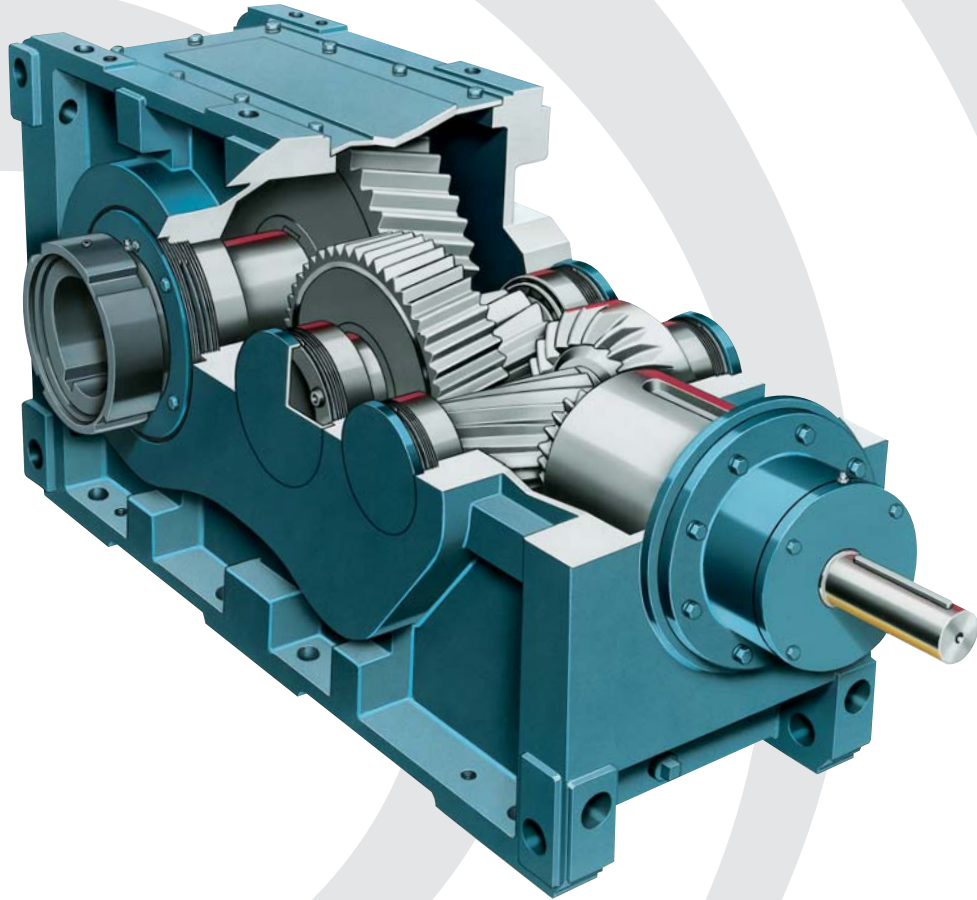


FALK™ DRIVE ONE® | ONE DRIVE FOR ONE WORLD
English-Inch



now more competitive than ever ...

ONE RELIABLE DRIVE

For more than 100 years, the Falk™ name has earned a reputation for delivering the highest value gear drive solutions in the power transmission industry.

The Falk™ Drive One® product family of gear drives carries on this tradition. Its robust yet elegant design integrates the proven features and benefits of past designs with industry-leading

innovations derived from our experience with heavy industry's most demanding applications.

The result is a new standard in drive reliability... and a drive with the design and feature sets that make it easy for you to standardize on one platform for all your mid-to-large-size drive requirements.



Falk™ Drive One® – Universal Series (Sizes 1130 – 1210)

Large inspection cover provides easy access for maintenance

6-sided mounting capability allows mounting in any position

Precision-ground carburized high strength gearing assures long life and quiet operation

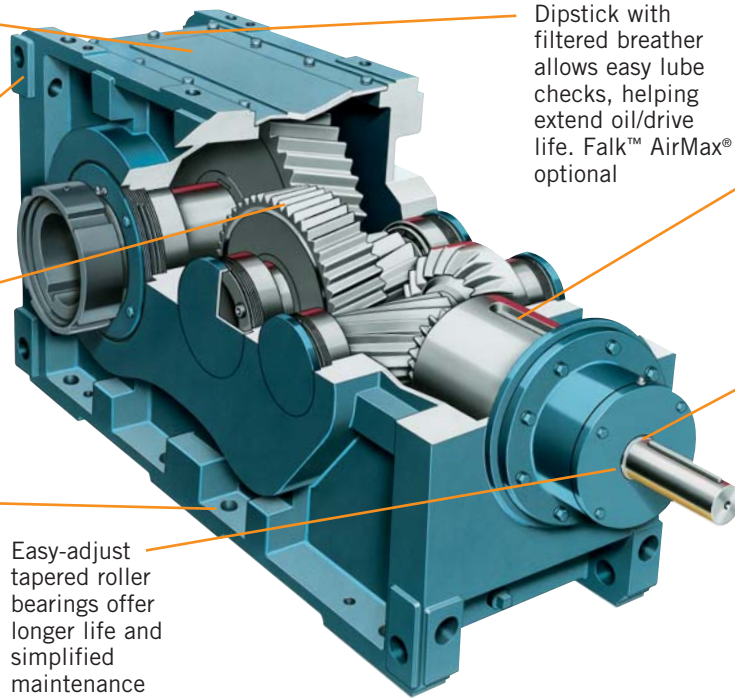
Jacking bolt holes simplify installation and alignment

Easy-adjust tapered roller bearings offer longer life and simplified maintenance

Dipstick with filtered breather allows easy lube checks, helping extend oil/drive life. Falk™ AirMax® optional

Internal oil distribution system contributes to long bearing life and cooler running drives

Tandem lip seals with grease-purged cavity (Viton® high speed) on all shaft extensions help prevent leaks



... with 18% higher ratings

Falk™ Drive One® – Conveyor Series (Sizes 1220 – 1250)

In addition to the quality features found on all Falk™ Drive One® units, our Conveyor Series includes unique features to optimize performance and reliability for high capacity belt conveyors, and other critical equipment applications.

Right or left hand mounting means one spare accommodates both configurations

Split housing design facilitates assembly/disassembly and inspection

Housing surface area, a proprietary elevated oil distribution pan and reduced oil sump allow most applications to be cooled with shaft driven fans

Large shaft extensions offer simplified installation of shaft couplings and drive accessories

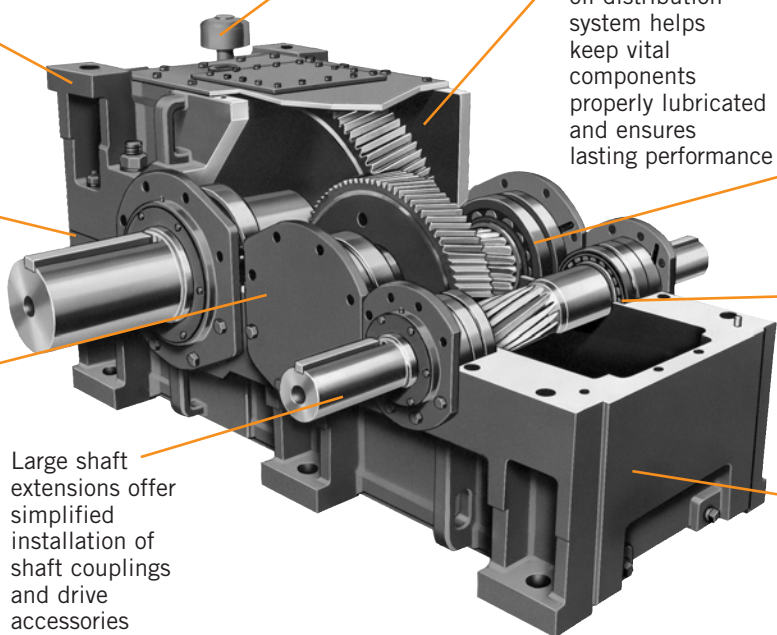
Falk™ AirMax® breather and sealed dipstick prevent water and contaminant ingress

Patented internal oil distribution system helps keep vital components properly lubricated and ensures lasting performance

All bearings sized for 60,000 L10 life @ a 1.5 Service Factor

Falk™ Magnum® “No Leak” drain back seals w/grease-purged cavity are standard on all shaft extensions

Rugged ductile iron housing stands up to high impact and shock service



Falk™ Drive One® – High Torque Series (Sizes 1160 – 1210)

Designed for use anywhere slow speed and high torque is required.

A large range of standard ratios from 160:1 to 710:1 and made-to-order ratios of 1000:1 and higher ensure a cost competitive drive for all slow speed applications

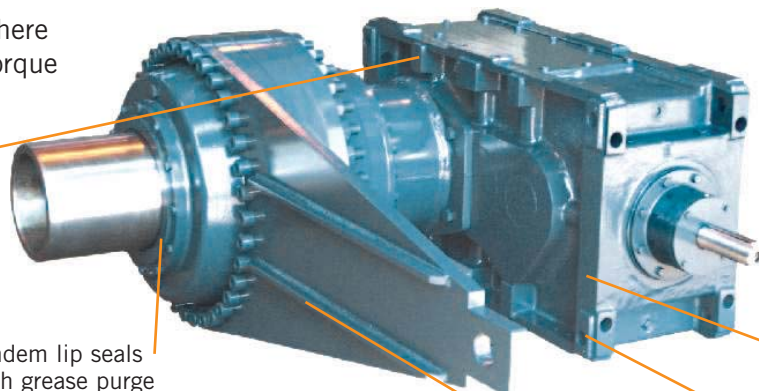
tandem lip seals with grease purge cavity (Viton® high speed) on all shaft extensions prevent leaks

Higher efficiency than low speed / high torque hydraulic motors save on energy costs year after year

Standard accessories such as torque arms, shrink discs, backstops and motor interfaces provide for packaged solutions, from electrical source to driven equipment

Stock components reduce lead time

Compact size reduces space requirements



ONE COMPLETE SOLUTION

Falk™ Drive One® is designed to be the most reliable drive available for mid-to-large-sized drive requirements. It's also designed to set a new standard for responsiveness to customer needs for comprehensive, cost-effective power transmission solutions.

- Fewer parts than traditional designs mean even greater reliability and a highly competitive initial cost
- Parts standardization across sizes means quicker turn times and up to a 75% reduction in parts inventories
- Pre-packaged complete drive solutions minimize installation time and costs
- A wide range of sizes and 6-sided mounting flexibility make this solution easy to standardize on... no matter where heavy industry takes you around the world

Standardized Drives

Motorized:

Standard brackets, motor adapters and motor mounts accept NEMA and IEC motor frames.

Low Ratio:

High thermal and high capacity drives are ideal for pump and paper machine applications.

High Ratio:

Compound drives with an Falk™ Ultramite® gearmotor primary enables unlimited ratio availability.

Mixer:

Parallel and Right Angle vertical drives offer drywell assembly and positive lubrication of upper bearings.



Shaft Mounted Conveyor Drives

Alignment-Free:

Eliminates motor and driven equipment alignment. Rugged motor flange accommodates standard TD and IEC flanged motors, with fluid or standard couplings.

Swing Base:

Most flexible design; handles widest assortment of motor/coupling combinations.

Bucket Elevator:

Inching drive package designed for low maintenance, long life and safety.

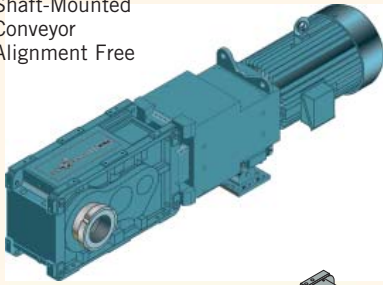
V-Belt:

Top mounted motor with a v-belt connection delivers a compact/cost efficient solution.

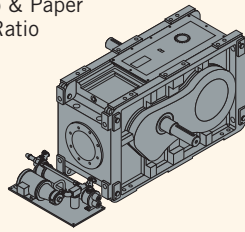
High Torque Planetary Drives

Planetary final stage provides a compact, cost-effective alternative to hydraulic and conventional low rpm drives.

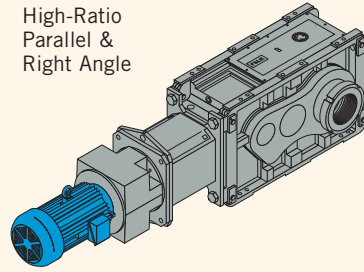
Shaft-Mounted
Conveyor
Alignment Free



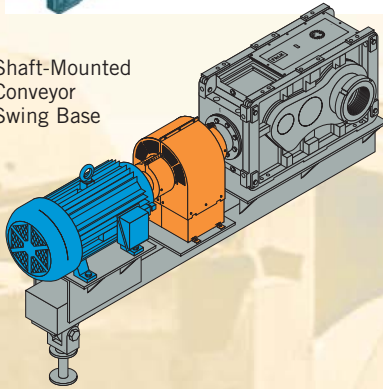
Pump & Paper
Low-Ratio



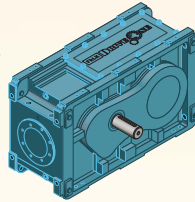
High-Ratio
Parallel &
Right Angle



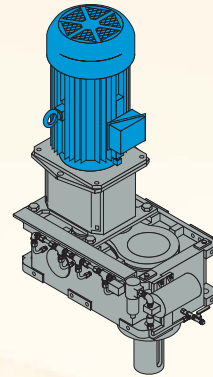
Shaft-Mounted
Conveyor
Swing Base



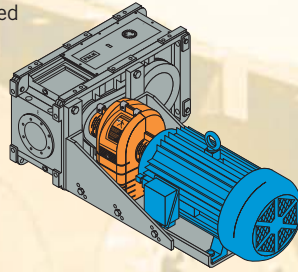
Pump & Paper
Low Ratio/
High
Thermal



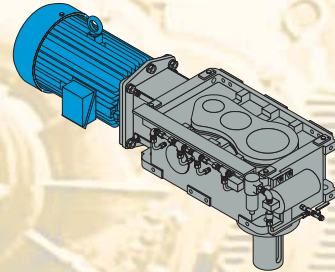
Mixer
Parallel
Vertical



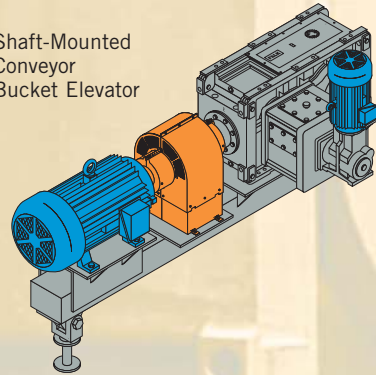
Motorized
Motor
Bracket



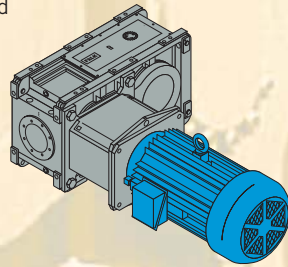
Mixer Right-Angle
Vertical



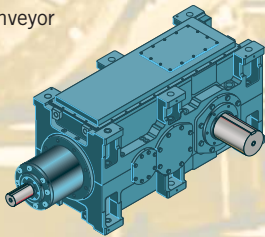
Shaft-Mounted
Conveyor
Bucket Elevator



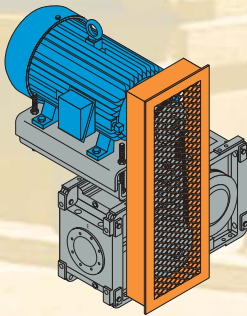
Motorized
Motor
Adapter



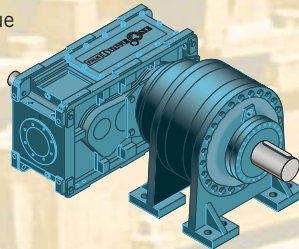
Large Conveyor
Parallel



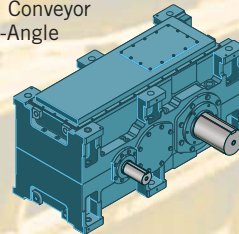
Shaft-Mounted
Conveyor
V-Belt
Package



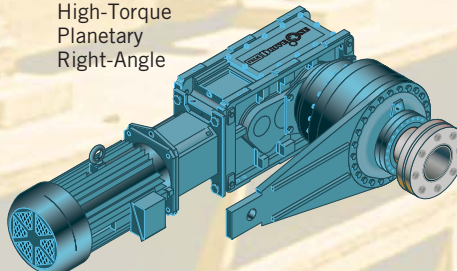
High-Torque
Planetary
Parallel



Large Conveyor
Right-Angle



High-Torque
Planetary
Right-Angle



ONE QUICK DRIVE

In an increasingly competitive global marketplace, we strive to help you succeed by providing the best overall customer experience through our innovative products and services, exceptional people and speed in everything we do.

Quick Ship

- Falk™ Drive One® design streamlines the manufacturing process
- Our worldwide network of strategically located Rexnord® Build Centers assures rapid availability on a global basis
- Centralized Build Center utilizes state-of-the-art flow manufacturing techniques for reduced lead times throughout North America
- Many sizes, types, and ratios can be shipped in 1–5 days



Quick Select

Our commitment to speed includes the Quick Selection Guide, which makes it fast and easy to choose the right Falk Drive One model for your job.

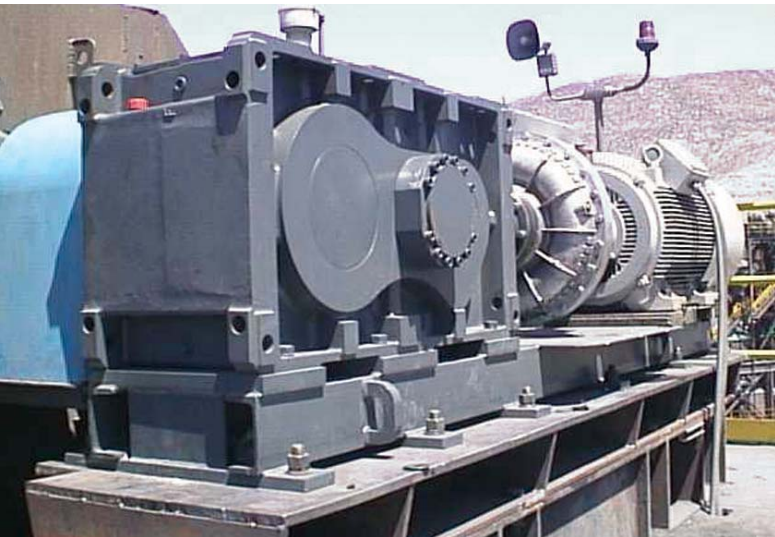
- Simply look up the application, horsepower and speed
- Options enable you to select the turnkey solution that best fits your requirements, including motors, drives, fans – virtually everything you need is in one complete, convenient package, identified by one part number



Quick Repair/Exchange

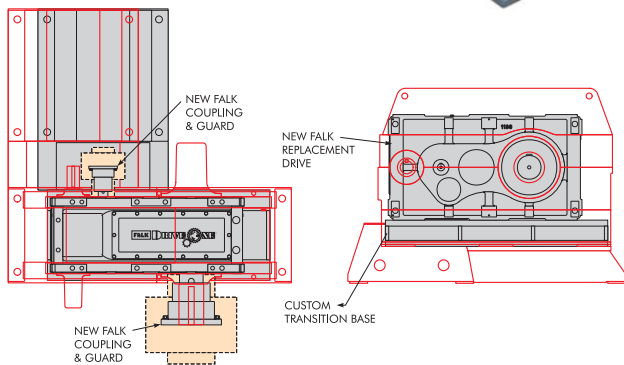
- A comprehensive range of solutions designed to meet your cost and lead time requirements
- Falk Drive One Repair Kits provide all the bearings, seals, hardware and instructions to do a partial drive rebuild at your facility





Quick Change

- Falk™ Drive One® allows you to easily replace any type and brand of large drive
- Conveniently upgrade any drive to the lowest total cost leader
- At the same time, standardize on a single drive platform to maximize your savings over time



Benefits:

- Improve performance and operating life
- Cost savings – up to 65% over obsolete equipment
- Better unit and parts availability
- Easy “drop-in” replacement
- 3-year “heavy-duty” warranty

The alternative to:

- Expensive, obsolete drives
- Hard-to-get imported components
- Problem applications

Falk Drive One – redefining lowest total cost throughout North America and around the world.

One Worry-Free Solution

- Full 3-Year Warranty – standard – on every Falk Drive One



Know-How & Customer Service

People:

- 24/7 support
- Field service
- Problem solving support

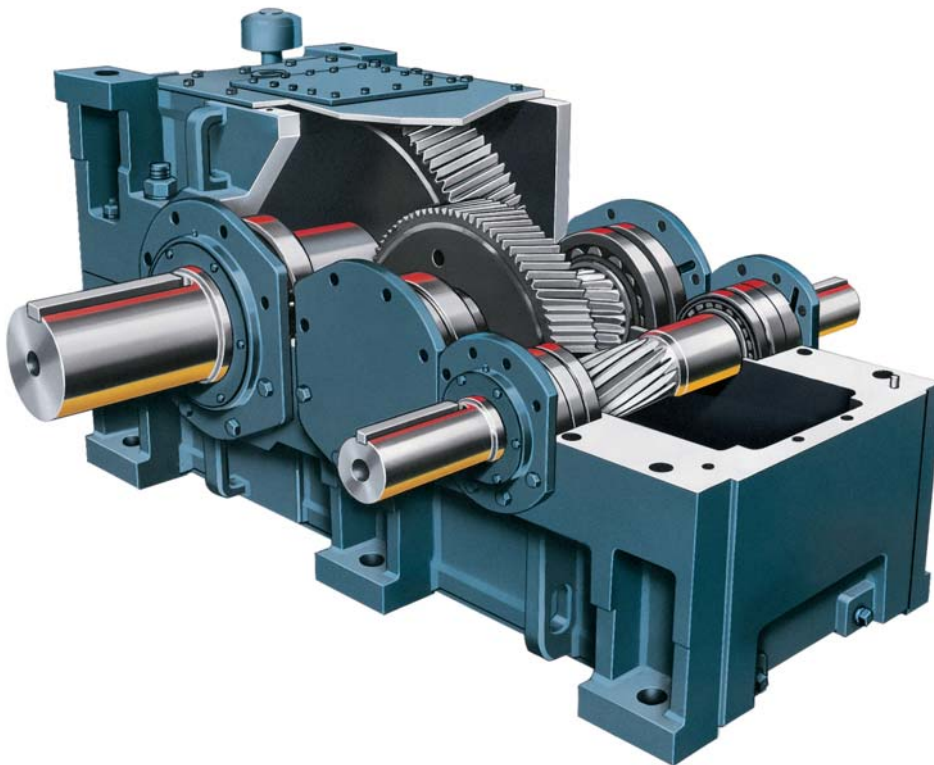
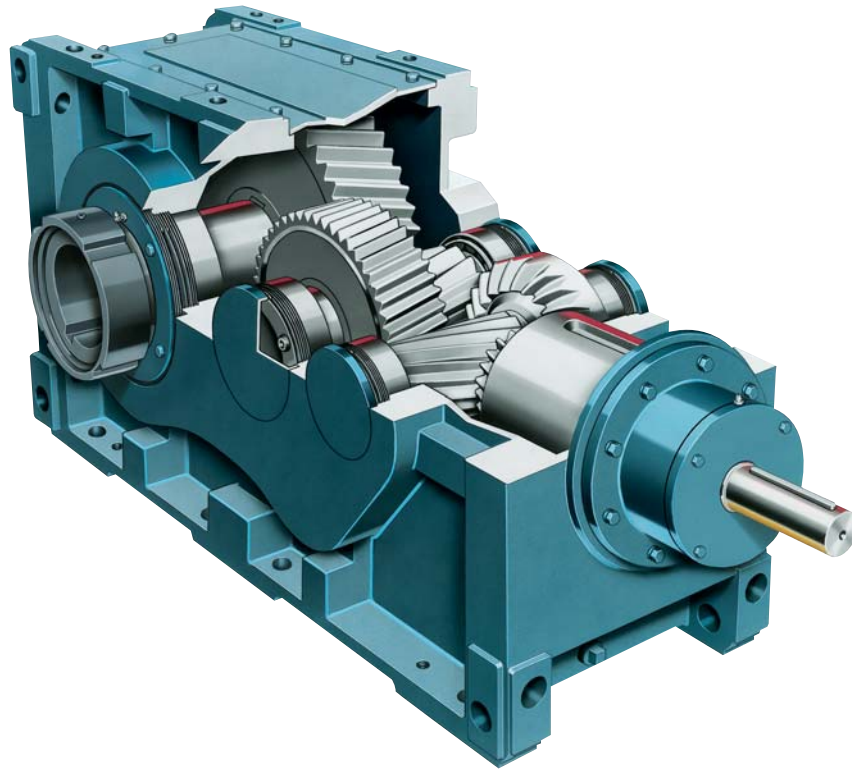
Information:

- Detailed selection guides
- Service/parts literature
- Complete online reference material

Distributor+... Added Value

- Project coordination
- Installation assistance
- Field support
- Spares planning
- Customer in-plant knowledge

Falk Drive One – Selection Guide



Selection Guide 161-110, April 2009

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HEAVY DUTY WARRANTY

Factory Warranty We're so confident in the performance and reliability of our latest generation of Falk gear drives that we're backing this comprehensive offering with the best standard warranty in the business. Our full, 3-year Heavy-Duty Warranty provides "shaft-to-shaft" protection on all Falk components – including bearings and seals (warranty extends for 3 years from date of shipment). It's an industry first... and one more powerful reason why Rexnord is your ultimate bottom-line value.

Basic Information

Safety Notes

Falk Gear Drives The Falk and Rexnord name on the gear drive is the purchaser's assurance that the drive was engineered, rated and manufactured to sound design practices.

The power supplied to the geared drive must be equal to or less than the power for which the drive was selected using the appropriate mechanical service factor for the application. The customer must assume the responsibility of isolating the gear drive from any vibratory or transient load induced by the driven equipment.

Install and operate Rexnord products in conformance with applicable local and national safety codes and per Rexnord installation manuals which are shipped with gear drives and are also available upon request. Suitable guards for rotating members may be purchased from Rexnord as optional accessories. Contact your local Rexnord district office for complete details.

People Conveying Equipment Selection of Rexnord gear drives for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators, escalators, man lift platforms and ski tows and ski lifts.

If the primary purpose of the application is material conveyance and occasionally people are transported, the Rexnord warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Gear Drive Mechanical Power Ratings Gear drive mechanical power ratings stated in this selection guide allow 100% overload for starting loads and momentary overloads associated with normal electric motor driven standard applications operating 10 hours per day under uniform conditions, applications where the recommended mechanical service factor per Page 11 or 12 of this selection guide is 1.00, and where the actual mechanical service factor of the gear drive versus full motor rated power is equal to or greater than 1.00.

For other **standard** applications not meeting conditions stated in the previous paragraph, determine the appropriate mechanical service factor from Page 11 or 12, then calculate an equivalent power by multiplying the actual power transmitted by the previously determined mechanical service factor. For these applications, the mechanical power rating of the gear drive selected must equal or exceed the equivalent power that has been calculated.

For non-standard applications, those where excessive overloads, reversing service, mechanical brakes, or oversize prime movers are present, refer to Page 10, Conditions Affecting Selection, for special instructions.

Gear Drive Basic Thermal Ratings Gear drive basic thermal ratings stated in this selection guide are based on the following assumed conditions:

Ambient temperature is 77°F (25°C).

Altitude is between sea level and 2460 feet.

Ambient air velocity is between 1.6 fps and 4.6 fps typical of a large indoor room.

Duty cycle is continuous.

Orientation is floor mounted with shafts in same horizontal plane.

Thermal Factors & Procedures, Page 14, permit the calculation of an application adjusted thermal rating for the gear drive when local thermal conditions are different than those stated above. It is not necessary to apply the mechanical service factor to the basic thermal rating when determining the thermal adequacy of a gear drive.

Interpolation of Gear Drive Mechanical Power Ratings and Torque Ratings When the high speed shaft rpm for an actual application falls between two tabulated high speed shaft rpm's found in the selection tables, interpolate to determine gear drive rating.

Stored and Inactive Drives Each gear drive is spin-tested with a rust preventive oil that will protect parts against rust for a period of 4 months in an outdoor shelter or 12 months in a dry building after shipment from the Factory.

Periodically inspect stored or inactive drives and spray internal parts with rust inhibitor every six months or more often, if necessary. Drain oil before adding rust inhibitor. Indoor dry storage is recommended.

Drives ordered for extended storage can be treated at the Factory with a special preservative and sealed to rust-proof parts for periods longer than those cited above, if specified on the order.

Refer to Service Manual 128-014 for preparation of stored and inactive gear drives.

Conditions Affecting Selection

Non-Standard Selection Procedures

Some applications require special procedures, or are refer to Factory.

Excessive Overloads The maximum momentary or starting load applied to the gear drive must not exceed 200% of the rated load capacity of the gear drive (100% overload). Rated load capacity of the gear drive is defined as the power rating published in this selection guide with a mechanical service factor of 1.00. If the actual maximum momentary or starting load exceeds the conditions stated above, calculate an equivalent input power associated with the excessive overload by dividing the maximum overload by two. The gear drive selected must have a rated load capacity equal to or greater than the equivalent input power.

Frequency of Starts Starting frequency is an important consideration when selecting a gear drive. Applications involving 2 to 3 equally spaced starts per hour must utilize a minimum 1.5 service factor for unloaded starts, and a minimum 1.75 service factor for fully loaded starts. For applications involving more than 3 starts per hour, refer to Factory the application specifics such as starting frequency and maximum starting torque. AC motors also have similar limitations. The addition of a fluid coupling as a soft start device would increase the number of allowable starts.

Reversing Service Applications involving either more than 20 reversals per 10 hour period, or less than 20 reversals per 10 hour period with peak torques greater than 200% of normal load must be referred to Factory.

Brake Equipped Applications When a gear drive is equipped with a “working” brake that is used to decelerate the motion of the system and the brake is located between the prime mover and the gear drive, select the gear drive based on the brake rating or the highest equivalent input power, whichever is greater. If the brake is used for holding only and is applied after the motion of the system has come to rest, the brake rating must be less than 200% of the rated load capacity of the gear drive selected for the application. If the brake rating is greater than 200% of the rated load capacity, refer the application to the Factory. Also refer to the Factory all applications in which the brake is located at the output shaft of the gear drive.

Oversize Prime Movers Recommended Mechanical Service Factors do not cover applications that require oversize prime movers for high energy or peak loads. Refer such applications to the Factory for selection of suitable gear drives.

Speed Variation or Multi-Speed Applications — The gear drives offered in this selection guide are designed to operate with splash lubrication on any single speed application and any ratio shown in the selection guide unless otherwise noted. It is essential that all orders indicate the operating speed requirements and ratio so that the proper internal oil distribution accessories can be supplied for the specific speed.

Falk gear drives use different oil levels for various gear drive sizes, speeds and ratios. Consequently, to operate an existing gear drive at different speeds from those shown on the nameplate, full application and nameplate information must be referred to the Factory for review of the lubrication system.

All variable or multi-speed applications will be referred to the Engineering Department to specify lubrication components for adequate lubrication at the slowest speed, without excessive temperature or churning at the highest speed. It is essential that all orders indicate minimum and maximum speeds, as well as the speed duration cycles. A separate motor-driven oil pump (at an extra charge) may be required.

When selecting gear drives for multi-speed or variable speed applications, determine the speed at which the greatest torque is developed and select the gear drive on this basis. If the speed is not listed in the selection table, interpolate to determine the gear drive rating.

Application Adjusted Thermal Rating, Page 14, The Application Adjusted Thermal Rating is the actual power that a gear drive will transmit continually for 3 hours or more without overheating. Although it is not necessary to apply the mechanical service factor when determining thermal adequacy of a gear drive, the Application Adjusted thermal Rating considers thermal factors associated with the application that will affect the ability of the gear drive to dissipate thermal energy. These thermal factors include ambient temperature, altitude above sea level, ambient air velocity, inlet water temperature (when cooling tubes are offered), gear drive orientation and duty cycle. Thermal factors on Page 14 are used to adjust the Basic Thermal Rating when determining the Application Adjusted Thermal Rating.

A check of the application adjusted thermal rating versus the actual power transmitted is necessary for the following applications:

- Continuous duty application where the gear drive runs continuously without shutdown for 3 hours or more per day.
- Intermittent duty applications where the gear drive operates for 3 hours or more per day, and run time intervals exceed the duration of the immediately following shutdown intervals. If any run time interval equals or exceeds 3 hours, the application is considered continuous duty.

The duty cycle factor permits an upward adjustment of the basic thermal rating associated with intermittent duty applications above, and takes into account simply the % operating time per hour of the gear drive, regardless of duration relationship between run time intervals and down time intervals, and provided no specific run time interval exceeds one hour in duration.

Other short interval intermittent duty applications, not meeting criteria stated above, may generate only modest thermal energy to be dissipated by the gear drive. Refer full application details to the the Factory for selection of the minimum cooling method that is adequate.

Effects of Solar Energy If a drive operates in the sun at ambient temperatures over 100°F (38°C), then special measures must be taken to protect the drive from solar energy. This protection can consist of a canopy over the gear drive or reflective paint on the gear drive. If neither is possible, a heat exchanger or other cooling device may be required.

Overhung Loads and Thrust Loads Overhung loads and thrust loads must be taken into account when selecting a gear drive. If either an overhung load or thrust load is imposed on the gear drive, or if both an overhung load and thrust load are applied simultaneously, refer application details to the Factory for correct gear drive selection.

Product Modifications The Factory can supply special product modifications to suit your application needs. Contact your local Representative for housing modifications, special ratios, special shafts, special mounting orientations, accessory modifications and other special application requirements.

Seal Housing Grease All gear drives will be shipped with Falk LTG grease in the seal housing cavities. Where this grease could contaminate products produced by customer processes, such as in the food and drug industries, clearly indicate on your purchase order that, “Gear drive seal housing cavities must not contain grease.”

Oil Pump Equipped Application When a gear drive is equipped with an external motor driven oil pump, and the ambient temperature falls below 50°F (10°C), or the oil viscosity is in excess of 8000 SSU, an oil heater may be required to maintain a satisfactory flow rate at startup to prevent bearing failure. Consult the Factory.

Backstop-Equipped Drives Drives with integral backstops require minimum service factors as shown in Table 1A, Page 11. Select drive to the recommended Service Factor in Table 1A, Table 2 or 3, whichever is greater.

Table 1 Mechanical Service Factor conversions

Table 2 or 3 3 to 10 hour Service Factor	3 to 10 Hours per Day	Over 10 Hours per Day	Intermittent—Up to 3 Hours per Day †	
	Multi-Cyl. Engine †	Multi-Cyl. Engine †	Motor	Multi-Cyl. Engine ‡
1.25	1.25	1.50	1.25	1.25
1.25	1.50	1.75	1.25	1.25
1.50	1.75	2.00	1.25	1.50
1.75	2.00	2.25	1.50	1.75
2.00	2.25	2.50	1.75	2.00

† For applications operating one half hour or less per day and applications driven by single cylinder engines, refer to the Factory.
‡ These service factors are based on the assumption that the system is free from serious critical and torsional vibrations and that maximum momentary or starting loads do not exceed 200% of the normal load.

Table 1A — Backstop Minimum Service Factor

DRIVE SIZE	Minimum Service Factor
M1130	1.58
M1140	1.80
M1150	1.64
M1160	1.46
M1170	1.54
M1180-M1250	1.25

Occasional and intermittent service or engine driven applications

For multi-cylinder engine driven applications and all applications operating intermittently up to 3 hours per day, refer to Table 2 or 3 for the Service Factor of the same application operating 3 to 10 hours per day. Next, in the first column of Table 1, find this same Service Factor in bold face type. Then, to the right, under the desired hours service and prime mover, locate the converted Service Factor.

For example, from Table 3, the Service Factor is 1.25 for a uniformly loaded belt conveyor. From Table 1, for the same application the following are the Service Factors for various conditions.

1. Engine driven 3 to 10 hours per day; use 1.50 Service Factor.
2. Engine driven up to 3 hours intermittently; use 1.25 Service Factor.
3. Motor driven up to 3 hours intermittently; use 1.25 Service Factor.

MOUNTING POSITION — Standard mounting positions for types DH & DB are with the input and output shafts horizontal and for DV & DX with the output shafts vertical.

Allowable mounting angles for standard oil levels are;

	Bridge	Slope	
DH & DB	0° Up & 4° Down	± 1.5°	

Consult the Factory for other angles.

Drawing Symbols The following symbols are used throughout the dimensioned drawings.





-  = OIL DIPSTICK
-  = BREATHER
-  = OIL FILL
-  = OIL DRAIN

Table 2 Mechanical Service Factors listed by Industry

for electric motor, steam turbine or hydraulic motor drives . . . recommendations are MINIMUM and normal conditions are assumed.

Industry	Service		Industry	Service	
	3 to 10 Hour	Over 10 Hour		3 to 10 Hour	Over 10 Hour
BOTTLING AND BREWING					
Bottling Machinery	1.25	1.25	Fourdrinier Rolls—		
Brew Kettles, Continuous Duty	1.25	1.25	Lumpbreaker, Wire Turning		
Can Filling machines	1.25	1.25	Dandy & Return Rolls		1.25
Cookers—Continuous Duty	1.25	1.25	Jordan		1.50
Mash Tubs—Continuous Duty	1.25	1.25	Kiln Drive		1.50
Scale Hoppers—Frequent Starts	1.25	1.50	Mt. Hope & Paper Rolls		1.25
CLAY WORKING INDUSTRY					
Brick Press	1.75	2.00	Platter		1.50
Briquette Machines	1.75	2.00	Presses (Felt & Suction)		1.25
Clay Working Machinery	1.25	1.50	Pulper (Continuous)		2.00
Pug Mills	1.25	1.50	Repulper (Heavy Shock)		2.00
DISTILLING See Brewing					
DREDGES					
Cable Reels, Conveyors	1.25	1.50	Reel (Surface Type)		1.25
Cutter Head, Jig Drives & Pumps	2.00	2.00	Screens		
Maneuvering Winches	1.75	2.00	Chip & Rotary		1.50
Screen Drives	1.75	2.00	Vibrating		2.00
Stackers, Utility Winches	1.25	1.50	Size Press		1.25
FOOD INDUSTRY					
Beet Slicers	1.25	1.50	Super Calenders ■		1.25
Bottling, Can Filling Machine	1.25	1.25	Thickener & Washer		
Cereal Cookers	1.25	1.25	AC Motor		1.50
Dough Mixers, Meat Grinders	1.25	1.50	DC Motor		1.25
LUMBER INDUSTRY					
Barkers—Spindle Feed	1.25	1.50	Vacuum Pumps		1.50
Barkers—Main Drive	1.75	1.75	Wind & Unwind Stand		1.25
Carriage Drive	Refer to Factory		Winders (Surface Type)		1.25
Conveyors			◆Yankee Dryers		1.25
Burner	1.25	1.50	PLASTIC INDUSTRY		
Main or Heavy Duty	1.50	1.50	Batch Drop Mill, 2 smooth rolls	1.25	1.25
Main Log	1.75	2.00	Calenders	1.50	1.50
Re-Saw Merry-Go-Round	1.25	1.50	Compounding Mills	1.25	1.25
Slab	1.75	2.00	Continuous Feed, Holding &		
Transfer	1.25	1.50	Blend Mill	1.25	1.25
Chains—Floor	1.50	1.50	Extruders	1.50	1.50
Chains—Green	1.50	1.75	Variable Speed Drive	1.50	1.50
Cut-Off Saws—Chain & Drag	1.50	1.75	Fixed Speed Drive	1.75	1.75
Debarking Drums	1.75	2.00	Intensive Internal Mixers		
Feeds—Edger	1.25	1.50	Batch Mixers	1.75	1.75
Feeds—Gang	1.75	1.75	Continuous Mixers	1.50	1.50
Feeds—Trimmer	1.25	1.50	RUBBER INDUSTRY		
Log Deck	1.75	1.75	Batch Drop Mill, 2 smooth rolls	1.50	1.50
Log Hauls—Incline, Well Type	1.75	1.75	Calenders	1.50	1.50
Log Turning Devices	1.75	1.75	Cracker, 2 corrugated rolls	2.00	2.00
Planer Feed	1.25	1.50	Cracker Warmer—2 roll.		
Planer Tilting Hoists	1.50	1.50	1 corrugated roll	1.75	1.75
Rolls—Live—Off Bearing—			Extruders		
Roll Cases	1.75	1.75	Continuous Screw Operation	1.75	1.75
Sorting Table, Tipple Hoist	1.25	1.50	Intermittent Screw Operation	1.75	1.75
Transfers—Chain & Craneway	1.50	1.75	Holding, Feed & Blend Mill—		
Tray Drives	1.25	1.50	2 Roll	1.25	1.25
Veneer Lathe Drives	Refer to Factory		Intensive Internal Mixers		
OIL INDUSTRY					
Chillers	1.25	1.50	Batch Mixers	1.75	1.75
Oil Well Pumping	Refer to Factory		Continuous Mixers	1.50	1.50
Paraffin Filter Press	1.25	1.50	Mixing Mill—2 smooth rolls		
Rotary Kilns	1.25	1.50	(if corrugated rolls are used.		
PAPER MILLS ★					
Agitator (Mixer)	1.50		use Cracker Warmer		
Agitator for Pure Liquids	1.25		service factors)	1.50	1.50
Barking Drums, Barkers—Mech.	2.00		Refiner—2 roll	1.50	1.50
Beater	1.50		SEWAGE DISPOSAL		
Breaker Stack	1.25		Bar Screens	1.25	1.25
Calender	1.25		Chemical Feeders	1.25	1.25
Chipper	2.00		Collectors	1.25	1.25
Chip Feeder	1.50		Dewatering Screens	1.50	1.50
Coating Rolls	1.25		Scum Breakers	1.50	1.50
Conveyors—			Slow or Rapid Mixers	1.50	1.50
Chip, Bark, Chemical	1.25		Thickeners	1.50	1.50
Log (incl. Slab)	2.00		Vacuum Filters	1.50	1.50
Couch Rolls	1.25		SUGAR INDUSTRY		
Cutter	2.00		Cane Knives, Crushers	1.75	
Cylinder molds	1.25		Mills (low speed end)	1.75	
Dryers —			TEXTILE INDUSTRY		
Paper Mach. & Conveyor Type	1.25		Batchers, Calenders	1.25	1.50
Embosser	1.25		Card Machines	1.25	1.50
Extruder	1.50		Dry Cans, Dryers	1.25	1.50
			Dyeing Machinery	1.25	1.50
			Knitting Machinery	Refer to Factory	
			Looms, Mangles,		
			Nappers, Pads	1.25	1.50
			Range Drives	Refer to Factory	
			Slashers, Soapers, Spinners,		
			Tenter Frames, Washers,		
			Winders	1.25	1.50
			WINDLASS Refer to Factory		

- ★ Service Factors for paper mill applications are applied to the nameplate rating of the electric drive motor at the motor rated base speed and are consistent with those shown in TAPPI standards.
- ◆ Anti-friction bearings only.
- A service factor of 1.25 may be applied at base speed of a paper calender operating over a speed range of part constant power and super constant torque where the constant power speed range is greater than 1.5 to 1. A service factor of 1.25 is applicable to super calenders operating at constant torque over the entire speed range or where the constant power speed range is less than 1.5 to 1.

Table 3 | Mechanical Service Factors listed by Industry

Service		Service		Service		Service		
Industry	3 to 10 Hour	Over 10 Hour	Industry	3 to 10 Hour	Over 10 Hour	Industry	3 to 10 Hour	Over 10 Hour
AGITATORS			▲ CONVEYORS—Uniformly loaded or Fed:			▲ HOISTS		
Pure Liquids	1.25	1.25	Apron or Bucket	1.25	1.50	Heavy Duty	1.75	2.00
Liquids & Solids	1.25	1.50	Assembly, Belt, Chain, Flight, Oven, Screw	1.25	1.25	Medium Duty	1.25	1.50
Liquids-Variable Density	1.25	1.50	▲ CONVEYORS—Heavy Duty. Not Uniformly Fed			Skip Hoist	1.25	1.50
APRON CONVEYORS			Apron, Assembly, Belt, Bucket, Chain, Flight, Oven, Screw	1.25	1.50	INDUCED DRAFT FANS	1.50	1.50
Uniformly Loaded or Fed	1.25	1.50	CONVEYORS—Severe Duty			See Mills, Rotary	1.50	1.50
Heavy Duty	1.25	1.50	Live Roll	Refer to Factory		KILNS	1.50	2.00
APRON FEEDERS	1.25	1.50	Reciprocating Shaker	1.5	2.00	LAUNDRY WASHERS	1.50	2.00
ASSEMBLY CONVEYORS			COOKERS (Brewing & Distilling), (food)	1.25	1.25	LAUNDRY TUMBLERS	1.25	1.50
Uniformly Loaded or Fed	1.25	1.25	COOLING TOWER FANS	Refer to Factory		LINE SHAFTS		
Heavy Duty	1.25	1.50	▲ CRANES			Driving Processing Equipment	1.25	1.50
See Mills, Rotary	1.75	2.00	Dry Dock Cranes, Main Hoist, Bridge and Trolley Travel	Refer to Factory		Other Line Shafts, Light	1.25	1.25
BALL MILLS	1.75	2.00	CRUSHERS			LIVE ROLL CONVEYORS	Refer to Factory	
BARGE HAUL PULLERS	1.75	2.00	Ore or Stone	1.75	2.00	LOBE BLOWERS OR COMPRESSORS	1.25	1.50
BARKING			Sugar	1.75		LOG HAULS (Lumber)		
Drums (Coupling Connected)	2.00		DEWATERING SCREENS (Sewage)	1.50	1.50	Incline-well Type	1.75	1.75
Mechanical	2.00		DISC FEEDERS	1.25	1.25	LOOMS (Textile)	1.25	1.50
BAR SCREENS (Sewage)	1.25	1.50	DISTILLING	See Table 2		LUMBER INDUSTRY	See Table 2	
BATCHERS (Textile)	1.25	1.50	DOUBLE ACTING PUMPS	2 or more Cylinders	1.25	MACHINE TOOLS		
BELT CONVEYORS			Single Cylinder	Refer to Factory		Auxiliary Drives	1.25	1.25
Uniformly Loaded or Fed	1.25	1.25	DOUGH MIXER (Food)	1.25	1.50	Bending Rolls	1.25	1.50
Heavy Duty	1.25	1.50	DRAW BENCH (Metal Mills)	1.25	1.50	Main Drives	1.25	1.50
BELT FEEDERS	1.25	1.50	Carriage & Main Drive	1.25	1.50	Notching Press (Belted)	Refer to Factory	
BENDING ROLLS (Machine)	1.25	1.50	DREDGES	See Table 2		Plate Planers	1.75	2.00
BLOWERS			DRY DOCK CRANES	Refer to Factory		Punch Press (Geared)	1.75	2.00
Centrifugal	1.25	1.25	DRYERS & COOLERS (Mills, Rotary)	1.50		Tapping machines	1.75	2.00
Lobe	1.25	1.50	DYEING MACHINERY (Textile)	1.25	1.50	MANGLE (Textile)	1.25	1.50
Vane	1.25	1.50	ELEVATORS			MASH TUBS (Brewing & Distilling)	1.25	1.25
BOTTLING MACHINERY	1.25	1.25	Bucket-Uniform Load	1.25	1.50	MEAT GRINDERS (Food)	1.25	1.50
BREWING	See Table 2		Bucket-Heavy Duty	1.25	1.50	METAL MILLS		
BRICK PRESS (Clay Working)	1.75	2.00	Bucket-Continuous	1.25	1.50	Draw Bench Carriages & Main Drives	1.25	1.50
BRIQUETTE MACHINES (Clay Working)	1.75	2.00	Centrifugal Discharge	1.25	1.25	Pinch, Dryer & Scrubber		
BUCKET			▲ Escalators	Not Approved		Rolls, Reversing	Refer to Factory	
Conveyors Uniform	1.25	1.50	▲ Freight	Not Approved		Slitters	1.25	1.50
Conveyors Heavy Duty	1.25	1.50	Gravity Discharge	1.25	1.25	Table Conveyors		
Elevators Continuous	1.25	1.50	▲ Man Lifts, Passenger	Not Approved		Non-Reversing Group Drives	1.50	1.50
Elevators Uniform	1.25	1.50	EXTRUDERS (Plastic & Rubber)	See Table 2		Non-Reversing Individual Drives	2.00	2.00
Elevators Heavy Duty	1.25	1.50	FANS			Reversing	Refer to Factory	
CALENDERS			Centrifugal	1.25	1.25	Wire Drawing & Flattening Machines	1.25	1.50
Rubber and Plastic	See Table 2		Cooling Towers	Refer to Factory		Wire Winding Machines	1.50	1.50
Textile	1.25	1.50	Forced Draft	1.25		MILLS, ROTARY		
CANE KNIVES	1.25	1.75	Induced Draft	1.50	1.50	Ball and Rod Mills		
CAN FILLING MACHINES	1.25	1.25	Large (Mine, etc.)	1.50	1.50	with Spur Ring Gear	2.00	
CARD MACHINES (Textile)	1.25	1.50	Large Industrial	1.50	1.50	with Helical Ring Gear	1.50	
CAR DUMPERS	1.75	2.00	Light (Small Diameter)	1.25	1.25	Direct Connected	2.00	
CAR PULLERS	1.25	1.50	FEEDERS			Cement Kilns, Dryers & Coolers	1.50	
CEMENT KILNS	See Mills, Rotary		Apron, Belt	1.25	1.50	Pebble, Plain & Wedge Bar Mills	1.50	1.50
CENTRIFUGAL			Disc	1.25	1.25	Tumbling Barrels	1.75	2.00
Blowers, Compressors, Discharge Elevators, Fans or Pumps	1.25	1.25	Reciprocating	1.75	2.00	MIXER (Also see Agitators)	1.25	1.50
CHAIN CONVEYORS			Screw	1.25	1.50	Concrete, Cont. & Int.	1.25	1.50
Uniformly Loaded or Fed	1.25	1.25	FLIGHT CONVEYORS			Constant Density	1.25	1.50
Heavy Duty	1.25	1.50	Uniform	1.25	1.25	Variable Density	1.25	1.50
CHEMICAL FEEDERS (Sewage)	1.25	1.25	Heavy	1.25	1.50	NAPPERS (Textile)	1.25	1.50
CLARIFIERS	1.25	1.25	FOOD INDUSTRY	See Table 2		OIL INDUSTRY	See Table 2	
CLASSIFIERS	1.25	1.50	GENERATORS (Not Welding)	1.25	1.25	ORE CRUSHERS	1.75	2.00
CLAY WORKING	See Table 2		GRAVITY DISCHARGE ELEVATORS	1.25	1.25	OVEN CONVEYORS		
COLLECTORS (Sewage)	1.25	1.25	HAMMER MILLS	1.75	2.00	Uniform	1.25	1.25
COMPRESSORS						Heavy Duty	1.25	1.50
Centrifugal	1.25	1.25				PAPER MILLS	See Table 2	
Lobe	1.25	1.50				▲ PASSENGER ELEVATORS	Not Approved	
Reciprocating						PEBBLE MILLS	1.50	
Multi-Cylinder	1.50	1.75				PLATE PLANERS	1.75	2.00
Single-Cylinder	1.75	2.00				PRINTING PRESSES	Refer to Factory	
CONCRETE MIXERS						PROPORTIONING PUMPS	1.25	1.50
Continuous	1.25	1.50				PUG MILLS (Clay)	1.25	1.50
Intermittent	1.25	1.50						

▲ Selection of Rexnord products for applications whose primary purpose is the transportation of people is not approved. This includes such applications as freight or passenger elevators, escalators, man lifts, work lift platforms and ski tows and ski lifts.

If the primary purpose of the application is material conveyance and occasionally people are transported, the Factory warranty may remain in effect provided the design load conditions are not exceeded and certification to the appropriate safety codes and load conditions has been obtained by the system designer or end user from the appropriate enforcement authorities.

Contact the Factory for proper selection of a mixer drive.

for electric motor, steam turbine or hydraulic motor drives . . . recommendations are MINIMUM and normal conditions are assumed.

How to Select/ Formula Method

Before making a selection, refer to Basic Information and Conditions Affecting Selection on Pages 9 and 10.

Information Required

The following basic information is required to select a Drive One gear drive for your application.

Prime Mover Data

- Type – electric or hydraulic motor or engine
- Power rating in kW or hp
- Speed – constant or variable
- Dimensions – if the Factory will furnish motor mounting accessory or coupling

Driven Machine Data

- Type – conveyor, kiln, etc.
- Power demand in kW, or hp, or equivalent torque.
- Speed and direction of rotation
- Service – Hours per day; reversals per minute if reversing; minutes per hour (duty cycle) if not continuous

Gear Drive Data

- Type – parallel shaft or right angle
- Horizontal or vertical output shaft
- Ambient temperature at drive location
- Altitude above sea level
- Ambient air velocity at drive location
- Mounting position – if inclined or non-standard orientation

Shaft Connections

- Shaft diameters and key sizes
- Overhung loads – provide full description of sheave, sprocket, or pinion
- Thrust load and direction

Power Selection Method

The power selection method is based on the power rating of the prime mover.

1. Determine the mechanical service factor.
Electric motor driven applications, see Tables 2 & 3, Pages 11 & 12.
Engine driven or intermittent applications, see Table 1, Page 11.
2. Calculate equivalent power by multiplying the rated power of the prime mover by the mechanical service factor determined in Step 1.
3. Determine gear drive nominal ratio.
Divide the high speed shaft rpm by the low speed shaft rpm to determine your ideal ratio. Choose a nominal ratio that most closely approximates your ideal ratio. Nominal ratios are found in the power ratings tables, see Step 4.
4. Using the equivalent power determined in Step 2, and the gear drive nominal ratio that most closely approximates the ideal ratio determined in Step 3, select the gear drive size using the Power Ratings Tables.
Power Ratings Tables:
Parallel shaft gear drives, see Pages 26 thru 35 & 154.
Right angle shaft drives, see Pages 108 thru 113 & 159.

Locate the proper page within the power ratings tables based on nominal ratio and high speed shaft rpm. Once on the proper page, go to the portion of the table associated with your high speed shaft rpm, and using the appropriate nominal ratio, trace to the right through the columns. Determine the column of the first power rating that equals or exceeds the equivalent power determined in Step 2. The size of the gear drive selected is at the top of the column. Once a gear drive size has been selected, an exact ratio can be determined from the exact ratio tables.

5. Check thermal rating using procedures outlined on Page 14. The application adjusted thermal rating of the cooling method selected must equal or exceed the actual power transmitted.
6. When overhung loads or thrust loads are present, check to assure they are within the capacity of the gear drive selected.

Overhung load (radial load) is imposed by sheaves, sprockets, and open pinions that are mounted directly on the shaft extensions of the gear drive. Gear drive shaft extensions that are flexible coupling connected need not be checked for overhung load, flexible couplings do not impose significant overhung load.

Refer HS shaft overhung load applications to the Factory.

Thrust load (axial load) applied to the gear drive is unusual. In these applications, the magnitude of the thrust load, and the direction of thrust load, is supplied by the system designer. Thrust loads must be within the published capacity of the gear drive.

Refer thrust load applications to the Factory.

Complex shaft loadings involving simultaneous application of overhung load, thrust load, or bending moment (as in mixers and agitators) should be referred directly to the Factory.

Torque Selection Method

For convenience, low speed shaft torque ratings of gear drives are provided, and a purely mechanical selection of a gear drive can be made using torque values. Simply follow the steps outlined in the power selection method, substituting torque values for power values. In order to check thermal adequacy, and check shaft ratings, it will be necessary to convert the torque to power using the formula below:

$$\text{Input Power (Hp)} = \frac{\text{Torque (lb-in)} \times \text{Output Speed (rpm)}}{63025}$$

Example Selections

An example using the Power Selection Method and an example using the Torque Selection Method is found on Page 15.

Thermal Factors & Procedures

Checking Thermal Rating

Checking the thermal rating is extremely important. If the gear drive's capacity to dissipate thermal energy is insufficient, it will overheat, and severe damage may occur.

Gear drive basic thermal ratings are defined on Page 9. A discussion of application adjusted thermal rating, and when it is applicable, is found on Page 10.

Thermal Rating Factors

Thermal horsepower ratings published herein are based on a 77°F(25°C) ambient temperature at sea level. For other conditions, the thermal horsepower rating must be multiplied by the factors shown in Tables 1 & 2.

Application Adjusted Thermal Rating

Once a mechanically adequate gear drive selection has been made per Steps 1-4 on Page 13, determine the application adjusted thermal rating of the gear drive. The application adjusted thermal rating of the gear drive selected must equal or exceed the actual power transmitted.

In most cases, the nameplate power rating of the motor is assumed to equal the actual power transmitted. It is not necessary to apply the mechanical service factor when determining thermal adequacy of a gear drive.

Use the following formula to determine application adjusted thermal rating:

PTA = PT x B1 x B2 x B3 x B4 x B5 x B6 where:

PTA = Application Adjusted Thermal Rating

PT = Basic Thermal Rating

B1 = Ambient Temperature Factor (Table 1)

B2 = Altitude Factor (Table 2)

B3 = Ambient Air Velocity Factor (Table 3)

B4 = Duty Cycle Factor (Table 4)

B5 = Orientation Factor (Table 5)

B6 = Inlet water temperature factor from Table 6 (used only when cooling tubes are selected)

Basic Thermal Ratings for parallel shaft gear drives are found on Pages 36-61.

Basic Thermal Ratings for right angle shaft gear drives are found on Pages 114-125.

TABLE 6 — Inlet Water Temperature Factor – B₆
(For drives with cooling tubes only)

Inlet Water Temperature	Factor with Cooling Tubes Only
50°F	1.11
60°F	1.05
70°F	1.25
80°F	.94
90°F	.88
100°F	.83

For the gear drive you have selected mechanically, choose an auxiliary cooling method whose application adjusted thermal rating equals or exceeds the actual power transmitted. If no listed cooling method is adequate, contact the Factory for selection of an optional heat exchanger, or consider a larger gear drive with greater thermal capacity.

TABLE 1 — Ambient Temperature Factor – B₁
(For all cooling methods)

Ambient Temperature ★	Factor with no Auxiliary Cooling or with Fan
59°F	1.12
68°F	1.06
77°F	1.00
86°F	0.94
95°F	0.88
104°F	0.81
113°F	0.74
122°F	0.66

★ Factors for other ambient temperatures can be interpolated.

TABLE 2 — Altitude Factor – B₂
(For air cooled methods, no cooling tubes)

Altitude Above Sea Level – Feet	Factor
0	1.00
2461	0.95
4922	0.90
7382	0.85
9843	0.81
12304	0.76
14765	0.72
17225	0.68

TABLE 3 — Ambient Air Velocity Factor † – B₃
(For no auxiliary cooling)

Sustained Ambient Air Velocity † ft/sec	Installed Environment	Factor for no Auxiliary Cooling
< 1.6	Confined Space	0.75
1.6 to 4.6	Large Indoor Room	1.00
4.6 to 12.1	Large Indoor Room	1.40
> 12.1	Outdoors	1.90

† The sustained ambient air velocity must be a continuous flow of air directly onto the gear drive. If the air flow cannot be relied upon to be continuous, an ambient air velocity factor of 1.00 must be used.

TABLE 4 — Duty Cycle Factor ‡ – B₄

% Operating Time Per Hour	Factor With or Without Auxiliary Cooling
100%	1.00
80%	1.05
60%	1.15
40%	1.35
20%	1.80

‡ The duty cycle factor must be based on the percentage of each hour that the drive is operating. For example: a gear drive operating for 48 minutes of every hour of the day has an 80% duty cycle, but a drive operating for 4 hours and resting for 4 hours has a 100% duty cycle. Where the % Operating Time Per Hour falls between values tabulated above, use the next higher % Operating Time.

TABLE 5 — Orientation Factor – B₅ - Horizontal Output Drives Only

Input Speed rpm	HS Shaft at Same Height as LS Shaft			HS Shaft over LS Shaft			LS Shaft over HS Shaft			1st Int Shaft over HS Shaft
	DH2	DH3	DB3	DH2	DH3	DZ3	DH2	DH3	DZ3	
1750		1.00			0.57			0.29		
1430		1.00			0.66			0.45		
1170		1.00			0.74			0.58		
970		1.00			0.79			0.68		
870		1.00			0.82			0.73		
720		1.00			0.83			0.80		
580		1.00			0.90			0.87		

Power Selection Example

A draw bench operates 10 hours per day. The gear drive required for the application is driven at the high speed shaft by a 100 HP electric motor at 1170 RPM. A low speed shaft speed of 42 RPM at the gear drive has been requested.

Ambient temperature at the draw bench never exceeds 80° F. The draw bench is located in a small indoor room, with air flow less than 1.6 feet per second. Altitude above sea level is 1000 feet. The high speed and low speed shafts of the selected gear drive will be connected to the driving and driven equipment by flexible couplings. Select a base-mounted parallel shaft gear drive for this application as follows:

1. The mechanical service factor is 1.25 for a draw bench drive operating 10 hours per day, from Page 12, Table 3 (Metal Mills).
2. The equivalent power in HP = $1.25 \times 100 = 125$ HP.
3. The ideal ratio is $1170 \div 42 = 27.86$. The closest nominal ratio is 28.0:1 from the Double Reduction Power Ratings Table on Page 28.

4. Using the Double Reduction Power Ratings Table on Page 28, and in the section associated with a nominal ratio of 28.0:1, trace right through the columns to the first power rating that equals or exceeds the equivalent power of 125 HP calculated in Step 2. The selection is a size M1160 (shown at the top of the column) that has a power rating of 143 HP.

Actual mechanical service factor is $143 \div 100 = 1.43$.

Exact ratio is 27.36:1, found on Page 69 (exact ratio table)

5. Check thermal rating. The application adjusted thermal rating must equal or exceed the actual power transmitted (100HP). Basic thermal rating for the size M1160DH2, nominal ratio 28:1, high speed shaft at 1170 RPM, no auxiliary cooling, equals 201 HP, per Page 44.

Thermal factors from Page 14 for no auxiliary cooling are as follows:

B1 = Ambient Temperature Factor from Thermal Table 1 = 1.00

B2 = Altitude factor from Thermal Table 2 = 1.00

B3 = Ambient Air Velocity Factor from Thermal Table 3 = 0.75

B4 = Duty Cycle Factor from Thermal Table 4 = 1.00

B5 = Orientation factor from Thermal Table 5 = 1.00

Application Adjusted Thermal rating with **no auxiliary cooling** = $201 \times 1.00 \times 1.00 \times 0.75 \times 1.00 \times 1.00 = 151$ THP

Application Adjusted Thermal rating does equal or exceed the 100 HP transmitted, no auxiliary cooling is required.

6. It is not necessary to check overhung load or thrust capacity of the gear drive for this example. Gear drive shaft extensions are connected by flexible couplings, which do not impose significant overhung load. No thrust load is present.

Torque Selection Example

A dredge utility winch requires 200,000 Lb.-in. of torque at its output shaft, which operates at 16 RPM. The winch is in service 8 hours per day and is driven by a coupling-connected 60 HP, 1750 RPM electric motor. The ambient temperature never exceeds 75° F. The approximate air velocity is 10 feet per second, and the dredge operates in the North Sea (sea level). The winch never operates more than 30 minutes in a given hour. The space available is best suited to a base mounted right angle gear drive. Select a gear drive for this application.

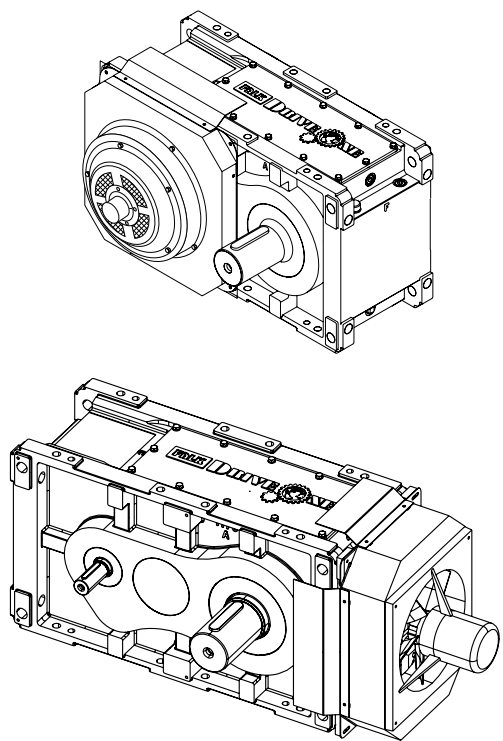
1. The Service Factor is 1.25 for a dredge utility winch operating 10 hours per day, from Page 11, Table 2 under Dredges.
2. The equivalent torque is $1.25 \times 200,000 = 250,000$ Lb.-in.
3. The ideal ratio is $1750 \div 16 = 109.4:1$. The nearest standard nominal ratio is 112:1 from the Right Angle Triple Reduction Table on Page 110.
4. Using the Triple Reduction Table on Page 110, in the 1750 RPM high speed shaft section and at the 112:1 ratio and 16 RPM, trace right to 337 (x 1000, the first torque exceeding the equivalent torque of 250,000 Lb.-in.) and read the drive size M1170 at the top of the column.
5. The basic thermal capacity with no auxiliary cooling for an M1170DB3, 112:1, at 1750 RPM from the table on Page 115 is 126 HP. The ambient temperature factor (B1) from Table 1, Page 14, is 1.00. The altitude factor (B2) from Table 2, Page 14 is 1.00. The ambient air velocity factor (B3) is 1.4 from Table 3, Page 14. The Duty Cycle is 50% (30 min / hour), so the duty cycle factor (B4) is 1.15 from Table 4, Page 14. The Orientation factor (B5) is 1.00, from Table 5, Page 14.
6. The application adjusted thermal capacity is $126 \times 1.00 \times 1.00 \times 1.40 \times 1.15 \times 1.00 = 202.9$ HP, which exceeds the power rating of the motor (60 HP). Therefore, no additional cooling is required.
7. It is not necessary to check overhung load or thrust capacity of the gear drive for this example. Gear drive shaft extensions are connected by flexible couplings, which do not impose significant overhung load. No thrust load is present.

Accessory & Option Information

Shaft Driven Cooling Fans See Pages 169-174

Shaft driven cooling fans provide a simple and inexpensive way to utilize the full mechanical rating of gear drives by lowering the operating temperatures, thus increasing thermal power capacity. Cooling fans have been successfully used on electric motors and other related machinery for many years. They eliminate the need for water or electrically powered cooling, pumps, and external piping. The sound level at standard motor rpm is about the same as that from fans on totally enclosed, fan cooled driving motors. Less than 0.25% of cataloged power rating is required to drive the fans. Shaft driven fans are available for use with DH parallel shaft drives, DB & DZ right-angle drives and also DX vertical drives. Dimensions, arrangements, and clearances for shaft driven fans are shown in this selection guide.

For applications requiring fan cooling and two usable H.S. shaft extensions (with inching drives, emergency drives, etc), consult the Factory.



Electric Cooling Fans See Pages 176-181

Electric fans are unaffected by shaft rotation and speed, and includes a thermostatic control to turn the fan off when it is not required. The electric fan can be mounted on either end of a parallel shaft drive, and on the L.S. end of a right angle drive. This permits full use of available shaft extensions. Electric fans are available with the following standard motor packages:

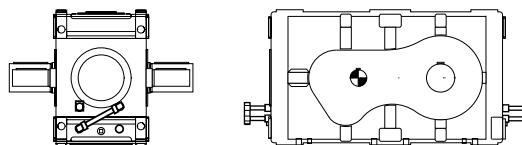
- 60 Hz, 3-Phase, 220/380 VAC
- 60 Hz, 3-Phase, 265/460 VAC
- 50 Hz, 3-Phase, 220/380 VAC

Other motor packages may be available at an extra charge. Consult the Factory for price and availability.

Dimensions, arrangements, and clearances for electric fans are shown in this selection guide. Additional information, including motor ratings, and thermostatic control wiring diagrams are also available from the Factory.

Cooling Tubes - Single Reduction Drives Only See Page 182

Cooling tubes are an economical alternative for thermal requirements that are beyond the capability of fans. A series of straight, finned tubes are provided directly in the oil sump of the drive. Water is circulated through these tubes to cool the oil. Since there are no joints or connections inside the drive, leakage of water into the oil sump is eliminated. The thermal ratings shown in this selection guide are for 70°F(21°C) inlet water temperature.

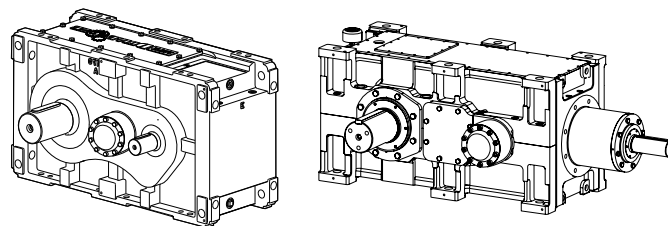


Backstops See Pages 188 & 189

Backstops prevent reverse rotation or backrun without backlash for conveyors, elevator head shafts, and similar applications. The Drive One backstop is a sprag type design.

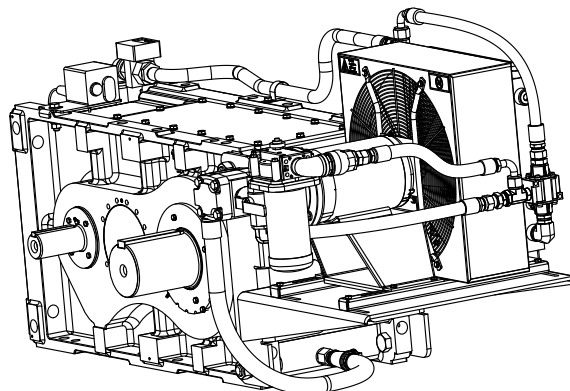
The backstop shares the drive sump oil.

NOTE: DRIVES WITH BACKSTOPS MUST BE SELECTED WITH A MINIMUM SERVICE FACTOR. SEE TABLE 1A, PAGE 11.



Pump & Coolers See Pages 183-187

The integrated oil-to-air cooler is drive mounted at the Factory and is shipped with both the lube suction and return lines connected to the drive with flexible hose. Only one motor is required - this dual output motor drives both the lube pump and cooling fan. The motor is 230-460 Volts, 3 Phase, 50 or 60 Hertz. A thermostatic bypass valve at the cooler regulates the flow of oil through the cooler. Available options include flow switch, single and dual filters.

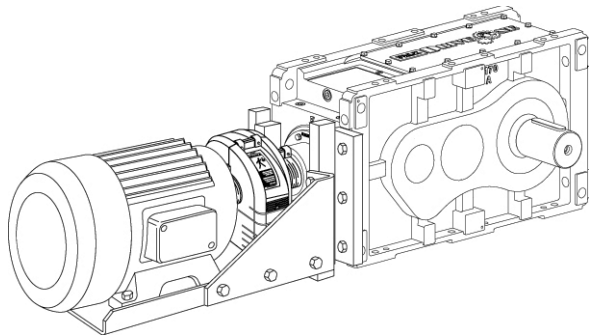


Accessory & Option Information

Motor Brackets

See Pages 194 & 195

Motor brackets may be used for Types DH and DB. These motor brackets provide an economical "soft" mounting for standard NEMA T-frame and IEC B3 induction motors. It is expected that the weight, location, and starting torque of the motor will cause cantilevered motor brackets to deflect or twist to varying degrees. They are engineered to be within acceptable deflection limits as determined by the Factory. However, because the motor bracket is a "soft" motor support, deflection and vibration magnitudes of the bracket may exceed levels normally considered acceptable for rigidly, "hard" mounted machinery.

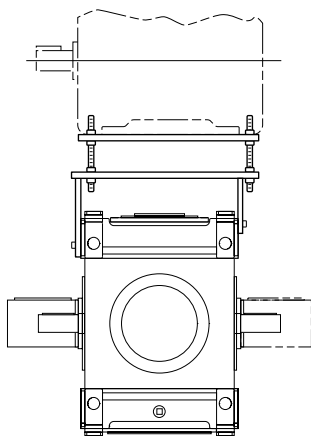


Motor Mounts

See Page 198

Motor mounts are selectively pre-designed for Types DH and DB drives. Motor mounts provide a convenient drive support for the motor when the drive is belt driven.

For detailed information on motor mounts, contact the Factory.



Couplings and Coupling Guards

Rexnord offers a complete line of coupling products, including:

- Falk Steelflex Grid Couplings
- Falk Lifelign Gear Couplings
- Falk Wrapflex and Rex Omega Elastomer Couplings
- Rex Thomas Disc Couplings
- Falk True Torque Fluid Couplings

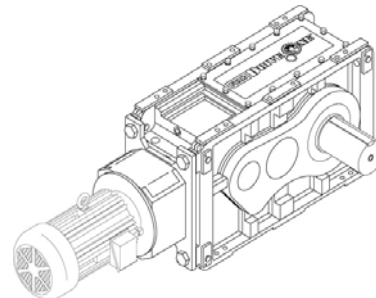
In addition, Rexnord offers an unmatched variety of Orange Peel coupling guards, meeting OSHA and ANSI safety standards for guarding of rotating equipment

© Rexnord Industries, LLC, 2001, 2009.

Flange Motor Adapters

See Pages 192 & 193

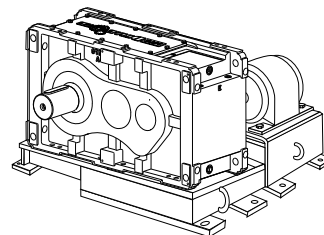
Flanged motor adapters are available for Types DH and DB drives. This adapter allows a flange-mounted motor to be directly mounted to the high speed side of the drive.



Bedplates

A bedplate is recommended to insure proper alignment of a base mounted drive with the motor. The Factory can provide fabricated steel bedplates for all popular sizes of standard type DH and DB drives. These bedplates accommodate standard NEMA and IEC motors within the power range of the drive and many of the larger non-NEMA motors. Special bedplates can be designed and manufactured for unique motor and special accessory combinations.

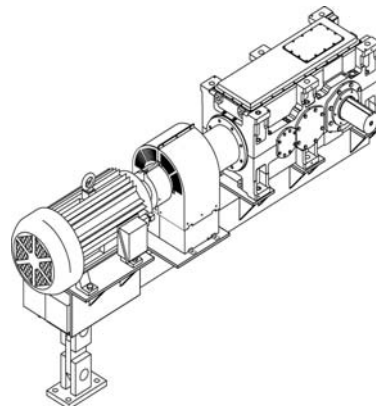
Supports for tachometers, brakes, timing devices, foot-mounted fluid couplings, or other accessories can be added. Contact the Factory for further details on this accessory.



Swing Base

See Pages 196 & 197

Swing bases have been pre-engineered for over 1000 combinations of Drive One, NEMA & IEC motors, and Falk couplings. Finite element analysis has been performed to assure trouble-free operation. Designed specifically for use with the DBT right angle shaft mounted drive, the swing base provides an economical and readily available alternative to bedplates.

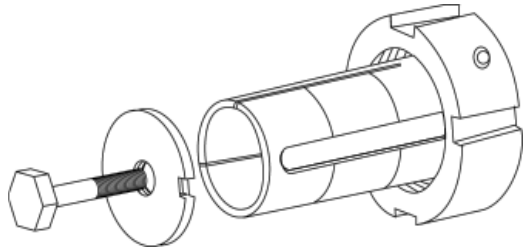


Accessory & Option Information

TA Taper Bushings

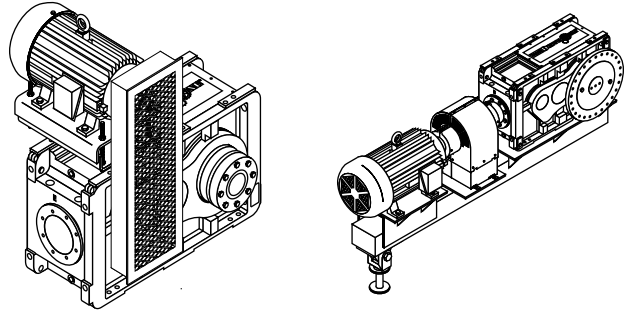
See Page 164

Available with both inch and metric bores, the TA Taper ductile iron bushings provide for easy-on easy-off shaft mounting convenience for hollow shaft drives.



Shaft Mounting Options

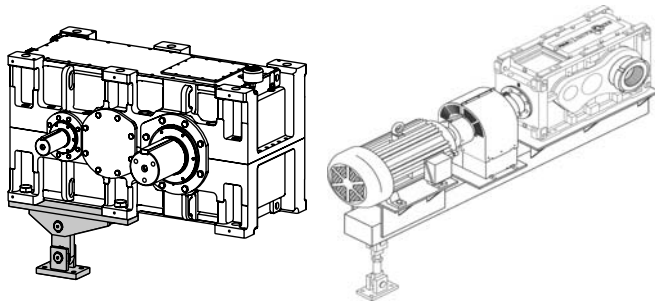
In addition to the TA taper bushing described at left, shaft mounting options include hollow shaft with shrink disc and solid shaft with rigid flange connection.



Torque Arms

See Page 196, 197 & 200

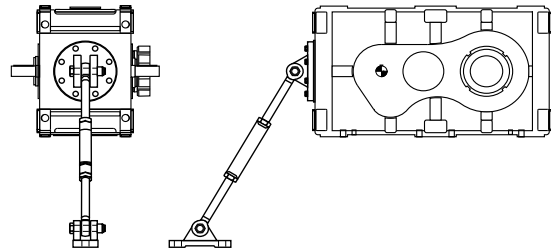
Torque arms are available for all shaft mounted Drive One sizes, both DH and DB. They are used to support the drive in a standard horizontal position, and are suitable for use on swing bases, bedplates, Alignment-Free, or mounted directly to the drive. The customer is responsible for determining the structural integrity of their support structure.



Tie Rods

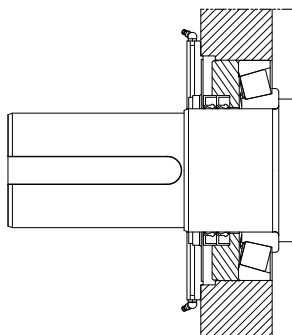
See Page 190 & 191

Designed for use with DHT parallel shaft drives, this torque arm consists of two rod ends and a turnbuckle, allowing for some length adjustment.



Standard Seals

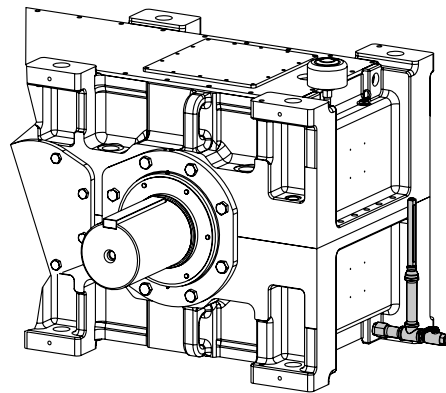
All shaft extensions have a standard "taconite seal" arrangement consisting of two seals with an external, purgeable grease barrier to prevent abrasive contaminants from reaching the seal lips.



Oil Sight Gauge & Oil Drain Valve

See Page 203

Provided at the low speed end of the drive. The oil sight gauge allows for quick visual confirmation of correct lubrication levels and the oil drain ball valve simplifies oil changes.



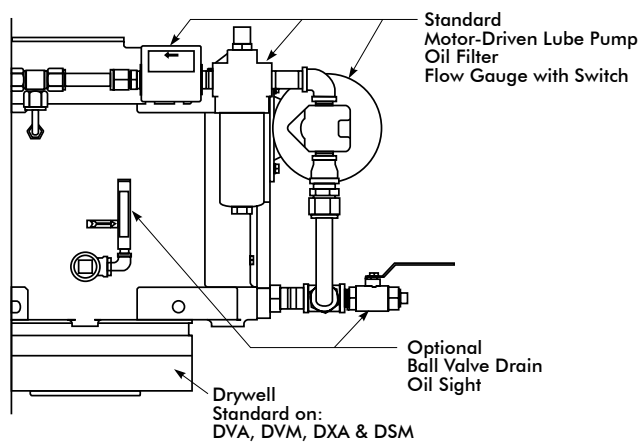
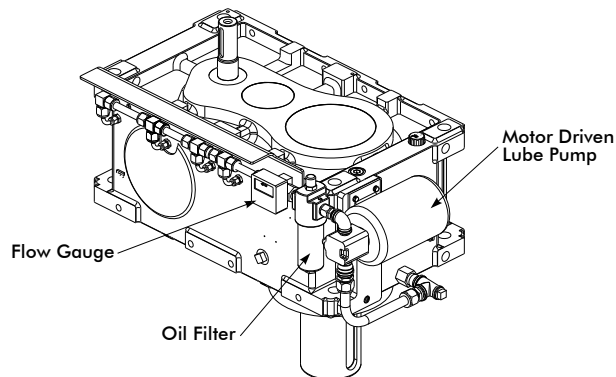
Accessory & Option Information

Vertical Drive Features

See Pages 94-105 & 144-151

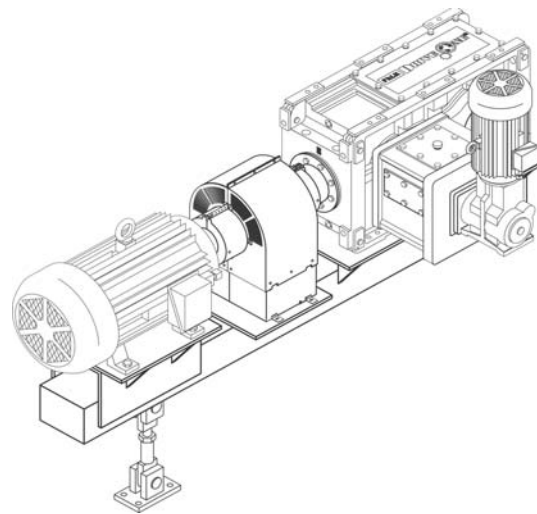
Vertical drives are equipped as standard with a motor-driven lube pump. Also included are a filter and a flow gauge with switch to ensure continuous flow of clean oil to bearings and gears. For positive prevention of oil leaks from vertical down shafts, drive Types DVA, DVM, DXA, and DXM include an internal drywell.

Vertical drive options include a ball valve drain and a standpipe oil sight.



Inching Drives

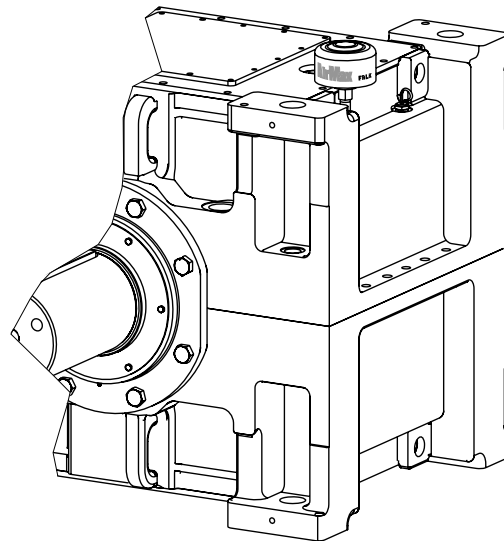
Inching drives packages are available for inspection of belts, buckets and for cold weather creeping of conveyors. Contact the Factory for selections and details.



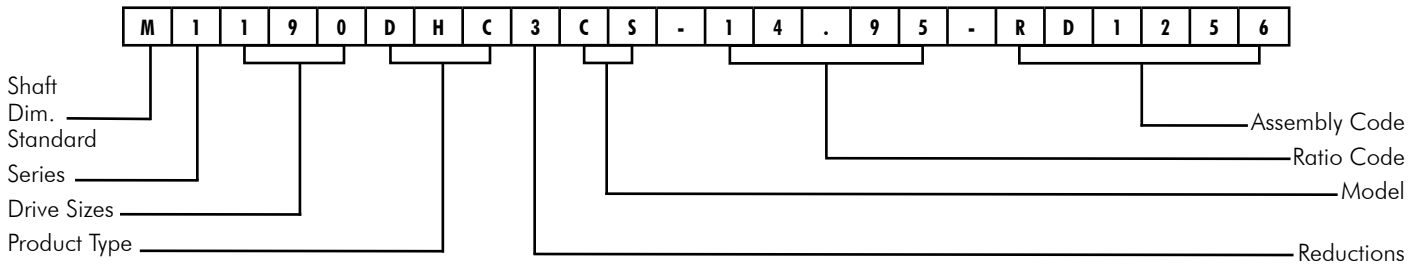
AirMax Breather & Sealed Dipstick

See Page 204

The AirMax breather gives moisture and particulate protection for enclosed gear drives. A sealed dipstick is required for the accessory.



Drive One Nomenclature



Shaft Dimensional Standard

M = Standard metric input and output shafts (diameter/bore, length, key & keyway)

Series

1000 Series

Drive Sizes

130 thru 250

Product Type

D = Drive One designation

Input Shaft/Output Shaft Configuration

- H = Parallel, horizontal L.S. shaft
- B = Right angle, horizontal L.S. shaft (input & output shafts in same plane)
- Z = Right angle, horizontal L.S. shaft (input & output shafts not in same plane)
- V = Parallel, vertical L.S. shaft
- X = Right angle, vertical L.S. shaft (input & output shafts in same plane)

Output Shaft Type

- C = Solid shaft (cylindrical OD) - All sizes
- T = Hollow shaft (tapered ID)
- Q = Hollow shaft, straight bored & keyed, with keeper plate
- J = Hollow shaft, keyless, with shrink disc
- A = Solid shaft with oversize OD and increased bearing span (Agitator design), includes drywell
- M = Hollow shaft, straight bored and keyed with keeper plate, with increased bearing span (Mixer design), includes drywell

- P = Planetary Secondary, Hollow LS Shaft with Shrink Disc
- R = Planetary Secondary, Solid LS Shaft, for Flange Mounting
- B = Planetary Secondary, Solid LS Shaft, for Foot Mounting
- F = Planetary Secondary, Solid LS Shaft, Moment Connection
- L = Low Ratio / High Thermal, Solid LS Shaft

Reductions

Number of reductions/Stages in gear drive

Model

Model Code 1

Initial Model A. Subsequent models B, C, D, etc.

Model Code 2

- N = Having no special features or housing rework
- R = Having housing reworked for standard option (e.g. backstop, etc.)
- S = Having special feature or features

Ratio Code

Exact ratio expressed as (5) characters including decimal point
Examples: 1.321:1, 14.95:1, 155.7:1, 1196.:1.

Assembly Code

Assembly Code 1 - Housing/Shaft Orientation

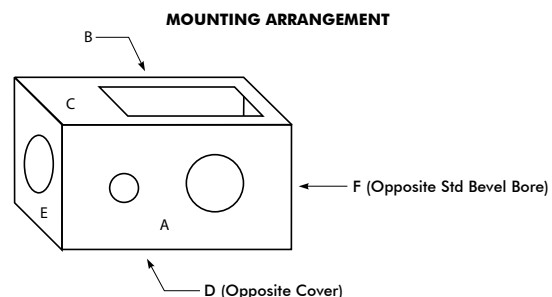
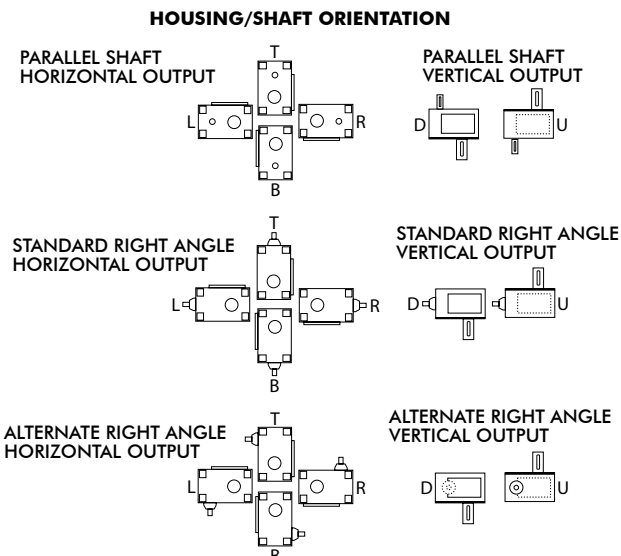
- T = Horizontal LSS - (HSS above LSS)
- R = Horizontal LSS - (HSS right or left of LSS, Inspection cover down)
- B = Horizontal LSS - (HSS below LSS)
- L = Horizontal LSS - (HSS right or left of LSS, Inspection cover up)
- D = Vertical LSS - L.S. shaft down
- U = Vertical LSS - L.S. shaft up

Assembly Code 2 - Mounting Arrangement

- A, B, C, D, E, F = Mounted via A, B, C, D, E, F, housing face (see housing faces)
- J = Shaft Mounted Drive (Parallel shaft)
- H = Alignment Free Drive (Right angle shaft)

Assembly Code 3, 4, 5, 6 - Assembly Number

See assembly figures



How to Order

The following information is required to order a Drive One gear drive to meet your application requirements. Much of the information listed below is also used to make a selection and is repeated here in the event a selection will be made by the district office. Note that it is not necessary to specify nomenclature, as described on Page 20, when ordering a Drive One gear drive.

Gear Drive

- Size, type and ratio.
- High Speed Shaft rpm and Low Speed Shaft rpm.
- Service Factor.
- External shaft loads – thrust and overhung load.
- Factors affecting thermal performance – ambient temperature, altitude, ambient air velocity, duty cycle, gear drive orientation and inlet water temperature (if cooling water is to be used).
- Auxiliary equipment required – couplings, backstops, etc.
- Mounting position and shaft assembly number (see Pages 22-25 for parallel shaft drives and Pages 106 & 107 for right-angle drives).

Motor – Prime Mover

- Type – motor or engine.
- Power rating – hp .
- Speed – rpm.
- Frame size – dimension prints if the Factory is to furnish mounting surface and/or mount the equipment.
- Motor – type, class, weight, or any special characteristics (such as brake motor, explosion-proof, etc.).
- Identify if motor is to be furnished or installed by the Factory.

Driven Machine

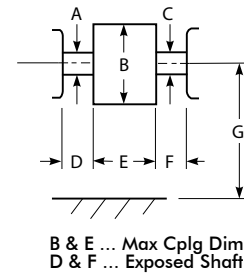
- Required power or torque.
- Speed – rpm.
- Application description – belt conveyor, agitator, etc.
- Service – duty cycle, hours per day, reversals per minute if reversing.
- Ambient temperature and operating conditions – outdoor, taconite dust, etc.

Auxiliary Equipment Furnished By The Factory

- Motors – if the Factory is to furnish, provide complete specifications.
- Bedplates – supply drawing of motor and any auxiliary equipment not supplied by the Factory.
- Flange motor adapters or motor brackets – supply drawing of motor.
- Motor mount – supply drawing of motor and the required belt centers and mounting arrangement.
- Backstops – specify direction of rotation of the low speed shaft (CW or CCW) when facing the drive from the end of the exposed low speed shaft extension. Also specify backstop location (right or left side facing HS end).

NOTE: DRIVES WITH BACKSTOPS MUST BE SELECTED WITH A MINIMUM SERVICE FACTOR. SEE TABLE 1A, PAGE 11.

- Electric fan position, Hz and volts.
- Couplings – specify size, type, drive and driven hub bores and keyways.
- Coupling guards – furnish description of couplings and/or other equipment to be guarded, and all dimensions A through G below.
- Swing base – supply frame size or drawing of the motor and HS coupling size or shaft gap.



Special or specification requirements

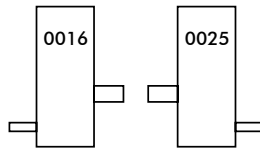
Advise the Factory of any special project related specifications such as: noise level specifications, bearing L10 requirements, etc.

Type DHL Parallel Shaft Shaft Assemblies & Rotations

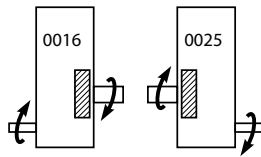
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHL Assemblies

Standard Assemblies



Type DHL Relative Shaft Rotations ‡



‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

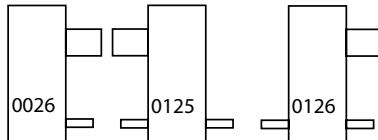
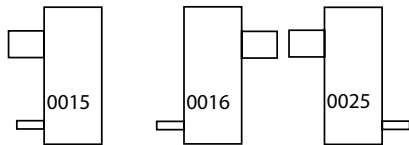
Type DHC Parallel Shaft

Shaft Assemblies & Rotations

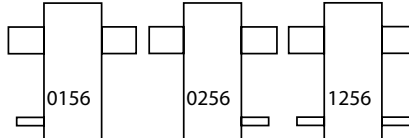
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHC Assemblies

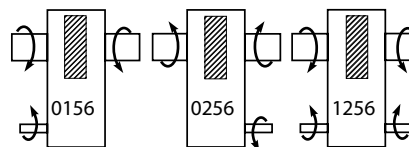
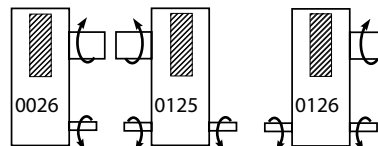
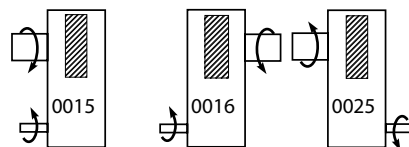
Standard Assemblies



Other Available Assemblies

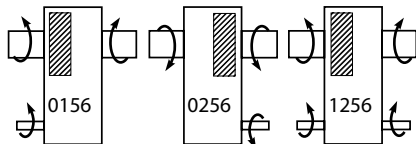
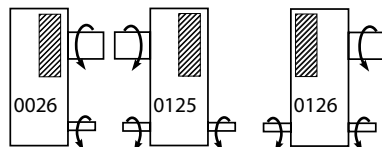
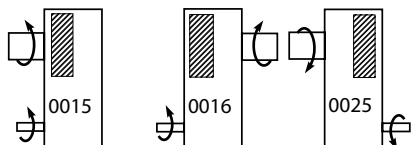


Type DHC1 Relative Shaft Rotations ‡

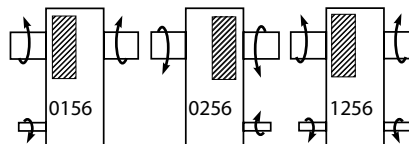
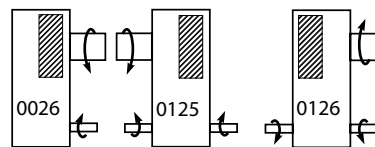
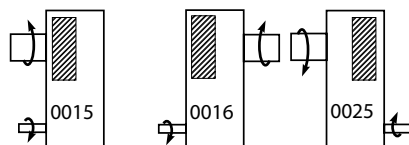


‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DHC2 Relative Shaft Rotations ‡



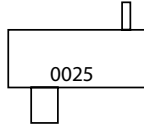
Type DHC3 Relative Shaft Rotations ‡



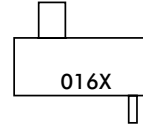
Type DHT, DHJ, DVA & DVC Parallel Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHA & DVC Assembly

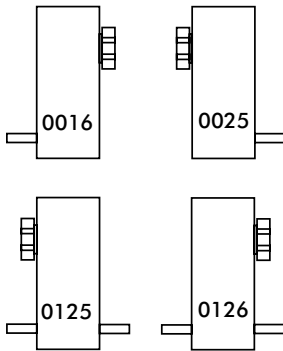


Type DVC Assembly



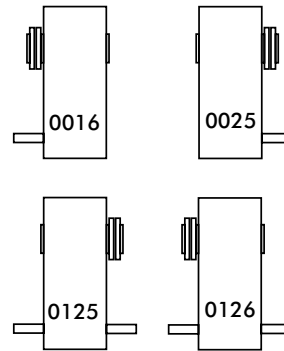
Type DHT Assemblies

Standard Assemblies

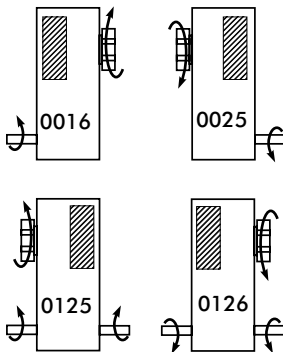


Type DHJ Assemblies

Standard Assemblies

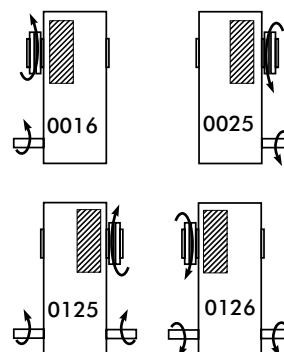


Type DHT2 Relative Shaft Rotations ‡

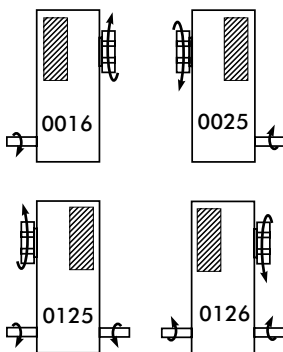


‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

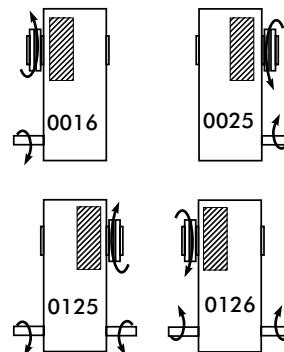
Type DHJ2 Relative Shaft Rotations ‡



Type DHT3 Relative Shaft Rotations ‡



Type DHJ3 Relative Shaft Rotations ‡

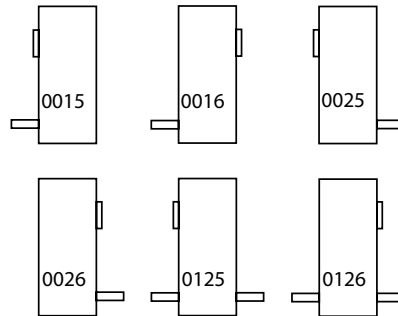


Type DHQ Parallel Shaft Shaft Assemblies & Rotations

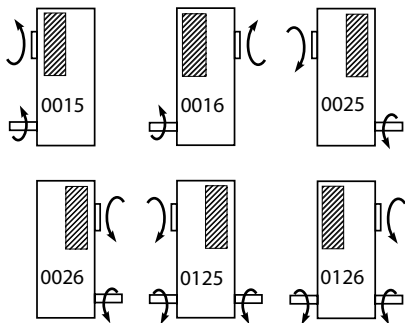
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DHQ Assemblies

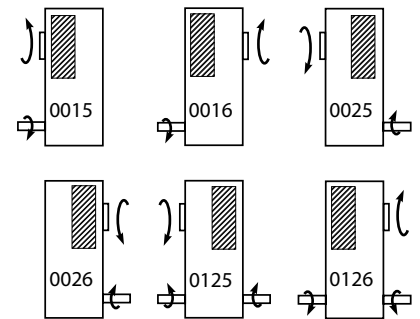
Standard Assemblies



Type DHQ2 Relative Shaft Rotations ‡



Type DHQ3 Relative Shaft Rotations ‡



‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DHL Parallel Shaft

Power Ratings – Hp/Single Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	1.25	1400	272	342	589	827	1267	1706	1998	3100
	1.40	1250	254	328	589	823	1267	1677	1924	3100
	1.60	1094	225	303	589	785	1267	1558	1749	3055
	1.80	972	198	288	525	709	1173	1490	1658	2675
	2.00	875	175	272	465	667	1081	1371	1604	2527
	2.24	781	160	249	432	627	967	1260	1467	2616
	2.50	700	144	243	365	553	856	966	1366	2223
	2.80	625	126	229	327	487	751	993	1281	2102
	3.15	556	114	195	287	430	685	979	1154	1630
	3.55	493	98.5	154	202	311	561	689	1098	1441
	4.00	438	86.1	136	202	270	456	704	1010	1338
4.50	389	75.5	120	179	268	411	655	902	1250	
5.00	350	68.4	115	156	246	407	589	905	1165	
5.60	313	60.8	101	156	230	340	520	694	1003	
1430	1.25	1144	223	279	481	676	1036	1394	1767	2533
	1.40	1021	208	268	481	673	1036	1371	1703	2533
	1.60	894	184	248	481	641	1036	1273	1548	2533
	1.80	794	164	235	429	579	958	1218	1468	2323
	2.00	715	145	222	381	545	883	1120	1420	2194
	2.24	638	131	203	356	513	790	1030	1299	2204
	2.50	572	118	206	304	454	700	789	1209	1930
	2.80	511	104	191	272	403	613	811	1134	1825
	3.15	454	93.0	162	239	358	564	800	1021	1332
	3.55	403	81.4	126	165	270	480	563	922	1177
	4.00	358	71.0	118	165	221	373	575	894	1162
4.50	318	62.2	97.7	155	221	357	562	799	1085	
5.00	286	56.3	97.7	128	214	338	505	767	1011	
5.60	255	50.1	88.1	128	191	295	451	614	870	
1170	1.25	936	186	229	394	553	847	1141	1406	2073
	1.40	836	170	220	394	551	847	1121	1406	2073
	1.60	731	150	203	394	525	847	1042	1320	2073
	1.80	650	134	193	357	474	784	996	1251	1991
	2.00	585	118	182	318	446	723	917	1205	1887
	2.24	522	107	166	297	422	649	843	1104	1803
	2.50	468	96.5	171	252	379	579	646	1030	1664
	2.80	418	85.3	158	226	335	512	664	966	1586
	3.15	371	76.1	134	198	298	470	664	870	1090
	3.55	330	67.2	103	135	233	397	461	734	963
	4.00	293	58.6	102	135	181	305	471	748	1010
4.50	260	51.3	79.9	135	181	305	467	681	943	
5.00	234	46.4	79.9	105	181	280	419	611	879	
5.60	209	41.2	73.3	105	157	248	381	523	756	
970	1.25	776	157	190	326	458	703	946	1166	1718
	1.40	693	141	182	326	456	703	930	1166	1718
	1.60	606	125	168	326	435	703	863	1114	1718
	1.80	539	111	160	300	393	655	826	1048	1651
	2.00	485	98.2	151	268	370	608	760	999	1564
	2.24	433	88.7	138	249	350	548	699	916	1495
	2.50	388	80.0	143	212	319	488	535	854	1380
	2.80	346	70.7	132	189	282	431	550	806	1363
	3.15	308	63.1	112	166	250	395	560	763	904
	3.55	273	55.9	85.5	112	193	329	382	609	798
	4.00	243	48.9	85.5	112	150	253	390	620	842
4.50	216	42.8	66.3	112	150	253	392	565	827	
5.00	194	38.7	66.3	86.7	150	234	351	506	765	
5.60	173	34.3	61.1	86.7	131	207	319	448	663	
870	1.25	696	141	170	293	411	630	848	1046	1541
	1.40	621	127	163	293	409	630	834	1046	1541
	1.60	544	112	151	293	390	630	774	999	1541
	1.80	483	99.7	143	272	352	594	741	940	1481
	2.00	435	88.1	135	242	332	550	682	896	1403
	2.24	388	79.6	124	225	314	496	627	821	1341
	2.50	348	71.8	129	191	288	442	480	766	1238
	2.80	311	63.4	119	171	254	389	493	723	1235
	3.15	276	56.6	101	150	226	357	506	705	811
	3.55	245	50.2	76.7	100	173	295	343	546	716
	4.00	218	44.0	76.7	100	134	227	350	556	755
4.50	193	38.5	59.4	100	134	227	354	507	766	
5.00	174	34.8	59.4	77.8	134	211	317	454	691	
5.60	155	30.9	54.9	77.8	118	187	288	402	615	

Torque Ratings – lb-in/Single Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	1.25	1400	12.4	15.3	26.4	37.2	56.8	77.6	89.9	140
	1.40	1250	12.9	16.6	29.7	41.9	63.9	85.6	96.6	154
	1.60	1094	12.9	17.5	34.4	45.0	71.9	89.5	101	174
	1.80	972	12.8	18.6	34.5	46.4	75.8	95.1	106	175
	2.00	875	12.8	19.3	34.0	48.7	76.7	100	114	179
	2.24	781	12.9	20.2	34.7	50.7	78.0	103	119	209
	2.50	700	12.9	21.9	33.3	50.1	77.7	87.5	123	202
	2.80	625	12.8	23.0	33.2	49.0	76.3	98.6	128	213
	3.15	556	12.9	22.1	32.9	48.6	76.9	112	132	185
	3.55	493	12.6	19.6	25.5	40.2	71.5	88.9	139	183
	4.00	438	12.3	19.7	28.8	39.4	65.0	100	147	191
4.50	389	12.2	19.3	29.2	43.9	66.3	106	144	200	
5.00	350	12.2	20.5	28.5	43.8	74.2	107	161	208	
5.60	313	12.0	20.6	31.7	45.8	68.9	103	140	200	
1430	1.25	1144	12.4	15.3	26.4	37.2	56.8	77.6	94.7	140
	1.40	1021	12.9	16.6	29.7	41.9	63.9	85.6	102	154
	1.60	894	12.9	17.5	34.4	45.0	71.9	89.5	106	177
	1.80	794	12.9	18.6	34.5	46.4	75.8	95.1	112	186
	2.00	715	12.9	19.3	34.1	48.7	76.7	100	120	191
	2.24	638	12.9	20.2	35.1	50.7	78.0	103	126	215
	2.50	572	12.9	22.7	33.9	50.4	77.7	87.5	130	214
	2.80	511	12.9	23.3	33.8	49.6	76.3	98.6	134	226
	3.15	454	12.9	22.5	33.5	49.6	77.5	112	139	185
	3.55	403	12.8	19.6	25.5	42.7	74.9	88.9	139	183
	4.00	358	12.4	21.0	28.8	39.4	65.0	100	155	203
4.50	318	12.3	19.3	31.0	44.3	70.4	112	152	212	
5.00	286	12.3	21.3	28.5	46.5	75.3	112	163	221	
5.60	255	12.1	21.9	31.7	46.4	73.2	110	147	212	
1170	1.25	936	12.7	15.3	26.4	37.2	56.8	77.6	94.7	140
	1.40	836	12.9	16.6	29.7	41.9	63.9	85.6	106	154
	1.60	731	12.9	17.5	34.4	45.0	71.9	89.5	114	177
	1.80	650	12.9	18.6	35.0	46.4	75.8	95.1	120	195
	2.00	585	12.9	19.3	34.8	48.7	76.7	100	128	200
	2.24	522	12.9	20.2	35.7	51.0	78.3	103	134	215
	2.50	468	12.9	23.0	34.5	51.3	78.6	87.5	139	226
	2.80	418	12.9	23.6	34.3	50.5	77.8	98.6	144	240
	3.15	371	12.9	22.7	33.9	50.4	78.9	114	149	185
	3.55	330	12.9	19.6	25.5	45.0	75.8	88.9	139	183
	4.00	293	12.5	22.3	28.8	39.4	65.0	100	163	215
4.50	260	12.4	19.3	32.9	44.3	73.6	113	163	225	
5.00	234	12.4	21.3	28.5	48.1	76.2	114	163	234	
5.60	209	12.2	22.2	31.7	46.9	75.3	114	158	225	
970	1.25	776	12.9	15.3	26.4	37.2	56.8	77.6	94.7	140
	1.40	693	12.9	16.6	29.7	41.9	63.9	85.6	106	154
	1.60	606	12.9	17.5	34.4	45.0	71.9	89.5	116	177
	1.80	539	12.9	18.6	35.6	46.4	76.4	95.1	121	195
	2.00	485	12.9	19.3	35.3	48.7	77.7	100	128	200
	2.24	433	12.9	20.2	36.2	51.0	79.8	103	134	215
	2.50	388	12.9	23.2	34.9	52.1	79.9	87.5	139	226
	2.80	346	12.9	23.9	34.7	51.1	79.0	98.6	145	249
	3.15	308	12.9	23.0	34.3	51.0	80.0	116	158	185
	3.55	273	12.9	19.6	25.5	45.0	75.8	88.9	139	183
	4.00	243	12.6	22.5	28.8	39.4	65.0	100	163	217
4.50	216	12.5	19.3	33.0	44.3	73.6	115	163	238	
5.00	194	12.5	21.3	28.5	48.1	76.9	115	163	246	
5.60	173	12.3	22.3	31.7	47.2	75.9	115	163	238	
870	1.25	696	12.9	15.3	26.4	37.2	56.8	77.6	94.7	140
	1.40	621	12.9	16.6	29.7	41.9	63.9	85.6	106	154
	1.60	544	12.9	17.5	34.4	45.0	71.9	89.5	116	177
	1.80	483	12.9	18.6	35.9	46.4	77.2	95.1	121	195
	2.00	435	12.9	19.3	35.6	48.7				

Type DHC Parallel Shaft

Power Ratings – Hp/Single Reduction

Torque Ratings – lb-in/Single Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1750	1.25	1400	1293	1661	2480	4283	5481	...	...
	1.40	1250	1161	1643	2480	3838	5065	...	...
	1.60	1094	1011	1434	2311	3388	4623	6584	8373
	1.80	972	882	1270	2003	2993	4087	5905	7442
	2.00	875	802	1128	1796	2708	3700	5336	6662
	2.24	781	698	1033	1578	2423	3312	4648	6033
	2.50	700	614	898	1380	2193	3000	4187	5404
	2.80	625	547	793	1217	1961	2687	3709	4772
	3.15	556	480	685	1053	1677	2359	3249	4297
	3.55	493	410	593	930	1398	1968	2912	3821
	4.00	438	346	529	808	1205	1668	2516	3345
	4.50	389	318	451	686	1050	1517	2121	2629
5.00	350	286	407	610	936	1329	1846	2353	
5.60	313	222	353	523	762	1108	1531	2006	
1430	1.25	1144	1057	1358	2027	3719	4758	6840	...
	1.40	1021	949	1358	2027	3332	4397	6495	8205
	1.60	894	827	1191	1888	2942	4013	5717	7269
	1.80	794	721	1066	1637	2598	3548	5127	6461
	2.00	715	655	923	1467	2330	3213	4592	5783
	2.24	638	570	844	1290	2074	2876	3899	5238
	2.50	572	502	734	1128	1837	2580	3465	4691
	2.80	511	447	648	994	1603	2252	3031	4143
	3.15	454	392	559	860	1371	1927	2692	3730
	3.55	403	342	486	760	1142	1608	2380	3167
	4.00	358	288	439	663	984	1395	2056	2752
	4.50	318	264	375	570	862	1239	1733	2283
5.00	286	238	338	508	777	1091	1508	2043	
5.60	255	184	293	435	662	920	1255	1639	
1170	1.25	936	865	1111	1658	3148	4107	5596	7115
	1.40	836	776	1111	1658	2841	3821	5396	7115
	1.60	731	676	975	1545	2488	3437	4694	6317
	1.80	650	590	872	1339	2163	2960	4223	5614
	2.00	585	536	755	1201	1906	2675	3757	5026
	2.24	522	466	691	1055	1697	2382	3190	4552
	2.50	468	411	601	923	1503	2111	2835	4077
	2.80	418	369	530	813	1311	1842	2480	3600
	3.15	371	327	464	705	1121	1577	2202	3071
	3.55	330	285	405	630	939	1316	1947	2591
	4.00	293	239	365	553	819	1148	1682	2251
	4.50	260	219	312	474	719	1029	1420	1980
5.00	234	197	280	422	646	910	1249	1702	
5.60	209	152	242	360	551	765	1047	1361	
970	1.25	776	717	921	1375	2610	3405	4639	5899
	1.40	693	644	921	1375	2356	3334	4474	5899
	1.60	606	561	808	1281	2063	2849	3891	5540
	1.80	539	489	723	1110	1793	2454	3501	4924
	2.00	485	444	626	995	1580	2218	3115	4372
	2.24	433	389	573	875	1407	1975	2645	3870
	2.50	388	347	502	765	1246	1750	2350	3410
	2.80	346	311	448	680	1087	1527	2056	3009
	3.15	308	276	391	596	938	1307	1826	2546
	3.55	273	239	341	531	792	1104	1614	2148
	4.00	243	201	307	465	690	969	1404	1867
	4.50	216	183	261	398	605	867	1199	1659
5.00	194	165	235	353	543	765	1053	1437	
5.60	173	127	203	302	462	643	881	1147	
870	1.25	696	643	826	1233	2341	3054	4161	5291
	1.40	621	577	826	1233	2113	2990	4012	5291
	1.60	544	503	725	1149	1850	2555	3490	5134
	1.80	483	439	649	996	1608	2201	3140	4480
	2.00	435	401	562	893	1418	1989	2794	3921
	2.24	388	353	517	785	1262	1771	2372	3471
	2.50	348	314	455	692	1118	1570	2108	3058
	2.80	311	282	406	616	982	1370	1844	2699
	3.15	276	249	353	539	850	1183	1638	2284
	3.55	245	216	308	480	717	1000	1455	1927
	4.00	218	181	277	420	623	877	1272	1693
	4.50	193	165	236	359	546	784	1085	1503
5.00	174	148	211	319	490	691	952	1301	
5.60	155	114	183	272	417	580	796	1037	

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1750	1.25	1400	58.5	74.6	111	193	247	...	...
	1.40	1250	59.0	82.3	126	194	256	...	...
	1.60	1094	58.6	82.6	133	194	265	378	489
	1.80	972	57.4	82.8	131	195	266	379	490
	2.00	875	57.2	83.0	129	195	267	380	491
	2.24	781	56.2	83.0	127	195	267	380	492
	2.50	700	55.6	81.7	126	195	267	381	492
	2.80	625	54.8	80.6	124	195	268	380	493
	3.15	556	53.9	78.9	121	189	266	367	493
	3.55	493	52.5	75.9	119	182	256	367	493
	4.00	438	49.3	76.2	116	177	245	358	493
	4.50	389	51.2	74.2	112	169	245	347	429
5.00	350	50.6	74.0	110	167	237	336	429	
5.60	313	45.8	71.8	106	152	221	313	414	
1430	1.25	1144	58.5	74.6	111	205	263	375	...
	1.40	1021	59.0	83.2	126	206	272	400	518
	1.60	894	58.6	84.0	133	207	282	402	520
	1.80	794	57.4	85.1	131	207	283	403	521
	2.00	715	57.2	83.1	129	205	283	400	522
	2.24	638	56.2	83.1	127	205	284	391	522
	2.50	572	55.6	81.7	126	200	281	386	523
	2.80	511	54.8	80.6	124	195	274	380	523
	3.15	454	54.0	78.9	121	189	266	372	524
	3.55	403	53.5	76.2	119	182	256	367	500
	4.00	358	50.3	77.4	117	177	251	358	497
	4.50	318	52.1	75.6	115	170	245	347	455
5.00	286	51.3	75.2	113	169	238	336	455	
5.60	255	46.4	72.8	108	161	224	314	414	
1170	1.25	936	58.5	74.6	111	213	277	375	485
	1.40	836	59.0	83.2	126	215	289	407	549
	1.60	731	58.6	84.0	133	214	295	403	552
	1.80	650	57.4	85.1	131	211	288	406	553
	2.00	585	57.2	83.1	129	205	288	400	554
	2.24	522	56.3	83.1	127	205	287	391	555
	2.50	468	55.6	81.7	126	200	281	386	555
	2.80	418	55.4	80.7	124	195	274	379	556
	3.15	371	55.1	79.9	122	189	266	372	527
	3.55	330	54.5	77.7	121	183	256	367	500
	4.00	293	51.0	78.7	119	180	253	358	497
	4.50	260	52.8	76.7	117	173	248	348	483
5.00	234	52.0	76.2	115	172	243	340	464	
5.60	209	46.9	73.7	110	164	228	320	420	
970	1.25	776	58.5	74.6	111	213	277	375	485
	1.40	693	59.0	83.2	126	215	304	407	549
	1.60	606	58.6	84.0	133	214	295	403	584
	1.80	539	57.4	85.1	131	211	288	406	585
	2.00	485	57.2	83.1	129	205	288	400	582
	2.24	433	56.6	83.1	127	205	287	391	569
	2.50	388	56.6	82.4	126	200	281	386	560
	2.80	346	56.3	82.2	125	195	274	380	560
	3.15	308	55.9	81.3	124	191	266	372	527
	3.55	273	55.2	78.8	123	186	259	367	500
	4.00	243	51.6	79.7	121	183	257	360	497
	4.50	216	53.3	77.6	118	176	252	354	488
5.00	194	52.5	77.0	116	174	246	346	472	
5.60	173	47.2	74.3	110	166	231	325	427	
870	1.25	696	58.5	74.6	111	213	277	375	485
	1.40	621	59.0	83.2	126	215	304	407	549
	1.60	544	58.6	84.0	133	214	295	403	603
	1.80	483	57.4	85.1	131	211	288	406	594
	2.00	435	57.5	83.1	129	205	288	400	582
	2.24	388	57.3	83.7	127	205	287	391	569
	2.50	348	57.1	83.3	127	200	281	386	560
	2.80	311	56.8	82.9	126	197	274	380	560
	3.15	276	56.3	81.9	125	193	269	372	527
	3.55	245	55.5	79.4	124	188	262	369	500
	4.00	218	51.9	80.2	122	185	260	364	502
	4.50	193	53.6	78.0	119	177	254	357	493
5.00	174	52.7	77.4	117	176	248	348	477	
5.60	155	47.4	74.7	111	167	232	328	431	

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft Power Ratings – Hp/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1750	5.00	350	...	...	...	...	...	...	...	3099	...	...	...	...
	5.60	313	...	...	...	...	...	...	...	3099	3099	5707	...	8720	
	6.30	278	210	338	506	789	1146	1706	2197	2813	3071	5066	5902	8095	8720
	7.10	246	195	311	461	725	1058	1674	2065	2602	2790	4495	5376	7084	8720
	8.00	219	180	281	422	659	979	1504	1888	2464	2562	3943	4869	6326	8081
	9.00	194	166	260	391	608	902	1366	1744	2200	2428	3532	4464	5624	7217
	10.0	175	153	238	363	567	846	1204	1584	1993	2185	3176	4001	5085	6416
	11.2	156	143	220	340	526	772	1084	1457	1797	2045	2904	3597	4550	5801
	12.5	140	133	209	308	484	714	966	1351	1619	1884	2624	3126	4118	5190
	14.0	125	123	189	284	448	647	903	1230	1458	1747	2349	2972	3703	4305
	16.0	109	114	175	263	411	588	786	1077	1304	1573	2114	2661	3303	4224
	18.0	97	104	154	202	342	520	689	979	1171	1406	1898	2394	2945	3768
	20.0	88	97.4	137	202	321	456	640	858	1054	1262	1670	2053	2646	3360
	22.4	78	84.6	120	186	270	414	564	784	948	1136	1506	1749	2425	2931
	25.0	70	75.2	113	156	265	368	504	705	...	1021	...	1706	...	2662
28.0	63	65.3	97.4	150	209	327	462	627	...	...	...	...	...	...
1430	5.00	286	...	...	...	...	...	...	...	2532	...	...	...	...
	5.60	255	...	...	...	...	...	...	...	2532	2532	4664	...	7125	
	6.30	227	183	279	439	675	995	1394	1907	2442	2532	4140	4823	6615	7125
	7.10	201	169	268	400	630	919	1370	1793	2231	2422	3673	4393	5789	7125
	8.00	179	156	244	366	572	850	1250	1639	2073	2224	3257	3979	5169	6603
	9.00	159	144	226	340	528	783	1133	1514	1858	2108	2944	3690	4615	5897
	10.0	143	133	207	315	492	735	997	1375	1653	1897	2640	3334	4215	5264
	11.2	128	124	191	295	457	664	896	1231	1488	1776	2410	2991	3789	4808
	12.5	114	116	180	267	419	594	789	1118	1339	1605	2174	2555	3422	4322
	14.0	102	104	162	242	379	533	745	1016	1204	1443	1943	2462	3071	3517
	16.0	89	96.9	144	216	338	484	647	888	1075	1298	1746	2201	2734	3503
	18.0	79	85.3	126	165	286	427	563	806	964	1159	1566	1978	2434	3119
	20.0	72	79.8	113	165	264	373	526	706	868	1039	1376	1678	2184	2777
	22.4	64	69.8	97.7	153	221	340	464	645	779	935	1240	1430	2000	2395
	25.0	57	62.0	92.3	128	217	302	414	580	...	840	...	1404	...	2175
28.0	51	53.7	80.3	123	173	271	379	515	...	...	...	...	...	...
1170	5.00	234	...	...	...	...	...	...	...	2072	...	...	...	...
	5.60	209	...	...	...	...	...	...	...	2072	2072	3816	...	5830	
	6.30	186	159	229	382	553	847	1140	1579	2072	2072	3407	3946	5412	5830
	7.10	165	147	220	348	547	798	1121	1558	1856	2072	3059	3595	4740	5830
	8.00	146	136	203	318	497	738	1027	1409	1722	1933	2713	3255	4283	5407
	9.00	130	126	193	295	459	679	937	1277	1541	1832	2447	3073	3849	4886
	10.0	117	115	180	274	425	621	824	1159	1368	1648	2191	2771	3509	4391
	11.2	104	108	163	250	386	548	740	1018	1230	1475	1997	2451	3147	4002
	12.5	94	98.6	148	222	345	490	646	924	1105	1326	1799	2090	2838	3590
	14.0	84	85.9	133	199	312	439	614	838	993	1192	1606	2037	2543	2878
	16.0	73	80.0	118	177	278	398	533	732	886	1070	1441	1805	2261	2878
	18.0	65	69.8	103	135	234	351	461	664	794	955	1292	1632	2010	2573
	20.0	59	65.5	92.3	135	217	305	433	581	714	856	1133	1373	1801	2293
	22.4	52	57.5	79.9	125	181	279	381	530	641	769	1021	1173	1648	1960
	25.0	47	51.1	75.7	105	178	248	340	476	...	691	...	1156	...	1780
28.0	42	44.2	66.2	101	143	223	312	423	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft

Torque Ratings – lb-in/Double Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1750	5.00	350	...	...	...	...	...	...	...	591	...	...	...	...
	5.60	313	...	...	...	...	...	...	...	654	664	1169	...	1767	
	6.30	278	46.9	76.5	114	176	254	392	486	680	728	1169	1342	1824	1965
	7.10	246	48.6	79.2	117	182	264	432	510	722	758	1169	1377	1824	2185
	8.00	219	50.7	81.7	125	187	275	437	535	741	799	1169	1405	1824	2314
	9.00	194	52.6	84.5	130	197	288	441	549	745	821	1171	1469	1824	2314
	10.0	175	54.7	85.3	134	205	297	445	553	766	831	1185	1472	1824	2314
	11.2	156	56.8	90.5	138	210	308	449	583	772	883	1196	1490	1835	2314
	12.5	140	58.6	94.9	142	217	320	442	598	778	909	1207	1429	1855	2328
	14.0	125	61.1	95.4	146	223	325	454	603	783	943	1217	1517	1874	2157
	16.0	109	63.4	100	152	230	326	457	607	788	949	1226	1530	1892	2377
	18.0	97	65.5	98.8	129	218	328	449	610	792	955	1234	1541	1907	2400
	20.0	88	68.1	101	145	231	321	460	614	796	960	1242	1481	1920	2420
	22.4	78	67.2	97.4	153	219	330	462	616	799	964	1248	1444	1930	2366
	25.0	70	65.9	101	144	233	331	464	618	...	968	...	1568	...	2356
28.0	63	63.4	99.8	154	206	328	465	620	...	...	...	...	...	...
1430	5.00	286	...	...	...	...	...	...	...	591	...	...	...	...
	5.60	255	...	...	...	...	...	...	...	654	664	1169	...	1767	
	6.30	227	49.8	77.3	122	184	270	392	517	722	735	1169	1342	1824	1965
	7.10	201	51.6	83.7	125	194	280	432	542	758	805	1169	1377	1824	2185
	8.00	179	53.9	86.8	133	199	292	444	568	763	849	1182	1405	1824	2314
	9.00	159	55.9	89.8	138	209	306	447	583	770	872	1194	1486	1832	2314
	10.0	143	58.2	90.7	143	218	315	451	587	777	883	1206	1501	1850	2324
	11.2	128	60.3	96.2	147	223	325	454	603	782	938	1215	1516	1870	2347
	12.5	114	62.3	100	151	230	326	442	606	787	948	1224	1429	1886	2372
	14.0	102	63.1	100	152	231	328	458	609	791	954	1232	1538	1902	2157
	16.0	89	66.0	101	153	231	329	460	613	795	959	1239	1549	1916	2413
	18.0	79	65.5	98.8	129	224	330	449	615	799	963	1246	1558	1929	2431
	20.0	72	68.3	101	145	233	321	463	618	802	967	1252	1481	1940	2447
	22.4	64	67.9	97.4	154	219	332	465	620	805	971	1257	1444	1947	2366
	25.0	57	66.4	102	144	234	333	466	621	...	974	...	1580	...	2356
28.0	51	63.9	101	154	209	333	467	623	...	...	...	...	...	...
1170	5.00	234	...	...	...	...	...	...	...	591	...	...	...	...
	5.60	209	...	...	...	...	...	...	...	654	664	1169	...	1767	
	6.30	186	52.9	77.3	129	184	281	392	523	749	735	1176	1342	1824	1965
	7.10	165	54.9	83.7	132	206	298	432	575	770	841	1190	1377	1826	2185
	8.00	146	57.2	88.2	141	211	310	446	597	775	901	1203	1405	1847	2316
	9.00	130	59.4	93.7	147	222	324	452	601	781	926	1213	1513	1867	2344
	10.0	117	61.8	96.3	151	230	326	456	605	786	938	1223	1525	1883	2369
	11.2	104	64.1	100	152	230	327	458	609	791	953	1230	1519	1899	2388
	12.5	94	64.8	101	153	231	329	442	612	794	958	1237	1429	1912	2408
	14.0	84	63.8	101	153	232	330	461	614	798	962	1244	1555	1925	2157
	16.0	73	66.7	101	154	233	331	463	617	801	966	1250	1552	1936	2422
	18.0	65	65.5	98.8	129	224	332	449	619	804	970	1255	1571	1947	2451
	20.0	59	68.6	102	145	234	321	466	621	807	974	1261	1481	1956	2470
	22.4	52	68.4	97.4	154	219	333	467	623	809	976	1265	1448	1962	2366
	25.0	47	66.9	102	144	235	334	468	624	...	979	...	1590	...	2356
28.0	42	64.3	101	155	211	335	469	626	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft
 Power Ratings – Hp/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
970	5.00	194	...	...	...	...	...	...	...	1718	...	...	...	...
	5.60	173	...	...	...	...	...	...	...	1718	1718	...	4833	...	
	6.30	154	139	189	326	458	702	945	1309	1718	1718	2875	3272	4517	4833
	7.10	137	129	182	305	456	700	929	1309	1558	1718	2576	2980	4004	4833
	8.00	121	119	168	279	435	642	851	1182	1444	1650	2280	2699	3610	4567
	9.00	108	110	160	254	393	567	777	1069	1291	1558	2053	2582	3238	4118
	10.0	97	101	151	229	355	518	687	969	1144	1392	1835	2325	2947	3693
	11.2	87	92.2	136	209	322	457	618	851	1028	1234	1671	2032	2640	3362
	12.5	78	82.5	123	184	287	408	535	771	923	1108	1504	1733	2377	3011
	14.0	69	71.8	111	166	260	365	512	699	829	995	1341	1693	2127	2386
	16.0	61	66.9	98.2	148	232	332	444	610	739	893	1203	1496	1889	2386
	18.0	54	57.8	85.5	112	194	293	382	553	662	796	1077	1357	1678	2133
	20.0	49	54.4	76.7	112	180	253	360	484	595	713	945	1151	1503	1914
	22.4	43	47.9	66.3	104	150	232	317	441	534	641	850	991	1374	1635
	25.0	39	42.6	62.9	86.7	148	206	283	396	...	575	...	963	...	1496
28.0	35	36.9	55.2	84.0	119	185	259	352	...	...	...	...	...	...
870	5.00	174	...	...	...	...	...	...	...	1541	...	...	...	...
	5.60	155	...	...	...	...	...	...	...	1541	1541	...	4335	...	
	6.30	138	129	170	293	411	630	848	1174	1541	1541	2602	2934	4095	4335
	7.10	123	120	163	282	409	630	834	1174	1406	1541	2328	2673	3624	4335
	8.00	109	110	151	256	390	578	763	1066	1303	1480	2059	2421	3264	4134
	9.00	97	102	143	229	352	510	697	964	1164	1403	1852	2331	2925	3724
	10.0	87	91.5	135	206	319	467	616	873	1031	1255	1655	2098	2660	3336
	11.2	78	83.1	122	188	289	411	556	766	926	1111	1506	1822	2381	3035
	12.5	70	74.3	111	166	258	367	480	694	831	998	1355	1554	2140	2716
	14.0	62	64.7	99.8	149	233	329	460	629	745	895	1207	1519	1917	2140
	16.0	54	60.2	88.2	133	208	298	399	549	665	803	1083	1348	1701	2140
	18.0	48	51.9	76.7	100	174	263	342	497	595	716	969	1226	1510	1913
	20.0	44	48.9	68.9	100	162	227	324	435	535	641	849	1043	1352	1723
	22.4	39	43.1	59.4	93.4	134	209	285	397	480	576	764	897	1236	1482
	25.0	35	38.3	56.5	77.8	133	185	254	356	...	516	...	865	...	1355
28.0	31	33.1	49.6	75.4	107	166	233	316	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft Torque Ratings – lb-in/Double Reduction (MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
970	5.00	194	...	...	...	...	...	...	...	...	591	...	...	...	...
	5.60	173	...	...	...	...	...	...	...	...	654	664	1184	...	1767
	6.30	154	55.9	77.3	133	184	281	392	523	749	735	1197	1342	1836	1965
	7.10	137	58.0	83.7	140	207	315	432	583	780	841	1209	1377	1860	2185
	8.00	121	60.5	88.2	149	223	325	446	604	784	928	1220	1405	1878	2360
	9.00	108	62.8	93.7	152	230	327	452	607	789	950	1228	1533	1895	2383
	10.0	97	65.3	97.4	153	231	328	458	610	793	955	1236	1544	1907	2404
	11.2	87	65.9	101	153	232	329	461	614	797	961	1242	1519	1920	2420
	12.5	78	65.4	101	153	232	331	442	616	800	965	1248	1429	1932	2436
	14.0	69	64.3	101	154	233	331	464	618	803	969	1254	1559	1942	2157
	16.0	61	67.2	101	154	234	332	466	621	806	972	1258	1552	1952	2422
	18.0	54	65.5	98.8	129	224	333	449	622	808	975	1263	1575	1961	2451
	20.0	49	68.7	102	145	235	321	468	624	810	978	1267	1497	1968	2487
	22.4	43	68.7	97.4	155	219	334	469	625	812	981	1271	1475	1973	2381
	25.0	39	67.2	102	144	235	335	470	627	...	983	...	1597	...	2390
28.0	35	64.6	102	155	212	335	470	628	...	...	...	...	...	...
870	5.00	174	...	...	...	...	...	...	...	...	591	...	...	...	...
	5.60	155	...	...	...	...	...	...	...	...	654	664	1196	...	1767
	6.30	138	57.8	77.3	133	184	281	392	523	749	735	1207	1342	1856	1965
	7.10	123	60.0	83.7	145	207	316	432	583	785	841	1218	1377	1877	2185
	8.00	109	62.5	88.2	152	223	327	446	607	788	928	1228	1405	1893	2382
	9.00	97	64.9	93.7	153	230	328	452	610	793	953	1235	1543	1908	2402
	10.0	87	65.8	97.4	153	232	329	458	613	797	960	1242	1553	1920	2421
	11.2	78	66.2	101	153	232	330	463	616	800	965	1248	1519	1931	2435
	12.5	70	65.7	101	154	233	331	442	618	803	969	1253	1429	1939	2450
	14.0	62	64.6	101	154	234	332	465	620	806	972	1258	1559	1951	2157
	16.0	54	67.5	102	154	234	333	467	622	808	975	1263	1559	1960	2422
	18.0	48	65.5	98.8	129	224	334	449	624	810	978	1266	1587	1967	2451
	20.0	44	68.8	102	145	235	321	469	625	812	981	1271	1513	1974	2496
	22.4	39	68.9	97.4	155	219	335	470	626	814	983	1273	1488	1979	2407
	25.0	35	67.4	102	144	235	335	470	628	...	985	...	1601	...	2413
28.0	31	64.7	102	155	213	336	471	629	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft Power Ratings – Hp/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE														
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250		
1750	25.0	70	...	...	...	...	...	...	...	...	833	...	1365	...	2145	...	
	28.0	63	...	...	...	...	...	...	...	...	743	...	1224	...	1905	...	2446
	31.5	56	60.9	69.7	116	160	246	352	519	665	800	1096	1379	1693	2165	...	2165
	36.0	49	54.7	69.7	116	160	246	319	457	598	717	962	1170	1516	1933	...	1933
	40.0	44	48.2	65.6	106	160	234	283	417	536	644	888	1007	1400	1657	...	1657
	45.0	39	42.8	59.8	94.8	149	208	253	379	486	578	795	926	1241	1599	...	1599
	50.0	35	37.1	52.8	85.4	120	187	232	336	433	523	711	901	1101	1417	...	1417
	56.0	31	35.1	46.7	70.2	95.4	157	202	303	387	466	623	778	985	1257	...	1257
	63.0	28	31.5	41.4	68.5	95.4	152	183	265	347	417	560	668	900	1105	...	1105
	71.0	25	27.8	37.6	59.9	92.4	134	163	242	311	374	...	634	...	1008	...	1008
	80.0	22	24.8	34.3	53.7	85.2	119	145	219	268	335	...	...	...	...	...	...
	90.0	19	21.5	30.2	48.3	69.3	107	133	195	240	289	...	...	...	...	...	...
	100	18	19.6	26.2	42.7	61.2	96.9	115	168	215	258	...	...	...	...	...	...
	112	16	17.2	23.8	37.3	58.9	85.6	102	154	193	232	...	...	...	...	...	...
125	14	15.4	21.7	33.5	54.3	75.9	91.2	139	...	208	...	...	...	...	...	...
140	13	13.4	19.2	30.1	44.4	68.1	83.5	124	...	...	...	...	...	...	...	...
1430	25.0	57	...	...	...	...	...	...	...	684	...	1123	...	1767	...	...
	28.0	51	...	...	...	...	...	...	...	610	...	1007	...	1568	...	1999	
	31.5	45	49.9	56.9	96.8	133	201	288	424	546	657	901	1140	1392	1780	...	1780
	36.0	40	44.8	56.9	96.8	133	201	261	373	491	588	789	974	1246	1589	...	1589
	40.0	36	39.5	53.6	86.6	133	192	232	341	440	528	729	837	1150	1380	...	1380
	45.0	32	35.1	48.9	77.6	122	170	207	309	398	474	653	757	1019	1313	...	1313
	50.0	29	30.4	43.1	69.9	99.0	153	189	274	355	429	583	739	903	1163	...	1163
	56.0	26	28.7	38.5	58.0	78.9	131	165	247	317	382	511	643	808	1031	...	1031
	63.0	23	25.8	33.8	56.0	78.9	124	150	216	285	341	459	551	737	914	...	914
	71.0	20	22.7	30.7	49.0	75.6	110	133	198	255	306	...	520	...	833	...	833
	80.0	18	20.3	28.0	43.9	69.7	97.2	119	179	220	275	...	...	...	...	...	...
	90.0	16	17.6	24.7	39.5	56.9	87.3	109	159	196	236	...	...	...	...	...	...
	100	14	16.0	21.4	34.9	50.4	79.2	94.0	138	176	211	...	...	...	...	...	...
	112	13	14.1	19.5	30.5	48.2	70.0	83.4	126	158	190	...	...	...	...	...	...
125	11	12.6	17.8	27.4	44.4	62.1	74.5	114	...	170	...	...	...	...	...	...
140	10	10.9	15.7	24.6	36.4	55.7	68.2	101	...	...	...	...	...	...	...	...
1170	25.0	47	...	...	...	...	...	...	...	563	...	924	...	1455	...	...
	28.0	42	...	...	...	...	...	...	...	501	...	606	...	1290	...	1662	
	31.5	37	40.9	46.6	80.3	110	165	235	347	448	540	740	937	1145	1473	...	1473
	36.0	33	36.7	46.6	80.3	110	165	214	306	403	483	648	808	1024	1307	...	1307
	40.0	29	32.4	43.9	70.9	109	157	189	279	361	434	598	693	945	1147	...	1147
	45.0	26	28.8	40.0	63.6	100	140	169	253	327	389	536	622	837	1079	...	1079
	50.0	23	25.0	35.3	57.3	81.4	125	155	225	291	352	479	606	741	955	...	955
	56.0	21	23.5	31.7	47.9	65.2	108	135	202	260	313	419	531	663	846	...	846
	63.0	19	21.1	27.7	45.9	65.2	102	122	177	233	280	376	455	605	755	...	755
	71.0	16	18.6	25.1	40.1	61.9	89.8	109	162	209	251	...	426	...	688	...	688
	80.0	15	16.7	22.9	36.0	57.1	79.6	97.1	147	180	225	...	...	...	...	...	...
	90.0	13	14.4	20.2	32.4	46.7	71.5	88.9	130	161	194	...	...	...	...	...	...
	100	12	13.1	17.5	28.6	41.5	64.9	76.9	113	144	173	...	...	...	...	...	...
	112	10	11.5	15.9	25.0	39.5	57.3	68.2	103	129	155	...	...	...	...	...	...
125	9.4	10.4	14.5	22.4	36.4	50.8	61.0	93.2	...	139	...	...	...	...	...	...
140	8.4	8.95	12.8	20.2	29.8	45.6	55.8	82.7	...	...	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft Torque Ratings – lb-in/Triple Reduction (MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE													
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250	
1750	25.0	70	803	...	1253	...	1930	...
	28.0	63	806	972	1258	1463	1940	2447
	31.5	56	68.6	80.1	132	182	278	419	588	808	975	1262	1572	1949	2451	2451
	36.0	49	68.7	91.9	149	206	310	419	594	810	978	1267	1495	1956	2474	2474
	40.0	44	68.7	96.0	155	231	334	423	596	812	980	1269	1473	1961	2378	2378
	45.0	39	67.2	96.6	155	235	335	425	603	813	983	1272	1468	1967	2490	2490
	50.0	35	64.6	97.1	155	212	335	425	604	815	984	1275	1599	1973	2498	2498
	56.0	31	69.0	93.7	141	192	313	419	592	816	986	1278	1549	1977	2505	2505
	63.0	28	69.0	95.4	155	217	336	419	594	817	988	1280	1520	1981	2467	2467
	71.0	25	69.1	96.0	156	236	336	423	596	819	989	...	1609	...	2469	2469
	80.0	22	67.9	96.6	156	236	337	425	603	820	990
	90.0	19	65.2	97.1	156	215	337	425	604	821	992
	100	18	69.2	95.4	156	219	337	419	594	821	993
	112	16	69.2	96.0	156	237	337	423	596	822	994
	125	14	68.3	96.6	156	237	338	425	603	...	994
140	13	65.6	97.1	156	217	338	425	604	...	...	...	...	...	...	...
1430	25.0	57	...	...	...	...	...	...	...	807	...	1261	...	1946	...
	28.0	51	...	...	...	...	...	...	...	810	977	1265	1463	1954	2447
	31.5	45	68.8	80.1	134	186	278	419	588	812	980	1269	1590	1961	2466	
	36.0	40	68.8	91.9	152	210	310	419	594	813	982	1273	1522	1967	2490	
	40.0	36	68.9	96.0	155	235	335	423	596	815	984	1275	1497	1971	2424	
	45.0	32	67.5	96.6	155	236	336	425	603	816	986	1277	1468	1976	2502	
	50.0	29	64.9	97.1	155	214	336	425	604	817	987	1280	1605	1980	2509	
	56.0	26	69.1	94.7	142	195	317	419	592	818	989	1282	1566	1984	2515	
	63.0	23	69.1	95.4	156	220	337	419	594	819	990	1284	1535	1987	2497	
	71.0	20	69.1	96.0	156	237	337	423	596	820	991	...	1614	...	2496	
	80.0	18	68.1	96.6	156	237	337	425	603	821	992	...	...	...	...
	90.0	16	65.4	97.1	156	216	337	425	604	822	993	...	...	...	...
	100	14	69.2	95.4	156	221	338	419	594	822	994	...	...	...	...
	112	13	69.3	96.0	156	237	338	423	596	823	995	...	...	...	...
	125	11	68.4	96.6	156	237	338	425	603	...	996	...	...	...	...
140	10	65.6	97.1	156	218	338	425	604	...	...	...	...	...	...
1170	25.0	47	...	...	...	...	...	...	...	811	...	1268	...	1958	...
	28.0	42	...	...	...	...	...	...	...	813	982	1271	1463	1965	2487
	31.5	37	68.9	80.1	136	189	278	419	588	814	984	1274	1598	1971	2495	
	36.0	33	69.0	91.9	154	213	310	419	594	816	986	1277	1545	1976	2503	
	40.0	29	69.0	96.0	155	236	336	423	596	817	987	1279	1516	1979	2461	
	45.0	26	67.8	96.6	156	236	336	425	603	818	989	1281	1475	1983	2513	
	50.0	23	65.1	97.1	156	215	337	425	604	819	990	1283	1610	1987	2518	
	56.0	21	69.1	95.1	144	196	321	419	592	820	991	1285	1581	1990	2523	
	63.0	19	69.2	95.4	156	222	337	419	594	821	992	1287	1548	1992	2521	
	71.0	16	69.2	96.0	156	237	337	423	596	822	993	...	1617	...	2518	
	80.0	15	68.3	96.6	156	237	338	425	603	822	994	...	...	...	...
	90.0	13	65.5	97.1	156	217	338	425	604	823	995	...	...	...	...
	100	12	69.3	95.4	156	222	338	419	594	823	995	...	...	...	...
	112	10	69.3	96.0	156	237	338	423	596	824	996	...	...	...	...
	125	9.4	68.5	96.6	156	237	338	425	603	...	997	...	...	...	...
140	8.4	65.7	97.1	156	218	338	425	604	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft Power Ratings – Hp/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
970	25.0	39	...	...	...	...	...	...	...	468	...	769	...	1213	...
	25.0	35	...	...	...	...	...	...	...	417	504	689	796	1075	1385
	31.5	31	33.9	38.6	67.3	92.6	137	195	288	373	449	616	780	953	1227
	36.0	27	30.5	38.6	67.3	92.6	137	177	253	335	401	539	678	852	1088
	40.0	24	26.9	36.4	58.9	90.3	131	157	231	300	360	497	581	786	962
	45.0	22	24.0	33.2	52.8	83.2	116	140	210	271	323	445	525	696	897
	50.0	19	20.8	29.2	47.5	67.8	104	128	186	242	292	398	504	616	794
	56.0	17	19.5	26.3	40.0	54.5	90.4	112	168	216	260	348	443	551	704
	63.0	15	17.5	23.0	38.1	54.5	84.3	102	147	194	232	313	379	503	629
	71.0	14	15.4	20.8	33.3	51.4	74.5	90.1	134	174	209	...	354	...	574
	80.0	12	13.8	19.0	29.8	47.4	66.0	80.5	122	149	187	...	...	...	...
	90.0	11	12.0	16.8	26.9	38.8	59.3	73.7	108	133	161	...	...	...	...
	100	10	10.9	14.5	23.7	34.6	53.8	63.8	93.3	120	144	...	...	...	...
	112	8.7	9.56	13.2	20.7	32.7	47.6	56.6	85.2	107	129	...	...	...	...
125	7.8	8.59	12.0	18.6	30.2	42.1	50.5	77.3	...	115	...	...	...	...
140	6.9	7.42	10.6	16.7	24.8	37.8	46.3	68.6	...	...	...	...	...	...
870	25.0	35	...	...	...	...	...	...	...	421	...	691	...	1090	...
	28.0	31	...	...	...	...	...	...	...	374	453	619	717	966	1245
	31.5	28	30.5	34.6	60.6	83.5	123	175	258	335	403	553	701	856	1103
	36.0	24	27.4	34.6	60.4	83.5	123	159	227	300	361	484	611	765	977
	40.0	22	24.1	32.6	52.9	81.0	117	141	207	269	324	447	523	706	868
	45.0	19	21.5	29.7	47.4	74.7	104	126	188	244	290	400	475	625	806
	50.0	17	18.6	26.2	42.7	60.9	93.5	115	167	217	262	357	453	553	713
	56.0	16	17.5	23.6	36.0	49.1	81.5	100	150	194	233	312	399	494	632
	63.0	14	15.7	20.6	34.2	49.1	75.7	91	132	174	209	281	341	451	564
	71.0	12	13.8	18.7	29.9	46.1	66.9	80.8	120	156	187	...	318	...	515
	80.0	11	12.4	17.0	26.8	42.5	59.3	72.2	109	134	168	...	...	...	...
	90.0	10	10.7	15.0	24.1	34.8	53.2	66.1	96.8	120	144	...	...	...	...
	100	8.7	9.75	13.0	21.3	31.1	48.3	57.2	83.7	107	129	...	...	...	...
	112	7.8	8.58	11.8	18.6	29.4	42.7	50.7	76.4	96.2	116	...	...	...	...
125	7.0	7.70	10.8	16.7	27.1	37.8	45.3	69.3	...	104	...	...	...	...
140	6.2	6.66	9.52	15.0	22.2	34.0	41.5	61.5	...	...	...	...	...	...

Type DH(All Sizes) & DV(Sizes M1130-M1210) Parallel Shaft

Torque Ratings – lb-in/Triple Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
970	25.0	39	...	...	...	...	...	...	...	814	...	1273	...	1968	...
	28.0	35	...	...	...	...	...	...	...	815	985	1276	1463	1974	2499
	31.5	31	69.0	80.1	137	191	278	419	588	817	987	1278	1604	1979	2506
	36.0	27	69.0	91.9	155	215	310	419	594	818	988	1281	1562	1983	2512
	40.0	24	69.1	96.0	156	236	337	423	596	819	990	1282	1531	1985	2490
	45.0	22	68.0	96.6	156	236	337	425	603	820	991	1284	1501	1989	2521
	50.0	19	65.3	97.1	156	216	337	425	604	821	992	1286	1614	1992	2525
	56.0	17	69.2	95.1	145	198	324	419	592	821	993	1287	1592	1994	2529
	63.0	15	69.2	95.4	156	223	337	419	594	822	994	1289	1558	1996	2532
	71.0	14	69.2	96.0	156	237	338	423	596	823	994	...	1620	...	2535
	80.0	12	68.4	96.6	156	237	338	425	603	823	995	...	...	...	...
	90.0	11	65.6	97.1	156	217	338	425	604	824	996	...	...	...	...
	100	10	69.3	95.4	156	223	338	419	594	824	996	...	...	...	...
	112	8.7	69.3	96.0	156	237	338	423	596	824	997	...	...	...	...
	125	7.8	68.6	96.6	156	237	338	425	603	...	997	...	...	...	...
140	6.9	65.8	97.1	156	218	338	425	604	...	...	...	...	...	...
870	25.0	35	...	...	...	...	...	...	...	815	...	1276	...	1973	...
	28.0	28	...	...	...	...	...	...	...	817	987	1278	1468	1978	2505
	31.5	28	69.0	80.1	138	192	278	419	588	818	988	1281	1607	1982	2512
	36.0	24	69.1	91.9	156	217	310	419	594	819	990	1283	1570	1986	2517
	40.0	22	69.1	96.0	156	236	337	423	596	820	991	1284	1539	1988	2504
	45.0	19	68.1	96.6	156	237	337	425	603	821	992	1286	1515	1991	2525
	50.0	17	65.3	97.1	156	216	337	425	604	821	993	1287	1616	1994	2529
	56.0	16	69.2	95.1	145	199	325	419	592	822	994	1289	1597	1997	2532
	63.0	14	69.2	95.4	156	224	338	419	594	823	994	1290	1562	1998	2535
	71.0	12	69.3	96.0	156	237	338	423	596	823	995	...	1621	...	2537
	80.0	11	68.4	96.6	156	237	338	425	603	824	996	...	...	...	...
	90.0	10	65.7	97.1	156	218	338	425	604	824	996	...	...	...	...
	100	8.7	69.3	95.4	156	224	338	419	594	824	997	...	...	...	...
	112	7.8	69.3	96.0	156	237	338	423	596	825	997	...	...	...	...
	125	7.0	68.6	96.6	156	237	338	425	603	...	998	...	...	...	...
140	6.2	65.8	97.1	156	218	339	425	604	...	...	...	...	...	...

Type DHL Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	1.25 Thru 2.50	None Electric Fan	182 506	285 808	387 1117	427 1258	485 1450	560 1712	627 1977	795 2528
	2.8 Thru 5.60	None Electric Fan	142 355	230 600	318 856	358 997	414 1189	491 1451	558 1683	726 2267
1430	1.25 Thru 2.50	None Electric Fan	174 437	274 712	373 997	413 1138	470 1330	546 1592	613 1824	781 2408
	2.8 Thru 5.60	None Electric Fan	133 296	214 517	299 752	339 893	395 1085	472 1347	539 1579	707 2163
1170	1.25 Thru 2.50	None Electric Fan	166 381	262 646	358 899	398 1040	453 1232	531 1494	598 1726	766 2310
	2.8 Thru 5.60	None Electric Fan	122 248	200 450	282 667	322 808	378 1000	454 1262	522 1494	690 2078
970	1.25 Thru 2.50	None Electric Fan	160 336	254 584	349 821	389 962	443 1154	522 1416	589 1648	757 2232
	2.8 Thru 5.60	None Electric Fan	115 211	192 397	270 602	310 742	366 934	443 1197	510 1429	678 2013
870	1.25 Thru 2.50	None Electric Fan	157 315	250 554	342 784	382 925	114 1117	515 1379	582 1611	750 2192
	2.8 Thru 5.60	None Electric Fan	122 192	186 371	264 570	304 710	360 902	437 1165	504 1397	672 1981

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	
1750	1.25	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.40	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.60	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.80	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	2.00	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
2.24	None	*	*	*	*	*	*	*	*	
	Electric Fan	*	*	*	*	*	*	*	*	
	Cooling Tubes	...	...	*	*	*	*	*	*
2.50	None	*	*	*	*	*	*	*	*	
	Electric Fan	*	*	*	*	*	*	*	*	
	Cooling Tubes	...	...	548	*	*	*	*	*
2.80	None	*	*	*	*	*	*	*	*	
	Electric Fan	39	*	*	*	*	*	*	*	
	Cooling Tubes	...	...	1159	266	*	*	*	*
3.15	None	*	*	*	*	*	*	*	*	
	Electric Fan	198	220	*	*	*	*	*	*	
	Cooling Tubes	...	...	1053	969	445	*	*	*
3.55	None	72	*	*	*	*	*	*	*	
	Electric Fan	349	416	136	*	*	*	*	*	
	Cooling Tubes	...	...	930	1398	1208	67	461	
4.00	None	146	102	*	*	*	*	*	*	
	Electric Fan	346	529	338	301	115	*	*	*	
	Cooling Tubes	...	...	808	1205	1668	912	1746	
4.50	None	191	179	83	*	*	*	*	*	
	Electric Fan	318	451	484	437	360	196	*	*	
	Cooling Tubes	...	...	686	1050	1517	1645	2477	
5.00	None	212	225	148	61	*	*	*	*	
	Electric Fan	286	407	542	561	571	530	355	*	
	Cooling Tubes	...	...	610	936	1329	1846	2353	
5.60	None	222	233	197	130	120	*	*	*	
	Electric Fan	222	353	523	610	718	742	773	*	
	Cooling Tubes	...	...	523	762	1108	1531	2006	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 185.

* Refer to Factory.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1430	1.25	None Electric Fan Cooling Tubes	* * ...	* * ...	* * *	* * *	* * *	* * *	* * *
	1.40	None Electric Fan Cooling Tubes	* * ...	* * ...	* * *	* * *	* * *	* * *	* * *
	1.60	None Electric Fan Cooling Tubes	* * ...	* * ...	* * *	* * *	* * *	* * *	* * *
	1.80	None Electric Fan Cooling Tubes	* * ...	* * ...	* * *	* * *	* * *	* * *	* * *
	2.00	None Electric Fan Cooling Tubes	* * ...	* * ...	* * 263	* * *	* * *	* * *	* * *
	2.24	None Electric Fan Cooling Tubes	* * ...	* * ...	* * 989	* * 151	* * *	* * *	* * *
	2.50	None Electric Fan Cooling Tubes	* 125 ...	* 75 ...	* * 1128	* * 830	* * 163	* * *	* * *
	2.80	None Electric Fan Cooling Tubes	32 259 ...	* 288 ...	* * 994	* * 1390	* * 985	* * 280	* * 51
	3.15	None Electric Fan Cooling Tubes	121 362 ...	77 456 ...	* 230 860	* 70 1371	* * 1617	* * 725	* * 1388
	3.55	None Electric Fan Cooling Tubes	208 342 ...	184 486 ...	44 401 760	* 371 1142	* 206 1608	* * 1492	* * 2501
	4.00	None Electric Fan Cooling Tubes	249 288 ...	247 439 ...	146 516 663	77 549 984	* 532 1395	* 273 2005	* 172 2752
	4.50	None Electric Fan Cooling Tubes	262 264 ...	278 375 ...	225 570 570	146 607 862	121 685 1239	* 690 1733	* 572 2283
	5.00	None Electric Fan Cooling Tubes	238 238 ...	298 338 ...	258 508 508	212 664 777	227 788 1091	130 882 1508	* 883 2043
	5.60	None Electric Fan Cooling Tubes	184 184 ...	281 293 ...	275 435 435	244 658 662	305 839 920	241 946 1255	170 1102 1639

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 185.

* Refer to Factory.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	
1170	1.25	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.40	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.60	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	330	*	*	*	*	*
	1.80	None	*	*	*	*	*	*	*	*
		Electric Fan	32	*	*	*	*	*	*	*
		Cooling Tubes	1273	276	*	*	*	*
	2.00	None	*	*	*	*	*	*	*	*
		Electric Fan	200	200	*	*	*	*	*	*
		Cooling Tubes	1201	1050	368	*	*	*
	2.24	None	50	*	*	*	*	*	*	*
Electric Fan		392	444	51	*	*	*	*	*	
Cooling Tubes		...	...	1055	1697	1319	433	*	*
2.50	None	160	94	*	*	*	*	*	*	
	Electric Fan	411	601	365	167	*	*	*	*	
	Cooling Tubes	...	...	923	1503	1916	1340	1597	*
2.80	None	227	203	50	*	*	*	*	*	
	Electric Fan	369	530	571	470	276	70	*	*	
	Cooling Tubes	...	...	813	1311	1842	2009	2930	*
3.15	None	274	283	175	58	*	*	*	*	
	Electric Fan	327	464	705	734	633	508	307	*	
	Cooling Tubes	...	...	705	1121	1577	2202	3600	*
3.55	None	285	347	261	202	147	*	*	*	
	Electric Fan	285	405	630	879	871	933	894	*	
	Cooling Tubes	...	...	630	939	1316	1947	3071	*
4.00	None	239	359	313	285	318	143	43		
	Electric Fan	239	365	553	819	1122	1237	1313		
	Cooling Tubes	...	...	553	819	1148	1682	2251	
4.50	None	219	312	337	310	387	334	217		
	Electric Fan	219	312	474	719	1029	1393	1585		
	Cooling Tubes	...	...	474	719	1029	1420	1980	
5.00	None	197	280	338	336	530	421	355		
	Electric Fan	197	280	422	646	910	1249	1651		
	Cooling Tubes	...	...	422	646	910	1249	1702	
5.60	None	152	242	329	329	448	445	455		
	Electric Fan	152	242	360	551	765	1047	1361		
	Cooling Tubes	...	...	360	551	765	1047	1361	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 185.

* Refer to Factory.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	
970	1.25	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	*	*	*	*	*	*
	1.40	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	885	*	*	*	*	*
	1.60	None	*	*	*	*	*	*	*	*
		Electric Fan	119	*	*	*	*	*	*	*
		Cooling Tubes	1281	952	87	*	*	*
	1.80	None	*	*	*	*	*	*	*	*
		Electric Fan	338	336	*	*	*	*	*	*
		Cooling Tubes	1110	1793	1198	*	*	*
	2.00	None	*	*	*	*	*	*	*	*
		Electric Fan	138	86	*	*	*	*	*	*
		Cooling Tubes	444	626	199	*	*	*	*	*
2.24	None	*	*	*	*	*	*	*	*	
	Electric Fan	389	573	433	358	134	*	*	*	
	Cooling Tubes	...	...	875	1407	1975	2205	2976	
2.50	None	*	*	*	*	*	*	*	*	
	Electric Fan	311	310	160	*	*	*	*	*	
	Cooling Tubes	347	502	651	599	471	287	*	*	
2.80	None	*	*	*	*	*	*	*	*	
	Electric Fan	311	368	267	146	80	*	*	*	
	Cooling Tubes	...	...	680	775	755	794	595	3009
3.15	None	*	*	*	*	*	*	*	*	
	Electric Fan	276	396	341	285	253	100	*	*	
	Cooling Tubes	276	391	596	913	940	1124	1098		
3.55	None	*	*	*	*	*	*	*	*	
	Electric Fan	239	341	385	366	379	299	176		
	Cooling Tubes	239	341	531	792	1023	1393	1428		
4.00	None	*	*	*	*	*	*	*	*	
	Electric Fan	201	307	396	398	508	457	382		
	Cooling Tubes	201	307	465	690	969	1404	1601		
4.50	None	*	*	*	*	*	*	*	*	
	Electric Fan	183	261	388	392	527	551	523		
	Cooling Tubes	183	261	398	605	867	1199	1659		
5.00	None	*	*	*	*	*	*	*	*	
	Electric Fan	165	235	353	395	528	576	577		
	Cooling Tubes	165	235	353	543	765	1053	1437		
5.60	None	*	*	*	*	*	*	*	*	
	Electric Fan	127	203	302	366	512	543	602		
	Cooling Tubes	127	203	302	462	643	881	1147		

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 185.

* Refer to Factory.

Type DHC Parallel Shaft

Basic Thermal Ratings ★ – Hp/Single Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	
870	1.25	None	*	*	*	*	*	*	*	*
		Electric Fan	*	*	*	*	*	*	*	*
		Cooling Tubes	884	*	*	*	*	
	1.40	None	*	*	*	*	*	*	*	
		Electric Fan	156	31	*	*	*	*	*	
		Cooling Tubes	1233	769	*	*	*	
	1.60	None	38	*	*	*	*	*	*	
		Electric Fan	442	464	*	*	*	*	*	
		Cooling Tubes	1149	1850	1300	*	*	
	1.80	None	117	80	*	*	*	*	*	
		Electric Fan	439	649	350	178	*	*	*	
		Cooling Tubes	996	1608	2181	841	1429	
	2.00	None	256	241	*	*	*	*	*	
		Electric Fan	401	562	622	523	299	*	*	
		Cooling Tubes	893	1418	1989	1963	3076	
	2.24	None	329	327	150	*	*	*	*	
Electric Fan		353	517	785	836	729	566	151		
Cooling Tubes		...	...	785	1262	1771	2372	3471
2.50	None	314	404	292	165	96	*	*		
	Electric Fan	314	455	692	1000	1002	1085	883		
	Cooling Tubes	...	...	692	1118	1570	2108	3058
2.80	None	282	406	367	284	268	141	*		
	Electric Fan	282	406	616	982	1183	1464	1470		
	Cooling Tubes	...	...	616	982	1370	1844	2699
3.15	None	249	353	409	388	401	334	186		
	Electric Fan	249	353	539	850	1183	1638	1828		
	Cooling Tubes	...	...	539	580	1183	1638	2284
3.55	None	216	308	432	431	476	491	398		
	Electric Fan	216	308	480	717	1000	1455	1927		
	Cooling Tubes	...	...	480	717	1000	1455	1927
4.00	None	181	277	420	441	580	593	545		
	Electric Fan	181	277	420	623	877	1272	1693		
	Cooling Tubes	...	...	420	623	877	1272	1693
4.50	None	165	236	359	421	578	635	650		
	Electric Fan	165	236	359	546	784	1085	1503		
	Cooling Tubes	...	...	359	546	784	1085	1503
5.00	None	148	211	319	414	562	632	662		
	Electric Fan	148	211	319	490	691	952	1301		
	Cooling Tubes	...	...	319	490	691	952	1301
5.60	None	114	183	272	378	531	576	654		
	Electric Fan	114	183	272	417	580	796	1037		
	Cooling Tubes	...	...	272	417	580	796	1037

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 185.

* Refer to Factory.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Double Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1750	5.00	None
		Shaft Fan
		Electric Fan
	5.60	None
		Shaft Fan
		Electric Fan
	6.30	None	44	41	*	*	*	*	*	*	*	*
		Shaft Fan	178	226	215	251	251	269	153	607	451	451
		Electric Fan	251	336	338	401	451	537	477	1073	901	901
	7.10	None	61	61	29	*	*	*	*	*	*	*
		Shaft Fan	179	229	251	270	301	351	269	801	607	607
		Electric Fan	269	351	351	423	501	601	541	1251	1073	1073
	8.00	None	75	81	62	51	*	*	*	*	110	*
		Shaft Fan	201	269	282	303	351	423	423	901	801	801
		Electric Fan	269	351	401	477	537	701	701	1251	1257	1257
	9.00	None	77	101	84	84	61	41	*	215	110	110
Shaft Fan		201	269	301	351	401	501	501	1001	901	901	
Electric Fan		269	351	423	501	602	752	801	1342	1251	1251	
10.0	None	87	105	102	110	101	111	41	336	215	215	
	Shaft Fan	215	269	301	379	423	551	539	1023	1001	1001	
	Electric Fan	269	351	423	501	601	801	845	1501	1342	1342	
11.2	None	101	126	126	131	151	178	131	401	336	336	
	Shaft Fan	215	269	302	401	477	601	671	1073	1073	1073	
	Electric Fan	269	351	423	537	604	845	972	1501	1501	1501	
12.5	None	101	125	131	151	178	215	201	477	401	401	
	Shaft Fan	215	369	336	401	501	641	701	1101	1023	1023	
	Electric Fan	269	351	423	537	671	845	1001	1501	1501	1501	
14.0	None	101	131	151	178	201	251	251	537	477	477	
	Shaft Fan	215	301	336	401	501	671	752	1131	1166	1166	
	Electric Fan	269	351	423	537	671	901	1001	1477	1501	1501	
16.0	None	101	151	151	178	215	269	301	524	537	537	
	Shaft Fan	201	301	336	423	501	671	801	1207	1207	1207	
	Electric Fan	251	351	423	537	671	901	1073	1501	1501	1501	
18.0	None	101	151	153	201	222	301	351	601	537	537	
	Shaft Fan	180	301	336	423	501	701	801	1251	1207	1207	
	Electric Fan	251	351	423	537	671	901	1073	1501	1501	1501	
20.0	None	101	127	177	215	251	301	358	601	601	601	
	Shaft Fan	178	251	336	423	501	701	845	1251	1251	1251	
	Electric Fan	218	336	423	537	671	901	1073	1501	1501	1501	
22.4	None	90	126	151	215	251	336	401	601	601	601	
	Shaft Fan	178	251	301	423	501	701	845	1207	1251	1251	
	Electric Fan	215	301	407	537	671	819	1073	1501	1501	1501	
25.0	None	89	126	151	215	269	328	401	...	601	601	
	Shaft Fan	178	251	301	423	501	671	845	...	1207	1207	
	Electric Fan	215	301	351	501	671	845	1073	...	1501	1501	
28.0	None	87	126	151	215	269	336	423	...	...	...
	Shaft Fan	159	219	270	401	501	608	801	...	...	...
	Electric Fan	215	301	351	501	601	767	1001	...	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.

Type DV gear drives are not available with shaft fans.

* Refer to Factory.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Double Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1430	5.00	None
		Shaft Fan
		Electric Fan
	5.60	None
		Shaft Fan
		Electric Fan
	6.30	None	80	101	86	85	76	61	*	251	126	
		Shaft Fan	178	251	269	301	351	451	423	846	752	
		Electric Fan	268	351	423	501	601	751	801	1342	1342	
	7.10	None	87	108	103	112	107	113	51	351	251	
		Shaft Fan	180	251	269	336	401	501	501	953	846	
		Electric Fan	269	351	423	537	601	801	901	1501	1342	
	8.00	None	101	126	126	135	151	178	131	401	351	
		Shaft Fan	201	269	301	351	423	551	540	1001	953	
		Electric Fan	269	254	451	537	618	846	953	1501	1501	
	9.00	None	101	127	151	156	178	216	201	477	401	
		Shaft Fan	201	269	301	355	451	537	601	1074	1001	
		Electric Fan	269	352	451	537	672	846	1001	1501	1501	
	10.0	None	104	132	151	178	201	269	251	537	477	
		Shaft Fan	201	269	301	352	451	601	672	1074	1074	
Electric Fan		269	351	451	537	701	901	1001	1501	1501		
11.2	None	105	151	152	201	216	301	301	537	537		
	Shaft Fan	201	269	301	360	477	601	701	1074	1074		
	Electric Fan	269	352	451	537	701	901	1074	1501	1501		
12.5	None	101	151	160	201	251	301	351	601	537		
	Shaft Fan	178	269	301	363	477	671	701	1074	1074		
	Electric Fan	251	351	451	537	701	952	1074	1513	1501		
14.0	None	101	151	178	216	251	336	352	601	601		
	Shaft Fan	178	269	301	401	501	607	752	1074	1074		
	Electric Fan	251	351	451	537	701	901	1074	1501	1513		
16.0	None	101	129	178	216	269	351	401	601	601		
	Shaft Fan	160	223	301	401	477	672	752	1074	1074		
	Electric Fan	219	336	423	537	701	901	1074	1501	1501		
18.0	None	101	129	151	216	269	351	423	602	601		
	Shaft Fan	171	223	269	401	501	672	801	1074	1074		
	Electric Fan	216	301	401	537	672	901	1074	1501	1501		
20.0	None	101	127	151	216	269	351	423	602	602		
	Shaft Fan	152	216	269	355	477	601	752	1074	1074		
	Electric Fan	216	301	351	501	672	901	1074	1501	1501		
22.4	None	88	126	151	216	269	351	451	601	602		
	Shaft Fan	151	216	269	351	477	601	752	1074	1074		
	Electric Fan	216	301	351	501	672	846	1074	1501	1501		
25.0	None	86	126	151	216	269	351	451	...	601		
	Shaft Fan	151	216	251	351	477	601	752	...	1074		
	Electric Fan	201	269	351	501	601	846	1074	...	1501		
28.0	None	84	126	151	216	269	351	451	...	...
	Shaft Fan	151	201	251	351	451	601	752	...	...
	Electric Fan	201	269	336	477	601	846	1001	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.

Type DV gear drives are not available with shaft fans.

* Refer to Factory.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Double Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1170	5.00	None	351	...
		Shaft Fan	846	...
		Electric Fan	1501	...
	5.60	None	401	351
		Shaft Fan	901	846
		Electric Fan	1501	1501
	6.30	None	101	127	151	158	201	216	201	477	401	
		Shaft Fan	178	224	269	336	401	501	537	953	901	
		Electric Fan	269	352	451	537	701	901	1001	1501	1501	
	7.10	None	104	133	151	178	216	269	251	537	477	
		Shaft Fan	178	251	269	351	423	537	601	1001	953	
		Electric Fan	269	352	451	537	701	901	1074	1529	1501	
	8.00	None	107	151	157	201	225	301	301	537	537	
		Shaft Fan	178	251	269	351	451	537	601	1001	1001	
		Electric Fan	269	355	451	537	701	901	1074	1523	1529	
	9.00	None	101	151	178	201	251	301	351	601	537	
		Shaft Fan	158	251	301	351	451	541	672	1074	1001	
		Electric Fan	251	355	451	537	701	901	1074	1531	1523	
10.0	None	101	151	178	216	269	351	351	601	601		
	Shaft Fan	155	251	301	351	451	601	701	1074	1074		
	Electric Fan	251	352	451	537	701	952	1074	1525	1531		
11.2	None	101	133	178	216	269	351	401	604	601		
	Shaft Fan	153	216	301	351	451	601	701	1074	1074		
	Electric Fan	251	336	451	537	701	901	1074	1501	1525		
12.5	None	101	130	178	216	269	351	401	672	604		
	Shaft Fan	151	216	301	351	451	601	701	1074	1074		
	Electric Fan	222	336	451	537	701	901	1074	1501	1501		
14.0	None	101	130	156	216	269	351	451	672	672		
	Shaft Fan	151	216	251	351	537	601	701	1074	1074		
	Electric Fan	216	301	401	537	701	901	1074	1501	1501		
16.0	None	101	127	153	216	271	351	451	672	672		
	Shaft Fan	151	216	251	351	451	601	752	1001	1074		
	Electric Fan	216	301	353	537	701	901	1074	1501	1501		
18.0	None	90	126	155	216	271	351	451	672	672		
	Shaft Fan	151	201	251	351	451	601	701	1001	1001		
	Electric Fan	216	301	351	501	672	846	1074	1501	1501		
20.0	None	87	126	151	216	269	352	451	674	672		
	Shaft Fan	133	201	251	336	451	601	701	1001	1001		
	Electric Fan	201	269	351	501	606	846	1074	1501	1501		
22.4	None	85	126	151	216	269	351	451	610	674		
	Shaft Fan	128	178	219	301	423	537	701	1001	1001		
	Electric Fan	201	269	336	477	601	846	1001	1345	1501		
25.0	None	82	126	151	201	269	351	451	...	610		
	Shaft Fan	126	178	216	301	401	537	701	...	1001		
	Electric Fan	178	269	302	423	601	801	1001	...	1345		
28.0	None	78	109	133	201	251	351	751	...	...
	Shaft Fan	126	178	216	301	401	537	672		
	Electric Fan	178	251	301	423	537	752	1001		

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▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Double Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
970	5.00	None	501	...
		Shaft Fan	953	...
		Electric Fan	1515	...
	5.60	None	536	501
		Shaft Fan	953	953
		Electric Fan	1528	1515
	6.30	None	101	151	178	216	251	301	351	601	601	536
		Shaft Fan	151	220	269	336	423	537	601	1001	1001	953
		Electric Fan	251	351	451	536	701	953	1074	1558	1528	1528
	7.10	None	101	151	178	216	269	336	354	602	601	536
		Shaft Fan	151	221	269	351	423	537	605	1001	1001	953
		Electric Fan	251	357	451	536	701	953	1074	1564	1558	1558
	8.00	None	101	151	178	216	269	351	401	607	602	536
		Shaft Fan	151	221	269	351	423	537	672	1001	1001	953
		Electric Fan	251	353	451	536	701	953	1074	1536	1564	1564
	9.00	None	101	134	178	216	269	351	423	672	607	536
		Shaft Fan	151	216	269	351	423	537	701	1001	1001	953
		Electric Fan	225	336	451	536	701	953	1074	1519	1536	1536
	10.0	None	101	133	159	218	269	351	451	672	672	536
		Shaft Fan	151	216	251	351	423	536	701	1001	1001	953
Electric Fan		217	336	401	536	701	901	1074	1501	1519	1519	
11.2	None	101	131	157	218	272	353	451	672	672	536	
	Shaft Fan	151	201	251	351	423	536	701	1001	1001	953	
	Electric Fan	216	301	401	536	701	901	1074	1501	1501	1501	
12.5	None	101	127	156	216	301	357	451	672	672	536	
	Shaft Fan	134	201	251	336	423	536	701	1001	1001	953	
	Electric Fan	216	301	355	536	672	901	1074	1501	1501	1501	
14.0	None	101	126	154	216	301	360	451	672	672	536	
	Shaft Fan	130	178	223	336	423	536	701	1001	1001	953	
	Electric Fan	216	301	351	501	672	901	1074	1501	1501	1501	
16.0	None	89	126	151	216	272	357	451	672	672	536	
	Shaft Fan	126	178	216	301	423	536	672	953	953	953	
	Electric Fan	201	269	351	501	601	846	1074	1501	1501	1501	
18.0	None	86	126	151	216	269	353	451	672	672	536	
	Shaft Fan	126	178	216	301	401	536	672	953	953	953	
	Electric Fan	201	269	351	477	601	846	1001	1358	1501	1501	
20.0	None	84	126	151	216	269	351	451	672	672	536	
	Shaft Fan	126	160	216	301	401	536	672	953	953	953	
	Electric Fan	178	251	336	451	601	801	1001	1341	1358	1358	
22.4	None	81	111	135	201	269	351	451	601	601	536	
	Shaft Fan	113	156	201	269	351	501	601	901	901	953	
	Electric Fan	178	251	301	423	537	801	1001	1341	1341	1341	
25.0	None	79	108	132	201	251	351	451	...	601	536	
	Shaft Fan	109	151	201	269	351	501	601	...	901	953	
	Electric Fan	178	251	301	423	536	752	953	...	1341	1341	
28.0	None	76	104	129	178	251	336	423	...	...	536
	Shaft Fan	105	151	181	269	351	477	601	...	...	953
	Electric Fan	158	218	301	401	536	701	901	...	...	1341

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Double Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
870	5.00	None	601	...
		Shaft Fan	953	...
		Electric Fan	1558	...
	5.60	None	601	601
		Shaft Fan	953	953
		Electric Fan	1565	1558
	6.30	None	102	151	178	216	269	351	401	672	601	601
		Shaft Fan	151	216	269	336	423	537	601	1001	953	953
		Electric Fan	251	353	451	537	701	953	1074	1544	1565	1565
	7.10	None	102	135	178	216	269	338	423	672	672	672
		Shaft Fan	151	201	269	336	423	537	605	1001	1001	1001
		Electric Fan	251	336	451	537	701	953	1074	1530	1544	1544
	8.00	None	102	134	178	217	269	351	451	672	672	672
		Shaft Fan	151	201	269	336	423	537	672	1001	1001	1001
		Electric Fan	221	336	451	537	701	953	1074	1513	1530	1530
	9.00	None	102	132	160	220	301	354	451	701	672	672
		Shaft Fan	135	201	251	336	423	537	672	1001	1001	1001
		Electric Fan	216	336	401	537	701	901	1074	1501	1513	1513
10.0	None	102	130	158	220	301	359	451	701	701	701	
	Shaft Fan	132	201	224	336	423	537	672	1001	1001	1001	
	Electric Fan	216	301	362	537	701	901	1074	1501	1501	1501	
11.2	None	102	126	157	218	301	361	477	701	701	701	
	Shaft Fan	128	178	220	336	423	537	672	953	1001	1001	
	Electric Fan	216	301	353	537	672	901	1074	1501	1501	1501	
12.5	None	90	126	153	216	301	361	477	672	701	701	
	Shaft Fan	126	178	216	301	423	537	672	953	953	953	
	Electric Fan	216	301	351	501	672	901	1074	1501	1501	1501	
14.0	None	90	126	151	216	269	360	477	672	672	672	
	Shaft Fan	126	178	216	301	401	537	672	953	953	953	
	Electric Fan	201	269	351	501	601	846	1074	1501	1501	1501	
16.0	None	85	126	151	216	269	353	477	672	672	672	
	Shaft Fan	126	178	216	301	401	537	672	901	953	953	
	Electric Fan	201	269	336	477	601	846	1001	1342	1501	1501	
18.0	None	82	126	151	216	269	351	477	609	672	672	
	Shaft Fan	113	156	216	270	351	501	601	901	901	901	
	Electric Fan	178	251	336	451	601	801	1001	1342	1342	1342	
20.0	None	81	111	151	201	269	351	451	601	601	609	
	Shaft Fan	111	151	201	269	351	501	601	846	901	901	
	Electric Fan	178	251	301	423	537	752	1001	1342	1342	1342	
22.4	None	77	107	132	181	251	351	451	601	601	601	
	Shaft Fan	105	151	180	269	351	451	601	846	846	846	
	Electric Fan	157	223	301	423	537	752	953	1251	1342	1342	
25.0	None	76	104	128	178	251	336	423	...	601	601	
	Shaft Fan	102	151	178	251	336	451	537	...	846	846	
	Electric Fan	157	217	269	401	537	701	901	...	1251	1251	
28.0	None	76	102	126	178	221	301	401	...	...	...
	Shaft Fan	102	133	178	251	301	423	537	...	...	...
	Electric Fan	151	216	269	358	501	672	846	...	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1750	5.60	None	*	...	*	...
		1 Shaft Fan	*	...	*	...
		2 Shaft Fans	501	...	401	...
		Elec. Fan	501	...	401	...
	6.30	None	*	*	*	*
		1 Shaft Fan	126	*	*	*
		2 Shaft Fans	701	501	701	401
		Elec. Fan	701	501	701	401
	7.10	None	*	*	*	*
		1 Shaft Fan	301	126	201	*
		2 Shaft Fans	846	701	1001	701
		Elec. Fan	846	701	1001	701
	8.00	None	*	*	*	*
		1 Shaft Fan	501	301	451	201
		2 Shaft Fans	1001	846	1207	1001
		Elec. Fan	1001	846	1207	1001
9.00	None	*	*	*	*	
	1 Shaft Fan	601	501	672	451	
	2 Shaft Fans	1074	1001	1341	1207	
	Elec. Fan	1074	1001	1341	1207	
10.0	None	*	*	*	*	
	1 Shaft Fan	701	601	801	672	
	2 Shaft Fans	1089	1074	1501	1341	
	Elec. Fan	1089	1074	1501	1341	
11.2	None	*	*	*	*	
	1 Shaft Fan	752	701	953	801	
	2 Shaft Fans	1207	1089	1501	1501	
	Elec. Fan	1207	1089	1501	1501	
12.5	None	102	*	126	*	
	1 Shaft Fan	846	752	1001	953	
	2 Shaft Fans	1251	1207	1507	1501	
	Elec. Fan	1251	1207	1507	1501	
14.0	None	178	102	251	126	
	1 Shaft Fan	846	846	1074	1001	
	2 Shaft Fans	1251	1251	1573	1507	
	Elec. Fan	1251	1251	1573	1507	
16.0	None	219	178	351	251	
	1 Shaft Fan	901	846	1085	1074	
	2 Shaft Fans	1251	1251	1751	1573	
	Elec. Fan	1251	1251	1751	1573	
18.0	None	269	219	423	351	
	1 Shaft Fan	901	901	1207	1085	
	2 Shaft Fans	1251	1251	1751	1751	
	Elec. Fan	1251	1251	1751	1751	
20.0	None	301	269	451	423	
	1 Shaft Fan	901	901	1095	1207	
	2 Shaft Fans	1251	1251	1540	1751	
	Elec. Fan	1251	1251	1540	1751	
22.4	None	336	301	501	451	
	1 Shaft Fan	901	901	1207	1095	
	2 Shaft Fans	1207	1251	1558	1540	
	Elec. Fan	1207	1251	1558	1540	
25.0	None	...	336	...	501	
	1 Shaft Fan	...	901	...	1207	
	2 Shaft Fans	...	1207	...	1558	
	Elec. Fan	...	1207	...	1558	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

* Refer to Factory.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1430	5.60	None	*	...	*	...
		1 Shaft Fan	423	...	351	...
		2 Shaft Fans	846	...	1001	...
		Elec. Fan	1074	...	1341	...
	6.30	None	*	*	*	*
		1 Shaft Fan	537	423	537	351
		2 Shaft Fans	953	846	1207	1001
		Elec. Fan	1207	1074	1501	1341
	7.10	None	*	*	*	*
		1 Shaft Fan	601	537	701	537
		2 Shaft Fans	1074	953	1341	1207
		Elec. Fan	1251	1207	1519	1501
	8.00	None	*	*	*	*
		1 Shaft Fan	752	601	901	701
		2 Shaft Fans	1074	1074	1341	1341
		Elec. Fan	1342	1251	1519	1519
9.00	None	151	*	178	*	
	1 Shaft Fan	801	752	1001	901	
	2 Shaft Fans	1085	1074	1501	1341	
	Elec. Fan	1341	1342	1751	1519	
10.0	None	216	151	269	178	
	1 Shaft Fan	846	801	1074	1001	
	2 Shaft Fans	1207	1085	1501	1501	
	Elec. Fan	1341	1341	1751	1751	
11.2	None	269	216	401	269	
	1 Shaft Fan	846	846	1074	1074	
	2 Shaft Fans	1207	1207	1504	1501	
	Elec. Fan	1341	1341	1751	1751	
12.5	None	301	269	451	401	
	1 Shaft Fan	901	846	1074	1074	
	2 Shaft Fans	1207	1207	1501	1504	
	Elec. Fan	1341	1341	1751	1751	
14.0	None	351	301	537	451	
	1 Shaft Fan	901	901	1207	1074	
	2 Shaft Fans	1207	1207	1520	1501	
	Elec. Fan	1341	1341	1751	1751	
16.0	None	401	351	536	537	
	1 Shaft Fan	901	901	1207	1207	
	2 Shaft Fans	1207	1207	1506	1520	
	Elec. Fan	1341	1341	1751	1751	
18.0	None	401	401	601	536	
	1 Shaft Fan	901	901	1207	1207	
	2 Shaft Fans	1084	1207	1501	1506	
	Elec. Fan	1341	1341	1751	1751	
20.0	None	423	401	601	601	
	1 Shaft Fan	846	901	1076	1207	
	2 Shaft Fans	1074	1084	1501	1501	
	Elec. Fan	1251	1341	1589	1751	
22.4	None	301	423	601	601	
	1 Shaft Fan	752	846	1088	1076	
	2 Shaft Fans	1001	1074	1501	1501	
	Elec. Fan	1074	1251	1751	1589	
25.0	None	...	301	...	601	
	1 Shaft Fan	...	752	...	1088	
	2 Shaft Fans	...	1001	...	1501	
	Elec. Fan	...	1074	...	1751	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

* Refer to Factory.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1170	5.60	None	135	...	157	...
		1 Shaft Fan	701	...	901	...
		2 Shaft Fans	1074	...	1342	...
		Elec. Fan	1501	...	2001	...
	6.30	None	216	135	271	157
		1 Shaft Fan	801	701	1001	901
		2 Shaft Fans	1074	1074	1343	1342
		Elec. Fan	1501	1501	2001	2001
	7.10	None	301	216	401	271
		1 Shaft Fan	846	801	1074	1001
		2 Shaft Fans	1074	1074	1501	1343
		Elec. Fan	1501	1501	2001	2001
	8.00	None	351	301	501	401
		1 Shaft Fan	846	846	1074	1074
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1501	1501	2001	2001
9.00	None	401	351	537	501	
	1 Shaft Fan	901	846	1079	1074	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1501	1501	2001	2001	
10.0	None	451	401	601	537	
	1 Shaft Fan	901	901	1208	1079	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1501	1501	2001	2001	
11.2	None	451	451	672	601	
	1 Shaft Fan	846	901	1208	1208	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1349	1501	2001	2001	
12.5	None	477	451	672	672	
	1 Shaft Fan	901	846	1091	1208	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1342	1349	1785	2001	
14.0	None	477	477	701	672	
	1 Shaft Fan	846	901	1208	1091	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1342	1342	1773	1785	
16.0	None	501	477	701	701	
	1 Shaft Fan	846	846	1086	1208	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1342	1342	1751	1773	
18.0	None	501	501	701	701	
	1 Shaft Fan	846	846	1074	1086	
	2 Shaft Fans	1001	1074	1342	1501	
	Elec. Fan	1251	1342	1751	1751	
20.0	None	401	501	701	701	
	1 Shaft Fan	751	846	1074	1074	
	2 Shaft Fans	901	1001	1342	1342	
	Elec. Fan	1208	1251	1570	1751	
22.4	None	401	401	601	701	
	1 Shaft Fan	701	751	1001	1074	
	2 Shaft Fans	901	901	1251	1342	
	Elec. Fan	1074	1208	1501	1570	
25.0	None	...	401	...	601	
	1 Shaft Fan	...	701	...	1001	
	2 Shaft Fans	...	901	...	1251	
	Elec. Fan	...	1074	...	1501	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
970	5.60	None	423	...	539	...
		1 Shaft Fan	846	...	1074	...
		2 Shaft Fans	1074	...	1501	...
		Elec. Fan	1567	...	2251	...
	6.30	None	451	423	601	539
		1 Shaft Fan	901	846	1085	1074
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1543	1567	2251	2251
	7.10	None	501	451	701	601
		1 Shaft Fan	901	901	1208	1085
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1514	1543	2034	2251
	8.00	None	501	501	701	701
		1 Shaft Fan	901	901	1208	1208
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1501	1514	2002	2034
9.00	None	537	501	752	701	
	1 Shaft Fan	901	901	1208	1208	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1501	1501	2001	2002	
10.0	None	537	537	752	752	
	1 Shaft Fan	846	901	1208	1208	
	2 Shaft Fans	1074	1074	1501	1501	
	Elec. Fan	1501	1501	2001	2001	
11.2	None	537	537	752	752	
	1 Shaft Fan	846	846	1208	1208	
	2 Shaft Fans	1074	1074	1356	1501	
	Elec. Fan	1363	1501	2001	2001	
12.5	None	537	537	752	752	
	1 Shaft Fan	846	846	1074	1208	
	2 Shaft Fans	1001	1074	1342	1356	
	Elec. Fan	1342	1363	1777	2001	
14.0	None	501	537	752	752	
	1 Shaft Fan	801	846	1074	1074	
	2 Shaft Fans	953	1001	1342	1342	
	Elec. Fan	1251	1342	1751	1777	
16.0	None	451	501	752	752	
	1 Shaft Fan	751	801	1074	1074	
	2 Shaft Fans	901	953	1342	1342	
	Elec. Fan	1251	1251	1751	1751	
18.0	None	451	451	672	752	
	1 Shaft Fan	701	751	1001	1074	
	2 Shaft Fans	846	901	1208	1342	
	Elec. Fan	1208	1251	1543	1751	
20.0	None	451	451	602	672	
	1 Shaft Fan	701	701	953	1001	
	2 Shaft Fans	846	846	1074	1208	
	Elec. Fan	1081	1208	1501	1543	
22.4	None	451	451	607	602	
	1 Shaft Fan	604	701	953	953	
	2 Shaft Fans	752	846	1074	1074	
	Elec. Fan	1074	1081	1501	1501	
25.0	None	...	451	...	607	
	1 Shaft Fan	...	604	...	953	
	2 Shaft Fans	...	752	...	1074	
	Elec. Fan	...	1074	...	1501	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
870	5.60	None	501	...	701	...
		1 Shaft Fan	846	...	1089	...
		2 Shaft Fans	1074	...	1501	...
		Elec. Fan	1582	...	2251	...
	6.30	None	501	501	701	701
		1 Shaft Fan	846	846	1208	1089
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1547	1582	2251	2251
	7.10	None	537	501	752	701
		1 Shaft Fan	846	846	1208	1208
		2 Shaft Fans	1074	1074	1501	1501
		Elec. Fan	1508	1547	2036	2251
	8.00	None	537	537	801	752
		1 Shaft Fan	846	846	1208	1208
		2 Shaft Fans	1074	1074	1362	1501
		Elec. Fan	1501	1508	2001	2036
9.00	None	537	537	801	801	
	1 Shaft Fan	846	846	1208	1208	
	2 Shaft Fans	1001	1074	1345	1362	
	Elec. Fan	1501	1501	2001	2001	
10.0	None	537	537	801	801	
	1 Shaft Fan	846	846	1090	1208	
	2 Shaft Fans	1001	1001	1342	1345	
	Elec. Fan	1501	1501	2001	2001	
11.2	None	537	537	801	801	
	1 Shaft Fan	846	846	1074	1090	
	2 Shaft Fans	1001	1001	1342	1342	
	Elec. Fan	1342	1501	2001	2001	
12.5	None	537	537	752	801	
	1 Shaft Fan	801	846	1074	1074	
	2 Shaft Fans	953	1001	1342	1342	
	Elec. Fan	1342	1342	1751	2001	
14.0	None	477	537	801	752	
	1 Shaft Fan	701	801	1074	1074	
	2 Shaft Fans	846	953	1251	1342	
	Elec. Fan	1251	1342	1751	1751	
16.0	None	477	477	752	801	
	1 Shaft Fan	701	701	1074	1074	
	2 Shaft Fans	846	846	1251	1251	
	Elec. Fan	1251	1251	1751	1751	
18.0	None	477	477	672	752	
	1 Shaft Fan	701	701	953	1074	
	2 Shaft Fans	846	846	1074	1251	
	Elec. Fan	1208	1251	1508	1751	
20.0	None	451	477	606	672	
	1 Shaft Fan	672	701	901	953	
	2 Shaft Fans	801	846	1074	1074	
	Elec. Fan	1074	1208	1501	1508	
22.4	None	451	451	609	606	
	1 Shaft Fan	604	672	901	901	
	2 Shaft Fans	751	801	1074	1074	
	Elec. Fan	1074	1074	1501	1501	
25.0	None	...	451	...	609	
	1 Shaft Fan	...	604	...	901	
	2 Shaft Fans	...	751	...	1074	
	Elec. Fan	...	1074	...	1501	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 186.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1750	25.0	None	336	...
		Shaft Fan	556	...
		Electric Fan	901	...
	28.0	None	336	336
		Shaft Fan	537	556
		Electric Fan	901	901
	31.5	None	55	90	126	151	178	215	229	336	304	
		Shaft Fan	101	158	221	269	301	355	423	537	537	
		Electric Fan	159	259	362	413	479	601	671	901	901	
	36.0	None	55	90	126	151	178	215	229	336	336	
		Shaft Fan	101	158	221	269	301	355	423	537	537	
		Electric Fan	159	259	362	413	479	601	671	901	901	
	40.0	None	55	90	126	151	178	215	229	336	336	
		Shaft Fan	101	158	221	269	301	355	423	537	537	
		Electric Fan	159	259	362	413	479	601	671	901	901	
	45.0	None	55	90	126	151	178	215	229	336	336	
		Shaft Fan	101	158	221	269	301	355	423	537	537	
		Electric Fan	159	259	362	413	479	601	671	901	901	
50.0	None	55	90	126	151	178	215	229	336	336		
	Shaft Fan	101	158	221	269	301	355	423	537	537		
	Electric Fan	159	259	362	413	479	601	671	901	901		
56.0	None	55	90	126	151	178	215	229	336	336		
	Shaft Fan	101	158	221	269	301	355	423	537	537		
	Electric Fan	159	259	362	413	479	601	671	901	901		
63.0	None	55	90	126	151	178	215	229	336	336		
	Shaft Fan	101	158	221	269	301	355	423	537	537		
	Electric Fan	159	259	362	413	479	601	671	901	901		
71.0	None	33	58	85	102	126	158	178	270	270		
	Shaft Fan	61	101	151	179	215	277	312	477	477		
	Electric Fan	101	178	251	301	351	477	537	752	752		
80.0	None	33	58	85	102	126	158	178	270	270		
	Shaft Fan	61	101	151	179	215	277	312	477	477		
	Electric Fan	101	178	251	301	351	477	537	752	752		
90.0	None	33	58	85	102	126	158	178	270	270		
	Shaft Fan	61	101	151	179	215	277	312	477	477		
	Electric Fan	101	178	251	301	351	477	537	752	752		
100	None	33	58	85	102	126	158	178	270	270		
	Shaft Fan	61	101	151	179	215	277	312	477	477		
	Electric Fan	101	178	251	301	351	477	537	752	752		
112	None	33	58	85	102	126	158	178	270	270		
	Shaft Fan	61	101	151	179	215	277	312	477	477		
	Electric Fan	101	178	251	301	351	477	537	752	752		
125	None	33	58	85	102	126	158	178	...	270		
	Shaft Fan	61	101	151	179	215	277	312	...	477		
	Electric Fan	101	178	251	301	351	477	537	...	752		
140	None	33	58	85	102	126	158	178	...	...
	Shaft Fan	61	101	151	179	215	277	312	...	...
	Electric Fan	101	178	251	301	351	477	537	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1430	25.0	None	301	...
		Shaft Fan	501	...
		Electric Fan	846	...
	28.0	None	301	301
		Shaft Fan	501	501
		Electric Fan	846	846
	31.5	None	51	84	126	135	156	201	216	301	301	
		Shaft Fan	83	151	201	218	269	336	351	501	501	
		Electric Fan	151	251	351	401	451	537	601	846	846	
	36.0	None	51	84	126	135	156	201	216	301	301	
		Shaft Fan	83	151	201	218	269	336	351	501	501	
		Electric Fan	151	251	351	401	451	537	601	846	846	
	40.0	None	51	84	126	135	156	201	216	301	301	
		Shaft Fan	83	151	201	218	269	336	351	501	501	
		Electric Fan	151	251	351	401	451	537	601	846	846	
	45.0	None	51	84	126	135	156	201	216	301	301	
		Shaft Fan	83	151	201	218	269	336	351	501	501	
		Electric Fan	151	251	351	401	451	537	601	846	846	
	50.0	None	51	84	126	135	156	201	216	301	301	
		Shaft Fan	83	151	201	218	269	336	351	501	501	
Electric Fan		151	251	351	401	451	537	601	846	846		
56.0	None	51	84	126	135	156	201	216	301	301		
	Shaft Fan	83	151	201	218	269	336	351	501	501		
	Electric Fan	151	251	351	401	451	537	601	846	846		
63.0	None	51	84	126	135	156	201	216	301	301		
	Shaft Fan	83	151	201	218	269	336	351	501	501		
	Electric Fan	151	251	351	401	451	537	601	846	846		
71.0	None	32	62	81	102	126	151	178	251	251		
	Shaft Fan	52	90	131	156	201	251	272	401	401		
	Electric Fan	88	153	222	269	336	423	501	672	672		
80.0	None	32	62	81	102	126	151	178	251	251		
	Shaft Fan	52	90	131	156	201	251	272	401	401		
	Electric Fan	88	153	222	269	336	423	501	672	672		
90.0	None	32	62	81	102	126	151	178	251	251		
	Shaft Fan	52	90	131	156	201	251	272	401	401		
	Electric Fan	88	153	222	269	336	423	501	672	672		
100	None	32	62	81	102	126	151	178	251	251		
	Shaft Fan	52	90	131	156	201	251	272	401	401		
	Electric Fan	88	153	222	269	336	423	501	672	672		
112	None	32	62	81	102	126	151	178	251	251		
	Shaft Fan	52	90	131	156	201	251	272	401	401		
	Electric Fan	88	153	222	269	336	423	501	672	672		
125	None	32	62	81	102	126	151	178	...	251		
	Shaft Fan	52	90	131	156	201	251	272	...	401		
	Electric Fan	88	153	222	269	336	423	501	...	672		
140	None	32	62	81	102	126	151	178	...	...
	Shaft Fan	52	90	131	156	201	251	272	...	...
	Electric Fan	88	153	222	269	336	423	501	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1170	25.0	None	301	...
		Shaft Fan	451	...
		Electric Fan	801	...
	28.0	None	301	301
		Shaft Fan	451	451
		Electric Fan	801	801
	31.5	None	51	79	111	127	151	201	216	301	301	
		Shaft Fan	76	126	178	201	222	301	336	451	451	
		Electric Fan	127	216	301	351	423	501	543	801	801	
	36.0	None	51	79	111	127	151	201	216	301	301	
		Shaft Fan	76	126	178	201	222	301	336	451	451	
		Electric Fan	127	216	301	351	423	501	543	801	801	
	40.0	None	51	79	111	127	151	201	216	301	301	
		Shaft Fan	76	126	178	201	222	301	336	451	451	
		Electric Fan	127	216	301	351	423	501	543	801	801	
	45.0	None	51	79	111	127	151	201	216	301	301	
		Shaft Fan	76	126	178	201	222	301	336	451	451	
		Electric Fan	127	216	301	351	423	501	543	801	801	
50.0	None	51	79	111	127	151	201	216	301	301		
	Shaft Fan	76	126	178	201	222	301	336	451	451		
	Electric Fan	127	216	301	351	423	501	543	801	801		
56.0	None	51	79	111	127	151	201	216	301	301		
	Shaft Fan	76	126	178	201	222	301	336	451	451		
	Electric Fan	127	216	301	351	423	501	543	801	801		
63.0	None	51	79	111	127	151	201	216	301	301		
	Shaft Fan	76	126	178	201	222	301	336	451	451		
	Electric Fan	127	216	301	351	423	501	543	801	801		
71.0	None	31	54	78	102	110	151	159	221	221		
	Shaft Fan	51	81	126	151	178	216	251	336	336		
	Electric Fan	83	151	216	269	301	401	451	601	601		
80.0	None	31	54	78	102	110	151	159	221	221		
	Shaft Fan	51	81	126	151	178	216	251	336	336		
	Electric Fan	83	151	216	269	301	401	451	601	601		
90.0	None	31	54	78	102	110	151	159	221	221		
	Shaft Fan	51	81	126	151	178	216	251	336	336		
	Electric Fan	83	151	216	269	301	401	451	601	601		
100	None	31	54	78	102	110	151	159	221	221		
	Shaft Fan	51	81	126	151	178	216	251	336	336		
	Electric Fan	83	151	216	269	301	401	451	601	601		
112	None	31	54	78	102	110	151	159	221	221		
	Shaft Fan	51	81	126	151	178	216	251	336	336		
	Electric Fan	83	151	216	269	301	401	451	601	601		
125	None	31	54	78	102	110	151	159	...	221		
	Shaft Fan	51	81	126	151	178	216	251	...	336		
	Electric Fan	83	151	216	269	301	401	451	...	601		
140	None	31	54	78	102	110	151	159	...	...
	Shaft Fan	51	81	126	151	178	216	251	...	...
	Electric Fan	83	151	216	269	301	401	451	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE								
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
970	25.0	None	269	...
		Shaft Fan	401	...
		Electric Fan	701	...
	28.0	None	269	269
		Shaft Fan	401	401
		Electric Fan	701	701
	31.5	None	51	76	106	126	151	178	216	269	269
		Shaft Fan	64	105	151	178	216	269	301	401	401
		Electric Fan	126	201	270	336	360	477	537	701	701
	36.0	None	51	76	106	126	151	178	216	269	269
		Shaft Fan	64	105	151	178	216	269	301	401	401
		Electric Fan	126	201	270	336	360	477	537	701	701
	40.0	None	51	76	106	126	151	178	216	269	269
		Shaft Fan	64	105	151	178	216	269	301	401	401
		Electric Fan	126	201	270	336	360	477	537	701	701
	45.0	None	51	76	106	126	151	178	216	269	269
		Shaft Fan	64	105	151	178	216	269	301	401	401
		Electric Fan	126	201	270	336	360	477	537	701	701
	50.0	None	51	76	106	126	151	178	216	269	269
		Shaft Fan	64	105	151	178	216	269	301	401	401
Electric Fan		126	201	270	336	360	477	537	701	701	
56.0	None	51	76	106	126	151	178	216	269	269	
	Shaft Fan	64	105	151	178	216	269	301	401	401	
	Electric Fan	126	201	270	336	360	477	537	701	701	
63.0	None	51	76	106	126	151	178	216	269	269	
	Shaft Fan	64	105	151	178	216	269	301	401	401	
	Electric Fan	126	201	270	336	360	477	537	701	701	
71.0	None	31	53	76	89	107	135	153	216	216	
	Shaft Fan	43	76	106	126	151	201	216	301	301	
	Electric Fan	78	134	201	251	301	351	423	537	537	
80.0	None	31	53	76	89	107	135	153	216	216	
	Shaft Fan	43	76	106	126	151	201	216	301	301	
	Electric Fan	78	134	201	251	301	351	423	537	537	
90.0	None	31	53	76	89	107	135	153	216	216	
	Shaft Fan	43	76	106	126	151	201	216	301	301	
	Electric Fan	78	134	201	251	301	351	423	537	537	
100	None	31	53	76	89	107	135	153	216	216	
	Shaft Fan	43	76	106	126	151	201	216	301	301	
	Electric Fan	78	134	201	251	301	351	423	537	537	
112	None	31	53	76	89	107	135	153	216	216	
	Shaft Fan	43	76	106	126	151	201	216	301	301	
	Electric Fan	78	134	201	251	301	351	423	537	537	
125	None	31	53	76	89	107	135	153	...	216	
	Shaft Fan	43	76	106	126	151	201	216	...	301	
	Electric Fan	78	134	201	251	301	351	423	...	537	
140	None	31	53	76	89	107	135	153	...	...
	Shaft Fan	43	76	106	126	151	201	216	...	...
	Electric Fan	78	134	201	251	301	351	423	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH & DV ▲ Parallel Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
870	25.0	None	269	...
		Shaft Fan	351	...
		Electric Fan	701	...
	28.0	None	269	269
		Shaft Fan	351	351
		Electric Fan	701	701
	31.5	None	44	76	103	126	151	178	201	269	269	269
		Shaft Fan	61	102	151	160	201	251	269	351	351	351
		Electric Fan	111	201	269	301	351	477	501	701	701	701
	36.0	None	44	76	103	126	151	178	201	269	269	269
		Shaft Fan	61	102	151	160	201	251	269	351	351	351
		Electric Fan	111	201	269	301	351	477	501	701	701	701
	40.0	None	44	76	103	126	151	178	201	269	269	269
		Shaft Fan	61	102	151	160	201	251	269	351	351	351
		Electric Fan	111	201	269	301	351	477	501	701	701	701
	45.0	None	44	76	103	126	151	178	201	269	269	269
		Shaft Fan	61	102	151	160	201	251	269	351	351	351
		Electric Fan	111	201	269	301	351	477	501	701	701	701
50.0	None	44	76	103	126	151	178	201	269	269	269	
	Shaft Fan	61	102	151	160	201	251	269	351	351	351	
	Electric Fan	111	201	269	301	351	477	501	701	701	701	
56.0	None	44	76	103	126	151	178	201	269	269	269	
	Shaft Fan	61	102	151	160	201	251	269	351	351	351	
	Electric Fan	111	201	269	301	351	477	501	701	701	701	
63.0	None	44	76	103	126	151	178	201	269	269	269	
	Shaft Fan	61	102	151	160	201	251	269	351	351	351	
	Electric Fan	111	201	269	301	351	477	501	701	701	701	
71.0	None	31	52	76	87	105	132	151	216	216	216	
	Shaft Fan	42	76	102	126	151	178	216	301	301	301	
	Electric Fan	76	130	201	219	269	351	401	537	537	537	
80.0	None	31	52	76	87	105	132	151	216	216	216	
	Shaft Fan	42	76	102	126	151	178	216	301	301	301	
	Electric Fan	76	130	201	219	269	351	401	537	537	537	
90.0	None	31	52	76	87	105	132	151	216	216	216	
	Shaft Fan	42	76	102	126	151	178	216	301	301	301	
	Electric Fan	76	130	201	219	269	351	401	537	537	537	
100	None	31	52	76	87	105	132	151	216	216	216	
	Shaft Fan	42	76	102	126	151	178	216	301	301	301	
	Electric Fan	76	130	201	219	269	351	401	537	537	537	
112	None	31	52	76	87	105	132	151	216	216	216	
	Shaft Fan	42	76	102	126	151	178	216	301	301	301	
	Electric Fan	76	130	201	219	269	351	401	537	537	537	
125	None	31	52	76	87	105	132	151	...	216	216	
	Shaft Fan	42	76	102	126	151	178	216	...	301	301	
	Electric Fan	76	130	201	219	269	351	401	...	537	537	
140	None	31	52	76	87	105	132	151	
	Shaft Fan	42	76	102	126	151	178	216	
	Electric Fan	76	130	201	219	269	351	401	

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▲ For Type DV, apply a multiplier of 0.8 to the thermal ratings.
Type DV gear drives are not available with shaft fans.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1750	25.0	None	269	...	358	...
		1 Shaft Fan	477	...	672	...
		2 Shaft Fans	701	...	953	...
		Elec. Fan	1341	...	1751	...
	28.0	None	269	269	358	358
		1 Shaft Fan	477	477	672	672
		2 Shaft Fans	701	701	953	953
		Elec. Fan	1341	1341	1751	1751
	31.5	None	269	269	358	358
		1 Shaft Fan	477	477	672	672
		2 Shaft Fans	701	701	953	953
		Elec. Fan	1341	1341	1751	1751
35.5	None	269	269	358	358	
	1 Shaft Fan	477	477	672	672	
	2 Shaft Fans	701	701	953	953	
	Elec. Fan	1341	1341	1751	1751	
40.0	None	269	269	358	358	
	1 Shaft Fan	477	477	672	672	
	2 Shaft Fans	701	701	953	953	
	Elec. Fan	1341	1341	1751	1751	
45.0	None	216	269	336	358	
	1 Shaft Fan	353	477	536	672	
	2 Shaft Fans	537	701	752	953	
	Elec. Fan	1001	1341	1501	1751	
50.0	None	216	216	336	336	
	1 Shaft Fan	353	353	536	536	
	2 Shaft Fans	537	537	752	752	
	Elec. Fan	1001	1001	1501	1501	
56.0	None	216	216	336	336	
	1 Shaft Fan	353	353	536	536	
	2 Shaft Fans	537	537	752	752	
	Elec. Fan	1001	1001	1501	1501	
53.0	None	216	216	336	336	
	1 Shaft Fan	353	353	536	536	
	2 Shaft Fans	537	537	752	752	
	Elec. Fan	1001	1001	1501	1501	
71.0	None	...	216	...	336	
	1 Shaft Fan	...	353	...	536	
	2 Shaft Fans	...	537	...	752	
	Elec. Fan	...	1001	...	1501	

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Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1430	25.0	None	269	...	358	...
		1 Shaft Fan	423	...	601	...
		2 Shaft Fans	601	...	801	...
		Elec. Fan	1251	...	1751	...
	28.0	None	269	269	358	358
		1 Shaft Fan	423	423	601	601
		2 Shaft Fans	601	601	801	801
		Elec. Fan	1251	1251	1751	1751
	31.5	None	269	269	358	358
		1 Shaft Fan	423	423	601	601
2 Shaft Fans		601	601	801	801	
Elec. Fan		1251	1251	1751	1751	
35.5	None	269	269	358	358	
	1 Shaft Fan	423	423	601	601	
	2 Shaft Fans	601	601	801	801	
	Elec. Fan	1251	1251	1751	1751	
40.0	None	269	269	358	358	
	1 Shaft Fan	423	423	601	601	
	2 Shaft Fans	601	601	801	801	
	Elec. Fan	1251	1251	1751	1751	
45.0	None	216	269	301	358	
	1 Shaft Fan	336	423	477	601	
	2 Shaft Fans	451	601	601	801	
	Elec. Fan	953	1251	1341	1751	
50.0	None	216	216	301	301	
	1 Shaft Fan	336	336	477	477	
	2 Shaft Fans	451	451	601	601	
	Elec. Fan	953	953	1341	1341	
56.0	None	216	216	301	301	
	1 Shaft Fan	336	336	477	477	
	2 Shaft Fans	451	451	601	601	
	Elec. Fan	953	953	1341	1341	
53.0	None	216	216	301	301	
	1 Shaft Fan	336	336	477	477	
	2 Shaft Fans	451	451	601	601	
	Elec. Fan	953	953	1341	1341	
71.0	None	...	216	...	301	
	1 Shaft Fan	...	336	...	477	
	2 Shaft Fans	...	451	...	601	
	Elec. Fan	...	953	...	1341	

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Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1170	25.0	None	269	...	354	...
		1 Shaft Fan	401	...	537	...
		2 Shaft Fans	537	...	701	...
		Elec. Fan	1208	...	1541	...
	28.0	None	269	269	354	354
		1 Shaft Fan	401	401	537	537
		2 Shaft Fans	537	537	701	701
		Elec. Fan	1208	1208	1541	1541
	31.5	None	269	269	354	354
		1 Shaft Fan	401	401	537	537
2 Shaft Fans		537	537	701	701	
Elec. Fan		1208	1208	1541	1541	
35.5	None	269	269	354	354	
	1 Shaft Fan	401	401	537	537	
	2 Shaft Fans	537	537	701	701	
	Elec. Fan	1208	1208	1541	1541	
40.0	None	269	269	354	354	
	1 Shaft Fan	401	401	537	537	
	2 Shaft Fans	537	537	701	701	
	Elec. Fan	1208	1208	1541	1541	
45.0	None	201	269	301	354	
	1 Shaft Fan	301	401	423	537	
	2 Shaft Fans	401	537	537	701	
	Elec. Fan	901	1208	1251	1541	
50.0	None	201	201	301	301	
	1 Shaft Fan	301	301	423	423	
	2 Shaft Fans	401	401	537	537	
	Elec. Fan	901	901	1251	1251	
56.0	None	201	201	301	301	
	1 Shaft Fan	301	301	423	423	
	2 Shaft Fans	401	401	537	537	
	Elec. Fan	901	901	1251	1251	
53.0	None	201	201	301	301	
	1 Shaft Fan	301	301	423	423	
	2 Shaft Fans	401	401	537	537	
	Elec. Fan	901	901	1251	1251	
71.0	None	...	201	...	301	
	1 Shaft Fan	...	301	...	423	
	2 Shaft Fans	...	401	...	537	
	Elec. Fan	...	901	...	1251	

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Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
970	25.0	None	251	...	351	...
		1 Shaft Fan	355	...	501	...
		2 Shaft Fans	451	...	604	...
		Elec. Fan	1074	...	1501	...
	28.0	None	251	251	351	351
		1 Shaft Fan	355	355	501	501
		2 Shaft Fans	451	451	604	604
		Elec. Fan	1074	1074	1501	1501
	31.5	None	251	251	351	351
		1 Shaft Fan	355	355	501	501
2 Shaft Fans		451	451	604	604	
Elec. Fan		1074	1074	1501	1501	
35.5	None	251	251	351	351	
	1 Shaft Fan	355	355	501	501	
	2 Shaft Fans	451	451	604	604	
	Elec. Fan	1074	1074	1501	1501	
40.0	None	251	251	351	351	
	1 Shaft Fan	355	355	501	501	
	2 Shaft Fans	451	451	604	604	
	Elec. Fan	1074	1074	1501	1501	
45.0	None	201	251	269	351	
	1 Shaft Fan	269	355	401	501	
	2 Shaft Fans	356	451	501	604	
	Elec. Fan	846	1074	1208	1501	
50.0	None	201	201	269	269	
	1 Shaft Fan	269	269	401	401	
	2 Shaft Fans	356	356	501	501	
	Elec. Fan	846	846	1208	1208	
56.0	None	201	201	269	269	
	1 Shaft Fan	269	269	401	401	
	2 Shaft Fans	356	356	501	501	
	Elec. Fan	846	846	1208	1208	
53.0	None	201	201	269	269	
	1 Shaft Fan	269	269	401	401	
	2 Shaft Fans	356	356	501	501	
	Elec. Fan	846	846	1208	1208	
71.0	None	...	201	...	269	
	1 Shaft Fan	...	269	...	401	
	2 Shaft Fans	...	356	...	501	
	Elec. Fan	...	846	...	1208	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DH Parallel Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
870	25.0	None	251	...	351	...
		1 Shaft Fan	336	...	477	...
		2 Shaft Fans	423	...	601	...
		Elec. Fan	1074	...	1501	...
	28.0	None	251	251	351	351
		1 Shaft Fan	336	336	477	477
		2 Shaft Fans	423	423	601	601
		Elec. Fan	1074	1074	1501	1501
	31.5	None	251	251	351	351
		1 Shaft Fan	336	336	477	477
		2 Shaft Fans	423	423	601	601
		Elec. Fan	1074	1074	1501	1501
35.5	None	251	251	351	351	
	1 Shaft Fan	336	336	477	477	
	2 Shaft Fans	423	423	601	601	
	Elec. Fan	1074	1074	1501	1501	
40.0	None	251	251	351	351	
	1 Shaft Fan	336	336	477	477	
	2 Shaft Fans	423	423	601	601	
	Elec. Fan	1074	1074	1501	1501	
45.0	None	179	251	269	351	
	1 Shaft Fan	251	336	351	477	
	2 Shaft Fans	336	423	477	601	
	Elec. Fan	801	1074	1092	1501	
50.0	None	179	179	269	269	
	1 Shaft Fan	251	251	351	351	
	2 Shaft Fans	336	336	477	477	
	Elec. Fan	801	801	1092	1092	
56.0	None	179	179	269	269	
	1 Shaft Fan	251	251	351	351	
	2 Shaft Fans	336	336	477	477	
	Elec. Fan	801	801	1092	1092	
53.0	None	179	179	269	269	
	1 Shaft Fan	251	251	351	351	
	2 Shaft Fans	336	336	477	477	
	Elec. Fan	801	801	1092	1092	
71.0	None	...	179	...	269	
	1 Shaft Fan	...	251	...	351	
	2 Shaft Fans	...	336	...	477	
	Elec. Fan	...	801	...	1092	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DH, DV & DB Overhung Loads

Low Speed Shaft

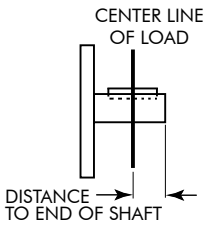
$$\text{Overhung Load (lb)} = \frac{126000 \times \text{hp} \times F_c \times L_f}{\text{Pitch Dia (in)} \times \text{rpm}}$$

F_c = Load Connection Factor.

- Sprocket ★ 1.00
- Machined Pinion & Gear ★ 1.25
- Synchronous (Timing) Belt 1.30
- V-Belt 1.50
- Flat Belt 2.50

L_f = Load Location Factor.

- Low Speed Shaft – See table below.
- High Speed Shaft – Refer to Factory.



★ Refer all multiple chain sprocket and pinion mounted applications to the Factory for deflection analysis.

Overhung Loads — Overhung load is imposed upon a shaft when a pinion, sprocket or sheave is used as a power takeoff. The magnitude of the load varies with the type of takeoff and its proximity to the shaft bearing. Calculate the load (including minimum required service factor) and check the result against the tabulated overhung load rating. The above overhung load formula considers the transmitted power rating without service factor. This is appropriate for applications where starting loads, momentary overloads and brake capacities do not exceed 200% of drive rating, (100% overload). For other considerations, compute the equivalent power by multiplying the transmitted power by the appropriate service factor.

Locate the center line of the load as close to the drive seal cage as practical to minimize the overhung load and increase bearing life.

Type DH, DV & DB L_f Load Location Factors ★

Low Speed Shaft

Based on distance from center line of load to end of shaft

Distance Inches	Single Reduction (DHC) DRIVE SIZE							Double & Triple Reduction (DH, DV & DB) DRIVE SIZE												Distance Inches	
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240		M1250
0.0	1.45	1.41	1.48	1.48	1.48	1.48	1.52	1.42	1.41	1.42	1.48	1.48	1.48	1.53	1.47	1.47	1.36	1.36	1.40	1.40	0.0
0.5	1.38	1.34	1.42	1.42	1.43	1.42	1.47	1.34	1.34	1.35	1.42	1.42	1.42	1.47	1.42	1.42	1.33	1.33	1.37	1.37	0.5
1.0	1.31	1.27	1.35	1.37	1.37	1.37	1.42	1.26	1.27	1.28	1.36	1.36	1.36	1.42	1.38	1.38	1.29	1.29	1.34	1.34	1.0
1.5	1.23	1.21	1.29	1.31	1.31	1.31	1.37	1.17	1.21	1.21	1.30	1.30	1.30	1.36	1.33	1.33	1.26	1.26	1.31	1.31	1.5
2.0	1.16	1.14	1.22	1.26	1.26	1.26	1.32	1.09	1.14	1.14	1.24	1.24	1.24	1.31	1.28	1.28	1.22	1.22	1.28	1.28	2.0
2.5	1.08	1.08	1.16	1.20	1.20	1.20	1.27	1.01	1.08	1.07	1.18	1.18	1.18	1.25	1.24	1.24	1.18	1.18	1.24	1.24	2.5
3.0	1.01	1.01	1.10	1.15	1.15	1.15	1.22	0.96	1.01	1.00	1.12	1.12	1.12	1.19	1.19	1.19	1.15	1.15	1.21	1.21	3.0
3.5	0.97	0.97	1.03	1.09	1.09	1.09	1.17	0.92	0.97	0.97	1.06	1.06	1.06	1.14	1.15	1.15	1.11	1.11	1.18	1.18	3.5
4.0	0.93	0.93	0.98	1.04	1.04	1.04	1.11	0.88	0.93	0.94	1.00	1.00	1.00	1.08	1.10	1.10	1.08	1.08	1.15	1.15	4.0
4.5	0.89	0.90	0.95	0.99	0.99	0.99	1.06	0.84	0.90	0.97	0.97	0.97	0.97	1.03	1.06	1.06	1.04	1.04	1.12	1.12	4.5
5.0	0.85	0.86	0.92	0.96	0.96	0.96	1.01	0.80	0.86	0.88	0.94	0.94	0.95	0.99	1.01	1.01	1.01	1.01	1.08	1.08	5.0
5.5	0.81	0.83	0.89	0.94	0.94	0.94	0.98	...	0.83	0.85	0.91	0.92	0.92	0.97	0.98	0.98	0.99	0.99	1.05	1.05	5.5
6.0	0.77	0.79	0.86	0.91	0.91	0.92	0.96	...	0.79	0.81	0.88	0.89	0.90	0.94	0.96	0.96	0.98	0.98	1.02	1.02	6.0
6.5	...	...	0.83	0.88	0.88	0.89	0.94	...	...	...	0.85	0.86	0.87	0.92	0.94	0.94	0.96	0.96	1.00	1.00	6.5
7.0	...	...	0.80	0.85	0.86	0.87	0.92	...	...	...	0.83	0.83	0.85	0.90	0.92	0.92	0.95	0.95	0.98	0.98	7.0
7.5	...	...	...	0.83	0.83	0.84	0.90	...	...	...	...	...	...	0.88	0.90	0.90	0.94	0.94	0.97	0.97	7.5
8.0	...	...	...	0.80	0.80	0.82	0.87	...	...	...	...	...	...	0.85	0.88	0.88	0.92	0.92	0.96	0.96	8.0
8.5	...	...	...	0.77	0.78	0.80	0.85	...	...	...	...	...	...	0.83	0.86	0.86	0.91	0.91	0.95	0.95	8.5
9.0	...	...	...	...	...	...	0.83	...	...	...	...	...	...	0.81	0.84	0.84	0.90	0.90	0.94	0.94	9.0
9.5	...	...	...	...	...	...	0.81	...	...	...	...	...	...	...	0.82	0.82	0.88	0.88	0.92	0.92	9.5
10.0	...	...	...	...	...	...	0.79	...	...	...	...	...	...	...	0.80	0.80	0.87	0.87	0.91	0.91	10.0
10.5	...	...	...	...	...	...	0.79	...	...	...	...	...	...	...	0.78	0.78	0.86	0.86	0.90	0.90	10.5
11.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.84	0.84	0.89	0.89	11.0
11.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.83	0.83	0.88	0.88	11.5
12.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.82	0.82	0.87	0.87	12.0
12.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.80	0.80	0.85	0.85	12.5
13.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.79	0.79	0.84	0.84	13.0
13.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.78	0.78	0.83	0.83	13.5
14.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.82	0.82	14.0
14.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.81	0.81	14.5
15.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.79	0.79	15.0
15.5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.78	0.78	15.5
16.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.77	0.77	16.0

★ Interpolate for intermediate values.

Consult the Factory for Higher Overhung Load Ratings — In many cases, overhung load capacity in excess of that published is available. If the actual load should exceed the published capacity, refer full details to the Factory; provide complete application information, as well as direction of rotation, location, and direction of applied load.

Low Speed Shaft Overhung Load — Calculate low speed shaft overhung load using the formula and F_c values at left. The L_f load location factors tabulated below are based on the distance from the center line of the load to the end of the shaft.

Example — A 135 hp, 1170 rpm electric motor, coupling connected to a Drive One Size M1160 drive used to drive a uniformly loaded belt conveyor. The drive is a DH2 configuration mounted on its “D” surface. The drive’s low speed shaft rotates at 75 rpm and is chain connected to the conveyor on the extension opposite the low speed gear. The low speed sprocket has a pitch diameter of 28” and is located 3” from the end of the shaft. Calculate the overhung load as follows :

$$\text{Overhung Load} = \frac{126,00 \times 135 \times 1.00 \times 1.12}{28 \times 75} = 9,072 \text{ lbs}$$

The allowable overhung load for a M1160DH2 drive that is mounted on the “D” surface with extension opposite the low speed gear is found on Page 65. The value for the allowable overhung load is found by interpolating for the given output rpm. The allowable overhung load is 19,000 lbs. The applied overhung load is less than the allowable, therefore, this application is acceptable.

Type DHL Single Reduction & DBL Double Reduction

Low Speed Shaft Overhung Load

REFER TO THE FACTORY

High Speed Shaft Overhung Load - All Reductions

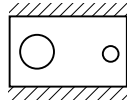
REFER TO THE FACTORY

Type DHC Single Reduction

Low Speed Shaft Overhung Load •/lbs x 1000

Refer to Low Speed Gear Position on Page 23

Drive Mounted on "C" or "D" Surface



High Speed Shaft rpm	Nominal Ratio	Approx LS Shaft rpm	DRIVE SIZE						
			M1130	M1140	M1150	M1160	M1170	M1180	M1190
1750	1.25	1400	1.9	5.5	2.9	1.2	*	*	3.4
	1.40	1250	2.1	5.5	2.3	2.0	*	1.3	5.0
	1.60	1094	2.3	5.9	2.1	2.4	*	2.8	5.8
	1.80	972	2.6	6.2	2.9	2.7	1.3	3.9	6.5
	2.00	875	2.7	6.6	3.3	3.0	2.2	4.4	7.2
	2.24	781	3.0	6.9	3.7	3.4	3.3z	5.2	8.0
	2.50	700	3.2	7.3	4.1	3.7	4.0	5.7	8.7
	2.80	625	3.4	7.8	4.5	4.1	4.5	6.4	9.6
	3.15	556	3.7	8.0	5.0	4.8	5.1	7.4	10.4
	3.55	493	4.0	8.0	5.4	5.6	6.1	8.1	11.4
	4.00	438	4.4	8.0	5.9	6.3	7.1	9.2	12.4
	4.50	389	4.6	8.0	6.6	6.9	7.6	10.4	15.3
5.00	350	4.6	8.0	7.0	7.5	8.4	11.5	16.2	
5.60	313	4.6	8.0	7.6	8.2	9.6	13.1	17.8	
1170	1.25	936	2.6	6.7	3.9	2.0	*	4.3	6.9
	1.40	836	2.7	6.6	3.6	2.4	*	3.5	5.7
	1.60	731	3.0	7.1	3.6	2.9	*	4.7	6.5
	1.80	650	3.3	7.4	4.1	3.4	2.7	5.2	7.4
	2.00	585	3.4	7.9	4.4	4.0	4.0	6.0	8.2
	2.24	522	3.7	8.0	4.9	4.4	4.6	7.1	9.0
	2.50	468	4.0	8.0	5.4	5.0	5.3	8.0	9.9
	2.80	418	4.2	8.0	5.8	5.6	6.1	8.9	10.9
	3.15	371	4.5	8.0	6.3	6.4	7.0	9.8	12.7
	3.55	330	4.6	8.0	6.7	7.2	8.1	10.7	14.6
	4.00	293	4.6	8.0	7.3	7.9	9.0	11.9	15.9
	4.50	260	4.6	8.0	7.9	8.5	9.6	13.3	17.3
5.00	234	4.6	8.0	8.4	9.0	10.4	14.3	18.9	
5.60	209	4.6	8.0	9.0	9.9	11.6	15.9	21.6	
580	1.25	464	3.9	8.0	6.0	4.6	5.6	8.3	12.1
	1.40	414	4.0	8.0	5.7	5.0	5.1	8.0	11.1
	1.60	363	4.3	8.0	5.8	5.5	6.2	9.0	10.5
	1.80	322	4.6	8.0	6.3	6.1	7.0	9.6	11.9
	2.00	290	4.6	8.0	6.7	6.7	7.6	10.5	13.3
	2.24	259	4.6	8.0	7.0	7.2	8.0	11.9	14.7
	2.50	232	4.6	8.0	7.7	7.7	8.7	12.7	16.0
	2.80	207	4.6	8.0	8.2	8.4	9.6	13.7	17.0
	3.15	184	4.6	8.0	8.8	9.2	10.6	15.1	19.1
	3.55	163	4.6	8.0	9.0	10.2	11.8	15.6	21.1
	4.00	145	4.6	8.0	9.0	11.0	12.8	16.9	22.5
	4.50	129	4.6	8.0	9.0	11.8	13.6	18.5	24.1
5.00	116	4.6	8.0	9.0	12.5	14.6	19.8	26.0	
5.60	104	4.6	8.0	9.0	13.5	16.0	21.7	29.1	

● Published ratings are for standard assemblies and are based on the most unfavorable conditions of loading. Interpolate for speeds between those shown. For speeds below 580 rpm use ratings for 580 rpm.

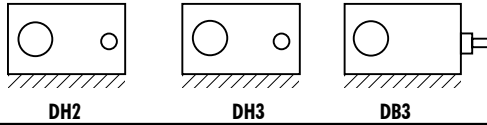
* Consult the Factory for overhung load ratings.

Type DH & DB Double & Triple Reduction - Sizes M1130-M1210

Low Speed Shaft Overhung Load •/lbs x 1000

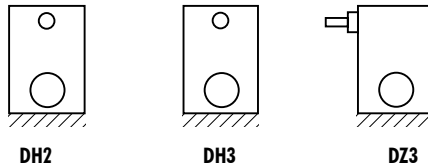
Refer to Low Speed Gear Position on Pages 23-25 & 106-107

Drive Mounted on "D" Surface



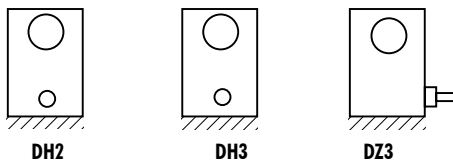
Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	4.60	4.60	8.00	8.00	8.60	8.39	12.2	8.6	14.2	8.7	18.8	11.5	24.1	16.2	32.4	25.0	36.2	26.0
250	4.60	4.60	8.00	8.00	8.60	8.60	12.9	9.3	15.1	9.4	19.9	12.4	25.6	17.4	34.2	26.8	38.3	27.8
210	4.60	4.60	8.00	8.00	8.60	8.60	13.8	10.1	16.1	10.3	21.3	13.6	27.4	19.0	36.5	29.1	40.8	30.1
170	4.60	4.60	8.00	8.00	8.60	8.60	14.9	11.1	17.5	11.4	23.2	15.2	29.7	21.0	39.4	32.1	44.1	33.2
130	4.60	4.60	8.00	8.00	8.60	8.60	16.5	12.6	19.4	13.1	25.7	17.5	33.0	24.0	43.6	36.3	48.7	37.5
90	4.60	4.60	8.00	8.00	8.60	8.60	19.0	14.9	20.2	15.9	29.7	21.2	38.1	28.8	49.9	43.1	55.8	44.4
50	4.60	4.60	8.00	8.00	8.60	8.60	19.0	19.0	20.2	20.2	32.8	28.9	44.0	38.5	52.0	52.0	60.0	58.0
10	4.60	4.60	8.00	8.00	8.60	8.60	19.0	19.0	20.2	20.2	32.8	32.8	44.0	44.0	52.0	52.0	60.0	60.0

Drive Mounted on "F" Surface



Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	6.70	5.73	8.50	8.50	8.90	8.39	11.3	8.6	14.2	8.7	18.8	11.5	24.1	16.2	27.5	25.0	24.0	24.0
250	6.70	6.05	8.50	8.50	8.90	8.90	11.3	9.3	15.1	9.4	19.0	12.4	25.6	17.4	27.5	26.8	24.0	24.0
210	6.70	6.47	8.50	8.50	8.90	8.90	11.3	10.1	16.1	10.3	19.0	13.6	27.4	19.0	27.5	27.5	24.0	24.0
170	6.70	6.70	8.50	8.50	8.90	8.90	11.3	11.1	17.5	11.4	19.0	15.2	29.7	21.0	27.5	27.5	24.0	24.0
130	6.70	6.70	8.50	8.50	8.90	8.90	11.3	11.3	18.0	13.1	19.0	17.5	33.0	24.0	27.5	27.5	24.0	24.0
90	6.70	6.70	8.50	8.50	8.90	8.90	11.3	11.3	18.0	15.9	19.0	19.0	36.0	28.8	27.5	27.5	24.0	24.0
50	6.70	6.70	8.50	8.50	8.90	8.90	11.3	11.3	18.0	18.0	19.0	19.0	36.0	36.0	27.5	27.5	24.0	24.0
10	6.70	6.70	8.50	8.50	8.90	8.90	11.3	11.3	18.0	18.0	19.0	19.0	36.0	36.0	27.5	27.5	24.0	24.0

Drive Mounted on "E" Surface



Output rpm	M1130		M1140		M1150		M1160		M1170		M1180		M1190		M1200		M1210	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	6.70	5.73	8.50	8.50	8.90	8.39	10.1	8.6	14.0	8.7	16.7	11.5	24.1	16.2	27.5	25.0	24.0	24.0
250	6.70	6.05	8.50	8.50	8.90	8.90	10.1	9.3	14.0	9.4	16.7	12.4	25.6	17.4	27.5	26.8	24.0	24.0
210	6.70	6.47	8.50	8.50	8.90	8.90	10.1	10.1	14.0	10.3	16.7	13.6	26.5	19.0	27.5	27.5	24.0	24.0
170	6.70	6.70	8.50	8.50	8.90	8.90	10.1	10.1	14.0	11.4	16.7	15.2	26.5	21.0	27.5	27.5	24.0	24.0
130	6.70	6.70	8.50	8.50	8.90	8.90	10.1	10.1	14.0	13.1	16.7	16.7	26.5	24.0	27.5	27.5	24.0	24.0
90	6.70	6.70	8.50	8.50	8.90	8.90	10.1	10.1	14.0	14.0	16.7	16.7	26.5	26.5	27.5	27.5	24.0	24.0
50	6.70	6.70	8.50	8.50	8.90	8.90	10.1	10.1	14.0	14.0	16.7	16.7	26.5	26.5	27.5	27.5	24.0	24.0
10	6.70	6.70	8.50	8.50	8.90	8.90	10.1	10.1	14.0	14.0	16.7	16.7	26.5	26.5	27.5	27.5	24.0	24.0

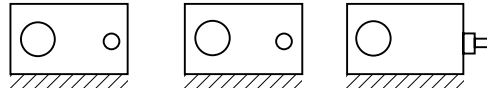
• Overhung load values shown are for loads applied at the center of the extension key length. Published overhung load ratings are based on a combination of the most unfavorable conditions of loading. Consult factory for application specific review if additional capacity is required. Interpolate for values at intermediate speeds. The last overhung load listed applies to all lower output speeds for that drive size and mounting surface.

Type DH & DB Double & Triple Reduction - Sizes M1220-M1250

Low Speed Shaft Overhung Load •/lbs x 1000

Refer to Low Speed Gear Position on Pages 23-25 & 106-107

Drive Mounted on "D" Surface



DH2

DH3

DB3

Output rpm	M1220		M1230		M1240		M1250	
	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side	Ext Opposite LS Gear	Ext on LS Gear Side
290	62.0	62.0	71.0	52.1	60.4	45.2	53.5	36.4
250	62.0	66.4	75.7	56.1	64.7	49.2	57.6	40.0
210	62.0	62.0	70.1	61.4	70.3	54.2	62.9	44.5
170	62.0	62.0	70.1	68.4	77.6	61.0	69.9	50.7
130	62.0	62.0	70.1	70.1	88.0	70.9	79.9	59.9
90	62.0	62.0	70.1	70.1	78.0	87.1	87.5	75.3
50	62.0	62.0	70.1	70.1	78.0	78.0	87.5	87.5
10	62.0	62.0	70.1	70.1	78.0	78.0	87.5	87.5

- Overhung load values shown are for loads applied at midpoint of extension key length. Published overhung load ratings are based on a combination of the most unfavorable conditions of loading. Consult the factory for application specific review if additional capacity is required. Interpolate for values at intermediate speeds. The last overhung load listed applies to all lower output speeds for that drive size and mounting surface.


Type DVA Parallel Shaft — Shaft Up or Down
Low Speed Shaft thrust Capacity * Double & Triple Reduction
 Pounds — Multiply values listed by 1000

THRUST UP


Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
320	4.94	7.52	7.38	20.8	22.6	10.8	11.6
280	4.94	7.52	7.38	20.8	22.6	11.4	11.9
250	5.17	7.80	7.60	21.5	23.4	11.8	12.2
225	5.24	7.99	7.84	22.1	24.1	12.1	12.6
200	5.50	8.30	8.07	22.8	24.9	12.4	13.0
175	5.59	8.49	8.30	23.4	25.5	12.8	13.4
160	5.83	8.80	8.56	24.2	26.4	13.2	13.8
140	6.02	9.18	8.83	25.0	27.4	13.6	14.3
125	6.22	9.53	9.09	25.9	28.9	14.1	14.7
115	6.40	9.76	9.36	26.8	29.6	14.5	15.1
100	6.56	10.1	9.65	27.4	30.1	14.8	15.5
90	6.90	10.5	9.92	28.6	31.5	15.5	16.1
80	7.18	10.9	10.3	29.4	32.6	16.0	16.6
70	7.39	11.2	10.6	30.9	34.5	16.5	17.1
60	7.55	11.7	11.1	31.9	35.1	17.0	17.7
50	8.01	12.3	11.6	34.0	37.5	18.0	18.7
44	8.52	13.5	12.2	35.9	39.4	19.1	19.8
35	9.09	14.6	13.0	38.9	41.0	20.3	20.6
26	9.72	15.8	14.5	44.0	45.3	22.8	22.6
20	10.4	17.6	18.4	49.9	50.3	27.6	25.0
15	12.1	18.7	20.6	56.2	57.3	32.5	29.7
10	14.1	22.0	23.7	63.2	65.1	38.5	35.9
6	17.1	25.7	28.7	65.0	76.4	47.7	45.0

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1750 rpm.

Type DVA Parallel Shaft — Shaft Up or Down
Low Speed Shaft thrust Capacity * Double & Triple Reduction
 Pounds — Multiply values listed by 1000

THRUST DOWN


Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
320	4.76	7.19	7.04	20.2	22.1	10.2	11.0
280	4.76	7.19	7.04	20.2	22.1	10.7	11.3
250	4.99	7.46	7.25	20.9	22.7	11.1	11.6
225	5.05	7.63	7.48	21.5	23.4	11.4	12.0
200	5.30	7.93	7.70	22.2	24.2	11.7	12.3
175	5.39	8.12	7.91	22.8	24.9	12.1	12.8
160	5.61	8.41	8.15	23.5	25.7	12.4	13.1
140	5.80	8.77	8.42	24.3	26.7	12.9	13.5
125	5.99	9.11	8.66	25.2	28.1	13.3	14.0
115	6.17	9.32	8.92	26.1	29.1	13.7	14.4
100	6.32	9.62	9.19	27.3	29.3	14.0	14.7
90	6.65	10.0	9.51	30.7	30.7	14.6	15.3
80	6.91	10.4	9.77	31.8	31.8	15.1	15.8
70	7.13	10.7	10.1	33.0	33.0	15.6	16.3
60	7.27	11.2	10.6	34.2	34.2	16.1	16.8
50	7.72	11.7	11.0	36.5	36.7	17.0	17.8
44	8.21	12.4	11.6	38.4	38.4	18.0	18.9
35	8.76	14.1	12.4	39.9	39.9	19.2	19.6
26	9.37	15.2	13.8	44.2	44.2	21.5	21.5
20	10.4	17.1	17.8	48.9	49.1	26.4	23.8
15	12.1	19.0	19.9	55.2	56.2	31.3	28.5
10	14.1	21.3	23.1	62.3	64.0	37.2	34.7
6	17.0	26.1	28.0	72.2	76.3	46.5	43.7

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1750 rpm.


Type DXA Parallel Shaft — Shaft Up or Down
Low Speed Shaft thrust Capacity * Triple Reduction
 Pounds — Multiply values listed by 1000

THRUST UP


Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
145	...	...	...	...	...	17.1	18.7
120	6.43	11.6	12.7	31.1	34.1	16.1	18.2
100	6.57	11.2	12.1	31.2	34.8	15.3	16.0
90	6.96	10.8	11.7	31.2	35.4	15.8	16.4
75	7.17	11.1	11.6	31.0	36.1	16.2	17.0
65	7.60	11.8	12.3	32.9	38.4	17.2	18.0
50	8.00	12.2	12.7	35.0	40.8	18.2	19.1
40	8.52	13.3	13.8	37.0	43.1	19.4	20.2
30	9.29	14.1	14.7	41.3	45.1	21.3	22.1
25	10.1	15.5	16.1	46.2	50.4	25.9	23.6
20	10.7	17.8	17.2	49.4	51.5	28.6	27.7
15	12.6	19.5	20.5	55.1	56.3	31.6	30.1
10	14.5	23.4	23.9	62.7	65.1	38.8	37.2
6	17.4	27.7	29.0	65.0	78.2	48.2	45.7

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1750 rpm.

Type DXA Parallel Shaft — Shaft Up or Down
Low Speed Shaft thrust Capacity * Triple Reduction
 Pounds — Multiply values listed by 1000

THRUST DOWN


Approx LS Shaft rpm	DRIVE SIZE						
	M1150	M1160	M1170	M1180	M1190	M1200	M1210
145	...	...	...	...	...	16.4	18.1
120	6.20	11.2	12.4	30.5	33.6	15.4	17.6
100	6.33	10.8	11.7	30.7	34.2	14.0	15.2
90	6.70	11.7	11.2	30.5	34.7	14.9	15.6
75	6.91	10.6	11.1	30.2	35.4	15.3	16.1
65	7.32	11.3	11.8	32.1	37.7	16.2	17.1
50	7.70	11.7	12.1	32.9	40.2	17.2	18.1
40	8.21	12.8	13.3	36.1	42.3	18.3	19.2
30	8.95	13.5	14.1	40.3	44.1	20.1	21.0
25	9.69	14.8	15.4	45.2	49.4	25.2	22.4
20	10.4	17.2	16.6	48.5	50.4	27.4	26.7
15	12.9	18.8	19.8	54.1	55.2	30.4	31.1
10	14.1	22.8	23.3	61.7	64.0	37.6	36.0
6	17.0	27.0	28.4	72.8	77.1	47.0	44.5

* Published thrust ratings are based on a combination of the most unfavorable conditions of loading. For higher ratings, refer full data to the Factory. Consult the Factory for combined radial and thrust loads. Ratings are for a maximum input speed of 1750 rpm.

Exact Ratios/Parallel Shaft Drives

Single Reduction - Type DHC

Nominal Ratio	DRIVE SIZE						
	M1130	M1140	M1150	M1160	M1170	M1180	M1190
1.25	1.256	1.247	1.247	1.253	1.253	1.247	1.265
1.40	1.411	1.391	1.412	1.403	1.403	1.400	1.433
1.60	1.609	1.600	1.600	1.593	1.593	1.596	1.623
1.80	1.807	1.811	1.811	1.808	1.808	1.784	1.830
2.00	1.981	2.043	2.000	2.000	2.000	1.978	2.048
2.24	2.239	2.233	2.233	2.238	2.238	2.275	2.263
2.50	2.512	2.526	2.526	2.474	2.474	2.528	2.529
2.80	2.784	2.824	2.824	2.765	2.765	2.844	2.867
3.15	3.121	3.200	3.200	3.133	3.133	3.138	3.185
3.55	3.552	3.556	3.556	3.615	3.615	3.500	3.583
4.00	3.962	4.000	4.000	4.087	4.087	3.957	4.095
4.50	4.478	4.571	4.571	4.476	4.476	4.550	4.526
5.00	4.905	5.053	5.053	4.947	4.947	5.056	5.059
5.60	5.722	5.647	5.647	5.529	5.529	5.688	5.733

Single Reduction - Type DHL

Nominal Ratio	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1.25	1.262	1.243	1.243	1.250	1.243	1.263	1.250	1.250
1.40	1.410	1.400	1.400	1.412	1.400	1.417	1.395	1.382
1.60	1.595	1.600	1.625	1.594	1.576	1.595	1.600	1.583
1.80	1.789	1.788	1.824	1.818	1.794	1.771	1.778	1.818
2.00	2.025	1.971	2.031	2.028	1.969	2.031	1.971	1.971
2.24	2.242	2.258	2.233	2.241	2.241	2.273	2.258	2.219
2.50	2.486	2.500	2.533	2.516	2.519	2.516	2.500	2.517
2.80	2.813	2.778	2.821	2.793	2.821	2.759	2.767	2.815
3.15	3.154	3.148	3.179	3.318	3.115	3.192	3.185	3.148
3.55	3.556	3.520	3.500	3.583	3.542	3.583	3.520	3.520
4.00	3.960	4.040	3.962	4.045	3.955	3.955	4.040	3.960
4.50	4.500	4.478	4.533	4.550	4.478	4.500	4.435	4.435
5.00	4.958	4.941	5.063	4.938	5.056	5.056	4.947	4.947
5.60	5.500	5.632	5.625	5.529	5.632	5.526	5.588	5.526

Exact Ratios/Parallel Shaft Drives

Double Reduction - Type DH(All Sizes) & DV(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
5.00	...	...	...	...	...	...	...	5.298	...	...	...	...	...
5.60	...	...	...	...	...	...	...	5.859	5.952	5.688	...	5.628	...
6.30	6.189	6.282	6.282	6.184	6.151	6.386	6.146	6.710	6.583	6.407	6.313	6.257	6.259
7.10	6.917	7.074	7.074	6.985	6.926	7.162	6.857	7.706	7.540	7.221	7.111	7.150	6.959
8.00	7.821	8.084	8.211	7.885	7.796	8.062	7.867	8.352	8.658	8.233	8.014	8.007	7.952
9.00	8.777	9.033	9.214	8.995	8.876	8.956	8.741	9.403	9.384	9.206	9.138	9.006	8.905
10.0	9.932	9.957	10.26	10.03	9.740	10.27	9.689	10.67	10.57	10.36	10.22	9.960	10.02
11.2	11.00	11.41	11.28	11.09	11.09	11.49	11.10	11.93	11.99	11.44	11.50	11.20	11.08
12.5	12.19	12.63	12.80	12.45	12.46	12.72	12.29	13.34	13.40	12.77	12.69	12.51	12.45
14.0	13.80	14.04	14.26	13.82	13.96	13.95	13.60	14.92	14.99	14.38	14.17	14.05	13.91
16.0	15.47	15.91	16.06	15.52	15.41	16.14	15.66	16.78	16.76	16.10	15.96	15.90	15.63
18.0	17.44	17.79	17.68	17.73	17.52	18.12	17.31	18.80	18.86	18.04	17.87	17.98	17.68
20.0	19.42	20.41	20.02	20.01	19.56	19.99	19.86	20.97	21.12	20.65	20.03	20.15	20.00
22.4	22.07	22.63	22.91	22.51	22.16	22.75	21.80	23.42	23.56	23.00	22.92	22.10	22.41
25.0	24.32	24.97	25.58	24.43	25.01	25.56	24.32	...	26.32	...	25.53	...	24.58
28.0	26.98	28.45	28.42	27.36	27.86	27.94	27.48	...	...	...	...	...	...

Triple Reduction - Type DH(All Sizes) & DV(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
25.0	...	...	...	...	...	...	...	26.76	...	25.48	...	24.98	...
28.0	...	...	...	...	...	...	...	30.11	30.07	28.52	28.28	28.27	27.78
31.5	31.29	31.93	31.39	31.72	31.33	33.03	31.47	33.72	33.83	31.96	31.65	31.97	31.44
36.0	34.85	36.65	35.53	35.82	34.98	36.46	36.12	37.62	37.89	36.58	35.47	35.83	35.55
40.0	39.60	40.63	40.66	40.28	39.61	41.49	39.64	42.02	42.27	39.68	40.60	38.87	39.84
45.0	43.63	44.83	45.40	43.71	44.72	46.61	44.23	46.48	47.21	44.41	44.04	43.99	43.23
50.0	48.40	51.09	50.45	48.95	49.81	50.95	49.96	52.29	52.22	49.77	49.29	49.75	48.93
56.0	54.59	55.73	55.67	55.91	55.16	57.58	54.31	58.55	58.75	56.97	55.24	55.75	55.33
63.0	60.80	63.96	63.01	63.12	61.59	63.55	62.33	65.32	65.79	63.46	63.23	61.14	62.01
71.0	69.09	70.90	72.11	70.99	69.75	72.31	68.42	72.97	73.40	...	70.43	...	67.99
80.0	76.13	78.23	80.53	77.04	78.74	81.24	76.33	84.85	81.98	...	...	...	...
90.0	84.45	89.16	89.47	86.28	87.71	88.80	86.22	95.02	95.33	...	...	...	...
100	98.19	100.9	101.3	99.24	96.67	101.2	98.08	106.0	106.8	...	...	...	...
112	111.6	111.9	116.0	111.6	109.5	115.2	107.7	118.4	119.1	...	...	...	...
125	122.9	123.4	129.5	121.1	123.6	129.4	120.1	...	133.0	...	...	...	...
140	136.4	140.7	143.9	135.6	137.7	141.4	135.7	...	...	...	...	...	...

WR²/Parallel Shaft Drives (Type DH)

Approximate WR² (lb-in.²) Referred to Drive High Speed Shaft ★

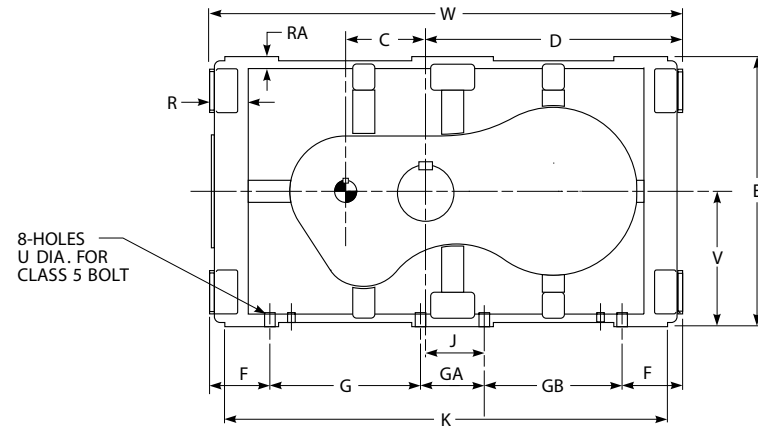
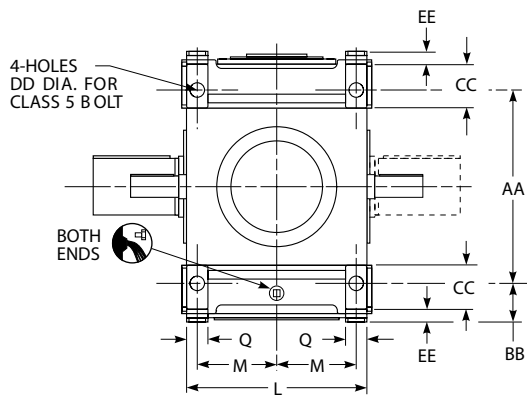
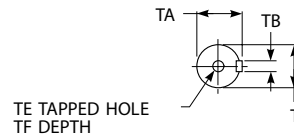
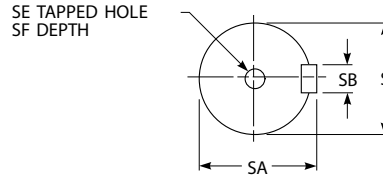
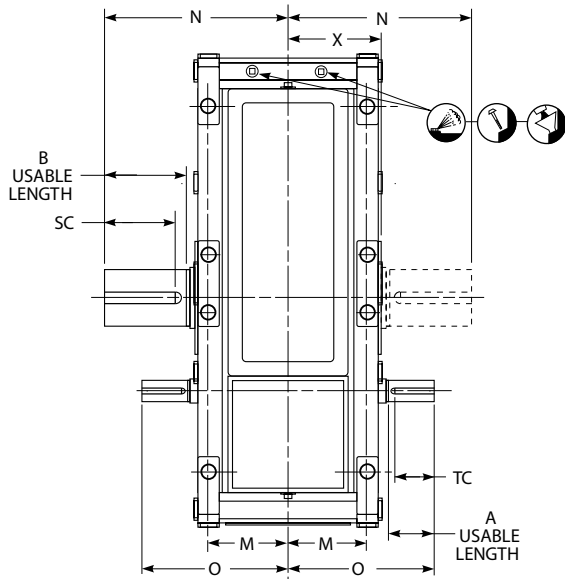
Nominal Ratios	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
SINGLE REDUCTION (DHC)													
1.25	1706	3237	6221	10993	18099	32803	53325	...	...	...	...	...	...
1.40	1257	2424	4549	8217	13498	24163	38655	...	...	...	...	...	...
1.60	904.1	1721	3280	5918	9712	17388	27949	...	...	...	...	...	...
1.80	685.8	1293	2471	4431	7346	13416	21012	...	...	...	...	...	...
2.00	560.9	987.5	1963	3549	5774	10601	16326	...	...	...	...	...	...
2.24	430.8	815.8	1557	2781	4558	7788	12956	...	...	...	...	...	...
2.50	338.8	631.0	1197	2270	3722	6273	10293	...	...	...	...	...	...
2.80	277.3	506.7	962.8	1853	3035	5040	8207	...	...	...	...	...	...
3.15	226.1	402.9	757.5	1401	2417	3970	6697	...	...	...	...	...	...
3.55	165.8	322.3	613.6	1085	1923	3232	5448	...	...	...	...	...	...
4.00	136.0	262.3	500.7	885.5	1312	2599	4395	...	...	...	...	...	...
4.50	111.0	211.1	407.5	774.6	1124	2065	3215	...	...	...	...	...	...
5.00	97.32	181.9	343.7	657.0	960.4	1769	2677	...	...	...	...	...	...
5.60	74.60	152.7	288.2	464.2	797.6	1478	2218	...	...	...	...	...	...
SINGLE REDUCTION (DHL)													
1.25	46.01	97.10	231.4	380.2	750.7	1468	2636	4925	...	...	...	...	...
1.40	41.35	82.99	203.1	334.7	660.7	1287	2330	4382	...	...	...	...	...
1.60	37.03	72.01	173.8	317.7	581.8	1126	2002	3758	...	...	...	...	...
1.80	33.58	64.30	155.3	260.4	510.2	1004	1783	3226	...	...	...	...	...
2.00	30.42	58.36	140.0	234.9	466.0	868.0	1579	2954	...	...	...	...	...
2.24	27.85	51.17	128.6	214.5	411.7	770.8	1363	2599	...	...	...	...	...
2.50	26.69	48.55	119.0	201.8	383.3	696.5	1219	2294	...	...	...	...	...
2.80	23.91	43.18	105.9	193.7	339.6	633.7	1092	2032	...	...	...	...	...
3.15	22.83	37.92	99.89	168.7	304.7	546.7	947.8	1795	...	...	...	...	...
3.55	16.63	31.52	68.49	116.2	212.3	419.6	860.6	1479	...	...	...	...	...
4.00	15.39	30.32	57.73	98.63	185.7	376.1	723.4	1292	...	...	...	...	...
4.50	14.39	26.14	49.68	84.85	172.5	327.8	686.4	1139	...	...	...	...	...
5.00	14.08	24.32	43.69	77.28	148.5	288.3	597.2	1038	...	...	...	...	...
5.60	13.62	22.49	38.89	67.26	128.8	262.2	512.9	895.6	...	...	...	...	...
DOUBLE REDUCTION (DH)													
5.00	...	...	...	...	...	...	...	7522	...	...	...	...	...
5.60	...	...	...	...	...	...	...	6506	7851	17723	...	38927	...
6.30	88.84	177.5	358.5	624.8	1181	2184	4091	4453	5581	15004	19595	33463	43463
7.00	75.51	146.3	303.5	527.0	1001	1859	3504	3998	4608	12776	16478	27860	37132
8.00	63.53	120.3	248.6	468.9	853.1	1580	2898	3422	4130	10792	13937	23989	30669
9.00	54.36	102.8	214.7	376.9	722.1	1374	2514	3422	4130	9409	11685	20658	26229
10.0	46.35	89.81	187.8	328.8	643.1	1152	2177	2932	3526	8205	10123	18373	22430
11.2	40.47	74.78	168.1	291.5	546.1	999.6	1823	2542	3013	7344	8768	15748	19821
12.5	36.23	67.42	152.1	267.9	496.6	887.2	1599	2202	2607	6520	7807	13623	16893
14.0	31.08	57.97	130.6	249.6	428.6	793.2	1405	1803	2253	5641	6891	11655	14541
16.0	28.04	48.95	119.6	212.0	379.2	667.7	1193	1547	1845	5160	5933	10289	12383
18.0	18.68	38.52	81.56	144.6	264.4	512.2	1052	1341	1580	4528	5393	8799	10857
20.0	15.97	32.23	67.17	119.9	226.6	452.2	870.3	1199	1367	3907	4714	7762	9243
22.5	13.48	28.32	55.85	100.5	203.3	386.4	811.4	1023	1220	3584	4049	7072	8116
25.0	12.12	24.91	47.16	89.77	171.7	335.2	699.2	...	1040	...	3698	...	7366
28.0	10.53	21.35	40.38	75.85	147.4	302.3	592.6	...	...	...	...	...	...
TRIPLE REDUCTION (DH)													
25.0	...	...	...	...	...	...	...	1008	...	3144	...	5985	...
28.0	...	...	...	...	...	...	...	928.7	1020	2926	3235	5486	6215
31.5	11.60	22.62	42.14	70.46	141.9	254.8	549.0	868.5	938.8	2755	2997	5065	5666
35.5	10.80	20.38	37.85	63.73	129.7	236.7	494.4	811.6	876.6	2582	2812	4734	5205
40.0	10.02	19.04	34.16	58.42	118.8	217.2	465.1	562.3	818.1	1657	2625	3430	4846
45.0	9.512	17.95	32.03	55.31	109.8	200.9	434.2	474.3	767.5	1566	1695	3225	3525
50.0	9.052	16.73	30.08	51.33	102.8	190.2	405.7	448.2	478.6	1496	1597	3051	3299
56.0	5.628	11.49	19.14	32.28	60.73	111.2	267.4	428.2	451.5	1425	1521	2914	3109
63.0	5.365	10.76	17.78	30.11	56.80	105.3	249.1	409.3	430.9	1379	1443	2819	2960
71.0	5.108	10.32	16.60	28.40	53.28	98.82	239.3	393.0	411.5	...	1394	...	2858
80.0	4.942	9.962	15.93	27.40	50.37	93.48	228.9	264.5	394.7	...	...	...	...
90.0	4.791	9.561	15.31	26.12	48.12	89.95	219.3	256.9	265.8	...	...	...	...
100	2.879	6.442	9.297	15.11	31.43	57.33	110.2	249.8	258.0	...	...	...	...
112	2.780	6.265	8.843	14.42	30.00	54.79	106.2	243.6	250.6	...	...	...	...
125	2.717	6.122	8.582	14.01	28.82	52.69	102.0	...	244.2	...	...	...	...
140	2.659	5.962	8.341	13.49	27.91	51.30	98.14	...	...	...	...	...	...

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR² referred to drive low speed shaft equals (exact total ratio)² times WR² referred to high speed shaft.

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Type DHL1 Single Reduction

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	O	Q	R	RA
M1130	1.25-3.15	3.94	9.84	2.64	3.43	4.33	3.15	15.83	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.54	26.14	11.42	4.92	9.72	10.83	1.57	3.23	0.98
	3.55-5.60	2.20																			8.86			
M1140	1.25-3.15	3.94	12.44	2.64	3.07	5.12	3.54	17.56	1.10	18.58	1.18	4.57	9.06	4.72	9.06	3.94	29.61	13.39	5.91	10.71	11.79	1.97	3.43	1.18
	3.55-5.60	2.76																			10.62			
M1150	1.25-3.15	3.94	12.99	3.54	3.94	5.91	3.94	19.69	1.10	20.87	1.18	4.76	10.63	5.91	9.96	4.96	33.66	14.57	6.50	12.20	12.52	1.97	3.41	1.18
	3.55-5.60	3.35																			11.73			
M1160	1.25-3.15	3.94	14.57	3.54	3.74	6.69	3.94	21.26	1.10	22.05	1.18	4.92	11.71	6.5	10.93	5.41	36.61	15.94	6.99	12.89	13.07	1.97	3.35	1.18
	3.55-5.60																				13.07			

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1130	1.25-3.15	1.6535 k6	1.77	0.47	2.48	M16	1.42	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	28.50	6.10	635
	3.55-5.60							1.1024 j6	1.22	0.31	1.97	M10	0.87					
M1140	1.25-3.15	2.1654 m6	2.32	0.63	2.48	M20	1.65	1.6535 k6	1.77	0.47	3.94	M16	1.42	0.73	9.29	31.97	7.09	919
	3.55-5.60							1.2598 k6	1.38	0.39	2.76	M12	1.10					
M1150	1.25-3.15	2.7559 m6	2.93	0.79	3.54	M20	1.65	1.9685 k6	2.11	0.55	3.94	M16	1.42	0.73	10.43	36.02	7.68	1155
	3.55-5.60							1.3780 k6	1.50	0.39	3.15	M12	1.10					
M1160	1.25-3.15	2.9528 m6	3.15	0.79	3.54	M20	1.65	2.1654 m6	2.32	0.63	3.94	M20	1.65	0.94	11.02	38.98	8.37	1350
	3.55-5.60							1.6535 k6	1.77	0.47		M16	1.42					

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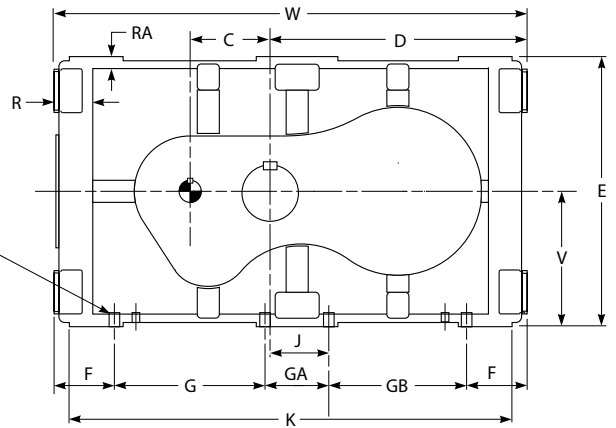
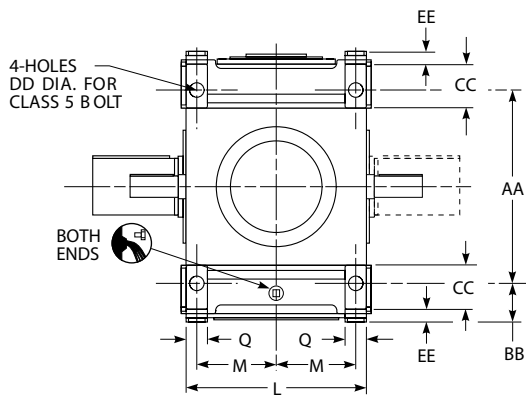
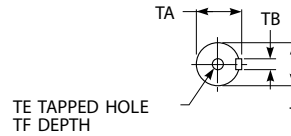
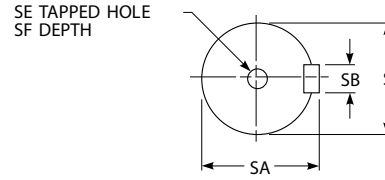
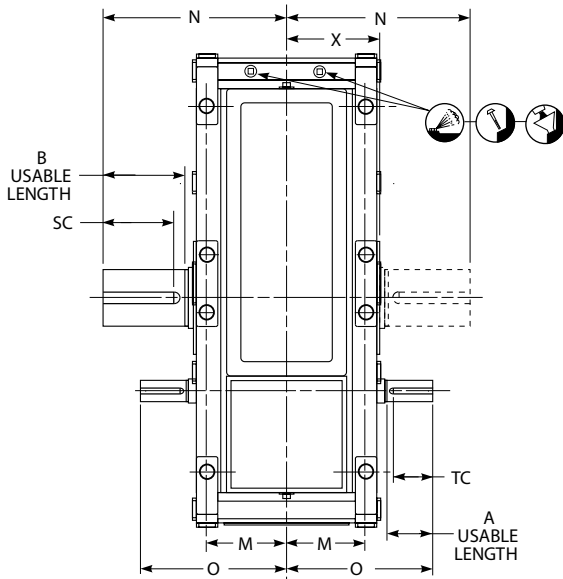
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

• Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHL1 Single Reduction

Sizes M1170 – M1200/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	O	Q	R	RA
M1170	1.25-3.15	4.92	16.93	4.53	3.94	7.68	3.94	23.23	1.38	24.80	1.18	5.51	13.78	5.91	12.60	5.12	40.94	16.14	7.09	13.98	14.33	1.97	3.54	1.18
	3.55-5.60	3.94																			13.15			
M1180	1.25-3.15	5.12	18.50	4.33	3.94	8.86	3.94	26.38	1.38	26.38	1.18	5.51	16.14	7.09	14.17	6.69	46.06	18.50	8.27	15.16	15.55	1.97	3.74	1.18
	3.55-5.60																							
M1190	1.25-3.15	6.10	21.26	5.91	4.13	10.24	4.33	29.33	1.65	29.53	1.18	5.91	18.31	7.09	17.13	6.30	51.97	20.08	8.46	17.42	17.52	3.35	4.33	1.18
	3.55-5.60	4.92																			16.34			
M1200	1.25-3.15	6.10	25.20	7.28	5.12	11.42	5.91	34.84	1.65	35.43	1.57	6.30	21.46	7.87	22.05	6.50	60.83	22.44	9.65	19.88	18.70	3.35	4.33	1.38
	3.55-5.60	6.30																						

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1170	1.25-3.15	3.1496 m6	3.35	0.87	3.94	M20	1.65	2.5591 m6	2.72	0.71	4.92	M20	1.65	0.94	12.40	43.31	8.46	1772
	3.55-5.60							1.9685 k6	2.11	0.55	3.94	M16	1.42					
M1180	1.25-3.15	3.7402 m6	3.94	0.98	3.94	M24	1.97	2.7559 m6	2.93	0.79	4.92	M20	1.65	1.10	13.19	48.43	9.65	2564
	3.55-5.60							2.3622 m6	2.52	0.71								
M1190	1.25-3.15	3.9370 m6	4.17	1.10	4.92	M24	1.97	3.1496 m6	3.35	0.87	6.10	M20	1.65	1.38	14.76	54.33	10.43	3113
	3.55-5.60							2.7559 m6	2.93	0.79	4.92							
M1200	1.25-3.15	5.5118 m6	5.83	1.42	6.30	M24	1.97	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	17.72	63.98	11.61	4747
	3.55-5.60							3.1496 m6	3.35									

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

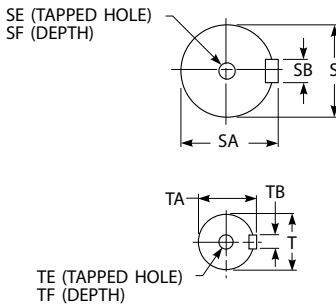
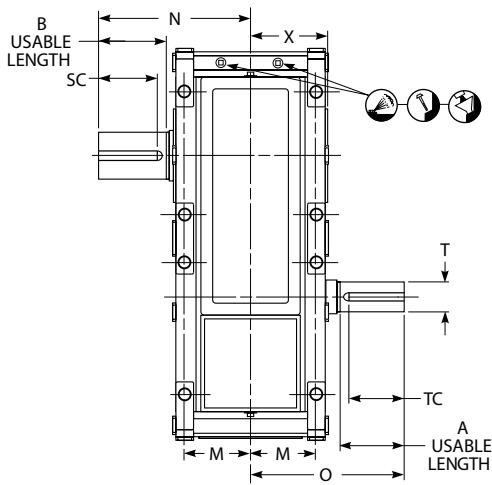
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

• Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

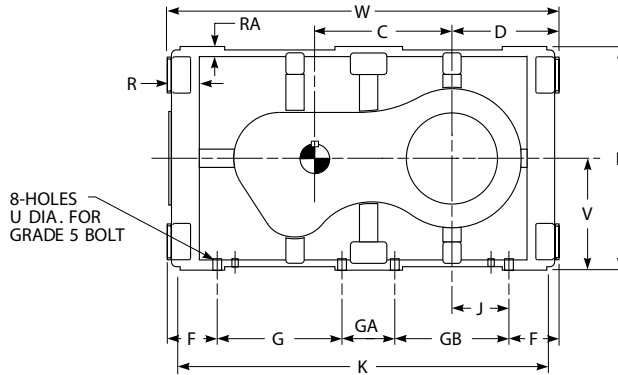
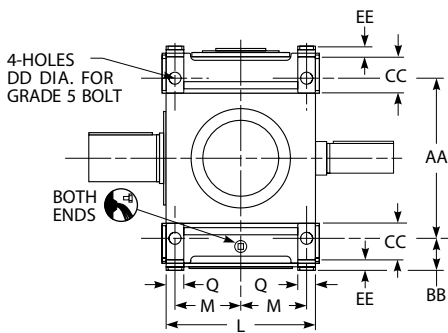
Type DHC1 Single Reduction

Sizes M1130 – M1150/Dimensions — Inches



"C" Dimension

Nominal Ratio	DRIVE SIZE		
	M1130	M1140	M1150
1.25	11.14	12.36	13.86
1.40	10.59	11.77	13.19
1.60	10.04	11.14	12.48
1.80	9.61	10.67	11.97
2.00	9.33	10.24	11.54
2.24	8.98	9.96	11.18
2.50	8.66	9.61	10.75
2.80	8.43	9.33	10.43
3.15	8.19	9.06	10.12
3.55	7.95	8.82	9.88
4.00	7.76	8.62	9.65
4.50	7.60	8.43	9.41
5.00	7.48	8.27	9.25
5.60	7.28	8.15	9.09



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N	O	Q	R	RA
M1130	1.25-3.15	4.92	9.84	5.91	3.43	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	12.80	12.01	1.57	3.23	0.98
	3.55-5.60	3.94																		10.83			
M1140	1.25-3.15	4.92	12.44	6.10	3.07	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	13.98	12.99	1.97	3.43	1.18
	3.55-5.60	3.94																		11.81			
M1150	1.25-3.15	6.30	12.99	7.09	3.94	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	15.67	14.76	1.97	3.41	1.18
	3.55-5.60	5.12																		13.58			

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1130	1.25-3.15	3.5433 m6	3.74	0.98	4.92	M24	1.97	2.5591 m6	2.72	0.71	4.33	M20	1.65	0.57	8.35	28.50	6.10	760
	3.55-5.6							1.9685 k6	2.11	0.55	3.54	M16	1.42					
M1140	1.25-3.15	4.3307 m6	4.57	1.10	4.92	M24	1.97	2.7559 m6	2.93	0.79	4.33	M20	1.65	0.73	9.29	31.97	7.09	1050
	3.55-5.6							2.1654 m6	2.32	0.63	3.54							
M1150	1.25-3.15	4.7244 m6	5.00	1.26	6.30	M24	1.97	3.1496 m6	3.35	0.87	5.51	M20	1.65	0.73	10.43	36.02	7.68	1350
	3.55-5.6							2.5591 m6	2.72	0.71	4.33							

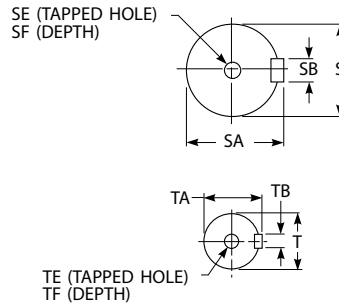
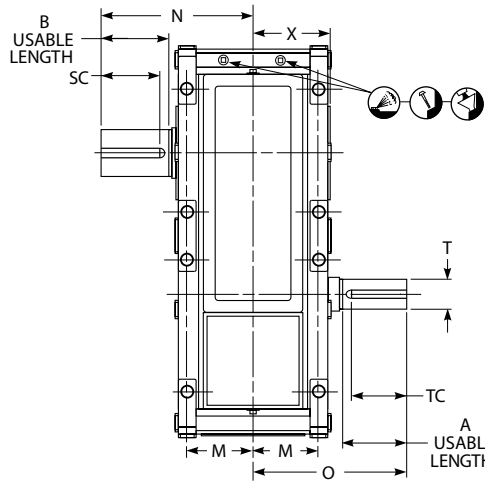
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

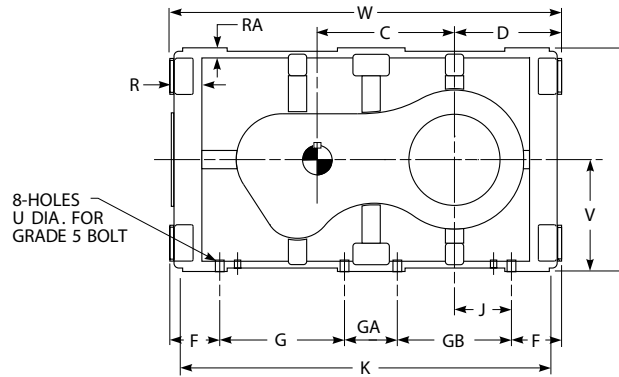
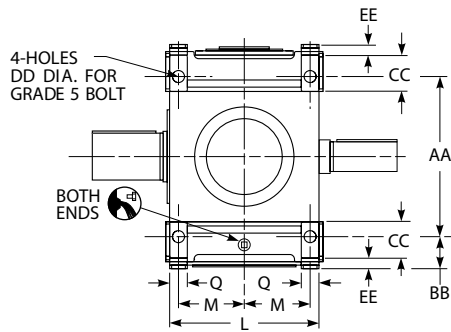
Type DHC1 Single Reduction

Sizes M1160 – M1190/Dimensions — Inches



"C" Dimension

Nominal Ratio	DRIVE SIZE			
	M1160	M1170	M1180	M1190
1.25	15.28	17.01	19.69	21.73
1.40	14.57	16.22	18.74	20.67
1.60	13.78	15.35	17.80	19.61
1.80	13.19	14.76	17.13	18.78
2.00	12.76	14.17	16.54	18.11
2.24	12.28	13.70	15.79	17.44
2.50	11.93	13.31	15.31	16.89
2.80	11.57	12.91	14.84	16.38
3.15	11.22	12.52	14.49	15.91
3.55	10.87	12.13	14.13	15.47
4.00	10.59	11.81	13.78	15.08
4.50	10.43	11.61	13.43	14.80
5.00	10.24	11.42	13.19	14.57
5.60	10.08	11.22	12.99	14.29



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N	O	Q	R	RA
M1160	1.25-2.8	7.68	14.57	8.66	3.74	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	17.80	17.05	1.97	3.35	1.18
	3.15-5.6	6.30	15.47																				
M1170	1.25-3.55	7.68	16.93	8.66	3.94	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	18.11	17.17	1.97	3.54	1.18
	4.0-5.6	6.30	15.59																				
M1180	1.25-2.8	7.48	18.50	8.66	3.94	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	19.09	18.11	1.97	3.74	1.18
	3.15-5.6	6.10	16.73																				
M1190	1.25-4.0	9.25	21.26	10.04	4.13	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	21.46	20.79	3.35	4.33	1.18
	4.5-5.6	6.10	17.64																				

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1160	1.25-2.8	5.1181 m6	5.39	1.26	7.09	M24	1.97	3.9370 m6	4.17	1.10	7.09	M24	1.97	0.94	11.02	38.98	8.37	1760
	3.15-5.6	3.1496 m6	3.35	0.87	5.51	M20	1.65											
M1170	1.25-3.55	5.1181 m6	5.39	1.26	7.09	M24	1.97	4.3307 m6	4.57	1.10	7.09	M24	1.97	0.94	12.40	43.31	8.46	2030
	4.0-5.6	3.1496 m6	3.35	0.87	5.51	M20	1.65											
M1180	1.25-2.8	5.9055 m6	6.22	1.42	7.09	M24	1.97	4.7244 m6	5.00	1.26	7.09	M24	1.97	1.10	13.19	48.43	9.65	2890
	3.15-5.6	3.5433 m6	3.74	0.98	5.51	M20	1.65											
M1190	1.25-4.0	6.6929 m6	7.05	1.57	8.66	M24	1.97	5.1181 m6	5.39	1.26	7.87	M24	1.97	1.38	14.76	54.33	10.43	3820
	4.5-5.6	3.7402 m6	3.94	0.98	5.51													

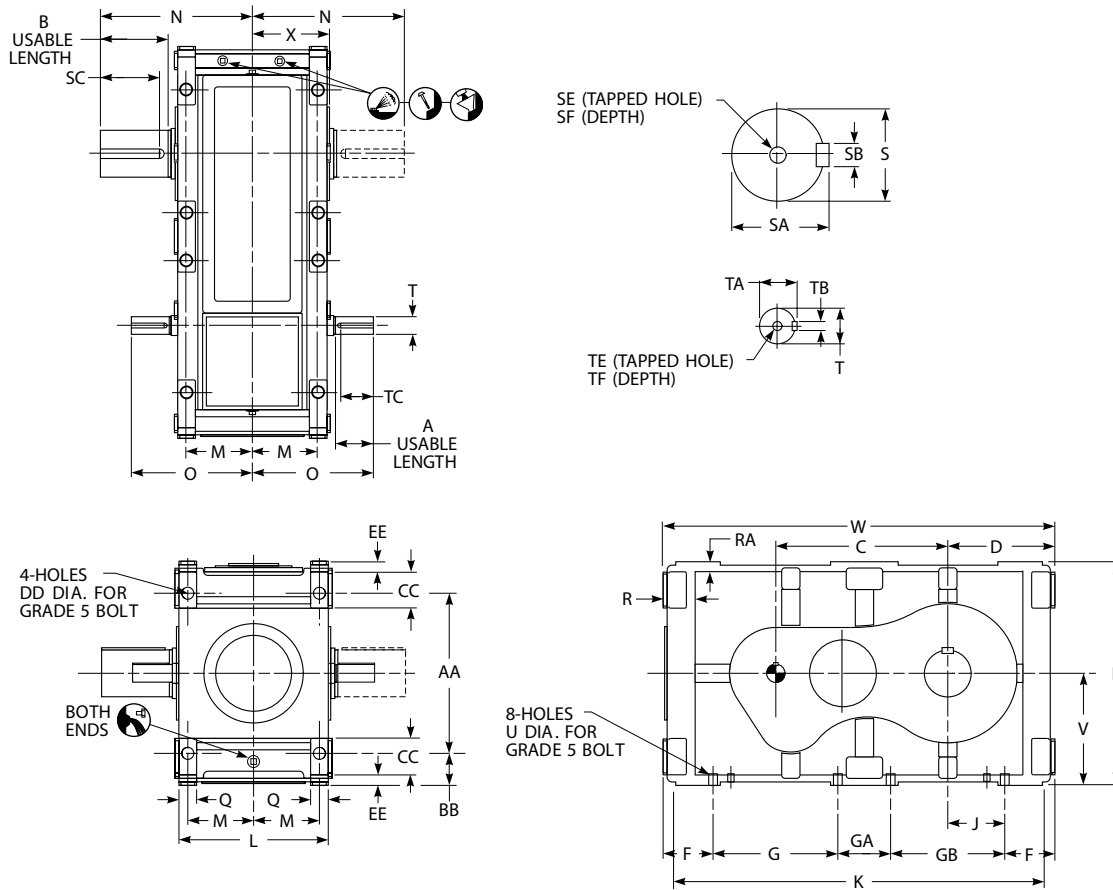
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHC2 Double Reduction

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	6.3-16.0	3.94	9.84	4.72	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	11.61	10.83	1.57	3.23	0.98
	18.0-28.0	2.20																			8.86			
M1140	6.3-16.0	3.94	12.44	6.10	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	13.98	11.79	1.97	3.43	1.18
	18.0-28.0	2.76																			10.62			
M1150	6.3-16.0	3.94	12.99	6.10	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	14.69	12.52	1.97	3.41	1.18
	18.0-28.0	3.35																			11.73			
M1160	6.3-28.0	3.94	14.57	7.48	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	16.61	13.07	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1130	6.3-16.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	28.50	6.10	767
	18.0-28.0							1.1024 j6	1.22	0.31	1.97	M10	0.87					
M1140	6.3-16.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.6535 k6	1.77	0.47	3.94	M16	1.42	0.73	9.29	31.97	7.09	1109
	18.0-28.0							1.2598 k6	1.37	0.39	2.76	M12	1.10					
M1150	6.3-16.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.9685 k6	2.11	0.55	3.94	M16	1.42	0.73	10.43	36.02	7.68	1390
	18.0-28.0							1.3780 k6	1.50	0.39	3.15	M12	1.10					
M1160	6.3-16.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	3.94	M20	1.65	0.94	11.02	38.98	8.37	1620
	18.0-28.0							1.6535 k6	1.77	0.47	3.94	M16	1.42					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

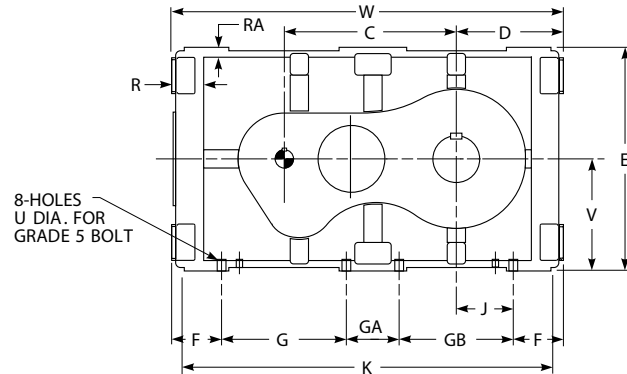
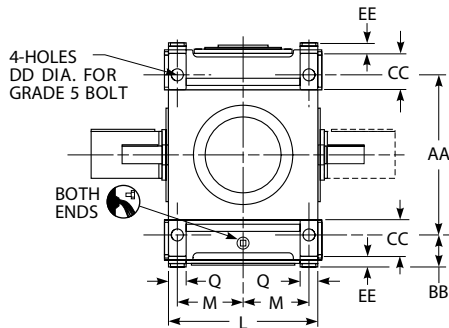
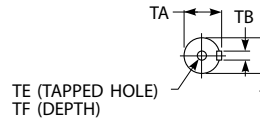
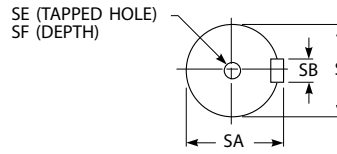
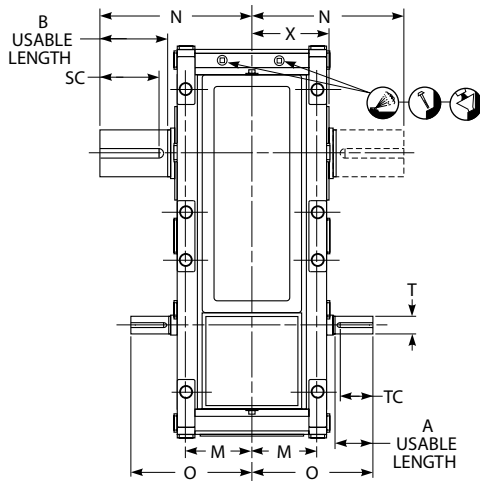
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHC2 Double Reduction

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	6.3-16.0	4.92	16.93	7.48	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	16.93	14.33	1.97	3.54	1.18
	18.0-28.0	3.94																			13.15			
M1180	6.3-28.0	5.12	18.50	7.48	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	17.91	15.55	1.97	3.74	1.18
M1190	6.3-16.0	6.10	21.26	8.86	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	20.28	17.52	3.35	4.33	1.18
	18.0-28.0	4.92																			16.34			
M1200	5.00-12.5	6.10	25.20	10.63	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	23.03	18.70	3.35	4.33	1.38
	14.0-22.4	6.30																						
M1210	5.60-14.0	6.10	25.20	10.63	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	23.03	18.70	3.35	4.33	1.38
	16.0-25.0	6.30																						

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1170	6.3 - 16.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	0.94	12.40	43.31	8.46	2132
	18.0 - 28.0							1.9685 k6	2.11	0.55	3.94	M16	1.42					
M1180	6.3 - 16.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	4.92	M20	1.65	1.10	13.19	48.43	9.65	3086
	18.0 - 28.0							2.3622 m6	2.52	0.71								
M1190	6.3 - 16.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	6.10	M20	1.65	1.38	14.76	54.33	10.43	3748
	18.0 - 28.0							2.7559 m6	2.93	0.79	4.92							
M1200	5.00-12.5	7.4803 m6	7.87	1.77	9.84	M24	1.97	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	17.72	63.98	11.61	5716
	14.0-22.4							3.1496 m6	3.35									
M1210	5.60-14.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	17.72	63.98	11.61	5947
	16.0-25.0							3.1496 m6	3.35									

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

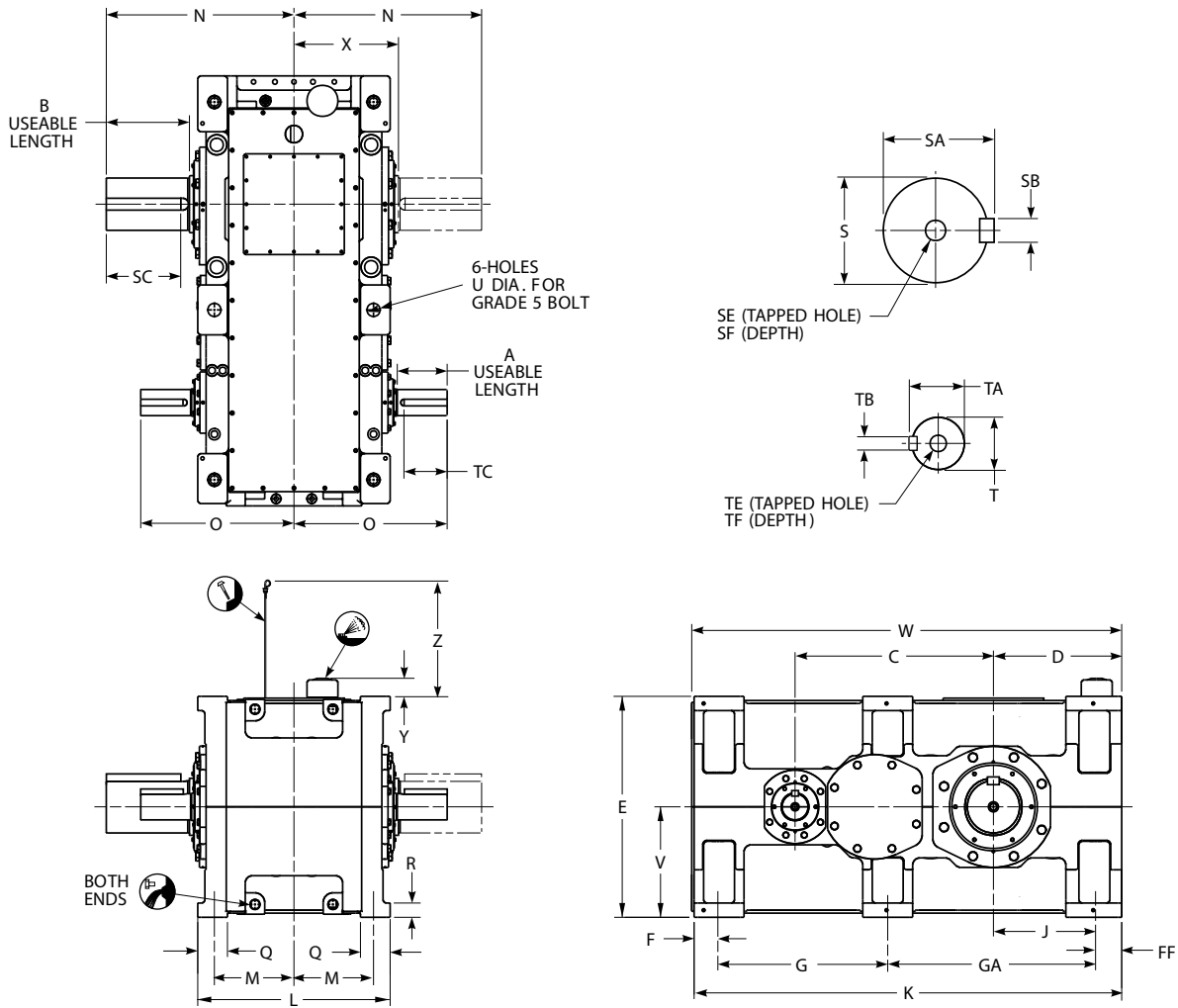
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

● Single low speed shaft extension is standard; double extension is special.

Type DHC2 Double Reduction

Sizes M1220 – M1250/Dimensions — Inches



DRIVE SIZE ★	A	B	C	D	E	F	FF	G	GA	J	K	L	M	N●	O	Q	R
M1220	9.45	13.78	31.30	22.83	36.61	3.94	4.33	28.15	34.45	18.50	70.87	31.89	13.19	31.10	26.77	4.92	2.36
M1230	9.45	13.78	32.87	21.26	36.61	3.94	4.33	28.15	34.45	16.93	70.87	31.89	13.19	31.10	26.77	4.92	2.36
M1240	10.63	16.14	36.61	26.38	43.31	4.72	5.51	32.68	39.57	20.87	82.48	35.43	14.76	35.24	30.12	5.51	2.56
M1250	10.63	16.14	38.58	24.41	43.31	4.72	5.51	32.68	39.57	18.90	82.48	35.43	14.76	35.24	30.12	5.51	2.56

DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt lb
	S*	SA	SB	SC	SE	SF	T*	TA	TB	TC	TE	TF							
M1220	8.6614 m6	9.09	1.97	12.60	M30	2.36	4.3307 m6	4.57	1.10	8.27	M24	1.97	1.89	18.31	71.46	17.32	3.31	27.87	9859
M1230	8.6614 m6	9.09	1.97	12.60	M30	2.36	4.3307 m6	4.57	1.10	8.27	M24	1.97	1.89	18.31	71.46	17.32	3.31	27.87	10361
M1240	9.8425 m6	10.31	2.20	14.17	M30	2.36	4.7244 m6	5.00	1.26	9.06	M24	1.97	2.17	21.65	83.07	19.09	3.23	31.42	14310
M1250	9.8425 m6	10.31	2.20	14.17	M30	2.36	4.7244 m6	5.00	1.26	9.06	M24	1.97	2.17	21.65	83.07	19.09	3.23	31.42	15188

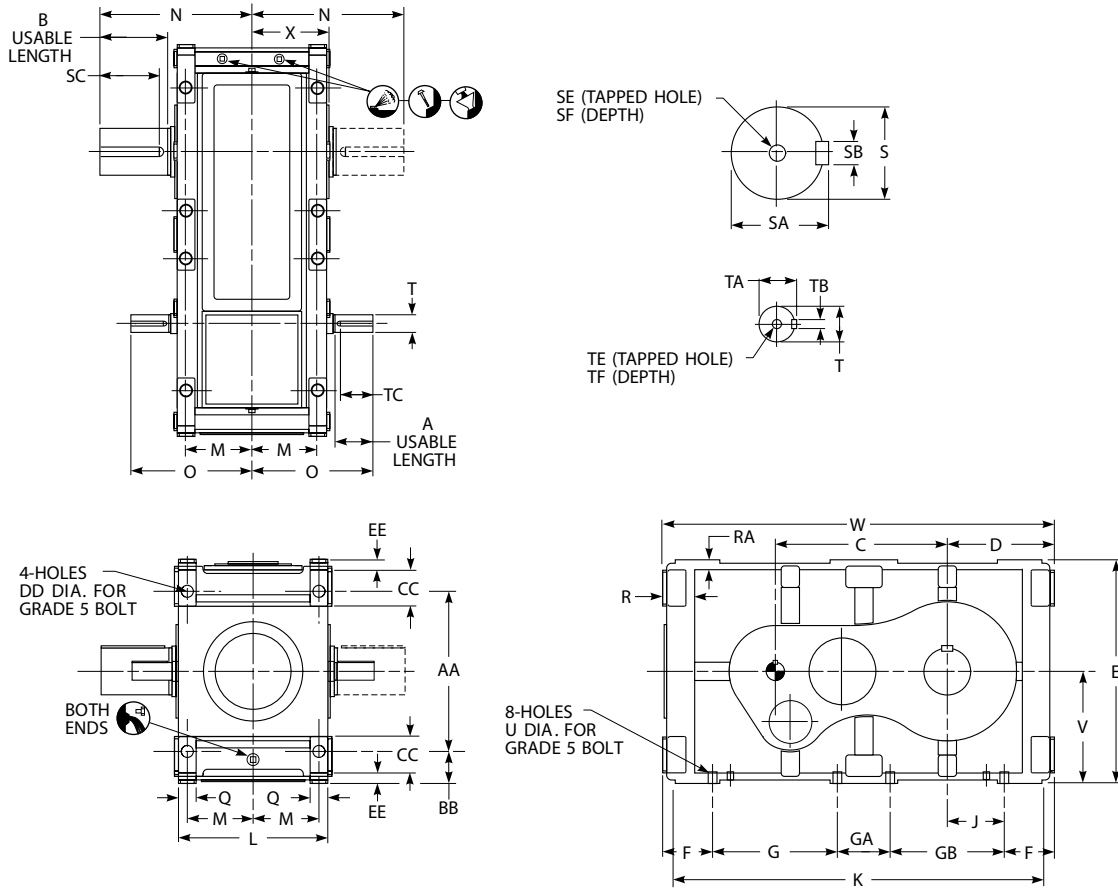
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

● Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	O	Q	R	RA
M1130	31.5-140.0	2.20	9.84	4.72	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	11.61	8.86	1.57	3.23	0.98
M1140	31.5-140.0	2.20	12.44	6.10	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	13.98	9.81	1.97	3.43	1.18
M1150	31.5-90.0	2.95	12.99	6.10	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	14.69	11.32	1.97	3.41	1.18
	100.0-140.0	2.68																			11.06			
M1160	31.5-140.0	2.76	14.57	7.48	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	16.61	11.89	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF						
M1130	31.5-140.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	0.9449 j6	1.06	0.31	1.97	M8	0.75	0.57	8.35	28.50	6.10	771	
M1140	31.5-140.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	0.9843 j6	1.10	0.31	1.97	M10	0.87	0.73	9.29	31.97	7.09	1123	
M1150	31.5-90.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.1811 j6	1.30	0.31	2.91	M10	0.87	0.73	10.43	36.02	7.68	1400	
	0.9843 j6							1.14	2.64										
M1160	31.5-90.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	1.3780 k6	1.50	0.31	2.76	M12	1.10	0.94	11.02	38.98	8.37	1687	
	1.1811 j6							1.30	0.31		M10	0.87							

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

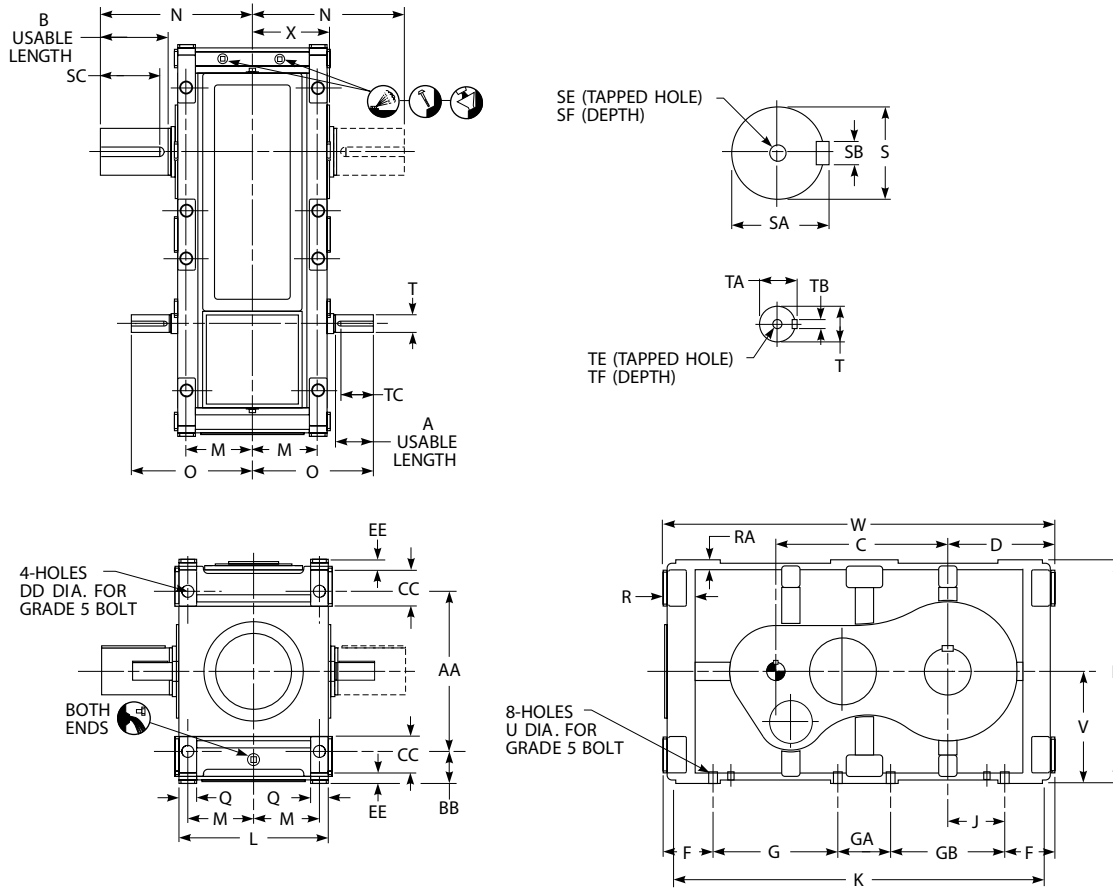
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

● Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	O	Q	R	RA
M1170	31.5-140.0	3.94	16.93	7.48	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	16.93	13.15	1.97	3.54	1.18
M1180	31.5-140.0	3.94	18.50	7.48	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	17.91	14.37	1.97	3.74	1.18
M1190	31.5-140.0	3.94	21.26	8.86	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	20.28	15.22	3.35	4.33	1.18
M1200	25.0-112.0	5.12	25.20	10.63	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	23.03	17.52	3.35	4.33	1.38
M1210	28.0-125.0	5.12	25.20	10.63	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	23.03	17.52	3.35	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1170	31.5-140.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.94	12.40	43.31	8.46	2132
M1180	31.5-140.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	1.7717 k6	1.91	0.55	3.94	M16	1.42	1.10	13.19	48.43	9.65	3131
M1190	31.5-90.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	2.1654 m6	2.32	0.63	3.94	M20	1.65	1.38	14.76	54.33	10.43	3858
	100.0-140.0							1.6535 k6	1.77	0.47		M16	1.42					
M1200	25.0-112.0	7.4803 m6	7.87	1.77	9.84	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	17.72	63.98	11.61	5791
M1210	28.0-125.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	17.72	63.98	11.61	6023

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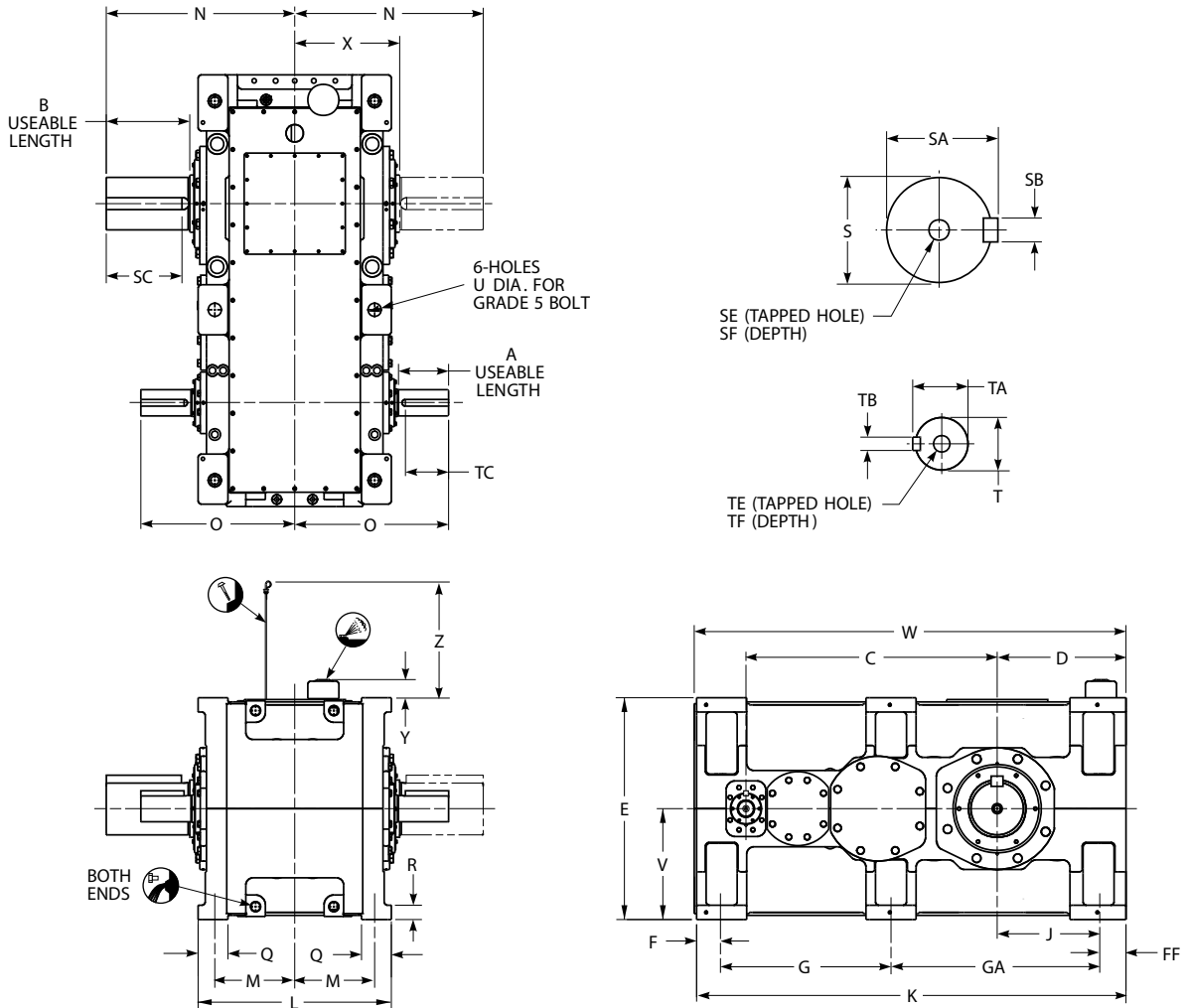
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

• Single low speed shaft extension is standard; double extension is special.

Type DHC3 Triple Reduction

Sizes M1220 – M1250/Dimensions — Inches



DRIVE SIZE ★	A	B	C	D	E	F	FF	G	GA	J	K	L	M	N •	O	Q	R
M1220	6.69	13.78	40.16	22.83	36.61	3.94	4.33	28.15	34.45	18.50	70.87	31.89	13.19	31.10	23.62	4.92	2.36
M1230	6.69	13.78	41.73	21.26	36.61	3.94	4.33	28.15	34.45	16.93	70.87	31.89	13.19	31.10	23.62	4.92	2.36
M1240	7.87	16.14	46.85	26.38	43.31	4.72	5.51	32.68	39.57	20.87	82.48	35.43	14.76	35.24	26.57	5.51	2.56
M1250	7.87	16.14	48.82	24.41	43.31	4.72	5.51	32.68	39.57	18.90	82.48	35.43	14.76	35.24	26.57	5.51	2.56

DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt lb
	S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF							
M1220	8.6614 m6	9.09	1.97	12.60	M30	2.36	2.7559 m6	2.93	0.79	6.30	M24	1.97	1.89	18.31	71.46	17.32	3.31	22.95	9905
M1230	8.6614 m6	9.09	1.97	12.60	M30	2.36	2.7559 m6	2.93	0.79	6.30	M24	1.97	1.89	18.31	71.46	17.32	3.31	22.95	10410
M1240	9.8425 m6	10.31	2.20	14.17	M30	2.36	3.5433 m6	3.74	0.98	7.09	M24	1.97	2.17	21.65	83.07	19.09	3.23	26.50	14445
M1250	9.8425 m6	10.31	2.20	14.17	M30	2.36	3.5433 m6	3.74	0.98	7.09	M24	1.97	2.17	21.65	83.07	19.09	3.23	26.50	15329

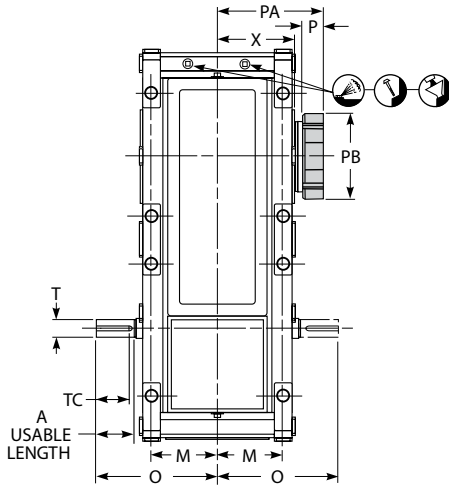
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

* i6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

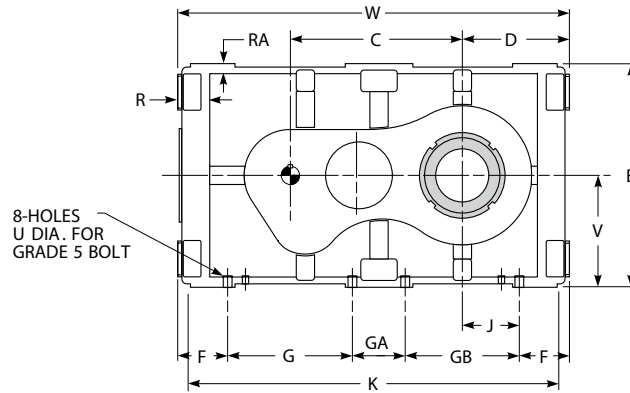
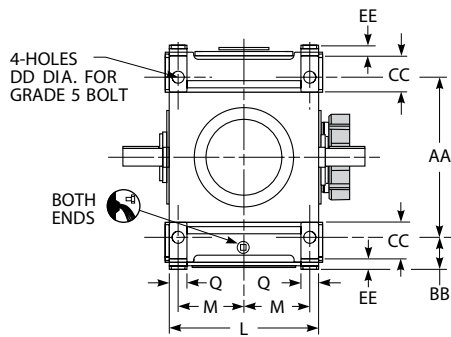
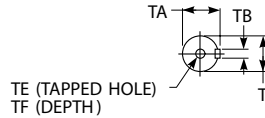
● Single low speed shaft extension is standard; double extension is special.

Type DHT2 Double Reduction with TA Taper Bushing

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1130	6.3-16.0	3.94	9.84	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	10.83	2.20	9.51	7.28	1.57	3.23	0.98
	18.0-28.0	2.20																	8.86						
M1140	6.3-16.0	3.94	12.44	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	11.79	2.20	10.50	8.07	1.97	3.43	1.18
	18.0-28.0	2.76																	10.62						
M1150	6.3-16.0	3.94	12.99	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	12.52	2.20	10.94	8.86	1.97	3.41	1.18
	18.0-28.0	3.35																	11.73						
M1160	6.3-28.0	3.94	14.57	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	13.07	2.36	11.93	9.45	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF					
M1130	6.3-16.0	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	28.50	6.10	714
	18.0-28.0	1.1024 j6	1.22	0.31	1.97	M10	0.87					
M1140	6.3-16.0	1.6535 k6	1.77	0.47	3.94	M16	1.42	0.73	9.29	31.97	7.09	1023
	18.0-28.0	1.2598 k6	1.37	0.39	2.76	M12	1.10					
M1150	6.3-16.0	1.9685 k6	2.11	0.55	3.94	M16	1.42	0.73	10.43	36.02	7.68	1257
	18.0-28.0	1.3780 k6	1.50	0.39	3.15	M12	1.10					
M1160	6.3-16.0	2.1654 m6	2.32	0.63	3.94	M20	1.65	0.94	11.02	38.98	8.37	1444
	18.0-28.0	1.6535 k6	1.77	0.47		M16	1.42					

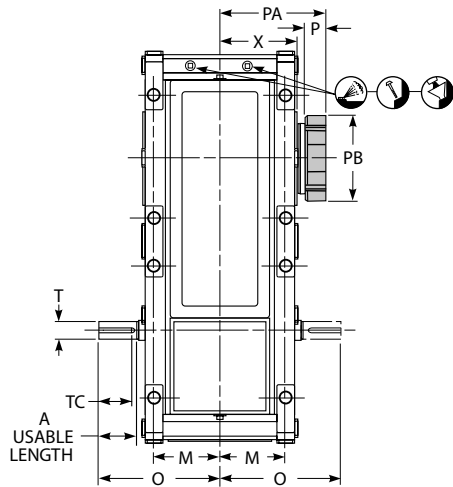
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

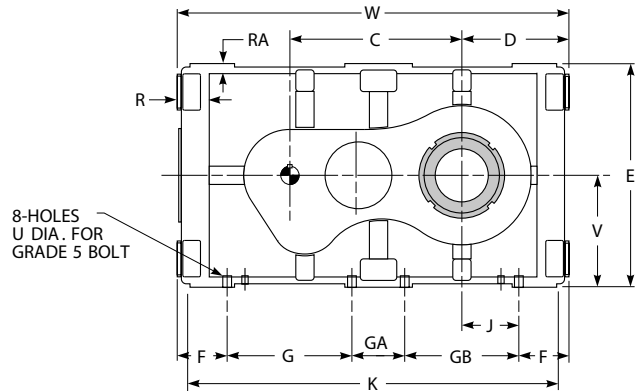
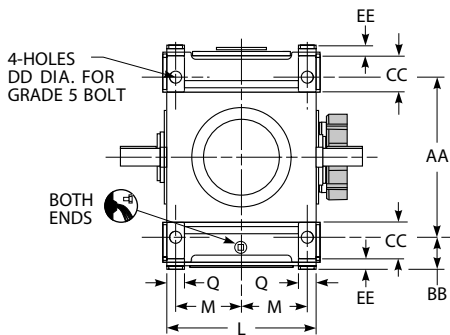
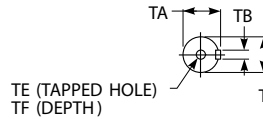
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHT2 Double Reduction with TA Taper Bushing

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	6.3-16.0	4.92	16.93	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	14.33	2.36	11.81	10.24	1.97	3.54	1.18
	18.0-28.0	3.94																	13.15						
M1180	6.3-28.0	5.12	18.50	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	15.55	2.36	13.19	11.02	1.97	3.74	1.18
	18.0-28.0	4.92																	17.52						
M1190	6.3-16.0	6.10	21.26	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	17.52	2.56	13.98	11.61	3.35	4.33	1.18
	18.0-28.0	4.92																	16.34						
M1200	5.0-12.5	6.10	25.20	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	18.70	...	13.03	11.00	3.35	4.33	1.38
	14.0-22.4	6.30																	16.34						
M1210	5.6-14.0	6.10	25.20	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	18.70	...	13.03	11.00	3.35	4.33	1.38
	16.0-25.0	6.30																	16.34						

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF					
M1170	6.3-16.0	2.5591 m6	2.72	0.71	4.92	M20	1.65	0.94	12.40	43.31	8.46	2132
	18.0-28.0	1.9685 k6	2.11	0.55	3.94	M16	1.42					
M1180	6.3-16.0	2.7559 m6	2.93	0.79	4.92	M20	1.65	1.10	13.19	48.43	9.65	3086
	18.0-28.0	2.3622 m6	2.52	0.71								
M1190	6.3-16.0	3.1496 m6	3.35	0.87	6.10	M20	1.65	1.38	14.76	54.33	10.43	3748
	18.0-28.0	2.7559 m6	2.93	0.79								
M1200	5.0-12.5	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	17.72	63.98	11.61	5311
	14.0-22.4	3.1496 m6	3.35									
M1210	5.6-14.0	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	17.72	63.98	11.61	5509
	16.0-25.0	3.1496 m6	3.35									

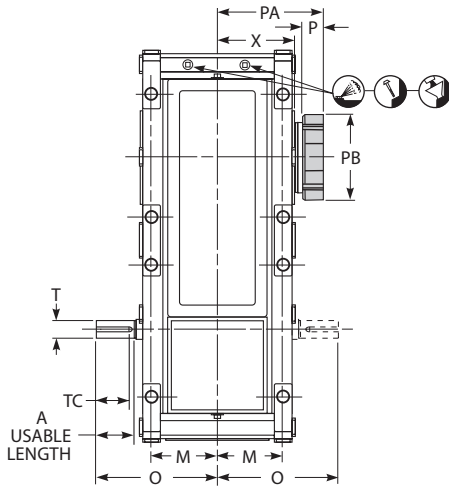
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

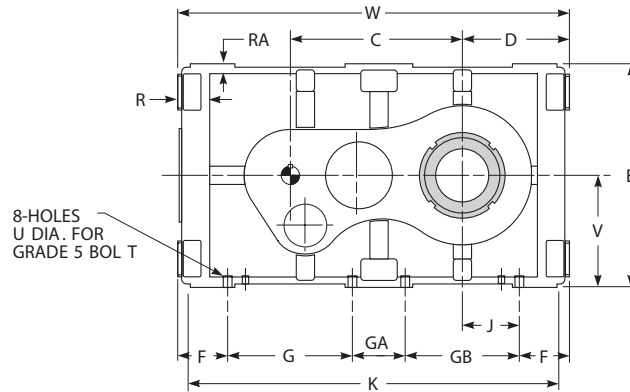
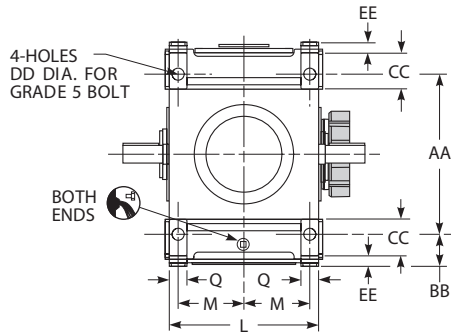
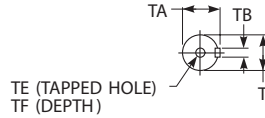
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHT3 Triple Reduction with TA Taper Bushing

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1130	31.5-140.0	2.20	9.84	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	8.86	2.20	9.51	7.28	1.57	3.23	0.98
M1140	31.5-140.0	2.20	12.44	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	9.81	2.20	10.50	8.07	1.97	3.43	1.18
M1150	31.5-90.0	2.95	12.99	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	11.32	2.20	10.94	8.86	1.97	3.41	1.18
	100.0-140.0	2.68																	11.06						
M1160	31.5-140.0	2.76	14.57	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	11.89	2.36	11.93	9.45	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF					
M1130	31.5-140.0	0.9449 j6	1.06	0.31	1.97	M8	0.75	0.57	8.35	28.50	6.10	718
M1140	31.5-140.0	0.9843 j6	1.10	0.31	1.97	M10	0.87	0.73	9.29	31.97	7.09	1039
M1150	31.5-90.0	1.1811 j6	1.30	0.31	2.91	M10	0.87	0.73	10.43	36.02	7.68	1260
	100.0-140.0	0.9843 j6	1.14		2.64							
M1160	31.5-90.0	1.3780 k6	1.50	0.39	2.76	M12	1.10	0.94	11.02	38.98	8.37	1510
	100.0-140.0	1.1811 j6	1.30	0.31		M10	0.87					

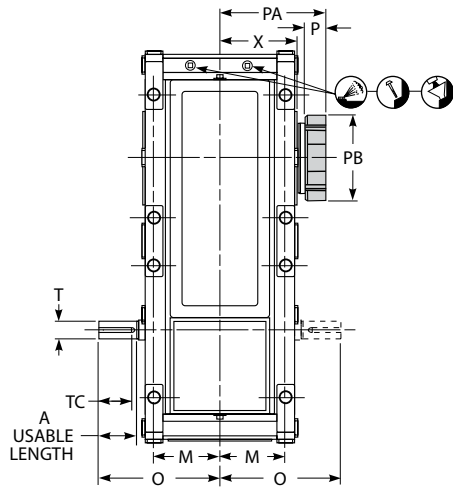
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

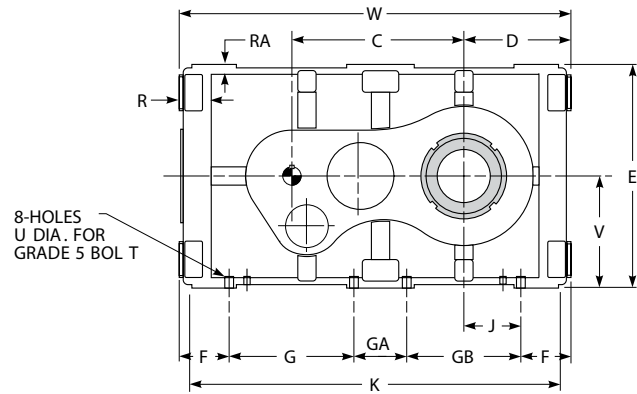
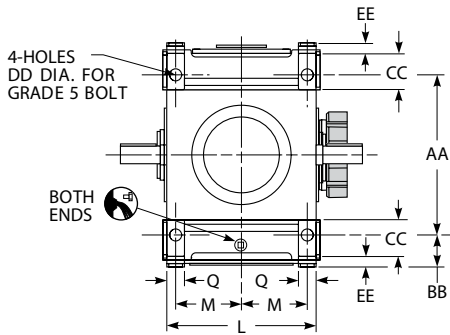
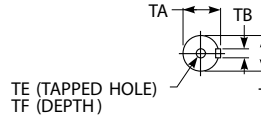
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHT3 Triple Reduction with TA Taper Bushing

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	31.5-140.0	3.94	16.93	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	13.15	2.36	11.81	10.24	1.97	3.54	1.18
M1180	31.5-140.0	3.94	18.50	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	14.37	2.36	13.19	11.02	1.97	3.74	1.18
M1190	31.5-140.0	3.94	21.26	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	15.22	2.56	13.98	11.61	3.35	4.33	1.18
M1200	25.0-112.0	5.12	25.20	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	17.52	...	13.03	11.00	3.35	4.33	1.38
M1210	28.0-125.0	5.12	25.20	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	17.52	...	13.03	11.00	3.35	4.33	1.38

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF					
M1170	31.5-140.0	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.94	12.40	43.31	8.46	2132
M1180	31.5-140.0	1.7717 k6	1.91	0.55	3.94	M16	1.42	1.10	13.19	48.43	9.65	3131
M1190	31.5-90.0	2.1654 m6	2.32	0.63	3.94	M20	1.65	1.38	14.76	54.33	10.43	3858
	100.0-140.0	1.6535 k6	1.77	0.47		M16	1.42					
M1200	25.0-112.0	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	17.72	63.98	11.61	5385
M1210	28.0-125.0	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	17.72	63.98	11.61	5385

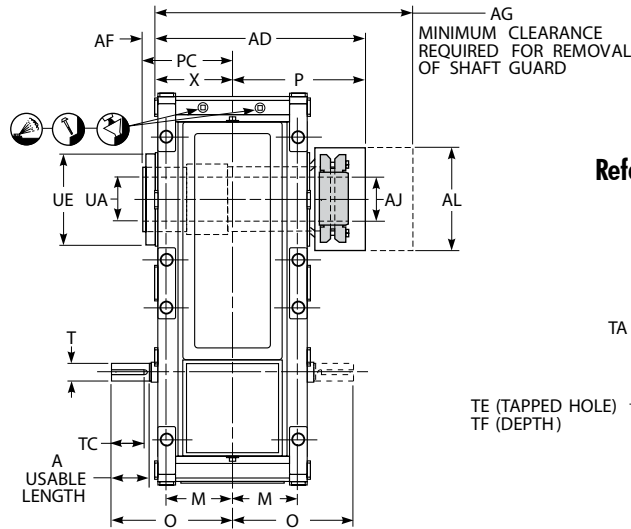
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

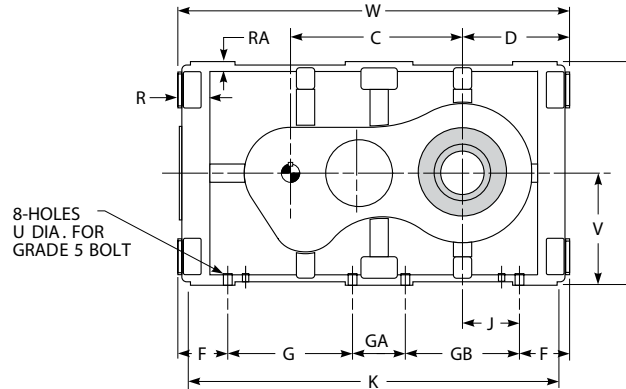
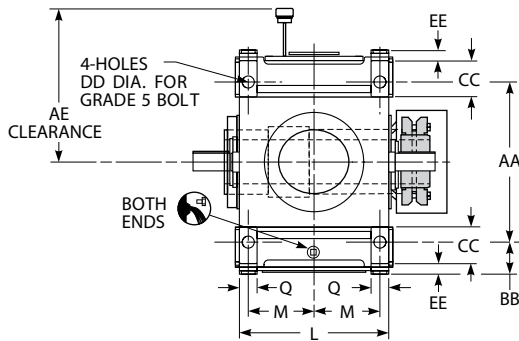
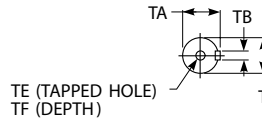
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DHJ2 Double Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 166 for hollow low speed and driven shaft recommendations & dimensions.



DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	6.30 - 16.0	3.94	9.84	16.57	12.09	0.79	21.14	3.3465	8.46	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
	18.0 - 28.0	2.20																					
M1140	6.30 - 16.0	3.94	12.44	18.82	13.54	0.75	23.66	3.9370	10.24	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
	18.0 - 28.0	2.76																					
M1150	6.30 - 16.0	3.94	12.99	20.39	15.00	0.83	25.63	4.3307	10.98	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	18.0 - 28.0	3.35																					
M1160	6.30 - 16.0	3.94	14.57	22.20	15.67	0.75	27.83	5.1181	13.78	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94
	18.0 - 28.0																						

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
									T *	TA	TB	TC	TE	TF							
M1130	6.30 - 16.0	4.92	10.83	10.39	6.89	1.57	3.23	0.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	3.5433	7.48	8.35	28.50	6.10	714
	18.0 - 28.0		8.86						1.1024 j6	1.22	0.31	1.97	M10	0.87							
M1140	6.30 - 16.0	5.91	11.79	11.69	7.83	1.97	3.43	1.18	1.6535 k6	1.77	0.47	3.94	M16	1.42	0.73	4.1339	9.25	9.29	31.97	7.09	1023
	18.0 - 28.0		10.62						1.2598 k6	1.38	0.39	2.76	M12	1.10							
M1150	6.30 - 16.0	6.50	12.52	12.99	8.50	1.97	3.41	1.18	1.9685 k6	2.11	0.55	3.94	M16	1.42	0.73	4.5276	9.37	10.43	36.02	7.68	1257
	18.0 - 28.0		11.73						1.3780 k6	1.50	0.39	3.15	M12	1.10							
M1160	6.30 - 16.0	6.99	13.07	13.78	9.13	1.97	3.35	1.18	2.1654 m6	2.32	0.63	3.94	M20	1.65	0.94	5.3150	10.24	11.02	38.98	8.37	1444
	18.0 - 28.0								1.6535 k6	1.77	0.47		M16	1.42							

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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

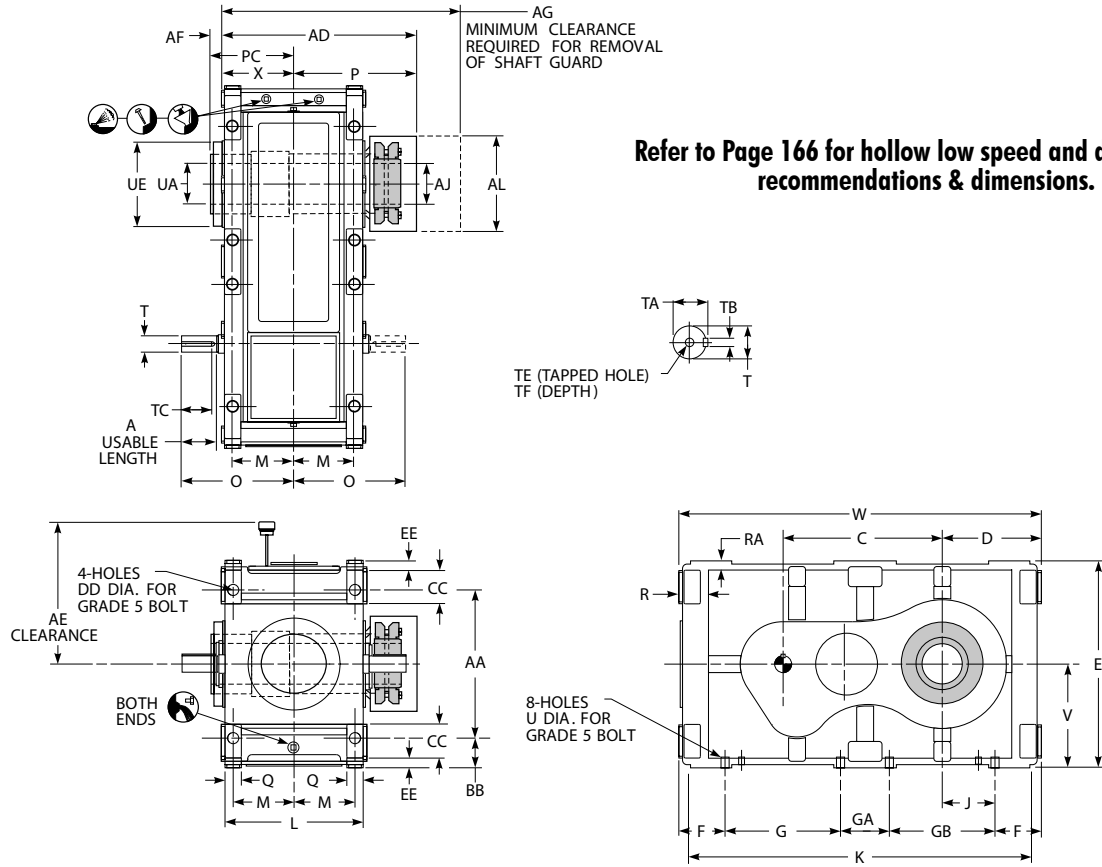
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

● J7 tolerance.

■ H7 tolerance.

Type DHJ2 Double Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Inches



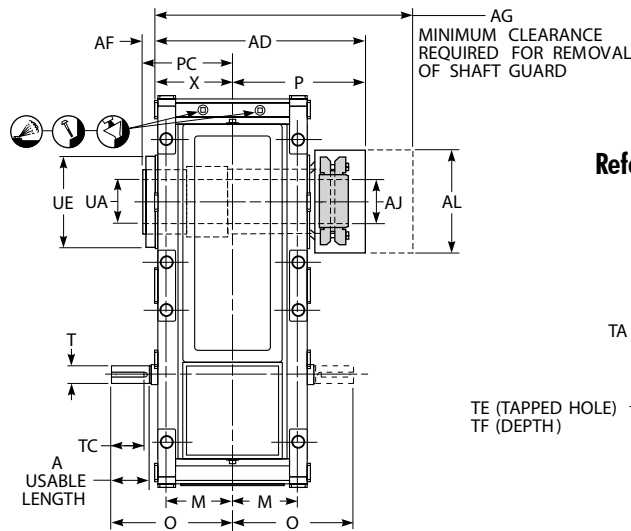
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	6.30 - 16.0	4.92	16.93	22.44	18.31	0.83	28.15	5.5118	12.95	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
	18.0 - 28.0	3.94																					
M1180	6.30 - 16.0	5.12	18.50	25.98	19.96	0.79	32.87	6.4961	15.75	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
	18.0 - 28.0	5.12																					
M1190	6.30 - 16.0	6.10	21.26	27.83	23.46	0.91	34.84	7.0866	17.32	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
	18.0 - 28.0	4.92																					
M1200	5.00 - 12.5	6.10	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
	14.0 - 22.4	6.30																					
M1210	5.60 - 14.0	6.10	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44
	16.0 - 25.0	6.30																					

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
									T *	TA	TB	TC	TE	TF							
M1170	6.30 - 16.0	7.09	14.33	13.90	9.29	1.97	3.54	1.18	2.5591 m6	2.72	0.71	4.92	M20	1.65	0.94	5.7087	11.42	12.40	43.31	8.46	2132
	18.0 - 28.0		13.15						1.9685 k6	2.11	0.55	3.94	M16	1.42							
M1180	6.30 - 16.0	8.27	15.55	16.30	10.43	1.97	3.74	1.18	2.7559 m6	2.93	0.79	4.92	M20	1.65	1.10	6.6929	13.78	13.19	48.43	9.65	3086
	18.0 - 28.0		16.34						2.3622 m6	2.52	0.71										
M1190	6.30 - 16.0	8.46	17.52	17.32	11.34	3.35	4.33	1.18	3.1496 m6	3.35	0.87	6.10	M20	1.65	1.38	7.2835	14.57	14.76	54.33	10.43	3748
	18.0 - 28.0		16.34						2.7559 m6	2.93	0.79											4.92
M1200	5.00 - 12.5	9.65	18.70	19.69	12.48	3.35	4.33	1.38	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	8.2677	15.35	17.72	63.98	11.61	5311
	14.0 - 22.4		18.70						3.1496 m6	3.35											
M1210	5.60 - 14.0	9.65	18.70	19.69	12.48	3.35	4.33	1.38	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	8.2677	15.35	17.72	63.98	11.61	5509
	16.0 - 25.0		18.70						3.1496 m6	3.35											

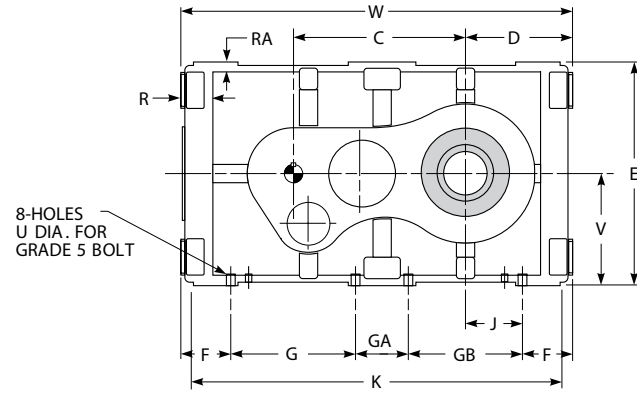
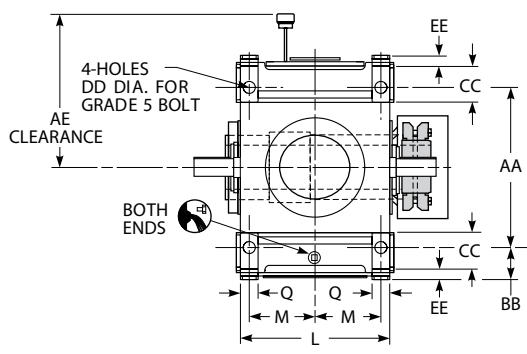
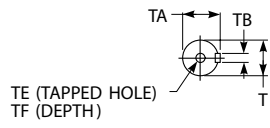
★ See footnotes on Page 86.

Type DHJ3 Triple Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 166 for hollow low speed and driven shaft recommendations & dimensions.



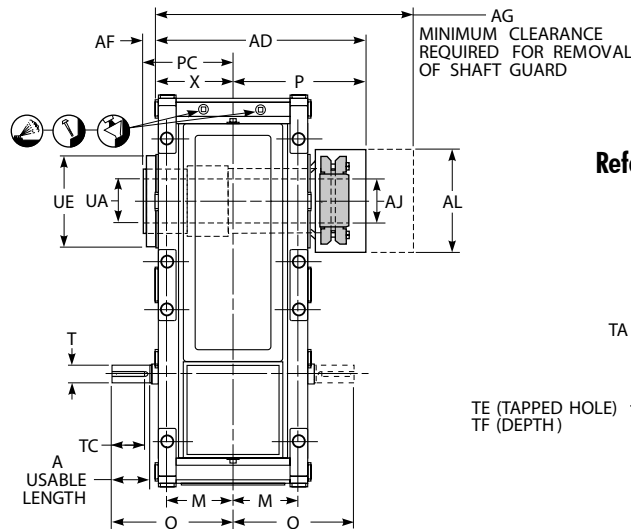
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	31.5 - 140.0	2.20	9.84	16.57	12.09	0.79	21.14	3.3465	8.46	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
M1140	31.5 - 140.0	2.20	12.44	18.82	13.54	0.75	23.66	3.9370	10.24	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
M1150	31.5 - 90.0	2.95	12.99	20.39	15.00	0.83	25.63	4.3307	10.98	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	100.0 - 140.0	2.68																					
M1160	31.5 - 140.0	2.76	14.57	22.20	15.67	0.75	27.83	5.1181	13.78	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
									T*	TA	TB	TC	TE	TF							
M1130	31.5 - 140.0	4.92	8.86	10.39	6.89	1.57	3.23	0.98	0.9449 j6	1.06	0.31	1.97	M8	0.75	0.57	3.5433	7.48	8.35	28.50	6.10	719
M1140	31.5 - 140.0	5.91	9.81	11.69	7.83	1.97	3.43	1.18	0.9843 j6	1.10	0.31	1.97	M10	0.87	0.73	4.1339	9.25	9.29	31.97	7.09	1038
M1150	31.5 - 90.0	6.50	11.32	12.99	8.50	1.97	3.41	1.18	1.1811 j6	1.30	0.31	2.91	M10	0.87	0.73	4.5276	9.37	10.43	36.02	7.68	1268
	100.0 - 140.0		11.06						0.9843 j6	1.10		2.64									
M1160	31.5 - 90.0	6.99	11.89	13.78	9.13	1.97	3.35	1.18	1.3780 k6	1.50	0.39	2.76	M12	1.10	0.94	5.3150	10.24	11.02	38.98	8.37	1510
	100.0 - 140.0								1.1811 j6	1.30	0.31		M10	0.87							

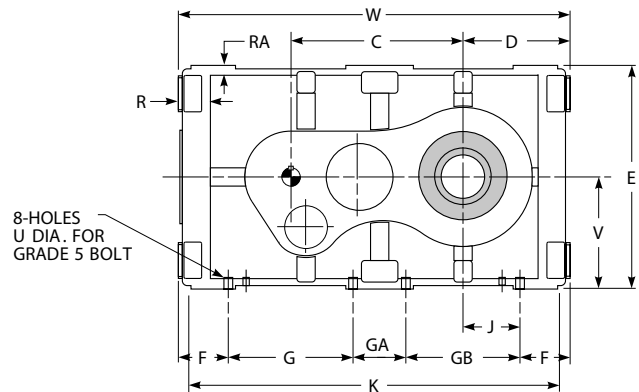
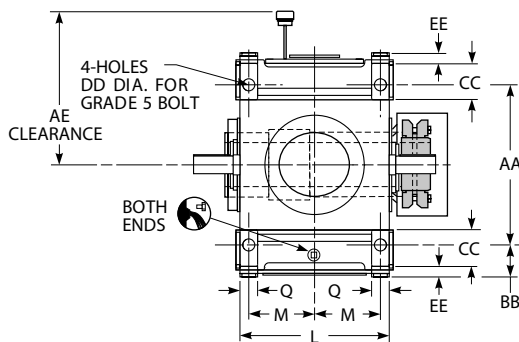
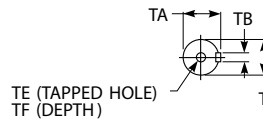
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
 † Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.
 * j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".
 ● J7 tolerance.
 ■ H7 tolerance.

Type DHJ3 Triple Reduction with Hollow Low Speed Shaft - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 166 for hollow low speed and driven shaft recommendations & dimensions.



DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ [•]	AL	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	31.5 - 140.0	3.94	16.93	22.44	18.31	0.83	28.15	5.5118	12.95	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
M1180	31.5 - 140.0	3.94	18.50	25.98	19.96	0.79	32.87	6.4961	15.75	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
M1190	31.5 - 140.0	3.94	21.26	27.83	23.46	0.91	34.84	7.0866	17.32	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
M1200	25.0 - 112.0	5.12	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
M1210	28.0 - 125.0	5.12	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA [■]	UE	V	W	X	Approx Wt lb	
									T [*]	TA	TB	TC	TE	TF								
M1170	31.5 - 140.0	7.09	13.15	13.90	9.29	1.97	3.54	1.18	1.5748	k6	1.69	0.47	3.94	M16	1.42	0.94	5.7087	11.42	12.40	43.31	8.46	2132
M1180	31.5 - 140.0	8.27	14.37	16.30	10.43	1.97	3.74	1.18	1.7717	k6	1.91	0.55	3.94	M16	1.42	1.10	6.6929	13.78	13.19	48.43	9.65	3131
M1190	31.5 - 90.0	8.46	15.22	17.32	11.34	3.35	4.33	1.18	2.1654	m6	2.32	0.63	3.94	M20	1.65	1.38	7.2835	14.57	14.76	54.33	10.43	3858
	100.0 - 140.0								1.6535	k6	1.77	0.47		M16	1.42							
M1200	25.0 - 112.0	9.65	17.52	19.69	12.48	3.35	4.33	1.38	2.5591	m6	2.72	0.71	4.92	M20	1.65	1.38	8.2677	15.35	17.72	63.98	11.61	5364
M1210	28.0 - 125.0	9.65	17.52	19.69	12.48	3.35	4.33	1.38	2.5591	m6	2.72	0.71	4.92	M20	1.65	1.38	8.2677	15.35	17.72	63.98	11.61	5584

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

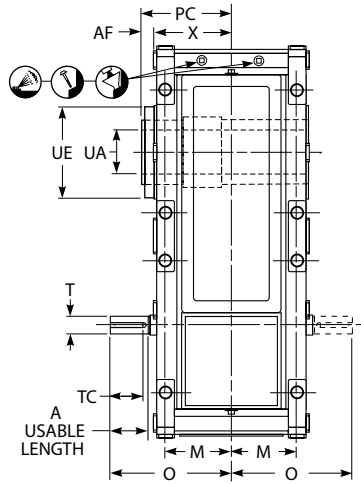
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

• J7 tolerance.

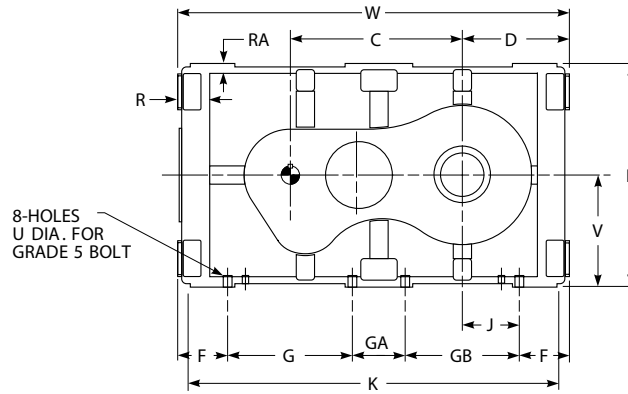
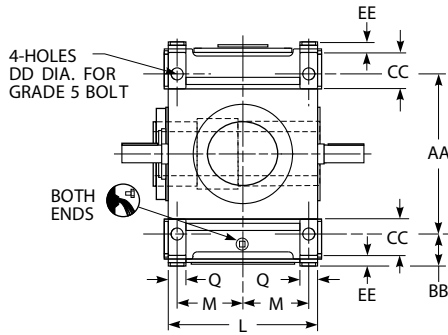
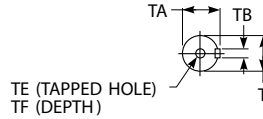
■ H7 tolerance.

Type DHQ2 Double Reduction with Hollow Low Speed Shaft

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 168 for standard hollow shaft bores.



DRIVE SIZE ★	Ratios	A	AA	AF	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	6.30 - 16.0	3.94	9.84	0.81	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
	18.0 - 28.0	2.20																
M1140	6.30 - 16.0	3.94	12.44	0.75	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
	18.0 - 28.0	2.76																
M1150	6.30 - 16.0	3.94	12.99	0.87	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	18.0 - 28.0	3.35																
M1160	6.30 - 16.0	3.94	14.57	0.80	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94
	18.0 - 28.0																	

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
								T *	TA	TB	TC	TE	TF							
M1130	6.30 - 16.0	4.92	10.83	6.91	1.57	3.23	0.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	3.74	8.81	8.35	28.50	6.10	692
	18.0 - 28.0		8.86					1.1024 j6	1.22	0.31	1.97	M10	0.87							
M1140	6.30 - 16.0	5.91	11.79	7.83	1.97	3.43	1.18	1.6535 k6	1.77	0.47	3.94	M16	1.42	0.73	4.33	10.30	9.29	31.97	7.09	992
	18.0 - 28.0		10.62					1.258k6	1.37	0.39	2.76	M12	1.10							
M1150	6.30 - 16.0	6.50	12.52	7.68	1.97	3.41	1.18	1.9685 k6	2.11	0.55	3.94	M16	1.42	0.73	4.73	10.78	10.43	36.02	7.68	1226
	18.0 - 28.0		11.73					1.3780 k6	1.50	0.39	3.15	M12	1.10							
M1160	6.30 - 16.0	6.99	13.07	9.17	1.97	3.35	1.18	2.1654 m6	2.32	0.63	3.94	M20	1.65	0.94	5.32	11.56	11.02	38.98	8.37	1576
	18.0 - 28.0							1.6535 k6	1.77	0.47		M16	1.42							

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

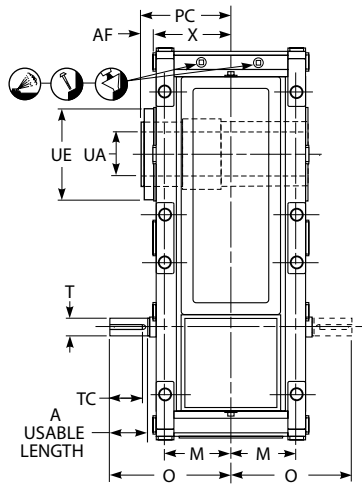
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0"

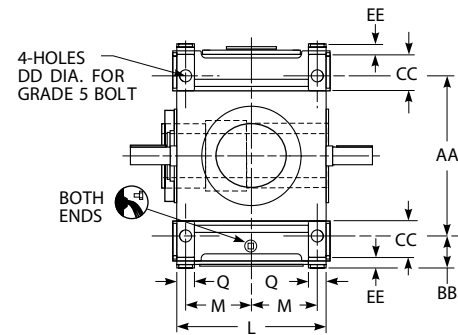
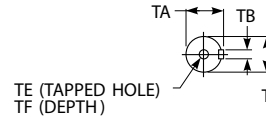
■ H7 tolerance.

Type DHQ2 Double Reduction with Hollow Low Speed Shaft

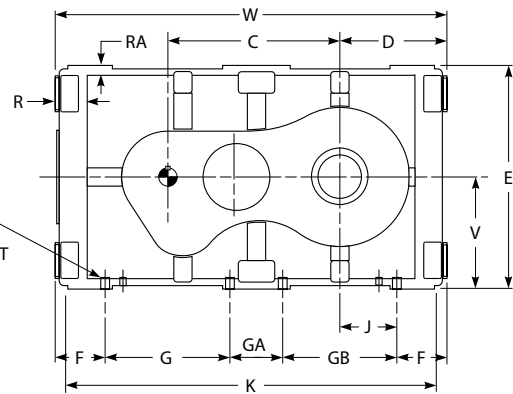
Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 168 for standard hollow shaft bores.



8-HOLES U DIA. FOR GRADE 5 BOLT



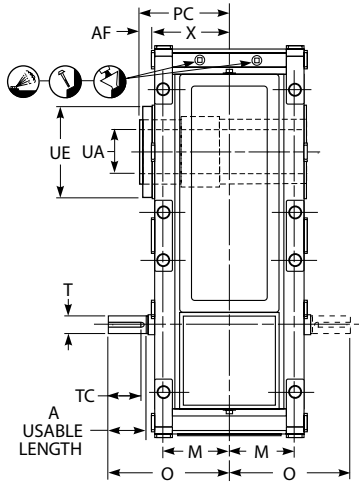
DRIVE SIZE ★	Ratios	A	AA	AF	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	6.30 - 16.0	4.92	16.93	0.85	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
	18.0 - 28.0	3.94																
M1180	6.30 - 16.0	5.12	18.50	0.79	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
	18.0 - 28.0																	
M1190	6.30 - 16.0	6.10	21.26	0.91	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
	18.0 - 28.0	4.92																
M1200	5.00 - 12.5	6.10	25.20	0.87	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
	14.0 - 22.4	6.30																
M1210	5.60 - 14.0	6.10	25.20	0.87	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44
	16.0 - 25.0	6.30																

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA	UE	V	W	X	Approx Wt lb
								T*	TA	TB	TC	TE	TF							
M1170	6.30 - 16.0	7.09	14.33	9.31	1.97	3.54	1.18	2.5591 m6	2.72	0.71	4.92	M20	1.65	0.94	5.91	12.59	12.40	43.31	8.46	1938
	18.0 - 28.0		13.15					1.9685 k6	2.11	0.55	3.94	M16	1.42							
M1180	6.30 - 16.0	8.27	15.55	10.43	1.97	3.74	1.18	2.7559 m6	2.93	0.79	4.92	M20	1.65	1.10	6.69	15.04	13.19	48.43	9.65	2687
	18.0 - 28.0		2.3622 m6					2.52	0.71											
M1190	6.30 - 16.0	8.46	17.52	11.34	3.35	4.33	1.18	3.1496 m6	3.35	0.87	6.10	M20	1.65	1.38	7.28	15.90	14.76	54.33	10.43	3713
	18.0 - 28.0		16.34					2.7559 m6	2.93	0.79											4.92
M1200	5.00 - 12.5	9.65	18.70	12.48	3.35	4.33	1.38	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	8.66	16.69	17.72	63.98	11.61	5176
	14.0 - 22.4		3.1496 m6					3.35												
M1210	5.60 - 14.0	9.65	18.70	12.48	3.35	4.33	1.38	3.3465 m6	3.54	0.87	6.10	M20	1.65	1.38	8.66	16.69	17.72	63.98	11.61	5379
	16.0 - 25.0		3.1496 m6					3.35												

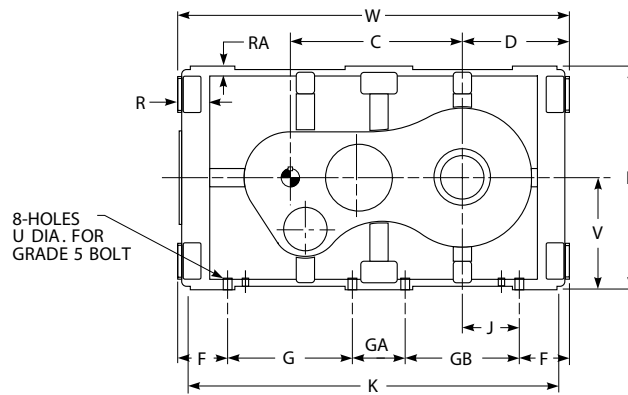
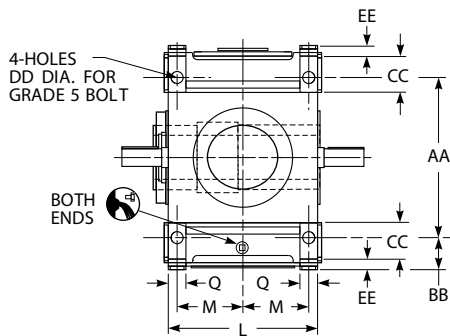
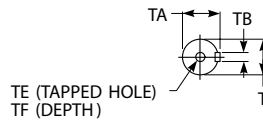
★ See footnotes on Page 90

Type DHQ3 Triple Reduction with Hollow Low Speed Shaft

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 168 for standard hollow shaft bores.



DRIVE SIZE ★	Ratios	A	AA	AF	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	31.5-140.0	2.20	9.84	0.81	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
M1140	31.5-140.0	2.20	12.44	0.75	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
M1150	31.5-90.0	2.95	12.99	0.87	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	100.0-140.0	2.68																
M1160	31.5-140.0	2.76	14.57	0.80	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
								T*	TA	TB	TC	TE	TF							
M1130	31.5-140.0	4.92	8.86	6.91	1.57	3.23	0.98	0.9449 j6	1.06	0.31	1.97	M8	0.75	0.57	3.74	8.81	8.35	28.50	6.10	699
M1140	31.5-140.0	5.91	9.81	7.83	1.97	3.43	1.18	0.9843 j6	1.10	0.31	1.97	M10	0.87	0.73	4.33	10.30	9.29	31.97	7.09	1001
M1150	31.5-90.0	6.50	11.32	7.68	1.97	3.41	1.18	1.1811 j6	1.30	0.31	2.91	M10	0.87	0.73	4.73	10.78	10.43	36.02	7.68	1243
	100.0-140.0		11.06					0.9843 j6	1.14		2.64									
M1160	31.5-90.0	6.99	11.89	9.17	1.97	3.35	1.18	1.3780 k6	1.50	0.39	2.76	M12	1.10	0.94	5.32	11.56	11.02	38.98	8.37	1603
	100.0-140.0							1.1811 j6	1.30		0.31	M10	0.87							

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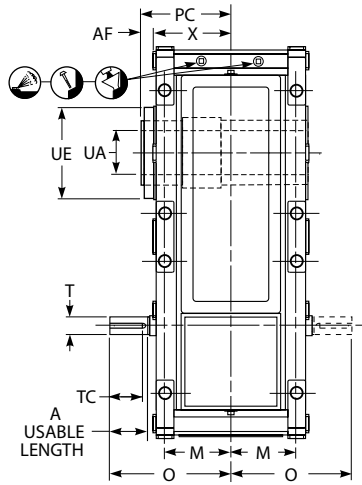
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0"

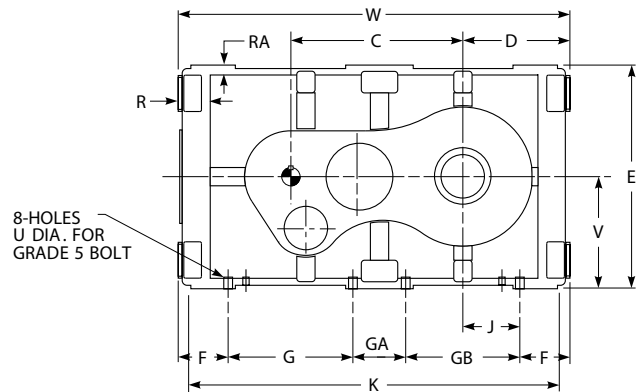
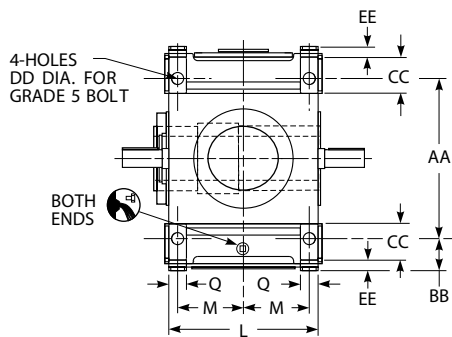
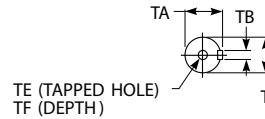
■ H7 tolerance.

Type DHQ3 Triple Reduction with Hollow Low Speed Shaft

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 168 for standard hollow shaft bores.



DRIVE SIZE ★	Ratios	A	AA	AF	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	31.5 - 140.0	3.94	16.93	0.85	3.94	19.09	3.94	11.81	1.10	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
M1180	31.5 - 140.0	3.94	18.50	0.79	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
M1190	31.5 - 140.0	3.94	21.26	0.91	4.13	24.80	4.33	14.76	1.38	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
M1200	25.0 - 112.0	5.12	25.20	0.87	5.12	27.56	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
M1210	28.0 - 125.0	5.12	25.20	0.87	5.12	28.54	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
								T *	TA	TB	TC	TE	TF							
M1170	31.5 - 140.0	7.09	13.15	9.31	1.97	3.54	1.18	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.94	5.91	12.59	12.40	43.31	8.46	1980
M1180	31.5 - 140.0	8.27	14.37	10.43	1.97	3.74	1.18	1.7717 k6	1.91	0.55	3.94	M16	1.42	1.10	6.69	15.04	13.19	48.43	9.65	2749
M1190	31.5 - 90.0	8.46	15.22	11.34	3.35	4.33	1.18	2.1654 m6	2.32	0.63	3.94	M20	1.65	1.38	7.28	15.90	14.76	54.33	10.43	3856
	1.6535 k6							1.77	0.47	M16		1.42								
M1200	25.0 - 112.0	9.65	17.52	12.48	3.35	4.33	1.38	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	8.66	16.69	17.72	63.98	11.61	5289
M1210	28.0 - 125.0	9.65	17.52	12.48	3.35	4.33	1.38	2.5591 m6	2.72	0.71	4.92	M20	1.65	1.38	8.66	16.69	17.72	63.98	11.61	5492

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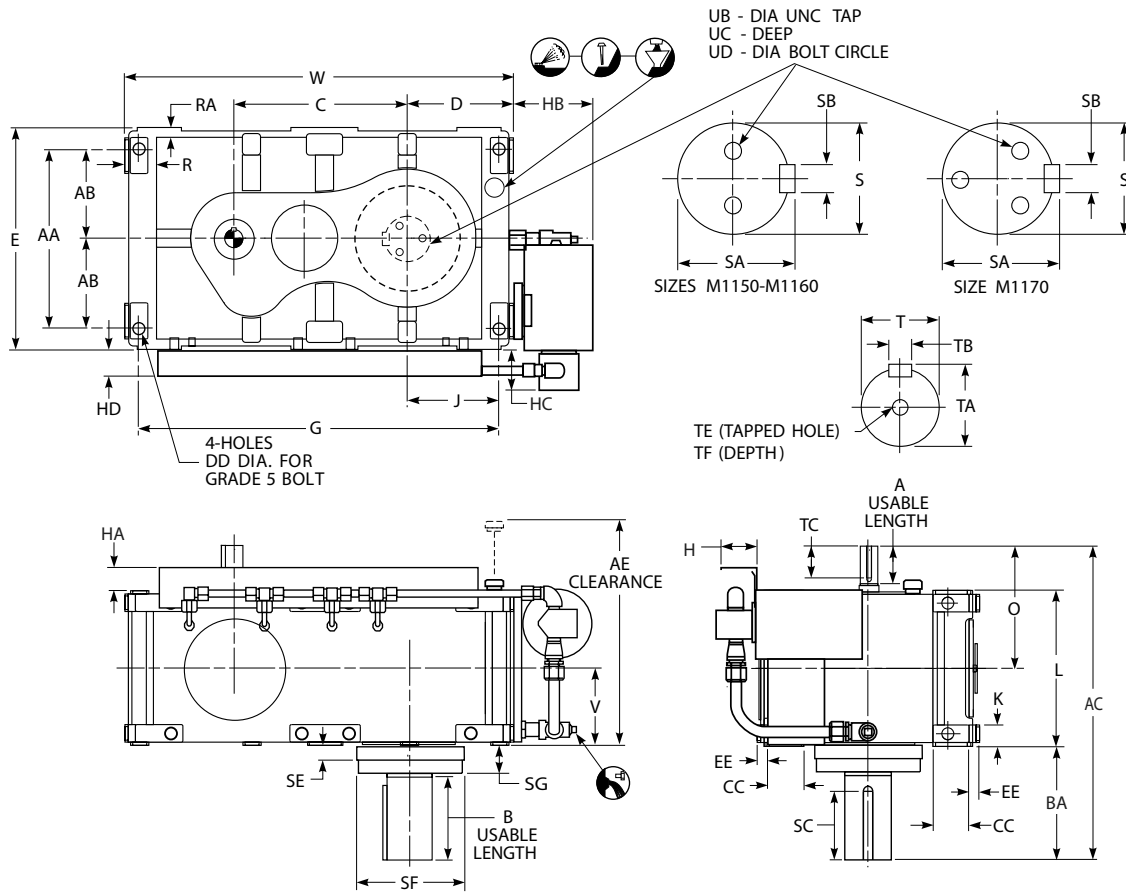
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

■ H7 tolerance.

Type DVA2 Double Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	6.30-16.0	3.94	16.14	8.07	33.78 32.99	25.79	9.45	13.58	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	12.52 11.73	3.41	1.18
	18.0-28.0	3.35																								
M1160	6.30-28.0	3.94	17.32	8.66	35.33	28.03	9.45	13.90	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	13.07	3.35	1.18
	18.0-28.0	4.92																								
M1170	6.30-16.0	4.92	20.08	10.04	38.07 36.89	28.50	11.02	15.28	19.09	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	14.33 13.15	3.54	1.18
	18.0-28.0	3.94																								

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †						UB	UC	UD	V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF ±.002	SG	T *	TA	TB	TC	TE	TF						
M1150	6.30-16.0	6.2992 m6	6.65	1.57	7.87	1.81	12.992	3.94	1.9685 k6	2.11	0.55	3.94	M16	1.42	M20	0.98	4.528	7.68	36.02	1464
	1.3780 k6								1.50	0.39	3.15	M12	1.10							
M1160	6.30-16.0	6.6929 m6	7.05	1.57	7.87	1.81	14.173	4.33	2.1654 m6	2.32	0.63	3.94	M20	1.65	M24	1.50	4.528	8.37	38.98	1695
	1.6535 k6								1.77	0.47	M16		1.42							
M1170	6.30-16.0	7.4803 m6	7.87	1.77	8.66	1.85	15.354	3.98	2.5591 m6	2.72	0.71	4.92	M20	1.65	M30	1.57	5.118	8.46	43.31	2207
	1.9685 k6								2.11	0.55	3.94	M16	1.42							

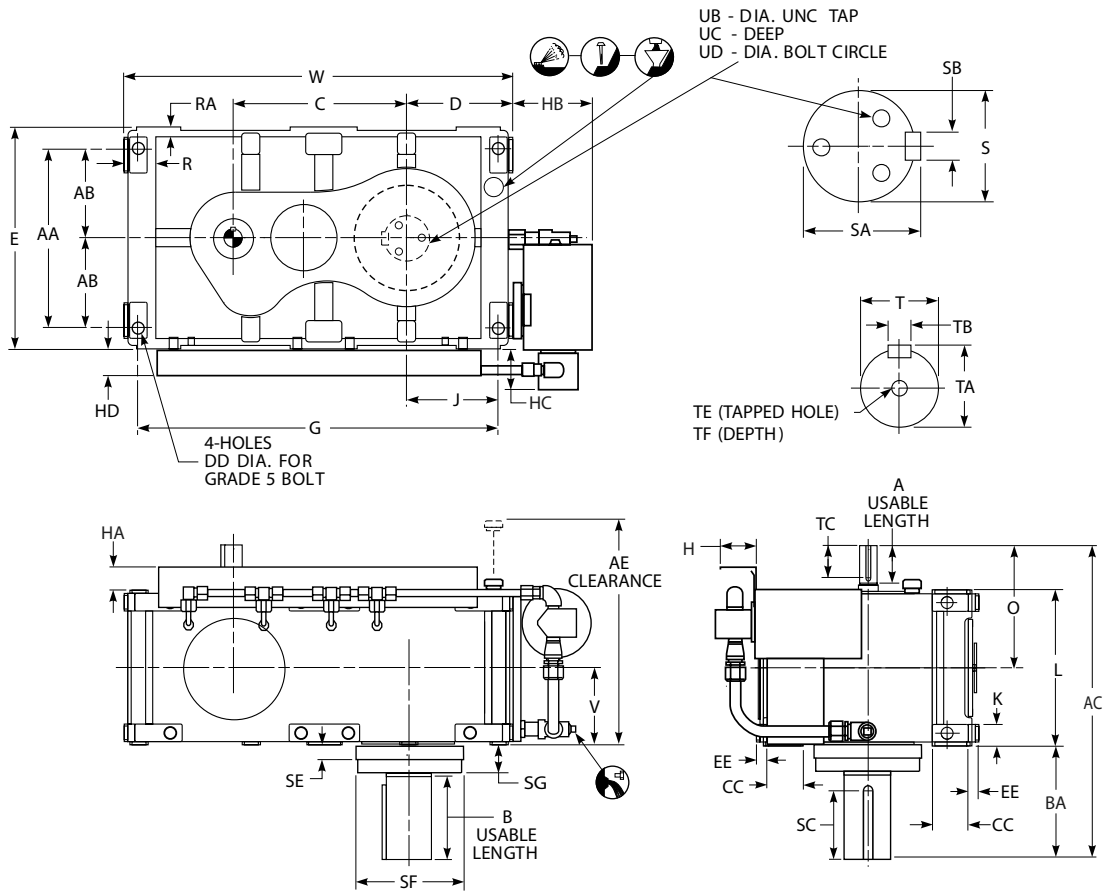
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Type DVA2 Double Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	6.30-28.0	5.12	21.65	10.83	42.09	32.56	11.02	16.89	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	15.55	3.74	1.18
	6.30-16.0	6.10	24.80	12.40	44.92 43.74	35.20	11.02	16.97	24.80	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	17.52 16.34	4.33	1.18
M1190	18.0-28.0	4.92	31.50	15.75	48.98	39.09	12.99	18.66	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	18.70	4.33	1.38
	5.00-12.5	6.10	31.50	15.75	48.98	39.09	12.99	18.66	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	18.70	4.33	1.38
M1200	14.0-22.4	6.30	31.50	15.75	48.98	39.09	12.99	18.66	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38
	5.60-14.0	6.10	31.50	15.75	48.98	39.09	12.99	18.66	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38
M1210	16.0-25.0	6.30	31.50	15.75	48.98	39.09	12.99	18.66	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38
	5.60-14.0	6.10	31.50	15.75	48.98	39.09	12.99	18.66	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							UB	UC	UD	V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF ±.002	SG	T *	TA	TB	TC	TE	TF							
M1180	6.30-16.0	7.8740 m6	8.27	1.77	8.66	1.81	17.717	5.31	2.7559 m6	2.93	0.79	4.92	M20	1.65	M30	1.57	5.512	9.65	48.43	3161	
	2.3622 m6								2.52	0.71											
M1190	6.30-16.0	8.6614 m6	9.09	1.97	8.66	1.91	19.685	5.41	3.1496 m6	3.35	0.87	6.10	M20	1.65	M30	1.57	6.299	10.43	54.33	3823	
	2.7559 m6								2.93	0.79	4.92										
M1200	5.00-12.5	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	3.3465 m6	3.54	0.87	6.10	M20	1.65	M36	1.97	6.639	11.61	63.98	6371	
	3.1496 m6								3.35												
M1210	5.60-14.0	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	3.3465 m6	3.54	0.87	6.10	M20	1.65	M36	1.97	6.693	11.61	63.98	6570	
	3.1496 m6								3.35												

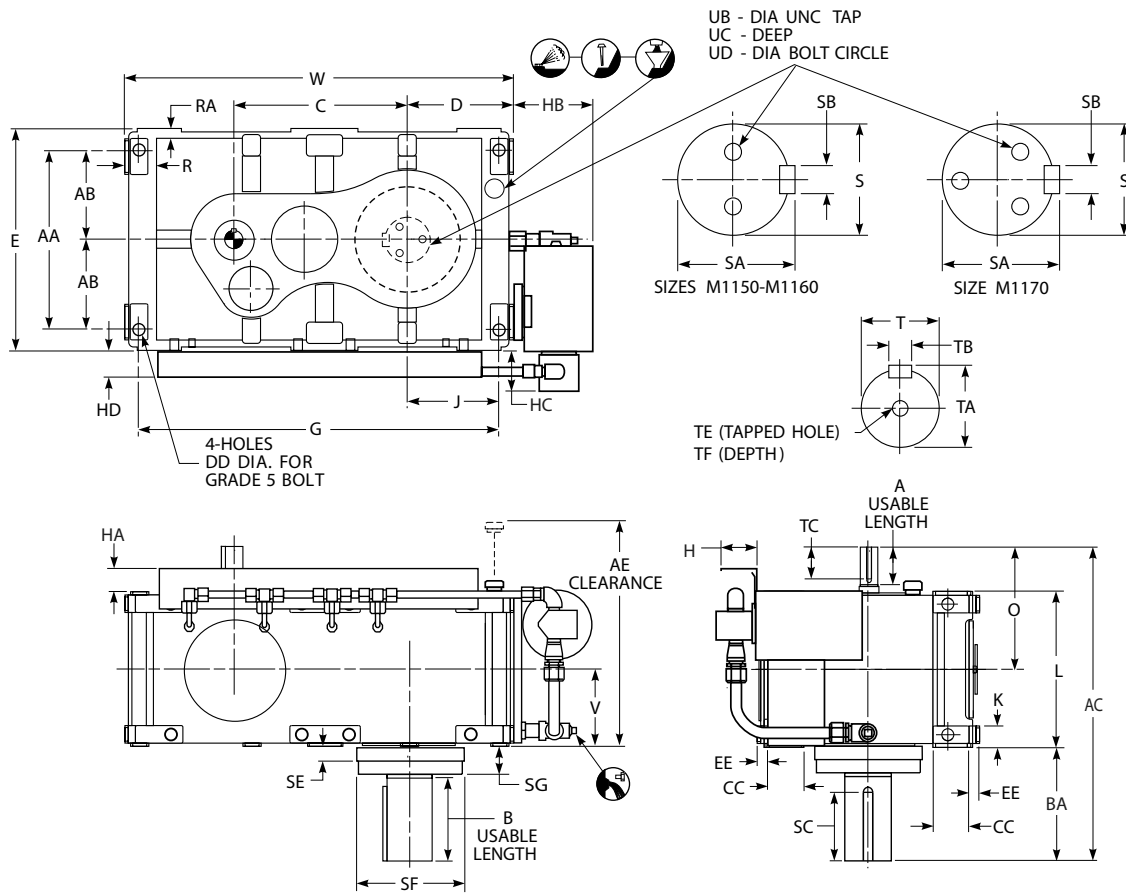
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVA3 Triple Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	31.5-90.0	2.95	16.14	8.07	32.58	25.79	9.45	13.58	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	11.32	3.41	1.18
	100.0-140.0	2.68			32.32																			11.06		
M1160	31.5-140.0	2.76	17.32	8.66	34.15	28.03	9.45	13.90	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	11.89	3.35	1.18
M1170	31.5-140.0	3.94	20.08	10.04	36.89	28.50	11.02	15.28	19.09	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	13.15	3.54	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †						UB	UC	UD	V	W	Approx Wt lb
		S*	SA	SB	SC	SE	SF ±.002	SG	T*	TA	TB	TC	TE	TF						
M1150	31.5-90.0	6.2992 m6	6.65	1.57	7.87	1.81	12.992	3.94	1.1811 j6	1.30	0.31	2.91	M10	0.87	M20	0.98	4.528	7.68	36.02	1475
	0.9843 j6								1.10	2.64										
M1160	31.5-90.0	6.6929 m6	7.05	1.57	7.87	1.81	14.173	4.33	1.3780 k6	1.50	0.39	2.76	M12	1.10	M24	1.50	4.528	8.37	38.98	1761
	1.1811 j6								1.30	0.31											M10	0.87
M1170	31.5-140.0	7.4803 m6	7.87	1.77	8.66	1.85	15.354	3.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	M30	1.57	5.118	8.46	43.31	2207

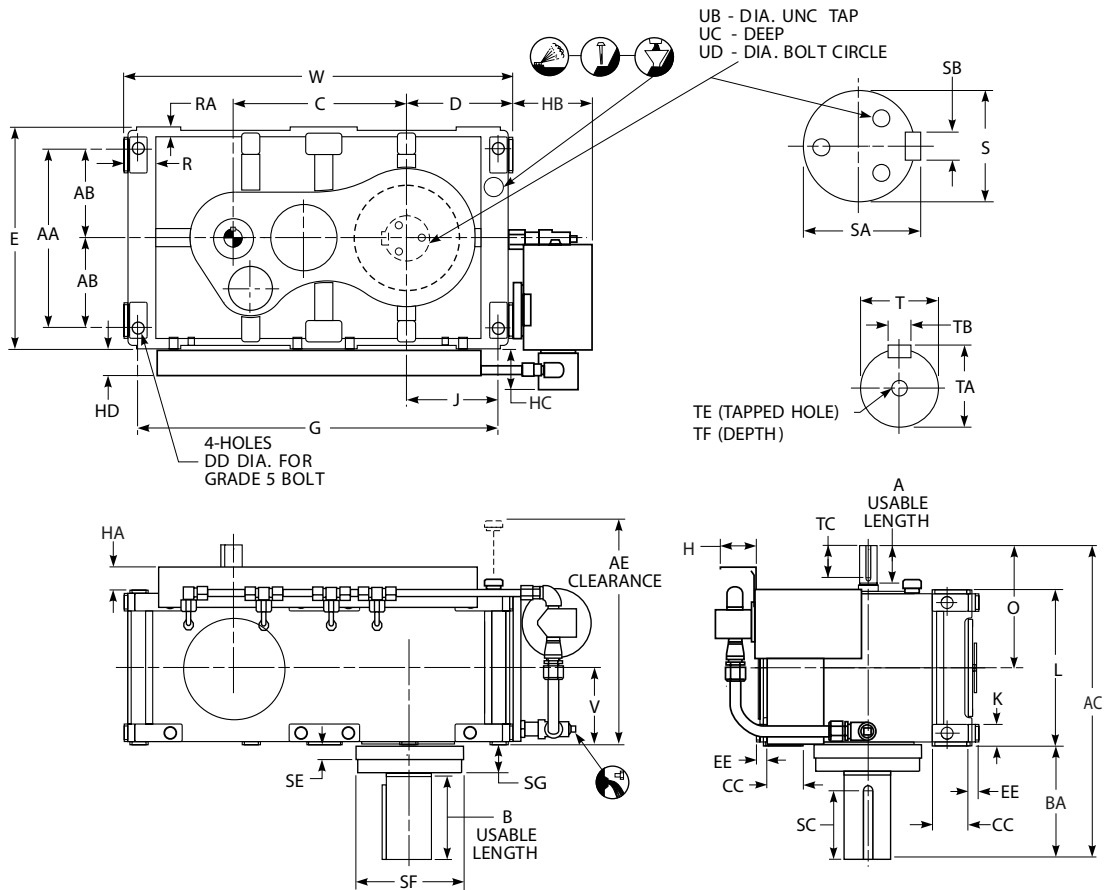
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Type DVA3 Triple Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	31.5-140.0	3.94	21.65	10.83	40.91	32.56	11.02	16.89	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	14.37	3.74	1.18
M1190	31.5-140.0	3.94	24.80	12.40	42.62	35.20	11.02	16.97	24.80	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	15.22	4.33	1.18
M1200	25.0-112.0	5.12	31.50	15.75	47.80	39.09	12.99	18.66	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	17.52	4.33	1.38
M1210	28.0-125.0	5.12	31.50	15.75	47.80	39.09	12.99	18.66	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	17.52	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †						UB	UC	UD	V	W	Approx Wt lb
		S*	SA	SB	SC	SE	SF ±.002	SG	T*	TA	TB	TC	TE	TF						
M1180	31.5-140.0	7.8740 m6	8.27	1.77	8.66	1.81	17.717	5.31	1.7717 k6	1.91	0.55	3.94	M16	1.42	M30	1.57	5.512	9.65	48.43	3206
	31.5-90.0	8.6614 m6	9.09	1.97	8.66	1.91	19.685	5.41	2.1654 m6	2.32	0.63	3.94	M20	1.65	M30	1.57	6.299	10.43	54.33	3933
100.0-140.0	1.6535 k6								1.77	0.47	M16		1.42							
M1200	25.0-112.0	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	2.5591 m6	2.72	0.71	4.92	M20	1.65	M36	1.97	6.693	11.61	63.98	6471
M1210	28.0-125.0	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	2.5591 m6	2.72	0.71	4.92	M20	1.65	M36	1.97	6.693	11.61	63.98	6669

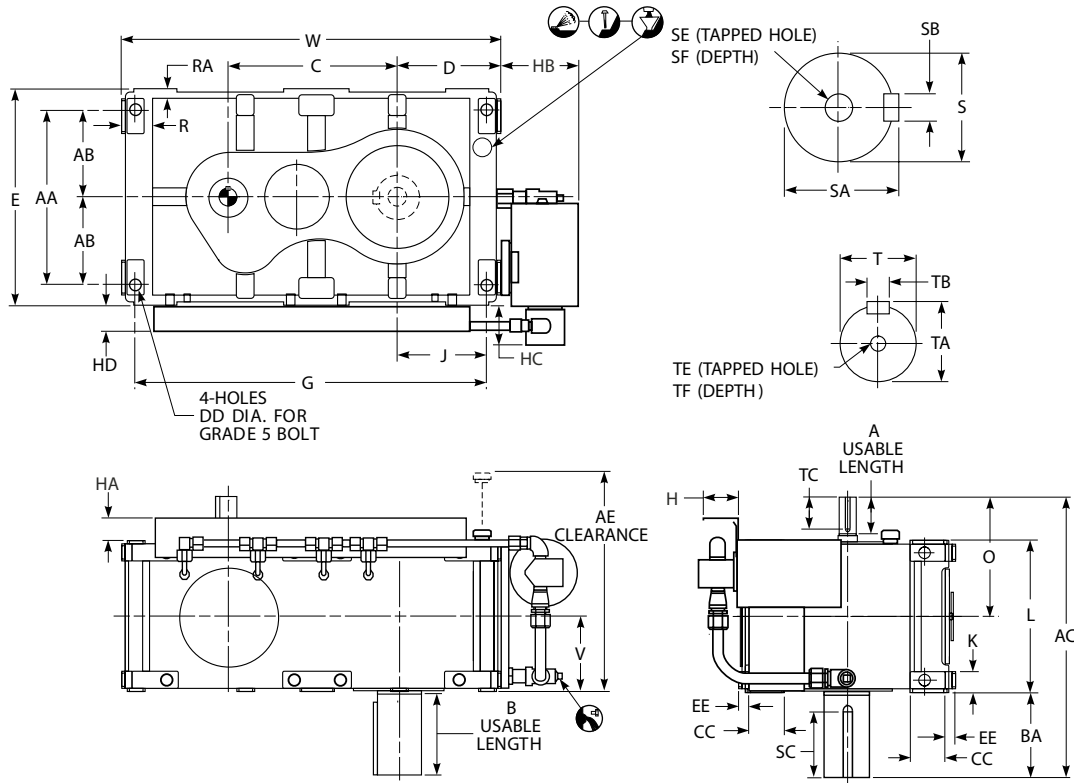
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* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVC2 Double Reduction with Lube Pump

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1130	6.30-16.0	3.94	12.99	6.50	22.44	18.15	4.72	5.51	11.81	3.15	8.35	1.10	16.69	0.79	25.35	3.54	2.17	7.79	2.83	3.54	6.77	1.97	12.20	10.83	3.23	0.98
	18.0-28.0	2.20			20.47																			8.86		
M1140	6.30-16.0	3.94	15.04	7.52	25.77	23.07	6.10	6.89	13.39	3.94	9.29	1.10	18.58	0.79	28.58	3.54	2.17	7.79	2.87	3.54	7.60	2.36	14.17	11.79	3.43	1.18
	18.0-28.0	2.76			24.60																			10.62		
M1150	6.30-16.0	3.94	16.14	8.07	27.20	25.79	6.10	7.01	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	12.52	3.41	1.18
	18.0-28.0	3.35			26.42																			11.73		
M1160	6.30-28.0	3.94	17.32	8.66	29.69	28.03	7.48	8.25	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	13.07	3.35	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1130	6.30-16.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	6.10	28.50	842
	18.0-28.0							1.1024 j6	1.22	0.31	1.97	M10	0.87			
M1140	6.30-16.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.6535 k6	1.77	0.47	3.94	M16	1.42	7.09	31.97	1184
	18.0-28.0							1.2598 k6	1.37	0.39	2.76	M12	1.10			
M1150	6.30-16.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.9685 k6	2.11	0.55	3.94	M16	1.42	7.68	36.02	1464
	18.0-28.0							1.3780 k6	1.50	0.39	3.15	M12	1.10			
M1160	6.30-16.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	3.94	M20	1.65	8.37	38.98	1695
	18.0-28.0							1.6535 k6	1.77	0.47		M16	1.42			

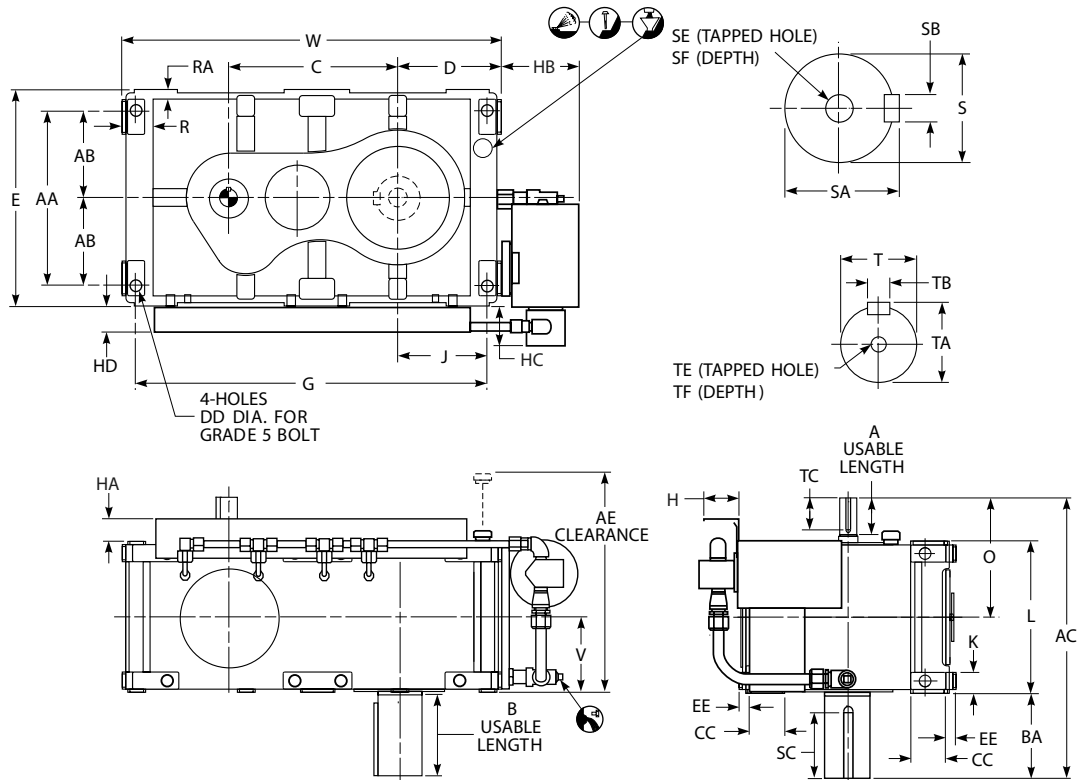
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVC2 Double Reduction with Lube Pump

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1170	6.30-16.0	4.92	20.08	10.04	31.26	28.50	7.48	8.46	19.09	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	14.33	3.54	1.18
	18.0-28.0	3.94			30.08																		13.15			
M1180	6.30-28.0	5.12	21.65	10.83	33.46	32.56	7.48	8.27	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	15.55	3.74	1.18
	18.0-28.0	4.92	24.80	12.40	37.80	35.20	8.86	9.84	24.80	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	17.52	4.33	1.18
M1190	6.30-16.0	6.10			36.61																					
	18.0-28.0	4.92																								
M1200	5.00-12.5	6.10	31.50	15.75	41.73	39.09	10.63	11.42	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	18.70	4.33	1.38
	14.0-22.4	6.30																								
M1210	5.60-14.0	6.10	31.50	15.75	41.73	39.09	10.63	11.42	28.55	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38
	16.0-25.0	6.30																								

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1170	6.30-16.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	8.46	43.31	2207
	18.0-28.0							1.9685 k6	2.11	0.55	3.94	M16	1.42			
M1180	6.30-16.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	4.92	M20	1.65	9.65	48.43	3161
	18.0-28.0							2.3622 m6	2.52	0.71						
M1190	6.30-16.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	6.10	M20	1.65	10.43	54.33	3823
	18.0-28.0							2.7559 m6	2.93	0.79	4.92					
M1200	5.00-12.5	7.4803 m6	7.87	1.77	9.84	M24	1.97	3.3465 m6	3.54	0.87	6.10	M20	1.65	11.61	63.98	6371
	14.0-22.4							3.1496 m6	3.35							
M1210	5.6-14.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	3.3465 m6	3.54	0.87	6.10	M20	1.65	11.61	63.98	6570
	16.0-25.0							3.1496 m6	3.35							

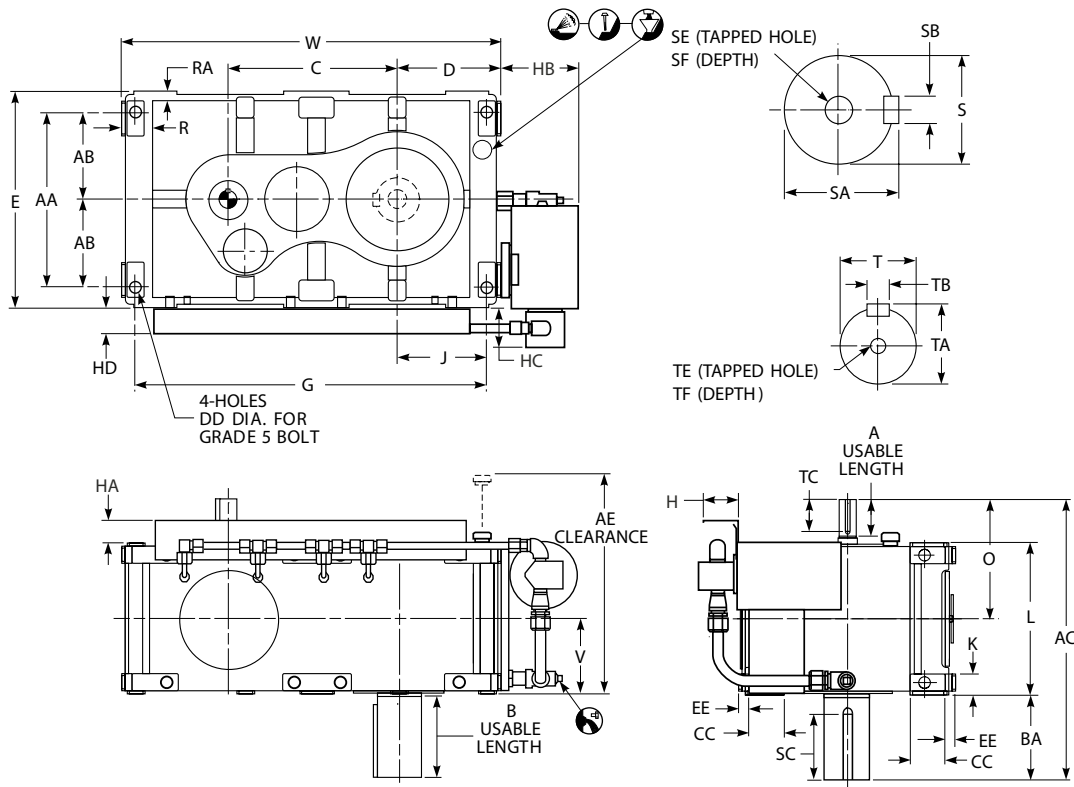
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVC3 Triple Reduction with Lube Pump

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1130	31.5-140.0	2.20	12.99	6.50	20.47	18.15	4.72	5.51	11.81	3.15	8.35	1.10	16.69	0.79	25.35	3.54	2.17	7.79	2.83	3.54	6.77	1.97	12.20	8.86	3.23	0.98
M1140	31.5-140.0	2.20	15.04	7.52	23.79	23.07	6.10	6.89	13.39	3.94	9.29	1.10	18.58	0.79	28.58	3.54	2.17	7.79	2.87	3.54	7.60	2.36	14.17	9.82	3.43	1.18
M1150	31.5-90.0	2.95	16.14	8.07	26.00	25.79	6.10	7.01	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	11.32	3.41	1.18
	100.0-140.0	2.68			25.75																			11.06		
M1160	31.5-140.0	2.76	17.32	8.66	28.50	28.03	7.48	8.25	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	11.89	3.35	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S*	SA	SB	SC	SE	SF	T*	TA	TB	TC	TE	TF			
M1130	31.5-140.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	0.9449 j6	1.06	0.31	1.97	M8	0.75	6.10	28.50	847
M1140	31.5-140.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	0.9843 j6	1.10	0.31	1.97	M10	0.87	7.09	31.97	1197
M1150	31.5-90.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.1811 j6	1.30	0.31	2.91	M10	0.87	7.68	36.02	1475
	100.0-140.0	4.7244 m6						0.9843 j6	1.10		2.64					
M1160	31.5-90.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	1.3780 k6	1.50	0.31	2.76	M12	1.10	s8.37	38.98	1761
	100.0-140.0							1.1811 j6	1.30		M10	0.87				

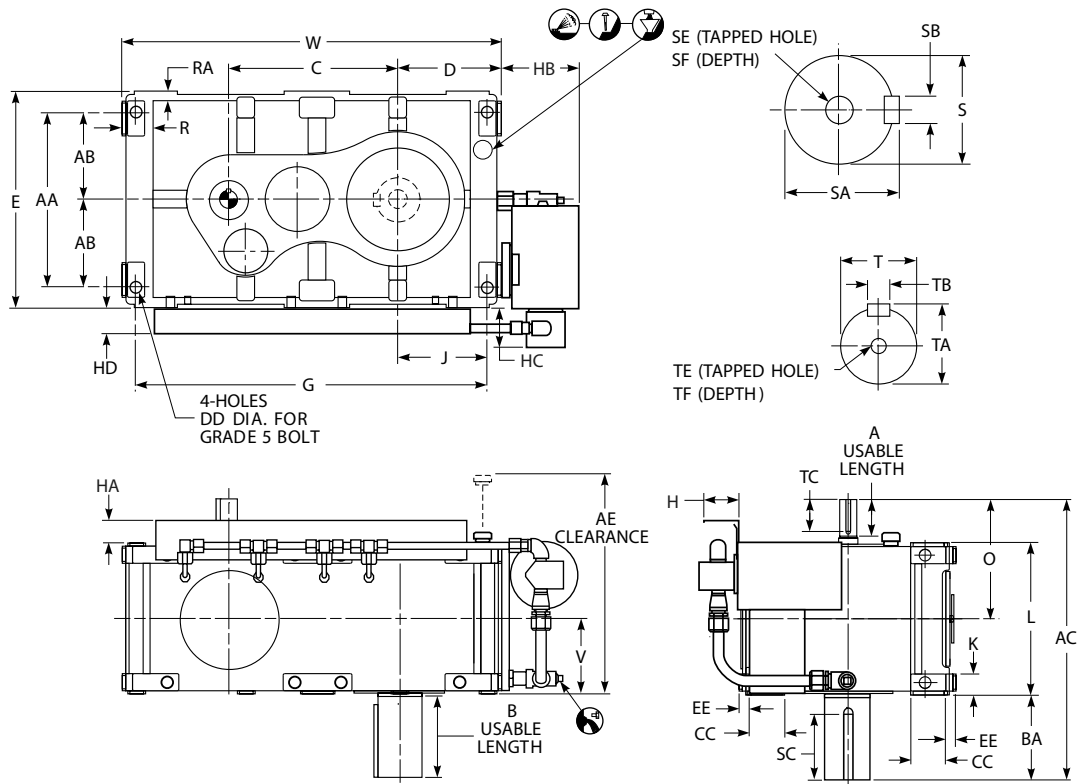
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

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Type DVC3 Triple Reduction with Lube Pump

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	B	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1170	31.5-140.0	3.94	20.08	10.04	30.08	28.50	7.48	8.46	19.10	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	13.15	3.54	1.18
M1180	31.5-140.0	3.94	21.65	10.83	32.28	32.56	7.48	8.27	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	14.37	3.74	1.18
M1190	31.5-140.0	3.94	24.80	12.40	35.49	35.20	8.86	9.84	24.81	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	15.22	4.33	1.18
M1200	25.0-112.0	5.12	31.50	15.75	40.55	39.09	10.63	11.42	27.56	5.91	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	17.52	4.33	1.38
M1210	28.0-125.0	5.12	31.50	15.75	40.55	39.09	10.63	11.42	28.55	5.91	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	17.52	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		s *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1170	31.5-140.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	8.46	43.31	2207
M1180	31.5-140.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	1.7717 k6	1.91	0.55	3.94	M16	1.42	9.65	48.43	3206
M1190	31.5-90.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	2.1654 m6	2.32	0.63	3.94	M20	1.65	10.43	54.33	3933
	1.6535 k6							1.77	0.47	M16			1.42			
M1200	25.0-112.0	7.4803 m6	7.87	1.77	9.84	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	11.61	63.98	5851
M1210	28.0-125.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	2.5591 m6	2.72	0.71	4.92	M20	1.65	11.61	63.98	6069

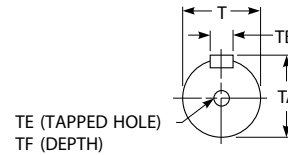
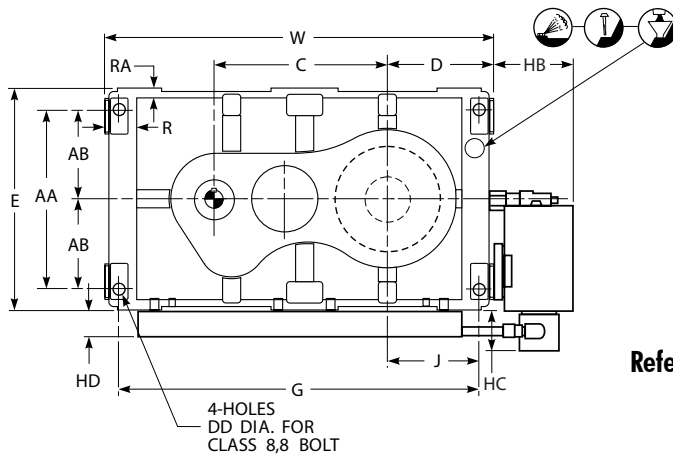
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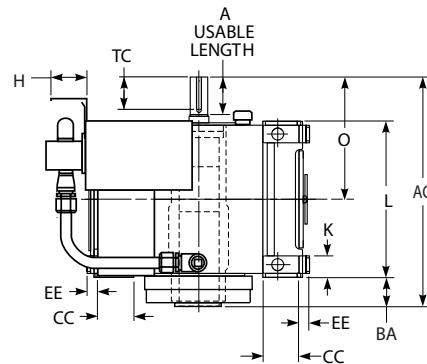
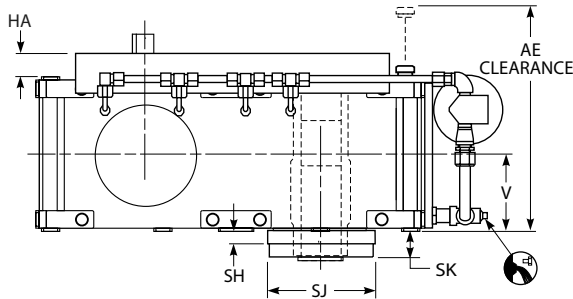
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVM2 Double Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



Refer to Page 167 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	6.30-16.0	3.94	16.14	8.07	24.41 23.62	25.79	4.21	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	12.52 11.73	3.41	1.18
	18.0-28.0	3.35																							
M1160	6.30-28.0	3.94	17.32	8.66	25.89	28.03	4.45	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	13.07	3.35	1.18
	18.0-28.0	3.94																							
M1170	6.30-16.0	4.92	20.08	10.04	27.05 25.87	28.50	4.25	19.09	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	14.33 13.15	3.54	1.18
	18.0-28.0	3.94																							

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	Approx Wt lb
		SH	SJ ±.002	SK	T *	TA	TB	TC	TE	TF			
M1150	6.30-16.0	1.81	12.992	3.94	1.9685 k6	2.11	0.55	3.94	M16	1.42	7.68	36.02	1466
	1.3780 k6				1.50	0.39	3.15	M12	1.10				
M1160	6.30-16.0	1.81	14.173	4.33	2.1654 m6	2.32	0.63	3.94	M20	1.65	8.37	38.98	1695
	1.6535 k6				1.77	0.47	M16		1.42				
M1170	6.30-16.0	1.85	15.354	3.98	2.5591 m6	2.72	0.71	4.92	M20	1.65	8.46	43.31	2207
	1.9685 k6				2.11	0.55	3.94	M16	1.42				

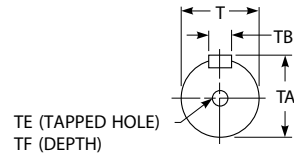
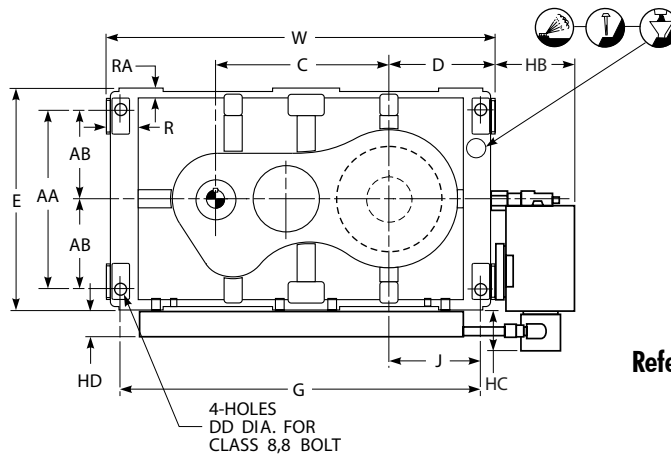
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

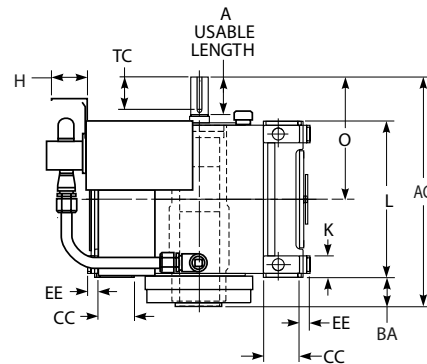
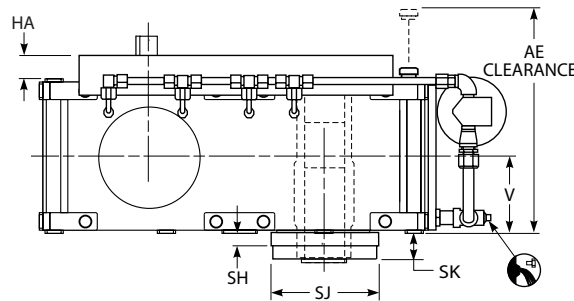
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVM2 Double Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



Refer to Page 167 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	6.30-28.0	5.12	21.65	10.83	31.06	32.56	5.87	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	15.55	3.74	1.18
	18.0-28.0	4.92	24.80	12.40	33.90 32.72	35.20	5.94	24.80	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	17.52 16.34	4.33	1.18
M1200	5.00-12.5	6.10	31.50	15.75	35.98	39.09	5.67	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	18.70	4.33	1.38
	14.0-22.4	6.30																							
M1210	5.60-14.0	6.10	31.50	15.75	35.98	39.09	5.67	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	18.70	4.33	1.38
	16.0-25.0	6.30																							

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	Approx Wt lb
		SH	SJ ±.002	SK	T*	TA	TB	TC	TE	TF			
M1180	6.30-16.0	1.81	17.717	5.31	2.7559 m6	2.93	0.79	4.92	M20	1.65	9.65	48.43	3161
	18.0-28.0				2.3622 m6	2.52	0.71						
M1190	6.30-16.0	1.91	19.685	5.41	3.1496 m6	3.35	0.87	6.10	M20	1.65	10.43	54.33	3823
	18.0-28.0				2.7559 m6	2.93	0.79							4.92
M1200	5.00-12.5	2.13	20.472	5.08	3.3465 m6	3.54	0.87	6.10	M20	1.65	11.61	63.98	6371
	14.0-22.4				3.1496 m6	3.35							
M1210	5.60-14.0	2.13	20.472	5.08	3.3465 m6	3.54	0.87	6.10	M20	1.65	11.61	63.98	6570
	16.0-25.0				3.1496 m6	3.35							

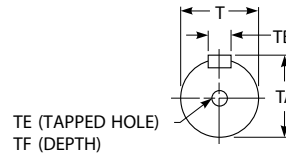
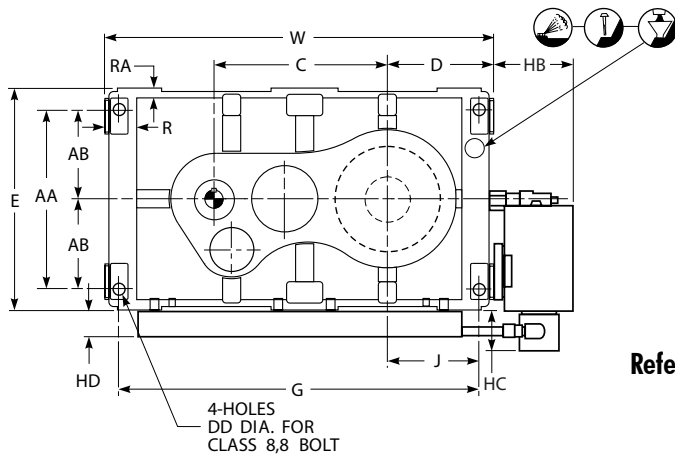
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

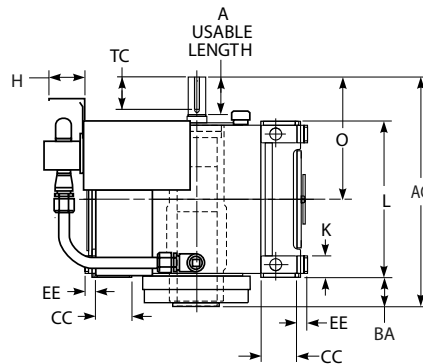
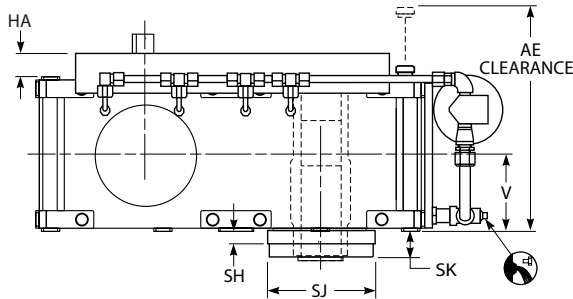
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVM3 Triple Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



Refer to Page 167 for hollow & driven shaft dimensions.



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	31.5-90.0	2.95	16.14	8.07	23.21	25.79	4.21	15.16	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	11.32	3.41	1.18
	100.0-140.0	2.68			22.95																	11.06			
M1160	31.5-140.0	2.76	17.32	8.66	24.70	28.03	4.45	16.93	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	11.89	3.35	1.18
M1170	31.5-140.0	3.94	20.08	10.04	25.87	28.50	4.25	19.09	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	13.15	3.54	1.18

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	Approx Wt lb
		SH	SJ ±.002	SK	T*	TA	TB	TC	TE	TF			
M1150	31.5-90.0				1.1811 j6	1.30	0.31	2.91	M10	0.87	7.68	36.02	1475
	100.0-140.0	1.81	12.992	3.94	0.9843 j6	1.14		2.64					
M1160	31.5-90.0				1.3780 k6	1.50	0.39	2.76	M12	1.10	8.37	38.98	1761
	100.0-140.0	1.81	14.173	4.33	1.1811 j6	1.30	0.31							M10	0.87
M1170	31.5-140.0	1.85	15.354	3.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	8.46	43.31	2207

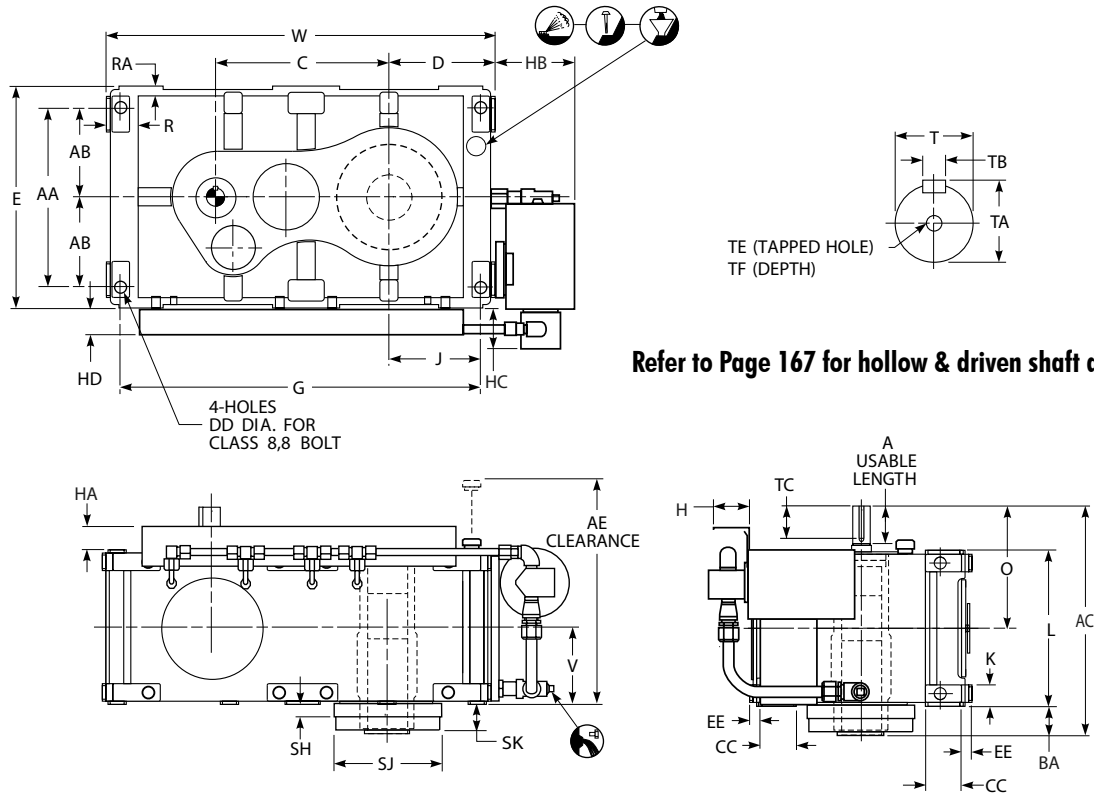
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DVM3 Triple Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



Refer to Page 167 for hollow & driven shaft dimensions.

DRIVE SIZE ★	Ratios	A	AA	AB	AC	AE	BA	C	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	31.5-140.0	3.94	21.65	10.83	29.88	32.56	5.87	22.05	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	14.37	3.74	1.18
M1190	31.5-140.0	3.94	24.80	12.40	31.59	35.20	5.94	24.80	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	15.22	4.33	1.18
M1200	25.0-112.0	5.12	31.50	15.75	34.80	39.09	5.67	27.56	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	17.52	4.33	1.38
M1210	28.0-125.0	5.12	31.50	15.75	34.80	39.09	5.67	28.54	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	17.52	4.33	1.38

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	Approx Wt lb
		SH	SJ ±.002	SK	T*	TA	TB	TC	TE	TF			
M1180	31.5-140.0	1.81	17.717	5.31	1.7717 k6	1.91	0.55	3.94	M16	1.42	9.65	48.43	3206
	31.5-90.0	1.91	19.685	5.41	2.1654 m6	2.32	0.63	3.94	M20	1.65				10.43	54.33	3933
M1190	100.0-140.0				1.6535 k6	1.77	0.47		M16	1.42			
M1200	25.0-112.0	2.13	20.472	5.08	2.5591 m6	2.72	0.71	4.92	M20	1.65	11.61	63.98	6471
M1210	28.0-125.0	2.13	20.472	5.08	2.5591 m6	2.72	0.71	4.92	M20	1.65	11.61	63.98	6669

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

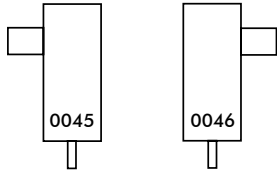
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBC Right Angle Shaft Shaft Assemblies & Rotations

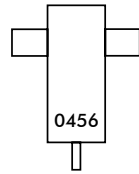
Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

Type DBC Assemblies

Standard Assemblies

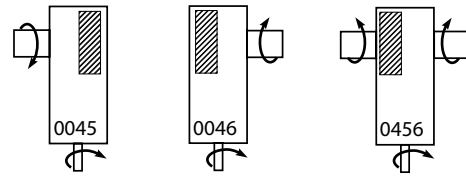


Other Available

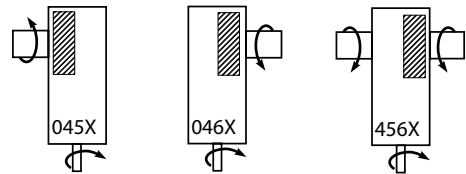


Type DBC Relative Shaft Rotations ‡

Standard Assemblies & Relative Shaft Rotations



Special Assemblies with Opposite Standard
Relative Shaft Rotations



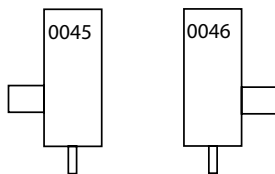
‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DBL Right Angle Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

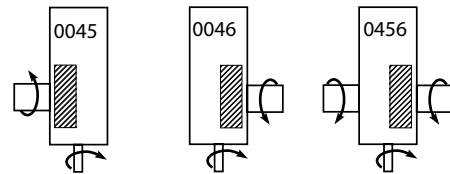
Type DBL Assemblies

Standard Assemblies

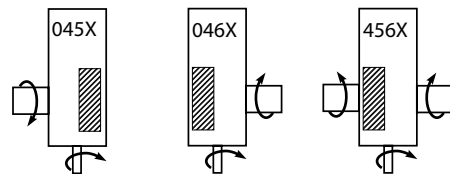


Type DBL Relative Shaft Rotations ‡

Standard Assemblies & Relative Shaft Rotations



Special Assemblies with Opposite Standard
Relative Shaft Rotations

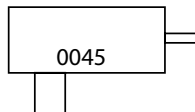


Type DBC, DBT, DBJ, DXA & DXC Right Angle Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

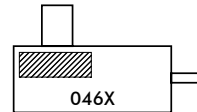
Type DXA & DXC Assembly

L.S. Shaft Down



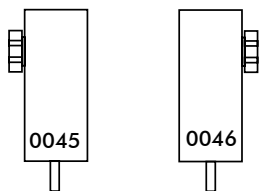
Type DXC Assembly

L.S. Shaft Up

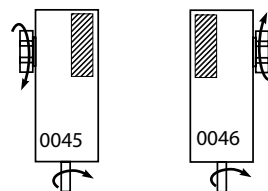


Type DBT Assemblies

Standard Assemblies

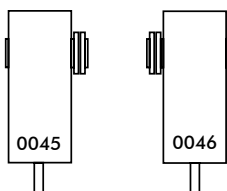


Type DBT Relative Shaft Rotations ‡

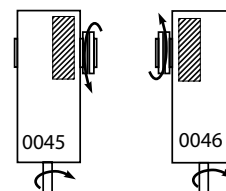


Type DBJ Assemblies

Standard Assemblies



Type DBJ Relative Shaft Rotations ‡

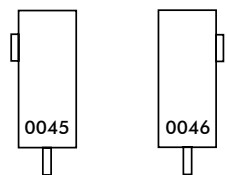


Type DBQ Right Angle Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

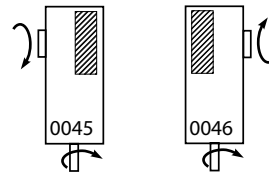
Type DBQ Assemblies

Standard Assemblies

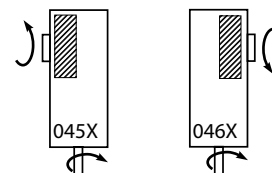


Type DBQ Relative Shaft Rotations ‡

Standard Assemblies & Relative Shaft Rotations



Special Assemblies with Opposite Standard
Relative Shaft Rotations



‡ If the input shaft rotation is opposite the rotation shown, the output shaft rotation will also be opposite the rotation shown.

Type DBL Right Angle Shaft Power Ratings – Hp/Double Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	2.8	625	105	162	251	311	430	687	813	1313
	3.2	547	105	153	251	311	430	687	776	1313
	3.6	486	99.5	147	251	309	430	687	782	1283
	4.0	438	89.7	126	211	311	430	609	752	1179
	4.5	389	79.3	121	204	311	430	594	716	1147
	5.0	350	70.7	116	197	289	430	564	636	1107
	5.6	313	46.4	84.8	125	173	242	352	448	712
	6.3	278	46.4	84.8	125	165	242	352	444	673
	7.1	246	46.4	78.7	125	181	242	352	448	798
	8.0	219	45.4	75.8	125	181	242	352	404	765
	9.0	194	40.5	72.2	116	167	242	352	415	699
	10.0	175	35.9	61.7	87.1	118	203	295	376	579
	11.2	156	32.2	52.1	78.6	113	188	272	355	529
	12.5	140	28.4	48.8	70.5	101	160	252	347	500
	14.0	125	25.7	45.8	67.2	98.3	161	232	323	473
	16.0	109	22.7	41.2	58.3	94.2	137	210	286	418
18.0	97	20.1	35.6	54.1	68.8	119	148	194	365	
20.0	88	17.7	33.4	48.7	68.8	112	148	194	346	
22.4	78	16.1	31.1	46.6	65.1	103	148	194	327	
25.0	70	14.2	26.9	36.9	58.3	94.1	142	182	291	
1430	2.8	511	89.7	141	216	262	374	597	706	1129
	3.2	447	89.7	133	216	262	374	597	673	1106
	3.6	397	81.3	128	216	253	374	597	679	1048
	4.0	358	73.3	103	172	262	374	498	653	964
	4.5	318	64.8	98.9	167	262	374	486	622	937
	5.0	286	57.8	94.6	161	236	374	461	520	905
	5.6	255	38.3	70.0	103	141	200	297	377	582
	6.3	227	38.3	70.0	103	135	200	297	377	550
	7.1	201	38.3	64.3	103	151	200	297	377	693
	8.0	179	37.1	61.9	103	151	200	297	330	664
	9.0	159	33.1	59.0	95.1	136	200	297	348	607
	10.0	143	29.3	53.3	75.6	103	176	241	307	503
	11.2	128	26.3	45.2	68.3	98.3	163	231	290	459
	12.5	114	23.2	42.3	61.2	87.9	139	219	288	434
	14.0	102	21.0	39.8	58.3	85.4	132	202	264	410
	16.0	89	18.5	35.1	47.6	77.3	119	182	234	363
18.0	79	16.5	30.9	46.9	58.0	100	125	164	311	
20.0	72	14.5	28.1	42.3	58.0	96.8	125	164	300	
22.4	64	13.1	25.4	38.2	54.2	84.8	125	164	284	
25.0	57	11.6	22.1	30.2	47.6	77.0	116	148	252	
1170	2.8	418	74.1	122	179	216	325	497	606	923
	3.2	366	73.7	116	179	216	325	497	585	905
	3.6	325	66.5	111	179	207	311	495	590	858
	4.0	293	60.0	83.9	141	216	325	407	567	788
	4.5	260	53.0	80.9	137	216	325	397	540	767
	5.0	234	47.3	77.4	131	193	310	377	425	740
	5.6	209	31.6	57.8	85.3	115	165	250	312	476
	6.3	186	31.6	57.8	85.3	111	165	250	312	450
	7.1	165	31.6	52.6	85.3	125	165	250	312	580
	8.0	146	30.3	50.7	84.4	125	165	250	270	561
	9.0	130	27.0	48.3	78.2	112	165	250	285	527
	10.0	117	24.0	43.6	65.7	89.2	153	197	251	437
	11.2	104	21.5	39.3	59.3	85.5	141.0	189	237	399
	12.5	94	19.0	36.7	53.2	76.4	121.0	179	236	377
	14.0	84	17.2	33.2	49.2	70.9	109.0	168	216	357
	16.0	73	15.2	28.8	39.0	63.3	98.8	153	191	315
18.0	65	13.5	25.4	40.2	48.8	84.6	105	138	258	
20.0	59	11.8	23.0	34.7	48.1	79.2	105	138	258	
22.4	52	10.8	20.8	31.3	44.4	69.5	105	137	239	
25.0	47	9.48	18.1	24.7	38.9	63.0	95.0	121	217	

Torque Ratings – lb-in/Double Reduction (MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	2.8	625	10.9	16.9	26.5	32.8	45.5	70.5	83.7	137
	3.2	547	12.3	17.6	29.5	36.6	49.9	80.9	88.6	148
	3.6	486	12.9	19.4	32.5	40.2	56.8	90.5	102	163
	4.0	438	12.9	18.3	31.0	45.4	63.9	88.8	109	170
	4.5	389	12.9	19.6	33.4	50.4	71.6	95.0	115	185
	5.0	350	12.9	21.3	36.2	52.6	79.0	104	117	200
	5.6	313	9.51	17.1	25.8	35.1	48.6	72.7	89.8	140
	6.3	278	10.5	19.6	28.4	37.2	55.3	81.3	103	149
	7.1	246	11.7	20.2	32.2	45.6	62.2	90.0	114	200
	8.0	219	12.9	21.6	35.9	50.6	69.7	98.7	114	214
	9.0	194	12.9	23.3	37.4	52.6	76.9	114	134	219
	10.0	175	12.9	22.2	31.0	42.5	73.3	107	134	203
	11.2	156	12.9	21.6	31.7	46.0	75.8	109	146	208
	12.5	140	12.9	22.4	32.5	46.2	73.2	115	157	221
	14.0	125	12.9	23.2	34.6	48.7	83.0	119	163	233
	16.0	109	12.6	23.8	33.3	52.3	78.9	118	163	230
18.0	97	12.9	23.5	34.4	44.7	75.5	94.1	126	230	
20.0	88	12.9	24.5	35.4	50.3	80.4	107	138	244	
22.4	78	12.9	25.2	37.8	51.6	83.9	120	154	257	
25.0	70	12.6	24.8	33.3	51.7	85.0	126	163	256	
1430	2.8	511	11.4	18.0	27.9	33.7	48.3	74.9	88.9	144
	3.2	447	12.9	18.7	31.1	37.6	53.0	85.9	94.1	153
	3.6	397	12.9	20.6	34.2	40.2	60.4	96.1	109	163
	4.0	358	12.9	18.3	31.0	46.7	67.9	88.8	116	170
	4.5	318	12.9	19.6	33.4	51.8	76.0	95.0	122	185
	5.0	286	12.9	21.3	36.2	52.6	83.9	104	117	200
	5.6	255	9.60	17.3	26.1	35.1	49.1	75.0	92.5	140
	6.3	227	10.6	19.8	28.7	37.2	55.9	84.0	106	149
	7.1	201	11.8	20.2	32.5	46.5	62.9	93.0	117	212
	8.0	179	12.9	21.6	36.2	51.7	70.4	102	114	228
	9.0	159	12.9	23.3	37.6	52.6	77.8	118	138	233
	10.0	143	12.9	23.5	32.9	45.2	78.0	107	134	216
	11.2	128	12.9	22.9	33.7	48.8	80.6	114	146	222
	12.5	114	12.9	23.8	34.5	49.1	77.8	122	159	235
	14.0	102	12.9	24.7	36.7	51.7	83.4	127	163	247
	16.0	89	12.6	24.8	33.3	52.5	83.8	125	163	244
18.0	79	12.9	25.0	36.5	46.0	77.9	97.0	130	240	
20.0	72	12.9	25.2	37.6	51.8	85.1	110	142	259	
22.4	64	12.9	25.2	38.0	52.6	84.1	124	159	274	
25.0	57	12.6	24.9	33.3	51.7	85.1	126	163	272	
1170	2.8	418	11.5	19.1	28.2	34.1	51.3	76.2	93.4	144
	3.2	366	12.9	19.9	31.5	38.0	56.3	87.5	99.9	153
	3.6	325	12.9	21.9	34.6	40.2	61.5	97.5	115	163
	4.0	293	12.9	18.3	31.0	47.2	72.1	88.8	123	170
	4.5	260	12.9	19.6	33.4	52.4	80.7	95.0	130	185
	5.0	234	12.9	21.3	36.2	52.6	85.1	104	117	200
	5.6	209	9.69	17.5	26.3	35.1	49.7	77.3	93.5	140
	6.3	186	10.7	20.0	29.0	37.2	56.3	86.5	107	149
	7.1	165	11.9	20.2	32.9	47.0	63.5	95.8	119	217
	8.0	146	12.9	21.6	36.2	52.2	71.2	105	114	235
	9.0	130	12.9	23.3	37.8	52.6	78.6	122	138	247
	10.0	117	12.9	23.5	35.0	48.0	82.8	107	134	229
	11.2	104	12.9	24.3	35.7	51.9	85.1	114	146	235
	12.5	94	12.9	25.2	36.7	52.1	82.6	122	159	249
	14.0	84	12.9	25.2	37.9	52.6	83.8	129	163	263
	16.0	73	12.6	24.8	33.3	52.6	85.0	129	163	260
18.0	65	12.9	25.2	38.2	47.4	80.3	100	134	243	
20.0	59	12.9	25.2	37.7	52.6	85.1	114	147	272	
22.4	52	12.9	25.2	38.1	52.6	84.4	128	163	281	
25.0	47	12.6	24.9	33.3	51.7	85.1	126	163	286	

Type DBL Right Angle Shaft

Power Ratings – Hp/Double Reduction

Torque Ratings – lb-in/Double Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
970	2.8	346	62.0	107	150	181	284	416	508	765
	3.2	303	61.1	101	150	180	273	416	508	750
	3.6	269	55.1	97.5	148	172	258	411	508	711
	4.0	243	49.7	69.6	117	181	285	338	497	654
	4.5	216	44.0	67.1	113	180	284	329	474	636
	5.0	194	39.2	64.2	109	160	257	313	353	614
	5.6	173	26.4	48.3	71.3	95.7	138	209	261	395
	6.3	154	26.4	48.3	71.3	91.6	136	209	261	373
	7.1	137	26.4	43.6	71.3	104	138	209	261	481
	8.0	121	25.1	42.0	70.0	103	138	209	224	465
	9.0	108	22.4	40.0	65.0	92.5	138	209	236	445
	10.0	97	19.9	36.1	57.6	77.1	131	163	208	383
	11.2	87	17.9	33.7	52.0	71.8	117	157	197	350
	12.5	78	15.7	30.4	45.2	63.8	103	148	195	331
	14.0	69	14.3	27.5	40.9	58.8	90.3	140	179	313
	16.0	61	12.6	23.9	32.3	52.5	82.1	128	159	277
18.0	54	11.2	21.1	33.4	41.6	72.1	89.8	118	216	
20.0	49	9.82	19.0	28.8	39.9	65.7	89.8	118	216	
22.4	43	8.92	17.2	26.0	36.8	57.8	89.2	114	199	
25.0	39	7.86	15.0	20.5	32.3	52.2	78.7	101	181	
870	2.8	311	55.9	99.6	135	163	255	376	459	687
	3.2	272	54.8	94.0	135	161	245	376	459	673
	3.6	242	49.5	90.4	133	154	232	368	459	638
	4.0	218	44.6	62.4	105	163	262	303	459	586
	4.5	193	39.4	60.2	101	161	254	295	439	570
	5.0	174	35.2	57.6	97.8	144	230	280	316	550
	5.6	155	23.8	43.5	64.3	85.9	125	189	235	354
	6.3	138	23.8	43.5	64.3	82.2	122	189	235	335
	7.1	123	23.8	39.1	64.3	93.9	125	189	235	431
	8.0	109	22.6	37.7	62.8	92.7	125	189	201	417
	9.0	97	20.1	35.9	58.4	83.0	125	189	212	399
	10.0	87	17.8	32.4	53.4	69.1	117	147	187	355
	11.2	78	16.0	30.2	47.0	64.4	105	141	176	324
	12.5	70	14.1	27.3	40.6	57.2	92.6	133	175	307
	14.0	62	12.8	24.7	36.7	52.7	81.8	125	161	283
	16.0	54	11.3	21.4	29.0	47.1	73.6	115	142	256
18.0	48	10.0	18.9	30.0	37.9	65.7	81.2	107	195	
20.0	43.5	8.81	17.1	25.9	35.8	58.9	81.2	107	195	
22.4	38.8	8.00	15.5	23.4	33.0	51.9	80.1	102	178	
25.0	34.8	7.05	13.5	18.4	29.0	46.8	70.6	90.2	162	

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
970	2.8	346	11.6	20.2	28.5	34.4	54.2	77.1	94.4	144
	3.2	303	12.9	21.0	31.8	38.1	57.2	88.4	105	153
	3.6	269	12.9	23.2	34.6	40.2	61.5	97.5	120	163
	4.0	243	12.9	18.3	31.0	47.7	76.2	88.8	130	170
	4.5	216	12.9	19.6	33.4	52.6	85.1	95.0	137	185
	5.0	194	12.9	21.3	36.2	52.6	85.1	104	117	200
	5.6	173	9.77	17.6	26.6	35.1	50.1	78.1	94.4	140
	6.3	154	10.8	20.2	29.2	37.2	56.3	87.3	108	149
	7.1	137	12.0	20.2	33.1	47.4	64.1	96.7	120	217
	8.0	121	12.9	21.6	36.2	52.3	71.8	106	114	235
	9.0	108	12.9	23.3	37.9	52.6	79.3	123	138	252
	10.0	97	12.9	23.5	37.0	50.0	85.1	107	134	242
	11.2	87	12.9	25.2	37.8	52.6	85.1	114	146	249
	12.5	78	12.9	25.2	37.6	52.6	85.1	122	163	264
	14.0	69	12.9	25.2	38.0	52.6	84.1	130	163	278
	16.0	61	12.6	24.9	33.3	52.6	85.1	129	163	275
18.0	54	12.9	25.2	38.3	48.7	82.5	103	137	245	
20.0	49	12.9	25.2	37.8	52.6	85.1	117	151	275	
22.4	43	12.9	25.2	38.1	52.6	84.5	131	163	282	
25.0	39	12.6	25.0	33.3	51.7	85.1	126	163	287	
870	2.8	311	11.7	20.9	28.7	34.6	54.2	77.6	95.0	144
	3.2	272	12.9	21.7	32.0	38.1	57.2	88.9	105	153
	3.6	242	12.9	23.9	34.6	40.2	61.5	97.5	121	163
	4.0	218	12.9	18.3	31.0	47.9	78.2	88.8	134	170
	4.5	193	12.9	19.6	33.4	52.6	85.1	95.0	142	185
	5.0	174	12.9	21.3	36.2	52.6	85.1	104	117	200
	5.6	155	9.81	17.7	26.7	35.1	50.4	78.5	94.9	140
	6.3	138	10.9	20.3	29.4	37.2	56.3	87.8	109	149
	7.1	123	12.0	20.2	33.3	47.7	64.4	97.2	120	217
	8.0	109	12.9	21.6	36.2	52.3	72.2	107	114	235
	9.0	97	12.9	23.3	38.0	52.6	79.7	123	138	252
	10.0	87	12.9	23.5	38.2	50.0	85.1	107	134	250
	11.2	78	12.9	25.2	38.1	52.6	85.1	114	146	257
	12.5	70	12.9	25.2	37.7	52.6	85.1	122	159	272
	14.0	62	12.9	25.2	38.0	52.6	84.2	130	163	280
	16.0	54	12.6	24.9	33.3	52.6	85.1	130	163	284
18.0	48	12.9	25.2	38.3	49.5	83.8	104	140	246	
20.0	43.5	12.9	25.2	37.8	52.6	85.1	118	153	276	
22.4	38.8	12.9	25.2	38.2	52.6	84.6	131	163	282	
25.0	34.8	12.6	25.0	33.3	51.7	85.1	126	163	287	

Type DB(All Sizes) & DX(Sizes M1 130-M1210) Right Angle Shaft Power Ratings – Hp/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE												
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1750	8.0	219	...	...	...	...	...	...	...	...	...	3453	...	5724	...
	9.0	194	...	...	...	...	...	...	...	...	...	3453	3453	5693	5724
	10.0	175	...	...	...	...	...	...	...	...	...	3235	3453	4982	5724
	11.2	156	...	...	...	...	...	...	...	...	1469	2871	3453	4483	5683
	12.5	140	...	...	...	...	...	...	...	1469	1469	2591	3252	4031	5113
	14.0	125	118	179	262	354	483	776	893	1452	1469	2321	2934	3676	4598
	16.0	109	110	170	256	354	483	762	853	1289	1469	2116	2606	3299	4193
	18.0	97	103	151	233	354	483	689	858	1158	1390	1907	2397	2976	3763
	20.0	88	92.1	136	206	318	449	625	839	1041	1249	1703	2160	2667	3394
	22.4	78	80.2	123	186	290	402	572	781	954	1122	1529	1920	2372	3043
	25.0	70	74.7	109	165	259	365	496	682	857	954	1371	1732	2110	2706
	28.0	63	54.6	99.0	147	210	285	415	529	758	923	1209	1552	1927	2407
	31.5	56	54.6	86.6	134	201	285	392	529	680	817	1099	1332	1722	2077
	35.5	49	53.8	78.3	119	169	262	358	499	609	732	988	1245	1547	1964
	40.0	44	46.7	70.5	107	151	235	329	452	546	656	879	1118	1382	1741
	45.0	39	43.5	62.3	94.9	151	213	286	393	487	588	787	996	1225	1574
	50.0	35	39.0	55.8	86.3	130	188	255	357	435	524	704	892	1086	1397
	56.0	31	35.1	48.7	76.3	117	168	232	311	391	469	617	797	971	1239
	63.0	28	27.6	43.9	66.7	104	149	204	284	350	421	551	698	887	1085
	71.0	25	23.9	39.8	59.8	96.4	132	182	255	307	377	...	613	...	990
80.0	22	23.9	35.0	53.9	78.3	118	166	226	274	330	...	...	...	...
90.0	19	21.5	30.6	48.5	73.7	107	147	198	246	295	...	...	...	...
100	18	19.3	27.6	42.4	65.6	94.9	130	181	220	265	...	...	...	...
112	16	15.0	25.0	38.0	60.4	84.1	116	162	...	237	...	...	...	...
125	14	15.0	22.0	34.2	49.4	75.6	106	144	...	...	...	...	...	...
1430	8.0	179	...	...	...	...	...	...	...	...	...	2864	...	4695	...
	9.0	159	...	...	...	...	...	...	...	...	...	2864	2864	4665	4695
	10.0	143	...	...	...	...	...	...	...	...	...	2691	2864	4138	4695
	11.2	128	...	...	...	...	...	...	...	...	1276	2383	2829	3732	4695
	12.5	114	...	...	...	...	...	...	...	...	1276	2146	2698	3348	4257
	14.0	102	102	155	216	299	419	674	776	1199	1276	1919	2431	3049	3819
	16.0	89	93.5	141	210	293	420	623	740	1063	1276	1748	2130	2731	3477
	18.0	79	84.9	124	192	291	407	563	745	954	1145	1573	1980	2460	3115
	20.0	72	75.9	112	169	260	369	513	709	856	1028	1404	1775	2202	2784
	22.4	64	66.1	101	152	238	330	470	643	790	923	1259	1569	1956	2497
	25.0	57	61.5	89.2	135	213	299	408	560	704	828	1128	1420	1738	2211
	28.0	51	45.1	81.1	121	172	235	342	444	622	759	994	1277	1586	1982
	31.5	45	45.1	70.9	110	164	235	321	444	558	671	903	1108	1416	1720
	35.5	40	44.2	64.1	97.3	139	215	292	409	500	601	811	1023	1271	1615
	40.0	36	38.4	57.8	87.4	124	192	268	371	448	539	722	918	1135	1448
	45.0	32	35.7	51.0	77.7	124	174	234	323	399	483	646	817	1005	1294
	50.0	29	31.9	45.7	70.6	108	154	209	292	357	430	577	731	891	1147
	56.0	26	28.7	39.8	62.4	96.1	138	190	255	320	384	505	654	797	1016
	63.0	23	22.6	35.9	54.6	85.5	122	167	233	287	345	450	572	727	897
	71.0	20	19.5	32.6	48.9	78.8	108	149	209	251	309	...	501	...	818
80.0	18	19.5	28.6	44.1	64.3	96.9	136	185	224	270	...	...	...	...
90.0	16	17.7	25.0	39.7	60.3	87.8	121	162	201	242	...	...	...	...
100	14	15.8	22.6	34.7	53.6	77.6	106	148	180	217	...	...	...	...
112	13	12.3	20.4	31.1	49.4	68.8	94.5	133	...	194	...	...	...	...
125	11	12.3	17.9	28.0	40.5	61.8	86.5	118	...	...	...	...	...	...
1170	8.0	146	...	...	...	...	...	...	...	...	...	2376	...	3841	...
	9.0	130	...	...	...	...	...	...	...	...	...	2376	2376	3841	3841
	10.0	117	...	...	...	...	...	...	...	...	...	2233	2376	3443	3841
	11.2	104	...	...	...	...	...	...	...	...	1109	1974	2315	3099	3841
	12.5	94	...	...	...	...	...	...	...	1109	1109	1775	2235	2776	3535
	14.0	84	87.2	128	179	244	365	563	674	989	1109	1586	2011	2524	3166
	16.0	73	77.1	116	173	240	353	510	643	876	1066	1443	1743	2258	2879
	18.0	65	70.0	102	157	238	333	461	644	786	944	1297	1634	2031	2576
	20.0	59	62.6	91.7	139	212	303	420	583	705	847	1156	1452	1816	2278
	22.4	52	54.4	82.8	125	196	271	386	528	650	759	1036	1295	1612	2043
	25.0	47	50.6	73.1	111	174	246	335	460	579	700	928	1174	1431	1816
	28.0	42	37.2	66.5	99.2	141	195	280	368	511	623	817	1050	1305	1632
	31.5	37	37.2	58.1	90.3	134	195	262	368	458	551	742	919	1164	1424
	35.5	33	36.3	52.5	79.7	114	176	239	336	410	494	666	840	1045	1328
	40.0	29	31.5	47.3	71.7	101	158	220	304	368	442	592	754	932	1192
	45.0	26	29.3	41.8	63.7	101	143	192	265	327	396	530	671	825	1063
	50.0	23	26.2	37.4	57.9	88.8	126	171	240	293	352	474	600	731	942
	56.0	21	23.5	32.6	51.2	78.7	113	155	209	263	315	415	536	654	834
	63.0	19	18.5	29.4	44.7	70.1	100	137	191	235	283	368	469	597	741
	71.0	16	16.0	26.7	40.1	64.6	88.4	122	171	206	253	...	410	...	675
80.0	15	16.0	23.4	36.1	52.8	79.4	112	152	184	222	...	...	...	...
90.0	13	14.6	20.5	32.5	49.4	71.9	98.8	133	165	198	...	...	...	...
100	12	13.0	18.5	28.4	43.9	63.6	86.9	121	148	178	...	...	...	...
112	10	10.1	16.7	25.4	40.5	56.3	77.4	109	...	159	...	...	...	...
125	9.4	10.1	14.7	22.9	33.2	50.6	70.8	96.3	...	...	...	...	...	...

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft

Torque Ratings – lb-in/Triple Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE														
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250		
1750	8.0	219	...	...	...	...	...	...	...	...	...	995	...	1651	...
	9.0	194	...	...	...	...	...	...	...	...	...	1121	1105	1826	1836
	10.0	175	...	...	...	...	...	...	...	...	...	1184	1245	1826	2042
	11.2	156	...	...	...	...	...	...	...	...	...	1198	1403	1840	2316
	12.5	140	...	...	...	...	...	...	...	649	...	1209	1506	1861	2334
	14.0	125	60.0	94.4	140	184	253	403	452	783	791	1219	1520	1877	2360		
	16.0	109	63.1	98.5	152	206	277	453	479	789	890	1227	1520	1893	2381		
	18.0	97	65.5	100	153	227	316	459	552	793	955	1234	1542	1908	2402		
	20.0	88	65.1	100	153	229	330	461	597	796	960	1242	1552	1921	2420		
	22.4	78	64.1	101	153	232	331	462	616	793	965	1248	1553	1933	2437		
	25.0	70	67.0	101	154	233	331	464	619	802	891	1253	1569	1944	2453		
	28.0	63	54.9	101	154	212	283	434	521	805	971	1259	1576	1952	2467		
	31.5	56	60.8	101	154	223	322	459	597	807	975	1263	1540	1960	2340		
	35.5	49	66.4	101	155	235	334	463	624	810	977	1267	1587	1968	2487		
	40.0	44	65.3	101	155	235	334	466	625	811	980	1271	1592	1974	2463		
	45.0	39	68.1	102	155	235	335	469	627	813	982	1274	1597	1981	2502		
	50.0	35	68.9	102	155	232	335	470	628	815	984	1276	1601	1986	2513		
	56.0	31	69.0	102	155	236	336	471	629	816	986	1279	1604	1991	2520		
	63.0	28	67.9	102	155	236	336	472	630	817	987	1272	1608	1994	2473		
	71.0	25	65.2	102	156	236	336	472	630	819	989	...	1573	...	2474		
	80.0	22	65.2	102	156	215	337	472	631	819	990	...	...	...	...
	90.0	19	67.7	102	156	237	337	473	632	820	991	...	...	...	...
	100	18	69.2	102	156	237	337	473	632	821	992	...	...	...	...
	112	16	65.5	102	156	237	337	474	633	...	993	...	...	...	...
125	14	65.5	102	156	217	338	474	633	...	...	...	...	...	...
1430	8.0	179	...	...	...	...	...	...	...	...	...	1010	...	1657	...
	9.0	159	...	...	...	...	...	...	...	...	...	1138	1121	1831	1843
	10.0	143	...	...	...	...	...	...	...	...	...	1205	1263	1856	2049
	11.2	128	...	...	...	...	...	...	...	...	...	1217	1406	1874	2341
	12.5	114	690	...	748	840	1226	1530	1891	2378
	14.0	102	63.8	100	141	190	269	428	481	791	840	1234	1541	1904	2399		
	16.0	89	65.8	100	153	208	295	453	509	796	946	1240	1520	1918	2416		
	18.0	79	66.2	101	153	228	325	459	587	799	964	1246	1559	1930	2433		
	20.0	72	65.6	101	154	229	331	463	618	802	968	1252	1561	1941	2429		
	22.4	64	64.6	101	154	233	332	465	620	804	971	1257	1553	1951	2447		
	25.0	57	67.5	101	154	234	333	466	622	807	947	1262	1573	1960	2453		
	28.0	51	55.5	101	155	212	286	437	536	809	977	1267	1586	1966	2486		
	31.5	45	61.4	101	155	223	326	459	614	811	979	1270	1567	1973	2370		
	35.5	40	66.8	102	155	235	335	463	626	813	982	1273	1596	1979	2503		
	40.0	36	65.6	102	155	236	335	466	627	814	984	1276	1600	1984	2506		
	45.0	32	68.4	102	155	236	336	471	629	816	985	1278	1604	1989	2517		
	50.0	29	69.0	102	155	236	336	471	629	817	987	1281	1607	1994	2524		
	56.0	26	69.1	102	156	236	336	472	630	818	989	1283	1610	1998	2529		
	63.0	23	68.1	102	156	236	337	472	631	819	990	1272	1613	2000	2501		
	71.0	20	65.4	102	156	236	337	473	632	820	991	...	1573	...	2501		
	80.0	18	65.4	102	156	216	337	473	632	821	992	...	...	...	...
	90.0	16	68.3	102	156	237	337	474	633	822	993	...	...	...	...
	100	14	69.2	102	156	237	338	474	633	822	994	...	...	...	...
	112	13	65.6	102	156	237	338	474	634	...	995	...	...	...	...
125	11	65.6	102	156	217	338	474	634	...	...	...	...	...	...
1170	8.0	146	...	...	...	...	...	...	...	...	...	1025	...	1657	...
	9.0	130	...	...	...	...	...	...	...	...	...	1154	1137	1842	1843
	10.0	117	...	...	...	...	...	...	...	...	...	1222	1281	1887	2049
	11.2	104	...	...	...	...	...	...	...	...	...	1232	1406	1902	2341
	12.5	94	733	...	794	892	1239	1549	1916	2413
	14.0	84	66.3	101	143	190	285	437	510	798	892	1246	1558	1927	2431		
	16.0	73	66.4	101	154	208	303	453	540	801	966	1251	1520	1938	2445		
	18.0	65	66.7	101	154	228	325	459	620	804	970	1256	1572	1948	2459		
	20.0	59	66.1	101	154	229	333	463	621	807	974	1261	1561	1956	2429		
	22.4	52	65.0	101	154	234	333	466	623	808	977	1265	1567	1965	2447		
	25.0	47	67.9	101	155	235	334	468	625	810	978	1269	1590	1972	2462		
	28.0	42	56.0	102	155	212	289	437	542	812	981	1273	1595	1977	2502		
	31.5	37	62.0	102	155	223	329	459	621	814	983	1275	1589	1983	2400		
	35.5	33	67.0	102	155	236	336	463	628	815	985	1278	1603	1988	2516		
	40.0	29	65.9	102	155	236	336	466	629	817	987	1280	1606	1992	2522		
	45.0	26	68.7	102	155	236	336	472	630	818	988	1282	1609	1996	2527		
	50.0	23	69.1	102	156	236	337	472	631	819	990	1284	1612	2000	2533		
	56.0	21	69.1	102	156	236	337	473	632	820	991	1286	1614	2003	2537		
	63.0	19	68.2	102	156	237	337	473	632	821	992	1272	1617	2005	2525		
	71.0	16	65.5	102	156	237	337	474	633	821	993	...	1573	...	2522		
	80.0	15	65.5	102	156	217	338	474	633	822	994	...	...	...	...
	90.0	13	68.8	102	156	237	338	474	634	823	995	...	...	...	...
	100	12	69.3	102	156	237	338	474	634	823	995	...	...	...	...
	112	10	65.7	102	156	237	338	475	634	...	996	...	...	...	...
125	9.4	65.7	102	156	218	338	475	635	...	...	...	...	...	...

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft
 Power Ratings – Hp/Triple Reduction

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE													
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250	
970	8.0	121	1995	...	3184	...
	9.0	108	1995	1995	3184	3184
	10.0	97	1871	1995	2891	3184
	11.2	87	972	...	1652	1919	2599	3184
	12.5	78	926	972	1484	1871	2324	2964
	14.0	69	73.0	106	150	202	304	467	591	825	972	1324	1681	2111	2639	
	16.0	61	64.3	96.5	144	199	292	422	564	730	889	1204	1450	1887	2408	
	18.0	54	58.4	84.4	131	197	276	382	537	655	787	1082	1364	1696	2152	
	20.0	49	52.2	76.1	116	176	252	348	486	587	705	964	1225	1515	1897	
	22.4	43	45.3	68.8	104	163	225	320	440	541	632	863	1091	1344	1717	
	25.0	39	42.2	60.7	92.3	145	204	278	383	482	583	772	978	1192	1533	
	28.0	35	31.1	55.2	82.3	117	163	232	308	425	519	680	875	1087	1360	
	31.5	31	31.1	48.3	75.0	111	163	218	308	381	458	617	770	969	1194	
	35.5	27	30.2	43.6	66.2	94.4	147	198	279	341	410	554	699	869	1105	
	40.0	24	26.2	39.3	59.5	84.1	131	182	253	305	367	492	627	775	992	
	45.0	22	24.4	34.7	52.8	84.1	119	160	220	272	329	440	558	686	884	
	50.0	19	21.7	31.0	48.0	73.7	104	142	199	243	293	394	499	608	783	
	56.0	17	19.5	27.1	42.5	65.4	93.7	129	174	218	262	344	446	543	693	
	63.0	15	15.4	24.4	37.1	58.1	82.8	114	158	195	235	305	390	496	619	
	71.0	14	13.3	22.1	33.3	53.6	73.4	101	142	171	210	...	340	...	563	
80.0	12	13.3	19.4	29.9	43.8	65.9	92.5	126	153	184	...	...	...	...
90.0	11	12.2	17.0	27.0	41.0	59.7	82.0	110	137	164	...	...	...	...
100	9.7	10.7	15.3	23.6	36.4	52.7	72.1	101	123	147	...	...	...	...
112	8.7	8.34	13.9	21.1	33.6	46.7	64.2	90.2	...	132	...	...	...	...
125	7.8	8.34	12.2	19.0	27.6	42.0	58.8	79.9	...	...	...	...	...	...
870	8.0	109	...	...	...	...	...	...	...	...	...	1802	...	2856	...
	9.0	97	...	...	...	...	...	...	...	...	...	1802	1802	2856	2856
	10.0	87	...	...	...	...	...	...	...	...	...	1687	1802	2609	2856
	11.2	78	...	...	...	...	...	...	...	901	...	1488	1721	2344	2856
	12.5	70	...	...	...	...	...	...	...	833	898	1337	1686	2095	2673
	14.0	62	65.8	95.4	135	182	272	419	541	742	898	1192	1514	1902	2367	
	16.0	54	57.9	86.7	129	178	262	379	523	657	800	1084	1315	1699	2170	
	18.0	48	52.5	75.8	118	177	248	342	482	589	707	973	1227	1526	1938	
	20.0	44	46.9	68.2	104	158	226	312	437	527	634	867	1102	1363	1720	
	22.4	39	40.8	61.7	93.3	146	202	287	395	486	568	776	981	1209	1555	
	25.0	35	37.9	54.5	82.9	130	184	250	344	433	524	694	879	1072	1379	
	28.0	31	28.0	49.6	73.8	105	147	208	277	382	466	611	786	977	1222	
	31.5	28	28.0	43.3	67.3	99.8	147	195	277	342	411	555	692	871	1078	
	35.5	25	27.1	39.2	59.4	84.8	132	178	251	306	368	497	628	781	993	
	40.0	22	23.5	35.3	53.4	75.5	118	163	227	274	330	442	563	696	891	
	45.0	19	21.9	31.1	47.4	75.5	107	143	197	244	295	396	501	616	794	
	50.0	17	19.5	27.9	43.1	66.2	93.8	128	179	218	263	353	448	546	703	
	56.0	16	17.5	24.3	38.1	58.6	84.0	116	156	196	235	309	400	488	623	
	63.0	14	13.8	21.9	33.3	52.2	74.3	102	142	175	211	274	350	445	556	
	71.0	12	12.0	19.9	29.8	48.1	65.8	90.7	127	153	189	...	305	...	507	
80.0	11	12.0	17.4	26.9	39.4	59.1	83.0	113	137	165	...	...	...	...
90.0	9.7	11.0	15.2	24.2	36.7	53.6	73.6	99.0	123	147	...	...	...	...
100	8.7	9.64	13.7	21.1	32.7	47.3	64.7	90.2	110	132	...	...	...	...
112	7.8	7.49	12.5	18.9	30.1	41.9	57.6	80.9	...	118	...	...	...	...
125	7.0	7.49	10.9	17.0	24.7	37.7	52.7	71.7	...	...	...	...	...	...

Type DB(All Sizes) & DX(Sizes M1130-M1210) Right Angle Shaft

Torque Ratings – lb-in/Triple Reduction

(MULTIPLY VALUES LISTED BY 1000)

High Speed Shaft rpm	Nom Ratio	Approx LS Shaft rpm	DRIVE SIZE													
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250	
970	8.0	121	...	...	...	...	...	...	...	...	...	1038	...	1657	...
	9.0	108	...	...	...	...	...	...	...	...	...	1169	1152	1842	1843
	10.0	97	...	...	...	...	...	...	...	...	...	1236	1297	1911	2049
	11.2	87	...	...	...	...	...	...	...	...	775	1244	1406	1924	2341
	12.5	78	800	944	1249	1563	1935	2441
	14.0	69	67.0	101	144	190	287	437	540	803	944	1255	1571	1944	2444	
	16.0	61	66.8	101	154	208	303	453	571	806	972	1259	1525	1954	2467	
	18.0	54	67.1	101	154	228	325	459	623	808	976	1264	1583	1961	2478	
	20.0	49	66.5	101	155	229	334	463	624	810	978	1268	1588	1969	2440	
	22.4	43	65.4	102	155	235	334	466	625	812	981	1271	1593	1976	2480	
	25.0	39	68.2	102	155	235	335	470	627	813	982	1274	1598	1982	2507	
	28.0	35	56.4	102	155	212	292	437	547	815	984	1277	1602	1986	2514	
	31.5	31	62.5	102	155	223	332	459	627	816	986	1279	1605	1991	2427	
	35.5	27	67.3	102	155	236	336	463	630	817	988	1282	1608	1995	2526	
	40.0	24	66.0	102	156	236	336	466	630	819	989	1284	1611	1998	2531	
	45.0	22	68.8	102	156	236	337	473	631	820	990	1285	1613	2002	2535	
	50.0	19	69.2	102	156	237	337	473	632	820	992	1287	1616	2005	2540	
	56.0	17	69.2	102	156	237	337	473	633	821	993	1289	1617	2007	2544	
	63.0	15	68.4	102	156	237	338	474	633	822	993	1272	1620	2009	2543	
	71.0	14	65.6	102	156	237	338	474	633	822	994	...	1573	...	2539	
	80.0	12	65.6	102	156	217	338	474	634	823	995	...	...	...	...
90.0	11	69.3	102	156	237	338	475	634	823	996	...	...	...	...
100	9.7	69.3	102	156	237	338	475	635	824	996	...	...	...	...
112	8.7	65.8	102	156	237	338	475	635	...	997	...	...	...	...
125	7.8	65.8	102	156	218	338	475	635	...	...	...	...	...	...
870	8.0	109	...	...	...	...	...	...	...	...	...	1045	...	1657	...
	9.0	97	...	...	...	...	...	...	...	...	...	1177	1160	1842	1843
	10.0	87	...	...	...	...	...	...	...	...	...	1242	1306	1923	2049
	11.2	78	...	...	...	...	...	...	...	...	...	1249	1406	1935	2341
	12.5	70	803	972	1255	1570	1945	2454
	14.0	62	67.3	101	145	190	287	437	551	806	972	1260	1577	1953	2444	
	16.0	54	67.0	101	154	208	303	453	590	808	975	1264	1542	1961	2478	
	18.0	48	67.3	101	155	228	325	459	624	810	978	1267	1588	1968	2488	
	20.0	44	66.7	101	155	229	334	463	625	812	981	1271	1593	1975	2467	
	22.4	39	65.5	102	155	235	335	466	627	813	983	1274	1597	1981	2505	
	25.0	35	68.3	102	155	235	335	470	628	815	984	1277	1601	1987	2513	
	28.0	31	56.7	102	155	212	293	437	550	816	986	1280	1605	1990	2520	
	31.5	28	62.8	102	155	223	334	459	630	817	988	1282	1608	1995	2442	
	35.5	25	67.4	102	156	236	336	463	631	819	989	1283	1611	1998	2531	
	40.0	22	66.1	102	156	237	337	466	631	819	990	1285	1613	2001	2535	
	45.0	19	68.9	102	156	237	337	473	632	820	991	1287	1615	2005	2539	
	50.0	17	69.2	102	156	237	337	473	632	821	992	1288	1617	2007	2543	
	56.0	16	69.2	102	156	237	337	474	633	822	993	1290	1619	2010	2547	
	63.0	14	68.4	102	156	237	338	474	633	822	994	1272	1621	2011	2550	
	71.0	12	65.7	102	156	237	338	474	634	823	995	...	1573	...	2547	
	80.0	11	65.7	102	156	217	338	474	634	823	996	...	...	...	...
90.0	9.7	69.3	102	156	237	338	475	635	824	996	...	...	...	...
100	8.7	69.3	102	156	237	338	475	635	824	997	...	...	...	...
112	7.8	65.8	102	156	237	338	475	635	...	997	...	...	...	...
125	7.0	65.8	102	156	218	338	475	635	...	...	...	...	...	...

Type DBL Right Angle Shaft

Basic Thermal Ratings ★ – Hp/Double Reduction

High Speed Shaft rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE							
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
1750	2.88	None	100	146	199	220	248	290	325	413
	Thru	Shaft Fan	147	231	314	347	392	458	514	652
	4.48	Electric Fan	267	419	571	631	711	832	932	1185
	5.04	None	77	123	171	192	221	262	297	385
	Thru	Shaft Fan	122	195	270	302	350	413	469	609
	11.2	Electric Fan	221	354	490	550	634	752	851	1105
	12.5	None	46	80	116	137	167	207	242	330
	Thru	Shaft Fan	73	126	183	217	262	328	382	522
	25	Electric Fan	132	230	333	393	476	595	696	948
1430	2.88	None	92	144	197	218	246	288	323	412
	Thru	Shaft Fan	137	214	293	323	365	427	479	609
	4.48	Electric Fan	253	396	540	598	676	790	886	1128
	5.04	None	73	116	162	183	213	253	288	377
	Thru	Shaft Fan	108	174	241	276	315	375	427	557
	11.2	Electric Fan	199	321	445	503	582	694	790	1032
	12.5	None	42	74	109	130	160	200	235	323
	Thru	Shaft Fan	62	111	161	193	237	297	349	479
	25.6	Electric Fan	115	203	300	357	437	549	644	886
1170	2.88	None	90	140	192	213	242	283	318	406
	Thru	Shaft Fan	125	195	266	295	337	393	442	564
	4.48	Electric Fan	237	372	508	564	644	749	843	1077
	5.04	None	69	111	155	176	206	246	281	370
	Thru	Shaft Fan	95	154	216	245	286	343	391	514
	11.2	Electric Fan	181	295	412	468	546	652	746	980
	12.5	None	39	70	104	125	154	195	230	318
	Thru	Shaft Fan	55	97	144	174	214	270	319	442
	25.6	Electric Fan	102	185	274	330	409	515	609	843
970	2.88	None	85	136	186	207	237	277	312	400
	Thru	Shaft Fan	115	181	248	276	314	368	416	532
	4.48	Electric Fan	220	347	475	528	602	707	797	1021
	5.04	None	66	106	150	171	200	241	276	364
	Thru	Shaft Fan	87	141	199	227	266	321	367	484
	11.2	Electric Fan	167	272	382	435	511	615	703	928
	12.5	None	36	66	99	120	150	190	225	314
	Thru	Shaft Fan	49	88	132	160	200	253	300	417
	25.4	Electric Fan	92	169	253	307	382	486	575	799
870	2.88	None	84	133	182	203	232	273	308	396
	Thru	Shaft Fan	109	174	238	266	305	357	403	519
	4.48	Electric Fan	210	333	456	510	585	685	773	994
	5.04	None	63	105	147	168	197	238	273	361
	Thru	Shaft Fan	84	137	193	220	259	312	357	473
	11.2	Electric Fan	160	262	370	421	496	598	685	907
	12.5	None	35	66	98	119	148	189	224	312
	Thru	Shaft Fan	46	85	129	155	195	248	294	409
	25.4	Electric Fan	90	164	246	298	371	475	569	784

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, contact your local district office.

Type DB & DX ▲ Right Angle Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1750	11.2	None	*	...
		Shaft Fan	42	...
		Electric Fan	335	...
	12.5	None	*	*
		Shaft Fan	79	42
		Electric Fan	351	335
	14.0	None	80	101	109	130	151	127	43	*	*	
		Shaft Fan	131	176	213	237	271	351	302	126	79	
		Electric Fan	177	251	300	351	451	519	518	361	351	
	16.0	None	75	88	104	126	151	130	61	*	*	
		Shaft Fan	125	168	215	237	271	351	335	153	126	
		Electric Fan	169	215	271	351	401	537	537	401	361	
	18.0	None	69	84	101	126	129	133	76	*	*	
		Shaft Fan	126	160	201	237	251	351	335	201	153	
		Electric Fan	161	215	251	311	401	501	537	451	401	
	20.0	None	66	80	101	126	126	135	88	*	*	
		Shaft Fan	126	152	201	213	251	335	335	225	201	
		Electric Fan	153	201	251	301	357	501	537	451	451	
	22.4	None	63	83	101	126	126	151	103	301	*	
		Shaft Fan	107	151	176	200	220	305	335	601	225	
		Electric Fan	151	201	224	301	351	445	522	801	451	
	25.0	None	61	76	88	110	126	151	126	301	301	
		Shaft Fan	101	151	168	201	215	332	351	601	601	
		Electric Fan	137	201	215	269	351	429	501	801	801	
	28.0	None	61	88	126	141	158	201	215	301	301	
		Shaft Fan	87	151	201	216	250	215	425	601	601	
		Electric Fan	158	271	350	401	453	537	608	801	801	
	31.5	None	61	88	126	137	158	201	215	301	301	
Shaft Fan		87	151	201	216	250	215	425	601	601		
Electric Fan		158	271	350	401	453	537	608	801	801		
35.5	None	61	88	126	137	158	201	215	301	301		
	Shaft Fan	87	151	201	216	250	215	425	601	601		
	Electric Fan	158	271	350	401	453	537	608	801	801		
40.0	None	61	88	126	137	158	201	215	301	301		
	Shaft Fan	87	151	201	216	250	215	425	601	601		
	Electric Fan	158	271	350	401	453	537	608	801	801		
45.0	None	61	88	126	137	158	201	215	301	301		
	Shaft Fan	87	151	201	216	250	215	425	601	601		
	Electric Fan	158	271	350	401	453	537	608	801	801		
50.0	None	61	88	126	137	158	201	215	301	301		
	Shaft Fan	87	151	201	216	250	215	425	601	601		
	Electric Fan	158	271	350	401	453	537	608	801	801		
56.0	None	61	88	126	137	158	201	215	251	301		
	Shaft Fan	87	151	201	216	250	215	425	401	601		
	Electric Fan	158	271	350	401	453	537	608	701	801		
63.0	None	61	88	126	137	158	201	215	251	251		
	Shaft Fan	87	151	201	216	250	215	425	401	401		
	Electric Fan	158	271	350	401	453	537	608	701	701		
71.0	None	33	61	83	101	126	151	173	251	253		
	Shaft Fan	52	90	131	155	201	351	301	401	401		
	Electric Fan	101	164	250	301	351	451	501	701	701		
80.0	None	33	61	83	101	126	151	173	251	251		
	Shaft Fan	52	90	131	155	201	351	301	401	401		
	Electric Fan	101	164	250	301	351	451	501	701	701		
90.0	None	33	61	83	101	126	151	173	251	251		
	Shaft Fan	52	90	131	155	201	351	301	401	401		
	Electric Fan	101	164	250	301	351	451	501	701	701		
100	None	33	61	83	101	126	151	173	251	251		
	Shaft Fan	52	90	131	155	201	351	301	401	401		
	Electric Fan	101	164	250	301	351	451	501	701	701		
112	None	33	61	83	101	126	151	173	...	251		
	Shaft Fan	52	90	131	155	201	351	301	...	401		
	Electric Fan	101	164	250	301	351	451	501	...	701		
125	None	33	61	83	101	126	151	173	...	...
	Shaft Fan	52	90	131	155	201	351	301	...	...
	Electric Fan	101	164	250	301	351	451	501	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

▲ For Type DX, apply a multiplier of 0.8 to the thermal ratings.

* Refer to Factory.

Type DB & DX ▲ Right Angle Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
1170	11.2	None	102	...
		Shaft Fan	363	...
		Electric Fan	752	...
	12.5	None	108	102
		Shaft Fan	401	363
		Electric Fan	751	752
	14.0	None	76	87	105	131	157	216	216	216	126	108
		Shaft Fan	102	134	178	201	224	336	351	351	401	401
		Electric Fan	151	216	251	301	401	537	601	601	752	751
	16.0	None	66	83	101	126	151	201	201	201	151	126
		Shaft Fan	102	128	155	178	216	301	351	351	401	401
		Electric Fan	151	201	251	301	361	537	601	601	701	752
	18.0	None	63	79	102	126	151	201	201	201	151	151
		Shaft Fan	90	126	151	178	216	301	351	351	401	401
		Electric Fan	151	179	218	301	351	501	601	601	701	701
	20.0	None	62	76	102	126	151	178	201	201	178	151
		Shaft Fan	86	126	151	159	201	301	336	336	401	401
		Electric Fan	131	178	216	269	351	477	537	537	701	701
	22.4	None	62	76	88	110	130	178	201	201	351	178
		Shaft Fan	82	110	134	152	201	269	301	301	541	401
		Electric Fan	126	178	216	269	336	451	537	537	901	701
	25.0	None	54	76	84	105	126	178	201	201	269	351
		Shaft Fan	78	105	128	151	178	269	301	301	401	541
		Electric Fan	126	153	201	251	301	423	501	501	751	901
	28.0	None	51	79	111	126	151	178	216	216	269	269
		Shaft Fan	76	110	154	178	216	269	301	301	401	401
		Electric Fan	129	216	301	351	423	501	537	537	751	751
	31.5	None	51	79	111	126	151	178	216	216	269	269
Shaft Fan		76	110	154	178	216	269	301	301	401	401	
Electric Fan		129	216	301	351	423	501	537	537	751	751	
35.5	None	51	79	111	126	151	178	216	216	269	269	
	Shaft Fan	76	110	154	178	216	269	301	301	401	401	
	Electric Fan	129	216	301	351	423	501	537	537	751	751	
40.0	None	51	79	111	126	151	178	216	216	269	269	
	Shaft Fan	76	110	154	178	216	269	301	301	401	401	
	Electric Fan	129	216	301	351	423	501	537	537	751	751	
45.0	None	51	79	111	126	151	178	216	216	269	269	
	Shaft Fan	76	110	154	178	216	269	301	301	401	401	
	Electric Fan	129	216	301	351	423	501	537	537	751	751	
50.0	None	51	79	111	126	151	178	216	216	251	269	
	Shaft Fan	76	110	154	178	216	269	301	301	336	401	
	Electric Fan	129	216	301	351	423	501	537	537	602	751	
56.0	None	51	79	111	126	151	178	216	216	251	251	
	Shaft Fan	76	110	154	178	216	269	301	301	336	336	
	Electric Fan	129	216	301	351	423	501	537	537	602	602	
63.0	None	31	51	76	89	110	151	178	178	251	251	
	Shaft Fan	42	76	103	126	153	201	251	251	336	336	
	Electric Fan	76	132	216	251	301	401	477	477	602	602	
71.0	None	31	51	76	89	110	151	178	178	251	251	
	Shaft Fan	42	76	103	126	153	201	251	251	336	336	
	Electric Fan	76	132	216	251	301	401	477	477	602	602	
80.0	None	31	51	76	89	110	151	178	178	251	251	
	Shaft Fan	42	76	103	126	153	201	251	251	336	336	
	Electric Fan	76	132	216	251	301	401	477	477	602	602	
90.0	None	31	51	76	89	110	151	178	178	251	251	
	Shaft Fan	42	76	103	126	153	201	251	251	336	336	
	Electric Fan	76	132	216	251	301	401	477	477	602	602	
100	None	31	51	76	89	110	151	178	178	251	251	
	Shaft Fan	42	76	103	126	153	201	251	251	336	336	
	Electric Fan	76	132	216	251	301	401	477	477	602	602	
112	None	31	51	76	89	110	151	178	...	...	251
	Shaft Fan	42	76	103	126	153	201	251	...	...	336
	Electric Fan	76	132	216	251	301	401	477	...	...	602
125	None	31	51	76	89	110	151	178	...	...	...
	Shaft Fan	42	76	103	126	153	201	251	...	...	...
	Electric Fan	76	132	216	251	301	401	477	...	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

▲ For Type DX, apply a multiplier of 0.8 to the thermal ratings.

Type DB & DX ▲ Right Angle Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE								
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210
970	11.2	None	201	...
		Shaft Fan	423	...
		Electric Fan	801	...
	12.5	None	216	201
		Shaft Fan	423	423
		Electric Fan	801	801
	14.0	None	64	83	102	126	153	216	216	216	216
		Shaft Fan	88	126	151	178	216	301	351	423	423
		Electric Fan	151	201	223	301	355	537	601	752	801
	16.0	None	62	79	102	126	151	201	216	216	216
		Shaft Fan	83	113	151	159	216	301	336	401	423
		Electric Fan	134	178	216	269	351	501	601	752	752
	18.0	None	62	76	102	126	151	201	216	216	216
		Shaft Fan	79	107	131	153	201	269	302	401	401
		Electric Fan	128	178	216	269	351	477	537	701	752
	20.0	None	62	76	88	109	134	178	216	216	216
		Shaft Fan	76	102	126	151	179	269	301	401	401
		Electric Fan	126	157	216	269	336	451	537	701	701
	22.4	None	53	67	84	105	128	178	201	224	216
		Shaft Fan	76	102	126	151	178	251	301	354	401
		Electric Fan	126	151	201	251	301	423	501	672	701
	25.0	None	51	64	80	102	126	178	201	269	224
		Shaft Fan	76	102	126	151	178	251	270	351	354
		Electric Fan	110	151	178	222	301	401	501	701	672
	28.0	None	51	76	107	126	151	178	216	269	269
		Shaft Fan	62	102	151	178	201	251	269	351	351
		Electric Fan	126	201	301	336	401	477	537	701	701
	31.5	None	51	76	107	126	151	178	216	269	269
Shaft Fan		62	102	151	178	201	251	269	351	351	
Electric Fan		126	201	301	336	401	477	537	701	701	
35.5	None	51	76	107	126	151	178	216	269	269	
	Shaft Fan	62	102	151	178	201	251	269	351	351	
	Electric Fan	126	201	301	336	401	477	537	701	701	
40.0	None	51	76	107	126	151	178	216	269	269	
	Shaft Fan	62	102	151	178	201	251	269	351	351	
	Electric Fan	126	201	301	336	401	477	537	701	701	
45.0	None	51	76	107	126	151	178	216	269	269	
	Shaft Fan	62	102	151	178	201	251	269	351	351	
	Electric Fan	126	201	301	336	401	477	537	701	701	
50.0	None	51	76	107	126	151	178	216	226	269	
	Shaft Fan	62	102	151	178	201	251	269	301	351	
	Electric Fan	126	201	301	336	401	477	537	601	701	
56.0	None	51	76	107	126	151	178	216	226	226	
	Shaft Fan	62	102	151	178	201	251	269	301	301	
	Electric Fan	126	201	301	336	401	477	537	601	601	
63.0	None	26	51	76	86	107	151	178	226	226	
	Shaft Fan	35	63	102	126	151	181	216	301	301	
	Electric Fan	66	126	181	219	301	351	451	601	601	
71.0	None	26	51	76	86	107	151	178	226	226	
	Shaft Fan	35	63	102	126	151	181	216	301	301	
	Electric Fan	66	126	181	219	301	351	451	601	601	
80.0	None	26	51	76	86	107	151	178	226	226	
	Shaft Fan	35	63	102	126	151	181	216	301	301	
	Electric Fan	66	126	181	219	301	351	451	601	601	
90.0	None	26	51	76	86	107	151	178	226	226	
	Shaft Fan	35	63	102	126	151	181	216	301	301	
	Electric Fan	66	126	181	219	301	351	451	601	601	
100	None	26	51	76	86	107	151	178	226	226	
	Shaft Fan	35	63	102	126	151	181	216	301	301	
	Electric Fan	66	126	181	219	301	351	451	601	601	
112	None	26	51	76	86	107	151	178	...	226	
	Shaft Fan	35	63	102	126	151	181	216	...	301	
	Electric Fan	66	126	181	219	301	351	451	...	601	
125	None	26	51	76	86	107	151	178	...	...
	Shaft Fan	35	63	102	126	151	181	216	...	...
	Electric Fan	66	126	181	219	301	351	451	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

▲ For Type DX, apply a multiplier of 0.8 to the thermal ratings.

Type DB & DX ▲ Right Angle Shaft - Sizes M1130-M1210

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling ▲	DRIVE SIZE									
			M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	
870	11.2	None	251	...
		Shaft Fan	451	...
		Electric Fan	846	...
	12.5	None	251	251
		Shaft Fan	423	451
		Electric Fan	801	846
	14.0	None	62	81	102	126	151	216	223	251	251	
		Shaft Fan	82	111	135	157	216	301	336	423	423	
		Electric Fan	135	178	216	270	351	501	601	801	801	
	16.0	None	62	77	102	126	151	201	216	251	251	
		Shaft Fan	78	105	129	152	201	269	304	423	423	
		Electric Fan	129	178	216	269	351	454	541	752	801	
	18.0	None	62	76	90	111	151	201	216	251	251	
		Shaft Fan	76	102	126	151	179	269	301	401	423	
		Electric Fan	126	159	216	269	336	477	537	701	752	
	20.0	None	53	76	86	106	133	178	216	251	251	
		Shaft Fan	76	102	126	151	178	251	301	401	401	
		Electric Fan	126	151	201	251	301	451	537	701	701	
	22.4	None	51	65	82	102	126	178	216	251	251	
		Shaft Fan	76	90	112	151	178	251	271	351	401	
		Electric Fan	111	151	179	226	301	401	501	701	701	
	25.0	None	51	62	78	102	126	178	201	269	251	
		Shaft Fan	65	85	107	126	155	219	268	351	351	
		Electric Fan	106	135	178	216	271	401	451	701	701	
	28.0	None	51	76	105	126	151	178	216	269	269	
		Shaft Fan	62	102	151	157	201	223	269	351	351	
		Electric Fan	126	201	269	301	353	451	537	701	701	
	31.5	None	51	76	105	126	151	178	216	269	269	
Shaft Fan		62	102	151	157	201	223	269	351	351		
Electric Fan		126	201	269	301	353	451	537	701	701		
35.5	None	51	76	105	126	151	178	216	269	269		
	Shaft Fan	62	102	151	157	201	223	269	351	351		
	Electric Fan	126	201	269	301	353	451	537	701	701		
40.0	None	51	76	105	126	151	178	216	269	269		
	Shaft Fan	62	102	151	157	201	223	269	351	351		
	Electric Fan	126	201	269	301	353	451	537	701	701		
45.0	None	51	76	105	126	151	178	216	269	269		
	Shaft Fan	62	102	151	157	201	223	269	351	351		
	Electric Fan	126	201	269	301	353	451	537	701	701		
50.0	None	51	76	105	126	151	178	216	223	269		
	Shaft Fan	62	102	151	157	201	223	269	301	351		
	Electric Fan	126	201	269	301	353	451	537	601	701		
56.0	None	51	76	105	126	151	178	216	223	223		
	Shaft Fan	62	102	151	157	201	223	269	301	301		
	Electric Fan	126	201	269	301	353	451	537	601	601		
63.0	None	26	51	76	85	106	135	160	223	223		
	Shaft Fan	33	62	102	111	151	178	216	301	301		
	Electric Fan	64	126	178	216	269	351	423	601	601		
71.0	None	26	51	76	85	106	135	160	223	223		
	Shaft Fan	33	62	102	111	151	178	216	301	301		
	Electric Fan	64	126	178	216	269	351	423	601	601		
80.0	None	26	51	76	85	106	135	160	223	223		
	Shaft Fan	33	62	102	111	151	178	216	301	301		
	Electric Fan	64	126	178	216	269	351	423	601	601		
90.0	None	26	51	76	85	106	135	160	223	223		
	Shaft Fan	33	62	102	111	151	178	216	301	301		
	Electric Fan	64	126	178	216	269	351	423	601	601		
100	None	26	51	76	85	106	135	160	223	223		
	Shaft Fan	33	62	102	111	151	178	216	301	301		
	Electric Fan	64	126	178	216	269	351	423	601	601		
112	None	26	51	76	85	106	135	160	...	223		
	Shaft Fan	33	62	102	111	151	178	216	...	301		
	Electric Fan	64	126	178	216	269	351	423	...	601		
125	None	26	51	76	85	106	135	160	...	...
	Shaft Fan	33	62	102	111	151	178	216	...	...
	Electric Fan	64	126	178	216	269	351	423	...	...

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

▲ For Type DX, apply a multiplier of 0.8 to the thermal ratings.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1750	8.00	None	*	...	*	...
		Shaft Fan	401	...	*	...
		Electric Fan	846	...	*	...
	9.00	None	*	*	*	*
		Shaft Fan	601	401	*	*
		Electric Fan	901	846	477	*
	10.0	None	*	*	*	*
		Shaft Fan	801	601	336	*
		Electric Fan	952	901	901	477
	11.2	None	*	*	*	*
		Shaft Fan	601	801	477	336
		Electric Fan	1001	952	1001	901
	12.5	None	*	*	*	*
		Shaft Fan	672	601	601	477
		Electric Fan	1001	1001	1074	1001
	14.0	None	119	*	*	*
		Shaft Fan	701	672	672	601
		Electric Fan	1001	1001	1074	1074
	16.0	None	201	119	82	*
		Shaft Fan	753	701	752	672
		Electric Fan	1074	1001	1207	1074
	18.0	None	301	201	108	82
		Shaft Fan	801	753	752	752
		Electric Fan	1074	1074	1096	1207
	20.0	None	105	301	135	108
		Shaft Fan	601	801	752	752
		Electric Fan	901	1074	1074	1096
	22.4	None	112	105	178	135
Shaft Fan		601	601	752	752	
Electric Fan		846	901	1074	1074	
25.0	None	126	112	*	178	
	Shaft Fan	537	601	301	752	
	Electric Fan	846	846	672	1074	
28.0	None	301	126	351	*	
	Shaft Fan	752	537	846	301	
	Electric Fan	1001	846	1251	672	
31.5	None	301	301	351	351	
	Shaft Fan	701	752	846	846	
	Electric Fan	953	1001	1090	1251	
35.5	None	269	301	336	351	
	Shaft Fan	672	701	801	846	
	Electric Fan	901	953	1074	1090	
40.0	None	269	269	303	336	
	Shaft Fan	601	672	752	801	
	Electric Fan	846	901	1074	1074	
45.0	None	269	269	301	303	
	Shaft Fan	601	601	701	752	
	Electric Fan	801	846	1001	1074	
50.0	None	251	269	301	301	
	Shaft Fan	544	601	701	701	
	Electric Fan	752	801	953	1001	
56.0	None	218	251	301	301	
	Shaft Fan	537	544	672	701	
	Electric Fan	701	752	901	953	
63.0	None	216	218	269	301	
	Shaft Fan	501	537	601	672	
	Electric Fan	701	701	846	901	
71.0	None	...	216	...	269	
	Shaft Fan	...	501	...	601	
	Electric Fan	...	701	...	846	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

* Refer to Factory.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1430	8.00	None	*	...	*	...
		Shaft Fan	601	...	110	...
		Electric Fan	1074	...	801	...
	9.00	None	81	*	*	*
		Shaft Fan	651	601	355	110
		Electric Fan	1074	1074	1001	801
	10.0	None	151	81	*	*
		Shaft Fan	672	651	601	355
		Electric Fan	1074	1074	1208	1001
	11.2	None	216	151	107	*
		Shaft Fan	701	672	701	601
		Electric Fan	1074	1074	1342	1208
	12.5	None	251	216	216	107
		Shaft Fan	701	701	801	701
		Electric Fan	1074	1074	1342	1342
	14.0	None	301	251	269	216
		Shaft Fan	752	701	801	801
		Electric Fan	1074	1074	1342	1342
	16.0	None	336	301	336	269
		Shaft Fan	752	752	846	801
		Electric Fan	1074	1074	1342	1342
	18.0	None	360	336	351	336
		Shaft Fan	801	752	846	846
		Electric Fan	1074	1074	1342	1342
	20.0	None	251	360	351	351
		Shaft Fan	601	801	801	846
		Electric Fan	953	1074	1251	1342
	22.4	None	216	251	351	351
Shaft Fan		601	601	801	801	
Electric Fan		901	953	1251	1251	
25.0	None	216	216	76	351	
	Shaft Fan	537	601	537	801	
	Electric Fan	846	901	1001	1251	
28.0	None	351	216	423	76	
	Shaft Fan	701	537	801	537	
	Electric Fan	1001	846	1208	1001	
31.5	None	351	351	401	423	
	Shaft Fan	672	701	801	801	
	Electric Fan	953	1001	1083	1208	
35.5	None	336	351	423	401	
	Shaft Fan	601	672	752	801	
	Electric Fan	901	953	1074	1083	
40.0	None	301	336	363	423	
	Shaft Fan	601	601	701	752	
	Electric Fan	846	901	1074	1074	
45.0	None	301	301	351	363	
	Shaft Fan	537	601	701	701	
	Electric Fan	801	846	1001	1074	
50.0	None	269	301	336	351	
	Shaft Fan	537	537	601	701	
	Electric Fan	752	801	953	1001	
56.0	None	269	269	304	336	
	Shaft Fan	501	537	601	601	
	Electric Fan	701	752	901	953	
63.0	None	251	269	301	304	
	Shaft Fan	477	501	601	601	
	Electric Fan	701	701	846	901	
71.0	None	...	251	...	301	
	Shaft Fan	...	477	...	601	
	Electric Fan	...	701	...	846	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

* Refer to Factory.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
1170	8.00	None	269	...	*	...
		Shaft Fan	672	...	536	...
		Electric Fan	1208	...	1251	...
	9.00	None	301	269	201	*
		Shaft Fan	701	672	701	536
		Electric Fan	1208	1208	1342	1251
	10.0	None	336	301	351	201
		Shaft Fan	701	701	801	701
		Electric Fan	1208	1208	1501	1342
	11.2	None	351	336	423	351
		Shaft Fan	701	701	846	801
		Electric Fan	1208	1208	1501	1501
	12.5	None	360	351	451	423
		Shaft Fan	701	701	846	846
		Electric Fan	1208	1208	1501	1501
	14.0	None	401	360	477	451
		Shaft Fan	701	701	846	846
		Electric Fan	1083	1208	1356	1501
	16.0	None	423	401	501	477
		Shaft Fan	701	701	846	846
		Electric Fan	1074	1083	1342	1356
	18.0	None	423	423	501	501
		Shaft Fan	701	701	846	846
		Electric Fan	1074	1074	1342	1342
	20.0	None	301	423	537	501
		Shaft Fan	601	701	846	846
		Electric Fan	953	1074	1342	1342
	22.4	None	301	301	336	537
		Shaft Fan	537	601	672	846
		Electric Fan	953	953	1074	1342
25.0	None	301	301	301	336	
	Shaft Fan	537	537	601	672	
	Electric Fan	901	953	1074	1074	
28.0	None	423	301	501	301	
	Shaft Fan	608	537	752	601	
	Electric Fan	953	901	1208	1074	
31.5	None	363	423	477	501	
	Shaft Fan	601	608	752	752	
	Electric Fan	901	953	1074	1208	
35.5	None	351	363	451	477	
	Shaft Fan	538	601	701	752	
	Electric Fan	846	901	1074	1074	
40.0	None	336	351	423	451	
	Shaft Fan	537	538	701	701	
	Electric Fan	801	846	1074	1074	
45.0	None	301	336	401	423	
	Shaft Fan	501	537	601	701	
	Electric Fan	752	801	1001	1074	
50.0	None	301	301	358	401	
	Shaft Fan	501	501	601	601	
	Electric Fan	701	752	953	1001	
56.0	None	269	301	351	358	
	Shaft Fan	451	501	539	601	
	Electric Fan	701	701	901	953	
63.0	None	269	269	351	351	
	Shaft Fan	423	451	537	539	
	Electric Fan	672	701	846	901	
71.0	None	...	269	...	351	
	Shaft Fan	...	423	...	537	
	Electric Fan	...	672	...	846	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

* Refer to Factory.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
970	8.00	None	423	...	351	...
		Shaft Fan	752	...	752	...
		Electric Fan	1342	...	1501	...
	9.00	None	423	423	451	351
		Shaft Fan	752	752	801	752
		Electric Fan	1251	1342	1501	1501
	10.0	None	451	423	551	451
		Shaft Fan	701	752	901	801
		Electric Fan	1251	1251	1501	1501
	11.2	None	451	451	537	551
		Shaft Fan	701	701	901	901
		Electric Fan	1208	1251	1501	1501
	12.5	None	451	451	537	537
		Shaft Fan	701	701	901	901
		Electric Fan	1208	1208	1501	1501
	14.0	None	451	451	537	537
		Shaft Fan	701	701	846	901
		Electric Fan	1074	1208	1501	1501
	16.0	None	423	451	537	537
		Shaft Fan	672	701	846	846
		Electric Fan	1074	1074	1342	1501
	18.0	None	351	423	537	537
		Shaft Fan	601	672	846	846
		Electric Fan	1001	1074	1342	1342
	20.0	None	351	351	501	537
		Shaft Fan	537	601	752	846
		Electric Fan	953	1001	1251	1342
	22.4	None	351	351	423	501
Shaft Fan		537	537	672	752	
Electric Fan		901	953	1079	1251	
25.0	None	336	351	401	423	
	Shaft Fan	537	537	601	672	
	Electric Fan	901	901	1074	1079	
28.0	None	351	336	501	401	
	Shaft Fan	537	537	701	601	
	Electric Fan	901	901	1074	1074	
31.5	None	351	351	477	501	
	Shaft Fan	537	537	701	701	
	Electric Fan	846	901	1074	1074	
35.5	None	351	351	451	477	
	Shaft Fan	501	537	672	701	
	Electric Fan	801	846	1074	1074	
40.0	None	336	351	154	451	
	Shaft Fan	477	501	601	672	
	Electric Fan	752	801	1001	1074	
45.0	None	301	336	423	154	
	Shaft Fan	451	477	601	601	
	Electric Fan	701	752	953	1001	
50.0	None	301	301	401	423	
	Shaft Fan	423	451	537	601	
	Electric Fan	701	701	901	953	
56.0	None	269	301	354	401	
	Shaft Fan	423	423	637	537	
	Electric Fan	672	701	846	901	
63.0	None	269	269	351	354	
	Shaft Fan	401	423	501	637	
	Electric Fan	601	672	846	846	
71.0	None	...	269	...	351	
	Shaft Fan	...	401	...	501	
	Electric Fan	...	601	...	846	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

Type DB Right Angle Shaft - Sizes M1220-M1250

Basic Thermal Ratings ★ – Hp/Triple Reduction

HSS rpm	Nominal Ratio	Auxiliary Cooling	DRIVE SIZE			
			M1220	M1230	M1240	M1250
870	8.00	None	451	...	451	...
		Shaft Fan	752	...	752	...
		Electric Fan	1342	...	1501	...
	9.00	None	451	451	501	451
		Shaft Fan	701	752	846	752
		Electric Fan	1251	1342	1501	1501
	10.0	None	451	451	538	501
		Shaft Fan	701	701	846	846
		Electric Fan	1251	1251	1501	1501
	11.2	None	451	451	543	538
		Shaft Fan	701	701	846	846
		Electric Fan	1208	1251	1501	1501
	12.5	None	451	451	601	543
		Shaft Fan	672	701	846	846
		Electric Fan	1074	1208	1501	1501
	14.0	None	451	451	544	601
		Shaft Fan	672	672	846	846
		Electric Fan	1074	1074	1342	1501
	16.0	None	423	451	541	544
		Shaft Fan	601	672	846	846
		Electric Fan	1074	1074	1342	1342
	18.0	None	401	423	536	541
		Shaft Fan	601	601	752	846
		Electric Fan	1001	1074	1342	1342
	20.0	None	351	401	501	536
		Shaft Fan	537	601	701	752
		Electric Fan	953	1001	1251	1342
	22.4	None	351	351	451	501
		Shaft Fan	537	537	672	701
		Electric Fan	901	953	1074	1251
25.0	None	351	351	423	451	
	Shaft Fan	501	537	601	672	
	Electric Fan	846	901	1074	1074	
28.0	None	351	351	501	423	
	Shaft Fan	537	501	672	601	
	Electric Fan	846	846	1074	1074	
31.5	None	351	351	448	501	
	Shaft Fan	501	537	672	672	
	Electric Fan	801	846	1074	1074	
35.5	None	336	351	451	448	
	Shaft Fan	477	501	601	672	
	Electric Fan	801	801	1001	1074	
40.0	None	301	336	423	451	
	Shaft Fan	451	477	601	601	
	Electric Fan	752	801	953	1001	
45.0	None	301	301	423	423	
	Shaft Fan	423	451	536	601	
	Electric Fan	701	752	1001	953	
50.0	None	271	301	401	423	
	Shaft Fan	423	423	536	536	
	Electric Fan	672	701	846	1001	
56.0	None	269	271	351	401	
	Shaft Fan	401	423	501	536	
	Electric Fan	601	672	846	846	
63.0	None	269	269	351	351	
	Shaft Fan	351	401	501	501	
	Electric Fan	601	601	801	846	
71.0	None	...	269	...	351	
	Shaft Fan	...	351	...	501	
	Electric Fan	...	601	...	801	

★ Basic thermal ratings listed are based on an ambient temperature of 77°F(25°C) at sea level. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For cooling beyond the range of values listed, see Pump & Cooler selections on Page 187.

Type DB Alignment Free Drive - Sizes M1140-M1230

Thermal Rating Multiplier

Multiplier For Alignment Free Drive With Fluid Coupling

DRIVE SIZE ‡	Fluid Coupling/Bell Size			
	1420HFDD	1480HFDD	1584HFDD	1660HFDD
M1140	1.25	...	...	...
M1150	1.25	1.30	...	...
M1160	1.25	1.30	...	...
M1170	1.20	1.25	1.30	...
M1180	1.15	1.20	1.25	1.30
M1190	1.15	1.20	1.25	1.30
M1200	...	1.00	1.15	1.20
M1210	...	1.00	1.15	1.20
M1220	...	...	1.15	1.15
M1230	...	...	1.15	1.15

‡ To determine thermal rating of Drive One Alignment Free Drives, look up the thermal rating for the Type DB right angle shaft with shaft fan and multiply the rating by the value indicated in the table.

Multiplier For Alignment Free Drive With VFD/Close Coupling

DRIVE SIZE ‡	Motor Frame Size		
	All Sizes (NEMA & IEC)	NEMA 447T/IEC 280M and Smaller Motors	NEMA 449T/IEC 315S and Larger Motors
M1140	1.25	...	...
M1150	1.25	...	...
M1160	1.25	...	...
M1170	...	1.20	1.30
M1180	...	1.15	1.25
M1190	...	1.15	1.25
M1200	1.15	...	...
M1210	1.15	...	...
M1220	1.15	...	...
M1230	1.15	...	...

‡ To determine thermal rating of Drive One Alignment Free Drives, look up the thermal rating for the Type DB right angle shaft with shaft fan and multiply the rating by the value indicated in the table.

Exact Ratios/Right Angle Shaft Drives

Double Reduction - Type DBL

Nominal Ratio	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
2.80	2.879	2.895	2.934	2.925	2.936	2.850	2.860	2.896
3.15	3.258	3.190	3.268	3.262	3.222	3.268	3.170	3.138
3.55	3.607	3.656	3.593	3.606	3.668	3.656	3.633	3.534
4.00	3.999	4.048	4.075	4.048	4.121	4.048	4.022	4.009
4.50	4.524	4.497	4.539	4.493	4.617	4.438	4.451	4.483
5.00	5.074	5.097	5.113	5.048	5.098	5.135	5.124	5.014
5.60	5.695	5.609	5.735	5.649	5.578	5.735	5.564	5.448
6.30	6.307	6.427	6.306	6.244	6.351	6.417	6.376	6.134
7.10	6.991	7.115	7.153	7.009	7.136	7.104	7.059	6.959
8.00	7.910	7.906	7.966	7.781	7.994	7.789	7.812	7.782
9.00	8.870	8.960	6.975	8.741	8.827	9.014	8.993	8.704
10.0	10.000	10.018	9.882	9.982	10.035	10.118	9.939	9.732
11.2	11.138	11.498	11.186	11.269	11.205	11.166	11.407	10.948
12.5	12.656	12.746	12.800	12.675	12.688	12.706	12.522	12.261
14.0	13.945	14.063	14.294	13.754	14.324	14.275	13.969	13.678
16.0	15.469	16.028	15.882	15.403	15.956	15.604	15.779	15.279
18.0	17.820	18.364	17.647	18.021	17.616	17.616	17.996	17.490
20.0	20.250	20.356	20.194	20.268	19.949	20.045	19.755	19.587
22.4	22.313	22.460	22.551	21.994	22.520	22.520	22.038	21.851
25.0	24.750	25.598	25.057	24.631	25.086	24.617	24.893	24.408

Triple Reduction - Type DB(All Sizes) & DX(Sizes M1130-M1210)

Nominal Ratio	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
8.0	...	...	...	...	...	...	...	...	...	8.005	...	8.009	...
9.0	...	...	...	...	...	...	...	...	...	9.017	8.884	8.905	8.907
10.0	...	...	...	...	...	...	...	...	...	10.16	10.01	10.18	9.903
11.2	...	...	...	...	...	...	...	12.27	...	11.59	11.28	11.39	11.32
12.5	...	...	...	...	...	...	...	13.30	13.79	12.96	12.86	12.82	12.67
14.0	14.12	14.63	14.82	14.47	14.52	14.41	14.06	14.98	14.94	14.59	14.38	14.17	14.25
16.0	15.98	16.12	16.51	16.14	15.94	16.52	15.59	16.99	16.83	16.10	16.19	15.94	15.76
18.0	17.69	18.47	18.15	17.84	18.15	18.48	17.86	19.00	19.09	17.97	17.86	17.80	17.72
20.0	19.61	20.45	20.59	20.03	20.39	20.46	19.77	21.25	21.35	20.24	19.95	19.99	19.80
22.4	22.19	22.72	22.93	22.23	22.84	22.44	21.88	23.09	23.87	22.66	22.47	22.63	22.24
25.0	24.89	25.75	25.84	24.97	25.22	25.96	25.19	26.00	25.94	25.39	25.15	25.59	25.17
28.0	27.93	28.34	28.98	27.95	27.60	29.00	27.36	29.49	29.21	28.91	28.18	28.12	28.46
31.5	30.93	32.47	31.86	30.89	31.42	32.44	31.35	32.98	33.14	31.90	32.09	31.62	31.28
35.5	34.29	35.95	36.14	34.68	35.30	35.92	34.71	36.89	37.06	35.62	35.41	35.32	35.16
40.0	38.80	39.95	40.25	38.49	39.55	39.38	38.41	41.24	41.45	40.12	39.53	39.67	39.28
45.0	43.51	45.27	45.35	43.25	43.67	45.57	44.22	46.40	46.34	44.91	44.53	44.90	44.12
50.0	49.05	50.62	49.93	49.39	49.65	51.15	48.87	51.96	52.13	50.33	49.85	50.77	49.93
56.0	54.63	58.10	56.52	55.75	55.43	56.45	56.08	57.97	58.39	57.60	55.86	56.90	56.47
63.0	62.08	64.40	64.67	62.71	62.77	64.24	61.57	64.75	65.13	64.17	63.93	62.39	63.28
71.0	68.40	71.06	72.22	68.05	70.87	72.17	68.68	74.12	72.76	...	71.22	...	69.39
80.0	75.87	80.99	80.25	76.21	78.94	78.89	77.58	83.01	83.29	...	...	...	...
90.0	87.40	92.79	89.16	89.15	87.15	89.06	88.48	92.61	93.27	...	...	...	...
100	99.32	102.9	102.0	100.3	98.69	101.3	97.13	103.4	104.1	...	...	...	...
112	109.4	113.5	113.9	108.8	111.4	113.9	108.4	...	116.2	...	...	...	...
125	121.4	129.3	126.6	121.9	124.1	124.5	122.4	...	...	...	...	...	...

WR²/Right Angle Shaft Drives - Type DBL

Approximate WR² (lb-in.²) Referred to Drive High Speed Shaft ★

Nominal Ratios	DRIVE SIZE							
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200
2.80	30.71	88.17	166.8	236.9	491.5	930.4	939.4	3562
3.15	29.42	85.83	160.8	227.0	475.0	877.8	860.2	3455
3.55	28.33	83.00	156.3	219.0	454.7	840.1	776.6	3315
4.00	27.39	81.41	151.4	212.3	441.6	810.7	721.0	3209
4.50	26.45	79.65	147.5	204.6	425.8	785.9	671.6	3092
5.00	25.84	77.83	144.0	199.8	419.0	751.8	631.4	2992
5.60	13.46	39.54	72.48	127.8	214.7	415.3	693.4	1632
6.30	13.11	38.62	71.02	125.1	208.0	403.0	666.3	1586
7.10	12.80	38.10	69.41	122.9	203.6	393.5	648.3	1551
8.00	12.49	37.54	68.14	120.3	198.3	385.4	632.2	1512
9.00	12.29	36.95	67.02	118.7	196.0	374.4	619.2	1479
10.0	11.77	36.48	63.50	112.7	185.5	360.5	609.6	1443
11.2	11.58	35.89	62.30	110.7	181.9	354.9	592.4	1419
12.5	11.39	35.53	61.21	109.1	178.7	348.8	583.2	1400
14.0	11.26	35.23	60.61	108.2	176.0	343.5	573.2	1381
16.0	11.13	34.89	60.01	107.0	173.9	339.9	563.9	1365
18.0	4.582	11.38	20.40	31.67	67.98	134.0	214.7	574.8
20.0	4.507	11.24	19.97	31.05	66.69	131.6	211.0	567.6
22.4	4.456	11.12	19.72	30.69	65.58	129.4	207.0	560.3
25.0	4.408	10.99	19.48	30.21	64.72	128.0	203.3	553.8

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR² referred to drive low speed shaft equals (exact total ratio)² times WR² referred to high speed shaft.

WR²/Right Angle Shaft Drives Type DB(All Sizes) & DX(Sizes M1130-M1210)

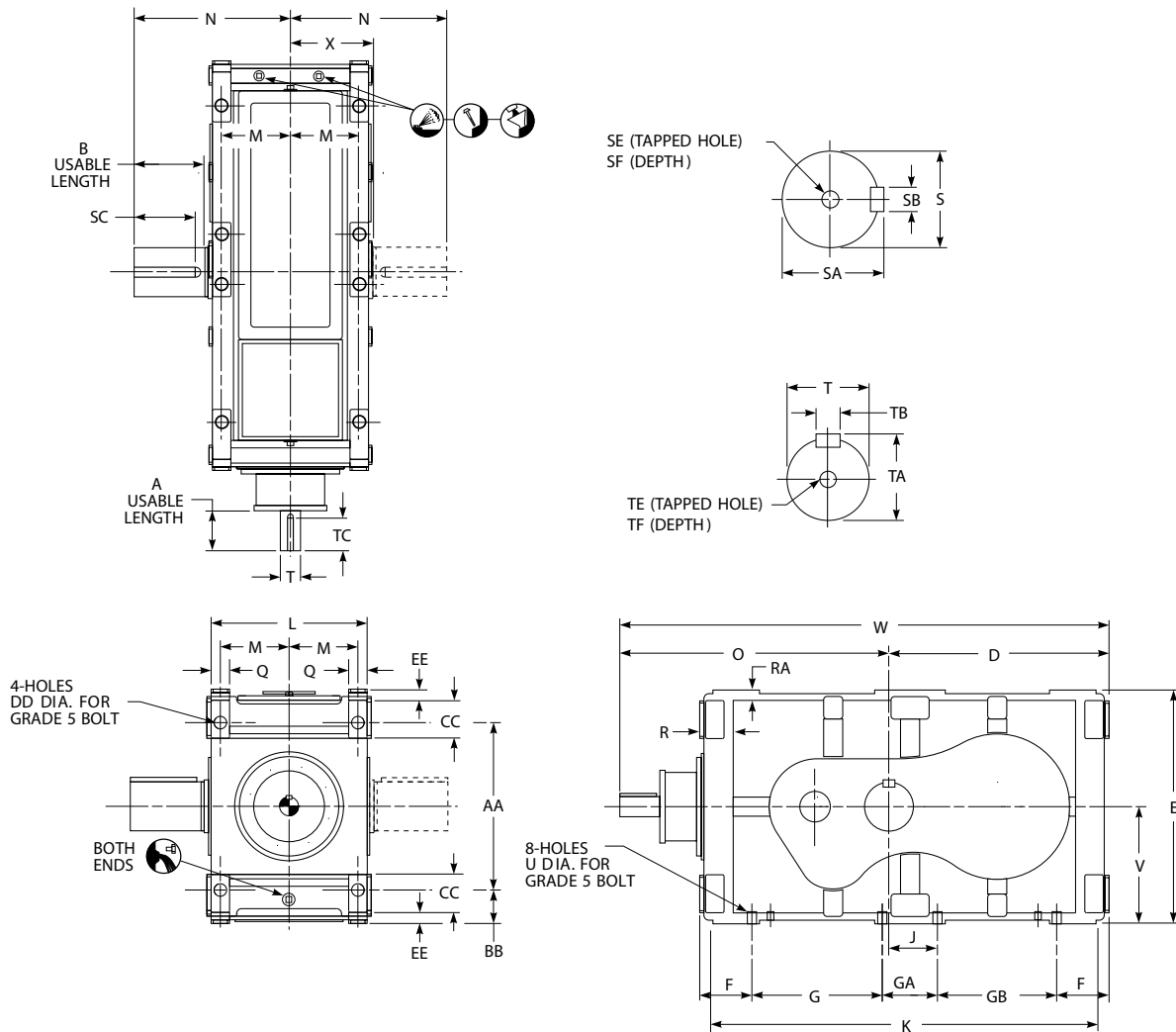
Approximate WR² (lb-in.²) Referred to Drive High Speed Shaft ★

Nominal Ratios	DRIVE SIZE												
	M1130	M1140	M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
8.00	...	...	...	...	...	...	...	...	...	18020	...	36698	...
9.00	...	...	...	...	...	...	...	...	...	16647	18965	34000	38937
10.0	...	...	...	...	...	...	...	...	...	15522	17392	31233	35811
11.2	...	...	...	...	...	...	...	4046	...	14521	16108	29321	32620
12.5	...	...	...	...	...	...	...	3867	4108	13823	14972	27677	30428
14.0	38.93	103.0	189.4	281.1	568.3	1069	1213	3640	3919	13512	14183	27250	28551
16.0	35.83	98.00	179.0	262.5	538.7	982.9	1083	3462	3681	13034	13797	26063	27965
18.0	33.56	92.26	171.4	248.1	502.5	924.1	946.2	3294	3494	12557	13268	25198	26629
20.0	31.65	88.97	163.0	235.3	480.5	879.2	859.4	3153	3319	12211	12744	24225	25652
22.4	29.78	85.77	156.9	223.3	456.8	842.9	784.6	1769	3174	11864	12358	23454	24584
25.0	28.49	82.60	151.4	214.7	444.5	794.4	716.6	1694	1787	11597	11982	22797	23734
28.0	15.56	43.47	78.37	119.2	236.0	449.4	765.7	1635	1708	6215	11691	11173	23017
31.5	14.82	41.62	75.90	114.4	223.9	430.3	721.4	1579	1645	6093	6287	10872	11355
35.5	14.20	40.55	73.26	110.2	216.6	415.7	693.2	1532	1578	5971	6152	10652	11015
40.0	13.58	39.52	71.20	106.2	208.7	403.9	668.9	1486	1539	5883	6019	10405	10767
45.0	13.16	38.49	69.43	103.3	204.6	388.2	646.8	1452	1491	5795	5921	10209	10496
50.0	12.45	37.71	65.48	96.09	192.0	371.4	632.3	1427	1457	5727	5825	10042	10280
56.0	12.13	36.82	63.85	93.32	187.2	363.9	609.6	1403	1431	5656	5751	9912	10098
63.0	11.81	36.29	62.39	91.13	182.8	355.8	597.5	1382	1406	5608	5674	9820	9956
71.0	11.61	35.86	61.55	89.84	179.2	349.0	584.7	1385	1385	...	5623	...	9857
80.0	11.42	35.37	60.78	88.20	176.5	344.5	572.8	1385	1385	...	...	...	...
90.0	4.797	11.75	21.03	32.83	70.10	137.6	221.6	568.8	579.5	...	...	...	...
100	4.673	11.54	20.44	31.97	68.34	134.4	216.8	560.6	569.8	...	...	...	...
112	4.592	11.37	20.10	31.47	66.89	131.6	211.6	...	561.5	...	...	...	...
125	4.519	11.18	19.79	30.83	65.77	129.8	206.9	...	...	...	...	...	...

★ Values in these tables are approximate. Where accurate figures are required, or for ratios not shown, consult the Factory. WR² referred to drive low speed shaft equals (exact total ratio)² times WR² referred to high speed shaft.

Type DBL2 Double Reduction

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1130	2.80-16.0	3.94	9.84	2.64	3.43	3.15	15.83	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.54	26.14	11.42	4.92	9.72	22.64	1.57	3.23	0.98
	18.0-25.0	2.76																		21.46			
M1140	2.80-16.0	4.33	12.44	2.64	3.07	3.54	17.56	1.10	18.58	1.18	4.57	9.06	4.72	9.06	3.94	29.61	13.39	5.91	10.71	24.78	1.97	3.43	1.18
	18.0-25.0	3.54																		23.94			
M1150	2.80-16.0	5.91	12.99	3.54	3.94	3.94	19.69	1.10	20.87	1.18	4.76	10.63	5.91	9.96	4.96	33.66	14.57	6.50	12.20	27.17	1.97	3.41	1.18
	18.0-25.0	3.94																		25.35			
M1160	2.80-16.0	5.91	14.57	3.54	3.74	3.94	21.26	1.10	22.05	1.18	4.92	11.71	6.50	10.93	5.41	36.61	15.94	6.99	12.89	30.28	1.97	3.35	1.18
	18.0-25.0	5.51																		29.88			

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1130	2.80-16.0	1.6535 m6	1.77	0.47	2.48	M16	1.42	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	38.46	6.10	694
	18.0-25.0							0.9843 j6	1.10	0.31	2.76	M10	0.87						37.28
M1140	2.80-16.0	2.1654 m6	2.32	0.63	2.48	M20	1.65	1.7717 k6	1.91	0.55	4.33	M16	1.42	0.73	9.29	42.32	7.09	996
	18.0-25.0							1.1811 j6	1.30	0.31	3.54	M10	0.87						41.50
M1150	2.80-16.0	2.7559 m6	2.93	0.79	3.54	M20	1.65	1.9685 k6	2.11	0.55	5.51	M16	1.42	0.73	10.43	46.85	7.68	1235
	18.0-25.0							1.3780 k6	1.50	0.39	3.94	M12	1.10						45.04
M1160	2.80-16.0	2.9528 m6	3.15	0.79	3.54	M20	1.65	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	11.02	51.54	8.37	1418
	18.0-25.0							1.5748 k6	1.69	0.47	5.51	M16	1.42						51.14

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

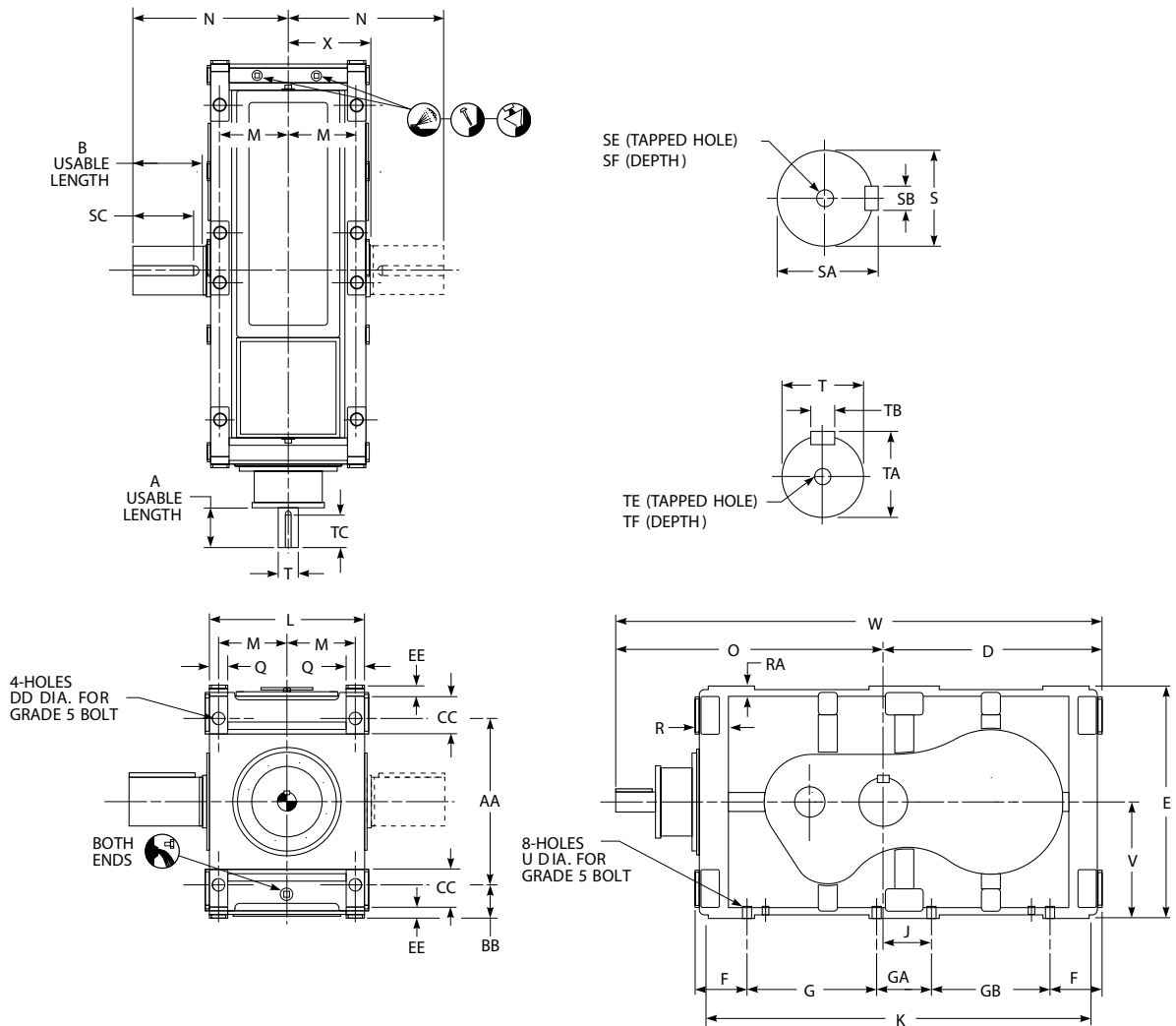
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBL2 Double Reduction

Sizes M1170 – M1200/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	O	Q	R	RA
M1170	2.80-16.0	6.10	16.93	4.53	3.94	3.94	23.23	1.38	24.80	1.18	5.51	13.78	5.91	12.60	5.12	40.94	16.14	7.09	13.98	31.38	1.97	3.54	1.18
	18.0-25.0	5.91																		31.14			
M1180	2.80-16.0	7.09	18.50	4.33	3.94	3.94	26.38	1.38	26.38	1.18	5.51	16.14	7.09	14.17	6.69	46.06	18.50	8.27	15.16	34.65	1.97	3.74	1.18
	18.0-25.0	6.30																		33.86			
M1190	2.80-16.0	7.68	21.26	5.91	4.13	4.33	29.33	1.65	29.53	1.18	5.91	18.31	7.09	17.13	6.30	51.97	20.08	8.46	17.42	37.60	3.35	4.33	1.18
	18.0-25.0	6.89																		36.81			
M1200	2.80-16.0	9.45	25.20	7.28	5.12	5.91	34.84	1.65	35.43	1.57	6.30	21.46	7.87	22.05	6.50	60.83	22.44	9.65	19.88	43.90	3.35	4.33	1.38
	18.0-25.0	9.45																		43.90			

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1170	2.80-16.0	3.1496 m6	3.35	0.87	3.94	M20	1.65	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	12.40	54.61	8.46	1889
	18.0-25.0							1.9685 k6	2.11	0.55	5.51	M16	1.42			54.37		
M1180	2.80-16.0	3.7402 m6	3.94	0.98	3.94	M24	1.97	2.7559 m6	2.93	0.79	7.09	M20	1.65	1.10	13.19	61.02	9.65	2740
	18.0-25.0							2.1654 m6	2.32	0.63	6.30					60.24		
M1190	2.80-16.0	3.9370 m6	4.17	1.10	4.92	M24	1.97	3.1496 m6	3.35	0.87	7.09	M20	1.65	1.38	14.76	66.93	10.43	3333
	18.0-25.0							2.5591 m6	2.72	0.71	6.30					66.14		
M1200	2.80-16.0	5.5118 m6	5.83	14.2	6.30	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	17.72	78.74	11.61	5088
	18.0-25.0							2.9528 m6	3.15	0.79						M20		

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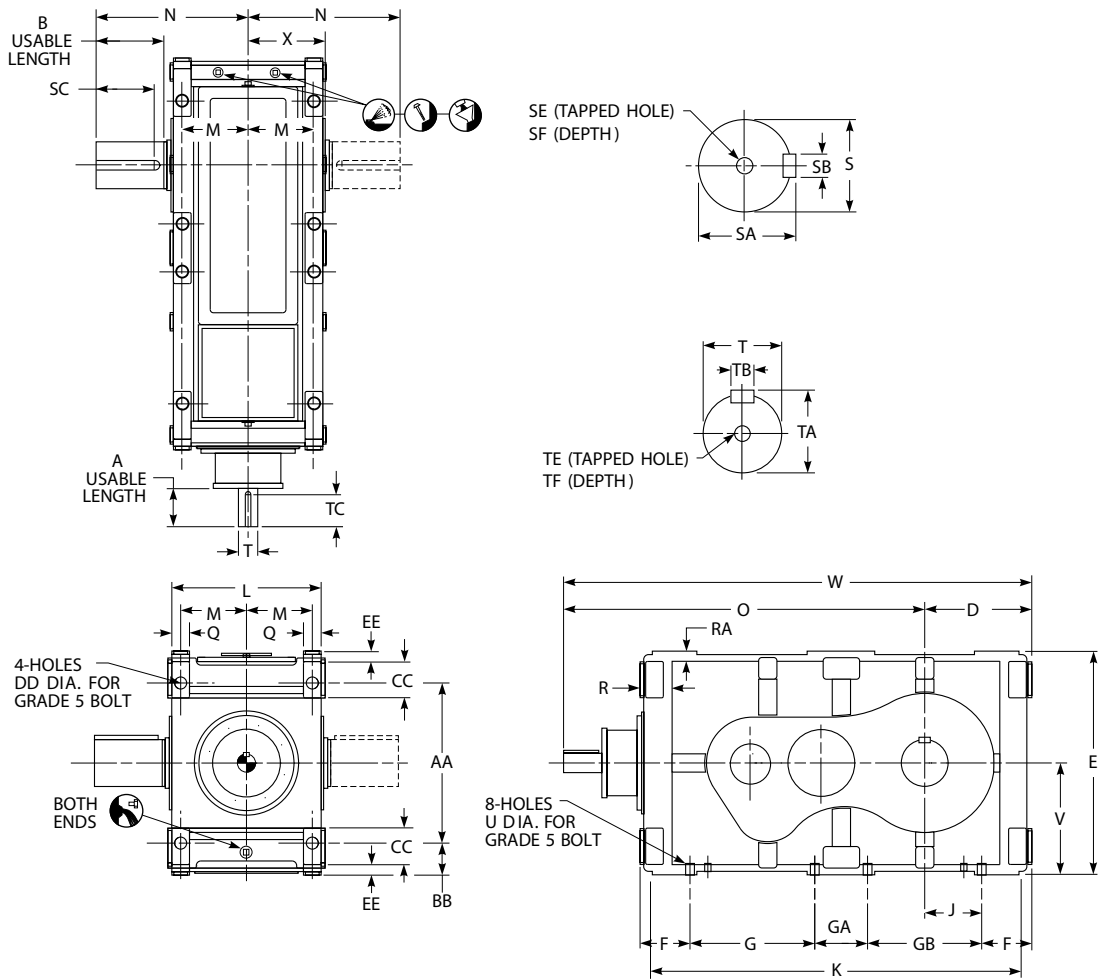
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

• Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBC3 Triple Reduction

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
		M1130	14.0-80.0 90.0-125.0	3.94 2.76	9.84	4.72	3.43	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	11.61	30.12 28.94	1.57	3.23	0.98
M1140	14.0-80.0 90.0-125.0	4.33 3.54	12.44	6.10	3.07	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	13.98	33.06 32.21	1.97	3.43	1.18
M1150	14.0-80.0 90.0-125.0	5.91 3.94	12.99	6.10	3.94	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	14.69	36.40 34.59	1.97	3.41	1.18
M1160	14.0-80.0 90.0-125.0	5.91 5.51	14.57	7.87	3.74	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	16.61	40.50 40.08	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1130	14.0-80.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	38.47	6.10	827
	0.9843 j6							1.10	0.31	2.76	M10	0.87	37.28					
M1140	14.0-80.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.7717 k6	1.91	0.55	4.33	M16	1.42	0.73	9.29	42.35	7.09	1186
	1.1811 j6							1.30	0.31	3.54	M10	0.87	41.50					
M1150	14.0-80.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.9685 k6	2.11	0.55	5.51	M16	1.42	0.73	10.43	46.83	7.68	1470
	1.3780 k6							1.50	0.39	3.94	M12	1.10	45.02					
M1160	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	11.02	51.52	8.37	1687
	1.5748 k6							1.69	0.47	5.51	M16	1.42	51.11					

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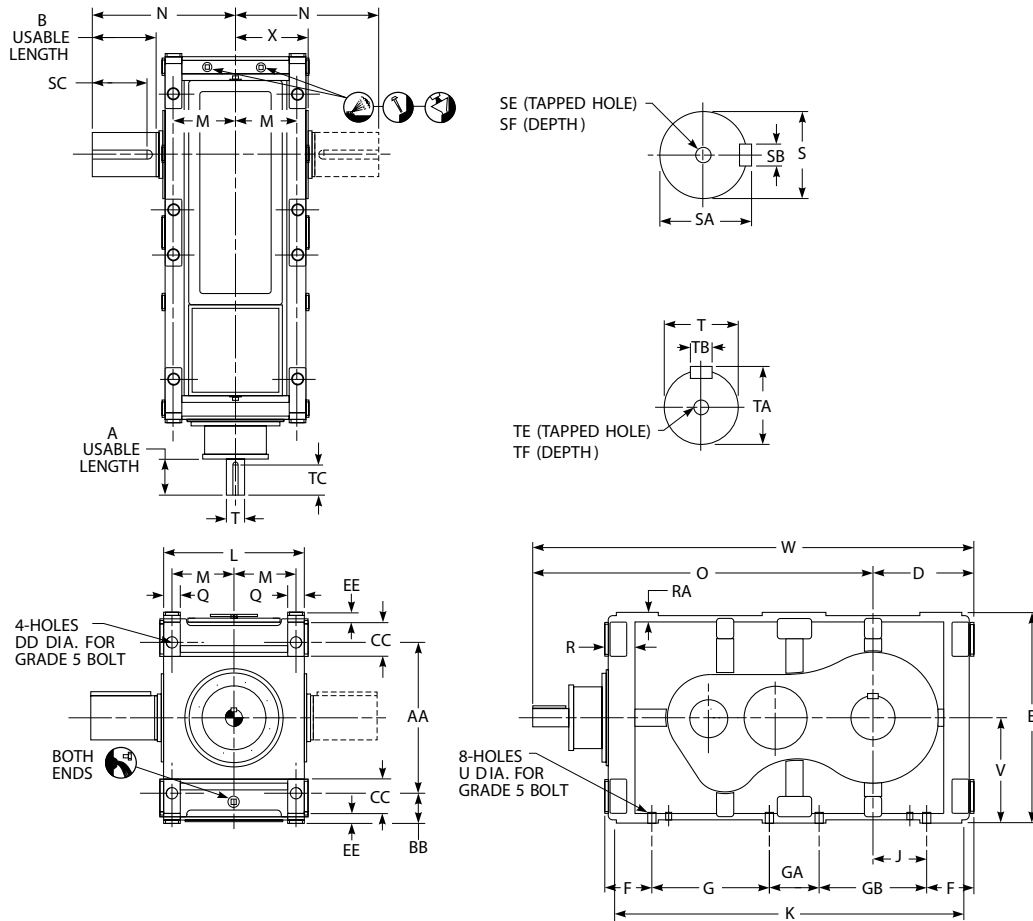
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBC3 Triple Reduction

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	O	Q	R	RA
M1170	14.0-80.0	6.10	16.93	7.48	3.94	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	16.93	42.81	1.97	3.54	1.18
	90.0-125.0	5.91																	42.57				
M1180	14.0-80.0	7.09	18.50	7.48	3.94	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	17.91	47.83	1.97	3.74	1.18
	90.0-125.0	6.30																	47.05				
M1190	14.0-80.0	7.68	21.26	8.86	4.13	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	20.28	52.14	3.35	4.33	1.18
	90.0-125.0	6.89																	51.33				
M1200	11.2-100.0	9.45	25.20	10.63	5.12	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	23.03	60.04	3.35	4.33	1.38
M1210	12.5-112.0	9.45	25.20	10.63	5.12	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	23.03	61.03	3.35	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF					
M1170	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	12.40	54.62	8.46	2249
	90.0-125.0							1.9685 k6	2.11	0.55	5.51	M16	1.42			54.38		
M1180	14.0-80.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	7.09	M20	1.65	1.10	13.19	61.02	9.65	3263
	90.0-125.0							2.1654 m6	2.32	0.63	6.30	M20	1.65			60.24		
M1190	14.0-80.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	7.09	M20	1.65	1.38	14.76	66.90	10.43	3968
	90.0-125.0							2.5591 m6	2.72	0.71	6.30	M20	1.65			66.09		
M1200	11.2-63.0	7.4803 m6	7.874	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	17.72	78.74	11.61	6057
	71.0-100.0							2.9528 m6	3.15	0.79		M20	1.65			78.74		
M1210	12.5-71.0	7.8740 m6	8.268	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	17.72	78.74	11.61	6289
	80.0-112.0							2.9528 m6	3.15	0.79		M20	1.65			78.74		

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

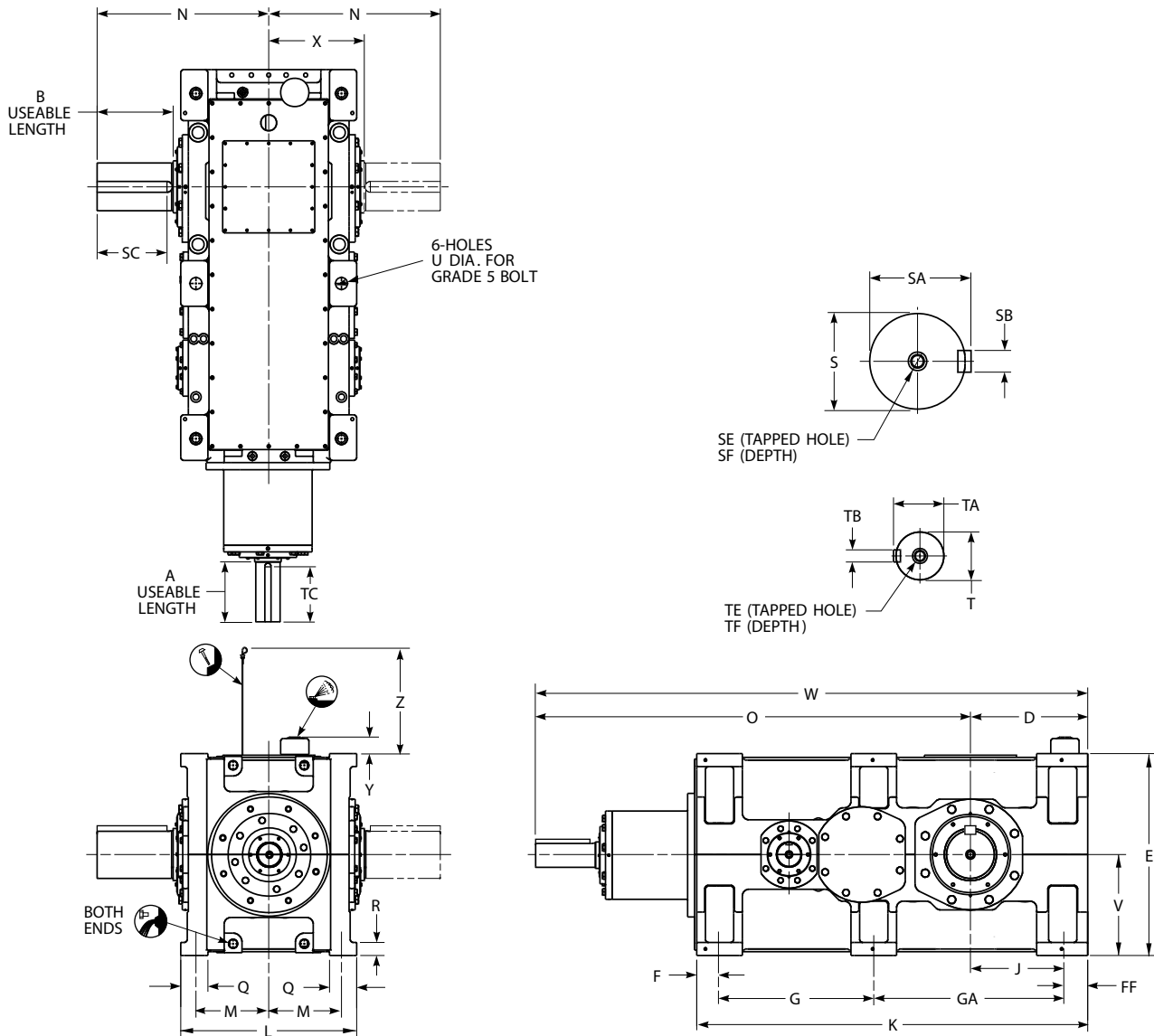
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBC3 Triple Reduction

Sizes M1220 – M1250/Dimensions — Inches



DRIVE SIZE ★	A	B	D	E	F	FF	G	GA	J	K	L	M	N ●	O	Q	R
M1220	10.63	13.78	22.83	36.61	3.94	4.33	28.15	34.45	18.50	70.87	31.89	13.19	31.10	76.77	4.92	2.36
M1230	10.63	13.78	21.26	36.61	3.94	4.33	28.15	34.45	16.93	70.87	31.89	13.19	31.10	78.35	4.92	2.36
M1240	10.63	16.14	26.38	43.31	4.72	5.51	32.68	39.57	20.87	82.48	35.43	14.76	35.24	82.09	5.51	2.56
M1250	10.63	16.14	24.41	43.31	4.72	5.51	32.68	39.57	18.90	82.48	35.43	14.76	35.24	84.06	5.51	2.56

DRIVE SIZE ★	Low Speed Shaft						High Speed Shaft						U	V	W	X	Y	Z	Approx Wt lb
	S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF							
M1220	8.6614 m6	9.09	1.97	12.60	M30	2.36	4.3307 m6	4.57	1.10	9.84	M24	1.97	1.89	18.31	99.61	17.32	3.31	26.10	10926
M1230	8.6614 m6	9.09	1.97	12.60	M30	2.36	4.3307 m6	4.57	1.10	9.84	M24	1.97	1.89	18.31	99.61	17.32	3.31	26.10	11433
M1240	9.8425 m6	10.31	2.20	14.17	M30	2.36	4.3307 m6	4.57	1.10	9.84	M24	1.97	2.17	21.65	108.46	19.09	3.23	29.84	15582
M1250	9.8425 m6	10.31	2.20	14.17	M30	2.36	4.3307 m6	4.57	1.10	9.84	M24	1.97	2.17	21.65	108.46	19.09	3.23	29.84	16462

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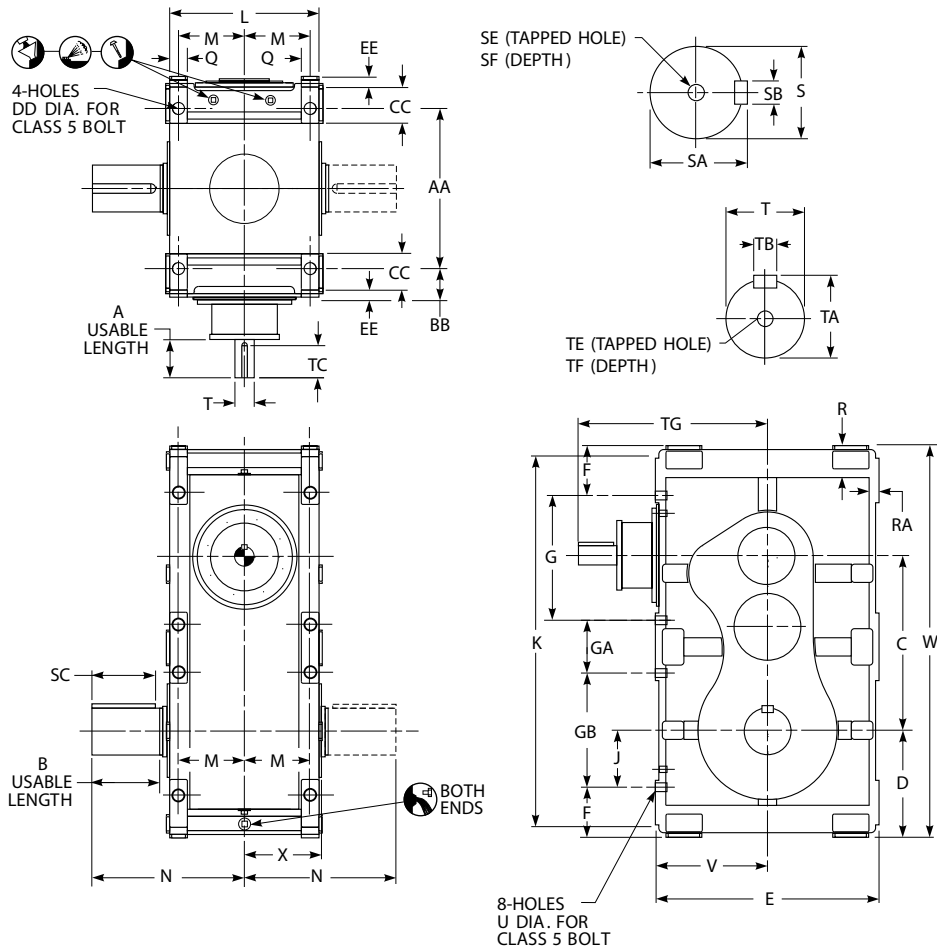
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

● Single low speed shaft extension is standard; double extension is special.

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Type DZC3 Triple Reduction

Sizes M1130 – M1150/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N •	Q	R	RA
M1130	14.0-80.0	3.94	9.84	4.72	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	11.61	1.57	3.23	0.98
	90.0-125.0	2.76																					
M1140	14.0-80.0	4.33	12.44	6.10	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	13.98	1.97	3.43	1.18
	90.0-125.0	3.54																					
M1150	14.0-80.0	5.91	12.99	6.10	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	14.69	1.97	3.41	1.18
	90.0-125.0	3.94																					

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						U	V	W	X	Approx Wt lb	
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF						TG
M1130	14.0-80.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	18.31	0.57	8.35	28.50	6.10	827
	90.0-125.0							0.9843 j6	1.10	0.31	2.76	M10	0.87	17.12					
M1140	14.0-80.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.7717 k6	1.91	0.55	4.33	M16	1.42	19.67	0.73	9.29	31.97	7.09	1186
	90.0-125.0							1.1811 j6	1.30	0.31	3.54	M10	0.87	18.82					
M1150	14.0-80.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.9685 k6	2.11	0.55	5.51	M16	1.42	21.26	0.73	10.43	36.02	7.68	1470
	90.0-125.0							1.3780 k6	1.50	0.39	3.94	M12	1.10	19.45					

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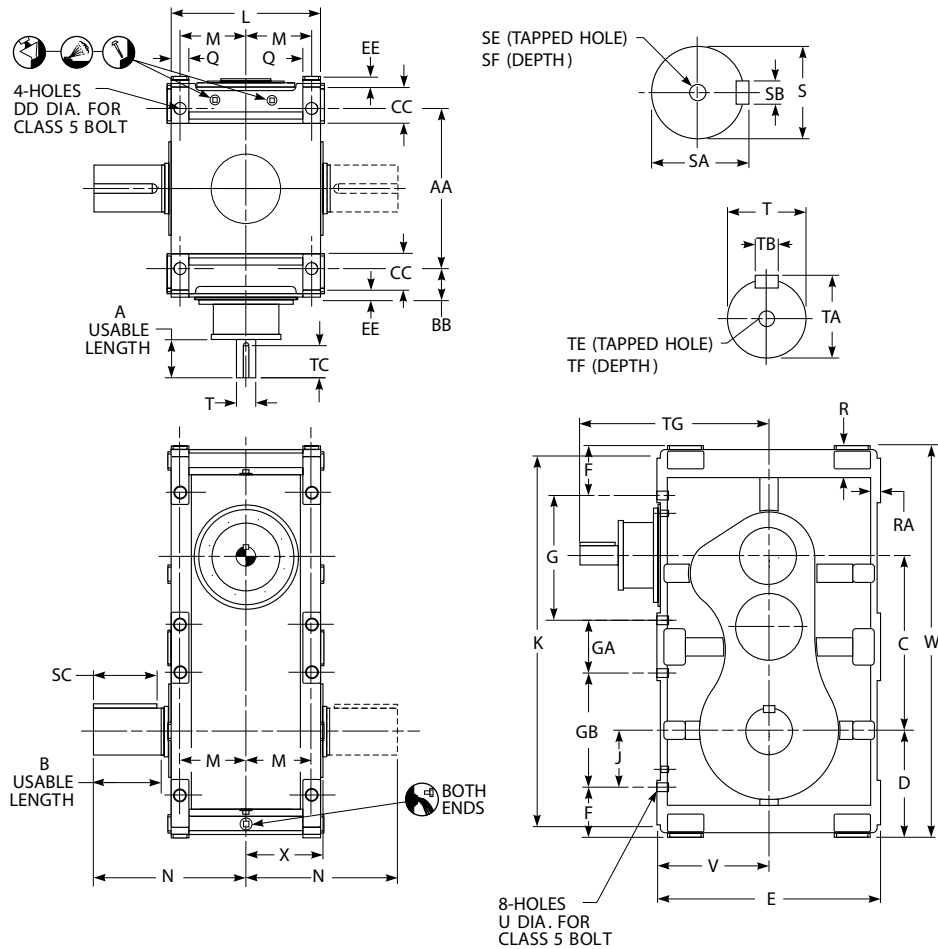
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

• Single low speed shaft extension is standard; double extension is special.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DZC3 Triple Reduction

Sizes M1160 – M1190/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	B	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	N ●	Q	R	RA
M1160	14.0-80.0	5.91	14.57	7.48	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	16.61	1.97	3.35	1.18
	90.0-125.0	5.51																					
M1170	14.0-80.0	6.10	16.93	7.48	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	16.93	1.97	3.54	1.18
	90.0-125.0	5.91																					
M1180	14.0-80.0	7.09	18.50	7.48	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	17.91	1.97	3.74	1.18
	90.0-125.0	6.30																					
M1190	14.0-80.0	7.68	21.26	8.86	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	20.28	3.35	4.33	1.18
	90.0-125.0	6.89																					

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							U	V	W	X	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF	TG						
M1160	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	23.56	0.94	11.02	38.98	8.37	1687	
	90.0-125.0							1.5748 k6	1.69	0.47	5.51	M16	1.42	23.15						
M1170	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	23.70	0.94	12.40	43.31	8.46	2249	
	90.0-125.0							1.9685 k6	2.11	0.55	5.51	M16	1.42	23.46						
M1180	14.0-80.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	7.09	M20	1.65	25.79	1.10	13.19	48.43	9.65	3263	
	90.0-125.0							2.1654 m6	2.32	0.63	6.30			25.00						
M1190	14.0-80.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	7.09	M20	1.65	27.33	1.38	14.76	54.33	10.43	3968	
	90.0-125.0							2.5591 m6	2.72	0.71	6.30			26.53						

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

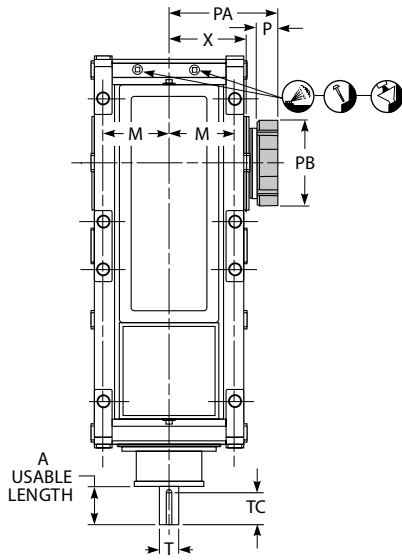
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

● Single low speed shaft extension is standard; double extension is special.

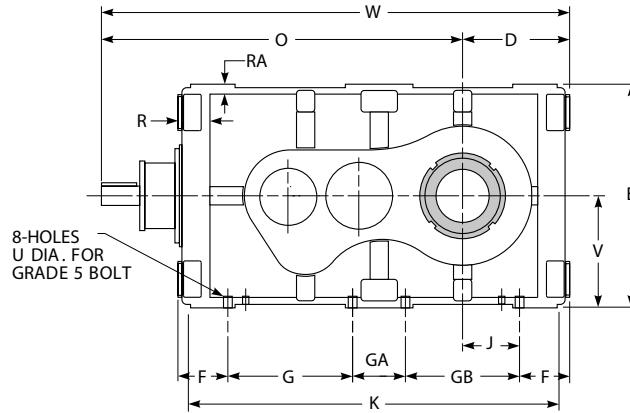
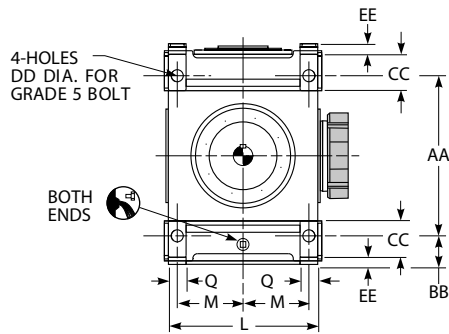
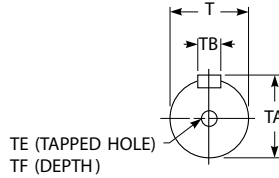
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBT3 Triple Reduction with TA Taper Bushing

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
		M1130	14.0-80.0 90.0-125.0	3.94 2.76	9.84	3.43	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	30.12 28.94	2.20	9.51	7.28	1.57	3.23	0.98
M1140	14.0-80.0 90.0-125.0	4.33 3.54	33.06 32.21	2.20																10.50							8.07	1.97	3.43	1.18
M1150	14.0-80.0 90.0-125.0	5.91 3.94	12.99	3.94	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	36.40 34.59	2.20	10.94	8.86	1.97	3.41	1.18
M1160	14.0-80.0 90.0-125.0	5.91 5.51																40.50 40.08							2.36	11.93	9.45	1.97	3.35	1.18

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF					
M1130	14.0-80.0	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	8.35	38.47	6.10	774
	90.0-125.0	0.9843 j6	1.10	0.31	2.76	M10	0.87			37.28		
M1140	14.0-80.0	1.7717 k6	1.91	0.55	4.33	M16	1.42	0.73	9.29	42.35	7.09	1100
	90.0-125.0	1.1811 j6	1.30	0.31	3.54	M10	0.87			41.50		
M1150	14.0-80.0	1.9685 k6	2.11	0.55	5.51	M16	1.42	0.73	10.43	46.83	7.68	1329
	90.0-125.0	1.3780 k6	1.50	0.39	3.94	M12	1.10			45.02		
M1160	14.0-80.0	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	11.02	51.52	8.37	1510
	90.0-125.0	1.5748 k6	1.69	0.47	5.51	M16	1.42			51.11		

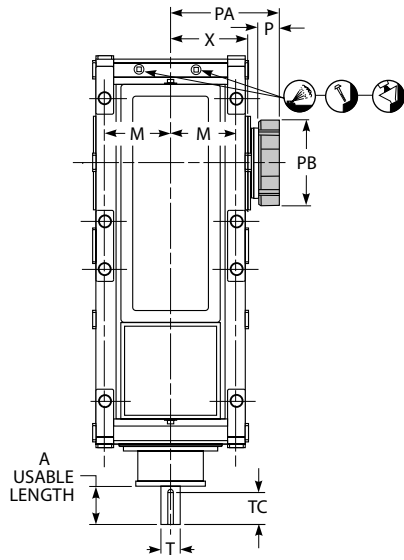
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

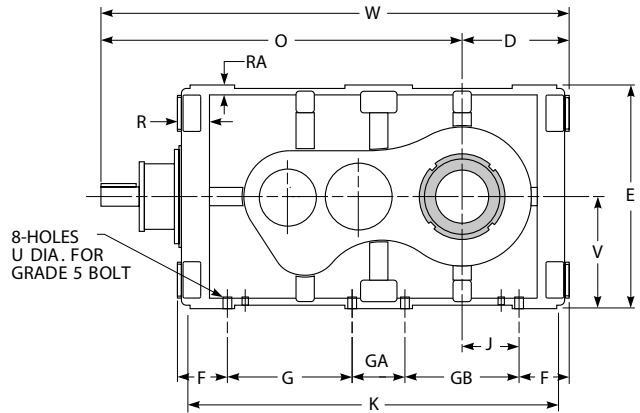
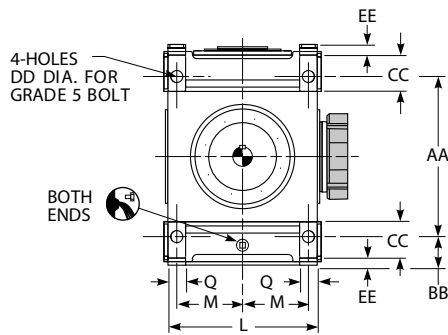
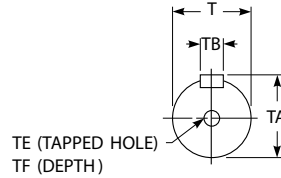
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBT3 Triple Reduction with TA Taper Bushing

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	O	P	PA	PB	Q	R	RA
M1170	14.0-80.0	6.10	16.93	3.94	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	42.81	2.36	11.81	10.24	1.97	3.54	1.18
	90.0-125.0	5.91																42.57						
M1180	14.0-80.0	7.09	18.50	3.94	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	47.83	2.36	13.19	11.02	1.97	3.74	1.18
	90.0-125.0	6.30																47.05						
M1190	14.0-80.0	7.68	21.26	4.13	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	52.14	2.56	13.98	11.61	3.35	4.33	1.18
	90.0-125.0	6.89																51.33						
M1200	11.2-100.0	9.45	25.20	5.12	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44	9.65	60.04	...	13.03	11.00	3.35	4.33	1.38
M1210	12.5-112.0	9.45	25.20	5.12	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44	9.65	61.03	...	13.03	11.00	3.35	4.33	1.38

DRIVE SIZE ★	Ratios	High Speed Shaft †						U	V	W	X	Approx Wt lb
		T*	TA	TB	TC	TE	TF					
M1170	14.0-80.0	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	12.40	54.62	8.46	2249
	90.0-125.0	1.9685 k6	2.11	0.55	5.51	M16	1.42			54.38		
M1180	14.0-80.0	2.7559 m6	2.93	0.79	7.09	M20	1.65	1.10	13.19	61.02	9.65	3263
	90.0-125.0	2.1654 m6	2.32	0.63	6.30					60.24		
M1190	14.0-80.0	3.1496 m6	3.35	0.87	7.09	M20	1.65	1.38	14.76	66.90	10.43	3968
	90.0-125.0	2.5591 m6	2.72	0.71	6.30					66.09		
M1200	11.2-63.0	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	17.72	78.74	11.61	5650
	71.0-100.0	2.9528 m6	3.15	0.79		M20	1.65					
M1210	12.5-71.0	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	17.72	78.74	11.61	5849
	80.0-112.0	2.9528 m6	3.15	0.79		M20	1.65					

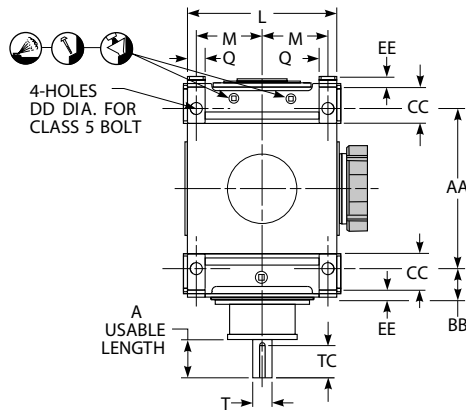
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

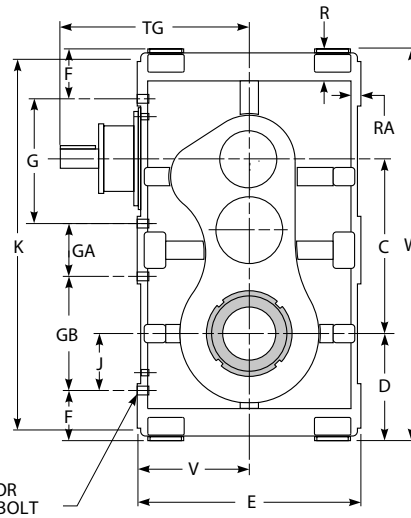
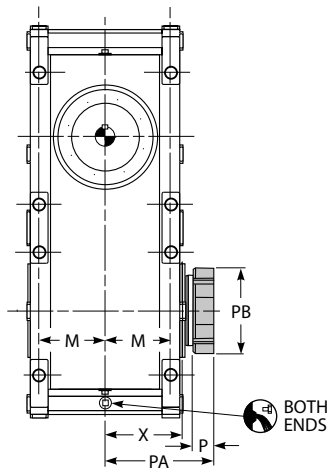
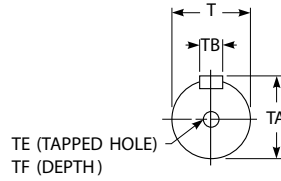
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DZT3 Triple Reduction

Sizes M1130 – M1150/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	P	PA	PB	Q	R	RA
M1130	14.0-80.0	3.94	9.84	3.43	11.81	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42	4.92	2.20	9.51	7.28	1.57	3.23	0.98
	90.0-125.0	2.76																						
M1140	14.0-80.0	4.33	12.44	3.07	13.39	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39	5.91	2.20	10.50	8.07	1.97	3.43	1.18
	90.0-125.0	3.54																						
M1150	14.0-80.0	5.91	12.99	3.94	15.16	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57	6.50	2.20	10.94	8.86	1.97	3.41	1.18
	90.0-125.0	3.94																						

DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt lb
		T *	TA	TB	TC	TE	TF	TG					
M1130	14.0-80.0	1.5748 k6	1.69	0.47	3.94	M16	1.42	18.31	0.57	8.35	28.50	6.10	774
	90.0-125.0	0.9843 j6	1.10	0.31	2.76	M10	0.87	17.12					
M1140	14.0-80.0	1.7717 k6	1.91	0.55	4.33	M16	1.42	19.67	0.73	9.29	31.97	7.09	1100
	90.0-125.0	1.1811 j6	1.30	0.31	3.54	M10	0.87	18.82					
M1150	14.0-80.0	1.9685 k6	2.11	0.55	5.51	M16	1.42	21.26	0.73	10.43	36.02	7.68	1329
	90.0-125.0	1.3780 k6	1.50	0.39	3.94	M12	1.10	19.45					

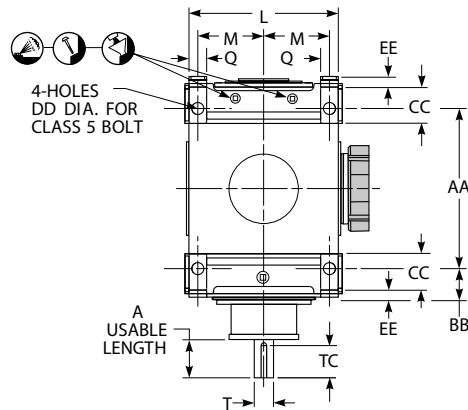
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

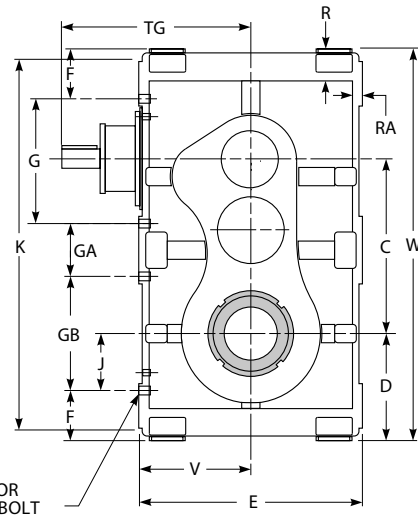
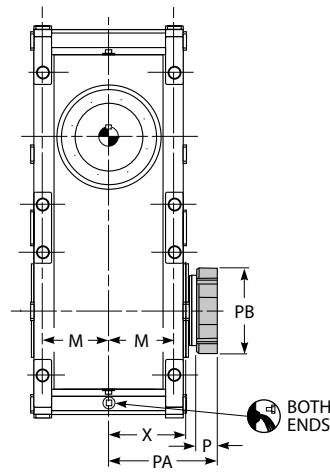
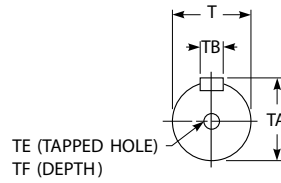
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DZT3 Triple Reduction

Sizes M1160 – M1190/Dimensions — Inches



Refer to Page 164 for standard bushing bores.



DRIVE SIZE ★	Ratios	A	AA	BB	C	CC	D	DD	E	EE	F	G	GA	GB	J	K	L	M	P	PA	PB	Q	R	RA
M1160	14.0-80.0	5.91	14.57	3.74	16.93	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94	6.99	2.36	11.93	9.45	1.97	3.35	1.18
	90.0-125.0	5.51																						
M1170	14.0-80.0	6.10	16.93	3.94	19.09	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14	7.09	2.36	11.81	10.24	1.97	3.54	1.18
	90.0-125.0	5.91																						
M1180	14.0-80.0	7.09	18.50	3.94	22.05	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50	8.27	2.36	13.19	11.02	1.97	3.74	1.18
	90.0-125.0	6.30																						
M1190	14.0-80.0	7.68	21.26	4.13	24.80	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08	8.46	2.56	13.98	11.61	3.35	4.33	1.18
	90.0-125.0	6.89																						

DRIVE SIZE ★	Ratios	High Speed Shaft †							U	V	W	X	Approx Wt lb
		T*	TA	TB	TC	TE	TF	TG					
M1160	14.0-80.0	2.1654 m6	2.32	0.63	5.91	M20	1.65	23.56	0.94	11.02	38.98	8.37	1510
	90.0-125.0	1.5748 k6	1.69	0.47	5.51	M16	1.42	23.15					
M1170	14.0-80.0	2.1654 m6	2.32	0.63	5.91	M20	1.65	23.70	0.94	12.40	43.31	8.46	2249
	90.0-125.0	1.9685 k6	2.11	0.55	5.51	M16	1.42	23.46					
M1180	14.0-80.0	2.7559 m6	2.93	0.79	7.09	M20	1.65	25.79	1.10	13.19	48.43	9.65	3263
	90.0-125.0	2.1654 m6	2.32	0.63	6.30			25.00					
M1190	14.0-80.0	3.1496 m6	3.35	0.87	7.09	M20	1.65	27.33	1.38	14.76	54.33	10.43	3968
	90.0-125.0	2.5591 m6	2.72	0.71	6.30			26.53					

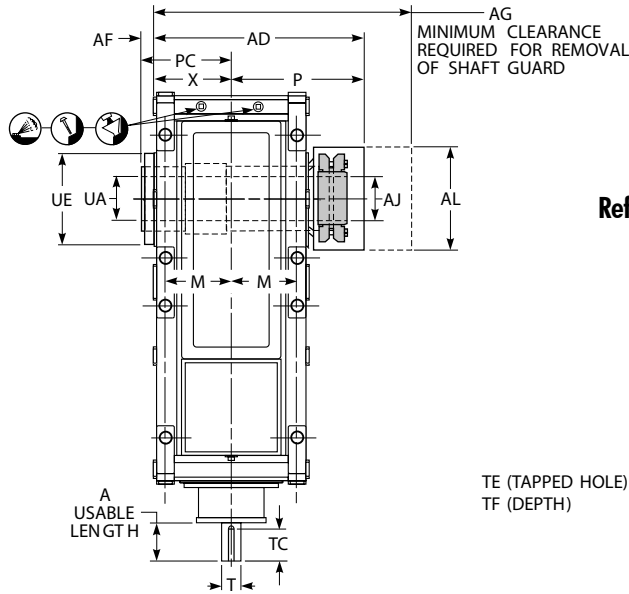
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

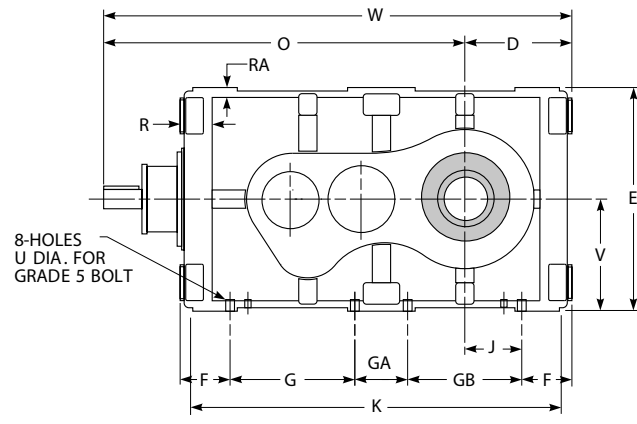
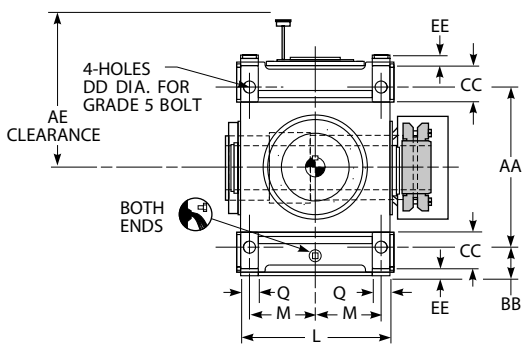
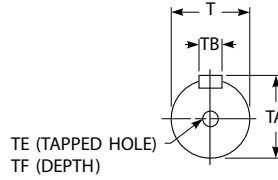
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DBJ3 Triple Reduction w/Hollow LSS - Shrink Disc Mounted

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 166 for hollow low speed and driven shaft recommendations & dimensions.



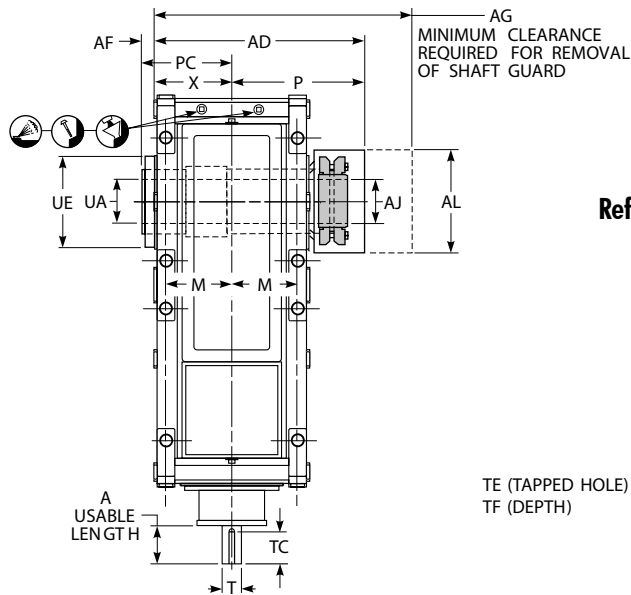
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	14.0 - 80.0	3.94	9.84	16.57	12.09	0.79	21.14	3.3465	8.46	3.43	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
	90.0 - 125.0	2.76																				
M1140	14.0 - 80.0	4.33	12.44	18.82	13.54	0.75	23.66	3.9370	10.24	3.07	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
	90.0 - 125.0	3.54																				
M1150	14.0 - 80.0	5.91	12.99	20.39	15.00	0.83	25.63	4.3307	10.98	3.94	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	90.0 - 125.0	3.94																				
M1160	14.0 - 80.0	5.91	14.57	22.20	15.67	0.75	27.83	5.1181	13.78	3.74	3.94	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94
	90.0 - 125.0	5.51																				

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
									T *	TA	TB	TC	TE	TF							
M1130	14.0 - 80.0	4.92	30.12	10.39	6.89	1.57	3.23	0.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	3.5433	7.48	8.35	38.47	6.10	774
	90.0 - 125.0		28.94						0.9843 j6	1.10	0.31	2.76	M10	0.87					37.28		
M1140	14.0 - 80.0	5.91	33.06	11.69	7.83	1.97	3.43	1.18	1.7717 k6	1.91	0.55	4.33	M16	1.42	0.73	4.1339	9.25	9.29	42.35	7.09	1100
	90.0 - 125.0		32.21						1.1811 j6	1.30	0.31	3.54	M10	0.87					41.50		
M1150	14.0 - 80.0	6.50	36.40	12.99	8.50	1.97	3.41	1.18	1.9685 k6	2.11	0.55	5.51	M16	1.42	0.73	4.5276	9.37	10.43	46.83	7.68	1329
	90.0 - 125.0		34.59						1.3780 k6	1.50	0.39	3.94	M12	1.10					45.02		
M1160	14.0 - 80.0	6.99	40.50	13.78	9.13	1.97	3.35	1.18	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	5.3150	10.24	11.02	51.52	8.37	1510
	90.0 - 125.0		40.08						1.5748 k6	1.69	0.47	5.51	M16	1.42					51.11		

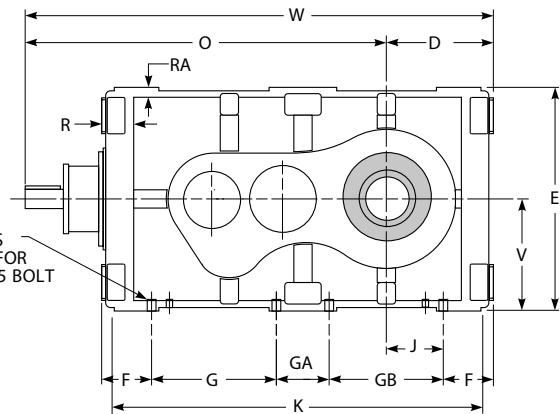
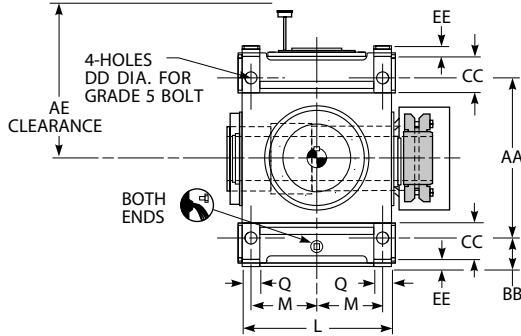
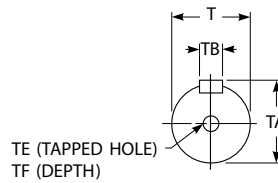
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
 † Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.
 ● j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".
 ■ H7 tolerance.
 ■ H7 tolerance.

Type DBJ3 Triple Reduction w/Hollow LSS - Shrink Disc Mounted

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 166 for hollow low speed and driven shaft recommendations & dimensions.



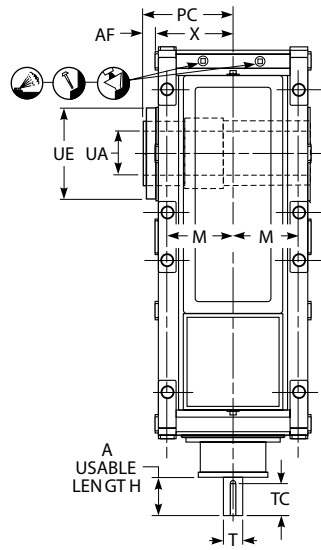
DRIVE SIZE ★	Ratios	A	AA	AD	AE	AF	AG	AJ ●	AL	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	14.0 - 80.0	6.10	16.93	22.44	18.31	0.83	28.15	5.5118	12.95	3.94	3.94	11.81	1.38	24.80	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
	90.0 - 125.0	5.91																				
M1180	14.0 - 80.0	7.09	18.50	25.98	19.96	0.79	32.87	6.4961	15.75	3.94	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
	90.0 - 125.0	6.30																				
M1190	14.0 - 80.0	7.68	21.26	27.83	23.46	0.91	34.84	7.0866	17.32	4.13	4.33	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
	90.0 - 125.0	6.89																				
M1200	11.2 - 100.0	9.45	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	5.91	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
M1210	12.5 - 112.0	9.45	25.20	30.98	29.57	0.87	38.27	7.8740	18.70	5.12	5.91	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44

DRIVE SIZE ★	Ratios	M	O	P	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
									T*	TA	TB	TC	TE	TF							
M1170	14.0 - 80.0	7.09	42.81	13.90	9.29	1.97	3.54	1.18	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	5.7087	11.42	12.40	54.62	8.46	2249
	1.9685 k6		2.11						0.55	5.51	M16	1.42	54.38								
M1180	14.0 - 80.0	8.27	47.83	16.30	10.43	1.97	3.74	1.18	2.7559 m6	2.93	0.79	7.09	M20	1.65	1.10	6.6929	13.78	13.19	61.02	9.65	3263
	2.1654 m6		2.32						0.63	6.30	60.24										
M1190	14.0 - 80.0	8.46	52.14	17.32	11.34	3.35	4.33	1.18	3.1496 m6	3.35	0.87	7.09	M20	1.65	1.38	7.2835	14.57	14.76	66.90	10.43	3968
	2.5591 m6		2.72						0.71	6.30	66.09										
M1200	11.2 - 63.0	9.65	60.04	19.69	12.48	3.35	4.33	1.38	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	8.2677	15.35	17.72	78.74	11.61	5650
	2.9528 m6								3.15	0.79	M20		1.65	60.24							
M1210	12.5 - 71.0	9.65	61.03	19.69	12.48	3.35	4.33	1.38	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	8.2677	15.35	17.72	78.74	11.61	5849
	2.9528 m6								3.15	0.79	M20		1.65	60.24							

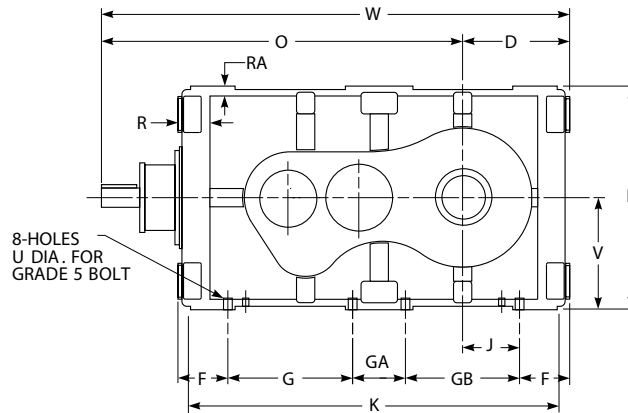
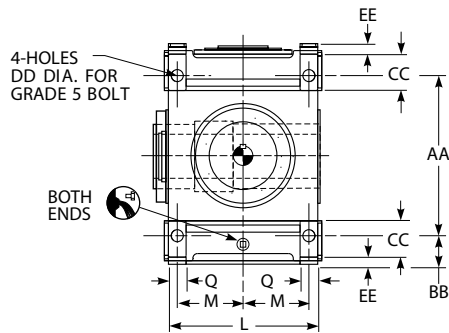
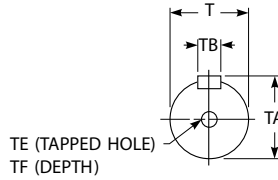
★ See footnotes on Page 140.

Type DBQ3 Triple Reduction With Hollow Low Speed Shaft

Sizes M1130 – M1160/Dimensions — Inches



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.



DRIVE SIZE ★	Ratios	A	AA	AF	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1130	14.0 - 80.0	3.94	9.84	0.81	3.43	3.15	8.35	0.94	16.69	1.18	4.41	7.87	3.94	7.87	3.94	26.14	11.42
	90.0 - 125.0	2.76															
M1140	14.0 - 80.0	4.33	12.44	0.75	3.07	3.54	9.29	1.10	18.58	1.18	4.57	9.06	4.72	9.06	4.72	29.61	13.39
	90.0 - 125.0	3.54															
M1150	14.0 - 80.0	5.91	12.99	0.87	3.94	3.94	10.43	1.10	20.87	1.18	4.76	10.63	5.91	9.96	5.67	33.66	14.57
	90.0 - 125.0	3.94															
M1160	14.0 - 80.0	5.91	14.57	0.80	3.74	3.74	11.02	1.10	22.05	1.18	4.92	11.71	6.50	10.93	6.10	36.61	15.94
	90.0 - 125.0	5.51															

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
								T *	TA	TB	TC	TE	TF							
M1130	14.0 - 80.0	4.92	30.12	6.91	1.57	3.23	0.98	1.5748 k6	1.69	0.47	3.94	M16	1.42	0.57	3.74	8.81	8.35	38.47	6.10	740
	90.0 - 125.0		28.94					0.9846 j6	1.10	0.31	2.76	M10	0.87					37.28		
M1140	14.0 - 80.0	5.91	33.06	7.83	1.97	3.43	1.18	1.7717 k6	1.91	0.55	4.33	M16	1.42	0.73	4.33	10.30	9.29	42.35	7.09	1065
	90.0 - 125.0		32.21					1.1811 j6	1.30	0.31	3.54	M10	0.87					41.5		
M1150	14.0 - 80.0	6.50	36.4	7.68	1.97	3.41	1.18	1.9685 k6	2.11	0.55	5.51	M16	1.42	0.73	4.73	10.78	10.43	46.83	7.68	1321
	90.0 - 125.0		34.59					1.3780 k6	1.50	0.39	3.94	M12	1.10					45.02		
M1160	14.0 - 80.0	6.99	40.5	9.17	1.97	3.35	1.18	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	5.32	11.56	11.02	51.52	8.37	1698
	90.0 - 125.0		40.08					1.5748 k6	1.69	0.47	5.51	M16	1.42					51.11		

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

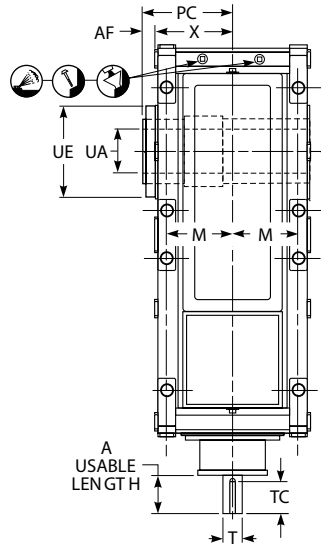
† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

★ j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

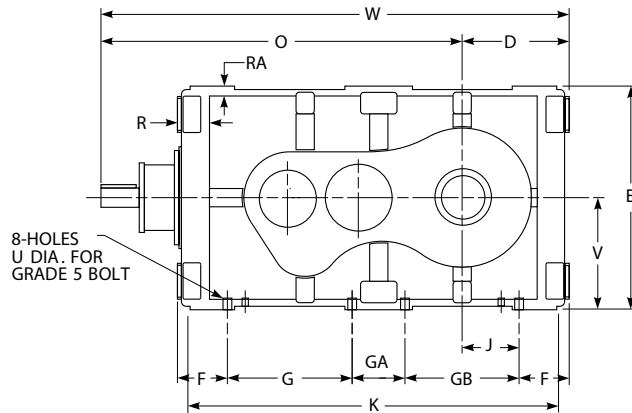
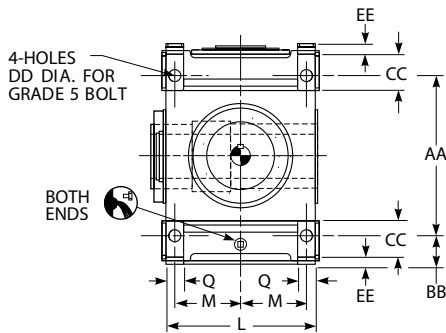
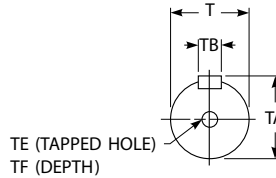
■ H7 tolerance.

Type DBQ3 Triple Reduction With Hollow Low Speed Shaft

Sizes M1170 – M1210/Dimensions — Inches



Refer to Page 168 for hollow low speed and driven shaft recommendations & dimensions.



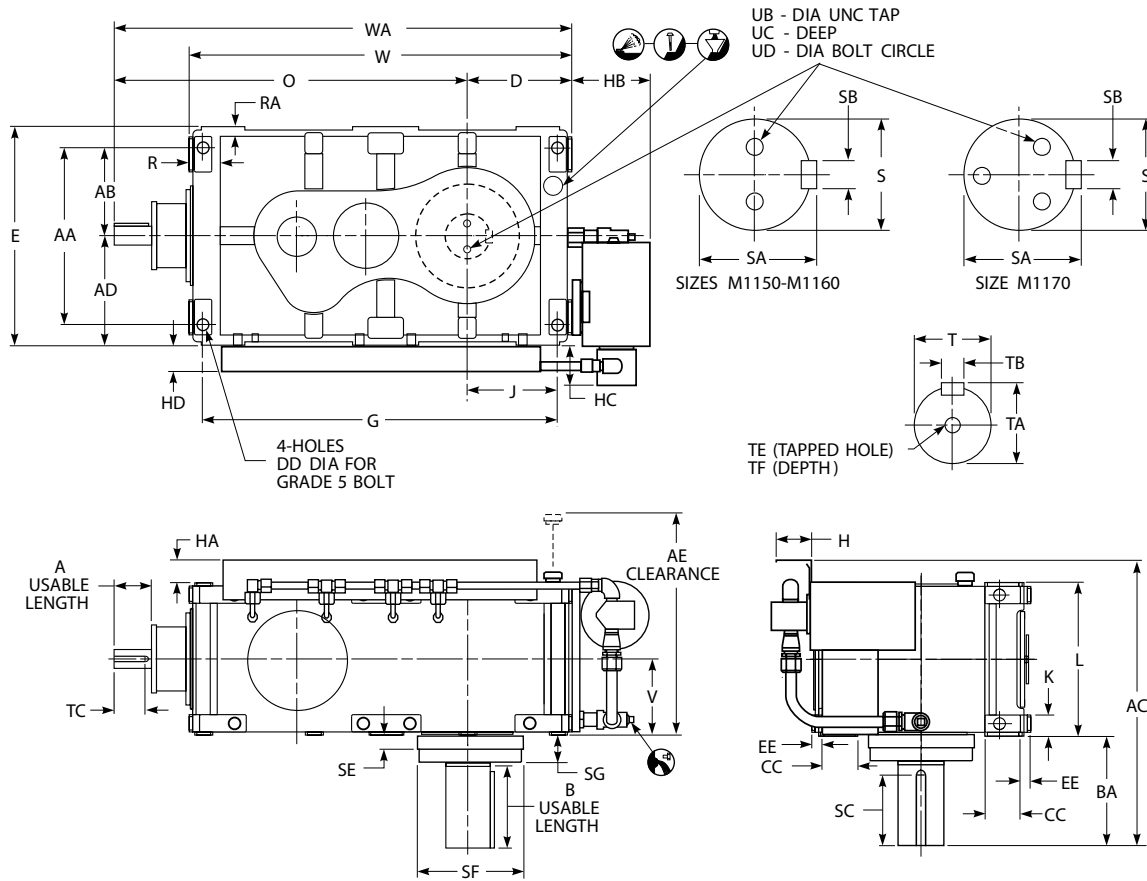
DRIVE SIZE ★	Ratios	A	AA	AF	BB	CC	D	DD	E	EE	F	G	GA	GB	J	K	L
M1170	14.0-80.0	6.10	16.93	0.85	3.94	3.94	11.81	1.38	24.8	1.18	5.51	13.78	5.91	12.60	6.30	40.94	16.14
	90.0-125.0	5.91															
M1180	14.0-80.0	7.09	18.50	0.79	3.94	3.94	13.19	1.38	26.38	1.18	5.51	16.14	7.09	14.17	7.68	46.06	18.50
	90.0-125.0	6.30															
M1190	14.0-80.0	7.68	21.26	0.91	4.13	4.13	14.76	1.65	29.53	1.18	5.91	18.31	7.09	17.13	8.86	51.97	20.08
	90.0-125.0	6.89															
M1200	11.2-100.0	9.45	25.20	0.87	5.12	5.12	18.70	1.65	35.43	1.57	6.30	21.46	7.87	22.05	12.40	60.83	22.44
M1210	12.5-112.0	9.45	25.20	0.87	5.12	5.12	17.72	1.65	35.43	1.57	6.30	21.46	7.87	22.05	11.42	60.83	22.44

DRIVE SIZE ★	Ratios	M	O	PC	Q	R	RA	High Speed Shaft †						U	UA ■	UE	V	W	X	Approx Wt lb
								T *	TA	TB	TC	TE	TF							
M1170	14.0-80.0	7.09	42.81	9.31	1.97	3.54	1.18	2.1654 m6	2.32	0.63	5.91	M20	1.65	0.94	5.91	12.59	12.40	54.62	8.46	2055
	90.0-125.0		42.57					1.9685 k6	2.11	0.55	5.51	M16	1.42					54.38		
M1180	14.0-80.0	8.27	47.83	10.43	1.97	3.74	1.18	2.7559 m6	23.93	0.79	7.09	M20	1.65	1.10	6.69	15.04	13.19	61.02	9.65	2899
	90.0-125.0		47.05					2.1654 m6	2.32	0.63	6.30							60.24		
M1190	14.0-80.0	8.46	52.14	11.34	3.35	4.33	1.18	3.1496 m6	3.35	0.87	7.09	M20	1.65	1.38	7.28	15.90	14.76	66.9	10.43	4026
	90.0-125.0		51.33					2.5591 m6	2.72	0.71	6.30							66.09		
M1200	11.2-63.0	9.65	60.04	12.48	3.35	4.33	1.38	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	8.66	16.69	17.72	78.74	11.61	5615
	71.0-100.0							2.9528 m6	3.15	0.79		M20	1.65							
M1210	12.5-71.0	9.65	61.03	12.48	3.35	4.33	1.38	4.3307 m6	4.57	1.10	8.66	M24	1.97	1.38	8.66	16.69	17.72	78.74	11.61	5818
	80.0-112.0							2.9528 m6	3.15	0.79		M20	1.65							

★ See footnotes on Page 142.

Type DXA3 Triple Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	14.0-80.0	5.91	16.14	8.07	31.10	10.43	25.79	9.45	13.58	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	36.40	3.41	1.18
	90.0-125.0	3.94																						34.59		
M1160	14.0-80.0	5.91	17.32	8.66	32.60	11.02	28.03	9.45	13.90	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	40.50	3.35	1.18
	90.0-125.0	5.51																						40.08		
M1170	14.0-80.0	6.10	20.08	10.04	34.17	12.40	28.50	11.02	15.28	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	42.81	3.54	1.18
	90.0-125.0	5.91																						42.57		

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †						UB	UC	UD	V	W	WA	Approx Wt lb
		S *	SA	SB	SC	SE	SF ±.002	SG	T *	TA	TB	TC	TE	TF							
M1150	14.0-80.0								1.9685 k6	2.11	0.55	5.51	M16	1.42	M20	0.98	4.528	7.68	36.02	46.83	1545
	90.0-125.0	6.2992 m6	6.65	1.57	7.87	1.81	12.992	3.94	1.3780 k6	1.50	0.39	3.94	M12	1.10						45.02	
M1160	14.0-80.0								2.1654 m6	2.32	0.63	5.91	M20	1.65	M24	1.50	4.528	8.37	38.98	51.52	1761
	90.0-125.0	6.6929 m6	7.05	1.57	7.87	1.81	14.173	4.33	1.5748 k6	1.69	0.47	5.51	M16	1.42						51.11	
M1170	14.0-80.0								2.1654 m6	2.32	0.63	5.91	M20	1.65	M30	1.57	5.118	8.46	43.31	54.62	2324
	90.0-125.0	7.4803 m6	7.87	1.77	8.66	1.85	15.354	3.98	1.9685 k6	2.11	0.55	5.51	M16	1.42						54.38	

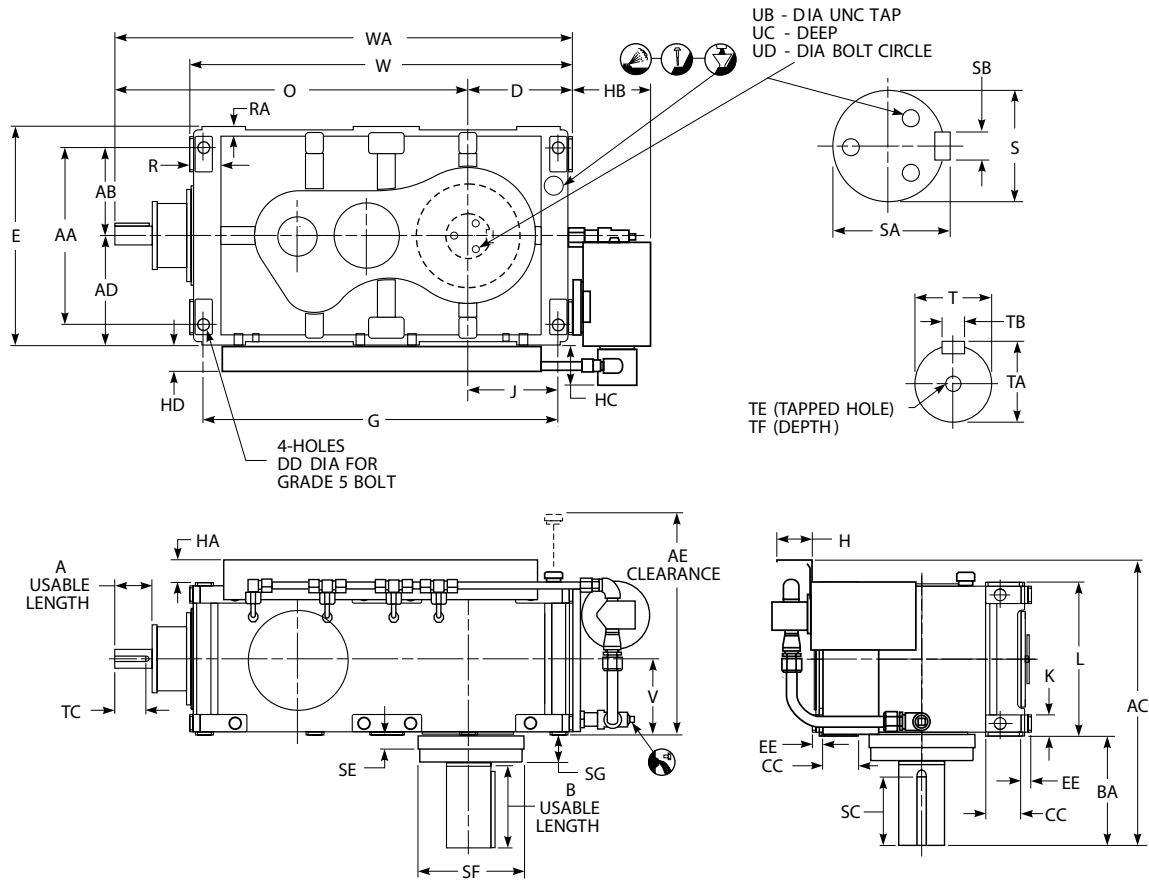
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXA3 Triple Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	14.0-80.0	7.09	21.65	10.83	38.15	13.19	32.56	11.02	16.89	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	47.83	3.74	1.18
	90.0-125.0	6.30																						47.05		
M1190	14.0-80.0	7.68	24.80	12.40	39.21	14.76	35.20	11.02	16.97	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	52.14	4.33	1.18
	90.0-125.0	6.89																						51.33		
M1200	11.2-100.0	9.45	31.50	15.75	42.80	17.72	39.09	12.99	18.66	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	60.04	4.33	1.38
M1210	12.5-112.0	9.45	31.50	15.75	42.80	17.72	39.09	12.99	18.66	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	61.03	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †							High Speed Shaft †							UB	UC	UD	V	W	WA	Approx Wt lb
		S *	SA	SB	SC	SE	SF ±.002	SG	T *	TA	TB	TC	TE	TF								
M1180	14.0-80.0	7.8740 m6	8.27	1.77	8.66	1.81	17.717	5.31	2.7559 m6	2.93	0.79	7.09	M20	1.65	M30	1.57	5.512	9.65	48.43	61.02	3338	
	2.1654 m6								2.32	0.63	6.30	60.24										
M1190	14.0-80.0	8.6614 m6	9.09	1.97	8.66	1.91	19.685	5.41	3.1496 m6	3.35	0.87	7.09	M20	1.65	M30	1.57	6.299	10.43	54.33	66.90	4043	
	2.5591 m6								2.72	0.71	6.30	66.09										
M1200	11.2-63.0	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	4.3307 m6	4.57	1.10	8.66	M24	1.97	M36	1.97	6.693	11.61	63.98	78.74	6779	
	2.9528 m6								3.15	0.79	M20		1.65	60.04								
M1210	12.5-71.0	10.2362 m6	10.71	2.20	11.02	2.13	20.472	5.08	4.3307 m6	4.57	1.10	8.66	M24	1.97	M36	1.97	6.693	11.61	63.98	78.74	6779	
	2.9528 m6								3.15	0.79	M20		1.65	60.04								

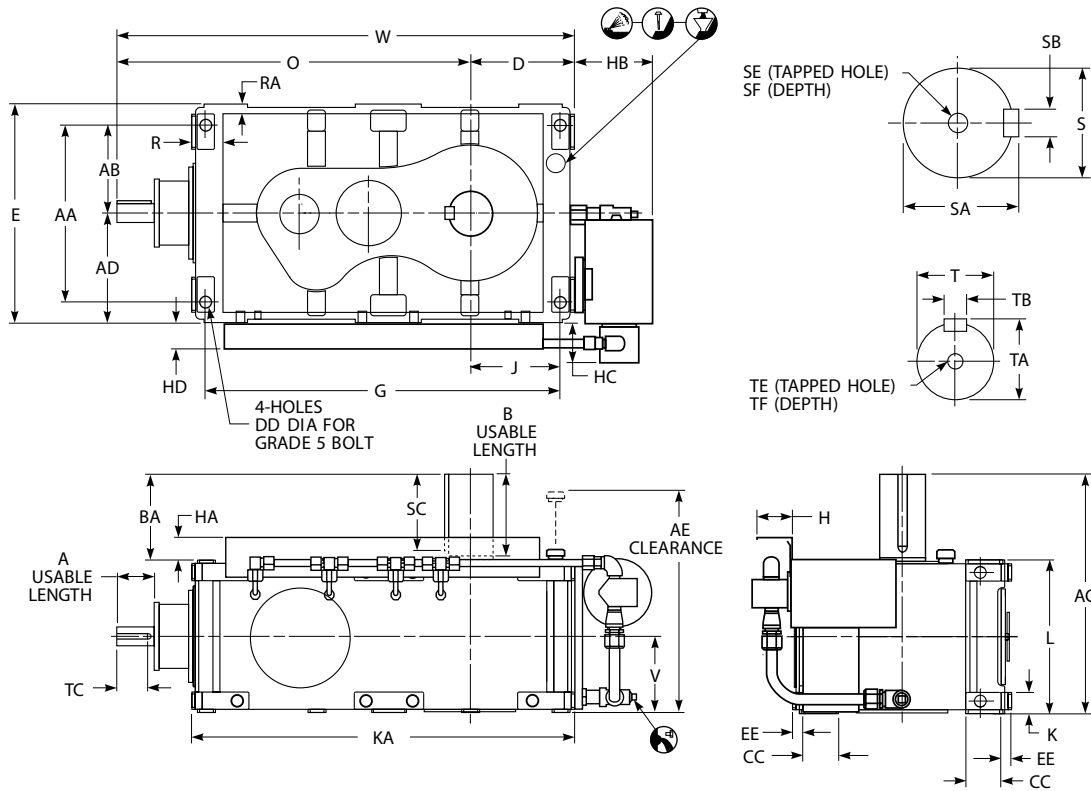
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Up

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1130	14.0-80.0	3.94	12.99	6.50	17.72	8.35	18.15	4.72	5.51	3.15	8.35	1.10	16.69	0.79	25.35	3.54	2.17	7.79	2.83	3.54	6.77	1.97	28.50	12.20	30.12	3.23	0.98
	90.0-125.0	2.76																									28.94
M1140	14.0-80.0	4.33	15.04	7.52	21.06	9.29	23.07	6.10	6.89	3.94	9.29	1.10	18.58	0.79	28.58	3.54	2.17	7.79	2.87	3.54	7.60	2.36	31.97	14.17	33.06	3.43	1.18
	90.0-125.0	3.54																									32.21
M1150	14.0-80.0	5.91	16.14	8.07	22.36	10.43	25.79	6.10	7.01	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	36.02	15.35	36.40	3.41	1.18
	90.0-125.0	3.94																									34.59
M1160	14.0-80.0	5.91	17.32	8.66	24.98	11.02	28.03	7.48	8.25	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	38.98	16.73	40.50	3.35	1.18
	90.0-125.0	5.51																									40.08

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1130	14.0-80.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	1.5748 k6	1.69	0.47	3.94	M16	1.42	6.10	38.47	902
	0.9843 j6							1.10	0.31	2.76	M10	0.87				
M1140	14.0-80.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.7717 k6	1.91	0.55	4.33	M16	1.42	7.09	42.35	1261
	1.1811 j6							1.30	0.31	3.54	M10	0.87				
M1150	14.0-80.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.9685 k6	2.11	0.55	5.51	M16	1.42	7.68	46.83	1545
	1.3780 k6							1.50	0.39	3.94	M12	1.10				
M1160	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	8.37	51.52	1761
	1.5748 k6							1.69	0.47	5.51	M16	1.42				

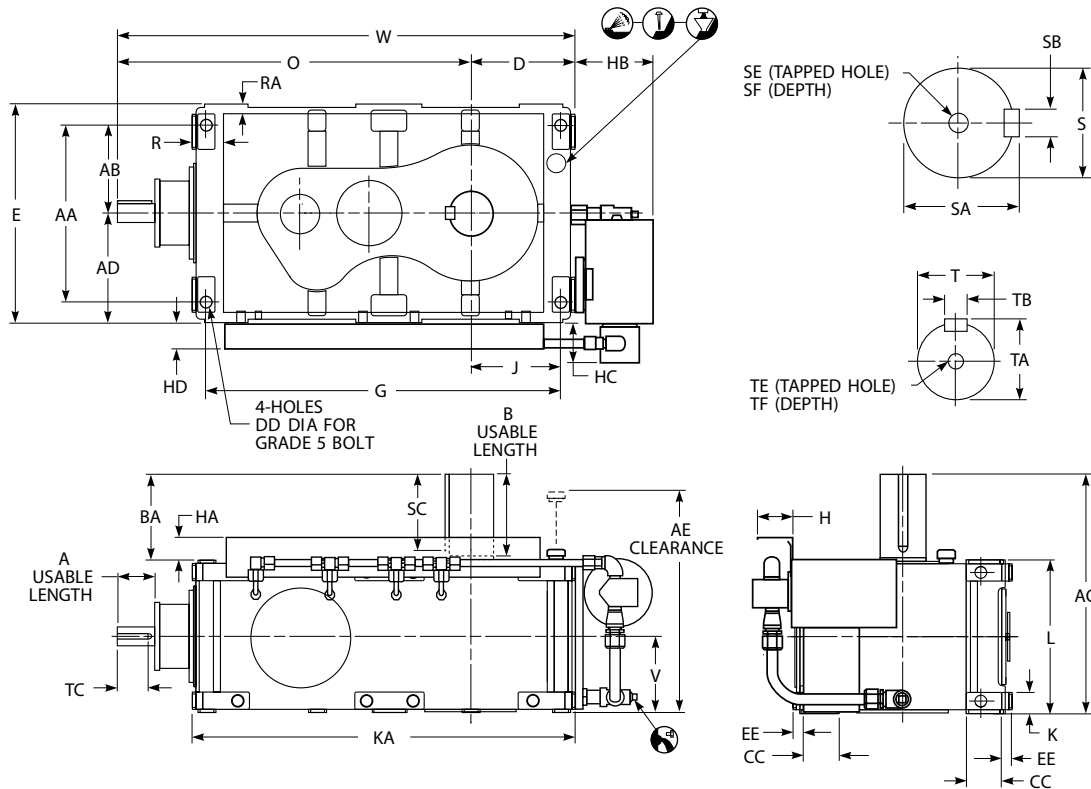
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Up

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1170	14.0-80.0	6.10	20.08	10.04	25.39	12.40	28.50	7.48	8.46	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	43.31	16.93	42.81	3.54	1.18
	90.0-125.0	5.91																							42.57		
M1180	14.0-80.0	7.09	21.65	10.83	27.56	13.19	32.56	7.48	8.27	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	48.43	19.29	47.83	3.74	1.18
	90.0-125.0	6.30																							47.05		
M1190	14.0-80.0	7.68	24.80	12.40	30.71	14.76	35.20	8.86	9.84	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	54.33	20.87	52.14	4.33	1.18
	90.0-125.0	6.89																							51.33		
M1200	25.0-112.0	9.45	31.50	15.75	34.65	17.72	39.09	10.63	11.42	5.91	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	63.98	23.23	60.04	4.33	1.38
M1210	28.0-125.0	9.45	31.50	15.75	34.65	17.72	39.09	10.63	11.42	5.91	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	63.98	23.23	61.03	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1170	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	8.46	54.62	2324
	90.0-125.0							1.9685 k6	2.11	0.55	5.51	M16	1.42				54.38
M1180	14.0-80.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	7.09	M20	1.65	9.65	61.02	3338
	90.0-125.0							2.1654 m6	2.32	0.63	6.30						60.24
M1190	14.0-80.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	7.09	M20	1.65	10.43	66.90	4043
	90.0-125.0							2.5591 m6	2.72	0.71	6.30						66.09
M1200	11.2-63.0	7.4803 m6	7.87	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	78.74	6151
	71.0-100.0							2.9528 m6	3.15	0.79		M20	1.65			
M1210	12.5-71.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	78.74	6369
	80.0-112.0							2.9528 m6	3.15	0.79		M20	1.65			

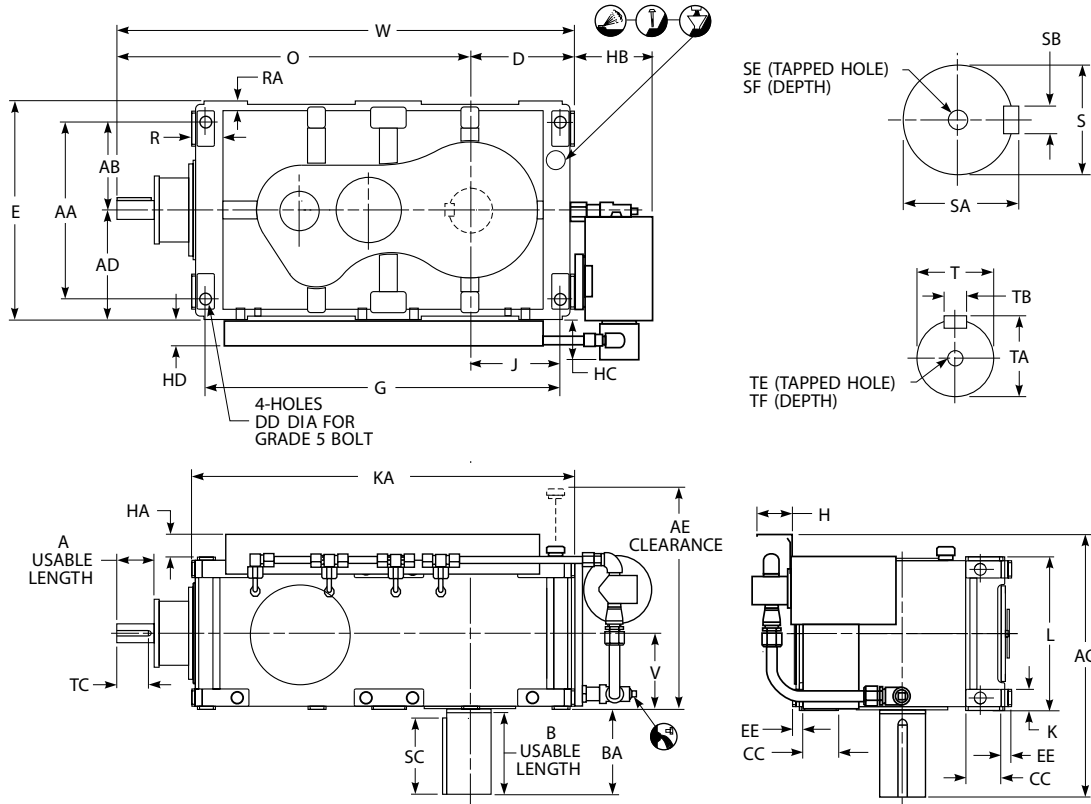
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Down

Sizes M1130 – M1160/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1130	14.0-80.0	3.94	12.99	6.50	19.88	8.35	18.15	4.72	5.51	3.15	8.35	1.10	16.69	0.79	25.35	3.54	2.17	7.79	2.83	3.54	6.77	1.97	28.50	12.20	30.12	3.23	0.98
	90.0-125.0	2.76																								28.94	
M1140	14.0-80.0	4.33	15.04	7.52	23.23	9.29	23.07	6.10	6.89	3.94	9.29	1.10	18.58	0.79	28.58	3.54	2.17	7.79	2.87	3.54	7.60	2.36	31.97	14.17	33.06	3.43	1.18
	90.0-125.0	3.54																								32.21	
M1150	14.0-80.0	5.91	16.14	8.07	24.53	10.43	25.79	6.10	7.01	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	36.02	15.35	36.40	3.41	1.18
	90.0-125.0	3.94																								34.59	
M1160	14.0-80.0	5.91	17.32	8.66	26.95	11.02	28.03	7.48	8.25	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	38.98	16.73	40.50	3.35	1.18
	90.0-125.0	5.51																								40.08	

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1130	14.0-80.0							1.5748 k6	1.69	0.47	3.94	M16	1.42	6.10	38.47	902
	90.0-125.0	3.5433 m6	3.74	0.98	4.33	M24	1.97	0.9843 j6	1.10	0.31	2.76	M10	0.87				37.28
M1140	14.0-80.0							1.7717 k6	1.91	0.55	4.33	M16	1.42	7.09	42.35	1261
	90.0-125.0	4.3307 m6	4.57	1.10	5.51	M24	1.97	1.1811 j6	1.30	0.31	3.54	M10	0.87				41.50
M1150	14.0-80.0							1.9685 k6	2.11	0.55	5.51	M16	1.42	7.68	46.83	1545
	90.0-125.0	4.7244 m6	5.00	1.26	5.51	M24	1.97	1.3780 k6	1.50	0.39	3.94	M12	1.10				45.02
M1160	14.0-80.0							2.1654 m6	2.32	0.63	5.91	M20	1.65	8.37	51.52	1762
	90.0-125.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	1.5748 k6	1.69	0.47	5.51	M16	1.42			

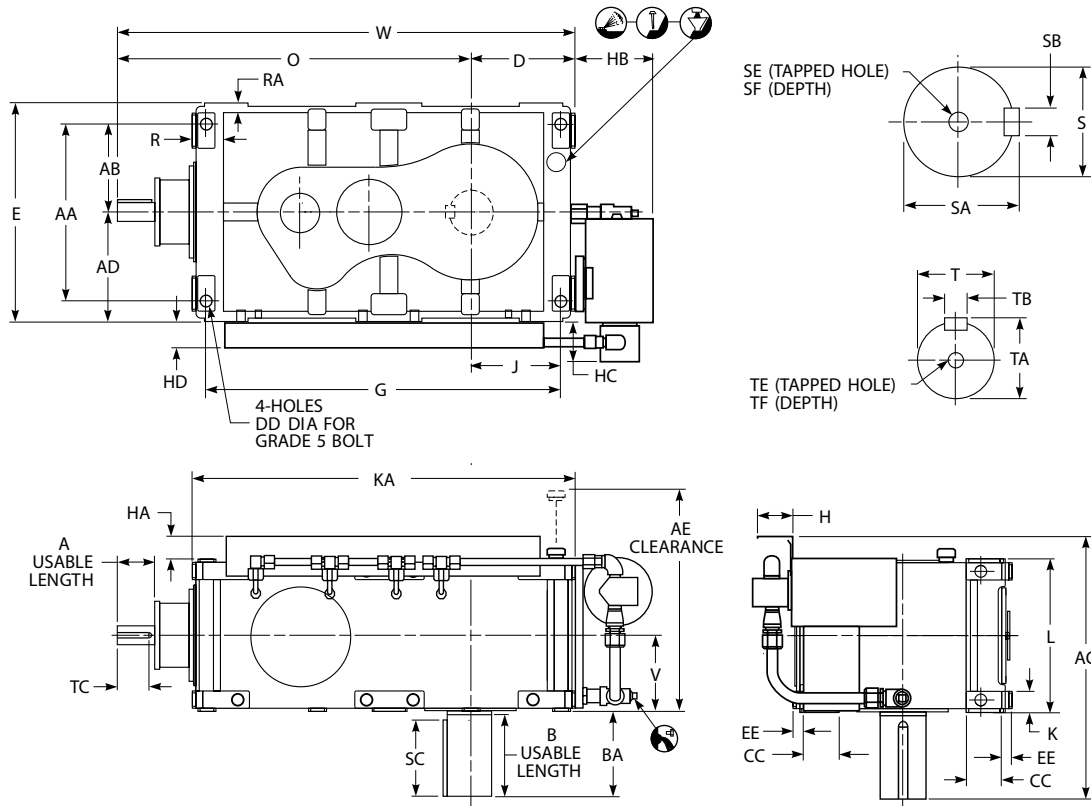
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† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXC3 Triple Reduction with Lube Pump & LS Shaft Down

Sizes M1170 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	B	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	KA	L	O	R	RA
M1170	14.0-80.0	6.10	20.08	10.04	27.36	12.40	28.50	7.48	8.46	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	43.31	16.93	42.81	3.54	1.18
	90.0-125.0	5.91																							42.57		
M1180	14.0-80.0	7.09	21.65	10.83	29.53	13.19	32.56	7.48	8.27	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	48.43	19.29	47.83	3.74	1.18
	90.0-125.0	6.30																							47.05		
M1190	14.0-80.0	7.68	24.80	12.40	32.09	14.76	35.20	8.86	9.84	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	54.33	20.87	52.14	4.33	1.18
	90.0-125.0	6.89																							51.33		
M1200	25.0-112.0	9.45	31.50	15.75	35.55	17.72	39.09	10.63	11.42	5.91	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	63.98	23.23	60.04	4.33	1.38
M1210	28.0-125.0	9.45	31.50	15.75	35.55	17.72	39.09	10.63	11.42	5.91	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	63.98	23.23	61.03	4.33	1.38

DRIVE SIZE ★	Ratios	Low Speed Shaft †						High Speed Shaft †						V	W	Approx Wt lb
		S *	SA	SB	SC	SE	SF	T *	TA	TB	TC	TE	TF			
M1170	14.0-80.0	5.1181 m6	5.39	1.26	7.09	M24	1.97	2.1654 m6	2.32	0.63	5.91	M20	1.65	8.46	54.62	2324
	90.0-125.0							1.9685 k6	2.11	0.55	5.51	M16	1.42				54.38
M1180	14.0-80.0	5.9055 m6	6.22	1.42	7.09	M24	1.97	2.7559 m6	2.93	0.79	7.09	M20	1.65	9.65	61.02	3338
	90.0-125.0							2.1654 m6	2.32	0.63	6.30						60.24
M1190	14.0-80.0	6.6929 m6	7.05	1.57	7.87	M24	1.97	3.1496 m6	3.35	0.87	7.09	M20	1.65	10.43	66.90	4043
	90.0-125.0							2.5591 m6	2.72	0.71	6.30						66.09
M1200	11.2-63.0	7.4803 m6	7.87	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	78.74	6151
	71.0-100.0							2.9528 m6	3.15	0.79		M20	1.65			
M1210	12.5-71.0	7.8740 m6	8.27	1.77	9.84	M24	1.97	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	78.74	6369
	80.0-112.0							2.9528 m6	3.15	0.79		M20	1.65			

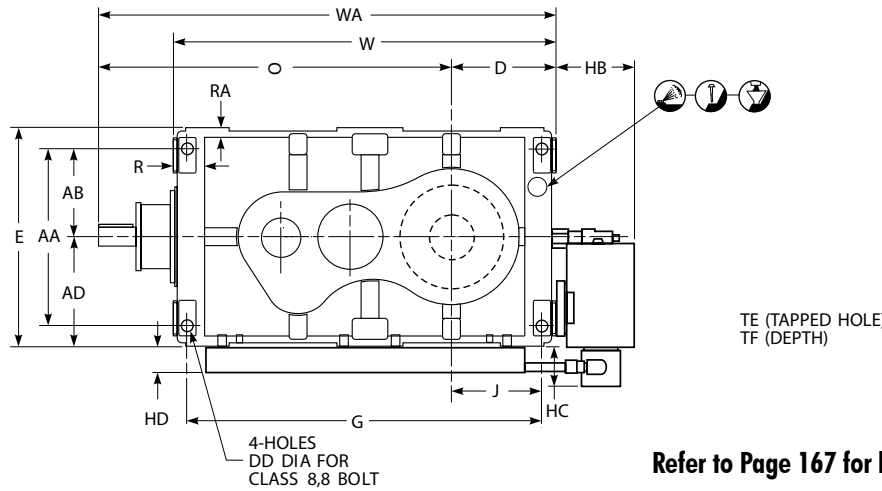
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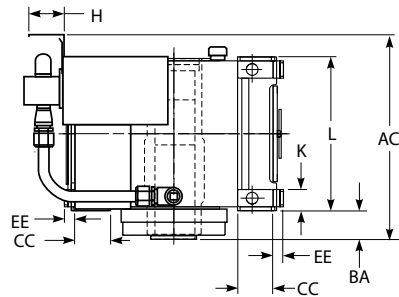
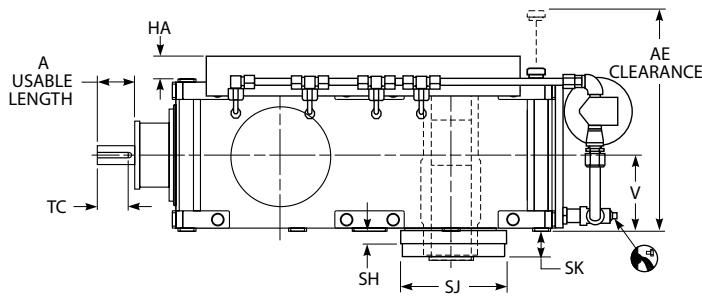
* j6 tolerance for shaft diameters 1.2" and less, k6 tolerance for shaft diameters over 1.2" to 2.0", m6 tolerance for shaft diameters above 2.0".

Type DXM3 Triple Reduction with Lube Pump & Drywell

Sizes M1150 – M1170/Dimensions — Inches



Refer to Page 167 for hollow & driven shaft dimensions.



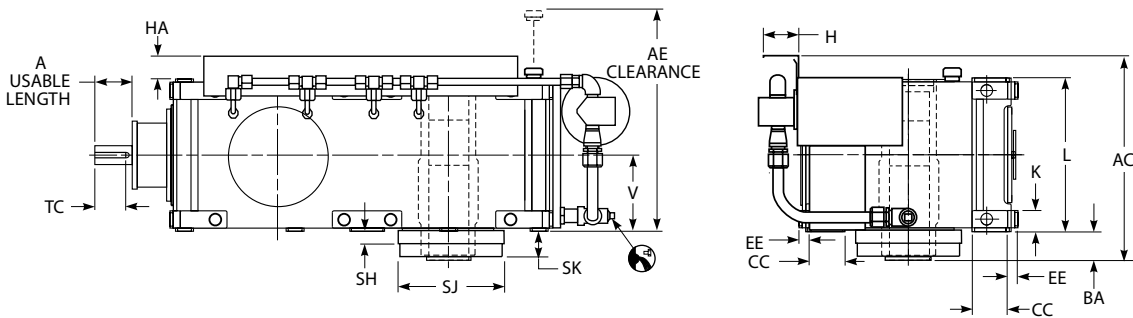
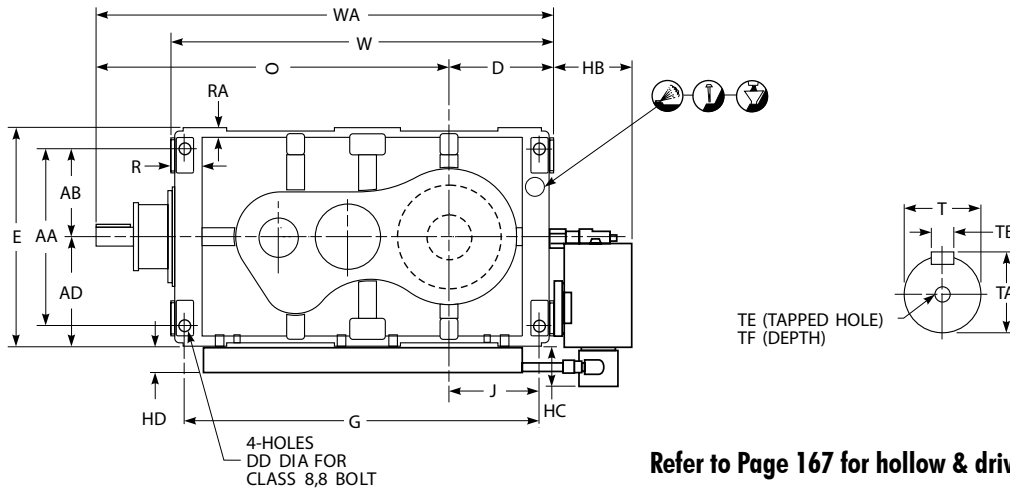
DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1150	14.0-80.0	5.91	16.14	8.07	21.73	10.43	25.79	4.21	3.94	10.43	1.38	20.87	0.79	32.48	3.54	2.17	7.79	3.42	3.54	8.66	2.36	15.35	36.40	3.41	1.18
	90.0-125.0	3.94																					34.59		
M1160	14.0-80.0	5.91	17.32	8.66	23.15	11.02	28.03	4.45	3.94	11.02	1.38	22.05	0.79	35.43	3.54	1.97	7.79	3.45	3.54	9.25	2.36	16.73	40.50	3.35	1.18
	90.0-125.0	5.51																					40.08		
M1170	14.0-80.0	6.10	20.08	10.04	23.15	12.40	28.50	4.25	3.94	11.81	1.38	24.80	0.79	39.76	3.54	1.97	7.79	3.46	3.54	10.04	2.36	16.93	42.81	3.54	1.18
	90.0-125.0	5.91																					42.57		

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	WA	Approx Wt lb
		SH	SJ ±.002	SK	T	TA	TB	TC	TE	TF				
M1150	14.0-80.0	1.81	12.992	3.94	1.9685 k6	2.11	0.55	5.51	M16	1.42	7.68	36.02	46.83	1545
	90.0-125.0				1.3780 k6	1.50	0.39	3.94	M12	1.10					45.02
M1160	14.0-80.0	1.81	14.173	4.33	2.1654 m6	2.32	0.63	5.91	M20	1.65	8.37	38.98	51.52	1761
	90.0-125.0				1.5748 k6	1.69	0.47	5.51	M16	1.42					51.11
M1170	14.0-80.0	1.85	15.354	3.98	2.1654 m6	2.32	0.63	5.91	M20	1.65	8.46	43.31	54.62	2324
	90.0-125.0				1.9685 k6	2.11	0.55	5.51	M16	1.42				

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Type DXM3 Triple Reduction with Lube Pump & Drywell

Sizes M1180 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	AA	AB	AC	AD	AE	BA	CC	D	DD	E	EE	G	H	HA	HB	HC	HD	J	K	L	O	R	RA
M1180	14.0-80.0	7.09	21.65	10.83	27.13	13.19	32.56	5.87	3.94	13.19	1.38	26.38	0.79	44.88	3.54	1.97	7.79	3.41	3.54	11.42	2.36	19.29	47.83	3.74	1.18
	90.0-125.0	6.30																					47.05		
M1190	14.0-80.0	7.68	24.80	12.40	28.19	14.76	35.20	5.94	4.33	14.76	1.65	29.53	0.79	50.39	3.54	1.38	7.79	3.80	3.54	12.80	3.74	20.87	52.14	4.33	1.18
	90.0-125.0	6.89																					51.33		
M1200	11.2-100.0	9.45	31.50	15.75	29.80	17.72	39.09	5.67	4.33	18.70	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	16.73	3.74	23.23	60.04	4.33	1.38
M1210	12.5-112.0	9.45	31.50	15.75	29.80	17.72	39.09	5.67	4.33	17.72	1.65	35.43	0.79	60.04	3.54	0.91	7.39	3.29	3.54	15.75	3.74	23.23	61.03	4.33	1.38

DRIVE SIZE ★	Ratios	Hollow Low Speed Shaft			High Speed Shaft †						V	W	WA	Approx Wt lb
		SH	SJ ±.002	SK	T	TA	TB	TC	TE	TF				
M1180	14.0-80.0	1.81	17.717	5.31	2.7559 m6	2.93	0.79	7.09	M20	1.65	9.65	48.43	61.02	3338
	90.0-125.0				2.1654 m6	2.32	0.63	6.30					60.24	
M1190	14.0-80.0	1.91	19.685	5.41	3.1496 m6	3.35	0.87	7.09	M20	1.65	10.43	54.33	66.90	4043
	90.0-125.0				2.5591 m6	2.72	0.71	6.30					0.39		66.09
M1200	11.2-63.0	2.13	20.472	5.08	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	63.98	78.74	6151
	71.0-100.0				2.9528 m6	3.15	0.79						M20		1.65	66.09
M1210	12.5-71.0	2.13	20.472	5.08	4.3307 m6	4.57	1.10	8.66	M24	1.97	11.61	63.98	78.74	6369
	80.0-112.0				2.9528 m6	3.15	0.79						M20		1.65	66.09

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
 † Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

Selection Procedure for High Torque Drives

Before making a selection, refer to Basic Information and Conditions Affecting Selection on Pages 9 and 10.

Information Required

The following basic information is required to select a Drive One High Torque gear drive for your application.

Prime Mover Data

- Type – electric or hydraulic motor or engine
- Power rating in kW or hp
- Speed – constant or variable
- Dimensions – if the Factory will furnish motor mounting accessory or coupling

Driven Machine Data

- Type – conveyor, kiln, etc.
- Power demand in kW, or hp, or equivalent torque.
- Speed and direction of rotation
- Service – Hours per day; reversals per minute if reversing; minutes per hour (duty cycle) if not continuous

Gear Drive Data

- Type – parallel shaft or right angle
- Solid or Hollow output shaft
- Base or shaft mounted
- Ambient temperature at drive location
- Altitude above sea level
- Ambient air velocity at drive location
- Mounting position – if inclined or non-standard orientation

Shaft Connections

- Shaft diameters and key sizes
- Overhung loads – provide full description of sheave, sprocket, or pinion
- Thrust load and direction

Torque Selection Method

The torque selection method is based on the power rating of the prime mover.

1. Determine the mechanical service factor.

For engine driven or intermittent applications, refer to Factory.

2. Calculate the required output torque (lb-in) using the motor power rating (hp) and the required output speed (rpm).

NOTE: Output speed must not exceed 10 rpm. If output speed exceeds 10 rpm, contact the Factory for selection.

3. Calculate the equivalent torque rating by multiplying the required output torque by the mechanical service factor determined in Step 1.

4. Select the gear drive size from the torque rating table.

Torque Rating Table:

Parallel shaft drives, see Page 154.

Right angle shaft drives, see Page 159.

5. Select the gear drive type and assembly. Parallel shaft, see Page 153 and right angle shaft, see Page 158. Note that for shaft mounted assemblies, the required output shaft direction of rotation determines the torque arm location. For assemblies other than those shown, contact the Factory.
6. Determine the gear drive nominal ratio. Divide the high speed shaft rpm by the low speed shaft rpm to determine your ideal ratio. Choose a nominal ratio that most closely approximates your ideal ratio from the Exact Ratio table. Parallel shaft, see Page 154 and right angle shaft, see Page 159.
7. Check thermal rating using procedures outlined on Page 14. The application adjusted thermal rating must equal or exceed the actual power transmitted.
8. Overhung load (radial load) is imposed by sheaves, sprockets, and open pinions that are mounted directly on the shaft extensions of the gear drive. Gear drive shaft extensions that are flexible coupling connected need not be checked for overhung load, flexible couplings do not impose significant overhung load. Overhung load need not be checked for shaft mounted drives that use a standard torque arm location since the radial and moment loading imposed on these drives are within the capacity of the gear drive. Refer all foot or flange mounted gear drive output shaft overhung loading to the Factory.

Refer all input shaft overhung load applications to the Factory.

Thrust load (axial load) applied to the gear drive is unusual. In these applications, the magnitude of the thrust load, and the direction of thrust load, is supplied by the system designer. Thrust loads must be within the capacity of the gear drive.

Refer all thrust load applications to the Factory.

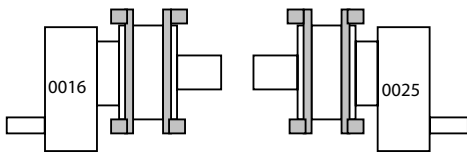
Complex shaft loadings involving simultaneous application of overhung load, thrust load, or bending moment (as in mixers and agitators) should be referred directly to the Factory.

Types DHB, DHF, DHP & DHR Parallel Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

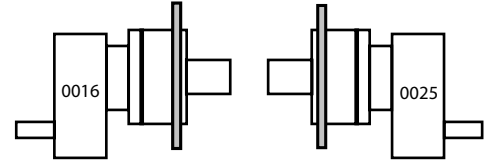
Type DHB Assemblies

Foot Mounted
Solid LS Shaft



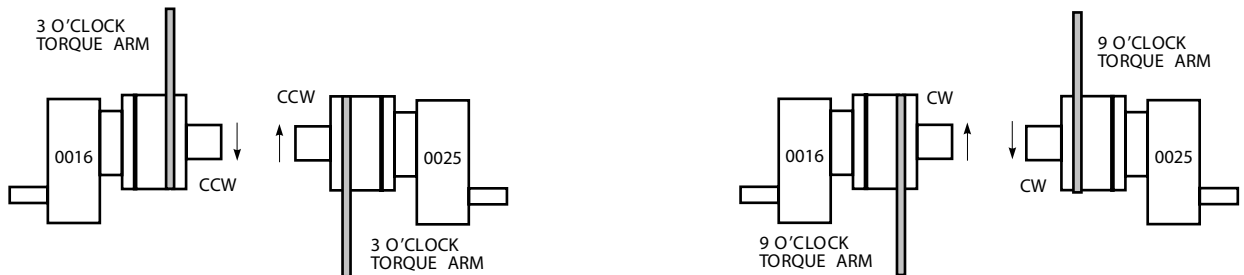
Type DHR Assemblies

Flange Mounted
Solid LS Shaft



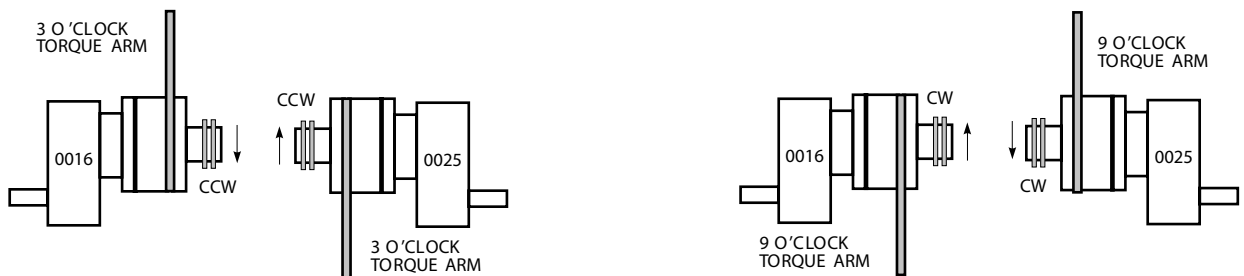
Type DHF Assemblies

Shaft Mounted with Torque Arm
Solid LS Shaft



Type DHP Assemblies

Shaft Mounted with Torque Arm
Hollow LS Shaft with Shrink Disc



Types DHB, DHF, DHP & DHR Parallel Shaft Torque Ratings — lb-in/Quadruple Reduction

DRIVE SIZE ▲	Output Torque Rating (Output Speed 10 rpm or Less)
M1160	910,000
M1170	1,320,000
M1180	1,845,000
M1190	2,495,000
M1200	3,240,000
M1210	4,050,000

▲ Special order drives are available with output torque ratings greater than 4,050,000 lb-in.

Types DHB, DHF, DHP & DHR Parallel Shaft Basic Thermal Ratings ★ – Hp/Quadruple Reduction

High Speed Shaft rpm	Nominal Ratio Range	DRIVE SIZE					
		M1160	M1170	M1180	M1190	M1200	M1210
1750	160 - 315	151	178	215	229	336	336
	355 - 710	102	126	158	178	270	270
1430	160 - 315	135	156	201	216	301	301
	355 - 710	102	126	151	178	251	251
1170	160 - 315	127	151	201	216	301	301
	355 - 710	102	110	151	159	221	221
970	160 - 315	126	151	178	216	269	269
	355 - 710	89	107	135	153	216	216

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) and an elevation from sea level to 750 meters. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For auxiliary cooling, contact the Factory.

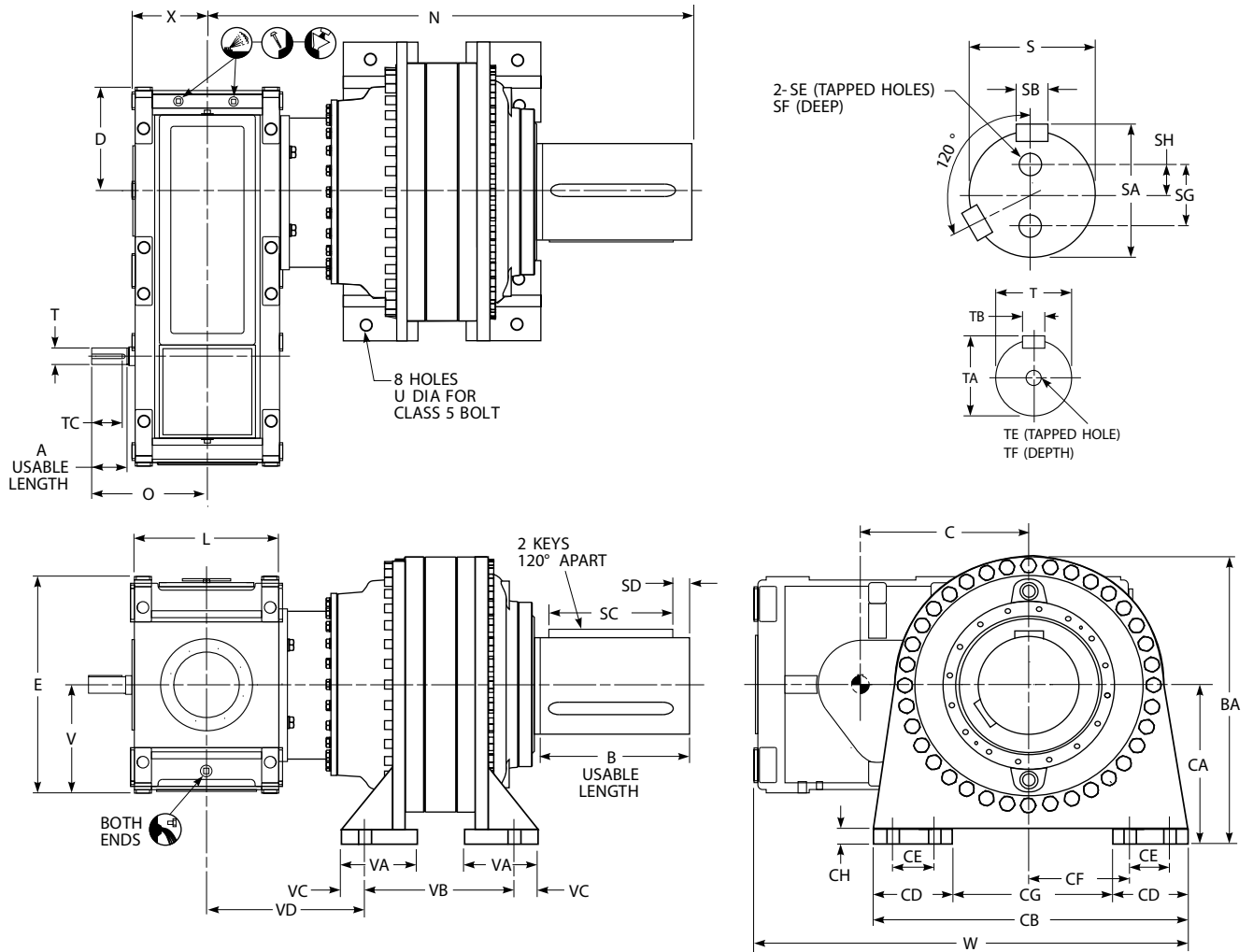
Types DHB, DHF, DHP & DHR Parallel Shaft Exact Ratios – Quadruple Reduction

Nominal Ratio ‡	DRIVE SIZE					
	M1160	M1170	M1180	M1190	M1200	M1210
160	156.7	154.8	173.4	165.2	163.8	163.6
180	177.0	172.8	191.4	189.6	183.4	184.0
200	199.0	195.7	217.8	208.1	204.7	206.1
224	215.9	220.9	244.7	232.2	228.6	229.9
250	241.8	246.1	267.5	262.3	252.9	256.8
280	276.2	272.5	302.3	285.1	284.5	284.1
315	311.8	304.3	333.6	327.2	318.5	319.6
355	350.7	344.6	379.6	359.2	355.3	357.9
400	380.6	389.0	426.5	400.7	397.0	399.3
450	426.2	433.3	466.2	452.7	461.6	446.0
500	490.2	477.5	531.3	514.9	516.9	518.6
560	551.3	540.9	604.8	565.4	576.6	581.0
630	598.2	610.6	679.4	630.5	644.1	647.9
710	669.9	680.2	742.4	712.4	...	723.5

‡ Lower ratios are available. For 10 rpm or less output speed with a total ratio requirement of less than 160:1, contact the Factory. Higher ratios are also available. Contact the Factory for selection.

Type DHB4 Quadruple Reduction

Sizes M1160 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	B	BA	C	CA	CB	CD	CE	CF	CG	CH	D	E	L	N	O
M1160	160.0-710.0	2.76	11.81	30.71	16.93	16.73	33.46	9.06	4.72	9.84	15.35	1.57	11.02	22.05	15.94	50.51	11.89
M1170	160.0-710.0	3.94	11.81	30.71	19.09	16.73	33.46	9.06	4.72	9.84	15.35	1.57	11.81	24.80	16.14	51.42	13.15
M1180	160.0-710.0	3.94	16.73	37.99	22.05	20.87	40.16	10.63	5.91	11.81	18.90	1.97	13.19	26.38	18.50	61.97	14.37
M1190	160.0-710.0	3.94	16.73	37.99	24.80	20.87	40.16	10.63	5.91	11.81	18.90	1.97	14.76	29.53	20.08	64.41	15.22
M1200	160.0-630.0	5.12	21.65	46.65	27.56	25.20	49.21	13.78	7.87	13.78	21.65	2.36	18.70	35.43	22.44	76.34	17.52
M1210	160.0-710.0	5.12	21.65	46.65	28.54	25.20	49.21	13.78	7.87	13.78	21.65	2.36	17.72	35.43	22.44	78.23	17.52

DRIVE SIZE ★	Ratios	Low Speed Shaft								High Speed Shaft †								U	V	VA	VB	VC	VD	W	X	Approx Wt lb
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TE	TF										
M1160	160.0-450.0	9.0551 h7	9.49	1.97	11.02	0.39	M24	1.97	5.91	2.95	1.3780 k6	1.50	0.39	M12	1.10	M30	11.02	7.87	17.01	1.97	18.58	44.69	8.37	5039		
	500.0-710.0										1.1811 j6	1.30	0.31	M10	0.87											
M1170	160.0-710.0	9.0511 h7	9.49	1.97	11.02	0.39	M24	1.97	5.91	2.95	1.5748 k6	1.69	0.47	M16	1.42	M30	12.40	7.87	17.80	1.97	18.70	48.23	8.46	5621		
M1180	160.0-710.0	11.4173 h7	11.89	2.48	15.75	0.49	M24	1.97	7.87	3.94	1.7717 k6	1.91	0.55	M16	1.42	M42	13.19	10.24	21.65	2.95	20.63	55.31	9.65	8913		
M1190	160.0-450.0	11.4173 h7	11.89	2.48	15.75	0.49	M24	1.97	7.87	3.94	2.1654 m6	2.32	0.63	M20	1.65	M42	14.76	10.24	23.23	2.95	21.50	59.65	10.43	9850		
	500.0-710.0										1.6535 k6	1.77	0.47	M16	1.42											
M1200	160.0-630.0	14.1732 h7	14.76	3.15	20.47	0.59	M24 †	1.97 †	8.66 †	4.33	2.5591 m6	2.72	0.71	M20	1.65	M48	17.72	11.02	25.39	3.15	26.10	69.88	11.61	15426		
M1210	160.0-710.0	14.1732 h7	14.76	3.15	20.47	0.59	M24 †	1.97 †	8.66 †	4.33	2.5591 m6	2.72	0.71	M20	1.65	M48	17.72	11.02	27.28	3.15	26.10	70.87	11.61	16017		

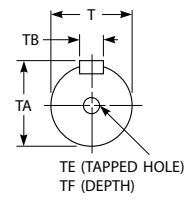
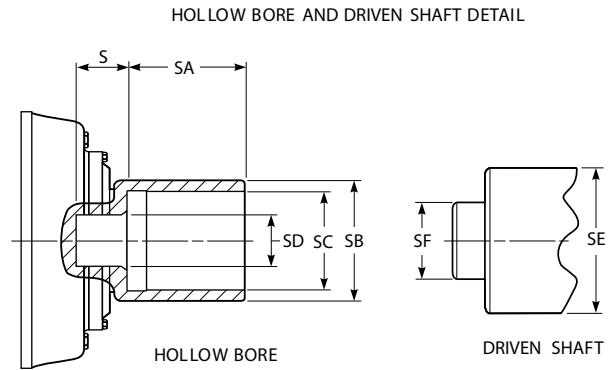
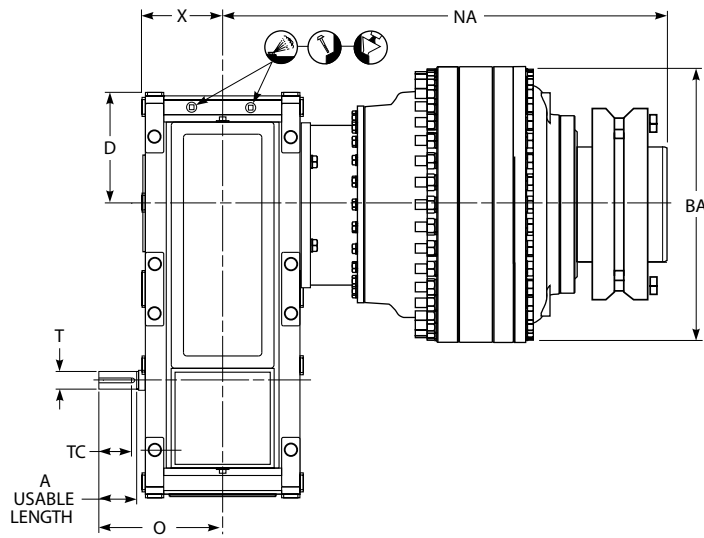
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

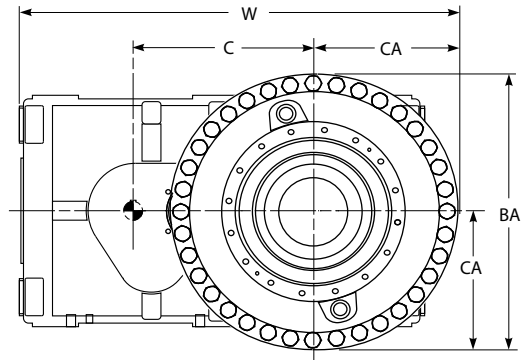
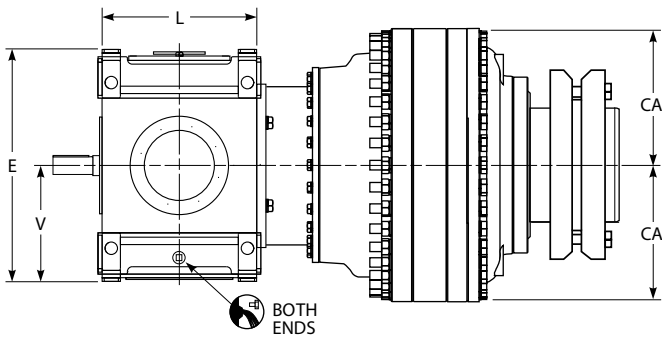
‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DHP4 Quadruple Reduction

Sizes M1160 – M1210/Dimensions — Inches



Refer to Page 163 for torque arm dimensions.



DRIVE SIZE ★	Ratios	A	BA	C	CA	D	E	L	NA	O
M1160	160.0-710.0	2.76	27.95	16.93	13.98	11.02	22.05	15.94	48.27	11.89
M1170	160.0-710.0	3.94	27.95	19.09	13.98	11.81	24.80	16.14	49.17	13.15
M1180	160.0-710.0	3.94	34.25	22.05	17.13	13.19	26.38	18.50	55.67	14.37
M1190	160.0-710.0	3.94	34.25	24.80	17.13	14.76	29.53	20.08	58.11	15.22
M1200	160.0-630.0	5.12	42.91	27.56	21.46	18.70	35.43	22.44	66.46	17.52
M1210	160.0-710.0	5.12	42.91	28.54	21.46	17.72	35.43	22.44	68.35	17.52

DRIVE SIZE ★	Ratios	Low Speed Shaft				Driven Shaft		High Speed Shaft †						V	W	X	Approx Wt lb	
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TE					TF
M1160	160.0-450.0	3.98	9.06	11.0236 f7	9.0551 H7	4.7244 H7	9.0551 g6	4.7244 f6	1.3780 k6	1.50	0.39	2.76	M12	1.10	11.02	41.93	8.37	5340
	1.1811 j6								1.30	0.31	M10		0.87					
M1170	160.0-710.0	3.98	9.06	11.0236 f7	9.0551 H7	4.7244 H7	9.0551 g6	4.7244 f6	1.5748 k6	1.69	0.47	3.94	M16	1.42	12.40	45.47	8.46	5924
M1180	160.0-710.0	6.10	11.81	14.1732 f7	11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	1.7717 k6	1.91	0.55	3.94	M16	1.42	13.19	52.36	9.65	9310
M1190	160.0-450.0	6.10	11.81	14.1732 f7	11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	2.1654 m6	2.32	0.63	3.94	M20	1.65	14.76	56.69	10.43	10247
	1.6535 k6								1.77	0.47	M16		1.42					
M1200	160.0-630.0	6.89	13.19	15.3543 f7	12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	2.5591 m6	2.72	0.71	4.92	M20	1.65	17.72	66.73	11.61	15937
M1210	160.0-710.0	6.89	13.19	15.3543 f7	12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	2.5591 m6	2.72	0.71	4.92	M20	1.65	17.72	67.72	11.61	16528

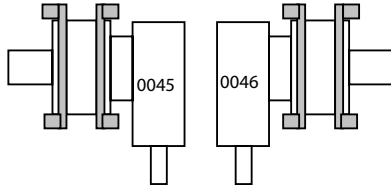
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.
 † Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

Types DBB, DBF, DBP & DBR Right Angle Shaft Shaft Assemblies & Rotations

Please specify from the views below, the desired assembly number. Contact the Factory for inclined, wall mounted, or other non-standard orientations.

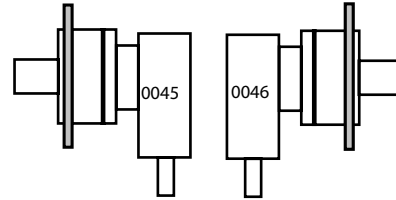
Type DBB Assemblies

Foot Mounted
Solid LS Shaft



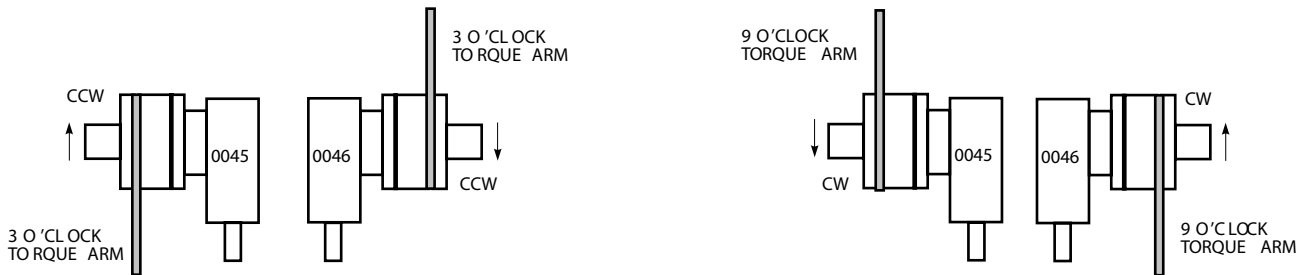
Type DBR Assemblies

Flange Mounted
Solid LS Shaft



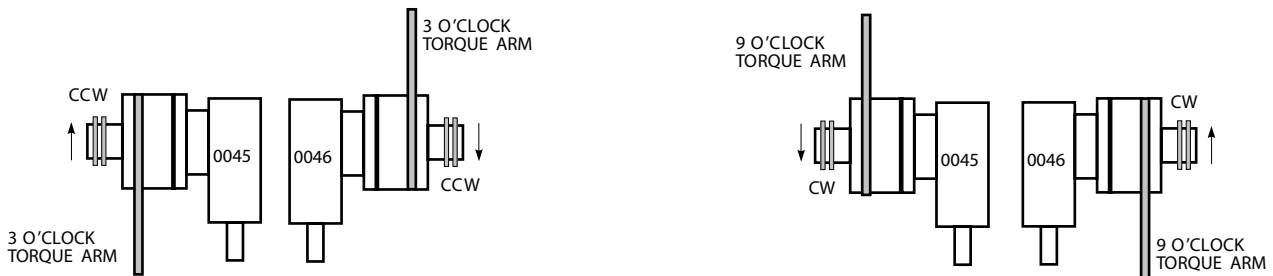
Type DBF Assemblies

Shaft Mounted with Torque Arm
Solid LS Shaft



Type DBP Assemblies

Shaft Mounted with Torque Arm
Hollow LS Shaft with Shrink Disc



Types DBB, DBF, DBP & DBR Right Angle Shaft Torque Ratings — lb-in./Quadruple Reduction

DRIVE SIZE ▲	Output Torque Rating (Output Speed 10 rpm or Less)
M1160	910,000
M1170	1,320,000
M1180	1,845,000
M1190	2,495,000
M1200	3,240,000
M1210	4,050,000

▲ Special order drives are available with output torque ratings greater than 4,050,000 lb-in.

Types DBB, DBF, DBP & DBR Right Angle Shaft Basic Thermal Ratings ★ – Hp/Quadruple Reduction

High Speed Shaft rpm	Nominal Ratio Range	DRIVE SIZE					
		M1160	M1170	M1180	M1190	M1200	M1210
1750	160 - 280	137	158	201	215	301	301
	315 - 630	101	126	151	173	251	251
1430	160 - 280	131	152	178	216	269	269
	315 - 630	102	126	151	178	251	251
1170	160 - 280	126	151	178	216	269	269
	315 - 630	89	110	151	178	251	251
970	160 - 280	126	151	178	216	269	269
	315 - 630	86	107	151	178	226	226

★ Basic thermal ratings listed are based on an ambient temperature of 25°C (77°F) and an elevation from sea level to 750 meters. Application adjusted thermal ratings must be calculated using the application adjusted thermal factors on Page 14 before comparing to the required load. For auxiliary cooling, contact the Factory.

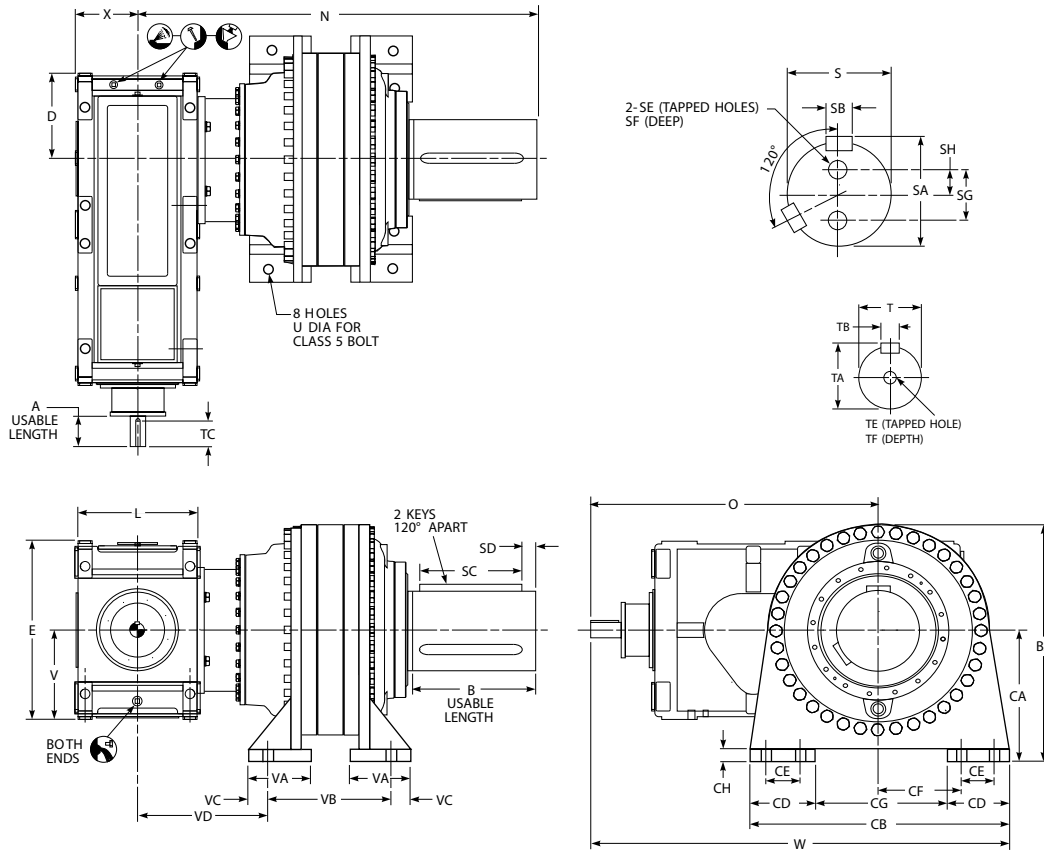
Types DBB, DBF, DBP & DBR Right Angle Shaft Exact Ratios – Quadruple Reduction

Nominal Ratio ‡	DRIVE SIZE					
	M1160	M1170	M1180	M1190	M1200	M1210
160	152.6	155.2	170.3	164.6	160.4	158.9
180	171.3	174.4	188.6	182.2	179.4	180.3
200	190.1	195.4	206.7	201.7	200.7	201.6
224	213.7	215.7	239.2	232.2	224.3	225.5
250	244.0	245.3	268.5	256.6	252.4	252.1
280	275.4	273.8	296.4	294.4	282.7	283.6
315	309.8	310.1	337.3	323.2	315.4	317.6
355	336.2	350.1	378.9	360.6	352.2	354.3
400	376.5	390.0	414.2	407.3	403.2	395.8
450	440.4	430.5	467.6	464.5	451.6	453.1
500	495.5	487.5	531.8	509.9	503.8	507.4
560	537.5	550.3	598.0	569.1	562.5	566.3
630	602.2	613.1	653.6	642.6	...	632.1
710	...	...	...	...	...	...

‡ Lower ratios are available. For 10 rpm or less output speed with a total ratio requirement of less than 160:1, contact the Factory. Higher ratios are also available. Contact the Factory for selection.

Type DBB4 Quadruple Reduction

Sizes M1160 – M1210/Dimensions — Inches



DRIVE SIZE ★	Ratios	A	B	BA	CA	CB	CD	CE	CF	CG	CH	D	E	L	N	O
M1160	160.0-400.0	5.91	11.81	30.71	16.73	33.46	9.06	4.72	9.84	15.35	1.57	11.02	22.05	15.94	50.51	40.51
	450.0-630.0	5.51														40.12
M1170	160.0-400.0	6.10	11.81	30.71	16.73	33.46	9.06	4.72	9.84	15.35	1.57	11.81	24.80	16.14	51.42	42.80
	450.0-630.0	5.91														42.56
M1180	160.0-400.0	7.09	16.73	37.99	20.87	40.16	10.63	5.91	11.81	18.90	1.97	13.19	26.38	18.50	61.97	47.83
	450.0-630.0	6.30														47.05
M1190	160.0-400.0	7.68	16.73	37.99	20.87	40.16	10.63	5.91	11.81	18.90	1.97	14.76	29.53	20.08	64.41	52.17
	450.0-630.0	6.89														51.38
M1200	160.0-560.0	9.45	21.65	46.65	25.20	49.21	13.78	7.87	13.78	21.65	2.36	18.70	35.43	22.44	76.34	60.04
M1210	160.0-630.0	9.45	21.65	46.65	25.20	49.21	13.78	7.87	13.78	21.65	2.36	17.72	35.43	22.44	78.23	61.02

DRIVE SIZE ★	Ratios	Low Speed Shaft										High Speed Shaft †					U	V	VA	VB	VC	VD	W	X	Approx Wt lb
		S	SA	SB	SC	SD	SE	SF	SG	SH	T	TA	TB	TC	TE	TF									
M1160	160.0-400.0	9.0551 h7	9.49	1.97	11.02	0.39	M24	1.97	5.91	2.95	2.1654 m6	2.32	0.63	5.91	M20	1.65	M30	11.02	7.87	17.01	1.97	18.58	57.24	8.37	5062
	1.5748 k6										1.69	0.47	5.51	M16	1.42	56.85							0.00		
M1170	160.0-400.0	9.0551 h7	9.49	1.97	11.02	0.39	M24	1.97	5.91	2.95	2.1654 m6	2.32	0.63	5.91	M20	1.65	M30	12.40	7.87	17.80	1.97	18.70	59.53	8.46	5745
	1.9685 k6										2.11	0.55	5.51	M16	1.42	59.29							0.00		
M1180	160.0-400.0	11.4173 h7	11.89	2.48	15.75	0.49	M24	1.97	7.87	3.94	2.7559 m6	2.93	0.79	7.09	M20	1.65	M42	13.19	10.24	21.65	2.95	20.63	67.91	9.65	9052
	2.1654 m6										2.32	0.63	6.30	67.13									0.00		
M1190	160.0-400.0	11.4173 h7	11.89	2.48	15.75	0.49	M24	1.97	7.87	3.94	3.1496 m6	3.35	0.87	7.09	M20	1.65	M42	14.76	10.24	23.23	2.95	21.50	72.24	10.43	9967
	2.5591 m6										2.72	0.71	6.30	71.46									0.00		
M1200	160.0-355.0	14.1732 h7	14.76	3.15	20.47	0.59	M24 ‡	1.97 ‡	8.66 ‡	4.33	4.3307 m6	4.57	1.10	8.66	M24	1.97	M48	17.72	11.02	25.39	3.15	26.10	84.65	11.61	15701
	2.9528 m6										3.15	0.79	M20		1.65	84.65							11.61		
M1210	160.0-400.0	14.1732 h7	14.76	3.15	20.47	0.59	M24 ‡	1.97 ‡	8.66 ‡	4.33	4.3307 m6	4.57	1.10	8.66	M24	1.97	M48	17.72	11.02	27.28	3.15	26.10	85.63	11.61	16292
	2.9528 m6										3.15	0.79	M20		1.65	85.63							11.61		

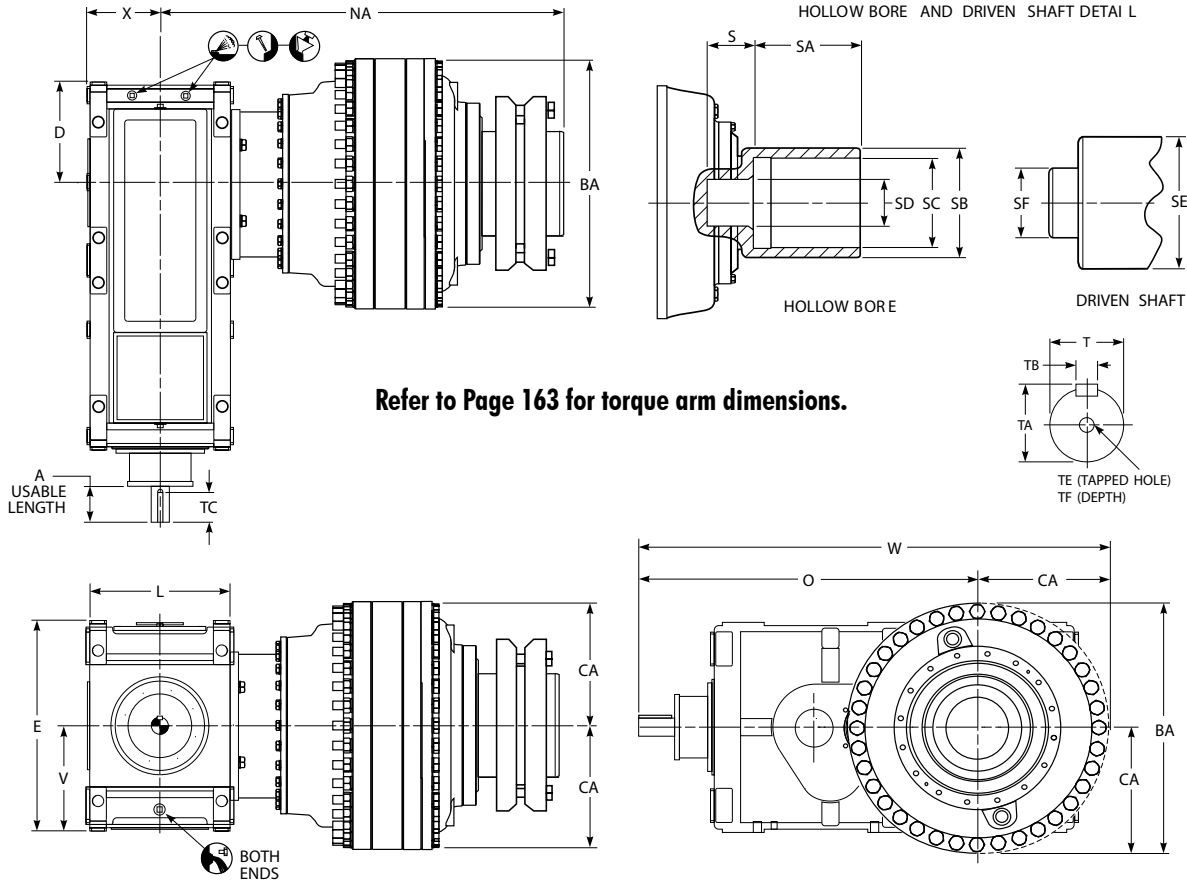
★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

‡ 8 - SE (Tapped Holes), SF (Deep) on SG (Bolt Circle).

Type DBP4 Quadruple Reduction

Sizes M1160 – M1210/Dimensions — Inches



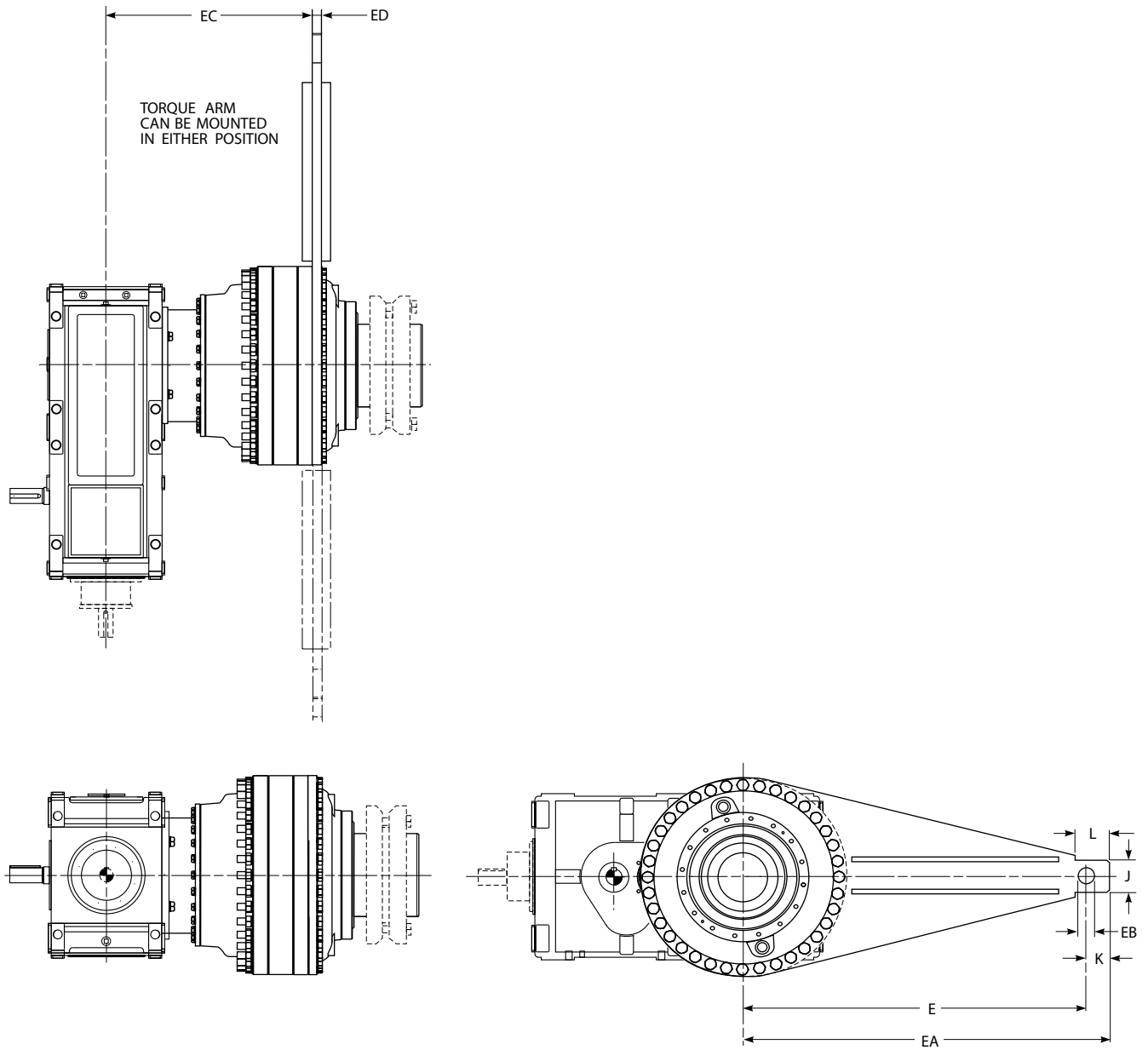
DRIVE SIZE ★	Ratios	A	BA	CA	D	E	L	NA	O
M1160	160.0-400.0	5.91	27.95	13.98	11.02	22.05	15.94	48.27	40.51
	450.0-630.0	5.51							40.12
M1170	160.0-400.0	6.10	27.95	13.98	11.81	24.80	16.14	49.17	42.80
	450.0-630.0	5.91							42.56
M1180	160.0-400.0	7.09	34.25	17.13	13.19	26.38	18.50	55.67	47.83
	450.0-630.0	6.30							47.05
M1190	160.0-400.0	7.68	34.25	17.13	14.76	29.53	20.08	58.11	52.17
	450.0-630.0	6.89							51.38
M1200	160.0-560.0	9.45	42.91	21.46	18.70	35.43	22.44	66.46	60.04
M1210	160.0-630.0	9.45	42.91	21.46	17.72	35.43	22.44	68.35	61.02

DRIVE SIZE ★	Ratios	Low Speed Shaft					Driven Shaft		High Speed Shaft †						V	W	X	Approx Wt lb
		S	SA	SB	SC	SD	SE	SF	T	TA	TB	TC	TE	TF				
M1160	160.0-400.0	3.98	9.06	11.0236 f7	9.0551 H7	4.7244 H7	9.0551 g6	4.7244 f6	2.1654 m6	2.32	0.63	5.91	M20	1.65	11.02	54.49	8.37	5340
	450.0-630.0			11.6142 H7	8.2677 H7	11.6142 g6	4.7244 f6	1.5748 k6	1.69	0.47	5.51	M16	1.42	54.09				
M1170	160.0-400.0	3.98	9.06	11.0236 f7	9.0551 H7	4.7244 H7	9.0551 g6	4.7244 f6	2.1654 m6	2.32	0.63	5.91	M20	1.65	12.40	56.77	8.46	6047
	450.0-630.0			11.6142 H7	8.2677 H7	11.6142 g6	4.7244 f6	1.9685 k6	2.11	0.55	5.51	M16	1.42	56.54				
M1180	160.0-400.0	6.10	11.81	14.1732 f7	11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	2.7559 m6	2.93	0.79	7.09	M20	1.65	13.19	64.96	9.65	9449
	450.0-630.0			11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	2.1654 m6	2.32	0.63	6.30	64.17						
M1190	160.0-400.0	6.10	11.81	14.1732 f7	11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	3.1496 m6	3.35	0.87	7.09	M20	1.65	14.76	69.29	10.43	10364
	450.0-630.0			11.6142 H7	8.2677 H7	11.6142 g6	8.2677 f6	2.5591 m6	2.72	0.71	6.30	68.50						
M1200	160.0-355.0	6.89	13.19	15.3543 f7	12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	4.3307 m6	4.57	1.10	8.66	M24	1.97	17.72	81.50	11.61	16213
	400.0-560.0			12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	2.9528 m6	3.15	0.79	M20		1.65					
M1210	160.0-400.0	6.89	13.19	15.3543 f7	12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	4.3307 m6	4.57	1.10	8.66	M24	1.97	17.72	82.48	11.61	16804
	450.0-630.0			12.5984 H7	7.4803 H7	12.5984 g6	7.4803 f6	2.9528 m6	3.15	0.79	M20		1.65					

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Key Sizes per ISO/R773-1969, Form B. Tapped center hole to DIN 332, threads 6H.

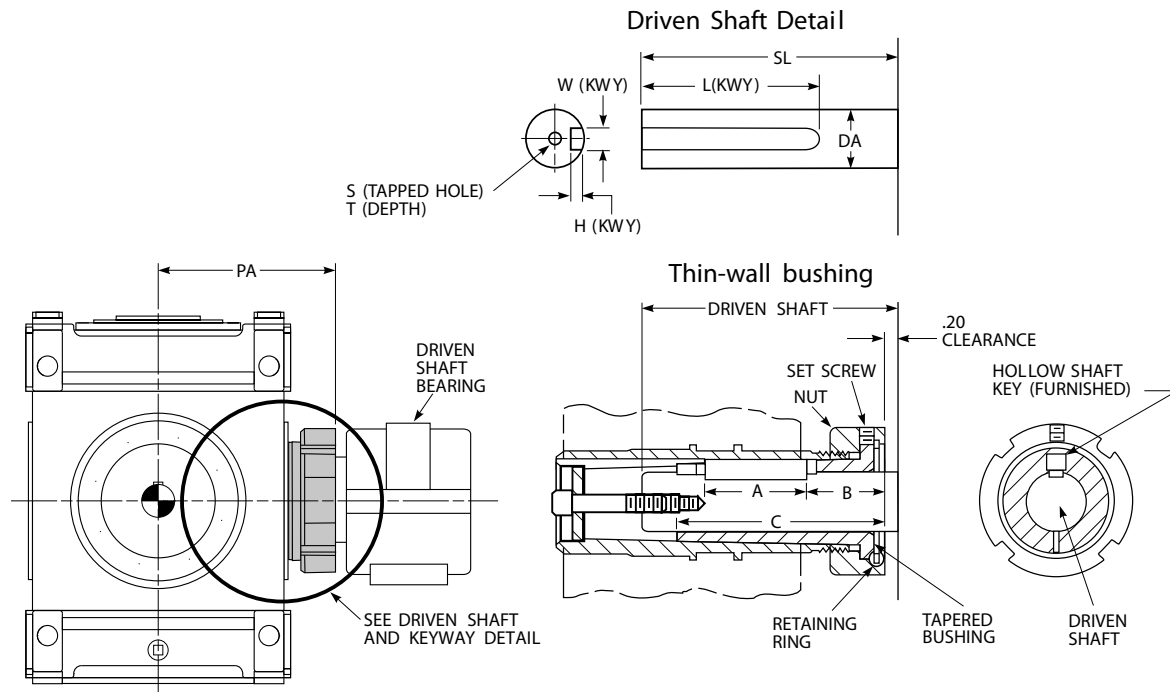
Type DHF & DBF Quadruple Reduction Torque Arm/Dimensions — Inches



DRIVE SIZE ★	E	EA	EB	EC	ED	J	K	L	Approx Wt lb
M1160	51.18	54.72	2.56 H9	30.83	1.38	5.12	3.54	5.71	403
M1170	51.18	54.72	2.56 H9	31.61	1.38	5.12	3.54	5.71	403
M1180	62.99	66.93	2.76 H9	36.26	1.57	5.51	3.94	5.12	591
M1190	62.99	66.93	2.76 H9	38.70	1.57	5.51	3.94	5.12	591
M1200	70.87	75.20	2.95 H9	44.69	2.36	5.91	4.33	5.71	1157
M1210	70.87	75.20	2.95 H9	46.57	2.36	5.91	4.33	5.71	1157

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHT, DBT & DZT Double or Triple Reduction Gear Drive TA Taper Bushing & Driven Shaft/Dimensions — Inches



DRIVE SIZE	Bushing				Driven Shaft					PA	S	T	Wt Lb			
	Bushing Size	A	B	C	DA	Tolerance	SL Min	W x H •	L							
M1130	2.938	7.087	2.55	10.91	2.9375	+.000 - .006	13.43	.750 x .375	11.18	9.51	.750-10 UNC	1.50	28			
	3.188				3.1875			.750 x .375						25		
	3.438				3.4375			.875 x .4375							22	
M1140	3.438	7.087	3.00	11.89	3.4375	+.000 - .006	15.20	.875 x .4375	12.55	10.50	1.000-8 UNC	2.00	40			
	3.938				3.9375			1.000 x .500						32		
	4.188				4.1875			1.000 x .500							26	
M1150	3.938	7.087	3.19	12.09	3.9375	+.000 - .006	15.98	1.000 x .500	13.15	10.94	1.000-8 UNC	2.00	44			
	4.188				4.1875			1.000 x .500						40		
	4.438				4.4375			1.000 x .500							35	
M1160	4.438	7.874	2.33	12.83	4.4375	+.000 - .007	17.87	1.000 x .500	16.02	11.93	1.000-8 UNC	2.00	55			
	4.938				4.9375			1.250 x .625						43		
M1170	4.938	9.843	2.33	13.23	4.9375	+.000 - .007	17.17	1.250 x .625	15.44	11.81	1.125-7 UNC	2.25	74			
	5.438				5.4375			1.250 x .625						60		
	5.938				5.9375			1.500 x .750 *							47	
M1180	5.938	9.843	2.69	14.69	5.9375	+.000 - .007	19.80	1.500 x .750	17.72	13.19	1.125-7 UNC	2.25	79			
	6.000				6.0000			1.500 x .750						75		
	6.500				6.5000			1.500 x .750							60	
M1190	5.938	11.024	2.59	15.28	5.9375	+.000 - .007	21.61	1.500 x .750	19.76	13.98	1.125-7 UNC	2.25	120			
	6.000				6.0000			1.500 x .750						116		
	6.500				6.5000			1.500 x .750							97	
	6.938				6.9375			1.750 x .750								83
	7.000				7.0000			1.750 x .750									80

• Check strength of driven shaft.

* A trapped keyway is not allowed on the keyway shown. An open keyway must extend to the end of the driven shaft.

Type DHT & DBT Double or Triple Reduction

Driven Shaft Recommendations Using TA Taper Bushing With Keeper Plate
 Sizes M1200-M1210/Dimensions — Inches

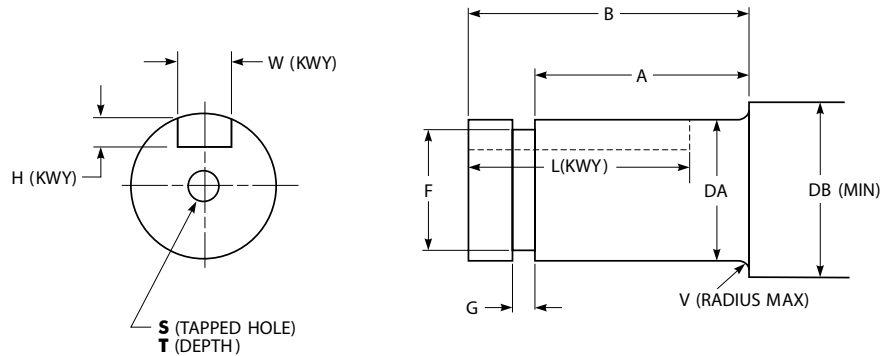


FIGURE 1 (SIZES M1130-M1190)

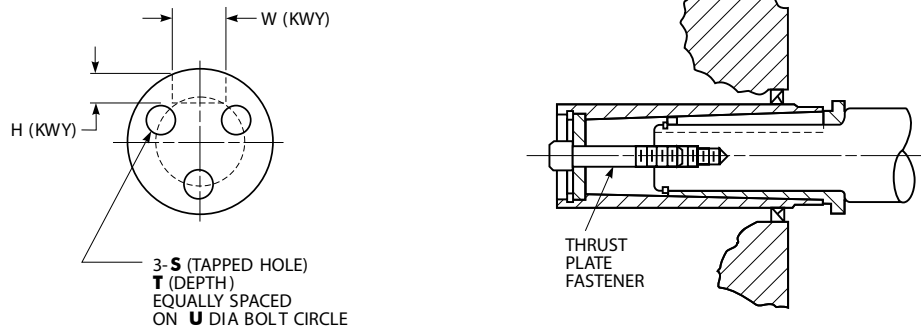


FIGURE 2 (SIZES M1200-M1210)

DRIVE SIZE ★	TCB Kit	A	B	DA †	DB	Retaining Ring			Keyway ‡			Shaft End			V		
						Groove		Mfg No.	Max OD	W	H	L (Min)	Figure No.	S		T (Min)	U
						F	G										
M1200/M1210	...	15.630	16.805	7.500	8.25	7.180	0.209	Smalley WST-750	7.930	1.750	0.750	14.81	2	1.250-7 UNC	2.500	4.750	0.15
M1200/M1210	...	15.630	16.805	8.000	8.75	7.660	0.209	Smalley WST-800	8.410	2.000	0.750	14.81	2	1.250-7 UNC	2.500	4.750	0.15

★ Dimensions are for reference only and are subject to change without notice unless certified.

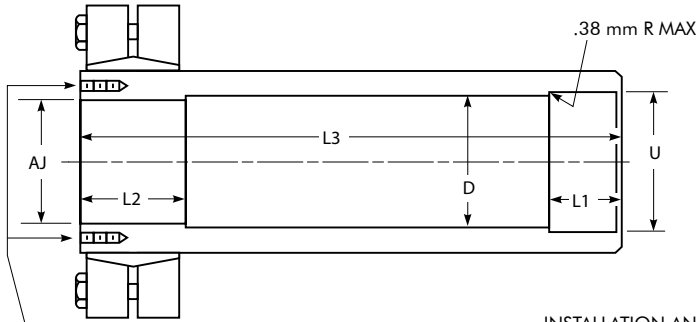
† Shaft diameter tolerance is +0.000, -0.008.

‡ Refer to ANSI B17.1 for inch keyway depths and widths.

Type DHJ, DBJ, DVJ & DXJ

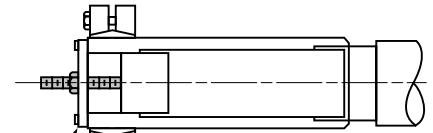
Hollow Low Speed Shaft - Shrink Disc Mounted/Dimensions — Inches

The drive package includes the keeper plate and keeper plate retention hardware

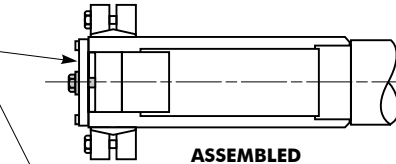


Z - QUANTITY
 ZA - DIA. UNC TAPPED HOLES IN HOLLOW SHAFT
 ZB - DEEP
 Y - DIA. BOLT CIRCLE - EQUALLY SPACED HOLES FOR KEEPER PLATE RETENTION

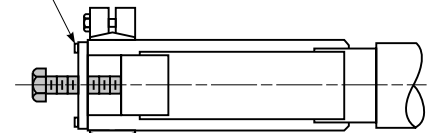
INSTALLATION AND REMOVAL CAN BE ASSISTED THROUGH THE USE OF ADDITIONAL HARDWARE ITEMS SHOWN SHADED (CUSTOMER SUPPLIED)



INSTALLATION
 A THREADED ROD IS INSERTED THROUGH THE KEEPER PLATE CENTER HOLE AND INTO THE TAPPED HOLE IN THE END OF THE DRIVEN SHAFT. THE THREADED ROD, WITH NUT AS SHOWN, ARE USED TO AID ASSEMBLY.



ASSEMBLED



REMOVAL
 A FASTENER (LARGER DIA THAN THE THREADED ROD) IS THREADED INTO THE TAPPED CENTER HOLE OF THE KEEPER PLATE AND IS USED TO SEPARATE THE DRIVEN SHAFT FROM THE HOLLOW LOW SPEED SHAFT OF THE GEAR DRIVE.

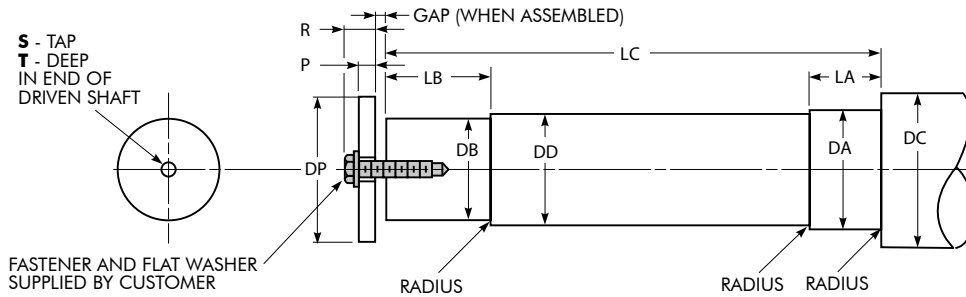
Hollow Low Speed Shaft Dimensions — Inches

DRIVE SIZE ★	AJ †	D	L1	L2	L3	U ‡	Z	ZA	ZB	Y
M1130	3.3465	3.465	2.362	2.362	15.512	3.543	8	M6 x 1-6H	0.472	3.780
M1140	3.9370	4.055	2.559	2.559	17.677	4.134	8	M6 x 1-6H	0.472	4.331
M1150	4.3307	4.449	2.756	2.756	19.191	4.528	8	M8 x 1.25-6H	0.630	4.803
M1160	5.1181	5.236	3.543	3.543	20.628	5.315	8	M10 x 1.50-6H	0.787	5.787
M1170	5.5118	5.630	3.543	3.543	21.181	5.709	8	M10 x 1.50-6H	0.787	6.181
M1180	6.4961	6.614	4.331	4.331	24.724	6.693	6	M12 x 1.75-6H	1.102	7.520
M1190	7.0866	7.205	4.724	4.724	26.694	7.283	6	M12 x 1.75-6H	1.102	8.268
M1200	7.8740	8.071	5.118	5.709	29.921	8.268	6	M12 x 1.75-6H	0.945	9.055
M1210	7.8740	8.071	5.008	5.709	29.921	8.268	6	M12 x 1.75-6H	0.945	9.055

★ Dimensions are for reference only and are subject to change without notice unless certified.

† J7 tolerance.

‡ H7 tolerance.



FASTENER AND FLAT WASHER SUPPLIED BY CUSTOMER

Driven Shaft Recommended Dimensions — Inches

DRIVE SIZE ★	DA †	DB ‡	DC Min	DD ●	Radius Max	LA	LB	LC	DP	P	R	S	T	Fastener Length	Tapped Hole in Center of Keeper Plate	Gap
M1130	3.5433	3.3465	4.134	3.465	0.118	2.126	2.598	15.354	4.33	0.591	1.22	M20 x 2.5-6H	1.654	2.36	M24 x 3-6H	0.157
M1140	4.1339	3.9370	4.724	4.134	0.118	2.323	2.795	17.520	4.84	0.591	1.34	M24 x 3-6H	1.969	2.76	M30 x 3.5-6H	0.157
M1150	4.5276	4.3307	5.118	4.449	0.118	2.520	2.992	19.016	5.47	0.787	1.54	M24 x 3-6H	1.969	2.95	M30 x 3.5-6H	0.157
M1160	5.3150	5.1181	5.906	5.236	0.118	3.307	3.780	20.472	6.46	0.787	1.54	M24 x 3-6H	1.969	2.95	M36 x 4-6H	0.157
M1170	5.7087	5.5118	6.299	5.630	0.118	3.307	3.780	21.024	6.85	0.787	1.69	M30 x 3.5-6H	2.362	3.15	M42 x 4.5-6H	0.157
M1180	6.6929	6.4961	7.283	6.614	0.118	4.094	4.567	24.567	8.62	0.787	1.89	M36 x 4-6H	2.913	3.54	M48 x 5-6H	0.157
M1190	7.2835	7.0866	7.874	7.205	0.118	4.488	4.961	26.535	9.25	0.748	1.85	M36 x 4-6H	2.913	3.54	M48 x 5-6H	0.157
M1200	8.2677	7.8740	9.055	8.071	0.118	4.882	5.472	29.764	10.16	0.984	2.09	M36 x 4-6H	2.913	3.94	M48 x 5-6H	0.157
M1210	8.2677	7.8740	9.055	8.071	0.118	4.882	5.472	29.764	10.16	0.984	2.09	M36 x 4-6H	2.913	3.94	M48 x 5-6H	0.157

★ Dimensions are for reference only and are subject to change without notice unless certified.

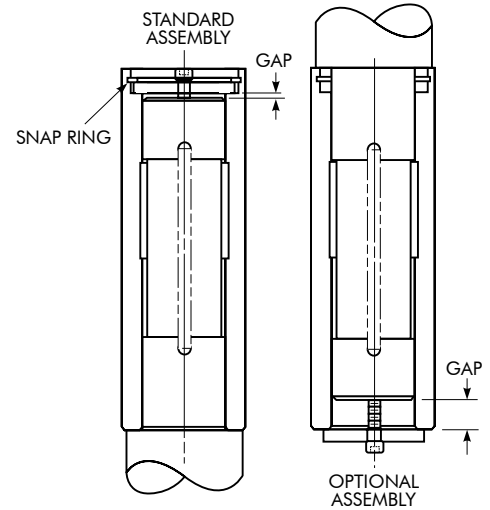
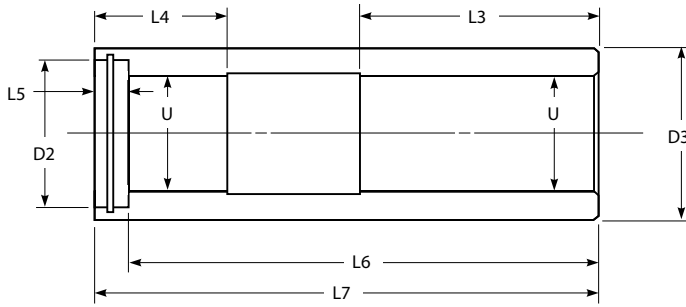
† h6 tolerance.

‡ g6 tolerance.

● c11 tolerance.

Type DVM & DXM

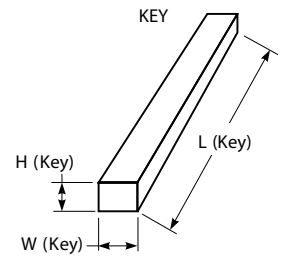
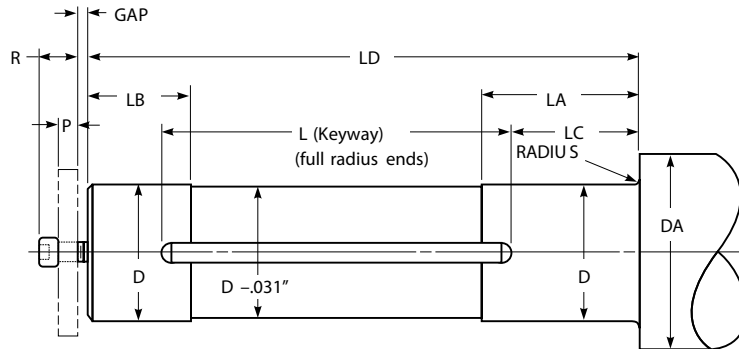
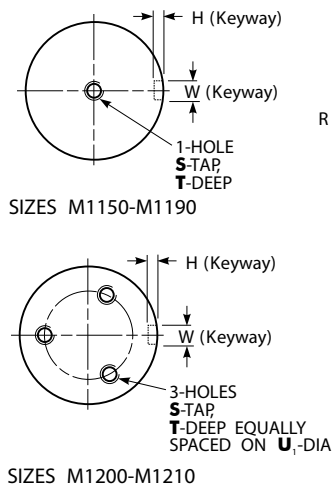
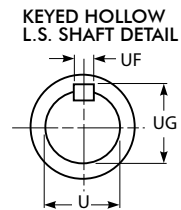
Hollow Low Speed Shaft With Keeper Plate/Dimensions — Inches



Hollow Low Speed Shaft Dimensions — Inches

DRIVE SIZE ★	Shaft-Diameters					L3	L4	L5	L6	L7	Gap Between Shaft & Plate	
	U	UF	UG	D2	D3						Std Assy	Opt Assy
	(H7)	(D10)		+0.009 -0.000								
M1150	4.724	1.260	5.016	5.906	6.693	10.669	4.094	1.772	17.913	19.685	0.197	1.575
M1160	5.315	1.417	5.644	6.575	7.087	11.457	4.409	1.772	19.823	21.594	0.197	1.890
M1170	5.906	1.417	6.236	7.283	7.874	11.378	4.213	2.244	19.252	21.496	0.197	2.480
M1180	6.693	1.575	7.063	8.071	8.661	11.457	7.165	2.244	23.268	25.512	0.197	2.441
M1190	7.283	1.772	7.693	8.937	9.449	14.764	7.559	2.244	25.020	27.264	0.197	2.480
M1200	8.661	1.969	9.110	9.449	11.024	15.906	6.693	2.677	26.614	29.291	0.197	2.874
M1210	8.661	1.969	9.110	9.449	11.024	15.906	6.693	2.677	26.614	29.291	0.197	2.874

★ Dimensions are for reference only and are subject to change without notice unless certified.



Driven Shaft Recommended Dimensions – Inches

DRIVE SIZE ★	Shaft		Radius Max	LD	LA	LB	LC	P +0.000 -0.005	R	Shaft End			Fastener Length		Keyway			Key			
	D (g6)	DA Min								Snap Ring * (L.S. Shaft Down Only) (mm)	S	T	U ₁	Shaft Down	Shaft Up	W (N9)	H	L	W	H	L
M1150	4.724	5.906	0.118	17.717	3.937	2.047	2.913	0.925	1.870	150	M24	1.890	...	2.559	4.331	1.260	0.433	13.858	1.260	0.709	12.598
M1160	5.315	6.496	0.118	19.646	4.213	2.323	2.992	0.925	1.870	170	M24	1.890	...	2.559	4.331	1.417	0.472	15.591	1.417	0.787	14.173
M1170	5.906	7.480	0.118	19.055	4.016	1.575	2.953	0.925	2.106	185	M30	2.362	...	2.756	5.118	1.417	0.472	15.591	1.417	0.787	14.173
M1180	6.693	8.268	0.118	23.071	7.008	4.528	4.921	0.886	2.067	205	M30	2.362	...	2.756	5.118	1.575	0.512	15.748	1.575	0.866	14.173
M1190	7.283	9.055	0.118	24.803	7.402	4.921	4.882	0.886	2.067	225	M30	2.362	...	2.756	5.118	1.772	0.591	17.520	1.772	0.984	15.748
M1200	8.661	10.433	0.118	26.417	8.661	3.937	6.693	1.476	2.657	240	M24	2.362	4.724	3.543	4.331	1.969	0.669	17.717	1.969	1.102	15.748
M1210	8.661	10.433	0.118	26.417	8.661	3.937	6.693	1.476	2.657	240	M24	2.362	4.724	3.543	4.331	1.969	0.669	17.717	1.969	1.102	15.748

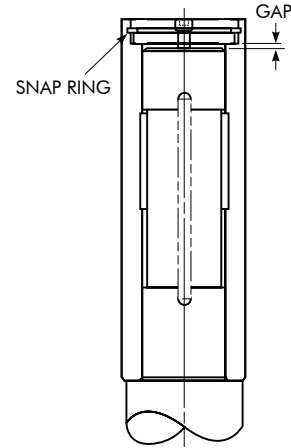
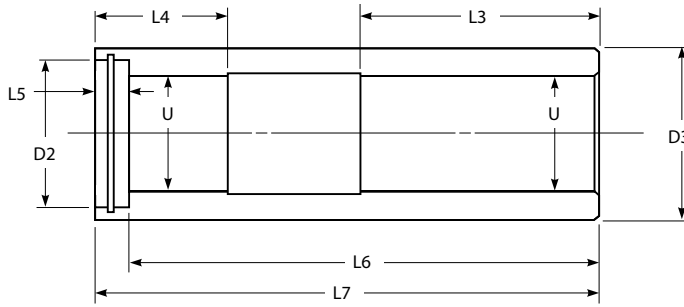
★ Dimensions are for reference only and are subject to change without notice unless certified.

● Rotor clip DHO series or equivalent.

■ Keyway tolerance for M1150 is +0.008"/-0.000"; for M1160 thru M1210 is +0.012"/-0.000".

Type DHQ & DBQ

Hollow Low Speed Shaft With Keeper Plate/Dimensions — Inches

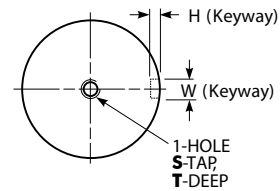
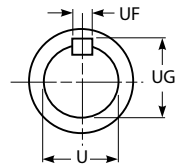


Hollow Low Speed Shaft Dimensions — Inches

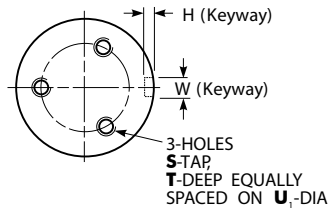
DRIVE SIZE ★	Shaft-Diameters					L3	L4	L5	L6	L7	Gap Between Shaft & Plate
	U (H7)	UF (D10)	UG	D2 +0.009 -0.000	D3						
M1130	3.740	0.984	3.953	4.528	5.118	2.362	4.567	2.598	11.024	13.622	0.197
M1140	4.331	1.102	4.583	5.118	5.906	2.559	4.213	2.047	13.543	15.591	0.197
M1150	4.724	1.260	5.016	5.906	6.693	2.756	4.685	2.362	14.528	16.890	0.197
M1160	5.315	1.417	5.646	6.575	7.087	3.543	4.685	2.047	16.181	18.228	0.197
M1170	5.906	1.417	6.236	7.283	7.874	3.543	4.646	2.677	15.827	18.504	0.197
M1180	6.693	1.575	7.063	8.071	8.661	4.331	7.480	2.559	18.189	20.748	0.197
M1190	7.283	1.772	7.693	8.937	9.449	4.724	7.913	2.598	19.961	22.598	0.197
M1200	8.661	1.969	9.110	9.449	11.024	5.118	6.969	2.953	21.811	24.764	0.197
M1210	8.661	1.969	9.110	9.449	11.024	5.118	6.969	2.953	21.811	24.764	0.197

★ Dimensions are for reference only and are subject to change without notice unless certified.

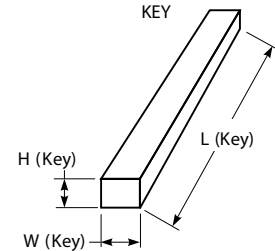
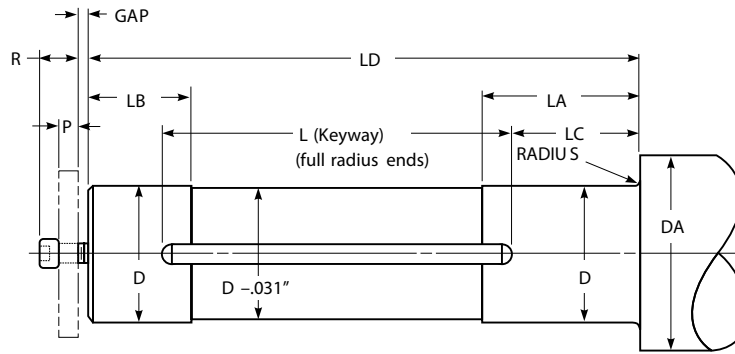
KEYED HOLLOW L.S. SHAFT DETAIL



SIZES M1150-M1190



SIZES M1200-M1210



Driven Shaft Recommended Dimensions – Inches

DRIVE SIZE ★	Shaft		Radius Max	LD	LA	LB	LC	P +0.000 -0.005	R	Thrust Plate (Keeper Plate)				Keyway			Key			
	D (g6)	DA Min								Snap Ring • (mm)	S	T	U ₁	Fastener Length	W (N9)	H ■	L	W	H	L
M1130	3.740	4.724	0.118	10.827	3.346	1.772	0.984	0.925	1.870	115	M24	1.890	...	2.559	0.984	0.354	8.858	0.984	0.551	7.874
M1140	4.331	5.512	0.118	13.346	3.937	1.969	1.181	0.925	1.870	130	M24	1.890	...	2.559	1.102	0.394	10.945	1.102	0.630	9.843
M1150	4.724	5.906	0.118	14.331	3.937	1.929	1.575	0.925	1.870	150	M24	1.890	...	2.559	1.260	0.433	11.102	1.260	0.709	9.843
M1160	5.315	6.496	0.118	15.984	4.213	2.244	1.772	0.925	1.870	167	M24	1.890	...	2.559	1.417	0.472	12.441	1.417	0.787	11.024
M1170	5.906	7.480	0.118	15.630	4.016	1.575	0.984	0.925	2.106	185	M30	2.362	...	2.756	1.417	0.472	14.016	1.417	0.787	12.598
M1180	6.693	8.268	0.118	17.992	7.008	4.528	1.181	0.886	2.067	205	M30	2.362	...	2.756	1.575	0.512	15.748	1.575	0.866	14.173
M1190	7.283	9.055	0.118	19.803	7.402	4.921	1.496	0.886	2.067	227	M30	2.362	...	2.756	1.772	0.591	17.520	1.772	0.866	15.748
M1200	8.661	10.433	0.118	21.614	8.661	3.622	1.575	1.476	2.657	240	M30	2.362	3.346	3.543	1.969	0.669	17.717	1.969	0.866	15.748
M1210	8.661	10.433	0.118	21.614	8.661	3.622	1.575	1.476	2.657	240	M30	2.362	3.346	3.543	1.969	0.669	17.717	1.969	0.866	15.748

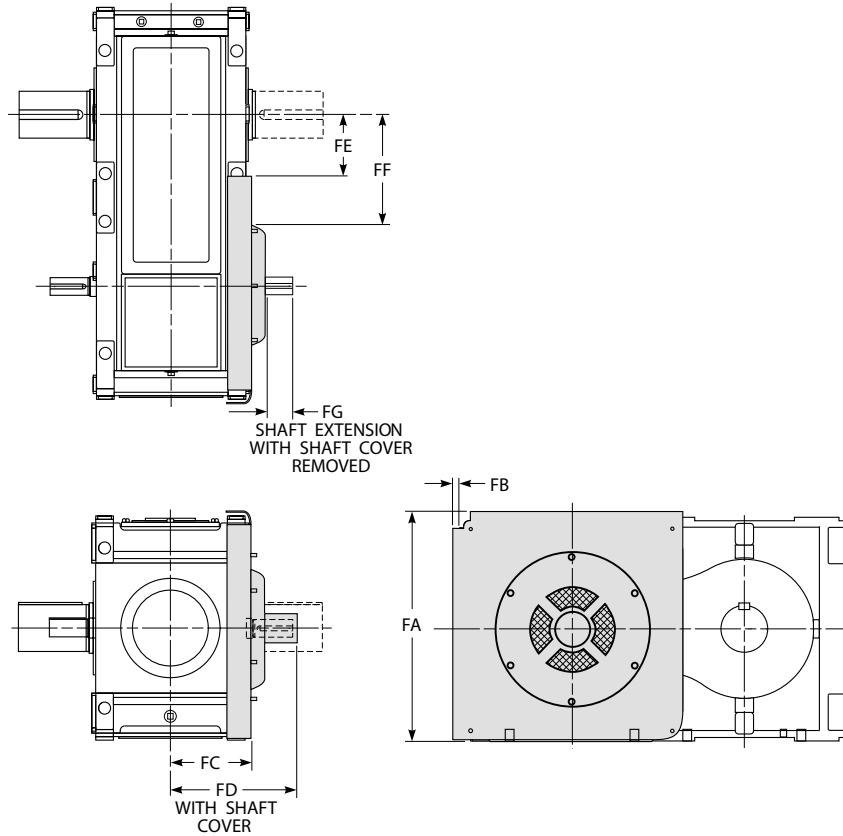
★ Dimensions are for reference only and are subject to change without notice unless certified.

• Rotor clip DHO series or equivalent.

■ Keyway tolerance for M1130 thru M1150 is +0.008"/-0.000"; for M1160 thru M1210 is +0.012"/-0.000".

Type DHC2 & 3 Sizes M1130-M1210

Shaft Driven Fan Clearance/Dimensions — Inches



Double Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FG ‡
M1130	6.3-16.0	17.09	0.60	6.28	11.57	3.66	5.71	2.92
	18.0-28.0				9.57		6.86	1.21
M1140	6.3-16.0	18.98	0.59	7.26	12.20	4.29	6.24	2.51
	18.0-28.0							1.34
M1150	6.3-16.0	21.54	0.67	7.85	12.76	4.85	7.11	2.63
	18.0-28.0							1.84
M1160	6.3-28.0	22.72	0.67	8.54	13.46	6.02	7.99	2.03
M1170	6.3-16.0	25.51	0.67	8.74	14.69	6.81	8.98	3.11
	18.0-28.0							1.93
M1180	6.3-28.0	27.09	0.67	9.76	16.30	8.94	11.97	3.15
M1190	6.3-16.0	30.20	0.67	11.22	17.83	10.16	13.78	3.86
	18.0-28.0							2.68
M1200	5.00-22.4	36.10	0.67	12.36	19.33	9.96	14.17	3.30
M1210	5.60-25.0	36.10	0.67	12.36	19.33	10.94	15.16	3.30

★ Dimensions are for reference only and are subject to change without notice unless certified.

‡ Allows 0.12" clearance from shroud.

Triple Reduction ★

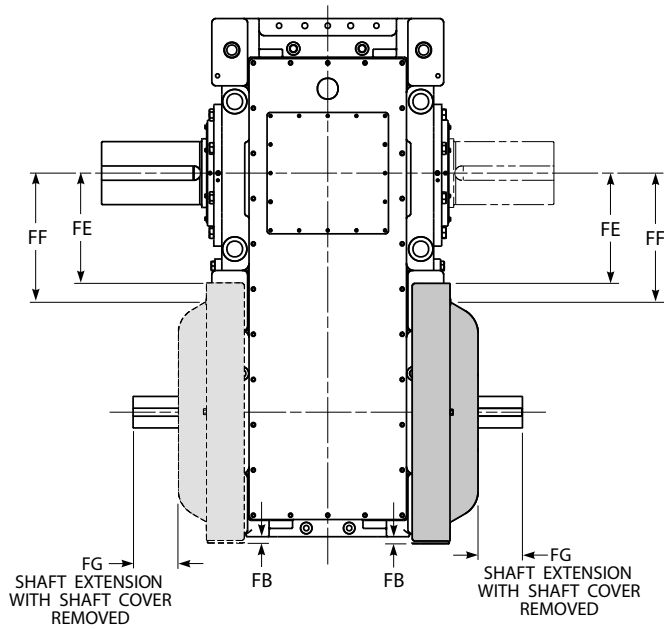
DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FG ‡
M1130	31.5-140.0	17.09	0.60	6.28	9.57	3.66	6.86	1.21
M1140	31.5-140.0	18.98	0.59	7.26	10.98	4.29	7.29	0.92
M1150	31.5-90.0	21.54	0.67	7.85	11.57	4.85	8.16	1.84
	100.0-140.0							1.56
M1160	31.5-140.0	22.72	0.67	8.54	13.46	6.02	7.99	1.33
M1170	31.5-140.0	25.51	0.67	8.74	14.69	6.81	8.98	1.93
M1180	31.5-140.0	27.09	0.67	9.76	15.39	8.94	12.76	1.85
M1190	31.5-140.0	30.20	0.67	10.83	17.32	10.16	14.76	2.12
M1200	25.0-112.0	36.10	0.67	12.36	19.17	8.98	12.20	2.13
M1210	28.0-125.0	36.10	0.67	12.36	19.17	10.94	14.17	2.13

★ Dimensions are for reference only and are subject to change without notice unless certified.

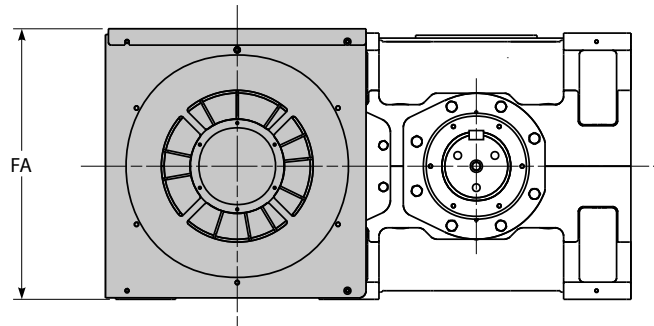
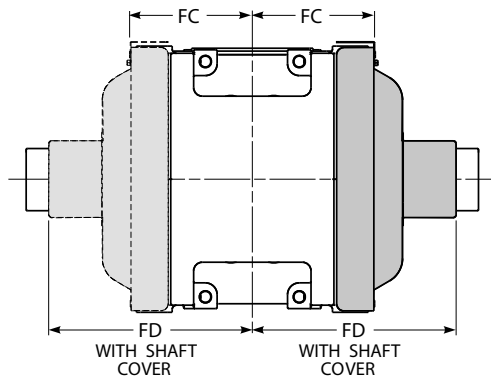
‡ Allows 0.12" clearance from shroud.

Type DHC2 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Inches



OPTIONAL
2 SHAFT FANS
CONFIGURATION

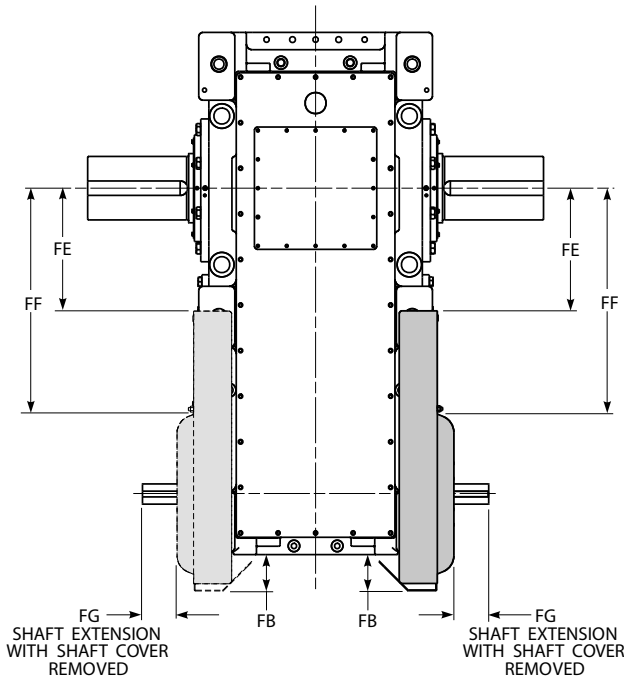


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FG
M1220	5.6 - 22.4	37.20	0.78	16.81	28.07	13.58	16.02	5.98
M1230	6.3 - 25.0	37.20	0.78	16.81	28.07	15.16	17.60	5.98
M1240	5.6 - 22.4	43.90	0.59	19.25	30.47	16.34	21.34	7.01
M1250	6.3 - 25.0	43.90	0.59	19.25	30.47	18.31	23.31	7.01

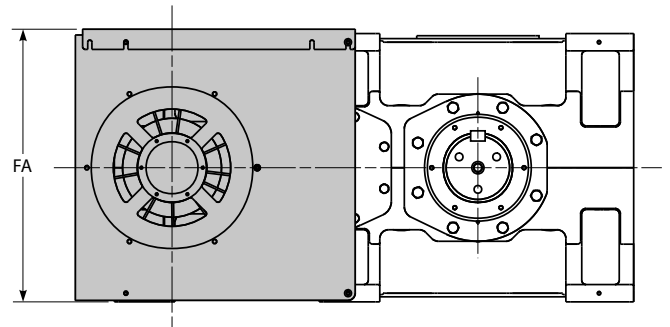
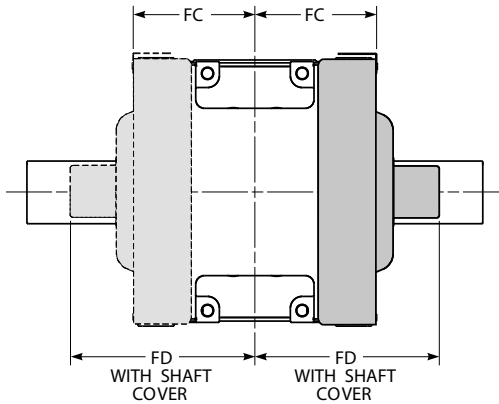
★ Dimensions are for reference only and are subject to change without notice unless certified.
For applications requiring a backstop and two shaft fans, consult the Factory.

Type DHC3 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Inches



OPTIONAL
2 SHAFT FANS
CONFIGURATION

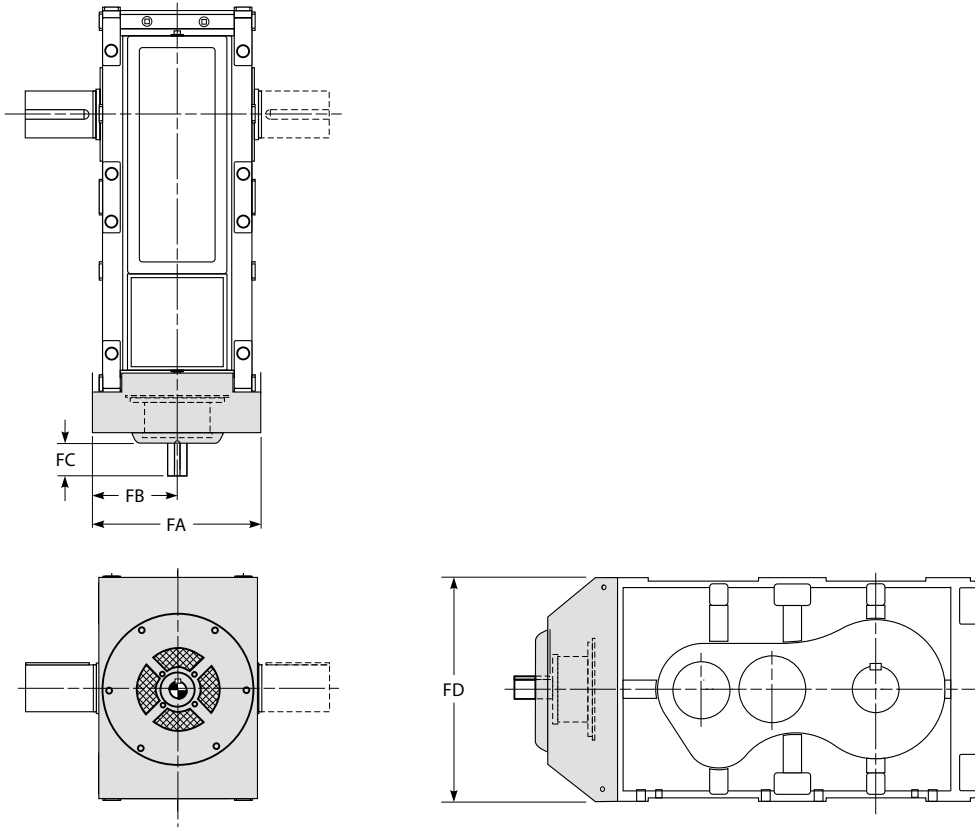


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FG
M1220	25.0 - 63.0	37.20	4.72	16.61	25.08	15.16	29.17	4.84
M1230	28.0 - 71.0	37.20	4.72	16.61	25.08	16.73	30.75	4.84
M1240	25.0 - 63.0	43.90	3.35	18.39	26.85	17.91	35.87	6.60
M1250	28.0 - 71.0	43.90	3.35	18.39	26.85	19.88	37.83	6.60

★ Dimensions are for reference only and are subject to change without notice unless certified.
For applications requiring a backstop and two shaft fans, consult the Factory.

Type DBC3 Sizes M1130-M1210

Shaft Driven Fan Clearance/Dimensions — Inches

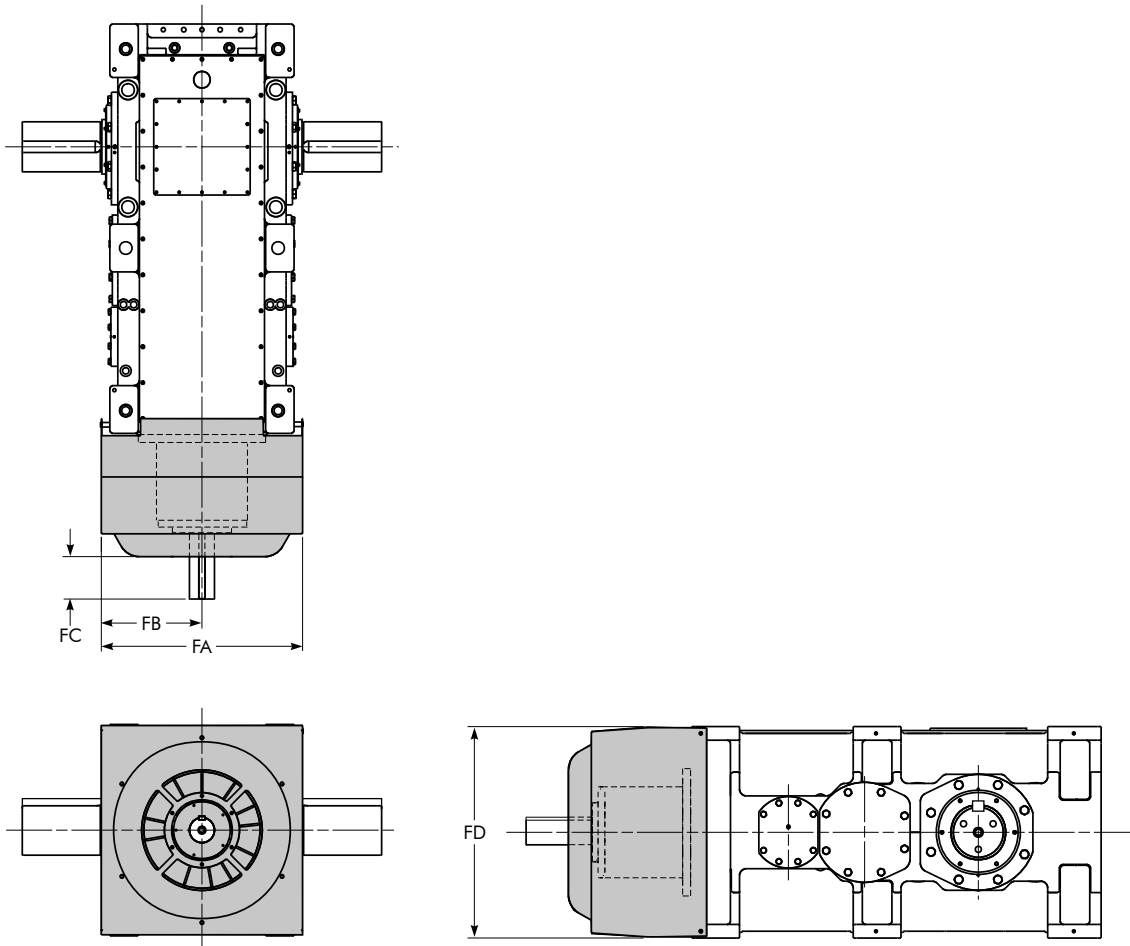


DRIVE SIZE ★	Ratios	FA	FB	FC	FD
M1130	14.0-80.0	14.09	7.045	2.95	16.54
	90.0-125.0			1.77	
M1140	14.0-80.0	17.09	8.545	3.11	18.43
	90.0-125.0			2.28	
M1150	14.0-80.0	16.85	8.425	4.37	20.87
	90.0-125.0			2.56	
M1160	14.0-80.0	18.19	9.095	4.65	21.89
	90.0-125.0			4.25	
M1170	14.0-80.0	18.39	9.195	4.53	24.80
	90.0-125.0			4.13	
M1180	14.0-80.0	22.20	11.10	4.57	26.30
	90.0-125.0			3.78	
M1190	14.0-80.0	22.32	11.16	5.79	29.45
	90.0-125.0			5.00	
M1200	11.2-100.0	29.22	14.61	6.01	35.28
M1210	12.5-112.0	29.22	14.61	6.01	35.28

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DBC3 Sizes M1220-M1250

Shaft Driven Fan Clearance/Dimensions — Inches

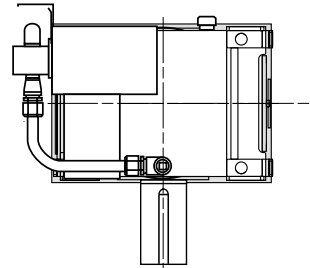
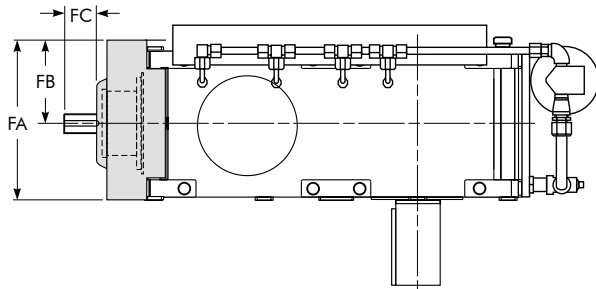
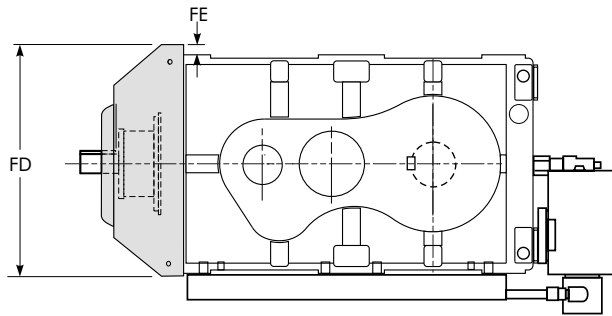


DRIVE SIZE ★	Ratios	FA	FB	FC	FD
M1220	8.0 - 63.0	34.84	17.42	7.40	36.22
M1230	9.0 - 71.0	34.84	17.42	7.40	36.22
M1240	8.0 - 63.0	38.39	19.19	7.40	42.91
M1250	9.0 - 71.0	38.39	19.19	7.40	42.91

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DXC Triple Reduction

Shaft Driven Fan Clearance/Dimensions — Inches

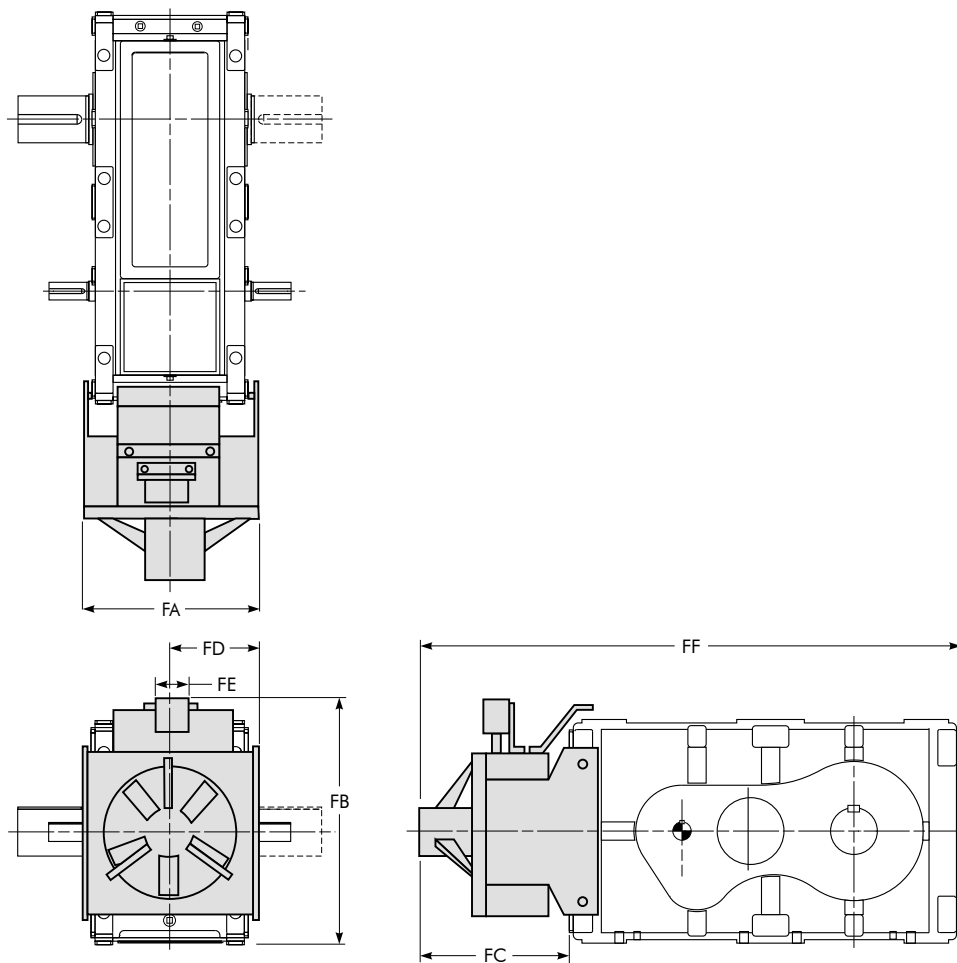


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE
M1130	14.0-80.0	12.95	7.05	3.23	19.21	1.26
	90.0-125.0			2.05		
M1140	14.0-80.0	14.92	8.03	3.46	21.10	1.26
	90.0-125.0			2.64		
M1150	14.0-80.0	16.10	8.62	4.41	23.39	1.26
	90.0-125.0			2.60		
M1160	14.0-80.0	17.44	9.29	4.65	24.57	1.26
	90.0-125.0			4.25		
M1170	14.0-80.0	17.68	9.41	4.61	27.32	1.26
	90.0-125.0			4.37		
M1180	14.0-80.0	20.55	11.10	5.20	29.84	1.73
	90.0-125.0			4.33		
M1190	14.0-80.0	22.13	11.89	5.83	33.07	1.73
	90.0-125.0			5.04		
M1200	11.2-100.0	24.53	13.11	7.20	42.13	3.35
M1210	12.5-112.0	24.53	13.11	7.20	42.13	3.35

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHL1, DHC1, 2 & 3 Sizes M1130-M1210

Electric Fan Clearance/Dimensions — Inches



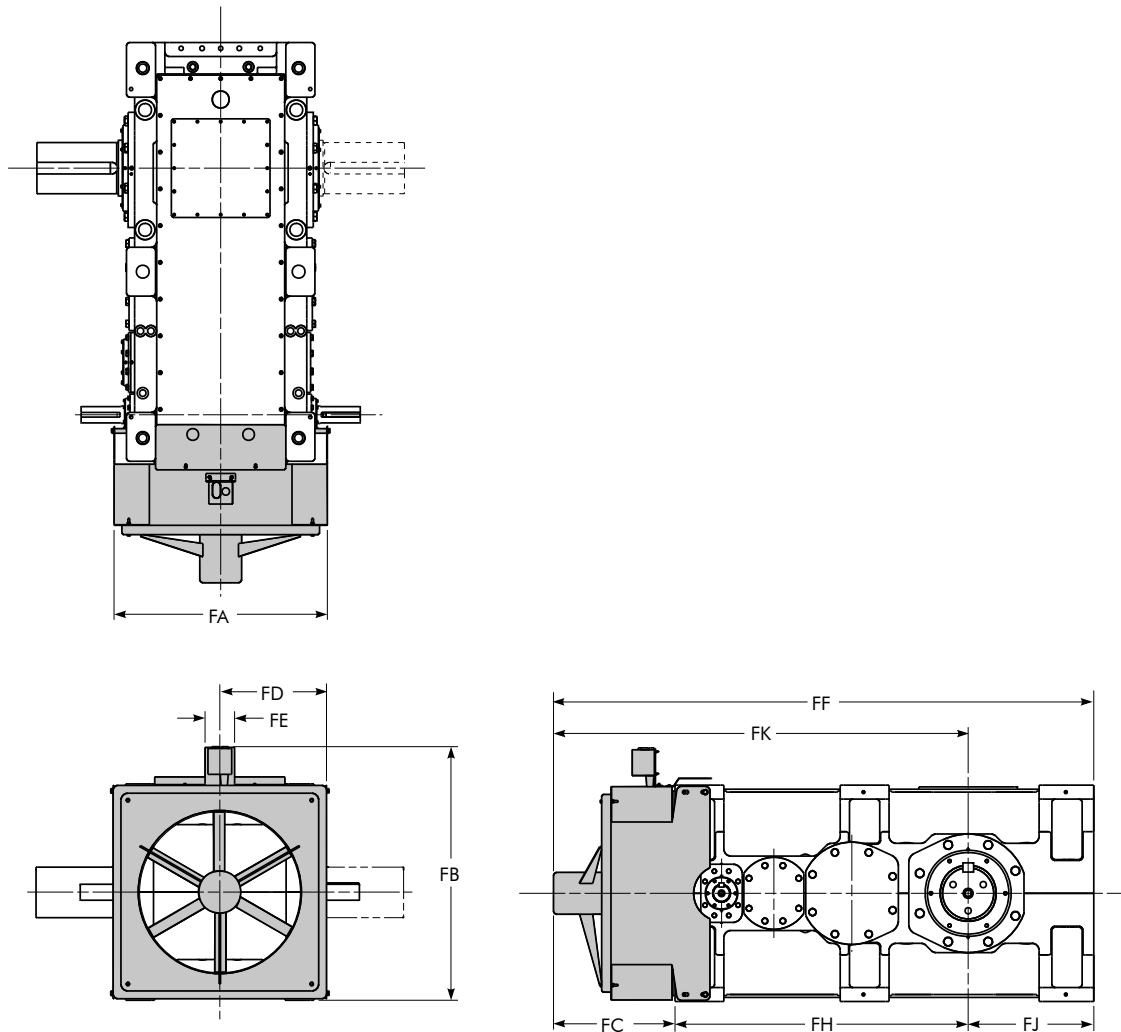
All Reductions & Ratios ★

DRIVE SIZE	FA	FB	FC	FD	FE	FF
M1130	17.56	24.55	16.77	8.78	5.00	45.27
M1140	19.52	26.40	17.36	9.76	5.00	49.33
M1150	19.52	26.97	18.34	9.76	5.00	54.37
M1160	21.46	28.50	18.35	10.75	5.00	57.32
M1170	21.50	29.76	18.31	10.75	5.00	61.61
M1180	23.46	31.61	20.47	11.73	5.00	68.90
M1190	25.63	34.21	20.59	12.83	5.00	74.92
M1200	28.58	39.96	24.49	14.29	5.00	88.47
M1210	28.58	39.96	24.49	14.29	5.00	88.47

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC2 & 3 Sizes M1220-M1250

Electric Fan Clearance/Dimensions — Inches



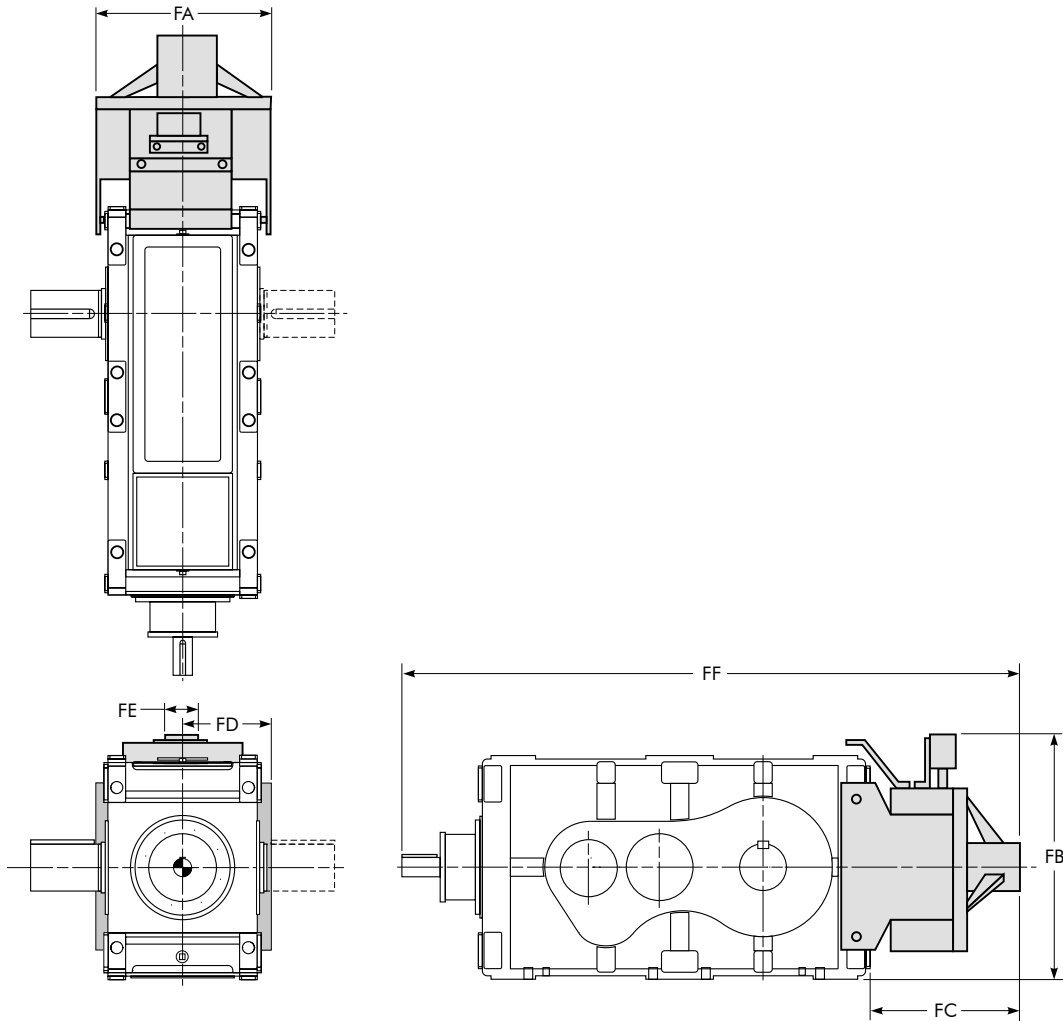
Double & Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK
M1220	5.6 - 63.0	36.10	42.91	20.79	18.05	5.00	91.66	48.03	22.83	68.83
M1230	6.3 - 71.0	36.10	42.91	20.79	18.05	5.00	91.66	49.61	21.26	70.40
M1240	5.6 - 63.0	39.65	49.61	20.99	19.82	5.00	103.47	56.10	26.38	77.10
M1250	6.3 - 71.0	39.65	49.61	20.99	19.82	5.00	103.47	58.07	24.41	79.06

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB All Reductions - Sizes M1130-M1210

Electric Fan Clearance/Dimensions — Inches

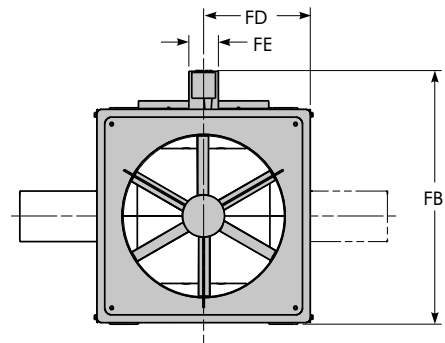
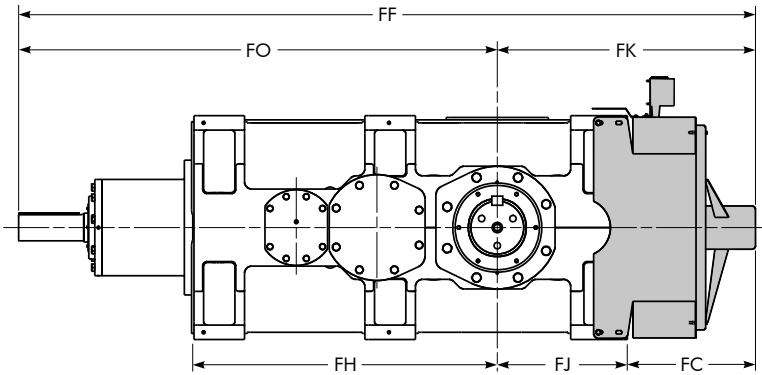
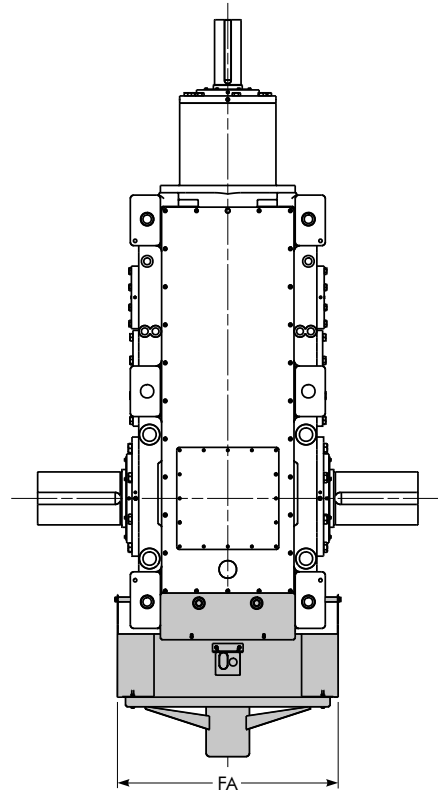


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF
M1130	14.0-80.0	17.56	24.57	16.77	8.78	5.00	55.24
	90.0-125.0						54.06
M1140	14.0-80.0	19.53	26.42	17.36	9.76	5.00	59.69
	90.0-125.0						58.86
M1150	14.0-80.0	19.53	26.46	18.35	9.76	5.00	65.20
	90.0-125.0						63.39
M1160	14.0-80.0	21.46	28.50	18.35	10.75	5.00	69.88
	90.0-125.0						69.49
M1170	14.0-80.0	21.50	29.76	18.31	10.75	5.00	72.91
	90.0-125.0						72.68
M1180	14.0-80.0	23.46	31.61	20.47	11.73	5.00	81.50
	90.0-125.0						80.71
M1190	14.0-80.0	25.63	34.21	20.59	12.83	5.00	87.52
	90.0-125.0						86.73
M1200	11.2-100.0	28.58	39.96	24.49	14.29	5.00	103.23
M1210	12.5-112.0	28.58	39.96	24.49	14.29	5.00	103.23

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DBC3 Sizes M1220-M1250

Electric Fan Clearance/Dimensions — Inches

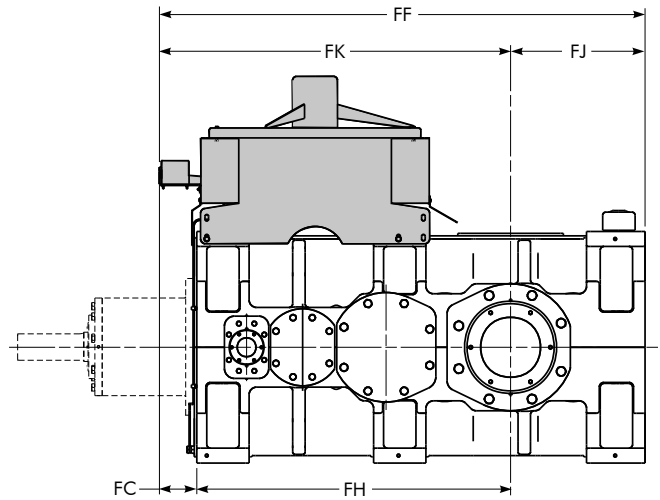
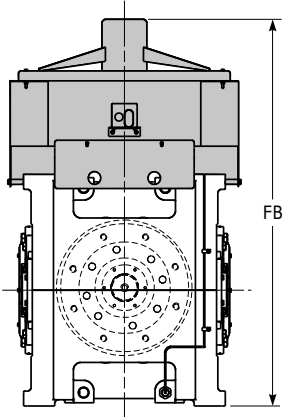
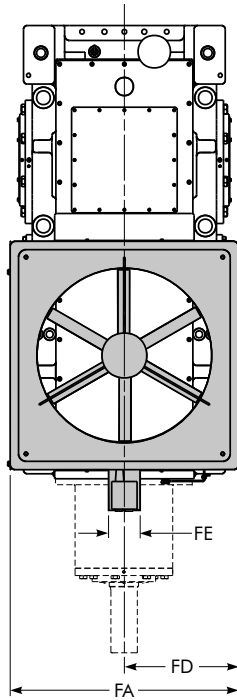


DRIVE SIZE ★	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK	FO
M1220	8.0 - 63.0	36.10	42.91	20.79	18.05	5.00	120.40	48.03	22.83	43.62	76.77
M1230	9.0 - 71.0	36.10	42.91	20.79	18.05	5.00	120.40	49.61	21.26	42.05	78.35
M1240	8.0 - 63.0	39.65	49.61	20.99	19.82	5.00	129.45	56.10	26.38	47.36	82.09
M1250	9.0 - 71.0	39.65	49.61	20.99	19.82	5.00	129.45	58.07	24.41	45.40	84.06

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC & DBC Sizes M1220-M1250

Electric Fan Clearance(Top Mounting)/Dimensions — Inches



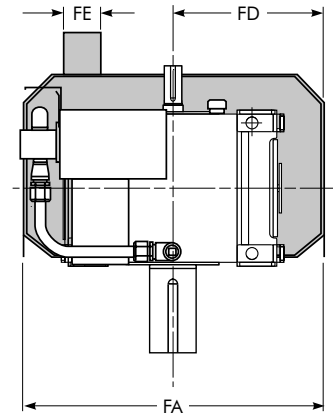
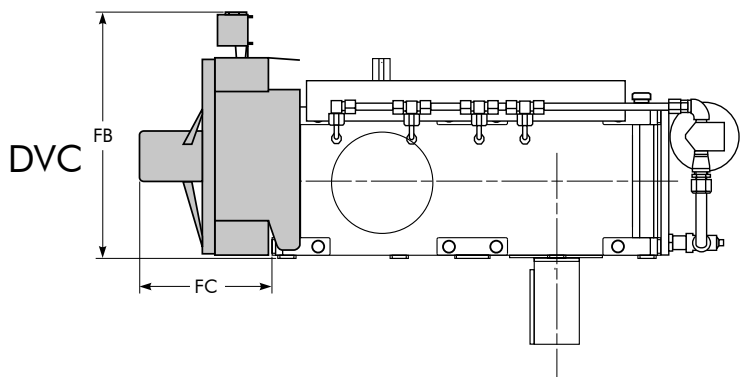
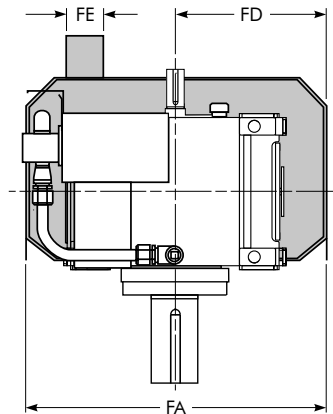
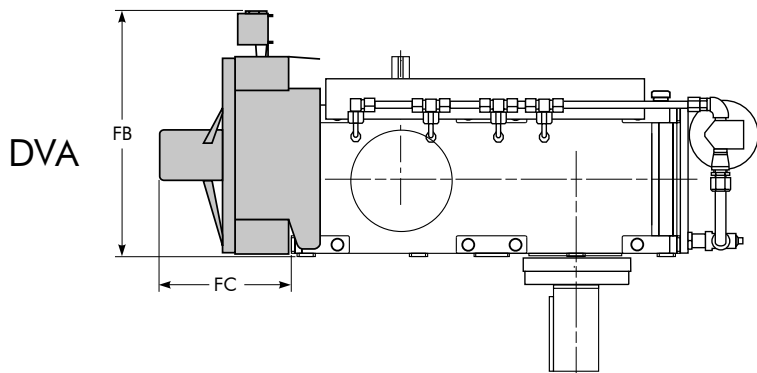
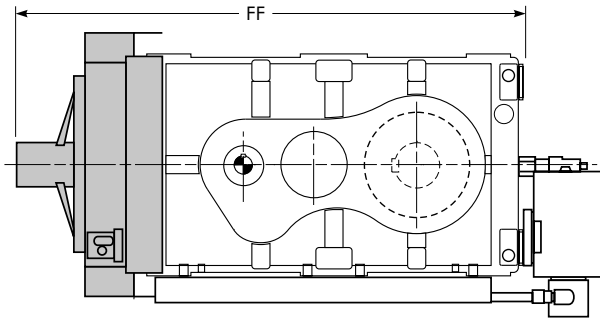
Double & Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF	FH	FJ	FK
M1220	5.6 - 63.0	36.10	57.99	5.91	18.05	5.00	76.77	48.03	22.83	53.94
M1230	6.3 - 71.0	36.10	57.99	5.91	18.05	5.00	76.77	49.61	21.26	55.51
M1240	5.6 - 63.0	39.65	65.08	5.71	19.82	5.00	88.19	56.10	26.38	61.81
M1250	6.3 - 71.0	39.65	65.08	5.71	19.82	5.00	88.19	58.07	24.41	63.78

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DVA & DVC

Electric Fan Clearance/Dimensions — Inches



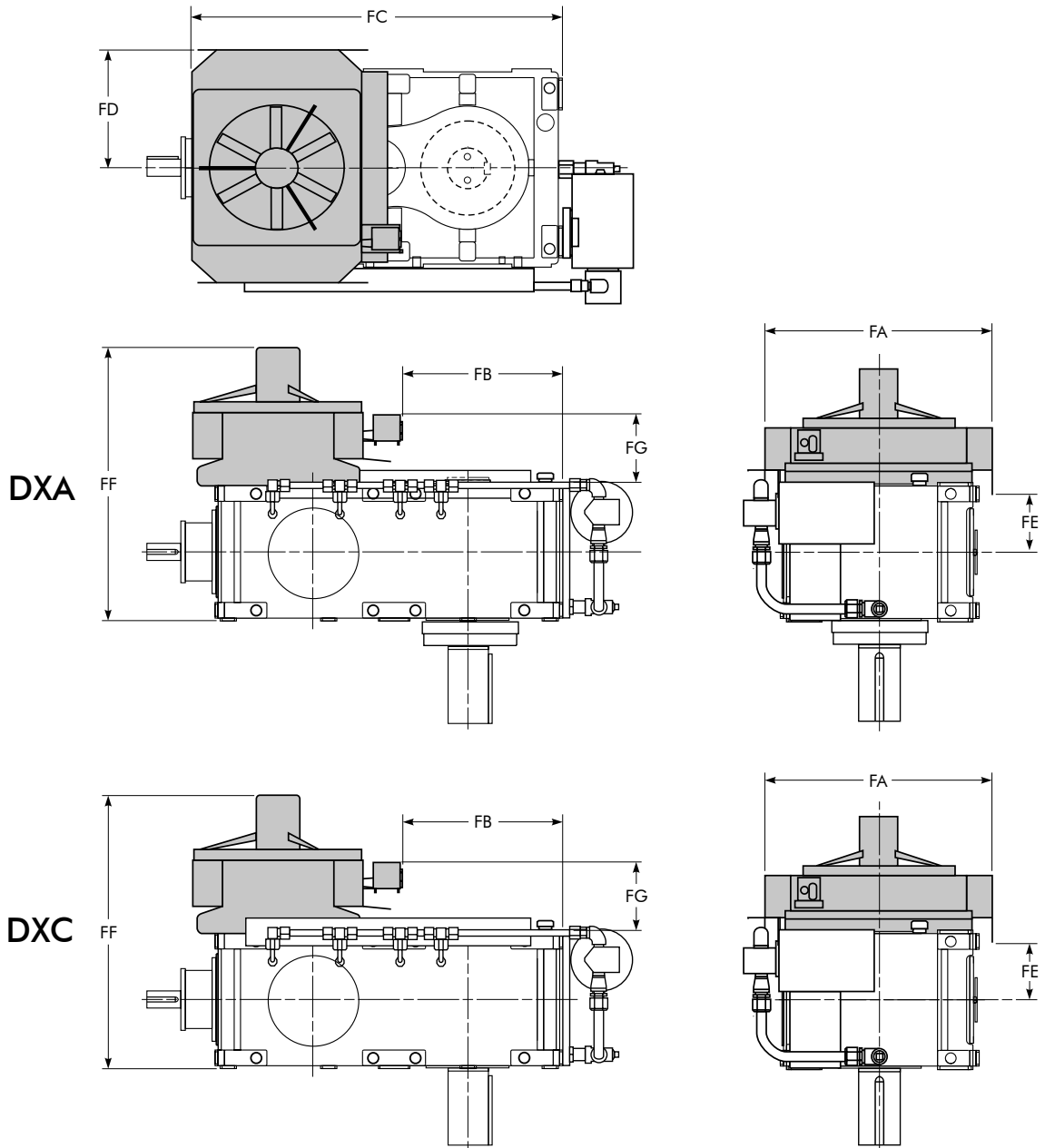
Double & Triple Reduction ★

DRIVE SIZE	Ratios	FA	FB	FC	FD	FE	FF
M1130	6.3-28.0	20.94	24.35	13.82	10.47	5.00	42.32
M1140	6.3-28.0	24.41	24.35	14.37	12.21	5.00	46.30
M1150	6.3-28.0	26.69	24.35	14.37	13.35	5.00	50.39
M1160	6.3-28.0	27.87	26.34	15.35	13.94	5.00	54.33
M1170	6.3-28.0	30.63	26.34	15.35	15.32	5.00	58.66
M1180	6.3-28.0	32.20	29.76	16.26	16.10	5.00	64.69
M1190	6.3-28.0	35.35	31.73	16.97	17.68	5.00	71.30
M1200	5.0-22.4	41.34	34.73	17.09	20.67	5.00	81.07
M1210	5.6-25.0	41.34	34.73	17.09	20.67	5.00	81.07

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DXA & DXC

Electric Fan Clearance/Dimensions — Inches



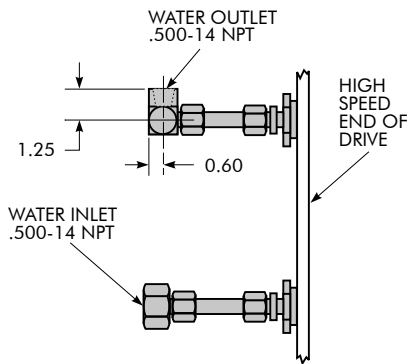
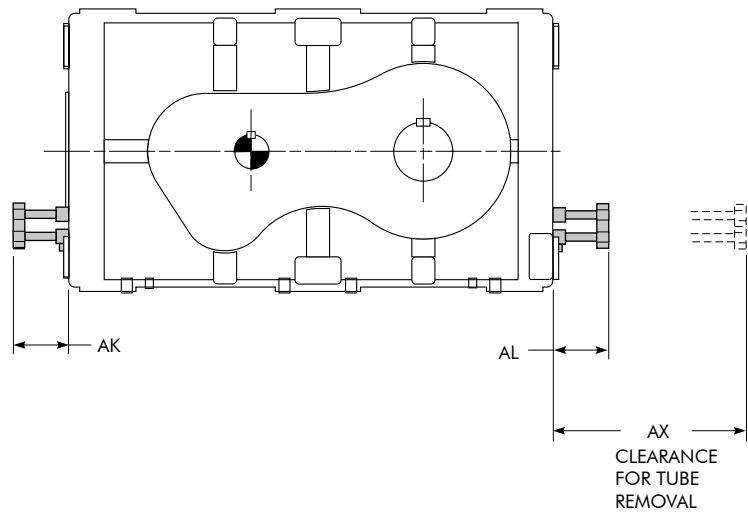
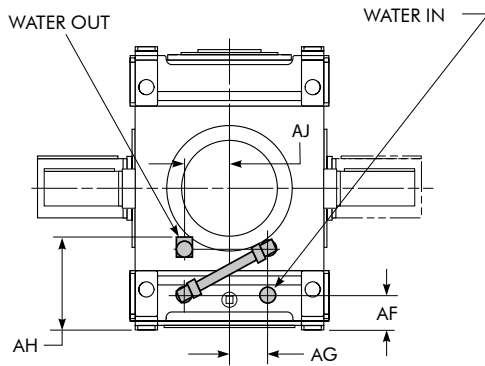
Triple Reduction ★

DRIVE SIZE	FA	FB	FC	FD	FE	FF	FG
M1130	20.94	5.59	29.72	10.47	2.80	26.81	8.62
M1140	24.41	9.57	33.70	12.21	5.12	29.33	7.99
M1150	26.69	13.62	37.76	13.35	5.12	30.51	7.99
M1160	27.87	15.04	41.14	13.94	6.18	32.68	7.80
M1170	30.63	19.06	45.16	15.32	5.91	32.87	7.80
M1180	32.20	21.06	50.63	16.10	6.97	36.14	7.80
M1190	35.35	24.25	55.79	17.68	7.01	38.94	8.74
M1200	41.34	31.61	66.14	20.67	9.65	42.09	8.74
M1210	41.34	31.61	66.14	20.67	9.65	42.09	8.74

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC1

Cooling Tube Clearance/Dimensions — Inches



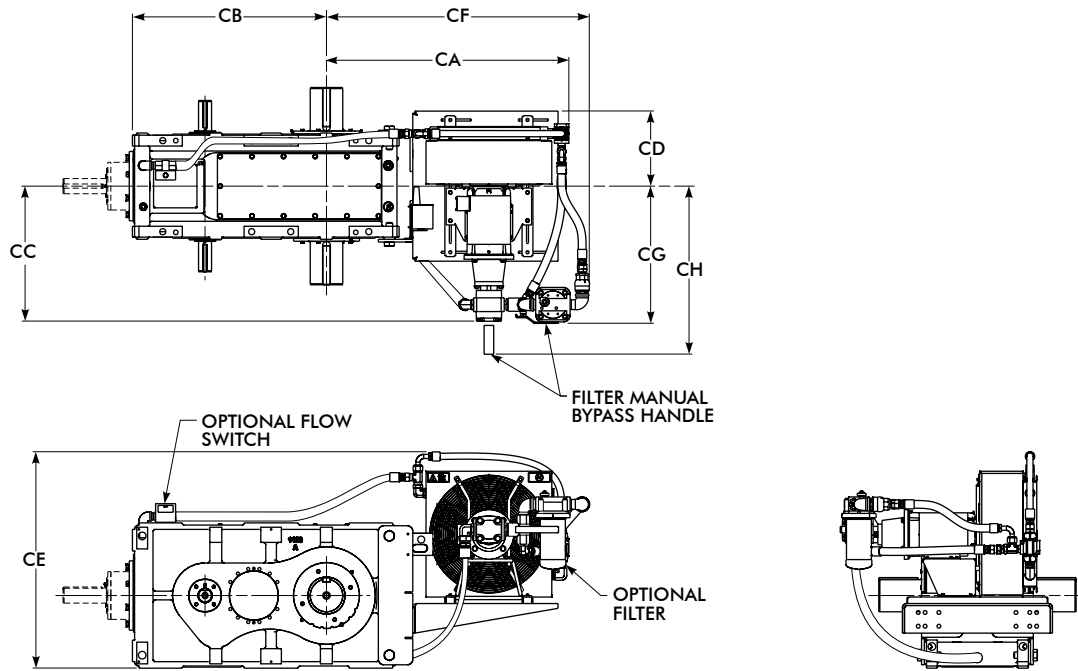
A minimum flow rate of 2 gallons per minute of clean water is required to prevent tube fouling. The maximum flow rate to prevent tube erosion is 5 gallons per minute. Thermal horsepower ratings are based on a maximum water inlet temperature of 90°F (32°C) with 2 gallons per minute.

DRIVE SIZE ★	Reduction	AF	AG	AH	AJ	AK	AL	AX	Std No. of Tubes
M1150	1	2.91	3.03	7.13	3.03	5.51	5.51	44.9	4
M1160	1	3.15	3.23	7.56	3.23	5.51	5.51	47.9	4
M1170	1	3.15	3.54	7.01	3.54	5.51	5.51	52.2	4
M1180	1	3.15	3.94	8.15	4.33	6.30	6.30	59.1	4
M1190	1	3.15	4.33	10.51	4.33	4.72	4.72	61.7	6

★ Drawings are representative of this series of drives and do not agree in exact detail for all drive sizes. Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB Sizes M1150-M1210

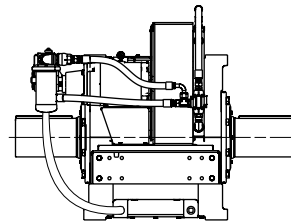
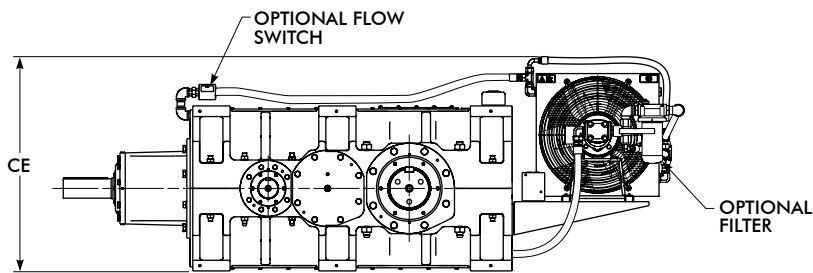
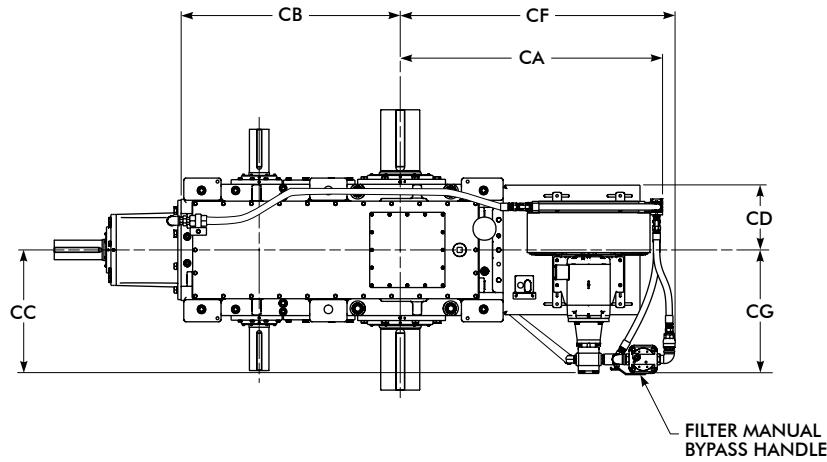
Type PA Pump and Cooler Clearance/Dimensions — Inches



DRIVE SIZE	Pump & Cooler	CA	CB	CC	CD	CE	Optional Filter		
							CF	CG	CH
M1150	60SPA	36.3	25.6	23.5	12.4	33.6	38.9	...	29.6
	610PA	38.2	25.6	24.6	12.4	36.0	38.3	...	30.5
M1160	60SPA	35.1	28.0	23.5	12.4	33.1	37.7	...	29.6
	610PA	37.0	28.0	24.6	12.4	35.5	37.1	...	30.5
M1170	60SPA	37.6	31.5	23.5	12.4	33.6	40.3	...	29.6
	610PA	39.6	31.5	24.6	12.4	36.0	39.7	...	30.5
M1180	610PA	40.4	35.2	24.6	12.4	36.2	40.4	...	30.5
	620PA	44.0	35.2	24.5	13.6	39.3	48.5	24.9	...
M1190	610PA	41.8	39.6	24.6	12.4	39.2	41.8	...	30.5
	620PA	45.4	39.6	24.5	13.6	42.3	49.8	24.9	...
	630PA	50.7	39.6	27.4	14.4	48.9	55.1	27.7	...
M1200	620PA	49.3	45.3	24.5	13.6	41.9	53.8	24.9	...
	630PA	54.7	45.3	27.4	14.4	48.5	59.1	27.7	...
M1210	620PA	48.3	46.3	24.5	13.6	41.9	52.8	24.9	...
	630PA	53.7	46.3	27.4	14.4	48.5	58.1	27.7	...

Type DH & DB Sizes M1220-M1250

Type PA Pump and Cooler Clearance/Dimensions — Inches



DRIVE SIZE	Pump & Cooler	CA	CB	CC	CD	CE	Optional Filter	
							CF	CG
M1220	630PA	58.2	48.6	27.4	14.4	47.6	62.6	27.7
	640PA	71.1	48.6	32.9	20.0	62.4	69.0	33.0
M1230	630PA	56.6	50.2	27.4	14.4	47.6	61.0	27.7
	640PA	69.5	50.2	32.9	20.0	62.4	67.4	33.0
M1240	630PA	61.8	56.7	27.4	14.4	50.7	66.2	27.7
	640PA	74.4	56.7	32.9	20.0	65.0	72.3	33.0
M1250	630PA	59.8	58.7	27.4	14.4	50.7	64.2	27.7
	640PA	72.5	58.7	32.9	20.0	65.0	70.4	33.0

Type DHC1

Pump and Cooler Selections

Input RPM	Nominal Ratio	REDUCER SIZE				
		M1150	M1160	M1170	M1180	M1190
1750	1.25			
	1.40			
	1.60	CSO	CSO	CSO	CSO	CSO
	1.80					
	2.00					
	2.24	610PA	610PA	610PA	620PA	630PA
	2.50					
	2.80	605PA	605PA	610PA	610PA	620PA
	3.15					
	3.55					
	4.00					
	4.50					
5.00						
5.60						
1430	1.25	CSO	CSO	CSO	CSO	...
	1.40					
	1.60	610PA	610PA		610PA	620PA	630PA
	1.80					
	2.00	605PA	605PA	610PA	610PA	620PA
	2.24					
	2.50					
	2.80					
	3.15					
	3.55					
	4.00					
	4.50					
5.00						
5.60						
1170	1.25	CSO	CSO	CSO	CSO	CSO
	1.40					
	1.60	610PA	610PA		610PA	620PA	630PA
	1.80					
	2.00	605PA	605PA	610PA	610PA	620PA
	2.24					
	2.50					
	2.80					
	3.15					
	3.55					
	4.00					
	4.50					
5.00						
5.60						

★ Oil-to-Air Coolers - Reducer mounted.
 Maximum ambient temperature = 120°F. Minimum service factor = 1.25. Maximum altitude = 10,000 ft.
 For input speeds below 1170 rpm, use 1170 rpm selection.
 CSO = Consult Sale Office

Type DH2

Pump and Cooler Selections

Input RPM	Nominal Ratio	REDUCER SIZE																	
		M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250							
1750	5.00	...	...	...	...	...	...	...	...	...	...	...	...
	5.60	...	...	...	...	...	...	...	...	...	...	...	...
	6.30	605PA	605PA	610PA	610PA	620PA	620PA	620PA	630PA	630PA	640PA	640PA	640PA	640PA					
	7.10														620PA	630PA	640PA	640PA	CSO
	8.00														640PA	640PA	640PA	CSO	
	9.00														640PA	640PA	640PA	640PA	
	10.0														640PA	640PA	640PA	640PA	
	11.2														640PA	640PA	640PA	640PA	
	12.5														640PA	640PA	640PA	640PA	
	14.0														640PA	640PA	640PA	640PA	
	16.0														640PA	640PA	640PA	640PA	
	18.0														640PA	640PA	640PA	640PA	
	20.0														640PA	640PA	640PA	640PA	
	22.4														640PA	640PA	640PA	640PA	
25.0	640PA														640PA	640PA	640PA		
28.0	640PA														640PA	640PA	640PA		
1430	5.00	...	...	...	...	...	...	...	...	...	...	...	...
	5.60	...	...	...	...	...	...	...	...	...	...	...	...
	6.30	605PA	605PA	610PA	610PA	620PA	620PA	620PA	630PA	630PA	640PA	640PA	640PA						
	7.10													620PA	630PA	640PA	640PA	640PA	
	8.00													640PA	640PA	640PA	640PA		
	9.00													640PA	640PA	640PA	640PA		
	10.0													640PA	640PA	640PA	640PA		
	11.2													640PA	640PA	640PA	640PA		
	12.5													640PA	640PA	640PA	640PA		
	14.0													640PA	640PA	640PA	640PA		
	16.0													640PA	640PA	640PA	640PA		
	18.0													640PA	640PA	640PA	640PA		
	20.0													640PA	640PA	640PA	640PA		
	22.4													640PA	640PA	640PA	640PA		
25.0	640PA													640PA	640PA	640PA			
28.0	640PA													640PA	640PA	640PA			
1170	5.00	...	...	...	...	...	...	...	...	...	...	...	...
	5.60	...	...	...	...	...	...	...	...	...	...	...	...
	6.30	605PA	605PA	610PA	610PA	620PA	620PA	620PA	630PA	630PA	640PA	640PA	640PA						
	7.10													640PA	640PA	640PA	640PA		
	8.00													640PA	640PA	640PA	640PA		
	9.00													640PA	640PA	640PA	640PA		
	10.0													640PA	640PA	640PA	640PA		
	11.2													640PA	640PA	640PA	640PA		
	12.5													640PA	640PA	640PA	640PA		
	14.0													640PA	640PA	640PA	640PA		
	16.0													640PA	640PA	640PA	640PA		
	18.0													640PA	640PA	640PA	640PA		
	20.0													640PA	640PA	640PA	640PA		
	22.4													640PA	640PA	640PA	640PA		
25.0	640PA													640PA	640PA	640PA			
28.0	640PA													640PA	640PA	640PA			

★ Oil-to-Air Coolers - Reducer mounted.
 Maximum ambient temperature = 120°F. Minimum service factor = 1.25. Maximum altitude = 10,000 ft.
 For input speeds below 1170 rpm, use 1170 rpm selection.
 No cooler selection required.
 CSO = Consult Sale Office.

Type DB3

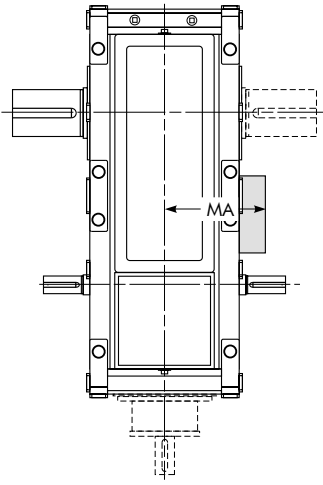
Pump and Cooler Selections

Input RPM	Nominal Ratio	REDUCER SIZE										
		M1150	M1160	M1170	M1180	M1190	M1200	M1210	M1220	M1230	M1240	M1250
1750	8.0	...	...	...	...	...	...	...	...	...	...	...
	9.0	...	...	...	...	...	...	...	...	...	...	...
	10.0	...	...	...	...	...	...	...	640PA	...	...	...
	11.2	...	...	...	...	...	...	...	640PA	640PA	640PA	...
	12.5	...	...	...	...	...	...	...	...	...	...	640PA
	14.0	...	...	...	...	...	...	...	...	...	...	...
	16.0	...	...	...	...	...	...	...	...	...	...	...
	18.0	...	...	...	...	...	...	...	...	...	...	...
	20.0	605PA	...	...	...	...	...	...	...	...	...	...
	22.4	605PA	605PA	...	...	...	...	...	...	...	...	...
	25.0	605PA	605PA	605PA	610PA	610PA	620PA	...	...	...	...	...
	28.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	31.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	35.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	40.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	45.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	50.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	56.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	63.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	71.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
80.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
90.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
100	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
112	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
125	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
1430	8.0	...	...	...	...	...	...	...	...	...	...	...
	9.0	...	...	...	...	...	...	...	...	...	...	...
	10.0	...	...	...	...	...	...	...	...	...	...	...
	11.2	...	...	...	...	...	...	...	...	...	640PA	...
	12.5	...	...	...	...	...	...	...	...	...	640PA	640PA
	14.0	...	...	...	...	...	...	...	...	...	...	...
	16.0	...	...	...	...	...	...	...	...	...	...	...
	18.0	...	...	...	...	...	...	...	...	...	...	...
	20.0	605PA	...	...	...	...	...	...	...	...	...	...
	22.4	605PA	605PA	...	...	...	...	...	...	...	...	...
	25.0	605PA	605PA	605PA	610PA	610PA	620PA	...	...	...	...	...
	28.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	31.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	35.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	40.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	45.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	50.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	56.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	63.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	71.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
80.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
90.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
100	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
112	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
125	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
1170	8.0	...	...	...	...	...	...	...	...	...	...	...
	9.0	...	...	...	...	...	...	...	...	...	...	...
	10.0	...	...	...	...	...	...	...	...	...	...	...
	11.2	...	...	...	...	...	...	...	...	...	640PA	...
	12.5	...	...	...	...	...	...	...	...	...	640PA	640PA
	14.0	...	...	...	...	...	...	...	...	...	...	...
	16.0	...	...	...	...	...	...	...	...	...	...	...
	18.0	605PA	...	...	...	...	...	...	...	...	...	...
	20.0	605PA	605PA	...	...	...	...	...	...	...	...	...
	22.4	605PA	605PA	605PA	610PA	610PA	620PA	...	...	...	...	...
	25.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	28.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	31.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	35.5	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	40.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	45.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	50.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	56.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	63.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
	71.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA
80.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
90.0	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
100	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
112	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	
125	605PA	605PA	605PA	610PA	610PA	620PA	620PA	630PA	630PA	630PA	630PA	

★ Oil-to-Air Coolers - Reducer mounted.
 Maximum ambient temperature = 120°F. Minimum service factor = 1.25. Maximum altitude = 10,000 ft.
 For input speeds below 1170 rpm, use 1170 rpm selection.
 No cooler selection required.

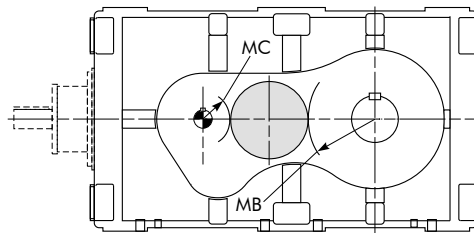
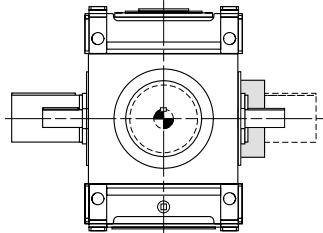
Type DH, DB & DZ Sizes M1130-M1210

Backstop Clearance/Dimensions — Inches



NOTE: Check for backstop interference with couplings, sprockets, and sheaves.

NOTE: Drives with backstops must be selected with a minimum service factor. See Table 1A, Page 11.



Double & Triple Reduction ★

DRIVE SIZE	Ratios	MA	MB	MC
M1130	6.30-140.0	9.09	5.12	1.97
M1140	6.30-140.0	10.51	5.22	2.07
M1150	6.30-140.0	10.47	6.00	2.66
M1160	6.30-140.0	11.81	6.50	2.95
M1170	6.30-140.0	11.54	7.09	3.35
M1180	6.30-140.0	13.23	8.07	3.74
M1190	6.30-140.0	14.76	8.66	4.33
M1200	5.0-112.0	19.49	8.86	4.13
M1210	5.6-125.0	19.49	9.84	4.13

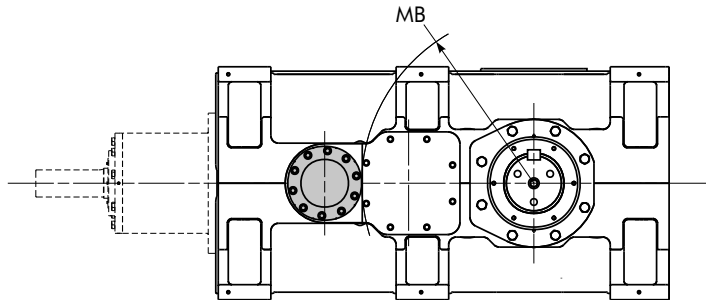
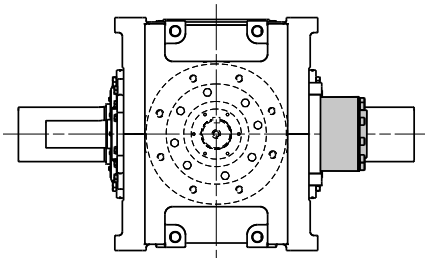
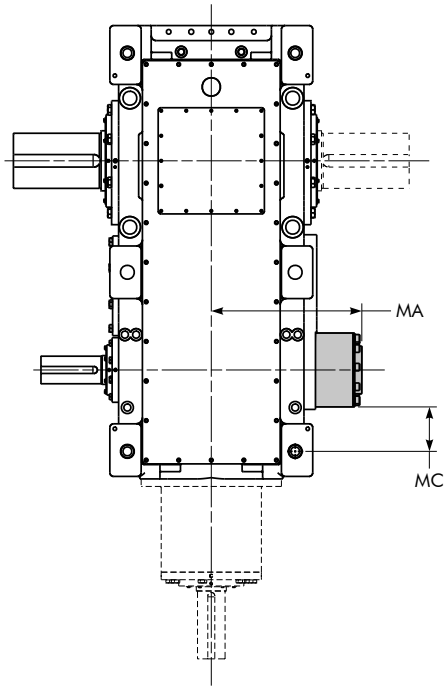
★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DHC & DBC Sizes M1220-M1250

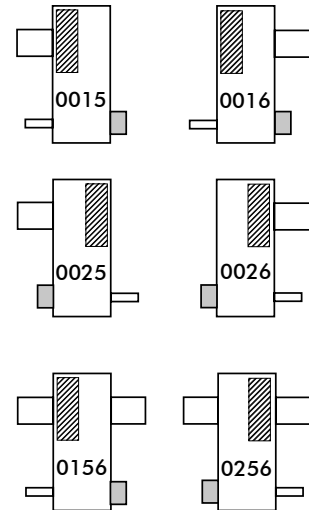
Backstop Clearance/Dimensions — Inches

NOTE: Check for backstop interference with couplings, sprockets, and sheaves.

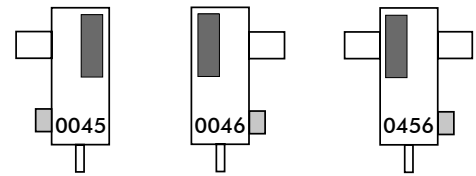
NOTE: Drives with backstops must be selected with a minimum service factor. See Table 1A, Page 11.



DHC Backstop Position



DBC Backstop Position



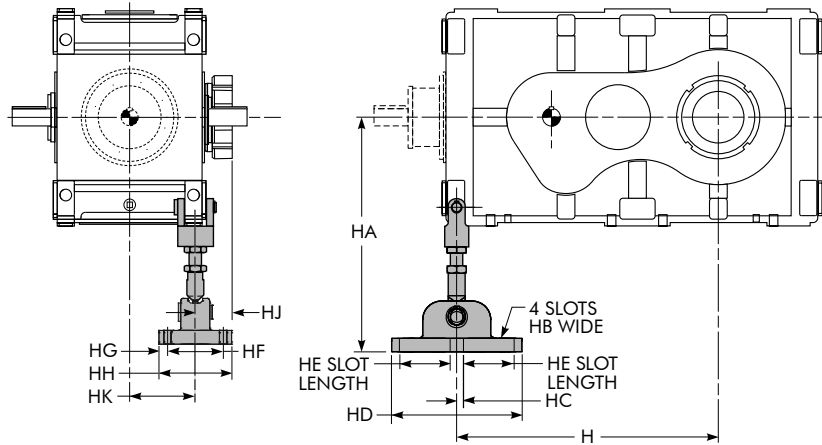
Double & Triple Reduction ★

DRIVE SIZE	Ratios	MA	MB	MC
M1220	5.6 - 63.0	23.66	25.47	6.99
M1230	6.3 - 71.0	23.66	27.05	6.99
M1240	5.6 - 63.0	26.18	26.77	6.89
M1250	6.3 - 71.0	26.18	28.74	6.89

★ Dimensions are for reference only and are subject to change without notice unless certified. For applications requiring a backstop and two shaft fans, consult the Factory.

Type DHT/DBT Double & Triple Reduction

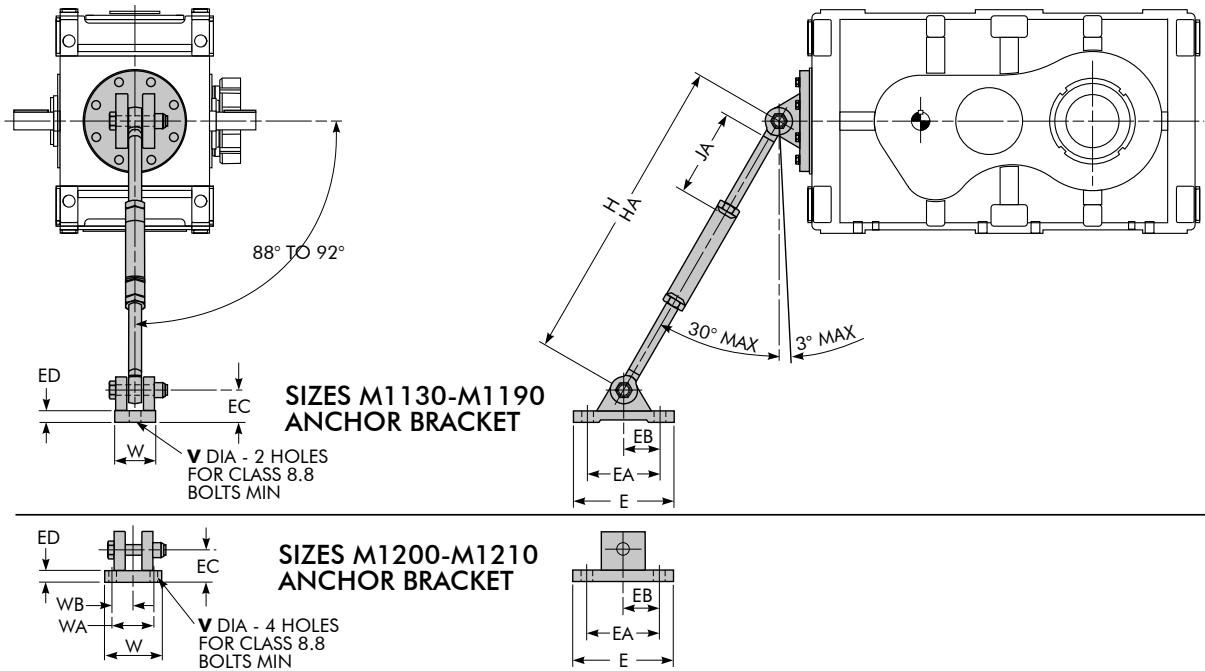
Torque Arm – Rod End Type (Adjustable)/Dimensions — Inches



DRIVE SIZE ★	H	HA		HB	HC	HD	HE	HF	HG	HH	HJ	HK
		Min	Max									
M1130	18.58	21.78	23.66	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.41	5.12
M1140	20.98	22.80	24.68	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.61	5.91
M1150	23.82	26.18	27.40	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.45	6.50
M1160	26.18	26.77	27.99	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.74	7.19
M1170	29.72	28.15	29.37	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.53	7.28
M1180	33.46	31.86	33.46	1.10	0.63	12.99	4.65	7.68	1.38	10.43	4.72	8.46
M1190	37.60	33.55	35.15	1.10	0.63	12.99	4.65	7.68	1.38	10.43	5.41	8.56
M1200	43.31	36.90	38.50	1.10	0.63	12.99	4.65	7.68	1.38	10.43	3.29	9.74
M1210	46.26	36.90	38.50	1.10	0.63	12.99	4.65	7.68	1.38	10.43	3.29	9.74

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH Double & Triple Reduction Tie Rod – Adjustable/Dimensions — Inches

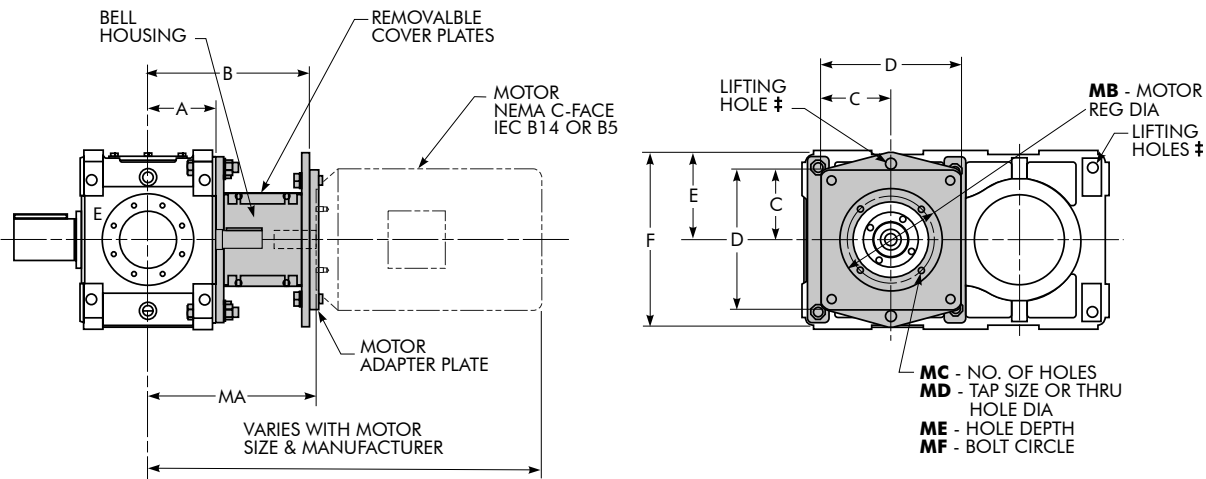


DRIVE SIZE ★	E	EA	EB	EC	ED	H		HA ‡		JA ‡		V	W	WA	WB	Wt-lb
						MIN	MAX	MIN	MAX	STD	MIN					
M1130	8.69	6.50	3.25	2.63	1.00	30.00	34.25	15.50	20.25	12.75	5.50	0.88	3.31	...	...	40
M1140	8.69	6.50	3.25	2.63	1.00	30.00	34.25	15.50	20.25	12.75	5.50	0.88	3.31	...	...	40
M1150	9.69	7.00	3.50	3.12	1.12	30.00	35.25	15.50	20.75	12.75	5.50	1.12	3.94	...	...	59
M1160	9.69	7.00	3.50	3.12	1.12	30.00	35.25	15.50	20.75	12.75	5.50	1.12	3.94	...	...	60
M1170	11.69	8.62	4.31	3.50	1.25	29.75	35.25	19.75	25.25	11.00	6.00	1.38	4.44	...	...	87
M1180	11.69	8.62	4.31	3.50	1.25	29.75	35.25	19.75	25.25	11.00	6.00	1.38	4.44	...	...	97
M1190	11.69	8.62	4.31	3.50	1.25	29.75	35.25	19.75	25.25	11.00	6.00	1.38	4.44	...	...	100
M1200	11.50	8.50	4.25	4.25	1.25	21.50	24.00	...	...	4.50	...	1.31	8.50	5.51	2.76	230
M1210	11.50	8.50	4.25	4.25	1.25	21.50	24.00	...	...	4.50	...	1.31	8.50	5.51	2.76	230

★ Dimensions are for reference only and are subject to change without notice unless certified.
 ‡ Each rod end may be cut off to minimum JA length. HA is total length with cut off rod ends.

Type DH Double & Triple Reduction

C-Face Adapters/Dimensions — Inches



‡ TO LIFT ENTIRE ASSEMBLY-USE TWO HOLES AT LOW SPEED END OF DRIVE
ONE HOLE AT H.S. END OF DRIVE
AND ONE HOLE IN BELL HOUSING

DRIVE SIZE ★	Motor Frame	Motor Coupling				DIMENSIONS - INCHES †											
		Drive Reduction & Nominal Ratio				A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
		DH2		DH3													
		6.30-16.0	18.0-28.0	31.5-90.0	100 -140												
M1130	182TC, 184TC	...	...	10R35	6.10	14.35	6.59	13.19	8.15	16.30	15.08	8.5 H7	4	0.5625	Thru Hole	7.25
	213TC, 215TC	...	...	10R35							15.08	8.5 H7	4	0.5625		7.25
	254TC, 256TC	...	20R35	20R35							15.08	8.5 H7	4	0.5625		7.25	
	284TC, 286TC	20R10	20R35	20R35							16.65	10.5 H7	4	0.5625		9	
	324TC, 326TC	30R10	30R35	...							16.65	12.5 H7	4	0.6875		11	
	364TC, 365TC	40R10	40R10	...							16.65	12.5 H7	8	0.6875		11	
M1140	213TC, 215TC	...	...	10R35	7.09	16.79	7.28	14.57	9.09	18.19	17.52	8.5 H7	4	0.5625	Thru Hole	7.25
	254TC, 256TC	...	...	20R35							17.52	8.5 H7	4	0.5625		7.25
	284TC, 286TC	...	20R35	20R35							17.52	10.5 H7	4	0.5625		9	
	324TC, 326TC	...	30R35	30R35							19.00	12.5 H7	4	0.6875		11	
	364TC, 365TC	40R10	40R35	...							19.00	12.5 H7	8	0.6875		11	
	404TC, 405TC	40R10	40R10	...							19.00	12.5 H7	8	0.6875		11	
M1150	213TC, 215TC	...	...	...	7.68	16.57	7.87	15.75	10.24	20.47	17.3	8.5 H7	4	0.5625	Thru Hole	7.25
	254TC, 256TC	20R10							20R35	17.3	8.5 H7	4		0.5625	7.25
	284TC, 286TC	20R10							20R10	17.3	10.5 H7	4		0.5625	9
	324TC, 326TC	...	30R35	30R10							...	18.79	12.5 H7	4		0.6875	11
	364TC, 365TC	40R10	40R10	40R10							...	19.72	12.5 H7	8		0.6875	11
	404TC, 405TC	40R10	40R10	19.72	12.5 H7	8		0.6875	11
M1160	254TC, 256TC	...	...	20R35	8.37	17.50	8.37	16.73	10.83	21.65	18.23	8.5 H7	4	0.5625	Thru Hole	7.25
	284TC, 286TC	...	...	20R35							18.71	10.5 H7	4	0.5625		9
	324TC, 326TC	...	...	30R35							19.33	12.5 H7	4	0.6875		11
	364TC, 365TC	...	40R10	40R10							19.33	12.5 H7	8	0.6875		11	
	404TC, 405TC	...	40R10	40R10							20.28	12.5 H7	8	0.6875		11	

★ Dimensions are for reference only and are subject to change without notice unless certified.

† Due to interference, motor flanges cannot be used on the same side of the housing as a backstop or shaft fan.

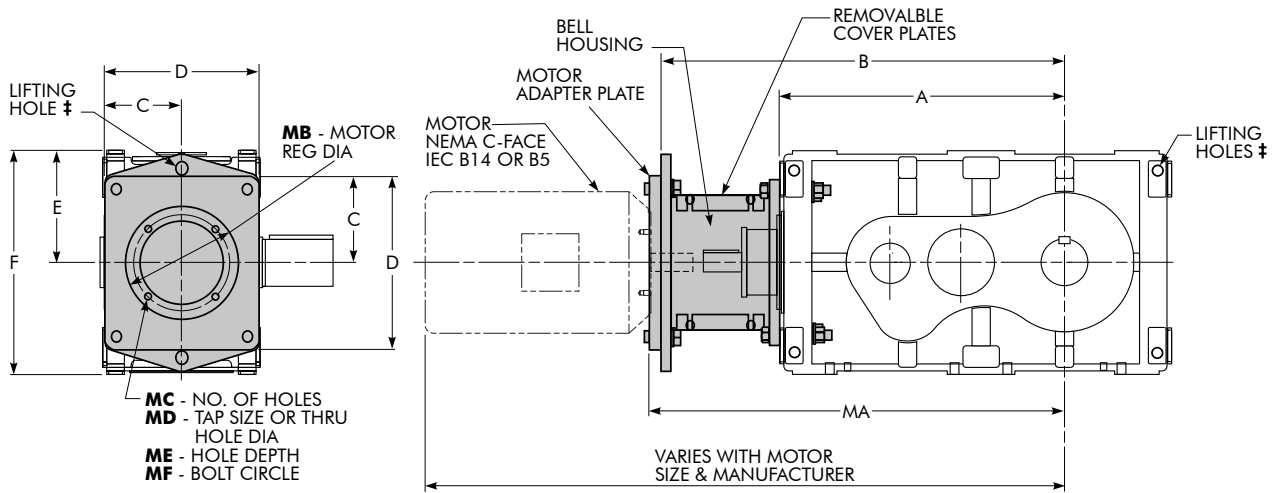
Shaft fan only - Mount shaft fan opposite motor flange side.

Backstop only - Mount backstop opposite motor flange side.

Backstop and fan - Mount backstop opposite motor flange side, use electric fan.

Type DB Triple Reduction

C-Face Adapters/Dimensions — Inches



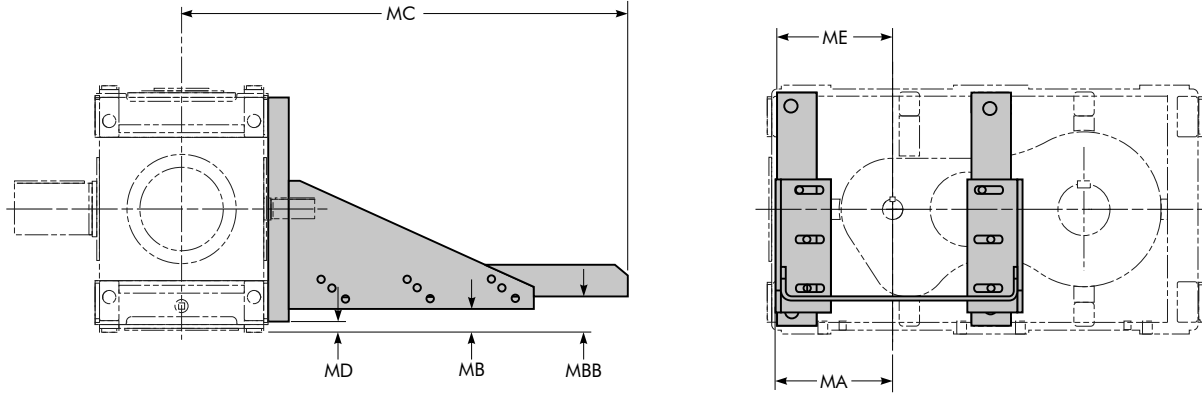
DRIVE SIZE ★	Motor Frame	Motor Coupling		Dimensions - Inches †											
		Drive Nominal Ratio		A	B	C	D	E	F	MA	MB	MC	MD	ME	MF
		14:1-80:1	90:1-125:1												
M1130	213TC, 215TC	10R10	10R35	20.16	33.44	6.59	13.19	8.15	16.30	34.17	8.5 H7	4	0.5625	Thru Hole	7.25
	254TC, 256TC	20R10	20R10							34.17	8.5 H7	4	0.5625		7.25
	284TC, 286TC	20R10	20R35							35.75	10.5 H7	4	0.5625		9
	324TC, 326TC	30R10	30R10							35.75	12.5 H7	4	0.6875		11
M1140	213TC, 215TC	20R10		22.68	37.09	7.28	14.57	9.09	18.19	37.81	8.5 H7	4	0.5625	Thru Hole	7.25
	254TC, 256TC	20R10								37.81	8.5 H7	4	0.5625		7.25
	284TC, 286TC	20R10								37.81	10.5 H7	4	0.5625		9
	324TC, 326TC	30R10								39.29	12.5 H7	4	0.6875		11
	364TC, 365TC	40R10								39.29	12.5 H7	8	0.6875		11
M1150	213TC, 215TC	20R10	20R35	25.59	40.45	7.87	15.75	10.24	20.47	41.18	8.5 H7	4	0.5625	Thru Hole	7.25
	254TC, 256TC	20R10	20R35							41.18	8.5 H7	4	0.5625		7.25
	284TC, 286TC	20R10	20R35							41.18	10.5 H7	4	0.5625		9
	324TC, 326TC	30R10	30R35							42.67	12.5 H7	4	0.6875		11
	364TC, 365TC	40R10	40R35							43.60	12.5 H7	8	0.6875		11
	404TC, 405TC	40R10	40R10							43.60	12.5 H7	8	0.6875		11
M1160	254TC, 256TC	20R10		27.95	44.92	8.37	16.73	10.83	21.65	45.65	8.5 H7	4	0.5625	Thru Hole	7.25
	284TC, 286TC	20R10								46.13	10.5 H7	4	0.5625		9
	324TC, 326TC	30R10								46.76	12.5 H7	4	0.6875		11
	364TC, 365TC	40R10								46.76	12.5 H7	8	0.6875		11
										46.76	12.5 H7	8	0.6875		11
										47.70	12.5 H7	8	0.6875		11

★ Dimensions are for reference only and are subject to change without notice unless certified.

† Due to interference, motor flange cannot be used with a shaft fan. If cooling is required, use electric fan.

Type DHC Double & Triple Reduction

Motor Brackets/Dimensions — Inches



DRIVE SIZE ★	Motor Frame	High Speed Coupling		MA	MB †	MC	MD	ME	MBB †
		Wrapflex	Steelflex						
M1130	213T, 215T	10R10	1040T10	8.67	0.78	28.19	0.83	7.76	2.66
	254T, 256T	10R10	1040T10	8.67	0.78	33.07	0.83	7.76	1.66
	284T, 286T	20R10	1050T10	8.67	0.78	36.85	0.83	7.76	0.85
	324T, 326T	20R10	1050T10	8.63	0.78	39.65	0.83	7.76	-0.15
M1140	213T, 215T	20R10	1050T10	8.67	1.72	29.17	0.79	8.58	3.60
	254T, 256T	20R10	1050T10	8.67	1.72	34.06	0.79	8.58	2.60
	284T, 286T	20R10	1050T10	8.67	1.72	37.83	0.79	8.58	1.79
	324T, 326T	20R10	1060T10	8.63	1.72	40.63	0.79	8.58	0.79
	364T, 365T	30R10	1060T10	9.94	-0.61	41.21	0.79	8.58	-0.33
M1150	213T, 215T	20R10	1060T10	8.67	2.87	29.76	0.98	9.84	4.74
	254T, 256T	20R10	1060T10	8.67	2.87	34.65	0.98	9.84	3.74
	284T, 286T	20R10	1060T10	8.67	2.87	38.43	0.98	9.84	2.93
	324T, 326T	20R10	1060T10	8.63	2.87	41.22	0.98	9.84	1.93
	364T, 365T	30R10	1070T10	9.94	0.53	41.65	0.98	9.84	0.81
	404T, 405T	40R10	1080T10	11.39	-1.07	46.81	0.98	9.84	-0.31
M1160	254T, 256T	20R10	1060T10	8.67	3.46	35.35	1.18	10.43	4.33
	284T, 286T	20R10	1060T10	8.67	3.46	39.13	1.18	10.43	3.52
	324T, 326T	20R10	1060T10	8.63	3.46	41.93	1.18	10.43	2.52
	364T, 365T	30R10	1070T10	9.94	1.12	42.49	1.18	10.43	1.40
	404T, 405T	40R10	1080T10	11.39	-0.48	47.52	1.18	10.43	0.28

★ Dimensions are for reference only and are subject to change without notice unless certified. Available only for use with base-mounted drives; cannot be used with shaft-mounted drives.

Due to interference, motor brackets cannot be used on the same side of the housing as a backstop or shaft fan.

Shaft fan only - Mount shaft fan opposite bracket side.

Backstop only - Mount backstop opposite bracket side.

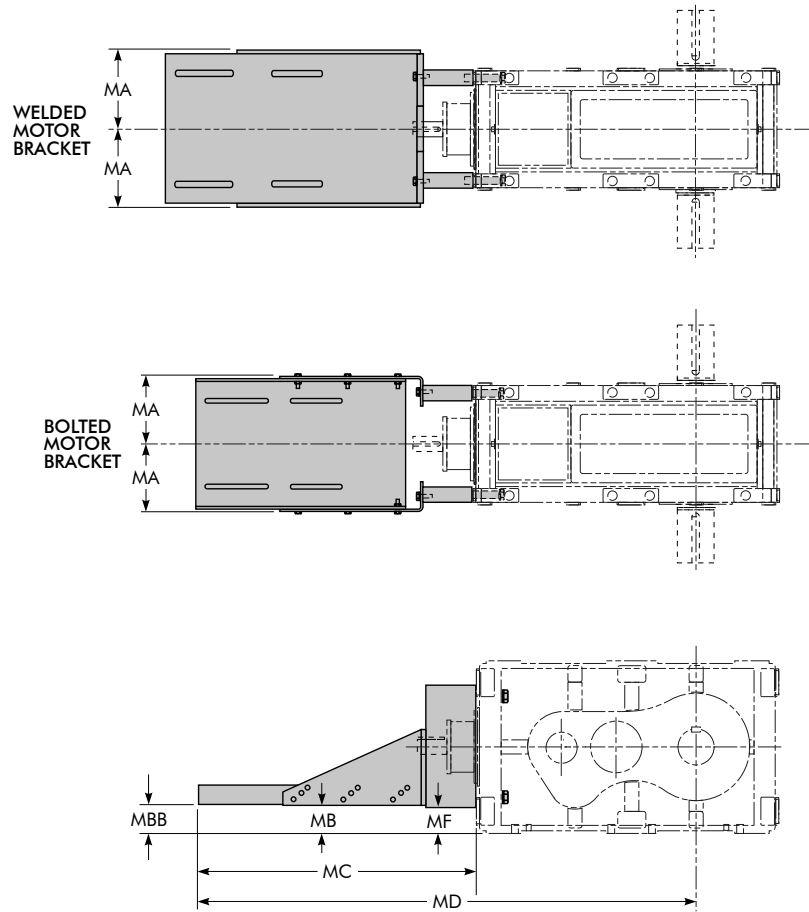
Backstop and fan - Mount backstop opposite bracket side, use electric fan.

Brackets for NEMA motors are furnished slotted for motor mounting.

† Negative MB and MBB dimensions indicate bracket extends below drive feet. Customer must provide clearance for bracket and for motor mounting hardware.

Type DBC Triple Reduction

Motor Brackets/Dimensions — Inches



DRIVE SIZE ★	Motor Frame	High Speed Coupling		MA	MB †	MC	MD	ME	MBB †
		Wrapflex	Steelflex						
M1130	213T, 215T	10R10	1040T10	8.67	0.78	25.62	45.78	1.29	2.66
	254T, 256T	10R10	1040T10	8.67	0.78	30.52	50.68	1.29	1.66
	284T, 286T	20R10	1050T10	8.67	0.78	34.32	54.48	1.29	0.85
	324T, 326T	20R10	1050T10	8.63	0.78	37.12	57.28	1.29	-0.15
M1140	213T, 215T	20R10	1050T10	8.67	1.72	26.41	49.08	1.69	3.60
	254T, 256T	20R10	1050T10	8.67	1.72	31.31	53.98	1.69	2.60
	284T, 286T	20R10	1050T10	8.67	1.72	35.11	57.78	1.69	1.79
	324T, 326T	20R10	1060T10	8.63	1.72	37.91	60.58	1.69	0.79
	364T, 365T	30R10	1060T10	9.94	-0.61	38.46	61.12	1.69	-0.33
M1150	213T, 215T	20R10	1060T10	8.67	2.87	26.80	52.39	2.56	4.74
	254T, 256T	20R10	1060T10	8.67	2.87	31.70	57.29	2.56	3.74
	284T, 286T	20R10	1060T10	8.67	2.87	35.50	61.09	2.56	2.93
	324T, 326T	20R10	1060T10	8.63	2.87	38.30	63.89	2.56	1.93
	364T, 365T	30R10	1070T10	9.94	0.53	38.90	64.49	2.56	0.81
	404T, 405T	40R10	1080T10	11.39	-1.07	43.90	69.49	2.56	-0.31
M1160	254T, 256T	20R10	1060T10	8.67	3.46	33.27	61.23	2.36	4.33
	284T, 286T	20R10	1060T10	8.67	3.46	37.07	65.03	2.36	3.52
	324T, 326T	20R10	1060T10	8.63	3.46	39.87	67.83	2.36	2.52
	364T, 365T	30R10	1070T10	9.94	1.12	40.39	68.34	2.36	1.40
	404T, 405T	40R10	1080T10	11.39	-0.48	45.42	73.38	2.36	0.28

★ Dimensions are for reference only and are subject to change without notice unless certified. Available only for use with base-mounted drives; cannot be used with shaft-mounted drives.

NEMA 213T-326T frame brackets are bolted. NEMA 364T-405T frame brackets are welded.

All brackets are slotted.

Shaft driven fans are not available with scoop brackets. Use electric fan if cooling is required.

If a fluid coupling is required, use a swing base or bedplate.

† Dimensions "MB" & "MBB" are to the bottom of the bracket base. Allow extra for motor hardware.
Negative values for "MB" & "MBB" indicates motor bracket extends below drive feet.

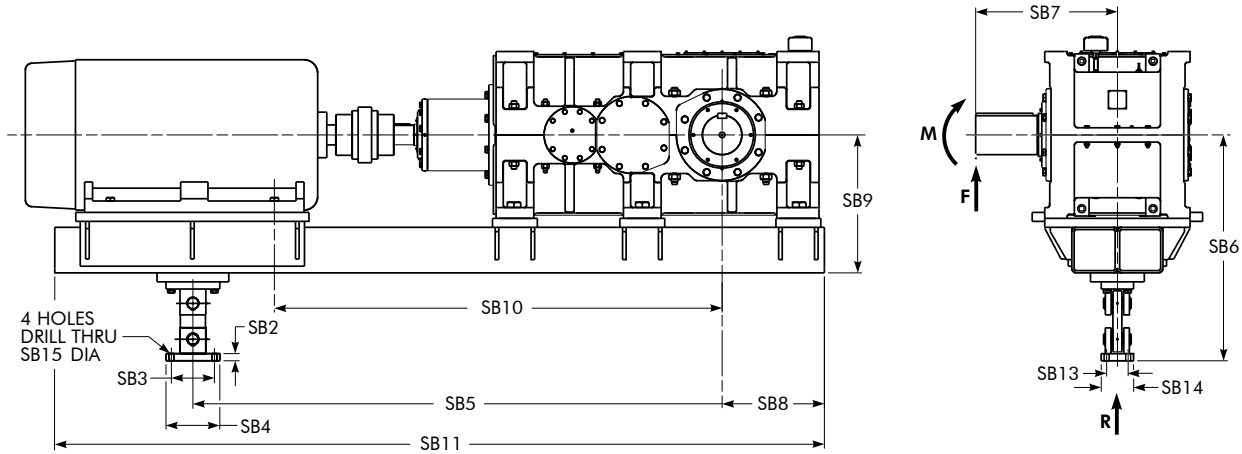
Type DBC Triple Reduction

Swing Base w/Fixed Length Torque Arm/Dimensions — Inches

DRIVE DIMENSIONS - REFER TO PAGE 132

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:
 DBC Drives (Solid LS Shaft)
 NEMA or IEC Motors to Limits Shown Below
 Falk Steelflex (T10), Falk Wrapflex (R10), or Falk Fluid Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE ★	SB2	SB3	SB4	SB5	SB6	SB7	SB8	SB9	SB10	SB11	SB13	SB14	SB15
M1220	1.57	9.45	11.81	†	49.37	31.10	24.02	30.08	†	†	4.72	7.09	1.10
M1230	1.57	9.45	11.81	†	49.37	31.10	22.44	30.08	†	†	4.72	7.09	1.10
M1240	1.57	9.45	11.81	†	54.92	35.24	27.56	35.63	†	†	4.72	7.09	1.10
M1250	1.57	9.45	11.81	†	54.92	35.24	25.59	35.63	†	†	4.72	7.09	1.10

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

† Dimension varies with motor frame and coupling type.

Loads Generated ★/Torque Arm Forces, Shaft Forces & Motor Limits

DRIVE SIZE	Maximum Torque Arm Force †	Maximum Loads at End of Shaft †		Motor Limits at 1750 rpm ‡	
		Radial Force	Bending Force	Maximum Power	Maximum Weight
		R (lb)	F (lb)	Hp	lb
M1220	29,400	25,200	776,000	1,750	13,800
M1230	32,400	28,300	881,000	1,750	13,800
M1240	43,600	33,700	1,186,000	2,250	19,800
M1250	49,700	39,300	1,390,000	2,250	19,800

★ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection horsepower, motor weight, and a 200% start factor.

† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.

‡ Refer to the Factory for larger motors or other input speeds.

Type DBT Triple Reduction

Swing Base w/Rod End Type (Adjustable) Torque Arm/Dimensions — Inches

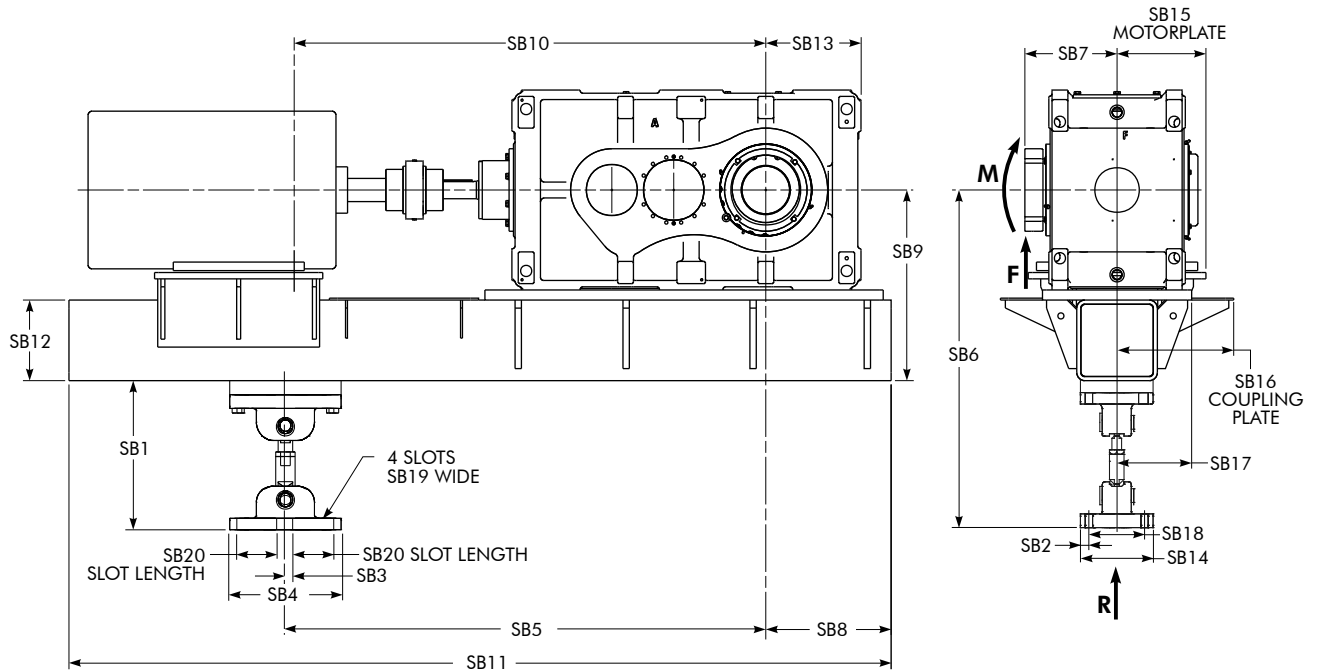
DRIVE DIMENSIONS - REFER TO PAGES 136 & 137

Refer to Page 164 for standard bushing bores.

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:

DBT Drives (with TA Bushing)
 NEMA or IEC Motors to Limits Shown Below
 Falk Steelflex (T10), Falk Wrapflex (R10), or Falk Fluid Couplings

Consult the Factory for Non-Standard Arrangements



DRIVE SIZE ★	SB1		SB2	SB3	SB4	SB5	SB6		SB7	SB8	SB9	SB10	SB11	SB12	SB13	SB14	SB15	SB16	SB17	SB18	SB19	SB20
	Min	Max					Min	Max														
M1130	13.87	14.43	1.38	0.63	12.99	60.63	*	*	9.51	14.65	*	*	*	6.00	8.35	10.43	*	*	7.28	7.68	1.10	4.65
M1140	13.87	14.43	1.38	0.63	12.99	62.68	*	*	10.50	12.17	*	*	*	6.00	9.29	10.43	*	*	7.28	7.68	1.10	4.65
M1150	16.19	16.75	1.38	0.63	12.99	61.65	*	*	10.94	10.24	*	*	*	6.00	10.43	10.43	*	*	7.28	7.68	1.10	4.65
M1160	16.76	17.32	1.38	0.63	12.99	66.97	*	*	11.92	18.52	*	*	*	10.00	11.02	10.43	*	*	9.25	7.68	1.10	4.65
M1170	16.76	17.32	1.38	0.63	12.99	66.18	40.42	40.98	11.81	15.55	23.66	*	*	10.00	11.81	10.43	*	*	9.25	7.68	1.10	4.65
M1180	17.60	18.50	1.38	0.63	12.99	64.80	42.04	42.94	13.19	12.99	24.44	*	*	10.00	13.19	10.43	*	*	9.25	7.68	1.10	4.65
M1190	17.60	18.50	1.38	0.63	12.99	77.24	45.86	46.76	14.09	25.43	28.26	*	*	12.00	14.76	10.43	*	*	11.22	7.68	1.10	4.65
M1200	18.78	19.40	1.38	0.63	12.99	100.00	49.99	50.61	12.81	18.10	31.21	*	*	12.00	18.70	10.43	*	*	11.22	7.68	1.10	4.65
M1210	18.78	19.40	1.38	0.63	12.99	101.00	49.99	50.61	12.81	17.13	31.21	*	*	12.00	17.72	10.43	*	*	11.22	7.68	1.10	4.65

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal floor mounted operation unless specifically stated otherwise. Consult the Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

* Consult the Factory.

Loads Generated ★/Torque Arm Forces, Hollow Shaft Forces & Loads at the Bushing Nut Face

DRIVE SIZE	Maximum Torque Arm Force †	Maximum Loads at Face of Bushing Nut †		IEC Motors ‡		NEMA Motors ‡	
		Radial Force	Bending Force	Frame	Weight (kg)	Frame	Weight (lb)
		R (lb)	F (lb)	M (lb-in)			
M1130	2,800	2,600	37,600	200L-225M	240-330	324T-365T	565-875
M1140	4,500	3,700	48,800	200L-280S	240-610	324T-444T	565-1650
M1150	6,800	4,900	78,900	200L-280M	240-660	324T-447T	565-2000
M1160	10,700	7,900	121,300	160M-280M	108-660	254T-449T	250-2500
M1170	13,600	11,200	165,800	160L-315L	130-1200	284T-449T	335-2500
M1180	18,300	15,800	230,700	180M-315L	165-1200	286T-449T	410-2500
M1190	21,900	18,000	296,700	200M-355L	240-2000	324T-449T	565-2300
M1200	24,800	16,400	295,200	315S-400L	830-3000	404T-449T	1100-2300
M1210	25,800	19,000	321,500	315S-400L	830-3000	404T-449T	1100-2300

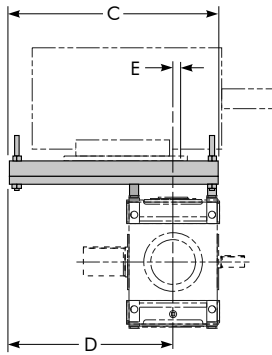
★ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection horsepower, motor weight, and a 200% start factor.

† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment.

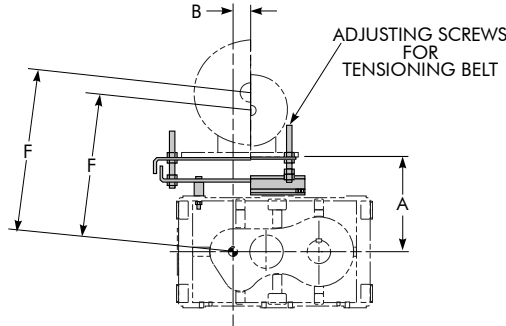
‡ Refer to the Factory for larger motors.

Type DH Double & Triple Reduction Motor Mounts - Top Mount/Dimensions — Inches

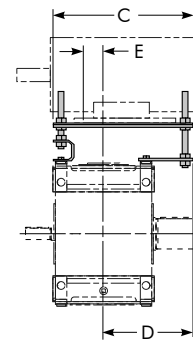
360-440 FRAME MOTORS



ALL MOTOR FRAME SIZES



180-320 FRAME MOTORS



DRIVE SIZE ★	140T - 250T						280T - 400T						
	A		B	C	D	Motor Mt Wt-lb	A		B	C	D	Motor Mt Wt-lb	
	Min	Max					Min	Max					
M1130	14.68	18.18	1.97	17.36	11.26	68	14.53	18.03	1.97	25.59	19.49	247	
M1140	15.63	19.13	0.20	17.36	10.28	68	15.08	18.58	0.20	25.59	18.50	247	
DRIVE SIZE ★	180T - 320T						360T - 440T						
	M1150	16.77	20.27	2.60	21.22	13.54	64	16.61	20.11	2.60	34.57	26.89	362
	M1160	17.36	20.86	3.03	21.42	13.03	68	17.20	20.70	3.03	34.57	26.22	362
	M1170	18.74	22.24	2.95	21.65	13.19	77	18.58	22.08	2.95	34.53	26.02	366
	M1180	15.98	19.48	3.94	22.83	13.19	62	19.37	22.87	3.94	34.57	24.92	379
	M1190	18.70	22.20	3.86	20.87	10.43	62	20.94	24.44	3.86	34.49	24.06	408

★ Dimensions are for reference only and are subject to change without notice unless certified.
 Due to interferences, Rexnord cannot offer a drive with both shaft fan and backstop.
 Shaft Fan Only - Mount shaft fan on bushing side.
 Backstop Only - Mount backstop on bushing side.
 Backstop and Fan - Mount backstop on bushing side, use electric fan.

DRIVE SIZE ★	140T			180T			210T			250T			280T		
	E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †	
		Min	Max		Min	Max		Min	Max		Min	Max		Min	Max
M1130	4.02	18.31	21.81	3.74	19.29	22.79	2.99	20.04	23.54	2.24	21.02	24.52	1.73	21.61	25.11
M1140	5.00	19.13	22.63	4.72	20.12	23.62	3.98	20.87	24.37	3.23	21.89	25.39	2.72	22.09	25.59
M1150	...	...	...	5.32	21.42	24.92	4.57	22.16	25.66	3.82	23.15	26.65	3.31	23.90	27.40
M1160	...	...	...	...	...	...	5.26	22.80	26.30	4.51	23.78	27.28	4.00	24.53	28.03
M1170	...	...	...	...	...	...	...	...	...	4.65	25.16	28.66	4.14	25.90	29.40
M1180	...	...	...	...	...	...	...	...	...	5.79	22.60	26.10	5.28	23.31	26.81
M1190	...	...	...	...	...	...	...	...	...	6.69	25.24	28.74	6.18	25.98	29.48

★ Dimensions are for reference only and are subject to change without notice unless certified.
 Due to interferences, Rexnord cannot offer a drive with both shaft fan and backstop.
 Shaft Fan Only - Mount shaft fan on bushing side.
 Backstop Only - Mount backstop on bushing side.
 Backstop and Fan - Mount backstop on bushing side, use electric fan.

† Minimum center distance does not include belt installation allowance. When determining belt length for minimum shaft centers, follow manufacturer's installation allowance recommendations and also provide for future belt tensioning.

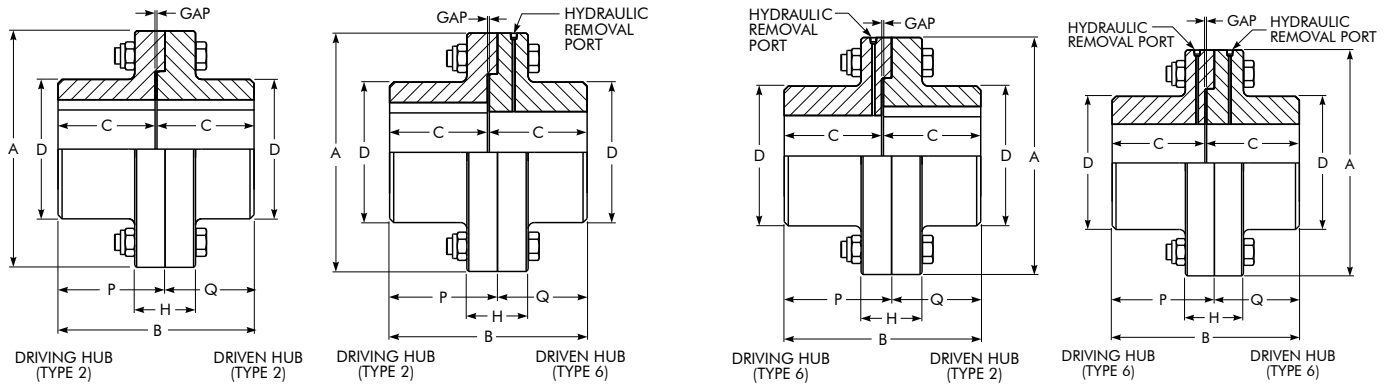
‡ "E" is the distance from the centerline of the housing to the motor front mounting hole.

DRIVE SIZE ★	320T			360T			400T			440T		
	E ‡	F †		E ‡	F †		E ‡	F †		E ‡	F †	
		Min	Max		Min	Max		Min	Max		Min	Max
M1130	1.26	22.60	26.10	0.63	23.62	27.12	0.12	24.61	28.11	...	...	...
M1140	2.24	23.07	26.57	1.69	24.09	27.59	1.10	25.08	28.58	...	...	...
M1150	2.82	24.88	28.38	2.20	25.75	29.25	1.44	26.73	30.23	0.57	27.72	31.22
M1160	3.51	25.51	29.01	2.89	26.38	29.88	2.13	27.36	30.86	1.26	28.35	31.85
M1170	6.65	26.89	30.39	3.02	27.72	31.22	2.27	28.74	32.24	1.40	29.72	33.22
M1180	4.80	24.29	27.79	4.17	28.66	32.16	3.43	29.65	33.15	2.52	30.63	34.13
M1190	5.67	26.97	30.47	5.04	30.20	33.70	4.29	31.18	34.68	3.43	32.17	35.67

See footnotes above.

Type 2000 MCF Couplings

Flange Connection/Dimensions — Inches



DRIVE SIZE	Coupling Size †	Hub Type				Minimum/Maximum Bore				Cplg Wt lb ‡	A	B	C	D	H	P	Q	Gap
		Driving Hub		Driven Hub		Driving Hub		Driven Hub										
		Type	Hydraulic Removal Port Size BSPP	Type	Hydraulic Removal Port Size BSPP	Bore	Fit	Bore Range	Fit									
M1130	2130MCF	2	...	2	...	3.5433	Keyed	3.00-4.50	Keyed	131	12.50	9.12	4.50	7.00	2.50	4.81	4.31	0.12
		2	...	6	0.125-28		Keyless		Keyed									
		6	0.125-28	2	...		Keyless		Keyless									
		6	0.125-28	6	0.125-28		Keyless		Keyless									
M1140	2140MCF	2	...	2	...	4.3307	Keyed	4.00-5.00	Keyed	169	13.25	11.12	5.50	7.75	2.76	5.81	5.31	0.12
		2	...	6	0.125-28		Keyless		Keyed									
		6	0.125-28	2	...		Keyless		Keyless									
		6	0.125-28	6	0.125-28		Keyless		Keyless									
M1150	2150MCF	2	...	2	...	4.7244	Keyed	4.50-5.50	Keyed	246	14.62	12.12	6.00	8.62	3.76	6.62	5.50	0.12
		2	...	6	0.125-28		Keyless		Keyed									
		6	0.125-28	2	...		Keyless		Keyless									
		6	0.125-28	6	0.125-28		Keyless		Keyless									
M1160	2160MCF	2	...	2	...	5.1181	Keyed	5.00-6.50	Keyed	343	16.25	13.12	6.50	10.00	4.00	7.12	6.00	0.12
		2	...	6	0.125-28		Keyless		Keyed									
		6	0.125-28	2	...		Keyless		Keyless									
		6	0.125-28	6	0.125-28		Keyless		Keyless									
M1170	2170MCF	2	...	2	...	5.1181	Keyed	5.00-7.50	Keyed	496	18.00	14.88	7.38	11.62	4.00	8.00	6.88	0.12
		2	...	6	0.250-19		Keyless		Keyed									
		6	0.250-19	2	...		Keyless		Keyless									
		6	0.250-19	6	0.250-19		Keyless		Keyless									
M1180	2180MCF	2	...	2	...	5.9055	Keyed	5.50-8.00	Keyed	604	19.12	14.88	7.38	12.88	4.50	8.00	6.88	0.12
		2	...	6	0.250-19		Keyless		Keyed									
		6	0.250-19	2	...		Keyless		Keyless									
		6	0.250-19	6	0.250-19		Keyless		Keyless									
M1190	2190MCF	2	...	2	...	6.6929	Keyed	6.50-9.00	Keyed	803	21.12	17.62	8.75	13.88	4.76	9.37	8.25	0.12
		2	...	6	0.250-19		Keyless		Keyed									
		6	0.250-19	2	...		Keyless		Keyless									
		6	0.250-19	6	0.250-19		Keyless		Keyless									
M1200	2200MCF	2	...	2	...	7.4803	Keyed	7.00-9.50	Keyed	946	22.00	19.12	9.50	14.75	5.00	10.12	9.00	0.12
		2	...	6	0.250-19		Keyless		Keyed									
		6	0.250-19	2	...		Keyless		Keyless									
		6	0.250-19	6	0.250-19		Keyless		Keyless									
M1210	2210MCF	2	...	2	...	7.8740	Keyed	7.50-10.00	Keyed	1207	23.50	21.36	10.62	15.50	6.00	11.24	10.12	0.12
		2	...	6	0.250-19		Keyless		Keyed									
		6	0.250-19	2	...		Keyless		Keyless									
		6	0.250-19	6	0.250-19		Keyless		Keyless									
M1220	2220MCF	2	...	2	...	8.6614	Keyed	8.50-12.00	Keyed	1638	25.88	24.12	12.00	17.38	6.54	12.62	11.50	0.12
		2	...	6	0.750-14		Keyless		Keyed									
		6	0.750-14	2	...		Keyless		Keyless									
		6	0.750-14	6	0.750-14		Keyless		Keyless									
M1230	2230MCF	2	...	2	...	8.6614	Keyed	8.50-13.00	Keyed	2232	28.75	27.12	13.50	18.75	6.76	14.12	13.00	0.12
		2	...	6	0.750-14		Keyless		Keyed									
		6	0.750-14	2	...		Keyless		Keyless									
		6	0.750-14	6	0.750-14		Keyless		Keyless									
M1240	2240MCF	2	...	2	...	9.8425	Keyed	9.50-14.00	Keyed	2647	30.25	28.62	14.25	20.25	7.24	14.87	13.75	0.12
		2	...	6	0.750-14		Keyless		Keyed									
		6	0.750-14	2	...		Keyless		Keyless									
		6	0.750-14	6	0.750-14		Keyless		Keyless									
M1250	2250MCF	2	...	2	...	9.8425	Keyed	9.50-15.00	Keyed	3337	32.00	30.12	15.00	22.25	7.50	15.62	14.50	0.12
		2	...	6	0.750-14		Keyless		Keyed									
		6	0.750-14	2	...		Keyless		Keyless									
		6	0.750-14	6	0.750-14		Keyless		Keyless									

† Refer to Factory for all applications above 100 rpm. Dimensions are for reference only and are subject to change without notice unless certified.

‡ Coupling weights are for hubs with rough bores.

Type DBC/DBT Triple Reduction

Alignment Free Drive/Dimensions — Inches

DRIVE DIMENSIONS - REFER TO PAGES 130-132 & 136-137

Refer to Page 164 for standard bushing bores.

STANDARD ARRANGEMENTS AVAILABLE TO SUIT:

DBC or DBT Drives, Nominal Ratios 14:1 through 50:1

NEMA TD Flange, NEMA TC C-FACE or IEC B5 Flange Motors as Shown Below

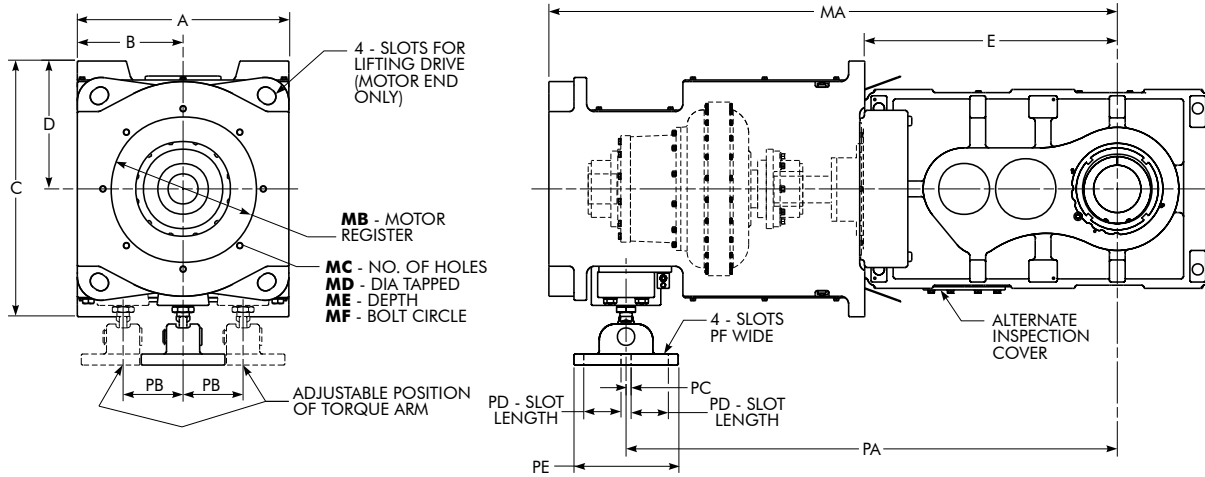
Falk True Torque Fluid (HFDD-20 or 28) Couplings

Also Falk Lifeline (G52 Floating Shaft), Steelflex (T50 Floating Shaft),

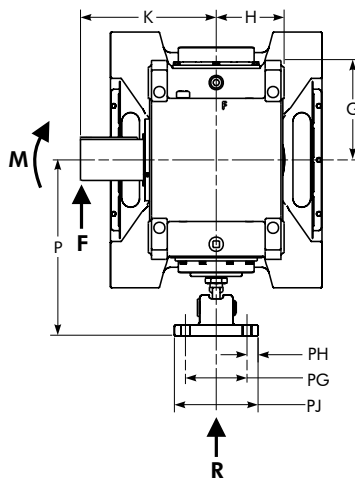
and Thomas (SN Floating Shaft) Couplings

Consult the Factory for Non-Standard Arrangements and

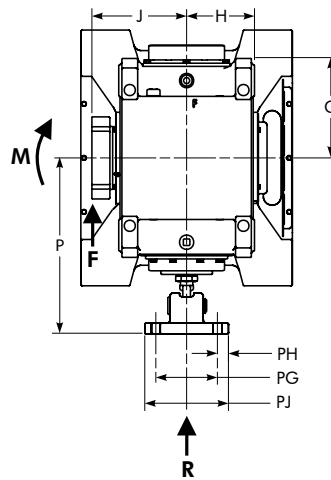
Non-Falk Branded Couplings



SOLID LOW SPEED SHAFT, DBC



HOLLOW LOW SPEED SHAFT, DBT



Loads Generated ★/Torque Arm Forces, Low Speed Shaft Forces

DRIVE SIZE	Max Torque Arm Force R (lb)	Max Loads at FRace of Bushing Nut, DBT †		Max Loads at End of Shaft, DBC †		Available Motors to Suit Adapter			
		Radial Force F (lb)	Bending Moment M (in-lb)	Radial Force F (lb)	Bending Moment M (in-lb)	NEMA	IEC	Siemens	Brook & Crompton
M1140	5950	3100	46000	3200	50100	364T - 445T	225S - 280S	...	...
M1150	8700	4050	83200	4200	94300	364T - 447T	225S - 280S	...	...
M1160	10000	6200	100300	6300	118000	365T - 449T	225M - 315L	...	...
M1170	15500	8850	180300	8900	202000	444T - 449T	225M - 355S	5011, 588	585, 586, 587SDZ
M1180	20500	10800	272500	10800	296000	404T - 449T	250M - 355L	5011, 588, 5810	585, 586, 587SDZ
M1190	21000	13600	283000	13700	313300	404T - 449T	280S - 355L	5011, 588, 5810	585, 586, 587SDZ
M1200	26800	20000	355800	20400	431500	444T - 449T	280M - 355L	5011, 588, 5810	585, 586, 587SDZ
M1210	27000	20100	354000	20500	427500	444T - 449T	280M - 355L	5011, 588, 5810	585, 586, 587SDZ
M1220 ‡	28300	...	...	25200	689000	447T - 449T	315S - 355L	5011, 588, 5810	585, 586, 587SDZ
M1230 ‡	31500	...	...	28600	778000	447T - 449T	315S - 355L	5011, 588, 5810	585, 586, 587SDZ

★ The loads generated are based on a combination of the most unfavorable conditions of rotation, speed, selection horsepower, motor weight, and a 200% start factor.

† Values for R, F, and M are the maximum loads at the position shown during start-up. The loads may NOT be acting in the direction of the arrows. Use the worst case loading condition when designing the driven equipment. Bending Moment is for torque arm located furthest from driven equipment.

‡ Sizes M1220 & M1230 are not available as DBT.

Type DBC/DBT Triple Reduction Alignment Free Drive/Dimensions — Inches

Fluid Coupling

COUPLING SIZE ★	DRIVE SIZE *	A	B	C	D	P		PB	PC	PD	PE	PF	PH	PG	PJ
						Min	Max								
1420HFDD	M1140-M1190	24.02	12.01	26.77	13.39	20.67	21.65	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43
1480HFDD	M1150-M1210	26.38	13.19	31.89	15.94	21.57	22.56	7.56	0.63	4.65	12.99	1.10	1.38	7.68	10.43
1584HFDD	M1170-M1210	31.10	15.55	31.89	15.94	24.53	25.43	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43
1584HFDD	M1220-M1230	35.04	17.52	35.83	17.91	26.50	27.40	10.94	0.63	4.65	12.99	1.10	1.38	7.68	10.43
1660HFDD	M1180-M1210	35.04	17.52	35.83	17.91	26.50	27.40	10.94	0.63	4.65	12.99	1.10	1.38	7.68	10.43
1660HFDD	M1220-M1230	35.04	17.52	35.83	17.91	26.50	27.40	10.94	0.63	4.65	12.99	1.10	1.38	7.68	10.43

★ Drawings are representative of this series of drives and do not agree in exact detail for all sizes. Gear drives are for horizontal shaft mounted operation unless specifically stated otherwise. Consult Factory for other mountings. Dimensions are for reference only and are subject to change without notice unless certified.

* Fluid coupling size selected based on motor power.

DRIVE SIZE ★	E	G	H	J	K	Motor Adapter						PA - HS Coupling Size and Type												
						MA	MB	MC	MD	ME	MF	1420HFDD		1480HFDD		1584HFDD		1660HFDD						
												Type 20	Type 28	Type 20	Type 28	Type 20	Type 28	Type 20	Type 28					
M1140	22.68	9.29	7.09	10.51	13.98	‡	‡	‡	‡	‡	‡	49.80	50.04	...	...	...	...	...	...	...	...	...	...	...
M1150	25.59	10.43	7.68	10.94	14.69	‡	‡	‡	‡	‡	‡	53.19	53.43	54.88	55.20	...	...	...	...	...	...	...	...	...
M1160	27.95	11.02	8.37	11.93	16.61	‡	‡	8	‡	‡	‡	57.24	57.48	58.94	59.25	...	...	...	...	...	...	...	...	...
M1170	31.50	12.40	8.46	11.81	16.93	‡	‡	8	‡	‡	‡	59.57	59.80	61.26	61.57	63.19	63.74	...	...	...	...	...	...	...
M1180	35.24	13.19	9.65	13.19	17.91	‡	‡	8	‡	‡	‡	64.61	64.84	66.30	66.61	68.23	68.78	67.05	67.05	...	...	...	...	...
M1190	39.57	14.76	10.43	13.98	20.28	‡	‡	8	‡	‡	‡	68.94	69.17	70.63	70.94	72.56	73.11	71.38	71.38	...	...	...	...	...
M1200	45.28	17.72	11.61	13.03	23.03	‡	‡	8	‡	‡	‡	...	...	78.43	78.74	80.35	80.91	79.17	79.17	...	...	...	...	...
M1210	46.26	17.72	11.61	13.03	23.03	‡	‡	8	‡	‡	‡	...	...	79.41	79.72	81.34	81.89	80.16	80.16	...	...	...	...	...
M1220	48.23	18.31	15.94	...	31.10	‡	‡	8	‡	‡	‡	...	...	...	...	96.97	97.52	100.12	100.12	...	...	...	...	...
M1230	49.80	18.31	15.94	...	31.10	‡	‡	8	‡	‡	‡	...	...	...	...	98.54	99.09	101.69	101.69	...	...	...	...	...

† Dimensions vary with motor selections. Certified prints will be provided after receipt or order.

‡ "MA" dimension typically varies from 200% to 250% of "E" dimension.

VFD Close Coupled Coupling

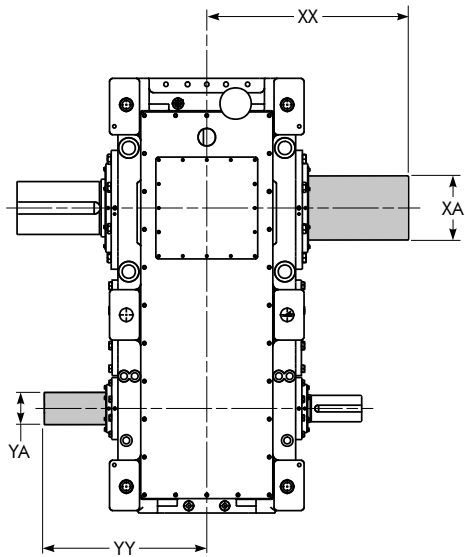
DRIVE SIZE ★	Motor Frame	A	B	C	D	P		PA	PB	PC	PD	PE	PF	PH	PG	PJ	E	G	H	J	K	Motor Adapter					
						Min	Max															MA	MB	MC	MD	ME	MF
M1140	All	24.02	12.01	26.77	13.39	20.67	21.65	49.80	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	22.68	9.29	7.09	10.51	13.98	‡	‡	‡	‡	‡	‡
M1150	All	24.02	12.01	26.77	13.39	20.67	21.65	53.19	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	25.59	10.43	7.68	10.94	14.69	‡	‡	‡	‡	‡	‡
M1160	All	24.02	12.01	26.77	13.39	20.67	21.65	57.24	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	27.95	11.02	8.37	11.93	16.61	‡	‡	8	‡	‡	‡
M1170	◆	24.02	12.01	26.77	13.39	20.67	21.65	59.57	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	31.50	12.40	8.46	11.81	16.93	‡	‡	8	‡	‡	‡
	■	31.10	15.55	31.89	15.94	24.53	25.43	63.19	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43											
M1180	◆	24.02	12.01	26.77	13.39	20.67	21.65	64.61	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	35.24	13.19	9.65	13.19	17.91	‡	‡	8	‡	‡	‡
	■	31.10	15.55	31.89	15.94	24.53	25.43	68.23	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43											
M1190	◆	24.02	12.01	26.77	13.39	20.67	21.65	68.94	6.38	0.63	4.65	12.99	1.10	1.38	7.68	10.43	39.57	14.76	10.43	13.98	20.28	‡	‡	8	‡	‡	‡
	■	31.10	15.55	31.89	15.94	24.53	25.43	72.56	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43											
M1200	All	31.10	15.55	31.89	15.94	24.53	25.43	80.35	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43	45.28	17.72	11.61	13.03	23.03	‡	‡	8	‡	‡	‡
M1210	All	31.10	15.55	31.89	15.94	24.53	25.43	81.34	9.02	0.63	4.65	12.99	1.10	1.38	7.68	10.43	46.26	17.72	11.61	13.03	23.03	‡	‡	8	‡	‡	‡
M1220	All	35.04	17.52	35.83	17.91	26.50	27.40	96.97	10.94	0.63	4.65	12.99	1.10	1.38	7.68	10.43	48.23	18.31	15.94	...	31.10	‡	‡	8	‡	‡	‡
M1230	All	35.04	17.52	35.83	17.91	26.50	27.40	98.54	10.94	0.63	4.65	12.99	1.10	1.38	7.68	10.43	49.80	18.31	15.94	...	31.10	‡	‡	8	‡	‡	‡

◆ NEMA 449T (up to and including 300 hp) or IEC 280M and smaller motors.

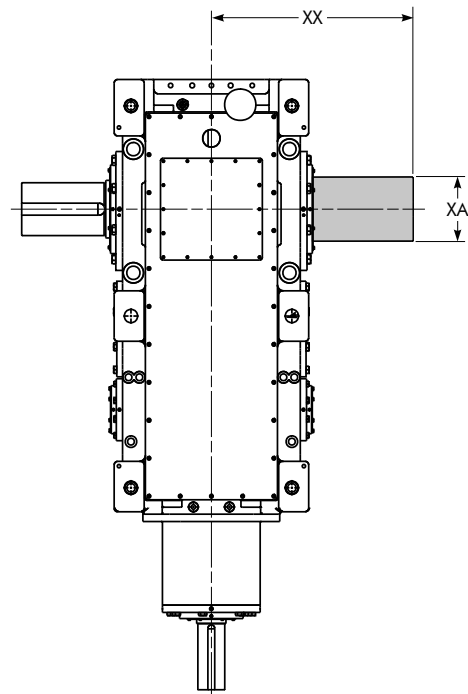
■ NEMA 449T (larger than 300 hp) or IEC 315S and larger motors.

Type DH & DB Double & Triple Reduction

Shaft Cover/Dimensions — Inches



DHC2 & DHC3



DBC3

Shaft Cover Dimensions for DHC2

DRIVE SIZE ★	Ratios	YA	YY	XA	XX
1220	5.6-22.4	5.47	27.36	11.18	31.57
1230	6.3-25.0	5.47	27.36	11.18	31.57
1240	5.6-22.4	5.98	30.61	11.57	35.71
1250	6.3-25.0	5.98	30.61	11.57	35.71

★ Dimensions are for reference only and are subject to change without notice unless certified.

Shaft Cover Dimensions for DBC3

DRIVE SIZE ★	Ratios	XA	XX
1220	8.0-63.0	11.18	31.57
1230	9.0-71.0	11.18	31.57
1240	8.0-63.0	11.57	35.71
1250	9.0-71.0	11.57	35.71

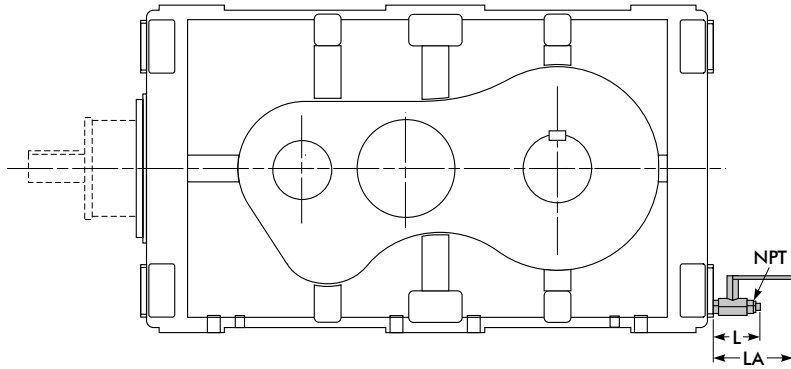
★ Dimensions are for reference only and are subject to change without notice unless certified.

Shaft Cover Dimensions for DHC3

DRIVE SIZE ★	Ratios	YA	YY	XA	XX
1220	25.0-63.0	3.66	24.09	11.18	31.57
1230	28.0-71.0	3.66	24.09	11.18	31.57
1240	25.0-63.0	4.53	27.05	11.57	35.71
1250	28.0-71.0	4.53	27.05	11.57	35.71

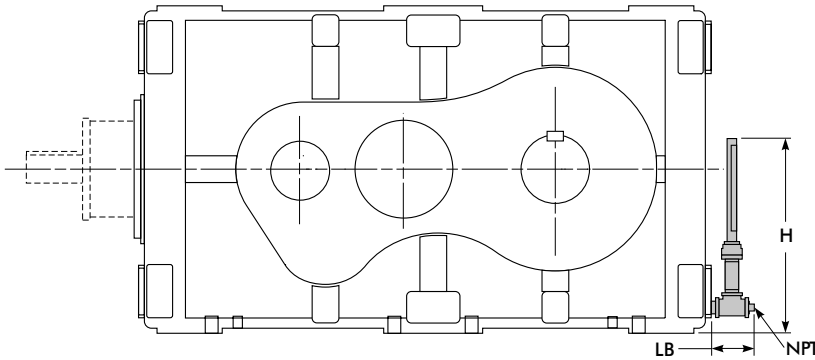
★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB Double & Triple Reduction Optional Oil Drain Valve/Dimensions — Inches



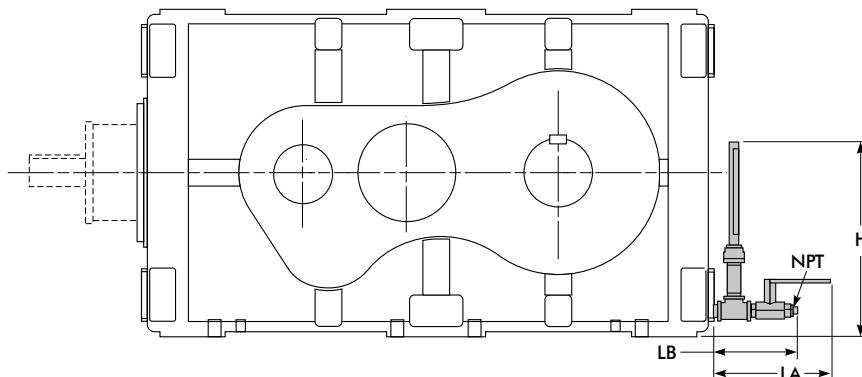
DRIVE SIZE	L	LA	NPT
M1130	3.74	6.54	3/4
M1140	3.74	6.54	3/4
M1150	3.74	6.50	3/4
M1160	3.74	6.50	3/4
M1170	4.13	6.89	3/4
M1180	4.13	6.89	3/4
M1190	3.39	6.10	3/4
M1200	2.80	5.55	3/4
M1210	2.80	5.55	3/4
M1220	3.62	6.50	1 1/4
M1230	3.62	6.50	1 1/4
M1240	3.74	6.61	1 1/4
M1250	3.74	6.61	1 1/4

Type DH & DB Double & Triple Reduction Optional Oil Sight Gauge/Dimensions — Inches



DRIVE SIZE	LB	H Max	NPT
M1130	3.58	11.46	3/4
M1140	3.35	11.85	3/4
M1150	4.02	14.84	3/4
M1160	4.02	14.84	3/4
M1170	4.41	14.92	1
M1180	3.82	15.79	1
M1190	4.06	16.81	1
M1200	3.94	19.76	3/4
M1210	3.94	19.76	3/4
M1220	3.07	19.88	1 1/4
M1230	3.07	19.88	1 1/4
M1240	3.46	23.03	1 1/4
M1250	3.46	23.03	1 1/4

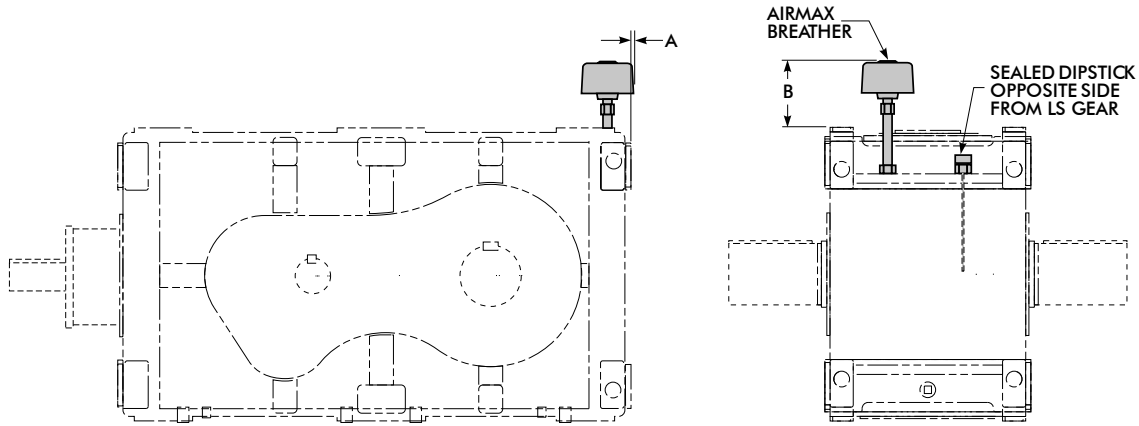
Type DH & DB Double & Triple Reduction Optional Oil Drain Valve & Oil Sight Gauge/Dimensions — Inches



DRIVE SIZE	LA	LB	H Max	NPT
M1130	10.08	7.28	11.46	3/4
M1140	10.08	7.09	11.85	3/4
M1150	10.48	7.72	14.84	3/4
M1160	10.48	7.72	14.84	3/4
M1170	11.26	8.50	14.92	3/4
M1180	10.71	7.95	15.79	3/4
M1190	10.12	7.40	16.81	3/4
M1200	9.53	6.73	19.76	3/4
M1210	9.53	6.73	19.76	3/4
M1220	10.16	7.32	19.88	1 1/4
M1230	10.16	7.32	19.88	1 1/4
M1240	10.47	7.72	23.03	1 1/4
M1250	10.47	7.72	23.03	1 1/4

Type DH & DB

AirMax Breather/Dimensions — Inches



Single, Double & Triple Reduction

DRIVE SIZE ★	A	B
M1130	0.8	6.1
M1140	0.6	5.9
M1150	0.6	5.3
M1160	0.6	4.9
M1170	0.6	6.5
M1180	0.6	6.5
M1190	0	6.5
M1200	0.6	6.1
M1210	0.6	6.1

★ Dimensions are for reference only and are subject to change without notice unless certified.

Type DH & DB

Approximate Oil Capacities For Standard Drives - Gallons

DRIVE SIZE ★	DRIVE TYPE					
	DHC1	DHL1	DH2	DH3	DBL2	DB3
M1130	3.0	4.0	3.5	3.5	4.0	3.5
M1140	5.0	6.0	5.0	5.5	6.0	5.0
M1150	8.0	9.0	8.0	8.5	9.0	8.0
M1160	9.0	11.0	10.0	10.5	11.0	10.0
M1170	13.0	15.5	13.5	14.0	17.5	13.5
M1180	14.5	18.5	15.5	16.0	21.5	15.5
M1190	24.0	30.0	25.0	25.5	29.0	25.0
M1200	...	48.0	43.0	43.0	46.5	41.5
M1210	...	...	42.0	42.0	...	40.5

★ Floor mount with input and output shafts on the same horizontal plane. Actual capacities may vary slightly with the ratio.
Oil capacities for Sizes M1220-M1250 vary with the ratio and input speed. Contact the Factory.

Conversion Factors/U.S. Units to SI Metric Units

(Conversion values listed are for reference only. DO NOT use these values to convert or compare inch and metric selection guides.)

DESCRIPTION	U.S. Units	Multiply by to Obtain	SI Metric Units
Force	pound force (lbf)	4.448	newton (N)
Length	inch (in)	25.4	millimeter (mm)
	foot (ft)	0.3048	meter (m)
Mass	pound mass (lbm)	0.4536	kilogram (kg)
Power	horsepower (hp)	0.7457	kilowatt (kW)
Rotational Inertia	pound-inch ² (lb-in ²)	0.0002926	kilogram-meter ² (kg-m ²)
Rotational Speed	revolutions per minute (rpm)	1	1/min
Temperature	°F	°C = (°F-32)/1.8	°C
Torque	pound-inch (lb-in)	0.113	newton-meter (Nm)
	pound-foot (lb-ft)	1.356	newton-meter (Nm)
Velocity	feet per minute (ft/min)	0.00508	meters per second (m/s)
	miles per hour (mph)	1.609	kilometers per hour (km/h)
Volume	gallon (gal)	3.785	liter (L)
Volumetric Flow	gallons per minute (gal/min)	0.06308	liters per second (L/s)

Conversion Factors/SI Metric Units to U.S. Units

(Conversion values listed are for reference only. DO NOT use these values to convert or compare inch and metric selection guides.)

DESCRIPTION	SI Metric Units	Multiply by to Obtain	U.S. Units
Force	newton (N)	0.2248	pound force (lbf)
Length	millimeter (mm)	0.03937	inch (in)
	meter (m)	3.2808	foot (ft)
Mass	kilogram (kg)	2.2046	pound mass (lbm)
Power	kilowatt (kW)	1.341	horsepower (hp)
Rotational Inertia	kilogram-meter ² (kg-m ²)	3417.6	pound-inch ² (lb-in ²)
Rotational Speed	1/min	1	revolutions per minute (rpm)
Temperature	°C	°F = 1.8(°C) + 32	°F
Torque	newton-meter (Nm)	8.850	pound-inch (lb-in)
	newton-meter (Nm)	0.7376	pound-foot (lb-ft)
Velocity	meters per second (m/s)	196.85	feet per minute (ft/min)
	kilometers per hour (km/h)	0.6124	miles per hour (mph)
Volume	liter (L)	0.2642	gallon (gal)
Volumetric Flow	liters per second (L/s)	15.85	gallons per minute (gal/min)

Equation:

$$\text{Torque (Nm)} = \frac{5950 \times P}{n} \quad \text{Torque (lb-in)} = \frac{63,000 \times P}{n}$$

Where: P = Power (kW); n = shaft speed (rpm)

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