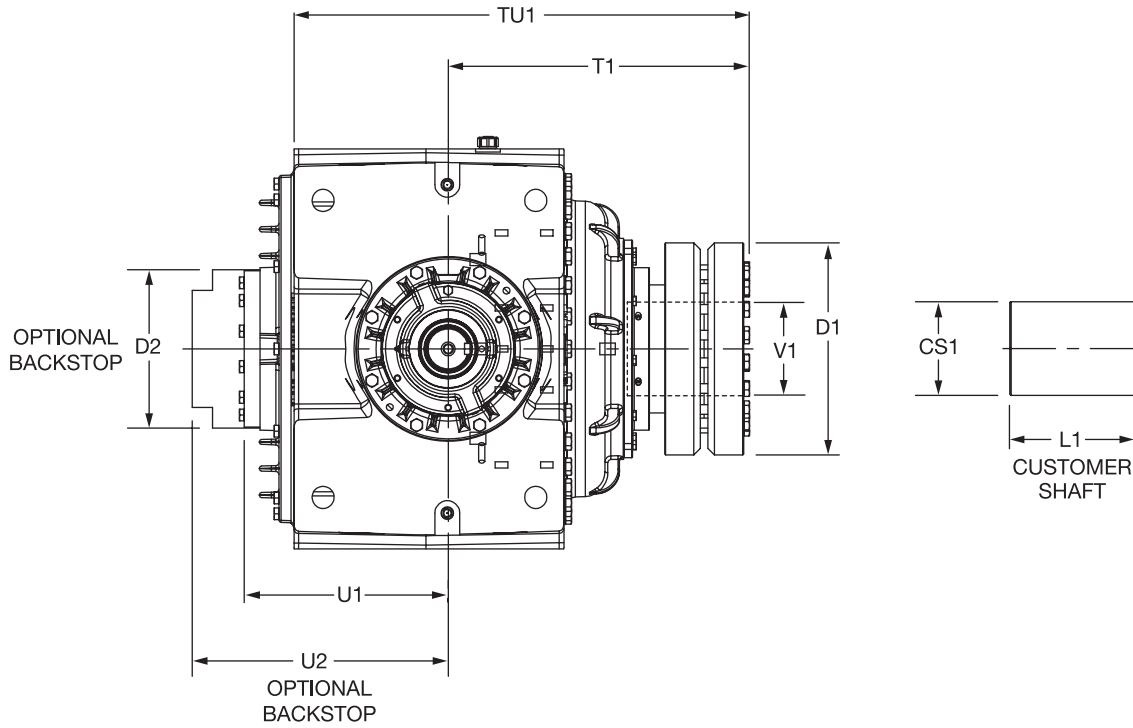
Reducer size	Units	N	NA	S	SA	SB	U	UA	W	WA	Weight	Units
G525	inch	9.21	7.43	22.61	58.15	13.63	6.6940 ± 0.0005	2.9536 ± 0.0005	18.75	7.62	3836	lbs
	mm	233.93	188.72	574.29	1477.12	346.25	170m6	75 m6	476.25	193.55	1740	kg
G700	inch	10.08	8.02	26.41	63.11	15.34	7.4800 ± 0.0005	3.3474 ± 0.0005	21.58	9.25	4947	lbs
	mm	256.03	203.71	670.78	1602.96	389.66	190m6	85 m6	548.12	234.95	2244	kg
G920	inch	11.50	8.91	29.57	71.54	16.19	8.4658 ± 0.0005	3.5443 ± 0.0005	23.44	10.56	5238	lbs
	mm	292.10	226.31	751.07	1817.08	411.11	215m6	90 m6	595.38	268.22	2376	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G525, G700 and G920 – shrink disk output shaft



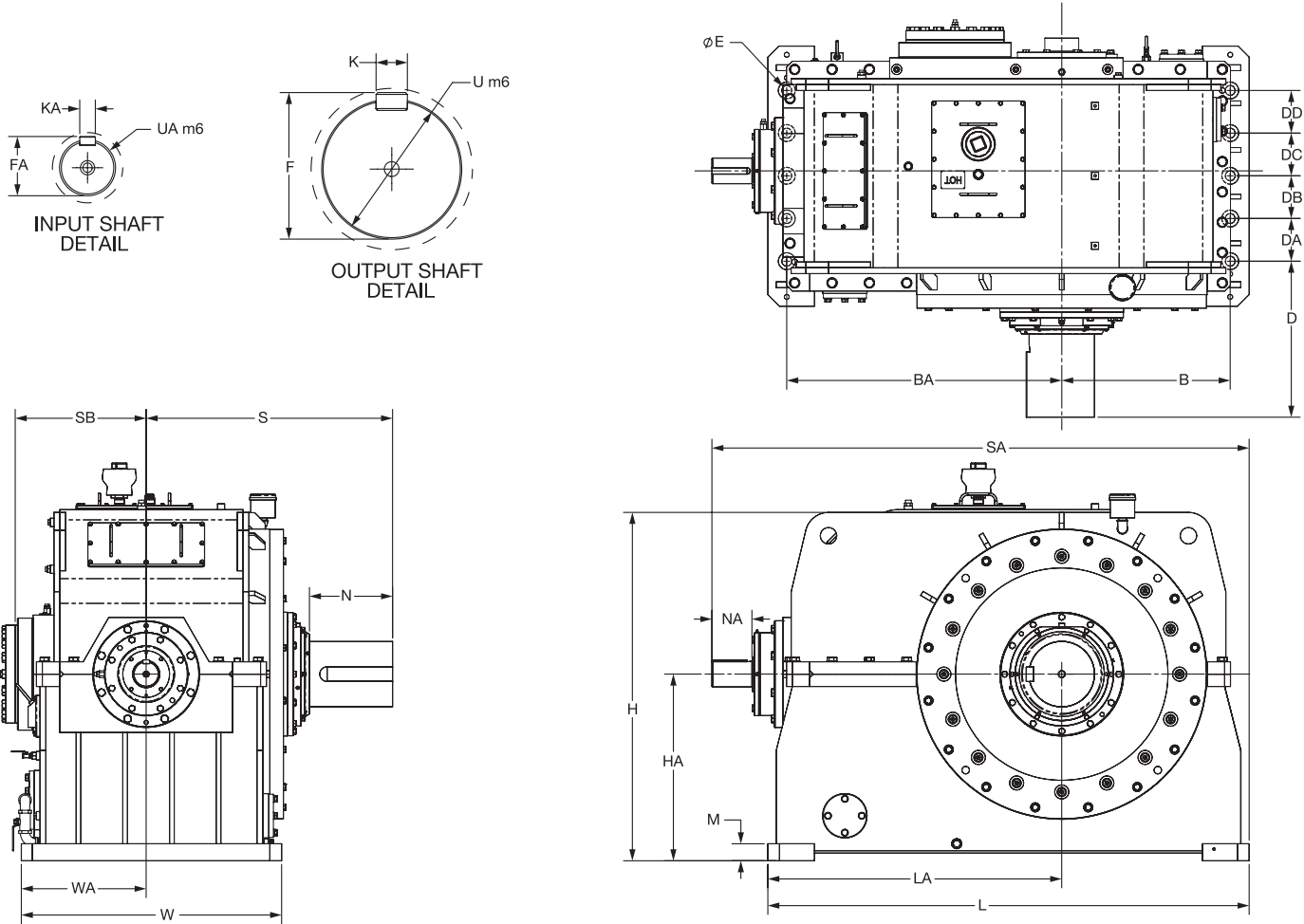
Reducer size	Units	TU1	T1	U1	U2	V1	CS1	L1	D1	D2	Weight	Units
G525	inch	32.24	20.87	13.63	18.28	6.6941 ± 6.6957	6.6926 ± 6.6934	9.10	15.94	11.42	3836	lbs
	mm	818.9	530.10	346.2	464.31	170.031 ± 170.071	169.992 ± 170.012	231.14	404.88	290.07	1740	kg
G700	inch	36.43	24.1	16.30	20.47	7.4822 ± 7.4807	7.4815 ± 7.4807	10.25	16.93	12.68	4947	lbs
	mm	925.32	612.14	414.02	519.94	190.048 ± 190.099	190.030 ± 190.010	260.35	430.02	322.07	2244	kg
G920	inch	39.95	26.37	17.44	20.59	8.2670 ± 8.2690	8.2663 ± 8.2655	10.75	18.10	12.68	5238	lbs
	mm	996.95	669.80	442.98	522.99	209.982 ± 210.033	209.964 ± 209.944	273.05	459.74	322.07	2376	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G1400, G2100 and G3500 – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	DD	E	F	FA	H	HA	K	KA	L	LA
G1400	inch	25.59	41.93	23.48	7.78	7.78	7.87	N/A	1.77	10.31	4.17	47.64	24.41	2.20	1.10	71.06	43.70
	mm	650.00	1065.00	596.50	200.00	200.00	200.00	N/A	45.00	261.80	105.80	1210.00	620.00	56.00	28.00	1805.00	1110.00
G2100	inch	28.42	46.39	26.32	7.20	7.20	7.20	7.20	1.65	11.50	4.57	58.78	31.50	2.48	1.10	81.18	49.57
	mm	721.80	1178.20	668.60	183.00	183.00	183.00	183.00	42.00	292.00	116.00	1493.00	800.00	63.00	28.00	2062.00	1259.20
G3500	inch	33.58	50.28	32.63	9.06	9.06	9.06	9.06	2.05	13.58	5.39	65.75	34.45	3.15	1.26	88.98	52.83
	mm	853.00	1277.00	828.80	230.00	230.00	230.00	230.00	52.00	345.00	137.00	1670.00	875.00	80.00	32.00	2260.00	1342.00

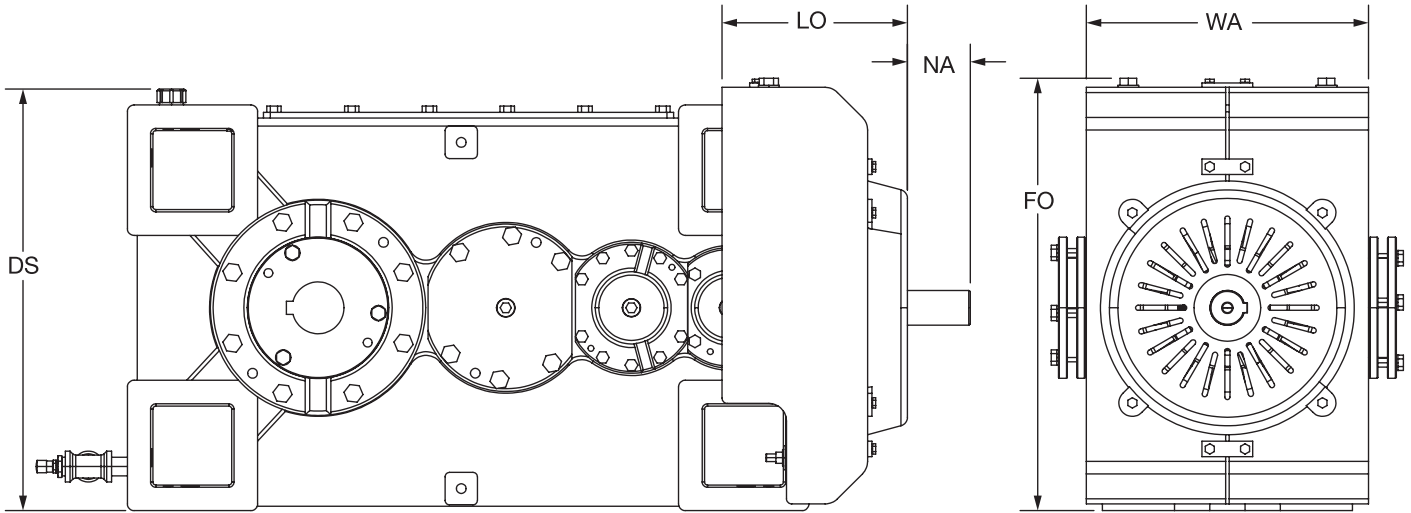
Reducer size	Units	M	N	NA	S	SA	SB	U	UA	W	WA	Weight	Units
G1400	inch	1.97	12.47	7.07	37.26	79.86	21.02	9.8438 ± 0.0006	3.9380 ± 0.0004	41.14	19.49	10642	lbs
	mm	50.00	316.80	179.60	946.50	2028.50	534.03	250.0315 ± 0.0145	100.0240 ± 0.0110	1045.00	495.00	4827	kg
G2100	inch	2.87	14.01	6.69	41.56	90.61	24.27	11.0250 ± 0.0006	4.3317 ± 0.0004	43.90	21.06	16779	lbs
	mm	73.00	356.00	169.90	1055.60	2301.40	616.51	280.0360 ± 0.0160	110.0240 ± 0.0110	1115.00	535.00	7611	kg
G3500	inch	2.36	19.16	6.99	51.92	97.69	27.66	12.9937 ± 0.0007	5.1192 ± 0.0005	53.54	19.41	25210	lbs
	mm	60.00	486.70	177.70	1318.80	2481.20	702.55	330.0390 ± 0.0180	130.0275 ± 0.0125	1360.00	493.00	11435	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G100 through G920 – mechanical shaft fans



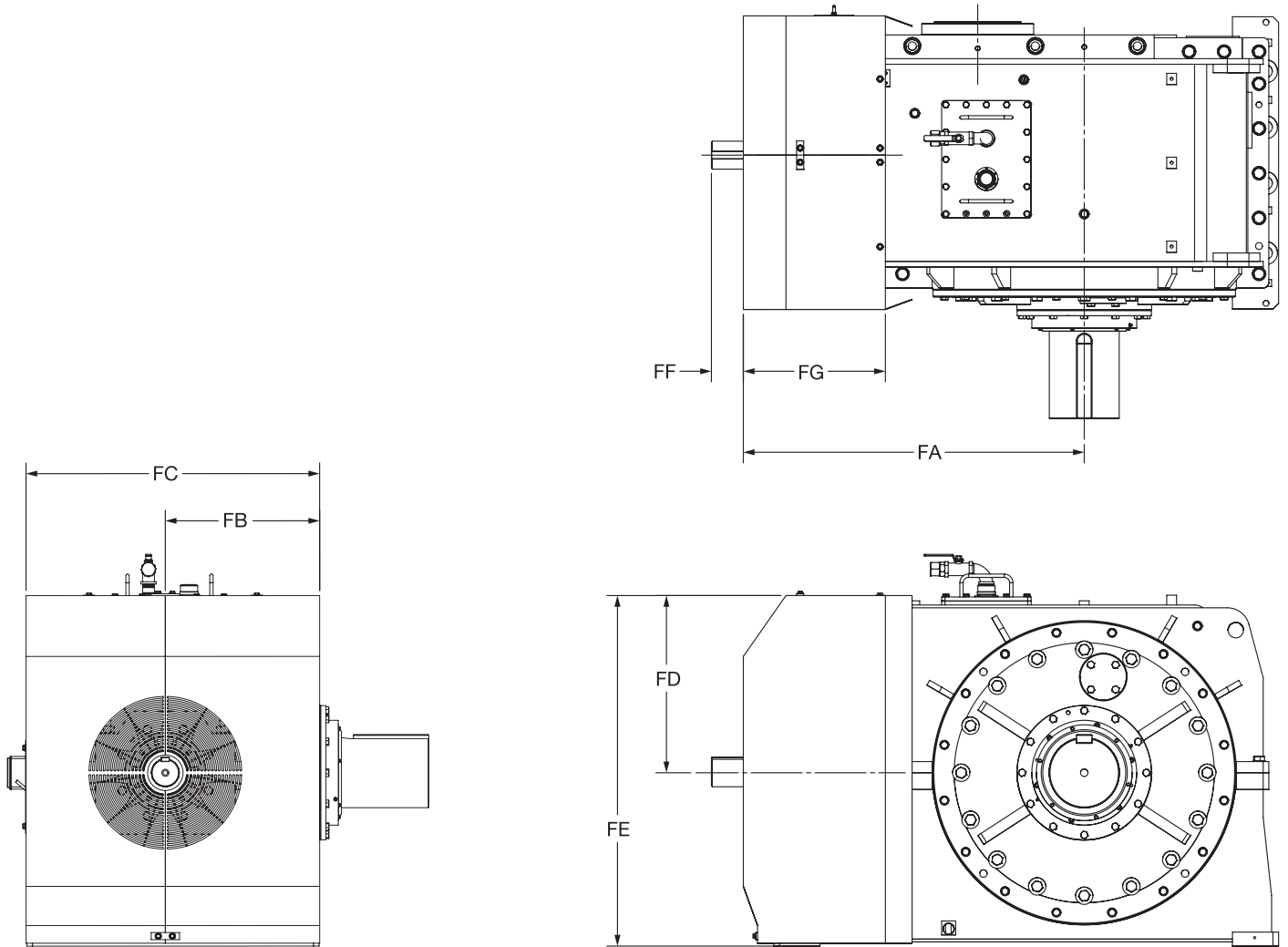
Reducer size	Units	NA	LO	WA	FO	DS	Weight	Units
G100	inch	3.82	9.50	15.52	22.00	21.50	41	lbs
	mm	97.00	241.30	394.21	558.80	546.10	19	kg
G150	inch	3.56	10.51	16.00	24.50	24.00	44	lbs
	mm	90.40	267.00	406.40	622.30	690.60	20	kg
G210	inch	3.82	10.51	18.00	26.91	26.40	45	lbs
	mm	97.00	267.00	457.20	683.50	670.60	20	kg
G285	inch	4.52	12.50	19.00	30.00	28.66	49	lbs
	mm	114.81	317.50	482.60	762.00	727.96	22	kg
G390	inch	4.90	12.50	21.16	31.20	30.75	51	lbs
	mm	124.50	317.50	537.50	792.50	781.10	23	kg
G525	inch	5.23	11.00	21.16	31.25	30.46	56	lbs
	mm	132.80	279.40	537.50	793.80	773.70	25	kg
G600	inch	4.84	13.63	22.85	34.80	34.50	57	lbs
	mm	122.80	346.20	580.40	883.90	876.30	26	kg
G700	inch	6.10	17.43	25.75	33.50	33.15	66	lbs
	mm	154.90	442.70	654.10	850.90	842.00	30	kg
G920	inch	6.78	12.00	26.32	37.50	37.10	68	lbs
	mm	172.20	304.80	668.50	952.50	942.30	31	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G1400 and G2100 – mechanical shaft fans

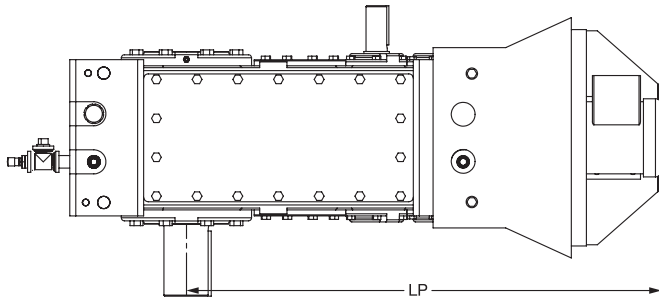


Reducer size	Units	FA	FB	FC	FD	FE	FF	FG	Weight	Units
G1400	inch	48.00	21.73	41.34	24.95	49.36	7.25	20.00	110	lbs
	mm	1219.00	582.00	1050.00	634.00	1254.00	184.00	508.00	50	kg
G2100	inch	55.13	22.94	44.19	28.82	60.32	7.00	30.00	148	lbs
	mm	1400.00	583.00	1122.00	732.00	1532.00	178.00	762.00	67	kg

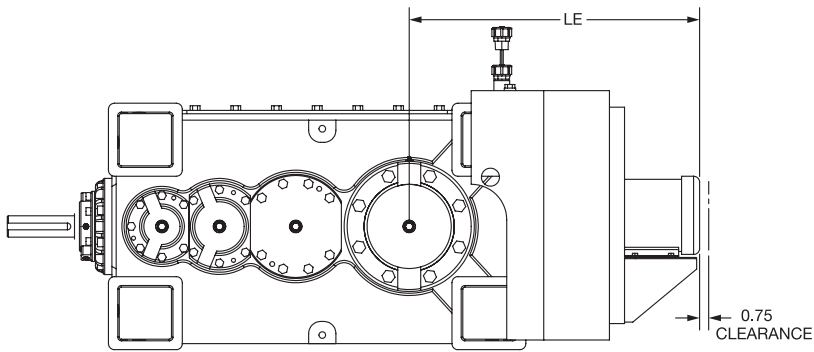
DIMENSIONAL DRAWINGS



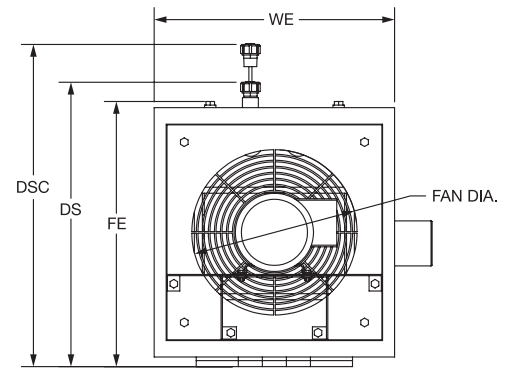
MagnaGear XTR right angle shaft Sizes G100 through G920 – electric fans



MAGNAGEAR-PARALLEL E-FAN



MAGNAGEAR-RT ANGLE E-FAN



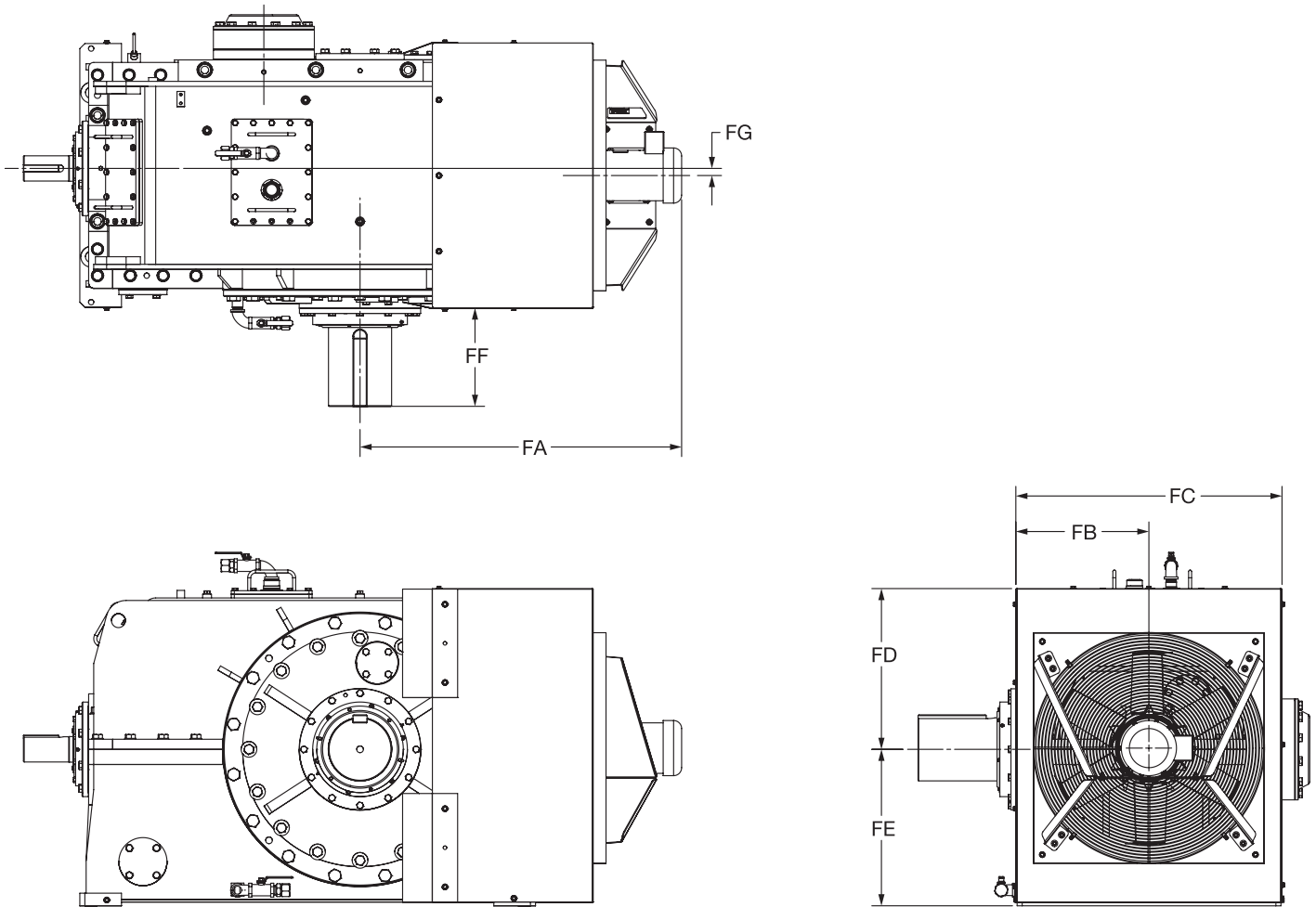
Reducer size	Units	Fan diameter	LE	LP	WE	FE	DS	DSC	Weight	Units
G100	inch	14.00	24.20	39.50	20.00	22.00	23.50	18.00	50	lbs
	mm	355.60	614.68	1003.30	508.00	558.80	596.90	457.20	23	kg
G150	inch	16.00	25.38	42.40	22.00	25.50	25.30	19.25	55	lbs
	mm	406.40	644.65	1076.96	558.80	647.70	642.62	488.95	25	kg
G210	inch	16.00	26.90	46.90	22.00	27.10	27.80	21.30	60	lbs
	mm	406.40	683.26	1191.26	558.80	688.34	706.12	541.02	27	kg
G285	inch	16.00	26.30	47.70	22.00	30.00	30.80	22.00	65	lbs
	mm	406.40	668.02	1211.58	558.80	762.00	782.32	558.80	29	kg
G390	inch	18.00	24.00	46.00	23.38	32.25	33.00	25.00	70	lbs
	mm	457.20	609.60	1168.40	593.85	819.15	838.20	635.00	32	kg
G525	inch	24.00	41.40	46.65	33.00	33.30	30.50	22.00	112	lbs
	mm	609.60	1051.56	1184.91	838.20	845.82	774.70	558.80	51	kg
G600	inch	20.00	29.50	54.00	0.00	34.80	35.60	27.00	120	lbs
	mm	508.00	749.30	1371.60	0.00	883.92	904.24	685.80	54	kg
G700	inch	24.00	42.85	49.38	33.00	33.50	35.70	28.00	118	lbs
	mm	609.60	1088.39	1254.25	838.20	850.90	906.78	711.20	54	kg
G920	inch	24.00	50.38	55.60	33.00	38.20	39.50	27.00	129	lbs
	mm	609.60	1279.65	1412.24	838.20	970.28	1003.30	685.80	59	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft

Sizes G1400, G2100 and G3500 – electric fans

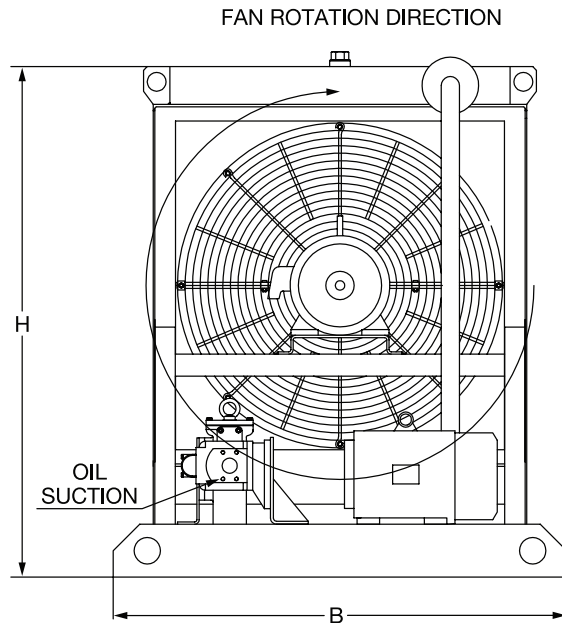
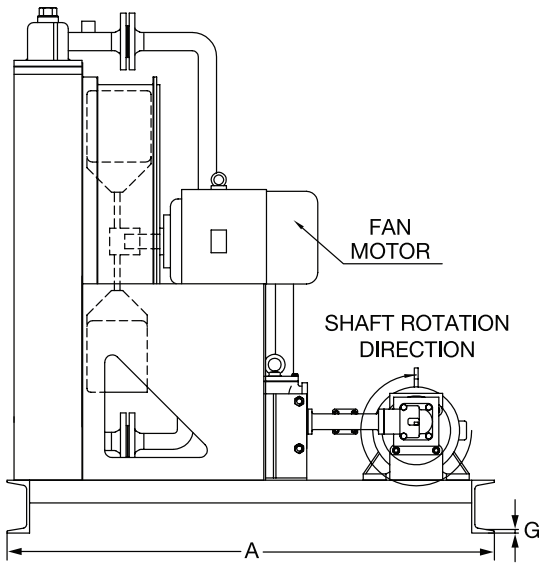
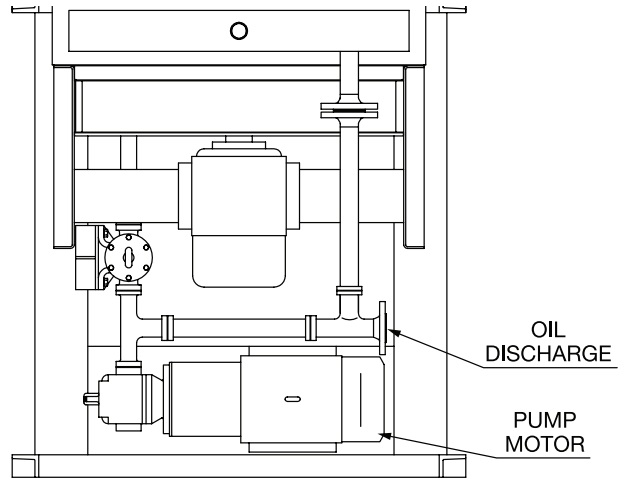


Reducer size	Units	Fan diameter	FA	FB	FC	FD	FE	FF	FG	Weight	Units
G1400	inch	30.00	50.15	21.94	43.87	25.08	24.41	14.15	1.11	268	lbs
	mm	762.00	1273.81	557.28	1114.30	637.03	620.01	359.41	28.19	122	kg
G2100	inch	36.00	68.98	22.09	44.17	28.82	31.50	18.64	0.827	274	lbs
	mm	914.40	1752.09	561.09	1121.92	732.03	800.10	473.46	21.01	124	kg
G3500	inch	42.00	74.51	28.63	57.26	32.76	34.45	22.30	0.984	372	lbs
	mm	1066.80	1892.55	727.20	1454.40	832.10	875.03	566.42	24.99	169	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR right angle shaft Sizes G100 through G3500 – heat exchangers



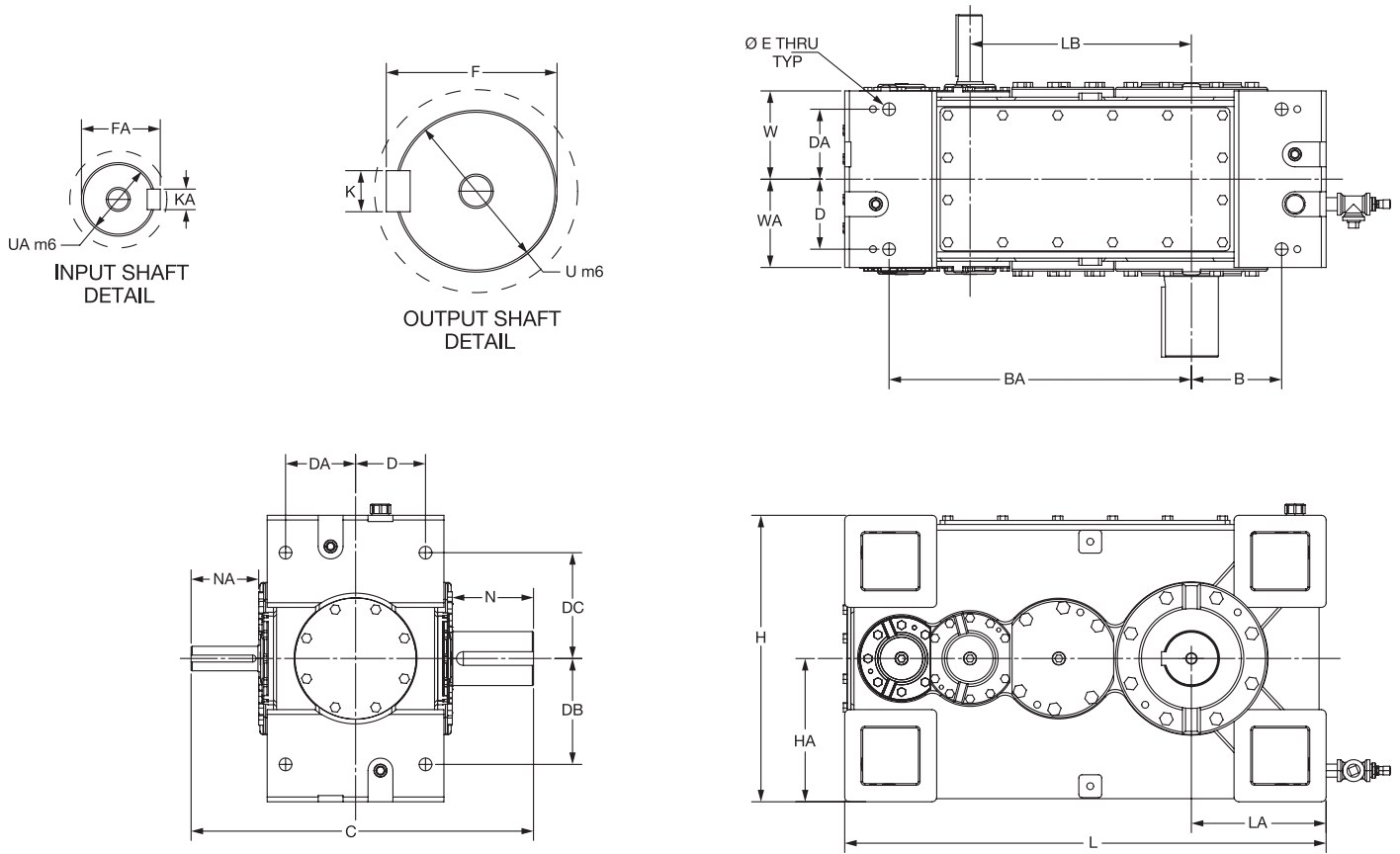
Cooling system	Units	A	B	H	G	Weight	Units
966236	inch	49.61	35.04	40.31	0.52	529	lbs
	mm	1260.00	890.00	1024.00	13.20	240	kg
966237	inch	53.70	40.16	45.43	0.52	948	lbs
	mm	1364.00	1020.00	1154.00	13.20	430	kg
966238	inch	50.79	47.24	53.19	0.52	1147	lbs
	mm	1290.00	1200.00	1351.00	13.20	520	kg
966239	inch	52.76	53.54	58.03	0.52	1433	lbs
	mm	1340.00	1360.00	1474.00	13.20	650	kg
966240	inch	61.18	60.63	64.25	0.52	1830	lbs
	mm	1554.00	1540.00	1632.00	13.20	830	kg
966241	inch	67.32	70.08	73.46	0.52	2117	lbs
	mm	1710.00	1780.00	1866.00	13.20	960	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100, G150, G210, G285, G390 and G600 – two stage – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G100	inch	6.88	22.40	5.38	5.38	7.00	7.00	1.02	3.90	1.90	20.50	10.25	0.98	0.55
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	98.95	48.37	520.70	260.35	25.00	14.00
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	4.57	1.97	23.00	11.50	1.10	0.55
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	116.00	53.50	584.20	292.10	28.00	14.00
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	5.00	2.32	25.50	12.75	1.26	0.63
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	127.00	59.00	647.70	323.85	32.00	16.00
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	5.39	2.56	27.76	13.88	1.26	0.71
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	136.90	65.13	705.10	352.55	32.00	18.00
G390	inch	9.80	31.88	7.50	7.50	10.56	10.56	1.30	6.02	2.93	29.76	14.88	1.42	0.79
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	152.80	74.30	755.90	377.95	36.00	20.00
G600	inch	11.82	36.18	8.63	8.63	11.50	11.50	1.54	7.48	3.34	33.44	16.72	1.77	0.87
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	190.00	84.95	849.38	424.69	45.00	22.00

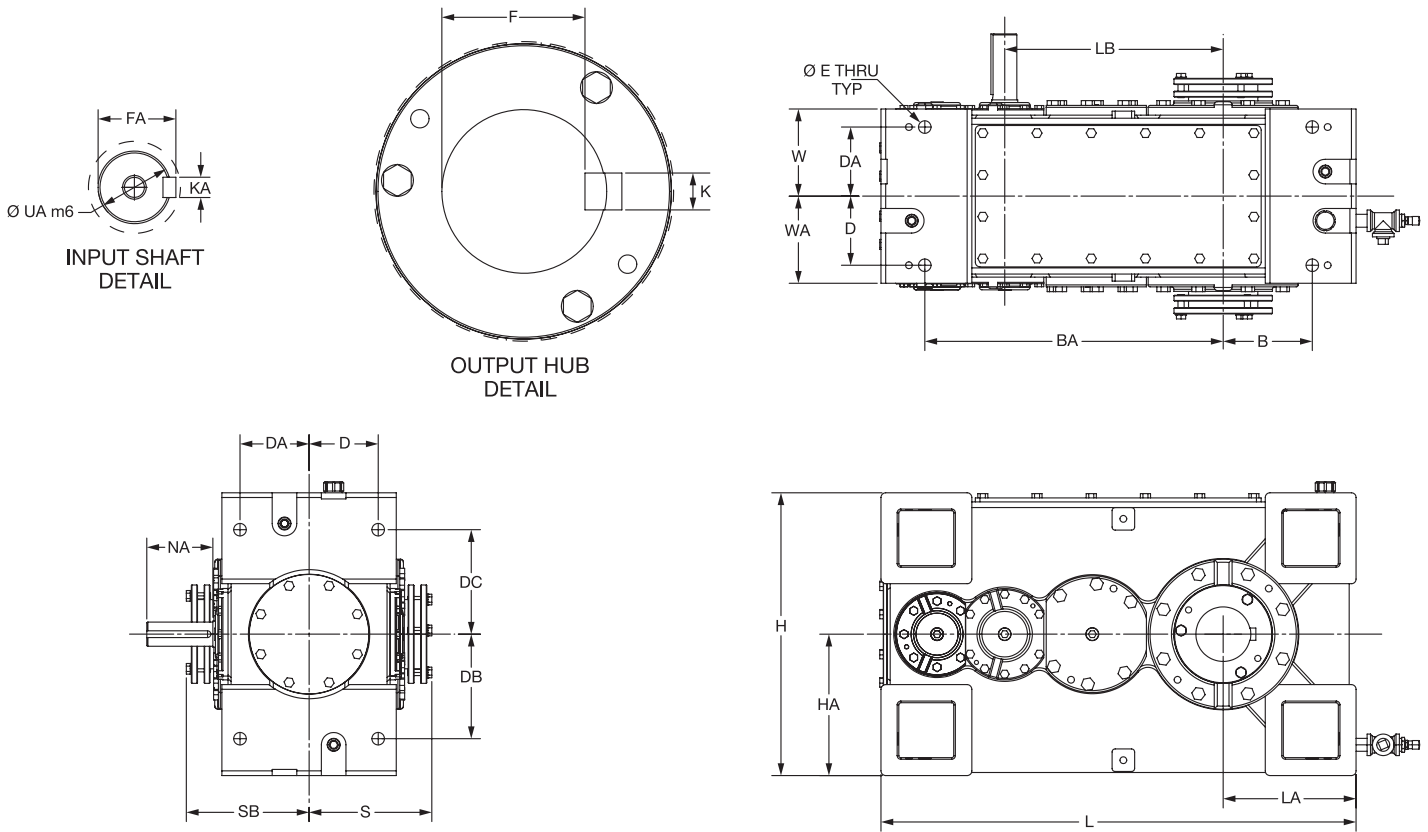
Reducer size	Units	L	LA	LB	N	NA	U	UA	W	WA	Weight	Units
G100	inch	34.72	9.70	15.82	6.00	5.58	3.7402 ± 0.0005	1.7720 ± 0.0005	6.50	6.50	1138	lbs
	mm	881.76	246.38	401.70	152.40	141.81	95 m6	45 m6	165.00	165.00	516	kg
G150	inch	38.64	10.81	17.77	6.48	5.42	4.3307 ± 0.0005	1.9685 ± 0.0004	7.09	7.09	1619	lbs
	mm	981.46	274.57	451.36	164.58	137.54	110 m6	50 m6	180.09	180.09	734	kg
G210	inch	44.50	12.31	20.31	7.00	5.94	4.7244 ± 0.0005	2.1662 ± 0.0004	7.50	7.50	2134	lbs
	mm	1130.30	312.67	515.87	177.80	150.87	120 m6	55 m6	190.50	190.50	968	kg
G285	inch	47.63	13.10	22.20	7.38	6.55	5.1192 ± 0.0005	2.3630 ± 0.0004	8.00	8.00	2379	lbs
	mm	1209.80	332.74	563.88	187.45	166.37	130 m6	60 m6	203.20	203.20	1079	kg
G390	inch	50.42	14.17	23.70	8.07	6.86	5.7097 ± 0.0005	2.7567 ± 0.0004	9.00	9.00	3215	lbs
	mm	1280.67	359.92	601.98	204.98	174.17	145 m6	70 m6	228.60	228.60	1458	kg
G600	inch	58.08	16.86	27.50	12.00	7.43	7.0866 ± 0.0005	3.1500 ± 0.0004	10.48	10.48	5355	lbs
	mm	919.07	428.15	698.50	304.80	188.72	180 m6	80 m6	266.21	266.21	2429	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100, G150, G210, G285, G390 and G600 – two stage – hollow output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G100	inch	6.88	22.40	5.38	5.38	7.00	7.00	1.02	Page 53	1.90	20.50	10.25	Page 53	0.55
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	Page 53	48.37	520.70	260.35	Page 53	14.00
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	Page 55	1.97	23.00	11.50	Page 55	0.55
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	Page 55	53.50	584.20	292.10	Page 55	14.00
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	Page 57	2.32	25.50	12.75	Page 57	0.63
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	Page 57	59.00	647.70	323.85	Page 57	16.00
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	Page 59	2.56	27.76	13.88	Page 59	0.71
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	Page 59	65.13	705.10	352.55	Page 59	18.00
G390	inch	9.80	31.88	7.50	7.50	10.56	10.56	1.30	Page 61	2.93	29.76	14.88	Page 61	0.79
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	Page 61	74.30	755.90	377.95	Page 61	20.00
G600	inch	11.82	36.18	8.63	8.63	11.50	11.50	1.54	Page 65	3.34	33.44	16.72	Page 65	0.87
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	Page 65	84.95	849.38	424.69	Page 65	22.00

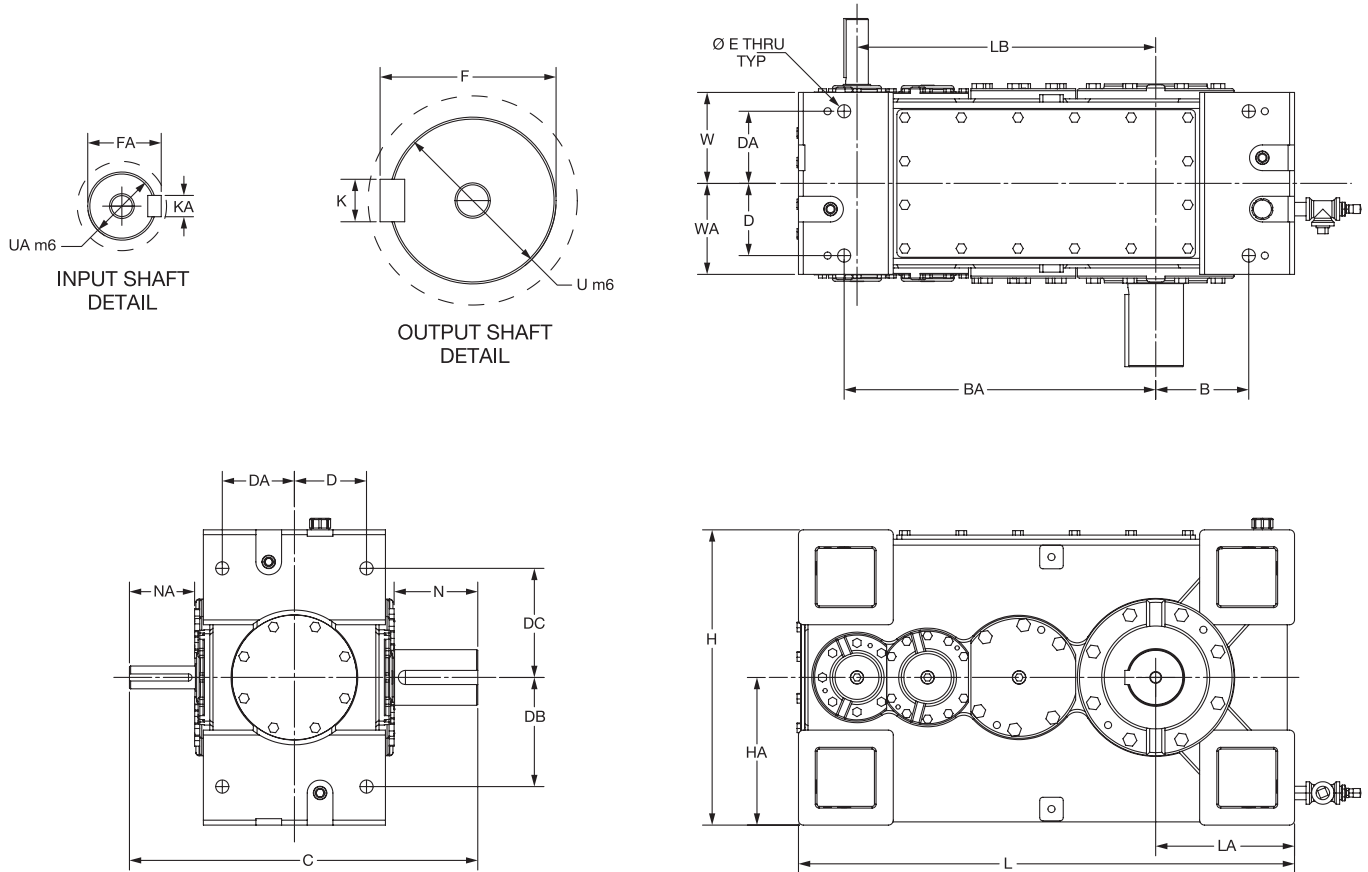
Reducer size	Units	L	LA	LB	NA	UA	W	S	SB	WA	Weight	Units
G100	inch	34.72	9.7	15.82	3.82	1.7720 ± 0.0005	6.50	9.12	9.12	6.50	1103	lbs
	mm	881.76	246.38	401.70	97.02	45 m6	165.00	231.52	231.52	165.00	500	kg
G150	inch	38.64	10.81	17.77	5.37	1.9685 ± 0.0004	7.09	9.98	9.98	7.09	1556	lbs
	mm	981.46	274.57	451.36	136.47	50 m6	180.09	253.59	253.59	180.09	706	kg
G210	inch	44.5	12.31	20.31	5.91	2.1662 ± 0.004	7.50	10.88	10.88	7.50	2057	lbs
	mm	1130.30	312.67	515.87	150.16	55 m6	190.50	276.35	276.35	190.50	933	kg
G285	inch	47.63	13.1	22.2	6.55	2.3630 ± 0.004	8.00	11.47	11.47	8.00	2256	lbs
	mm	1209.80	332.74	563.88	166.37	60 m6	203.20	291.29	291.29	203.20	1023	kg
G390	inch	50.42	14.17	23.7	5.49	2.7567 ± 0.004	9.00	12.44	12.44	9.00	3056	lbs
	mm	1280.67	359.92	601.98	139.45	70 m6	228.60	315.93	315.93	228.60	1386	kg
G600	inch	58.08	16.86	27.5	7.19	3.1500 ± 0.004	10.48	14.40	14.40	10.48	5095	lbs
	mm	919.07	428.15	698.50	182.55	80 m6	266.21	365.64	365.64	266.21	2311	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100, G150, G210, G285, G390 and G600 – three stage – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G100	inch	6.88	22.40	5.38	5.38	7.00	7.00	1.02	3.90	1.49	20.50	10.25	0.98	0.39
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	98.95	37.87	520.70	260.35	25.00	10.00
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	4.57	1.91	23.00	11.50	1.10	0.55
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	116.00	48.50	584.20	292.10	28.00	14.00
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	5.00	1.90	25.50	12.75	1.26	0.55
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	127.00	48.40	647.70	323.85	32.00	14.00
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	5.39	2.10	27.76	13.88	1.26	0.55
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	136.90	53.37	705.10	352.55	32.00	14.00
G390	inch	9.80	31.88	7.50	7.50	10.56	10.56	1.30	6.02	2.10	29.76	14.88	1.42	0.55
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	152.80	53.37	755.90	377.95	36.00	14.00
G600	inch	11.82	36.18	8.63	8.63	11.50	11.50	1.54	7.48	2.88	33.44	16.72	1.77	0.79
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	190.00	73.16	849.38	424.69	45.00	19.97

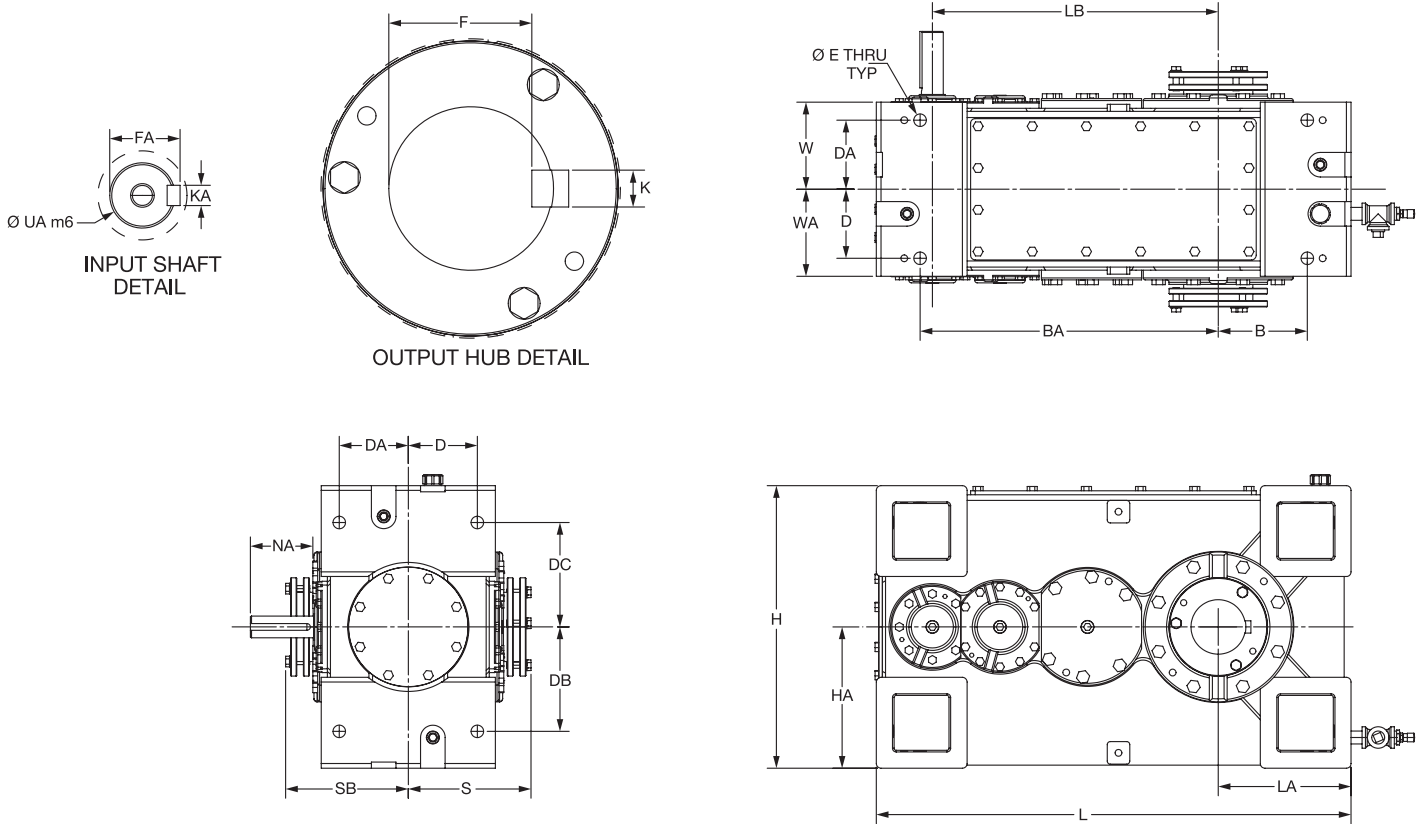
Reducer size	Units	L	LA	LB	N	NA	U	UA	W	WA	Weight	Units
G100	inch	34.72	9.70	20.57	6.00	5.58	3.7402 ± 0.0005	1.3784 ± 0.0003	6.50	6.50	1163	lbs
	mm	881.76	246.38	522.35	152.40	141.81	95 m6	35 m6	165.00	165.00	528	kg
G150	inch	38.64	10.81	38.64	6.48	5.42	4.3307 ± 0.0005	1.7715 ± 0.0004	7.09	7.09	1655	lbs
	mm	981.46	274.57	981.46	164.58	137.54	110 m6	45 m6	180.09	180.09	751	kg
G210	inch	44.50	12.31	26.62	7.00	5.94	4.7244 ± 0.0005	1.7721 ± 0.0004	7.50	7.50	2187	lbs
	mm	1130.30	312.67	676.15	177.80	150.87	120 m6	45 m6	190.50	190.50	992	kg
G285	inch	47.63	13.10	29.20	7.38	6.55	5.1192 ± 0.0005	1.9689 ± 0.0004	8.00	8.00	2450	lbs
	mm	1209.80	332.74	741.68	187.45	166.37	130 m6	50 m6	203.20	203.20	1111	kg
G390	inch	50.42	14.17	31.03	8.07	6.86	5.7097 ± 0.0005	1.9689 ± 0.0004	9.00	9.00	3304	lbs
	mm	1280.67	359.92	778.16	204.98	174.17	145 m6	50 m6	228.60	228.60	1499	kg
G600	inch	58.08	16.86	35.88	12.00	7.43	7.0866 ± 0.0005	2.7559 ± 0.0005	10.48	10.48	5525	lbs
	mm	919.07	428.15	911.23	304.80	188.72	180 m6	70 m6	266.21	266.21	2506	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100, G150, G210, G285, G390 and G600 – three stage – Hollow output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G100	inch	6.88	22.40	5.38	5.38	7.00	7.00	1.02	Page 53	1.49	20.50	10.25	Page 53	0.39
	mm	174.75	569.85	136.65	136.65	177.80	177.80	26.00	Page 53	37.87	520.70	260.35	Page 53	10.00
G150	inch	7.25	24.27	5.62	5.62	8.50	8.50	1.02	Page 55	1.91	23.00	11.50	Page 55	0.55
	mm	184.15	616.46	142.75	142.75	215.90	215.90	26.00	Page 55	48.50	584.20	292.10	Page 55	14.00
G210	inch	8.00	28.00	5.75	5.75	9.25	9.25	1.02	Page 57	1.90	25.50	12.75	Page 57	0.55
	mm	203.20	711.20	146.05	146.05	234.95	234.95	26.00	Page 57	48.40	647.70	323.85	Page 57	14.00
G285	inch	8.63	30.06	6.50	6.50	10.00	10.00	1.30	Page 59	2.10	27.76	13.88	Page 59	0.55
	mm	219.20	763.52	165.10	165.10	254.00	254.00	33.00	Page 59	53.37	705.10	352.55	Page 59	14.00
G390	inch	9.80	31.88	7.50	7.50	10.56	10.56	1.30	Page 61	2.10	29.76	14.88	Page 61	0.55
	mm	248.92	809.75	190.50	190.50	268.22	268.22	33.00	Page 61	53.37	755.90	377.95	Page 61	14.00
G600	inch	11.82	36.18	8.63	8.63	11.50	11.50	1.54	Page 65	2.88	33.44	16.72	Page 65	0.79
	mm	300.13	919.07	219.08	219.08	292.10	292.10	39.00	Page 65	73.16	849.38	424.69	Page 65	19.97

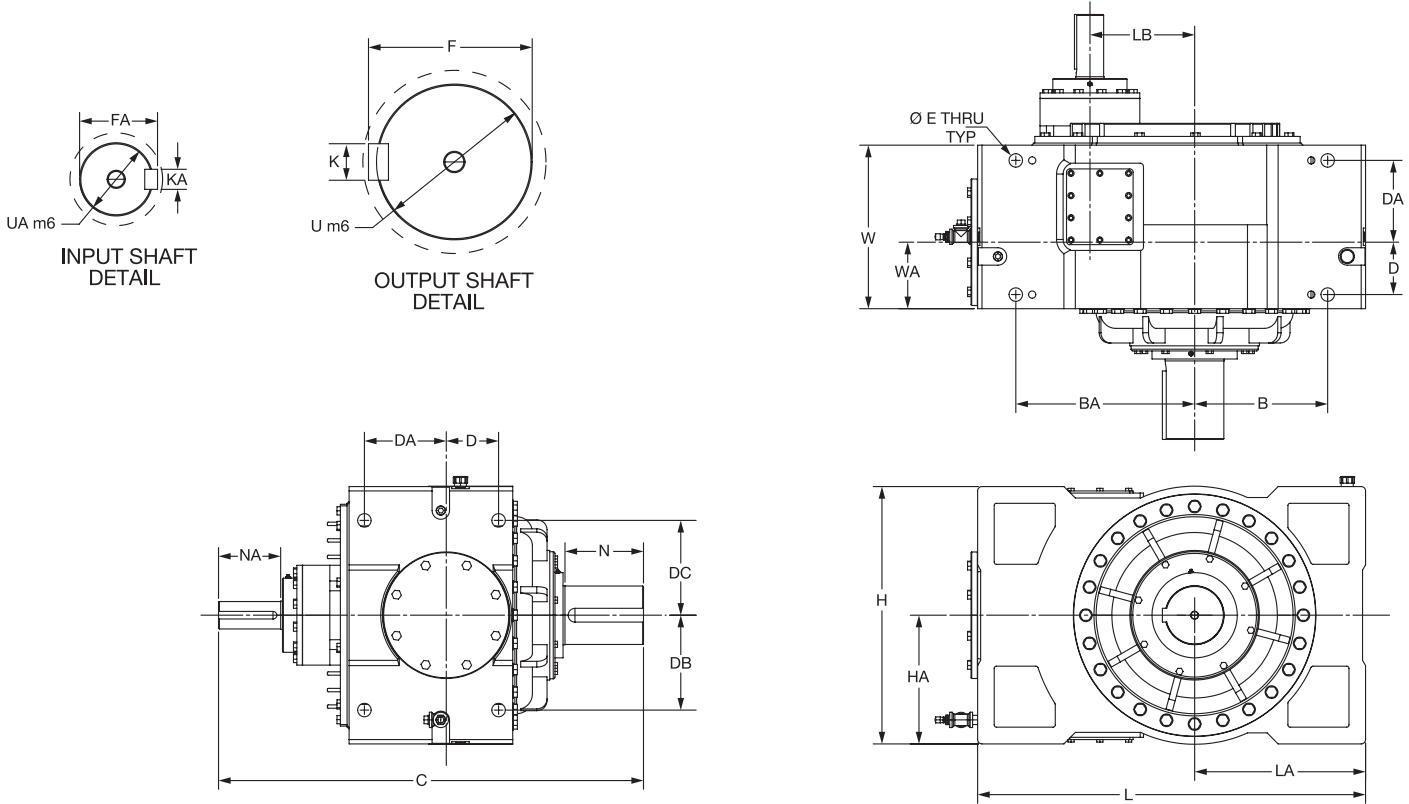
Reducer size	Units	L	LA	LB	NA	UA	W	S	SB	WA	Weight	Units
G100	inch	34.72	9.70	20.57	3.24	1.3784 ± 0.0003	6.50	9.12	9.12	6.50	1127	lbs
	mm	881.76	246.38	522.35	82.40	35 m6	165.00	231.52	231.52	165.00	511	kg
G150	inch	38.64	10.81	23.27	5.14	1.7715 ± 0.0004	7.09	9.98	9.98	7.09	1593	lbs
	mm	981.46	274.57	591.06	130.66	45 m6	180.09	253.59	253.59	180.09	723	kg
G210	inch	44.50	12.31	26.62	5.14	1.7721 ± 0.0004	7.50	10.88	10.88	7.50	2111	lbs
	mm	1130.30	312.67	676.15	130.57	45 m6	190.50	276.35	276.35	190.50	958	kg
G285	inch	47.63	13.10	29.20	5.41	1.9689 ± 0.0004	8.00	11.47	11.47	8.00	2319	lbs
	mm	1209.80	332.74	741.68	137.41	50 m6	203.20	291.29	291.29	203.20	1052	kg
G390	inch	50.42	14.17	31.03	4.63	1.9689 ± 0.0004	9.00	12.48	12.48	9.00	3145	lbs
	mm	1280.67	359.92	788.16	117.49	50 m6	228.60	317.04	317.04	228.60	1427	kg
G600	inch	58.08	16.86	35.88	6.50	2.7559 ± 0.0005	10.48	14.39	14.39	10.48	5225	lbs
	mm	919.07	428.15	911.23	165.10	70 m6	266.21	365.62	365.62	266.21	2370	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G525, G700 and G920 – two stage – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G525	inch	15.25	20.50	6.00	9.38	10.87	10.87	1.53	7.04	3.34	29.50	14.75	1.57	0.87
	mm	387.50	520.70	152.40	238.25	276.10	276.10	39.00	178.80	84.94	749.30	374.65	40.00	22.00
G700	inch	17.13	23.50	7.00	10.00	11.87	11.87	1.77	7.87	3.54	32.00	16.00	1.77	0.87
	mm	434.98	596.90	177.80	254.00	301.50	301.50	45.01	199.82	89.83	812.80	406.40	45.00	22.00
G920	inch	19.44	24.50	7.91	10.25	12.50	12.50	2.05	8.90	3.93	36.00	18.00	1.97	0.98
	mm	493.78	622.30	200.91	260.35	317.50	317.50	51.99	226.07	99.85	914.40	457.20	50.00	25.00

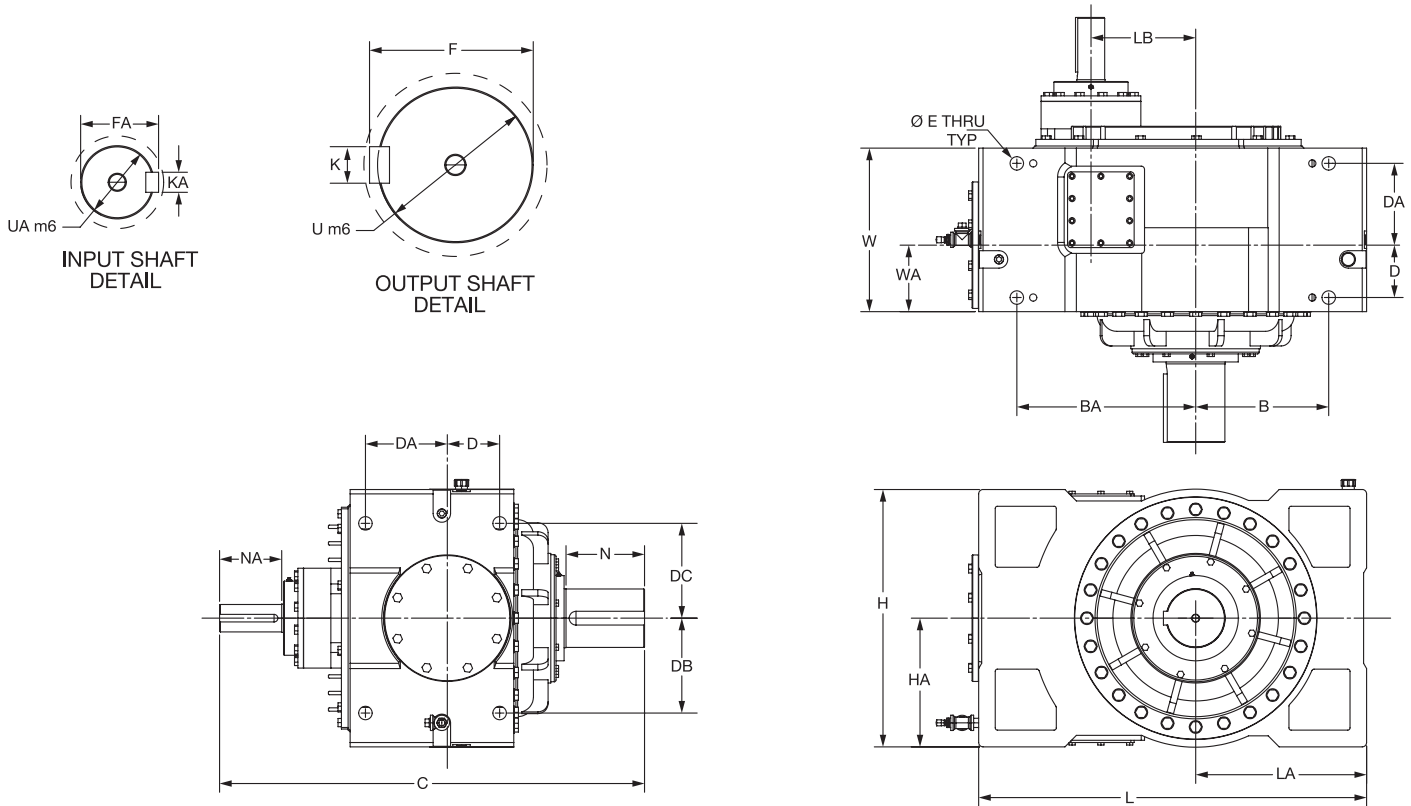
Reducer size	Units	L	LA	LB	N	NA	U	UA	W	WA	Weight	Units
G525	inch	44.42	19.59	12.00	9.21	7.33	6.6940 ± 0.0005	3.1469 ± 0.0005	18.75	7.62	3642	lbs
	mm	1128.27	497.70	304.80	233.93	186.12	170 m6	80 m6	476.25	193.55	1652	kg
G700	inch	49.37	21.43	13.00	10.08	6.70	7.4800 ± 0.0005	3.3474 ± 0.0005	21.58	9.25	4947	lbs
	mm	1254.00	544.41	330.24	256.03	170.18	190 m6	85 m6	548.12	234.95	2244	kg
G920	inch	55.13	25.00	14.25	11.50	7.59	8.4658 ± 0.0005	3.7411 ± 0.0005	23.44	10.56	6838	lbs
	mm	1400.18	634.96	361.95	292.10	192.79	215 m6	95 m6	595.38	268.22	3102	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G1400, G2100 and G3500 – two stage – solid output shaft



Reducer size	Units	B	BA	D	DA	DB	DC	E	F	FA	H	HA	K	KA
G525	inch	15.25	20.50	6.00	9.38	10.87	10.87	1.53	7.04	3.34	29.50	14.75	1.57	0.87
	mm	387.50	520.70	152.40	238.25	276.10	276.10	39.00	178.80	84.94	749.30	374.65	40.00	22.00
G700	inch	17.13	23.50	7.00	10.00	11.87	11.87	1.77	7.87	3.54	32.00	16.00	1.77	0.87
	mm	434.98	596.90	177.80	254.00	301.50	301.50	45.01	199.82	89.83	812.80	406.40	45.00	22.00
G920	inch	19.44	24.50	7.91	10.25	12.50	12.50	2.05	8.90	3.93	36.00	18.00	1.97	0.98
	mm	493.78	622.30	200.91	260.35	317.50	317.50	51.99	226.07	99.85	914.40	457.20	50.00	25.00

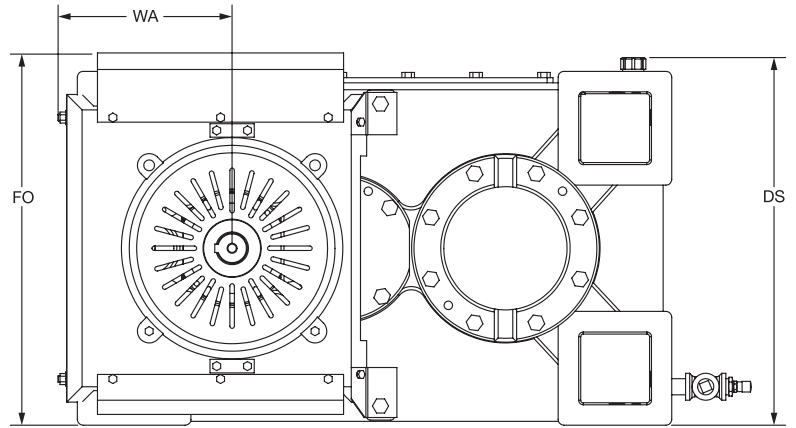
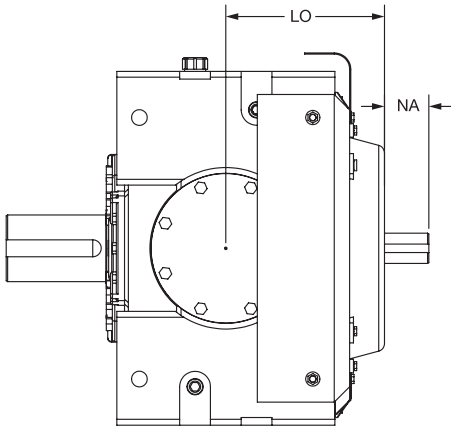
Reducer size	Units	L	LA	LB	N	NA	U	UA	W	WA	Weight	Units
G525	inch	44.42	19.59	12.00	9.21	7.33	6.6940 ± 0.0005	3.1469 ± 0.0005	18.75	7.62	3642	lbs
	mm	1128.27	497.70	304.80	233.93	186.12	170 m6	80 m6	476.25	193.55	1652	kg
G700	inch	49.37	21.43	13.00	10.08	6.70	7.4800 ± 0.0005	3.3474 ± 0.0005	21.58	9.25	4947	lbs
	mm	1254.00	544.41	330.24	256.03	170.18	190 m6	85 m6	548.12	234.95	2244	kg
G920	inch	55.13	25.00	14.25	11.50	7.59	8.4658 ± 0.0005	3.7411 ± 0.0005	23.44	10.56	6838	lbs
	mm	1400.18	634.96	361.95	292.10	192.79	215 m6	95 m6	595.38	268.22	3102	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100 through G920 – double reduction – mechanical shaft fans



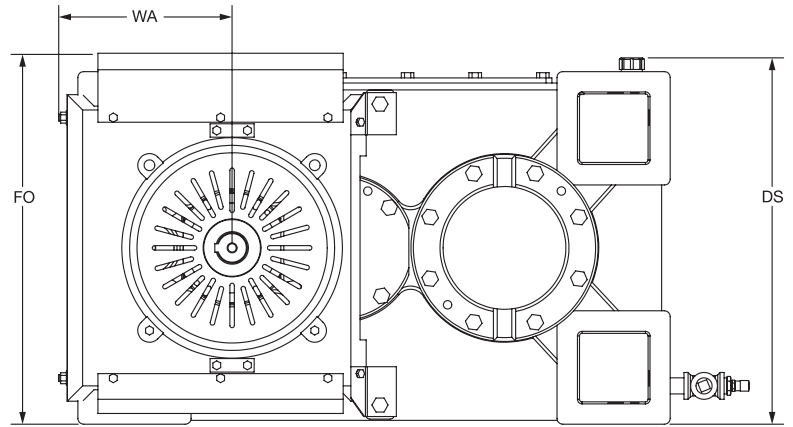
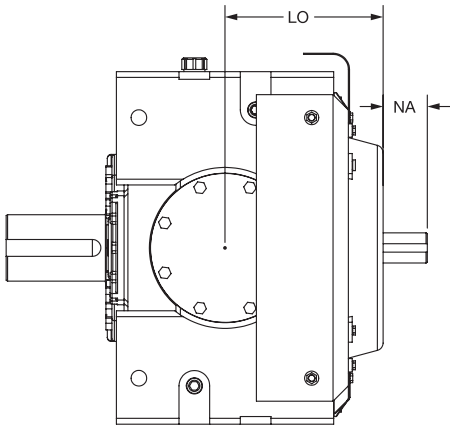
Reducer size	Units	NA	LO	WA	FO	DS	Weight	Units
G100	inch	2.12	8.88	11.00	21.12	21.40	17	lbs
	mm	53.85	225.55	279.40	536.45	543.56	7	kg
G150	inch	2.89	10.31	11.31	24.13	23.90	18	lbs
	mm	73.41	261.87	287.27	612.90	607.06	8	kg
G210	inch	3.16	10.89	13.38	26.25	26.40	23	lbs
	mm	80.26	276.61	339.85	666.75	670.56	10	kg
G285	inch	4.09	11.26	14.49	29.25	28.65	26	lbs
	mm	103.89	286.00	368.05	742.95	727.71	12	kg
G390	inch	3.00	12.01	14.55	30.50	30.65	31	lbs
	mm	76.20	305.05	369.57	774.70	778.51	14	kg
G525	inch	4.68	21.42	14.83	30.75	30.46	36	lbs
	mm	118.87	544.07	376.68	781.05	773.68	16	kg
G600	inch	4.19	14.47	15.90	34.80	34.40	40	lbs
	mm	106.43	367.54	403.86	883.92	873.76	18	kg
G700	inch	4.60	22.90	17.03	33.00	33.15	48	lbs
	mm	116.84	581.66	432.56	838.20	842.01	22	kg
G920	inch	4.88	24.00	17.88	37.00	37.10	53	lbs
	mm	123.95	609.60	454.15	939.80	942.34	24	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100 through G600 – triple reduction – mechanical shaft fans



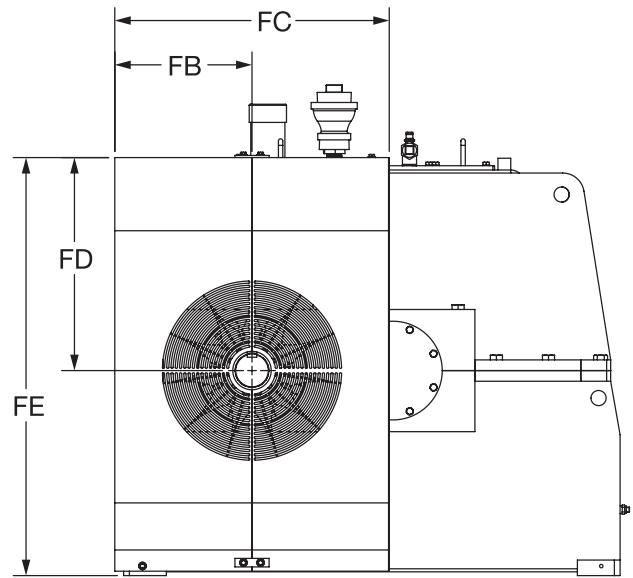
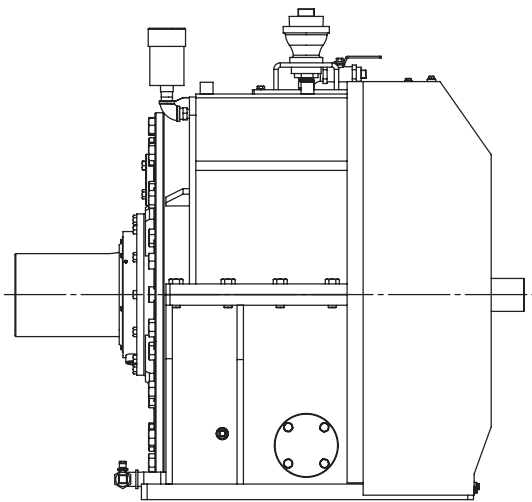
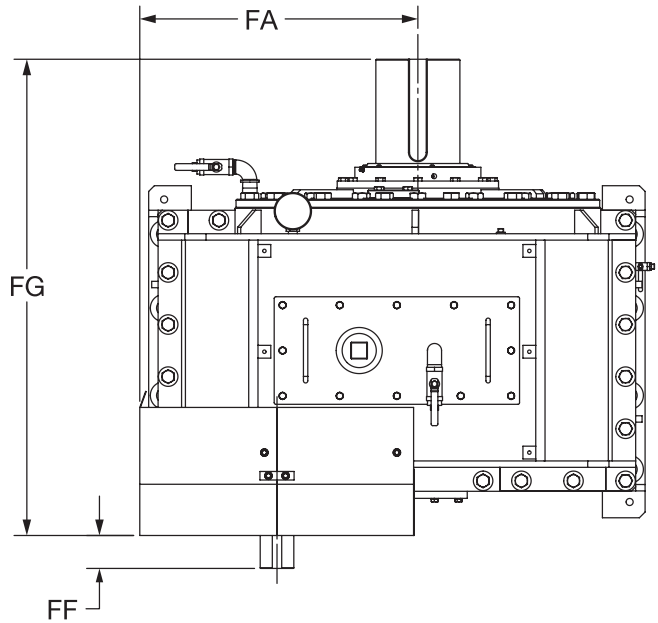
Reducer size	Units	NA	LO	WA	FO	DS	Weight	Units
G100	inch	1.56	8.84	5.90	21.12	21.40	15	lbs
	mm	39.62	224.54	148.84	536.45	543.56	7	kg
G150	inch	2.98	9.87	6.00	23.38	23.90	17	lbs
	mm	75.69	250.70	152.40	593.85	607.06	7	kg
G210	inch	2.84	10.42	7.10	26.13	26.40	21	lbs
	mm	72.14	264.67	179.58	663.70	670.56	10	kg
G285	inch	3.02	11.16	7.50	28.88	28.65	24	lbs
	mm	76.71	283.46	189.23	733.55	727.71	11	kg
G390	inch	2.04	12.00	7.20	30.63	30.65	28	lbs
	mm	51.82	304.80	183.39	778.00	778.51	13	kg
G600	inch	4.28	13.72	8.30	34.70	30.46	37	lbs
	mm	108.71	348.49	210.82	881.38	773.68	17	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G1400 and G2100 – mechanical shaft fans



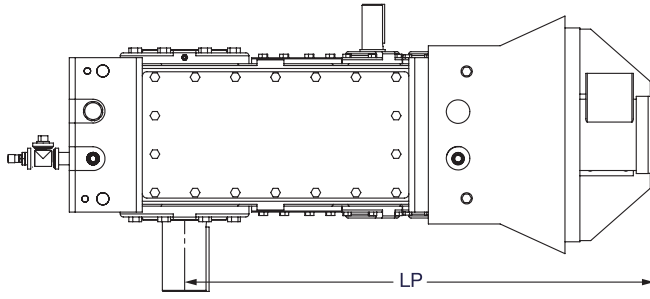
Reducer size	Units	FA	FB	FC	FD	FE	FF	FG	Weight	Units
G1400	inch	32.58	16.08	32.15	24.95	24.95	7.25	55.79	61	lbs
	mm	828.00	408.00	817.00	634.00	634.00	184.00	1417.00	28	kg
G2100	inch	37.35	17.85	35.68	30.20	58.17	8.00	61.40	90	lbs
	mm	949.00	453.00	906.00	767.00	1478.00	203.00	1559.00	41	kg

DIMENSIONAL DRAWINGS

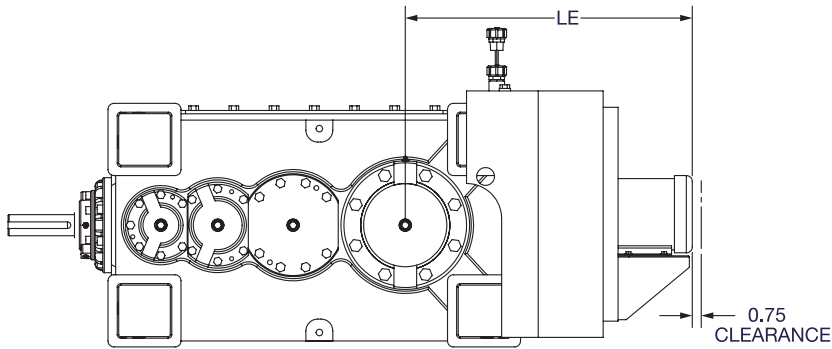


MagnaGear XTR parallel shaft

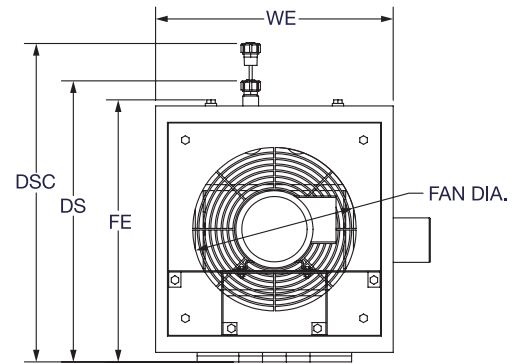
Sizes G100 through G920 – electric fans



MAGNAGEAR-PARALLEL E-FAN



MAGNAGEAR-RT ANGLE E-FAN



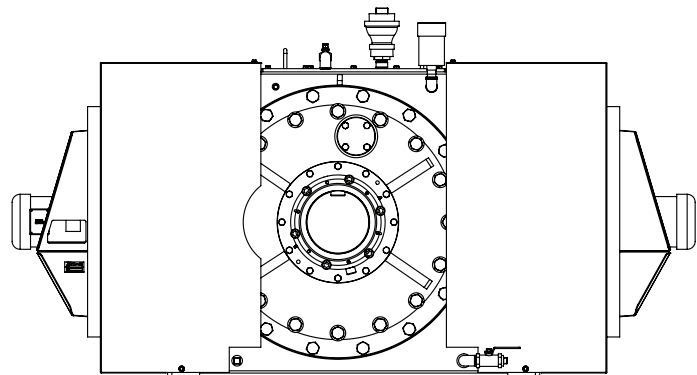
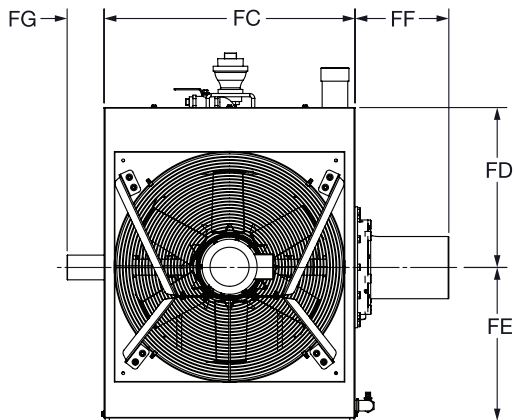
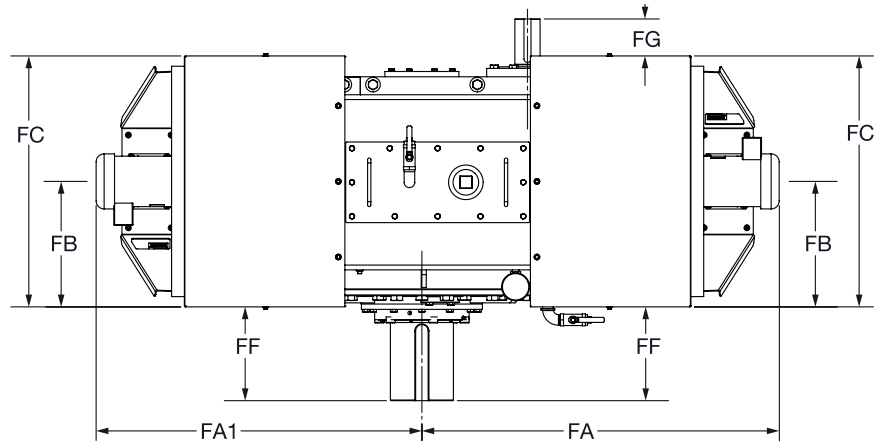
Reducer size	Units	Fan diameter	LE	LP	WE	FE	DS	DSC	Weight	Units
G100	inch	14.00	24.20	39.50	20.00	22.00	23.50	18.00	50	lbs
	mm	355.60	614.68	1003.30	508.00	558.80	596.90	457.20	23	kg
G150	inch	16.00	25.38	42.40	22.00	25.50	25.30	19.25	55	lbs
	mm	406.40	644.65	1076.96	558.80	647.70	642.62	488.95	25	kg
G210	inch	16.00	26.90	46.90	22.00	27.10	27.80	21.30	60	lbs
	mm	406.40	683.26	1191.26	558.80	688.34	706.12	541.02	27	kg
G285	inch	16.00	26.30	47.70	22.00	30.00	30.80	22.00	65	lbs
	mm	406.40	668.02	1211.58	558.80	762.00	782.32	558.80	29	kg
G390	inch	18.00	24.00	46.00	23.38	32.25	33.00	25.00	70	lbs
	mm	457.20	609.60	1168.40	593.85	819.15	838.20	635.00	32	kg
G525	inch	24.00	41.40	46.65	33.00	33.30	30.50	22.00	112	lbs
	mm	609.60	1051.56	1184.91	838.20	845.82	774.70	558.80	51	kg
G600	inch	20.00	29.50	54.00	0.00	34.80	35.60	27.00	120	lbs
	mm	508.00	749.30	1371.60	0.00	883.92	904.24	685.80	54	kg
G700	inch	24.00	42.85	49.38	33.00	33.50	35.70	28.00	118	lbs
	mm	609.60	1088.39	1254.25	838.20	850.90	906.78	711.20	54	kg
G920	inch	24.00	50.38	55.60	33.00	38.20	39.50	27.00	129	lbs
	mm	609.60	1279.65	1412.24	838.20	970.28	1003.30	685.80	59	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G1400, G2100 and G3500 – electric fans



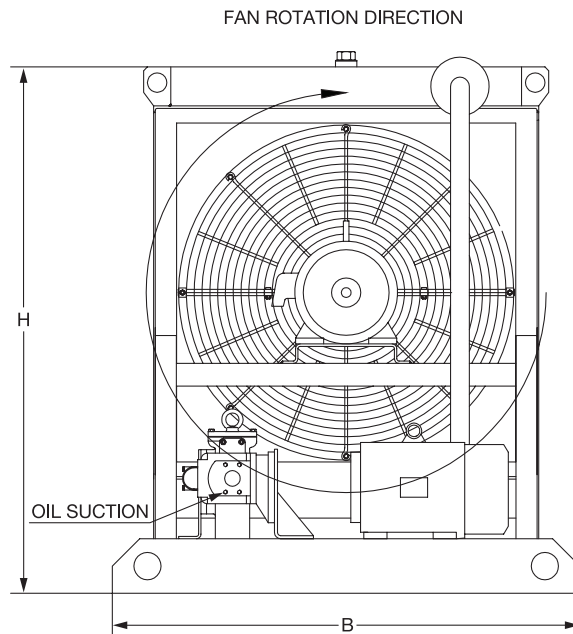
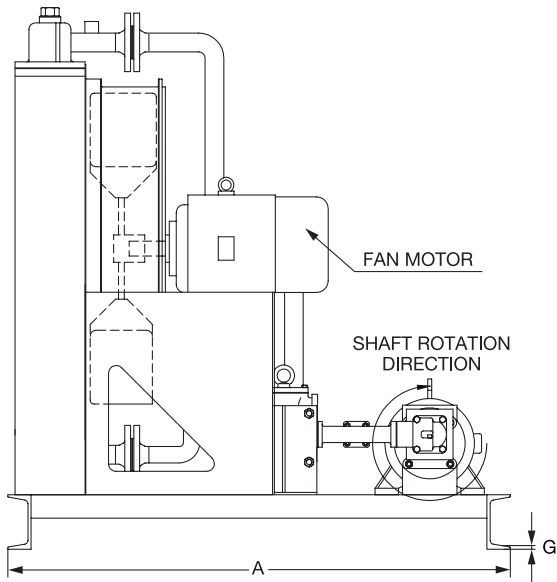
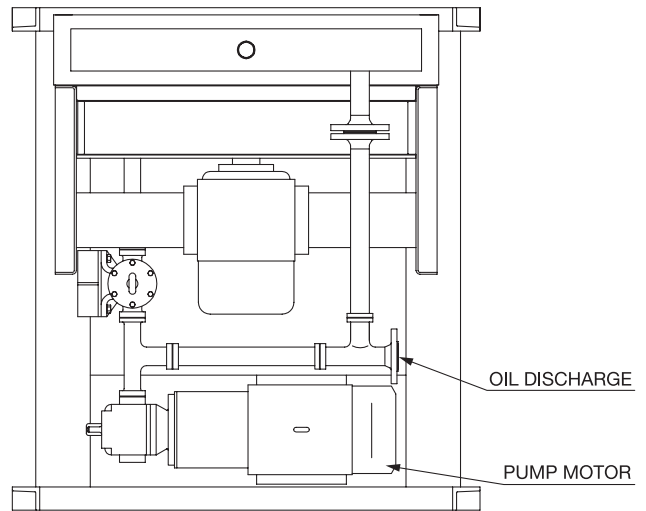
Reducer size	Units	Fan diameter	FA	FA2	FB	FC	FD	FE	FF	FG	Weight	Units
G1400	inch	30.00	55.83	50.91	19.61	39.21	24.99	23.98	14.66	5.78	259	lbs
	mm	762.00	1418.08	1293.11	498.09	995.93	634.75	609.09	372.36	146.81	117	kg
G2100	inch	36.00	69.06	65.91	21.85	43.70	30.19	27.95	15.96	6.54	312	lbs
	mm	914.40	1754.12	1674.11	554.99	1109.98	766.83	709.93	405.38	166.12	142	kg
G3500	inch	42.00	79.21	76.06	26.06	52.13	35.52	35.00	23.66	9.96	372	lbs
	mm	1066.80	2011.93	1931.92	661.92	1324.10	902.21	889.00	600.96	252.98	169	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR parallel shaft

Sizes G100 through G3500 – heat exchangers



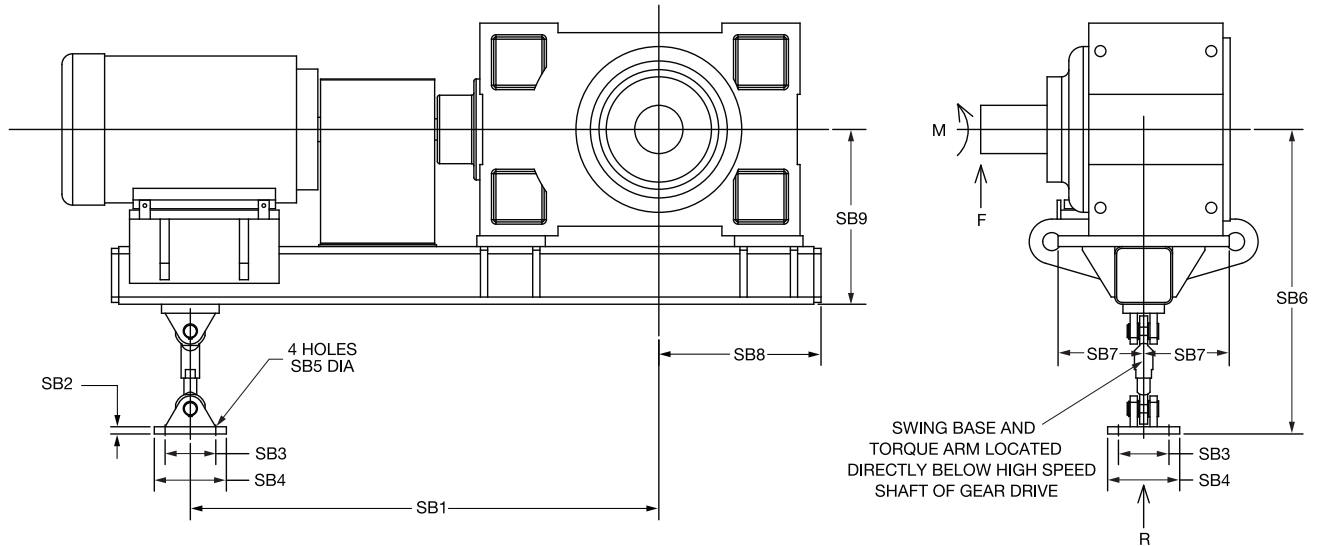
Cooling system	Units	A	B	H	G	Weight	Units
966236	inch	49.61	35.04	40.31	0.52	529	lbs
	mm	1260.00	890.00	1024.00	13.20	240	kg
966237	inch	53.70	40.16	45.43	0.52	948	lbs
	mm	1364.00	1020.00	1154.00	13.20	430	kg
966238	inch	50.79	47.24	53.19	0.52	1147	lbs
	mm	1290.00	1200.00	1351.00	13.20	520	kg
966239	inch	52.76	53.54	58.03	0.52	1433	lbs
	mm	1340.00	1360.00	1474.00	13.20	650	kg
966240	inch	61.18	60.63	64.25	0.52	1830	lbs
	mm	1554.00	1540.00	1632.00	13.20	830	kg
966241	inch	67.32	70.08	73.46	0.52	2117	lbs
	mm	1710.00	1780.00	1866.00	13.20	960	kg

DIMENSIONAL DRAWINGS



MagnaGear XTR swing bases

Sizes G100 through G920 typical arrangements



Dimensions - Inches

Drive size	SB1	SB2	SB3	SB4	SB5	SB6	SB7	SB8	SB9
G100	56.0	0.75	5.00	7.00	0.689	28.4	7.00	12.3	17.25
G150	62.0	0.75	5.00	7.00	0.689	29.7	7.38	12.7	18.5
G210	66.0	0.75	5.00	6.50	0.689	31.18	7.50	11.8	20.0
G285	66.0	1.00	5.00	7.00	0.866	36.22	8.00	13.1	23.4
G390	73.0	1.00	5.25	7.25	0.866	39.94	9.00	14.3	24.4
G525	65.0	1.00	7.00	10.00	1.024	42.63	11.12	21.0	24.8
G600	73.0	1.25	8.00	12.00	1.299	49.60	13.50	19.8	28.5
G700	68.0	1.25	8.00	11.00	1.299	49.12	12.00	23.1	28.0
G920	78.0	1.50	9.00	12.00	1.299	55.16	12.25	25.9	30.5

Reaction forces

Drive size	Torque condition	Solid low speed shaft			Hollow low speed shaft		
		R Force at torque arm (lbs)	F Force at end of low speed shaft (lbs)	M Bending moment at end of low speed shaft (lb-in)	R Force at torque arm (lbs)	F Force at end of tapered bushing	M Bending moment at end of tapered bushing
G100	100%	4400	3100	45200	4300	3100	31000
	200%	6200	5000	73800	6200	4900	50900
G150	100%	6500	4100	64500	6400	4000	44100
	200%	9200	6800	109300	9100	6700	75700
G210	100%	7500	7100	104100	6600	6000	65700
	200%	10900	10550	167500	10000	9400	102600
G285	100%	8500	8200	127500	8300	7700	88000
	200%	13300	13000	204800	13100	12400	142400
G390	100%	10200	9900	167500	9900	9100	113000
	200%	15600	15300	264000	15300	14500	180100
G525	100%	15500	13300	283900			
	200%	24600	22400	491300			
G600	100%	18500	14000	326000	18000	13000	220000
	200%	27500	22800	530000	26500	21000	362000
G700	100%	20200	17000	426600			
	200%	31600	28500	728800			
G920	100%	24900	20500	555900			
	200%	38000	33600	963500			

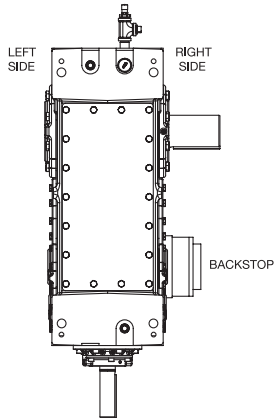
- Notes:**
- 1 - The illustration above is representative and does not agree in exact detail for all sizes.
 - 2 - Gear drives are for horizontally mounted operation (high speed & low speed shaft) unless specifically stated otherwise. Refer to factory if inclined operation is required.
 - 3 - Dimensions are for reference only and are subject to change without notice unless certified.
 - 4 - Reaction forces are provided for 100% and 200% torque conditions. The 100% condition is representative of normal operating loads at full motor horsepower. The 200% condition is representative of maximum loads encountered at start up. Reaction forces provided are based on estimated weights and full mechanical rating (s.f.=1.0). Values will vary based on actual weights and torque transmitted. Reaction forces (R & F) and bending moment (M) for a specific application will be provided during order processing.
 - 5 - For drives with hollow low speed shafts, the location of "M" and "F" is at the outer edge of the tapered bushing.
 - 6 - Reaction forces may be acting in a direction different than shown.

CONFIGURATION DRAWINGS

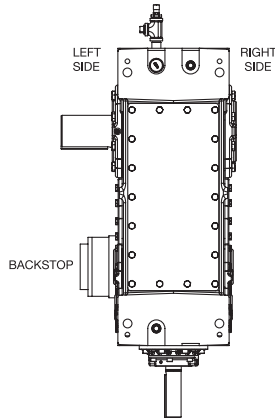


MagnaGear XTR right angle shaft reducers

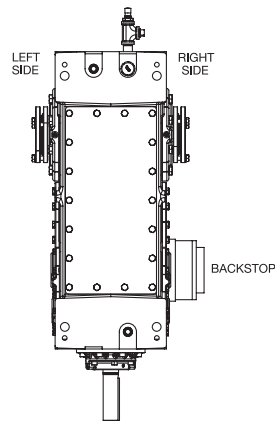
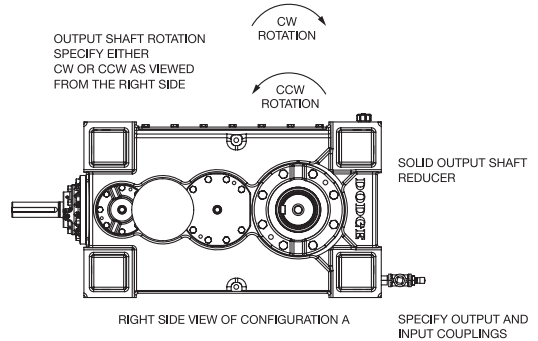
Sizes G100, G150, G210, G285, G390 and G600



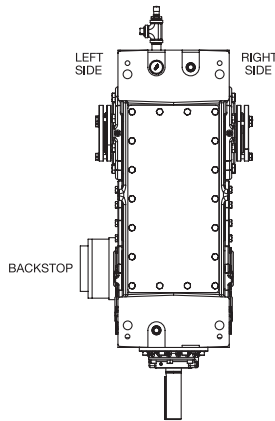
CONFIGURATION A



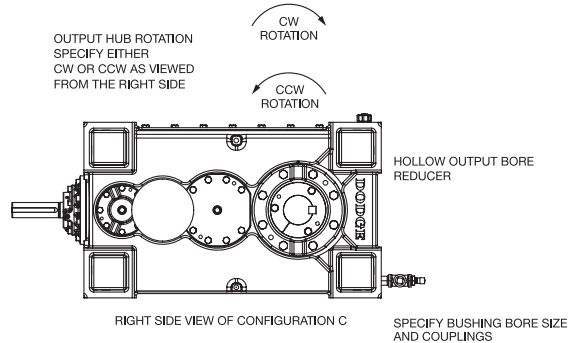
CONFIGURATION B



CONFIGURATION C

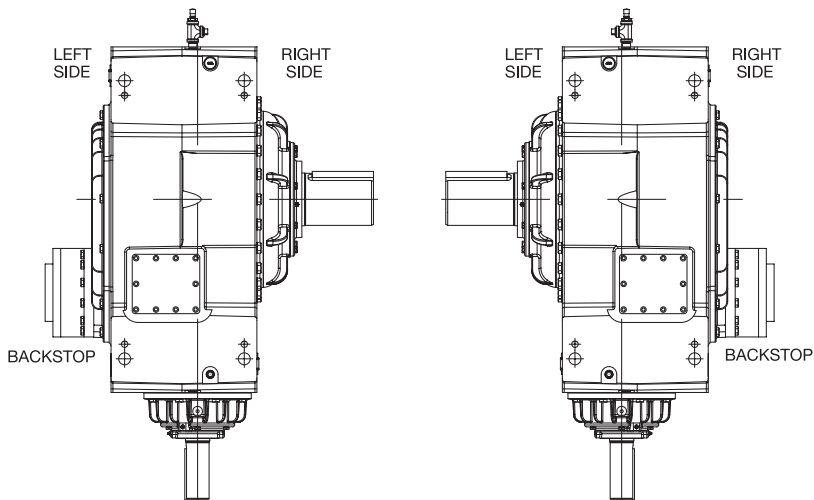


CONFIGURATION D



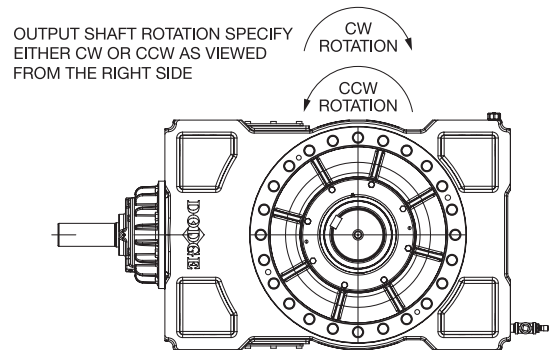
CONFIGURATION A AND C ARE CONSIDERED RH CONFIGURATION
CONFIGURATION B AND D ARE CONSIDERED LH CONFIGURATION

Sizes G525, G700, G920, G1400, G2100 and G3500



CONFIGURATION: A

CONFIGURATION: B



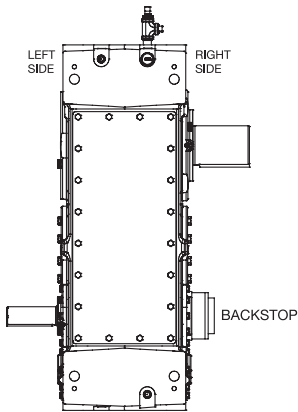
CONFIGURATION A IS CONSIDERED RH CONFIGURATION.
CONFIGURATION B IS CONSIDERED LH CONFIGURATION.

CONFIGURATION DRAWINGS

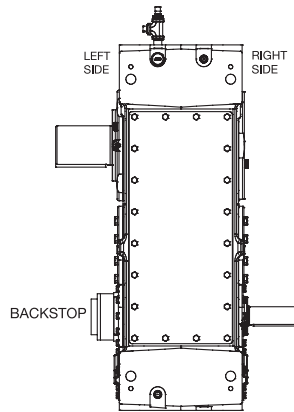


MagnaGear XTR parallel shaft reducers

Sizes G100, G150, G210, G285, G390 and G600

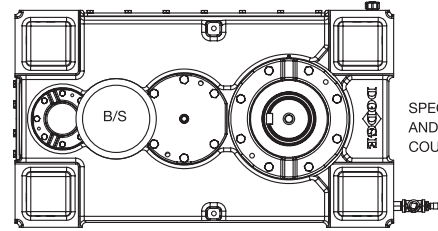
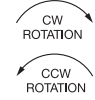


CONFIGURATION A



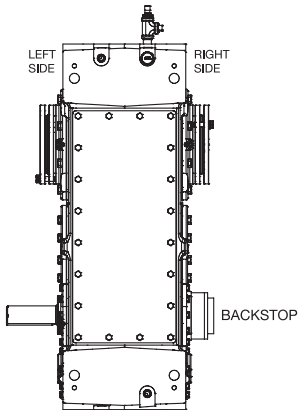
CONFIGURATION B

OUTPUT SHAFT ROTATION
SPECIFY EITHER
CW OR CCW AS VIEWED
FROM THE RIGHT SIDE

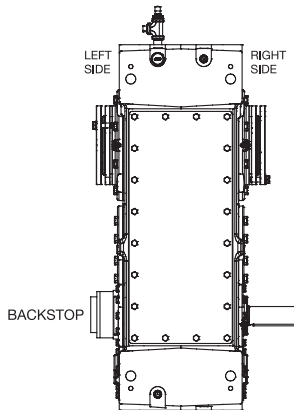


SPECIFY OUTPUT
AND INPUT
COUPLINGS

RIGHT SIDE VIEW OF CONFIG.A

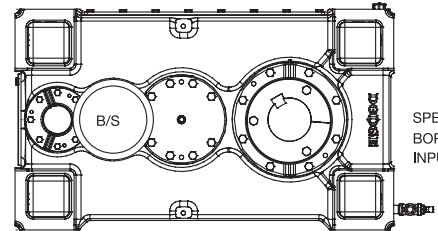
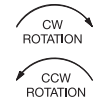


CONFIGURATION C



CONFIGURATION D

OUTPUT HUB ROTATION
SPECIFY EITHER
CW OR CCW AS VIEWED
FROM THE RIGHT SIDE

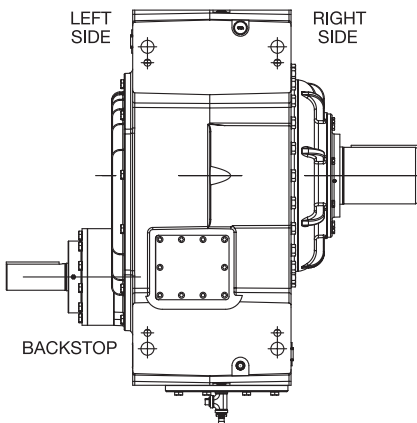


SPECIFY BUSHING
BORE SIZE AND
INPUT COUPLINGS

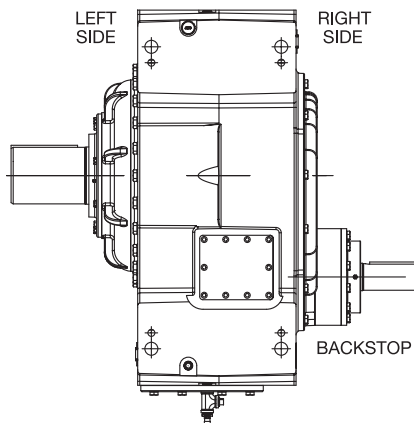
RIGHT SIDE VIEW OF CONFIG. C

CONFIGURATION A AND C ARE CONSIDERED RH CONFIGURATION
CONFIGURATION B AND D ARE CONSIDERED LH CONFIGURATION

Sizes G525, G700, G920, G1400, G2100 and G3500

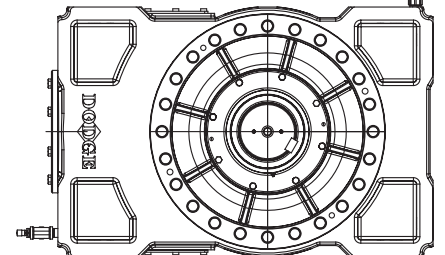
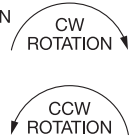


CONFIGURATION: A



CONFIGURATION: B

OUTPUT SHAFT ROTATION
SPECIFY EITHER
CW OR CCW AS VIEWED
FROM THE RIGHT SIDE



CONFIGURATION A IS CONSIDERED RH CONFIGURATION.
CONFIGURATION B IS CONSIDERED LH CONFIGURATION.

Also see these publications for additional gearing information

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- Uses standard TAll accessories
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- Shaft sizes up to 120mm or 4-7/16"
- Torque ratings up to 15,000 Nm or 130,000 in-lb

Quantis Engineering Catalog CA1603

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- Right Angle Helical Bevel (RHB)
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