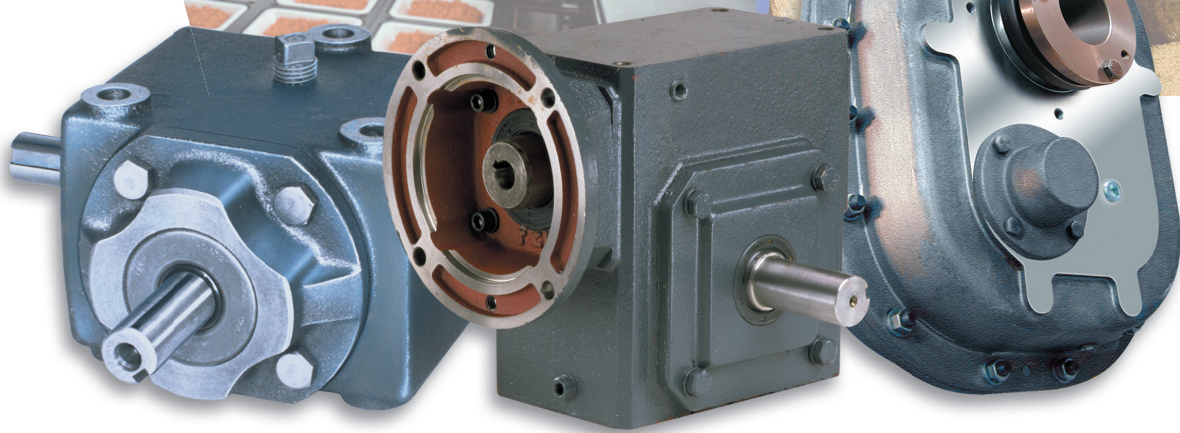




*Browning*<sup>®</sup>

*Morse*<sup>®</sup>

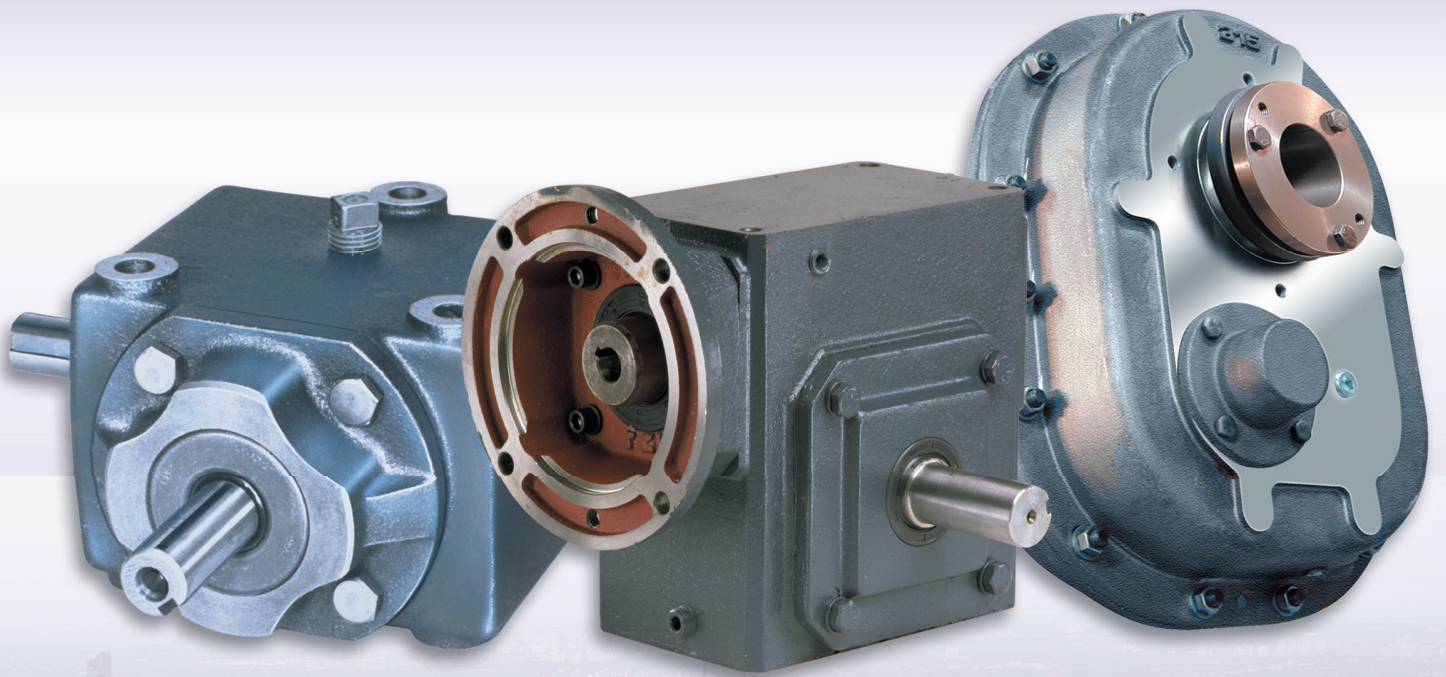


# Shaft Mount Worm Gear and Bevel Reducer Catalog

A Regal Brand

**REGAL**

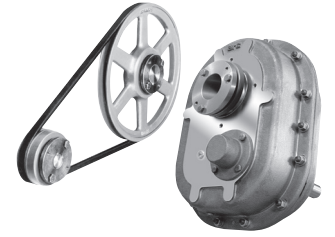






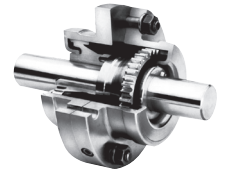
# Browning®

Belt drive and helical shaft mounts with innovative bushing systems for ease of installation and maximum shaft locking capacity.



# KOP-FLEX®

Heavy-duty industrial shaft couplings and the supporting technology for the toughest applications. Coupling types include gear, tapered grid, flexible metallic disc, universal joints, elastomeric and resilient shaft types.



# McGILL®

McGill® patented the Camrol® cam follower more than sixty years ago. Today cam follower bearings are offered in over 1,400 different combinations and configurations.



# MORSE®

Self-contained clutch products for high torque demanding back-stopping conveyor applications. Specialized sealing to reduce contamination and lengthen clutch operation.



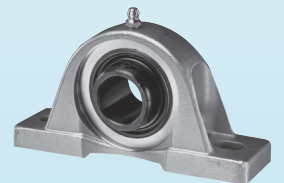
# ROLLWAY®

Highly engineered cylindrical roller bearings for heavy duty, off-highway motorized wheels, screens and crusher applications.



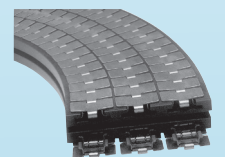
# SEALMASTER®

Problem solver bearings designed with application-specific sealing and inherent lubrication features to extend bearing life and reduce downtime.



# SYSTEM™ PLAST

System Plast S.p.A. is a global supplier of steel and engineered plastic conveying chains and chain tracks, modular plastic belts, composite housed bearings and Valu Guide® conveyor components and guide rails.



**REGAL**





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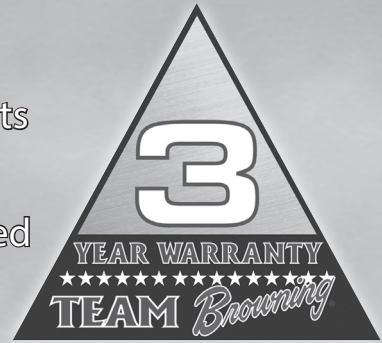


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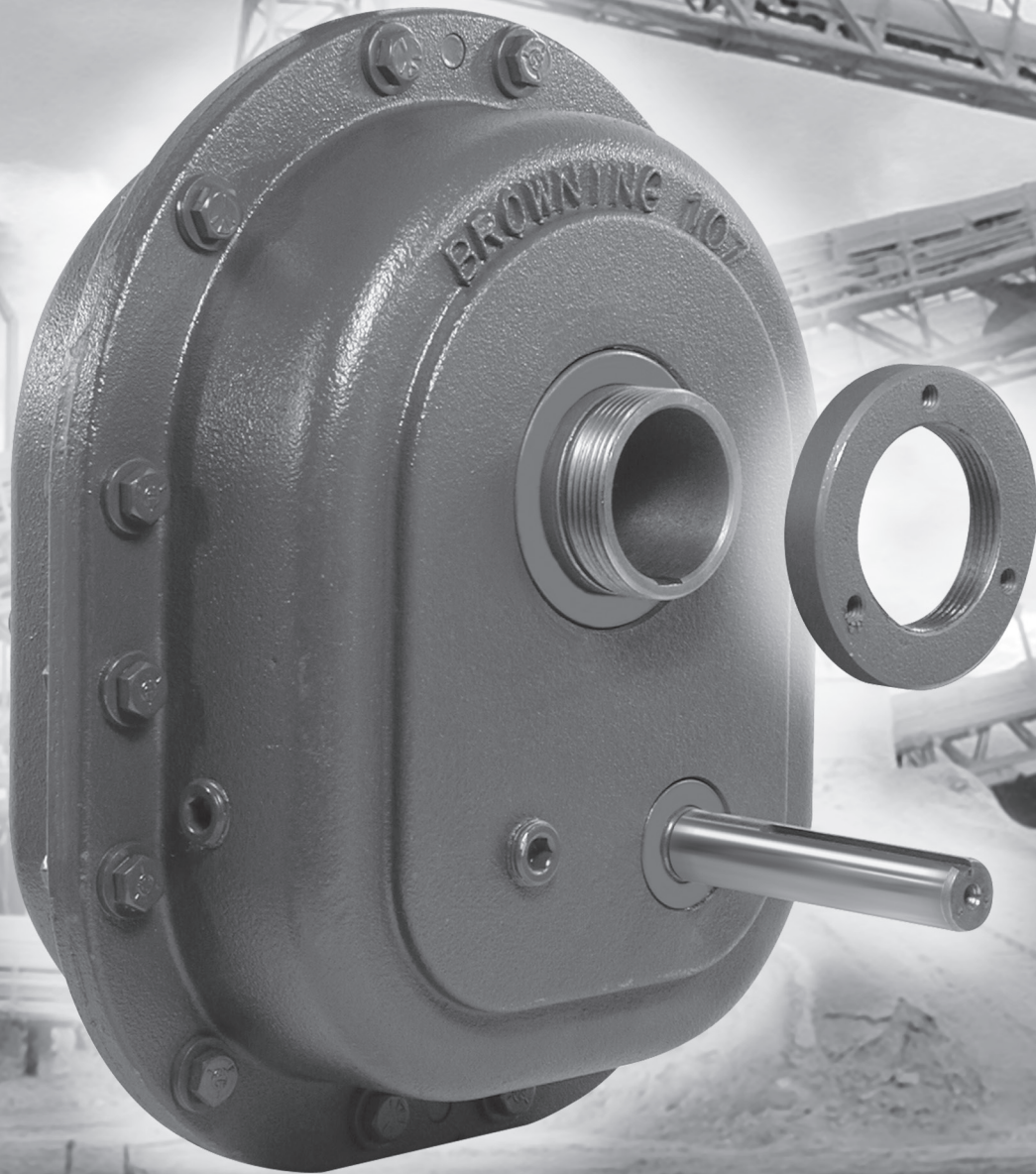
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Team Up with Browning and get a 3 year warranty on Shaft Mounts and Belt Drives. Team Browning will keep you in play, not sidelined by poor performance.



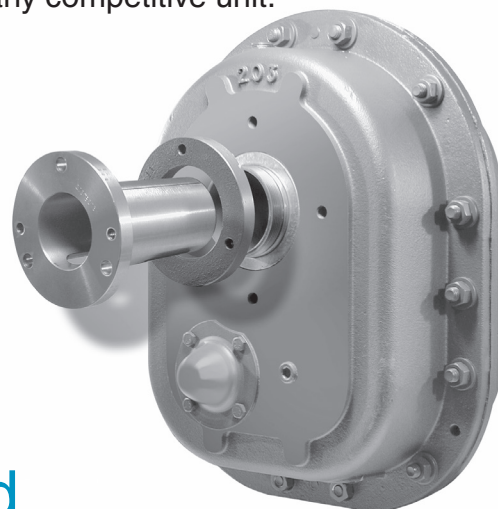
## The American Standard





## Browning® TorqTaper Plus Shaft Mounts...

Unlike competitive bushing systems that mount only from the front or back of the reducer (or require bushings on both sides), TorqTaper Plus uses a single tapered bushing that easily installs from either front or back – depending on your space limitations and available shaft length. This patented feature simplifies replacement of any competitive unit.

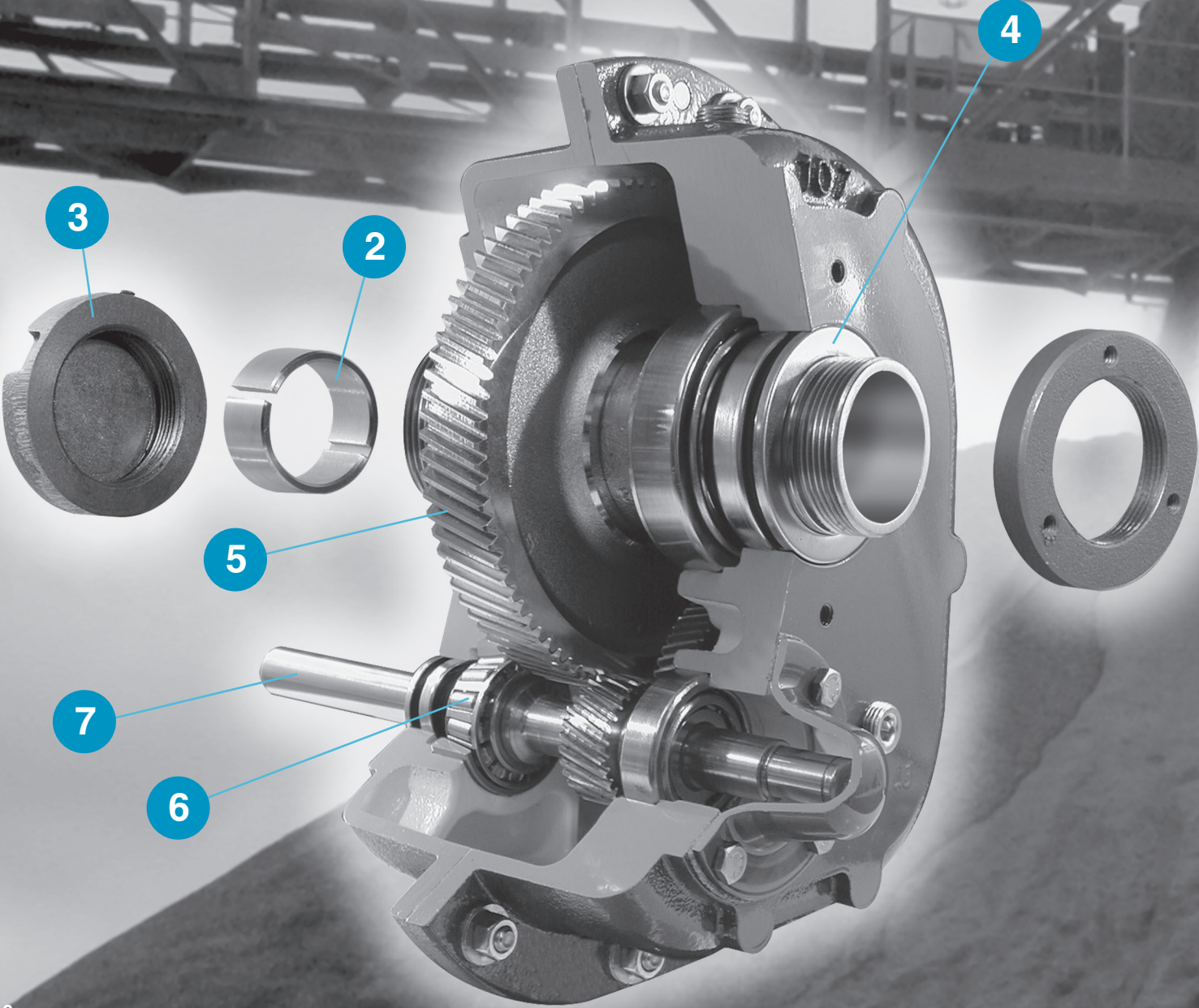


## Patented Barrier Seal System

Combines a v-ring face seal, grease filled labyrinth and rotating outer flinger to provide triple protection against contamination and oil seal damage. Standard on all shafts.



# The New Way... Your Way



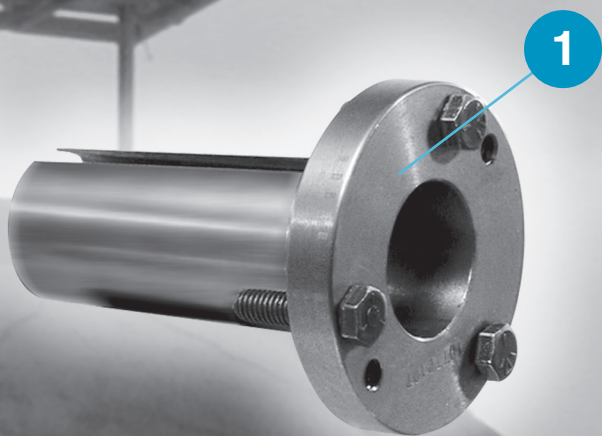


## Check Out These Additional Features of TorqTaper Plus Reducers

1. Unique, patented single bushing mounting system
  - Tapered bushing mounts from either side on the 107-315
2. Tapered stabilizer ring minimizes wobble and resists fretting corrosion
3. End cap seals quill end from contamination
4. Industrial strength seal systems
  - Patented barrier seal system includes standard double lip oil seals with v-ring face seal, grease packed labyrinth and external flinger
5. Carburized and ground gearing throughout
  - AGMA class 12 minimum
6. Tapered roller bearings on all shafts
7. Increased shaft diameters; higher overhung load ratings

### Plus...

- Depending upon size, available ratios include 5, 9, 15, 25 and new 35:1 ratio
- Increased horsepower ratings, allows down-sizing on many applications
- Pre-drilled and tapped face mount holes



## Ordering Information

### Example No. 1 Shaft Mount Application

A shaft mount reducer and belt drive are required for a bucket conveyor, which will be uniformly loaded and operated 16 to 24 hours per day at 81 rpm.

The conveyor requires 15 hp. The reducer will be mounted on the conveyor head shaft which is 2 7/16" diameter. The customer wants to mount the 1750 rpm 254T frame motor on the reducer. The customer has also requested a backstop for the reducer.

#### 1. Determine the Load Classification

From the AGMA Application Classification numbers, note that the load class is II for a uniformly loaded bucket conveyor operating over 10 hours per day.

#### 2. Determine the Speed Reducer Required

From the Reducer Selection Chart for Class II Service, select a reducer for 15 hp and 81-89 rpm, which in this case is a 207SMTP15 or 207SMTP09. Choose the 207SMTP15, as the larger ratio will require the most compact and generally most economical belt drive. Refer to the Shaft Mount Accessories section for a bushing and torque arm. A 207TBP207 bushing is required for the reducer. Select the 207TAP-H torque arm.

#### 3. Select the Motor Mount

Determine if a top mount or side mount configuration is required. Reference the motor mount tables in the Shaft Mount Accessories section for dimensions. After consulting the customer, it was determined that the top mount configuration was desired. Select the correct motor mount supports, motor mount adapter and motor base: MMS207L, MMA207, MB203-207.

#### 4. Select the Backstop

Select the 207BSP backstop from the Shaft Mount Accessories section.

#### 5. Select the Belt Drive

Note that the belt centers for this motor and reducer combination are 22.34 to 39.66. Note that 4.3" is the minimum sheave pitch diameter for the 207SMTP15 reducer chosen in Step 2. Reducer input speed = 81 (conveyor speed) x 14.787 (Exact Reducer Ratio) = 1197 rpm. From the Shaft Mount Accessories section pre-selected belt drive tables select a belt drive with a center distance near the midpoint of the 22.34 to 39.66. This drive (1197 driven speed) consists of a 2B5V68 sheave with a B 1 5/8 bushing, a 2B5V94 sheave with a B 1 7/16 bushing and two 5VX660 gripnotch belts.

#### 6. Select the Belt Guard

Select the guard. Notice from the table that the CD range with the belt guard is 22.00 to 34.00" and the maximum reducer sheave that will fit into the belt guard in the top mount position is 24". Note that the part number, BGP24 24-38 with 207BGMKP, kit hardware required to mount the guard onto the reducer.

#### 7. List Components:

1, 207SMTP15 Reducer	1, 207BSP Backstop
1, 207TBP207 Bushing	1, B 1 5/8 Bushing
1, 207TAP-H Torque Arm	1, 2B5V68 Sheave
1, MMS207L Motor Mount Support	1, B 1 7/16 Bushing
1, MMA207 Motor Mount Adapter	1, 2B5V94 Sheave
1, MB203-207 Motor Base	2, 5VX660 Belts
	1, BGP24 24-38/ 207BGMKP Belt Guard



## Ordering Information

### Example No. 2 Screw Conveyor Application

A screw conveyor drive is required to convey dry cement powder. The conveyor will be uniformly fed and operated 12 to 16 hours per day. The screw is 14" diameter and has a 2 7/16" bore with two holes. The conveyor requires 5 hp and will operate at 60 rpm. The motor is a 1750 rpm 184T frame. The customer wants the trough end, waste pack, belt drive, belt guard and motor mount.

#### 1. Determine the Load Classification

From the AGMA Application Classification numbers, note that the load class is II for a uniformly fed screw conveyor operating over 10 hours per day.

#### 2. Determine the Speed Reducer Size Required

From the Reducer Selection Chart for Class II Service select a reducer for 5 hp and 60 rpm, which in this case is a 115SMTP09, 115SMTP15 or 115SMTP25 for 55-77 rpm. Choose the 115SMTP25 as the larger ratio will require the most compact and generally most economical belt drive.

#### 3. Establish Sealing Required for Screw Conveyor

The waste pack cartridge is well suited for dry, abrasive materials such as cement powder. Specify the optional waste pack cartridge for the 115 shaft mount selected. From the Shaft Mount Accessories section, select part 115-203WPP.

#### 4. Select the Screw Conveyor Adapter and Screw Conveyor Shaft

Note that the customer requested a 2 7/16" drive shaft with a two hole arrangement for the 14" diameter screw.

From the table select the 115SCA-P and the 115DSP207 using the basic reducer size, screw diameter and shaft size.

#### 5. Select the Trough End

From the Shaft Mount Accessories section, select the SCTE14 x 2 7/16 trough end.

#### 6. Select the Motor Mount

First determine if the top mount or side mount configuration is required. Reference the motor mount tables in the Shaft Mount Accessories section for dimensions. After consulting with the customer it was determined that the top mount was desired. Select the MMS115H, MMA107-115 and MB107-115. Check the dimensions from the motor mount table. Note that the high motor mount must be used with this size screw. The value of 4.32" needs to be added to the minimum center distance on the high supports to ensure that the motor mount clears the screw conveyor.

#### 7. Select the Belt Drive

Note that the belt center distance range for this reducer and motor combination is 17.50" to 34.24". Note the minimum sheave pitch diameter for the 115SMTP25 is 3.4". Reducer input speed = 60 (conveyor speed) x 24.8558 (Exact Reducer Ratio) = 1491 rpm. From the pre-selected belt drive tables, select a belt drive with a center distance greater than  $17.5 + 4.32 = 21.82$ ". This drive (1496 driven speed) consists of a 2AK54H sheave with H 1 1/8" bushing, 2AK64H sheave with H 1 1/8" bushing and two AX58 Gripnotch belts.

#### 8. Select the Belt Guard

Select the guard. Notice from the table that the CD range with the belt guard is 18.30 to 30.00" and the maximum reducer sheave that will fit into the belt guard in the top mount position is 14". Note that the part number is BGP14 18-30/115BGMKP, kit hardware required to mount the guard onto the reducer.

#### 9. List the Components:

- |   |                                    |
|---|------------------------------------|
| 1, 115SMTP25 Reducer                        | 1, MMA107-115 Motor Mount Adapter  |
| 1, 115-203WPP Waste Pack Cartridge          | 1, MB107-115 Motor Base            |
| 1, 115SCA-P Screw Conveyor Adapter          | 2, H 1 1/8 Bushing                 |
| 1, 115DSP207 Screw Conveyor Drive Shaft Kit | 1, AK54H Sheave                    |
| 1, SCTE14x2 7/16 Trough End                 | 1, 2AK64H Sheave Kit               |
| 1, MMS115H Motor Mount Support              | 1, AX64 Belt                       |
|   | 1, BGP14 18-30/115BGMKP Belt Guard |

SMTP Exact Ratios

Reducer Size	Ratio Symbols				
	05	09	15	25	35
107	5.0588	8.8205	14.8276	24.7250	34.8778
115	4.7000	8.8125	14.7759	24.8558	34.9487
203	5.1053	8.8732	14.9231	24.7409	34.6429
207	5.1579	8.8308	14.7870	24.7094	35.0000
215	5.1667	8.8482	14.8187	24.8502	34.8154
307	5.1111	8.7925	14.9704	24.7692	34.8791
315	4.8824	8.8620	14.5744	24.4118	34.0513
407	5.0000	-	13.6842	25.0000	-
415	5.0833	-	13.9792	25.8403	-
507	-	-	13.6842	25.3846	-
608	-	-	13.9118	25.6555	-
800	-	-	-	24.9648	-

Note: See "Application Considerations" on back cover.

## Classification Numbers

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
AGITATORS (Mixers)			
Pure Liquids	I	I	II
Liquids and Solids	I	II	II
Liquids - Variable Density	I	II	II
BLOWERS			
Centrifugal & Vane	I	I	II
Lobe	I	II	II
Vane	I	II	II
BREWING AND DISTILLING			
Bottling Machinery	I	I	II
Brew Kettles - Continuous Duty	II	II	II
Cookers - Continuous Duty	II	II	II
Mash Tubs - Continuous Duty	II	II	II
Scale Hopper - Frequent Starts	II	II	II
CAN FILLING MACHINES	I	I	II
CAR DUMPERS	I	III	III
CAR PULLERS	I	II	II
CLARIFIERS	I	I	II
CLASSIFIERS	I	II	II
CLAY WORKING MACHINERY			
Brick Presses	II	III	III
Briquette Machines	II	III	III
Pug Mills	I	II	II
COMPACTORS			
COMPRESSORS			
Centrifugal	I	I	II
Lobe	I	II	II
Reciprocating, Multi-Cylinder	II	II	III
Reciprocating, Single-Cylinder	III	III	III
CONVEYORS - GENERAL PURPOSE			
Includes Apron, Assembly, Belt, Bucket Chain, Flight, Oven, and Screw			
Uniformly Loaded or Fed	I	I	II
Heavy Duty - Not Uniformly Fed	I	II	II
Severe Duty - Reciprocating or Shaker	II	III	III
CRANES			
Dry Dock			
Main Hoist			
Auxiliary Hoist			
Boom Hoist			
Slewing Drive			
Traction Drive			
Container			
Main Hoist			
Boom Hoist			
Trolley Drive			
Gantry Drive			
Traction Drive			
Mill Duty			
Main Hoist			
Auxiliary			
Bridge Travel			
Trolley Travel			
Industrial Duty			
Main			
Auxiliary			
Bridge Travel			
Trolley Travel			
CRUSHERS			
Stone or Ore	III	III	III
DREDGES			
Cable Reels	II	II	II
Conveyors	II	II	II
Cutter Head Drives	III	III	III
Pumps	III	III	III
Screen Drives	III	III	III
Stackers	II	II	II
Winches	II	II	II
ELEVATORS			
Bucket	I	II	II
Centrifugal Discharge	I	I	II
Escalators	I	I	II
Freight	I	II	II
Gravity Discharge	I	I	II
EXTRUDERS			
General	II	II	II
Plastics			
Variable Speed Drive	III	III	III
Fixed Speed Drive	III	III	III
Rubber			
Continuous Screw Operation	III	III	III
Intermittent Screw Operation	III	III	III
FANS			
Centrifugal	I	I	II

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
FANS (Cont'd)			
Cooling Towers	III	III	III
Forced Draft	II	II	II
Induced Draft	II	II	II
Industrial & Mine	II	II	II
FEEDERS			
Apron	I	II	II
Belt	I	II	II
Disc	I	I	II
Reciprocating	II	III	III
Screw	I	II	II
FOOD INDUSTRY			
Cereal Cooker	I	I	II
Dough Mixer	II	II	II
Meat Grinders	II	II	II
Slicers	I	II	II
GENERATORS AND EXCITERS	II	II	II
HAMMER MILLS	III	III	III
HOISTS			
Heavy Duty			
Medium Duty			
Skip Hoist			
LAUNDRY TUMBLERS	II	II	II
LAUNDRY WASHERS	II	II	III
LUMBER INDUSTRY			
Barkers			
Spindle Feed	II	II	II
Main Drive	III	III	III
Conveyors			
Burner	II	II	II
Main or Heavy Duty	II	II	II
Main Log	III	III	III
Re-saw, Merry-Go-Round	II	II	II
Slab	III	III	III
Transfer	II	II	II
Chains			
Floor	II	II	II
Green	II	II	III
Cut-Off-Saws			
Chain	II	II	III
Drag	II	II	III
Debarking Drums	III	III	III
Feeds			
Edger	II	II	II
Gang	II	III	III
Trimmer	II	II	II
Log Deck	III	III	III
Log Hauls - Incline - Well Type	III	III	III
Log Turning Devices	III	III	III
Planer Feed	II	II	II
Planer Tilting Hoists	II	II	II
Rolls - Live-Off Brg - Roll Cases	III	III	III
Sorting Table	II	II	II
Tipple Hoist	II	II	II
Transfer			
Chain	II	II	III
Craneway	II	II	III
Tray Drives	II	II	II
Veneer Lathe Drives	II	II	II
METAL MILLS			
Draw Bench Carriage and Main Drive	II	II	II
Runout Table			
Non-Reversing			
Group Drives	II	II	II
Individual Drives	III	III	III
Reversing	III	III	III
Slab Pushers	II	II	II
Shears	III	III	III
Wire Drawing	II	II	II
Wire Winding Machine	II	II	II
METAL STRIP PROCESSING MACHINERY			
Bridges	II	II	II
Collers & Uncoilers	I	I	II
Edge Trimmers	I	II	II
Flatteners	II	II	II
Loopers (Accumulators)	I	I	I
Pinch Rolls	II	II	II
Scrap Choppers	II	II	II
Shears	III	III	III
Slitters	I	II	II
MILLS, ROTARY TYPE			
Ball & Rod			
Spur Ring Gear	III	III	III
Helical Ring Gear	II	II	II
Direct Connected	III	III	III



## Classification Numbers

Application	AGMA Class Numbers			Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day		Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
MILLS, ROTARY TYPE (Cont'd)				Batch Drop Mill - 2 Smooth Rolls	II	II	II
Cement Kilns	II	II	II	Cracker Warmer - 2 Roll, 1 Corrugated Roll	III	III	III
Dryers & Coolers	II	II	II	Cracker - 2 Corrugated Rolls	III	III	III
PAPER MILLS <sup>1)</sup>				Holding, Feed & Blend Mill - 2 Rolls	II	II	II
Agitator (Mixer)	II	II	II	Refiner - 2 Rolls	II	II	II
Agitator For Pure Liquors	II	II	II	Calendars	II	II	II
Barking Drums	III	III	III	SAND MULLER	II	II	II
Barkers - Mechanical	III	III	III	SEWAGE DISPOSAL EQUIPMENT			
Beater	II	II	II	Bar Screens	II	II	II
Breaker Stack	II	II	II	Chemical Feeder	II	II	II
Calendar <sup>2)</sup>	II	II	II	Dewatering Screens	II	II	II
Chipper	III	III	III	Scum Breakers	II	II	II
Chip Feeder	II	II	II	Slow or Rapid Mixers	II	II	II
Coating Rolls	II	II	II	Sludge Collectors	II	II	II
Conveyors				Thickener	II	II	II
Chip, Bark, Chemical	II	II	II	Vacuum Filters	II	II	II
Log (Including Slab)	III	III	III	SCREENS			
Couch Rolls	II	II	II	Air Washing	I	I	II
Cutter	III	III	III	Rotary - Stone or Gravel	II	II	II
Cylinder Molds	II	II	II	Traveling Water Intake	I	I	I
Dryers <sup>2)</sup>				SCREW CONVEYORS			
Paper Machine	II	II	II	Uniformly Loaded or Fed	I	I	II
Conveyor Type	II	II	II	Heavy Duty	I	II	II
Embossor	II	II	II	SUGAR INDUSTRY			
Extruder	II	II	II	Beet Slicer	III	III	III
Fourdrinier Rolls (Includes Lump Breaker,				Cane Knives	II	II	II
Dandy Roll, Wire Turning, and Return Rolls)	II	II	II	Crushers	II	II	II
Jordan	II	II	II	Mills (Low Speed End)	III	III	III
Kiln Drive	II	II	II	TEXTILE INDUSTRY			
Mt. Hope Roll	II	II	II	Batchers	II	II	II
Paper Rolls	II	II	II	Calendars	II	II	II
Platter	II	II	II	Cards	II	II	II
Presses - Felt Suction	II	II	II	Dry Cans	II	II	II
Pulper	III	III	III	Dyeing Machinery	II	II	II
Pumps - Vacuum	II	II	II	Looms	II	II	II
Reel (Surface - Type)	II	II	II	Mangles	II	II	II
Screens				Nappers	II	II	II
Chip	II	II	II	Pads	II	II	II
Rotary	II	II	II	Slashers	II	II	II
Vibrating	III	III	III	Soapers	II	II	II
Size Press	II	II	II	Spinners	II	II	II
Supercalendar	II	II	II	Tenter Frames	II	II	II
Thickener (AC Motor)	II	II	II	Washers	II	II	II
Thickener (DC Motor)	II	II	II	Winders	II	II	II
Washer (AC Motor)	II	II	II				
Washer (DC Motor)	II	II	II				
Wind and Unwind Stand	I	I	I				
II							
PLASTICS INDUSTRY							
PRIMARY PROCESSING							
Intensive Internal Mixers							
Batch Mixers	III	III	III				
Continuous Mixers	II	II	II				
Batch Drop Mill - 2 Smooth Rolls	II	II	II				
Continuous Feed, Holding & Blend Mill	II	II	II				
Calendars	II	II	II				
PLASTICS INDUSTRY							
SECONDARY PROCESSING							
Blow Molders	II	II	II				
Coating	II	II	II				
Film	II	II	II				
Pipe	II	II	II				
Pre-Plasticizers	II	II	II				
Rods	II	II	II				
Sheet	II	II	II				
Tubing	II	II	II				
PULLERS - BARGE HAUL	II	II	II				
PUMPS							
Centrifugal	I	I	II				
Proportioning	II	II	II				
Reciprocating							
Single Acting, 3 or more Cylinders	II	II	II				
Double Acting, 2 or more Cylinders	II	II	II				
Rotary							
Gear Type	I	I	II				
Lobe	I	I	II				
Vane	I	I	II				
RUBBER INDUSTRY							
Intensive Internal Mixers							
Batch Mixers	III	III	III				
Continuous Mixers	II	II	II				
Mixing Mill							
2 Smooth Rolls	II	II	II				
1 or 2 Corrugated Rolls	III	III	III				
RUBBER INDUSTRY (Cont'd)							

### Notes:

- 1) The Class numbers listed in the table for paper mill applications are consistent with those shown in TAPPI (*Technical Association of Pulp and Paper Industry*) Technical information sheet 0406-18 1967, *Service Factors for Gears on Major Equipment in the Pulp and Paper Industry*.
- 2) Anti-friction bearings only.  
Contact Application Engineering (1 800 626 2093) for the selection of AGMA Class Numbers in these applications.



# SMTP/SMFP Selection Chart



## Class I Service (1.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1/4 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
51 - 80	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
81 - 89	107SMTP15	2.8
	107SMTP09	4.7
90 - 130	107SMTP15	2.8
	107SMTP09	4.7
	107SMTP05	4.6
131 - 200	107SMTP09	4.7
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>1/3 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
51 - 80	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
81 - 89	107SMTP15	2.8
	107SMTP09	4.7
90 - 130	107SMTP15	2.8
	107SMTP09	4.7
	107SMTP05	4.6
131 - 200	107SMTP09	4.7
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>1/2 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
51 - 80	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
81 - 89	107SMTP15	2.8
	107SMTP09	4.7
90 - 130	107SMTP15	2.8
	107SMTP09	4.7
	107SMTP05	4.6
	107SMTP09	4.7
131 - 200	107SMTP09	4.7
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>3/4 HP MOTOR</b>		
5	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
6 - 7	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
8 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>3/4 HP MOTOR (Cont'd)</b>		
51 - 80	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4
81 - 89	107SMTP15	2.6
	107SMTP09	4.4
90 - 130	107SMTP15	2.6
	107SMTP09	4.4
	107SMTP05	4.6
	107SMTP09	4.4
131 - 200	107SMTP09	4.4
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>1 HP MOTOR</b>		
5 - 6	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
7 - 9	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
10 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
51 - 80	107SMTP25	2.3
	107SMTP15	2.8
	107SMTP09	4.7
	107SMTP05	4.6
81 - 89	107SMTP15	2.8
	107SMTP09	4.7
90 - 130	107SMTP15	2.8
	107SMTP09	4.7
	107SMTP05	4.6
131 - 200	107SMTP09	4.7
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>1 1/2 HP MOTOR</b>		
5	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.4
6 - 10	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	4.3
11 - 15	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
16 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4
	107SMTP05	4.6
81 - 89	107SMTP15	2.6
	107SMTP09	4.4
90 - 130	107SMTP15	2.6
	107SMTP09	4.4
	107SMTP05	4.6

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1 1/2 HP MOTOR (Cont'd)</b>		
131 - 200	107SMTP09	4.4
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>2 HP MOTOR</b>		
5 - 8	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.4
9 - 14	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
15 - 20	203SMTP09	3.8
	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
21 - 50	115SMTP09	3.4
	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.7
51 - 80	107SMTP09	4.5
	107SMTP25	2.3
	107SMTP15	2.7
	107SMTP09	4.5
81 - 89	107SMTP15	2.7
	107SMTP09	4.5
90 - 130	107SMTP15	2.7
	107SMTP09	4.5
	107SMTP05	4.6
131 - 200	107SMTP09	4.5
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>3 HP MOTOR</b>		
5 - 7	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
8 - 12	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
13 - 22	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	4.0
23 - 31	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
32 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.6
	107SMTP09	4.4
	107SMTP05	4.6
81 - 89	107SMTP15	2.6
	107SMTP09	4.4
90 - 130	107SMTP15	2.6
	107SMTP09	4.4
	107SMTP05	4.6





# SMT/SMFP Selection Chart



## Class I Service (1.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>3 HP MOTOR (Cont'd)</b>		
131 - 200	107SMTP09	4.4
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>5 HP MOTOR</b>		
5-7	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
8 - 13	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
14 - 21	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
22 - 38	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
39 - 50	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
51 - 54	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
55 - 80	107SMTP25	2.8
	107SMTP15	2.8
	107SMTP09	4.3
81 - 89	107SMTP15	2.8
	107SMTP09	4.3
90 - 130	107SMTP15	2.8
	107SMTP09	4.3
	107SMTP05	4.6
131 - 200	107SMTP09	4.3
	107SMTP05	4.6
201 - 400	107SMTP05	4.6
<b>7 1/2 HP MOTOR</b>		
5	407SMTP25B	6.4
	407SMTP15B	6.4
6	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.1
7 - 12	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.5
13 - 20	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
21 - 33	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
34 - 50	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>7 1/2 HP MOTOR (Cont'd)</b>		
51 - 58	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
59 - 80	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
81 - 83	115SMTP15	3.4
	115SMTP09	3.4
84 - 89	107SMTP15	2.8
	107SMTP09	4.2
90 - 130	107SMTP15	2.8
	107SMTP09	4.2
	115SMTP05	9.8
131 - 160	107SMTP09	4.2
	115SMTP05	9.8
161 - 200	107SMTP09	4.2
	107SMTP05	3.8
201 - 400	107SMTP05	3.8
<b>10 HP MOTOR</b>		
5 - 7	407SMTP25B	6.4
	407SMTP15B	6.4
8 - 9	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.1
10 - 16	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.1
17 - 27	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
28 - 46	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
47 - 50	207SMTP35	4.3
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
51 - 80	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
81 - 89	115SMTP15	3.6
	115SMTP09	3.6
90 - 114	115SMTP15	3.6
	115SMTP09	3.6
	115SMTP05	9.8
115 - 130	107SMTP15	3.6
	107SMTP09	4.1
	115SMTP05	9.8
131 - 200	107SMTP09	4.1
	115SMTP05	9.8
201 - 244	115SMTP05	9.8
245 - 400	107SMTP05	3.6
<b>15 HP MOTOR</b>		
5 - 7	415SMTP25B	7.1
	415SMTP15B	7.1

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>15 HP MOTOR (Cont'd)</b>		
8 - 11	407SMTP25B	6.4
	407SMTP15B	6.4
12 - 14	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.1
15 - 25	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.1
26 - 42	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
43 - 50	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
51 - 80	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
81 - 89	203SMTP15	3.8
	203SMTP09	3.8
90 - 121	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	6.4
122 - 130	203SMTP15	3.8
	115SMTP09	3.4
	203SMTP05	6.4
131 - 161	115SMTP09	3.4
	203SMTP05	6.4
162 - 200	115SMTP09	3.4
	115SMTP05	9.6
201 - 400	115SMTP05	9.6
<b>20 HP MOTOR</b>		
5 - 6	507SMTP25B	7.9
	507SMTP15B	8.3
7 - 9	415SMTP25B	7.1
	415SMTP15B	7.1
10 - 14	407SMTP25B	6.4
	407SMTP15B	6.4
15 - 19	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.6
20 - 34	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.1
35 - 50	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
51 - 61	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
61 - 80	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3



# SMTP/SMFP Selection Chart



## Class I Service (1.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>20 HP MOTOR (Cont'd)</b>		
81 - 89	207SMTP15	4.3
	207SMTP09	4.3
90 - 120	207SMTP15	4.3
	207SMTP09	4.3
	207SMTP05	9.8
121 - 130	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	6.8
131 - 200	203SMTP09	3.8
	203SMTP05	6.8
201 - 244	203SMTP05	6.8
245 - 400	115SMTP05	9.4
<b>25 HP MOTOR</b>		
5	608SMTP25B	8.0
	608SMTP15B	11.4
6 - 8	507SMTP25B	7.9
	507SMTP15B	8.7
9 - 12	415SMTP25B	7.1
	415SMTP15B	7.1
13 - 18	407SMTP25B	6.4
	407SMTP15B	6.4
19 - 24	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.5
25 - 44	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.1
45 - 50	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
51 - 80	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
81 - 89	207SMTP15	4.3
	207SMTP09	4.7
90 - 125	207SMTP15	4.3
	207SMTP09	4.7
	215SMTP05	6.2
126 - 130	207SMTP15	4.3
	207SMTP09	4.7
	207SMTP05	9.6
131 - 159	207SMTP09	4.7
	207SMTP05	9.6
160 - 200	203SMTP09	3.8
	203SMTP05	6.8
201 - 337	203SMTP05	6.8
338 - 400	115SMTP05	9.3
<b>30 HP MOTOR</b>		
5 - 6	608SMTP25B	8.1
	608SMTP15B	11.4
7 - 10	507SMTP25B	7.9
	507SMTP15B	8.9
11 - 15	415SMTP25B	7.1
	415SMTP15B	7.1
16 - 23	407SMTP25B	6.4
	407SMTP15B	6.4

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>30 HP MOTOR (Cont'd)</b>		
24 - 30	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.1
31 - 50	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
51 - 55	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
56 - 80	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
81 - 89	215SMTP15	5.6
	215SMTP09	5.6
90 - 103	215SMTP15	5.6
	215SMTP09	5.6
	215SMTP05	6.2
104 - 130	207SMTP15	4.3
	207SMTP09	5.2
	215SMTP05	6.2
131 - 162	207SMTP09	5.2
	215SMTP05	6.2
163 - 200	207SMTP09	5.2
	207SMTP05	9.5
201 - 215	207SMTP05	9.5
215 - 400	203SMTP05	6.7
<b>40 HP MOTOR</b>		
5	800SMTP25	12.0
6 - 9	608SMTP25B	8.1
	608SMTP15B	12.7
10 - 14	507SMTP25B	7.9
	507SMTP15B	8.3
15 - 20	415SMTP25B	7.1
	415SMTP15B	7.1
21 - 31	407SMTP25B	6.4
	407SMTP15B	6.4
32 - 43	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	7.4
44 - 50	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.9
51 - 76	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.9
77 - 80	307SMTP25	6.0
	307SMTP15	6.0
	215SMTP09	5.7
81 - 89	307SMTP15	6.0
	215SMTP09	5.6
90 - 130	215SMTP15	5.6
	215SMTP09	5.6
	307SMTP05	7.8
131 - 156	215SMTP09	5.8
	215SMTP05	6.3

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>40 HP MOTOR (Cont'd)</b>		
157 - 200	207SMTP09	5.8
	215SMTP05	6.3
201 - 246	215SMTP05	6.3
247 - 327	207SMTP05	9.3
328 - 400	203SMTP05	6.5
<b>50 HP MOTOR</b>		
5 - 7	800SMTP25	12.0
8 - 11	608SMTP25B	8.1
	608SMTP15B	11.9
12 - 18	507SMTP25B	7.9
	507SMTP15B	8.7
19 - 25	415SMTP25B	7.1
	415SMTP15B	7.1
26 - 39	407SMTP25B	6.4
	407SMTP15B	6.4
40 - 50	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	8.6
51 - 58	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	8.6
59 - 80	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	7.8
81 - 89	307SMTP15	6.0
	307SMTP09	7.8
90 - 99	307SMTP15	6.0
	307SMTP09	7.8
	315SMTP05	20.3
100 - 104	307SMTP15	6.0
	307SMTP09	7.8
	307SMTP05	9.0
105 - 130	307SMTP15	6.0
	215SMTP09	5.6
	307SMTP05	9.0
131 - 182	215SMTP09	5.6
	307SMTP05	9.0
183 - 200	215SMTP09	5.6
	215SMTP05	6.2
201 - 340	215SMTP05	6.2
341 - 400	207SMTP05	9.1
<b>60 HP MOTOR</b>		
5		
6 - 9	800SMTP25	12.0
10 - 14	608SMTP25B	8.1
	608SMTP15B	11.4
15 - 22	507SMTP25B	7.9
	507SMTP15B	8.3
23 - 31	415SMTP25B	7.1
	415SMTP15B	7.1
32 - 48	407SMTP25B	6.4
	407SMTP15B	6.4
49 - 50	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	9.9
51 - 74	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	9.9

Notes:  
 Requires fan kit.  
 Requires pump and cooler kit.  
 Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.





# SMTP/SMFP Selection Chart



## Class I Service (1.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>60 HP MOTOR (Cont'd)</b>		
75 - 80	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	8.9
81 - 89	307SMTP15	6.0
	307SMTP09	8.9
90 - 130	307SMTP15	6.0
	307SMTP09	8.9
	315SMTP05	20.3
131 - 200	307SMTP09	8.9
	307SMTP05	8.8
201 - 240	307SMTP05	8.8
241 - 400	215SMTP05	6.1
<b>75 HP MOTOR</b>		
5 - 7		
8 - 11	800SMTP25	12.0
12 - 18	608SMTP25B	8.1
	608SMTP15B	11.9
19 - 28	507SMTP25B	7.9
	507SMTP15B	8.2
29 - 40	415SMTP25B	7.1
	415SMTP15B	7.1
41 - 61	407SMTP25B	6.4
	407SMTP15B	6.6
62 - 80	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	12.0
81 - 89	315SMTP15	6.4
	315SMTP09	12.0
90 - 103	315SMTP15	6.4
	315SMTP09	12.0
	407SMTP05B	28.0
103 - 123	307SMTP15	6.0
	307SMTP09	9.8
	407SMTP05B	28.0
124 - 130	307SMTP15	6.0
	307SMTP09	9.8
	315SMTP05	19.9
131 - 181	307SMTP09	9.8
	315SMTP05	19.9
182 - 200	307SMTP09	9.8
	307SMTP05	8.7
201 - 337	307SMTP05	8.7
338 - 400	215SMTP05	6.0
<b>100 HP MOTOR</b>		
5 - 9		
10 - 15	800SMTP25	12.0
16 - 24	608SMTP25B	8.1
	608SMTP15B	12.7
25 - 38	507SMTP25B	7.9
	507SMTP15B	9.9
39 - 54	415SMTP25B	7.1
	415SMTP15B	7.1
55 - 80	407SMTP25B	6.7
	407SMTP15B	6.7
81 - 87	407SMTP15B	6.7
88 - 89	407SMTP15B	6.7
	315SMTP09	14.3

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>100 HP MOTOR (Cont'd)</b>		
90 - 95	407SMTP15B	6.7
	315SMTP09	14.3
	415SMTP05B	40.5
96 - 106	315SMTP15	6.4
	315SMTP09	14.3
	415SMTP05B	40.5
107 - 117	315SMTP15	6.4
	315SMTP09	14.3
	407SMTP05B	32.7
118 - 130	315SMTP15	6.4
	315SMTP09	14.3
	407SMTP05B	30.4
131 - 155	315SMTP09	14.3
	407SMTP05B	30.4
156 - 186	307SMTP09	9.6
	407SMTP05B	30.4
187 - 200	307SMTP09	9.6
	315SMTP05	19.6
201 - 280	315SMTP05	19.6
281 - 400	307SMTP05	8.4
<b>125 HP MOTOR</b>		
5 - 12		
13 - 20	800SMTP25	12.0
21 - 31	608SMTP25B	8.3
	608SMTP15B	17.3
32 - 51	507SMTP25B	7.9
	507SMTP15B	11.7
52 - 74	415SMTP25B	7.1
	415SMTP15B	7.1
75 - 80	407SMTP25B	6.7
	407SMTP15B	6.7
81 - 121	407SMTP15B	6.7
	415SMTP05B	40.5
122 - 130	407SMTP15B	6.7
	315SMTP09	14.0
	415SMTP05B	40.5
131 - 146	315SMTP09	14.0
	415SMTP05B	40.5
147 - 200	315SMTP09	14.0
	407SMTP05B	29.9
201 - 256	407SMTP05B	29.9
257 - 394	315SMTP05	19.2
395 - 400	307SMTP05	8.2
<b>150 HP MOTOR</b>		
5 - 15		
16 - 24	800SMTP25	12.0
25 - 40	608SMTP25B	10.5
	608SMTP15B	23.4
41 - 67	507SMTP25B	7.9
	507SMTP15B	11.9
68 - 80	415SMTP25B	7.1
	415SMTP15B	7.1
81 - 111	415SMTP15B	7.1
112 - 130	415SMTP15B	7.1
	415SMTP05B	41.3
131 - 159	415SMTP05B	41.3
160 - 190	315SMTP09	13.6
	415SMTP05B	41.3
191 - 200	315SMTP09	13.6
	407SMTP05B	29.4
201 - 334	407SMTP05B	29.4
335 - 400	315SMTP05	19.0

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>200 HP MOTOR</b>		
5 - 20		
21 - 35	800SMTP25	12.0
36 - 61	608SMTP25B	11.5
	608SMTP15B	20.9
62 - 80	507SMTP25B	11.5
	507SMTP15B	11.9
81 - 101	507SMTP15B	11.9
102 - 130	415SMTP15B	7.1
131 - 168		
169 - 317	415SMTP05B	40.4
318 - 400	407SMTP05B	28.5
<b>250 HP MOTOR</b>		
5 - 26		
27 - 50	800SMTP25	12.0
51 - 80	608SMTP25B	10.5
	608SMTP15B	19.1
81 - 84	608SMTP15B	19.1
85 - 130	507SMTP15B	11.9
131 - 232		
233 - 400	415SMTP05B	39.9
<b>300 HP MOTOR</b>		
5 - 32		
33 - 66	800SMTP25	12.0
67 - 80	608SMTP25B	10.4
	608SMTP15B	17.9
81 - 110	608SMTP15B	17.9
111 - 130	507SMTP15B	11.8
131 - 302		
303 - 400	415SMTP05B	39.4
<b>350 HP MOTOR</b>		
5 - 38		
39 - 80	800SMTP25	12.0
81 - 84		
85 - 130	608SMTP15B	16.8
131 - 378		
379 - 400	415SMTP05B	39.0
<b>400 HP MOTOR</b>		
5 - 44		
45 - 80	800SMTP25	12.0
81 - 104		
105 - 130	608SMTP15B	15.8
131 - 400		
<b>450 HP MOTOR</b>		
5 - 50		
51 - 80	800SMTP25	12.0
81 - 125		
126 - 130	608SMTP15B	15.1
131 - 400		
<b>500 HP MOTOR</b>		
5 - 56		
57 - 80	800SMTP25	12.0
81 - 400		
<b>600 HP MOTOR</b>		
5 - 68		
69 - 80	800SMTP25	12.0
81-400		
<b>700 HP MOTOR</b>		
5 - 400		

Notes:  
 Requires fan kit.  
 Requires pump and cooler kit.  
 Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.



## SMT/SMFP Selection Chart



### Class II Service (1.4 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1/4 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.2
	107SMTP15	2.2
	107SMTP09	3.2
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
81 - 89	107SMTP15	2.3
	107SMTP09	3.2
90 - 130	107SMTP15	2.3
	107SMTP09	3.2
	107SMTP05	2.8
131 - 200	107SMTP09	3.2
	107SMTP05	2.8
201 - 400	107SMTP05	2.7
<b>1/3 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
81 - 89	107SMTP15	2.3
	107SMTP09	3.2
90 - 130	107SMTP15	2.3
	107SMTP09	3.2
	107SMTP05	2.8
131 - 200	107SMTP09	3.2
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>1/2 HP MOTOR</b>		
5 - 6	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
7 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.4
81 - 89	107SMTP15	2.3
	107SMTP09	3.4
90 - 130	107SMTP15	2.3
	107SMTP09	3.4
	107SMTP05	2.8
131 - 200	107SMTP09	3.4
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>3/4 HP MOTOR</b>		
5 - 7	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>3/4 HP MOTOR (Cont'd)</b>		
8 - 10	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
11 - 50	107SMTP35	2.2
	107SMTP25	2.2
	107SMTP15	2.3
	107SMTP09	3.2
51 - 80	107SMTP25	2.2
	107SMTP15	2.3
	107SMTP09	3.2
81 - 89	107SMTP15	2.3
	107SMTP09	3.2
90 - 130	107SMTP15	2.3
	107SMTP09	3.2
	107SMTP05	2.8
131 - 200	107SMTP09	3.2
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>1 HP MOTOR</b>		
5	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
6 - 10	203SMTP35	3.7
	203SMTP25	3.7
	203SMTP15	3.7
	203SMTP09	3.7
11 - 13	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
14 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.4
81 - 89	107SMTP15	2.3
	107SMTP09	3.4
90 - 130	107SMTP15	2.3
	107SMTP09	3.4
	107SMTP05	2.8
131 - 200	107SMTP09	3.4
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>1 1/2 HP MOTOR</b>		
5	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
6 - 8	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1 1/2 HP MOTOR (Cont'd)</b>		
9 - 15	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
16 - 21	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
22 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
81 - 89	107SMTP15	2.3
	107SMTP09	3.2
90 - 130	107SMTP15	2.3
	107SMTP09	3.2
	107SMTP05	2.8
131 - 200	107SMTP09	3.2
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>2 HP MOTOR</b>		
5 - 7	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
8 - 11	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
12-20	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
21-28	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
29-50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.3
51-80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.3
81-89	107SMTP15	2.3
	107SMTP09	3.3
90-130	107SMTP15	2.3
	107SMTP09	3.3
	107SMTP05	2.8
131-200	107SMTP09	3.3
	107SMTP05	2.8
201-400	107SMTP05	2.8



# SMTP/SMFP Selection Chart



## Class II Service (1.4 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>3 HP MOTOR</b>		
5-6	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
7-11	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
12-18	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
19-31	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
32-44	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
45-50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
51-80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.2
81-89	107SMTP15	2.3
	107SMTP09	3.2
90-130	107SMTP15	2.3
	107SMTP09	3.2
131-200	107SMTP09	3.2
	107SMTP05	2.8
201-400	107SMTP05	2.8
<b>5 HP MOTOR</b>		
5 - 6	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4
7 - 11	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
12 - 19	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
20 - 30	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
31 - 50	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
51 - 54	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>5 HP MOTOR (Cont'd)</b>		
55 - 77	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
78 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	3.0
81 - 89	107SMTP15	2.3
	107SMTP09	3.0
90 - 130	107SMTP15	2.3
	107SMTP09	3.0
131 - 144	107SMTP09	3.0
	115SMTP05	4.9
145 - 200	107SMTP09	3.0
	107SMTP05	2.8
201 - 400	107SMTP05	2.8
<b>7 1/2 HP MOTOR</b>		
5 - 7	407SMTP25B	6.4
	407SMTP15B	6.4
8 - 9	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4
10 - 17	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
18 - 29	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
30 - 46	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
47 - 50	207SMTP09	4.3
	203SMTP35	3.8
	203SMTP25	3.8
51 - 80	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	3.8
81 - 82	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
83 - 89	115SMTP15	3.4
	115SMTP09	3.4
90 - 96	115SMTP15	3.4
	115SMTP09	3.4
	203SMTP05	4.2
97 - 119	115SMTP15	3.4
	115SMTP09	3.4
	115SMTP05	7.0
120 - 130	107SMTP15	2.3
	107SMTP09	3.0
	115SMTP05	7.0
131 - 200	107SMTP09	3.0
	115SMTP05	7.0

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>7 1/2 HP MOTOR (Cont'd)</b>		
201 - 261	115SMTP05	7.0
262 - 400	107SMTP05	2.4
<b>10 HP MOTOR</b>		
5 - 6	415SMTP25B	7.1
	415SMTP15B	7.1
7 - 10	407SMTP25B	6.4
	407SMTP15B	6.4
11 - 13	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
14 - 23	315SMTP09	6.4
	307SMTP35	6.0
	307SMTP25	6.0
24 - 39	307SMTP15	6.0
	307SMTP09	6.0
	215SMTP35	5.6
40 - 50	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
51 - 71	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
72 - 80	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
81 - 89	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	3.8
90 - 111	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	4.2
112 - 130	115SMTP15	3.4
	115SMTP09	3.4
	203SMTP05	4.2
131 - 145	115SMTP09	3.4
	203SMTP05	4.2
146 - 175	115SMTP09	3.4
	115SMTP05	6.9
176 - 200	107SMTP09	2.7
	115SMTP05	6.9
201 - 400	115SMTP05	6.9
<b>15 HP MOTOR</b>		
5 - 7	507SMTP25B	7.9
	507SMTP15B	7.9
8 - 10	415SMTP25B	7.1
	415SMTP15B	7.1
11 - 15	407SMTP25B	6.4
	407SMTP15B	6.4
16 - 20	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
21 - 36	315SMTP09	6.4
	307SMTP35	6.0
	307SMTP25	6.0
37 - 50	307SMTP15	6.0
	307SMTP09	6.0





# SMTP/SMFP Selection Chart



## Class II Service (1.4 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>15 HP MOTOR (Cont'd)</b>		
37 - 50	215SMT P35	5.6
	215SMT P25	5.6
	215SMT P15	5.6
	215SMT P09	5.6
51 - 66	215SMT P25	5.6
	215SMT P15	5.6
	215SMT P09	5.6
67 - 80	207SMT P25	4.3
	207SMT P15	4.3
	207SMT P09	4.3
81 - 89	207SMT P15	4.3
	207SMT P09	4.3
90 - 97	207SMT P15	4.3
	207SMT P09	4.3
	215SMT P05	5.6
98 - 122	207SMT P15	4.3
	207SMT P09	4.3
	207SMT P05	6.9
123 - 130	203SMT P15	3.8
	203SMT P09	3.8
	203SMT P05	4.9
131 - 181	203SMT P09	3.8
	203SMT P05	4.9
182 - 200	115SMT P09	3.4
	203SMT P05	4.9
201 - 261	203SMT P05	4.9
262 - 400	115SMT P05	6.7
<b>20 HP MOTOR</b>		
5 - 6	608SMT P25B	8.1
	608SMT P15B	8.1
7 - 9	507SMT P25B	7.9
	507SMT P15B	7.9
10 - 13	415SMT P25B	7.1
	415SMT P15B	7.1
14 - 21	407SMT P25B	6.4
	407SMT P15B	6.4
22 - 27	315SMT P35	6.4
	315SMT P25	6.4
	315SMT P15	6.4
	315SMT P09	6.4
28 - 50	307SMT P35	6.0
	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0
51 - 80	215SMT P25	5.6
	215SMT P15	5.6
	215SMT P09	5.6
81 - 89	215SMT P15	5.6
	215SMT P09	5.6
90 - 96	215SMT P15	5.6
	215SMT P09	5.6
	215SMT P05	5.6
97 - 130	207SMT P15	4.3
	207SMT P09	4.3
	215SMT P05	5.6
131 - 147	207SMT P09	4.3
	215SMT P05	5.6
148 - 189	207SMT P09	4.3
	207SMT P05	6.8

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>20 HP MOTOR (Cont'd)</b>		
190 - 200	203SMT P09	3.8
	203SMT P05	4.8
201 - 396	203SMT P05	4.8
397 - 400	115SMT P05	6.5
<b>25 HP MOTOR</b>		
5		
6 - 7	608SMT P25B	8.1
	608SMT P15B	8.1
8 - 12	507SMT P25B	7.9
	507SMT P15B	7.9
13 - 17	415SMT P25B	7.1
	415SMT P15B	7.1
18 - 27	407SMT P25B	6.4
	407SMT P15B	6.4
28 - 35	315SMT P35	6.4
	315SMT P25	6.4
	315SMT P15	6.4
	315SMT P09	6.4
36 - 50	307SMT P35	6.0
	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0
51 - 62	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0
63 - 80	215SMT P25	5.6
	215SMT P15	5.6
	215SMT P09	5.6
81 - 89	215SMT P15	5.6
	215SMT P09	5.6
90 - 107	215SMT P15	5.6
	215SMT P09	5.6
	307SMT P05	6.0
108 - 130	215SMT P15	5.6
	215SMT P09	5.6
	215SMT P05	5.6
131 - 200	207SMT P09	4.3
	215SMT P05	5.6
201 - 269	207SMT P05	6.7
270 - 400	203SMT P05	4.7
<b>30 HP MOTOR</b>		
5 - 6	800SMT P25	12.0
7 - 9	608SMT P25B	8.1
	608SMT P15B	8.2
10 - 15	507SMT P25B	7.9
	507SMT P15B	7.9
16 - 21	415SMT P25B	7.1
	415SMT P15B	7.1
22 - 33	407SMT P25B	6.4
	407SMT P15B	6.4
34 - 45	315SMT P35	6.4
	315SMT P25	6.4
	315SMT P15	6.4
	315SMT P09	6.4
46 - 50	307SMT P35	6.0
	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>30 HP MOTOR (Cont'd)</b>		
51 - 80	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0
81 - 89	307SMT P15	6.0
	215SMT P09	5.6
90 - 130	215SMT P15	5.6
	215SMT P09	5.6
	307SMT P05	6.0
131 - 140	215SMT P09	5.6
	307SMT P05	6.0
141 - 167	215SMT P09	5.6
	215SMT P05	5.6
168 - 200	207SMT P09	4.3
	215SMT P05	5.6
201 - 264	215SMT P05	5.6
265 - 351	207SMT P05	6.6
352 - 400	203SMT P05	4.6
<b>40 HP MOTOR</b>		
5		
6 - 8	800SMT P25	12.0
9 - 13	608SMT P25B	8.1
	608SMT P15B	8.5
14 - 20	507SMT P25B	7.9
	507SMT P15B	7.9
21 - 29	415SMT P25B	7.1
	415SMT P15B	7.1
30 - 45	407SMT P25B	6.4
	407SMT P15B	6.4
46 - 50	315SMT P35	6.4
	315SMT P25	6.4
	315SMT P15	6.4
	315SMT P09	6.7
51 - 70	315SMT P25	6.4
	315SMT P15	6.4
	315SMT P09	6.7
71 - 80	307SMT P25	6.0
	307SMT P15	6.0
	307SMT P09	6.0
81 - 89	307SMT P15	6.0
	307SMT P09	6.0
90 - 117	307SMT P15	6.0
	307SMT P09	6.0
	315SMT P05	13.5
118 - 122	307SMT P15	6.0
	307SMT P09	6.0
	307SMT P05	6.4
123 - 130	215SMT P15	5.6
	215SMT P09	5.6
	307SMT P05	6.4
131 - 200	215SMT P09	5.6
	307SMT P05	6.4
201 - 216	307SMT P05	6.4
217 - 400	215SMT P05	5.6
<b>50 HP MOTOR</b>		
5 - 6		
7 - 10	800SMT P25	12.0
11 - 16	608SMT P25B	8.1
	608SMT P15B	8.6
17 - 26	507SMT P25B	7.9
	507SMT P15B	7.9

Notes:  
 Requires fan kit.  
 Requires pump and cooler kit.  
 Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.



# SMTP/SMFP Selection Chart



## Class II Service (1.4 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>50 HP MOTOR (Cont'd)</b>		
27 - 37	415SMTP25B	7.1
	415SMTP15B	7.1
38 - 57	407SMTP25B	6.4
	407SMTP15B	6.4
58 - 80	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	8.0
81 - 89	315SMTP15	6.4
	315SMTP09	8.0
90 - 111	307SMTP15	6.0
	307SMTP09	7.2
	307SMTP05	18.7
112 - 130	307SMTP15	6.0
	307SMTP09	7.2
	315SMTP05	14.4
131 - 163	307SMTP09	7.2
	315SMTP05	14.3
164 - 169	307SMTP09	7.2
	307SMTP05	6.3
170 - 200	215SMTP09	5.6
	307SMTP05	6.3
201 - 304	307SMTP05	6.3
305 - 400	215SMTP05	5.6
<b>60 HP MOTOR</b>		
5 - 8		
9 - 13	800SMTP25	12.0
14 - 20	608SMTP25B	8.1
	608SMTP15B	8.2
21 - 32	507SMTP25B	7.9
	507SMTP15B	7.9
33 - 44	415SMTP25B	7.1
	415SMTP15B	7.1
45 - 70	407SMTP25B	6.4
	407SMTP15B	6.4
71 - 80	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	9.6
81 - 89	315SMTP15	6.4
	315SMTP09	9.6
90 - 120	315SMTP15	6.4
	315SMTP09	9.6
	407SMTP05B	22.0
121 - 130	307SMTP15	6.0
	307SMTP09	7.0
	407SMTP05B	22.0
131 - 144	307SMTP09	7.0
	407SMTP05B	22.0
145 - 200	307SMTP09	7.0
	315SMTP05	14.2
201 - 215	315SMTP05	14.2
216 - 400	307SMTP05	6.1
<b>75 HP MOTOR</b>		
5 - 10		
11 - 16	800SMTP25	12.0
17 - 26	608SMTP25B	8.1
	608SMTP15B	9.6
27 - 41	507SMTP25B	7.9
	507SMTP15B	7.9

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>75 HP MOTOR (Cont'd)</b>		
42 - 58	415SMTP25B	7.1
	415SMTP15B	7.1
59 - 80	407SMTP25B	6.4
	407SMTP15B	6.4
81 - 89	407SMTP15B	6.4
90 - 94	407SMTP15B	6.4
	415SMTP05B	24.3
95 - 102	407SMTP15B	6.4
	315SMTP09	10.1
	415SMTP05B	24.3
103 - 125	315SMTP15	6.4
	315SMTP09	10.1
	415SMTP05B	24.3
126 - 130	315SMTP15	6.4
	315SMTP09	10.1
	407SMTP05B	21.8
131 - 166	315SMTP09	10.1
	407SMTP05B	21.8
167 - 200	307SMTP09	6.8
	407SMTP05B	21.8
201 - 301	315SMTP05	13.9
302 - 400	307SMTP05	6.0
<b>100 HP MOTOR</b>		
5 - 14		
15 - 22	800SMTP25	12.0
23 - 37	608SMTP25B	8.1
	608SMTP15B	14.6
38 - 61	507SMTP25B	7.9
	507SMTP15B	8.4
62 - 80	415SMTP25B	7.1
	415SMTP15B	7.1
81 - 89	415SMTP15B	7.1
90 - 130	407SMTP15B	6.4
	415SMTP05B	29.6
131 - 143	415SMTP05B	29.6
144 - 172	315SMTP09	9.8
	415SMTP05B	29.6
173 - 190	315SMTP09	9.8
	407SMTP05B	21.1
191 - 200	315SMTP09	9.8
	407SMTP05B	21.1
201 - 302	407SMTP05B	21.1
303 - 400	315SMTP05	13.7
<b>125 HP MOTOR</b>		
5 - 18		
19 - 29	800SMTP25	12.0
30 - 50	608SMTP25B	9.8
	608SMTP15B	15.0
51 - 80	507SMTP25B	7.9
	507SMTP15B	8.5
81 - 121	415SMTP15B	7.1
122-130	407SMTP15B	6.4
139 - 199	415SMTP05B	29.3
200 - 236		
237 - 400	407SMTP05B	20.7
<b>150 HP MOTOR</b>		
5 - 22		
23 - 30	800SMTP25	12.0
39 - 66	608SMTP25B	8.1
	608SMTP15B	14.7

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>150 HP MOTOR (Cont'd)</b>		
67 - 80	507SMTP25B	7.9
	507SMTP15B	8.4
81 - 108	507SMTP15B	8.4
109 - 130	415SMTP15B	7.1
131 - 180		
181 - 340	415SMTP05B	28.9
341 - 400	407SMTP05B	20.3
<b>200 HP MOTOR</b>		
5 - 30		
31 - 59	800SMTP25	12.0
60 - 80	608SMTP25B	8.1
	608SMTP15B	13.2
81 - 99	608SMTP15B	13.2
100 - 130	507SMTP15B	8.5
131 - 273		
274 - 400	415SMTP05B	28.3
<b>250 HP MOTOR</b>		
5 - 38		
39 - 80	800SMTP25	12.0
81 - 84		
85 - 130	608SMTP15B	12.0
131 - 378		
379 - 400	415SMTP05B	27.9
<b>300 HP MOTOR</b>		
5 - 46		
47 - 80	800SMTP25	12.0
81 - 112		
113 - 130	608SMTP15B	11.1
131 - 400		
<b>350 HP MOTOR</b>		
5 - 55		
56 - 80	800SMTP25	12.0
81 - 400		
<b>400 HP MOTOR</b>		
5 - 63		
64 - 80	800SMTP25	12.0
81 - 400		
<b>450 HP MOTOR</b>		
5 - 72		
73 - 80	800SMTP25	12.0
81 - 400		
<b>500 HP MOTOR</b>		
5 - 400		

Notes:  
 Requires fan kit.  
 Requires pump and cooler kit.  
 Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.





# SMTP/SMFP Selection Chart



## Class III Service (2.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1/4 HP MOTOR</b>		
5 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
81 - 89	107SMTP15	2.3
	107SMTP09	2.4
90 - 130	107SMTP15	2.3
	107SMTP09	2.4
	107SMTP05	2.3
131 - 200	107SMTP09	2.4
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>1/3 HP MOTOR</b>		
5 - 6	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
7 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
81 - 89	107SMTP15	2.3
	107SMTP09	2.3
90 - 130	107SMTP15	2.3
	107SMTP09	2.3
	107SMTP05	2.3
131 - 200	107SMTP09	2.3
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>1/2 HP MOTOR</b>		
5 - 6	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
7 - 9	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
10 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
81 - 89	107SMTP15	2.3
	107SMTP09	2.4
90 - 130	107SMTP15	2.3
	107SMTP09	2.4
	107SMTP05	2.3
131 - 200	107SMTP09	2.4
	107SMTP05	2.3
201 - 400	107SMTP05	2.3

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>3/4 HP MOTOR</b>		
5	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
6 - 10	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
11 - 14	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
15 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.4
81 - 89	107SMTP15	2.3
	107SMTP09	2.4
90 - 130	107SMTP15	2.3
	107SMTP09	2.4
	107SMTP05	2.3
131 - 200	107SMTP09	2.4
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>1 HP MOTOR</b>		
5 - 8	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
9 - 14	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
15 - 20	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
21 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
81 - 89	107SMTP15	2.3
	107SMTP09	2.3
90 - 130	107SMTP15	2.3
	107SMTP09	2.3
	107SMTP05	2.3
131 - 200	107SMTP09	2.3
	107SMTP05	2.3
201 - 400	107SMTP05	2.3

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>1 1/2 HP MOTOR</b>		
5 - 7	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
8 - 12	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
13 - 22	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
23 - 31	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
32 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
81 - 89	107SMTP15	2.3
	107SMTP09	2.3
90 - 130	107SMTP15	2.3
	107SMTP09	2.3
	107SMTP05	2.3
131 - 200	107SMTP09	2.3
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>2 HP MOTOR</b>		
5 - 6	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
7 - 10	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
11 - 17	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
18 - 30	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
31 - 42	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
43 - 50	107SMTP35	2.3
	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
51 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3



# SMTP/SMFP Selection Chart



## Class III Service (2.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>2 HP MOTOR (Cont'd)</b>		
81 - 89	107SMTP15	2.3
	107SMTP09	2.3
90 - 130	107SMTP15	2.3
	107SMTP09	2.3
	107SMTP05	2.3
131 - 200	107SMTP09	2.3
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>3 HP MOTOR</b>		
5	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4
6 - 9	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
10 - 16	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
17 - 26	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
27 - 46	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
47 - 50	115SMTP35	3.4
	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
51 - 65	115SMTP25	3.4
	115SMTP15	3.4
	115SMTP09	3.4
66 - 80	107SMTP25	2.3
	107SMTP15	2.3
	107SMTP09	2.3
81 - 89	107SMTP15	2.3
	107SMTP09	2.3
90 - 115	107SMTP15	2.3
	107SMTP09	2.3
	115SMTP05	4.9
116 - 130	107SMTP15	2.3
	107SMTP09	2.3
	107SMTP05	2.3
131 - 200	107SMTP09	2.3
	107SMTP05	2.3
201 - 400	107SMTP05	2.3
<b>5 HP MOTOR</b>		
5 - 7	407SMTP25B	6.4
	407SMTP15B	6.4
8 - 9	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>5 HP MOTOR (Cont'd)</b>		
10 - 16	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
17 - 27	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
28 - 44	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
45 - 50	203SMTP35	3.8
	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
51 - 80	203SMTP25	3.8
	203SMTP15	3.8
	203SMTP09	3.8
81 - 89	115SMTP15	3.4
	115SMTP09	3.4
90 - 113	115SMTP15	3.4
	115SMTP09	3.4
	115SMTP05	4.9
114 - 130	107SMTP15	2.3
	107SMTP09	2.3
	115SMTP05	4.9
131 - 200	107SMTP09	2.3
	115SMTP05	4.9
201 - 244	115SMTP05	4.9
245 - 400	107SMTP05	2.3
<b>7 1/2 HP MOTOR</b>		
5 - 6	415SMTP25B	7.1
	415SMTP15B	7.1
7 - 11	407SMTP25B	6.4
	407SMTP15B	6.4
12 - 14	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4
15 - 25	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
26 - 42	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
43 - 50	207SMTP35	4.3
	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
51 - 80	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
81 - 89	203SMTP15	3.8
	203SMTP09	3.8

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>7 1/2 HP MOTOR (Cont'd)</b>		
90 - 120	203SMTP15	3.8
	203SMTP09	3.8
	203SMTP05	3.8
121 - 130	115SMTP15	3.4
	115SMTP09	3.4
	203SMTP05	3.8
131 - 161	115SMTP09	3.4
	203SMTP05	3.8
162 - 194	115SMTP09	3.4
	115SMTP05	4.8
195 - 200	107SMTP09	2.3
	115SMTP05	4.8
201 - 400	115SMTP05	4.8
<b>10 HP MOTOR</b>		
5 - 6	507SMTP25B	7.9
	507SMTP15B	7.9
7 - 9	415SMTP25B	7.1
	415SMTP15B	7.1
10 - 14	407SMTP25B	6.4
	407SMTP15B	6.4
15 - 19	315SMTP35	6.4
	315SMTP25	6.4
	315SMTP15	6.4
	315SMTP09	6.4
20 - 34	307SMTP35	6.0
	307SMTP25	6.0
	307SMTP15	6.0
	307SMTP09	6.0
35 - 50	215SMTP35	5.6
	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
51 - 61	215SMTP25	5.6
	215SMTP15	5.6
	215SMTP09	5.6
61 - 80	207SMTP25	4.3
	207SMTP15	4.3
	207SMTP09	4.3
81 - 89	207SMTP15	4.3
	207SMTP09	4.3
90 - 119	207SMTP15	4.3
	207SMTP09	4.3
	207SMTP05	4.9
120 - 130	203SMTP15	3.8
	203SMTP09	3.8
131 - 168	203SMTP09	3.8
	203SMTP05	3.8
169 - 200	115SMTP09	3.4
	203SMTP05	3.8
201 - 244	203SMTP05	3.8
245 - 400	115SMTP05	4.7
<b>15 HP MOTOR</b>		
5 - 6	608SMTP25B	8.1
	608SMTP15B	8.1
7 - 10	507SMTP25B	7.9
	507SMTP15B	7.9
11 - 15	415SMTP25B	7.1
	415SMTP15B	7.1



# SMT/SMFP Selection Chart



## Class III Service (2.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>15 HP MOTOR (Cont'd)</b>		
16 - 23	407SMT/25B	6.4
	407SMT/15B	6.4
24 - 30	315SMT/35	6.4
	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
31 - 50	307SMT/35	6.0
	307SMT/25	6.0
	307SMT/15	6.0
	307SMT/09	6.0
51 - 80	215SMT/25	5.6
	215SMT/15	5.6
	215SMT/09	5.6
81 - 89	215SMT/15	5.6
	215SMT/09	5.6
90 - 105	215SMT/15	5.6
	215SMT/09	5.6
	215SMT/05	5.6
106 - 130	207SMT/15	4.3
	207SMT/09	4.3
	215SMT/05	5.6
131 - 162	207SMT/09	4.3
	215SMT/05	5.6
163 - 200	207SMT/09	4.3
	207SMT/05	4.8
201 - 215	207SMT/05	4.8
216 - 400	203SMT/05	3.8
<b>20 HP MOTOR</b>		
5	800SMT/25	12.0
6 - 9	608SMT/25B	8.1
	608SMT/15B	8.1
10 - 14	507SMT/25B	7.9
	507SMT/15B	7.9
15 - 29	415SMT/25B	7.1
	415SMT/15B	7.1
21 - 31	407SMT/25B	6.4
	407SMT/15B	6.4
32 - 43	315SMT/35	6.4
	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
43 - 50	307SMT/35	6.0
	307SMT/25	6.0
	307SMT/15	6.0
	307SMT/09	6.0
51 - 80	307SMT/25	6.0
	307SMT/15	6.0
	307SMT/09	6.0
81 - 89	215SMT/15	5.6
	215SMT/09	5.6
90 - 130	215SMT/15	5.6
	215SMT/09	5.6
	307SMT/05	6.0
131 - 156	215SMT/09	5.6
	215SMT/05	5.6
157 - 200	207SMT/09	4.3
	215SMT/05	5.6
201 - 246	215SMT/05	5.6

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>20 HP MOTOR (Cont'd)</b>		
247 - 327	207SMT/05	4.6
328 - 400	203SMT/05	3.8
<b>25 HP MOTOR</b>		
5 - 7	800SMT/25	12.0
8 - 11	608SMT/25B	8.1
	608SMT/15B	8.1
12 - 18	507SMT/25B	7.9
	507SMT/15B	7.9
19 - 25	415SMT/25B	7.1
	415SMT/15B	7.1
26 - 39	407SMT/25B	6.4
	407SMT/15B	6.4
40 - 50	315SMT/35	6.4
	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
51 - 59	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
60 - 80	307SMT/25	6.0
	307SMT/15	6.0
	307SMT/09	6.0
81 - 89	307SMT/15	6.0
	307SMT/09	6.0
90 - 99	307SMT/15	6.0
	307SMT/09	6.0
	315SMT/05	10.1
100 - 110	307SMT/15	6.0
	307SMT/09	6.0
	307SMT/05	6.0
111 - 130	215SMT/15	5.6
	215SMT/09	5.6
	307SMT/05	6.0
131 - 182	215SMT/09	5.6
	307SMT/05	6.0
183 - 200	215SMT/09	5.6
	215SMT/05	5.6
201 - 340	215SMT/05	5.6
341 - 400	207SMT/05	4.6
<b>30 HP MOTOR</b>		
6 - 9	800SMT/25	12.0
10 - 14	608SMT/25B	8.1
	608SMT/15B	8.1
15 - 22	507SMT/25B	7.9
	507SMT/15B	7.9
23 - 31	415SMT/25B	7.1
	415SMT/15B	7.1
32 - 48	407SMT/25B	6.4
	407SMT/15B	6.4
49 - 50	315SMT/35	6.4
	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
51 - 80	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
81 - 89	307SMT/15	6.0
	307SMT/09	6.0

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>30 HP MOTOR (Cont'd)</b>		
90 - 130	307SMT/15	6.0
	307SMT/09	6.0
	315SMT/05	10.1
131 - 200	215SMT/09	5.6
	307SMT/05	6.0
201 - 240	307SMT/05	6.0
241 - 400	215SMT/05	5.6
<b>40 HP MOTOR</b>		
5 - 7		
8 - 12	800SMT/25	12.0
13 - 19	608SMT/25B	8.1
	608SMT/15B	8.1
20 - 30	507SMT/25B	7.9
	507SMT/15B	7.9
31 - 42	415SMT/25B	7.1
	415SMT/15B	7.1
43 - 69	407SMT/25B	6.4
	407SMT/15B	6.4
70 - 80	315SMT/25	6.4
	315SMT/15	6.4
	315SMT/09	6.4
81 - 89	315SMT/15	6.4
	315SMT/09	6.4
90 - 113	315SMT/15	6.4
	315SMT/09	6.4
	407SMT/05B	14.9
114 - 130	307SMT/15	6.0
	307SMT/09	6.0
	407SMT/05B	14.9
131 - 200	307SMT/09	6.0
	315SMT/05	9.9
201 - 372	307SMT/05	6.0
373 - 400	215SMT/05	5.6
<b>50 HP MOTOR</b>		
5 - 9		
10 - 15	800SMT/25	12.0
16 - 24	608SMT/25B	8.1
	608SMT/15B	8.1
25 - 38	507SMT/25B	7.9
	507SMT/15B	7.9
39 - 54	415SMT/25B	7.1
	415SMT/15B	7.1
55 - 80	407SMT/25B	6.4
	407SMT/15B	6.4
81 - 89	407SMT/15B	6.4
90 - 95	407SMT/15B	6.4
	315SMT/09	7.1
	415SMT/05B	19.5
96 - 106	315SMT/15	6.4
	315SMT/09	7.2
	415SMT/05B	19.5
107 - 130	315SMT/15	6.4
	315SMT/09	7.2
	407SMT/05B	15.2
131 - 155	315SMT/09	7.2
	407SMT/05B	15.2
156 - 186	307SMT/09	6.0
	407SMT/05B	15.2

Notes:  
 Requires fan kit.  
 Requires pump and cooler kit.  
 Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.



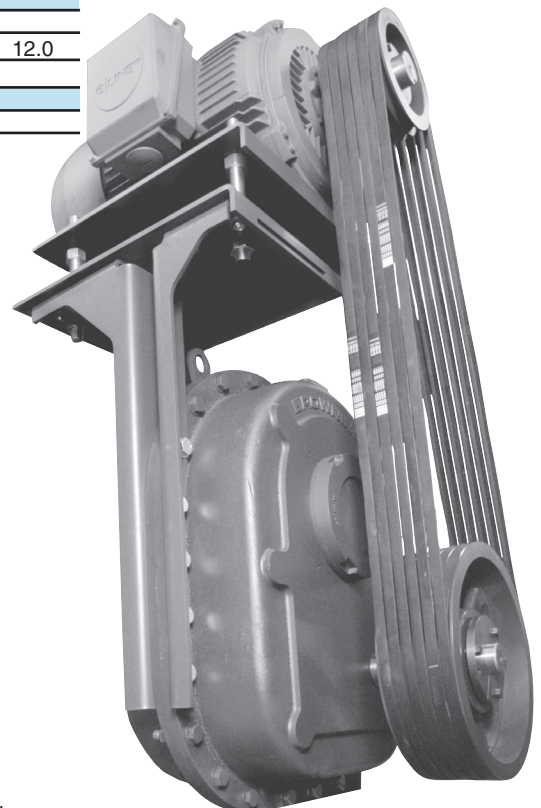
## Class III Service (2.0 S.F.)

Output RPM	Reducer Size	Minimum Sheave P.D.
<b>50 HP MOTOR (Cont'd)</b>		
187 - 200	307SMTP09	6.0
	315SMTP05	9.8
201 - 280	315SMTP05	9.8
281 - 400	307SMTP05	6.0
<b>60 HP MOTOR</b>		
5 - 12		
13 - 19	800SMTP25	12.0
20 - 30	608SMTP25B	8.1
	608SMTP15B	8.1
31 - 48	507SMTP25B	7.9
	507SMTP15B	7.9
49 - 70	415SMTP25B	7.1
	415SMTP15B	7.1
71 - 80	407SMTP25B	6.4
	407SMTP15B	6.4
81 - 89	407SMTP15B	6.4
90 - 114	407SMTP15B	6.4
	415SMTP05B	19.5
115 - 123	407SMTP15B	6.4
	315SMTP09	7.0
	415SMTP05B	19.5
124 - 130	315SMTP15	6.4
	315SMTP09	7.0
	415SMTP05B	19.5
131 - 152	315SMTP09	7.0
	407SMTP05B	15.0
153 - 200	315SMTP09	7.0
	407SMTP05B	15.0
201 - 242	407SMTP05B	15.0
243 - 370	315SMTP05	9.7
371 - 400	307SMTP05	6.0
<b>75 HP MOTOR</b>		
5 - 15		
16 - 24	800SMTP25	12.0
25 - 40	608SMTP25B	8.1
	608SMTP15B	11.7
41 - 67	507SMTP25B	7.9
	507SMTP15B	7.9
68 - 80	415SMTP25B	7.1
	415SMTP15B	7.1
81 - 89	415SMTP15B	7.1
90 - 97	415SMTP15B	7.1
	415SMTP05B	20.7
98-130	407SMTP15B	6.4
131 - 159	415SMTP05B	20.7
160 - 190	315SMTP09	6.8
191 - 200	315SMTP09	6.8
	407SMTP05B	14.7
201 - 334	407SMTP05B	14.7
335 - 400	315SMTP05	9.5
<b>100 HP MOTOR</b>		
5 - 20		
21 - 35	800SMTP25	12.0
36 - 61	608SMTP25B	8.1
	608SMTP15B	10.5
62 - 80	507SMTP25B	7.9
	507SMTP15B	7.9
81 - 101	507SMTP15B	7.9
102 - 130	415SMTP15B	7.1

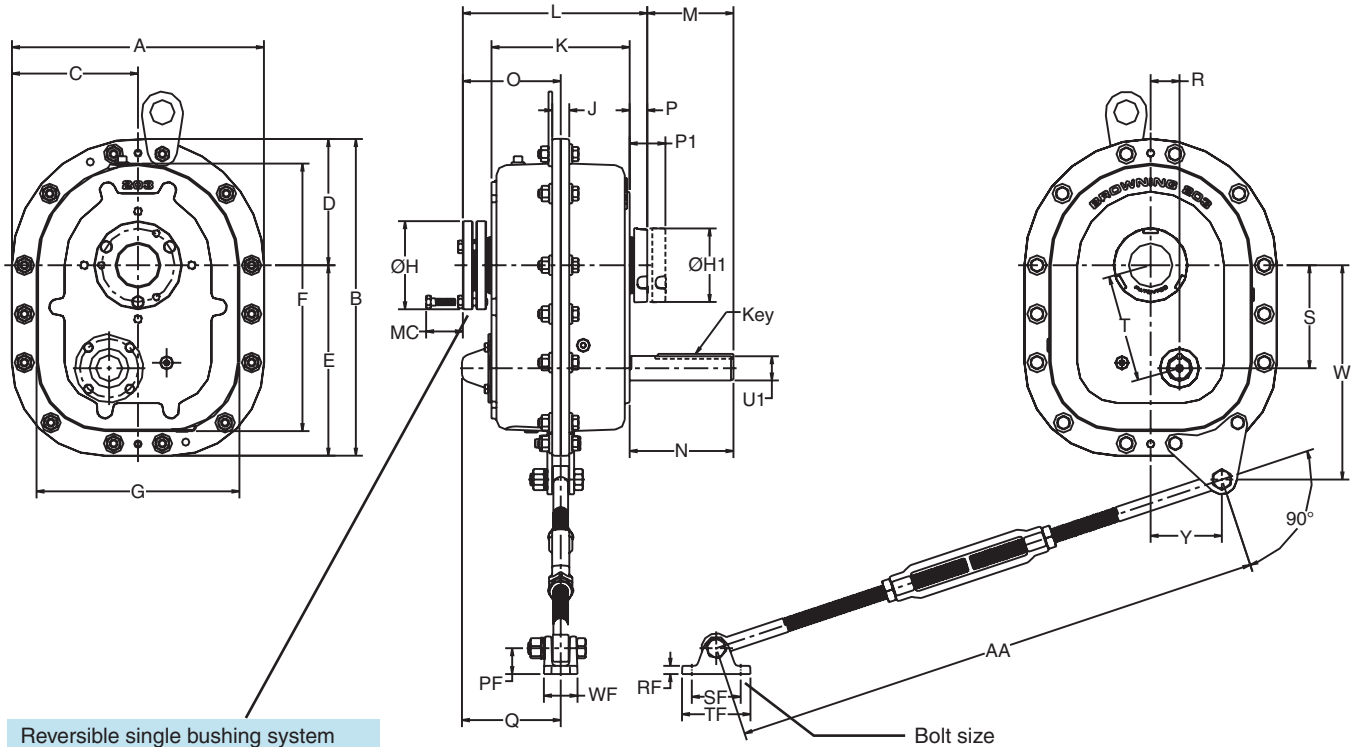
Output RPM	Reducer Size	Minimum Sheave P.D.
<b>100 HP MOTOR (Cont'd)</b>		
131 - 168		
169 - 286	415SMTP05B	20.3
287 - 400	407SMTP05B	14.2
<b>125 HP MOTOR</b>		
5 - 26		
27 - 50	800SMTP25	12.0
51 - 80	608SMTP25B	8.1
	608SMTP15B	9.6
81 - 84	608SMTP15B	9.6
85 - 130	507SMTP15B	7.9
131 - 232		
233 - 400	415SMTP05B	20.1
<b>150 HP MOTOR</b>		
5 - 32		
33 - 66	800SMTP25	12.0
67 - 80	608SMTP25B	8.1
	608SMTP15B	9.0
81 - 110	608SMTP15B	9.0
111 - 130	507SMTP15B	7.9
131 - 302		
303 - 400	415SMTP05B	19.7
<b>200 HP MOTOR</b>		
5 - 44		
45 - 80	800SMTP25	12.0
81 - 104		
105 - 130	608SMTP15B	8.1
131 - 400		
<b>250 HP MOTOR</b>		
5 - 56		
57 - 80	800SMTP25	12.0
81 - 400		
<b>300 HP MOTOR</b>		
5 - 68		
69 - 80	800SMTP25	12.0
81 - 400		
<b>350 HP MOTOR</b>		
5 - 400		

**Notes:**

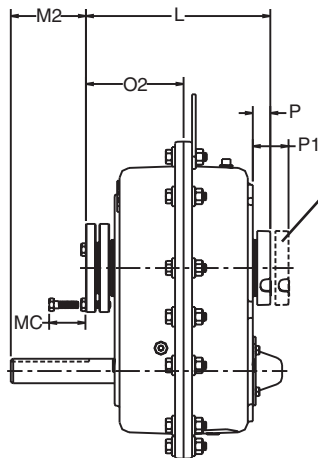
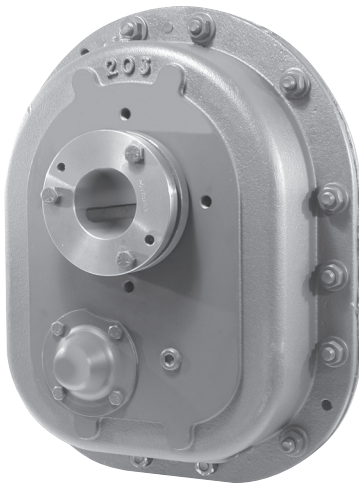
- Requires fan kit.
- Requires pump and cooler kit.
- Contact Application Engineering (1 800 626 2093) for the selection of an enclosed gear drive.



### SMTT TorqTaper Plus Unit Sizes 107-315



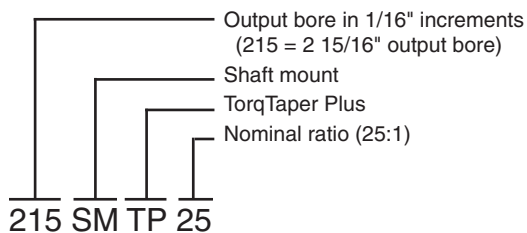
Reversible single bushing system mounted on the back side.



Reversible single bushing system mounted on the front side.



#### Part Number Explanation





# Shaft Mount Reducers



## SMTMP TorqTaper Plus Unit Sizes 107-315

PART NO.	DIMENSIONS IN INCHES									
	A	B	C	D	E	F	G	H	H1	J
107SMTMP	9.76	12.07	4.88	4.88	7.19	10.07	7.75	3.25	3	0.63
115SMTMP	11	14.08	5.5	5.5	8.58	11.78	8.69	4.13	3.5	0.75
203SMTMP	12.88	16.16	6.44	6.44	9.72	13.66	10.38	4.5	3.75	0.87
207SMTMP	14.5	18.47	7.25	7.25	11.22	15.73	11.76	4.88	4.25	1.01
215SMTMP	16.25	20.88	8.13	8.13	12.76	18.07	13.44	5.31	4.75	1.07
307SMTMP	19.04	24.37	9.52	9.52	14.85	21	15.67	6.44	5.69	1.25
315SMTMP	19.9	26.35	9.95	9.95	16.4	23.02	16.57	7.13	6.7	1.25

PART NO.	DIMENSIONS IN INCHES									
	K	L	M	M2	MC	N	O	O2	P	P1
107SMTMP	5.52	7.89	3.18	2.61	1.75	4.08	4.25	4.21	0.9	1.84
115SMTMP	5.99	8.36	3.34	2.77	1.88	4.24	4.48	4.45	0.9	1.83
203SMTMP	7.07	9.43	4.42	3.84	1.88	5.31	5.01	4.99	0.89	1.83
207SMTMP	7.39	9.75	4.23	3.65	1.88	5.12	5.14	5.19	0.89	1.86
215SMTMP	8.24	10.85	4.85	4.28	1.88	5.87	5.69	5.74	1.02	1.96
307SMTMP	9.27	12.57	6.09	5.47	2.25	7.45	6.58	6.61	1.36	2.75
315SMTMP	10.51	14.5	6.59	5.96	2.75	8.32	7.51	7.61	1.73	3.25

PART NO. ★	DIMENSIONS IN INCHES									
	PF	Q	R	RF	S	SF	T	TF	U1	W
107SMTMP	1.14	4.24	1.18	0.36	3.77	2.50	3.95	3.38	0.75	7.88
115SMTMP	1.14	4.51	1.35	0.36	4.36	2.50	4.56	3.38	1.12	9.14
203SMTMP	1.32	5.04	1.48	0.42	5.26	2.50	5.46	3.50	1.25	10.94
207SMTMP	1.51	5.57	1.63	0.48	6.08	3.00	6.29	4.25	1.44	12.68
215SMTMP	1.51	6.24	2.12	0.48	7.01	3.00	7.32	4.25	1.87	14.19
307SMTMP	1.81	6.79	2.25	0.61	7.78	4.00	8.10	5.38	2.00	17.00
315SMTMP	2.22	8.05	2.63	0.72	8.53	4.75	8.93	6.50	2.13	18.12

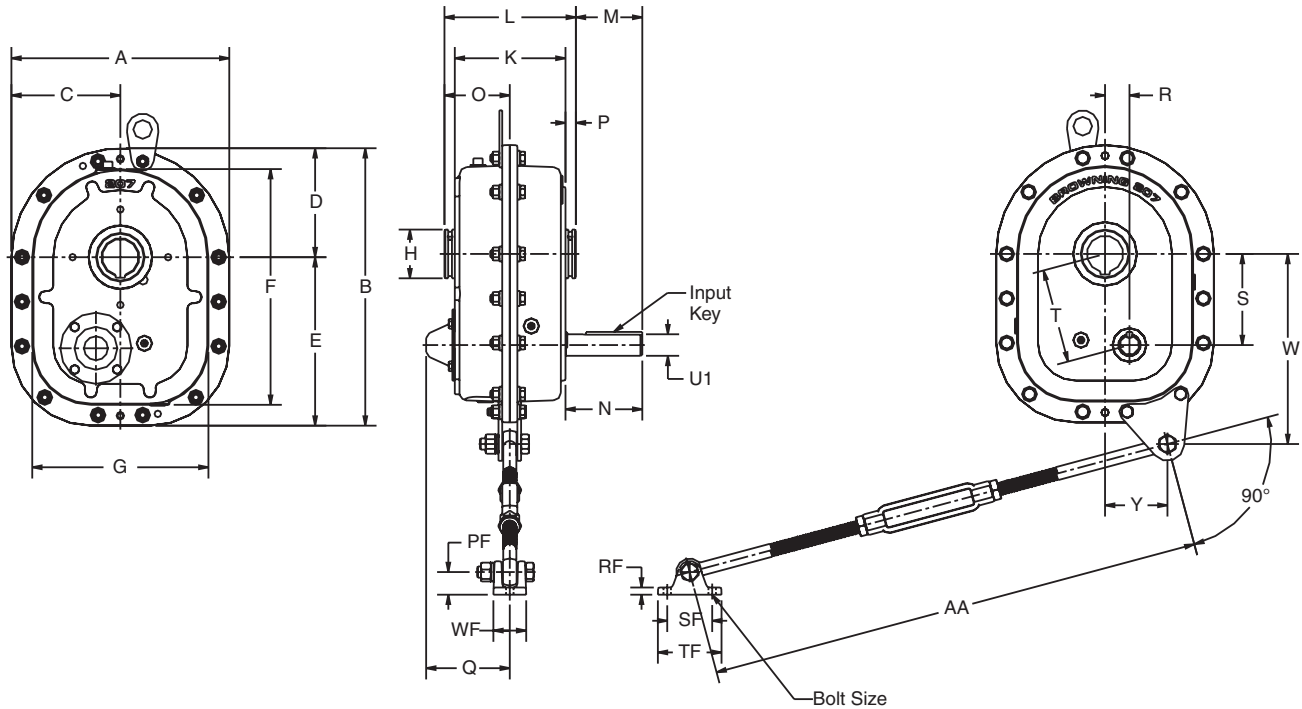
PART NO.	DIMENSIONS IN INCHES						MAX. OUTPUT BORE	WT. LBS
	WF	Y	AA		BOLT SIZE	KEY		
			MIN.	MAX.				
107SMTMP	1.44	2.73	24.00	30.00	3/8	.188 x .188 x 2.88	1 7/16	53
115SMTMP	1.44	3.12	24.00	30.00	3/8	.250 x .250 x 2.75	1 15/16	75
203SMTMP	1.72	3.64	24.00	30.00	3/8	.250 x .250 x 3.88	2 3/16	112
207SMTMP	2.19	4.16	27.00	33.00	7/16	.375 x .375 x 3.75	2 7/16	155
215SMTMP	2.19	4.65	27.00	33.00	7/16	.500 x .500 x 3.75	2 15/16	226
307SMTMP	2.78	5.58	29.00	35.00	1/2	.500 x .500 x 6.50	3 7/16	367
315SMTMP	3.63	6.2	29.50	35.50	5/8	.500 x .500 x 7.50	3 15/16	480

Complete part number by adding ratio symbol, for example, "107SMTMP05".  
 Note - "05" is symbol for 5:1 nominal ratio: see page 9 for exact ratios and ratio symbols.  
 Dimension "MC" is minimum clearance for bushing removal.  
 Order bushings from pages 64 thru 66 for shaft size required.

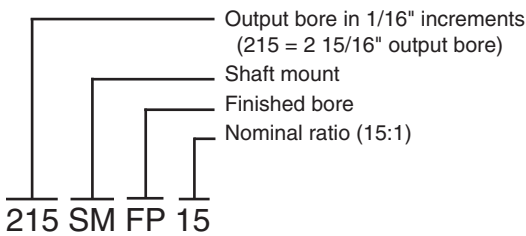




## SMFP Finished Bore Sizes 107-315



### Part Number Explanation



Note: SMFP units are made-to-order. Contact Regal Power Transmission Solutions for delivery.

PART NO.	DIMENSIONS IN INCHES														OUTPUT BORE*	
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	DIA.	KEYWAY
107SMFP	9.76	12.07	4.88	4.88	7.19	10.07	7.75	2.00	0.63	5.52	6.52	3.58	4.08	3.26	1.4375	.375 x .125
115SMFP	11.00	14.08	5.50	5.50	8.58	11.78	8.69	2.63	0.75	5.99	7.13	3.67	4.24	3.57	1.9375	.500 x .125
203SMFP	12.88	16.16	6.44	6.44	9.72	13.66	10.38	2.88	0.87	7.07	8.45	4.62	5.31	4.23	2.1875	.500 x .187
207SMFP	14.50	18.47	7.25	7.25	11.22	15.73	11.76	3.25	1.01	7.39	8.77	4.43	5.12	4.39	2.4375	.625 x .187
215SMFP	16.25	20.88	8.13	8.13	12.76	18.07	13.44	3.88	1.07	8.24	10.25	4.86	5.87	5.13	2.9375	.750 x .250
307SMFP	19.04	24.37	9.52	9.52	14.85	21.00	15.67	5.00	1.25	9.27	11.70	6.24	7.45	5.85	3.4375	.875 x .250
315SMFP	19.90	26.35	9.95	9.95	16.40	23.02	16.57	5.38	1.25	10.51	13.00	7.08	8.32	6.50	3.9375	1.000 x .250

PART NO.	DIMENSIONS IN INCHES															INPUT KEY	WT. LBS.	
	P	PF	a	R	RF	S	SF	T	TF	U1	W	WF	Y	BOLT SIZE	AA			
	MIN.		MAX.		MIN.		MAX.		MIN.		MAX.		MIN.		MAX.			
107SMFP	0.50	1.14	4.24	1.18	0.36	3.77	2.50	3.95	3.38	0.75	7.88	1.44	2.73	3/8	24	30	.188 x .188 x 2.88	53
115SMFP	0.57	1.14	4.51	1.35	0.36	4.36	2.50	4.56	3.38	1.13	9.14	1.44	3.12	3/8	24	30	.250 x .250 x 2.75	75
203SMFP	0.69	1.32	5.04	1.48	0.42	5.26	2.50	5.46	3.50	1.25	10.94	1.72	3.64	3/8	24	30	.250 x .250 x 3.88	112
207SMFP	0.69	1.51	5.57	1.63	0.48	6.08	3.00	6.29	4.25	1.44	12.68	2.19	4.16	7/16	27	33	.375 x .375 x 3.75	155
215SMFP	1.01	1.51	6.24	2.12	0.48	7.01	3.00	7.32	4.25	1.88	14.19	2.19	4.65	7/16	27	33	.500 x .500 x 3.75	226
307SMFP	1.22	1.81	6.79	2.25	0.61	7.78	4.00	8.10	5.38	2.00	17.00	2.78	5.58	1/2	29	35	.500 x .500 x 6.50	365
315SMFP	1.25	2.22	8.05	2.83	0.72	8.53	4.75	8.93	6.50	2.13	18.12	3.83	6.20	5/8	29.5	35.5	.500 x .500 x 7.50	477

Complete part number by adding ratio symbol, for example, "107SMFP05".

Note - "05" is symbol for 5:1 nominal ratio: see page 9 for exact ratios and ratio symbols.

\* If smaller shaft than the output bore is used, order bushing from page Accessories Section.



Application Inspired... Hydraulically Driven



# Browning Hydraulic TorqTaper Plus Shaft Mount Reducers

With over 25 years in developing innovative solutions for industries, Regal Power Transmission Solutions engineers designed the newest member of the TorqTaper Plus family. The hydraulic TorqTaper Plus is appropriate for applications where fluid power is required.

- For applications where electric motors are not available, such as portable equipment
- Compatible with many hydraulic motors currently used in similar applications – standard SAE mounting patterns
- Can be configured with screw conveyor components or as a shaft mounted reducer
- Patented mounting system, barrier seal system and increased ratings
- Replaces all popular hydraulic shaft mounted reducers
- Available with involute or straight sided input splines

## Example No. 1

### Units 107 - 315 Hydraulic Shaft Mounts

A hydraulic shaft mount reducer is required for a portable aggregate conveyor which can be loaded and operated 16 to 24 hours per day at 30 rpm.

The conveyor requires 3 hp. The reducer will be mounted on the conveyor drive pulley shaft, which is 2 3/16" diameter.

#### 1. Determine the Load Classification

From the *AGMA Application Classification Numbers* section, note the AGMA Class Number is II for a uniformly loaded or fed conveyor operating over 10 hours per day.

#### 2. Determine the Speed Reducer Required

From the *Hydraulic Reducer Selection Chart* section, there are four tables for selecting hydraulic shaft mounts for Class II Service. Locate the 30 rpm row, if available, in each table. Read across the row to find a column with a rating of 3 hp or greater. Read up the column to determine the basic reducer size that corresponds to the design hp. For this application, a 203HMTP15 13T SAE-B 2, 203HMTP25 9T SAE-A 2, 203HMTP05 6B SAE-A 2 or a 203HMTP25 6B SAE-A 2 may be used. Select the reducer based upon hydraulic motor characteristics, such as spline dimensions and flow rates.

**(Note: Hydraulic motors are not included with the reducer.)**

For this example, select 203HMTP15 13T SAE-B 2.

A 203TBP203 bushing is required to mount any of the three reducers to the 2 3/16" driven shaft.

A 203TAP-H torque arm kit is required to restrain the gearbox in operation.

#### 3. List Components

- 1, 203HMTP15 13T SAE-B 2 reducer
- 1, 203TBP203 bushing
- 1, 203TAP-H torque arm kit
- 1, Hydraulic motor (separate)

## Example No. 2

### Units 107 - 315 Hydraulic Screw Conveyor

A hydraulic shaft mount reducer is required to convey dry cement powder. The conveyor will be uniformly fed and operated 12 to 16 hours per day. The screw is 14" diameter and has a 2 7/16" bore with two holes. The conveyor requires 4 1/2 hp and will operate at 60 rpm. The application requires a waste pack.

#### 1. Determine the Load Classification

From the *AGMA Application Classification Numbers* section, note the AGMA Class Number is II for a uniformly loaded or fed screw conveyor, operating over 10 hours per day.

#### 2. Determine the Speed Reducer Required

From the *Hydraulic Reducer Selection Chart* section, there are four tables for selecting hydraulic shaft mounts for Class II Service. Locate the 60 rpm row, if available, in each table. Read across the row to find a column with a rating of 4 1/2 hp or greater. Read up the column to determine the basic reducer size that corresponds to the design hp. For this application, a 115HMTP15 9T SAE-A 2, 115HMTP25 9T SAE-A 2, 203HMTP25 6B SAE-A 2 or a 203HMTP05 6B SAE-A 2 may be used. Generally, the smaller case size is more economical, but the total system should be considered. Select the reducer based upon hydraulic motor characteristics such as spline dimensions and flow rates. (Note: Hydraulic motors are not included with the reducer.) For this example, select a 115HMTP15 9T SAE-A 2.

#### 3. Establish Sealing Required for Screw Conveyor

The waste pack cartridge is well suited for dry, abrasive materials such as cement powder. Specify the optional waste pack cartridge for the 115 shaft mount selected. From the *Accessories* section, select part 115-203WPP.

#### 4. Select the Screw Conveyor Adapter and Screw Conveyor Shaft

Using the basic reducer size, required drive shaft and screw diameter for the selection; refer to *Screw Conveyor Drives* in the *Accessories* section. Note the specification was for a 2 7/16" drive shaft with a two hole arrangement for the 14" diameter screw. From the table select the 115SCA-P and the 115DSP207.

#### 5. Select the Trough End

From the *Screw Conveyor Trough Ends Sizes 107-407* table, select the SCTE14 X 2 7/16 trough end.

#### 6. List of Components:

- 1, 115HMTP15 9T SAE-A 2 reducer
- 1, 115SCA-P screw conveyor adapter
- 1, 115DSP207 screw conveyor drive shaft kit
- 1, 115-203WPP waste pack cartridge
- 1, SCTE14X2 7/16 trough end
- 1, Hydraulic motor (separate)

**HMTP Exact Ratios**

Reducer Size	Ratio Symbols		
	05	15	25
107	5.0588	14.8276	24.7250
115	4.7000	14.7759	24.8558
203	5.1053	14.9231	24.7409
207	5.1579	14.7870	24.7094
215	5.1667	14.8187	24.8502
307	5.1111	14.9704	24.7692
315	4.8824	14.5744	24.4118





# AGMA Application



## Classification Numbers

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
AGITATORS (Mixers)			
Pure Liquids	I	I	II
Liquids and Solids	I	II	II
Liquids - Variable Density	I	II	II
BLOWERS			
Centrifugal & Vane	I	I	II
Lobe	I	II	II
Vane	I	II	II
BREWING AND DISTILLING			
Bottling Machinery	I	I	II
Brew Kettles - Continuous Duty	II	II	II
Cookers - Continuous Duty	II	II	II
Mash Tubs - Continuous Duty	II	II	II
Scale Hopper - Frequent Starts	II	II	II
CAN FILLING MACHINES	I	I	II
CAR DUMPERS	II	III	III
CAR PULLERS	I	II	II
CLARIFIERS	I	I	II
CLASSIFIERS	I	II	II
CLAY WORKING MACHINERY			
Brick Presses	II	III	III
Briquette Machines	II	III	III
Pug Mills	I	II	II
COMPACTORS			
COMPRESSORS			
Centrifugal	I	I	II
Lobe	I	II	II
Reciprocating, Multi-Cylinder	II	II	III
Reciprocating, Single-Cylinder	III	III	III
CONVEYORS - GENERAL PURPOSE			
Includes Apron, Assembly, Belt, Bucket Chain, Flight, Oven, and Screw			
Uniformly Loaded or Fed	I	I	II
Heavy Duty - Not Uniformly Fed	I	II	II
Severe Duty - Reciprocating or Shaker	II	III	III
CRANES			
Dry Dock			
Main Hoist			
Auxiliary Hoist			
Boom Hoist			
Slewing Drive			
Traction Drive			
Container			
Main Hoist			
Boom Hoist			
Trolley Drive			
Gantry Drive			
Traction Drive			
Mill Duty			
Main Hoist			
Auxiliary			
Bridge Travel			
Trolley Travel			
Industrial Duty			
Main			
Auxiliary			
Bridge Travel			
Trolley Travel			
CRUSHERS			
Stone or Ore	III	III	III
DREDGES			
Cable Reels	II	II	II
Conveyors	II	II	II
Cutter Head Drives	III	III	III
Pumps	III	III	III
Screen Drives	III	III	III
Stackers	II	II	II
Winches	II	II	II
ELEVATORS			
Bucket	I	II	II
Centrifugal Discharge	I	I	II
Escalators	I	I	II
Freight	I	II	II
Gravity Discharge	I	I	II
EXTRUDERS			
General	II	II	II
Plastics			
Variable Speed Drive	III	III	III
Fixed Speed Drive	III	III	III
Rubber			
Continuous Screw Operation	III	III	III
Intermittent Screw Operation	III	III	III
FANS			
Centrifugal	I	I	II

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
FANS (Cont'd)			
Cooling Towers	III	III	III
Forced Draft	II	II	II
Induced Draft	II	II	II
Industrial & Mine	II	II	II
FEEDERS			
Apron	I	II	II
Belt	I	II	II
Disc	I	I	II
Reciprocating	II	III	III
Screw	I	II	II
FOOD INDUSTRY			
Cereal Cooker	I	I	II
Dough Mixer	II	II	II
Meat Grinders	II	II	II
Slicers	I	II	II
GENERATORS AND EXCITERS	II	II	II
HAMMER MILLS	III	III	III
HOISTS			
Heavy Duty			
Medium Duty			
Skip Hoist			
LAUNDRY TUMBLERS	II	II	II
LAUNDRY WASHERS	II	II	III
LUMBER INDUSTRY			
Barkers			
Spindle Feed	II	II	II
Main Drive	III	III	III
Conveyors			
Burner	II	II	II
Main or Heavy Duty	II	II	II
Main Log	III	III	III
Re-saw, Merry-Go-Round	II	II	II
Slab	III	III	III
Transfer	II	II	II
Chains			
Floor	II	II	II
Green	II	II	III
Cut-Off-Saws			
Chain	II	II	III
Drag	II	II	III
Debarking Drums	III	III	III
Feeds			
Edger	II	II	II
Gang	II	III	III
Trimmer	II	II	II
Log Deck	III	III	III
Log Hauls - Incline - Well Type	III	III	III
Log Turning Devices	III	III	III
Planer Feed	II	II	II
Planer Tilting Hoists	II	II	II
Rolls - Live-Off Brg - Roll Cases	III	III	III
Sorting Table	II	II	II
Tipple Hoist	II	II	II
Transfer			
Chain	II	II	III
Craneway	II	II	II
Tray Drives	II	II	II
Veneer Lathe Drives	II	II	II
METAL MILLS			
Draw Bench Carriage and Main Drive	II	II	II
Runout Table			
Non-Reversing			
Group Drives	II	II	II
Individual Drives	III	III	III
Reversing	III	III	III
Slab Pushers	II	II	II
Shears	III	III	III
Wire Drawing	II	II	II
Wire Winding Machine	II	II	II
METAL STRIP PROCESSING MACHINERY			
Bridges	II	II	II
Collers & Uncoilers	I	I	II
Edge Trimmers	I	II	II
Flatteners	II	II	II
Loopers (Accumulators)	I	I	I
Pinch Rolls	II	II	II
Scrap Choppers	II	II	II
Shears	III	III	III
Slitters	I	II	II
MILLS, ROTARY TYPE			
Ball & Rod			
Spur Ring Gear	III	III	III
Helical Ring Gear	II	II	II
Direct Connected	III	III	III

## Classification Numbers

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
MILLS, ROTARY TYPE (Cont'd)			
Cement Kilns	II	II	II
Dryers & Coolers	II	II	II
PAPER MILLS <sup>1)</sup>			
Agitator (Mixer)	II	II	II
Agitator For Pure Liquors	II	II	II
Barking Drums	III	III	III
Barkers - Mechanical	III	III	III
Beater	II	II	II
Breaker Stack	II	II	II
Calendar <sup>2)</sup>	II	II	II
Chipper	III	III	III
Chip Feeder	II	II	II
Coating Rolls	II	II	II
Conveyors			
Chip, Bark, Chemical	II	II	II
Log (Including Slab)	III	III	III
Couch Rolls	II	II	II
Cutter	III	III	III
Cylinder Molds	II	II	II
Dryers <sup>2)</sup>			
Paper Machine	II	II	II
Conveyor Type	II	II	II
Embosser	II	II	II
Extruder	II	II	II
Fourdrinier Rolls (Includes Lump Breaker, Dandy Roll, Wire Turning, and Return Rolls)	II	II	II
Jordan	II	II	II
Kiln Drive	II	II	II
Mt. Hope Roll	II	II	II
Paper Rolls	II	II	II
Platter	II	II	II
Presses - Felt Suction	II	II	II
Pulper	III	III	III
Pumps - Vacuum	II	II	II
Reel (Surface - Type)	II	II	II
Screens			
Chip	II	II	II
Rotary	II	II	II
Vibrating	III	III	III
Size Press	II	II	II
Supercalendar	II	II	II
Thickener (AC Motor)	II	II	II
Thickener (DC Motor)	II	II	II
Washer (AC Motor)	II	II	II
Washer (DC Motor)	II	II	II
Wind and Unwind Stand	I	I	I
Winders (Surface Type)	II	II	II
Yankee Dryers <sup>2)</sup>	II	II	II
PLASTICS INDUSTRY			
PRIMARY PROCESSING			
Intensive Internal Mixers			
Batch Mixers	III	III	III
Continuous Mixers	II	II	II
Batch Drop Mill - 2 Smooth Rolls	II	II	II
Continuous Feed, Holding & Blend Mill	II	II	II
Calendars	II	II	II
PLASTICS INDUSTRY			
SECONDARY PROCESSING			
Blow Molders	II	II	II
Coating	II	II	II
Film	II	II	II
Pipe	II	II	II
Pre-Plasticizers	II	II	II
Rods	II	II	II
Sheet	II	II	II
Tubing	II	II	II
PULLERS - BARGE HAUL	II	II	II
PUMPS			
Centrifugal	I	I	II
Proportioning	II	II	II
Reciprocating			
Single Acting, 3 or more Cylinders	II	II	II
Double Acting, 2 or more Cylinders	II	II	II
Rotary			
Gear Type	I	I	II
Lobe	I	I	II
Vane	I	I	II
RUBBER INDUSTRY			
Intensive Internal Mixers			
Batch Mixers	III	III	III
Continuous Mixers	II	II	II
Mixing Mill			
2 Smooth Rolls	II	II	II
1 or 2 Corrugated Rolls	III	III	III

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
RUBBER INDUSTRY (Cont'd)			
Batch Drop Mill - 2 Smooth Rolls	II	II	II
Cracker Warmer - 2 Roll, 1 Corrugated Roll	III	III	III
Cracker - 2 Corrugated Rolls	III	III	III
Holding, Feed & Blend Mill - 2 Rolls	II	II	II
Refiner - 2 Rolls	II	II	II
Calendars	II	II	II
SAND MULLER	II	II	II
SEWAGE DISPOSAL EQUIPMENT			
Bar Screens	II	II	II
Chemical Feeder	II	II	II
Dewatering Screens	II	II	II
Scum Breakers	II	II	II
Slow or Rapid Mixers	II	II	II
Sludge Collectors	II	II	II
Thickener	II	II	II
Vacuum Filters	II	II	II
SCREENS			
Air Washing	I	I	II
Rotary - Stone or Gravel	II	II	II
Traveling Water Intake	I	I	I
SCREW CONVEYORS			
Uniformly Loaded or Fed	I	I	II
Heavy Duty	I	II	II
SUGAR INDUSTRY			
Beet Slicer	III	III	III
Cane Knives	II	II	II
Crushers	II	II	II
Mills (Low Speed End)	III	III	III
TEXTILE INDUSTRY			
Batchers	II	II	II
Calendars	II	II	II
Cards	II	II	II
Dry Cans	II	II	II
Dyeing Machinery	II	II	II
Looms	II	II	II
Mangles	II	II	II
Nappers	II	II	II
Pads	II	II	II
Slashers	II	II	II
Soapers	II	II	II
Spinners	II	II	II
Tenter Frames	II	II	II
Washers	II	II	II
Winders	II	II	II

**Notes:**

- 1) The Class numbers listed in the table for paper mill applications are consistent with those shown in TAPPI (*Technical Association of Pulp and Paper Industry*) Technical information sheet 0406-18 1967, *Service Factors for Gears on Major Equipment in the Pulp and Paper Industry*.
- 2) Anti-friction bearings only.  
Contact Application Engineering (1 800 626 2093) for the selection of an AGMA Class Numbers in these applications.



# HMTP Selection Chart

## Class I Service (1.0 S.F.)



### Involute Spline Input

Single Reduction										
Output RPM	107HMTP05 13T SAE-B2		115HMTP05 13T SAE-B2		203HMTP05 14T SAE-C4		207HMTP05 14T SAE-C4		215HMTP05 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
90	4.55	3,078	7.55	5,111	14.74	9,980	17.93	12,137	28.16	19,064
100	4.89	2,978	8.39	5,111	15.86	9,663	19.27	11,740	30.08	18,327
110	5.22	2,890	9.23	5,111	16.94	9,383	20.59	11,402	32.07	17,762
120	5.54	2,813	10.07	5,111	17.99	9,136	21.87	11,102	33.99	17,255
130	5.85	2,743	10.91	5,111	19.02	8,914	23.12	10,833	35.85	16,803
140	6.16	2,680	11.75	5,111	20.02	8,713	24.33	10,587	36.00	15,666
150	6.45	2,622	12.58	5,111	20.09	8,159	25.52	10,365	36.00	14,622
160	6.75	2,569	13.42	5,111	20.09	7,649	26.69	10,164	36.00	13,708
170	7.03	2,520	14.01	5,020	20.09	7,199	27.83	9,975	36.00	12,902
180	7.31	2,475	14.58	4,934	20.09	6,799	28.97	9,804	36.00	12,185
190	7.59	2,434	14.58	4,675	20.09	6,441	30.07	9,642	36.00	11,544
200	7.86	2,394	14.58	4,441	20.09	6,119	31.15	9,490	36.00	10,966
210	8.13	2,357	14.58	4,230	20.09	5,828	31.50	9,139	36.00	10,444
220	8.39	2,322	14.58	4,038	20.09	5,563	31.50	8,723	36.00	9,969
230	8.65	2,290	14.58	3,862	20.09	5,321	31.50	8,344	36.00	9,536
240	8.90	2,259	14.58	3,701	20.09	5,099	31.50	7,996	36.00	9,139
250	9.15	2,230	14.58	3,553	20.09	4,895	31.50	7,676	36.00	8,773
260	9.40	2,202	14.58	3,416	20.09	4,707	31.50	7,381	36.00	8,436
270	9.64	2,176	14.58	3,290	20.09	4,533	31.50	7,108	36.00	8,123
280	9.88	2,151	14.58	3,172	20.09	4,371	31.50	6,854	36.00	7,833
290	10.12	2,127	14.58	3,063	20.09	4,220	31.50	6,618	36.00	7,563
300	10.36	2,104	14.58	2,961	20.09	4,079	31.50	6,397	36.00	7,311
310	10.60	2,083	14.58	2,865	20.09	3,948	31.50	6,191	36.00	7,075
320	10.83	2,061	14.58	2,776	20.09	3,825	31.50	5,997	36.00	6,854
330	11.05	2,041	14.58	2,692	20.09	3,709	31.50	5,815	36.00	6,646
340	11.28	2,021	14.58	2,613	20.09	3,600	31.50	5,644	36.00	6,451
350	11.34	1,974	14.58	2,538	20.09	3,497	31.50	5,483	36.00	6,266
360	11.34	1,919	14.58	2,467	20.09	3,400	31.50	5,331	36.00	6,092
370	11.34	1,867	14.58	2,401	20.09	3,308	31.50	5,187	36.00	5,928
380	11.34	1,818	14.58	2,338	20.09	3,221	31.50	5,050	36.00	5,772
390	11.34	1,771	14.58	2,278	20.09	3,138	31.50	4,921	36.00	5,624
400	11.34	1,727	14.58	2,221	20.09	3,060	31.50	4,798	36.00	5,483



# HMTP Selection Chart

## Class I Service (1.0 S.F.)



HMTP

### Involute Spline Input

Double Reduction														
Output RPM	107HMTP15 9T SAE-A2		107HMTP25 9T SAE-A2		115HMTP15 9T SAE-A2		115HMTP25 9T SAE-A2		203HMTP15 13T SAE-B2		203HMTP25 9T SAE-A2		207HMTP15 13T SAE-B2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	0.93	5,658	0.93	5,658	1.26	7,655	1.26	7,655	2.18	13,260	2.12	12,915	2.64	16,081
20	1.78	5,434	1.78	5,434	2.41	7,341	2.41	7,341	4.16	12,684	4.16	12,684	5.28	16,081
30	2.61	5,301	2.61	5,301	3.57	7,242	3.57	7,242	6.16	12,506	6.16	12,506	7.92	16,081
40	3.42	5,204	3.42	5,204	4.71	7,168	4.71	7,168	8.12	12,372	8.12	12,372	10.56	16,081
50	4.21	5,128	4.21	5,128	5.83	7,107	5.83	7,107	10.06	12,262	9.46	11,531	13.20	16,081
60	4.99	5,065	4.99	5,065	6.95	7,055	6.95	7,055	11.32	11,498	10.68	10,847	15.84	16,081
70	5.76	5,011	5.76	5,011	8.05	7,009	8.05	7,009	12.45	10,837	11.72	10,203	18.48	16,081
80	6.52	4,964	6.52	4,964	9.15	6,969	9.15	6,969	13.50	10,285	12.69	9,667	21.12	16,081
90	7.27	4,922	-	-	10.24	6,932	-	-	14.51	9,820	-	-	23.73	16,064
100	8.02	4,884	-	-	11.32	6,899	-	-	15.46	9,420	-	-	25.54	15,563
110	8.76	4,850	-	-	12.40	6,868	-	-	16.47	9,121	-	-	27.31	15,125
120	9.49	4,818	-	-	12.60	6,397	-	-	17.45	8,857	-	-	29.02	14,736
130	10.22	4,788	-	-	12.60	5,905	-	-	18.39	8,620	-	-	30.70	14,387

Double Reduction														
Output RPM	207HMTP25 13T SAE-B2		215HMTP15 14T SAE-C4		215HMTP25 13T SAE-B2		307HMTP15 14T SAE-C4		307HMTP25 14T SAE-C4		315HMTP15 14T SAE-C4		315HMTP25 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	3.44	20,966	5.59	34,066	4.44	27,025	9.64	58,758	9.64	58,758	12.34	75,206	12.34	75,206
20	6.58	20,059	10.65	32,436	8.87	27,025	18.47	56,266	18.47	56,266	23.67	72,105	23.67	72,105
30	9.73	19,769	15.73	31,951	13.31	27,025	26.97	54,771	26.97	54,771	34.55	70,167	34.55	70,167
40	12.83	19,549	20.73	31,582	17.74	27,025	34.29	52,228	33.68	51,292	45.13	68,741	45.13	68,741
50	15.43	18,796	24.54	29,905	22.18	27,025	40.09	48,847	39.37	47,973	54.00	65,798	50.40	61,412
60	17.53	17,796	27.88	28,314	26.61	27,025	45.00	45,693	41.40	42,038	54.00	54,832	50.40	51,176
70	19.52	16,991	31.06	27,033	29.70	25,849	45.00	39,166	41.40	36,032	54.00	46,999	50.40	43,865
80	21.43	16,323	34.10	25,972	29.70	22,618	45.00	34,270	41.40	31,528	54.00	41,124	50.40	38,382
90	-	-	36.00	24,370	-	-	45.00	30,462	-	-	54.00	36,555	-	-
100	-	-	36.00	21,933	-	-	45.00	27,416	-	-	54.00	32,899	-	-
110	-	-	36.00	19,939	-	-	45.00	24,924	-	-	54.00	29,908	-	-
120	-	-	36.00	18,277	-	-	45.00	22,847	-	-	54.00	27,416	-	-
130	-	-	36.00	16,871	-	-	45.00	21,089	-	-	54.00	25,307	-	-





# HMTP Selection Chart

## Class I Service (1.0 S.F.)



### Straight Sided Spline Input

Single Reduction										
Output RPM	107HMTP05 6B SAE-A2		115HMTP05 6B SAE-A2		203HMTP05 6B SAE-A2		207HMTP-05 6B SAE-A2		215HMTP05 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.07	4,089	0.12	7,496	0.18	10,905	0.25	14,994	0.26	15,733
5	0.27	3,271	0.52	6,366	0.83	10,156	1.04	12,683	1.29	15,733
10	0.52	3,169	1.02	6,225	1.65	10,063	2.03	12,394	2.58	15,733
20	1.02	3,118	2.02	6,154	3.29	10,016	4.02	12,249	5.16	15,733
30	1.53	3,101	3.02	6,131	4.92	10,000	6.01	12,201	7.75	15,733
40	2.03	3,092	4.02	6,119	6.56	9,992	7.99	12,177	10.33	15,733
50	2.53	3,087	5.02	6,112	8.20	9,988	9.98	12,162	12.91	15,733
60	3.04	3,084	6.01	6,107	9.83	9,985	11.97	12,153	15.49	15,733
70	3.54	3,081	7.01	6,104	11.47	9,982	13.95	12,146	18.08	15,733
80	4.04	3,080	8.01	6,101	13.11	9,981	15.94	12,141	20.66	15,733
90	4.55	3,078	9.01	6,099	14.74	9,980	17.93	12,137	23.24	15,733
100	4.89	2,978	9.69	5,906	15.86	9,663	19.27	11,740	25.82	15,733
110	5.22	2,890	10.36	5,737	16.94	9,383	20.59	11,402	28.40	15,733
120	5.54	2,813	11.00	5,586	17.99	9,136	21.87	11,102	30.99	15,733
130	5.85	2,743	11.63	5,450	19.02	8,914	23.12	10,833	33.57	15,733
140	6.16	2,680	12.24	5,328	20.02	8,713	24.33	10,587	36.00	15,666
150	6.45	2,622	12.60	5,118	20.09	8,159	25.52	10,365	36.00	14,622
160	6.75	2,569	12.60	4,798	20.09	7,649	26.69	10,164	36.00	13,708
170	7.03	2,520	12.60	4,516	20.09	7,199	27.83	9,975	36.00	12,902
180	7.31	2,475	12.60	4,265	20.09	6,799	28.97	9,804	36.00	12,185
190	7.59	2,434	12.60	4,040	20.09	6,441	30.07	9,642	36.00	11,544
200	7.86	2,394	12.60	3,838	20.09	6,119	31.15	9,490	36.00	10,966
210	8.13	2,357	12.60	3,655	20.09	5,828	31.50	9,139	36.00	10,444
220	8.39	2,322	12.60	3,489	20.09	5,563	31.50	8,723	36.00	9,969
230	8.65	2,290	12.60	3,338	20.09	5,321	31.50	8,344	36.00	9,536
240	8.90	2,259	12.60	3,199	20.09	5,099	31.50	7,996	36.00	9,139
250	9.15	2,230	12.60	3,071	20.09	4,895	31.50	7,676	36.00	8,773
260	9.40	2,202	12.60	2,952	20.09	4,707	31.50	7,381	36.00	8,436
270	9.64	2,176	12.60	2,843	20.09	4,533	31.50	7,108	36.00	8,123
280	9.88	2,151	12.60	2,742	20.09	4,371	31.50	6,854	36.00	7,833
290	10.12	2,127	12.60	2,647	20.09	4,220	31.50	6,618	36.00	7,563
300	10.36	2,104	12.60	2,559	20.09	4,079	31.50	6,397	36.00	7,311
310	10.60	2,083	12.60	2,476	20.09	3,948	31.50	6,191	36.00	7,075
320	10.83	2,061	12.60	2,399	20.09	3,825	31.50	5,997	36.00	6,854
330	11.05	2,041	12.60	2,326	20.09	3,709	31.50	5,815	36.00	6,646
340	11.28	2,021	12.60	2,258	20.09	3,600	31.50	5,644	36.00	6,451
350	11.34	1,974	12.60	2,193	20.09	3,497	31.50	5,483	36.00	6,266
360	11.34	1,919	12.60	2,132	20.09	3,400	31.50	5,331	36.00	6,092
370	11.34	1,867	12.60	2,075	20.09	3,308	31.50	5,187	36.00	5,928
380	11.34	1,818	12.60	2,020	20.09	3,221	31.50	5,050	36.00	5,772
390	11.34	1,771	12.60	1,968	20.09	3,138	31.50	4,921	36.00	5,624
400	11.34	1,727	12.60	1,919	20.09	3,060	31.50	4,798	36.00	5,483

### Straight Sided Spline Input

Double Reduction												
Output RPM	203HMTP25 6B SAE-A2		207HMTP15 6B SAE-A2		207HMTP25 6B SAE-A2		215HMTP25 6B SAE-A2		307HMTP25 6B SAE-A2		315HMTP25 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.19	11,569	0.29	17,721	0.29	17,721	0.49	29,989	0.91	55,479	1.12	68,156
5	1.17	14,268	1.85	22,570	1.85	22,570	2.99	36,404	4.98	60,698	6.10	74,334
10	2.18	13,260	3.44	20,966	3.44	20,966	5.59	34,066	9.64	58,758	12.20	74,334
20	4.16	12,684	6.58	20,059	6.58	20,059	10.65	32,436	18.47	56,266	23.67	72,105
30	6.16	12,506	9.73	19,769	9.73	19,769	15.73	31,951	26.97	54,771	34.55	70,167
40	8.12	12,372	12.83	19,549	12.83	19,549	20.73	31,582	33.68	51,292	45.13	68,741
50	9.46	11,531	15.73	19,162	15.43	18,796	24.99	30,450	39.37	47,973	50.40	61,412
60	10.68	10,847	17.87	18,141	17.53	17,796	28.39	28,829	41.40	42,038	50.40	51,176
70	11.72	10,203	19.90	17,321	19.52	16,991	29.70	25,849	41.40	36,032	50.40	43,865
80	12.69	9,667	21.85	16,641	21.43	16,323	29.70	22,618	41.40	31,528	50.40	38,382
90	-	-	23.73	16,064	-	-	-	-	-	-	-	-
100	-	-	25.54	15,563	-	-	-	-	-	-	-	-
110	-	-	27.31	15,125	-	-	-	-	-	-	-	-
120	-	-	29.02	14,736	-	-	-	-	-	-	-	-
130	-	-	30.70	14,387	-	-	-	-	-	-	-	-



## HMTP Selection Chart

### Class II Service (1.4 S.F.)



#### Involute Spline Input

Output RPM	Single Reduction									
	107HMTP05 13T SAE-B2		115HMTP05 13T SAE-B2		203HMTP05 14T SAE-C4		207HMTP05 14T SAE-C4		215HMTP05 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
90	3.25	2,199	5.39	3,651	10.53	7,128	12.81	8,669	20.12	13,617
100	3.49	2,127	5.99	3,651	11.33	6,902	13.76	8,386	21.49	13,091
110	3.73	2,064	6.59	3,651	12.10	6,702	14.70	8,144	22.91	12,687
120	3.96	2,009	7.19	3,651	12.85	6,526	15.62	7,930	24.28	12,325
130	4.18	1,959	7.79	3,651	13.59	6,367	16.51	7,738	25.61	12,002
140	4.40	1,914	8.39	3,651	14.30	6,224	17.38	7,562	26.91	11,709
150	4.61	1,873	8.99	3,651	15.00	6,093	18.23	7,404	28.18	11,444
160	4.82	1,835	9.59	3,651	15.69	5,973	19.07	7,260	29.41	11,199
170	5.02	1,800	10.01	3,586	16.35	5,861	19.88	7,125	30.62	10,973
180	5.22	1,768	10.41	3,524	17.01	5,759	20.69	7,003	31.81	10,765
190	5.42	1,738	10.81	3,465	17.66	5,664	21.48	6,887	32.97	10,572
200	5.61	1,710	11.20	3,411	18.30	5,576	22.25	6,778	34.11	10,390
210	5.80	1,684	11.58	3,361	18.93	5,491	23.01	6,676	35.23	10,220
220	5.99	1,659	11.96	3,314	19.55	5,413	23.77	6,581	36.00	9,969
230	6.18	1,636	12.34	3,268	20.09	5,321	24.52	6,494	36.00	9,536
240	6.36	1,614	12.70	3,225	20.09	5,099	25.24	6,407	36.00	9,139
250	6.54	1,593	13.07	3,186	20.09	4,895	25.96	6,327	36.00	8,773
260	6.71	1,573	13.43	3,147	20.09	4,707	26.68	6,252	36.00	8,436
270	6.89	1,554	13.79	3,111	20.09	4,533	27.39	6,180	36.00	8,123
280	7.06	1,536	14.13	3,076	20.09	4,371	28.09	6,113	36.00	7,833
290	7.23	1,519	14.48	3,043	20.09	4,220	28.78	6,046	36.00	7,563
300	7.40	1,503	14.82	2,961	20.09	4,079	29.46	5,983	36.00	7,311
310	7.57	1,488	14.82	2,865	20.09	3,948	30.14	5,924	36.00	7,075
320	7.73	1,472	14.82	2,776	20.09	3,825	30.81	5,866	36.00	6,854
330	7.90	1,458	14.82	2,692	20.09	3,709	31.45	5,807	36.00	6,646
340	8.06	1,444	14.82	2,613	20.09	3,600	31.50	5,644	36.00	6,451
350	8.22	1,431	14.82	2,538	20.09	3,497	31.50	5,483	36.00	6,266
360	8.38	1,418	14.82	2,467	20.09	3,400	31.50	5,331	36.00	6,092
370	8.53	1,405	14.82	2,401	20.09	3,308	31.50	5,187	36.00	5,928
380	8.69	1,393	14.82	2,338	20.09	3,221	31.50	5,050	36.00	5,772
390	8.85	1,382	14.82	2,278	20.09	3,138	31.50	4,921	36.00	5,624
400	9.00	1,371	14.82	2,221	20.09	3,060	31.50	4,798	36.00	5,483



# HMTP Selection Chart



HMTP

## Class II Service (1.4 S.F.)

### Involute Spline Input

Double Reduction														
Output RPM	107HMTP15 9T SAE-A2		107HMTP25 9T SAE-A2		115HMTP15 9T SAE-A2		115HMTP25 9T SAE-A2		203HMTP15 13T SAE-B2		203HMTP25 9T SAE-A2		207HMTP15 13T SAE-B2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	0.66	4,041	0.66	4,041	0.90	5,468	0.90	5,468	1.55	9,472	1.51	9,225	1.89	11,486
20	1.27	3,882	1.27	3,882	1.72	5,244	1.72	5,244	2.97	9,060	2.97	9,060	3.77	11,486
30	1.86	3,786	1.86	3,786	2.55	5,173	2.55	5,173	4.40	8,933	4.40	8,933	5.66	11,486
40	2.44	3,717	2.44	3,717	3.36	5,120	3.36	5,120	5.80	8,837	5.80	8,837	7.54	11,486
50	3.01	3,663	3.01	3,663	4.17	5,076	4.17	5,076	7.19	8,758	6.76	8,236	9.43	11,486
60	3.56	3,618	3.56	3,618	4.96	5,039	4.96	5,039	8.09	8,213	7.63	7,748	11.31	11,486
70	4.11	3,580	4.11	3,580	5.75	5,007	5.75	5,007	8.89	7,741	8.37	7,288	13.20	11,486
80	4.66	3,546	4.66	3,546	6.54	4,978	6.54	4,978	9.65	7,346	9.07	6,905	15.08	11,486
90	5.19	3,516	-	-	7.31	4,952	-	-	10.36	7,014	-	-	16.95	11,475
100	5.73	3,489	-	-	8.09	4,928	-	-	11.04	6,728	-	-	18.25	11,117
110	6.25	3,464	-	-	8.86	4,905	-	-	11.76	6,515	-	-	19.51	10,804
120	6.78	3,441	-	-	9.62	4,885	-	-	12.46	6,327	-	-	20.73	10,526
130	7.30	3,420	-	-	10.38	4,865	-	-	13.14	6,157	-	-	21.93	10,276

Double Reduction														
Output RPM	207HMTP25 13T SAE-B2		215HMTP15 14T SAE-C4		215HMTP25 13T SAE-B2		307HMTP15 14T SAE-C4		307HMTP25 14T SAE-C4		315HMTP15 14T SAE-C4		315HMTP25 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	2.46	14,976	3.99	24,333	3.17	19,303	6.89	41,970	6.89	41,970	8.82	53,719	8.82	53,719
20	4.70	14,328	7.61	23,168	6.34	19,303	13.19	40,190	13.19	40,190	16.91	51,503	16.91	51,503
30	6.95	14,121	11.24	22,822	9.51	19,303	19.26	39,122	19.26	39,122	24.68	50,119	24.68	50,119
40	9.17	13,963	14.81	22,559	12.67	19,303	24.49	37,306	24.05	36,637	32.24	49,100	32.24	49,100
50	11.02	13,426	17.53	21,361	15.84	19,303	28.63	34,891	28.12	34,267	39.64	48,299	39.64	48,299
60	12.52	12,711	19.92	20,225	19.01	19,303	32.53	33,033	31.95	32,441	46.47	47,185	46.54	47,261
70	13.94	12,136	22.19	19,309	22.18	19,303	36.24	31,540	35.59	30,977	51.76	45,050	50.40	43,865
80	15.31	11,660	24.36	18,552	24.80	18,889	39.79	30,301	39.08	29,758	54.00	41,124	50.40	38,382
90	-	-	26.45	17,908	-	-	43.21	29,249	-	-	54.00	36,555	-	-
100	-	-	28.48	17,351	-	-	45.00	27,416	-	-	54.00	32,899	-	-
110	-	-	30.44	16,861	-	-	45.00	24,924	-	-	54.00	29,908	-	-
120	-	-	32.35	16,426	-	-	45.00	22,847	-	-	54.00	27,416	-	-
130	-	-	34.22	16,037	-	-	45.00	21,089	-	-	54.00	25,307	-	-





# HMTP Selection Chart

## Class II Service (1.4 S.F.)



### Straight Sided Spline Input

Single Reduction										
Output RPM	107HMTP05 6B SAE-A2		115HMTP05 6B SAE-A2		203HMTP05 6B SAE-A2		207HMTP-05 6B SAE-A2		215HMTP05 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.05	2,921	0.09	5,354	0.13	7,789	0.18	10,710	0.18	11,238
5	0.19	2,337	0.37	4,547	0.60	7,254	0.74	9,059	0.92	11,238
10	0.37	2,264	0.73	4,446	1.18	7,188	1.45	8,853	1.84	11,238
20	0.73	2,227	1.44	4,396	2.35	7,154	2.87	8,749	3.69	11,238
30	1.09	2,215	2.16	4,379	3.52	7,143	4.29	8,715	5.53	11,238
40	1.45	2,209	2.87	4,371	4.69	7,137	5.71	8,698	7.38	11,238
50	1.81	2,205	3.58	4,366	5.85	7,134	7.13	8,687	9.22	11,238
60	2.17	2,203	4.30	4,362	7.02	7,132	8.55	8,681	11.07	11,238
70	2.53	2,201	5.01	4,360	8.19	7,130	9.97	8,676	12.91	11,238
80	2.89	2,200	5.72	4,358	9.36	7,129	11.39	8,672	14.76	11,238
90	3.25	2,199	6.44	4,357	10.53	7,128	12.81	8,669	16.60	11,238
100	3.49	2,127	6.92	4,219	11.33	6,902	13.76	8,386	18.44	11,238
110	3.73	2,064	7.40	4,098	12.10	6,702	14.70	8,144	20.29	11,238
120	3.96	2,009	7.86	3,990	12.85	6,526	15.62	7,930	22.13	11,238
130	4.18	1,959	8.31	3,893	13.59	6,367	16.51	7,738	23.98	11,238
140	4.40	1,914	8.75	3,806	14.30	6,224	17.38	7,562	25.82	11,238
150	4.61	1,873	9.17	3,726	15.00	6,093	18.23	7,404	27.67	11,238
160	4.82	1,835	9.59	3,653	15.69	5,973	19.07	7,260	29.41	11,199
170	5.02	1,800	10.01	3,586	16.35	5,861	19.88	7,125	30.62	10,973
180	5.22	1,768	10.41	3,524	17.01	5,759	20.69	7,003	31.81	10,765
190	5.42	1,738	10.81	3,465	17.66	5,664	21.48	6,887	32.97	10,572
200	5.61	1,710	11.20	3,411	18.30	5,576	22.25	6,778	34.11	10,390
210	5.80	1,684	11.58	3,361	18.93	5,491	23.01	6,676	35.23	10,220
220	5.99	1,659	11.96	3,314	19.55	5,413	23.77	6,581	36.00	9,969
230	6.18	1,636	12.34	3,268	20.09	5,321	24.52	6,494	36.00	9,536
240	6.36	1,614	12.70	3,225	20.09	5,099	25.24	6,407	36.00	9,139
250	6.54	1,593	13.07	3,186	20.09	4,895	25.96	6,327	36.00	8,773
260	6.71	1,573	13.43	3,147	20.09	4,707	26.68	6,252	36.00	8,436
270	6.89	1,554	13.79	3,111	20.09	4,533	27.39	6,180	36.00	8,123
280	7.06	1,536	14.13	3,076	20.09	4,371	28.09	6,113	36.00	7,833
290	7.23	1,519	14.48	3,043	20.09	4,220	28.78	6,046	36.00	7,563
300	7.40	1,503	14.82	2,961	20.09	4,079	29.46	5,983	36.00	7,311
310	7.57	1,488	14.82	2,865	20.09	3,948	30.14	5,924	36.00	7,075
320	7.73	1,472	14.82	2,776	20.09	3,825	30.81	5,866	36.00	6,854
330	7.90	1,458	14.82	2,692	20.09	3,709	31.45	5,807	36.00	6,646
340	8.06	1,444	14.82	2,613	20.09	3,600	31.50	5,644	36.00	6,451
350	8.22	1,431	14.82	2,538	20.09	3,497	31.50	5,483	36.00	6,266
360	8.38	1,418	14.82	2,467	20.09	3,400	31.50	5,331	36.00	6,092
370	8.53	1,405	14.82	2,401	20.09	3,308	31.50	5,187	36.00	5,928
380	8.69	1,393	14.82	2,338	20.09	3,221	31.50	5,050	36.00	5,772
390	8.85	1,382	14.82	2,278	20.09	3,138	31.50	4,921	36.00	5,624
400	9.00	1,371	14.82	2,221	20.09	3,060	31.50	4,798	36.00	5,483

### Straight Sided Spline Input

Double Reduction												
Output RPM	203HMTF25 6B SAE-A2		207HMTF15 6B SAE-A2		207HMTF25 6B SAE-A2		215HMTF25 6B SAE-A2		307HMTF25 6B SAE-A2		315HMTF25 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.14	8,264	0.21	12,658	0.21	12,658	0.35	21,420	0.65	39,628	0.80	48,683
5	0.84	10,192	1.32	16,121	1.32	16,121	2.13	26,003	3.56	43,356	4.36	53,096
10	1.55	9,472	2.46	14,976	2.46	14,976	3.99	24,333	6.89	41,970	8.71	53,096
20	2.97	9,060	4.70	14,328	4.70	14,328	7.61	23,168	13.19	40,190	16.91	51,503
30	4.40	8,933	6.95	14,121	6.95	14,121	11.24	22,822	19.26	39,122	24.68	50,119
40	5.80	8,837	9.17	13,963	9.17	13,963	14.81	22,559	24.05	36,637	32.24	49,100
50	6.76	8,236	11.23	13,687	11.02	13,426	17.85	21,750	28.12	34,267	39.64	48,299
60	7.63	7,748	12.76	12,958	12.52	12,711	20.28	20,592	31.95	32,441	46.54	47,261
70	8.37	7,288	14.22	12,372	13.94	12,136	22.59	19,662	35.59	30,977	50.40	43,865
80	9.07	6,905	15.61	11,886	15.31	11,660	24.80	18,889	39.08	29,758	50.40	38,382
90	-	-	16.95	11,475	-	-	-	-	-	-	-	-
100	-	-	18.25	11,117	-	-	-	-	-	-	-	-
110	-	-	19.51	10,804	-	-	-	-	-	-	-	-
120	-	-	20.73	10,526	-	-	-	-	-	-	-	-
130	-	-	21.93	10,276	-	-	-	-	-	-	-	-



# HMTP Selection Chart



## Class III Service (2.0 S.F.)

### Involute Spline Input

Single Reduction										
Output RPM	107HMTP05 13T SAE-B2		115HMTP05 13T SAE-B2		203HMTP05 14T SAE-C4		207HMTP05 14T SAE-C4		215HMTP05 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
90	2.27	1,539	3.78	2,556	7.37	4,990	8.96	6,068	14.08	9,532
100	2.44	1,489	4.19	2,556	7.93	4,831	9.63	5,870	15.04	9,164
110	2.61	1,445	4.61	2,556	8.47	4,692	10.29	5,701	16.03	8,881
120	2.77	1,406	5.03	2,556	9.00	4,568	10.93	5,551	16.99	8,627
130	2.93	1,371	5.45	2,556	9.51	4,457	11.56	5,417	17.93	8,402
140	3.08	1,340	5.87	2,556	10.01	4,357	12.16	5,294	18.83	8,197
150	3.23	1,311	6.29	2,556	10.50	4,265	12.76	5,182	19.72	8,011
160	3.37	1,284	6.71	2,556	10.98	4,181	13.35	5,082	20.59	7,839
170	3.52	1,260	7.00	2,510	11.45	4,103	13.92	4,987	21.43	7,681
180	3.66	1,238	7.29	2,467	11.91	4,031	14.48	4,902	22.26	7,536
190	3.79	1,217	7.57	2,426	12.36	3,965	15.03	4,821	23.08	7,401
200	3.93	1,197	7.84	2,388	12.81	3,903	15.58	4,745	23.88	7,273
210	4.06	1,179	8.11	2,353	13.25	3,844	16.11	4,673	24.66	7,154
220	4.19	1,161	8.38	2,319	13.68	3,789	16.64	4,607	25.43	7,043
230	4.32	1,145	8.64	2,287	14.11	3,737	17.16	4,546	26.19	6,939
240	4.45	1,129	8.89	2,258	14.53	3,689	17.67	4,485	26.94	6,840
250	4.57	1,115	9.15	2,230	14.95	3,643	18.17	4,429	27.67	6,744
260	4.70	1,101	9.40	2,203	15.36	3,599	18.67	4,376	28.40	6,654
270	4.82	1,088	9.65	2,178	15.76	3,556	19.17	4,326	29.12	6,571
280	4.94	1,075	9.89	2,153	16.16	3,517	19.67	4,279	29.82	6,488
290	5.06	1,063	10.14	2,130	16.56	3,479	20.14	4,232	30.52	6,412
300	5.18	1,052	10.38	2,108	16.95	3,442	20.62	4,188	31.21	6,339
310	5.30	1,041	10.62	2,087	17.34	3,408	21.10	4,147	31.88	6,266
320	5.41	1,031	10.85	2,066	17.72	3,374	21.57	4,106	32.57	6,200
330	5.53	1,020	11.08	2,046	18.10	3,342	22.02	4,065	33.23	6,135
340	5.64	1,011	11.32	2,029	18.48	3,311	22.47	4,027	33.89	6,073
350	5.75	1,001	11.55	2,011	18.85	3,282	22.94	3,993	34.53	6,011
360	5.86	993	11.77	1,992	19.22	3,252	23.39	3,958	35.17	5,953
370	5.97	984	12.00	1,976	19.59	3,225	23.83	3,924	35.83	5,899
380	6.08	975	12.23	1,960	19.95	3,198	24.28	3,893	36.00	5,772
390	6.19	967	12.44	1,944	20.09	3,138	24.72	3,862	36.00	5,624
400	6.30	959	12.66	1,929	20.09	3,060	25.15	3,831	36.00	5,483



# HMTF Selection Chart

## Class III Service (2.0 S.F.)



HMTF

### Involute Spline Input

Double Reduction														
Output RPM	107HMTF15 9T SAE-A2		107HMTF25 9T SAE-A2		115HMTF15 9T SAE-A2		115HMTF25 9T SAE-A2		203HMTF15 13T SAE-B2		203HMTF25 9T SAE-A2		207HMTF15 13T SAE-B2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	0.46	2,829	0.46	2,829	0.63	3,827	0.63	3,827	1.09	6,630	1.06	6,457	1.32	8,040
20	0.89	2,717	0.89	2,717	1.20	3,671	1.20	3,671	2.08	6,342	2.08	6,342	2.64	8,040
30	1.31	2,650	1.31	2,650	1.78	3,621	1.78	3,621	3.08	6,253	3.08	6,253	3.96	8,040
40	1.71	2,602	1.71	2,602	2.35	3,584	2.35	3,584	4.06	6,186	4.06	6,186	5.28	8,040
50	2.10	2,564	2.10	2,564	2.92	3,553	2.92	3,553	5.03	6,131	4.73	5,765	6.60	8,040
60	2.49	2,533	2.49	2,533	3.47	3,527	3.47	3,527	5.66	5,749	5.34	5,423	7.92	8,040
70	2.88	2,506	2.88	2,506	4.03	3,505	4.03	3,505	6.23	5,419	5.86	5,102	9.24	8,040
80	3.26	2,482	3.26	2,482	4.58	3,484	4.58	3,484	6.75	5,142	6.35	4,833	10.56	8,040
90	3.64	2,461	-	-	5.12	3,466	-	-	7.25	4,910	-	-	11.87	8,032
100	4.01	2,442	-	-	5.66	3,449	-	-	7.73	4,710	-	-	12.77	7,782
110	4.38	2,425	-	-	6.20	3,434	-	-	8.23	4,561	-	-	13.65	7,563
120	4.74	2,409	-	-	6.73	3,419	-	-	8.72	4,429	-	-	14.51	7,368
130	5.11	2,394	-	-	7.27	3,406	-	-	9.20	4,310	-	-	15.35	7,193

Double Reduction														
Output RPM	207HMTF25 13T SAE-B2		215HMTF15 14T SAE-C4		215HMTF25 13T SAE-B2		307HMTF15 14T SAE-C4		307HMTF25 14T SAE-C4		315HMTF15 14T SAE-C4		315HMTF25 14T SAE-C4	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
10	1.72	10,483	2.80	17,033	2.22	13,512	4.82	29,379	4.82	29,379	6.17	37,603	6.17	37,603
20	3.29	10,029	5.32	16,218	4.44	13,512	9.24	28,133	9.24	28,133	11.83	36,052	11.83	36,052
30	4.87	9,884	7.87	15,975	6.65	13,512	13.48	27,385	13.48	27,385	17.28	35,083	17.28	35,083
40	6.42	9,774	10.37	15,791	8.87	13,512	17.14	26,114	16.84	25,646	22.57	34,370	22.57	34,370
50	7.71	9,398	12.27	14,953	11.09	13,512	20.04	24,423	19.69	23,987	27.75	33,810	27.75	33,810
60	8.76	8,898	13.94	14,157	13.31	13,512	22.77	23,123	22.36	22,708	32.53	33,029	32.58	33,082
70	9.76	8,496	15.53	13,516	15.52	13,512	25.37	22,078	24.91	21,684	36.23	31,535	36.08	31,406
80	10.72	8,162	17.05	12,986	17.36	13,222	27.85	21,211	27.35	20,831	39.78	30,297	39.44	30,037
90	-	-	18.52	12,535	-	-	30.24	20,474	-	-	43.20	29,247	-	-
100	-	-	19.94	12,146	-	-	32.56	19,838	-	-	46.51	28,336	-	-
110	-	-	21.31	11,803	-	-	34.81	19,279	-	-	49.72	27,537	-	-
120	-	-	22.65	11,498	-	-	36.99	18,783	-	-	52.84	26,827	-	-
130	-	-	23.95	11,226	-	-	39.12	18,336	-	-	54.00	25,307	-	-





# HMTP Selection Chart



## Class III Service (2.0 S.F.)

### Straight Sided Spline Input

Single Reduction										
Output RPM	107HMTP05 6B SAE-A2		115HMTP05 6B SAE-A2		203HMTP05 6B SAE-A2		207HMTP-05 6B SAE-A2		215HMTP05 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.03	2,045	0.06	3,748	0.09	5,452	0.12	7,497	0.13	7,866
5	0.13	1,636	0.26	3,183	0.42	5,078	0.52	6,341	0.65	7,866
10	0.26	1,585	0.51	3,112	0.83	5,031	1.02	6,197	1.29	7,866
20	0.51	1,559	1.01	3,077	1.64	5,008	2.01	6,125	2.58	7,866
30	0.76	1,550	1.51	3,065	2.46	5,000	3.00	6,100	3.87	7,866
40	1.02	1,546	2.01	3,059	3.28	4,996	4.00	6,088	5.16	7,866
50	1.27	1,544	2.51	3,056	4.10	4,994	4.99	6,081	6.46	7,866
60	1.52	1,542	3.01	3,054	4.92	4,992	5.98	6,076	7.75	7,866
70	1.77	1,541	3.51	3,052	5.73	4,991	6.98	6,073	9.04	7,866
80	2.02	1,540	4.01	3,051	6.55	4,990	7.97	6,070	10.33	7,866
90	2.27	1,539	4.51	3,050	7.37	4,990	8.96	6,068	11.62	7,866
100	2.44	1,489	4.85	2,953	7.93	4,831	9.63	5,870	12.91	7,866
110	2.61	1,445	5.18	2,868	8.47	4,692	10.29	5,701	14.20	7,866
120	2.77	1,406	5.50	2,793	9.00	4,568	10.93	5,551	15.49	7,866
130	2.93	1,371	5.81	2,725	9.51	4,457	11.56	5,417	16.78	7,866
140	3.08	1,340	6.12	2,664	10.01	4,357	12.16	5,294	18.08	7,866
150	3.23	1,311	6.42	2,609	10.50	4,265	12.76	5,182	19.37	7,866
160	3.37	1,284	6.72	2,557	10.98	4,181	13.35	5,082	20.59	7,839
170	3.52	1,260	7.00	2,510	11.45	4,103	13.92	4,987	21.43	7,681
180	3.66	1,238	7.29	2,467	11.91	4,031	14.48	4,902	22.26	7,536
190	3.79	1,217	7.57	2,426	12.36	3,965	15.03	4,821	23.08	7,401
200	3.93	1,197	7.84	2,388	12.81	3,903	15.58	4,745	23.88	7,273
210	4.06	1,179	8.11	2,353	13.25	3,844	16.11	4,673	24.66	7,154
220	4.19	1,161	8.38	2,319	13.68	3,789	16.64	4,607	25.43	7,043
230	4.32	1,145	8.64	2,287	14.11	3,737	17.16	4,546	26.19	6,939
240	4.45	1,129	8.89	2,258	14.53	3,689	17.67	4,485	26.94	6,840
250	4.57	1,115	9.15	2,230	14.95	3,643	18.17	4,429	27.67	6,744
260	4.70	1,101	9.40	2,203	15.36	3,599	18.67	4,376	28.40	6,654
270	4.82	1,088	9.65	2,178	15.76	3,556	19.17	4,326	29.12	6,571
280	4.94	1,075	9.89	2,153	16.16	3,517	19.67	4,279	29.82	6,488
290	5.06	1,063	10.14	2,130	16.56	3,479	20.14	4,232	30.52	6,412
300	5.18	1,052	10.38	2,108	16.95	3,442	20.62	4,188	31.21	6,339
310	5.30	1,041	10.62	2,087	17.34	3,408	21.10	4,147	31.88	6,266
320	5.41	1,031	10.85	2,066	17.72	3,374	21.57	4,106	32.57	6,200
330	5.53	1,020	11.08	2,046	18.10	3,342	22.02	4,065	33.23	6,135
340	5.64	1,011	11.32	2,029	18.48	3,311	22.47	4,027	33.89	6,073
350	5.75	1,001	11.55	2,011	18.85	3,282	22.94	3,993	34.53	6,011
360	5.86	993	11.77	1,992	19.22	3,252	23.39	3,958	35.17	5,953
370	5.97	984	12.00	1,976	19.59	3,225	23.83	3,924	35.83	5,899
380	6.08	975	12.23	1,960	19.95	3,198	24.28	3,893	36.00	5,772
390	6.19	967	12.44	1,944	20.09	3,138	24.72	3,862	36.00	5,624
400	6.30	959	12.66	1,929	20.09	3,060	25.15	3,831	36.00	5,483

### Straight Sided Spline Input

Double Reduction												
Output RPM	203HMTF25 6B SAE-A2		207HMTF15 6B SAE-A2		207HMTF25 6B SAE-A2		215HMTF25 6B SAE-A2		307HMTF25 6B SAE-A2		315HMTF25 6B SAE-A2	
	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)	Input HP	Output Torque (lb-ins)
1	0.09	5,785	0.15	8,860	0.15	8,860	0.25	14,994	0.46	27,739	0.56	34,078
5	0.59	7,134	0.93	11,285	0.93	11,285	1.49	18,202	2.49	30,349	3.05	37,167
10	1.09	6,630	1.72	10,483	1.72	10,483	2.80	17,033	4.82	29,379	6.10	37,167
20	2.08	6,342	3.29	10,029	3.29	10,029	5.32	16,218	9.24	28,133	11.83	36,052
30	3.08	6,253	4.87	9,884	4.87	9,884	7.87	15,975	13.48	27,385	17.28	35,083
40	4.06	6,186	6.42	9,774	6.42	9,774	10.37	15,791	16.84	25,646	22.57	34,370
50	4.73	5,765	7.86	9,581	7.71	9,398	12.49	15,225	19.69	23,987	27.75	33,810
60	5.34	5,423	8.93	9,071	8.76	8,898	14.20	14,414	22.36	22,708	32.58	33,082
70	5.86	5,102	9.95	8,661	9.76	8,496	15.81	13,763	24.91	21,684	36.08	31,406
80	6.35	4,833	10.93	8,320	10.72	8,162	17.36	13,222	27.35	20,831	39.44	30,037
90	-	-	11.87	8,032	-	-	-	-	-	-	-	-
100	-	-	12.77	7,782	-	-	-	-	-	-	-	-
110	-	-	13.65	7,563	-	-	-	-	-	-	-	-
120	-	-	14.51	7,368	-	-	-	-	-	-	-	-
130	-	-	15.35	7,193	-	-	-	-	-	-	-	-



## HMTP TorqTaper Plus Unit Sizes 107-315

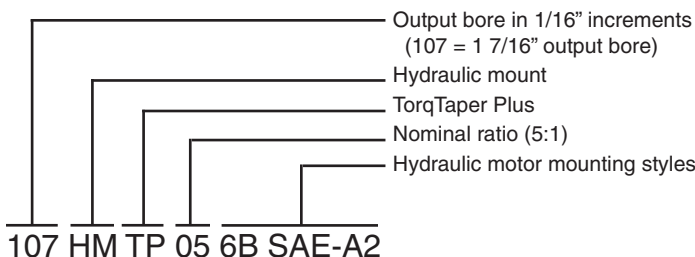
PART NO.	DIMENSIONS IN INCHES																	
	A	B	C	D	E	F	G	H	H1	J	K	L	MC	O	O2	P	P1	PF
107HMTP	9.76	12.07	4.88	4.88	7.19	10.07	7.75	3.25	3.00	0.63	5.52	7.89	1.75	4.25	4.21	0.90	1.84	1.14
115HMTP	11.00	14.08	5.50	5.50	8.58	11.78	8.69	4.13	3.50	0.75	5.99	8.36	1.88	4.48	4.45	0.90	1.83	1.14
203HMTP	12.88	16.16	6.44	6.44	9.72	13.66	10.38	4.50	3.75	0.87	7.07	9.43	1.88	5.01	4.99	0.89	1.83	1.32
207HMTP	14.50	16.47	7.25	7.25	11.22	15.73	11.76	4.88	4.25	1.01	7.39	9.75	1.88	5.14	5.19	0.89	1.86	1.51
215HMTP	16.25	20.88	8.13	8.13	12.76	18.07	13.44	5.31	4.75	1.07	8.24	10.85	1.88	5.89	5.74	1.02	1.96	1.51
307HMTP	19.04	24.37	9.52	9.52	14.85	21.00	15.67	6.44	5.69	1.25	9.27	12.57	2.25	6.58	6.61	1.36	2.75	1.81
315HMTP	19.90	26.35	9.95	9.95	16.40	23.02	16.57	7.13	6.70	1.25	10.51	14.50	2.75	7.51	7.61	1.73	3.25	2.22

PART NO.	DIMENSIONS IN INCHES														BOLT SIZE	MAX. OUTPUT BORE	WT. LBS.
	Q	R	RF	S	SF	T	TF	W	WF	Y	AA						
	MIN.		MAX.														
107HMTP	4.24	1.18	0.36	3.77	2.50	3.95	3.38	7.88	1.44	2.73	24.00	30.00	3/8	1 7/16	58		
115HMTP	4.51	1.35	0.36	4.36	2.50	4.56	3.38	9.14	1.44	3.12	24.00	30.00	3/8	1 15/16	79		
203HMTP	5.04	1.48	0.42	5.26	2.50	5.46	3.50	10.94	1.72	3.64	24.00	30.00	3/8	2 3/16	120		
207HMTP	5.57	1.63	0.48	6.08	3.00	6.29	4.25	12.68	2.19	4.16	27.00	33.00	7/16	2 7/16	162		
215HMTP	6.24	2.12	0.48	7.01	3.00	7.32	4.25	14.19	2.19	4.65	27.00	33.00	7/16	2 15/16	234		
307HMTP	6.79	2.25	0.61	7.78	4.00	8.10	5.38	17.00	2.78	5.58	29.00	35.00	1/2	3 7/16	365		
315HMTP	8.05	2.63	0.72	8.53	4.75	8.93	6.50	18.12	3.63	6.20	29.50	35.50	5/8	3 15/16	473		

PART NO.	DIMENSIONS IN INCHES										SPLINE DATA ★		
	M	M2	N	AB2	AB4	AC	AD	NT	DP	OD			
	107HMTP 6B SAE-A2	2.18	1.60	3.08	4.19	-	0.50	3.25	6	-	1.00		
107HMTP 9T SAE-A2	2.18	1.60	3.08	4.19	-	0.38	3.25	9	16/32	.609			
107HMTP 13T SAE-B2	2.66	2.08	3.56	5.75	5.00	0.50	4.00	13	16/32	.875			
115HMTP 6B SAE-A2	2.18	1.60	3.08	4.19	-	0.50	3.25	6	-	1.00			
115HMTP 9T SAE-A2	2.18	1.60	3.08	4.19	-	0.38	3.25	9	16/32	.609			
115HMTP 13T SAE-B2	2.66	2.08	3.56	5.75	5.00	0.50	4.00	13	16/32	.875			
203HMTP 6B SAE-A2	2.68	2.14	3.58	4.19	-	0.50	3.25	6	-	1.00			
203HMTP 9T SAE-A2	2.68	2.14	3.58	4.19	-	0.38	3.25	9	16/32	.609			
203HMTP 13T SAE-B2	2.87	2.33	3.77	5.75	5.00	0.50	4.00	13	16/32	.875			
203HMTP 14T SAE-C4	3.18	2.64	4.08	6.38	-	0.50	5.00	14	12/24	1.234			
207HMTP 6B SAE-A2	2.62	2.07	3.52	4.19	-	0.50	3.25	6	-	1.00			
207HMTP 13T SAE-B2	2.81	2.26	3.71	5.75	5.00	0.50	4.00	13	16/32	.875			
207HMTP 14T SAE-C4	3.12	2.57	4.02	6.38	-	0.50	5.00	14	12/24	1.234			
215HMTP 6B SAE-A2	2.69	2.12	3.72	4.19	-	0.50	3.25	6	-	1.00			
215HMTP 13T SAE-B2	2.68	2.11	3.71	5.75	5.00	0.50	4.00	13	16/32	.875			
215HMTP 14T SAE-C4	3.24	2.67	4.27	6.38	-	0.50	5.00	14	12/24	1.234			
307HMTP 6B SAE-A2	2.29	1.67	3.65	4.19	-	0.50	3.25	6	-	1.00			
307HMTP 14T SAE-C4	2.84	2.22	4.20	6.38	-	0.50	5.00	14	12/24	1.234			
315HMTP 6B SAE-A2	1.92	1.29	3.65	4.19	-	0.50	3.25	6	-	1.00			
315HMTP 14T SAE-C4	2.47	1.84	4.20	6.38	-	0.50	5.00	14	12/24	1.234			

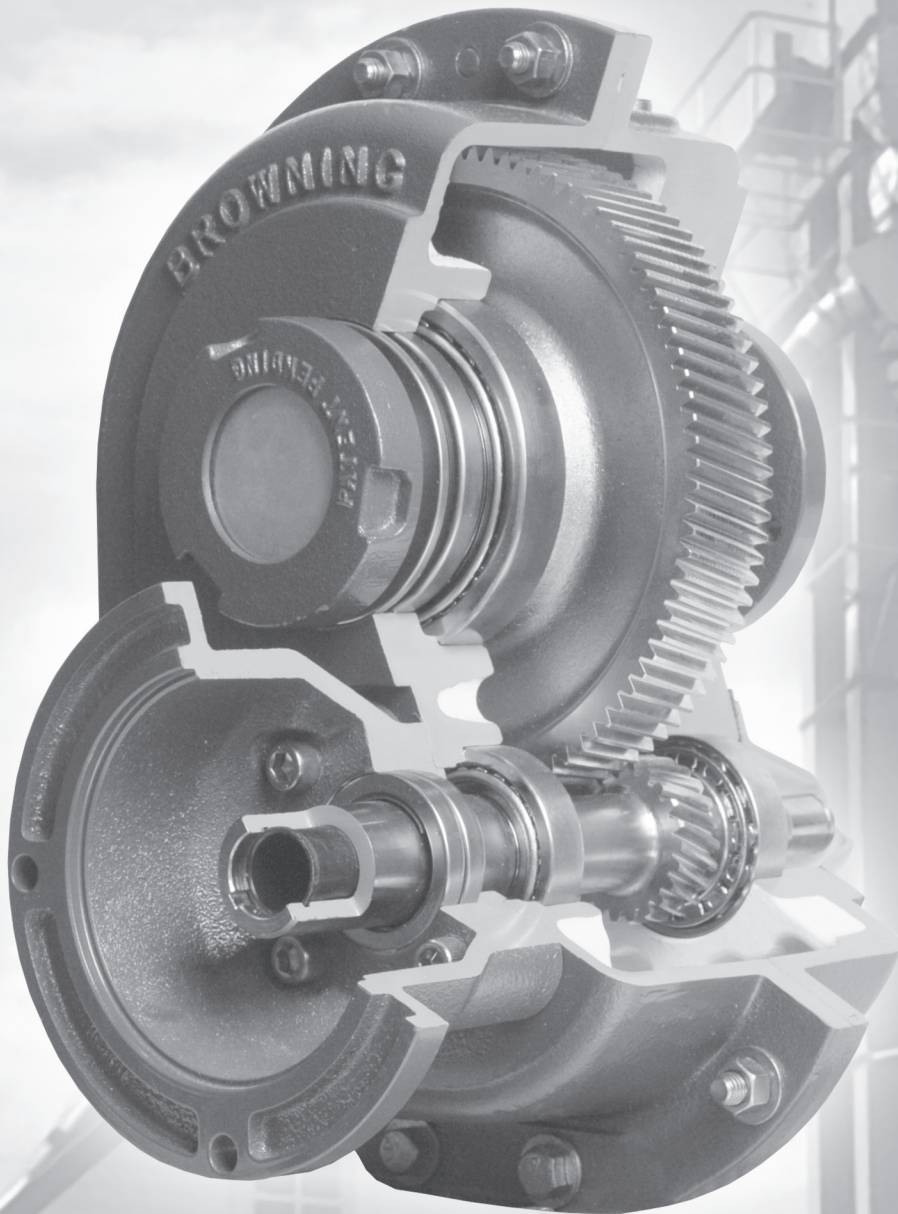
NT - Number of spline teeth.  
 DP - Involute spline diametral pitch.  
 OD - Internal spline major outside diameter.

### Part Number Explanation





# Innovative C-Face Motor Connections

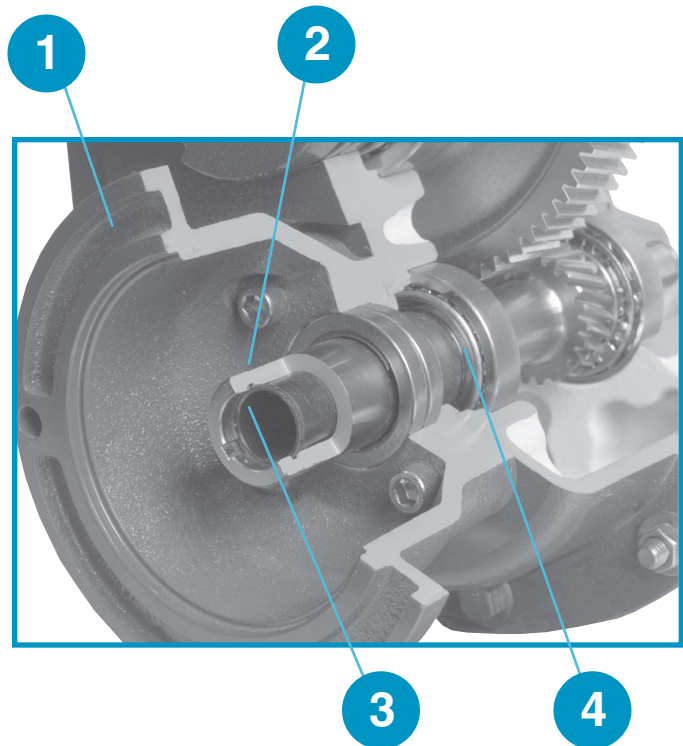


# Browning C-Face TorqTaper Plus Shaft Mount Reducers

CMTF

Experience the latest in technology with the new C-Face TorqTaper Plus shaft mounted reducers. Regal Power Transmission Solutions engineers continue to create innovative new designs to solve industry needs.

- Eliminate belt guards, belt drives and motor mounts
- Combine with Intelligear for variable speed control
- Innovative Regal Power Transmission Solutions C-Face motor connections
- Patented mounting system, barrier seal system and increased ratings



1. Rugged C-Face adapters — designed for standard NEMA frame sizes
2. Metal key — provides positive torque transmission
3. Non metallic quill liner — eliminates fretting and allows for easier motor removal
4. Bearing supported quill input — minimizes shaft wobble and increases seal life

## Ordering Information

### Example No. 1

#### Units 107 - 315 C-face Shaft Mounts

A C-face shaft mount reducer is required for a grain bucket elevator, which will be uniformly loaded and operated 8 hours per day at 50 rpm.

The elevator requires 20 hp. The reducer will be mounted on the elevator drive pulley shaft with a 3 7/16" diameter extension.

#### 1. Determine the Load Classification

From the *AGMA Application Classification Numbers* section, note the AGMA Class Number is II for a bucket elevator operating 3 to 10 hours per day.

#### 2. Determine the Speed Reducer Required

From the *C-face Reducer Selection Chart* section, there are two tables for Class II Service. Locate the 50 rpm row in each table. Read across the row to find a column with a rating of 20 hp or greater. Read up the column to determine the basic reducer size that corresponds to the design hp. For this application, a 315CMTP05, 307CMTP09, 307CMTP15, 307CMTP25 or a 307CMTP35 may be used. Generally, the smaller case size is more economical, but the total system should be considered. For this example, select a 307CMTP35. When used with a 1750 rpm C-face motor, the 35:1 ratio will provide an output speed closest to the desired 50 rpm speed. Other ratios may be used, but to obtain the desired speed a variable frequency drive may be required. (Note: The motor and

variable frequency drives are not included with the reducer.)

From the *CMTP Availability Table*, locate the row with the basic reducer size. At the top of the table, locate the column with the C-face motor frame designation required. The complete reducer part number is at the intersection of the selected row and column. For this example, a 307CMTP35 Q250 is selected.

A 307TBP307 bushing is required to mount the reducer to a 3 7/16 shaft.

The 307TAP-H kit is required to restrain the gearbox in operation.

#### 3. List Components

- 1, 307CMTP35 Q250 reducer
- 1, 307TBP307 bushing
- 1, 307TAP-H torque arm kit
- 1, C-face motor purchased separately

Refer to C-Face standard and stainless steel motors section for product information.

**CMTP Availability Table**

PART NO.	RATIO	Q56	Q140	Q180	Q210	Q250
107CMTP05	5.0588	107CMTP05 Q56	107CMTP05 Q140	-	-	-
107CMTP09	8.8205	107CMTP09 Q56	107CMTP09 Q140	-	-	-
107CMTP15	14.8276	107CMTP15 Q56	107CMTP15 Q140	-	-	-
107CMTP25	24.7250	107CMTP25 Q56	107CMTP25 Q140	-	-	-
107CMTP35	34.8778	107CMTP35 Q56	107CMTP35 Q140	-	-	-
115CMTP05	4.7000	115CMTP05 Q56	115CMTP05 Q140	115CMTP05 Q180	-	-
115CMTP09	8.8125	115CMTP09 Q56	115CMTP09 Q140	115CMTP09 Q180	-	-
115CMTP15	14.7759	115CMTP15 Q56	115CMTP15 Q140	115CMTP15 Q180	-	-
115CMTP25	24.8558	115CMTP25 Q56	115CMTP25 Q140	115CMTP25 Q180	-	-
115CMTP35	34.9487	115CMTP35 Q56	115CMTP35 Q140	115CMTP35 Q180	-	-
203CMTP05	5.1053	203CMTP05 Q56	203CMTP05 Q140	203CMTP05 Q180	203CMTP05 Q210	-
203CMTP09	8.8732	203CMTP09 Q56	203CMTP09 Q140	203CMTP09 Q180	203CMTP09 Q210	-
203CMTP15	14.9231	203CMTP15 Q56	203CMTP15 Q140	203CMTP15 Q180	203CMTP15 Q210	-
203CMTP25	24.7409	203CMTP25 Q56	203CMTP25 Q140	203CMTP25 Q180	203CMTP25 Q210	-
203CMTP35	34.6429	203CMTP35 Q56	203CMTP35 Q140	203CMTP35 Q180	203CMTP35 Q210	-
207CMTP05	5.1579	207CMTP05 Q56	207CMTP05 Q140	207CMTP05 Q180	207CMTP05 Q210	-
207CMTP09	8.8308	207CMTP09 Q56	207CMTP09 Q140	207CMTP09 Q180	207CMTP09 Q210	-
207CMTP15	14.7870	207CMTP15 Q56	207CMTP15 Q140	207CMTP15 Q180	207CMTP15 Q210	-
207CMTP25	24.7094	207CMTP25 Q56	207CMTP25 Q140	207CMTP25 Q180	207CMTP25 Q210	-
207CMTP35	35.0000	207CMTP35 Q56	207CMTP35 Q140	207CMTP35 Q180	207CMTP35 Q210	-
215CMTP05	5.1667	215CMTP05 Q56	215CMTP05 Q140	215CMTP05 Q180	215CMTP05 Q210	215CMTP05 Q250
215CMTP09	8.8482	215CMTP09 Q56	215CMTP09 Q140	215CMTP09 Q180	215CMTP09 Q210	215CMTP09 Q250
215CMTP15	14.8187	215CMTP15 Q56	215CMTP15 Q140	215CMTP15 Q180	215CMTP15 Q210	215CMTP15 Q250
215CMTP25	24.8502	215CMTP25 Q56	215CMTP25 Q140	215CMTP25 Q180	215CMTP25 Q210	215CMTP25 Q250
215CMTP35	34.8154	215CMTP35 Q56	215CMTP35 Q140	215CMTP35 Q180	215CMTP35 Q210	215CMTP35 Q250
307CMTP05	5.1111	307CMTP05 Q56	307CMTP05 Q140	307CMTP05 Q180	307CMTP05 Q210	307CMTP05 Q250
307CMTP09	8.7925	307CMTP09 Q56	307CMTP09 Q140	307CMTP09 Q180	307CMTP09 Q210	307CMTP09 Q250
307CMTP15	14.9704	307CMTP15 Q56	307CMTP15 Q140	307CMTP15 Q180	307CMTP15 Q210	307CMTP15 Q250
307CMTP25	24.7692	307CMTP25 Q56	307CMTP25 Q140	307CMTP25 Q180	307CMTP25 Q210	307CMTP25 Q250
307CMTP35	34.8791	307CMTP35 Q56	307CMTP35 Q140	307CMTP35 Q180	307CMTP35 Q210	307CMTP35 Q250
315CMTP05	4.8824	315CMTP05 Q56	315CMTP05 Q140	315CMTP05 Q180	315CMTP05 Q210	315CMTP05 Q250
315CMTP09	8.8620	315CMTP09 Q56	315CMTP09 Q140	315CMTP09 Q180	315CMTP09 Q210	315CMTP09 Q250
315CMTP15	14.5744	315CMTP15 Q56	315CMTP15 Q140	315CMTP15 Q180	315CMTP15 Q210	315CMTP15 Q250
315CMTP25	24.4118	315CMTP25 Q56	315CMTP25 Q140	315CMTP25 Q180	315CMTP25 Q210	315CMTP25 Q250
315CMTP35	34.0513	315CMTP35 Q56	315CMTP35 Q140	315CMTP35 Q180	315CMTP35 Q210	315CMTP35 Q250

Note: See "Application Considerations" on back cover.

## Ordering Information

CMTF

### Example No. 2

#### Units 107 - 315 C-face Screw Conveyor Drive

A C-face shaft mount reducer is required for a screw conveyor transporting rice. The conveyor will be uniformly loaded and operates 18 to 24 hours per day. The screw is 12" diameter and has a 2" bore with three holes. The conveyor requires 5 hp and will operate at 70 rpm. The application requires a waste pack.

#### 1. Determine the Load Classification

From the *AGMA Application Classification Numbers* section, note the AGMA Class Number is II for a uniformly loaded or fed screw conveyor operating over 10 hours per day.

#### 2. Determine the Speed Reducer Required

From the *C-face Reducer Selection Chart* section, there are two tables for Class II Service. Locate the 70 rpm row in each table. Read across the row to find a column with a rating of 5 hp or greater. Read up the column to determine the basic reducer size that corresponds to the design hp. For this application, a 115CMTF05, 115CMTF09, 115CMTF15 or a 115CMTF25 may be used. For this example, select a 115CMTF25. When used with a 1750 rpm C-face motor, the 25:1 ratio will provide an output speed closest to the desired 70 rpm speed. Other ratios may be used, but to obtain the desired speed a variable frequency drive may be required. (Note: The motor and variable frequency drives are not included with the reducer.)

From the *CMTF Availability Table*, locate the row with the basic reducer size. At the top of the table, locate the column with the C-face motor frame designation required. The complete reducer part number is at the intersection of the selected row and column. For this example, a 115CMTF25 Q180 is selected.

#### 3. Establish Sealing Required for Screw Conveyor

The waste pack cartridge is well suited for dry materials, such as rice. Specify the optional waste pack cartridge for the 115 shaft mount selected. From the *Accessories* section, select part 115-203WPP.

#### 4. Select the Screw Conveyor Adapter and Screw Conveyor Shaft

Using the basic reducer size, required drive shaft and screw diameter for the selection; refer to *Screw Conveyor Drives* in the *Accessories* section. Note the specification was for a 2" drive shaft with a three hole arrangement for the 12" diameter screw. From the table select the 115SCA-P and the 115DSP200-3.

#### 5. Select the Trough End

From the *Screw Conveyor Trough Ends Sizes 107-407* table, select the SCTE12 X 2 trough end.

#### 6. List of Components:

- 1, 115CMTF25 Q180 reducer
- 1, 115SCA-P screw conveyor adapter
- 1, 115DSP200-3 screw conveyor drive shaft kit
- 1, 115-203WPP waste pack cartridge
- 1, SCTE12X2 trough end
- 1, C-face motor (separate)

Refer to C-Face standard and stainless steel motors section for product information.

**CMTF Exact Ratios**

Reducer Size	Ratio Symbols				
	05	09	15	25	35
107	5.0588	8.8205	14.8276	24.7250	34.8778
115	4.7000	8.8125	14.7759	24.8558	34.9487
203	5.1053	8.8732	14.9231	24.7409	34.6429
207	5.1579	8.8308	14.7870	24.7094	35.0000
215	5.1667	8.8482	14.8187	24.8502	34.8154
307	5.1111	8.7925	14.9704	24.7692	34.8791
315	4.8824	8.8620	14.5744	24.4118	34.0513

Note: See "Application Considerations" on back cover.



## Classification Numbers

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
AGITATORS (Mixers)			
Pure Liquids	I	I	II
Liquids and Solids	I	II	II
Liquids - Variable Density	I	II	II
BLOWERS			
Centrifugal & Vane	I	I	II
Lobe	I	II	II
Vane	I	II	II
BREWING AND DISTILLING			
Bottling Machinery	I	I	II
Brew Kettles - Continuous Duty	II	II	II
Cookers - Continuous Duty	II	II	II
Mash Tubs - Continuous Duty	II	II	II
Scale Hopper - Frequent Starts	II	II	II
CAN FILLING MACHINES	I	I	II
CAR DUMPERS	II	III	III
CAR PULLERS	I	II	II
CLARIFIERS	I	I	II
CLASSIFIERS	I	II	II
CLAY WORKING MACHINERY			
Brick Presses	II	III	III
Briquette Machines	II	III	III
Pug Mills	I	II	II
COMPACTORS			
COMPRESSORS			
Centrifugal	I	I	II
Lobe	I	II	II
Reciprocating, Multi-Cylinder	II	II	III
Reciprocating, Single-Cylinder	III	III	III
CONVEYORS - GENERAL PURPOSE			
Includes Apron, Assembly, Belt, Bucket Chain, Flight, Oven, and Screw			
Uniformly Loaded or Fed	I	I	II
Heavy Duty - Not Uniformly Fed	I	II	II
Severe Duty - Reciprocating or Shaker	II	III	III
CRANES			
Dry Dock			
Main Hoist			
Auxiliary Hoist			
Boom Hoist			
Slewing Drive			
Traction Drive			
Container			
Main Hoist			
Boom Hoist			
Trolley Drive			
Gantry Drive			
Traction Drive			
Mill Duty			
Main Hoist			
Auxiliary			
Bridge Travel			
Trolley Travel			
Industrial Duty			
Main			
Auxiliary			
Bridge Travel			
Trolley Travel			
CRUSHERS			
Stone or Ore	III	III	III
DREDGES			
Cable Reels	II	II	II
Conveyors	II	II	II
Cutter Head Drives	III	III	III
Pumps	III	III	III
Screen Drives	III	III	III
Stackers	II	II	II
Winches	II	II	II
ELEVATORS			
Bucket	I	II	II
Centrifugal Discharge	I	I	II
Escalators	I	I	II
Freight	I	II	II
Gravity Discharge	I	I	II
EXTRUDERS			
General	II	II	II
Plastics			
Variable Speed Drive	III	III	III
Fixed Speed Drive	III	III	III
Rubber			
Continuous Screw Operation	III	III	III
Intermittent Screw Operation	III	III	III
FANS			
Centrifugal	I	I	II

Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
FANS (Cont'd)			
Cooling Towers	III	III	III
Forced Draft	II	II	II
Induced Draft	II	II	II
Industrial & Mine	II	II	II
FEEDERS			
Apron	I	II	II
Belt	I	II	II
Disc	I	I	II
Reciprocating	II	III	III
Screw	I	II	II
FOOD INDUSTRY			
Cereal Cooker	I	I	II
Dough Mixer	II	II	II
Meat Grinders	II	II	II
Slicers	I	II	II
GENERATORS AND EXCITERS	II	II	II
HAMMER MILLS	III	III	III
HOISTS			
Heavy Duty			
Medium Duty			
Skip Hoist			
LAUNDRY TUMBLERS	II	II	II
LAUNDRY WASHERS	II	II	III
LUMBER INDUSTRY			
Barkers			
Spindle Feed	II	II	II
Main Drive	III	III	III
Conveyors			
Burner	II	II	II
Main or Heavy Duty	II	II	II
Main Log	III	III	III
Re-saw, Merry-Go-Round	II	II	II
Slab	III	III	III
Transfer	II	II	II
Chains			
Floor	II	II	II
Green	II	II	III
Cut-Off-Saws			
Chain	II	II	III
Drag	II	II	III
Debarking Drums	III	III	III
Feeds			
Edger	II	II	II
Gang	II	III	III
Trimmer	II	II	II
Log Deck	III	III	III
Log Hauls - Incline - Well Type	III	III	III
Log Turning Devices	III	III	III
Planer Feed	II	II	II
Planer Tilting Hoists	II	II	II
Rolls - Live-Off Brg - Roll Cases	III	III	III
Sorting Table	II	II	II
Tipple Hoist	II	II	II
Transfer			
Chain	II	II	III
Craneway	II	II	III
Tray Drives	II	II	II
Veneer Lathe Drives	II	II	II
METAL MILLS			
Draw Bench Carriage and Main Drive	II	II	II
Runout Table			
Non-Reversing			
Group Drives	II	II	II
Individual Drives	III	III	III
Reversing	III	III	III
Slab Pushers	II	II	II
Shears	III	III	III
Wire Drawing	II	II	II
Wire Winding Machine	II	II	II
METAL STRIP PROCESSING MACHINERY			
Bridges	II	II	II
Collers & Uncoilers	I	I	II
Edge Trimmers	I	II	II
Flatteners	II	II	II
Loopers (Accumulators)	I	I	I
Pinch Rolls	II	II	II
Scrap Choppers	II	II	II
Shears	III	III	III
Slitters	I	II	II
MILLS, ROTARY TYPE			
Ball & Rod			
Spur Ring Gear	III	III	III
Helical Ring Gear	II	II	II
Direct Connected	III	III	III

## Classification Numbers

Application	AGMA Class Numbers			Application	AGMA Class Numbers		
	Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day		Up to 3 Hours Per Day	3-10 Hours Per Day	Over 10 Hours Per Day
MILLS, ROTARY TYPE (Cont'd)				RUBBER INDUSTRY (Cont'd)			
Cement Kilns	II	II	II	Batch Drop Mill - 2 Smooth Rolls	II	II	II
Dryers & Coolers	II	II	II	Cracker Warmer - 2 Roll, 1 Corrugated Roll	III	III	III
PAPER MILLS <sup>1)</sup>				Cracker - 2 Corrugated Rolls	III	III	III
Agitator (Mixer)	II	II	II	Holding, Feed & Blend Mill - 2 Rolls	II	II	II
Agitator For Pure Liquors	II	II	II	Refiner - 2 Rolls	II	II	II
Barking Drums	III	III	III	Calendars	II	II	II
Barkers - Mechanical	III	III	III	SAND MULLER	II	II	II
Beater	II	II	II	SEWAGE DISPOSAL EQUIPMENT			
Breaker Stack	II	II	II	Bar Screens	II	II	II
Calendar <sup>2)</sup>	II	II	II	Chemical Feeder	II	II	II
Chipper	III	III	III	Dewatering Screens	II	II	II
Chip Feeder	II	II	II	Scum Breakers	II	II	II
Coating Rolls	II	II	II	Slow or Rapid Mixers	II	II	II
Conveyors				Sludge Collectors	II	II	II
Chip, Bark, Chemical	II	II	II	Thickener	II	II	II
Log (Including Slab)	III	III	III	Vacuum Filters	II	II	II
Couch Rolls	II	II	II	SCREENS			
Cutter	III	III	III	Air Washing	I	I	II
Cylinder Molds	II	II	II	Rotary - Stone or Gravel	II	II	II
Dryers <sup>2)</sup>				Traveling Water Intake	I	I	I
Paper Machine	II	II	II	SCREW CONVEYORS			
Conveyor Type	II	II	II	Uniformly Loaded or Fed	I	I	II
Embosser	II	II	II	Heavy Duty	I	II	II
Extruder	II	II	II	SUGAR INDUSTRY			
Fourdrinier Rolls (Includes Lump Breaker, Dandy Roll, Wire Turning, and Return Rolls)	II	II	II	Beet Slicer	III	III	III
Jordan	II	II	II	Cane Knives	II	II	II
Kiln Drive	II	II	II	Crushers	II	II	II
Mt. Hope Roll	II	II	II	Mills (Low Speed End)	III	III	III
Paper Rolls	II	II	II	TEXTILE INDUSTRY			
Platter	II	II	II	Batchers	II	II	II
Presses - Felt Suction	II	II	II	Calendars	II	II	II
Pulper	III	III	III	Cards	II	II	II
Pumps - Vacuum	II	II	II	Dry Cans	II	II	II
Reel (Surface - Type)	II	II	II	Dyeing Machinery	II	II	II
Screens				Looms	II	II	II
Chip	II	II	II	Mangles	II	II	II
Rotary	II	II	II	Nappers	II	II	II
Vibrating	III	III	III	Pads	II	II	II
Size Press	II	II	II	Slashers	II	II	II
Supercalendar	II	II	II	Soapers	II	II	II
Thickener (AC Motor)	II	II	II	Spinners	II	II	II
Thickener (DC Motor)	II	II	II	Tenter Frames	II	II	II
Washer (AC Motor)	II	II	II	Washers	II	II	II
Washer (DC Motor)	II	II	II	Winders	II	II	II
Wind and Unwind Stand	I	I	I				
Winders (Surface Type)	II	II	II				
Yankee Dryers <sup>2)</sup>	II	II	II				
PLASTICS INDUSTRY							
PRIMARY PROCESSING							
Intensive Internal Mixers							
Batch Mixers	III	III	III				
Continuous Mixers	II	II	II				
Batch Drop Mill - 2 Smooth Rolls	II	II	II				
Continuous Feed, Holding & Blend Mill	II	II	II				
Calendars	II	II	II				
PLASTICS INDUSTRY							
SECONDARY PROCESSING							
Blow Molders	II	II	II				
Coating	II	II	II				
Film	II	II	II				
Pipe	II	II	II				
Pre-Plasticizers	II	II	II				
Rods	II	II	II				
Sheet	II	II	II				
Tubing	II	II	II				
PULLERS - BARGE HAUL	II	II	II				
PUMPS							
Centrifugal	I	I	II				
Proportioning	II	II	II				
Reciprocating							
Single Acting, 3 or more Cylinders	II	II	II				
Double Acting, 2 or more Cylinders	II	II	II				
Rotary							
Gear Type	I	I	II				
Lobe	I	I	II				
Vane	I	I	II				
RUBBER INDUSTRY							
Intensive Internal Mixers							
Batch Mixers	III	III	III				
Continuous Mixers	II	II	II				
Mixing Mill							
2 Smooth Rolls	II	II	II				
1 or 2 Corrugated Rolls	III	III	III				

CMTP

Notes:  
 1) The Class numbers listed in the table for paper mill applications are consistent with those shown in TAPPI (*Technical Association of Pulp and Paper Industry*) Technical information sheet 0406-18 1967, *Service Factors for Gears on Major Equipment in the Pulp and Paper Industry*.  
 2) Anti-friction bearings only.  
 Contact Application Engineering (1 800 626 2093) for the selection of an AGMA Class Numbers in these applications.



# CMTP Selection Chart



## Class I Service (1.0 S.F.)

Single Reduction														
Output RPM	107CMTPO5		115CMTPO5		203CMTPO5		207CMTPO5		215CMTPO5		307CMTPO5		315CMTPO5	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.26	3,184	0.52	6,310	0.85	10,324	1.04	12,555	1.63	19,721	2.45	29,661	3.14	38,026
10	0.53	3,184	1.04	6,310	1.71	10,324	2.08	12,555	3.26	19,721	4.90	29,661	6.28	38,026
20	1.05	3,184	2.09	6,310	3.41	10,324	4.15	12,555	6.52	19,721	9.80	29,661	12.57	38,026
30	1.58	3,184	3.13	6,310	5.12	10,324	6.23	12,555	9.78	19,721	14.71	29,661	18.85	38,026
40	2.11	3,184	4.17	6,310	6.83	10,324	8.30	12,555	13.04	19,721	19.61	29,661	25.14	38,026
50	2.63	3,184	5.21	6,310	8.53	10,324	10.38	12,555	16.30	19,721	24.51	29,661	31.42	38,026
60	3.16	3,184	6.26	6,310	10.24	10,324	12.45	12,555	19.56	19,721	29.41	29,661	37.71	38,026
70	3.68	3,184	7.30	6,310	11.94	10,324	14.53	12,555	22.82	19,721	34.32	29,661	43.99	38,026
80	4.21	3,184	8.34	6,310	13.65	10,324	16.60	12,555	26.08	19,721	39.22	29,661	50.28	38,026
90	4.74	3,184	9.39	6,310	15.36	10,324	18.68	12,555	29.34	19,721	44.12	29,661	56.25	37,815
100	5.09	3,081	10.10	6,110	16.52	9,996	20.07	12,145	31.34	18,959	46.88	28,361	56.25	34,034
110	5.44	2,990	10.79	5,935	17.65	9,707	21.44	11,795	33.41	18,374	46.88	25,783	56.25	30,940
120	5.77	2,910	11.46	5,779	18.75	9,451	22.78	11,484	35.40	17,850	46.88	23,634	56.25	28,361
130	6.10	2,837	12.11	5,638	19.81	9,221	24.08	11,207	37.35	17,383	46.88	21,816	56.25	26,180
140	6.41	2,772	12.75	5,512	20.86	9,014	25.34	10,952	37.50	16,206	46.88	20,258	56.25	24,310
150	6.72	2,712	13.38	5,397	20.93	8,440	26.58	10,722	37.50	15,126	46.88	18,908	56.25	22,689
160	7.03	2,657	13.99	5,290	20.93	7,913	27.80	10,514	37.50	14,181	46.88	17,726	56.25	21,271
170	7.33	2,607	14.59	5,193	20.93	7,447	28.99	10,319	37.50	13,346	46.88	16,683	56.25	20,020
180	7.62	2,561	15.18	5,104	20.93	7,034	30.17	10,142	37.50	12,605	46.88	15,756	56.25	18,908
190	7.91	2,517	15.19	4,836	20.93	6,663	31.32	9,975	37.50	11,942	46.88	14,927	56.25	17,912
200	8.19	2,477	15.19	4,595	20.93	6,330	32.45	9,817	37.50	11,345	46.88	14,181	56.25	17,017
210	8.46	2,439	15.19	4,376	20.93	6,029	32.81	9,454	37.50	10,804	46.88	13,505	56.25	16,206
220	8.74	2,402	15.19	4,177	20.93	5,755	32.81	9,024	37.50	10,313	46.88	12,891	56.25	15,470
230	9.01	2,369	15.19	3,995	20.93	5,505	32.81	8,632	37.50	9,865	46.88	12,331	56.25	14,797
240	9.27	2,337	15.19	3,829	20.93	5,275	32.81	8,272	37.50	9,454	46.88	11,817	56.25	14,181
250	9.53	2,307	15.19	3,676	20.93	5,064	32.81	7,941	37.50	9,076	46.88	11,345	56.25	13,613
260	9.79	2,278	15.19	3,534	20.93	4,869	32.81	7,636	37.50	8,727	46.88	10,908	56.25	13,090
270	10.05	2,251	15.19	3,403	20.93	4,689	32.81	7,353	37.50	8,403	46.88	10,504	56.25	12,605
280	10.30	2,225	15.19	3,282	20.93	4,522	32.81	7,090	37.50	8,103	46.88	10,129	56.25	12,155
290	10.55	2,200	15.19	3,169	20.93	4,366	32.81	6,846	37.50	7,824	46.88	9,780	56.25	11,736
300	10.79	2,176	15.19	3,063	20.93	4,220	32.81	6,618	37.50	7,563	46.88	9,454	56.25	11,345
310	11.04	2,154	15.19	2,964	20.93	4,084	32.81	6,404	37.50	7,319	46.88	9,149	56.25	10,979
320	11.28	2,132	15.19	2,872	20.93	3,956	32.81	6,204	37.50	7,090	46.88	8,863	56.25	10,635
330	11.52	2,111	15.19	2,785	20.93	3,837	32.81	6,016	37.50	6,875	46.88	8,594	56.25	10,313
340	11.75	2,091	15.19	2,703	20.93	3,724	32.81	5,839	37.50	6,673	46.88	8,342	56.25	10,010
350	11.81	2,042	15.19	2,625	20.93	3,617	32.81	5,672	37.50	6,483	46.88	8,103	56.25	9,724
360	11.81	1,985	15.19	2,553	20.93	3,517	32.81	5,515	37.50	6,303	46.88	7,878	56.25	9,454
370	11.81	1,932	15.19	2,484	20.93	3,422	32.81	5,366	37.50	6,132	46.88	7,665	56.25	9,198
380	11.81	1,881	15.19	2,418	20.93	3,332	32.81	5,224	37.50	5,971	46.88	7,463	56.25	8,956
390	11.81	1,833	15.19	2,356	20.93	3,246	32.81	5,090	37.50	5,818	46.88	7,272	56.25	8,727
400	11.81	1,787	15.19	2,297	20.93	3,165	32.81	4,963	37.50	5,672	46.88	7,090	56.25	8,508



# CMTM Selection Chart



## Class I Service (1.0 S.F.)

CMTM

Double Reduction														
Output RPM	107CMTM09 107CMTM15 107CMTM25 107CMTM35		115CMTM09 115CMTM15 115CMTM25 115CMTM35		203CMTM09 203CMTM15 203CMTM25 203CMTM35		207CMTM09 207CMTM15 207CMTM25 207CMTM35		215CMTM09 215CMTM15 215CMTM25 215CMTM35		307CMTM09 307CMTM15 307CMTM25 307CMTM35		315CMTM09 315CMTM15 315CMTM25 315CMTM35	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.50	6,081	0.70	8,516	1.22	14,760	1.93	23,348	3.11	37,659	5.19	62,791	5.76	69,693
10	0.97	5,853	1.31	7,919	2.27	13,718	3.58	21,689	5.82	35,241	10.05	60,784	11.52	69,693
20	1.86	5,622	2.51	7,594	4.34	13,121	6.86	20,750	11.09	33,554	19.24	58,206	23.04	69,693
30	2.72	5,483	3.71	7,492	6.41	12,937	10.14	20,450	16.39	33,053	28.09	56,660	34.56	69,693
40	3.56	5,384	4.90	7,415	8.46	12,798	13.37	20,223	21.60	32,671	36.30	54,904	46.07	69,693
50	4.38	5,305	6.08	7,352	10.48	12,685	16.56	20,037	26.74	32,360	42.43	51,349	56.25	68,067
60	5.20	5,240	7.24	7,298	12.48	12,588	19.19	19,352	31.77	32,038	46.88	47,269	56.25	56,723
70	6.00	5,184	8.39	7,251	13.76	11,892	21.38	18,477	35.39	30,588	46.88	40,516	56.25	48,619
80	6.79	5,135	9.53	7,209	14.95	11,307	23.47	17,752	37.50	28,361	46.88	35,452	56.25	42,542
90	7.57	5,092	10.67	7,171	16.09	10,815	25.49	17,136	37.50	25,210	46.88	31,513	56.25	37,815
100	8.35	5,053	11.80	7,137	17.17	10,390	27.44	16,602	37.50	22,689	46.88	28,361	56.25	34,034
110	9.12	5,017	12.92	7,104	18.30	10,066	29.33	16,134	37.50	20,626	46.88	25,783	56.25	30,940
120	9.88	4,984	14.03	7,074	19.40	9,779	31.18	15,719	37.50	18,908	46.88	23,634	56.25	28,361
130	10.64	4,953	15.14	7,046	20.46	9,521	32.81	15,271	37.50	17,453	46.88	21,816	56.25	26,180
140	11.40	4,925	15.19	6,564	20.93	9,043	32.81	14,181	37.50	16,206	46.88	20,258	56.25	24,310
150	11.81	4,765	15.19	6,126	20.93	8,440	32.81	13,235	37.50	15,126	46.88	18,908	56.25	22,689
160	11.81	4,467	15.19	5,743	20.93	7,913	32.81	12,408	37.50	14,181	46.88	17,726	56.25	21,271
170	11.81	4,204	15.19	5,405	20.93	7,447	32.81	11,678	37.50	13,346	46.88	16,683	56.25	20,020
180	11.81	3,971	15.19	5,105	20.93	7,034	32.81	11,029	37.50	12,605	46.88	15,756	56.25	18,908
190	11.81	3,762	15.19	4,836	20.93	6,663	32.81	10,449	37.50	11,942	46.88	14,927	56.25	17,912
200	11.81	3,574	15.19	4,595	20.93	6,330	32.81	9,926	37.50	11,345	46.88	14,181	56.25	17,017





# CMT Selection Chart



## Class II Service (1.4 S.F.)

Single Reduction														
Output RPM	107CMT05		115CMT05		203CMT05		207CMT05		215CMT05		307CMT05		315CMT05	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.19	2,274	0.37	4,507	0.61	7,374	0.74	8,968	1.16	14,087	1.75	21,187	2.24	27,162
10	0.38	2,274	0.74	4,507	1.22	7,374	1.48	8,968	2.33	14,087	3.50	21,187	4.49	27,162
20	0.75	2,274	1.49	4,507	2.44	7,374	2.96	8,968	4.66	14,087	7.00	21,187	8.98	27,162
30	1.13	2,274	2.23	4,507	3.66	7,374	4.45	8,968	6.98	14,087	10.51	21,187	13.47	27,162
40	1.50	2,274	2.98	4,507	4.88	7,374	5.93	8,968	9.31	14,087	14.01	21,187	17.96	27,162
50	1.88	2,274	3.72	4,507	6.09	7,374	7.41	8,968	11.64	14,087	17.51	21,187	22.45	27,162
60	2.26	2,274	4.47	4,507	7.31	7,374	8.89	8,968	13.97	14,087	21.01	21,187	26.94	27,162
70	2.63	2,274	5.21	4,507	8.53	7,374	10.38	8,968	16.30	14,087	24.51	21,187	31.42	27,162
80	3.01	2,274	5.96	4,507	9.75	7,374	11.86	8,968	18.63	14,087	28.01	21,187	35.91	27,162
90	3.38	2,274	6.70	4,507	10.97	7,374	13.34	8,968	20.95	14,087	31.52	21,187	40.40	27,162
100	3.64	2,201	7.21	4,364	11.80	7,140	14.34	8,675	22.38	13,542	33.68	20,376	43.46	26,294
110	3.88	2,136	7.71	4,239	12.61	6,934	15.32	8,425	23.86	13,125	35.89	19,743	46.45	25,548
120	4.12	2,078	8.19	4,128	13.39	6,751	16.27	8,203	25.29	12,750	38.07	19,194	49.34	24,879
130	4.35	2,027	8.65	4,027	14.15	6,587	17.20	8,005	26.68	12,416	40.15	18,688	52.15	24,274
140	4.58	1,980	9.11	3,937	14.90	6,438	18.10	7,823	28.03	12,113	42.19	18,234	54.93	23,738
150	4.80	1,937	9.56	3,855	15.63	6,303	18.99	7,659	29.35	11,839	44.18	17,821	56.25	22,689
160	5.02	1,898	9.99	3,779	16.34	6,179	19.86	7,510	30.64	11,585	46.12	17,441	56.25	21,271
170	5.23	1,862	10.42	3,710	17.04	6,063	20.71	7,370	31.89	11,351	46.88	16,683	56.25	20,020
180	5.44	1,829	10.85	3,646	17.72	5,958	21.55	7,244	33.13	11,136	46.88	15,756	56.25	18,908
190	5.65	1,798	11.26	3,585	18.40	5,860	22.37	7,125	34.34	10,937	46.88	14,927	56.25	17,912
200	5.85	1,769	11.67	3,529	19.07	5,768	23.18	7,012	35.53	10,748	46.88	14,181	56.25	17,017
210	6.05	1,742	12.07	3,477	19.72	5,681	23.97	6,906	36.69	10,572	46.88	13,505	56.25	16,206
220	6.24	1,716	12.46	3,428	20.36	5,600	24.76	6,808	37.50	10,313	46.88	12,891	56.25	15,470
230	6.43	1,692	12.85	3,380	20.93	5,505	25.54	6,718	37.50	9,865	46.88	12,331	56.25	14,797
240	6.62	1,669	13.23	3,336	20.93	5,275	26.29	6,628	37.50	9,454	46.88	11,817	56.25	14,181
250	6.81	1,648	13.62	3,296	20.93	5,064	27.04	6,545	37.50	9,076	46.88	11,345	56.25	13,613
260	6.99	1,627	13.99	3,256	20.93	4,869	27.79	6,467	37.50	8,727	46.88	10,908	56.25	13,090
270	7.18	1,608	14.36	3,218	20.93	4,689	28.53	6,393	37.50	8,403	46.88	10,504	56.25	12,605
280	7.35	1,589	14.72	3,182	20.93	4,522	29.27	6,324	37.50	8,103	46.88	10,129	56.25	12,155
290	7.53	1,572	15.09	3,148	20.93	4,366	29.98	6,254	37.50	7,824	46.88	9,780	56.25	11,736
300	7.71	1,555	15.19	3,063	20.93	4,220	30.69	6,189	37.50	7,563	46.88	9,454	56.25	11,345
310	7.88	1,539	15.19	2,964	20.93	4,084	31.40	6,128	37.50	7,319	46.88	9,149	56.25	10,979
320	8.06	1,523	15.19	2,872	20.93	3,956	32.09	6,068	37.50	7,090	46.88	8,863	56.25	10,635
330	8.23	1,508	15.19	2,785	20.93	3,837	32.76	6,007	37.50	6,875	46.88	8,594	56.25	10,313
340	8.39	1,494	15.19	2,703	20.93	3,724	32.81	5,839	37.50	6,673	46.88	8,342	56.25	10,010
350	8.56	1,480	15.19	2,625	20.93	3,617	32.81	5,672	37.50	6,483	46.88	8,103	56.25	9,724
360	8.73	1,467	15.19	2,553	20.93	3,517	32.81	5,515	37.50	6,303	46.88	7,878	56.25	9,454
370	8.89	1,454	15.19	2,484	20.93	3,422	32.81	5,366	37.50	6,132	46.88	7,665	56.25	9,198
380	9.05	1,441	15.19	2,418	20.93	3,332	32.81	5,224	37.50	5,971	46.88	7,463	56.25	8,956
390	9.22	1,430	15.19	2,356	20.93	3,246	32.81	5,090	37.50	5,818	46.88	7,272	56.25	8,727
400	9.37	1,418	15.19	2,297	20.93	3,165	32.81	4,963	37.50	5,672	46.88	7,090	56.25	8,508



# CMTM Selection Chart



## Class II Service (1.4 S.F.)

CMTM

Double Reduction														
Output RPM	107CMTM09 107CMTM15 107CMTM25 107CMTM35		115CMTM09 115CMTM15 115CMTM25 115CMTM35		203CMTM09 203CMTM15 203CMTM25 203CMTM35		207CMTM09 207CMTM15 207CMTM25 207CMTM35		215CMTM09 215CMTM15 215CMTM25 215CMTM35		307CMTM09 307CMTM15 307CMTM25 307CMTM35		315CMTM09 315CMTM15 315CMTM25 315CMTM35	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.36	4,343	0.50	6,083	0.87	10,543	1.38	16,677	2.22	26,899	3.71	44,851	4.11	49,780
10	0.69	4,181	0.93	5,656	1.62	9,798	2.56	15,492	4.16	25,172	7.18	43,417	8.23	49,780
20	1.33	4,016	1.79	5,425	3.10	9,372	4.90	14,822	7.92	23,967	13.74	41,576	16.46	49,780
30	1.94	3,917	2.65	5,352	4.58	9,241	7.24	14,607	11.71	23,609	20.07	40,471	24.68	49,780
40	2.54	3,845	3.50	5,296	6.04	9,142	9.55	14,445	15.43	23,337	25.93	39,217	32.91	49,780
50	3.13	3,789	4.34	5,251	7.49	9,060	11.83	14,312	19.10	23,114	30.31	36,678	41.14	49,780
60	3.71	3,743	5.17	5,213	8.92	8,991	13.71	13,823	22.69	22,884	34.44	34,725	48.86	49,269
70	4.28	3,703	5.99	5,179	9.83	8,494	15.27	13,198	25.28	21,849	38.36	33,156	56.25	48,619
80	4.85	3,668	6.81	5,149	10.68	8,077	16.77	12,680	27.76	20,992	42.12	31,855	56.25	42,542
90	5.41	3,637	7.62	5,122	11.49	7,725	18.21	12,240	30.14	20,263	45.74	30,747	56.25	37,815
100	5.96	3,609	8.43	5,098	12.27	7,421	19.60	11,858	32.45	19,632	46.88	28,361	56.25	34,034
110	6.51	3,583	9.23	5,075	13.07	7,190	20.95	11,524	34.69	19,078	46.88	25,783	56.25	30,940
120	7.06	3,560	10.02	5,053	13.85	6,985	22.27	11,228	36.87	18,588	46.88	23,634	56.25	28,361
130	7.60	3,538	10.81	5,033	14.61	6,801	23.55	10,961	37.50	17,453	46.88	21,816	56.25	26,180
140	8.14	3,518	11.60	5,014	15.35	6,635	24.80	10,720	37.50	16,206	46.88	20,258	56.25	24,310
150	8.67	3,499	12.32	4,971	16.07	6,483	26.03	10,501	37.50	15,126	46.88	18,908	56.25	22,689
160	8.84	3,342	12.89	4,875	16.78	6,344	27.24	10,299	37.50	14,181	46.88	17,726	56.25	21,271
170	9.20	3,273	13.45	4,788	17.46	6,215	28.42	10,113	37.50	13,346	46.88	16,683	56.25	20,020
180	9.55	3,209	14.00	4,706	18.14	6,097	29.57	9,941	37.50	12,605	46.88	15,756	56.25	18,908
190	9.89	3,149	14.54	4,631	18.80	5,986	30.71	9,781	37.50	11,942	46.88	14,927	56.25	17,912
200	10.23	3,094	15.07	4,560	19.45	5,884	31.84	9,632	37.50	11,345	46.88	14,181	56.25	17,017



# CMTP Selection Chart



## Class III Service (2.0 S.F.)

Single Reduction														
Output RPM	107CMTPO5		115CMTPO5		203CMTPO5		207CMTPO5		215CMTPO5		307CMTPO5		315CMTPO5	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.13	1,592	0.26	3,155	0.43	5,162	0.52	6,278	0.81	9,861	1.23	14,831	1.57	19,013
10	0.26	1,592	0.52	3,155	0.85	5,162	1.04	6,278	1.63	9,861	2.45	14,831	3.14	19,013
20	0.53	1,592	1.04	3,155	1.71	5,162	2.08	6,278	3.26	9,861	4.90	14,831	6.28	19,013
30	0.79	1,592	1.56	3,155	2.56	5,162	3.11	6,278	4.89	9,861	7.35	14,831	9.43	19,013
40	1.05	1,592	2.09	3,155	3.41	5,162	4.15	6,278	6.52	9,861	9.80	14,831	12.57	19,013
50	1.32	1,592	2.61	3,155	4.27	5,162	5.19	6,278	8.15	9,861	12.26	14,831	15.71	19,013
60	1.58	1,592	3.13	3,155	5.12	5,162	6.23	6,278	9.78	9,861	14.71	14,831	18.85	19,013
70	1.84	1,592	3.65	3,155	5.97	5,162	7.26	6,278	11.41	9,861	17.16	14,831	22.00	19,013
80	2.11	1,592	4.17	3,155	6.83	5,162	8.30	6,278	13.04	9,861	19.61	14,831	25.14	19,013
90	2.37	1,592	4.69	3,155	7.68	5,162	9.34	6,278	14.67	9,861	22.06	14,831	28.28	19,013
100	2.55	1,540	5.05	3,055	8.26	4,998	10.04	6,073	15.67	9,480	23.57	14,263	30.42	18,406
110	2.72	1,495	5.39	2,967	8.82	4,853	10.72	5,898	16.70	9,187	25.13	13,820	32.51	17,884
120	2.89	1,455	5.73	2,889	9.37	4,726	11.39	5,742	17.70	8,925	26.65	13,436	34.54	17,415
130	3.05	1,419	6.06	2,819	9.91	4,611	12.04	5,603	18.67	8,691	28.11	13,082	36.51	16,991
140	3.21	1,386	6.38	2,756	10.43	4,507	12.67	5,476	19.62	8,479	29.53	12,764	38.45	16,617
150	3.36	1,356	6.69	2,698	10.94	4,412	13.29	5,361	20.55	8,287	30.93	12,475	40.33	16,266
160	3.51	1,329	7.00	2,645	11.44	4,325	13.90	5,257	21.44	8,109	32.29	12,209	42.20	15,957
170	3.66	1,304	7.30	2,597	11.93	4,244	14.50	5,159	22.33	7,946	33.63	11,967	44.00	15,659
180	3.81	1,280	7.59	2,552	12.41	4,170	15.09	5,071	23.19	7,796	34.93	11,742	45.79	15,391
190	3.95	1,259	7.88	2,509	12.88	4,102	15.66	4,987	24.04	7,656	36.19	11,524	47.53	15,136
200	4.09	1,238	8.17	2,470	13.35	4,038	16.23	4,908	24.87	7,524	37.47	11,335	49.24	14,897
210	4.23	1,219	8.45	2,434	13.80	3,977	16.78	4,834	25.69	7,401	38.68	11,145	50.99	14,690
220	4.37	1,201	8.72	2,399	14.25	3,920	17.33	4,766	26.49	7,286	39.90	10,973	52.66	14,482
230	4.50	1,185	9.00	2,366	14.70	3,866	17.88	4,703	27.29	7,178	41.10	10,812	54.25	14,272
240	4.63	1,168	9.26	2,335	15.14	3,816	18.40	4,639	28.07	7,076	42.29	10,662	55.93	14,099
250	4.77	1,153	9.53	2,307	15.57	3,768	18.93	4,582	28.83	6,976	43.42	10,509	56.25	13,613
260	4.89	1,139	9.79	2,279	16.00	3,723	19.45	4,527	29.58	6,883	44.55	10,368	56.25	13,090
270	5.02	1,126	10.05	2,253	16.42	3,679	19.97	4,475	30.34	6,798	45.69	10,238	56.25	12,605
280	5.15	1,112	10.31	2,227	16.84	3,638	20.49	4,427	31.06	6,712	46.83	10,120	56.25	12,155
290	5.27	1,100	10.56	2,203	17.25	3,599	20.98	4,378	31.79	6,633	46.88	9,780	56.25	11,736
300	5.40	1,088	10.81	2,180	17.66	3,561	21.48	4,332	32.51	6,558	46.88	9,454	56.25	11,345
310	5.52	1,077	11.06	2,159	18.06	3,525	21.98	4,290	33.21	6,482	46.88	9,149	56.25	10,979
320	5.64	1,066	11.31	2,138	18.46	3,490	22.46	4,247	33.92	6,414	46.88	8,863	56.25	10,635
330	5.76	1,056	11.55	2,117	18.85	3,457	22.93	4,205	34.61	6,346	46.88	8,594	56.25	10,313
340	5.88	1,046	11.79	2,099	19.25	3,425	23.41	4,166	35.30	6,282	46.88	8,342	56.25	10,010
350	5.99	1,036	12.03	2,080	19.64	3,395	23.89	4,130	35.97	6,218	46.88	8,103	56.25	9,724
360	6.11	1,027	12.26	2,061	20.02	3,365	24.36	4,095	36.64	6,158	46.88	7,878	56.25	9,454
370	6.22	1,018	12.50	2,044	20.40	3,337	24.82	4,059	37.32	6,103	46.88	7,665	56.25	9,198
380	6.34	1,009	12.73	2,028	20.78	3,308	25.29	4,027	37.50	5,971	46.88	7,463	56.25	8,956
390	6.45	1,001	12.96	2,011	20.93	3,246	25.75	3,995	37.50	5,818	46.88	7,272	56.25	8,727
400	6.56	993	13.19	1,995	20.93	3,165	26.20	3,963	37.50	5,672	46.88	7,090	56.25	8,508



# CMTM Selection Chart

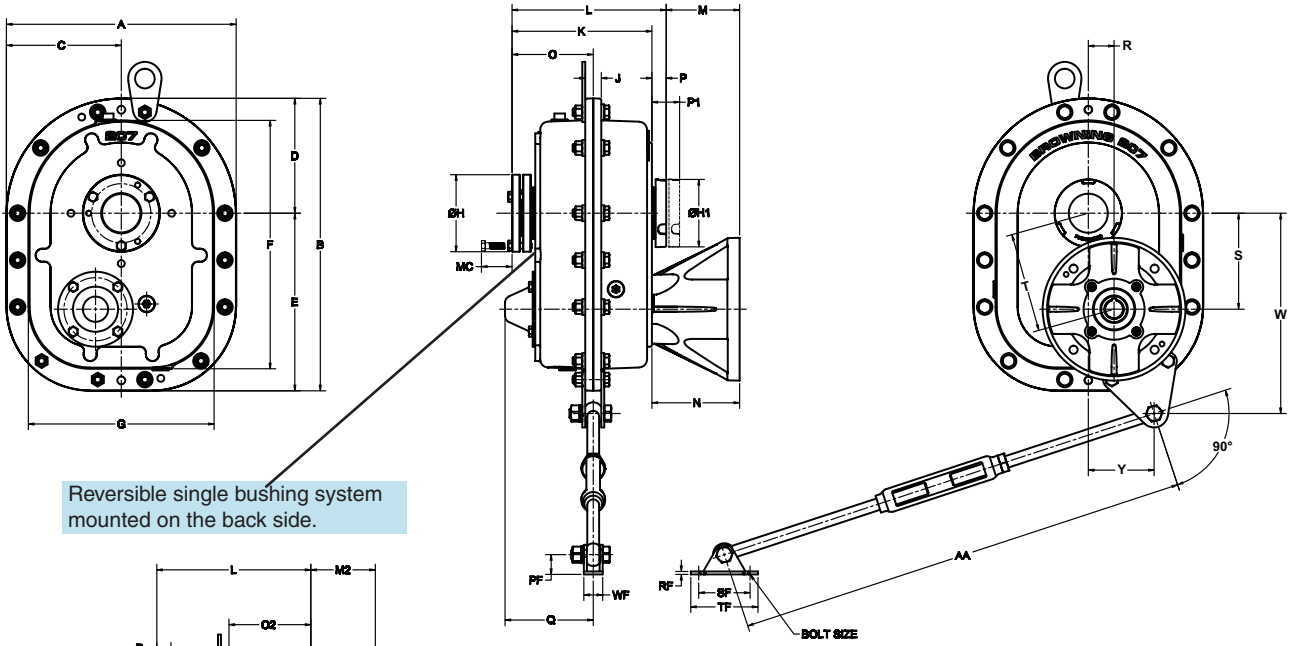


## Class III Service (2.0 S.F.)

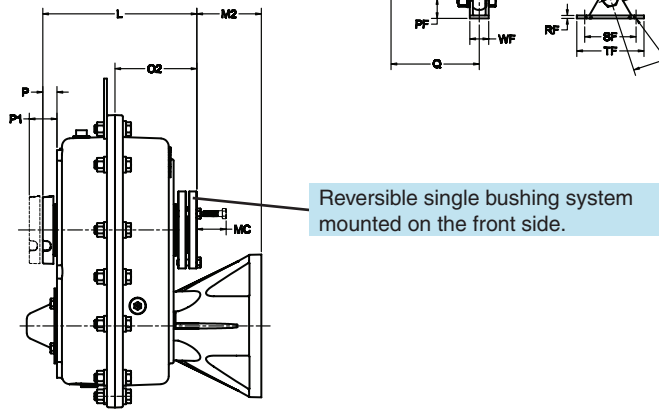
CMTM

Double Reduction														
Output RPM	107CMTM09 107CMTM15 107CMTM25 107CMTM35		115CMTM09 115CMTM15 115CMTM25 115CMTM35		203CMTM09 203CMTM15 203CMTM25 203CMTM35		207CMTM09 207CMTM15 207CMTM25 207CMTM35		215CMTM09 215CMTM15 215CMTM25 215CMTM35		307CMTM09 307CMTM15 307CMTM25 307CMTM35		315CMTM09 315CMTM15 315CMTM25 315CMTM35	
	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)	Input HP	Output Torque (In-lbs)
5	0.25	3,040	0.35	4,258	0.61	7,380	0.96	11,674	1.56	18,830	2.59	31,396	2.88	34,846
10	0.48	2,927	0.65	3,959	1.13	6,859	1.79	10,845	2.91	17,621	5.02	30,392	5.76	34,846
20	0.93	2,811	1.26	3,797	2.17	6,561	3.43	10,375	5.55	16,777	9.62	29,103	11.52	34,846
30	1.36	2,742	1.86	3,746	3.21	6,469	5.07	10,225	8.19	16,526	14.05	28,330	17.28	34,846
40	1.78	2,692	2.45	3,707	4.23	6,399	6.68	10,111	10.80	16,336	18.15	27,452	23.04	34,846
50	2.19	2,652	3.04	3,676	5.24	6,342	8.28	10,019	13.37	16,180	21.22	25,675	28.80	34,846
60	2.60	2,620	3.62	3,649	6.24	6,294	9.60	9,676	15.89	16,019	24.11	24,308	34.20	34,488
70	3.00	2,592	4.19	3,626	6.88	5,946	10.69	9,238	17.69	15,294	26.85	23,209	39.42	34,071
80	3.40	2,568	4.77	3,605	7.48	5,654	11.74	8,876	19.43	14,695	29.48	22,298	44.57	33,708
90	3.79	2,546	5.33	3,586	8.04	5,407	12.74	8,568	21.10	14,184	32.02	21,523	47.63	32,019
100	4.18	2,526	5.90	3,568	8.59	5,195	13.72	8,301	22.71	13,742	34.47	20,854	51.19	30,973
110	4.56	2,508	6.46	3,552	9.15	5,033	14.67	8,067	24.28	13,355	36.84	20,266	54.64	30,053
120	4.94	2,492	7.02	3,537	9.70	4,890	15.59	7,860	25.81	13,012	39.16	19,744	56.25	28,361
130	5.32	2,477	7.57	3,523	10.23	4,761	16.49	7,673	27.29	12,703	41.41	19,274	56.25	26,180
140	5.70	2,462	8.12	3,510	10.75	4,644	17.36	7,504	28.75	12,423	43.62	18,853	56.25	24,310
150	6.07	2,449	8.63	3,480	11.25	4,538	18.22	7,351	30.17	12,169	45.78	18,466	56.25	22,689
160	6.19	2,339	9.03	3,413	11.74	4,441	19.07	7,210	31.56	11,936	46.88	17,726	56.25	21,271
170	6.44	2,291	9.42	3,351	12.22	4,351	19.89	7,079	32.93	11,721	46.88	16,683	56.25	20,020
180	6.68	2,246	9.80	3,294	12.70	4,268	20.70	6,959	34.28	11,522	46.88	15,756	56.25	18,908
190	6.92	2,204	10.18	3,242	13.16	4,190	21.50	6,847	35.60	11,335	46.88	14,927	56.25	17,912
200	7.16	2,166	10.55	3,192	13.61	4,119	22.29	6,742	36.90	11,162	46.88	14,181	56.25	17,017

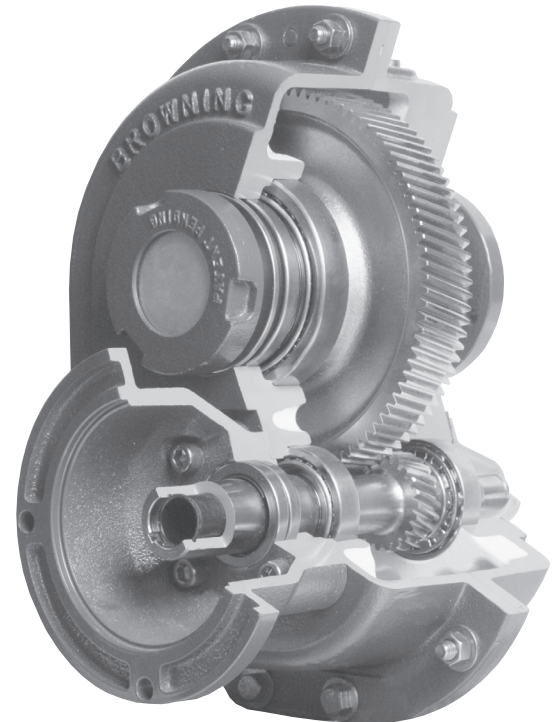
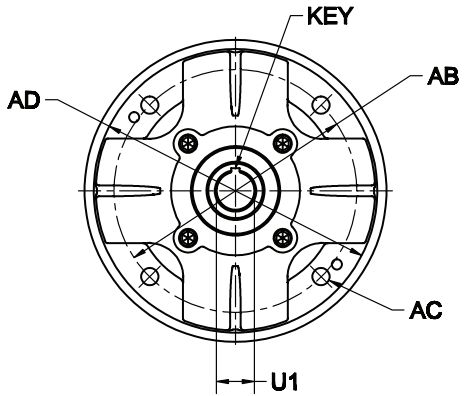
**CMTM TorqTaper Plus Unit Sizes 107-315**



Reversible single bushing system mounted on the back side.



Reversible single bushing system mounted on the front side.





## CMTP TorqTaper Plus Unit Sizes 107-315

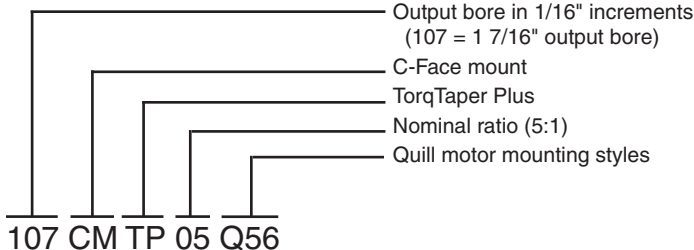
CMTP

PART NO.	DIMENSIONS IN INCHES																			
	A	B	C	D	E	F	G	H	H1	J	K	L	M	M2	MC	N	O	P	P1	PF
107CMTP	9.76	12.07	4.88	4.88	7.19	10.07	7.75	3.25	3.00	0.63	5.52	7.89	3.18	2.61	1.75	4.08	4.25	0.90	1.84	1.14
115CMTP	11.00	14.08	5.50	5.50	8.58	11.78	8.69	4.13	3.50	0.75	5.99	8.36	3.34	2.77	1.88	4.24	4.48	0.90	1.83	1.14
203CMTP	12.88	16.16	6.44	6.44	9.72	13.66	10.38	4.50	3.75	0.87	7.07	9.43	4.42	3.84	1.88	5.31	5.01	0.89	1.83	1.32
207CMTP	14.50	16.47	7.25	7.25	11.22	15.73	11.76	4.88	4.25	1.01	7.39	9.75	4.23	3.65	1.88	5.12	5.14	0.89	1.86	1.51
215CMTP	16.25	20.88	8.13	8.13	12.76	18.07	13.44	5.31	4.75	1.07	8.24	10.85	4.85	4.28	1.88	5.87	5.89	1.02	1.96	1.51
307CMTP	19.04	24.37	9.52	9.52	14.85	21.00	15.67	6.44	5.69	1.25	9.27	12.57	6.09	5.47	2.25	7.45	6.58	1.36	2.75	1.81
315CMTP	19.90	26.35	9.95	9.95	16.40	23.02	16.57	7.13	6.70	1.25	10.51	14.50	6.59	5.96	2.75	8.32	7.51	1.73	3.25	2.22

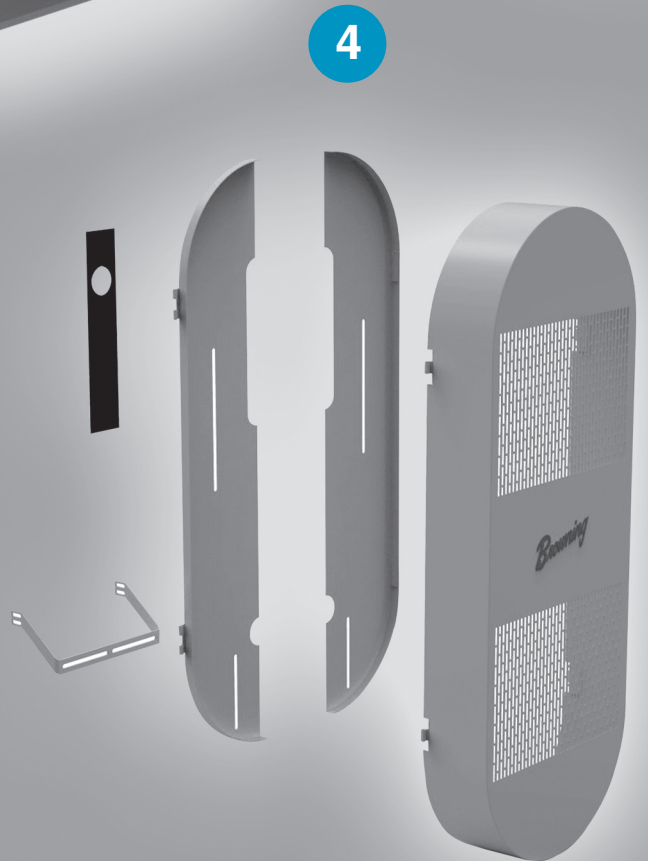
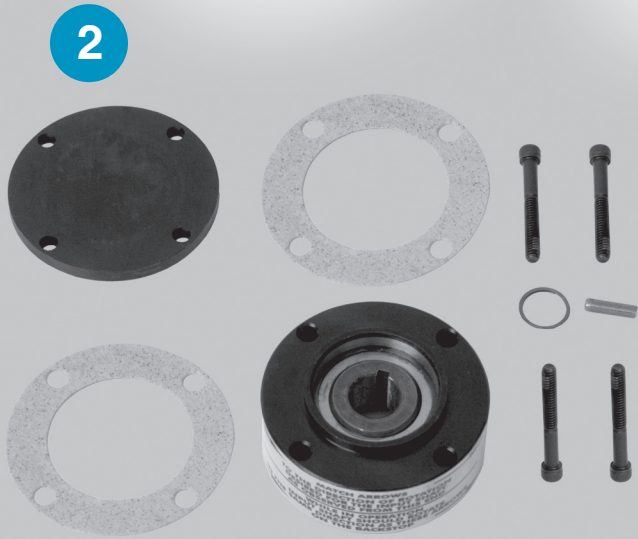
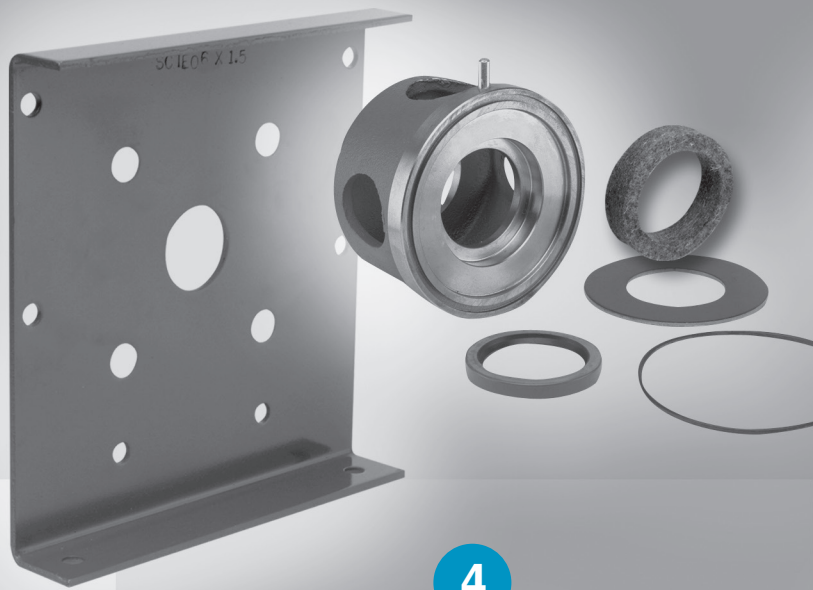
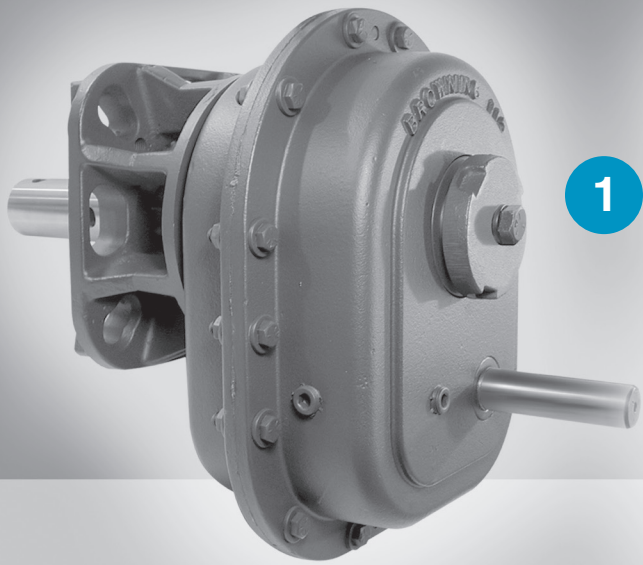
PART NO.	DIMENSIONS IN INCHES																MAX. OUTPUT BORE	WT. LBS.
	Q	R	RF	S	SF	T	TF	U1	W	WF	Y	AA		BOLT SIZE	KEY			
	MIN.		MAX.															
107CMTP	4.34	1.18	0.36	3.77	2.50	3.95	3.38	0.75	7.88	1.44	2.73	24.00	30.00	3/8	.188 x .188 x 2.88	1 7/16	61	
115CMTP	4.51	1.35	0.36	4.36	2.50	4.56	3.38	1.13	9.14	1.44	3.12	24.00	30.00	3/8	.250 x .250 x 2.75	1 15/16	92	
203CMTP	5.04	1.48	0.42	5.26	2.50	5.46	3.50	1.25	10.94	1.72	3.64	24.00	30.00	3/8	.250 x .250 x 2.75	2 3/16	130	
207CMTP	5.57	1.63	0.48	6.08	3.00	6.29	4.25	1.44	12.68	2.19	4.16	27.00	33.00	7/16	.375 x .375 x 3.75	2 7/16	171	
215CMTP	6.24	2.12	0.48	7.01	3.00	7.32	4.25	1.88	14.19	2.19	4.65	27.00	33.00	7/16	.500 x .500 x 3.75	2 15/16	250	
307CMTP	6.79	2.25	0.61	7.78	4.00	8.10	5.38	2.00	17.00	2.78	5.58	29.00	35.00	1/2	.500 x .500 x 6.50	3 7/16	381	
315CMTP	8.05	2.63	0.72	8.53	4.75	8.93	6.50	2.13	18.12	3.63	6.20	29.50	35.50	5/8	.500 x .500 x 7.50	3 15/16	490	

PART NO.	DIMENSIONS IN INCHES								
	M	M2	N	O2	U1	KEY	AB	AC	AD
107CMTP Q56	2.41	▲	3.32	▲	0.63	0.188	5.88	0.38	4.50
107CMTP Q140	2.41	▲	3.32	▲	0.88	0.188	5.88	0.38	4.50
115CMTP Q56	2.41	▲	3.32	▲	0.63	0.188	5.88	0.38	4.50
115CMTP Q140	2.41	▲	3.32	▲	0.88	0.188	5.88	0.38	4.50
115CMTP Q180	4.70	▲	5.61	▲	1.13	0.250	7.25	0.50	8.50
203CMTP Q56	2.92	2.38	3.82	4.99	0.63	0.188	5.88	0.38	4.50
203CMTP Q140	2.92	2.38	3.82	4.99	0.88	0.188	5.88	0.38	4.50
203CMTP Q180	4.71	▲	5.61	▲	1.13	0.250	7.25	0.50	8.50
203CMTP Q210	4.71	▲	5.61	▲	1.38	0.313	7.25	0.50	8.50
207CMTP Q56	2.86	2.31	3.76	5.19	0.63	0.188	5.88	0.38	4.50
207CMTP Q140	2.86	2.31	3.76	5.19	0.88	0.188	5.88	0.38	4.50
207CMTP Q180	4.65	4.10	5.55	5.19	1.13	0.250	7.25	0.50	8.50
207CMTP Q210	4.65	4.10	5.55	5.19	1.38	0.313	7.25	0.50	8.50
215CMTP Q56	2.80	2.23	3.83	5.74	0.63	0.188	5.88	0.38	4.50
215CMTP Q140	2.80	2.23	3.83	5.74	0.88	0.188	5.88	0.38	4.50
215CMTP Q180	4.83	4.26	5.86	5.74	1.13	0.250	7.25	0.50	8.50
215CMTP Q210	4.83	4.26	5.86	5.74	1.38	0.313	7.25	0.50	8.50
215CMTP Q250	4.83	4.26	5.86	5.74	1.63	0.375	7.25	0.50	8.50
307CMTP Q56	2.40	1.78	3.76	6.61	0.63	0.188	5.88	0.38	4.50
307CMTP Q140	2.40	1.78	3.76	6.61	0.88	0.188	5.88	0.38	4.50
307CMTP Q180	4.43	3.81	5.79	6.61	1.13	0.250	7.25	0.50	8.50
307CMTP Q210	4.43	3.81	5.79	6.61	1.38	0.313	7.25	0.50	8.50
307CMTP Q250	4.43	3.81	5.79	6.61	1.63	0.375	7.25	0.50	8.50
315CMTP Q56	2.03	1.40	3.76	7.61	0.63	0.188	5.88	0.38	4.50
315CMTP Q140	2.03	1.40	3.76	7.61	0.88	0.188	5.88	0.38	4.50
315CMTP Q180	4.06	3.43	5.79	7.61	1.13	0.250	7.25	0.50	8.50
315CMTP Q210	4.06	3.43	5.79	7.61	1.38	0.313	7.25	0.50	8.50
315CMTP Q250	4.06	3.43	5.79	7.61	1.63	0.375	7.25	0.50	8.50

### Part Number Explanation



Bushing system cannot be mounted on the front side with this reducer and motor combination.

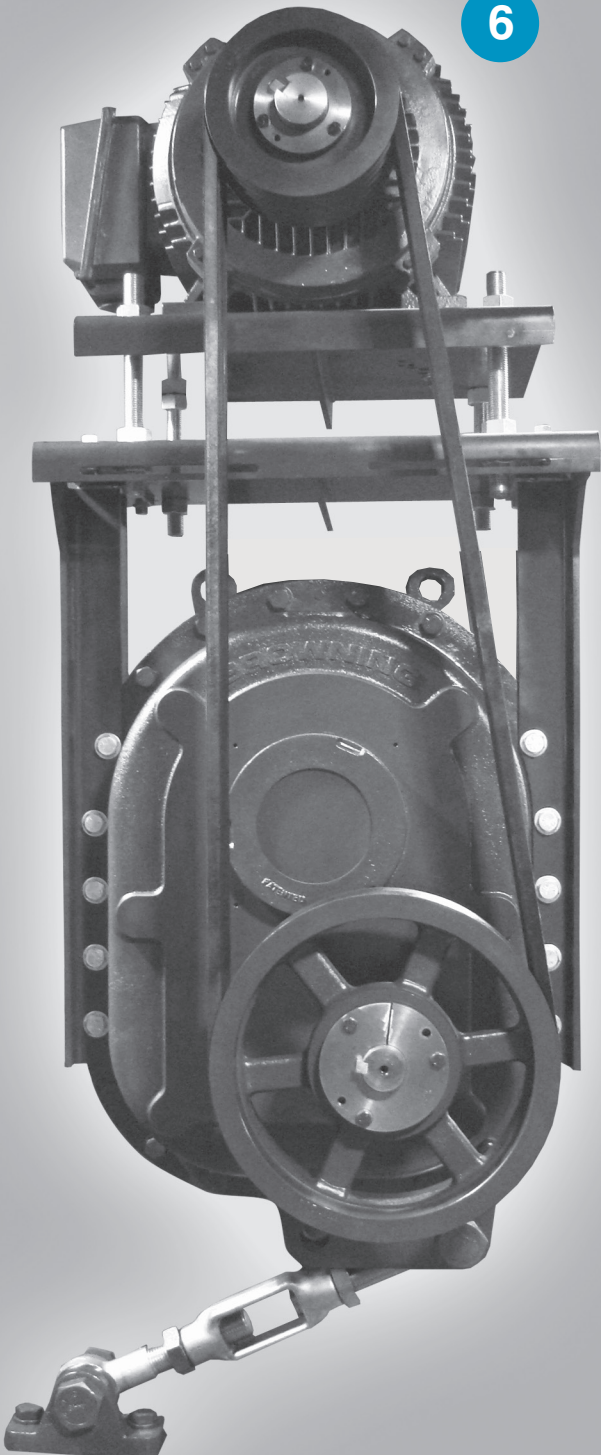




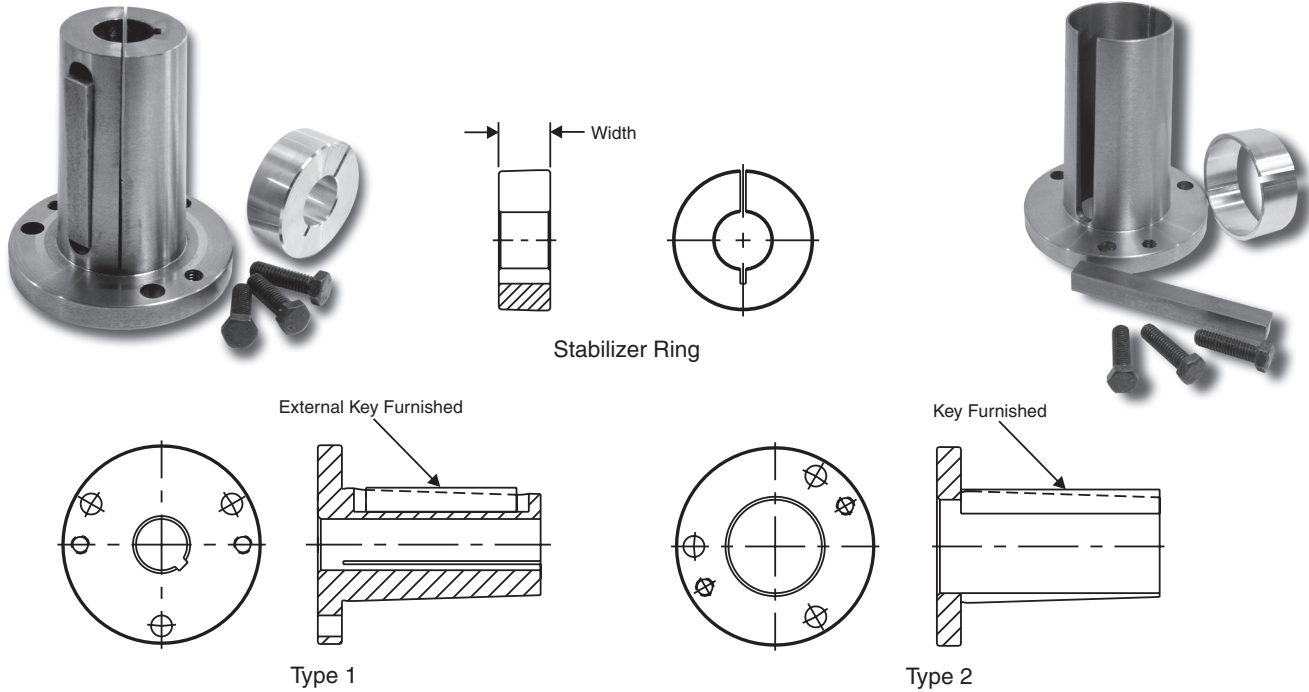
## Check Out These Options for TorqTaper Plus Reducers

1. Modular screw conveyor – standard shaft mount converts to a screw conveyor drive using stock components.
2. Backstop kits
3. Patented bushing kits
4. Belt guard kits
5. Bushing guard kits
6. Motor mount kits

6



## TorqTaper Plus Bushing Kits Unit Sizes 107-115



REDUCER SIZE	BUSHING NO.	BORE SIZE	SHAFT KEYSEAT REQUIRED	TYPE	STABILIZER RING WIDTH	BOLT TORQUE		WEIGHT
						BOLT SIZE	FT.LBS.	
107SMTP	107TBP012	3/4	3/16 x 3/32 x 3 7/8	1	0.793	5/16-18 x 1 1/4	16	2.6
	107TBP014	7/8	3/16 x 3/32 x 3 7/8	1				2.5
	107TBP015	15/16	1/4 x 1/8 x 3 7/8	2				2.4
	107TBP100	1	1/4 x 1/8 x 3 7/8	2				2.3
	107TBP101	1 1/16	1/4 x 1/8 x 3 7/8	2				2.1
	107TBP102	1 1/8	1/4 x 1/8 x 3 7/8	2				2.0
	107TBP103	1 3/16	1/4 x 1/8 x 3 7/8	2				1.9
	107TBP104	1 1/4	1/4 x 1/8 x 3 7/8	2				1.8
	107TBP105	1 5/16	5/16 x 5/32 x 3 7/8	2				1.6
	107TBP106	1 3/8	5/16 x 5/32 x 3 7/8	2				1.5
107TBP107	1 7/16	3/8 x 3/16 x 3 7/8	2	1.5				
115SMTP	115TBP015	15/16	1/4 x 1/8 x 4 1/8	1	0.855	3/8-16 x 1 1/4	29	6.0
	115TBP100	1	1/4 x 1/8 x 4 1/8	1				5.9
	115TBP101	1 1/16	1/4 x 1/8 x 4 1/8	1				5.7
	115TBP102	1 1/8	1/4 x 1/8 x 4 1/8	1				5.6
	115TBP103	1 3/16	1/4 x 1/8 x 4 1/8	1				5.4
	115TBP104	1 1/4	1/4 x 1/8 x 4 1/8	1				5.3
	115TBP105	1 5/16	5/16 x 5/32 x 4 1/8	2				5.1
	115TBP106	1 3/8	5/16 x 5/32 x 4 1/8	2				4.8
	115TBP107	1 7/16	3/8 x 3/16 x 4 1/8	2				4.7
	115TBP108	1 1/2	3/8 x 3/16 x 4 1/8	2				4.4
	115TBP110	1 5/8	3/8 x 3/16 x 4 1/8	2				4.0
	115TBP111	1 11/16	3/8 x 3/16 x 4 1/8	2				3.7
	115TBP112	1 3/4	3/8 x 3/16 x 4 1/8	2				3.5
	115TBP115	1 15/16	1/2 x 1/4 x 4 1/8	2				2.7

Note: When using shafts smaller than the largest bushing bore shown for a specific reducer, shaft stress based on the transmitted load must always be checked.



## TorqTaper Plus Bushing Kits Unit Sizes 203-215

REDUCER SIZE	BUSHING NO.	BORE SIZE	SHAFT KEYSEAT REQUIRED	TYPE	STABILIZER RING WIDTH	BOLT TORQUE		WEIGHT
						BOLT SIZE	FT.LBS.	
203SMTP	203TBP103	1 3/16	1/4 x 1/8 x 4 5/8	1	0.980	3/8-16 x 1 1/4	29	7.5
	203TBP104	1 1/4	1/4 x 1/8 x 4 5/8	1				7.3
	203TBP105	1 5/16	5/16 x 5/32 x 4 5/8	1				7.1
	203TBP106	1 3/8	5/16 x 5/32 x 4 5/8	1				6.9
	203TBP107	1 7/16	3/8 x 3/16 x 4 5/8	1				6.6
	203TBP108	1 1/2	3/8 x 3/16 x 4 5/8	2				6.1
	203TBP110	1 5/8	3/8 x 3/16 x 4 5/8	2				5.9
	203TBP111	1 11/16	3/8 x 3/16 x 4 5/8	2				5.6
	203TBP112	1 3/4	3/8 x 3/16 x 4 5/8	2				5.4
	203TBP114	1 7/8	1/2 x 1/4 x 4 5/8	2				4.8
	203TBP115	1 15/16	1/2 x 1/4 x 4 5/8	2				4.4
	203TBP200	2	1/2 x 1/4 x 4 5/8	2				4.2
	203TBP203	2 3/16	1/2 x 1/4 x 4 5/8	2				3.1

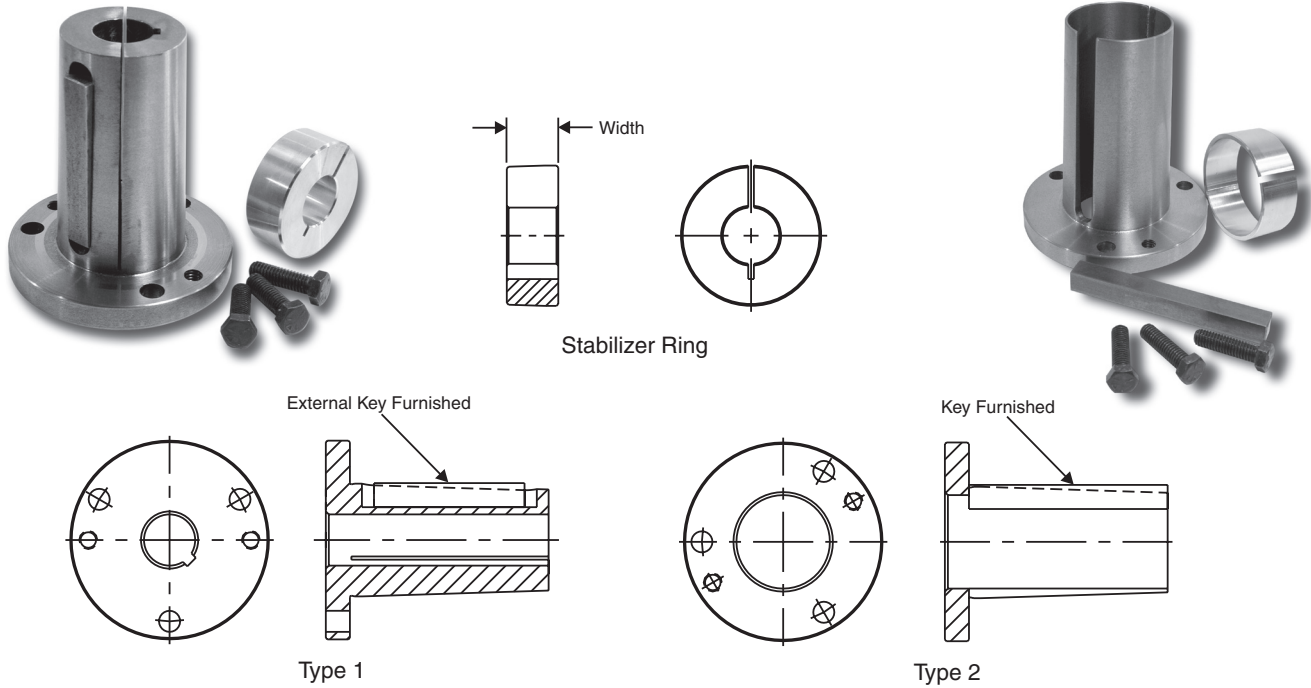
207SMTP	207TBP106	1 3/8	5/16 x 5/32 x 5 1/8	1	1.040	3/8-16 x 1 1/4	29	9.6
	207TBP107	1 7/16	3/8 x 3/16 x 5 1/8	1				9.3
	207TBP108	1 1/2	3/8 x 3/16 x 5 1/8	1				9.1
	207TBP110	1 5/8	3/8 x 3/16 x 5 1/8	2				8.5
	207TBP111	1 11/16	3/8 x 3/16 x 5 1/8	2				8.3
	207TBP112	1 3/4	3/8 x 3/16 x 5 1/8	2				7.9
	207TBP114	1 7/8	1/2 x 1/4 x 5 1/8	2				7.3
	207TBP115	1 15/16	1/2 x 1/4 x 5 1/8	2				6.9
	207TBP200	2	1/2 x 1/4 x 5 1/8	2				6.6
	207TBP202	2 1/8	1/2 x 1/4 x 5 1/8	2				5.9
	207TBP203	2 3/16	1/2 x 1/4 x 5 1/8	2				5.5
	207TBP204	2 1/4	1/2 x 1/4 x 5 1/8	2				5.1
	207TBP207	2 7/16	5/8 x 5/16 x 5 1/8	2				3.9

215SMTP	215TBP107	1 7/16	3/8 x 3/16 x 5 5/8	1	1.140	3/8-16 x 1 3/8	29	14.9
	215TBP108	1 1/2	3/8 x 3/16 x 5 5/8	1				14.5
	215TBP111	1 11/16	3/8 x 3/16 x 5 5/8	1				13.6
	215TBP112	1 3/4	3/8 x 3/16 x 5 5/8	1				13.2
	215TBP114	1 7/8	1/2 x 1/4 x 5 5/8	2				12.6
	215TBP115	1 15/16	1/2 x 1/4 x 5 5/8	2				12.2
	215TBP200	2	1/2 x 1/4 x 5 5/8	2				11.9
	215TBP203	2 3/16	1/2 x 1/4 x 5 5/8	2				10.7
	215TBP204	2 1/4	1/2 x 1/4 x 5 5/8	2				9.80
	215TBP207	2 7/16	5/8 x 5/16 x 5 5/8	2				8.90
	215TBP208	2 1/2	5/8 x 5/16 x 5 5/8	2				8.50
	215TBP211	2 11/16	5/8 x 5/16 x 5 5/8	2				7.00
	215TBP215	2 15/16	3/4 x 3/8 x 5 5/8	2				5.00

Note: When using shafts smaller than the largest bushing bore shown for a specific reducer, shaft stress based on the transmitted load must always be checked.



## TorqTaper Plus Bushing Kits Unit Sizes 307-315

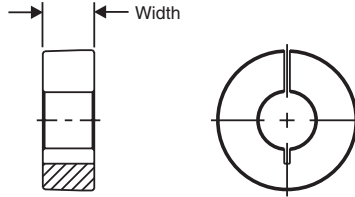


REDUCER SIZE	BUSHING NO.	BORE SIZE	SHAFT KEYSEAT REQUIRED	TYPE	STABILIZER RING WIDTH	BOLT TORQUE		WEIGHT
						BOLT SIZE	FT.LBS.	
307SMTP	307TBP115	1 15/16	1/2 x 1/4 x 6 3/4	1	1.45	1/2-13 x 1 5/8	65	21.61
	307TBP200	2	1/2 x 1/4 x 6 3/4	1				21.13
	307TBP203	2 3/16	1/2 x 1/4 x 6 3/4	1				19.76
	307TBP204	2 1/4	1/2 x 1/4 x 6 3/4	1				19.27
	307TBP206	2 3/8	5/8 x 5/16 x 6 3/4	2				18.28
	307TBP207	2 7/16	5/8 x 5/16 x 6 3/4	2				17.68
	307TBP208	2 1/2	5/8 x 5/16 x 6 3/4	2				17.08
	307TBP211	2 11/16	5/8 x 5/16 x 6 3/4	2				15.36
	307TBP214	2 7/8	3/4 x 3/8 x 6 3/4	2				13.51
	307TBP215	2 15/16	3/4 x 3/8 x 6 3/4	2				12.89
	307TBP300	3	3/4 x 3/8 x 6 3/4	2				12.76
	307TBP306	3 3/8	7/8 x 7/16 x 6 3/4	2				7.55
	307TBP307	3 7/16	7/8 x 7/16 x 6 3/4	2				7.11

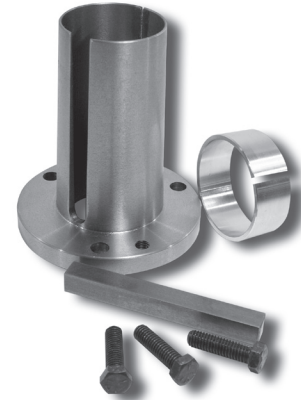
REDUCER SIZE	BUSHING NO.	BORE SIZE	SHAFT KEYSEAT REQUIRED	TYPE	STABILIZER RING WIDTH	BOLT TORQUE		WEIGHT
						BOLT SIZE	FT.LBS.	
315SMTP	315TBP207	2 7/16	5/8 x 5/16 x 7 15/16	1	1.69	1/2-13 x 1 3/4	65	30.89
	315TBP208	2 1/2	5/8 x 5/16 x 7 15/16	1				30.47
	315TBP211	2 11/16	5/8 x 5/16 x 7 15/16	1				28.09
	315TBP213	2 13/16	3/4 x 3/8 x 7 15/16	1				26.83
	315TBP214	2 7/8	3/4 x 3/8 x 7 15/16	1				26.09
	315TBP215	2 15/16	3/4 x 3/8 x 7 15/16	2				23.95
	315TBP300	3	3/4 x 3/8 x 7 15/16	2				22.90
	315TBP303	3 3/16	3/4 x 3/8 x 7 15/16	2				20.65
	315TBP307	3 7/16	7/8 x 7/16 x 7 15/16	2				17.10
	315TBP315	3 15/16	1 x 1/2 x 7 15/16	2				11.24

Note: When using shafts smaller than the largest bushing bore shown for a specific reducer, shaft stress based on the transmitted load must always be checked.

### TorqTaper Plus Bushing Kits Unit Sizes 407-800

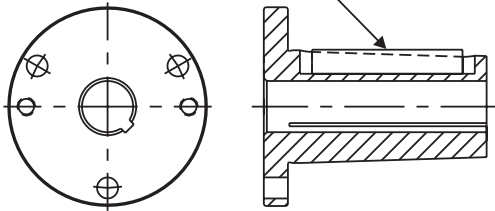


Stabilizer Ring



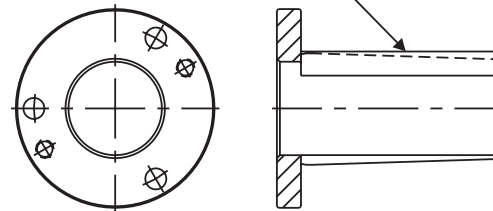
Shaft Mount Accessories

External Key Furnished



Type 1

Key Furnished



Type 2

Reducer Size	Bushing No.	Bore Size	Shaft Keyseat Required	Type	Stabilizer Ring Width	Bolt Torque		Weight
						Bolt Size	Ft. Lbs.	
407SMTP_B	407TBP215B	2 15/16	3/4 x 3/8 x 7 1/2	1	1.56	1/2-13 x 1 3/4	65	30.2
	407TBP303B	3 3/16	3/4 x 3/8 x 7 1/2	2				29.3
	407TBP307B	3 7/16	7/8 x 7/16 x 7 1/2	2				26.5
	407TBP315B	3 15/16	1 x 1/2 x 7 1/2	2				20.1
	407TBP403B	4 3/16	1 x 1/2 x 7 1/2	2				16.5
	407TBP407B	4 7/16	1 x 1/2 x 7 1/2	2				12.6
415SMTP_B	415TBP307B	3 7/16	7/8 x 7/16 x 9 1/4	2	1.59	5/8-11 x 2	140	53.1
	415TBP315B	3 15/16	1 x 1/2 x 9 1/4	2				44.4
	415TBP403B	4 3/16	1 x 1/2 x 9 1/4	2				40.1
	415TBP407B	4 7/16	1 x 1/2 x 9 1/4	2				35.5
	415TBP408B	4 1/2	1 x 1/2 x 9 1/4	2				34.2
	415TBP415B	4 15/16	1 1/4 x 5/8 x 9 1/4	2				25.6
507SMTP_B	507TBP315B	3 15/16	1 x 1/2 x 10 3/8	2	1.56	3/4-10 x 2 1/4	250	65.0
	507TBP403B	4 3/16	1 x 1/2 x 10 3/8	2				59.0
	507TBP407B	4 7/16	1 x 1/2 x 10 3/8	2				54.0
	507TBP415B	4 15/16	1 1/4 x 5/8 x 10 3/8	2				45.0
	507TBP507B	5 7/16	1 1/4 x 5/8 x 10 3/8	2				37.0
608SMTP_B	608TBP507B	5 7/16	1 1/4 x 5/8 x 11	2	1.71	3/4-10 x 2 3/4	250	80.0
	608TBP515B	5 15/16	1 1/2 x 3/4 x 11	2				72.0
	608TBP600B	6	1 1/2 x 3/4 x 11	2				70.0
	608TBP607B	6 7/16	1 1/2 x 3/4 x 11	2				64.0
	608TBP608B	6 1/2	1 1/2 x 3/4 x 11	2				63.0
	800SMTP	800TBP515	5 15/16	1 1/2 x 3/4 x 11				2
800TBP600		6	1 1/2 x 3/4 x 11	2	165.0			
800TBP608		6 1/2	1 1/2 x 3/4 x 11	2	147.0			
800TBP700		7	1 3/4 x 7/8 x 11	2	128.0			
800TBP800		8	2 x 1 x 11	2	84.0			

Notes: When using shafts smaller than the largest bushing bore shown for a specific reducer, shaft stress based on the transmitted load must always be checked.

### Finished Bore Bushings Unit Sizes 107-207

Browning shaft mount reducers may be mounted on shafts smaller than the output bore of the reducer by using the wide selection of bushings offered. These stock bushing kits contain one keyed bushing, one plain bushing, keys and setscrews necessary to fit the smaller shaft.

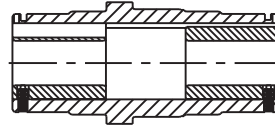


Figure 1 - Thick wall bushing internal key

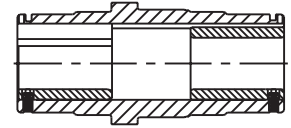


Figure 2 - Thin wall bushing offset key

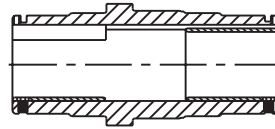
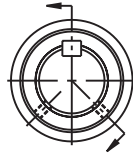


Figure 3 - Thin wall bushing rectangular or square key

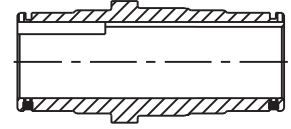
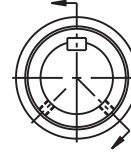


Figure 4 - No bushing

Reducer Size	Shaft Dia.	Shaft Keyseat	Bushing Kit No	Fig.	Wt. Lbs.
107SMFP	3/4"	3/16 x 3/32 x 2"	107BU012	1	1.4
	7/8	3/16 x 3/32 x 2	107BU014	1	1.2
	15/16	1/4 x 1/8 x 2	107BU015	2	1.1
	1	1/4 x 1/8 x 2	107BU100	2	1.0
	1 1/16	1/4 x 1/8 x 2	107BU101	2	.9
	1 1/8	1/4 x 1/8 x 2	107BU102	2	.8
	1 3/16	1/4 x 1/8 x 2	107BU103	2	.6
	1 1/4	1/4 x 1/8 x 2	107BU104	2	.5
	1 5/16	5/16 x 5/32 x 2	107BU105	2	.4
	1 7/16	3/8 x 3/16 x 2	NONE	4	-
115SMFP	15/16	1/4 x 1/8 x 2 1/2	115BU015	1	3.2
	1	1/4 x 1/8 x 2 1/2	115BU100	1	3.1
	1 1/16	1/4 x 1/8 x 2 1/2	115BU101	1	3.0
	1 1/8	1/4 x 1/8 x 2 1/2	115BU102	1	2.8
	1 3/16	1/4 x 1/8 x 2 1/2	115BU103	1	2.7
	1 1/4	1/4 x 1/8 x 2 1/2	115BU104	1	2.5
	1 5/16	5/16 x 5/32 x 2 1/2	115BU105	2	2.3
	1 3/8	5/16 x 5/32 x 2 1/2	115BU106	2	2.1
	1 7/16	3/8 x 3/16 x 2 1/2	115BU107	2	1.9
	1 1/2	3/8 x 3/16 x 2 1/2	115BU108	2	1.7
	1 5/8	3/8 x 3/16 x 2 1/2	115BU110	2	1.3
	1 11/16	3/8 x 3/16 x 2 1/2	115BU111	2	1.1
	1 3/4	3/8 x 3/16 x 2 1/2	115BU112	2	.8
1 15/16	1/2 x 1/4 x 2 1/2	NONE	4	-	
203SMFP	1 3/16	1/4 x 1/8 x 2 1/2	203BU103	1	3.8
	1 1/4	1/4 x 1/8 x 2 1/2	203BU104	1	3.6
	1 5/16	5/16 x 5/32 x 2 1/2	203BU105	1	3.5
	1 3/8	5/16 x 5/32 x 2 1/2	203BU106	1	3.4
	1 7/16	3/8 x 3/16 x 2 1/2	203BU107	1	3.1
	1 1/2	3/8 x 3/16 x 2 1/2	203BU108	2	2.9
	1 5/8	3/8 x 3/16 x 2 1/2	203BU110	2	2.4
	1 11/16	3/8 x 3/16 x 2 1/2	203BU111	2	2.2
	1 3/4	3/8 x 3/16 x 2 1/2	203BU112	2	2.0
	1 7/8	1/2 x 1/4 x 2 1/2	203BU114	3	1.5
	1 15/16	1/2 x 1/4 x 2 1/2	203BU115	3	1.2
	2	1/2 x 1/4 x 2 1/2	203BU200	3	.9
	2 3/16	1/2 x 1/4 x 2 1/2	NONE	4	-
207SMFP	1 3/8	5/16 x 5/32 x 3 1/2	207BU106	1	6.4
	1 7/16	3/8 x 3/16 x 3 1/2	207BU107	1	6.1
	1 1/2	3/8 x 3/16 x 3 1/2	207BU108	1	5.8
	1 5/8	3/8 x 3/16 x 3 1/2	207BU110	2	5.2
	1 11/16	3/8 x 3/16 x 3 1/2	207BU111	2	4.9
	1 3/4	3/8 x 3/16 x 3 1/2	207BU112	2	4.5
	1 7/8	1/2 x 1/4 x 3 1/2	207BU114	2	3.8
	1 15/16	1/2 x 1/4 x 3 1/2	207BU115	2	3.5
	2	1/2 x 1/4 x 3 1/2	207BU200	2	3.1
	2 1/8	1/2 x 1/4 x 3 1/2	207BU202	2	2.3
	2 3/16	1/2 x 1/4 x 3 1/2	207BU203	2	1.8
	2 1/4	1/2 x 1/4 x 3 1/2	207BU204	2	1.4
	2 7/16	5/8 x 5/16 x 3 1/2	NONE	4	-

Note: When using bushings to adapt a SMFP shaft mount reducer to a smaller shaft, the shaft stress based on the transmitted load must always be checked.

## Finished Bore Bushings Unit Sizes 215-315

Browning shaft mount reducers may be mounted on shafts smaller than the output bore of the reducer by using the wide selection of bushings offered. These stock bushing kits contain one keyed bushing, one plain bushing, keys and setscrews necessary to fit the smaller shaft.

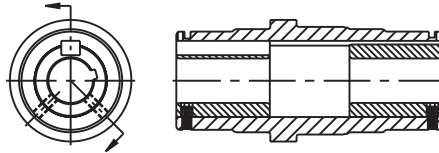


Figure 1 - Thick wall bushing internal key

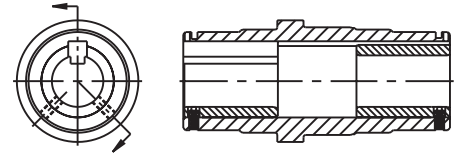


Figure 2 - Thin wall bushing offset key

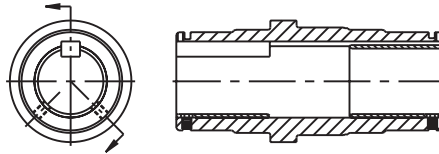


Figure 3 - Thin wall bushing rectangular or square key

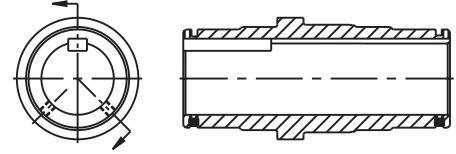


Figure 4 - No bushing

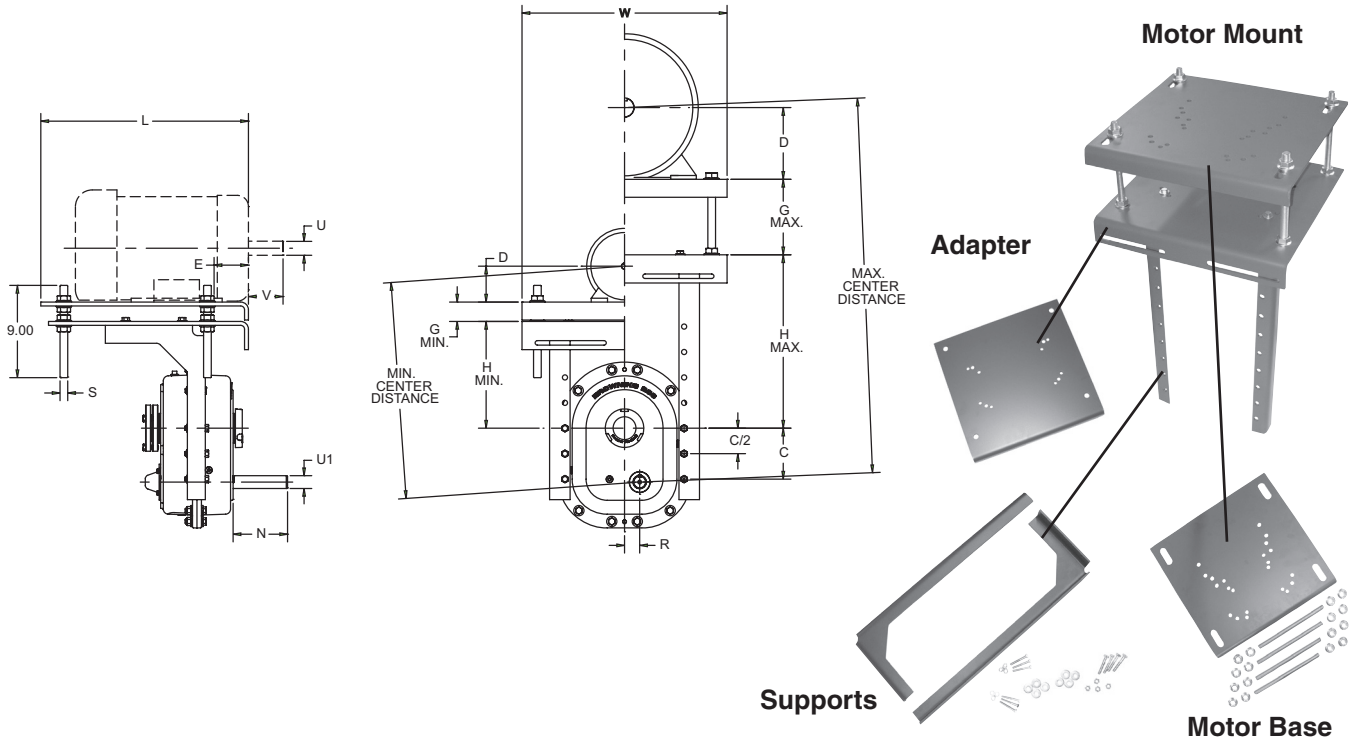
Shaft Mount Accessories

Reducer Size	Shaft Dia.	Shaft Keyseat	Bushing Kit No.	Fig.	Wt. Lbs.
215SMFP	1 7/16	3/8 x 3/16 x 4	215BU107	1	11.7
	1 1/2	3/8 x 3/16 x 4	215BU108	1	11.4
	1 11/16	3/8 x 3/16 x 4	215BU111	1	10.3
	1 3/4	3/8 x 3/16 x 4	215BU112	1	9.9
	1 7/8	1/2 x 1/4 x 4	215BU114	1	9.1
	1 15/16	1/2 x 1/4 x 4	215BU115	2	8.7
	2	1/2 x 1/4 x 4	215BU200	2	8.3
	2 3/16	1/2 x 1/4 x 4	215BU203	2	6.9
	2 1/4	1/2 x 1/4 x 4	215BU204	2	6.4
	2 7/16	5/8 x 5/16 x 4	215BU207	2	4.8
	2 1/2	5/8 x 5/16 x 4	215BU208	2	4.3
	2 11/16	5/8 x 5/16 x 4	215BU211	2	2.5
	2 15/16	3/4 x 3/8 x 4	None	4	-
307SMFP	1 15/16	1/2 x 1/4 x 4 1/2	307BU115	1	16.2
	2	1/2 x 1/4 x 4 1/2	307BU200	1	15.7
	2 3/16	1/2 x 1/4 x 4 1/2	307BU203	1	14.1
	2 1/4	1/2 x 1/4 x 4 1/2	307BU204	1	13.6
	2 7/16	5/8 x 5/16 x 4 1/2	307BU207	2	11.8
	2 1/2	5/8 x 5/16 x 4 1/2	307BU208	2	11.2
	2 11/16	5/8 x 5/16 x 4 1/2	307BU211	2	9.3
	2 7/8	3/4 x 3/8 x 4 1/2	307BU214	2	7.1
	2 15/16	3/4 x 3/8 x 4 1/2	307BU215	2	6.4
	3 7/16	7/8 x 7/16 x 4 1/2	None	4	-
315SMFP	2 7/16	5/8 x 5/16 x 4 1/2	315BU207	1	19.2
	2 1/2	5/8 x 5/16 x 4 1/2	315BU208	1	18.6
	2 11/16	5/8 x 5/16 x 4 1/2	315BU211	2	16.6
	2 13/16	3/4 x 3/8 x 4 1/2	315BU213	2	15.2
	2 7/8	3/4 x 3/8 x 4 1/2	315BU214	2	14.5
	2 15/16	3/4 x 3/8 x 4 1/2	315BU215	2	13.8
	3	3/4 x 3/8 x 4 1/2	315BU300	2	13.1
	3 3/16	3/4 x 3/8 x 4 1/2	315BU303	2	10.7
	3 7/16	7/8 x 7/16 x 4 1/2	315BU307	2	7.4
	3 15/16	1 x 1/2 x 4 1/2	None	4	-

Note: SMFP units and bushings are made-to-order. Contact Regal Power Transmission Solutions for delivery.

Note: When using bushings to adapt a SMFP shaft mount reducer to a smaller shaft, the shaft stress based on the transmitted load must always be checked.

## Top Mount Motor Mounts

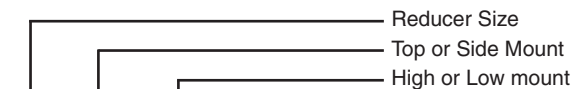


Motor Frame Size	Dimensions in Inches				
	D	E	U		V
			Dia.	Keyseat	
56	3.50	2.75	0.63	3/16 x 3/32	1.88
143T, 145T	3.50	2.25	0.88	3/16 x 3/32	2.25
182T, 184T	4.50	2.75	1.13	1/4 x 1/8	2.75
213T, 215T	5.25	3.50	1.38	5/16 x 5/32	3.38
254T, 256T	6.25	4.25	1.63	3/8 x 3/16	4.00
284T, 286T	7.00	4.75	1.88	1/2 x 1/4	5.63
324T, 326T	8.00	5.25	2.13	1/2 x 1/4	5.25
364T, 365T	9.00	5.88	2.38	5/8 x 5/16	5.88
404T, 405T	11.00	6.62	2.88	3/4 x 3/8	7.25
444T, 447T	11.00	7.50	3.38	7/8 X 7/16	8.50

\* To determine usable input shaft length, see pages 24-26.

### Part Number Explanation

Motor Mount components may be ordered individually or as a kit. To order the complete kit use the following format:



307 TOP HIGH MM KIT





### Top Mount Motor Mounts

Basic Reducer Size	Motor Mount Support	Motor Mount Adapter	Motor Base	Motor Mount Assy. Wt. Lbs.	DIMENSIONS											
					C	G		H		L	N*	R	S	W	Input Shaft U1	
						Min.	Max.	Min.	Max.						Dia.	Keyseat
107 HIGH	MMS107H	MMA107-115	MB107-115	51.0	3.75	1.64	7.61	8.78	18.15	15.50	4.08	1.18	0.63	16.50	0.75	3/16 x 3/32
107 LOW	MMS107L			48.0												
115 HIGH	MMS115H	MMA107-115	MB107-115	51.0	4.32	1.64	7.61	6.94	17.74	15.50	4.24	1.35	0.63	16.50	1.12	1/4x1/8
115 LOW	MMS115L			48.0												
203 HIGH	MMS203H	MMA203	MB203-207	112.8	4.96	1.89	7.36	7.00	16.91	20.25	5.31	1.48	0.75	20.00	1.25	1/4 x 1/8
203 LOW	MMS203L			107.8												
207 HIGH	MMS207H	MMA207	MB203-207	118.6	5.94	1.89	7.36	8.06	19.94	20.25	5.12	1.63	0.75	20.00	1.44	3/8x3/16
207 LOW	MMS207L			112.6												
215 HIGH	MMS215H	MMA215	MB215-307	134.4	6.88	1.89	7.36	11.43	21.75	20.25	5.87	2.13	0.75	24.00	1.87	1/2 x 1/4
215 LOW	MMS215L			126.4												
307 HIGH	MMS307H	MMA307	MB215-307	150.0	7.95	1.89	7.36	10.28	26.18	20.00	7.45	2.25	0.75	24.00	2.00	1/2 x 1/4
307 LOW	MMS307L			141.0												
315 HIGH	MMS315H	MMA315	MB315	177.0	8.29	1.89	7.36	10.50	27.09	23.50	8.32	2.63	0.75	24.00	2.13	1/2x1/4
315 LOW	MMS315L			168.0												
407 HIGH	MMS407H	MMA407-415	MB407-415	326.0	9.25	3.09	12.98	14.59	19.21	27.00	6.70	3.13	1.50	32.50	2.12	1/2 x 1/4
415 HIGH	MMS415H			333.0												
507 HIGH	MMS507H	MMA507-608	MB507-608	392.0	11.78	3.09	12.98	15.08	20.97	30.00	9.37	4.19	1.50	37.00	2.62	5/8 x 5/16
608 HIGH	MMS608H			403.0												
800 HIGH	MMS800H	MMA800	MB800	604.0	-	3.27	12.87	27.26	27.26	31.00	12.75	4.88	1.50	39.50	2.94	3/4 x 3/8

Shaft Mount Accessories

Basic Reducer Size	Motor Mount Support	Motor Mount Adapter	Motor Base	Minimum and Maximum Center Distances (in inches) for Motor Frame Sizes																			
				56		143T, 145T		182T, 184T		213T, 215T		254T, 256T		284T, 286T		324T, 326T		3641, 365T		404T, 405T		444T, 447T	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
107 HIGH	MMS107H	MMA107-115	MB107 115	17.73	33.05	17.73	33.05	18.72	34.05	19.47	34.80	-	-	-	-	-	-	-	-	-	-		
107 LOW	MMS107L			14.71	24.41	14.71	24.41	15.71	25.41	16.45	26.16	-	-	-	-	-	-	-	-	-	-	-	
115 HIGH	MMS115H	MMA107-115	MB107 115	16.50	33.24	16.50	33.24	17.50	34.24	18.25	34.99	-	-	-	-	-	-	-	-	-	-		
115 LOW	MMS115L			17.32	25.43	17.32	25.43	18.32	26.43	19.06	27.18	-	-	-	-	-	-	-	-	-	-	-	
203 HIGH	MMS203H	MMA203	MB203 207	17.70	33.06	17.70	33.06	18.70	34.06	19.44	34.81	20.44	35.81	21.19	36.56	-	-	-	-	-	-		
203 LOW	MMS203L			18.64	26.57	18.64	26.57	19.63	27.57	20.38	28.32	21.38	29.31	22.13	30.06	-	-	-	-	-	-	-	
207 HIGH	MMS207H	MMA207	MB203 207	19.59	36.91	19.59	36.91	20.59	37.91	21.34	38.66	22.34	39.66	23.08	40.41	-	-	-	-	-	-		
207 LOW	MMS207L			21.97	27.42	21.97	27.42	22.96	28.42	23.71	29.17	24.71	30.17	25.46	30.92	-	-	-	-	-	-	-	
215 HIGH	MMS215H	MMA215	MB215-307	-	-	23.92	39.67	24.92	40.67	25.67	41.42	26.66	42.42	27.41	43.17	28.41	44.17	29.41	45.17	-	-		
215 LOW	MMS215L			-	-	23.00	28.45	23.99	29.44	24.74	30.19	25.74	31.19	26.48	31.94	27.48	32.94	28.48	33.94	-	-	-	
307 HIGH	MMS307H	MMA307	MB215-307	-	-	-	-	24.56	45.88	25.30	46.63	26.30	47.63	27.05	48.38	28.05	49.38	29.05	50.38	-	-		
307 LOW	MMS307L			-	-	-	-	33.97	34.72	34.72	35.72	36.30	37.25	37.47	38.47	39.47	40.47	41.47	42.47	43.47	-	-	
315 HIGH	MMS315H	MMA315	MB315	-	-	-	-	25.57	47.55	26.31	48.30	27.31	49.30	28.05	50.05	29.05	51.05	30.05	52.05	-	-		
315 LOW	MMS315L			-	-	-	-	35.14	35.89	36.89	37.64	38.64	39.64	40.64	41.64	42.64	43.64	44.64	45.64	46.64	-	-	
407 HIGH	MMS407H	MMA407-415	MB407-415	-	-	-	-	-	32.56	47.04	48.03	49.03	50.03	51.03	52.03	53.03	54.03	55.03	56.03	57.03	58.03		
415 HIGH	MMS415H			-	-	-	-	-	-	32.27	47.29	48.29	49.29	50.29	51.29	52.29	53.29	54.29	55.29	56.29	57.29	58.29	
507 HIGH	MMS507H	MMA507-608	MB507-608	-	-	-	-	-	-	-	36.43	52.15	53.15	54.15	55.15	56.15	57.15	58.15	59.15	60.15	61.15		
608 HIGH	MMS608H			-	-	-	-	-	-	-	-	-	39.43	53.80	54.80	55.80	56.80	57.80	58.80	59.80	60.80	61.80	
800 HIGH	MMS800H	MMA800	MB800	-	-	-	-	-	-	-	-	-	-	-	54.00	63.55	64.55	65.55	66.55	67.55	68.55		

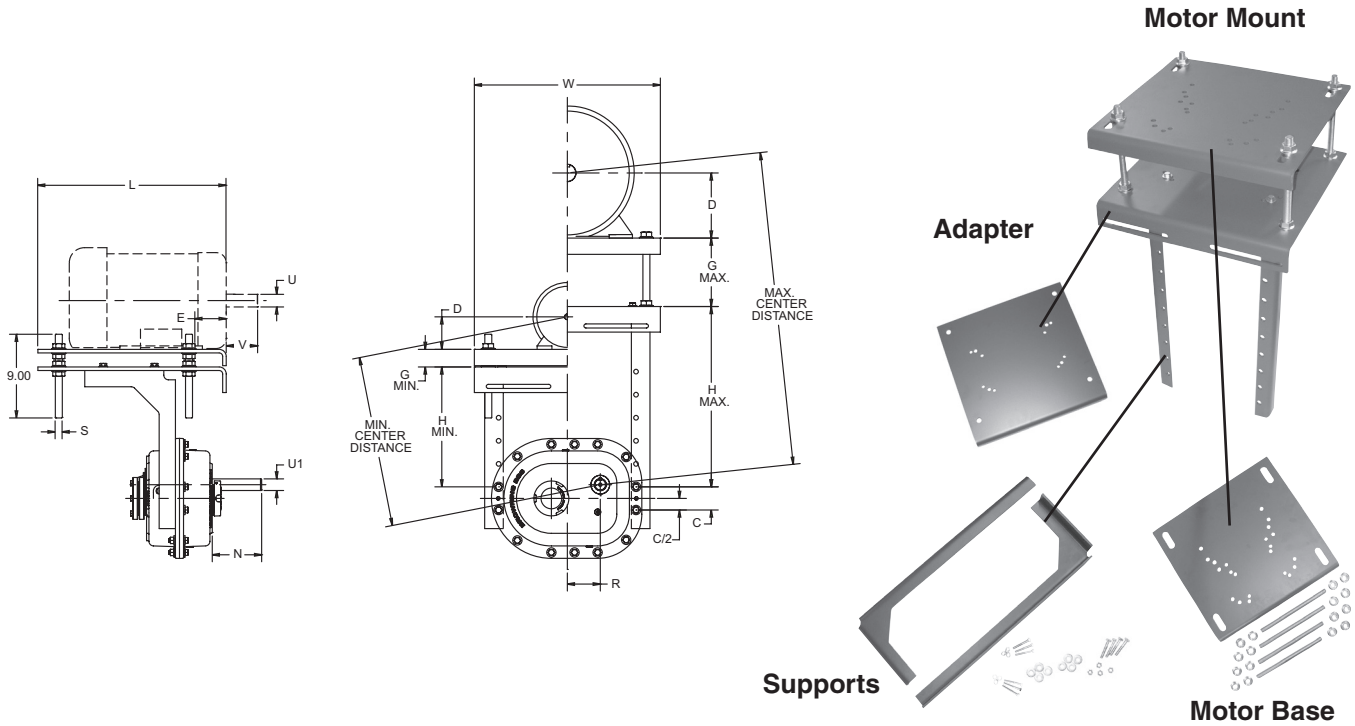
### Screw Conveyor Trough Clearance Table

When a motor mount is used on screw conveyor drives, the amount shown in the table below must be added to the minimum center distance shown above. Maximum center distance is unchanged.

Basic Reducer Size	Conveyor Diameter								
	6	9	10	12	14	16	18	20	24
107 HIGH	0	0	1.88	3.75	3.75	3.75	5.63	7.50	N/A
107 LOW	1.88	3.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A
115 HIGH	0	2.16	2.16	4.32	4.32	6.68	8.64	8.64	N/A
115 LOW	0	2.16	2.16	2.16	N/A	N/A	N/A	N/A	N/A
203 HIGH	0	2.48	2.48	4.96	4.96	7.44	9.92	9.92	N/A
203 LOW	0	2.48	2.48	2.48	N/A	N/A	N/A	N/A	N/A
207 HIGH	N/A	2.97	2.97	2.97	5.94	5.94	8.91	8.91	N/A
207 LOW	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A
215 HIGH	N/A	0	0	0	3.44	3.44	3.44	6.88	10.32
215 LOW	N/A	0	0	0	N/A	N/A	N/A	N/A	N/A
307 HIGH	N/A	N/A	N/A	0	3.98	3.98	3.98	7.95	11.93
307 LOW	N/A	N/A	N/A	0	3.98	3.98	3.98	N/A	N/A
315 HIGH	N/A	N/A	N/A	0	4.15	4.15	4.15	8.30	12.45
315 LOW	N/A	N/A	N/A	0	4.15	4.15	4.15	N/A	N/A
407 HIGH	N/A	N/A	N/A	0	4.69	4.69	4.69	4.69	*

\* Refer to Application Engineering (1 800 626 2093).

## Side Mount Motor Mounts



Motor Frame Size	Dimensions in Inches				
	D	E	U		V
			Dia.	Keyseat	
56	3.50	2.75	0.63	3/16 x 3/32	1.88
143T, 145T	3.50	2.25	0.88	3/16 x 3/32	2.25
182T, 184T	4.50	2.75	1.13	1/4 x 1/8	2.75
213T, 215T	5.25	3.50	1.38	5/16 x 5/32	3.38
254T, 256T	6.25	4.25	1.63	3/8 x 3/16	4.00
284T, 286T	7.00	4.75	1.88	1/2 x 1/4	5.63
324T, 326T	8.00	5.25	2.13	1/2 x 1/4	5.25
364T, 365T	9.00	5.88	2.38	5/8 x 5/16	5.88

\* To determine usable input shaft length, see pages 24-26.

### Part Number Explanation

Motor Mount components may be ordered individually or as a kit. To order the complete kit use the following format:



### Side Mount Motor Mounts

Basic Reducer Size	Motor Mount Support	Motor Mount Adapter	Motor Base	Motor Mount Assy. Wt. Lbs.	Dimensions											
					C	G		H		L	N*	R	S	W	Input Shaft U1	
						Min.	Max.	Min.	Max.						Dia.	Keyseat
107 HIGH	MMS107H	MMA107-115	MB107-115	51.0	1.88	1.64	7.61	8.78	18.15	15.50	4.08	2.56	0.63	16.50	0.75	3/16 x 3/32
107 LOW	MMS107L			48.0												
115 HIGH	MMS115H	MMA203	MB107-115	51.0	2.16	1.64	7.61	6.94	17.74	15.50	4.24	2.74	0.63	16.50	1.12	1/4 x 1/8
115 LOW	MMS115L			48.0												
203 HIGH	MMS203H	MMA207	MB203-207	112.8	2.48	1.89	7.36	7.00	16.91	20.25	5.31	3.54	0.75	20.00	1.25	1/4 x 1/8
203 LOW	MMS203L			107.8												
207 HIGH	MMS207H	MMA215	MB215-307	118.6	2.97	1.89	7.36	8.06	19.94	20.25	5.12	4.00	0.75	20.00	1.44	3/8 x 3/16
207 LOW	MMS207L			112.6												
215 HIGH	MMS215H	MMA307	MB215-307	134.4	3.44	1.89	7.36	11.43	21.75	20.25	5.87	4.59	0.75	24.00	1.87	1/2 x 1/4
215 LOW	MMS215L			126.4												
307 HIGH	MMS307H	MMA315	MB315	150.0	3.97	1.89	7.36	10.28	30.15	23.00	7.45	5.01	0.75	24.00	2.00	1/2 x 1/4
307 LOW	MMS307L			141.0												
315 HIGH	MMS315H	MMA315-S	MB315	177.0	4.16	1.89	7.36	10.50	31.22	23.50	8.32	5.26	0.75	24.00	2.13	1/2 x 1/4
315 LOW	MMS315L			168.0												

Shaft Mount Accessories

Basic Reducer Size	Motor Mount Support	Motor Mount Adapter	Motor Base	Minimum and Maximum Center Distances (in inches) for Motor Frame Sizes															
				56		143T, 145T		182T, 184T		213T, 215T		254T, 256T		284T, 286T		324T, 326T		364T, 365T	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
107 HIGH	MMS107H	MMA107-115	MB107-115	13.91	31.00	13.91	31.00	14.89	32.00	15.63	32.74	-	-	-	-	-	-		
107 LOW	MMS107L			10.95	22.39	10.95	22.39	11.92	22.38	12.66	24.13	-	-	-	-	-	-	-	
115 HIGH	MMS115H	MMA203	MB107-115	12.25	31.00	12.25	31.00	13.23	32.00	13.96	32.74	-	-	-	-	-	-		
115 LOW	MMS115L			10.96	23.22	10.96	23.22	11.93	24.22	12.66	24.96	-	-	-	-	-	-	-	
203 HIGH	MMS203H	MMA207	MB203-207	12.66	30.23	12.66	30.23	13.62	31.22	14.34	31.97	15.31	32.96	16.05	33.71	-	-		
203 LOW	MMS203L			13.56	23.76	13.56	23.78	14.53	24.77	15.26	25.52	16.23	26.51	16.96	27.25	-	-	-	
207 HIGH	MMS207H	MMA215	MB215-307	13.89	33.86	13.89	33.86	14.85	34.85	15.57	35.60	16.54	36.59	17.27	37.34	-	-		
207 LOW	MMS207L			13.33	24.45	13.33	24.45	14.28	25.44	15.00	26.18	15.97	27.17	16.70	27.91	-	-	-	
215 HIGH	MMS215H	MMA307	MB215-307	-	-	13.76	35.94	14.71	36.93	15.42	37.68	16.38	38.67	17.10	39.41	18.07	40.41		
215 LOW	MMS215L			-	-	12.89	24.82	13.83	25.81	14.54	25.54	15.49	27.53	16.21	28.27	15.55	27.59	16.51	28.58
307 HIGH	MMS307H	MMA315	MB315	-	-	-	-	17.15	42.05	17.87	42.79	18.83	43.79	19.56	44.53	20.53	45.53		
307 LOW	MMS307L			-	-	-	-	17.15	30.24	17.87	30.98	18.83	31.97	19.56	32.71	20.53	33.70	21.50	34.69
315 HIGH	MMS315H	MMA315-S	MB315	-	-	-	-	17.16	42.86	17.88	43.60	18.84	44.60	19.56	45.34	20.52	46.33	21.49	
315 LOW	MMS315L			-	-	-	-	17.16	30.56	17.88	31.29	18.84	32.28	19.56	33.02	20.52	34.01	21.49	35.00

### Screw Conveyor Trough Clearance Table

When a motor mount is used on screw conveyor drives, the amount shown in the table below must be added to the minimum center distance shown on page 71. Maximum center distance is unchanged.

Basic Reducer Size	Conveyor Diameter								
	6	9	10	12	14	16	18	20	24
107 HIGH	0	0	0	0	1.88	3.75	5.63	7.50	N/A
107 LOW	0	1.88	1.88	3.75	5.63	N/A	N/A	N/A	N/A
115 HIGH	0	2.16	2.16	2.16	4.32	6.48	6.48	8.64	N/A
115 LOW	0	2.16	2.16	4.32	N/A	6.48	N/A	N/A	N/A
203 HIGH	0	2.48	2.48	2.48	4.96	4.96	7.44	9.92	N/A
203 LOW	0	0	0	2.48	2.48	4.96	N/A	N/A	N/A
207 HIGH	N/A	0	0	2.97	2.97	5.94	5.94	8.91	11.88
207 LOW	N/A	0	0	2.97	2.97	5.94	5.94	N/A	N/A
215 HIGH	N/A	0	0	3.44	3.44	6.88	6.88	6.88	10.32
215 LOW	N/A	0	3.44	3.44	3.44	6.88	6.88	N/A	N/A
307 HIGH	N/A	N/A	N/A	0	0	3.98	3.98	3.98	7.95
307 LOW	N/A	N/A	N/A	0	0	3.98	3.98	3.98	7.95
315 HIGH	N/A	N/A	N/A	0	0	4.15	4.15	4.15	8.30
315 LOW	N/A	N/A	N/A	0	0	4.15	4.15	4.15	8.30

\* Refer to Application Engineering (1 800 626 2093).









# Browning Belt Drives

For over 120 years Browning has been an innovator of quality belt drive solutions for varying equipment and demanding applications. Today, Browning offers the most extensive belt drive product line in the world. Our extensive offering has many patented and exclusive design features not found in any other sheave.

## Key Product Offerings:

### **Complete Line of FHP sheaves**

### **Complete Line of Multiple Sheaves in both Q-D® and Split Taper™ designs**

### **Browning Split Taper Bushings**

- Better concentricity for easy assembly
- Key-to-key drive
- 3/4" ft. self-locking taper
- Available in inch and metric bores

### **Browning Patented B5V® Sheaves (*Not for use with Banded Belts*)**

- Interchanges with popular Q-D and Split Taper sheave designs
- Patented design provides the power of 5V belts in the economy of a B section sheave.
- Serves 90% of all applications from 10-125 HP
- Increases HP by 40% (or reduces cost by 40%)

### **Browning Brand V-belts**

- Unique design enhances performance, provides increased horsepower capacity in short center drives
- Single fabric design reduces vibration (wrapped belt)
- Ground form edges reduce center distance variation and drive vibration (raw edge)
- Browning belts and sheaves provide 4X the product offering of any competitor

### **Browning VP Vortex Variable Pitch Sheaves**

- Increased wall thickness and hub design for increased horsepower capacity and shorter center drives
- Tighter tolerances for reduced vibration
- External rib design provides extra cooling for longer belt life

### **Browning MVP® - Variable Pitch Sheaves**

- Economical and infinite mechanical speed adjustment
- Offered up to 10 grooves
- Serves applications up to 750 hp
- **An excellent solution for dual drive applications**





## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 107SMTP05

107SMTP05 Variable Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Variable Pitch	Bushing	Fixed Pitch	Bushing				
90 - 96	2VP50	-	2B5V160	B	AX	2		
97 - 108	2VP56				2AK124H		H	AX
109 - 124	2VP50		2B5V110	B	AX			
125 - 140	2VP50		2B5V80	B	AX			
141 - 160	2VP42		2BK110H	H	AX			
161 - 181	2VP60				5VX			
182 - 196	2VP65		2B5V90	B	AX			
197 - 206	2VP60				5VX			
207 - 220	2VP65				AX			
221 - 227	2VP65				5VX			
228 - 235	2VP65				AX			
236 - 246	2VP71				5VX			
247 - 252	2VP65				5VX			
253 - 273	2VP65				2BK80		-	AX
274 - 285	2VP71							5VX
286 - 296	2VP62				2B5V52		-	AX
297 - 303	2VP65		5VX					
304 - 307	2VP62		2B5V62	B	5VX			
308 - 309	2VP65				5VX			
310 - 324	2VP65				5VX			
325 - 350	2VP71	5VX						
351 - 353	2VP60	2B5V52	-	AX				
354 - 383	2VP65			5VX				
384 - 400	2VP71			5VX				

107SMTP05 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
90 - 93	2AK39	-	2AK144H	H	AX	2
94 - 97	2AK41				AX	
98 - 104	2BK36				AX	
105 - 110	2TB40	P1	2B5V124	B	AX	
111 - 115	2B5V42				AX	
116 - 121	2BK32	-	2BK100	-	AX	
122 - 129	2BK34				AX	
130 - 136	2BK36				AX	
137 - 143	2BK40				AX	
144 - 147	2TB40				AX	
148 - 151	2BK36	P1	-	-	AX	
152 - 160	2BK40				AX	
161 - 164	2TB38	P1	-	-	AX	
165 - 172	2BK45				AX	
173 - 180	2BK47	-	2BK90	-	AX	
181 - 184	2B5V42				AX	
185 - 192	2BK50				AX	
193 - 200	2BK52	-	-	-	AX	
201 - 213	2BK55				AX	
214 - 226	2AK54				AX	
227 - 234	2AK56				AX	
235 - 244	2AK84				AX	
245 - 250	2BK57				AX	
251 - 263	2BK60				AX	
264 - 273	2BK62				AX	
274 - 280	2BK65				AX	
281 - 283	2B5V50				AX	
284 - 300	2BK57	B	2BK80	-	AX	
301 - 317	2BK60				AX	
318 - 328	2BK62	B	2BK67H	H	AX	
329 - 337	2BK57				AX	
338 - 356	2BK60				AX	
357 - 369	2BK62				AX	
370 - 387	2BK65	B	2BK60	H	AX	
388 - 400	2BK67				AX	

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 107SMTP09

107SMTP09 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
16 - 20	2VP36	-	2TB300	Q1	AX	2
21 - 23	2VP42		2B5V200	B	BX	
24 - 30	2VP36				AX	
31	2VP42				BX	
32 - 37					2AK184H	
38 - 44	2VP50					
45 - 49	2VP56					
50 - 54	2VP60		2B5V136	B	AX	
55 - 56						
57 - 58	2VP50		2B5V90	H	BX	
59 - 61						
62 - 65	2VP60					
66 - 73	2VP65		2BK120H	H	AX	
74 - 81						
82 - 83	2VP75		2B5V110	B	BX	
84 - 95					2VP60	
96 - 103	2VP65		2B5V86	B	BX	
104 - 106					2VP71	
107 - 113	2VP65		2B5V68	B	BX	
114 - 117					2VP71	
118 - 123	2VP65	2B5V58	B	BX		
124 - 125				2VP60	5VX	
126 - 135	2VP65	2B5V58	B	BX		
136 - 138				2VP71	5VX	
139 - 148	2VP65	2B5V58	B	BX		
149 - 156				2VP60	5VX	
157 - 170	2VP65	2B5V58	B	BX		
171 - 186				2VP71	5VX	
187 - 200	2VP65	2B5V58	B	5VX		

107SMTP09 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
12	2AK23	-	2TB380	Q1	AX	2
13	2AK25					
14	2AK26					
15	3BK32					
16	3BK34					
17	3BK36					
18	3BK40					
19 - 20	3BK45H					
21	3BK47H					
22	2AK22					
23	2AK23	H	2B5V200	B	AX	3
24	2BK28					
25	2AK25					
26	2AK26					
27	2AK27					
28 - 29	2AK28					
30 - 31	2AK30					
32 - 33	2AK32					
34	2AK34					
35 - 36	2BK32					
37 - 38	2BK34	P1	2BK190H	H	BX	2
39 - 40	2BK36					
41 - 42	2BK40					
43 - 44	2TB38					
45	2BK45					
46	2BK47					
47 - 49	2BK30					
50 - 53	2BK32					
54 - 56	2AK41					
57 - 60	2AK44					
61 - 63	2AK46					
64 - 67	2AK49					
68 - 69	2AK51					
70 - 73	2AK39					
74 - 79	2AK41					
80 - 83	2AK39					
84 - 88	2AK54					
89 - 91	2AK56					
92 - 96	2AK59					
97 - 99	2AK51					
100 - 105	2AK54					
106 - 109	2AK56					
110 - 114	2AK59					
115 - 120	2BK55					
121 - 125	2BK57					
126 - 132	2BK60					
133 - 135	2BK62					
136 - 144	2AK74					
145 - 146	2B5V50	B	2AK104	-	AX	2
147 - 155	2BK57	-				
156 - 164	2BK60	-				
165 - 170	2B5V50	B				
171 - 178	2BK57	-				
179 - 188	2BK60	-				
189 - 194	2BK62	-				
195 - 198	2B5V66	B				
199 - 200	2B5V68	B				

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 107SMTP15

107SMTP15 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
10 - 13	2VP36	-	2B5V278	B	AX	2
14 - 16	2VP42					
17	2VP50					
18 - 23	2VP36		2AK154H	H		
24 - 29			2AK124H			
30 - 31			2AK114H			
32 - 38	2VP42		2AK94	-		
39 - 46			2AK84			
47 - 52			2AK84			
53 - 59	2VP50		2B5V90	B		
60 - 65	2VP56		2AK74	-		
66 - 71	2VP50		2B5V66	B		
72 - 80			2AK61	-		
81 - 83			2AK61	-		
84 - 93	2VP60		2B5V68	B	BX	
94	2VP65				AX	
95 - 100	2VP60		2B5V60	-	BX	
101 - 105						
106 - 113	2VP65		2BK60	-	BX	
114 - 126	2VP71					
127 - 130	2VP71					

107SMTP15 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
7	2AK22	-	2TB380	Q1	AX	2
8	2AK25					
9	2AK21					
10	2AK23		2B5V278	B		
11	2AK25					
12	2BK25					
13	2AK22		2B5V200	H		
14	2AK23					
15	2AK25					
16	2AK27					
17	2AK22		2BK160H	H		
18	2AK28		2AK184H			
19 - 20	2AK30					
21	2AK32					
22	2AK34		2BK120H			
23	2AK22					
24	2AK23					
25 - 26	2BK28		2BK114H			
27 - 28	2AK26					
29	2AK27		2AK104		-	
30	2AK28					
31 - 32	2AK30		2AK104	Q1		
33 - 34	2AK32					
35 - 36	2AK34		2AK84	-		
37 - 38	2AK32					
39 - 40	2AK34					
41 - 43	2AK30					
44 - 46	2AK32				2TA82	
47 - 49	2AK34				2AK104	
50	2AK44					
51 - 52	2AK46				2AK104	
53 - 56	2AK49					
57 - 58	2AK51				2AK84	
59 - 62	2AK44					
63 - 65	2AK46					
66 - 69	2AK49					
70 - 72	2AK51		2AK64			
73 - 77	2AK54					
78 - 82	2AK44		2AK64			
83	2AK46					
84 - 87	2AK54		2AK74			
88 - 91	2AK56					
92 - 96	2AK59					
97 - 99	2AK61		2AK61			
100 - 104	2AK64					
105 - 107	2AK54					
108 - 111	2AK46		2AK61			
112 - 113	2AK59					
114 - 119	2BK57		2B5V52	B		
120 - 126	2BK60					
127 - 130	2BK62			BX		

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 107SMTP25

107SMTP25 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
6 - 7	2VP36		2B5V278	B	AX	2
8 - 10			2B5V200			
11 - 14			2AK154H	H		
15 - 19			2AK114H			
20 - 26			2AK84			
27 - 31	2VP42	-	2B5V88	B		
32 - 38			2AK56	-		
39 - 47			2AK49			
48 - 53						
54 - 57			2VP50	2AK56		
58 - 64	2VP56					
65 - 70	2VP50		2B5V42	P1	BX	
71 - 77					AX	
78 - 80						

107SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2AK20	-	2B5V278	B	AX	2
6	2AK23					
7	2AK27					
8	2AK20		2BK190H			
9	2AK23					
10	2AK25		2AK184H	H		
11	2AK28					
12	2AK30					
13	2AK34					
14	2BK25					
15	2AK22		2BK110H			
16	2AK23					
17	2AK25					
18 - 19	2AK22		2B5V86		-	
20	2BK28					
21	2AK25					
22	2AK26					
23 - 24	2AK34			2AK104		
25 - 26	2AK39		2AK74			
27 - 28	2AK28					
29 - 30	2AK30					
31 - 32	2AK32		2AK64	-		
33 - 34	2AK34					
35	2AK30					
36 - 37	2AK32		2AK61			
38 - 40	2AK34					
41 - 43	2AK39					
44 - 45			2AK51			
46 - 48	2AK41					
49 - 51	2AK44					
52 - 54	2AK46		2AK51			
55 - 58	2AK49					
59 - 62	2AK44					
63 - 65	2AK46					
66 - 69	2AK49					
70 - 72	2AK51					
73 - 77	2AK54					
78 - 80	2AK56					

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

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It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 107SMTP35

107SMTP35 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
5 - 6	2VP36	-	2TA45	Q1	AX	2
7	2VP42					
8	2VP50					
9 - 11	2VP36		2AK134H	H		
12 - 13	2VP42					
14	2VP36		2AK104	-		
15 - 17	2VP42					
18 - 21	2VP36					
22 - 25	2VP42					
26 - 31	2VP36		2AK49	-		
32 - 38	2VP42					
39 - 45			2B5V42	P1		
46 - 50			2TB38			

107SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2AK20	-	2B5V200	-	AX	2
6	2AK23					
7	2AK27					
8	2AK20		2B5V124	-		
9	2AK22					
10	2AK25					
11	2AK26					
12	2AK25		2B5V86	B		
13	2AK22					
14	2AK23					
15	2AK25					
16	2AK26					
17	2AK22		2B5V68	-		
18	2AK23					
19	2AK25					
20	2AK22		2B5V56	-		
21 - 22	2AK23					
23	2AK25					
24	2AK26					
25	2AK23		2BK55H	H		
26 - 27	2AK25					
28	2AK26					
29	2AK27					
30 - 31	2AK32		2AK54	-		
32 - 33	2AK34					
34 - 35	2AK32		2AK49	-		
36 - 37	2AK34					
38 - 39	2AK39		2AK51	-		
40 - 41	2AK41					
42 - 44	2AK44					
45 - 46	2AK46					
47 - 48	2AK49					
49 - 50	2AK32	2AK32				

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 115SMTP05

115SMTP05 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
90 - 95	2VP65	-	2B5V34	B	BX	2
96 - 105	2VP71					
106 - 110	2VP75					
111 - 113	2VP62		2B5V184		5VX	
114 - 122	2VP65					
123 - 134	2VP71					
135 - 140	2VP75		2B5V136		BX	
141 - 150	2VP60					
151 - 164	2VP65					
165 - 179	2VP65		2B5V124		5VX	
180 - 193	2VP71					
194 - 196	2VP71					
197 - 208	2VP75		2Q5V109		Q1	
209 - 210	2VP65					
211 - 229	2VP71					
230 - 242	2VP75		2B5V94		B	
243 - 261	2VP71					
262 - 276	2VP75					
277 - 280	2VP65		2B5V80		5VX	
281 - 306	2VP71					
307 - 310	2VP75					
311 - 330	2VP71		2B5V74		-	
331 - 337	2VP75					
338 - 349	2V58B70					
350 - 367	2V68B80		2B5V80		BX	
368 - 386	2MVP80B94Q		2B5V86			
387 - 400	2V58B70		1B5V64			

115SMTP05 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
90 - 91	3TB36	P2	3B5V160	B	BX	3
92 - 96	3TB38	P1				
97 - 98	3BK45H	H				
99 - 100	3BK47H					
101 - 104	3BK52H					
105 - 106	2BK55	-	2BK190H	H	BX	2
107 - 110	2BK57					
111 - 116	2BK60					
117 - 121	2BK62	P1	2B5V124	B	5VX	2
122 - 124	2BK65					
125 - 132	2B5V42					
133 - 138	2B5V44	-	2B5V136	B	BX	2
139 - 143	2BK55					
144 - 149	2BK57					
150	2B5V52	B	2B5V124	B	5VX	2
151 - 157	2BK60	-				
158 - 161	2BK62	-				
162 - 168	2B5V54	B	2B5V124	B	5VX	2
169 - 174	2B5V56					
175 - 181	2B5V58					
182 - 187	2B5V60	2B5V90	B	B	5VX	2
188 - 193	2B5V62					
194 - 202	2B5V64					
203 - 208	2B5V66	2B5V86	2B5V90	B	5VX	2
209 - 214	2B5V68					
215 - 224	2B5V50					
225 - 233	2B5V52	2B5V74	2B5V90	B	5VX	2
234 - 242	2B5V54					
243 - 244	2B5V56					
245 - 257	2B5V60	2BK110H	H	H	BX	2
258 - 265	2B5V62					
266 - 274	2B5V64					
275 - 282	2B5V66	2B5V74	B	B	5VX	2
283 - 290	2B5V68					
291 - 297	2B5V80					
298 - 312	2B5V60	2BK110H	H	H	BX	2
313 - 322	2B5V62					
323 - 330	2B5V64					
331 - 333	2B5V90	2B5V74	B	B	5VX	2
334 - 347	2B5V94					
348 - 363	2B5V70					
364 - 383	2B5V74	3B5V68	B	B	BX	3
384 - 394	3V5V70					
395 - 400	3B5V74					

Shaft Mount Accessories

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- Average Service at Reducer Rated Load
- 2 Belt Minimum

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It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 115SMTP09

115SMTP09 Variable Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Variable Pitch	Bushing	Fixed Pitch	Bushing					
16 - 20	2VP36	-	2TB300	Q1	AX	2			
21 - 25	2VP42								
26 - 29	2VP50								
30 - 33	2VP56								
34 - 38	2VP50		2B5V234	B	BX				
39 - 43	2VP56								
44 - 46	2VP60								
47 - 54	2VP42								
55 - 58	2VP56								
59 - 64	2VP60								
65 - 70	2VP65						2B5V160	B	AX
61 - 75									
76 - 78	2VP71		2B5V136	B	BX				
79 - 85	2VP65								
86 - 95	2VP71								
96 - 100	2VP75								
101 - 107	2VP65								
108 - 117	2VP71								
118 - 133	2VP65	2B5V90				B	5VX		
134 - 142	2VP71								
143 - 145						2B5V74	B	5VX	
146 - 160	2VP65								
161 - 175	2VP71								
176 - 185	2VP75								
186 - 191	2VP65	2B5V62	B	5VX					
192 - 200	2VP71								

115SMTP09 Fixed Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Fixed Pitch	Bushing	Fixed Pitch	Bushing						
12	2AK23	-	2TB380	Q1	AX	2				
13	2AK25									
14	2AK26									
15	2AK23									
16	2BK28		2TB300	B	B					
17	2AK25									
18	2AK27									
19	2AK23									
20	2AK25									
21	2AK26									
22	2AK27									
23	2BK32						2B5V250	B	B	
24 - 25	2H3V31									
26 - 27	2H3V33		H	2Q3V250	Q1		3VX			
28 - 29	2H3V36		-	3BK190H	H		AX	3		
30 - 31	3BK32									
32 - 33	3BK34									
34 - 36	3BK36									
36 - 38	3BK40	P1		B	B					
39 - 40	3TB38									
41 - 43	2BK32	2BK160H		H	H	BX				
44 - 45	2BK34									
46 - 48	2TB38									
49 - 51	2TB40									
52 - 54	2BK45									
55 - 56	2BK34									
57 - 58	2TB38									
59 - 61	2BK45									
62 - 64	2BK47	2B5V124		B	B	BX				
65 - 66	2B5V42									
67 - 69	2BK50									
70 - 72	2BK52									
73 - 74	2B5V52									
75 - 78	2BK52									
79 - 83	2BK55									
84 - 87	2BK57									
88 - 91	2BK60	-	2B5V124	H	BX	2				
92 - 93	2BK52									
94 - 99	2BK55									
100 - 103	2BK57									
104 - 109	2BK60		2BK110H	H	H					
110 - 112	2BK62									
113 - 119	2BK55									
120	2BK57									
121 - 124	2B5V52						2B5V86	B	B	5VX
125 - 129	2B5V54									
130 - 134	2B5V56									
135 - 141	2B5V64									
142 - 145	2B5V66									
146 - 149	2B5V68									
150 - 157	2B5V64									
158 - 162	2B5V66									
163 - 167	2B5V68	2BK90	-	BX						
168	2B5V70									
169 - 171	2B5V62									
172 - 175	2B5V64									
176 - 186	2B5V80	2B5V74	B	5VX						
187 - 192	2B5V62									
193 - 198	2B5V64									
199 - 200	2B5V86									
			2BK90	-	BX					

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- Average Service at Reducer Rated Load
- 2 Belt Minimum

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It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 115SMTP15

115SMTP15 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
10 - 13	2VP36	-	2V5V278	B	AX	2
14 - 16	2VP42					
17 - 19	2VP50					
20 - 22	2VP36					
23 - 28	2VP42		2AK154H	H		
29 - 32			2AK134H			
33 - 36			2AK144H			
37 - 41	2VP56		2B5V86	B	BX	
42 - 50	2VP42			-		
51 - 58	2VP65		2B5V110	-	AX	
59 - 61					AX	
62 - 63	2VP71		2B5V86	B	BX	
64 - 67	2VP60				AX	
68 - 69						
70 - 73	2VP71				BX	
74 - 78	2VP65		2B5V68	-	BX	
79 - 81					AX	
82 - 87	2VP71		2BK62	-	BX	
88	2VP60					
89 - 93	2VP65		2B5V58	B	BX	
94 - 101	2VP71					
102 - 106	2VP65	-	-	BX		
107 - 111					2VP71	
112 - 120	2VP65	-	-	BX		
121 - 130	2VP71					

115SMTP15 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
7	3BK27	-	3TB380	Q1	3	
8	3BK30					
9	3BK32					
10	3BK36		2B5V250	B		
11	2AK23					
12	2AK25					
13	2AK27					
14	2AK22		2BK190H	H		
15	2AK23					
16	2AK26		2B5V136	B	AX	
17	2AK27					
18	2AK22					
19 - 20	2BK28					
21	2BK28		2AK154H	H		
22	2AK25					
23	2BK30					
24	2AK30					
25	2AK32		2AK124H	-		
26 - 27	2AK34					
28 - 29	2AK39					
30 - 31	2AK41					
32 - 33	2AK44	2BK90	-			
34	2AK34					
35 - 37	2AK39					
38 - 39	2AK41					
40 - 42	2AK44	P1	2BK90	-		
43 - 44	2AK46					
45 - 46	2AK49	-	2BK90	AX		
47 - 49	2BK34					
50 - 51	2BK36	P1	2BK90	-		
52 - 53	2TB38					
54 - 56	2TB40	-	2BK90	-		
57 - 58	2B5V42					
59 - 61	2BK47	P1	2BK90	-		
62 - 63	2B5V42					
64 - 65	2BK50	-	2BK90	-		
66 - 68	2BK52					
69 - 72	2BK56	-	2BK90	-		
73 - 75	2AK59					
76 - 78	2AK61	-	2BK90	-		
79 - 82	2AK64					
83 - 85	2BK57	-	2BK90	-		
86 - 90	2BK60					
91 - 93	2BK62	-	2BK90	-		
94 - 99	2BK55					
100 - 103	2BK57	-	2BK90	-		
104 - 108	2BK60					
109 - 111	2BK62	-	2BK90	-		
112 - 119	2BK57					
120	2BK60	-	2B5V52	-		
121 - 122	2B5V52					
123 - 126	2B5V54	B	2B5V52	5VX		
127 - 130	2B5V68			BX		

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

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- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 115SMTP25

115SMTP25 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
6 - 7	2VP36	-	2B5V278	B	AX	2	
8 - 9	2VP42			B			
10 - 11	2VP50		2AK154H	H			
12 - 14	2VP36						
15 - 16	2VP42		2AK104H	H			
17 - 21	2VP36						
22 - 24	2VP42		2B5V86	B			
25 - 30			2BK80	-			
31 - 35			2B5V62	B	BX		
36 - 38							
39 - 41			2B5V50	-	AX		
42 - 50			2AK56				
51 - 57			2VP50	2AK61	-		AX
58 - 61			2VP60	2BK55			
62 - 67	2BP65		2BK50	-	BX		
68 - 76	2VP60						
77 - 80							

115SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2AK20	-	2B5V278	B	AX	2
6	2AK23					
7	2BK25		2B5V200	H		
8	2AK22					
9	2AK25		2BK160H	H		
10	2AK22					
11	2BK28		2B5V124	B		
12	2AK26					
13	2AK22					
14	2BK28					
15	2AK26					
16	2AK27					
17	2AK22					
18	2AK23					
19	2AK25					
20	2AK26		2B5V86	-		
21	2AK27					
22	2AK26	2AK114H	H			
23 - 24	2BK32					
25	2AK41	2AK74H	-			
26 - 27	2AK44					
28	2AK46	2AK64	-			
29 - 30	2AK49					
31 - 32	2AK32	2BK62	-			
33 - 34	2AK34					
35	2AK30	2BK50	-			
36 - 37	2AK32					
38	2AK34	2AK64	-			
39 - 40	2BK32					
41 - 43	2BK34	2BK50	-			
44 - 45	2BK36					
46 - 47	2BK40	2BK62	-			
48 - 50	2BK32					
51 - 54	2BK34	2BK50	-			
55 - 57	2BK36					
58	2BK40	2BK50	-			
59 - 60	2AK54					
61 - 63	2AK56	2AK64	-			
64 - 66	2AK59					
67 - 69	2AK61	2AK54	-			
70 - 71	2AK64					
72	2AK54	2BK55	-			
73 - 75	2AK56					
76 - 78	2AK59	2BK55	-			
79 - 80	2BK62					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

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## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 115SMTP35

115SMTP35 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
5 - 6	2VP36	-	2TA245	Q1	AX	2
7	2VP42					
8	2VP50					
9 - 11	2VP36		2AK134H	H		
12 - 14	2VP42					
15 - 17			2AK104H	-		
18 - 20	2AK84		B			
21 - 22	2VP36			2B5V66		
23 - 26	2VP42					
27 - 32			2BK62	-		
33 - 38	2AK49		-			
39 - 42	2VP50			2AK54		
43 - 45	2VP56					
46 - 50	2VP50		2AK44	2AK44		

115SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2AK20	-	2B5V200	-	AX	2
6	2BK28					
7	2AK27					
8	2BK25		2B5V124	B		
9	2AK22					
10	2AK25					
11	2AK26					
12	2BK25		2B5V86	-		
13	2AK22					
14	2AK23					
15	2AK25					
16	2AK27					
17	2AK22		2B5V66	-		
18	2AK23					
19 - 20	2AK25					
21	2AK22		2BK60	-		
22	2AK23					
23 - 24	2AK34		2AK74H	H		
25 - 26	2AK39					
27	2AK41		2AK64	-		
28	2AK34					
29 - 30	2AK39					
31 - 32	2AK41					
33	2AK44					
34 - 35	2AK39					
36 - 37	2AK41					
38 - 40	2AK44					
41 - 42	2AK46					
43 - 44	2AK49					
45 - 46	2AK51		2AK56	-		
47 - 49	2AK54					
50	2AK44					

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 203SMTP05

203SMTP05 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
90 - 99	2VP65	-	2R5V212	R1	5VX	2	
100 - 108	2VP71						
109 - 114	2VP75						
115 - 120							
121 - 129	2VP65		2B5V154	B			
130 - 141	2VP71						
142 - 152	2VP75						
153 - 165	2VP71						
166 - 176	2V58B70						
177 - 201	2MVP75C97Q		Q2	2TC160			Q1
202 - 204	2MVP85C107Q						
205 - 215	2V58B70	-	2B5V110	B	5VX		
216 - 228	2MVP75C97Q	Q2	2C140R	R1	CX		
229 - 239	2MVP85C107Q						
240 - 246	2MVP75C97Q						
247 - 272	2MVP85C107Q						
273 - 279	2MVP75C97Q		2TC130	Q1			
280 - 291	2MVP85C107Q						
292 - 305	3MVP70B84		-	3MVB90Q		Q2	BX
306 - 322	4MVP60B74			4MVB74Q			
323 - 327	2V68B80	2B5V80	B	5VX			
328 - 334	2MVP95C117Q	Q2	2TC114	Q1	CX		
335 - 360	2MVP105C127Q						
361 - 387	2MVP95C117Q						
388 - 400	2MVP105C127Q						

203SMTP05 Fixed Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Fixed Pitch	Bushing	Fixed Pitch	Bushing			
90 - 92	3B5V46	B	3BK190H	H	BX	3	
93 - 96	3V5V48						
97 - 100	3V5V50						
101 - 103	3B5V52						
104 - 107	3B5V54						
108 - 109	3B5V56						
110 - 116	3B5V62						
117 - 120	2B5V52				2B5V154	B	5VX
121 - 122	2B5V62						
123 - 126	3B5V64				3BK190H	H	BX
127 - 129	3B5V68						
130 - 134	2B5V58	2B5V154	B	5VX			
135 - 139	2B5V60						
140 - 143	2B5V62						
144 - 147	2B5V64						
148 - 155	3B5V58						
156 - 160	3B5V60						
161 - 165	3B5V62				3B5V136	B	BX
166 - 175	3B5V66						
176 - 180	3B5V68	2B5V136	B	5VX			
181 - 183	2B5V70						
184 - 193	2B5V74						
194 - 200	2B5V70						
201 - 212	2B5V74						
213 - 224	2B5V86						
225 - 234	2B5V90						
235 - 244	2B5V94						
245 - 246	3B5V60				3B5V86	B	5VX
247 - 254	3B5V62						
255 - 262	3B5V64						
263 - 271	3B5V66						
272 - 286	3B5V60						
287 - 295	3B5V62						
296 - 305	3B5V64						
306 - 308	3B5V66						
309 - 326	2B5V80	2B5V86	Q1	2			
327 - 331	2Q4V109						
332 - 352	2B5V110	2B5V110	B	BX			
353 - 372	3B5V110	3BK110H	H				
373 - 386	2B5V136	2B5V124	B	5VX			
387 - 400	3B5V110	3B5V94	B	BX			

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 203SMTP09

203SMTP09 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
20 - 24	2VP42		2TB300	Q1	AX	2
25 - 29			2B5V250	B		
30 - 32			2VP50		2B5V278	
37 - 39			2VP60			
40 - 42			2VP65			
43 - 47			2VP71			
48 - 52			2MVP35B49	2BK190H	H	
53 - 59			2VP60			
60 - 64			2VP65			
65 - 70			2VP71			
71 - 74	2VP75	2R5V150	R1	5VX		
75 - 80	2VP65					
81 - 88	2VP71			2B5V136	B	
89 - 92	2VP75					
93 - 95	2VP71	2B5V110	B	BX		
96 - 100	2VP75					
101 - 108	2VP65	2Q5V97	Q1	5VX		
109 - 114	2VP71					
115 - 118	2VP75	2B5V86	B	5VX		
119 - 125	2VP75					
126 - 135	2VP71	2Q5V85	Q1	5VX		
136 - 143	2VP75					
144 - 151	2VP71	4MVB64Q	Q2	BX		
152 - 159	2VP75					
161 - 165	2V58B70	2B5V68	B	5VX		
166 - 173	4MVP45B59					
174 - 187	4MVP59B64	2B5V68	B	5VX		
188 - 200	2V58B70					

203SMTP09 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
12	2AK23		2TB380	Q1	AX	2
13	3BK28					
14	3BK30					
15	3BK32					
16	3BK34					
17	3BK36					
18	3BK40					
19 - 20	3BK45H		H			
21 - 22	2BK32		2TB300			
23	2BK34					
24	2BK36					
25 - 26	2BK40					
27 - 28	2BK32					
29 - 30	2BK34					
31	2BK36					
32	2BK40					
33	2BK40H	H				
34 - 36	2BK45	-				
37 - 39	2BK40H	H				
40 - 42	2BK45	-				
43 - 45	2VP71	2B5V200				
46 - 47	3TB34					
48 - 50	3TB36					
51 - 53	3TB38					
54 - 56	2BK47					
57 - 59	2BK50					
60 - 62	2BK52					
63 - 67	2BK55					
68 - 69	2BK57					
70 - 71	2B5V52					
72 - 75	2B5V50	2B5V136				
76 - 78	2B5V52					
79 - 81	2B5V54					
82 - 84	2B5V56					
85 - 87	2B5V58					
88 - 89	2B5V54					
90 - 92	2B5V56					
93 - 95	2B5V58					
96 - 99	2B5V60					
100 - 101	2B5V62					
102 - 107	2B5V64	2B5V124				
108 - 110	2B5V66					
111 - 113	2B5V68					
114 - 115	2B5V62					
116 - 118	2B5V64					
119 - 122	2B5V66					
123 - 126	2B5V68					
127 - 128	2B5V70					
129 - 136	2B5V60					
137 - 140	2B5V62					
141 - 145	2B5V64	2B5V90				
146 - 149	2B5V66					
150 - 154	2B5V68					
155 - 156	2B5V66					
157 - 161	2B5V68					
162 - 165	2B5V70					
166 - 175	2B5V74					
176 - 178	2B5V70					
179 - 188	2B5V74					
189 - 192	2B5V70					
193 - 200	2B5V74	2B5V74				

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 203SMTP15

203SMTP15 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
10 - 12	2VP36	-	2B5V278	B	AX	2	
13 - 15	2VP42		2B5V250				H
16 - 17							
18 - 20	2VP56						
21 - 24				2VP50			
25 - 28	2VP56						
29 - 32			2VP60				
33 - 35	2VP71						
36 - 38			2VP75				
39 - 41	2VP65						
42 - 44			2VP71				
45 - 50	2VP71						
51 - 56			2VP60				
57 - 58	2VP65						
59 - 62			2VP71				
63 - 69	2VP60						
70 - 73		2B5V86	B	5VX			
74 - 79	2VP65						
80 - 82					2VP71		
83 - 87	2VP65						
88 - 95		2VP71					
96 - 101	2VP65						
102 - 113		2VP71					
114 - 123	2VP65						
124 - 130		2VP71					

203SMTP15 Fixed Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Fixed Pitch	Bushing	Fixed Pitch	Bushing				
7	2AK22	-	2TB380	Q1	AX	2		
8	2AK25						2TB300	B
9	2AK23							
10	2AK25						3BK30	
11	2AK27		3BK32					
12	3BK30			3BK34				
13	3BK32		3BK36					
14	3BK34			3BK40				
15	3BK36		3BK30					
16	3BK40			3BK32				
17	3BK30		3BK34					
18	3BK32			3BK36				
19	3BK34		3BK40					
20 - 21	3BK36			3BK190H	H		H	BX
22	3BK40		3BK190H					
23	3TB38			P1				
24	3BK45H	H						
25	3BK47H		P1					
26	3B5V42	2BK160H						
27 - 29	2TB38		2BK160H					
30 - 31	2TB40	2BK160H						
32	2B5V42		2BK160H					
33 - 34	2BK47	2BK160H						
35 - 36	2BK50		2BK160H					
37	2BK52	2BK160H						
38 - 40	2BK45		2BK160H					
41 - 42	2BK47	2BK160H						
43 - 45	2BK50		2BK160H					
46 - 47	2BK52	2BK160H						
48 - 49	2B5V48		2BK160H					
50 - 52	2BK57	2BK160H						
53 - 55	2BK60		2BK160H					
56 - 57	2BK62	2BK160H						
58 - 59	2BK55		2BK160H					
60 - 61	2BK57	2BK160H						
62 - 65	2BK60		2BK160H					
66 - 67	2BK62	2BK160H						
68 - 71	2BK55		2BK160H					
72 - 74	2BK57	2BK160H						
75 - 78	2BK60		2BK160H					
79 - 80	2BK62	2BK160H						
81 - 85	2B5V62		2BK160H					
86 - 88	2B5V64	2BK160H						
89 - 90	2B5V66		2BK160H					
91 - 93	2B5V68	2BK160H						
94 - 98	2B5V64		2BK160H					
99 - 101	2B5V66	2BK160H						
102 - 104	2B5V68		2BK160H					
105 - 106	2B5V64	2BK160H						
107 - 109	2B5V66		2BK160H					
110 - 112	2B5V68	2BK160H						
113 - 118	2B5V64		2BK160H					
119 - 121	2B5V66	2BK160H						
122 - 125	2B5V68		2BK160H					
126 - 128	2B5V66	2BK160H						
129 - 130	2B5V64		2BK160H					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 203SMTP25

203SMTP25 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
6 - 7	2VP36	-	2B5V278	B	AX	2
8 - 9	2VP42			H		
10 - 11	2VP50			B		
12 - 14	2VP42			H		
15 - 17	2VP50			B		
18 - 19	2VP56			H		
20 - 23	2VP42		2B5V86	B	BX	
24 - 27	2VP50			H		
28 - 32	2VP56			B		
33 - 35	2VP60			H		
36 - 38	2VP65			B		
39 - 43	2VP60			H		
44 - 48	2VP65		2B5V68	B	BX	
49 - 52	2VP71			H		
53 - 55	2VP60			B		
56 - 61	2VP65			H		
62 - 69	2VP60			B		
70 - 71	2VP65			H		
72 - 80	2VP60	2B5V46	B	BX		

203SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2BK25	-	2B5V278	B	AX	2
6	2AK23	-		H		
7	2AK27			B		
8	2BK25			H		
9	2AK23			B		
10	2AK25			H		
11	2AK28			B		
12	2AK30			H		
13	2AK34			B		
14	2AK39			H		
15	2AK41			B		
16	2AK44			H		
17	2AK34			B		
18 - 19	2AK39			H		
20	2AK41			B		
21	2AK44			H		
22	2AK46			B		
23 - 24	2AK49			H		
25 - 26	2AK39		B			
27	2AK41	H				
28 - 29	2AK39	B				
30	2AK41	H				
31 - 32	2TB38	P1	2BK90H	H	BX	
33 - 34	2TB40					
35 - 36	2TB40					
37	2B5V42					
38 - 39	2BK50					
40 - 41	2BK52					
42 - 44	2BK50					
45 - 46	2BK52					
47 - 49	2BK55					
50 - 51	2BK57					
52 - 53	2BK60					
54 - 55	2BK62					
56 - 59	2BK55					
60 - 61	2BK57					
62 - 64	2BK60					
65 - 66	2BK62					
67 - 69	2BK57					
70 - 72	2BK60					B
73 - 75	2BK62	H				
76 - 80	2BK60	-	2BK55H	H		

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 203SMTP35

203SMTP35 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
5 - 6	2VP36	-	2TA245	Q1	AX	2
7	2VP42					
8	2VP50					
9 - 11	2VP36		2B5V136	B		
12 - 13	2VP42					
14 - 16			2AK114H	H		
17 - 19			2AK94H			
20 - 21	2VP50		2AK104H		H	
22 - 24	2VP56					
25 - 30	2VP42		2BK67H	2BK55H	2BK47H	
31 - 36						
37 - 38						
39 - 43	2VP60		2B5V62	B	AX	
44 - 47	2VP65					
48 - 50	2VP60					

203SMTP35 Fixed Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Fixed Pitch	Bushing	Fixed Pitch	Bushing			
5	2BK25	-	2B5V200	B	AX	2	
6	2AK23						
7	2AK27						
8	2BK36						2B5V124
9	2AK22						
10	2BK28						
11	2AK26		2AK134H	H			
12	2AK32						
13	2AK34						
14	2AK39						
15	2AK41						
16	2AK44						
17	2AK46		2AK94H	B	BX		
18	2AK49						
19	2AK51						
20	2AK39		2B5V62	H			
21 - 22	2AK41						
23	2AK44		2BK57H	H			
24	2AK46						
25 - 26	2BK32		2B5V46	B			
27 - 28	2BK34						
29	2BK36						
30 - 31	2BK32		2B5V52	H			
32 - 33	2BK34						
34 - 35	2BK32						
36 - 37	2BK34		2AK59H	H	AX		
38	2BK36						
39	2BK45						
40 - 41	2BK47		2AK59H	H			
42 - 44	2BK50						
45 - 47	2AK54						
48 - 49	2AK56	2AK59H	H				
50	2AK59						

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 207SMTP05

207SMTP05 Variable Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Variable Pitch	Bushing	Fixed Pitch	Bushing				
90 - 96	2VP71	-	2B5V234	B	5VX	2		
97 - 101	2VP75							
102 - 111	2VP65							
112 - 122	2VP71							
123 - 125	2VP75							
126 - 129	2V58B70							
130 - 137	2V68B80		2B5V200	R1				
138 - 148	2V58B70		2B5V160					
149 - 160	2V58B70		2R5V150					
161 - 168	2V68B80		2B5V160					
169 - 177	2V58B70		2B5V140					
178 - 187			2B5V124					
188 - 198	2v68B80		2B5V136				B	
199 - 207			2Q5V132				Q1	
208 - 219			2Q5V125					
220 - 232			2Q5V118					
233 - 246			2B5V110	B				
247 - 253	2MVP105C127Q		2TC160	Q1			CX	3
254 - 272	2MVP95C117Q		2C140R	R1				
273 - 294	2MVP105C127Q	2TC130						
295 - 315	2MVP95C117Q	2TC114	Q1					
316 - 331		2TC106						
332 - 340	3MVC96Q	3MBV86Q	Q2					
341 - 357	3MVP85C107Q							
358 - 362	3MVP75C97Q							
363 - 381	3MVP80C102Q							
382 - 400	3MVP85C107Q							

207SMTP05 Fixed Pitch												
Output rpm	Driver		Driven		Belts	Belt Qty.						
	Fixed Pitch	Bushing	Fixed Pitch	Bushing								
90 - 91	4B5V46	B	4B5V184	B	5VX	4						
92 - 95	4B5V48											
96 - 99	4B5V50											
100 - 101	4B5V52											
102 - 104	4B5V54											
105 - 110	4B5V56											
111 - 113	3B5V58		3BK190H	H			H	3				
114 - 121	3B5V62											
122 - 125	3B5V64											
126 - 129	3B5V66											
130 - 132	3B5V68											
133 - 136	3B5V70											
137 - 148	3B5V74								2B5V154	B	B	2
149 - 151	2B5V66											
152 - 155	2B5V68											
156 - 160	2B5V70											
161 - 162	2B5V74											
163 - 165	3B5V58											
166 - 170	3B5V60											
171 - 176	3B5V62											
177 - 181	3B5V64											
182 - 187	3B5V66											
188 - 193	3B5V68	2B5V154	B	B	2							
194 - 196	2B5V86											
197 - 205	2B5V90											
206 - 210	2B5V94											
211 - 222	2B5V86											
223 - 232	2B5V90											
233 - 242	2B5V94											
243 - 246	2Q5V97											
247 - 253	4B5V64					2B5V124	B	B	4			
254 - 258										4B5V64		
259 - 271	2Q5V97											
272 - 285	2Q5V103	2B5V124	Q1									
286 - 302	2Q5V109											
303 - 310	2B5V110	2B5V110	B									
311 - 321	2Q5V103											
322 - 329	2Q5V109	2B5V124	Q1									
330 - 340	2B5V110											
341 - 349	2B5V124	2B5V124	B									
350 - 361	2Q5V132											
362 - 383	2B5V136	2B5V110	B									
384 - 393	2B5V124											
394 - 400	2Q5V132											

Shaft Mount Accessories

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  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

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It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 207SMTP09

207SMTP09 Variable Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Variable Pitch	Bushing	Fixed Pitch	Bushing						
23 - 25	2MVP35B49	-	2TB380	Q1	AX	2				
26 - 29	3MVP35B49		3MVB300R	R1		BX	3			
30 - 31	3MVP40B54				2B5V278		B	5VX	2	
32 - 34	2MVP35B49									
35 - 39	2VP60									
40 - 43	2VP65									
44 - 47	2VP71									
48 - 50	2VP75									
51 - 55	2VP71									
56 - 58	2VP75									
59 - 60	2VP65									
61 - 65	2VP71	3MVB136R	R1	BX		3				
66 - 69	2VP75									
70 - 75	2VP65									
76 - 79	2VP71									
80 - 84	3MVP45B59									
85 - 90	3MVP50B64									
91 - 97	3MVP55B69									
98 - 104	3MVP60B74									
105 - 113	2MVP85C107Q				Q2		2C180R	Q1	CX	2
114 - 116	2MVP75C97Q						2TC160			
117 - 128	2MVP85C107Q	-	2Q5V118	Q1	5VX	2				
129 - 135	2V68B80		2Q5V97							
136 - 146	2V58B70	Q2	2TC120	Q1	CX	4				
147 - 153	2MVP75C97Q		2C140R	R1						
154 - 156	2VMP85C107Q	-	4MVB86Q	Q2	BX	4				
172 - 184	2MVP105C127Q		4MVB80Q							
185 - 200	4MVP70B84									

207SMTP09 Fixed Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Fixed Pitch	Bushing	Fixed Pitch	Bushing					
15	3BK32	-	3TB380	Q1	AX	3			
16	3BK34								
17	3BK36								
18	3BK40								
19 - 20	3BK45H						H		
21	3BK47H								
22	3BK50H								
23	3BK52H								
24 - 25	3TB36							P2	
26 - 27	3BK45H						H	3B5V278	B
28	3TB36	P2							
29 - 30	3BK45H	H							
31	3BK50H								
32	3BK52H								
33	3BK55H								
34 - 35	2BK52		-	2B5V278	BX	2			
36 - 37	2BK55								
38 - 39	2BK57								
40	4TB38								
41 - 42	4TB40	P1					4B5V184	AX	4
43 - 44	4TB38								
45 - 46	4TB40								
47 - 49	4B5V42								
50 - 51	4B5V44								
52 - 53	4B5V50		B						
54 - 56	4B5V52								
57 - 58	3B5V44		P1	3B5V154	5VX	3			
59 - 61	3B5V46		B						
62 - 64	3B5V48								
65 - 67	3B5V50								
68 - 69	3B5V52								
70 - 74	3B5V56								
75 - 76	3B5V58								
77 - 79	3B5V60								
80 - 84	2B5V66								
85 - 87	2B5V68								
88 - 90	2B5V70	B		3B5V110	5VX	2			
91 - 95	2B5V74								
96 - 101	3B5V54								
102 - 103	3B5V56								
104 - 108	3B5V58								
109 - 112	3B5V60								
113 - 115	3B5V62								
116 - 119	3B5V64								
120 - 123	3B5V66								
124 - 125	3B5V68								
126 - 129	2B5V86	2B5V136	3B5V110	5VX	2				
130 - 135	2B5V90								
136 - 141	2B5V94								
142 - 143	3B5V60								
144 - 147	3B5V62								
148 - 152	3B5V64								
153 - 156	2B5V86								
157 - 158	2Q5V97					Q1	2B5V124	2	
159 - 166	2Q5V103								
167 - 171	2Q5V109					B	2B5V110	2	
172 - 181	2B5V110								
182 - 187	2Q5V103	Q1	2B5V110	2					
188 - 192	2Q5V109								
193 - 200	2B5V110	B							

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 207SMTP15

207SMTP15 Variable Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Variable Pitch	Bushing	Fixed Pitch	Bushing						
11 - 13	2VP42	-	2TB380	Q1	AX	2				
14 - 16										
17 - 19										
20 - 23										
24 - 25										
26 - 28			2VP65	-	2B5V278		Q1	BX		
29 - 33										
34 - 35										
36 - 39										
40 - 44										
45 - 48					2VP71		-	2B5V200	B	BX
49 - 51										
52 - 57										
58 - 61										
62 - 69										
70 - 74	2VP65	-	2B5V160	Q1	5VX					
75 - 83										
84 - 91										
92 - 99										
100 - 105										
106 - 110	2V58B70	-	2Q5V118	Q1	5VX					
111 - 116										
117 - 119										
120 - 126										
127 - 130										

207SMTP15 Fixed Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Fixed Pitch	Bushing	Fixed Pitch	Bushing			
7	3BK27	-	3TB380	Q1	AX	3	
8							
9							
10							
11	3TB38	P1	2TB300	B	5VX	2	
12							
13							
14							
15	2TB40	P1	3B5V200	B	5VX	3	
16							
17							
18							
19	3BK36	-	3BK190H	H	5VX	2	
20							
21							
22							
23 - 24	3TB38	P1	2BK190H	H	5VX	2	
25 - 26							
27 - 28							
29							
30 - 31	3BK55H	-	2B5V136	B	5VX	2	
32 - 33							
34 - 35							
36 - 37							
38 - 40	2B5V58	B	2B5V124	B	5VX	2	
41 - 42							
43 - 45							
46 - 47							
48 - 50	2B5V56	B	2B5V110	B	5VX	2	
51 - 53							
54 - 55							
56 - 57							
58 - 60	2B5V82		2B5V94	2B5V86	B	5VX	2
61 - 63							
64 - 67							
68 - 71							
72 - 75	2B5V68		2B5V94	2B5V86	B	5VX	2
76 - 78							
79 - 83							
84 - 88							
89 - 91	2B5V70	2B5V94	2B5V86	B	5VX	2	
92 - 96							
97 - 99							
100 - 105							
106 - 111	2B5V86	2B5V94	2B5V86	B	5VX	2	
112 - 116							
117 - 122							
123 - 126							
127 - 130	2B5V94	2B5V94	2B5V86	B	5VX	2	

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

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It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 207SMTP25

207SMTP25 Variable Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Variable Pitch	Bushing	Fixed Pitch	Bushing					
6 - 7	2VP36	-	2B5V278	B	AX	2			
8 - 9	2VP42								
10 - 11	2VP50								
12 - 13	2VP56								
14 - 16	2VP42								
17 - 20	2VP50								
21 - 23	2VP60		2B5V160	H	B		5VX		
24 - 25	2VP65								
26 - 28	2VP71								
29 - 31	2VP65								
32 - 34	2VP71								
35 - 38	2VP65								
39 - 40	2VP71		2B5V110	H	B		5VX		
41 - 42	2VP60								
43 - 47	2VP65								
48 - 51	2VP71								
52 - 57	2VP65								
58 - 62	2VP71								
63 - 66	2VP75	2B5V90	H	B	5VX				
67 - 68	2VP65								
69 - 74	2VP71								
75 - 80	2VP65								
						2B5V74	H	B	5VX
		2B5V62	H	B	5VX				
		2B5V52	H	B	5VX				

207SMTP25 Fixed Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Fixed Pitch	Bushing	Fixed Pitch	Bushing						
5	3BK30	-	3TB380	Q1	AX	3				
6	3BK36									
7	2BK28									
8	2BK32									
9	3BK36									
10	2BK38									
11	2TB40		2B5V250	B	B	AX				
12	2AK30									
13	2AK34									
14	2AK39									
15	2AK41									
16	2AK44									
17	2AK46		2AK184H	H	H	AX				
18	2BK34									
19	2BK36H						2B5V136	B	B	BX
20	2BK40									
21	2TB38									
22	2BK45									
23	2BK47									
24	2BK50									
25	2BK47	2B5V124	B	B	BX					
26 - 27	2BK50									
28	2BK52									
29	2BK55									
30 - 31	2B5V52									
32 - 33	2BK62									
34 - 35	2BK55	2BK110	-	-	BX					
36 - 37	2B5V52									
38 - 40	2BK62									
41 - 42	2BK55									
43 - 44	2B5V52									
45 - 46	2B5V54									
47 - 48	2B5V62	2B5V86	B	B	5VX					
49 - 51	2B5V66									
52 - 53	2B5V68									
54 - 57	2B5V62									
58 - 60	2B5V66									
61 - 62	2B5V68									
63 - 65	2B5V80	2BK100	-	-	BX					
66 - 69	2B5V66									
70 - 74	3B5V60									
75 - 78	3B5V64									
79 - 80	3B5V66									
		2B5V90	B	B	BX					
		3BK65H	H	H	3					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

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## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 207SMTP35

207SMTP35 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
5	2VP36	-	2B5V78	B	AX	2
6	2VP42					
7 - 8	2VP50					
9	2VP56					
10 - 11	2VP42					
12 - 14	2VP50					
15	2VP56					
16	2VP42					
17 - 20	2VP50		2AK114	-		
21 - 23	2VP60		2B5V110	-		
24 - 27	2VP65					
28 - 30	2VP71					
31 - 34	2VP65					
35 - 36	2VP65		2B5V80	B	BX	
37 - 40	2VP71					
41 - 44	2VP60					
45 - 47	2VP65					
48 - 50	2VP71	2BK67H	H			

207SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2AK25	-	2B5V250	-	AX	2
6	2BK34					
7	2AK22					
8	2BK30					
9	2BK32		2B5V160	B		
10	2BK36					
11	2BK40					
12	2AK32					
13	2AK34		2AK134H	H		
14	2AK39					
15	2AK41					
16	2AK44					
17	2AK46					
18	2AK49					
19	2AK51					
20	2AK46					
21	2AK49	2AK114	-			
22	2AK51					
23	2AK54					
24	2AK56					
25 - 26	2AK59					
27	2AK64					
28	2B5V48			B		
29 - 30	2BK55			-	2B5V86	BX
31	2BK57					
32 - 33	2BK60					
34	2BK62					
35	2B5V48	B				
36 - 37	2BK55	-	2B5V68			
38 - 39	2BK57					
40	2BK60					
41 - 44	2BK55					
45 - 46	2B5V66	B	2BK65H	H		
47	2B5V68		2BK80	-		
48 - 50	2B5V64		2B5V66	B		

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

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## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 215SMTP05

215SMTP05 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
90 - 98	2V58B70	-	2B5V250	B	5VX	2
99 - 111	2V58B80		2B5V200			
112 - 117	2V58B70					
118 - 130			2C300R			
131 - 139	2MVP105C127Q	Q2	2C270R	R1	CX	
140 - 142	2VMP95C117Q		2TC240			
143 - 154	2MVP104C127Q					
155 - 178			2TC200			
179 - 194	2MVP95C117Q		3MVC140R	R1	3	
195 - 212	2MVP105C127Q					
213 - 230			2C180R			
231 - 240	3MVP85C107Q		3MVC110Q	Q2		
241 - 262	3MVP90C112Q					
263 - 281	3MVP95C117Q		3MVC120Q	Q2		
282 - 313	3MVP85C107Q					
314 - 324	3MVP90C112Q		3MVC110Q	Q2		
325 - 337						
338 - 375	3MVP115C137Q	3MVC110Q	Q2			
376 - 400						

215SMTP05 Fixed Pitch											
Output rpm	Driver		Driven		Belts	Belt Qty.					
	Fixed Pitch	Bushing	Fixed Pitch	Bushing							
90 - 96	4B5V50	-	4B5V184	B	5VX	4					
97 - 99	4B5V52										
100 - 103	4B5V54										
104 - 107	4B5V56										
108 - 111	3B5V58	Q2	3B5V184	B	CX	3					
112 - 118	3B5V62										
119 - 122	3B5V64										
123 - 130	3B5V68										
131 - 134	3B5V70										
135 - 141	3B5V74										
142 - 144	3R5V80						R1				
145 - 152	3B5V80						B				
153 - 162	4Q5V59						Q1				
163 - 170	4B5V60						B	4B5V124	B	5VX	4
171 - 181	4B5V64										
182 - 192	4B5V68										
193 - 198	4V5V70										
199 - 209	4B5V74										
210 - 222	3B5V86										
223 - 232	3B5V90										
233 - 241	3B5V94										
242 - 248	3R5V97	R1	3B5V136	B	5VX	3					
249 - 261	3R5V103										
262 - 276	3R5V109										
277 - 283	3B5V110										
284 - 291	3R5V118	R1	3B5V110	B	5VX	3					
292 - 305	3R5V97										
306 - 320	3R5V103										
321 - 328	3R5V109										
329 - 337	3B5V110	B									
338 - 349	3B5V124										
350 - 365	3R5V132	R1	3B5V124	B	5VX	3					
366 - 382	3B5V136										
383 - 400	3B5V124	B	3R5V109								

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

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## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 215SMTP09

215SMTP09 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
20 - 24	3MVP35B49	-	3MVB380R	R1	AX	3
25 - 29	3MVP40B54					
30 - 35	3MVP40B54					
36 - 38	3MVP45B99					
39 - 41	3MVP50B64					
42 - 46	3MVP55B69					
47 - 51	3MVP55B69					
52 - 57	3MVP60B74					
58 - 62	2MVP75C97Q					
63 - 68	2MVP85C107Q					
69 - 74	2MVP95C117Q	Q2	2C300R	R1	CX	2
75 - 81	2MVP105C127Q					
82 - 86	2MVP85C107Q					
87 - 92	2MVP95C117Q					
93 - 103	3MVP75C97Q					
104 - 113	3MVP85C107Q					
114 - 123	3MVP95C117Q					
214 - 142	3MVP75C97Q					
143 - 161	3MVP90C112Q					
162 - 172	3MVP95C117Q					
173 - 189	3MVP105C127Q					
190 - 200	3MVP115C137Q		3MVC130Q	Q2		3

215SMTP09 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
20	3TB36	P2	3TB380	Q1	BX	3
21	3TB38	P1				
22	3TB40					
23	3BK47H					
24	3BK50H	H				
25	3BK52H					
26 - 27	3B5V48					
28	3B5V50					
29	3B5V52					
30	3B5V54					
31	3B5V56					
32	3B5V42		3B5V278	B	5VX	3
33 - 34	3B5V44					
35	3B5V48					
36 - 37	3B5V50					
38	3B5V52					
39 - 40	3B5V46					
41 - 42	3B5V48					
43	3B5V50					
44 - 45	3B5V52					
46 - 47	3B5V54					
48 - 49	3B5V56		3B5V234	B	5VX	3
50 - 52	3B5V60					
53 - 54	3B5V62					
55 - 56	3B5V64					
57 - 58	4B5V52					
59 - 60	4B5V54					
61 - 62	4B5V56					
63 - 64	4B5V58					
65 - 68	4B5V60					
69 - 73	4B5V64					
74 - 75	4B5V66					
76 - 78	3B5V70		4B5V184	B	5VX	4
79 - 82	3B5V74					
83 - 84	3R5V80	R1				
85 - 89	3B5V80	B				
90 - 94	4Q5V59	Q1				
95 - 99	4B5V60					
100 - 104	4B5V64	B				
105 - 110	3R5V85	R1				
111 - 114	3B5V86					
115 - 119	3B5V90	B				
120 - 124	3B5V94					
125 - 132	3R5V90		3B5V184	B	5VX	3
133 - 135	3R5V92					
136 - 144	3R5V97					
145 - 151	3R5V103					
152 - 160	3R5V109					
161 - 165	3B5V110	B				
166 - 176	3R5V109	R1				
177 - 181	3B5V110	B				
182 - 186	3B5V124					
187 - 192	3R5V132	R1				
193 - 200	3B5V136	B				

Shaft Mount Accessories

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## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 215SMTP15

215SMTP15 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
11 - 14	2VP42	-	2TB380	Q1	AX	2
15 - 19	2MVP35B49		3TB300		B	
20 - 23	2VP60		2B5V250	B		
24 - 25					2VP65	
26 - 28	2VP71	2R5V160		Q1		
29 - 32					2MVP60B74P	
33 - 34	2VP71	-	2C180R	Q1	5VX	
35 - 39	2VP75					
40 - 44	2V68B80	Q2	2TC106	Q1	3	
45 - 48	2V58B70					
49 - 54	2MVP75C97Q	Q2	2C140R	R1	CX	
55 - 61	2MVP85C107Q					
62 - 67	2MVP95C117Q	Q2	2C140R	R1	CX	
68 - 75	2MVP95C117Q					-
76 - 86	2V58B70	Q2	2TC106	Q1	3	
87 - 94	2MVP95C117Q					-
95 - 102	2MVP105C127Q	Q2	2TC106	Q1	3	
103 - 118	2MVP85C107Q					-
119 - 130	3MVP80C102	Q2	3MVC86Q	Q2	3	

215SMTP15 Fixed Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Fixed Pitch	Bushing	Fixed Pitch	Bushing				
9	3BK32	-	3TB380	Q1	AX	3		
10	3BK36	P1					H	3B5V278
11	3TB38							
12	3BK45H	P2					3B5V278	
13	3BK50H		P1	3B5V278				
14	3BK52H	H			3B5V278			
15	3TB36		-	2B5V278			CX	
16	3TB40	-			2B5V278			CX
17	3B5V42		P1	2B5V278			CX	
18	3BK50H	H			2B5V278			CX
19	3BK52H		-	2B5V278			CX	
20	2BK50	P2			4B5V154			BX
21	2BK52		P1	4B5V154			BX	
22	2BK55	-			4B5V154	BX		
23	2BK57		-	4B5V154			BX	
24 - 25	4TB36	P2			4B5V154	BX		
26	4TB38		P1	4B5V154			BX	
27 - 28	4TB40	B			3B5V154	5VX		
29 - 30	4B5V44		B	3B5V154			5VX	
31 - 32	4B5V46	B			3B5V154	5VX		
33 - 34	3B5V42		B	3B5V154			5VX	
35 - 37	3B5V46	B			3B5V154	5VX		
38 - 40	3B5V50		B	3B5V154			5VX	
41 - 43	3B5V48	B			3B5V154	5VX		
44 - 47	3B5V52		B	3B5V154			5VX	
48 - 51	3B5V56	B			3B5V154	5VX		
52 - 54	2B5V68		B	3B5V154			5VX	
55 - 57	2B5V74	B			3B5V154	5VX		
58 - 60	2Q5V80		Q1	2B5V154			5VX	
61 - 63	2B5V80	B			2B5V154	5VX		
64 - 66	2Q5V85		Q1	2B5V154			5VX	
67 - 68	2B5V86	B			2B5V154	5VX		
69 - 72	2B5V80		B	2B5V154			5VX	
73 - 77	2B5V86	B			2B5V154	5VX		
78 - 81	2B5V90		B	2B5V154			5VX	
82 - 84	2B5V94	B			2B5V154	5VX		
85 - 86	2Q5V90		Q1	2B5V124			5VX	
87 - 89	2Q5V92	Q1			2B5V124	5VX		
90 - 94	2Q5V97		Q1	2B5V124			5VX	
95 - 99	2Q5V103	Q1			2B5V124	5VX		
100 - 105	2Q5V109		Q1	2B5V124			5VX	
106 - 108	2B5V110	B			2B5V124	5VX		
109 - 112	2Q5V103		Q1	2B5V124			5VX	
113 - 114	2Q5V109	Q1			2B5V124	5VX		
115 - 118	2B5V110		B	2B5V124			5VX	
119 - 122	2B5V124	B			2B5V124	5VX		
123 - 125	2Q5V132		Q1	2B5V124			5VX	
126 - 130	2B5V136	B			2B5V124	5VX		

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 215SMTP25

215SMTP25 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
7 - 8	2VP42	-	2TB300	Q1	AX	2
9 - 10	2VP50					
11 -12	2VP60					
13 - 14	2VP65					
15 - 16	2VP71					
17 - 18	2VP75		2B5V184	B		
19 - 21	2MVP50B64					
22 - 23	2VP75					
24 - 25	2VP65					
26 - 28	2VP71					
29 - 32	2VP65		2R5V140	R1	5VX	
33 - 35	2VP75		2B5V110	B		
36 - 38	2VP65					
39 - 43	2VP71					
44 - 50	2V58B70		2Q5V103	Q1		
51 - 58	2V68B80		2B5V74	B		
59 - 69	2V58B70					
70 - 80	2V68B70		2Q5V75	Q1		

215SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2BK30	-	2TB380	Q1	AX	2
6	2BK36					
7	2TB40					
8	2TB50					
9	2TB38	P1	2B5V278			
10	2TB40					
11	3BK36	-	3B5V200			
12	3BK40					
13	3TB38					
14	3B5V42	P1	3B5V160			
15	3TB36	P2				
16 - 17	3BK45H	H				
18	3B5V42	P1				
19	3BK50H	H	3B5V124			
20	3BK52H					
21 - 22	3TB36	P2				
23	3TB38	P1				
24 - 25	3BK47H	H	2B5V136	BX		
26	3B5V44	P1				
27 - 28	3B5V46	B				
29	3B5V48					
30 - 31	2B5V58					
32 - 33	2B5V62					
34 - 35	2B5V66					
36	2B5V66					
37 - 38	2B5V58					
39 - 41	2B5V62					
42 - 43	2B5V66					
44 - 46	2B5V70		2B5V110			
47 - 49	2B5V74					
50 - 52	2B5V80					
53 - 54	2B5V70					
55 - 56	2B5V74	Q1	2B5V94			
57 - 58	2Q5V80					
59 - 62	2B5V80	B	2B5V90			
63 - 65	2B5V86					
66 - 69						
70 - 72	2B5V90					
73 - 75	2B5V94					
76 - 77	2B5V86	2B5V80				
78 - 80	2Q5V92					

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 215SMTP35

215SMTP35 Variable Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Variable Pitch	Bushing	Fixed Pitch	Bushing				
5 - 6	2VP42	-	2TB300	Q1	AX	2		
7	2VP50							
8	2VP56							
9	2VP42							
10 - 11	2VP50							
12	2VP56							
13 - 14	2VP65		2B5V200	B			5VX	
15 - 17	2MVP55B69							
18 - 20	2VP60							
21 - 23	2MVP50B64							
24 - 25	2VP65		2B5V136					
26 - 28								
29 - 32	2VP75		2B5V110					BX
33 - 36	2VP65							
37 - 41	2VP75		2B5V86					
42 - 46	2VP65							
47 - 50	2V58B70	2B5V68						

215SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	2BK32	-	2B5V278	B	AX	2
6	2BK36					
7	2TB40	P1	2B5V200			
8	2B5V42					
9	2TB38	P2	3B5V136			
10						
11	3BK34	-	3B5V136			3
12	3BK36					
13	3TB36	H	3B5V136			
14	3BK45H					
15	3BL47H	-	2B5V124			
16	3BK50H					
17	3BK52H	B	2B5V124			BX
18	3BK55H					
19 - 20	2BK52	-	2B5V124			
21	2BK55					
22	2BK57	B	2B5V86			
23 - 24	2BK62					
25	2BK65	B	2B5V124			
26 - 27	2B5V64					
28	2B5V66	B	2B5V74			
29	2B5V70					
30 - 31	2B5V50	B	2B5V94	2		
32 - 33	2B5V54					
34 - 36	2B5V86	B	2B5V94			
37	2B5V90					
38 - 39	2B5V94	B	2B5V94			
40 - 42	2B5V60					
43 - 44	2B5V80	B	2B5V94			
45 - 46	2B5V86					
47 - 48	2B5V90	B	2B5V94			
49 - 50	2B5V94					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 307SMTP05

307SMTP05 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
90 - 99	3MVP85C107Q	Q2	3MVC360R	R2	CX	3
100 - 108	3MVP95C117Q		3MVC300R			
109 - 122	3MVP85C107Q					
123 - 134	3MVP815V95Q		3MV5V240S	S1	5VX	
135 - 148	3MVP915V105Q					
149 - 161	3MVP1015V115Q					
162 - 177	3MVP1115V125Q		3MV5V200R			
178 - 194	3MVP1015V115Q		3MV5V180R			
195 - 213	3MVP1015V125Q		3MV5V150R			
214 - 237	3MVP1115V125Q			R1		
238 - 262	3MVP1015V115Q					
263 - 280	3MVP1015V125Q					
281 - 296	4MVP1015V115		4MV5V132R	R2		4
297 - 332			4MV5V118R			
333 - 362	4MVP1115V125		4MV5B109R			
363 - 394			5MV5V97R			
395 - 400	5MVP1015V115					

307SMTP05 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
90 - 91	4B5V60	B	4B5V234			
92 - 97	4B5V64					
98 - 100	4B5V66					
101 - 103	4B5V68					
104 - 106	4B5V70					
107 - 112	4B5V74					
113 - 117	4B5V66					
118 - 121	4B5V68					
122 - 125	4B5V70					
126 - 130	4B5V74					
131 - 138	4B5V80	R1	4B5V200			
139 - 142	4B5V80	B				
143 - 147	4R5V85	R1				
148 - 152	4B5V86					
153 - 158	4B5V90					
159 - 165	4B5V86	B	4B5V184	B	5VX	4
166 - 172	4B5V90					
173 - 180	4B5V94					
181 - 183	4R5V97					
184 - 193	4R5V103	R1				
194 - 196	4R5V109					
197 - 206	4B5V90	B				
207 - 215	4B5V94					
216 - 219	4R5V97	R1				
220 - 228	4R5V103					
229 - 233	4B5V90	B	4B5V136			
234 - 243	4B5V94					
244 - 248	4R5V97	R1				
249 - 255	4B5V90	B				
256 - 267	4B5V94					
268 - 273	4R5V97	R1	4B5V124			
274 - 279	4R5V103					
280 - 297	4R5V132					
298 - 305	4R5V140					
306 - 318	4R5V125					
319 - 336	4R5V132					
337 - 353	4R5V140					
354 - 368	4R5V132					
369 - 388	4R5V140					
389 - 394	4R5V125					
395 - 400	5B5V124		5R5V109			

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 307SMTP09

307SMTP09 Variable Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Variable Pitch	Bushing	Fixed Pitch	Bushing				
23 - 27	5MVP40B54	-	5MVB380R	R2	AX	5		
28 - 30	5MVP45B59		5MVB300R		R2		BX	
31 - 35	5MVP40B54							
36 - 41	5MVP50B64							
42 - 45	5MVP55B69							
46 - 48	5MVP60B74	Q2	3MVC360R	CX	3			
49 - 55	3MVP80C102Q							
56 - 59	3MVP90C112Q							
60 - 63	3MVP95C117Q							
64 - 69	3MVP85C107Q							
70 - 75	3MVP95C117Q							
76 - 81	3MVP105C127Q							
82 - 94	3MVP815V95Q					R1	5VX	5VX
95 - 104	3MVP915V105Q							
105 - 114	3MVP1015V115Q							
115 - 130	3MVP915V105Q	3MV5V160R						
131 - 146		3MV5V140R						
147 - 155		3MV5V132R						
156 - 170	4MVP1015V115	-	4MV5V132R	-	4			
171 - 182			4MV5V125R					
183 - 200			4MVP1115V125					

307SMTP09 Fixed Pitch											
Output rpm	Driver		Driven		Belts	Belt Qty.					
	Fixed Pitch	Bushing	Fixed Pitch	Bushing							
23 - 24	4B5V42	P1	4S5V375	S1	5VX	4					
25	4B5V46	B									
26	4B5V48										
27 - 28	4B5V50										
29	5B5V52	Q1	5TB380	Q2	BX	5					
30	5TB54										
31	5TB56										
32	5TB58										
33	5TB60										
34	5TB62										
35	5TB64										
36 - 37	4B5V50						B	4B5V278	B	5VX	4
38	4B5V52										
39 - 40	4B5V54										
41	4B5V56										
42 - 43	4B5V58										
44 - 46	4B5V62										
47 - 49	4B5V66										
50 - 51	4B5V58										
52 - 54	4B5V62										
55 - 56	4B5V64										
57	4B5V66										
58 - 60	4B5V68										
61 - 62	4B5V70										
63 - 65	4B5V74										
66 - 68	3R5V85	R1	3B5V250	B	5VX	3					
69 - 71	3B5V86	B									
72 - 74	3B5V90										
75 - 77	3B5V94										
78 - 79	3R5V97	R1					4B5V184	B	5VX	4	
80 - 83	3R5V103										
84 - 87	4R5V80										
88 - 93	4R5V85	B									
94 - 96	4B5V86										
97 - 100	4B5V90										
101 - 105	4B5V94	R1									
106 - 107	4R5V97										
108 - 113	4R5V103										
114 - 115	4R5V109	B									
116 - 123	4B5V110										
124 - 129	3R5V118										
130 - 137	3R5V125	R1	3B5V184	B	5VX	3					
138 - 140	3R5V132	B									
141 - 149	4B5V90										
150 - 155	4B5V94	R1	4B5V124	B	5VX	4					
156 - 164	4R5V125										
165 - 173	4R5V132										
174 - 178	4R5V140										
179 - 185	4R5V125										
186 - 196	4R5V132										
197 - 200	4R5V140										

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



# Accessories Shaft Mount Reducers

## Pre-selected Belt Drives - 307SMTP15

307SMTP15 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
15 - 16	4MVP40B54	-	4MVB380R	R1	AX	4
17 - 19						
20						
21 - 22			4MVP45B59		4MVB300R	
23 - 25	4MVP50B64					
26 - 27	4MVP60B74					
28 - 30	2MVP75C971	Q2	2C360R	R1	CX	2
31 - 35	2MVP85C107Q					
36 - 42	2MVP75C97Q					
43 - 46	2MVP85C107Q		2C270R			
47 - 49	2MVP95C117Q					
50 - 53	2MVP105C127Q					
54 - 61	3MVP75C97Q				5VX	3
62 - 67	3MVP85C107Q		3MVC180R			
68 - 73	3MVP95C117Q					
74 - 82	3MVP95C117Q		3MVC160R			
83 - 92	3MVP815V95Q					
93 - 104	3MVP915V105Q		3MV5V118R			
105 - 119	3MVP915V105Q					
120 - 130	3MVP1015V115Q		3MV5V103R			

307SMTP15 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
12	3TB36	P2	3TB380	Q1	BX	3
13	3BK45H	H				
14	3B5V42	P1				
15	3B5V46	B				
16	3B5V48	B	4TB300	Q1	BX	4
17	4B5V42	P1				
18	4B5V44	B	3TB300	Q1	BX	3
19	4B5V46	B				
20 - 21	4B5V50	B				
22	3B5V54	B	3B5V250	B	5VX	4
23	3B5V56					
24	3B5V58					
25 - 26	3B5V54					
27	3B5V56					
28 - 29	4Q5V46		Q2			
30	4B5V46					
31	4B5V48					
32 - 33	4B5V50					
34 - 35	4B5V54					
36 - 37	4B5V56					
38 - 39	3B5V60					
40 - 42	3B5V64					
43	3Q5V71		Q1			
44 - 46	3B5V70	B				
47 - 48	3B5V74	R1				
49	3R5V80	R1	4B5V154	B	5VX	4
50 - 52	3B5V80					
53 - 55	3B5V70					
56 - 58	3B5V74					
59 - 62	4B5V70					
63 - 65	4B5V74					
66 - 67	3B5V86					
68 - 70	3B5V90					
71 - 73	3B5V94					
74 - 78	4B5V80					
79 - 83	4B5V86					
84 - 87	4B5V90					
88 - 91	4B5V94					
92 - 93	3R5V97					
94 - 98	3R5V103					
99 - 104	3R5V109		3B5V136	B	B	3
105 - 109	3B5V124					
110 - 113	3R5V132					
114 - 119	3B5V124					
120 - 126	3R5V132	R1	3B5V124	R1	B	3
127 - 130	3B5V136	B				

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 307SMTP25

307SMTP25 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
7 - 9	2MVP35B49	-	2TB380	Q1	BX	2	
10 - 12			2B5V278	B			
13 - 14							2VP60
15 - 17							2VP71
18 - 20	2VP75	P2	2B5V250	Q1	CX		
21 - 23	2MVP70B84P						
24 - 27	2MVP80B94Q						
28 - 33	2MVP75C97Q						
34 - 37	2MVP85C107Q	Q2	2TC200	Q1	CX		
38 - 41	2MVP95C117Q						
42 - 43	2MVP105C127Q						
44 - 52	2MVP95C117Q						
53 - 56	2MVP95C117Q	3MVC96Q	2C160	R1	CX		
57 - 60	2MVP105C127Q						
61 - 73	3MVP80C102Q						
74 - 80	3MVP95C117Q						

307SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
6	3BK36	-	3TB380	Q1	AX	3
7	3BK45H	H				
8	3BK50H	-				
9	3TB36	P2				
10	3BK47H	H	3B5V278	Q1	BX	2
11	3BK50H					
12	2BK50					
13	2BK55					
14	2BK60	B	2B5V278	Q1	CX	
15	2B5V56					
16	2B5V60					
17	3B5V42					
18	3B5V44	P1	3B5V184	Q1	5VX	3
19	3B5V46					
20	3B5V50					
21 - 22	3B5V46					
23	3B5V48	B	3B5V154	Q1	5VX	
24	3B5V52					
25	3B5V54					
26	6B5V66					
27 - 28	3B5V60	B	3B5V136	Q1	5VX	
29 - 30	3B5V56					
31 - 32	3B5V60					
33 - 34	3B5V64					
35 - 36	3B5V68	B	3B5V110	Q1	5VX	
37 - 38	3B5V58					
39 - 41	3B5V62					
42 - 43	3B5V66					
44 - 46	3B5V70	Q1	2B5V136	Q1	5VX	
47 - 49	3B5V74					
50 - 51	2Q5V97					
52 - 54	2Q5V103					
55	2Q5V109	B	3B5V94	Q1	5VX	
56 - 59	2B5V110					
60	3B5V80					
61 - 64	3R5V85					
65	3R5V90	R1	3B5V94	Q1	5VX	
66 - 69	3B5V90					
70 - 72	3B5V94					
73 - 76	3B5V90					
77 - 78	3B5V94	B	3B5V86	Q1	5VX	
79 - 80	3R5V109					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 307SMTP35

307SMTP35 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
5 - 6	2VP42	-	2TB300	Q1	AX	2	
7 - 8	2MVP35B49		2B5V234	B	5VX		BX
9 - 15	2BP65						
16 - 18	2VP75						
19 - 22	2VP71		2B5V184	Q1	5VX		5VX
23 - 24			2B5V154				
25 - 27	2V58B70		2B5V136	B	5VX		5VX
28 - 30	2V58B80		2Q5V109				
31 - 34	2V58B70			2B5V86	B		5VX
35 - 38	2V68B80						
39 - 42	2V58B70						
43 - 46	2V68B80		Q2	2TC100	Q1		CX
47 - 50	2MVP85C107Q						

307SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	3BK34	-	3TB300	Q1	AX	3
6	3TB30	P1				
7	3B5V42					
8	2B5V48	B	2B5V278	B	5VX	2
9	2B5V52					
10	2B5V60	-	2B5V234	B	5VX	2
11	2BK55					
12	2BK57					
13	2BK62	P1	2B5V160	B	5VX	2
14	2B5V44					
15	2B5V48	B	2B5V136	B	5VX	2
16	2B5V50					
17	2B5V52					
18	2B5V56					
19	2B5V60					
20	2B5V62					
21	2B5V68					
22 - 23	2B5V60					
24	2B5V64					
25 - 26	2B5V68					
27 - 28	2B5V74	Q1	3B5V86	B	5VX	3
29 - 30	2B5V80					
31 - 32	2B5V86					
33 - 34	2B5V90	Q1	3B5V86	B	5VX	3
35	2B5V94					
36 - 38	2B5V80	Q1	3B5V86	B	5VX	3
39 - 40	2B5V86					
41	2B5V90					
42 - 44	2B5V94	Q1	3B5V86	B	5VX	3
45 - 46	2Q5V103					
47 - 48	3B5V80	Q1	3B5V86	B	5VX	3
49 - 50	3B5V86					

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 315SMTP05

315SMTP05 Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
90 - 98	3MVP75C97Q	Q2	3MVC260R	R2	CX	3	
99 - 112	3MVP815V95Q		3MV5V300S	S1			
113 - 123	3MVP915V105Q						
124 - 137	3MVP1015V115Q						
138 - 155	3MVP915V105Q						
156 - 171	3MVP1015V115Q						
172 - 186	3MVP1115V125Q	-	4MV5V200R	R1	5VX	4	
187 - 204	4MVP1015V115		4MV5V180R				
205 - 227	4MVP1115V125		5MV5V140S	S1			
228 - 246	4MVP1115V125						
247 - 266	5MVP915V105						
267 - 295	5MVP1015V115		5MV5V125S	R1			5
296 - 327			5MV5V118S				
328 - 356	5MVP1115V125		5MV5V198R	R1			
357 - 379			5MV5V198R				
380 - 400							

315SMTP05 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
90 - 94	3B5V94	B	3S5V375	S1	5VX	3
95 - 100	3R5V103	R1				
101 - 106	3R5V109					
107 - 110	4B5V74	B	4B5V250	B	5VX	4
111 - 112	4R5V80	R1				
113 - 119	4B5V80	B				
120 - 126	4B5V86					
127 - 134	4B5V90					
135 - 139	4B5V94	R1				
140 - 142	4R5V97					
143 - 148	4R5V103	B	3B5V278	3		
149 - 155	3R5V118					
156 - 165	3B5V124	R1	4B5V184	4		
166 - 168	3R5V132					
169 - 177	4R5V90	R1	5B5V184	R1	5VX	5
178 - 183	4R5V92					
184 - 186	4B5V94					
187 - 189	5B5V94					
190 - 193	5R5V97					
194 - 203	5R5V103					
204 - 208	5R5V109					
209 - 221	5B5V110					
221 - 233	4R5V118					
234 - 247	4R5V125					
248 - 256	4R5V132					
257 - 270	5R5V118	R1	5B5V160	R1	5VX	5
271 - 286	5B5V124					
287 - 297	5R5V132					
298 - 302	5B5V136					
303 - 315	5B5R116					
316 - 321	5R5V125					
322 - 334	5B5V124	R1	6B5V124	6		
335 - 345	6R5V118					
346 - 348	6S5V125					
349 - 369	6B5V124					
370 - 381	6S5V132	S1	6B5V124	6		
382 - 400	6B5V136	R1				

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 315SMTP09

315SMTP09 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
24 - 29	6MVP40B54	-	6MVB380R	R2	BX	6
30 - 34	6MVP40B54		5MVB380R			
35 - 37	5MVP55B69					
38 - 54	5MVP55B69		5MVB300R			5
46 - 52	3MVP75C97Q	Q2	3MVC360R		CX	3
53 - 59	3MVP85C107Q					
60 - 70	3MVP105C127Q					
71 - 76	3MVP115C137Q					
77 - 87	3MVP915V105Q					
88 - 95	4MVP1015V115	-	4MV5V240S	S1	5VX	4
96 - 108			4MV5V212S	R1		
109 - 121			4MVP1115V125			
122 - 130	5MVP915V105		5MV5V180S	S1	5	5
131 - 143	5MVP1015V115	5MV5V160S				
144 - 159		5MV5V140S				
160 - 177	5MVP1115V125		5MV5V125S			
178 - 200						

315SMTP09 Fixed Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Fixed Pitch	Bushing	Fixed Pitch	Bushing					
25	4C60Q	Q2	4C500R	R1	CX	4			
26	4B5V48	B	4S5V375	S1	5VX				
27	4B5V50								
28	4B5V52								
29	4B5V54								
30	4B5V56								
31	4B5V58								
32 - 33	4B5V60								
34	4B5V62								
35	4B5V64								
36	4B5V66								
37 - 38	4B5V70								
39 - 41	4B5V74								
42 - 44	4B5V80								
45 - 46	4B5V86								
47 - 48	3B5V90								
49 - 51	3B5V94						R1	3S5V375	
52 - 55	3R5V103								
56 - 59	3R5V109								
60 - 63	3R5V118								
64 - 67	3R5V125								
68 - 71	3R5V132	B	4B5V250	B	4				
72 - 73	4B5V90								
74 - 78	4B5V94								
79 - 82	4R5V103								
83 - 87	4R5V109								
88 - 93	4R5V125								
94 - 100	4R5V125								
101 - 106	4R5V132								
107 - 112	4R5V132								
113 - 115	5R5V109					R1	5B5V184	R1	5
116 - 121	5B5V110								
122 - 129	5R5V118								
130 - 137	5B5V124								
138 - 142	5R5V132								
143 - 150	5B5V136								
151 - 158	5B5V124								
159 - 163	6S5V132								
164 - 173	6B5V136								
174 - 185	6B5V124	S1	6B5V160		6				
186 - 191	6S5V132								
192 - 200	6B5V136								

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 315SMTP15

315SMTP15 Variable Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Variable Pitch	Bushing	Fixed Pitch	Bushing					
17 - 22	5MVP40B54	-	5MVB300R	R2	BX	5			
23 - 27	5MVP55B69								
28 - 31	5MVP50B64								
32 - 35	5MVP60B74								
36 - 41	5MVP70B74								
42 - 48	3MVP75C97Q	Q2	3MVC240R	R1	CX	3			
49 - 55	3MVP90C112Q		3MVC200R						
56 - 63	3MVP85C107Q		3M5V180R						
64 - 69	3MVP915V105Q		3M5V160R						
70 - 76	3MVP1015V115Q		3M5V132R						
77 - 86	3MVP915V105Q		-		4MV5V132R		R2	5VX	4
87 - 95	4MVP1015V115								
96 - 104	4MVP1115V125								
105 - 114	4MVP1115V125								
115 - 130	5MVP915V105				5MV5V97R				

315SMTP15 Fixed Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Fixed Pitch	Bushing	Fixed Pitch	Bushing			
13	5B5V42	P2	5TB380	Q2	AX	5	
14	5B5V46						
15	5TB50						
16	5TB52						
17	5TB54						
18	4B5V42	Q1	4B5V278	B	5VX	4	
19	4Q5V46	P1					
20	4B5V46	Q2					
21	4B5V48						
22 - 23	4B5V46						
24 - 25	4B5V50						
26	4B5V52						
27 - 28	3B5V56						
29 - 30	3B5V60						
31 - 32	3B5V66						
33 - 35	3B5V70	B	3B5V250	B	5VX	3	
36 - 37	3B5V74						
38 - 39	4B5V64						
40	4B5V66						
41 - 42	4B5V68						
43	4B5V70						
44 - 46	4B5V74						
47 - 48	4B5V80						
49 - 50	4R5V85						R1
51 - 53	4B5V86						B
54 - 55	4B5V90						
56 - 58	4B5V94						
59	4R5V97						
60 - 62	4R5V103	R1	4B5V200	B	5VX	4	
63 - 65	4R5V109						
66 - 67	4B5V110						
68 - 69	4B5V90	B					
70 - 73	4B5V94						
74 - 78	4R5V103						
80 - 82	4R5V109	R1					
83 - 85	4B5V110	B					
86 - 89	4R5V118						
90 - 95	4R5V125						
96 - 100	4R5V132						
101 - 105	4R5V140	R1	4B5V160	B	5VX	4	
106 - 112	4R5V125						
113 - 118	4R5V132						
119 - 124	4R5V140						
125 - 130	4R5V132						

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 315SMTP25

315SMTP25 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
10	3MVP35B49	-	3MVB300R	R1	BX	3
11 - 12	3MVP40B54					
13	3MVP45B59					
14 - 15	3MVP50B64					
16 - 17	3MVP55B69					
18 - 20	4MVP45B59		4MVB200R		4	
21 - 23	4MVP55B69					
24 - 26	4MVP60B74					
27 - 29	4MVP70B84					
30 - 33	4MVP80B94Q					
34 - 39	3MVP75C97Q	Q2	3MVC180R	CX	3	
40 - 45	3MVP95C117Q					
46 - 49	3MVP105C127Q					
50 - 56	3MVP915V105Q					
57 - 63	3MVP915V105Q					
64 - 70	3MVP1015V115Q	-	3MV5V118R	5VX	3	
71 - 80	3MVP1015V115Q	-				3MV5V103R

315SMTP25 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
6	4TB34	P2	4TB380	Q1	AX	4
7	4TB38	P1				
8	4B5V44					
9	4B5V48	B				
10	3TB36	P2	3B5V278	B	BX	3
11	3BK45H	H				
12	3B5V44	P1				
13	3B5V48	B				
14	3B5V52					
15	3B5V56	P1	4B5V184	B	4	
16	3B5V58					
17	4B5V42					
18	4B5V44					
19	4B5V48					
20	4B5V50					
21	4B5V52					
22 - 23	4B5V56					
24	4B5V60					
25	4B5V62					
26	4B5V64	B	3B5V154	B	3	
27	4B5V66					
28	4B5V68					
29 - 30	3B5V62					
31	3B5V66					
32 - 33	3B5V70	R1	3B5V136	5VX	3	
34 - 35	3B5V74					
36 - 37	3R5V80					
38 - 39	3R5V85					
40 - 42	3R5V90	B	3B5V124	5VX	3	
43 - 44	3B5V94					
45 - 46	3B5V86					
47 - 48	3B5V90	R1	3B5V136	5VX	3	
49 - 51	3B5V94					
52 - 55	3R5V103	B	3B5V136	5VX	3	
56 - 59	3B5V110					
60 - 63	3R5V118	R1	3B5V136	5VX	3	
64 - 67	3B5V124					
68 - 69	3R5V132	R1	3B5V136	5VX	3	
70 - 73	3B5V136					
74 - 77	3R5V132	R1	3B5V124	5VX	3	
78 - 80	3B5V136					

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 315SMTP35

315SMTP35 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
7 - 8	3MVP35B49	-	3MVB300R	R1	AX	2
9 - 10	2MVP35B49		2B5V250	B	BX	
11 - 12	2MVP45B59					
13 - 14	2VP71					
15 - 16	2MVP70B84P		P2	2B5V184	5VX	
17 - 18	2MVP80B94Q	Q2				
19 - 20	2V58B70	Q2	2TC200	Q1	CX	3
21 - 23	2V68B80		3MBV130Q	Q2		
24 - 27	2MVP85C107Q					
28 - 30	2MVP95C117Q					
31 - 38	3MVP75C97Q					
39 - 43	3MVP90C112Q					
44 - 50	3MVP105C127Q					

315SMTP35 Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
5	3BK32	-	3TB300	Q1	AX	2
6	3TB36	P2				
7	3B5V42	P1				
8	3BK55H	H				
9	3B5V54	B				
10	3TB36	P2	3B5V200	B	BX	3
11	3B5V44	P1				
12	3B5V48	B				
13	3B5V52					
14	3B5V56					
15	3B5V60					
16 - 17	3B5V66					
18	3B5V52					
19	3B5V56					
20	3B5V58					
21	3B5V62					
22 - 23	3B5V54		B	3B5V124	B	5VX
24 - 25	3B5V58					
26	3B5V62					
27	3B5V64					
28	3B5V66					
29	3B5V68					
30 - 31	3B5V74					
32 - 33	3B5V86					
34 - 35	3B5V90					
36	3B5V94					
37	3R5V92	R1	2B5V136	B	5VX	
38 - 39	3R5V103					
40 - 41	3B5V86	B	3B5V110	B	5VX	
42 - 43	3B5V90					
44 - 45	3B5V94					
46 - 48	3R5V103					
49 - 50	3R5V109	R1				

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 407SMTP05B

407SMTP05B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
112 - 117	3MVP915V105Q	Q1	3MV5V300S		5VX	3
118 - 137	4MVP1015V115		4MV5V300S			4
138 - 151	4MVP1115V125		4MV5V280S			
152 - 161	4MVP1015V115		4MB5V140S			
162 - 185	5MVP915V105			S1		5
186 - 202	5MVP1015V115		5MV5V200S			
203 - 220						
221 - 244	5MVP1115V125		5MV5V180S			
245 - 270			6MV5V150S			
271 - 302	6MVP1015V115		6MB5V132S			6
303 - 315	6MVP1115V125		6MV5V140S			

407SMTP05B Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
90 - 93	4R5V97				5VX	4
94 - 98	4R5V103	R1				
99 - 102	4R5V109		4S5V375	S1		
103 - 107	4B5V110	B				
108 - 113	4R5V118					
114 - 117	4R5V125					
118 - 125	6B5V86		6B5V250			
126 - 130	6B5V90					
131 - 136	6B5V94					
137 - 139	6R5V97					
140 - 146	6R5V103					
147 - 155	5R5V109	R1				
156 - 159	5B5V110					
160 - 168	5R5V118					
169 - 178	5R5V125		5B5V250			
179 - 188	5R5V132					
189 - 196	5B5V136					
197 - 199	5R5V140					
200 - 210	6R5V109		6B5V184	R1		
211 - 222	6S5V125					
223 - 235	6S5V132		6B5V200			
236 - 249	6S5V140	S1				
250 - 255	6S5V132		6B5V184			
256 - 261	6S5V140					
262 - 267	6B5V136					
268 - 272	6R5V118	R1				
273 - 288	6S5V125	S1	6B5V154			
289 - 300	6S5V132					
301 - 317	6S5V136	R1				
318 - 327	8S5V140		8S5V150			
328 - 340	8S5V132		8S5V132	S1		
341 - 359		S1				
360 - 381	8S5V140		8S5V125			
382 - 400						

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 407SMTP15B

407SMTP15B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
31 - 33	3MVP75C97Q	Q2	3MVC360R	R2	CX	3
34 - 37	3MVP85C107Q			R2		
38 - 40	3MVP95C117Q			R2		
41 - 43	3MVP105C127Q			R2		
44 - 48	3MVP815V95Q		S1	R1	5VX	
49 - 55	3MVP915V105Q					
56 - 60	3MVP1015V115Q					
61 - 67	3MVP915V105Q					
68 - 72	3MVP1015V115Q	-	S1	5VX	4	
73 - 80	4MVP1115V125					
81 - 89	4MVP1115V125					
90 - 99	4MVP1115V125					
100 - 108	5MVP915V105	-	S1	5VX	5	
109 - 123			R2			
124 - 130	5MVP1115V125	-	S1	5VX	5	

407SMTP15B Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
15	4Q5V46	Q2	4S5V375	S1	5VX	3
16	4B5V46	B				
17	4B5V48					
18	4B5V52					
19	4B5V54					
20	4B5V58					
21	4B5V60					
22	4B5V62					
23	4B5V66					
24 - 25	4B5V70					
26	4B5V56					
27	4B5V58					
28	4B5V60					
29 - 30	4B5V64					
31	4B5V66					
32 - 33	4B5V70	4B5V250	B	5VX	4	
34 - 35	4B5V74					
36 - 37	4B5V70					
38 - 39	4B5V74					
40 - 41	4R5V80	R1	4B5V200	B	5VX	4
42	4B5V80	B				
43	4R5V85	R1				
44 - 45	4B5V86	B				
46 - 47	4B5V90					
48	4B5V86					
49 - 51	4B5V90					
52 - 53	4B5V94	R1	4B5V234	B	5VX	4
54 - 55	4R5V103					
56 - 58	4R5V90					
59 - 60	4R5V92					
61 - 62	4B5V94	B	4B5V200	B	5VX	4
63	4R5V97					
64 - 66	4R5V103	R1				
67 - 68	4R5V109					
69 - 72	4B5V110	B	4B5V184	B	5VX	4
73 - 76	4R5V118	R1				
77 - 81	4R5V125					
82 - 85	4R5V132					
86 - 88	4R5V125		R1	6B5V124	R1	5VX
89 - 93	4R5V132					
94 - 99	4R5V140					
100 - 102	6R5V97					
103 - 107	6R5V103	R1	6B5V110	R1	5VX	6
108 - 110	6R5V109					
111 - 117	6B5V110					
118 - 123	6R5V118					
124 - 128	6R5V109	R1	6B5V110	R1	5VX	6
129 - 130	6R5V110					

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 407SMTP25B

407SMTP25B Variable Pitch							
Output rpm	Driver		Driven		Belts	Belt Qty.	
	Variable Pitch	Bushing	Fixed Pitch	Bushing			
9 - 10	4MVP45B59	-	4MBV380R	R1	AX	4	
11 - 12	4MVP40B54		4MVB300R		R1		BX
13 - 16	4MVP55B69						
17 - 19	4MVP70B84						
20 - 21	4MVP80B94Q	Q2	2C270R	R1	CX	2	
22 - 24	2MVP75C97Q						
25 - 27	2MVP85C107Q						
28 - 19	2MVP95C117Q		2TC240	Q1	CX	2	
30 - 33	2MVP105C127Q						
34 - 37	2MVP105C127Q		3MV5V180R	R1	5VX	3	
38 - 40	3MVP915V105Q						
41 - 44	3MVP1015V115Q						
45 - 48	3MVP1115V125Q						
49 - 52	3MVP915V105Q		3MV5V140R	R1	5VX	3	
53 - 57	3MVP1015V115Q						
58 - 62	3MVP1115V125Q						
63 - 68	3MVP1015V115Q	3MV5V118R	R1	5VX	3		
69 - 72	4MV5V103R						
73 - 80	4MVP1015V115	-	4MV5V97R	R1	5VX	3	

407SMTP25B Fixed Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Fixed Pitch	Bushing	Fixed Pitch	Bushing						
7	4TB40	P2	4TB380	Q1	AX	4				
8	4B5V44	P1								
9	4B5V50	B								
10	4B5V56	P1	3B5V278	B	5VX	3				
11	3B5V42									
12	3B5V46									
13	3B5V52									
14	3B5V54									
15	3B5V58									
16	3B5V54									
17	3B5V56									
18	3B5V60									
19	3B5V64									
20	3B5V66	B	3B5V234	B	5VX	3				
21	4B5V48									
22	4B5V50									
23	4B5V52									
24	4B5V54									
25 - 26	4B5V58						4B5V160	B	5VX	4
27	4B5V60									
28	4B5V62									
29	4B5V64									
30 - 31	3B5V80									
32 - 33	3B5V86									
34	3R5V90	R1								
35 - 37	3B5V94	B								
38 - 39	3R5V103	R1								
40 - 41	3R5V109	R1								
42 - 43	3B5V110	B								
44 - 45	3R5V118	R1								
46 - 48	3B5V124	B								
49	3R5V132	R1								
50 - 52	3R5V118	R1								
53 - 56	3B5V124	B	3B5V160	B	5VX	3				
57	3R5V136									
58 - 62	3B5V136	R1	3B5V136	B	5VX	3				
63 - 64	3R5V125									
65 - 67	3R5V132	R1								
68 - 72	3B5V136	B								
73 - 77	5R5V103	R1	5B5V94	R1	5VX	5				
78 - 80	5R5V109									

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 415SMTP05B

415SMTP05B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
93 - 104	5MVP1015V115	-	5MV5V375	U0	5VX	5
105 - 111	5MVP105C127		5MVC360S	S2	CX	
146 - 165	6MVP1015V115		6MV5V240U	U0	5VX	6

415SMTP05B Fixed Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Fixed Pitch	Bushing	Fixed Pitch	Bushing				
90 - 92	5R5V132	R1	5U5V500	U0	5VX	5		
93 - 96	5B5V136		6U5V375					
97 - 102	6R5V109							
103 - 105	6B5V110							
106 - 111	6R5V118							
112 - 113	6B5V124							
114 - 117	6S5V125		S1			6S5V280	S1	6
118 - 122	6S5V132							
123 - 129	6B5V136		R1					
130 - 131	6S5V140		S1					
132 - 137	6R5V109	R1						
138 - 140	6B5V110							
141 - 148	6R5V118							
149 - 157	6S5V125		S1					
158 - 165	6S5V132	S1	8U5V250	U1	8			
166 - 168	6B5V136					R1		
169 - 176	8S5V125							
177 - 186	8S5V132							
187 - 199	8S5V140	J	105V1870J	J	10			
200 - 208	8S5V125							
209 - 220	8S5V132							
221 - 232	8S5V140							
233 - 235	105V1250J	U1	10U5V160	U1				
236 - 249	105V1320J							
250 - 261	105V1400J							
262 - 275	10U5V125							
276 - 292	10U5V132	10U5V140	10U5V150	U1				
293 - 309	U1							
310 - 332					10U5V140			
333 - 354						10U5V140		
355 - 372						10U5V132		

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 415SMTP15B

415SMTP15B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
24 - 28	5MVP75C97		5MVC440U	U0	CX	5
29 - 33			5MVC360S	S2		
34 - 38			5MVP85C107			
39 - 44			5MVP105C127			
45 - 48	4MVP1015V115	-	4MV5V300S	S1	5VX	4
49 - 52	4MVP1115V125		4MV5V280S			
53 - 56	5MVP915V105		5MV5V212U	U0		
57 - 62	5MVP1015V115					
63 - 67	5MVP1015V115		6MV5V180S	S2	5VX	5
68 - 74	5MVP11115V115		6MV5V160S			
75 - 80			6MV5V140S			
81 - 90	6MVP1015V115					
91 - 101						

415SMTP15B Fixed Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Fixed Pitch	Bushing	Fixed Pitch	Bushing						
12	4Q5V49	Q1	4U5V500	U0	5VX	4				
13	4B5V52	B								
14	4B5V54									
15	4B5V60									
16	4B5V62									
17	4B5V66									
18	4B5V70									
19	4B5V74									
20	4B5V80									
21	4R5V85						R1			
22	4R5V86		B	4S5V375	S1	5VX	6			
23	4B5V90									
24	4B5V94									
25 - 26	4B5V74									
27	4R5V80	R1								
28	4R5V85									
29 - 30	4R5V90									
31 - 32	4B5V94	B								
33	4R5V97	R1	6S5V280					R1	5VX	6
34 - 35	4R5V103									
36	4R5V109									
37	4B5V110									
38	6B5V86									
39 - 41	6R5V90									
42 - 43	6B5V94									
44	6B5V86									
45 - 46	6B5V90									
47 - 48	6B5V94									
49	6R5V97									
50 - 52	6R5V103	6B5V250	6B5V200	R1	5VX	6				
53 - 55	6R5V109									
56 - 57	6B5V110									
58 - 60	6R5V118									
61 - 64	6B5V124									
65 - 66	6S5V132									
67	6B5V136									
68 - 71	6S5V140									
72 - 75	6R5V118									
76 - 79	6B5V124									
80 - 83	6S5V132									
84 - 86	6B5V136									
87 - 88	6S5V140									
89 - 92	6R5V118	S1	6B5V160	S1	5VX	8				
93 - 98	6S5V125									
99 - 101	6S5V132									
102 - 106	8S5V132									
107 - 112	8S5V140	S1	8S5V160	S1	5VX	8				
113 - 120	8S5V140		8S5V150							
121 - 128	8S5V132		8S5V132							
129 - 130	8S5V140									

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 415SMTP25B

415SMTP25B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
11 - 12	5MVP40B54	-	5MVB300R	R2	BX	5
13 - 14	5MVP50B64					
15 - 16	5MVP60B74					
17 - 19	3MVP85C107Q	Q2	3MVC360R	R2	CX	3
20 - 21	3MVP95C117Q					
22 - 24	4MVP75C97Q	Q3	4MVC270R	R1	CX	4
25 - 28	4MVP95C117Q					
29 - 33	4MVP115C137Q					
34 - 38	4MVP95C117Q					
39 - 46	4MVP1015V115	-	4MV5V180R	R1	5VX	5
47 - 51	5MVP915V105		5MV5V140S	S1		
52 - 56	5MVP1015V115					
57 - 61						
62 - 67	5MVP1115V125					
68 - 72		5MV5V118S				
73 - 80			5MV4V109R	R2		

415SMTP25B Fixed Pitch										
Output rpm	Driver		Driven		Belts	Belt Qty.				
	Fixed Pitch	Bushing	Fixed Pitch	Bushing						
6	3B5V42	P1	3U5V500	U0	5VX	3				
7	3B3V50	B								
8	3B5V44	P1								
9	3V5B50	B	3S5V375	S1	5VX	3				
10	3B5V54									
11	3B5V60									
12	3B5V66									
13	3B5V70									
14	4B5V50		4B5V250	B		5VX	4			
15	4B5V56									
16	4B5V58									
17	4B5V62									
18	4B5V64									
19	4B5V68									
20	4B5V74									
21	3B5V86	R1			3B5V278			B	5VX	3
22	3B5V90									
23	3R5V92									
24	3R5V97									
25	3R5V103									
26	3R5V109	B	4B5V184	R1	5VX	4				
27	3B5V110									
28 - 29	3R5V118									
30 - 31	3B5V124									
32 - 33	4R5V90									
34	4B5V90	R1	5B5V160	R1	5VX	5				
35	4B5V94									
36	4B5V97									
37 - 38	4R5V103									
39 - 41	5B5V94									
42	5R5V97									
43 - 44	5R5V103									
45	5R5V109									
46 - 47	5B5V110									
48 - 50	5R5V118									
51	5R5V125	S1	6B5V124	R1	5VX	6				
52 - 54	6R5V97									
55 - 56	6R5V103									
57 - 58	6R5V109									
59 - 62	6B5V110									
63 - 66										
67 - 70	6R5V118	6R5V118	R1	5VX	6					
71 - 74	6B5V124									
75 - 78	6S5V132									
79 - 80	6S5V140									

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 507SMTP15B

507SMTP15B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
28 - 30	5MVP915V105	-	5MV5V440U	U0	5VX	5
31 - 35			5MV5V375U			
36 - 39			5MVP1015V115			
40 - 43	5MVP1115V125	6MVP1015V115	6MV5V300U	U0	5VX	6
44 - 49	6MV5V280U					
50 - 53	6MV5V240U					
54 - 61						

507SMTP15B Fixed Pitch								
Output rpm	Driver		Driven		Belts	Belt Qty.		
	Fixed Pitch	Bushing	Fixed Pitch	Bushing				
22	5B5V86	R1	5U5V500	U0	5VX	5		
23 - 24	5B5V90							
25	5B5V94							
26	5R5V103							
27 - 28	6B5V80							
29 - 30	6V5V86		6U5V375			U0	5VX	6
31	6B5V90							
32 - 33	6R5V97							
34 - 35	6R5V103							
36 - 38	6R5V109							
39 - 41	6R5V118	S1	6S5V280	S1	5VX	6		
42 - 44	6B5V124							
45 - 46	6S5V132	R1	6B5V250	R1	5VX	6		
47 - 48	6B5V136							
49 - 51	6R5V109							
52 - 54	6R5V118							
55 - 58	6B5V110							
59 - 61	6R5V118	S1	8U5V250	U1	5VX	8		
62 - 65	8S5V125							
66 - 69	8S5V132							
70 - 72	8S5V140							
73 - 77	8S5V125	U1	8U5V212	U1	5VX	8		
78 - 81	8S5V132							
82 - 87	8S5V140							
88 - 92	105V1320J	J	105V1870J	J	5VX	10		
93 - 97	105V1400J	U1	10U5V160	U1				
98 - 102	10U5V125							
103 - 108	10U5V132							
109 - 115	10U5V140	U1	10U5V150	U1	5VX	10		
116 - 123								
124 - 130								

Shaft Mount Accessories

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.





## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 507SMTP25B

507SMTP25B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
12 - 14	6MVP60B74	-	6MVB380R	R2	BX	6
15 - 17	3MVP85C107Q	Q2	3MVC440U	U0	CX	3
18 - 20	3MVP105C127Q					
21 - 24	3MVP915V105Q	-	3MV5V300S	S1	5VX	5
25 - 28	4MVP1015V115		4MV5V280S			
29 - 31	4MVP1115V125		5MV5V200S			
32 - 36	5MVP915V105					
37 - 40			5MV5V180S			
41 - 44	5MVP1015V115		5MV5V150S			
45 - 48	5MVP1115V125		5MV5V140S			
49 - 53	5MVP1015V115					
54 - 61	5MVP1115V125					

507SMTP25B Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
7	4B5V50	B	4U5V500	U0		4
8	4B5V56					
9	4B5V64					
10	5B5V52	Q1	5U5V375			5
11	5B5V58					
12	5B5V64					
13	5B5V68					
14	5B5V74					
15	5B5V80					
16	5R5V90					
17	5B5V90					
18	5B5V94					
19	5R5V103					
20 - 21	5B5V110	R1	5B5V250	R1	5VX	6
22	5B5V80					
23	5R5V85					
24	5B5V86					
25	5B5V90					
26	5B5V94					
27	5B5V97					
28	5R5V103					
29	5R5V109					
30 - 31	5B5V110					
32 - 33	5R5V118	S1	6B5V200			8
34	5B5V124					
35 - 36	6R5V103					
37 - 39	6B5V110					
40 - 41	6R5V118					
42 - 44	6B5V124					
45 - 46	6S5V132					
47 - 49	6S5V140					
50 - 53	6R5V118	R1	6B5V154			8
54 - 57	6B5V124					
58 - 59	6S5V132					
60 - 61	6B5V136	S1	8S5V150	S1		8
62 - 66	8S5V140					
67 - 71	8S5V132					
72 - 80	8S5V140		8S5V125			

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 608SMTP15B

608SMTP15B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
No Drives Available						

608SMTP15B Fixed Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Fixed Pitch	Bushing	Fixed Pitch	Bushing					
20	8R5V80	R2	8U5V500	U1	5VX	8			
21	8R5V85								
22 - 23	8R5V90								
24	8S5V97	S1					U1	5VX	8
25 - 26	8S5V103								
27 - 28	8S5V109								
29 - 30	8S5V118								
31 - 32	8S5V125								
33 - 34	8S5V132								
35 - 37	8S5V140								
38 - 40	8S5V118								
41 - 42	8S5V125		U1	8U5V375	U1	10			
43 - 45	8S5V132								
46 - 48	8S5V140								
49 - 51	10U5V125	105V3150M							
52 - 54	10U5V132	M							
55 - 57	10U5V140	U1		U1			10		
58 - 60	10U5V132								
61 - 64	10U5V140								
65 - 68	10U5V132								
69 - 72	10U5V140								
73 - 75	10U5V125								
76 - 80	10U5V132	10U5V212	U1	10					
81 - 84	10U5V140								

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 608SMTP25B

608SMTP25B Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
13 - 14	5MVP75C97	-	5MVC440U	U0	CX	5
15 - 16	5MVP85C107					
17 - 20	5MVP915V105		5MV5V375U			
21 - 24			5MV5V300U			
25 - 28			6MV5V280U			
29 - 32	6MVP1015V115		6MV5V240U		5VX	6
33 - 35		6MV5V212U				

608SMTP25B Fixed Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Fixed Pitch	Bushing	Fixed Pitch	Bushing		
9	5B5V66	Q1	5U5V500	U0	5VX	5
10	5Q5V75	Q2				
11	5B5V80	R1				
12	5B5V66					
13	5B5V94					
14	5R5V80					
15	5B5V80					
16	5R5V90					
17	5B5V90					
18	5R5V97					
19	5R5V103					
20	5B5V110		S1	6S5V280	S1	
21 - 22	5R5V118					
23	5R5V125					
24	5R5V132					
25	5B5V136					
26	5R5V140					
27	6B5V110					
28 - 29	6R5V118					
30 - 31	6B5V124					
32 - 33	6S5V132	U1				10U5V160
34 - 35	6S5V140					
36 - 37	8S5V132					
38 - 39	8S5V140		8U5V250	U1		
40 - 41			85V2360J	J		
42 - 43	8S5V132		8U5V212	U1		
44 - 46	8S5V140		85V1870J	J		
47 - 49	8S5V132					
50 - 52	8S5V140					
53 - 54	10U5V125					
55 - 57	10U5V132	U1	10U5V140	U1		
58 - 62	10U5V140					
63 - 66	10U5V132					
67 - 70	10U5V132					
71 - 74	10U5V140				10U5V132	
75 - 78					10U5V125	
79 - 80					10S5V118	

Notes: Pre-selected belt drives are based on the following guidelines:

- NEMA Recommendations for Sheave Diameter and Width
- Average Service at Reducer Rated Load
- 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.



## Accessories Shaft Mount Reducers

### Pre-selected Belt Drives - 800SMTP25

800SMTP25 Variable Pitch						
Output rpm	Driver		Driven		Belts	Belt Qty.
	Variable Pitch	Bushing	Fixed Pitch	Bushing		
No Drives Available						

800SMTP25 Fixed Pitch									
Output rpm	Driver		Driven		Belts	Belt Qty.			
	Fixed Pitch	Bushing	Fixed Pitch	Bushing					
No Drives Available									
5 - 9	No Drives Available								
10	85V710SF	SF	8U5V500	U1	5V	8			
11	6R5V80	R1	6U5V500	U0		6			
12	6B5V86								
13	6B5V90								
14	6R5V103								
15	6R5V109								
16	6B5V110								
17	6S5V125	S1	58V4450N	N		8V	5		
18	6B5V124	R1							
19	6B5V136								
20	6S5V140	S1			5U8V400			U0	6
21	5S8V132				68V3550N			N	
22	5S8V140								
23	5S8V132								
24 - 25	5S8V140								
26	6S8V132								
27 - 28	6S8V140								
29 - 30	8S5V132	8S5V140	85V3150M	M	8				
31	8S5V140								
32 - 33	10U5V132	U1	10U5V280	U1	5VX	10			
34 - 35	10U5V140								
36 - 38	10U5V132								
39 - 40	10U5V140								
41 - 42	10U5V140		105V2360M	M					
43 - 44	8S8V140	S2	8U8V224	U1	8V	8			
45 - 47	10U8V140	U1	10U8V212						
48 - 50			10U8V200			10			
51 - 80	No Drives Available								

Shaft Mount Accessories

- Notes: Pre-selected belt drives are based on the following guidelines:
- NEMA Recommendations for Sheave Diameter and Width
  - Average Service at Reducer Rated Load
  - 2 Belt Minimum

For other conditions (including but not limited to; fire hazard, explosion hazard or choked input), contact Application Engineering (1 800 626 2093) for assistance in selecting a belt drive.

It is recommended that 250 hp motors and larger the sheave diameters shown be checked with the motor manufacturer to be sure they meet their recommendations for minimum pitch diameter.

## Belt Guard

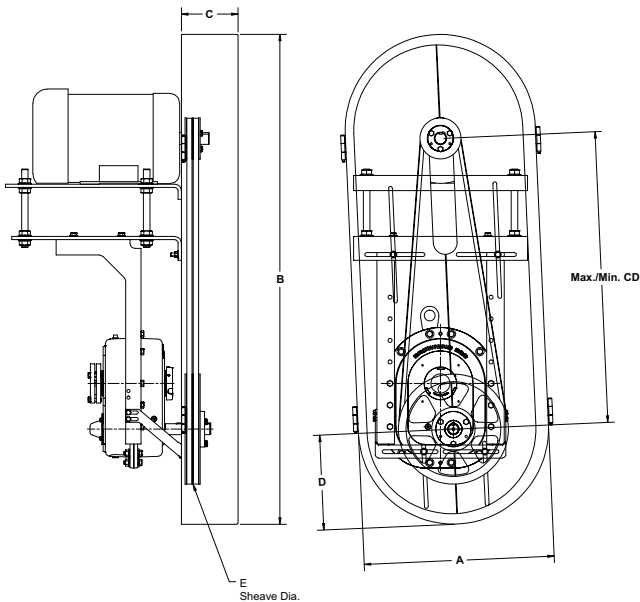
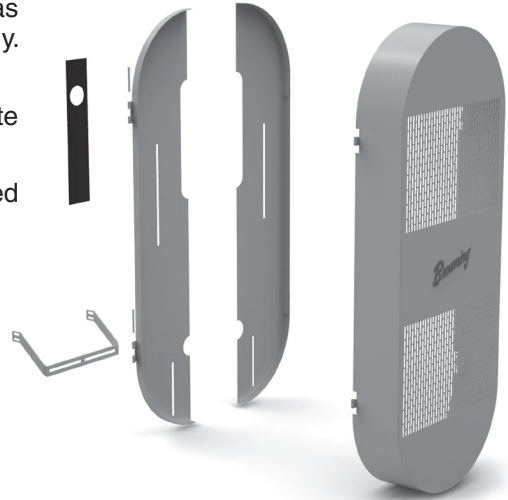
Belt guard assemblies consist of a guard kit and a mounting bracket kit as shown in the tables. Mounting bracket kit must be purchased separately. These belt guards may also be used with screw conveyor drives.

Belt guard standard color is yellow. Brackets supplied can accommodate fan kits when required.

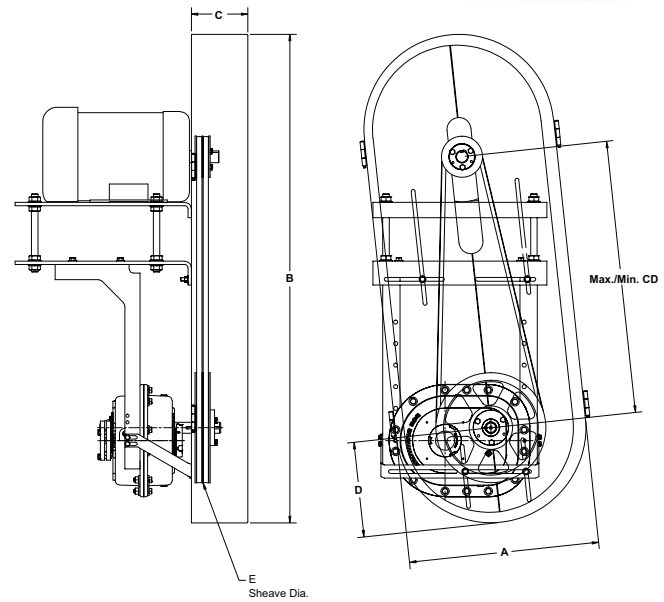
Plated fasteners providing protection in outdoor applications are supplied with the guard assembly.

Belt guards have a hinged, removable cover.

Belt guards may be assembled with the belt drive already installed.



Top Mount



Side Mount

### Dimensions in Inches

Belt Guard Kit No.	Center distance		A	B	C	D	E
	Min.	Max.					Max.
BGP10 13-20	13.00	20.00	11.00	31.50	6.50	5.50	10.00
BGP14 18-30	18.00	30.00	15.00	45.50	6.50	7.50	14.00
BGP20 22-34	22.00	34.00	21.00	55.50	6.50	10.50	20.00
BGP24 24-38	24.00	38.00	25.00	63.50	8.50	12.50	24.00
BGP28 32-48	32.00	48.00	29.00	77.50	8.50	14.50	28.00
BGP32 42-67	42.00	62.00	33.00	95.50	8.50	16.50	32.00

Top Mount		Side Mount	
Mounting Bracket Kit No.	Reducer Size	Mounting Bracket Kit No.	Reducer Size
107BGMKPT	107	107BGMKPS	107
115BGMKPT	115	115BGMKPS	115
203BGMKPT	203	203BGMKPS	203
207BGMKPT	207	207BGMKPS	207
215BGMKPT	215	215BGMKPS	215
307BGMKPT	307	307BGMKPS	307
315BGMKPT	315	315BGMKPS	315
407BGMKPT	407		
415BGMKPT	415		
507BGMKPT	507		
608BGMKPT	608		
800BGMKPT	800		

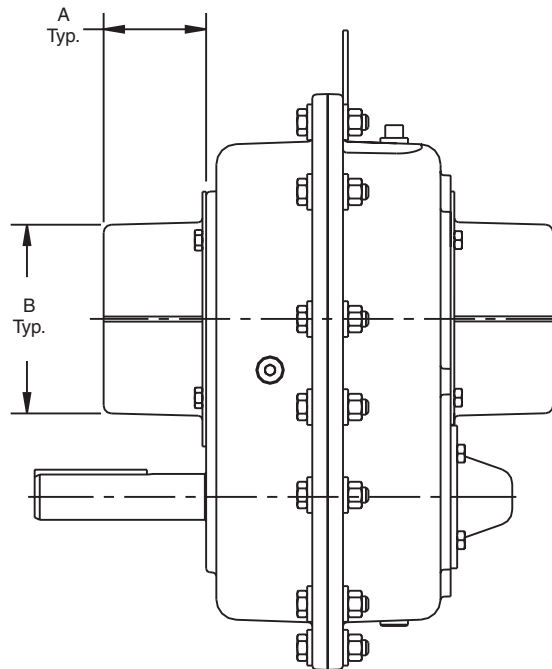
## Bushing Guard

Bushing guard kits have the following features:

- One kit will cover the bushing and end cap
- Kit may be used with bushing on the front or rear of the reducer housing
- Guard may be installed after the reducer and bushing are mounted to the equipment
- Guard has the ability to mount on several different shaft sizes



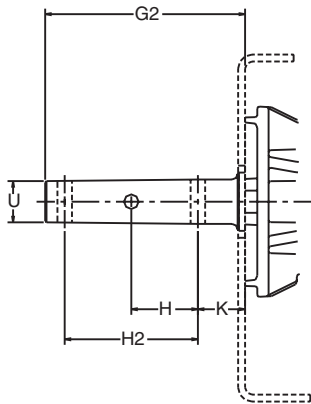
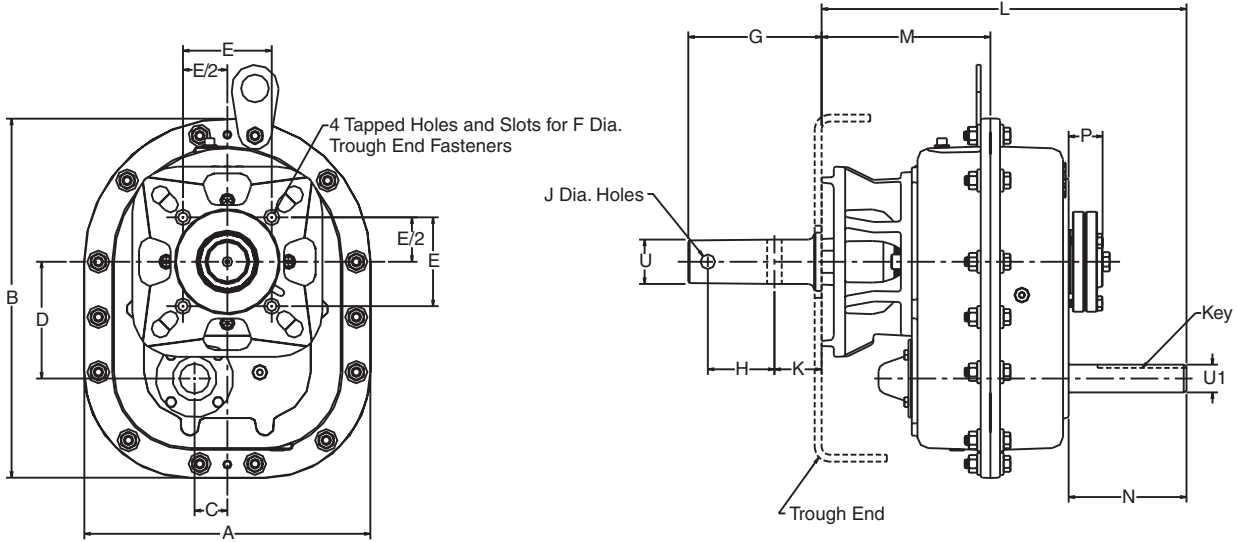
Shaft Mount Accessories



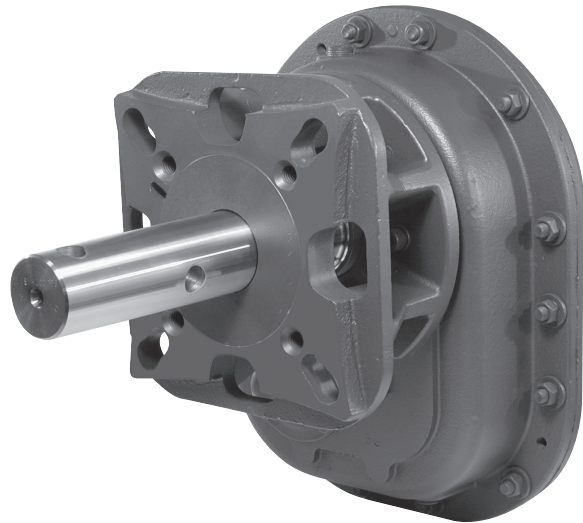
Reducer Size	Bushing Guard Kit	Bushing Guard Kit when used with optional Fan Kit	A	B
107	107 Bushing Guard Kit	NA	2.44	3.88
115	115 Bushing Guard Kit	NA	2.51	4.74
203	203 Bushing Guard Kit	NA	2.62	5.12
207	207 Bushing Guard Kit	NA	2.75	5.50
215	215 Bushing Guard Kit	NA	2.19	5.93
307	307 Bushing Guard Kit	307 Bushing Guard Fan Kit	3.00	7.10
315	315 Bushing Guard Kit	315 Bushing Guard Fan Kit	3.02	7.81
407	407 Bushing Guard Kit	407 Bushing Guard Fan Kit	2.50	8.75
415	415 Bushing Guard Kit	415 Bushing Guard Fan Kit	2.75	10.25
507	507 Bushing Guard Kit	507 Bushing Guard Fan Kit	3.15	11.00
608	608 Bushing Guard Kit	608 Bushing Guard Fan Kit	3.69	12.50
800	NA	NA	NA	NA



### SMTP Screw Conveyor Drives



Optional 3 Hole Shaft



BASIC UNIT SIZE	DIMENSIONS IN INCHES										KEY
	A	B	C	D	L	M	N	P	U1		
107SMTP	9.76	12.07	1.18	3.77	13.73	6.90	4.08	1.61	0.75	.188 x .188 x 2.88	
115SMTP	11.00	14.08	1.35	4.36	14.35	7.14	4.24	1.72	1.13	.250 x .250 x 2.75	
203SMTP	12.88	16.16	1.48	5.26	16.44	7.60	5.31	1.72	1.25	.250 x .250 x 3.88	
207SMTP	14.50	18.47	1.63	6.08	17.35	8.51	5.12	1.80	1.44	.375 x .375 x 3.75	
215SMTP	16.25	20.88	2.12	7.01	19.27	9.25	5.87	1.93	1.88	.500 x .500 x 3.75	
307SMTP	19.04	24.37	2.25	7.78	23.03	10.94	7.45	2.52	2.00	.500 x .500 x 6.50	
315SMTP	19.90	26.35	2.63	8.53	25.14	11.56	8.32	2.90	2.13	.500 x .500 x 7.50	
407SMTP_B	21.69	27.80	3.13	9.24	23.89	12.06	6.70	2.58	2.13	.500 x .500 x 6.00	

DRIVE SHAFT DIA. "U"	FOR SCREW DIA.	DIMENSIONS IN INCHES								
		E	F	G	G2	H	H2	J	K	
1.50	6,9	4.00	0.50	6.00	9.00	3.00	6.00	0.53	2.13	
2.00	9-12	5.13	0.63	6.00	9.00	3.00	6.00	0.66	2.13	
2.44	12,14	5.63	0.63	6.69	9.69	3.00	6.00	0.66	2.75	
3.00	12-20	6.00	0.75	6.88	9.88	3.00	6.00	0.78	2.88	
3.44	18-24	6.75	0.75	9.13	13.13	4.00	8.00	0.91	3.88	

## SMTM Screw Conveyor Drives

STOCK SMTM REDUCER (1)	TYPE SMTM SCREW CONVEYOR ADAPTER	TYPE SMTM SCREW CONVEYOR SHAFT (2)	OPTIONAL SEAL CARTRIDGES		FELT SEAL (3)
			WASTE PACK KIT	PACKING GLAND KIT	
<b>1 1/2" DRIVE SHAFT - FOR SCREW DIAMETERS 6 - 10"</b>					
107SMTM__	107SCA-P	107DSP108__	107WPP	107PGP	FR200
115SMTM__	115SCA-P	115DSP108__	115-203WPP	115-203PGP	FR210
203SMTM__	203SCA-P	203DSP108__			
<b>2" DRIVE SHAFT - FOR SCREW DIAMETERS 9 - 12"</b>					
107SMTM__	107SCA-P	107DSP200__	107WPP	107PGP	FR200
115SMTM__	115SCA-P	115DSP200__	115-203WPP	115-203PGP	FR210
203SMTM__	203SCA-P	203DSP200__			
207SMTM__	207SCA-P	207DSP200__	207-407WPP	207-407PGP	FR308
215SMTM__	215SCA-P	215DSP200__			
<b>2 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 12 and 14"</b>					
107SMTM__	107SCA-P	107DSP207__	107WPP	107PGP	FR200
115SMTM__	115SCA-P	115DSP207__	115-203WPP	115-203PGP	FR210
203SMTM__	203SCA-P	203DSP207__			
207SMTM__	207SCA-P	207DSP207__	207-407WPP	207-407PGP	FR308
215SMTM__	215SCA-P	215DSP207__			
<b>3" DRIVE SHAFT - FOR SCREW DIAMETERS 12 - 20"</b>					
107SMTM__	107SCA-P	107DSP300__	107WPP	107PGP	FR200
115SMTM__	115SCA-P	115DSP300__	115-203WPP	115-203PGP	FR210
203SMTM__	203SCA-P	203DSP300__			
207SMTM__	207SCA-P	207DSP300__	207-407WPP	207-407PGP	FR308
215SMTM__	215SCA-P	215DSP300__			
307SMTM__	307SCA-P	307DSP300__	207-407WPP	207-407PGP	FR308
315SMTM__	315SCA-P	315DSP300__			
407SMTM__B	407SCA-PB	407DSP300__B			
<b>3 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 18 - 24"</b>					
207SMTM__	207SCA-P	207DSP307__	207-407WPP	207-407PGP	FR308
215SMTM__	215SCA-P	215DSP307__			
307SMTM__	307SCA-P	307DSP307__	207-407WPP	207-407PGP	FR308
315SMTM__	315SCA-P	315DSP307__			
407SMTM__B	407SCA-PB	407DSP307__B			

Shaft Mount Accessories

Shaft stress based on transmitted load must always be checked. Calculations must account for drilled holes on shaft.

### SMTM screw conveyor drives may be assembled in the field.

Required components include:

- SMTM reducer
- SMTM screw conveyor adapter
- SMTM screw conveyor shaft

Optional components include:

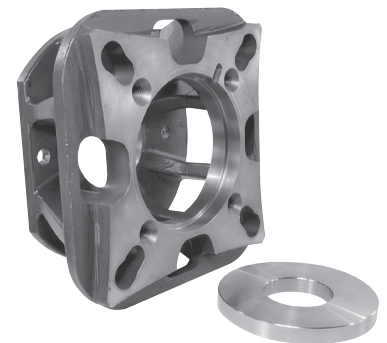
- Waste pack
- Packing gland
- Felt seal

(1) Complete part number by adding ratio, ie: 05, 09, 15, 25 or 35

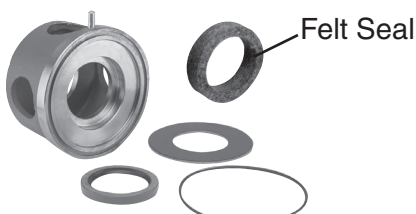
(2) Complete part number by adding shaft type

- |          |                                  |                                   |
|----------|----------------------------------|-----------------------------------|
| Standard | ___ 2 hole steel shaft           | = leave blank (example 107DSP108) |
|          | ___ 3 hole steel shaft           | = -3 (example 107DSP108-3)        |
| Optional | ___ 2 hole stainless steel shaft | = SS (example 107DSP108SS)        |
|          | ___ 3 hole stainless steel shaft | = -3SS (example 107DSP108-3SS)    |

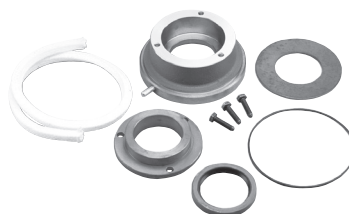
(3) Felt seal can be added to the waste pack or packing gland seal cartridge.



Screw Conveyor Adapter Kit



Waste Pack Kit

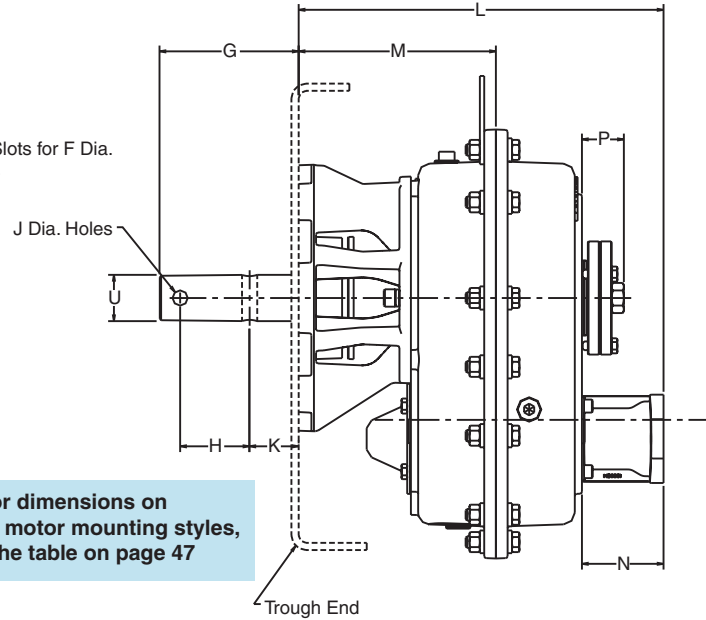
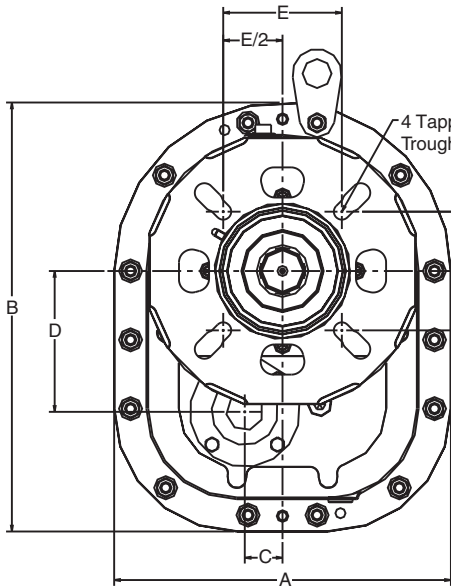


Packing Gland Kit



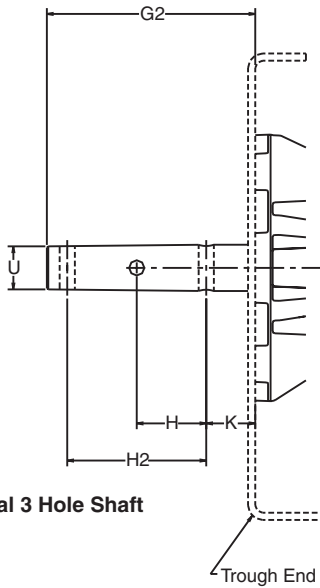
Screw Conveyor Drive Shaft Kit

## HMTP Screw Conveyor Drives



For dimensions on hydraulic motor mounting styles, see the table on page 47

Standard 2 Hole Shaft



Optional 3 Hole Shaft

BASIC UNIT SIZE	DIMENSIONS IN INCHES	
	L	N
107HMTP 6B SAE-A2	12.72	3.08
107HMTP 9T SAE-A2	12.72	3.08
107HMTP 13T SAE-B2	13.21	3.56
115HMTP 6B SAE-A2	13.19	3.08
115HMTP 9T SAE-A2	13.19	3.08
115HMTP 13T SAE-B2	13.67	3.56
203HMTP 6B SAE-A2	14.71	3.58
203HMTP 9T SAE-A2	14.71	3.58
203HMTP 13T SAE-B2	14.90	3.77
203HMTP 14T SAE-C4	15.21	4.08
207HMTP 6B SAE-A2	15.75	3.52
207HMTP 13T SAE-B2	15.94	3.71
207HMTP 14T SAE-C4	16.25	4.02
215HMTP 6B SAE-A2	17.11	3.72
215HMTP 13T SAE-B2	17.10	3.71
215HMTP 14T SAE-C4	17.66	4.27
307HMTP 6B SAE-A2	19.23	3.65
307HMTP 14T SAE-C4	19.78	4.20
315HMTP 6B SAE-A2	20.47	3.65
315HMTP 14T SAE-C4	21.02	4.20

BASIC UNIT SIZE	DIMENSIONS IN INCHES					
	A	B	C	D	M	P
107HMTP	9.76	12.07	1.18	3.77	6.90	1.61
115HMTP	11.00	14.08	1.35	4.36	7.14	1.72
203HMTP	12.88	16.16	1.48	5.26	7.60	1.72
207HMTP	14.50	18.47	1.63	6.08	8.51	1.80
215HMTP	16.25	20.88	2.12	7.01	9.25	1.93
307HMTP	19.04	24.37	2.25	7.78	10.94	2.52
315HMTP	19.90	26.35	2.63	8.53	11.56	2.90

DRIVE SHAFT DIA. U"''	FOR SCREW DIA.	DIMENSIONS IN INCHES							
		E	F	G	G2	H	H2	J	K
1.50	6,9	4.00	0.50	6.00	9.00	3.00	6.00	0.53	2.13
2.00	9-12	5.13	0.63	6.00	9.00	3.00	6.00	0.66	2.13
2.44	12,14	5.63	0.63	6.69	9.69	3.00	6.00	0.66	2.75
3.00	12-20	6.00	0.75	6.88	9.88	3.00	6.00	0.78	2.88
3.44	18-24	6.75	0.75	9.13	13.13	4.00	8.00	0.91	3.88

## HMTP Screw Conveyor Drives

STOCK HMTP REDUCER (1)	TYPE SMTP SCREW CONVEYOR ADAPTER	TYPE SMTP SCREW CONVEYOR SHAFT (2)	OPTIONAL SEAL CARTRIDGES		FELT SEAL (3)
			WASTE PACK KIT	PACKING GLAND KIT	
<b>1 1/2" DRIVE SHAFT - FOR SCREW DIAMETERS 6 - 10"</b>					
107HMTP__	107SCA-P	107DSP108__	107WPP	107PGP	FR200
115HMTP__	115SCA-P	115DSP108__	115-203WPP	115-203PGP	FR210
203HMTP__	203SCA-P	203DSP108__			
<b>2" DRIVE SHAFT - FOR SCREW DIAMETERS 9 - 12"</b>					
107HMTP__	107SCA-P	107DSP200__	107WPP	107PGP	FR200
115HMTP__	115SCA-P	115DSP200__	115-203WPP	115-203PGP	FR210
203HMTP__	203SCA-P	203DSP200__			
207HMTP__	207SCA-P	207DSP200__	207-407WPP	207-407PGP	FR308
215HMTP__	215SCA-P	215DSP200__			
<b>2 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 12 and 14"</b>					
107HMTP__	107SCA-P	107DSP207__	107WPP	107PGP	FR200
115HMTP__	115SCA-P	115DSP207__	115-203WPP	115-203PGP	FR210
203HMTP__	203SCA-P	203DSP207__			
207HMTP__	207SCA-P	207DSP207__	207-407WPP	207-407PGP	FR308
215HMTP__	215SCA-P	215DSP207__			
<b>3" DRIVE SHAFT - FOR SCREW DIAMETERS 12 - 20"</b>					
107HMTP__	107SCA-P	107DSP300__	107WPP	107PGP	FR200
115HMTP__	115SCA-P	115DSP300__	115-203WPP	115-203PGP	FR210
203HMTP__	203SCA-P	203DSP300__			
207HMTP__	207SCA-P	207DSP300__	207-407WPP	207-407PGP	FR308
215HMTP__	215SCA-P	215DSP300__			
307HMTP__	307SCA-P	307DSP300__	207-407WPP	207-407PGP	FR308
315HMTP__	315SCA-P	315DSP300__			
<b>3 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 18 - 24"</b>					
207HMTP__	207SCA-P	207DSP307__	207-407WPP	207-407PGP	FR308
215HMTP__	215SCA-P	215DSP307__	207-407WPP	207-407PGP	FR308
307HMTP__	307SCA-P	307DSP307__			
315HMTP__	315SCA-P	315DSP307__			

Shaft Mount Accessories

Shaft stress based on transmitted load must always be checked. Calculations must account for drilled holes on shaft.

### HMTP screw conveyor drives may be assembled in the field.

Required components include:

- HMTP reducer
- SMTP screw conveyor adapter
- SMTP screw conveyor shaft

Optional components include:

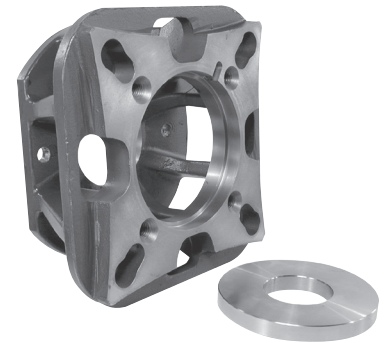
- Waste pack
- Packing gland
- Felt seal

(1) Complete part number by adding ratio, ie: 05, 09, 15, 25 or 35

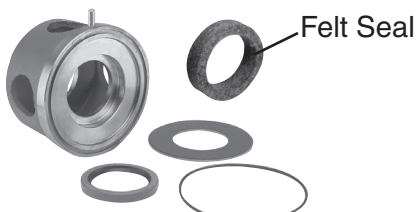
(2) Complete part number by adding shaft type

- |          |                              |                                   |
|----------|------------------------------|-----------------------------------|
| Standard | 2 hole steel shaft           | = leave blank (example 107DSP108) |
|          | 3 hole steel shaft           | = -3 (example 107DSP108-3)        |
| Optional | 2 hole stainless steel shaft | = SS (example 107DSP108SS)        |
|          | 3 hole stainless steel shaft | = -3SS (example 107DSP108-3SS)    |

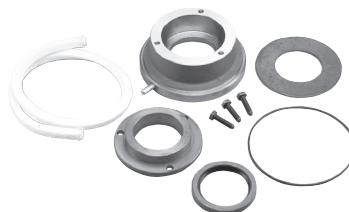
(3) Felt seal can be added to the waste or packing gland pack seal cartridge.



Screw Conveyor Adapter Kit



Waste Pack Kit

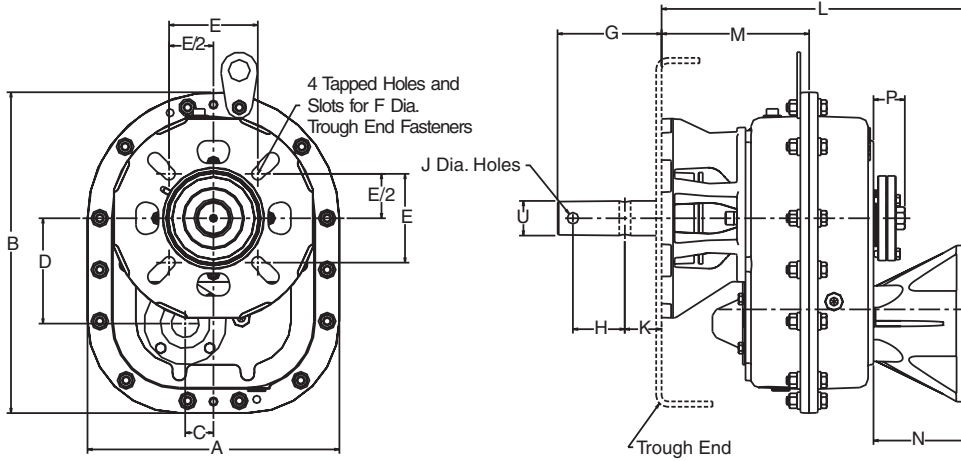


Packing Gland Kit

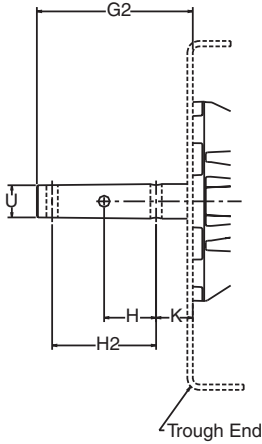


Screw Conveyor Drive Shaft Kit

## CMTP Screw Conveyor Drives



Standard 2 Hole Shaft



Optional 3 Hole Shaft

PART NO.	DIMENSIONS IN INCHES	
	L	N
107CMTP Q56	12.97	3.32
107CMTP Q140	12.97	3.32
115CMTP Q56	13.43	3.32
115CMTP Q140	13.43	3.32
115CMTP Q180	15.72	5.61
203CMTP Q56	14.95	3.82
203CMTP Q140	14.95	3.82
203CMTP Q180	16.73	5.61
203CMTP Q210	16.73	5.61
207CMTP Q56	16.00	3.76
207CMTP Q140	16.00	3.76
207CMTP Q180	17.77	5.55
207CMTP Q210	17.77	5.55
215CMTP Q56	17.22	3.83
215CMTP Q140	17.22	3.83
215CMTP Q180	19.25	5.86
215CMTP Q210	19.25	5.86
215CMTP Q250	19.25	5.86
307CMTP Q56	19.34	3.76
307CMTP Q140	19.34	3.76
307CMTP Q180	21.37	5.79
307CMTP Q210	21.37	5.79
307CMTP Q250	21.37	5.79
315CMTP Q56	20.58	3.76
315CMTP Q140	20.58	3.76
315CMTP Q180	22.61	5.79
315CMTP Q210	22.61	5.79
315CMTP Q250	22.61	5.79

BASIC UNIT SIZE	DIMENSIONS IN INCHES					
	A	B	C	D	M	P
107CMTP	9.76	12.07	1.18	3.77	6.90	1.61
115CMTP	11.00	14.08	1.35	4.36	7.14	1.72
203CMTP	12.88	16.16	1.48	5.26	7.60	1.72
207CMTP	14.50	18.47	1.63	6.08	8.51	1.80
215CMTP	16.25	20.88	2.12	7.01	9.25	1.93
307CMTP	19.04	24.37	2.25	7.78	10.94	2.52
315CMTP	19.90	26.35	2.63	8.53	11.56	2.90

DRIVE SHAFT DIA. "U"	FOR SCREW DIA.	DIMENSIONS IN INCHES							
		E	F	G	G2	H	H2	J	K
1.50	6.9	4.00	0.50	6.00	9.00	3.00	6.00	0.53	2.13
2.00	9-12	5.13	0.63	6.00	9.00	3.00	6.00	0.66	2.13
2.44	12,14	5.63	0.63	6.69	9.69	3.00	6.00	0.66	2.75
3.00	12-20	6.00	0.75	6.88	9.88	3.00	6.00	0.78	2.88
3.44	18-24	6.75	0.75	9.13	13.13	4.00	8.00	0.91	3.88

## CMTP Screw Conveyor Drives

STOCK CMTP REDUCER (1)	TYPE SMTP SCREW CONVEYOR ADAPTER	TYPE SMTP SCREW CONVEYOR SHAFT (2)	OPTIONAL SEAL CARTRIDGES		FELT SEAL (3)
			WASTE PACK KIT	PACKING GLAND KIT	
<b>1 1/2" DRIVE SHAFT - FOR SCREW DIAMETERS 6 - 10"</b>					
107CMTP__	107SCA-P	107DSP108__	107WPP	107PGP	FR200
115CMTP__	115SCA-P	115DSP108__	115-203WPP	115-203PGP	FR210
203CMTP__	203SCA-P	203DSP108__			
<b>2" DRIVE SHAFT - FOR SCREW DIAMETERS 9 - 12"</b>					
107CMTP__	107SCA-P	107DSP200__	107WPP	107PGP	FR200
115CMTP__	115SCA-P	115DSP200__	115-203WPP	115-203PGP	FR210
203CMTP__	203SCA-P	203DSP200__			
207CMTP__	207SCA-P	207DSP200__	207-407WPP	207-407PGP	FR308
215CMTP__	215SCA-P	215DSP200__			
<b>2 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 12 and 14"</b>					
107CMTP__	107SCA-P	107DSP207__	107WPP	107PGP	FR200
115CMTP__	115SCA-P	115DSP207__	115-203WPP	115-203PGP	FR210
203CMTP__	203SCA-P	203DSP207__			
207CMTP__	207SCA-P	207DSP207__	207-407WPP	207-407PGP	FR308
215CMTP__	215SCA-P	215DSP207__			
<b>3" DRIVE SHAFT - FOR SCREW DIAMETERS 12 - 20"</b>					
107CMTP__	107SCA-P	107DSP300__	107WPP	107PGP	FR200
115CMTP__	115SCA-P	115DSP300__	115-203WPP	115-203PGP	FR210
203CMTP__	203SCA-P	203DSP300__			
207CMTP__	207SCA-P	207DSP300__	207-407WPP	207-407PGP	FR308
215CMTP__	215SCA-P	215DSP300__			
307CMTP__	307SCA-P	307DSP300__	207-407WPP	207-407PGP	FR308
315CMTP__	315SCA-P	315DSP300__			
<b>3 7/16" DRIVE SHAFT - FOR SCREW DIAMETERS 18 - 24"</b>					
207CMTP__	207SCA-P	207DSP307__	207-407WPP	207-407PGP	FR308
215CMTP__	215SCA-P	215DSP307__			
307CMTP__	307SCA-P	307DSP307__	207-407WPP	207-407PGP	FR308
315CMTP__	315SCA-P	315DSP307__			

Shaft Mount Accessories

Shaft stress based on transmitted load must always be checked. Calculations must account for drilled holes on shaft.

### CMTP screw conveyor drives may be assembled in the field.

Required components include:

- CMTP reducer
- SMTP screw conveyor adapter
- SMTP screw conveyor shaft

Optional components include:

- Waste pack
- Packing gland
- Felt seal

(1) Complete part number by adding ratio, ie: 05, 09, 15, 25 or 35

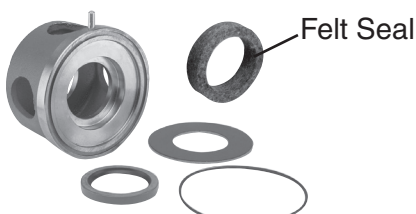
(2) Complete part number by adding shaft type

- |          |                              |                                   |
|----------|------------------------------|-----------------------------------|
| Standard | 2 hole steel shaft           | = leave blank (example 107DSP108) |
|          | 3 hole steel shaft           | = -3 (example 107DSP108-3)        |
| Optional | 2 hole stainless steel shaft | = SS (example 107DSP108SS)        |
|          | 3 hole stainless steel shaft | = -3SS (example 107DSP108-3SS)    |

(3) Felt seal can be added to the waste pack or packing gland seal cartridge.



Screw Conveyor Adapter Kit



Waste Pack Kit



Packing Gland Kit



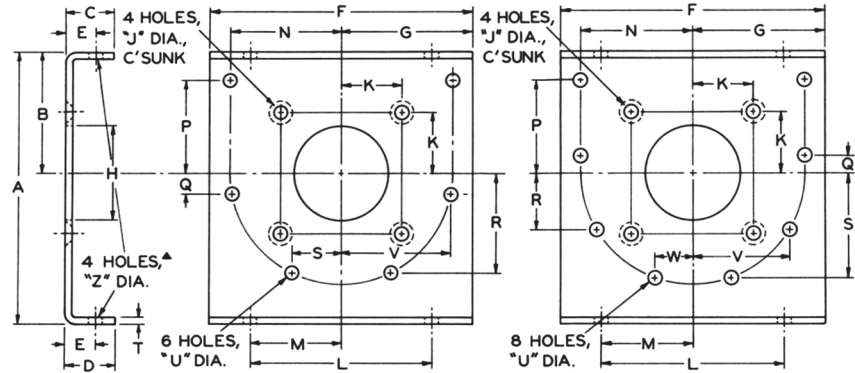
Screw Conveyor Drive Shaft Kit



### Screw Conveyor Trough Ends Sizes 107-407

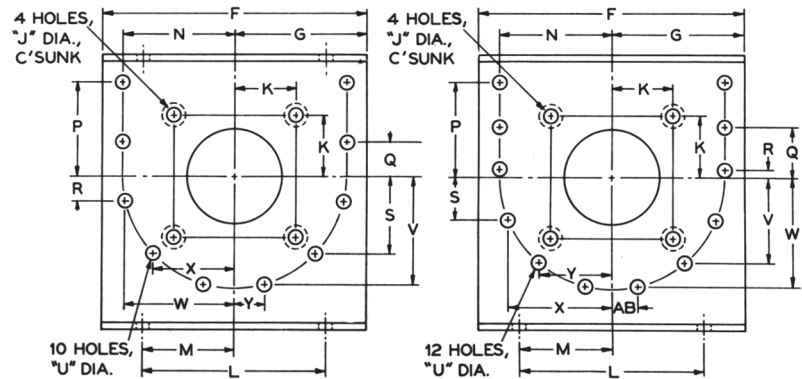


**Formed Hot Roll  
Plate Steel**



**FIG 1 - 6 HOLE TYPE**

**FIG 2 - 8 HOLE TYPE**



**FIG 3 - 10 HOLE TYPE**

**FIG 4 - 12 HOLE TYPE**

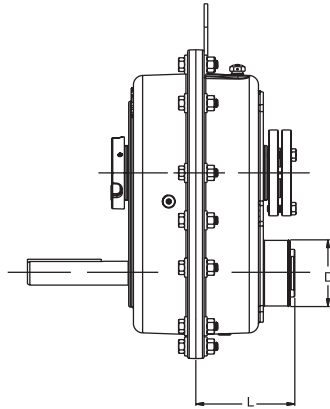
### Specifications

Part No.	Conveyor Screw Dia.	Drive Shaft Dia.	Fig.	Type	Dimensions										
					A	B	C	D	E	F	G	H	J	K	L
SCTE06 x 1 1/2"	6"	1 1/2"	1	6-Hole	10 1/8"	4 1/2"	1 1/2"	1 3/4"	1"	9 3/4"	4 7/8"	1 3/4"	9/16"	2"	8 1/8"
SCTE09 x 1 1/2"	9	1 1/2"	2	8-Hole	14	6 1/8"	1 5/8"	2 5/8"	1 1/2"	13 3/4"	6 7/8"	1 3/4"	9/16"	2	9 3/8"
SCTE09 x 2	9	2	2	8-Hole	14	6 1/8"	1 5/8"	2 5/8"	1 1/2"	13 3/4"	6 7/8"	2 1/4"	11/16"	2 9/16"	9 3/8"
SCTE10 x 1 1/2"	10	1 1/2"	2	8-Hole	15 1/4"	6 3/8"	2 3/8"	2 7/8"	1 3/4"	14 3/4"	7 3/8"	1 3/4"	9/16"	2	9 1/2"
SCTE10 x 2	10	2	2	8-Hole	15 1/4"	6 3/8"	2 7/8"	2 7/8"	1 3/4"	14 3/4"	7 3/8"	2 1/4"	11/16"	2 9/16"	9 1/2"
SCTE12 x 2	12	2	2	8-Hole	17 3/8"	7 3/4"	2	2 3/4"	1 5/8"	17 1/4"	8 5/8"	2 1/4"	11/16"	2 9/16"	12 1/4"
SCTE12 x 2 7/16"	12	2 7/16"	2	8-Hole	17 3/8"	7 3/4"	2	2 3/4"	1 5/8"	17 1/4"	8 5/8"	2 11/16"	11/16"	2 13/16"	12 1/4"
SCTE12 x 3	12	3	2	8-Hole	17 3/8"	7 3/4"	2	2 3/4"	1 5/8"	17 1/4"	8 5/8"	3 1/4"	13/16"	3	12 1/4"
SCTE14 x 2 7/16"	14	2 7/16"	2	8-Hole	20 1/8"	9 1/4"	2	2 7/8"	1 5/8"	19 1/4"	9 5/8"	2 11/16"	11/16"	2 13/16"	13 1/2"
SCTE14 x 3	14	3	2	8-Hole	20 1/8"	9 1/4"	2	2 7/8"	1 5/8"	19 1/4"	9 5/8"	3 1/4"	13/16"	3	13 1/2"
SCTE16 x 3	16	3	2	8-Hole	22 5/8"	10 5/8"	2 1/2"	3 1/4"	2	21 1/4"	10 5/8"	3 1/4"	13/16"	3	14 7/8"
SCTE18 x 3	18	3	3	10-Hole	25 1/2"	12 1/8"	2 1/2"	3 1/4"	2	24 1/4"	12 1/8"	3 1/4"	13/16"	3	16"
SCTE18 x 3 7/16"	18	3 7/16"	3	10-Hole	25 1/2"	12 1/8"	2 1/2"	3 1/4"	2	24 1/4"	12 1/8"	3 11/16"	13/16"	3 3/8"	16"
SCTE20 x 3	20	3	3	10-Hole	28 1/2"	13 1/2"	2 1/2"	3 3/4"	2 1/4"	26 1/4"	13 1/8"	3 1/4"	13/16"	3	19 1/4"
SCTE20 x 3 7/16"	20	3 7/16"	3	10-Hole	28 1/2"	13 1/2"	2 1/2"	3 3/4"	2 1/4"	26 1/4"	13 1/8"	3 11/16"	13/16"	3 3/8"	19 1/4"
SCTE24 x 3 7/16"	24	3 7/16"	4	12-Hole	34 5/8"	16 1/2"	2 1/2"	4 1/8"	2 1/2"	30 1/4"	15 1/8"	3 11/16"	13/16"	3 3/8"	20"

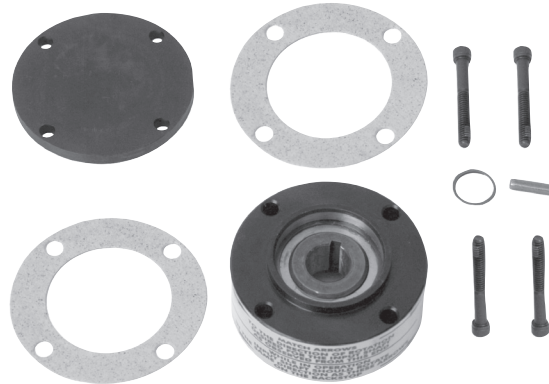
Part No.	Dimensions														Wt. Lbs.
	M	N	P	Q	R	S	T	U	V	W	X	Y	Z	AB	
SCTE06 x 1 1/2"	4 1/16"	4 7/16"	3 15/32"	5/8"	3 15/16"	2 1/32"	3/16"	7/16"	4 25/64"	-	-	-	7/16"	-	6.7
SCTE09 x 1 1/2"	4 11/16"	6 1/4"	4 15/16"	13/16"	3 13/64"	5 45/64"	1/4"	7/16"	5 23/64"	2 9/16"	-	-	9/16"	-	17.8
SCTE09 x 2	4 11/16"	6 1/4"	4 15/16"	13/16"	3 13/64"	5 45/64"	1/4"	7/16"	5 23/64"	2 9/16"	-	-	9/16"	-	17.7
SCTE10 x 1 1/2"	4 3/4"	6 5/8"	4 1/8"	5/8"	3 3/8"	6 1/8"	1/4"	7/16"	5 45/64"	2 17/32"	-	-	9/16"	-	20.6
SCTE10 x 2	4 3/4"	6 5/8"	4 1/8"	5/8"	3 3/8"	6 1/8"	1/4"	7/16"	5 45/64"	2 17/32"	-	-	9/16"	-	20.5
SCTE12 x 2	6 1/8"	7 15/16"	6 1/4"	15/16"	4 7/64"	6 59/64"	5/16"	9/16"	6 51/64"	3 7/8"	-	-	11/16"	-	33.8
SCTE12 x 2 7/16"	6 1/8"	7 15/16"	6 1/4"	15/16"	4 7/64"	6 59/64"	5/16"	9/16"	6 51/64"	3 7/8"	-	-	11/16"	-	33.5
SCTE12 x 3	6 1/8"	7 15/16"	6 1/4"	15/16"	4 7/64"	6 59/64"	5/16"	9/16"	6 51/64"	3 7/8"	-	-	11/16"	-	33.3
SCTE14 x 2 7/16"	6 3/4"	8 15/16"	6 23/32"	1 3/32"	4 11/16"	8 27/64"	5/16"	9/16"	7 39/64"	3	-	-	11/16"	-	42.4
SCTE14 x 3	6 3/4"	8 15/16"	6 23/32"	1 3/32"	4 11/16"	8 27/64"	5/16"	9/16"	7 39/64"	3	-	-	11/16"	-	42.2
SCTE16 x 3	7 7/16"	10	8	1 5/8"	4 57/64"	9 17/64"	5/16"	11/16"	8 23/32"	3 3/4"	-	-	11/16"	-	51.1
SCTE18 x 3	8	11	9 1/2"	3 9/16"	2 25/64"	7 37/64"	5/16"	11/16"	10 19/32"	10 47/64"	7 63/64"	2 15/16"	11/16"	-	67.9
SCTE18 x 3 7/16"	8	11	9 1/2"	3 9/16"	2 25/64"	7 37/64"	5/16"	11/16"	10 19/32"	10 47/64"	7 63/64"	2 15/16"	11/16"	-	67.7
SCTE20 x 3	9 5/8"	12 3/16"	10 23/32"	4 15/32"	2 13/64"	8 3/16"	3/8"	11/16"	11 23/32"	11 63/64"	9 1/32"	3 11/32"	13/16"	-	96.9
SCTE20 x 3 7/16"	9 5/8"	12 3/16"	10 23/32"	4 15/32"	2 13/64"	8 3/16"	3/8"	11/16"	11 23/32"	11 63/64"	9 1/32"	3 11/32"	13/16"	-	96.7
SCTE24 x 3 7/16"	10	14 1/4"	13 23/32"	7 19/32"	3 1/32"	5 33/64"	3/8"	11/16"	10 7/8"	13 55/64"	13 1/8"	9 7/32"	13/16"	3 5/16"	133.0

Notes: Browning trough ends are drilled to fit CEMA Standard Troughs. The center holes are drilled to fit Browning screw conveyor drives.  
 \* "Z" holes in bottom flange only; no holes in top flange.

Options and Accessories Sizes 107-800



Size 107-800



Backstop Kits

Shaft Mount Accessories

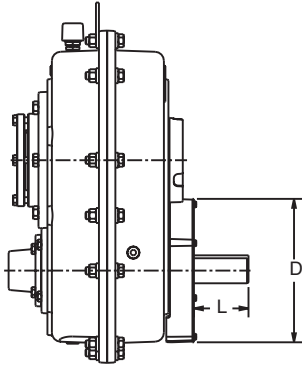
REDUCER SIZE	USE BACKSTOP KIT		DIMENSIONS		WT. LBS.
	PART NO.	RATIOS	D	L	
107	107BSP	ALL	3.000	4.336	2.4
115	115-203BSP		3.438	4.573	3.1
203			3.438	5.100	3.1
207	207BSP		4.750	5.695	7.4
215	215-307BSP		5.000	6.230	8.4
307			5.000	6.770	8.4
315	315BSP		6.000	7.780	16.2
407	407BSP		6.125	6.625	10.0
415	415BSP		6.815	7.500	13.0
507	507BSP		7.625	7.969	15.0
608	608BSP		8.375	9.500	17.0
800	800BSP		9.380	13.290	60.0



Torque Arm Kits

REDUCER SIZE	PART NO.
107	107TAP-H
115	115TAP-H
203	203TAP-H
207	207TAP-H
215	215TAP-H
307	307TAP-H
315	315TAP-H
407	407TAP-HB
415	415TAP-HB
507	507TAP-HB
608	608TAP-HB
800	800TAP-H

## Fan Kits

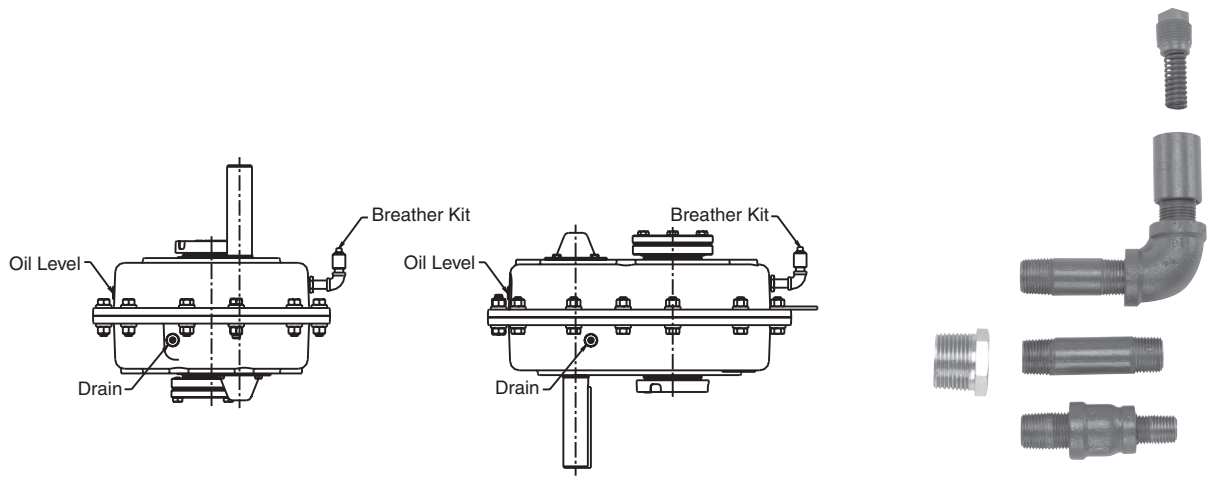


Reducer Size	Fan Kit No.	Dimensions		Wt. Lbs.
		D	L	
307	307FKP	9.5	4.9	4.5
315	315FKP	10.4	5.7	4.9
407	407FKPB	12.66	4.56	6.4
415	415FKPB	14.38	6.92	8.3
507	507FKPB	16.41	6.56	13.2
608	608FKPB	16.41	6.69	13.2
800	800FKP	16.41	9.93	13.2

## 107-800 SMTP VBK Vertical Breather Kit

When a shaft mount speed reducer is mounted with the shaft vertical, a vertical breather kit is needed.

Shaft Mount  
Accessories



## 107-800 SMTP FBK Filtered Breather Kit

A filtered breather is recommended in applications where abrasive particles may contaminate the gearbox lubricant.

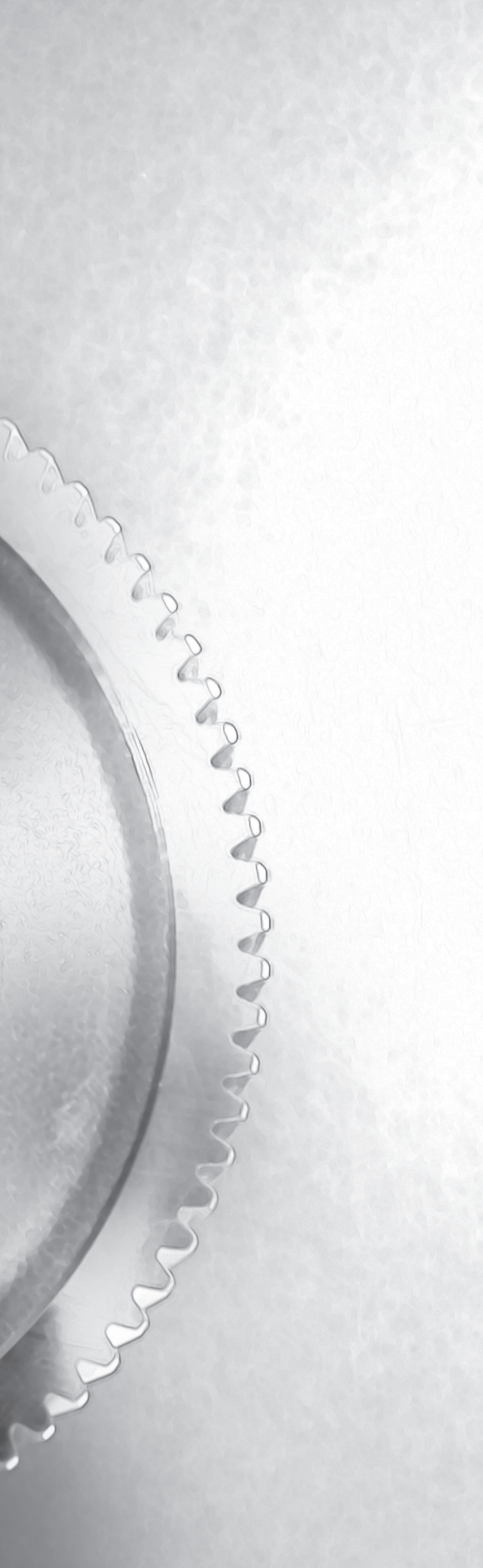


## 307-800 SMTP PC Pump and Cooler Kit

The pump and cooler kit is required for specific operating conditions noted in the Class I, II, and III selection tables.



BROWNING



# Shaft Mount Engineering Section

Input Shaft Overhung Load Capacity .....	136 - 137
Output Thrust and Overhung Loads .....	138 - 141
Minimum Shaft Requirements .....	142
Face Mounting .....	144 - 145
Lubrication .....	146 - 149





# SMTF Input Shaft Overhung



## Load Capacity (Lbs.) Unit Size 107-608

### 5:1 Ratio Reducers

Output RPM	Reducer Size								
	107	115	203	207	215	307	315	407	415
90	354	442	967	795	1992	2132	1285	1143	1282
100	354	430	938	777	1941	2077	1254	1113	1251
110	354	420	917	760	1890	2027	1224	1088	1221
120	354	410	893	740	1844	1976	1194	1067	1191
130	354	400	877	725	1804	1936	1174	1045	1171
140	354	395	858	710	1768	1896	1148	1027	1146
150	354	385	843	700	1733	1861	1129	1012	1126
160	354	380	828	688	1702	1826	1108	995	1106
170	354	375	818	675	1676	1795	1093	980	1091
180	354	370	803	668	1650	1770	1078	965	1076
190	354	365	793	658	1625	1745	1063	954	1061
200	354	360	783	648	1604	1720	1053	944	1051
210	354	355	773	638	1580	1699	1033	935	1031
220	354	350	763	633	1559	1675	1018	924	1016
230	354	347	758	623	1543	1654	1018	914	1016
240	354	342	748	618	1524	1639	998	904	996
250	354	340	738	613	1508	1619	988	894	986
260	354	335	733	605	1493	1604	983	889	981
270	354	332	723	600	1477	1589	973	879	971
280	354	330	718	593	1462	1569	958	869	956
290	354	327	713	588	1447	1554	958	868	956
300	354	322	708	583	1436	1544	948	859	946
310	354	322	698	578	1422	1529	933	849	931
320	354	317	693	575	1411	1514	933	848	931
330	354	317	688	570	1396	1504	923	838	921
340	354	312	683	565	1386	1494	918	833	916
350	354	312	678	560	1376	1479	916	828	915
360	354	307	673	555	1365	1468	901	823	900
370	354	307	668	555	1355	1458	906	818	905
380	354	305	668	550	1345	1448	896	814	895
390	354	302	663	545	1335	1438	891	808	890
400	354	302	658	540	1329	1428	886	803	885

### 9:1 Ratio Reducers

Output RPM	Reducer Size						
	107	115	203	207	215	307	315
10	354	992	1212	1717	3172	3555	4004
20	354	992	1212	1717	3172	3555	4004
30	354	992	1212	1717	3172	3545	3856
40	354	992	1212	1717	3121	3077	3165
50	354	992	1212	1682	3021	2655	2656
60	354	992	1212	1627	2838	2324	2264
70	354	992	1212	1496	2695	2054	1941
80	354	989	1212	1372	2577	1823	1670
90	354	967	1212	1265	2476	1638	1716
100	354	950	1212	1173	2385	1497	1675
110	354	931	1212	1161	2309	1578	1635
120	354	896	1212	1136	2242	1543	1600
130	354	863	1212	1116	2181	1508	1574
140	354	836	1212	1094	2125	1483	1544
150	354	808	1212	1074	2074	1458	1519
160	354	783	1212	1059	2029	1437	1498
170	354	761	1212	1044	1987	1412	1474
180	354	739	1212	1029	1951	1397	1456
190	354	721	1212	1014	1911	1377	1438
200	354	701	1212	1001	1880	1362	1421

### Overhung Loads

$$OHL = \frac{2TKP}{D}$$

Where:

- OHL = Overhung load (pounds)
- T = Actual shaft torque (inch-pounds)
- D = P.D. of sprocket, sheave, pulley or gear
- K = 1.0 for chain drives
- 1.25 for gear drives
- 1.25 for gearbelt drives
- 1.50 for V-belt drives
- P = Load position factor

Note: Input overhung loads shown are with center of load at one input shaft diameter from seal. For loads located at other distances, use input load position factor.



# SMTF Input Shaft Overhung



## Load Capacity (Lbs.) Unit Size 107-608

### 15:1 Ratio Reducers

Output RPM	Reducer Size										
	107	115	203	207	215	307	315	407	415	507	608
10	354	992	1212	1717	3172	3555	4004	4472	5505	6729	7040
20	354	992	1212	1717	3172	3553	4004	4346	5505	6601	5009
30	354	992	1212	1717	3094	3358	3935	3860	5498	4873	3754
40	354	992	1212	1641	2853	2866	3775	3484	5172	4301	3545
50	354	992	1212	1551	2649	2495	3499	3040	4830	4024	3480
60	354	965	1212	1456	2492	2204	3255	2877	4573	3809	3425
70	354	938	1212	1379	2365	1963	2976	2747	4367	3638	3380
80	354	891	1212	1317	2263	1758	2743	2639	4196	3493	3340
90	354	848	1212	1264	2176	1587	2720	2548	4050	3372	3305
100	354	811	1212	1210	2100	1592	2649	2468	3924	3267	3275
110	354	778	1212	1141	2033	1552	2586	2400	3814	3177	3250
120	354	748	1212	1138	1977	1517	2531	2338	3716	3096	3225
130	354	721	1212	1110	1921	1487	2480	2280	3625	3021	3205

Shaft Mount Engineering

### 25:1 Ratio Reducers

Output RPM	Reducer Size											
	107	115	203	207	215	307	315	407	415	507	608	800
10	354	992	1212	1717	3172	3555	4004	4472	5505	6780	7040	8603
20	354	992	1212	1716	3082	3458	3920	3812	5390	5943	5573	8603
30	354	992	1212	1598	2695	3027	3585	3323	4830	4305	3144	8603
40	354	955	1212	1451	2452	2620	3259	3014	4296	3781	3513	8603
50	354	913	1212	1342	2278	2284	3023	2794	3905	3533	3443	8603
60	354	861	1212	1259	2145	2013	2733	2646	3697	3345	3282	8504
70	354	819	1212	1195	2038	1787	2658	2525	3531	3197	3136	8173
80	354	784	1212	1143	1947	1592	2566	2425	3393	3070	3011	7892

### 35:1 Ratio Reducers

Output RPM	Reducer Size						
	107	115	203	207	215	307	315
10	354	992	1226	1717	3168	3552	4004
20	354	992	1226	1632	2792	3132	3713
30	354	950	1226	1441	2446	2741	3248
40	354	886	1226	1309	2227	2495	2951
50	354	824	1226	1212	2068	2315	2726

### Input Load Position Factors (P)

Reducer Size	Distance in inches from face of the housing																		
	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2
107	1.00	1.13	1.36	1.60	1.84	2.08	2.32	2.55	-	-	-	-	-	-	-	-	-	-	-
115	1.00	1.00	1.16	1.36	1.55	1.75	1.95	2.15	-	-	-	-	-	-	-	-	-	-	-
203	1.00	1.00	1.09	1.27	1.44	1.62	1.79	1.97	2.15	2.32	-	-	-	-	-	-	-	-	-
207	1.00	1.00	1.03	1.19	1.36	1.52	1.69	1.85	2.01	2.18	-	-	-	-	-	-	-	-	-
215	1.00	1.00	1.00	1.04	1.18	1.31	1.45	1.59	1.72	1.86	2.13	-	-	-	-	-	-	-	-
307	1.00	1.00	1.00	1.00	1.11	1.20	1.31	1.44	1.60	1.80	2.05	2.39	2.85	3.55	-	-	-	-	-
315	1.00	1.00	1.00	1.00	1.06	1.13	1.21	1.31	1.42	1.56	1.72	1.92	2.18	2.51	2.97	3.62	-	-	-
407	1.00	1.00	1.00	1.02	1.16	1.30	1.44	1.57	1.72	1.86	1.99	2.11	-	-	-	-	-	-	-
415	1.00	1.00	1.00	1.00	1.03	1.15	1.27	1.39	1.52	1.64	1.76	1.88	2.00	2.12	2.24	2.36	2.47	2.59	-
507	1.00	1.00	1.00	1.00	1.08	1.19	1.30	1.41	1.52	1.63	1.73	1.84	1.95	2.06	2.17	2.27	2.38	2.49	-
608	1.00	1.00	1.00	1.00	1.00	1.05	1.14	1.22	1.30	1.38	1.47	1.55	1.64	1.72	1.80	1.89	1.97	2.05	2.13
800	1.00	1.00	1.00	1.00	1.00	1.00	1.04	1.09	1.14	1.20	1.26	1.33	1.40	1.49	1.59	1.70	1.83	1.98	2.15

Note: Input overhung loads shown are with center of load at one input shaft diameter from seal. For loads located at other distances, use input load position factor.



## Overhung Load Capacity (Lbs.) Unit Size 107-215

### Single Reduction Reducers

Output R.P.M.	107_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	2040	975	802	535
100	1980	943	802	535
110	1920	908	802	535
120	1870	873	772	535
130	1820	858	757	535
140	1796	828	732	535
150	1772	810	715	535
160	1746	792	698	535
170	1707	778	687	535
180	1669	757	668	535
190	1630	747	658	535
200	1608	733	647	535
210	1585	720	635	535
220	1563	707	623	535
230	1540	693	612	530
240	1523	680	600	520
250	1505	672	593	515
260	1488	658	582	505
270	1470	653	577	500
280	1455	648	572	495
290	1440	640	565	490
300	1425	640	565	490
310	1410	640	565	490
320	1400	640	565	490
330	1390	640	565	490
340	1380	640	565	490
350	1370	640	565	490
360	1358	640	565	490
370	1345	640	565	490
380	1333	640	565	490
390	1320	640	565	490
400	1310	640	565	490

Output R.P.M.	115_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	3190	1208	1067	925
100	3105	1160	1025	890
110	3020	1123	992	860
120	2953	1083	957	830
130	2885	1048	927	805
140	2818	1025	905	785
150	2750	998	882	765
160	2708	972	858	745
170	2662	953	842	730
180	2616	927	818	710
190	2570	913	807	700
200	2538	895	790	685
210	2505	873	772	670
220	2473	860	760	660
230	2440	850	750	650
240	2418	828	732	635
250	2395	815	720	625
260	2373	810	715	620
270	2350	797	703	610
280	2333	783	692	600
290	2315	770	680	590
300	2298	765	675	585
310	2280	748	662	575
320	2265	743	657	570
330	2250	730	645	560
340	2235	725	640	555
350	2220	717	633	550
360	2203	712	628	545
370	2185	698	617	535
380	2168	690	610	530
390	2150	685	605	525
400	2130	677	598	520

Output R.P.M.	203_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	3620	1525	1350	1175
100	3620	1458	1292	1125
110	3620	1408	1247	1085
120	3620	1363	1207	1050
130	3560	1315	1165	1015
140	3500	1287	1138	990
150	3440	1247	1103	960
160	3380	1212	1073	935
170	3338	1188	1052	915
180	3295	1162	1028	895
190	3253	1135	1005	875
200	3210	1108	982	855
210	3200	1090	965	840
220	3190	1072	948	825
230	3180	1050	930	810
240	3170	1032	913	795
250	3158	1010	895	780
260	3145	1000	885	770
270	3133	978	867	755
280	3120	965	855	745
290	3105	955	845	735
300	3090	942	833	725
310	3075	928	822	715
320	3060	915	810	705
330	3048	902	798	695
340	3035	888	787	685
350	3023	883	782	680
360	3010	870	770	670
370	2995	865	765	665
380	2980	848	752	655
390	2965	843	747	650
400	2950	830	735	640

Output R.P.M.	207_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	4910	1907	1688	1470
100	4910	1827	1618	1410
110	4910	1755	1555	1355
120	4910	1692	1498	1305
130	4910	1633	1447	1260
140	4818	1580	1400	1220
150	4725	1535	1360	1185
160	4633	1490	1320	1150
170	4540	1450	1285	1120
180	4473	1413	1252	1090
190	4405	1378	1222	1065
200	4338	1347	1193	1040
210	4270	1323	1172	1020
220	4233	1288	1142	995
230	4195	1262	1118	975
240	4158	1238	1097	955
250	4120	1220	1080	940
260	4088	1197	1058	920
270	4055	1178	1042	905
280	4023	1160	1025	890
290	3990	1145	1010	875
300	3950	1127	993	860
310	3910	1105	975	845
320	3870	1078	952	825
330	3830	1060	935	810
340	3793	1042	918	795
350	3755	1020	900	780
360	3718	1002	883	765
370	3680	980	865	750
380	3647	962	848	735
390	3613	948	837	725
400	3580	930	820	710

Output R.P.M.	215_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	5400	2718	2412	2105
100	5400	2615	2320	2025
110	5400	2520	2235	1950
120	5288	2427	2153	1880
130	5175	2350	2085	1820
140	5063	2278	2022	1765
150	4950	2215	1965	1715
160	4865	2157	1913	1670
170	4780	2107	1868	1630
180	4695	2053	1822	1590
190	4610	2008	1782	1555
200	4573	1963	1742	1520
210	4535	1923	1707	1490
220	4498	1887	1673	1460
230	4460	1855	1645	1435
240	4428	1815	1610	1405
250	4395	2822	2503	2185
260	4363	2790	2475	2160
270	4330	2758	2447	2135
280	4293	2727	2418	2110
290	4255	2700	2395	2090
300	4218	2673	2372	2070
310	4180	2650	2350	2050
320	4147	2623	2327	2030
330	4113	2597	2303	2010
340	4080	2578	2287	1995
350	4047	2552	2263	1975
360	4013	2533	2247	1960
370	3980	2515	2230	1945
380	3947	2493	2212	1930
390	3913	2475	2195	1915
400	3880	2457	2178	1900

Notes: Above thrust and overhung loads are not applicable for combined thrust and overhung loads; refer such applications to Application Engineering (1 800 626 2093).

Interpolate for loads at other distances from the housing surface.  
Overhung load must be applied on the same side as the bushing.



## Overhung Load Capacity (Lbs.) Unit Size 307-415

### Single Reduction Reducers

Output R.P.M.	307_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	8350	3843	3412	2980
100	8332	3687	3273	2860
110	8121	3538	3142	2745
120	7909	3412	3028	2645
130	7698	3295	2925	2555
140	7487	3192	2833	2475
150	7275	3093	2747	2400
160	7064	3012	2673	2335
170	6853	2927	2598	2270
180	6641	2855	2535	2215
190	6430	2783	2472	2160
200	6219	2720	2415	2110
210	6007	4442	3943	3445
220	5796	4383	3892	3400
230	5585	4328	3842	3355
240	5373	4267	3788	3310
250	5162	4217	3743	3270
260	4951	4172	3703	3235
270	4739	4118	3657	3195
280	4528	4082	3623	3165
290	4317	4037	3583	3130
300	4106	4000	3550	3100
310	3894	3952	3508	3065
320	3683	3920	3480	3040
330	3472	3880	3445	3010
340	3260	3848	3417	2985
350	3049	3817	3388	2960
360	2838	3785	3360	2935
370	2626	3753	3332	2910
380	2415	3722	3303	2885
390	2204	3695	3280	2865
400	1992	3663	3252	2840

Output R.P.M.	315_MTP05			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	7019	5493	4887	4280
100	6937	5242	4663	4085
110	6844	5025	4470	3915
120	6734	4832	4298	3765
130	6627	4660	4145	3630
140	6521	4507	4008	3510
150	6414	4363	3882	3400
160	6308	4237	3768	3300
170	6201	4115	3660	3205
180	6095	4003	3562	3120
190	5988	3910	3475	3040
200	5881	3822	3393	2965
210	5775	3738	3317	2895
220	5668	3663	3247	2830
230	5562	3597	3183	2770
240	5455	3523	3117	2710
250	5455	3428	3032	2635
260	5455	3327	2943	2560
270	5455	3245	2870	2495
280	5455	3160	2795	2430
290	5455	3075	2720	2365
300	5455	2995	2650	2305
310	5455	2923	2587	2250
320	5455	2852	2523	2195
330	5455	2788	2467	2145
340	5455	2722	2408	2095
350	5455	2658	2352	2045
360	5455	2600	2300	2000
370	5455	2542	2248	1955
380	5455	2480	2195	1910
390	5455	2430	2150	1870
400	5455	2377	2103	1830

Output R.P.M.	407SMT05B			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	5557	6638	5897	5155
100	5385	6638	5897	5155
110	5238	6490	5765	5040
120	5105	6320	5615	4910
130	4985	6175	5485	4795
140	4930	6040	5365	4690
150	4875	5918	5257	4595
160	4820	5802	5153	4505
170	4765	5698	5062	4425
180	4710	5600	4975	4350
190	4655	5510	4895	4280
200	4600	5428	4822	4215
210	4545	5352	4753	4155
220	4490	5272	4683	4095
230	4435	5200	4620	4040
240	4380	5137	4563	3990
250	4325	5073	4507	3940
260	4270	5015	4455	3895
270	4270	4957	4403	3850
280	4270	4907	4358	3810
290	4270	4853	4312	3770
300	4270	4803	4267	3730
310	4270	4758	4227	3695
320	4270	4713	4187	3660
330	4270	4668	4147	3625
340	4270	4628	4112	3595
350	4270	4592	4078	3565
360	4270	4552	4043	3535
370	4270	4512	4008	3505
380	4270	4475	3975	3475
390	4270	4443	3947	3450
400	4270	4412	3918	3425

Output R.P.M.	415SMT05B			
	Thrust Load	OHL at Inches from Machined Housing Surface		
		4	8	12
90	12583	13970	12480	10990
100	12479	13400	11970	10540
110	12375	12895	11520	10145
120	12270	12452	11123	9795
130	12166	12050	10765	9480
140	12062	11688	10442	9195
150	11958	11363	10152	8940
160	11853	11065	9885	8705
170	11749	10785	9635	8485
180	11645	10532	9408	8285
190	11541	10297	9198	8100
200	11437	10080	9005	7930
210	11332	9877	8823	7770
220	11228	9678	8647	7615
230	11124	9502	8488	7475
240	11020	9330	8335	7340
250	10915	9172	8193	7215
260	10811	9018	8057	7095
270	10707	8873	7927	6980
280	10603	8738	7807	6875
290	10498	8603	7687	6770
300	10394	8485	7580	6675
310	10290	8363	7472	6580
320	10186	8250	7370	6490
330	10082	8142	7273	6405
340	9977	8042	7183	6325
350	9873	7938	7092	6245
360	9769	7843	7007	6170
370	9665	7748	6922	6095
380	9560	7658	6842	6025
390	9456	7568	6762	5955
400	9352	7487	6688	5890

Notes: Above thrust and overhung loads are not applicable for combined thrust and overhung loads; refer such applications to Application Engineering (1 800 626 2093).

Interpolate for loads at other distances from the housing surface.  
Overhung load must be applied on the same side as the bushing.



## Overhung Load Capacity (Lbs.) Unit Size 107-215

### Double Reduction Reducers

Reducer Size	107_MTP09 107_MTP15 107_MTP25 107_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	2040	1604	802	535	
20	2040	1597	802	535	
30	2040	1387	802	535	
40	2040	1253	802	535	
50	2040	1163	802	535	
60	2020	1092	802	535	
70	1890	1033	802	535	
80	1780	988	802	535	
90	1670	940	802	535	
100	1590	908	802	535	
110	1510	873	772	535	
120	1475	850	750	535	
130	1440	832	733	535	
140	1405	805	710	535	
150	1370	783	692	535	
160	1348	765	675	535	
170	1325	752	663	535	
180	1303	730	645	535	
190	1280	720	635	535	
200	1260	707	623	535	

Reducer Size	115_MTP09 115_MTP15 115_MTP25 115_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	3190	2677	1964	1309	
20	3190	2127	1878	1309	
30	3190	1862	1643	1309	
40	3190	1683	1487	1290	
50	3190	1558	1377	1195	
60	3050	1460	1290	1120	
70	2910	1383	1222	1060	
80	2770	1325	1170	1015	
90	2630	1267	1118	970	
100	2553	1218	1077	935	
110	2475	1182	1043	905	
120	2398	1150	1015	880	
130	2320	1115	985	855	
140	2273	1083	957	830	
150	2225	1057	933	810	
160	2178	1030	910	790	
170	2130	1012	893	775	
180	2097	993	877	760	
190	2063	972	858	745	
200	2030	953	842	730	

Reducer Size	203_MTP09 203_MTP15 203_MTP25 203_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	3620	3408	2826	1884	
20	3620	2695	2385	1884	
30	3620	2328	2062	1795	
40	3620	2103	1862	1620	
50	3620	1942	1718	1495	
60	3425	1808	1602	1395	
70	3230	1722	1523	1325	
80	3035	1642	1453	1265	
90	2840	1570	1390	1210	
100	2789	1520	1345	1170	
110	2738	1458	1292	1125	
120	2687	1413	1252	1090	
130	2636	1368	1212	1055	
140	2583	1337	1183	1030	
150	2517	1297	1148	1000	
160	2450	1265	1120	975	
170	2383	1238	1097	955	
180	2317	1215	1075	935	
190	2250	1188	1052	915	
200	2200	1162	1028	895	

Reducer Size	207_MTP09 207_MTP15 207_MTP25 207_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	4910	4528	3910	2607	
20	4910	3545	3140	2607	
30	4910	3052	2703	2355	
40	4910	2733	2422	2110	
50	4910	2508	2222	1935	
60	4910	2338	2072	1805	
70	4673	2195	1945	1695	
80	4435	2087	1848	1610	
90	4198	1997	1768	1540	
100	3960	1912	1693	1475	
110	3790	1840	1630	1420	
120	3620	1782	1578	1375	
130	3450	1723	1527	1330	
140	3280	1670	1480	1290	
150	3225	1625	1440	1255	
160	3170	1588	1407	1225	
170	3115	1548	1372	1195	
180	3060	1508	1337	1165	
190	3010	1477	1308	1140	
200	2960	1445	1280	1115	

Reducer Size	215_MTP09 215_MTP15 215_MTP25 215_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	5400	6127	5433	4562	
20	5400	4793	4252	3710	
30	5400	4120	3655	3190	
40	5400	3693	3277	2860	
50	5055	3392	3008	2625	
60	4710	3158	2802	2445	
70	4365	2978	2642	2305	
80	4020	2822	2503	2185	
90	3900	2700	2395	2090	
100	3780	2592	2298	2005	
110	3660	2493	2212	1930	
120	3540	2408	2137	1865	
130	3470	2332	2068	1805	
140	3400	2268	2012	1755	
150	3330	2202	1953	1705	
160	3260	2143	1902	1660	
170	3198	2093	1857	1620	
180	3135	2048	1817	1585	
190	3073	2003	1777	1550	
200	3010	1958	1737	1515	

Notes: Above thrust and overhung loads are not applicable for combined thrust and overhung loads; refer such applications to Application Engineering (1 800 626 2093).

Interpolate for loads at other distances from the housing surface.  
Overhung load must be applied on the same side as the bushing.



## Overhung Load Capacity (Lbs.) Unit Size 307-608

### Double Reduction Reducers

Reducer Size	307_MTP09 307_MTP15 307_MTP25 307_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	8350	9072	8053	7035	
20	8350	7080	6285	5490	
30	8350	6100	5415	4730	
40	8350	5480	4865	4250	
50	8350	5035	4470	3905	
60	8350	4693	4167	3640	
70	8350	4423	3927	3430	
80	8350	4203	3732	3260	
90	8350	4018	3567	3115	
100	8332	3862	3428	2995	
110	8121	3713	3297	2880	
120	7909	3587	3183	2780	
130	7698	3470	3080	2690	
140	7487	3367	2988	2610	
150	7275	3268	2902	2535	
160	7064	3183	2827	2470	
170	6853	3107	2758	2410	
180	6641	3035	2695	2355	
190	6430	2972	2638	2305	
200	6219	2908	2582	2255	

Reducer Size	315_MTP09 315_MTP15 315_MTP25 315_MTP35				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	8840	13882	12348	10815	
20	8840	10865	9665	8465	
30	8840	9383	8347	7310	
40	8840	8447	7513	6580	
50	7410	7780	6920	6060	
60	6750	7267	6463	5660	
70	6220	6853	6097	5340	
80	5820	6515	5795	5075	
90	5430	6223	5537	4850	
100	5210	5983	5322	4660	
110	5070	5763	5127	4490	
120	4940	5570	4955	4340	
130	4820	5403	4807	4210	
140	4720	5250	4670	4090	
150	4593	5110	4545	3980	
160	4476	4980	4430	3880	
170	4360	4858	4322	3785	
180	4243	4750	4225	3700	
190	4126	4655	4140	3625	
200	4009	4557	4053	3550	

Reducer Size	407SMTP15B 407SMTP25B				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	9000	11072	9838	8605	
20	8298	8022	7128	6235	
30	6586	6518	5792	5065	
40	4874	5570	4950	4330	
50	4344	4900	4355	3810	
60	3813	4392	3903	3415	
70	3283	3995	3550	3105	
80	2931	4017	3566	3115	
90	2579	4038	3582	3125	
100	2226	4060	3598	3135	
110	1874	4082	3613	3145	
120	1760	4103	3629	3155	
130	1645	4125	3645	3165	

Shaft Mount Engineering

Reducer Size	415SMTP15B 415SMTP25B				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	12200	13575	12075	10575	
20	12200	9742	8613	7485	
30	12200	7462	6598	5735	
40	11700	6055	5355	4655	
50	10600	5477	4843	4210	
60	9777	5185	4585	3985	
70	8953	4948	4377	3805	
80	8130	4755	4205	3655	
90	7675	4593	4062	3530	
100	7220	4450	3935	3420	
110	6960	4317	3818	3320	
120	6700	4208	3722	3235	
130	6440	4110	3635	3160	

Reducer Size	507SMTP15B 507SMTP25B				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	12900	16922	15108	13295	
20	12900	12825	11450	10075	
30	12900	10830	9670	8510	
40	12900	9853	8797	7740	
50	12900	9217	8228	7240	
60	12300	8725	7790	6855	
70	11500	8332	7438	6545	
80	10800	7998	7142	6285	
90	10100	7727	6898	6070	
100	10000	7483	6682	5880	
110	9950	7275	6495	5715	
120	9900	7082	6323	5565	
130	9820	6918	6177	5435	

Reducer Size	608SMTP15B 608SMTP25B				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	22000	30878	27742	24605	
20	22000	23938	21507	19075	
30	21600	20557	18468	16380	
40	19100	18542	16658	14775	
50	17600	17343	15582	13820	
60	16400	16422	14753	13085	
70	15450	15673	14082	12490	
80	14500	15060	13530	12000	
90	13116	14538	13062	11585	
100	11909	14088	12657	11225	
110	10703	13693	12302	10910	
120	9497	13332	11978	10625	
130	8291	13022	11698	10375	

Reducer Size	800SMTP25				
	Output R.P.M.	Thrust Load	OHL at Inches from Machined Housing Surface		
			4	8	12
10	30360	56746	55828	54910	
20	30360	43503	42799	42095	
30	29808	37012	36414	35815	
40	26358	32916	32383	31850	
50	24288	30005	29520	29035	
60	22632	27790	27340	26890	
70	21321	26023	25602	25180	
80	20010	24560	24163	23765	

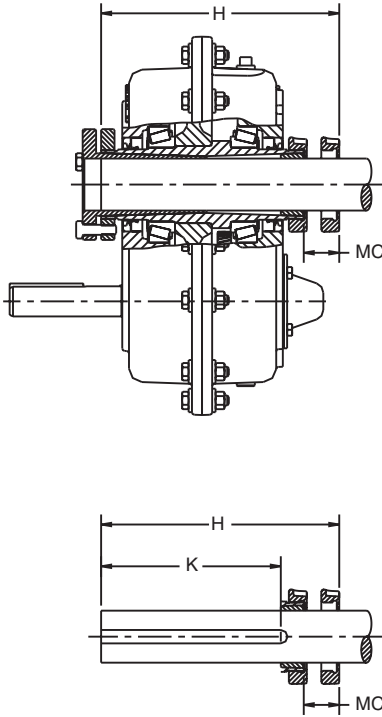
Notes: Above thrust and overhung loads are not applicable for combined thrust and overhung loads; refer such applications to Application Engineering (1 800 626 2093).

Interpolate for loads at other distances from the housing surface.  
Overhung load must be applied on the same side as the bushing.



## Length Requirements

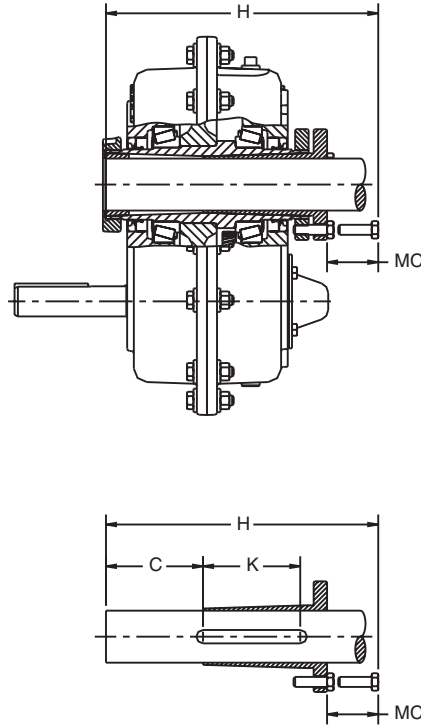
**Front Mounting Configuration with Stabilizer Ring**



**Fig. 1**

Unit Size	Endcap Clearance	Minimum Shaft Mounting Length	Minimum Key Connection Length
	MC	H	K*
107	0.97	8.06	3.69
115	1.03	8.59	3.88
203	1.15	9.78	4.32
207	1.21	10.16	4.81
215	1.31	11.36	5.25
307	1.44	13.04	6.31
315	1.69	15.20	7.38
407	-	-	-
415	-	-	-
507	-	-	-
608	-	-	-
800	-	-	-

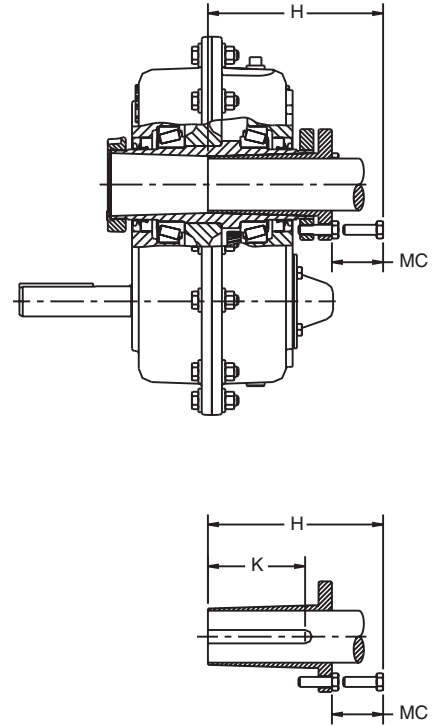
**Rear Mounting Configuration with Stabilizer Ring**



**Fig. 2**

Unit Size	Bolt Clearance	Minimum Shaft Mounting Length	Minimum Key Connection Length	Remaining Shaft for Stabilizer Ring
	MC	H	K*	C
107	1.75	9.53	3.69	3.40
115	1.88	10.13	3.88	3.62
203	1.88	11.19	4.32	4.19
207	1.88	11.52	4.81	4.01
215	1.88	12.62	5.25	4.61
307	2.25	14.64	6.31	5.01
315	2.75	17.07	7.38	5.76
407	2.75	16.42	6.91	5.54
415	3.25	19.76	8.53	6.51
507	3.75	21.27	9.66	6.27
608	4.25	25.93	10.15	9.68
800	4.50	28.62	10.73	11.12

**Rear Mounting Configuration without Stabilizer Ring**



**Fig. 3**

Unit Size	Bolt Clearance	Minimum Shaft Mounting Length	Minimum Key Connection Length
	MC	H	K*
107	1.75	6.12	3.69
115	1.88	6.50	3.88
203	1.88	7.00	4.32
207	1.88	7.50	4.81
215	1.88	8.00	5.25
307	2.25	9.63	6.31
315	2.75	11.31	7.38
407	2.75	10.88	6.91
415	3.25	13.25	8.53
507	3.75	15.00	9.66
608	4.25	16.25	10.15
800	4.50	17.50	10.73

\*K — Minimum key connection length is measured from the end of the driven shaft to the end of the usable keyseat.

Note: 407-800 mounting systems available in rear configuration only. Contact Application Engineering (1 800 626 2093) for front configuration mounting systems on these sizes.



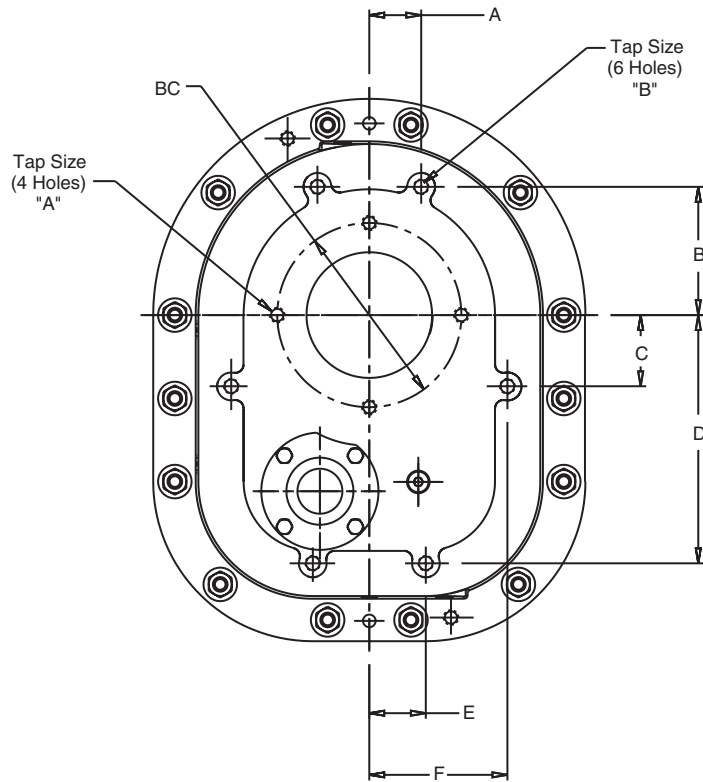
**Don't Let An  
Ounce of Dirt  
Stop 1,000 Tons  
of Rock!!**



**Performance is Our Pledge**  
**Browning Patented**  
**Barrier Seal System**

Combines a v-ring face seal, grease filled labyrinth and rotating outer flinger to provide triple protection to reduce contamination and oil seal damage. Standard on all shafts.

Face Mounting Drill and Tap Instructions Unit Sizes 107-315



"A" Pre-Machined Face Mount Holes (Machined at Factory)

Reducer Size	Holes	Tap Size	Tap Depth	Drill Depth	BC	
107	4	5/16-18	0.63	0.75	4.125	
115		3/8-16	0.88	1.13	5.060	
203		7/16-14	0.88	1.13	5.500	
207		1/2-13		1.06	1.31	6.375
215				0.81	1.13	6.875
307		5/8-11		1.16	1.44	8.375
315				1.25	1.50	9.125

"B" Optional Face Mount Holes (Not Machined)

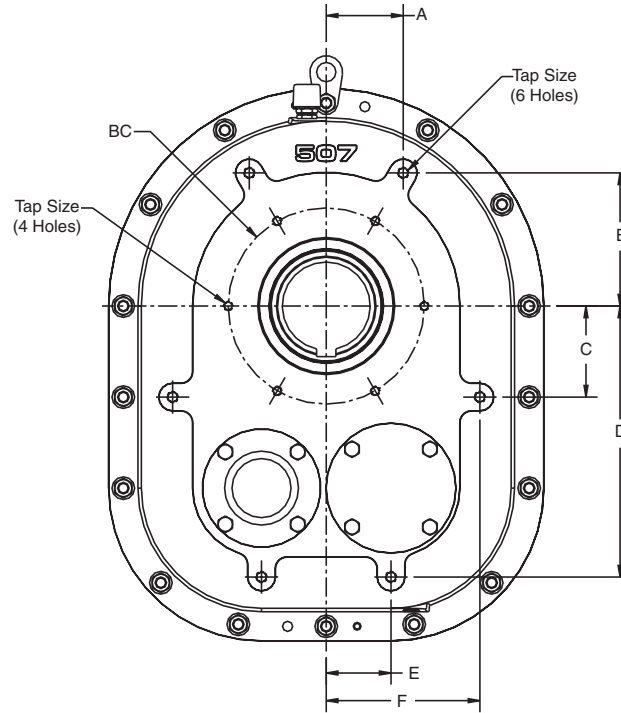
Reducer Size	A	B	C	D	E	F
107	1.14	2.81	1.59	5.59	1.19	3.00
115	1.27	3.13	1.53	6.41	1.28	3.01
203	1.55	3.83	2.13	7.41	1.69	4.13
207	1.87	4.64	2.66	8.94	1.97	5.00
215	2.15	5.33	2.63	10.38	2.25	5.75
307	2.44	6.02	3.75	11.83	2.63	6.50
315	2.53	6.25	1.81	13.21	2.75	6.75

Reducer Size	Holes	Tap Size	Tap Depth	Drill Depth	
107	6	5/16-18	0.56	0.75	
115		3/8-16	0.69	0.88	
203		7/16-14		0.69	0.88
207				0.81	1.00
215		1/2-13	0.81	1.00	
307		5/8-11			
315				1.00	1.19

Notes: No extra charge for drilled and tapped holes. Please specify at time of order.  
Full diameter of drill must not exceed specified drill depth because point of drill may break through housing and contaminate the oil with metal chips.



Face Mounting Drill and Tap Instructions Unit Sizes 407-800



Shaft Mount Engineering

"A" Face Mount Holes (Machined at Factory)

Reducer Size	Holes	Tap Size	Tap Depth	Drill Depth	BC
407	6	5/8-11	1.06	1.37	10.125
415			1.12	1.44	12.250
507			1.31	1.63	12.688
608	8	3/4-10	1.56	1.88	15.750
800		7/8-9	2.00	2.25	18.250

"B" Face Mount Holes (Not Machined)

Reducer Size	A	B	C	D	E	F
407	7.48	2.00	4.63	13.86	3.13	7.75
415	8.42	2.25	5.19	15.47	3.63	8.72
507	4.98	8.61	5.89	17.53	4.19	9.94
608	7.5	7.50	6.81	20.00	4.25	10.59
800	9.75	8.13	6.50	20.78	10.41	12.75

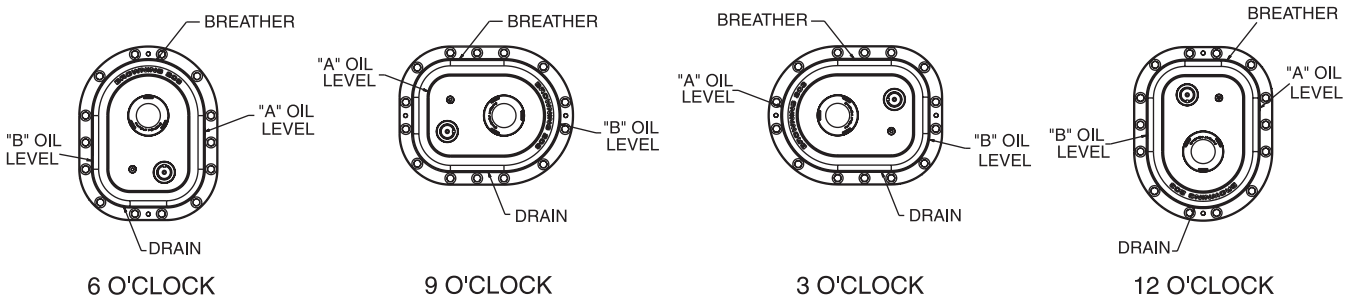
Reducer Size	Holes	Tap Size	Tap Depth	Drill Depth
407	6	3/4-10	1.00	1.19
415			1.38	1.69
507		1-8	1.56	1.88
800				

Notes: No extra charge for drilled and tapped holes. Please specify at time of order.  
 Full diameter of drill must not exceed specified drill depth because point of drill may break through housing and contaminate the oil with metal chips.

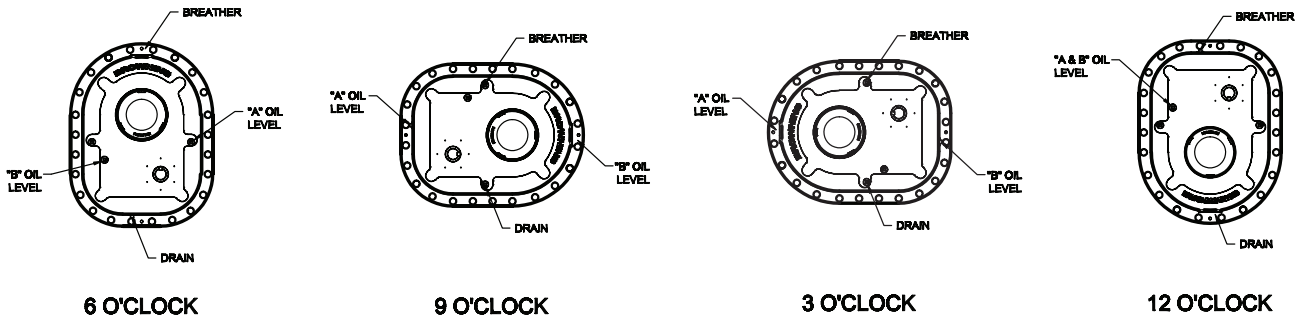
## Lubrication Sizes 107-800

The drawing below shows the breather, magnetic drain and oil level plug locations for the standard mounting positions. The breather is installed in the fill hole in the top and the magnetic drain plug is installed in the bottom of the reducer in its relative position. Use oil level "A" for speeds slower than those shown in the table below. Use oil level "B" for speeds faster than those shown in the table below.

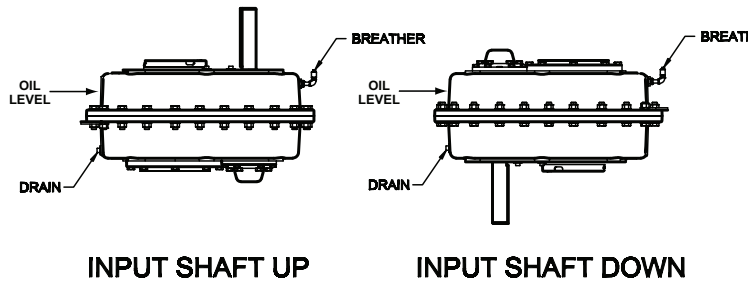
Refer to mounting positions and lubrication tables shown below for proper oil levels on 107-608 sizes.



Refer to mounting positions and lubrication tables shown below for proper oil levels on 800SMT.



### Vertical shaft mounting positions



## Lubrication Sizes 107-800

Shaft mount reducers require different amounts of oil in the various mounting positions. For the convenience of having enough oil at the installation site, the table below shows the approximate amount of oil for each mounting position.

Refer to mounting positions and lubrication tables shown below for proper oil levels.

Use Oil Level "B" For Speeds Faster Than Those Shown Below

Reducer Size	Output rpm for Reducer Ratios				
	5:1	9:1	15:1	25:1	35:1
107	400	184	120	70	40
115	382	173	120	70	40
203	326	128	113	70	40
207	275	112	99	70	40
215	236	97	85	70	40
307	204	90	79	70	40
315	202	85	62	70	40
407	176	-	63	55	-
415	156	-	53	46	-
507	-	-	47	41	-
608	-	-	46	40	-
800	-	-	-	40	-

Shaft Mount Engineering

### Approximate Oil Capacities in Quarts

Output Orientation	Horizontal															
	Ratio	5:1								9,15,25,35:1						
Oil Level		A				B				A				B		
Mounting Position	3	6	9	12	3	6	9	12	3	6	9	12	3	6	9	12
107	2.0	2.0	2.5	2.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	1.0	1.0	1.5	1.5
115	3.0	3.0	3.0	3.0	1.5	2.0	2.0	2.0	3.0	3.0	3.0	3.0	1.5	2.0	2.0	2.0
203	5.0	5.0	6.0	5.0	2.5	3.0	3.5	3.5	4.5	4.5	5.5	5.0	2.5	3.0	3.5	3.5
207	6.5	7.0	7.5	7.0	3.0	4.0	4.5	4.5	6.0	6.5	7.5	7.0	3.0	4.0	4.5	4.5
215	9.0	10.0	11.5	10.5	4.0	5.5	7.0	6.0	8.0	9.0	11.0	10.0	4.0	5.0	7.0	6.0
307	13.0	13.5	15.5	14.0	7.0	8.5	10.0	9.5	12.0	12.5	15.0	14.0	7.0	8.0	10.0	9.5
315	17.0	19.5	19.5	17.5	10.0	12.5	13.0	11.0	15.5	18.0	19.0	17.0	9.5	11.5	13.0	11.0
407	19.0	20.1	23.5	19.8	8.4	12.3	13.5	12.7	15.9	17.1	21.7	19.3	7.8	10.3	13.8	12.7
415	32.5	34.0	40.0	34.8	15.3	20.9	23.8	22.5	27.8	29.7	37.5	33.8	14.2	18.0	24.3	22.5
507	-	-	-	-	-	-	-	-	38.3	40.3	52.9	49.4	19.7	23.5	34.8	32.9
608	-	-	-	-	-	-	-	-	55.0	61.5	65.4	68.2	40.3	36.8	50.4	43.9
800	-	-	-	-	-	-	-	-	94.6	90.0	91.0	-	74.3	-	69.5	-

Output Orientation	Vertical				
	Ratio	5:1		9,15,25,35:1	
Mounting Position		Input Shaft Up	Input Shaft Down	Input Shaft Up	Input Shaft Down
107		2.5	2.5	2.5	2.5
115		3.5	4.0	3.5	4.0
203		6.0	7.0	6.0	7.0
207		8.5	9.0	8.5	9.0
215		13.0	12.5	12.0	12.0
307		18.5	20.0	17.5	19.0
315		24.0	26.0	22.5	25.0
407		26.5	29.0	24.0	26.5
415		46.3	50.2	42.5	46.3
507		-	-	60.8	65.8
608		-	-	87.9	93.9
800		-	-	144.3	145.3

Notes: Contact Application Engineering (1 800 626 2093) for vertical shaft mounting lubrication instructions.  
 SMTP, SMFP, HMTF and CMTP reducers are shipped without oil. Gearboxes must be filled to the proper level before operation.  
 Synthetic or mineral oil may be used in SMTP, SMFP, HMTF and CMTP shaft mount reducers.  
 For complete lubrication instructions, refer to the installation manual provided with the unit.

Reference page 148 for additional lubrication specifications.



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**Lubrication Sizes 107-800**

NOTICE: Petroleum-based and synthetic lubricants which contain anti-wear/extreme pressure additives must not be used in units with internal backstops. These additives decrease the backstop's ability to prevent reverse rotation and will result in backstop failure.

Note: Reducers operating more than 10° from standard position should have a stand pipe or sight glass installed and marked at proper oil level in order to monitor oil level while in operating position. Contact Application Engineering (1 800 626 2093) Department for assistance in selecting and installing required material.

## **Relubrication**

The following are some general recommendations regarding relubrication. Your experience in your specific application is the best determination of relubrication intervals.

### **Petroleum-based lubricants**

For normal operating conditions, oil should be changed every 2,500 hours or six months, whichever occurs first. If temperatures vary by season, the oil should be changed to suit the ambient operating temperature.

### **Synthetic Lubricants**

Some type of synthetic lubricants can be used in shaft mount reducers. These lubricants can extend oil change intervals to as much as 8,000 to 10,000 hours based on operating temperatures and lubricant contamination. If temperatures vary by season, the oil should be changed to suit the ambient operating temperature.



# SMTP, HMT, CMT



## Lubrication Sizes 107-800

Shaft Mount Engineering

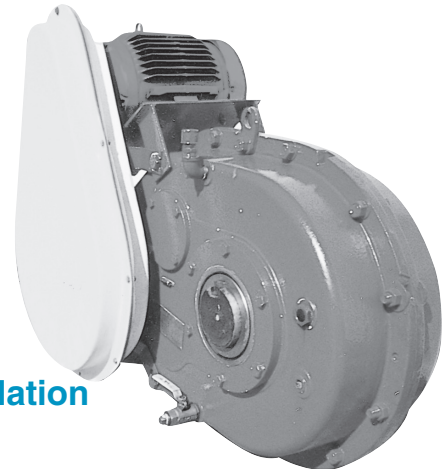
AGMA Oil Viscosity Grades for Ambient Operating Temperature between 14 deg F and 50 deg F												
Output RPM	Reducer Size											
	107_MTP	115_MTP	203_MTP	207_MTP	215_MTP	307_MTP	315_MTP	407SMTP	415SMTP	507SMTP	608SMTP	800SMTP
5-20	5	5	5	5	5	5	5	5	5	5	5	5
21-40	5	5	5	5	5	5	5	5	5	5	5	5
41-60	5	5	5	5	5	5	5	5	5	5	5	5
61-80	5	5	5	5	5	5	5	5	5	5	5	5
81-100	5	5	5	5	5	5	5	5	5	5	5	
101-120	5	5	5	5	5	5	5	5	5	5	5	
121-140	5	5	5	5	5	5	5	5	5			
141-160	5	5	5	5	5	5	5	5	5			
161-180	5	5	5	5	5	5	5	5	5			
181-200	5	5	5	5	5	5	5	5	5			
201-220	5	5	5	5	5	5	5	5	4			
221-240	5	5	5	5	5	5	5	4	4			
241-260	5	5	5	5	5	5	5	4	4			
261-280	5	5	5	5	5	5	4	4	4			
281-300	5	5	5	5	5	4	4	4	4			
301-320	5	5	5	5	4	4	4	4	4			
321-340	5	5	5	5	4	4	4	4	4			
341-360	5	5	5	5	4	4	4	4	4			
361-380	5	5	5	4	4	4	4	4	4			
381-400	5	5	5	4	4	4	4	4	4			

AGMA Oil Viscosity Grades for Ambient Operating Temperature between 50 deg F and 95 deg F												
Output RPM	Reducer Size											
	107_MTP	115_MTP	203_MTP	207_MTP	215_MTP	307_MTP	315_MTP	407SMTP	415SMTP	507SMTP	608SMTP	800SMTP
5-20	6	6	6	6	6	6	6	6	6	6	6	6
21-40	6	6	6	6	6	6	6	6	6	6	6	6
41-60	6	6	6	6	6	6	6	6	6	6	6	6
61-80	6	6	6	6	6	6	6	6	6	6	6	6
81-100	6	6	6	6	6	6	6	6	6	6	6	
101-120	6	6	6	6	6	6	6	6	6	6	6	
121-140	6	6	6	6	6	6	6	6	6			
141-160	6	6	6	6	6	6	6	6	6			
161-180	6	6	6	6	6	6	6	6	6			
181-200	6	6	6	6	6	6	6	6	5			
201-220	6	6	6	6	6	6	6	5	5			
221-240	6	6	6	6	6	6	5	5	5			
241-260	6	6	6	6	6	6	5	5	5			
261-280	6	6	6	6	6	5	5	5	5			
281-300	6	6	6	6	6	5	5	5	5			
301-320	6	6	6	6	5	5	5	5	5			
321-340	6	6	6	6	5	5	5	5	5			
341-360	6	6	6	6	5	5	5	5	5			
361-380	6	6	6	5	5	5	5	5	5			
381-400	6	6	6	5	5	5	5	5	5			

Features and Ratings

**Water treatment maintenance superintendents, design engineers and consultants agree...**

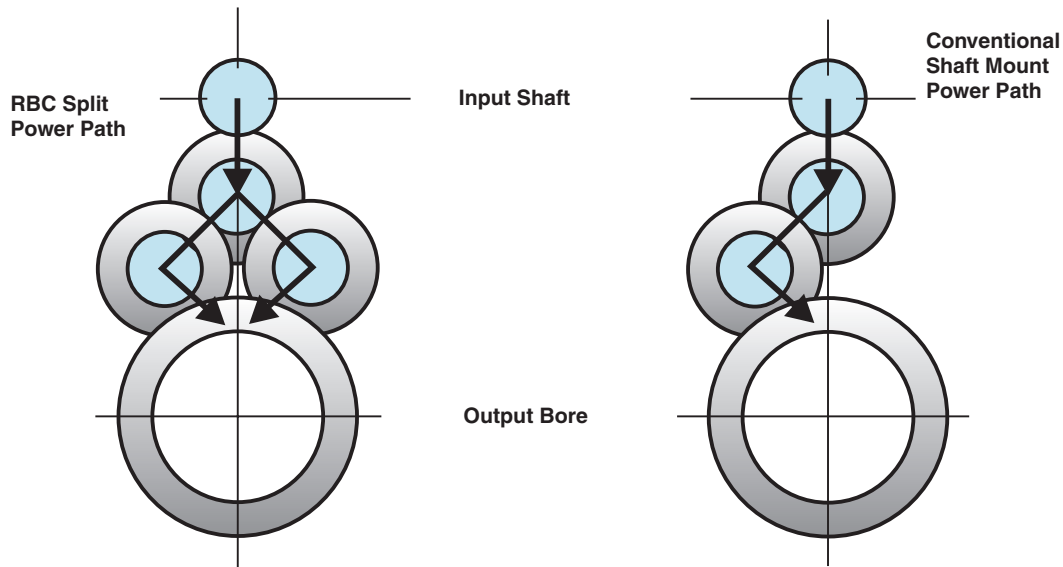
Browning products meet all your needs for rotating biological contactor drives.



Specify the Browning solution on your next RBC installation or retrofit.

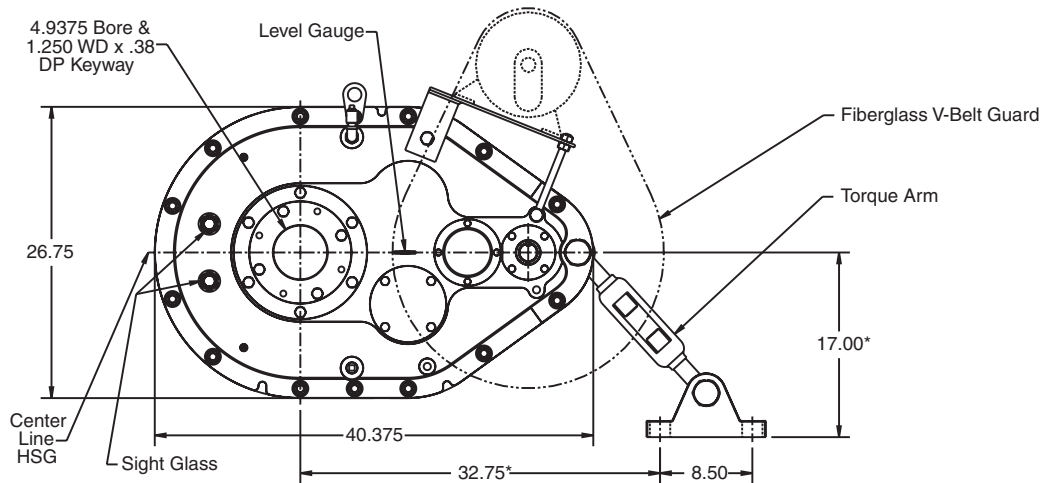
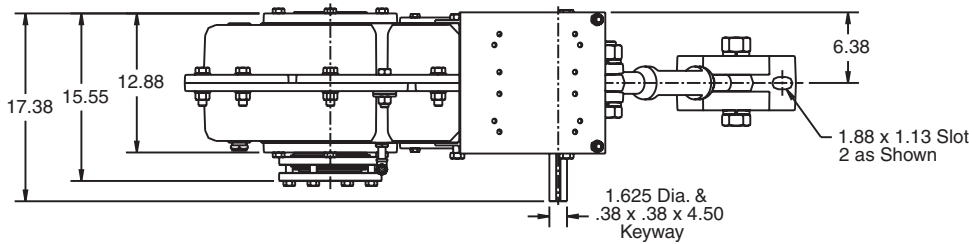
**Superior RBC Drive Solutions**

Built Rugged and Dependable for Minimal Maintenance and Downtime



- **Split Power Path Design**  
Provides twice the tooth engagement when compared to conventional drives
- **Leak Free Operation**  
Plunge ground shafts with dual lip oil seals
- **High Quality Bearings**  
100,000 hour B-10 life at 5 hp Class II service
- **Generous Shaft Diameters**  
Support overhung loads generated by V-belt drive assembly
- **Compact design and drop-in features allow for quick replacement of problem drives**  
Universal housings allow for left or right-hand installations  
Reducer, belt guard, torque arm, belt drive and motor are to be ordered separately

Standard Unit



### Drive Assembly

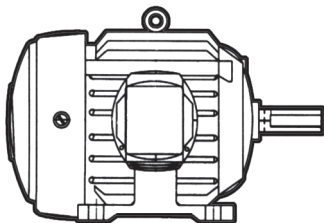
- **Tapered Bushed Unit**  
P/N 415SMT148  
*includes 4 15/16" tapered bushing and standard motor mount.*
- **Straight Bore Unit**  
P/N 415SMF148  
*Includes Std. Motor Mount*  
Motor mount will accept...  
184T, 213T & 254T\* frame motors and a V-belt drive CD of 14 to 20"
- **Fiberglass V-Belt Guard**  
P/N BG415-RBC
- **Torque Arm**  
P/N TA415-RBC/1

Shaft Mount Engineering

\* If torque arm arrangement is longer than 32.75" in the horizontal, or smaller than 17.00" in the vertical dimension, contact Application Engineering (1 800 626 2093).

### • Hostile duty totally enclosed fan cooled motors

Designed for wastewater treatment plant operation



- High efficiency EPAAct '92 certified
- Cast iron frames
- Hostile-duty paint
- Stainless steel nameplates

Browning RBC Drive Ratings							
Motor hp/rpm	Part Number	Motor Frame	AGMA Service Factor	V-Belt Drive Ratio	Gear Drive Ratio	Final Output Speed	Final Output Torque Rating
5/1150	H5E3D	215T	Class II	5.2:1	148:1	1.5 RPM	199,600 in./lbs.
7.5/1150	H7E3D	254T	Class I	5.2:1	148:1	1.5 RPM	297,400 in./lbs.





3

2

1

5

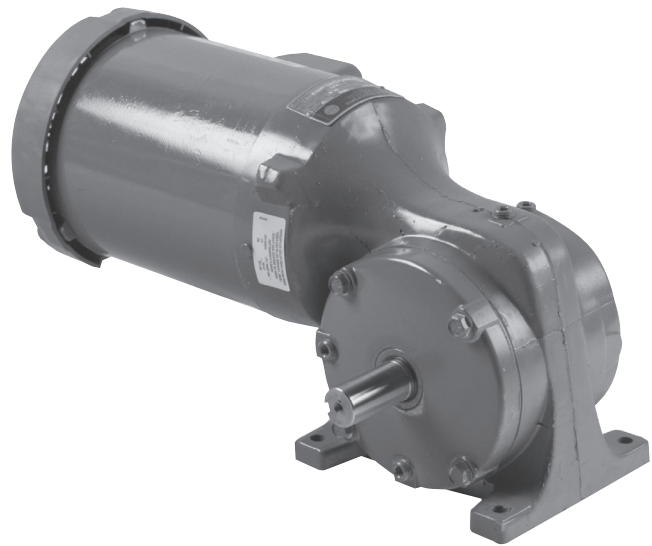
4





## IRA Gearmotors

1. Innovative self-locking taper shaft connection (motor to gear) allows on-site replacement without removing oil, primary pinion, or disconnecting the load. This helps ensure precision alignment and eliminates fretting to expedite motor removal.
2. Forged "LMS" bronze worm wheel provides extra strength and life.
3. Roller bearings on output shaft provide ample rating for high overhung load.
4. Factory filled with oil.
5. Two double lipped oil seals at input and output shafts.

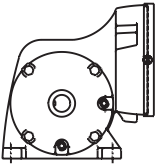


IRA  
Gearmotors

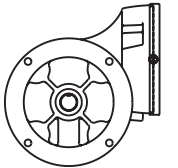
- 1/16 to 5 hp
- Worm and worm/helical ratios of 7:1 to 354:1
- Compact rugged physical envelope
- Three and single phase motors



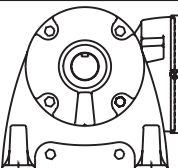
### Type




Foot Mount Worm  
Frames 1, 6, 20  
Max. 4,900 in. lbs.



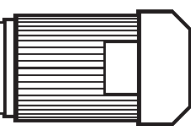
Flange Mount Worm  
Frames 6, 20  
Max. 4,900 in. lbs.



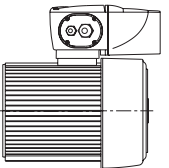
Foot Mount Worm Helical  
Frames 6  
Max. 2,800 in. lbs.



NEMA C - Face Adapter  
Frames 6, 20



Motors  
1/3 – 5 HP



IntelliGear®  
1/3 – 5 HP

## Type IRA

### General

IRA worm and helical-worm speed reducers and gearmotors adapt the speed of an electric motor to the driven machine. Selection depends on motor power ( $P$ ) expressed in hp and on the required speed ( $n$ ) in rpm. Output torque of the driven system can be calculated using the following formulas, based on reducer efficiency:

$$T \text{ (in.lbs.)} = \frac{P \times 63025 \times \text{eff.}}{n}$$

The overall ratio ( $i$ ) of the drive system =

$$\frac{\text{motor speed (n)}}{\text{reducer output speed (n)}}$$

### Design

Housing manufactured of high strength die-cast aluminum. Roller bearings on output shaft provide greater overhung load. Forged "LMS" bronze worm wheel provides extra strength. Excellent reversibility.

### Performances

This unique "worm-first" helical worm reducer (available only in frame size 6) provides for a higher efficiency than competitive units.

A range of three frame sizes: 1, 6, 20.

Output torque up to 4,300 in. lbs.

Numerous reduction ratios from 7:1 to 350:1.

High efficiency.

Low noise level.

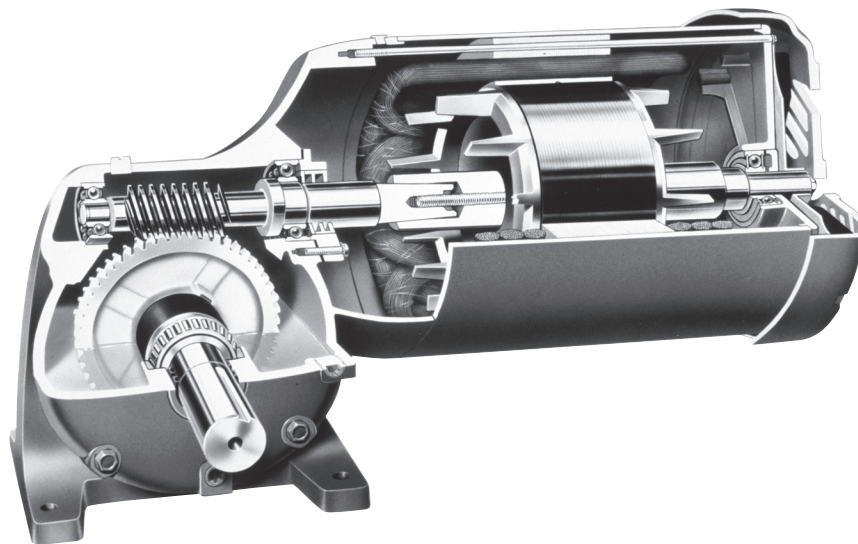
### Exceptional flexibility

Speed Reducers

- C-face input
- Output flange
- Multiple mounting positions available.

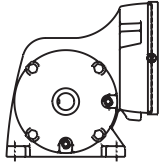
Gearmotors

- TEFC - three phase
- TEFC - single phase
- Corro-Duty®
- Explosionproof
- Brakemotor
- Inverter duty
- Washdown

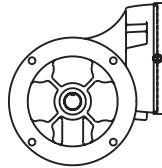


IRA Worm Drive

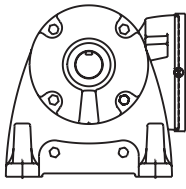
### IRA Gearmotors



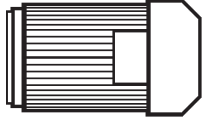
Foot Mount Worm  
Frames 1, 6, 20  
Max. 3,500 in. lbs.



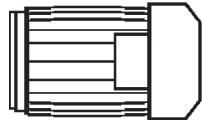
Flange Mount Worm  
Frames 6, 20  
Max. 3,500 in. lbs.




Foot Mount Worm Helical  
Frames 6  
Max. 2,700 in. lbs.



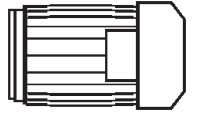
Three Phase TEFC  
1/3 – 5 HP



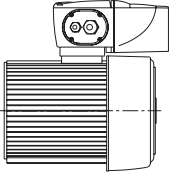
Corro-Duty®  
1/3 – 5 HP



Single Phase TEFC  
1/3 – 5 HP

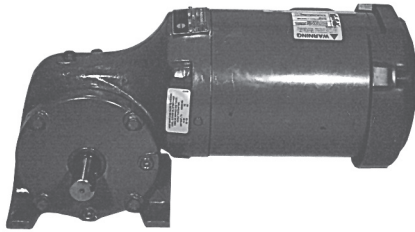


Explosionproof  
1/3 – 5 HP



IntelliGear®  
1/3 – 5 HP

## Motor Options



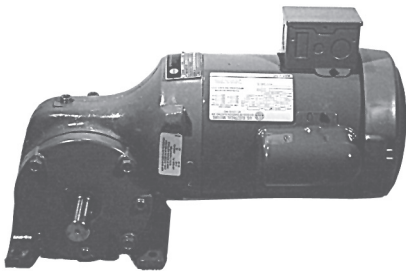
**TEFC - Three Phase**

- Suitable for general purpose industrial applications
- Premium class F insulation standard
- 40°C ambient, NEMA B design, continuous duty
- High efficiency design standard
- Washdown duty treatment available for food processors, meat packing, baking, drug, and cosmetic industries; includes N/C breather and USDA approved white paint
- Premium efficient motors option at 3 and 5 HP
- Inverter duty option per NEMA MG1 Part 31



**Corro-Duty®**

- Designed for applications in waste treatment, mining, and lumber industries
- All cast iron construction (56 and 140 frames are rolled steel)
- High efficiency standard on all HP's
- Premium efficient motors option at 3 and 5 HP
- 1.15 service factor, class F insulation
- Condensation drains in motor and conduit box
- 40°C ambient, NEMA design B, continuous duty



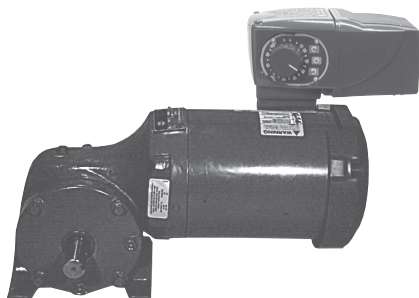
**TEFC - Single Phase**

- For agricultural, light material handling, textile, and light pumping applications
- 1.25 service factor (1.0 service factor, 2 thru 5 HP)
- Capacitor start (capacitor run above 1/2 HP, 48 frame) (capacitor run above 1 HP)
- Class B insulation, continuous duty, reversible



**Explosionproof**

- Ideal for the petro-chemical, grain, mining, and chemical industries
- Class I, group D, class II, groups F and G
- All cast iron construction (plastic fan cover)
- 1.0 service factor, class B insulation
- 40°C ambient, NEMA B design, continuous duty



**IntelliGear® Plus**

- Variable speed gearmotor with NEMA 4/12 enclosure
- "Onboard" pushbutton and remote speed changing options
- Pre-programmed 6:1 and wider C/T speed ranges
- Versions for 3/460V input power supplies from 1/3 to 5 HP
- 1/230V and 3/230V through 2 HP
- 1/115V through 3/4 HP
- UL\*, CUL and CE

\* UL is believed to be a trade name and/or trademark of Underwriters Laboratories, Inc., and is NOT owned or controlled by Regal Power Transmission Solutions.

## Selection Information

1. Input hp
  - Based on application data.
2. Speed / Ratio
  - Obtain either desired output speed (rpm) or gearbox ratio based on application.
3. Service Factor
  - The tables on pages E14 to E16 are based on past operating experience within the industries listed and information gathered by AGMA. If the user has data reflecting greater severity than normal industry usage, then service factor should be increased.
  - Choose the AGMA class for your given application based on this criteria. If your application cannot be found, use the following table to determine service factor.

Prime Mover	Duration Of Service	Nature of Load From Driven Machine		
		Uniform	Mod. Shock	Heavy Shock
Electric Motor	Occasional 1/2 hour per day	0.80	0.90	1.00
	Intermittent 2 hours per day	0.90	1.00	1.25
	10 hours per day	1.00	1.25	1.50
	24 hours per day	1.25	1.50	1.75

The following service factors apply to applications involving frequent starts and stops.

Electric Motor	Occasional 1/2 hour per day	0.90	1.00	1.25
	Intermittent 2 hours per day	1.00	1.25	1.50
	10 hours per day	1.25	1.50	1.75
	24 hours per day	1.50	1.75	2.00

## Size Selection

- Step 1 - Locate appropriate gearmotor selection table (pages E18 to E24) based on input hp.
- Step 2 - Choose the appropriate nominal speed required.
- Step 3 - Select the correct gearmotor based on service factor determined in selection information.
- Step 4 - Verify overhung load ratings where required (see below).

## Overhung Load

When a sprocket, sheave, pulley, or pinion is mounted on the take-off shaft of a gearmotor, it is necessary to calculate the overhung load. This calculated load must be compared with the gearbox capacity listed to make sure the gearbox will not be overloaded. To calculate the overhung load you need to know the torque or horsepower at the take-off shaft and the location along the shaft at which the load is applied.

A. If torque is known:

$$OHL = \frac{T \times K \times LLF}{r}$$

B. If horsepower is known:

$$OHL = \frac{63025 \times hp \times K \times LLF}{rpm \times r}$$

Where:

- OHL = Overhung load (pounds)
- T = Torque (in. lbs.)
- r = Radius of driving member (in.)
- hp = Horsepower
- K = Drive type factor
- LLF = Load location factor

Driving Member	Value of K
Chain Drive	1.00
Pinion	1.25
Gearbelt	1.25
V-Belt	1.50
Flat Belt	2.50

Load Location	Value of LLF
End of shaft extension	1.20
Center of shaft extension	1.00
Shaft extension shoulder	0.80

## Example

A right angle, foot mounted gearmotor is required to operate a uniformly loaded conveyor at 68 rpm, 24 hours per day. An 8" diameter sprocket is mounted at the end of the shaft and drives the conveyor with a chain. The load is .75 hp and customer requests a high efficiency 3/60 230/460 volt TEFC motor end. Shaft extension is to be on the right, viewed opposite the input. The gearmotor will be mounted on the floor.

**Step 1** – AGMA service classification tables on page E-14 indicate that this is a 1.25 service factor application.

**Step 2** – Page E-21 IRA gearmotor table indicates that a frame 143T-6 with 1 HP motor will do the job.

Output RPM	Service Factor	Output Torque in-lb	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Std. Motor Types $\diamond$
68	1.5	796	0.86	980	25	6 143T	T,C,S,X,IG

**Step 3** – To check overhung load for the example:

$$r = \frac{\text{Sprocket Diameter}}{2} = \frac{8}{2} = 4$$

$$K = 1.0 \text{ (chain drive)}$$

$$LLF = 1.2 \text{ (sprocket on end of shaft)}$$

$$HP = 1$$

Torque formula:

$$OHL = \frac{63025 \times HP \times K \times LLF}{RPM \times r}$$

$$OHL = \frac{63025 \times 1 \times 1.0 \times 1.2}{68 \times 4} = 278 \text{ lbs.}$$

Overhung load capacity of 980 lbs. listed is greater than the calculated value of 278 lbs.

**Step 4** – Catalog designation (see "Ordering" page E-10):

**IRA - 6 - GW - F1 - 25 - HT24 - 143T - 1**



## Selection and Ordering Information

### Selection Information

1. Determine Installation Environment
  - Control enclosure is NEMA 4/12
2. Input hp
  - For constant torque loads this is at maximum speed of range
3. Speed Range
  - Confirm maximum and minimum of 6:1 range.
4. Determine Control Power Supply
  - Phase and voltage.

Power Supply	Input HP's
1 ph / 115 v	.33 to .75
1 ph / 230 v	.33 to 2
3 ph / 230 v	.33 to 2
3 ph / 460 v	.33 to 5

5. Mechanical Service Factoring of Gear
  - Refer to Page E-6 for this procedure.

Note: IntelliGear application for 1 phase power supply is limited to 10 starts per hour.
6. Determine Speed Adjustment Option
  - Select from:
    - PD = Digital keypad with forward/reverse/stop/speed up/speed down/speed display on IntelliGear enclosure
    - P1 = Run/Stop/Speed Pot. mounted on IntelliGear enclosure
    - P2 = Forward/Reverse/Stop/Pot. mounted on IntelliGear enclosure
    - P3 = Speed Pot. (only) mounted on IntelliGear enclosure (start/stop by others)
    - P4 = Speed Pot. (only) mounted inside IntelliGear enclosure (start/stop by others)
    - R = Remote Signal Following (0-10VDC or 4-20mA supplied by others)
    - RP = Remote From Fieldbus - Profibus DP

### Size Selection

- Step 1 - Locate gearmotor selection tables based on the input HP required at maximum speed of the range.
- Step 2 - Select the "output rpm" closest to the maximum speed of the range desired. If the motor hp is 5, make the rpm selection using the following formula:
 
$$\text{"Output rpm" Selection}^* = \frac{\text{Max. Speed of Range}}{1.2}$$
- Step 3 - Note the gear ratio after step 2.
- Step 4 - Select correct gearmotor that meets or exceeds the AGMA service factor determined in the selection information.
- Step 5 - Verify overhung load rating where applicable per formulas on Page E-6.
- Step 6 - Confirm input power supply is compatible with hp of selection and record speed adjustment option desired for the applicaiton.
- Step 7 - Referring to Page E-13, determine if an alternate controller location is required for the application. Default location is "FO" (at 12 o'clock).

\* Maximum motor rpm will be 2150 @ 74 Hz for 5hp IntelliGear.

Selection and Ordering Information

Selection Example

A foot mounted IRA worm gearmotor is required to operate a non-uniformly fed assembly conveyor from 38 to 6 rpm, 8-10 hours per day. The output shaft will be chain/sprocket connected to the conveyor shaft in a 3:1 ratio and a 3.5" radius sprocket mounted mid-shaft. The conveyor will require at least 0.51 hp at the maximum rpm of the range. The jobsite power supply is 3/230 VAC and speed control with start/stop push-buttons and speed knob on the controller enclosure. The enclosure requirement for the site is NEMA 12. Referencing the motor fan cover guard, the reducer output shaft should be at the left, the controller should be at the right, and the speed knob should be at the upper side on the control enclosure. Final mounting will be ceiling mount.

**Step 1...**

The closest gearmotor hp is a 0.75 HP unit and this unit @ 37 rpm 60 Hz has an output of 0.55 hp. (944 inch lbs torque @37 RPM)

**Step 2...**

The ratio that will more closely provide the desired speed range is 45:1.

**Step 3...**

AGMA service factor requirements for this application is a minimum of 1.25 S.F. and the selection from page E-20 will be gear frame 6 GW.

Output RPM	Service Factor	Output Torque in-lb	Output Horsepower	OHL Δ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types ◇
37	1.3	944	.55	980	45	6	56	T,S,C,X,IG

**Step 4...**

$$\begin{aligned}
 \text{OHL with HP known} &= \frac{63025 \times \text{HP} \times K \times \text{LLF}}{\text{RPM} \times R} \\
 &= \frac{63025 \times .51 \times 1.00 \times 1.00}{37 \times 3.5"} \\
 &= 248 \text{ Lbs.} \quad (\text{Less than } 980 \text{ Lb OHL capacity})
 \end{aligned}$$

**Step 5...**

The power supply of 3/230 VAC is ok for .75 HP IRA gearmotor with "IG2" motor input, plus include F1 controller location plus "B" cable entry.

**Step 6...**

Catalog designation will be:

**IRA • 6 • GW • C1 • 45 • IG2 • 56 • 3/4** w/F1 controller and "B" cable entry. Supply "P1" speed control option.

## Catalog Designation

**IRA • 6 • GW • F1 • 25 • HT24 • 143T • 1 •**

Based on Selection

Choose one

Based on Application

Type	Gear Frame	Mounting Configuration	Mounting Positions	Ratio	Input	Motor Frame	Horsepower	Modification Code(s)
IRA	1 6 20	GW = Footed Worm GWV = Flanged Worm GWB = Footed Worm-Helical (Frame 6 only)	See page E-11	Use Nominal Ratio Selected	See legend on page E-12	48 56 B56 143T 145T 182T 184T	1/3 1/2 3/4 1 1.5 2 3 5	Number of Modification(s) from pages E-25 and E-26

## Availability

Gear Frame	Footed		Flanged
	Universal #1	Universal #2	Universal #1
1 GW (worm)	●	◇	-
6 GW (worm)	●	◇	●
6 GWB (worm helical)	●	●	*
20 GW (worm)	●	◇	●

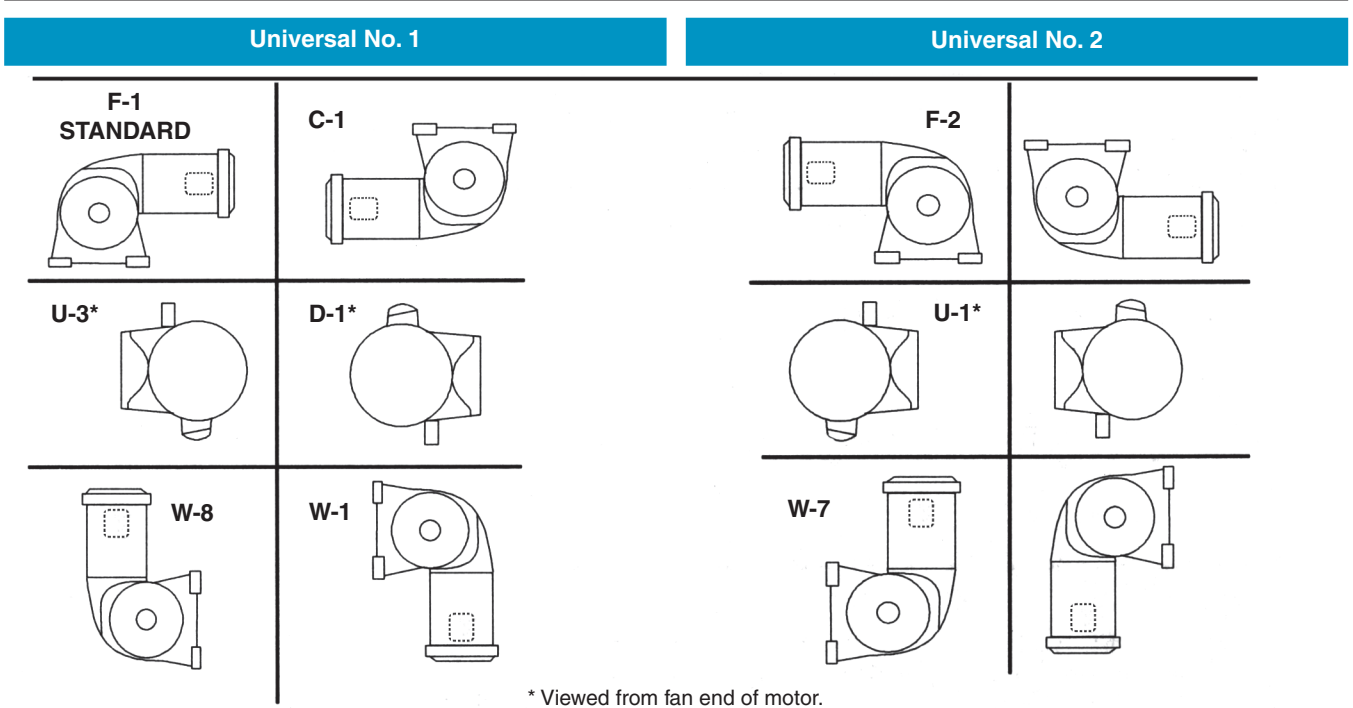
Normally Stocked

◇ Available thru conversion of stock unit

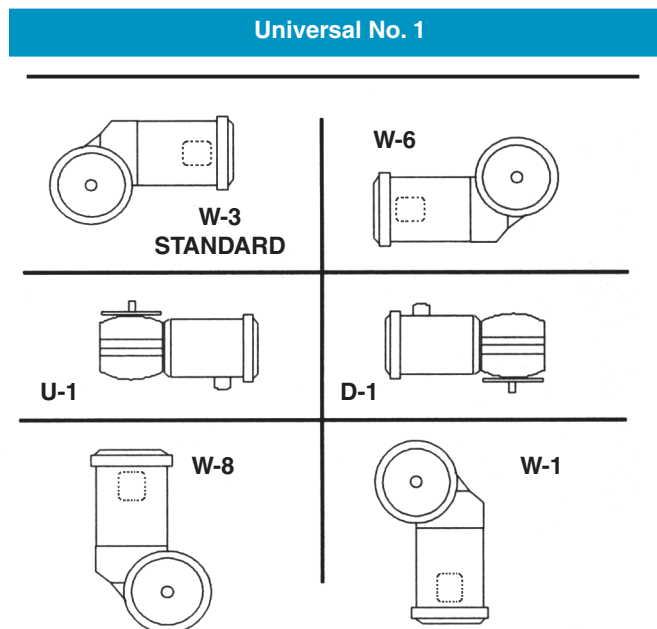
X Available thru production only

Refer application to Type HWN Product

### Foot Mount Worm and Worm Helical

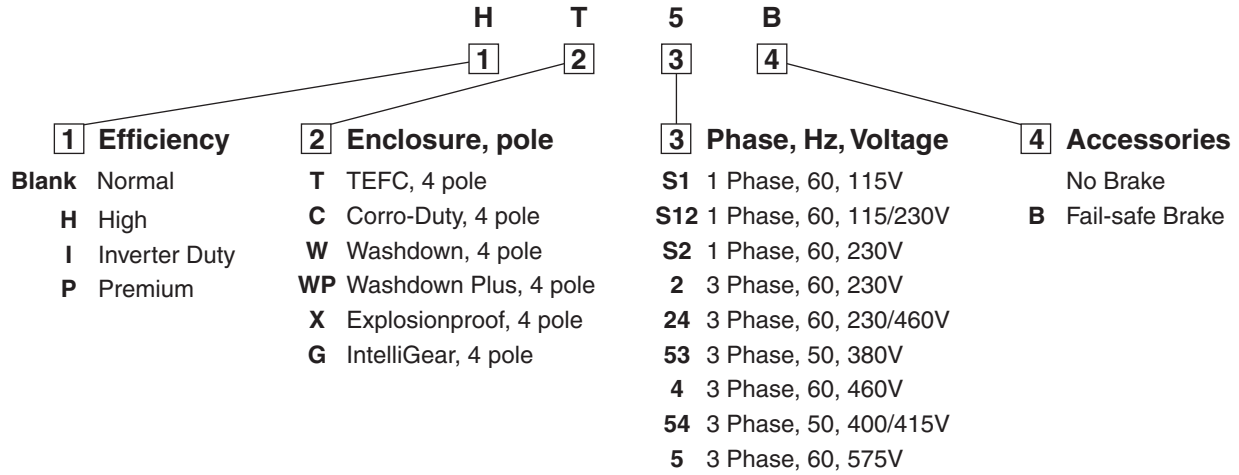


### Flange Mount Worm



## IRA Gearmotor Inputs

Example: High Efficiency, TEFC, 3 phase 60 Hz, 575V, with Fail-safe Brake

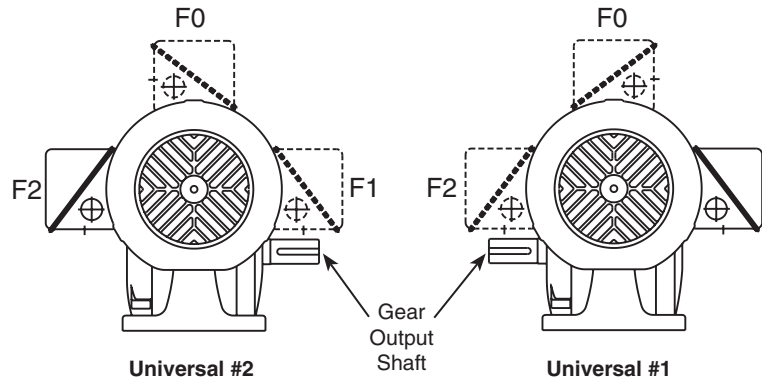


Base Design	Input Code	Motor HP							
		0.33	0.50	0.75	1	1.5	2	3	5
S Single Phase TEFC	TS12	Y	Y	Y	Y	Y	Y	-	-
	TS12B	Y	Y	Y	Y	Y	Y	-	-
	TS2	-	-	-	-	-	-	Y	Y
	TS2B	-	-	-	-	-	-	Y	Y
T 3 Phase TEFC	HT24	Y	Y	Y	Y	Y	Y	Y	Y
	HT24B	Y	Y	Y	Y	Y	Y	Y	Y
	HT5	Y	Y	Y	Y	Y	Y	Y	Y
	HT5B	Y	Y	Y	Y	Y	Y	Y	Y
	T24	Y	Y	Y	Y <sup>1</sup>	Y	Y	Y	Y
	T24B	Y	Y	Y	Y <sup>1</sup>	Y	Y	Y	Y
	T5	Y	Y	Y	Y <sup>1</sup>	-	-	-	-
	T5B	Y	Y	Y	Y <sup>1</sup>	Y	Y	Y	Y
	T53	Y	Y	Y	Y <sup>1</sup>	Y	Y	Y	Y
	T54	Y	Y	Y	Y	Y	Y	Y	Y
	IT24	Y	Y	Y	Y	Y	Y	Y	Y
	IT24B	Y	Y	Y	Y	Y	Y	Y	Y
	IT5	Y	Y	Y	Y	Y	Y	Y	Y
	IT5B	Y	Y	Y	Y	Y	Y	Y	Y
	PT24	-	-	-	-	-	-	Y	Y
	PT24B	-	-	-	-	-	-	Y	Y
	PT5	-	-	-	-	-	-	Y	Y
	PT5B	-	-	-	-	-	-	Y	Y
	W24	Y	Y	Y	Y <sup>1</sup>	Y	Y	Y	Y
	W5	Y	Y	Y	Y <sup>1</sup>	Y	Y	-	-
WP24	Y	Y	Y	Y <sup>1</sup>	Y	Y	-	-	
WP5	Y	Y	Y	Y <sup>1</sup>	Y	Y	-	-	
C 3 Phase Corro-Duty®	HC24	Y	Y	Y	Y	Y	Y	-	-
	HC5	Y	Y	Y	Y	Y	Y	Y	Y
	IC24	Y	Y	Y	Y	Y	Y	Y	Y
	IC5	Y	Y	Y	Y	Y	Y	Y	Y
	PC24	-	-	-	-	-	-	Y	Y
PC5	-	-	-	-	-	-	Y	Y	
X 3 Phase Explosionproof	X24	Y	Y	Y	Y	Y	Y	Y	Y
	X5	Y	Y	Y	-	-	-	-	-
	IX24	P	P	P	P	P	P	P	P
IG IntelliGear®	IGS1	Y	Y	Y	-	-	-	-	-
	IGS2	Y	Y	Y	Y	Y	Y	-	-
	IG2	Y	Y	Y	Y	Y	Y	Y	Y
	IG4	Y	Y	Y	Y	Y	Y	Y	Y

P Production lead-time    
  Y Available from stock    
  Y Available except IGW Gear units with 48 frame motors  
 - Not available    
  Y<sup>1</sup> Motor frame is B56

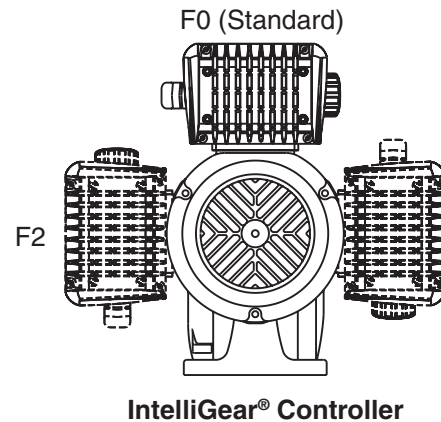
## Electrical Connections Conduit Box Locations:

Shaft Orientation	Conduit Box Location	
	Std.	Optional
Universal #2	F2	F1 or F0
Universal #1	F1	F2 OR F0



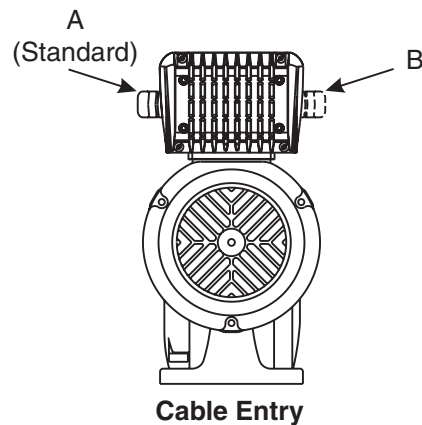
## IntelliGear Controller Location

When ordering an IntelliGear® IRA gearmotor, you can specify the controller location and conduit entry location when viewing the unit fan cover guard. If no options are specified, the "F0" controller location will be supplied.



## IntelliGear Cable Entry

IntelliGear Cable Entry can be from either side of enclosure. If no option is specified, "A" will be supplied.





Application	Recommended Service Factors			Application	Recommended Service Factors		
	Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day		Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day
<b>AGITATORS (Mixers)</b>				<b>CRANES (cont.)</b>			
Pure Liquids	---	1.00	1.25	Industrial Duty			
Liquids & Solids	1.00	1.25	1.50	Main	1.00	1.25	1.50
Liquids - Variable Density	1.00	1.25	1.50	Auxiliary	u	u	u
				Bridge and Trolley Travel	u	u	u
<b>BLOWERS</b>				<b>CRUSHER</b>			
Centrifugal	1.00	1.25	---	Stone or Ore	1.50	1.75	2.00
Lobe	1.00	1.25	1.50				
Vane	---	1.00	1.25	<b>DREDGES</b>			
<b>BREWING &amp; DISTILLING</b>				Cable Reels	1.00	1.25	1.50
Bottling Machinery	---	1.00	1.25	Conveyors	1.00	1.25	1.50
Brew Kettles (Continuous Duty)	---	1.00	1.25	Cutter Head Drives	1.25	1.50	1.75
Cookers (Continuous Duty)	---	1.00	1.25	Pumps	1.00	1.25	1.50
Mash Tubs (Continuous Duty)	---	1.00	1.25	Screen Drives	1.25	1.50	1.75
Scale Hopper (Frequent Starts)	1.00	1.25	1.50	Stackers	1.00	1.25	1.50
				Winches	1.00	1.25	1.50
<b>CAN FILLING MACHINES</b>	---	1.00	1.25	<b>ELEVATORS</b>			
<b>CAR DUMPERS</b>	1.25	1.50	1.75	Bucket	1.00	1.25	1.50
CAR PULLERS	1.00	1.25	1.50	Centrifugal Discharge	---	1.00	1.25
<b>CLARIFIERS</b>	---	1.00	1.25	Escalators	u	u	u
<b>CLASSIFIERS</b>	1.00	1.25	1.50	Freight	u	u	u
<b>CLAY WORKING MACHINERY</b>				Gravity Discharge	---	1.00	1.25
Brick Press	1.25	1.50	1.75	<b>EXTRUDERS</b>			
Briquette Machine	1.25	1.50	1.75	General	1.25	1.25	1.25
Pug Mill	1.00	1.25	1.50	Plastics			
<b>COMPACTORS</b>	1.50	1.75	2.00	(a) Variable Speed Drive	1.50	1.50	1.50
<b>COMPRESSORS</b>				(b) Fixed Speed Drive	1.75	1.75	1.75
Centrifugal	---	1.00	1.25	Rubber			
Lobe	1.00	1.25	1.50	(a) Continuous Screw Operation	1.50	1.50	1.50
Reciprocating, Multi - Cylinder	1.00	1.25	1.50	(b) Intermittent Screw Operation	1.75	1.75	1.75
Reciprocating, Single - Cylinder	1.25	1.50	1.75	<b>FANS</b>			
<b>CONVEYORS - GENERAL PURPOSE</b>				Centrifugal	---	1.00	1.25
Uniformly loaded or fed	---	1.00	1.25	Cooling Towers	u	u	u
Not uniformly fed	1.00	1.25	1.50	Forced Draft	1.25	1.25	1.25
Reciprocating or Shaker	1.25	1.50	1.75	Induced Draft	1.00	1.25	1.50
<b>CRANES</b>				Industrial & Mine	1.00	1.25	1.50
Dry Dock				<b>FEEDERS</b>			
Main Hoist	1.25	1.50	1.75	Apron	---	1.25	1.50
Auxiliary Hoist	1.25	1.50	1.75	Belt	1.00	1.25	1.50
Boom Hoist	1.25	1.50	1.75	Disc	---	1.00	1.25
Slewing Drive	1.25	1.50	1.75	Reciprocating	1.25	1.50	1.75
Traction Drive	1.50	1.50	1.50	Screw	1.00	1.25	1.50
Container				<b>FOOD INDUSTRY</b>			
Main Hoist	u	u	u	Cereal Cooker	---	1.00	1.25
Boom Hoist	u	u	u	Dough Mixer	1.00	1.25	1.50
Trolley Travel				Meat Grinders	1.00	1.25	1.50
Gantry Drive	u	u	u	Slicers	1.00	1.25	1.50
Traction Drive	u	u	u	<b>GENERATORS &amp; EXCITERS</b>	---	1.00	1.25
Mill Duty				<b>HAMMER MILLS</b>	1.50	1.50	1.75
Main Hoist	u	u	u	<b>HOISTS</b>			
Auxiliary	u	u	u	Heavy Duty	1.25	1.50	1.75
Bridge and Trolley Travel	u	u	u	Medium Duty	1.00	1.25	1.50
				Skip Hoist	1.00	1.25	1.50

u Refer to Application Engineering (1 800 626 2093)

Application	Recommended Service Factors			Application	Recommended Service Factors		
	Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day		Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day
<b>LAUNDRY TUMBLERS</b>	1.00	1.25	1.50	<b>PAPER MILLS</b>			
<b>LAUNDRY WASHERS</b>	1.25	1.25	1.50	Agitator (Mixer)	1.50	1.50	1.50
<b>LUMBER INDUSTRY</b>				Agitator for Pure Liquids	1.25	1.25	1.25
Barkers - Spindle Feed	1.25	1.25	1.50	Barker Drums	1.75	1.75	1.75
- Main Drive	1.50	1.50	1.50	Barker - Mechanical	1.75	1.75	1.75
Conveyors - Burner	1.25	1.25	1.50	Beater	1.50	1.50	1.50
- Main or Heavy Duty	1.50	1.50	1.50	Breaker Stack	1.25	1.25	1.25
- Main Log	1.50	1.50	1.75	Calender			
- Re-Saw, Merry-Go-Round	1.25	1.25	1.50	(Anti-Friction Bearings Only)	1.25	1.25	1.25
- Slab	1.50	1.50	1.75	Chipper	1.75	1.75	1.75
- Transfer	1.25	1.25	1.50	Chip Feeder	1.50	1.50	1.50
Chains - Floor	1.50	1.50	1.50	Coating Rolls	1.25	1.25	1.25
- Green	1.50	1.50	1.50	Conveyors			
Cut-Off Saws - Chain	1.50	1.50	1.50	Chip, Bark, Chemical	1.25	1.25	1.25
- Drag	1.50	1.50	1.50	Log (Including Slab)	1.75	1.75	1.75
Debarking Drums	1.50	1.50	1.75	Couch Rolls	1.25	1.25	1.25
Feeds - Edger	1.25	1.25	1.50	Cutter	1.75	1.75	1.75
- Gang	1.50	1.50	1.50	Cylinders Molds	1.25	1.25	1.25
- Trimmer	1.25	1.25	1.50	Dryers (Anti-Friction Bearings Only)			
Log Deck	1.50	1.50	1.50	Paper Machine	1.25	1.25	1.25
Log Hauls - Incline - Well Type	1.50	1.50	1.50	Conveyor Type	1.25	1.25	1.25
Log Turning Devices	1.50	1.50	1.50	Embossor	1.25	1.25	1.25
Planer Feed	1.25	1.25	1.50	Extruder	1.50	1.50	1.50
Planer Tilting Hoist	1.50	1.50	1.50	Fourdrinier Rolls (Includes			
Rolls - Live, Off Brg., Roll Cases	1.50	1.50	1.50	Lump Breaker, Dandy Roll,			
Sorting Table	1.25	1.25	1.50	Wire Turning & Return Rolls)	1.25	1.25	1.25
Tipple Hoist	1.25	1.25	1.50	Jordan	1.25	1.25	1.25
Transfers - Chain	1.50	1.50	1.50	Kiln Drive	1.50	1.50	1.50
- Craneway	1.50	1.50	1.50	Mt. Hope Rolls	1.25	1.25	1.25
Tray Drives	1.25	1.25	1.50	Paper Rolls	1.25	1.25	1.25
Veneer Lathe Drives	u	u	u	Platter	1.50	1.50	1.50
<b>METAL MILLS</b>				Pressers - Felt & Suction	1.25	1.25	1.25
Draw Bench Carriage & Main Drive	1.00	1.25	1.50	Pulper	1.50	1.50	1.75
Run Out Tables				Pumps - Vacuum	1.50	1.50	1.50
Non-Reversing				Reel (Surface Type)	1.25	1.25	1.50
Group Drives	1.00	1.25	1.50	Screens			
Individual Drives	1.50	1.50	1.75	Chip	1.50	1.50	1.50
Reversing	1.50	1.50	1.75	Rotary	1.50	1.50	1.50
Slab Pushers	1.25	1.25	1.50	Vibrating	1.75	1.75	1.75
Shears	1.50	1.50	1.75	Size Press	1.25	1.25	1.25
Wire Drawing	1.00	1.25	1.50	Super Calender	1.25	1.25	1.25
Wire Winding Machine	1.00	1.25	1.50	Thickener (AC Motor)	1.50	1.50	1.50
<b>METAL STRIP PROCESSING</b>				(DC Motor)	1.25	1.25	1.25
<b>MACHINERY</b>				Washer (AC Motor)	1.50	1.50	1.50
Bridles	1.25	1.25	1.50	(DC Motor)	1.25	1.25	1.25
Coilers & Uncoilers	1.00	1.00	1.25	Wind & Unwind Stand	1.00	1.00	1.00
Edge Trimmers	1.00	1.25	1.50	Winders (Surface Type)	1.25	1.25	1.25
Flatteners	1.00	1.25	1.50	Yankee Dryers (Anti-Friction			
Loopers (Accumulators)	1.00	1.00	1.00	Bearings Only)	1.25	1.25	1.25
Pinch Rolls	1.00	1.25	1.50	<b>PLASTICS INDUSTRY-</b>			
Scrap Choppers	1.00	1.25	1.50	<b>PRIMARY PROCESSING</b>			
Shears	1.50	1.50	1.75	Intensive Internal Mixers			
Slitters	1.00	1.25	1.50	(a) Batch Mixers	1.75	1.75	1.75
<b>MILLS, ROTARY TYPE</b>				(b) continuous Mixers	1.50	1.50	1.50
Bell & Rod				Batch Drop Mill - 2 Smooth Rolls	1.25	1.25	1.25
Spur Ring Gear	1.50	1.50	1.75	Continuous Feed, Holding &			
Helical Ring Gear	1.50	1.50	1.50	Blend Mill	1.25	1.25	1.25
Direct Connected	1.50	1.50	1.75	Compounding Mills	1.25	1.25	1.25
Cement Kilns	1.50	1.50	1.50	Calenders	1.50	1.50	1.50
Dryers & Coolers	1.50	1.50	1.50	<b>PLASTICS INDUSTRY -</b>			
<b>MIXERS, CONCRETE</b>	1.00	1.25	1.50	<b>SECONDARY PROCESSING</b>			
				Blow Molders	1.50	1.50	1.50
				Coating	1.25	1.25	1.25
				Film	1.25	1.25	1.25
				Pipe	1.25	1.25	1.25

IRA  
Gearmotors

u Refer to Application Engineering (1 800 626 2093).

Application	Recommended Service Factors			Application	Recommended Service Factors		
	Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day		Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day
<b>PLASTICS INDUSTRY - SECONDARY PROCESSING (Cont.)</b>				<b>SEWAGE DISPOSAL EQUIPMENT</b>			
Pre-Plasticizers	1.50	1.50	1.50	Bar Screens	---	1.00	1.25
Rods	1.25	1.25	1.25	Chemical Feeders	---	1.00	1.25
Sheets	1.25	1.25	1.25	Dewatering Screens	1.00	1.25	1.50
Tubing	1.25	1.25	1.50	Scum Breakers	1.00	1.25	1.50
<b>PULLERS - BARGE HAUL</b>	1.00	1.50	1.75	Slow or Rapid Mixers	1.00	1.25	1.50
<b>PUMPS</b>				Sludge Collectors	1.00	1.00	1.25
Centrifugal	---	1.00	1.25	Thickeners	1.00	1.25	1.50
Proportioning	1.00	1.25	1.50	Vacuum Filters	1.00	1.25	1.50
Reciprocating				<b>SCREENS</b>			
Single Acting, 3 or more cylinders	1.00	1.25	1.50	Air Washing	---	1.00	1.25
Double Acting, 2 or more cylinders	1.00	1.25	1.50	Rotary - Stone or Gravel	1.00	1.25	1.50
Rotary - Gear Type	---	1.00	1.50	Traveling Water Intake	---	1.00	1.25
- Lobe Type	---	1.00	1.25	<b>SUGAR INDUSTRY</b>			
- Vane	---	1.00	1.25	Beet Slicer	1.50	1.50	1.75
<b>RUBBER INDUSTRY</b>				Cane Knives	1.50	1.50	1.50
Intensive Internal Mixers				Crushers	1.50	1.50	1.50
(a) Batch Mixers	1.50	1.75	1.75	Mills (Low Speed End)	1.50	1.50	1.50
(b) Continuous Mixers	1.25	1.50	1.50	<b>TEXTILE INDUSTRY</b>			
Mixing Mill -				Batchers	1.00	1.25	1.50
2 Smooth Rolls (if corrugated rolls are used, than the same service factors that are used for a Cracker Warmer)	1.50	1.50	1.50	Calenders	1.00	1.25	1.50
Batch Drop Mill - 2 Smooth Rolls	1.50	1.50	1.50	Cards	1.00	1.25	1.50
Cracker Warmer - 2 Rolls;				Dry Cans	1.00	1.25	1.50
1 corrugated roll	1.75	1.75	1.75	Dryers	1.00	1.25	1.50
Cracker - 2 corrugated rolls	1.75	1.75	1.75	Dyeing Machinery	1.00	1.25	1.50
Holding, Feed & Blend Mill - 2 Rolls	1.25	1.25	1.25	Looms	1.00	1.25	1.50
Refiner - 2 Rolls	1.50	1.50	1.50	Mangles	1.00	1.25	1.50
Calenders	1.50	1.50	1.50	Nappers	1.00	1.25	1.50
<b>SAND MILLER</b>	1.00	1.25	1.50	Pads	1.00	1.25	1.50
				Slashers	1.00	1.25	1.50
				Soapers	1.00	1.25	1.50
				Spinners	1.00	1.25	1.50
				Tenter Frames	1.00	1.25	1.50
				Washers	1.00	1.25	1.50
				Winders	1.00	1.25	1.50

Applications not listed in this table or where the user has data indicating the severity of his usage to be greater than average should be referred to Application Engineering (1 800 626 2093).

### Type IRA

The IRA gearbox is filled at the factory with oil according to the mounting position specified when ordered. The oil used depends on the order description at entry. Non-washdown units are filled with an AGMA 8 mineral oil. Washdown units will be filled with a synthetic 460 series lubricant classified as a Polyglycol (PAG) oil.

In the event that a gearbox needs to be refilled, see the appropriate maintenance manual for the proper procedure and correct quantity of oil. If synthetic oil is used, the gearbox must be refilled with the same lubricant or must be completely drained and flushed.

#### Mineral Oils

Ambient Temperature	15 to 60 F	50 to 125 F
ISO Grade	460	680
AGMA	7	8

#### Synthetic Oils

Ambient Temperature	-30 to 200 F	-30 to 200 F
ISO Grade	460	680
AGMA	7	8

## 1/3 HP

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	3.0+	76	0.28	670	7.1	1	48	T,S
230	3.0+	83	0.30	696	7.1	6	56	T,C,S,X,IG
190	3.0+	91	0.27	670	9	1	48	T,S
190	3.0+	100	0.30	738	9	6	56	T,C,S,X,IG
155	3.0+	111	0.27	670	11.2	1	48	T,S
155	3.0+	121	0.30	804	11.2	6	56	T,C,S,X,IG
125	3.0+	134	0.27	670	14	1	48	T,S
125	3.0+	144	0.29	832	14	6	56	T,C,S,X,IG
100	3.0+	163	0.26	670	18	1	48	T,S
100	3.0+	179	0.28	942	18	6	56	T,C,S,X,IG
84	2.8	189	0.25	670	20	1	48	T,S
84	3.0+	210	0.28	980	20	6	56	T,C,S,X,IG
68	2.5	222	0.24	670	25	1	48	T,S
68	3.0+	250	0.27	980	25	6	56	T,C,S,X,IG
56	2.1	254	0.23	670	31.5	1	48	T,S
56	3.0+	292	0.26	980	31.5	6	56	T,C,S,X,IG
45	1.9	299	0.21	670	40	1	48	T,S
45	3.0+	350	0.25	980	40	6	56	T,C,S,X,IG
37	1.5	337	0.20	670	45	1	48	T,S
37	2.8	405	0.24	980	45	6	56	T,C,S,X,IG
30	1.3	381	0.18	670	56	1	48	T,S
30	2.3	475	0.23	980	56	6	56	T,C,S,X,IG
25	1.1	427	0.17	670	71	1	48	T,S
25	1.9	401	0.16	980	71	6	56	T,C,S,X,IG
20	1.5	461	0.15	980	90	6	56	T,C,S,X,IG
17	2.5	763	0.21	1234	100	6*	56	T,C,S,X,IG
13	2.2	881	0.18	1231	125	6*	56	T,C,S,X,IG
11	2.0	1058	0.18	1140	160	6*	56	T,C,S,X,IG
9	1.7	1213	0.17	1216	200	6*	56	T,C,S,X,IG
7.5	1.5	1416	0.17	1220	224	6*	56	T,C,S,X,IG
6	1.5	1599	0.15	1064	280	6*	56	T,C,S,X,IG
5	1.2	1837	0.15	1229	355	6*	56	T,C,S,X,IG

**Refer to HWN Product for higher ratios and/or capacities.**

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

T TEFC, three phase, 208-230/460 or 575 volts

C Corro-Duty<sup>®</sup>, three phase, 230/460 or 575 volts

S TEFC, single phase, 115/230 volts

X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts

IG IntelliGear<sup>®</sup> variable speed for 1/115, 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## 1/2 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	3.0+	119	0.43	670	7.1	1	48	T,S
230	3.0+	125	0.46	696	7.1	6	56	T,C,S,X,IG
190	3.0+	141	0.43	670	9	1	48	T,S
190	3.0+	147	0.44	738	9	6	56	T,C,S,X,IG
155	3.0+	173	0.43	670	11.2	1	48	T,S
155	3.0+	180	0.44	804	11.2	6	56	T,C,S,X,IG
125	2.6	210	0.42	670	14	1	48	T,S
125	3.0+	219	0.43	832	14	6	56	T,C,S,X,IG
100	2.2	254	0.40	670	18	1	48	T,S
100	3.0+	265	0.42	942	18	6	56	T,C,S,X,IG
84	1.7	292	0.39	670	20	1	48	T,S
84	3.0+	308	0.41	980	20	6	56	T,C,S,X,IG
68	1.6	344	0.37	670	25	1	48	T,S
68	3.0+	367	0.40	980	25	6	56	T,C,S,X,IG
56	1.4	390	0.35	670	31.5	1	48	T,S
56	2.6	428	0.38	980	31.5	6	56	T,C,S,X,IG
45	1.2	456	0.33	670	40	1	48	T,S
45	2.2	507	0.36	980	40	6	56	T,C,S,X,IG
37	1.9	405	0.24	980	45	6	56	T,C,S,X,IG
37	3.0+	601	0.35	913	45	6*	56	T,C,S,X,IG
30	1.6	680	0.32	980	56	6	56	T,C,S,X,IG
30	2.8	738	0.35	883	56	6*	56	T,C,S,X,IG
25	1.2	668	0.26	980	71	6	56	T,C,S,X,IG
25	2.3	911	0.36	1228	71	6*	56	T,C,S,X,IG
20	1.0	726	0.23	980	90	6	56	T,C,S,X,IG
20	2.0	1062	0.34	1228	90	6*	56	T,C,S,X,IG
16.5	1.7	1276	0.33	1234	112	6*	56	T,C,S,X,IG
13.5	1.6	1472	0.32	1231	125	6*	56	T,C,S,X,IG
11.0	1.3	1768	0.31	1140	160	6*	56	T,C,S,X,IG
9.0	1.1	2029	0.29	1216	200	6*	56	T,C,S,X,IG
7.5	1.0	2357	0.28	1220	250	6*	56	T,C,S,X,IG
6.0	1.0	2666	0.25	1064	280	6*	56	T,C,S,X,IG

**Refer to HWN Product for higher ratios and/or capacities.**

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

T TEFC, three phase, 208-230/460 or 575 volts

C Corro-Duty®, three phase, 230/460 or 575 volts

S TEFC, single phase, 115/230 volts

X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts

IG IntelliGear® variable speed for 1/115, 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint



## 3/4 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	2.6	177	0.65	670	7.1	1	48	T,S
230	3.0+	186	0.68	696	7.1	6	56	T,C,S,X,IG
190	2.3	210	0.63	670	9	1	48	T,S
190	3.0+	223	0.67	738	9	6	56	T,C,S,X,IG
155	2.1	253	0.62	670	11.2	1	48	T,S
155	3.0+	269	0.66	804	11.2	6	56	T,C,S,X,IG
125	1.7	315	0.62	670	14	1	48	T,S
125	3.0+	324	0.64	832	14	6	56	T,C,S,X,IG
100	1.5	394	0.63	670	18	1	48	T,S
100	2.7	394	0.63	942	18	6	56	T,C,S,X,IG
84	1.2	444	0.59	670	20	1	48	T,S
84	2.4	456	0.61	980	20	6	56	T,C,S,X,IG
68	2.0	537	0.58	980	25	6	56	T,C,S,X,IG
56	1.7	633	0.56	980	31.5	6	56	T,C,S,X,IG
56	3.0+	666	0.59	816	31.5	6*	56	T,C,S,X,IG
45	1.5	743	0.53	980	40	6	56	T,C,S,X,IG
45	2.6	784	0.56	894	40	6*	56	T,C,S,X,IG
37	1.3	944	0.55	980	45	6	56	T,C,S,X,IG
37	2.2	968	0.57	913	45	6*	56	T,C,S,X,IG
30	1.0	1120	0.56	980	56	6	56	T,C,S,X,IG
30	1.8	1187	0.57	883	56	6*	56	T,C,S,X,IG
25	1.5	1464	0.58	1097	71	6*	56	T,C,S,X,IG
20	1.3	1705	0.54	1228	90	6*	56	T,C,S,X,IG
16.5	1.1	2046	0.54	1234	112	6*	56	T,C,S,X,IG
13.5	1.0	2357	0.50	1231	125	6*	56	T,C,S,X,IG
11	1.0	2828	0.49	1140	160	6*	56	T,C,S,X,IG

Refer to HWN Product for higher ratios and/or capacities.

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

T TEFC, three phase, 208-230/460 or 575 volts

C Corro-Duty®, three phase, 230/460 or 575 volts

S TEFC, single phase, 115/230 volts

X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts

IG IntelliGear® variable speed for 1/115, 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## 1 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	3.0+	248	0.91	696	7.1	6	143T	T,C,S,X,IG
190	3.0+	297	0.90	738	9	6	143T	T,C,S,X,IG
155	2.8	357	0.88	804	11.2	6	143T	T,C,S,X,IG
125	2.4	430	0.85	832	14	6	143T	T,C,S,X,IG
100	2.0	522	0.83	942	18	6	143T	T,C,S,X,IG
84	1.8	605	0.81	980	20	6	143T	T,C,S,X,IG
84	3.0+	600	0.80	753	20	6*	143T	T,C,S,X,IG
68	1.5	796	0.86	980	25	6	143T	T,C,S,X,IG
68	2.8	740	0.80	827	25	6*	143T	T,C,S,X,IG
56	1.3	835	0.74	980	31.5	6	143T	T,C,S,X,IG
56	2.4	921	0.82	816	31.5	6*	143T	T,C,S,X,IG
45	1.1	966	0.69	980	40	6	143T	T,C,S,X,IG
45	2.0	1082	0.77	894	40	6*	143T	T,C,S,X,IG
37	1.7	1455	0.85	913	45	6*	143T	T,C,S,X,IG
30	1.4	1670	0.83	883	56	6*	143T	T,C,S,X,IG
25	1.1	2015	0.80	1097	71	6*	143T	T,C,S,X,IG
20	1.0	2345	0.74	1228	90	6*	143T	T,C,S,X,IG

Refer to HWN Product for higher ratios and/or capacities.

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

T TEFC, three phase, 208-230/460 or 575 volts

C Corro-Duty®, three phase, 230/460 or 575 volts

S TEFC, single phase, 115/230 volts

X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts

IG IntelliGear® variable speed for 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## 1 1/2 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	2.4	372	1.36	696	7.1	6	145T	T,C,S,X,IG
190	2.3	444	1.34	738	9	6	145T	T,C,S,X,IG
155	1.9	534	1.31	804	11.2	6	145T	T,C,S,X,IG
125	1.6	644	1.28	832	14	6	145T	T,C,S,X,IG
100	1.3	779	1.24	942	18	6	145T	T,C,S,X,IG
100	2.4	785	1.25	720	18	6*	145T	T,C,S,X,IG
84	1.2	900	1.20	980	20	6	145T	T,C,S,X,IG
84	2.3	931	1.24	753	20	6*	145T	T,C,S,X,IG
68	1.0	1021	1.10	980	25	6	145T	T,C,S,X,IG
68	1.9	1148	1.24	827	25	6*	145T	T,C,S,X,IG
56	1.6	1480	1.32	816	31.5	6*	145T	T,C,S,X,IG
56	2.6	1194	1.06	2850	31.5	20	145T	T,C,S,X,IG
45	1.3	1820	1.30	894	40	6*	145T	T,C,S,X,IG
45	2.0	1523	1.09	2850	40	20	145T	T,C,S,X,IG
37	1.1	2160	1.27	913	45	6*	145T	T,C,S,X,IG
37	1.7	1815	1.07	2850	45	20	145T	T,C,S,X,IG

Refer to HWN Product for higher ratios and/or capacities.

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

T TEFC, three phase, 208-230/460 or 575 volts

C Corro-Duty<sup>®</sup>, three phase, 230/460 or 575 volts

S TEFC, single phase, 115/230 volts, 145TY

X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts

IG IntelliGear<sup>®</sup> variable speed for 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## 2 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
230	1.8	495	1.81	696	7.1	6	145T	T,C,S,X,IG
190	1.7	591	1.78	738	9	6	145T	T,C,S,X,IG
155	1.4	711	1.75	804	11.2	6	145T	T,C,S,X,IG
125	1.2	852	1.69	832	14	6	145T	T,C,S,X,IG
100	1.8	1100	1.75	720	18	6*	145T	T,C,S,X,IG
84	1.7	1300	1.73	753	20	6*	145T	T,C,S,X,IG
68	1.4	1570	1.69	827	25	6*	145T	T,C,S,X,IG
68	2.3	1439	1.55	2850	25	20	145T	T,C,S,X,IG
56	1.2	1965	1.75	815	31.5	6*	145T	T,C,S,X,IG
56	2.0	1670	1.48	2850	31.5	20	145T	T,C,S,X,IG
45	1.0	2410	1.72	894	40	6*	145T	T,C,S,X,IG
37	1.2	2547	1.50	2850	45	20	145T	T,C,S,X,IG

Refer to HWN Product for higher ratios and/or capacities.

\* Worm-helical reducer (GWB)

$\diamond$  **Standard Motor Types** (see page 409 for product codes)

- T TEFC, three phase, 208-230/460 or 575 volts
- C Corro-Duty®, three phase, 230/460 or 575 volts
- S TEFC, single phase, 115/230 volts, 145TY
- X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts
- IG IntelliGear® variable speed for 1/230, 3/230, or 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## 3 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
175	3.0+	938	2.60	2743	9	20	182T	T,C,X,S,IG
117	2.3	1374	2.55	2850	14	20	182T	T,C,X,S,IG
100	2.0	1663	2.64	2850	18	20	182T	T,C,X,S,IG
88	1.9	1784	2.49	2850	20	20	182T	T,C,X,S,IG
68	1.5	2122	2.29	2850	25	20	182T	T,C,X,S,IG
58	1.3	2550	2.35	2850	31.5	20	182T	T,C,X,S,IG

## 5 hp

General Specifications: Totally enclosed, 60 hertz, 40°C ambient, continuous duty.

Output rpm	Service Factor	Output Torque in-lbs	Output Horsepower	OHL $\Delta$ lb	Nominal Ratio	Frame Size Gear	Motor	Std. Motor Types $\diamond$
175	1.9	1613	4.48	2743	9	20	184T	T,C,X,S,IG
117	1.4	2358	4.38	2850	14	20	184T	T,C,X,S,IG
100	1.2	2819	4.47	2850	18	20	184T	T,C,X,S,IG
88	1.2	2950	4.12	2850	20	20	184T	T,C,X,S,IG

**Refer to HWN Product for higher ratios and/or capacities.**

- $\diamond$  **Standard Motor Types** (see page 409 for product codes)
  - T TEFC, three phase, 208-230/460 or 575 volts
  - C Corro-Duty<sup>®</sup>, three phase, 230/460 or 575 volts
  - S TEFC, single phase, 230 volts, 184T frame
  - X Explosionproof, Cls I Grp D, Cls II Grps F&G, three phase 230/460 or 575 volts
  - IG IntelliGear<sup>®</sup> variable speed for 3/460V power supplies

$\Delta$  Overhung loads are at shaft midpoint

## Modifications

### Inverter Duty Gearmotors

IRA three phase gearmotors in frame sizes 56 through 184T frame now incorporate upgraded wire and insulating materials for inverter service. A one year limited warranty as covered in the Standard Terms & Conditions will be extended for 3:1 (60 – 20 Hz) constant torque for standard efficiency motor designs and 5:1 (60 – 12 Hz) constant torque for high efficiency motor design providing the following conditions are met:

- Motor is non-hazardous 3 phase > 48 frame
- Cable length to controller < 100 ft.
- Line voltage is < 480VAC
- Thermal protection is not required

For all other conditions of operation/construction, including up to 575V, hazardous environment services, and/or thermostats in winding, select an inverter duty motor design. These designs include N/C thermostats in winding, a three (3) limited warranty as covered in the Standard Terms & Conditions on the motor and full compliance with NEMA MG1 Part 31.

### Motor Modifications

#### M1 Brakes

##### Design

These mounted brakes have a direct acting, spring set, electromagnetically released disc design. When power to the brake is interrupted, the brake will immediately set and hold. When power is restored, the brake will automatically release.

##### Enclosures For Brakes

IP23 - suitable for indoor, relatively dry, clean and non-hazardous applications.

IP55 - suitable for outdoors or indoors applications where the gearmotor can be exposed to splashing liquids, dusts and some chemicals. Not suitable for washdown.

Standard Enclosures For Brake

Non-Hazardous Motor Type	Motor Frame Size	
	48	56 and Larger
S	IP23	Open
T	IP23	IP55
IG	N/A	IP55

### Motor Modifications (Continued)

#### Operating Voltage

Brakemotors for fixed frequency operation will be arranged for powering brake from the motor. If another voltage is to be supplied to brake, state that voltage on the order.

Brakes for inverter duty brakemotors require a separate fixed frequency AC power source for the brake, but interlocked with the starting of the motor. The standard brake voltage for inverter duty gearmotors will be arranged for 115/230 volts single phase.

#### Mounting

Brakes for IRA gearmotors are suitable for the mounting positions specified for the gear.

#### M2 Premium Efficiency Motor

High efficiency three phase motors are standard options to meet the energy legislations in the USA and Canada on 140T and larger motors in "T" and "C" types. Premium efficiency motors are also optional at standard lead-time for 3 and 5 HP.

#### M3 Washdown Motor

See GM1 under Gearmotor Modifications

#### M4 Canopy Cap

A canopy cap can be supplied for protection from dripping liquids entering fan end of gearmotors. It is recommended but not standard when mounting is required to be in the W8 or W7 positions.

#### M5 Frequency - 50 Hz

Motors for operation at 3 phase 50 Hz are available. Refer all 3 phase requirements for 50 Hz to motor code T53 (380V) or T54 (400/415V). The published output speed and gear service factor based on 1750 rpm input will be reduced by a factor of (1.2) at the same gear ratio. Example: 100 rpm output, 60 Hz, 1750 rpm input is 83 rpm output, 50 Hz, 1450 rpm input.

#### M6 Voltage (3 Phase Only)

Standard voltages available are listed in the table below. Other voltages are available and must be specified at order entry and require special voltage adder.

Frequency	3 Phase Voltages Thru 30 hp
60 Hz	200, 230, 230/460, 460, 575
50 Hz	200, 220, 230, 220/380, 220/440, 380, 415, 460, 500, 575

3/50/380V is available from stock on "T" and "C" motor types.



### Motor Modifications (Continued)

#### M7 Insulation

Standard 3 phase TEFC and Corro-Duty® motor ends have premium class F insulation standard. Single phase TEFC and explosionproof motor ends have class B insulation as standard. Class H insulation and tropical protection are available from production on 3 phase motors only (Class H not available on explosionproof).

#### M8 Space Heaters

Space heaters are recommended for gearmotors installed in damp locations to prevent condensation on the motor windings when the motor is not operating. Leads are brought to the standard motor conduit box. Space heater voltage (115, 230, 460 volts) must be specified when order is entered. Available in gearmotors > 3/4 hp.

#### M9 Thermal Protection - Thermostats

This protection uses a bi-metal disc thermostat, embedded in the motor winding, connected into the holding circuit of the motor starter. The sensor opens the control circuit, shutting down the motor on over temperature. Thermostats give protection for running overload, abnormally high ambient, voltage unbalance, high or low voltage, and ventilation failure. Thermostats will not give protection for locked rotor, starting overload, and single phasing.

### Gear Modifications

#### G1 Food Grade Lubricant

When this modification is specified, the IRA gear sump will be filled with the required volume of a synthetic lubricant classified as a Polyglycol (PAG), 460 series that is approved for USDA H-1 food grade use.

#### G2 Normally Closed Breather

For applications involving very dusty environments specify this breather design. The breather has a protected spring loaded valve construction opening only to relieve any pressure built up greater than 3 PSI and then closing.

#### G3 Double Extended Output Shafts

Double end output shafts are available on single reduction type GW worm-only units.

#### G4 Special Output Shafts

Special output shafts are available on all units. Refer applications to Gear Estimating office for pricing.

### Gear Modifications (Continued)

#### G5 Special Nameplates

Units can be provided with limited additional special information on the standard product nameplate. When requested, a special nameplate may be provided, stamped with custom markings.

#### G6 Low Ambient Temperature

Gearmotors can be supplied for low ambient down to -20F. Refer complete details of the applications to the Applications Department for review

### Gearmotor Modifications

#### GM1 Washdown Duty Gearmotor

This gearmotor design combines special features of gear and motor required for washdown duty. These include: special treatment coating of winding and internal surfaces of motor frame, drains in motor frame, labyrinth seal at motor SE bracket/shaft extension, special "protected" gearcase breather design, (2) double lipped oil seals at each gear shaft extension, exterior surfaces of gearmotor receive Corroduty Stainless Steel paint (option for epoxy white at no added cost). Specify input configuration "W24" or "W5" based on voltage needed on motor.



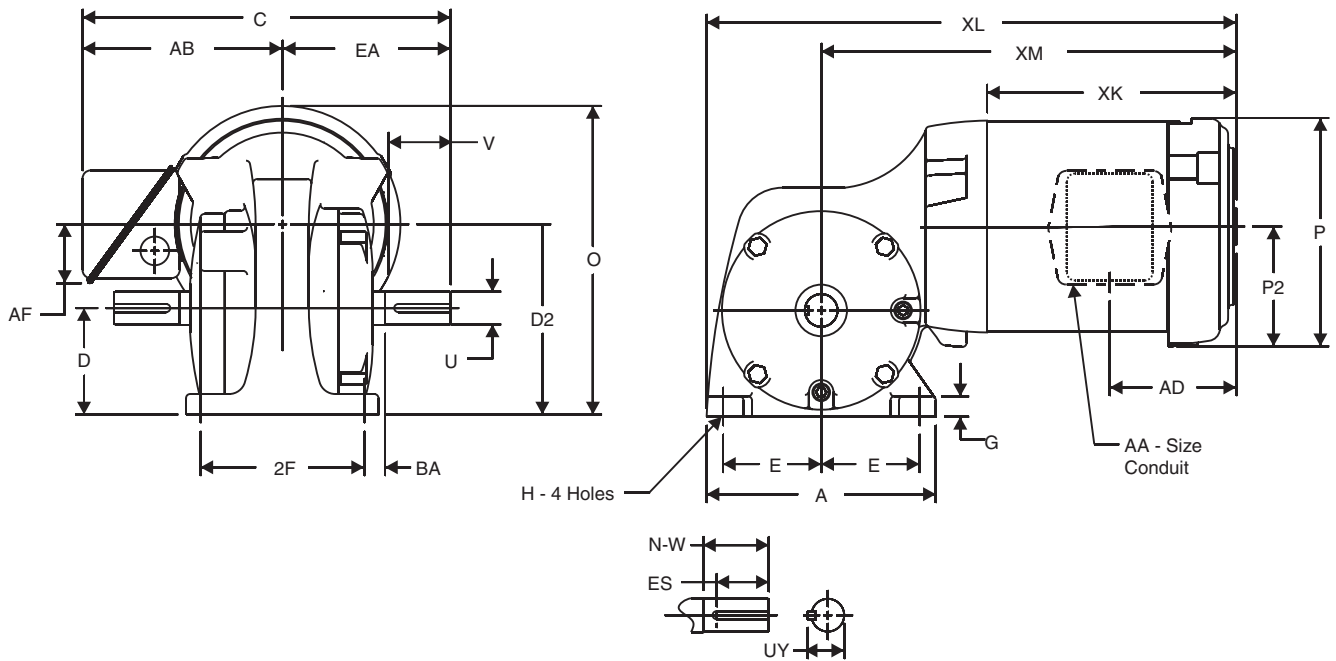
For inclusion of a food grade USDA H-1 approved lubricant, add a "P" for input code with a washdown motor (i.e. change "W24" to "WP24", and refer to G1 Food Grade Lubricant for specifics on this lubricant

#### GM2 Export Boxing

Export boxing can be provided for "underdeck" transport. When the quantity of IRA gearmotors exceeds five(5) units, refer to the International Sales department for most economical accommodations.

## Overall dimensions

### Worm (GW)



Basic Frame	A	D	D2	E	2F	G	H	N-W	U	V Min.	BA	ES	UY	AH	Sq. Key
1	5 5/8	2 1/2	4 1/2	2 3/8	4 3/4	1/2	11/32	1 5/8	3/4	1 13/32	5/16	1.25	0.837	1.88	3/16
6	7	3 1/4	5 13/16	3	5	5/8	13/32	2	1	1 15/16	7/16	1.25	1.114	2.176	1/4
20	10 1/4	4 1/2	8 1/4	4 3/8	8	1	11/16	3 1/4	1 5/8	2 15/16	29/32	2.38	1.796	3.38	3/8

Motor Frame	Motor Type <sup>1</sup>	hp	C	XL	XM	XK	P	P2	AB	EA	AA	O	AD	AF
48-1	T	1/3, 1/2	8.66	15.79	12.98	9.03	6.72	2.79	4.34	4.32	0.50	8.00	4.43	1.16
48-1	T	3/4	8.66	16.79	13.98	10.03	6.72	2.79	4.34	4.32	0.50	8.00	4.43	1.16
48-1	T	1	8.66	17.29	14.48	10.53	6.72	2.79	4.34	4.32	0.50	8.00	4.43	1.16
56-6	T	Any	11.04	16.30	12.80	7.72	7.22	3.31	6.10	4.94	0.75	9.47	3.30	0.94
B56-6	T	Any	11.04	17.55	14.05	8.97	7.22	3.31	6.10	4.94	0.75	9.47	3.30	0.94
143T, 145T	T	Any	11.04	17.55	14.05	8.97	7.22	3.31	6.10	4.94	0.75	9.47	3.30	0.94
143T, 145T-20	T	Any	14.23	20.28	15.15	8.97	7.22	3.31	6.10	8.13	0.75	11.91	3.30	0.94
182T, 184T-20	T	Any	15.65	21.57	18.07	11.89	9.56	4.39	7.52	8.13	0.75	13.03	5.13	2.13

Dimension "D" will never be exceeded, but may be less than values shown. When exact dimensions are required, shims up to 1/16" may be necessary.

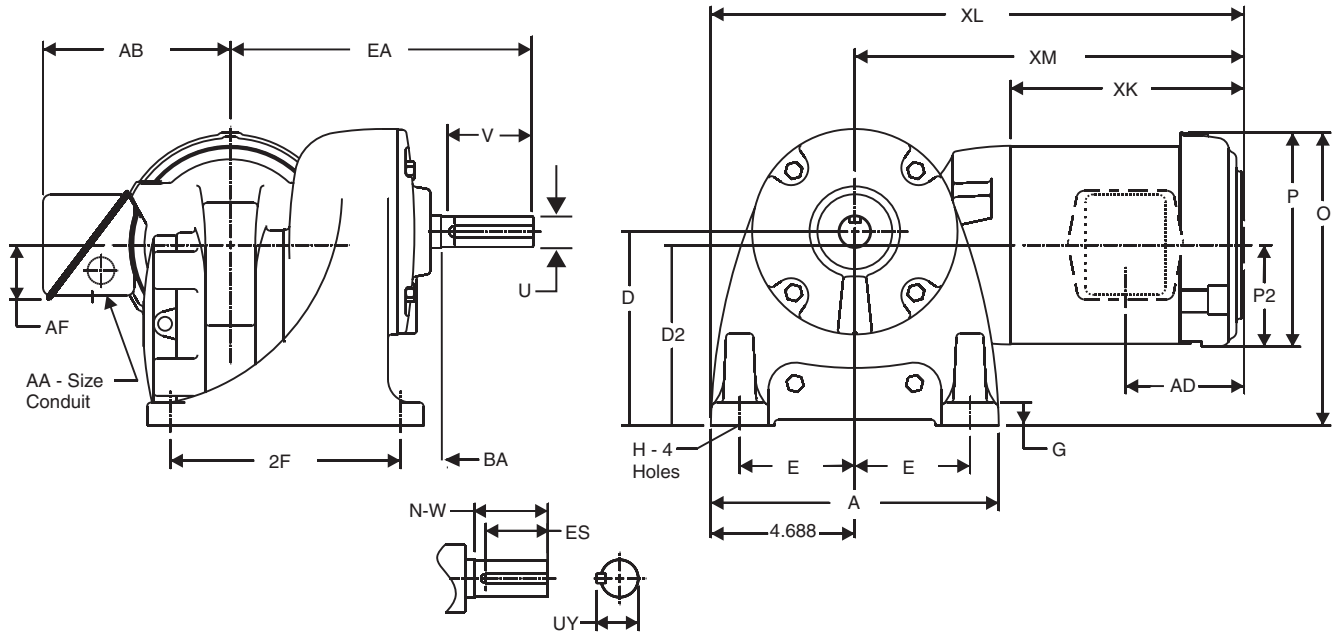
All rough casting dimensions may vary by 1/4" due to casting variations.

Shaft diameter tolerances: +.0000"; -.0005" up to 1 1/2" diameter inclusive. Larger diameters: +.000"; -.001".

<sup>1</sup> See page E30-E32 for alternate motor enclosures and brakes.

### Overall dimensions

#### Worm-Helical (GWB)



Basic Frame	A	D	D2	E	2F	G	H	N-W	U	V Min.	BA	ES	UY	Sq. Key
6	9 3/8	6 5/16	5 7/8	3 3/4	7 1/2	3/4	9/16	3	1 1/2	2 29/32	1 3/8	2 1/2	1 21/32	3/8

Frame	Motor Type <sup>1</sup>	hp	C	XL	XM	XK	P	P2	AB	EA	AA	O	AD	AF
56-6	T	Any	15.96	17.20	12.51	7.72	7.22	3.31	6.10	10.03	0.75	9.79	3.30	0.94
B56-6	T	Any	15.96	18.45	13.76	8.97	7.22	3.31	6.10	10.03	0.75	9.79	3.30	0.94
143T, 145T	T	Any	15.96	18.45	13.76	8.97	7.22	3.31	6.10	10.03	0.75	9.79	3.30	0.94

Dimension "D" is the maximum value, but may be less than values shown. When exact dimensions are required, shims up to 1/16" may be necessary.

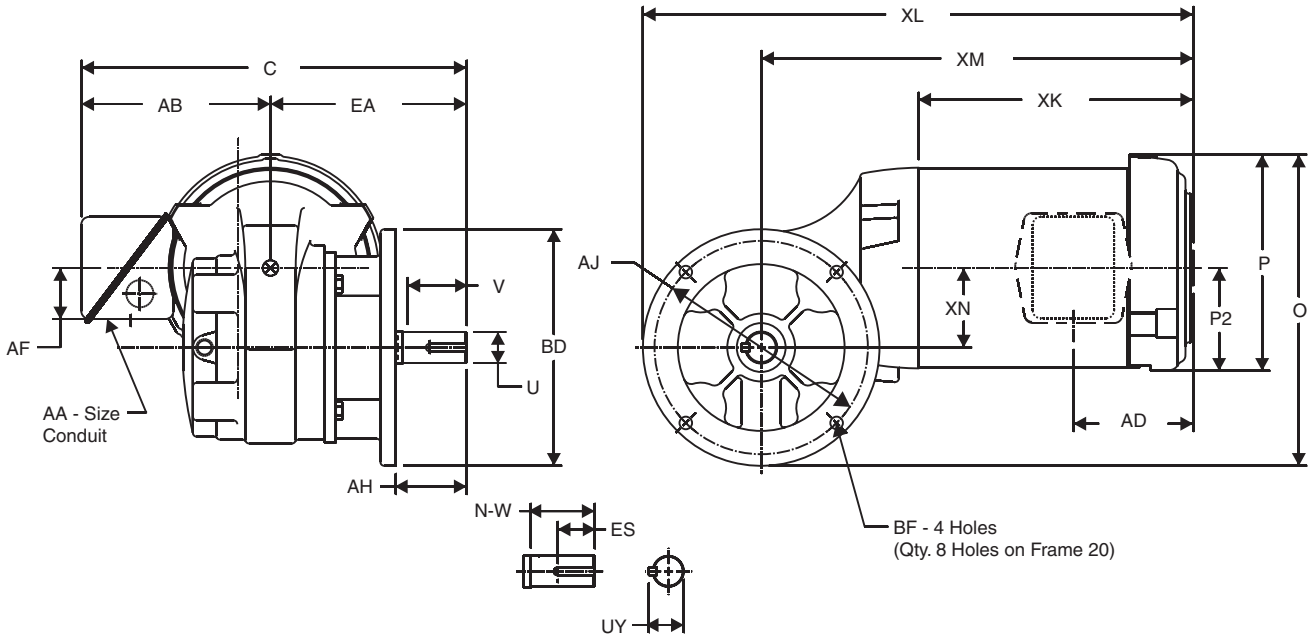
Shaft diameter tolerances: +.0000"; -.0005" up to 1-1/2" diameter inclusive. Larger diameters: +.000"; -.001".

All rough casting dimensions may vary by 1/4" due to casting variations.

<sup>1</sup> See page E30 to E32 for alternate motor enclosures and brakes.

### Overall dimensions

#### Worm (GW)



Basic Frame	AJ	BD	AH	XN	BF	N-W	U	V Min.	ES	UY	Sq. Key
6	6.88	7.63	2.00	2.56	0.406	2.08	1.00	2.00	1.19	1.114	0.25
20	8.50	10.00	3.06	3.75	0.560	3.25	1.63	2.94	2.34	1.796	0.38

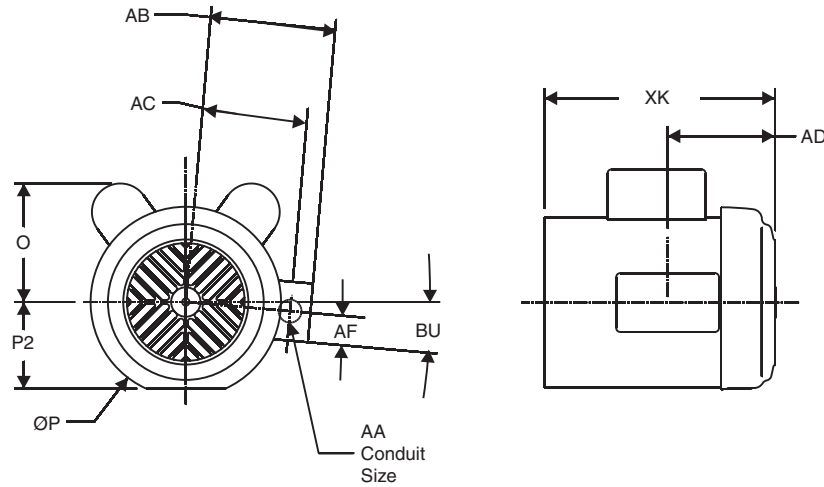
Frame	Motor Type <sup>1</sup>	hp	C	XL	XM	XK	P	P2	AB	EA	AA	O	AD	AF
56-6	T	Any	12.11	15.83	12.80	7.72	7.22	3.31	6.10	6.01	0.75	9.98	3.30	0.94
143T, 145T-6	T	Any	12.11	17.08	14.05	8.97	7.22	3.31	6.10	6.01	0.75	9.98	3.30	0.94
145TY-6	T	Any	12.11	17.97	14.94	9.86	7.22	3.31	6.10	6.01	0.75	9.98	3.30	0.94
143T, 145T-20	T	Any	15.59	20.15	15.15	8.97	7.22	3.31	6.10	9.49	0.75	12.36	3.30	0.94
145TY-20	T	Any	15.59	21.04	16.04	9.86	7.22	3.31	6.10	9.49	0.75	12.36	3.30	0.94
182T, 184T-20	T	Any	17.01	23.07	18.07	11.89	11.89	4.39	7.52	9.49	0.75	13.53	5.13	2.13

All rough casting dimensions may vary by 1/4" due to casting variations.  
 Shaft diameter tolerances: +.0000"; -.0005" up to 1 1/2" diameter inclusive. Larger diameters: +.000"; -.001".

<sup>1</sup> See page E30 to E32 for alternate motor enclosures and brakes.

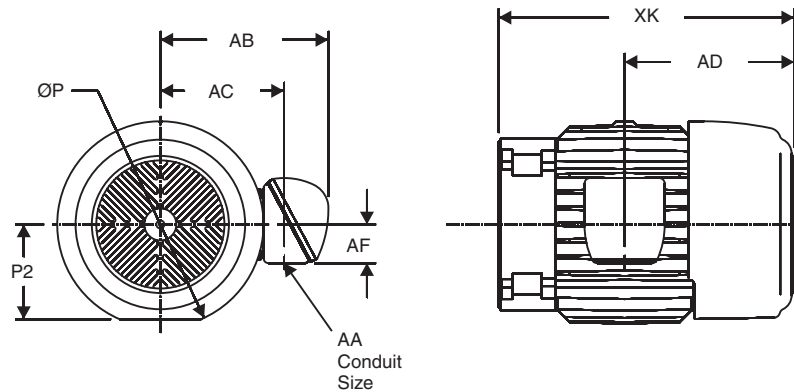
### Alternate Motor Dimensions

#### Single Phase



Motor Frame	HP	O	P	P2	AA	AB	AC	AD	AF	BU	XK
48	1/3, 1/2	4.40	6.72	2.79	1/2	4.72	3.79	5.29	1.13	N/A	8.03
	3/4, 1	3.87	6.72	2.79	1/2	4.34	3.55	5.29	1.16	10°	9.03
56	1/3, 1/2	4.78	7.28	3.31	3/4	4.78	4.00	4.14	1.13	N/A	7.34
	3/4	4.78	7.28	3.31	3/4	4.78	4.00	4.14	1.13	N/A	8.84
143T	1	5.09	7.28	3.31	3/4	4.78	4.00	4.14	1.13	N/A	8.84
145TY	1 1/2, 2	4.53	7.28	3.31	3/4	4.78	3.83	4.14	1.13	5°	10.34
184T	3, 5	5.11	9.56	4.39	3/4	8.58	6.45	7.14	3.09	N/A	14.33

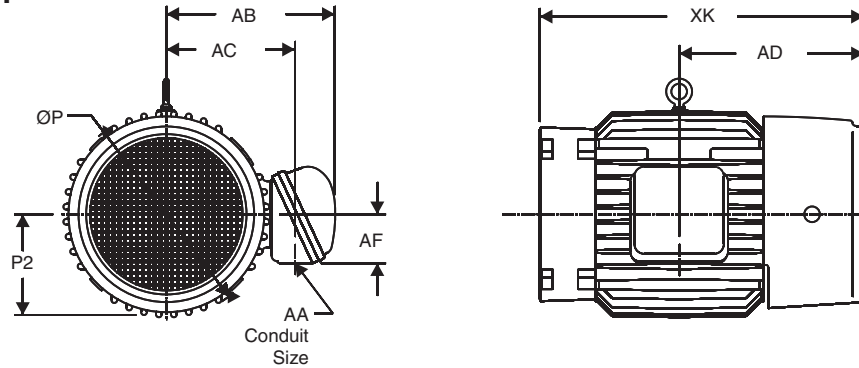
#### CorroDuty®



Motor Frame	P	P2	AA	AB	AC	AD	AF	XK
56	7.41	3.44	3/4	6.50	4.59	3.72	1.25	8.03
143T, 145T	7.41	3.44	3/4	6.50	4.59	3.72	1.25	9.03
182T, 184T	9.50	4.56	3/4	7.74	5.69	7.81	1.78	13.76

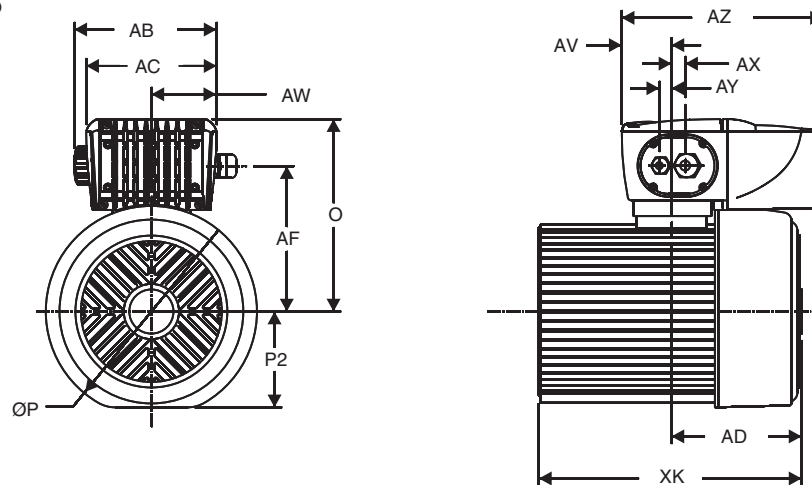
### Alternate Motor Dimensions

#### Explosion Proof



Motor Frame	P	P2	AA	AB	AC	AD	AF	XK
56	7.88	3.38	3/4	6.79	5.31	4.37	1.78	10.97
143T, 145T	7.88	3.38	3/4	6.79	5.31	4.37	1.78	11.72
182T, 184T	9.50	4.56	3/4	7.70	5.79	7.75	2.25	13.69

#### IntelliGear Plus®



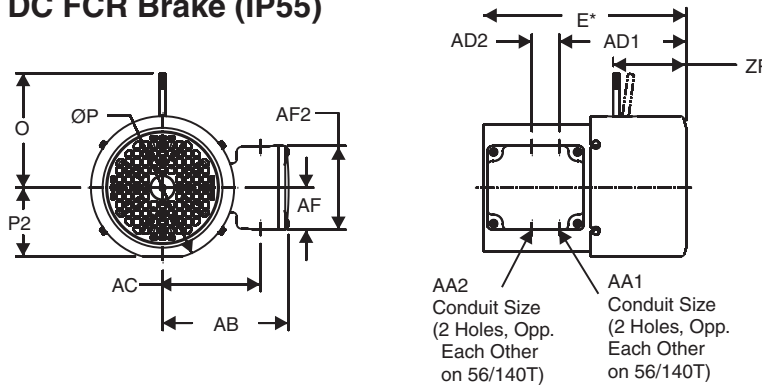
Motor Frame	Controller	O	P	P2	AB	AC	AD	AF	AV	AW	AX	AY	AZ	XK
56	1, 1M	7.74	7.33	3.67	6.45	5.91	4.35	5.61	2.25	2.95	0.62	0.55	8.53	7.72
143T, 145T	1, 1M	7.74	7.33	3.67	6.45	5.91	4.35	5.61	2.25	2.95	0.62	0.55	8.53	8.97
56	2M	7.74	7.33	3.67	6.45	5.91	4.35	5.61	2.25	2.95	0.62	0.55	9.12	7.72
145T	2, 2M	7.74	7.33	3.67	6.45	5.91	4.35	5.61	2.25	2.95	0.62	0.55	9.12	8.97
182T, 184T	2	8.72	9.56	4.78	6.45	5.91	5.89	6.58	2.25	2.95	0.62	0.55	9.12	11.89
	3	11.16	9.56	4.78	8.97	8.44	10.01	7.37	2.83	4.22	0.62	0.55	13.10	11.89

Input Power Phase/Voltage	Motor HP @ Max. Hz				
	0.33 to 0.50	0.75	1	1.5 to 2	3 to 5
1/115	1M	2M	-	-	-
1/230	1M	1M	1M	2M	-
3/230	1	1	1	2	3
3/460	1	1	1	1	2



### Dimensional Supplement

#### DC FCR Brake (IP55)



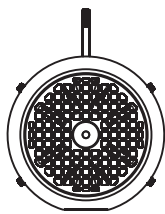
Motor Frame	E*	O	P	AA1	
				Size	Qty
56-143/145T	2.63	5.80	7.24	3/4 NPT	2
182/184T	1.95	7.30	9.23	3/4 NPT	1

Motor Frame	AA2		AB	AC	AD1
	Size	Qty			
56-143/145T	1/2 NPT	2	6.38	4.94	6.43
182/184T	3/4 NPT	1	7.80	6.14	8.84

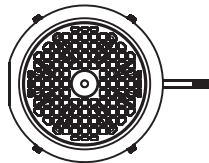
Motor Frame	AD2	AF	AF2	P2	ZP
56-143/145T	1.38	2.13	4.25	3.46	3.54
182/184T	1.81	2.32	4.65	N/A	4.41

\* Add "E" to XK, XM or XL of equivalent three phase frame motor.

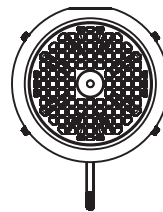
#### Manual Release Lever Position



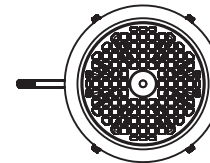
12 o'clock  
(standard)



3 o'clock

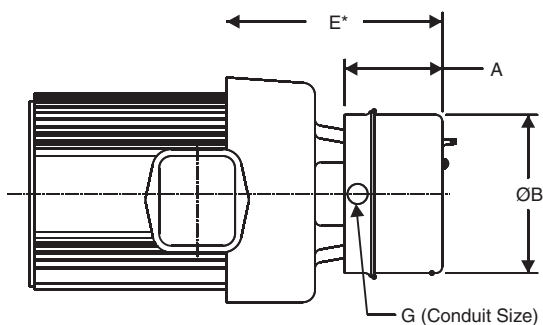


6 o'clock



9 o'clock

#### AC Brake (Open)



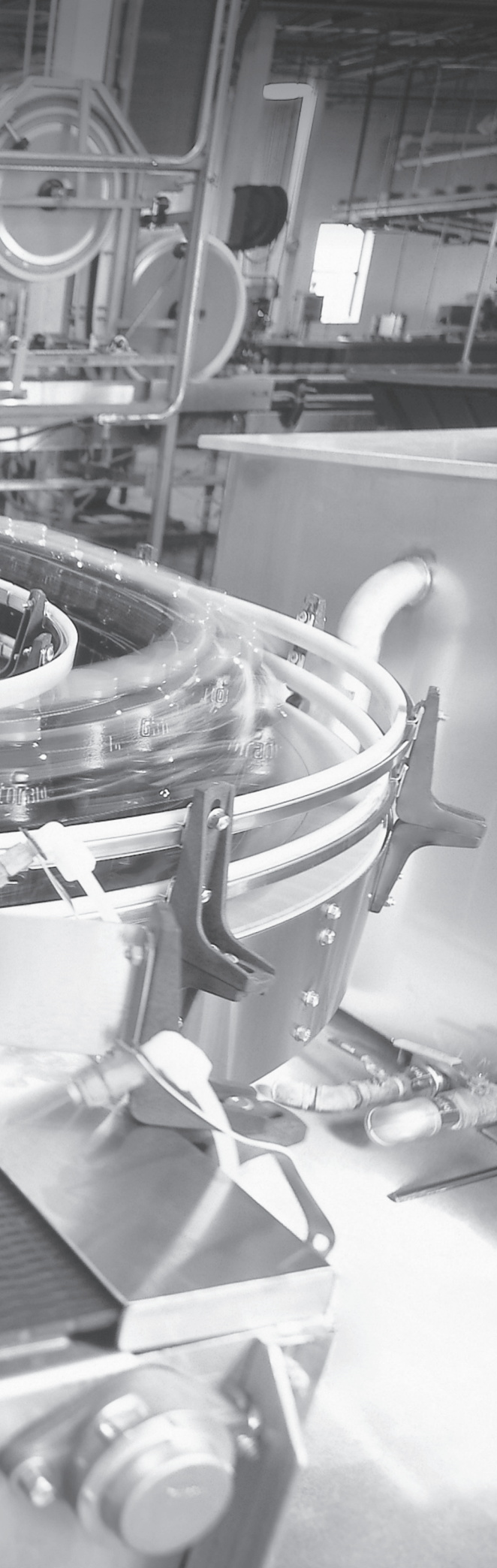
Motor Type	Motor Frame	Brake Torque (ft. lbs.)	A	B	E*	G
S	56	3	4.01	6.54	4.56	1/2
		6	4.01	6.54	4.56	1/2
	143T/145T 145TY	3	4.01	6.54	4.56	1/2
		6	4.01	6.54	4.56	1/2
	184T	10	4.01	6.54	4.56	1/2
		15	4.01	6.54	4.56	1/2

\* Dimension "E" represents the additional length of motor with brake mounted. Add this amount to the gearmotor XK, XM or XL of equivalent three phase frame motor.





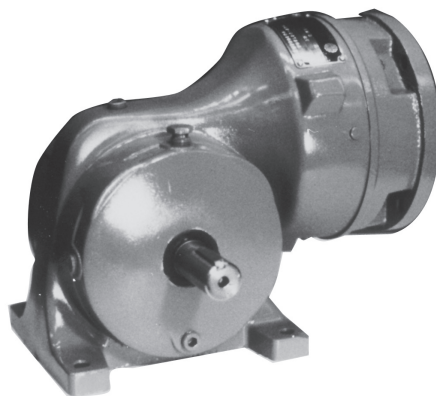




# Browning®

## IRA Worm and Helical Reducers

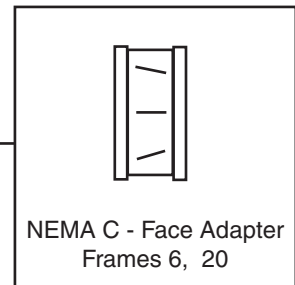
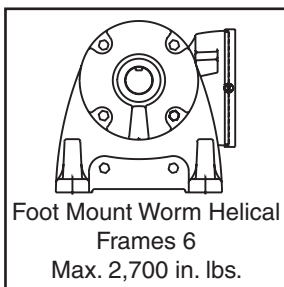
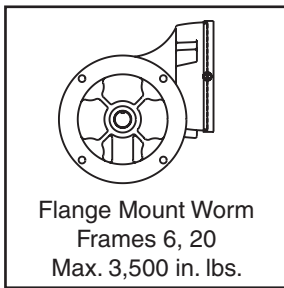
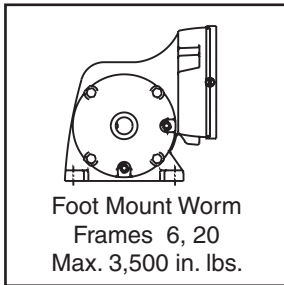
These right-angle gear reducers offer a standard NEMA C-Face alternative to the IRA gearmotor products. Where an application requires a DC or another type motor not available as an IRA gearmotor, this C-Face reducer may be used with the same mounting. The flexible IRA gear reducers are available in a foot mount configuration with worm or worm-helical gearing or as a flange mount worm gear.



IRA  
Reducers

- Forged "LMS" bronze worm wheel provides extra strength and life.
- Roller bearings on output shaft provide ample rating for high overhung load.
- Factory filled with oil.
- Two double lipped oil seals at input and output shafts.

### IRA Reducers

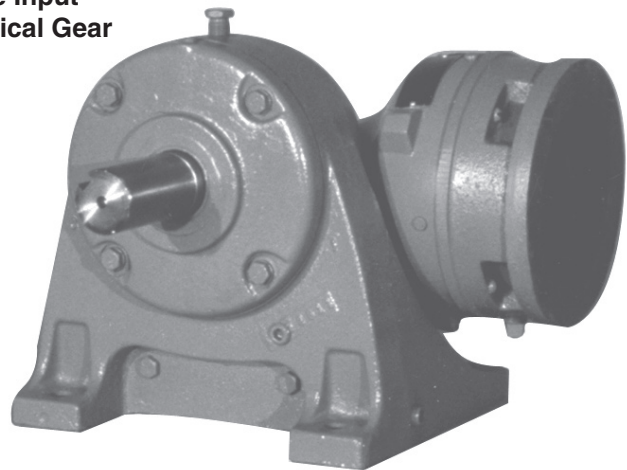


### Type IRA

"C" Face Input Worm Gear



"C" Face Input  
Worm - Helical Gear





## Selection Information

- 1. Required Output Torque**
  - Based on application data.
- 2. Speed / Ratio**
  - Obtain either desired output speed (rpm) or gearbox ratio based on application.
- 3. Service Factor**
  - Determine the required service factor using either the AGMA Application Classification chart (pages E40 to E42), or the duration of operation, load type, and motor type with the table below.

Prime Mover	Duration Of Service	Nature of Load From Driven Machine		
		Uniform	Mod. Shock	Heavy Shock
Electric Motor	Occasional 1/2 hour per day	0.80	0.90	1.00
	Intermittent 2 hours per day	0.90	1.00	1.25
	10 hours per day	1.00	1.25	1.50
	24 hours per day	1.25	1.50	1.75

The following service factors apply to applications involving frequent starts and stops.

Electric Motor	Occasional 1/2 hour per day	0.90	1.00	1.25
	Intermittent 2 hours per day	1.00	1.25	1.50
	10 hours per day	1.25	1.50	1.75
	24 hours per day	1.50	1.75	2.00

## Size Selection

- Step 1**
  - Locate speed reducer selection tables (pages E44 to E47) based on input speed to gearbox.
- Step 2**
  - Choose the nominal ratio appropriate for the speeds required.
- Step 3 Calculate Equivalent Load**
  - Determine the service factored horsepower or output torque needed to drive the load. (equivalent brake horsepower)

Brake Horsepower x service factor = Equivalent BHP (Horsepower at load)

Output torque x service factor = Equivalent output torque

### Step 4 Size Reducer from Rating Tables

- Size reducer or gearmotor from rating tables using the equivalent BHP or output torque and output speed.

### Step 5 Selecting the Motor

- To select the proper motor horsepower, the reducer efficiency needs to be calculated for the reducer at the rating selected.

$$\text{HP motor} = \frac{\text{Torque output} \times \text{rpm output}}{63025 \times \text{efficiency}} \quad \text{or} \quad \text{hp motor} = \frac{\text{hp output}}{\text{efficiency}}$$

$$\text{Efficiency} = \frac{\text{Max. Output Torque} \times \text{Output rpm}}{\text{Max. Input hp} \times 63025} \times 100\%$$

### Step 6

- Verify thermal limitations.

### Step 7

- Verify overhung load ratings where required (E-37).

## Example

### 1. Application Data:

Uniformly loaded conveyor, 24 hrs./day operation. Right angle hollow base speed reducer directly coupled to head pulley. Customer prefers C-Face motors.

**Motor Rating:** TEFC, 230/460V 1 hp, 1750 rpm, 143TC frame footless

**Output Speed:** 56 rpm

### 2. Size Selection

**56 RPM REQUIRED OUTPUT**

**EQUALS 31.5:1 RATIO**

**PM • SF = P**

**1 HP • 1.25 = 1.25 HP**

**6 GW (1.3 HP) > 1.25**

**SELECT IRA 6 GW (1.3 HP) > 1.25**

31.0	6 GW(V)
EXAMPLE	
1.3	1244

### 3. Catalog Designation (see "Ordering" page E-38)

**IRA • 6 • GW • F1 • 25 • U • 143TC**

## Type IRA

### Overhung Load

When a sprocket, sheave, pulley, or pinion is mounted on the take-off shaft of a reducer, it is necessary to calculate the overhung load. This calculated load must be compared with the gearbox capacity listed to make sure the gearbox will not be overloaded. To calculate the overhung load you need to know the torque or horsepower at the take-off shaft and the location along the shaft at which the load is applied.

A. If torque is known:

$$OHL = \frac{T \times K \times LLF}{r}$$

B. If horsepower is known:

$$OHL = \frac{63025 \times hp \times K \times LLF}{rpm \times r}$$

Where:

OHL = Overhung load (pounds)

T = Torque (in. lbs.)

r = Radius of driving member (in.)

hp = Horsepower

K = Drive type factor

LLF = Load location factor

Driving Member	Value of K
Chain Drive	1.00
Pinion	1.25
Gearbelt	1.25
V-Belt	1.50
Flat Belt	2.50

Load Location	Value of LLF
End of shaft extension	1.20
Center of shaft extension	1.00
Shaft extension shoulder	0.80

Output Speed rpm	Overhung Load (In Pounds) by Frame and Type		
	6 GW, GWV	6 GWB	20 GW, GWV
230	696	-	-
190	738	-	2743
155	804	-	2800
125	832	-	2850
100	942	745	2850
84	980	753	2850
68	980	827	2850
56	980	816	2850
45	980	894	2850
37	980	913	2850
30	980	883	2850
25	980	1097	2850
20	980	1228	2850
16.5	980	1234	2850
11	980	1234	2850
9	980	1234	2850
7.5	980	1234	2850

## Catalog Designation

**IRA • 6 • GW • F1 • 25 • U • 143TC •**

Based on Selection

Choose one of each

Based on Application

Type	Gear Frame	Mounting Configuration	Mounting Positions	Ratio	Input	Motor Frame	Modification Code(s)
IRA	6 20	GW = Foot Mounted GWV = Flanged Worm GWB = Footed Worm-Helical (Frame 6 Only)	See page E-193	Use Nominal Ratio Selected	U* = C-Face *Must specify NEMA Frame Size	Req'd on U	Number of Modification(s) From Page E-49

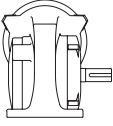
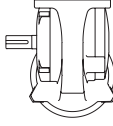
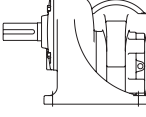
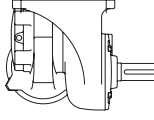
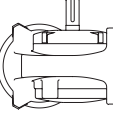
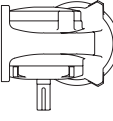
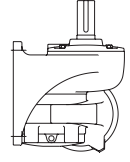
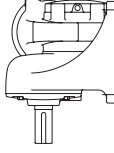
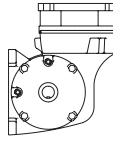
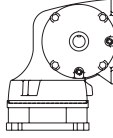
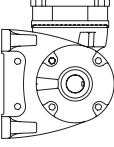
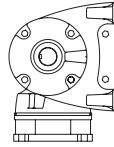
## Availability

Gear Frame	Footed		Flanged
	Universal #1	Universal #2	Universal #1
6 GW (worm)	●	◇	●
6 GWB (worm helical)	●	●	*
20 GW (worm)	●	◇	●

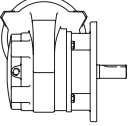
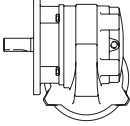
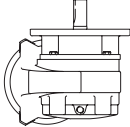
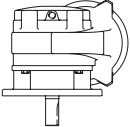
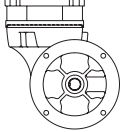
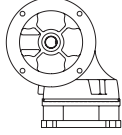
Normally Stocked

- ◇ Available thru conversion of stock unit  
Refer application to Type HWN product

### Foot Mount Worm and Worm - Helical

Universal No. 1		Universal No. 2	
F1 	C1 	F2 	C4 
U3 	D1 	U1 	D3 
W8 	W1 	W7 	W2 

### Flange Mount Worm

Universal No. 1	
W3 	W6 
U1 	D1 
W8 	W1 

Application	Recommended Service Factors			Application	Recommended Service Factors		
	Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day		Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day
<b>AGITATORS (Mixers)</b>				<b>CRANES (cont.)</b>			
Pure Liquids	---	1.00	1.25	Industrial Duty			
Liquids & Solids	1.00	1.25	1.50	Main	1.00	1.25	1.50
Liquids - Variable Density	1.00	1.25	1.50	Auxiliary	u	u	u
				Bridge and Trolley Travel	u	u	u
<b>BLOWERS</b>				<b>CRUSHER</b>			
Centrifugal	1.00	1.25	---	Stone or Ore	1.50	1.75	2.00
Lobe	1.00	1.25	1.50				
Vane	---	1.00	1.25	<b>DREDGES</b>			
<b>BREWING &amp; DISTILLING</b>				Cable Reels	1.00	1.25	1.50
Bottling Machinery	---	1.00	1.25	Conveyors	1.00	1.25	1.50
Brew Kettles (Continuous Duty)	---	1.00	1.25	Cutter Head Drives	1.25	1.50	1.75
Cookers (Continuous Duty)	---	1.00	1.25	Pumps	1.00	1.25	1.50
Mush Tubs (Continuous Duty)	---	1.00	1.25	Screen Drives	1.25	1.50	1.75
Scale Hopper (Frequent Starts)	1.00	1.25	1.50	Stackers	1.00	1.25	1.50
				Winches	1.00	1.25	1.50
<b>CAN FILLING MACHINES</b>	---	1.00	1.25	<b>ELEVATORS</b>			
<b>CAR DUMPERS</b>	1.25	1.50	1.75	Bucket	1.00	1.25	1.50
CAR PULLERS	1.00	1.25	1.50	Centrifugal Discharge	---	1.00	1.25
<b>CLARIFIERS</b>	---	1.00	1.25	Escalators	u	u	u
<b>CLASSIFIERS</b>	1.00	1.25	1.50	Freight	u	u	u
<b>CLAY WORKING MACHINERY</b>				Gravity Discharge	---	1.00	1.25
Brick Press	1.25	1.50	1.75	<b>EXTRUDERS</b>			
Briquette Machine	1.25	1.50	1.75	General	1.25	1.25	1.25
Pug Mill	1.00	1.25	1.50	Plastics			
				(a) Variable Speed Drive	1.50	1.50	1.50
<b>COMPACTORS</b>	1.50	1.75	2.00	(b) Fixed Speed Drive	1.75	1.75	1.75
<b>COMPRESSORS</b>				Rubber			
Centrifugal	---	1.00	1.25	(a) Continuous Screw Operation	1.50	1.50	1.50
Lobe	1.00	1.25	1.50	(b) Intermittent Screw Operation	1.75	1.75	1.75
Reciprocating, Multi - Cylinder	1.00	1.25	1.50	<b>FANS</b>			
Reciprocating, Single - Cylinder	1.25	1.50	1.75	Centrifugal	---	1.00	1.25
<b>CONVEYORS - GENERAL PURPOSE</b>				Cooling Towers	u	u	u
Uniformly loaded or fed	---	1.00	1.25	Forced Draft	1.25	1.25	1.25
Not uniformly fed	1.00	1.25	1.50	Induced Draft	1.00	1.25	1.50
Reciprocating or Shaker	1.25	1.50	1.75	Industrial & Mine	1.00	1.25	1.50
<b>CRANES</b>				<b>FEEDERS</b>			
Dry Dock				Apron	---	1.25	1.50
Main Hoist	1.25	1.50	1.75	Belt	1.00	1.25	1.50
Auxiliary Hoist	1.25	1.50	1.75	Disc	---	1.00	1.25
Boom Hoist	1.25	1.50	1.75	Reciprocating	1.25	1.50	1.75
Slewing Drive	1.25	1.50	1.75	Screw	1.00	1.25	1.50
Traction Drive	1.50	1.50	1.50	<b>FOOD INDUSTRY</b>			
Container				Cereal Cooker	---	1.00	1.25
Main Hoist	u	u	u	Dough Mixer	1.00	1.25	1.50
Boom Hoist	u	u	u	Meat Grinders	1.00	1.25	1.50
Trolley Travel				Slicers	1.00	1.25	1.50
Gantry Drive	u	u	u	<b>GENERATORS &amp; EXCITERS</b>	---	1.00	1.25
Traction Drive	u	u	u	<b>HAMMER MILLS</b>	1.50	1.50	1.75
Mill Duty				<b>HOISTS</b>			
Main Hoist	u	u	u	Heavy Duty	1.25	1.50	1.75
Auxiliary	u	u	u	Medium Duty	1.00	1.25	1.50
Bridge and Trolley Travel	u	u	u	Skip Hoist	1.00	1.25	1.50

u Refer to Application Engineering (1 800 626 2093).





Application	Recommended Service Factors			Application	Recommended Service Factors		
	Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day		Up to 3 hrs/day	3-10 hrs/day	Over 10 hrs/day
<b>PLASTICS INDUSTRY - SECONDARY PROCESSING (Cont.)</b>				<b>SEWAGE DISPOSAL EQUIPMENT</b>			
Pre-Plasticizers	1.50	1.50	1.50	Bar Screens	---	1.00	1.25
Rods	1.25	1.25	1.25	Chemical Feeders	---	1.00	1.25
Sheets	1.25	1.25	1.25	Dewatering Screens	1.00	1.25	1.50
Tubing	1.25	1.25	1.50	Scum Breakers	1.00	1.25	1.50
<b>PULLERS - BARGE HAUL</b>	1.00	1.50	1.75	Slow or Rapid Mixers	1.00	1.25	1.50
<b>PUMPS</b>				Sludge Collectors	1.00	1.00	1.25
Centrifugal	---	1.00	1.25	Thickeners	1.00	1.25	1.50
Proportioning	1.00	1.25	1.50	Vacuum Filters	1.00	1.25	1.50
Reciprocating				<b>SCREENS</b>			
Single Acting, 3 or more cylinders	1.00	1.25	1.50	Air Washing	---	1.00	1.25
Double Acting, 2 or more cylinders	1.00	1.25	1.50	Rotary - Stone or Gravel	1.00	1.25	1.50
Rotary - Gear Type	---	1.00	1.50	Traveling Water Intake	---	1.00	1.25
- Lobe Type	---	1.00	1.25	<b>SUGAR INDUSTRY</b>			
- Vane	---	1.00	1.25	Beet Slicer	1.50	1.50	1.75
<b>RUBBER INDUSTRY</b>				Cane Knives	1.50	1.50	1.50
Intensive Internal Mixers				Crushers	1.50	1.50	1.50
(a) Batch Mixers	1.50	1.75	1.75	Mills (Low Speed End)	1.50	1.50	1.50
(b) Continuous Mixers	1.25	1.50	1.50	<b>TEXTILE INDUSTRY</b>			
Mixing Mill -				Batchers	1.00	1.25	1.50
2 Smooth Rolls (if corrugated				Calenders	1.00	1.25	1.50
rolls are used, than the same				Cards	1.00	1.25	1.50
service factors that are used for				Dry Cans	1.00	1.25	1.50
a Cracker Warmer)	1.50	1.50	1.50	Dryers	1.00	1.25	1.50
Batch Drop Mill - 2 Smooth Rolls	1.50	1.50	1.50	Dyeing Machinery	1.00	1.25	1.50
Cracker Warmer - 2 Rolls;				Looms	1.00	1.25	1.50
1 corrugated roll	1.75	1.75	1.75	Mangles	1.00	1.25	1.50
Cracker - 2 corrugated rolls	1.75	1.75	1.75	Nappers	1.00	1.25	1.50
Holding, Feed & Blend Mill - 2 Rolls	1.25	1.25	1.25	Pads	1.00	1.25	1.50
Refiner - 2 Rolls	1.50	1.50	1.50	Slashers	1.00	1.25	1.50
Calenders	1.50	1.50	1.50	Soapers	1.00	1.25	1.50
<b>SAND MILLER</b>	1.00	1.25	1.50	Spinners	1.00	1.25	1.50
				Tenter Frames	1.00	1.25	1.50
				Washers	1.00	1.25	1.50
				Winders	1.00	1.25	1.50

Applications not listed in this table or where the user has data indicating the severity of his usage to be greater than average should be referred to Application Engineering (1 800 626 2093).

## Type IRA

The IRA gearbox is filled at the factory with oil according to the mounting position specified when ordered. The oil used depends on the order description at entry. Non-washdown units are filled with an AGMA 8 mineral oil. Washdown units will be filled with a synthetic 460 series lubricant classified as a Polyglycol (PAG) oil.

In the event that a gearbox needs to be refilled, see the appropriate maintenance manual for the proper procedure and correct quantity of oil. If synthetic oil is used, the gearbox must be refilled with the same lubricant or must be completely drained and flushed.

### Mineral Oils

Ambient Temperature	15 to 60 F	50 to 125 F
ISO Grade	460	680
AGMA	7	8

### Synthetic Oils

Ambient Temperature	-30 to 200 F	-30 to 200 F
ISO Grade	460	680
AGMA	7	8

## Type IRA

**Motor  
rpm  
1750**

Exact ratio rpm, hp and Torque: IRA reducers

Output speed (rpm)	Reduction ratio	6 GW(V)		6 GWB		20 GW(V)	
230	7.1	7.5	6 GW(V)				
		3.63	888				
190	9	9.0	6 GW(V)			10.0	20 GW(V)
		3.42	996			9.4	3082
155	11.2	11.25	6 GW(V)				
		2.79	994				
125	14	14.0	6 GW(V)			15.0	20 GW(V)
		2.37	1026			7.0	3316
100	18	17.6	6 GW(V)	17.0	6 GWB	18.0	20 GW(V)
		1.99	1056	3.63	1969	6.0	3418
84	20	21.0	6 GW(V)	20.3	6 GWB	20.0	20 GW(V)
		1.77	1083	3.42	2212	5.6	3459
68	25	26.0	6 GW(V)	25.4	6GWB	25.0	20 GW(V)
		1.50	1076	2.79	2199	4.6	3411
56	31.5	31.0	6 GW(V)	31.0	6GWB	30.0	20 GW(V)
		1.30	1244	2.36	2317	4.0	3469
45	40	39.0	6 GW(V)	36.6	6GWB	40.0	20 GW(V)
		1.09	1067	2.01	2332	3.1	3368
37	45	47.0	6 GW(V)	45.8	6GWB	50.0	20 GW(V)
		0.94	1041	1.65	2297	2.5	3232
30	56	58.0	6 GW(V)	57.0	6GWB	60.0	20 GW(V)
		0.78	981	1.38	2307	2.1	3112
25	71	70.0	6 GW(V)	71.9	6GWB		
		0.64	889	1.14	2316		
20	90	87.0	6 GW(V)	85.5	6GWB		
		0.50	726	1.00	2365		
16.5	112			106.0	6GWB		
				0.84	2360		
13.5	125			126.0	6GWB		
				0.74	2358		
11.0	160			159.0	6GWB		
				0.64	2342		
9.0	200			191.0	6GWB		
				0.57	2407		
7.5	250			236.0	6GWB		
				0.50	2378		
6.0	280			285.0	6GWB		
				0.50	2684		
5.0	355			354.0	6GWB		
				0.41	2416		
4.0	450						
3.25	560						

If shaded, mechanical hp may exceed thermal hp limit.  
Refer to page E-48.

Exact Ratio	Size/Type
Max Input (hp)	Max. Output (in.lbs.)

## Type IRA

**Motor  
rpm  
1450**

Exact ratio rpm, hp and Torque: IRA reducers

Output speed (rpm)	Reduction ratio	6 GW(V)		6GWB	20 GW(V)		
193	7.1	7.5	6 GW(V)				
		3.33	979				
161	9	9.0	6 GW(V)		10.0	20 GW(V)	
		3.14	1098		8.68	3414	
132	11.2	11.25	6 GW(V)				
		2.56	1093				
104	14	14.0	6 GW(V)		15.0	20 GW(V)	
		2.17	1128		6.44	3674	
81	18	17.6	6 GW(V)	17.0	6GWB	18.0	20 GW(V)
		1.83	1156	3.33	2168	5.63	3781
69	20	21.0	6 GW(V)	20.3	6GWB	20.0	20 GW(V)
		1.63	1190	3.14	2431	5.22	3832
56	25	26.0	6 GW(V)	25.4	6GWB	25.0	20 GW(V)
		1.36	1182	2.56	2422	4.25	3773
47	31.5	31.0	6 GW(V)	31.0	6GWB	30.0	20 GW(V)
		1.20	1184	2.00	2327	3.72	3838
37	40	39.0	6 GW(V)	36.6	6GWB	40.0	20 GW(V)
		1.00	1173	1.74	2338	2.88	3723
31	45	47.0	6 GW(V)	45.8	6GWB	50.0	20 GW(V)
		0.87	1144	1.39	2305	2.43	3710
25	56	58.0	6 GW(V)	57.0	6GWB	60.0	20 GW(V)
		0.72	1079	1.16	2314	1.98	3439
21	71	70.0	6 GW(V)	71.9	6GWB		
		0.59	993	0.96	2323		
17	90	87.0	6 GW(V)	85.5	6GWB		
		0.44	798	0.85	2365		
14	112			106.0	6GWB		
				0.73	2386		
12	125			126.0	6GWB		
				0.66	2378		
9	160			159.0	6GWB		
				0.54	2347		
8	200			191.0	6GWB		
				0.49	2396		
6	250			236.0	6GWB		
				0.43	2405		
5	280			285.0	6GWB		
				0.38	2359		
4	355			354.0	6GWB		
				0.37	2457		
3	450						
1	560						

If shaded, mechanical hp may exceed thermal hp limit.  
Refer to page E-48.

Exact Ratio	Size/Type
Max Input (hp)	Max. Output (in.lbs.)

## Type IRA

**Motor  
rpm  
1160**

Exact ratio rpm, hp and Torque: IRA reducers

Output speed (rpm)	Reduction ratio	6 GW(V)		6GWB	20 GW(V)	
155	7.1	7.5	6 GW(V)			
		2.98	1090			
129	9	9.0	6 GW(V)		10.0	20 GW(V)
		2.81	1220		7.9	3845
105	11.2	11.25	6 GW(V)			
		2.29	1212			
83	14	14.0	6 GW(V)		15.0	20 GW(V)
		1.94	1249		5.8	4128
64	18	17.6	6 GW(V)	17.0	6GWB	18.0
		1.64	1283	2.98	2420	5.0
55	20	21.0	6 GW(V)	20.3	6GWB	20.0
		1.46	1315	2.81	2698	4.7
45	25	26.0	6 GW(V)	25.4	6GWB	25.0
		1.22	1306	2.29	2681	3.9
37	31.5	31.0	6 GW(V)	31.0	6GWB	30.0
		1.07	1308	1.60	2336	3.4
30	40	39.0	6 GW(V)	36.6	6GWB	40.0
		0.90	1294	1.36	2344	2.6
25	45	47.0	6 GW(V)	45.8	6GWB	50.0
		0.78	1263	1.13	2315	2.2
20	56	58.0	6 GW(V)	57.0	6GWB	60.0
		0.65	1190	0.94	2323	1.8
17	71	70.0	6 GW(V)	71.9	6GWB	
		0.53	1078	0.78	2330	
13	90	87.0	6 GW(V)	85.5	6GWB	
		0.40	880	0.68	2364	
11	112			106.0	6GWB	
				0.59	2411	
9	125			126.0	6GWB	
				0.51	2397	
7	160			159.0	6GWB	
				0.44	2352	
6	200			191.0	6GWB	
				0.40	2385	
5	250			236.0	6GWB	
				0.35	2431	
4	280			285.0	6GWB	
				0.32	2363	
3.2	355			354.0	6GWB	
				0.30	2497	
2.6	450					
2	560					

If shaded, mechanical hp may exceed thermal hp limit. Refer to page E-48.

Exact Ratio	Size/Type
Max Input (hp)	Max. Output (in.lbs.)

## Type IRA

**Motor  
rpm  
870**

Exact ratio rpm, hp and Torque: IRA reducers

Output speed (rpm)	Reduction ratio	6 GW(V)	6GWB	20 GW(V)
117	7.1	7.5 2.52	6 GW(V) 1212	
97	9	9.0 2.37	6 GW(V) 1352	10.0 6.9
80	11.2	11.25 1.92	6 GW(V) 1337	
62	14	14.0 1.63	6 GW(V) 1374	15.0 5.1
49	18	17.6 .38	6 GW(V) 1409	17.0 2.52
42	20	21.0 1.23	6 GW(V) 1433	18.0 2.17
34	25	26.0 1.03	6 GW(V) 1432	20.0 1.79
28	31.5	31.0 0.91	6 GW(V) 1433	25.0 1.23
22	40	39.0 0.77	6 GW(V) 1418	30.0 1.05
19	45	47.0 0.67	6 GW(V) 1382	36.6 0.87
15	56	58.0 0.56	6 GW(V) 1303	45.8 0.72
12	71	70.0 0.46	6 GW(V) 1180	60.0 0.60
10	90	87.0 0.34	6 GW(V) 964	71.9 0.53
8	112			106.0 0.44
7	125			126.0 0.39
6	160			159.0 0.34
5	200			191.0 0.32
4	250			236.0 0.27
3	280			285.0 0.25
2.4	355			354.0 0.22
1.9	450			
1.6	560			

If shaded, mechanical hp may exceed thermal hp limit. Refer to page E-48.

Exact Ratio	Size/Type
Max Input (hp)	Max. Output (in.lbs.)



### Thermal Power Ratings (hp)

Motor  
rpm  
1750

Output (RPM)	Reduction Ratio	6 GW(V)	6 GWB	20 GW(V)
230	7.1	2.67	-	-
190	9	2.46	-	9.0
155	11.2	2.08	-	-
125	14	2.00	-	6.7
100	18	1.51	2.67	5.0
84	20	1.50	2.46	5.0
68	25	1.50	2.08	3.1
56	31.5	1.00	-	-
45	40	1.00	-	2.1
37	45	0.76	-	-
30	56	0.68	-	-
25	71	0.61	-	-
20	90	-	-	-

Motor  
rpm  
1450

Output (RPM)	Reduction Ratio	6 GW(V)	6 GWB	20 GW(V)
193	7.1	2.66	-	-
161	9	2.45	-	8.68
132	11.2	2.07	-	-
104	14	1.78	-	-
81	18	1.50	2.66	-
69	20	1.32	2.45	-
56	25	1.13	2.07	-
47	31.5	1.00	-	-
37	40	0.85	-	-
31	45	0.76	-	-
25	56	0.67	-	-

Motor  
rpm  
1160

Output (RPM)	Reduction Ratio	6 GW(V)	6 GWB	20 GW(V)
155	7.1	2.61	-	-
129	9	2.39	-	-
105	11.2	2.02	-	-
83	14	1.90	-	-
64	18	1.46	2.61	-
55	20	1.40	2.39	-
45	25	-	2.02	-
37	31.5	0.97	-	-
30	40	-	-	-
25	45	0.74	-	-

Motor  
rpm  
870

Output (RPM)	Reduction Ratio	6 GW(V)	6 GWB	20 GW(V)
117	7.1	2.49	-	-
97	9	2.28	-	-
80	11.2	1.93	-	-
49	18	-	2.49	-

## Gear Modifications

### G1 Food Grade Lubricant

When this modification is specified, the IRA gear sump will be filled with the required volume of a synthetic lubricant classified as a Polyglycol (PAG), 460 series that is approved for USDA H-1 food grade use.

### G2 Normally Closed Breather

For applications involving very dusty environments specify this breather design. The breather has a protected spring loaded valve construction opening only to relieve any pressure built up greater than 3 PSI and then closing.

### G3 Double Extended Output Shafts

Double end output shafts are available on single reduction type GW worm-only units.

### G4 Special Output Shafts

Special output shafts are available on all units. Refer applications to Gear Estimating office for pricing.

### G5 Special Nameplates

Units can be provided with limited additional special information on the standard product nameplate. When requested, a special nameplate may be provided, stamped with custom markings.

### G6 Low Ambient Temperature

Gearmotors can be supplied for low ambient down to -20F. Refer complete details of the applications to the Applications Department for review.

### G7 Washdown Duty Reducer

This reducer design combines special features required for washdown duty. These include: special "protected" gearcase breather design, tandem double lipped oil seals at any shaft extension, exterior surfaces of the reducer receive Corroduty Stainless Steel paint (option for epoxy white at no added cost).



If it is required that food grade lubricant be supplied, specify G1

### G8 Export Boxing

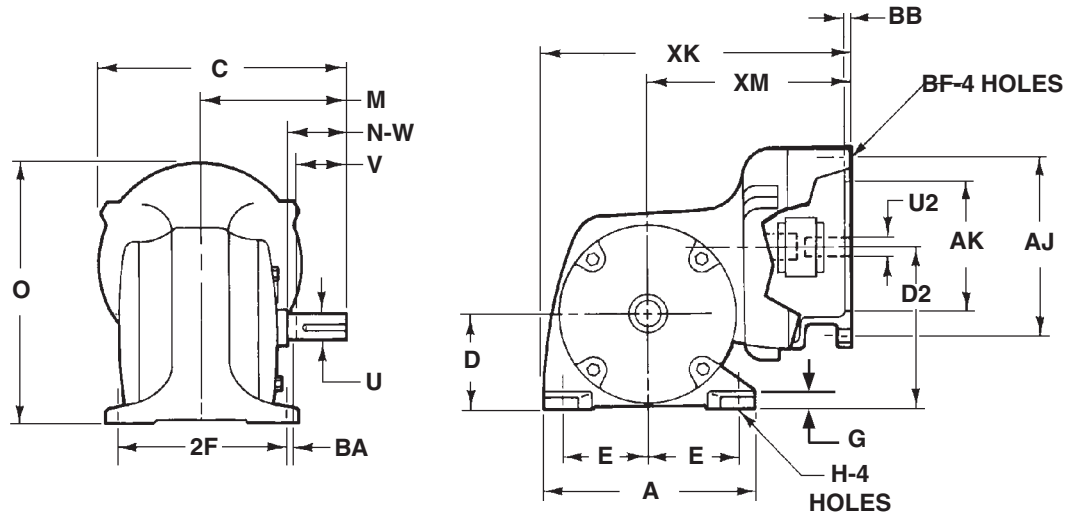
Export boxing can be provided for "underdeck" transport. When the quantity of IRA gearmotors exceeds five(5) units, refer to the International Sales department for most economical accommodations

### Type IRA

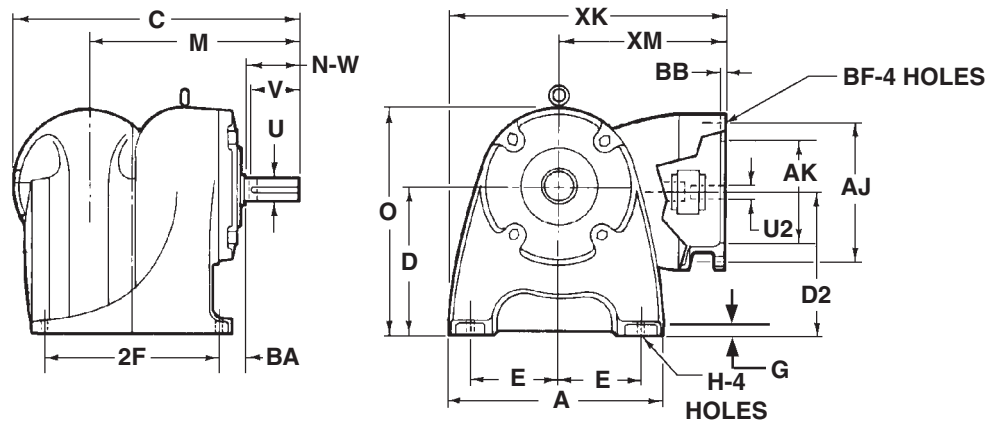
#### Overall dimensions

#### Standard F-1 Assembly

#### Worm (GW)



#### Worm-Helical (GWB)



GEAR FRAME	A	C	D	D2	E	2F	G	H	M	N-W	O	U	V MIN	BA	SQ. KEY
6 GW	7	8-7/32	3-1/4	5-13/32	3	5	5/8	13/32	5	2	9-3/32	1	1-15/16	7/16	1/4
6 GWB	9-3/8	13-11/32	6-5/16	5-7/8	3-3/4	7-1/2	3/4	9/16	10-1/32	3	9-11/16	1-1/2	2-7/8	1-3/8	3/8
20 GW	10-1/2	12-7/8	4-1/2	8-1/4	4-3/8	8	1	11/16	8-1/8	3-1/4	12-3/4	1-5/8	2-15/16	7/8	3/8

GEAR FRAME	MOTOR FRAME	XK	XM
6 GW	56C	12-13/16	9-5/16
6 GW	143TC-145TC	12-13/16	9-5/16
6 GWB	56C	14	9-5/16
6 GWB	143TC-145TC	14	9-5/16
20 GW	182TC-184TC	17-15/32	12-7/32

MOTOR FRAME	U2 +.001	AJ	AK	BB	BF	SQ KEY 2
56C	5/8	5-7/8	4-1/2	7/32	7/16	3/16
143TC-145TC	7/8	5 7/8	4 1/2	7/32	7/16	3/16
182TC-184TC	1 1/8	7 1/4	8 1/2	7/32	7/16	1/4

Dimension "D" is the maximum value, but may be less than values shown. When exact dimensions are required, shims up to 1/16" may be necessary.

All rough casting dimensions may vary by 1/4" due to casting variations.

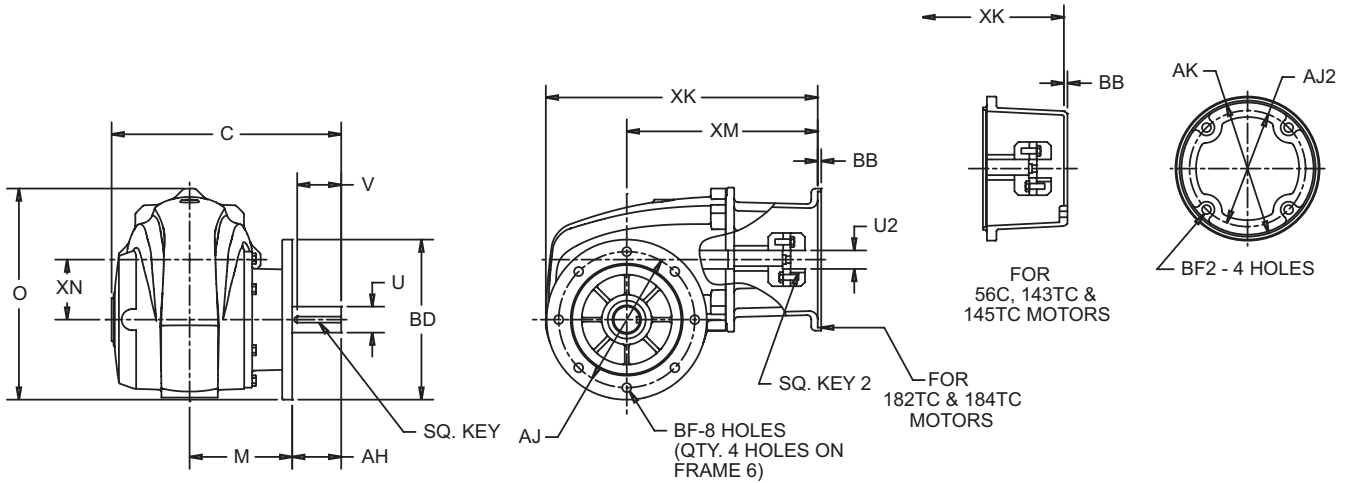
Shaft diameter tolerances: .0000"; -.0005" up to 1-1/2" diameter inclusive. Larger diameters: +.000"; -.001.

## Type IRA

### Overall dimensions

#### Standard W-3 Assembly

#### Worm (GW)



FRAME	C	M	U	V MIN	AH	AJ	BB	BD	BF	SQ KEY
6 GWV	9-9/32	4	1	2	2	6-7/8	7/32	7-5/8	13/32	1/4
20 GWV	14-3/8	6-7/16	1-5/8	2-15/16	3-1/16	8-1/2	7/32	10	9/16	3/8

MOTOR					
FRAME	FRAME	O	XK	XM	XN
6 GWV	56C	9-11/16	13-1/8	9-5/16	2-9/16
6 GWV	143TC-145TC	9-11/16	13-1/8	9-5/16	2-9/16
20 GWV	182TC-184TC	13-9/32	17-1/32	12-1/32	3-3/4

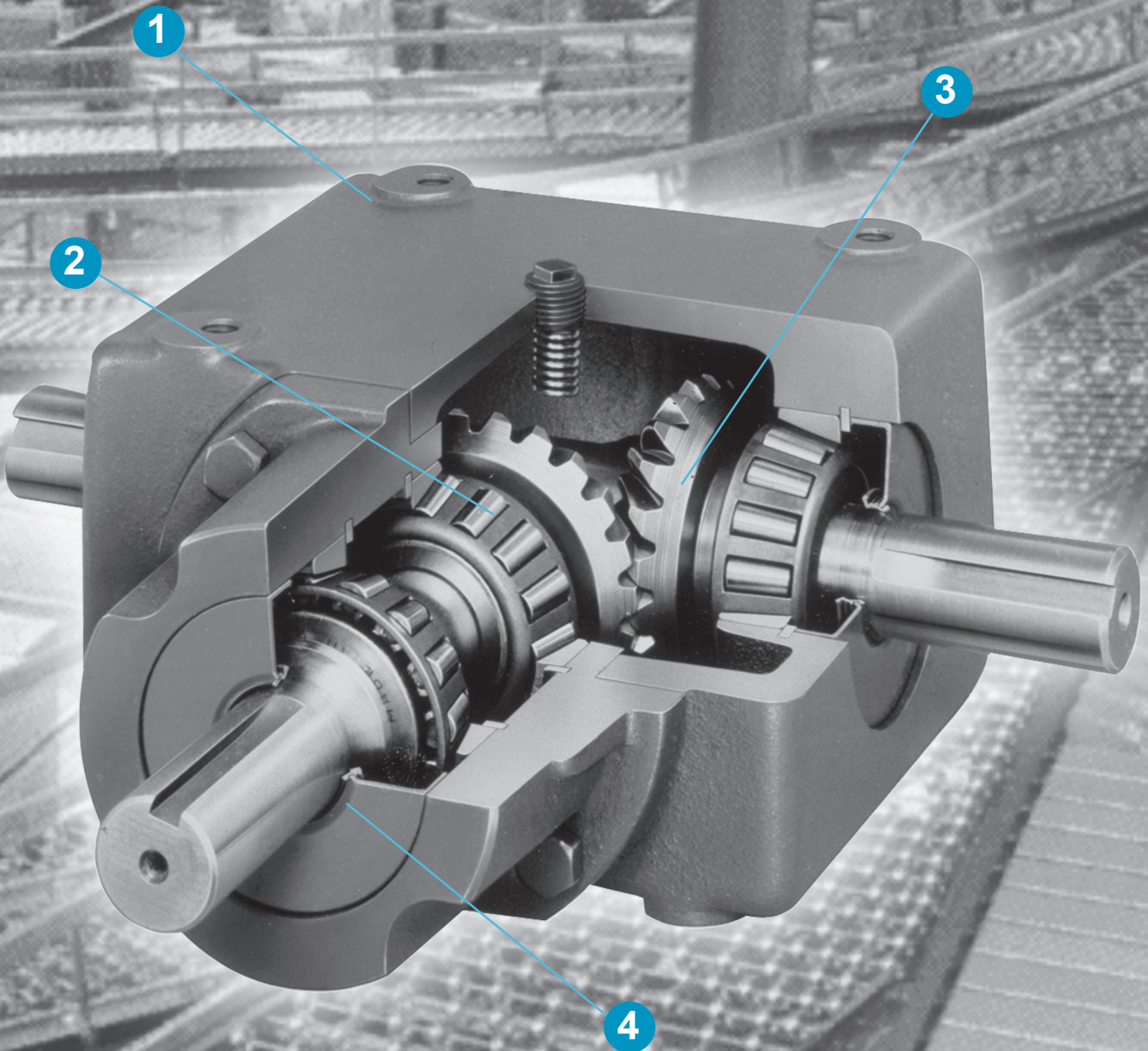
MOTOR FRAME	U2 +.001	AJ2	AK	BF2	SQ KEY 2
56C	5/8	5-7/8	4-1/2	7/16	3/16
143TC-145TC	7/8	5-7/8	4-1/2	7/16	3/16
182TC-184TC	1-1/8	7-1/4	8-1/2	7/16	1/4

"BD" diameter is not machined.

Shaft diameter tolerances: +.0000"; -.0005" up to 1-1/2" diameter inclusive.  
Larger diameters: +.000"; -.001".

All rough casting dimensions may vary by 1/4" due to casting variations.





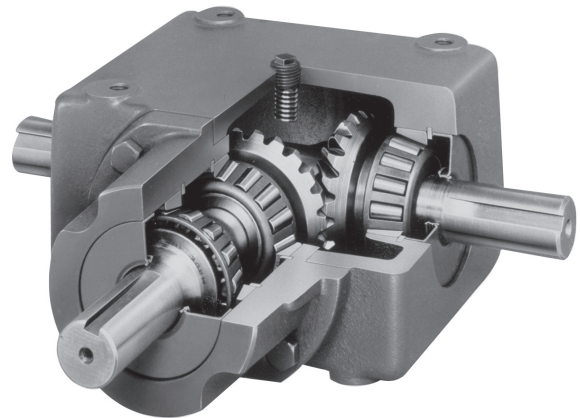




# Browning®

## HB and HSB Bevel and Spiral Bevel

1. Rugged cast iron housings, line bored for precise gear and bearing alignment.
2. Commercially available tapered roller and ball bearings provide maximum catalog load capacity.
3. Carburized alloy steel straight or spiral gears manufactured to AGMA standard for long life and quiet operation.
4. Double lip contact oil seals ride on hardened plunge ground shafts.



- 6 Sizes
- Spiral bevel and straight bevel gears
- Ratios 1:1 to 3:1 with speed up ratios available
- Torque ratings from 99 to 5,942 in.-lbs.

Bevel Red.  
Cast Iron



## Selection and Ordering Information

### Overload Service Factors

Load and operating characteristics of both driver and driven units must be considered thoroughly when selecting Browning Bevel Gear Boxes. It is essential that all gear boxes be selected for maximum load conditions to be encountered. Browning Bevel Gear Boxes will safely transmit momentary starting loads as great as 200% of the mechanical input ratings.

First determine the load classification of the driven unit from the table on page 455. Then from the table below, select an overload service factor for this classification, for duration of service to be involved and for the type of prime mover to be used.

Prime Mover	Duration of Service	Driven Machine Load Classification		
		U Uniform	M Moderate Shock	H Heavy Shock
Electric Motor	Occasional - 1/2 hour per day	0.50	0.80	1.25
	Intermittent - 3 hours per day	0.80	1.00	1.50
	Up to 10 hours per day	1.00	1.25	1.75
	24 hours per day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	Occasional - 1/2 hour per day	0.80	1.00	1.50
	Intermittent - 3 hours per day	1.00	1.25	1.75
	Up to 10 hours per day	1.25	1.50	2.00
	24 hours per day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Occasional - 1/2 hour per day	1.00	1.25	1.75
	Intermittent - 3 hours per day	1.25	1.50	2.00
	Up to 10 hours per day	1.50	1.75	2.25
	24 hours per day	1.75	2.00	2.50

### Overhung Loads

When a gear box is driven by any belt, chain, or gear drive, or when the gear box drives a driven unit through a belt, chain or gear drive, overhung loads must not exceed those shown in the tables on pages 456 - 459. Use the following formula to calculate the overhung load.

$$OL = \frac{2TK}{D}$$

Where:

- OL = Overhung Load (pounds)
- T = Actual Shaft Torque (Inch-Pounds)
- D = P.D. of Sprocket, Sheave, Pulley or Gear
- K = 1.0 for Chain Drives
- 1.25 for Gear Drives
- 1.25 for Gearbelt Drives
- 1.50 for V-Belt Drives

No overhung loads are encountered when the gear box is coupling connected to the driver and/or driven machine. However, care should be taken in aligning the shafts to avoid pre-loading bearings by misalignment.

### Selection Example

A right angle gear box is needed for a line shaft driving processing machinery which requires 1330 inch-pounds torque and will operate about 10 hours per day. This line shaft will be coupling connected at a right angle to an existing line shaft which is driven by an 1150 rpm electric motor. Existing line shaft is 1 7/16" diameter and the new line shaft is 1 3/16" diameter.

#### 1. Determine the Load Classification of the driven unit.

From page 455, the load class for a line shaft driving processing machinery is "M".

#### 2. Determine the Overload Service Factor.

From the table on this page, the service factor for a moderate shock (M) load driven by an electric motor 10 hours per day is 1.25.

#### 3. Determine the Normal Torque (or the Normal hp).

Multiply the required torque by the service factor:

$$1330 \times 1.25 = 1662.5 \text{ Normal Torque}$$

#### 4. Select the Gear Box.

From page 457 under the 1150 RPM column, select a gear box which has a mechanical rating of 1663, or slightly greater, which in this case is 1759 and the gear box is 12HSB1-LR10. Check to see that the thermal rating (1671) exceeds the transmitted load (1330).

#### 5. Select the Couplings Required.

Note: If a chain drive or the other drive has been specified for either or both input or output shafts, the overhung loads would have to be checked from the formula above and from the table on page 457.

#### 6. List Components

- 1, 12HSB1-LR10 Spiral Bevel Gear Box

Caution: Install guards according to applicable local and national codes for rotating shafts.

## Load Classifications - Typical Applications

Application	Load Class	Application	Load Class	Application	Load Class
AGITATORS		EXTRUDERS (Plastic)-Continued		PAPER MILLS-Continued	
Pure Liquids	U	Pipe	U	Calendars-Super	H
Liquids and Solids	M	Tubing	U	Converting Machine, Except Cutters, Platers	M
Liquids - Variable Density	M	Blow Molders	M	Conveyors	U
BLOWERS		Pre-plasticizers	M	Couch	M
Centrifugal	U	FANS		Cutters-Platers	H
Lobe	M	Centrifugal	U	Cylinders	M
Vane	U	Cooling Towers-Induced Draft	★	Dryers	M
BREWING AND DISTILLING		Forced Draft	U*	Felt Stretchers	M
Bottling Machinery	U	Induced Draft	U	Felt Whippers	H
Brew Kettles, Continuous Duty	U	Large (Mine, etc.)	M	Jordons	H
Cookers, Continuous Duty	U	Large (Industrial)	M	Log Haul	H
Mash Tubs, Continuous Duty	U	Light (Small Diameter)	U	Presses	U
Scale Hopper, Frequent Starts	M	FEEDERS		Pulp Machine Reel	M
CAN FILLING MACHINES	U	Apron	M	Stock Chests	M
CANE KNIVES	M*	Belt	M	Suction Roll	U
CAR DUMPERS	H	Disc	U	Washers and Thickeners	M
CAR PULLERS	M	Reciprocating	H	Winders	U
CLARIFIERS	U	Screw	M	PRINTING PRESSES	
CLASSIFIERS	M	FOOD INDUSTRY		PULLERS	
CLAY WORKING MACHINERY		Beet Slicers	M	Barge Haul	H
Brick Press	H	Cereal Cookers	U	PUMPS	
Briquette Machine	H	Dough Mixers	M	Centrifugal	U
Clay Working Machinery	M	Meat Grinders	M	Proportioning	M
Pub Mill	M	GENERATORS - (Not Welding)	U	Reciprocating	
COMPRESSORS		HAMMER MILLS	H	Single Acting, 3 or more cylinders	M
Centrifugal	U	HOISTS		Double Acting, 2 or more cylinders	M
Lobe	M	Heavy Duty	H	Single Acting, 1 or 2 cylinders	★
Reciprocating, Multi-Cylinder	M	Medium Duty	M	Double Acting, Single cylinder	★
Reciprocating, Single Cylinder	H	Skip Hoist	M	Rotary-Gear Type	U
CONVEYORS-UNIFORMLY LOADED OR FED		LAUNDRY WASHERS		-Lobe, Vane	U
Apron	U	Reversing	M	RUBBER AND PLASTIC INDUSTRIES	
Assembly	U	LAUNDRY TUMBLERS	M	Crackers	H*
Belt	U	LINE SHAFTS		Laboratory Equipment	M
Bucket	U	Driving Processing Equipment	M	Mixing Mills	H*
Chain	U	Light	U	Refiners	M*
Flight	U	Other Line Shafts	U	Rubber Calenders	M*
Oven	U	LUMBER INDUSTRY (See Table 3, Page 5)		Rubber Mill (2 on line)	M*
Screw	U	MACHINE TOOLS		Rubber Mill (3 on line)	U*
CONVEYORS-HEAVY DUTY NOT UNIFORMLY FED		Bending Roll	M	Sheeter	M*
Apron	M	Punch Press-Gear Driven	H	Tire Building Machines	★
Assembly	M	Notching Press-Belt Driven	★	Tire and Tube Press Openers	★
Belt	M	Plate Planers	H	Tubers and Strainers	M*
Bucket	M	Tapping Machine	H	Warming Mills	M*
Chain	M	Other Machine Tools		SAND MULLER	M
Flight	M	Main Drives	M	SEWAGE DISPOSAL EQUIPMENT	
Live Roll	★	Auxiliary Drives	U	Bar Screens	U
Oven	M	METAL MILLS		Chemical Feeders	U
Reciprocating	H	Draw Bench Carriage and Main Drive	M	Collectors	U
Screw	M	Pinch, Dryer and Scrubber Rolls, Reversing	★	Dewatering Screens	M
Shaker	H	Slitters	M	Scum Breakers	M
CRANES		Table Conveyors		Slow or Rapid Mixers	M
Main Hoists	U	Non-Reversing		Thickeners	M
Bridge	★	Group Drives	M	Vacuum Filters	M
Trolley Travel	★	Individual Drives	H	SCREENS	
CRUSHER		Reversing	★	Air Washing	U
Ore	H	Wire Drawing and Flattening Machines	M	Rotary-Stone and Gravel	U
Stone	H	Wire Winding Machines	M	Traveling Water Intake	U
Sugar	M*	MILLS, ROTARY TYPE		SLAB PUSHERS	M
DREDGES		Ball	M*	STEERING GEAR	★
Cable Reels	M	Cement Kilns	M*	STOKERS	U
Conveyors	M	Dryers and Coolers	M*	SUGAR INDUSTRY	
Cutter Head Drives	H	Kilns	M	Cane Knives	M*
Jig Drives	H	Pebble	M*	Crushers	M*
Maneuvering Winches	M	Rod, Plain and Wedge Bar	M*	Mills	H*
Pumps	M	Tumbling Barrels	H	TEXTILE INDUSTRY	
Screen Drive	H	MIXERS		Batchers	M
Stackers	M	Concrete, Continuous	M	Calenders	M
Utility Winches	M	Concrete, Intermittent	M	Cards	M
ELEVATORS		Constant Density	U	Dry Cans	M
Bucket-Uniform Load	U	Variable Density	M	Dryers	M
Bucket-Heavy Load	M	OIL INDUSTRY		Dyeing Machinery	M
Bucket-Continuous	U	Chillers	M	Knitting Machines	★
Centrifugal Discharge	U	Oil Well Pumping	★	Looms	M
Escalators	U	Paraffin Filter Presses	M	Mangles	M
Freight	M	Rotary Kilns	M	Nappers	M
Gravity Discharge	U	PAPER MILLS		Range Drives	★
Man Lifts	★	Agitators (Mixers)	M	Slashers	M
Passenger	★	Barker-Auxiliaries-Hydraulic	M	Soapers	M
EXTRUDERS (Plastic)		Barker-Mechanical	M	Spinners	M
Film	U	Barking Drum	H	Tenter Frames	M
Sheet	U	Beater and Pulper	M	Washers	M
Coating	U	Bleacher	U	Winders	M
Rods	U	Calenders	M	WINDLASS	★

\* Select Service Factor for 24 hours service only.  
 Refer to Application Engineering (1 800 626 2093).  
 Determine Load Class from the table above. Determine Service Factor from the table on page 454.

Bevel Red.  
Cast Iron

## Speed, Horsepower, Torque and Overhung Loads

Part No.	Ratio	Gearing	Rating	Revolutions per Minute — Input Shaft**						
				1750	1150	850	690	400	300	100
3HSB1-LR10 3HSB1-SN10 3HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	2.74	2.10	1.72	1.50	1.04	.79	.27
			Thermal Horsepower	2.74	2.10	1.72	1.50	1.04	.79	.27
			Mechanical Output Torque (In.-Lbs.)	99	115	127	137	163	166	170
			Thermal Output Torque (In.-Lbs.)	99	115	127	137	163	166	170
			Maximum Input Overhung Load (Lbs.)	100	100	100	100	101	129	166
			Maximum Output Overhung Load (Lbs.)	153	153	153	153	153	153	153
3HB1-LR10 3HB1-SN10 3HB1-SF10	1:1	Straight	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	2.48	1.65	1.24	1.05	.73	.55	.18
			Thermal Horsepower	2.48	1.65	1.24	1.05	.73	.55	.18
			Mechanical Output Torque (In.-Lbs.)	89	90	92	96	116	116	116
			Thermal Output Torque (In.-Lbs.)	89	90	92	96	116	116	116
			Maximum Input Overhung Load (Lbs.)	81	100	113	120	130	149	166
			Maximum Output Overhung Load (Lbs.)	153	153	153	153	153	153	153
3HB1-LR15 3HB1-SN15 3HB1-SF15	1.5:1	Straight	Output Speed (RPM)	1166	766	566	460	266	200	66
			Mechanical Horsepower	1.73	1.13	.88	.72	.54	.41	.14
			Thermal Horsepower	1.73	1.13	.88	.72	.54	.41	.14
			Mechanical Output Torque (In.-Lbs.)	93	93	98	99	128	128	128
			Thermal Output Torque (In.-Lbs.)	93	93	98	99	128	128	128
			Maximum Input Overhung Load (Lbs.)	74	92	101	110	113	130	158
			Maximum Output Overhung Load (Lbs.)	153	153	153	153	153	153	153
3HB1-LR20 3HB1-SN20 3HB1-SF20	2:1	Straight	Output Speed (RPM)	875	575	425	345	200	150	50
			Mechanical Horsepower	1.30	.86	.63	.51	.30	.22	.075
			Thermal Horsepower	1.30	.86	.63	.51	.30	.22	.075
			Mechanical Output Torque (In.-Lbs.)	94	94	94	94	94	94	94
			Thermal Output Torque (In.-Lbs.)	94	94	94	94	94	94	94
			Maximum Input Overhung Load (Lbs.)	77	94	108	118	144	157	158
			Maximum Output Overhung Load (Lbs.)	153	153	153	153	153	153	153
6HSB1-LR10 6HSB1-SN10 6HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	20.3	13.7	10.4	8.52	5.08	3.85	1.33
			Thermal Horsepower	13.9*	13.7	10.4	8.52	5.08	3.85	1.33
			Mechanical Output Torque (In.-Lbs.)	731	750	771	778	800	808	838
			Thermal Output Torque (In.-Lbs.)	500	750	771	778	800	808	838
			Maximum Input Overhung Load (Lbs.)	152	152	235	308	516	580	580
			Maximum Output Overhung Load (Lbs.)	500	508	508	508	508	508	508
6HB1-LR10 6HB1-SN10 6HB1-SF10	1:1	Straight	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	21.8	14.3	10.6	8.58	4.98	3.73	1.24
			Thermal Horsepower	15.2*	14.3	10.6	8.58	4.98	3.73	1.24
			Mechanical Output Torque (In.-Lbs.)	784	784	784	784	784	784	784
			Thermal Output Torque (In.-Lbs.)	547*	784	784	784	784	784	784
			Maximum Input Overhung Load (Lbs.)	549	559	559	559	559	559	559
			Maximum Output Overhung Load (Lbs.)	536	536	536	536	536	536	536
6HB1-LR15 6HB1-SN15 6HB1-SF15	1.4615:1	Straight	Output Speed (RPM)	1197	786	581	472	273	205	68
			Mechanical Horsepower	9.37	6.16	4.55	3.70	2.14	1.61	.54
			Thermal Horsepower	8.00*	6.16	4.55	3.70	2.14	1.61	.54
			Mechanical Output Torque (In.-Lbs.)	492	492	492	492	492	492	492
			Thermal Output Torque (In.-Lbs.)	421	492	492	492	492	492	492
			Maximum Input Overhung Load (Lbs.)	559	559	559	559	559	559	559
			Maximum Output Overhung Load (Lbs.)	536	536	536	536	536	536	536
6HB1-LR18 6HB1-SN18 6HB1-SF18	1.8:1	Straight	Output Speed (RPM)	972	638	472	383	222	166	55
			Mechanical Horsepower	6.38	4.91	3.10	2.52	1.46	1.09	.36
			Thermal Horsepower	6.38	4.91	3.10	2.52	1.46	1.09	.36
			Mechanical Output Torque (In.-Lbs.)	412	412	412	412	412	412	412
			Thermal Output Torque (In.-Lbs.)	412	412	412	412	412	412	412
			Maximum Input Overhung Load (Lbs.)	559	559	559	559	559	559	559
			Maximum Output Overhung Load (Lbs.)	536	536	536	536	536	536	536
9HSB1-LR10 9HSB1-SN10 9HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	20.3	13.7	10.4	8.52	5.08	3.85	1.33
			Thermal Horsepower	13.9*	13.7	10.4	8.52	5.08	3.85	1.33
			Mechanical Output Torque (In.-Lbs.)	731	750	771	778	800	808	838
			Thermal Output Torque (In.-Lbs.)	500*	750	771	778	800	808	838
			Maximum Input Overhung Load (Lbs.)	235	235	335	421	550	550	550
			Maximum Output Overhung Load (Lbs.)	486	486	486	486	486	486	486
9HB1-LR10 9HB1-SN10 9HB1-SF10	1:1	Straight	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	34.9	22.9	17.0	13.8	7.97	5.98	1.99
			Thermal Horsepower	12.9*	19.1*	17.0	13.8	7.97	5.98	1.99
			Mechanical Output Torque (In.-Lbs.)	1256	1256	1256	1256	1256	1256	1256
			Thermal Output Torque (In.-Lbs.)	465*	1046*	1256	1256	1256	1256	1256
			Maximum Input Overhung Load (Lbs.)	502	550	550	550	550	550	550
			Maximum Output Overhung Load (Lbs.)	486	486	486	486	486	486	486

\*\*The input shaft is the shaft at a right angle to the cross shaft.

\*Mechanical rating exceeds thermal rating; do not exceed thermal rating except for very short intermittent periods.

## Speed, Horsepower, Torque and Overhung Loads

Part No.	Ratio	Gearing	Rating	Revolutions per Minute — Input Shaft**						
				1750	1150	850	690	400	300	100
9HB1-LR15 9HB1-SN15 9HB1-SF15	1.5:1	Straight	Output Speed (RPM)	1166	766	566	460	266	200	66
			Mechanical Horsepower	10.9	7.16	5.29	4.30	2.49	1.87	.62
			Thermal Horsepower	10.9	7.16	5.29	4.30	2.49	1.87	.62
			Mechanical Output Torque (In.-Lbs.)	588	588	588	588	588	588	588
			Thermal Output Torque (In.-Lbs.)	588	588	588	588	588	588	588
			Maximum Input Overhung Load (Lbs.)	550	550	550	550	550	550	550
			Maximum Output Overhung Load (Lbs.)	486	486	486	486	486	486	486
9HB1-LR20 9HB1-SN20 9HB1-SF20	2:1	Straight	Output Speed (RPM)	875	575	425	345	200	150	50
			Mechanical Horsepower	6.62	4.35	3.22	2.61	1.51	1.14	.38
			Thermal Horsepower	6.62	4.35	3.22	2.61	1.51	1.14	.38
			Mechanical Output Torque (In.-Lbs.)	477	477	477	477	477	477	477
			Thermal Output Torque (In.-Lbs.)	477	477	477	477	477	477	477
			Maximum Input Overhung Load (Lbs.)	550	550	550	550	550	550	550
			Maximum Output Overhung Load (Lbs.)	486	486	486	486	486	486	486
12HSB1-LR10 12HSB1-SN10 12HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	47.1	32.1	24.3	20.0	11.9	9.08	3.14
			Thermal Horsepower	30.6*	30.5*	24.3	20.0	11.9	9.08	3.14
			Mechanical Output Torque (In.-Lbs.)	1696	1759	1801	1826	1875	1907	1979
			Thermal Output Torque (In.-Lbs.)	1102*	1671*	1801	1826	1875	1907	1979
			Maximum Input Overhung Load (Lbs.)	217	217	357	470	821	900	900
			Maximum Output Overhung Load (Lbs.)	697	780	780	780	780	780	780
12HB1-LR10 12HB1-SN10 12HB1-SF10	1:1	Straight	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	52.6	34.5	25.5	20.7	12.0	9.01	3.00
			Thermal Horsepower	32.2*	29.2*	25.5	20.7	12.0	9.01	3.00
			Mechanical Output Torque (In.-Lbs.)	1891	1891	1891	1891	1891	1891	1891
			Thermal Output Torque (In.-Lbs.)	1160*	1600*	1891	1891	1891	1891	1891
			Maximum Input Overhung Load (Lbs.)	721	900	900	900	900	900	900
			Maximum Output Overhung Load (Lbs.)	748	780	780	780	780	780	780
12HB1-LR15 12HB1-SN15 12HB1-SF15	1.5:1	Straight	Output Speed (RPM)	1166	766	566	460	266	200	66
			Mechanical Horsepower	24.6	16.2	12.0	9.70	5.62	4.22	1.41
			Thermal Horsepower	24.6	16.2	12.0	9.70	5.62	4.22	1.41
			Mechanical Output Torque (In.-Lbs.)	1329	1329	1329	1329	1329	1329	1329
			Thermal Output Torque (In.-Lbs.)	1329	1329	1329	1329	1329	1329	1329
			Maximum Input Overhung Load (Lbs.)	900	900	900	900	900	900	900
			Maximum Output Overhung Load (Lbs.)	780	780	780	780	780	780	780
12HB1-LR20 12HB1-SN20 12HB1-SF20	2:1	Straight	Output Speed (RPM)	875	575	425	345	200	150	50
			Mechanical Horsepower	10.9	7.17	5.30	4.30	2.49	1.87	.62
			Thermal Horsepower	10.9	7.17	5.30	4.30	2.49	1.87	.62
			Mechanical Output Torque (In.-Lbs.)	786	786	786	786	786	786	786
			Thermal Output Torque (In.-Lbs.)	786	786	786	786	786	786	786
			Maximum Input Overhung Load (Lbs.)	900	900	900	900	900	900	900
			Maximum Output Overhung Load (Lbs.)	780	780	780	780	780	780	780
12HB1-LR15-A 12HB1-SN15-A 12HB1-SF15-A	1:1.5 Speed-Up	Straight	Output Speed (RPM)	—	1725	1275	1035	600	450	150
			Mechanical Horsepower	—	15.5	11.5	9.32	5.41	4.05	1.35
			Thermal Horsepower	—	15.5	11.5	9.32	5.41	4.05	1.35
			Mechanical Output Torque (In.-Lbs.)	—	567	567	567	567	567	567
			Thermal Output Torque (In.-Lbs.)	—	567	567	567	567	567	567
			Maximum Input Overhung Load (Lbs.)	—	900	900	900	900	900	900
			Maximum Output Overhung Load (Lbs.)	—	780	780	780	780	780	780
15HSB1-LR10 15HSB1-SN10 15HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	93.0	63.3	48.0	39.5	23.6	18.1	6.30
			Thermal Horsepower	29.4*	38.5*	39.5*	36.8*	23.6	18.1	6.30
			Mechanical Output Torque (In.-Lbs.)	3349	3469	3559	3608	3718	3802	3970
			Thermal Output Torque (In.-Lbs.)	1058*	2110*	2928*	3361*	3718	3802	3970
			Maximum Input Overhung Load (Lbs.)	400	400	419	580	1071	1352	1860
			Maximum Output Overhung Load (Lbs.)	1029	1336	1539	1620	1620	1620	1620
15HB1-LR10 15HB1-SN10 15HB1-SF10	1:1	Straight	Output Speed (RPM)	—	1150	850	690	400	300	100
			Mechanical Horsepower	—	74.8	55.3	44.9	26.0	19.5	6.51
			Thermal Horsepower	—	33.1*	39.4*	40.7*	26.0	19.5	6.51
			Mechanical Output Torque (In.-Lbs.)	—	4101	4101	4101	4101	4101	4101
			Thermal Output Torque (In.-Lbs.)	—	1814*	2921*	3717*	4101	4101	4101
			Maximum Input Overhung Load (Lbs.)	—	1306	1494	1634	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	—	1374	1604	1620	1620	1620	1620
15HSB1-LR15 15HSB1-SN15 15HSB1-SF15	1.5:1	Spiral	Output Speed (RPM)	1166	766	566	460	266	200	66
			Mechanical Horsepower	68.3	46.4	35.1	28.9	17.3	13.1	4.55
			Thermal Horsepower	34.1*	39.4*	35.1	28.9	17.3	13.1	4.55
			Mechanical Output Torque (In.-Lbs.)	3690	3814	3904	3960	4089	4128	4301
			Thermal Output Torque (In.-Lbs.)	1842*	3239*	3904	3960	4089	4128	4301
			Maximum Input Overhung Load (Lbs.)	1061	1360	1533	1664	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	1462	1620	1620	1620	1620	1620	1620

Bevel Red.  
Cast Iron

\*\*The input shaft is the shaft at a right angle to the cross shaft.

\*Mechanical rating exceeds thermal rating; do not exceed thermal rating except for very short intermittent periods.

## Speed, Horsepower, Torque and Overhung Loads

Part No.	Ratio	Gearing	Rating	Revolutions per Minute — Input Shaft**						
				1750	1150	850	690	400	300	100
15HB1-LR15 15HB1-SN15 15HB1-SF15	1.5:1	Straight	Output Speed (RPM)	-	766	566	460	266	200	66
			Mechanical Horsepower	-	44.9	33.2	26.2	15.6	11.7	3.90
			Thermal Horsepower	-	44.9	33.2	26.2	15.6	11.7	3.90
			Mechanical Output Torque (In.-Lbs.)	-	3687	3687	3687	3687	3687	3687
			Thermal Output Torque (In.-Lbs.)	-	3687	3687	3687	3687	3687	3687
			Maximum Input Overhung Load (Lbs.)	-	1380	1568	1725	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	-	1620	1620	1620	1620	1620	1620
15HB1-LR20 15HB1-SN20 15HB1-SF20	2:1	Straight	Output Speed (RPM)	875	575	425	345	200	150	50
			Mechanical Horsepower	58.6	38.5	28.5	23.1	13.4	10.1	3.35
			Thermal Horsepower	22.8*	30.1*	28.5	23.1	13.4	10.1	3.35
			Mechanical Output Torque (In.-Lbs.)	4222	4222	4222	4222	4222	4222	4222
			Thermal Output Torque (In.-Lbs.)	1642*	3299*	4222	4222	4222	4222	4222
			Maximum Input Overhung Load (Lbs.)	1009	1294	1483	1623	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	1620	1620	1620	1620	1620	1620	1620
15HB1-LR30 15HB1-SN30 15HB1-SF30	3:1	Straight	Output Speed (RPM)	583	383	283	230	133	100	33
			Mechanical Horsepower	20.8	13.7	10.1	8.21	4.76	3.57	1.19
			Thermal Horsepower	20.8	13.7	10.1	8.21	4.76	3.57	1.19
			Mechanical Output Torque (In.-Lbs.)	2251	2251	2251	2251	2251	2251	2251
			Thermal Output Torque (In.-Lbs.)	2251	2251	2251	2251	2251	2251	2251
			Maximum Input Overhung Load (Lbs.)	1356	1614	1803	1860	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	1620	1620	1620	1620	1620	1620	1620
15HSB1-LR15-A 15HSB1-SN15-A 15HSB1-SF15-A	1:1.5 Speed-Up	Spiral	Output Speed (RPM)	-	1725	1275	1035	600	450	150
			Mechanical Horsepower	-	65.9	50.0	41.2	24.8	18.9	6.59
			Thermal Horsepower	-	39.7*	44.5*	41.2	24.8	18.9	6.59
			Mechanical Output Torque (In.-Lbs.)	-	2408	2472	2509	2605	2647	2769
			Thermal Output Torque (In.-Lbs.)	-	1452*	2200*	2509	2605	2647	2769
			Maximum Input Overhung Load (Lbs.)	-	1579	1757	1860	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	-	1306	1488	1620	1620	1620	1620
15HB1-LR15-A 15HB1-SN15-A 15HB1-SF15-A	1:1.5 Speed-Up	Straight	Output Speed (RPM)	-	-	1275	1035	600	450	150
			Mechanical Horsepower	-	-	48.6	39.5	22.9	17.2	5.72
			Thermal Horsepower	-	-	34.2*	36.1*	22.9	17.2	5.72
			Mechanical Output Torque (In.-Lbs.)	-	-	2404	2404	2404	2404	2404
			Thermal Output Torque (In.-Lbs.)	-	-	1691*	2198*	2404	2404	2404
			Maximum Input Overhung Load (Lbs.)	-	-	1768	1860	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	-	-	1514	1620	1620	1620	1620
15HB1-LR20-A 15HB1-SN20-A 15HB1-SF20-A	1:2 Speed-Up	Straight	Output Speed (RPM)	-	-	1700	1380	800	600	200
			Mechanical Horsepower	-	-	38.6	31.4	18.2	13.6	4.54
			Thermal Horsepower	-	-	20.3*	26.2*	18.2	13.6	4.54
			Mechanical Output Torque (In.-Lbs.)	-	-	1433	1433	1433	1433	1433
			Thermal Output Torque (In.-Lbs.)	-	-	753*	1197*	1433	1433	1433
			Maximum Input Overhung Load (Lbs.)	-	-	1860	1860	1860	1860	1860
			Maximum Output Overhung Load (Lbs.)	-	-	1530	1620	1620	1620	1620
18HSB1-LR10 18HSB1-SN10 18HSB1-SF10	1:1	Spiral	Output Speed (RPM)	1750	1150	850	690	400	300	100
			Mechanical Horsepower	135.0	92.3	70.0	57.7	34.6	26.4	9.23
			Thermal Horsepower	18.3*	37.4*	42.8*	44.7*	34.6	26.4	9.23
			Mechanical Output Torque (In.-Lbs.)	4862	5058	5190	5270	5451	5546	5817
			Thermal Output Torque (In.-Lbs.)	659*	2049*	3173*	4083*	5451	5546	5817
			Maximum Input Overhung Load (Lbs.)	600	600	886	1122	1841	2273	2460
			Maximum Output Overhung Load (Lbs.)	1288	1678	1941	2142	2440	2440	2440
18HB1-LR10 18HB1-SN10 18HB1-SF10	1:1	Straight	Output Speed (RPM)	-	-	-	690	400	300	100
			Mechanical Horsepower	-	-	-	65.1	37.7	28.3	9.4
			Thermal Horsepower	-	-	-	42.8*	37.7	28.3	9.4
			Mechanical Output Torque (In.-Lbs.)	-	-	-	5942	5942	5942	5942
			Thermal Output Torque (In.-Lbs.)	-	-	-	3909*	5942	5942	5942
			Maximum Input Overhung Load (Lbs.)	-	-	-	2183	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	-	2221	2440	2440	2440
18HB1-LR12 18HB1-SN12 18HB1-SF12	1.2105:1	Straight	Output Speed (RPM)	-	-	699	570	330	247	82.6
			Mechanical Horsepower	-	-	72.5	58.9	34.1	25.6	8.5
			Thermal Horsepower	-	-	28.9*	36.5*	34.1	25.6	8.5
			Mechanical Output Torque (In.-Lbs.)	-	-	6508	6508	6508	6508	6508
			Thermal Output Torque (In.-Lbs.)	-	-	2593*	4035*	6508	6508	6508
			Maximum Input Overhung Load (Lbs.)	-	-	1881	2081	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	2213	2440	2440	2440	2440

\*\*The Input Shaft is the Shaft at a Right Angle to the Cross Shaft.

\*Mechanical rating exceeds thermal rating; do not exceed thermal rating except for very short intermittent periods.



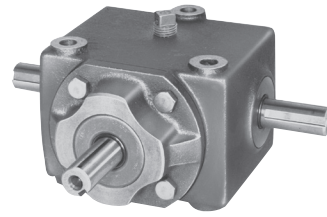
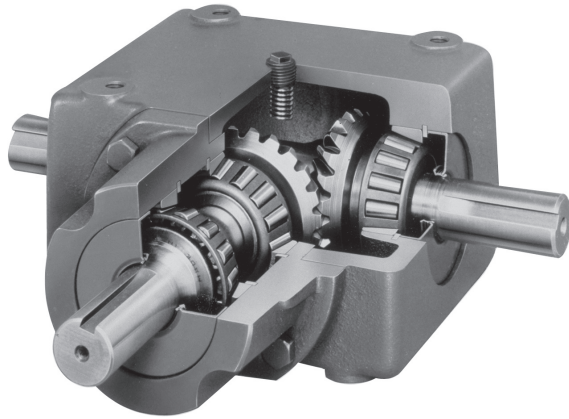
## Speed, Horsepower, Torque and Overhung Loads

Part No.	Ratio	Gearing	Rating	Revolutions per Minute — Input Shaft**						
				1750	1150	850	690	400	300	100
18HB1-LR13 18HB1-SN13 18HB1-SF13	1.3333:1	Straight	Output Speed (RPM)	-	-	637	517	300	225	75
			Mechanical Horsepower	-	-	53.1	43.1	25.0	18.8	6.25
			Thermal Horsepower	-	-	29.5*	33.2*	25.0	18.8	6.25
			Mechanical Output Torque (In.-Lbs.)	-	-	5252	5252	5252	5252	5252
			Thermal Output Torque (In.-Lbs.)	-	-	2909*	4033*	5252	5252	5252
			Maximum Input Overhung Load (Lbs.)	-	-	2121	2321	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	2440	2440	2440	2440	2440
18HSB1-LR15 18HSB1-SN15 18HSB1-SF15	1.5:1	Spiral	Output Speed (RPM)	1166	766	566	460	266	200	66.6
			Mechanical Horsepower	68.3	46.4	35.1	28.9	17.3	13.1	4.55
			Thermal Horsepower	12.3*	24.5*	30.7*	28.9	17.3	13.1	4.55
			Mechanical Output Torque (In.-Lbs.)	3690	3814	3904	3960	4089	4128	4301
			Thermal Output Torque (In.-Lbs.)	664*	2104*	3414*	3960	4089	4128	4301
			Maximum Input Overhung Load (Lbs.)	1701	2122	2375	2460	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	2157	2440	2440	2440	2440	2440	2440
18HB1-LR15 18HB1-SN15 18HB1-SF15	1.5:1	Straight	Output Speed (RPM)	-	766	566	460	266	200	66.6
			Mechanical Horsepower	-	63.5	47.0	38.1	22.1	16.6	5.52
			Thermal Horsepower	-	41.3*	47.0	38.1	22.1	16.6	5.52
			Mechanical Output Torque (In.-Lbs.)	-	5223	5223	5223	5223	5223	5223
			Thermal Output Torque (In.-Lbs.)	-	3399*	5223	5223	5223	5223	5223
			Maximum Input Overhung Load (Lbs.)	-	1874	2142	2342	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	2440	2440	2440	2440	2440	2440
18HB1-LR17 18HB1-SN17 18HB1-SF17	1.7143:1	Straight	Output Speed (RPM)	-	766	495	402	233	175	58.3
			Mechanical Horsepower	-	51.8	38.3	31.1	18.0	13.5	4.50
			Thermal Horsepower	-	19.5*	28.8*	31.1	18.0	13.5	4.50
			Mechanical Output Torque (In.-Lbs.)	-	4867	4867	4867	4867	4867	4867
			Thermal Output Torque (In.-Lbs.)	-	1832*	3660*	4867	4867	4867	4867
			Maximum Input Overhung Load (Lbs.)	-	1939	2207	2408	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	2440	2440	2440	2440	2440	2440
18HB1-LR12-A 18HB1-SN12-A 18HB1-SF12-A	1:1.2105 Speed-Up	Straight	Output Speed (RPM)	-	-	-	835	484	363	121
			Mechanical Horsepower	-	-	-	70.2	40.7	30.5	10.2
			Thermal Horsepower	-	-	-	37.5*	40.7	30.5	10.2
			Mechanical Output Torque (In.-Lbs.)	-	-	-	5298	5298	5298	5298
			Thermal Output Torque (In.-Lbs.)	-	-	-	2830*	5298	5298	5298
			Maximum Input Overhung Load (Lbs.)	-	-	-	2267	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	-	1959	2440	2440	2440
18HB1-LR13-A 18HB1-SN13-A 18HB1-SF13-A	1:1.3333 Speed-Up	Straight	Output Speed (RPM)	-	-	-	920	533	400	133
			Mechanical Horsepower	-	-	-	56.5	32.7	24.6	8.17
			Thermal Horsepower	-	-	-	44.0*	32.7	24.6	8.17
			Mechanical Output Torque (In.-Lbs.)	-	-	-	3870	3870	3870	3870
			Thermal Output Torque (In.-Lbs.)	-	-	-	3091*	3870	3870	3870
			Maximum Input Overhung Load (Lbs.)	-	-	-	2460	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	-	2126	2440	2440	2440
18HSB1-LR15-A 18HSB1-SN15-A 18HSB1-SF15-A	1:1.5 Speed-Up	Spiral	Output Speed (RPM)	-	1725	1275	1035	600	450	150
			Mechanical Horsepower	-	65.9	50.0	41.2	24.8	18.9	6.59
			Thermal Horsepower	-	20.2*	31.5*	41.2	24.8	18.9	6.59
			Mechanical Output Torque (In.-Lbs.)	-	2408	2472	2509	2605	2647	2769
			Thermal Output Torque (In.-Lbs.)	-	738*	1557*	2509	2605	2647	2769
			Maximum Input Overhung Load (Lbs.)	-	2330	2460	2460	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	1923	2163	2343	2440	2440	2440
18HB1-LR15-A 18HB1-SN15-A 18HB1-SF15-A	1:1.5 Speed-Up	Straight	Output Speed (RPM)	-	-	-	1035	600	450	150
			Mechanical Horsepower	-	-	-	55.9	32.4	24.3	8.10
			Thermal Horsepower	-	-	-	33.3*	32.4	24.3	8.10
			Mechanical Output Torque (In.-Lbs.)	-	-	-	3405	3405	3405	3405
			Thermal Output Torque (In.-Lbs.)	-	-	-	2027*	3405	3405	3405
			Maximum Input Overhung Load (Lbs.)	-	-	-	2460	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	-	2071	2440	2440	2440
18HB1-LR17-A 18HB1-SN17-A 18HB1-SF17-A	1:1.7143 Speed-Up	Straight	Output Speed (RPM)	-	-	-	1182	685	514	171
			Mechanical Horsepower	-	-	-	37.1	21.5	16.1	5.36
			Thermal Horsepower	-	-	-	36.8*	21.5	16.1	5.36
			Mechanical Output Torque (In.-Lbs.)	-	-	-	1974	1974	1974	1974
			Thermal Output Torque (In.-Lbs.)	-	-	-	1961*	1974	1974	1974
			Maximum Input Overhung Load (Lbs.)	-	-	-	2460	2460	2460	2460
			Maximum Output Overhung Load (Lbs.)	-	-	-	2322	2440	2440	2440

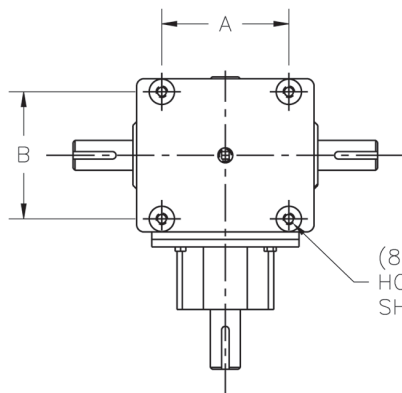
\*\*The Input Shaft is the Shaft at a Right Angle to the Cross Shaft.

\*Mechanical rating exceeds thermal rating; do not exceed thermal rating except for very short intermittent periods.

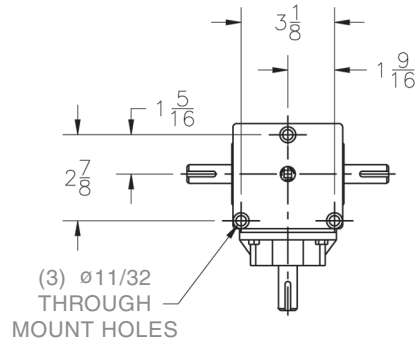




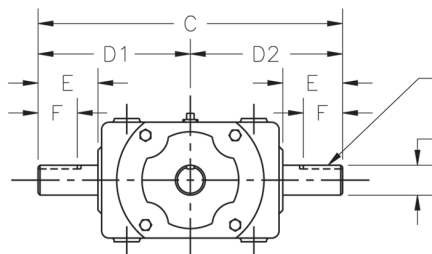
### Cast Iron Housing Hardened Gears



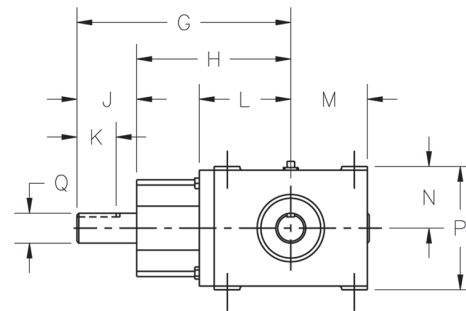
(8) "R" TAPPED MOUNT HOLES LOCATED AS SHOWN, TOP AND BOTTOM



MOUNT HOLE DETAIL FOR SIZE "3"



(3) "S" KEYWAY TYP 3 SHAFT EXT.



### Specifications

Size No.	Wt. Lbs.	Dimensions							
		A	B	C	D <sub>1</sub>	D <sub>2</sub>	E	F	G
3	10	▲	▲	7 1/2"	3 3/4"	3 3/4"	1 1/2"	7/8"	4 9/16"
6	23	4 3/8"	2 3/4"	9 3/32"	4 35/64"	4 35/64"	1 5/8"	7/8"	6 1/8"
9	28	4 1/4"	4 1/4"	10 3/16"	5 3/32"	5 3/32"	2"	1 5/16"	7 5/32"
12	48	4 1/2"	4 1/2"	12 1/4"	6 1/8"	6 1/8"	2 3/8"	1 5/8"	8 15/32"
15	105	6 1/2"	6 1/2"	15 13/16"	7 29/32"	7 29/32"	3"	2 1/8"	10 7/8"
18	125	6 1/2"	6 1/2"	16 3/32"	8 3/64"	8 3/64"	3"	2 1/8"	11 15/32"

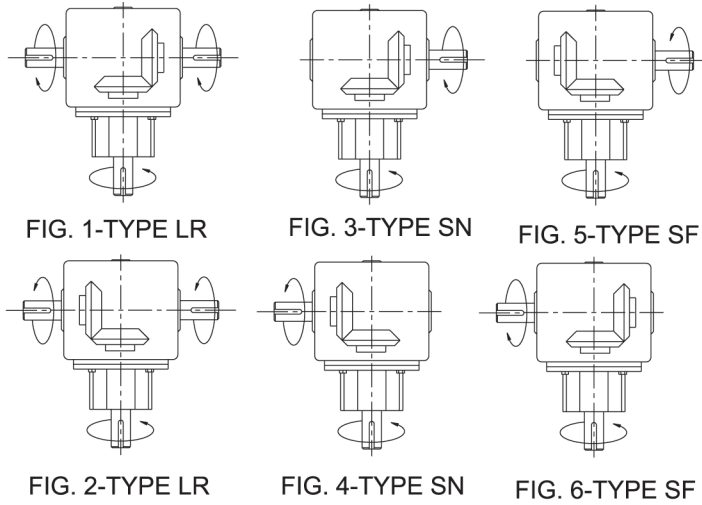
Size No.	Dimensions								Tap Size R	Tap Depth	Keyway S
	H	J	K	L	M	N	P	Q*			
3	3 1/16"	1 1/2"	7/8"	2 13/64"	1 11/16"	1 19/32"	3 3/16"	.625"	-	-	3/16" x 3/32"
6	4 3/8"	1 3/4"	1"	2 15/16"	2 1/16"	2 1/8"	4 1/4"	1.000	3/8-16NC	.56	1/4 x 1/8
9	5 5/32"	2"	1 5/16"	3 1/16"	2 9/16"	2 1/16"	4 1/8"	1.000	3/8-16NC	.56	1/4 x 1/8
12	5 31/32"	2 1/2"	1 5/8"	3 31/32"	2 7/8"	2 13/16"	5 5/8"	1.250	1/2-13NC	.88	1/4 x 1/8
15	7 7/8"	3"	2 1/8"	4 17/32"	3 27/32"	4 3/32"	8 3/16"	1.375	1/2-13NC	.88	5/16 x 5/32
18	8 15/32"	3"	2 1/8"	4 27/32"	3 27/32"	4 3/32"	8 3/16"	1.500	1/2-13NC	.88	3/8 x 3/16

▲ See Mount Hole Detail Drawing for 3HSB1.  
Select Part No. from the table and Figures 1-6 on page 461.

Shaft Tolerances are: +.000 to -.001".

**Note** — If gear box is to be mounted with either shaft vertical, provision must be made to lubricate the top bearings. Contact the Application Engineering (1 800 626 2093).

**Note** — In order to obtain maximum reducer life, all applications applying axial force on the input shaft of these reducers should be referred to Application Engineering.



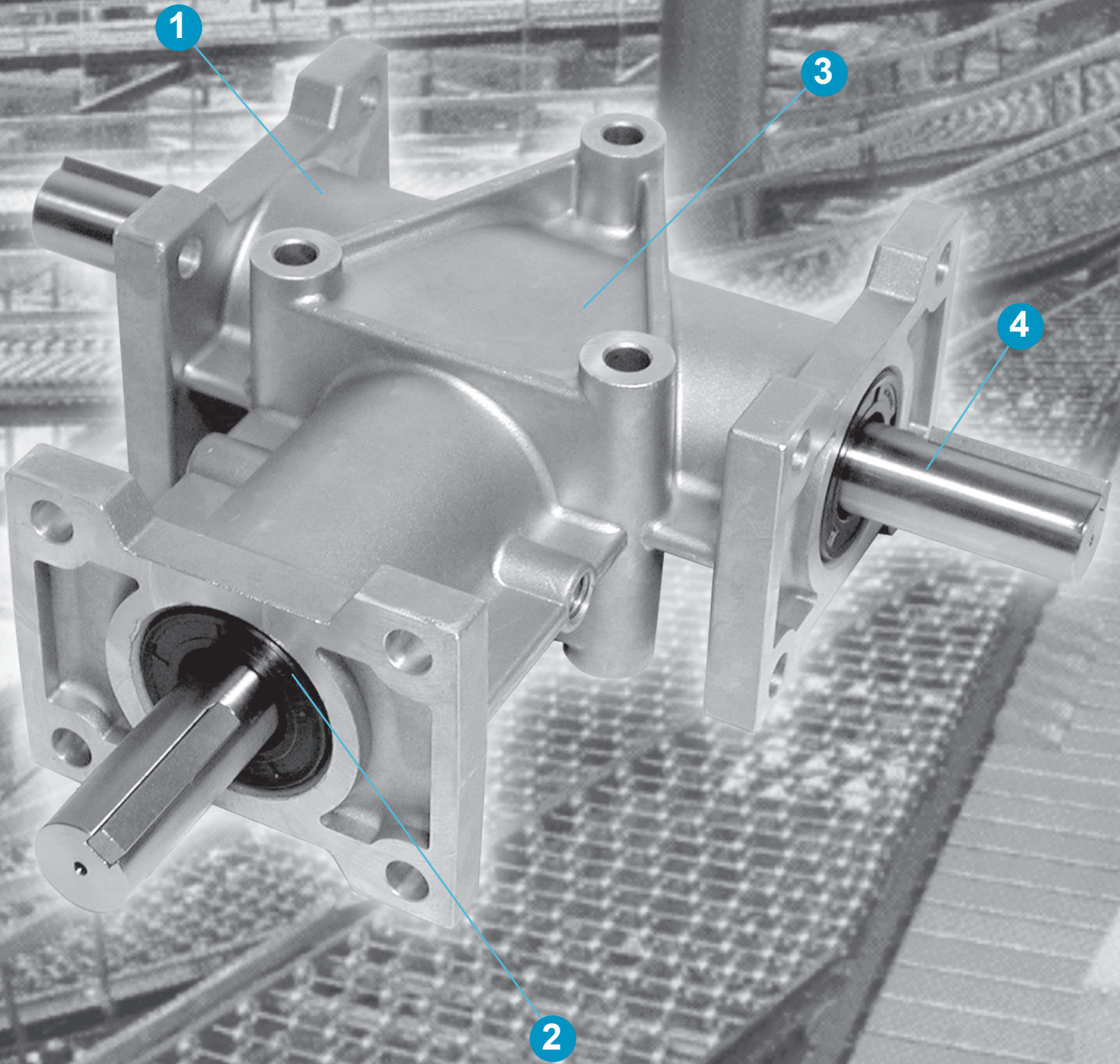
### Ratios, Types and Part Numbers

Ratio	Fig.	Type	Part No.	Ratio	Fig.	Type	Part No.	Ratio	Fig.	Type	Part No.
<b>Size No. 3</b>				<b>Size No. 12</b>				<b>Size No. 18</b>			
1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	3HSB1-LR10 3HSB1-SN10 3HSB1-SF10	1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	12HSB1-LR10 12HSB1-SN10 12HSB1-SF10	1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	18HSB1-LR10 18HSB1-SN10 18HSB1-SF10
1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	3HB1-LR10 3HB1-SN10 3HB1-SF10	1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	12HB1-LR10 12HB1-SN10 12HB1-SF10	1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR10 18HB1-SN10 18HB1-SF10
1.5:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	3HB1-LR15 3HB1-SN15 3HB1-SF15	1.5:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	12HB1-LR15 12HB1-SN15 12HB1-SF15	1.2105:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR12 18HB1-SN12 18HB1-SF12
2:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	3HB1-LR20 3HB1-SN20 3HB1-SF20	2:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	12HB1-LR20 12HB1-SN20 12HB1-SF20	1.3333:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR13 18HB1-SN13 18HB1-SF13
<b>Size No. 6</b>				<b>Size No. 15</b>							
1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	6HSB1-LR10 6HSB1-SN10 6HSB1-SF10	1:1.5 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	12HB1-LR15-A 12HB1-SN15-A 12HB1-SF15-A	1.5:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	18HSB1-LR15 18HSB1-SN15 18HSB1-SF15
1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	6HB1-LR10 6HB1-SN10 6HB1-SF10	1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	15HSB1-LR10 15HSB1-SN10 15HSB1-SF10	1.5:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR15 18HB1-SN15 18HB1-SF15
1.4615:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	6HB1-LR15 6HB1-SN15 6HB1-SF15	1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR10 15HB1-SN10 15HB1-SF10	1.7131:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR17 18HB1-SN17 18HB1-SF17
1.8:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	6HB1-LR18 6HB1-SN18 6HB1-SF18	1.5:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	15HSB1-LR15 15HSB1-SN15 15HSB1-SF15	1:1.2105 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR12-A 18HB1-SN12-A 18HB1-SF12-A
<b>Size No. 9</b>											
1:1 Spiral	1 and 2 3 and 4 5 and 6	LR SN SF	9HSB1-LR10 9HSB1-SN10 9HSB1-SF10	1.5:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR15 15HB1-SN15 15HB1-SF15	1:1.3333 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR13-A 18HB1-SN13-A 18HB1-SF13-A
1:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	9HB1-LR10 9HB1-SN10 9HB1-SF10	2:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR20 15HB1-SN20 15HB1-SF20	1:1.5 Spiral (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	18HSB1-LR15-A 18HSB1-SN15-A 18HSB1-SF15-A
1.5:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	9HB1-LR15 9HB1-SN15 9HB1-SF15	3:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR30 15HB1-SN30 15HB1-SF30	1:1.5 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR15-A 18HB1-SN15-A 18HB1-SF15-A
2:1 Straight	1 and 2 3 and 4 5 and 6	LR SN SF	9HB1-LR20 9HB1-SN20 9HB1-SF20	1:1.5 Spiral (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	15HSB1-LR15-A 15HSB1-SN15-A 15HSB1-SF15-A	1:1.7143 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	18HB1-LR17-A 18HB1-SN17-A 18HB1-SF17-A
				1:1.5 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR15-A 15HB1-SN15-A 15HB1-SF15-A				
				1:2 Straight (Speed-Up)	1 and 2 3 and 4 5 and 6	LR SN SF	15HB1-LR20-A 15HB1-SN20-A 15HB1-SF20-A				

Bevel Red.  
Cast Iron

Determine the size reducer and ratio needed from Engineering Data on pages 456 to 459. Then from the sketches above determine the Type needed for the desired shaft extension and rotation. Then from the table above, determine the Reducer Part Number. Example: For a Size 12, 2:1 Ratio Reducer with single output left and output to rotate CCW when input rotates CW (looking at the shaft ends) note from Fig. 4 that a Type SN is needed and from the table the Part Number is 12HB1-SN20.





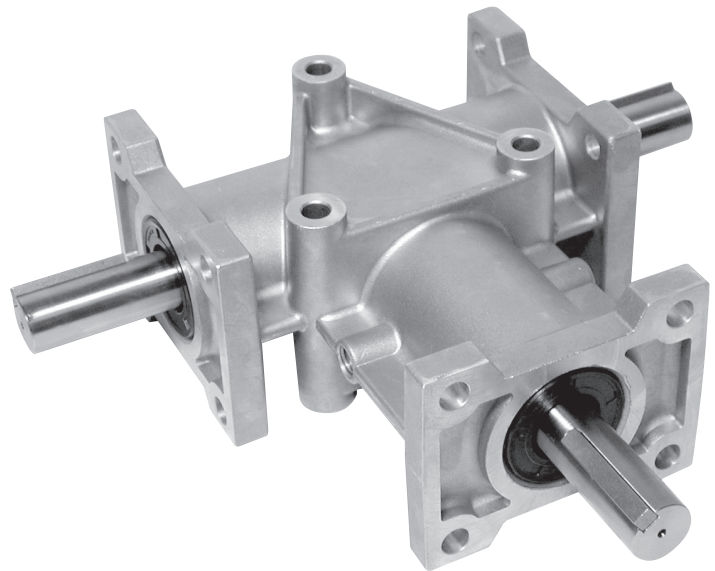




# Browning®

## ARA Aluminum Right Angle Bevel

1. Light weight, corrosion resistant aluminum housings.
2. Double sealed bearings for long life.
3. Alloy steel case hardened spiral bevel gears provide quiet operation.
4. Corrosion resistant stainless steel shafts.
5. Grease filled from the factory.



- 3 Sizes
- Spiral bevel gears
- Ratios 1:1 or 2:1
- Torque ratings from 17 to 157 in.-lbs.

## Selection and Rating Information

### Selection Example

A 3/4 hp, 1750 rpm electric motor is to drive a uniformly fed belt conveyor 16 hours per day. The output drive is a V-belt drive with a 3.4" P.D. driver sheave mounted on the gear box output shaft. Gear box input rotates clockwise and output rotates counter clockwise with output on the right side of the gear box. Gear box ratio is 1:1.

#### 1. Determine the Service Factor.

From the table on page 455, note that the load class for uniformly fed conveyor is "U". From the table on page 454, note that the service factor is 1.25 for class "U" load 16 hours per day.

#### 2. Determine the Normal Horsepower.

Multiply the motor hp by the service factor

$$3/4 \times 1.25 = .9375 \text{ Normal hp}$$

#### 3. Select the Aluminum Right Angle Gear Box.

Refer to the table at the right and read down the input rpm column to 1750, then read to the right to an input hp equal to or greater than the .9375 determined in Step 2, which in this case is 1.85 hp. Reading upward note that the gear box is 5ARA2. (This is the Basic Part Number and must be completed later.)

#### 4. Check the Overhung Load.

Solve the overhung load formula from this page.

$$OL = \frac{2TK}{D}$$

$$T = \frac{63025 \times \text{hp}}{\text{rpm}}$$

$$= \frac{63025 \times 3/4}{1750}$$

$$= 27 \text{ in lbs.}$$

$$K = 1.50$$

$$D = 3.4$$

$$OL = \frac{2 \times 27 \times 1.50}{3.4} = 23.8$$

Since this is less than the overhung load capacity from the bottom table on the right, the 5ARA2 gear box meets the requirements of the application.

#### 6. Complete the Gear Box Part Number.

Refer to the type sketch on page 465 and note that a Type SN gear box is needed for output right with input rotating Clockwise and output rotating Counter-Clockwise (Fig. 5).

Find the Basic Part No. 5ARA2 in the table on page 465, and reading to the right note that the complete part number for a Type SN Gear Box with 1:1 ratio is **5ARA2-SN10**.

Note: If a chain drive or the other drive has been specified for either or both input or output shafts, the overhung loads would have to be checked from the formula above and from the table at right.

CAUTION — Install guards according to applicable local and national codes for rotating shafts.

### Input hp and Output Torque

Basic Part No.			3ARA2		5ARA2		6ARA2	
Input RPM	Ratio	Output RPM	Input H.P.	Output Torque In.-Lbs.	Input H.P.	Output Torque In.-Lbs.	Input H.P.	Output Torque In.-Lbs.
3600	1:1	3600	1.60	28	3.60	63	7.80	136
3600	2:1	1800	.48	17	1.95	68	3.25	112
2800	1:1	2800	1.25	28	2.85	64	6.20	139
2800	2:1	1400	.38	17	1.55	69	2.55	114
1750	1:1	1750	.80	29	1.85	66	4.00	143
1750	2:1	875	.24	17	.98	70	1.65	118
1150	1:1	1150	.53	29	1.22	67	2.70	147
1150	2:1	575	.16	17	.65	71	1.09	119
850	1:1	850	.40	30	.90	67	2.00	148
850	2:1	425	.12	17	.48	71	.80	119
690	1:1	690	.33	30	.75	68	1.65	150
690	2:1	345	.10	18	.40	73	.65	119
400	1:1	400	.20	31	.45	71	.96	151
400	2:1	200	.06	18	.24	75	.40	125
200	1:1	200	.10	32	.23	72	.50	157
200	2:1	100	.03	18	.12	74	.20	125
100	1:1	100	.05	34	.12	75	.25	157
100	2:1	50	.01	19	.06	76	.10	125

### Overhung Loads

When a gear box is driven by any belt, chain, or gear drive, or when the gear box drives a driven unit through a belt, chain or gear drive, overhung loads must not exceed those shown in the table below. Use the following formula to calculate the overhung load.

$$OL = \frac{2TK}{D}$$

Where:

OL = Overhung Load (pounds)

T = Actual Shaft Torque (Inch-Pounds)

D = P.D. of Sprocket, Sheave, Pulley or Gear

K = 1.0 for Chain Drives

1.25 for Gear Drives

1.25 for Gearbelt Drives

1.50 for V-Belt Drives

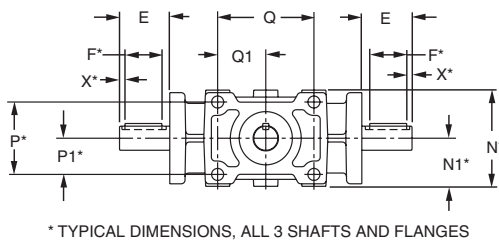
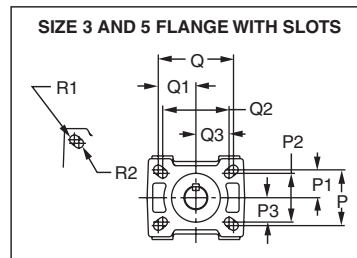
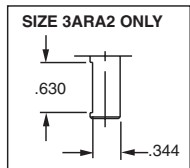
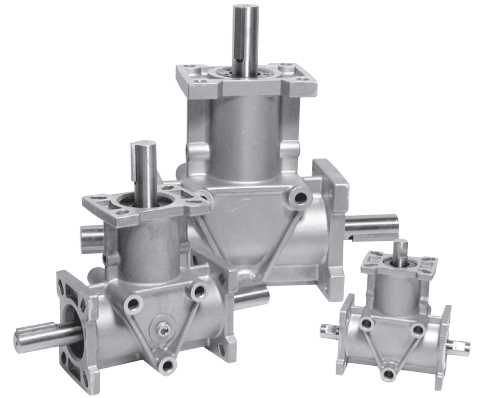
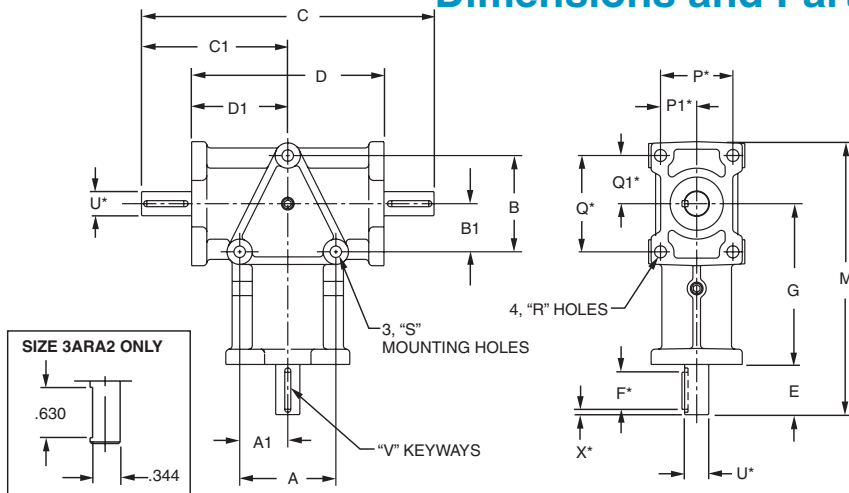
2.50 for Flat Belt Drives

No overhung loads are encountered when the gear box is coupling connected to the driver and/or driven machine. However, care should be taken in aligning the shafts to avoid pre-loading bearings by misalignment.

Gear Box	Max. Overhung Load
3ARA2	25 Lbs.
5ARA2	50 Lbs.
6ARA2	100 Lbs.

# Browning® Aluminum Right Angle Bevel Gear Reducers ARA

## Dimensions and Part Numbers



\* TYPICAL DIMENSIONS, ALL 3 SHAFTS AND FLANGES

### Specifications

Basic ★ Part No.	Wt. Lbs.	A	A <sub>1</sub>	B	B <sub>1</sub>	C	C <sub>1</sub>	D	D <sub>1</sub>	E	F	G	M	N	N <sub>1</sub>
3ARA2	.8	1.326	.663	1.326	.663	4.310	2.155	2.756	1.378	.780	-	2.165	3.890	1.575	.7875
5ARA2	3.5	1.890	.945	1.890	.945	7.370	3.685	4.250	2.125	1.560	1.150	3.250	6.180	2.362	1.181
6ARA2	7.5	2.992	1.496	2.992	1.496	9.100	4.550	5.984	2.992	1.560	1.150	5.000	8.480	2.992	1.496

Basic ★ Part No.	P	P <sub>1</sub>	P <sub>2</sub>	P <sub>3</sub>	Q	Q <sub>1</sub>	Q <sub>2</sub>	Q <sub>3</sub>	R	R <sub>1</sub>	R <sub>2</sub>	S	U	V	X
3ARA2	1.100	.550	.880	.440	1.500	.750	1.190	.595	-	.108	.094	.230	.375	-	-
5ARA2	1.570	.785	1.380	.690	2.130	1.065	1.880	.940	-	.130	.130	.270	.625	.187 x .093	.160
6ARA2	2.250	1.125	-	-	3.000	1.500	-	-	.370	-	-	.350	.750	.187 x .093	.160

Basic Part No. means — 3 = 3/8" Shaft, 5 = 5/8" Shaft, 6 = 6/8 or 3/4" Shaft  
 ARA = Aluminum Right Angle  
 2 = Input shaft one end only.  
 Select Complete Part No. from the table below after determining the ratio, type and relative shaft rotation from Figs. 1-6 below.

### Part Numbers, Types and Ratios

Basic Part No.	Fig.	Type▲	Ratio■	Part No.
3ARA2	1 and 2	LR	1:1	3ARA2 - LR10
	1 and 2	LR	2:1	3ARA2 - LR20
	3 and 6	SF	1:1	3ARA2 - SF10
	3 and 6	SF	2:1	3ARA2 - SF20
	4 and 5	SN	1:1	3ARA2 - SN10
4 and 5	SN	2:1	3ARA2 - SN20	
5ARA2	1 and 2	LR	1:1	5ARA2 - LR10
	1 and 2	LR	2:1	5ARA2 - LR20
	3 and 6	SF	1:1	5ARA2 - SF10
	3 and 6	SF	2:1	5ARA2 - SF20
	4 and 5	SN	1:1	5ARA2 - SN10
4 and 5	SN	2:1	5ARA2 - SN20	
6ARA2	1 and 2	LR	1:1	6ARA2 - LR10
	1 and 2	LR	2:1	6ARA2 - LR20
	3 and 6	SF	1:1	6ARA2 - SF10
	3 and 6	SF	2:1	6ARA2 - SF20
	4 and 5	SN	1:1	6ARA2 - SN10
4 and 5	SN	2:1	6ARA2 - SN20	

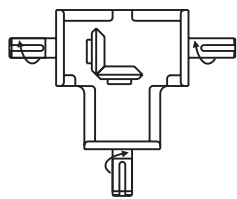


Fig. 1-Type LR

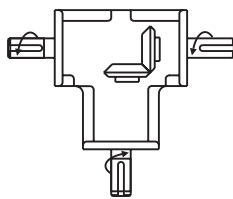


Fig. 2-Type LR

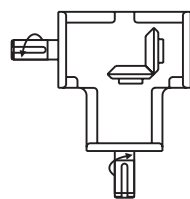


Fig. 3-Type SF

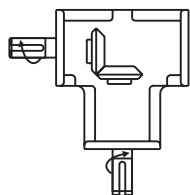


Fig. 4-Type SN

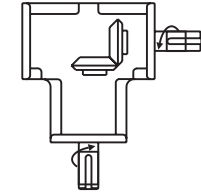


Fig. 5-Type SN

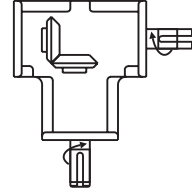


Fig. 6-Type SF

LR means output shaft extension left and right sides, SF means single output extension with gear mounted on far side from extension, and SN means single output extension with gear mounted on side near to extension.

10 = 1:1 Ratio, 20 = 2:1 Ratio

ARA Reducers



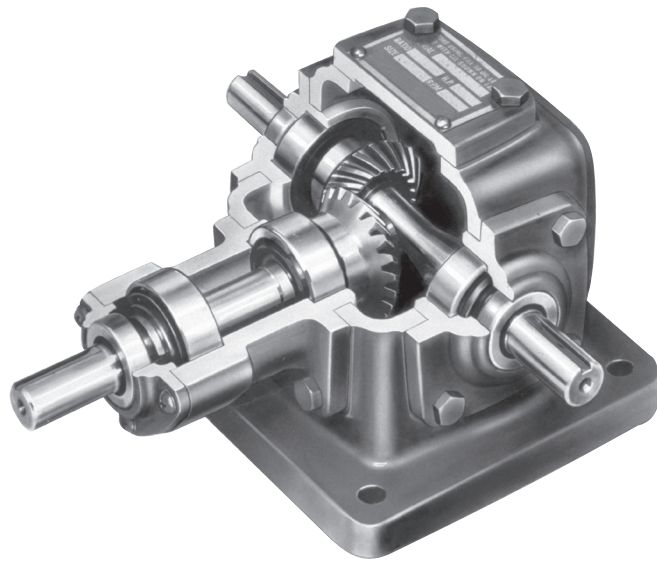






# Morse®

## M Series Spiral Bevel



1. Corrosion resistant aluminum and rugged cast iron housings are line bored for precise gear and bearing alignment.
2. Carburized, lapped and matched AGMA rated spiral bevel gears provide long life and quiet operation.
3. Commercially available tapered roller bearings provide maximum catalog load capacity.
4. Double lip contact oil seals ride on hardened plunge ground shafts.
5. Integral machined base provides a precision mounting surface for critical shaft alignment.

## Ordering Information

### Overload Service Factors

Load and operating characteristics of both driver and driven units must be considered thoroughly when selecting Morse spiral gear boxes. It is essential that all gear boxes be selected for maximum load conditions to be encountered. Morse bevel gear boxes will safely transmit momentary starting loads as great as 200% of the mechanical input ratings.

First determine the load classification of the driven unit from the table on page 469. Then from the table below, select an overload service factor for this classification, for duration of service to be involved and for the type of prime mover to be used.

Prime Mover	Duration of Service	Driven Machine Load Classification		
		U Uniform	M Moderate Shock	H Heavy Shock
Electric Motor	Occasional - 1/2 hour per day	0.50	0.80	1.25
	Intermittent - 3 hours per day	0.80	1.00	1.50
	Up to 10 hours per day	1.00	1.25	1.75
	24 hours per day	1.25	1.50	2.00
Multi-Cylinder Internal Combustion Engine	Occasional - 1/2 hour per day	0.80	1.00	1.50
	Intermittent - 3 hours per day	1.00	1.25	1.75
	Up to 10 hours per day	1.25	1.50	2.00
	24 hours per day	1.50	1.75	2.25
Single Cylinder Internal Combustion Engine	Occasional - 1/2 hour per day	1.00	1.25	1.75
	Intermittent - 3 hours per day	1.25	1.50	2.00
	Up to 10 hours per day	1.50	1.75	2.25
	24 hours per day	1.75	2.00	2.50

### Overhung Loads

When a gear box is driven by any belt, chain, or gear drive, or when the gear box drives a driven unit through a belt, chain or gear drive, overhung loads must not exceed those shown in the tables on page 470. Use the following formula to calculate the overhung load.

$$OL = \frac{2TK}{D}$$

Where:

- OL = Overhung load (pounds)
- T = Actual shaft torque (inch-pounds)
- D = P.D. of sprocket, sheave, pulley or gear
- K = 1.0 for chain drives
- 1.25 for gear drives
- 1.25 for gearbelt drives
- 1.50 for v-belt drives

No overhung loads are encountered when the gear box is coupling connected to the driver and/or driven machine. However, care should be taken in aligning the shafts to avoid pre-loading bearings by misalignment.

### Selection Example

A right angle gear box is needed for a line shaft driving processing machinery which requires 1744 inch-pounds torque and will operate about 10 hours per day. This line shaft will be coupling connected at a right angle to an existing line shaft which is driven by an 1150 rpm electric motor. Existing line shaft is 1 7/16" diameter and the new line shaft is 1 3/16" diameter. Unit will be floor mounted with the output shaft to the left. Shafts to rotate clockwise.

#### 1. Determine the Load Classification of the driven unit.

From page 469, the load class for a line shaft driving processing machinery is "M".

#### 2. Determine the Overload Service Factor.

From the table at the left, the service factor for a moderate shock (M) load driven by an electric motor 10 hours per day is 1.25.

#### 3. Determine the Normal Torque (or the Normal hp).

Multiply the required torque by the service factor:

$$1744 \times 1.25 = 2180 \text{ normal torque}$$

#### 4. Select the Gear Box.

From page 470 under the 1150 rpm column, select a gear box which has a mechanical rating of 2180, or slightly greater, which in this case is 2187 and the gear box is an 8M. Check to see that the horsepower rating of the selected unit is not thermally limited. In this selection there is not a thermal limitation.

#### 5. Select the Couplings Required.

Note: If a chain drive or the other drive has been specified for either or both input or output shafts, the overhung loads would have to be checked from the formula above and from the table on page 470.

#### 6. List Components

- 1. 8M 1:1 1-L-O spiral bevel gear box

See page 472-473 for shaft arrangements and mounting positions.

**CAUTION**—Install guards according to applicable local and national codes for rotating shafts.

## Load Classifications — Typical Applications

Application	Load Class	Application	Load Class	Application	Load Class
AGITATORS		EXTRUDERS (Plastic)—Continued		PAPER MILLS—Continued	
Pure Liquids	U	Pipe	U	Calenders—Super	H
Liquids and Solids	M	Tubing	U	Converting Machine, Except Cutters, Platers	M
Liquids — Variable Density	M	Blow Molders	M	Conveyors	M
BLOWERS		Pre-plasticizers	M	Couch	M
Centrifugal	U	FANS		Cutters—Platers	H
Lobe	M	Centrifugal	U	Cylinders	M
Vane	U	Cooling Towers—Induced Draft	★	Dryers	M
BREWING AND DISTILLING		Forced Draft	U*	Felt Stretchers	M
Bottling Machinery	U	Induced Draft	M	Felt Whippers	H
Brew Kettles, Continuous Duty	U	Large (Mine, etc.)	M	Jordons	H
Cookers, Continuous Duty	U	Large (Industrial)	M	Log Haul	H
Mash Tubs, Continuous Duty	U	Light (Small Diameter)	U	Presses	U
Scale Hopper, Frequent Starts	M	FEEDERS		Pulp Machine Reel	M
CAN FILLING MACHINES		Apron	M	Stock Chests	M
CANE KNIVES	M*	Belt	M	Suction Roll	U
CAR DUMPERS	H	Disc	U	Washers and Thickeners	M
CAR PULLERS	M	Reciprocating	H	Winders	U
CLARIFIERS	U	Screw	M	PRINTING PRESSES	★
CLASSIFIERS	M	FOOD INDUSTRY		PULLERS	
CLAY WORKING MACHINERY		Beet Slicers	M	Barge Haul	H
Brick Press	H	Cereal Cookers	U	PUMPS	
Briquette Machine	H	Dough Mixers	M	Centrifugal	U
Clay Working Machinery	M	Meat Grinders	M	Proportioning	M
Pub Mill	M	GENERATORS — (Not Welding)	U	Reciprocating	U
COMPRESSORS		HAMMER MILLS	H	Single Acting, 3 or more cylinders	M
Centrifugal	U	HOISTS		Double Acting, 2 or more cylinders	M
Lobe	M	Heavy Duty	H	Single Acting, 1 or 2 cylinders	★
Reciprocating, Multi-Cylinder	M	Medium Duty	M	Double Acting, Single cylinder	★
Reciprocating, Single Cylinder	H	Skip Hoist	M	Rotary—Gear Type	U
CONVEYORS—UNIFORMLY LOADED OR FED		LAUNDRY WASHERS		—Lobe, Vane	U
Apron	U	Reversing	M	RUBBER AND PLASTIC INDUSTRIES	
Assembly	U	LAUNDRY TUMBLERS	M	Crackers	H*
Belt	U	LINE SHAFTS		Laboratory Equipment	M
Bucket	U	Driving Processing Equipment	M	Mixing Mills	H*
Chain	U	Light	U	Refiners	M*
Flight	U	Other Line Shafts	U	Rubber Calenders	M*
Oven	U	LUMBER INDUSTRY (See Table 3, Page 5)		Rubber Mill (2 on line)	M*
Screw	U	MACHINE TOOLS		Rubber Mill (3 on line)	U*
CONVEYORS—HEAVY DUTY NOT UNIFORMLY FED		Bending Roll	M	Sheeter	M*
Apron	M	Punch Press—Gear Driven	H	Tire Building Machines	★
Assembly	M	Notching Press—Belt Driven	★	Tire and Tube Press Openers	★
Belt	M	Plate Planers	H	Tubers and Strainers	M*
Bucket	M	Tapping Machine	H	Warming Mills	M*
Chain	M	Other Machine Tools		SAND MILLER	M
Chain	M	Main Drives	M	SEWAGE DISPOSAL EQUIPMENT	
Flight	M	Auxiliary Drives	U	Bar Screens	U
Live Roll	★	METAL MILLS		Chemical Feeders	U
Oven	M	Draw Bench Carriage and Main Drive	M	Collectors	U
Reciprocating	H	Pinch, Dryer and Scrubber Rolls, Reversing	★	Dewatering Screens	M
Screw	M	Slitters	M	Scum Breakers	M
Shaker	H	Table Conveyors		Slow or Rapid Mixers	M
CRANES		Non-Reversing		Thickeners	M
Main Hoists	U	Group Drives	M	Vacuum Filters	M
Bridge	★	Individual Drives	H	SCREENS	
Trolley Travel	★	Reversing	★	Air Washing	U
CRUSHER		Wire Drawing and Flattening Machines	M	Rotary—Stone and Gravel	M
Ore	H	Wire Winding Machines	M	Traveling Water Intake	U
Stone	H	MILLS, ROTARY TYPE		SLAB PUSHERS	M
Sugar	M*	Ball	M*	STEERING GEAR	★
DREDGES		Cement Kilns	M*	STOKERS	U
Cable Reels	M	Dryers and Coolers	M*	SUGAR INDUSTRY	
Conveyors	M	Kilns	M	Cane Knives	M*
Cutter Head Drives	H	Pebble	M*	Crushers	M*
Jig Drives	H	Rod, Plain and Wedge Bar	M*	Mills	H*
Maneuvering Winches	M	Tumbling Barrels	H	TEXTILE INDUSTRY	
Pumps	M	MIXERS		Batchers	M
Screen Drive	H	Concrete, Continuous	M	Calenders	M
Stackers	M	Concrete, Intermittent	M	Cards	M
Utility Winches	M	Constant Density	U	Dry Cans	M
ELEVATORS		Variable Density	M	Dryers	M
Bucket—Uniform Load	U	OIL INDUSTRY		Dyeing Machinery	M
Bucket—Heavy Load	M	Chillers	M	Knitting Machines	★
Bucket—Continuous	U	Oil Well Pumping	★	Looms	M
Centrifugal Discharge	U	Paraffin Filter Presses	M	Mangles	M
Escalators	U	Rotary Kilns	M	Nappers	M
Freight	M	PAPER MILLS		Range Drives	★
Gravity Discharge	U	Agitators (Mixers)	M	Slashers	M
Man Lifts	★	Barker—Auxiliaries—Hydraulic	M	Soapers	M
Passenger	★	Barker—Mechanical	M	Spinners	M
EXTRUDERS (Plastic)		Barking Drum	H	Tenter Frames	M
Film	U	Beater and Pulper	U	Washers	M
Sheet	U	Bleacher	U	Winders	M
Coating	U	Calenders	M	WINDLASS	★
Rods	U				

\* Select Service Factor for 24 hours service only.  
 Refer to Application Engineering (1 800 626 2093).  
 Determine load class from the table above. Determine service factor from the table on page 468.

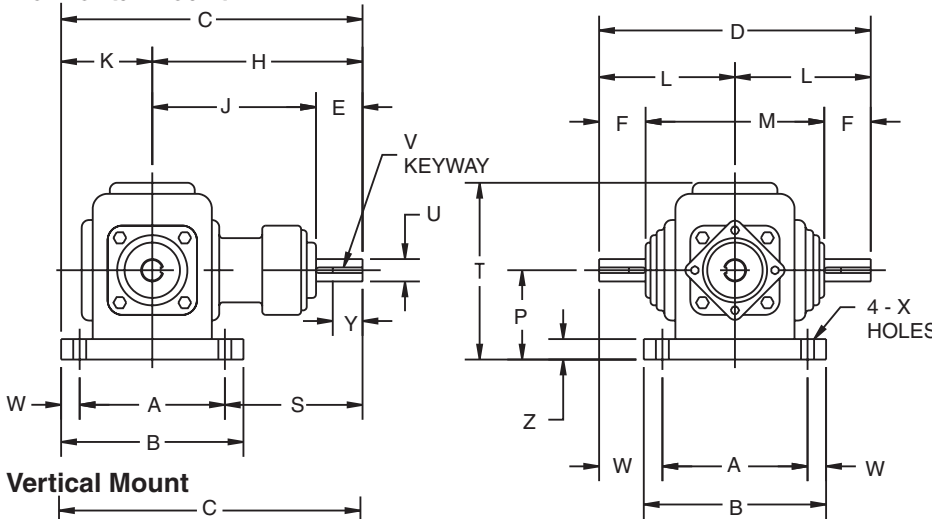
Bevel Req.  
M Series

## Speed, Horsepower, Torque and Overhung Loads

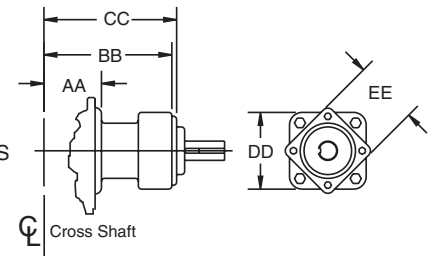
Input Speed	3600 RPM		2700 RPM	1900 RPM	1750 RPM				1460 RPM			
	4M	6M	8M	12M	4M	6M	8M	12M	4M	6M	8M	12M
Horsepower	11.97	36.5	73.45*	114.9*	7.22	22.03*	53.53*	108.5*	6.36	19.4	47.16	95.57
Torque (In Lbs.)	210	639	1683	3812	260	793	1928	3910	275	838	2036	4125
<b>Lateral Shaft</b>												
Overhung Load	187	426	750	1270	233	530	858	1300	245	559	903	1370
Thrust Load	110	301	700	774	138	374	801	794	145	395	844	837
<b>Cross Shaft</b>												
Overhung Load	317	631	905	2110	317	631	1040	2170	317	631	1090	2290
Thrust Load	165	453	980	1080	206	562	1120	1100	217	593	1180	1160
Input Speed	1150 RPM				870 RPM				580 RPM			
	4M	6M	8M	12M	4M	6M	8M	12M	4M	6M	8M	12M
Horsepower	5.38	16.42	39.9	80.86	4.42	13.51	37.82	66.52	2.94	9.38	24.24	50.08
Torque (In Lbs.)	295	900	2187	4431	320	978	2378	4818	320	1020	2634	5442
<b>Lateral Shaft</b>												
Overhung Load	264	600	972	1480	287	652	1060	1600	435	867	1204	1810
Thrust Load	156	424	907	900	169	461	987	979	257	613	1100	1100
<b>Cross Shaft</b>												
Overhung Load	317	631	1180	2460	317	631	1280	2670	317	631	1460	2750
Thrust Load	165	637	1180	1250	253	693	1180	1360	341	854	1180	1530
Input Speed	300 RPM				200 RPM				100 RPM			
	4M	6M	8M	12M	4M	6M	8M	12M	4M	6M	8M	12M
Horsepower	1.52	4.85	12.54	31.57	1.02	3.23	8.35	23.77	.51	1.61	4.16	12.52
Torque (In Lbs.)	320	1020	2634	6633	320	1020	2634	7490	320	1020	2634	7893
<b>Lateral Shaft</b>												
Overhung Load	450	908	2090	2210	450	908	2450	2500	450	908	2450	3870
Thrust Load	422	992	1100	1350	537	1010	1100	1520	776	1010	1100	2540
<b>Cross Shaft</b>												
Overhung Load	317	631	1930	2750	317	631	1930	2750	317	631	1930	2750
Thrust Load	506	1080	1180	1870	621	1080	1180	2120	860	1080	1180	3170

\* Mechanical rating exceeds thermal rating and additional cooling may be required. Contact Application Engineering (1 800 626 2093) for assistance.  
 All selections based on a 1:1 Ratio, 1.5:1 and 2:1 Ratios are available on a made to order basis.  
 Horsepower and torque ratings include a 1.0 service factor.  
 Overhung load rating is calculated from the middle of the shaft.

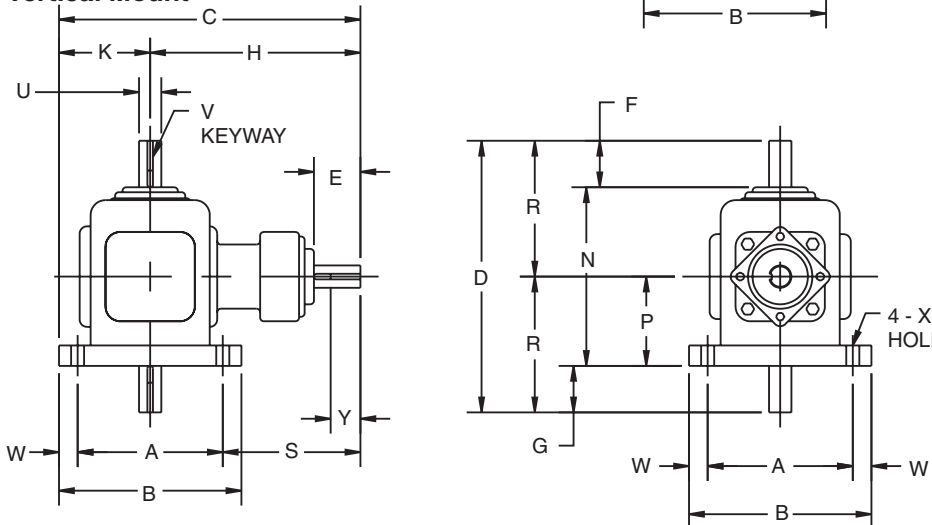
### Horizontal Mount



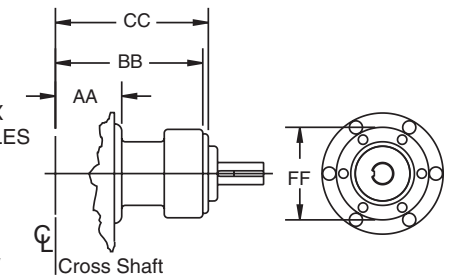
### Size 4, 6 & 8M



### Vertical Mount



### Size 12M



Size No.	Weight Lbs.*	Dimensions													
		A	B	C	D	E	F	G	H	J	K	L	M	N	P
4M	12	4 7/8	6 1/8	10 1/8	9 1/8	1 9/16	1 9/16	1 9/16	7 1/16	5 1/2	3 1/16	4 9/16	6	6	3
6M	43	6	7 3/8	12 7/16	12 3/8	2 1/8	2 1/8	2 11/16	8 3/4	6 5/8	3 11/16	6 3/16	8 1/8	8 1/8	3 1/2
8M	91	7 1/2	9	16 3/8	15 7/8	3 1/8	3 1/8	3 1/8	11 7/8	8 3/4	4 1/2	7 15/16	9 5/8	9 5/8	4 1/2
12M	272	11	13	22 7/8	21 1/4	4 1/8	4 1/8	3 7/8	16 3/8	12 1/4	6 1/2	10 5/8	13 1/4	13 1/4	6 3/4

Size No.	Dimensions															
	R	S	T	U**	V	W	X	Y	Z	AA	BB	CC	DD	EE	FF	
4M	4 9/16	4 5/8	5 15/16	.750	3/16x3/32	5/8	4-7/16	1	11/16	2 1/4	5	4 9/16	3	2 1/2	-	
6M	6 3/16	6	7	1.000	1/4x1/8	11/16	4-9/16	1 5/16	3/4	2 7/8	6	6 3/16	4 5/8	3 7/8	-	
8M	7 15/16	7 1/2	8 3/4	1.500	3/8x3/16	3/4	4-9/16	2 3/16	7/8	3 5/8	8	7 15/16	5 7/8	5 1/8	-	
12M	10 5/8	11	13	2.000	1/2x1/4	1	4-25/32	3	1 1/4	5 3/8	11	10 5/8	-	-	6 3/8	

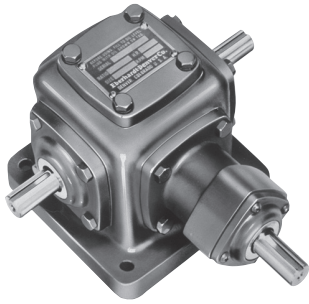
Shaft tolerances +.000 to -.001.

\* Size 4M - aluminum housing.

\*\* For 1:1 ratio only. 1.5:1 and 2:0 are MTO and shaft sizes differ.

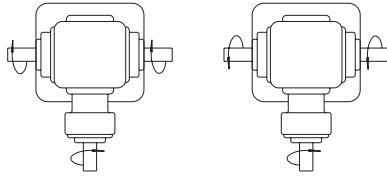
Bevel Req. M Series





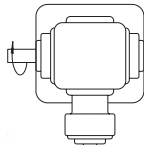
Horizontal Mount

Shaft Arrangements

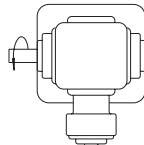


1 - LR  
STANDARD POSITION

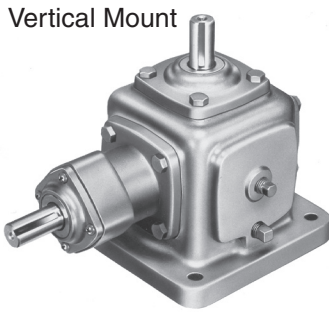
1 - LR - O



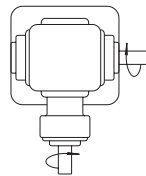
1 - L



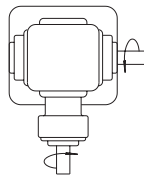
1 - L - O



Vertical Mount



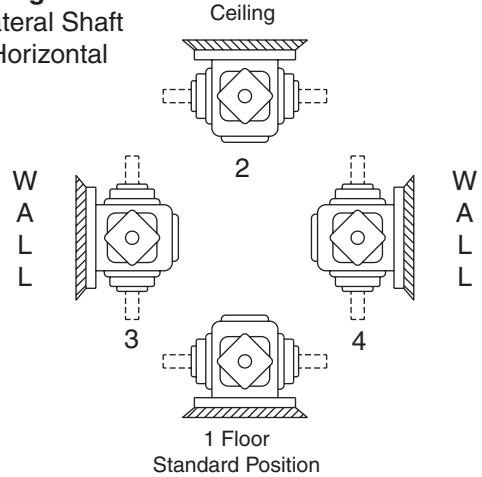
1 - R



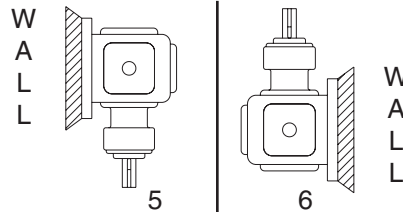
1 - R - O

Mounting Positions

Lateral Shaft  
Horizontal



Lateral Shaft Vertical

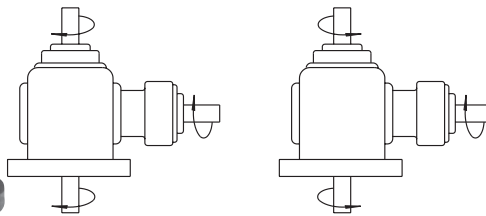


Cross Shaft



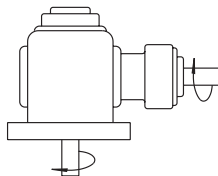
Lateral Shaft

Shaft Arrangements

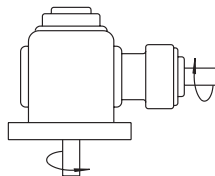


1 - UD

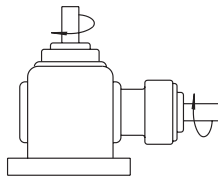
1 - UD - O



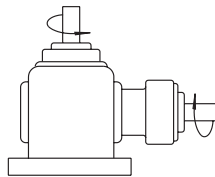
1 - D



1 - D - O



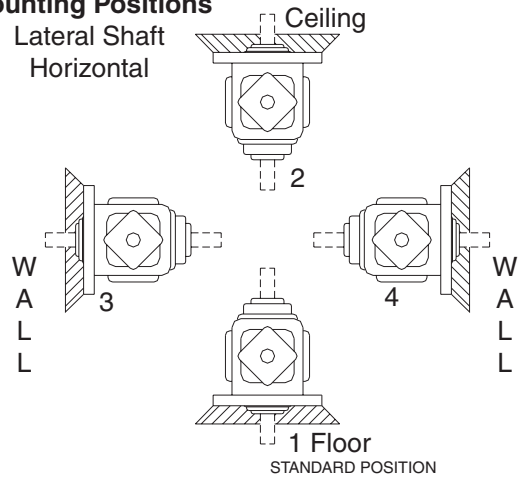
1 - U



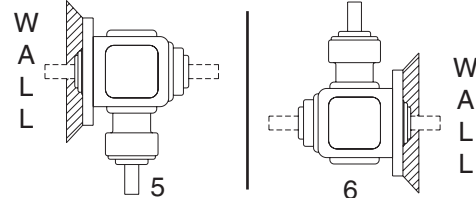
1 - U - O

Mounting Positions

Lateral Shaft  
Horizontal



Lateral Shaft Vertical

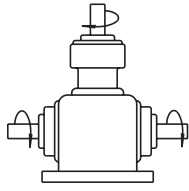


In describing a miter or bevel gear box, the shaft carried in the long housing projection is called the lateral shaft. The cross shaft is shorter and is supported by close-in housing covers. The cross shaft **only** may have double extensions as standard.

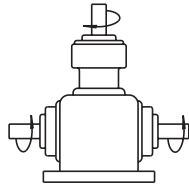
Part numbers for completed assemblies are a combination of unit size, example **8M**, Gear Ratio shaft arrangement **1 - LR - O** and mounting position **6**, for a complete part number **8M 1:1 - LR - O - 6**.

Shafts may be rotate in either direction. Arrows show relative rotation only.

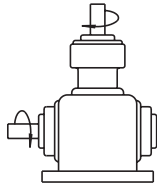
### Shaft Arrangements



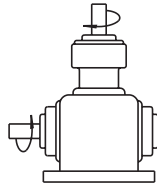
U - LR



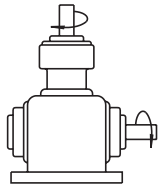
U - LR - O



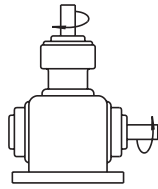
U - L



U - L - O



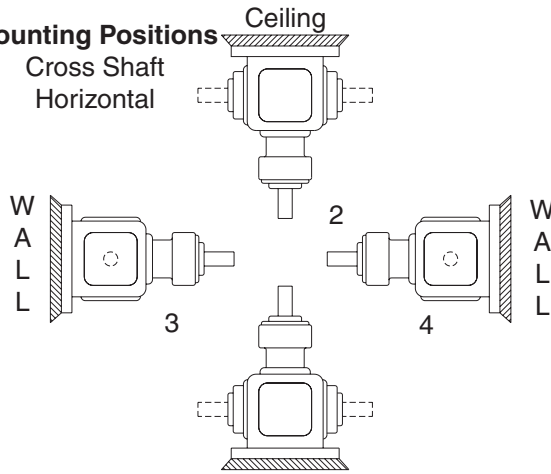
U - R



U - R - O

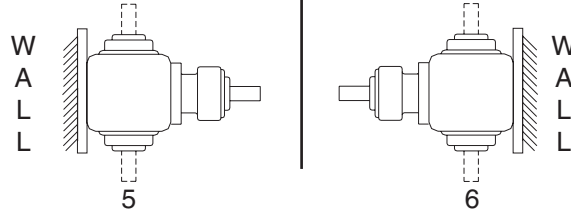
### Mounting Positions

Cross Shaft  
Horizontal

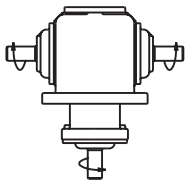


Floor  
STANDARD POSITION

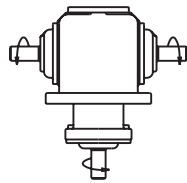
### Cross Shaft Vertical



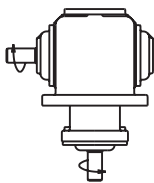
### Shaft Arrangements



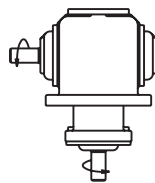
D - LR



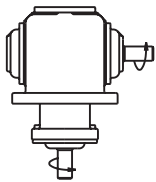
D - LR - O



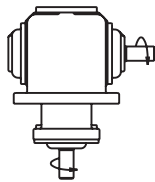
D - L



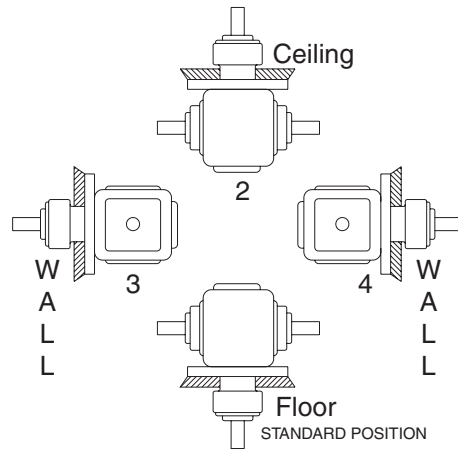
D - L - O



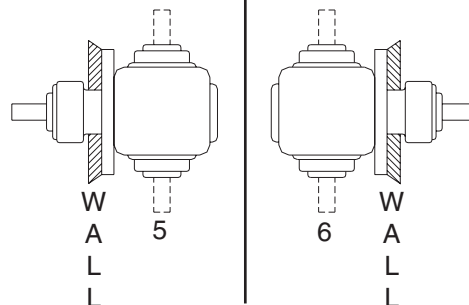
D - R



D - R - O



### Cross Shaft Vertical









# Regal Power Transmission Solutions

## Heavy Industrial Duty C-Face Motors

1/3 - 2 HP 3 Phase, Frames 56 through 145TC, High Efficiency.

Applications: Constructed for all general industrial applications in conjunction with other C-Face gear products.

### Features:

- High efficiency motor designs
- 4 pole suitable for 60 and 50 Hz voltages (as shown by model number below)
- Class "F" insulation, Class "B" temperature rise
- Design B (ratings 1 thru 2 hp are design C)
- Will accept cast iron conduit box and/or cast iron fan cover guard kits (see at bottom of page)
- Will accept appropriate SHUR STOP brake kits (see also CTFB motors with FCR DC brakes)
- Cast iron short end bracket with 4 position drain holes with plugs

### CTEF

- TEFC High Efficiency Motors
- Footless NEMA C-Face frame
- Class "F" insulation, Class "B" rise
- Design B minimum (1 to 2 hp are Design C high torque)
- UL®, CSA
- 60 Hz 230/460V and 50/380V at same hp (on nameplate)
- Will accept Shur Stop brake kits for frame size noted
- Will accept cast iron C/B and fan cover guard kits

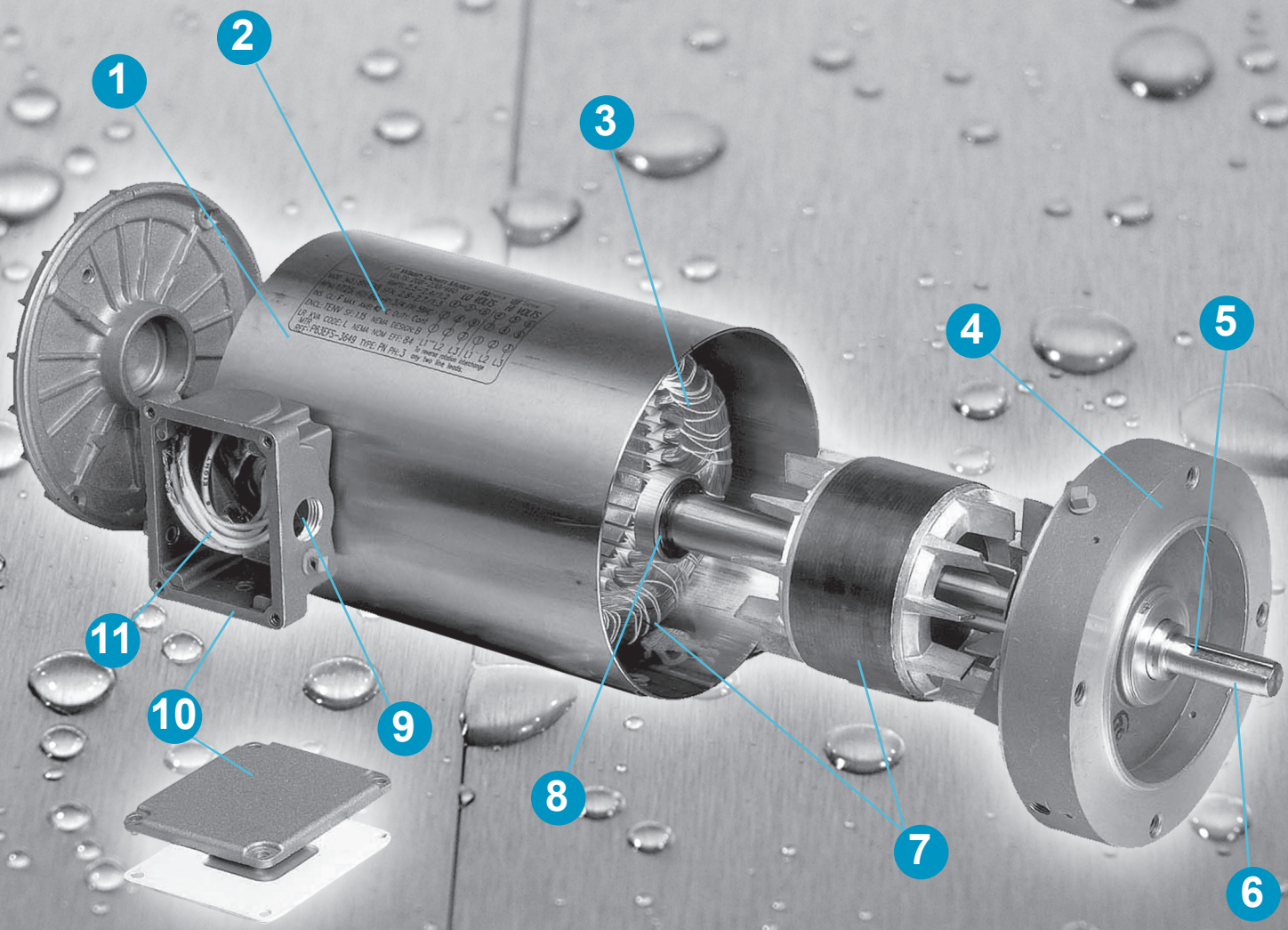
### CTIF

- TEFC Inverter Duty motors per NEMA MG1 Part 31
- Footless NEMA C-Face frame
- Suitable for 10:1 constant torque from 60 to 6 Hz
- Constant hp from 60 to 90 Hz minimum
- Class "F" insulation
- Three normally closed thermostats in motor windings
- UL, CSA
- Three year warranty off inverter power

### CTFB

- TEFC Brake Motors
- Footless NEMA C-Face frame
- Class "F" insulation, Class "B" rise
- DC brake with IP55 encapsulated 180VDC coil
- Rectifier supplied in oversized main conduit box
- Manual release lever supplied, mount 90° from C/B
- Brake leads pre-wired to motor C/B
- Brake torque rating 150% of motor FL torque
- UL, CSA
- 60 Hz 230/460V and 50/380V at same hp (on nameplate)





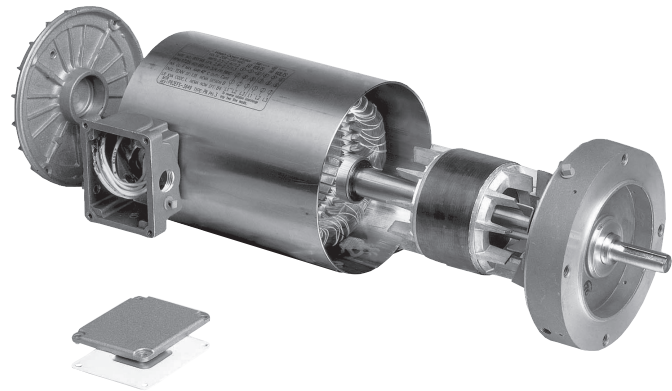




# EMERSON<sup>™</sup>

## Industrial Automation

# Stainless Steel Motors



1. 1/2 - 2 HP
2. Stainless steel frame, thru-bolts, nuts and screws help prevent rust due to moisture.
3. Laser-etched oversized nameplate is easy to read and will not trap food particles or dirt.
4. Inverter Grade<sup>®</sup> insulation system for use with adjustable frequency drives enables improved efficiency and control.
5. T-type drains help prevent need to remove plugs after installation and allow for all-position mounting.
6. "VBX" Inpro/Seal<sup>™</sup> bearing isolator on drive end helps protect against water and contaminants.
7. 303 stainless shaft helps prevent connected drive components from rusting to shaft.
8. Rust inhibitor on stator and rotor provides added protection against corrosion.
9. Double-contact, double sealed ball bearings and moisture-resistant grease help assure long bearing life.
10. RTV-sealed exit holes help eliminate a major point of water entry.
11. Waterproof nitrile gasket helps prevent moisture and chemicals from entering the wiring assembly.
12. Easy-to-read connection leads make wiring easier.





# Heavy Industrial Duty C-Face Motors

## without Base - 1750 rpm

HP	NEMA Frame	Volts	Catalog Number	Type	SF	Amps	Overall Length Including Shaft	Shaft Diameter "U"	Shaft Length "AH"	Ship Weight Lbs.
1/3	56C	230/460 +	RC0102	CTEF	1.35	1.27/0.64	11.28	0.625	2.06	28
			RC0103	CTIF	1.0 *	1.35/0.67 *	11.28	0.625	2.06	28
			RC0100	CTFB	1.35	1.27/0.64	14.45	0.625	2.06	56
			RC0151	CTIFB	1.0 *	1.35/0.67 *	14.45	0.625	2.06	56
		575	RC0602	CTEF	1.35	0.53	11.28	0.625	2.06	28
			RC0603	CTIF	1.0 *	0.56 *	11.28	0.625	2.06	28
			RC0600	CTFB	1.35	0.53	14.45	0.625	2.06	56
			RC0651	CTIFB	1.0 *	0.56 *	14.45	0.625	2.06	56
1/2	56C	230/460 +	RD0102	CTEF	1.35	1.76/0.88	11.28	0.625	2.06	30
			RD0103	CTIF	1.0 *	1.87/0.93 *	11.28	0.625	2.06	30
			RD0100	CTFB	1.35	1.76/0.88	14.45	0.625	2.06	58
			RD0151	CTIFB	1.0 *	1.87/0.93 *	14.45	0.625	2.06	58
		575	RD0602	CTEF	1.35	0.73	11.28	0.625	2.06	30
			RD0603	CTIF	1.0 *	0.77 *	11.28	0.625	2.06	30
			RD0600	CTFB	1.35	0.73	14.45	0.625	2.06	58
			RD0651	CTIFB	1.0 *	0.77 *	14.45	0.625	2.06	58
3/4	56C	230/460 +	RE0102	CTEF	1.25	2.42	11.28	0.625	2.06	32
			RE0103	CTIF	1.0 *	2.57/1.28 *	11.28	0.625	2.06	32
			RE0100	CTFB	1.25	2.42	14.45	0.625	2.06	58
			RE0151	CTIFB	1.0 *	2.57/1.28 *	14.45	0.625	2.06	58
		575	RE0602	CTEF	1.25	0.95	11.28	0.625	2.06	32
			RE0603	CTIF	1.0 *	1.01 *	11.28	0.625	2.06	32
			RE0600	CTFB	1.25	0.95	14.45	0.625	2.06	32
			RE0651	CTIFB	1.0 *	1.01 *	14.45	0.625	2.06	58
1	B56C	230/460 +	RF0152	CTEF	1.25	3.10/1.55	13.07	0.625	2.06	34
			RF0153	CTIF	1.0 *	3.29/1.64 *	13.07	0.625	2.06	34
			RF0108	CTFB	1.25	3.10/1.55	15.7	0.625	2.06	61
			RF0159	CTIFB	1.0 *	3.29/1.64 *	15.7	0.625	2.06	61
		575	RF0652	CTEF	1.25	1.21	13.07	0.625	2.06	34
			RF0653	CTIF	1.0 *	1.28 *	13.07	0.625	2.06	34
			RF0608	CTFB	1.25	1.21	15.7	0.625	2.06	61
			RF0659	CTIFB	1.0 *	1.28 *	15.7	0.625	2.06	61
	143TC	230/460 +	RF0102	CTEF	1.25	3.10/1.55	13.13	0.875	2.12	32
			RF0103	CTIF	1.0 *	3.29/1.64 *	13.13	0.875	2.12	32
			RF0100	CTFB	1.25	3.10/1.55	15.76	0.875	2.12	61
			RF0151	CTIFB	1.0 *	3.29/1.64 *	15.76	0.875	2.12	61
		575	RF0602	CTEF	1.25	1.21	13.13	0.875	2.12	32
			RF0603	CTIF	1.0 *	1.28 *	13.13	0.875	2.12	32
			RF0600	CTFB	1.25	1.21	15.76	0.875	2.12	61
			RF0651	CTIFB	1.0 *	1.28 *	15.76	0.875	2.12	61
1 1/2	B56C	230/460 +	RG0152	CTEF	1.25	4.36/2.18	13.07	0.625	2.06	35
			RG0153	CTIF	1.0 *	4.62/2.31 *	13.07	0.625	2.06	35
		575	RG0652	CTEF	1.25	1.71	13.07	0.625	2.06	35
			RG0653	CTIF	1.0 *	1.81 *	13.07	0.625	2.06	35
	145TC	230/460 +	RG0102	CTEF	1.25	4.36/2.18	13.13	0.875	2.12	35
			RG0103	CTIF	1.0 *	4.62/2.31 *	13.13	0.875	2.12	35
			RG0100	CTFB	1.25	4.36/2.18	15.76	0.875	2.12	62
			RG0151	CTIFB	1.25	4.36/2.18	15.76	0.875	2.12	62
		575	RG0602	CTEF	1.25	1.71	13.13	0.875	2.12	35
			RG0603	CTIF	1.0 *	1.81 *	13.13	0.875	2.12	35
			RG0600	CTFB	1.25	1.71	15.76	0.875	2.12	35
			RG0651	CTIFB	1.0 *	1.81 *	15.76	0.875	2.12	62
2	145TC	230/460 +	RH0102	CTEF	1.25	5.78/2.89	13.13	0.875	2.12	47
			RH0103	CTIF	1.0 *	6.13/3.06 *	13.13	0.875	2.12	47
			RH0100	CTFB	1.25	5.78/2.89	15.76	0.875	2.12	63
			RH0151	CTIFB	1.0 *	6.13/3.06 *	15.76	0.875	2.12	63
		575	RH0602	CTEF	1.25	2.33	13.13	0.875	2.12	47
			RH0603	CTIF	1.0 *	2.47 *	13.13	0.875	2.12	47
			RH0600	CTFB	1.25	2.33	15.76	0.875	2.12	63
			RH0651	CTIFB	1.0 *	2.47 *	15.76	0.875	2.12	63

+ These ratings are suitable for full HP @ 3/50, 380V sine wave power and nameplated accordingly with 1.0 SF.

\* Suitable for 1.0 SF constant torque over 10 to 1 range from 60 to 6 Hz. Brakes designed for separate 115 or 230V power supply.

### Part Number Description



- F = Footless C-Face
- FB = Footless C-Face w/Brake
- E = High Efficiency Design
- I = Inverter Duty Design
- T = Totally Enclosed Fan Cooled
- C = Heavy Industrial Duty

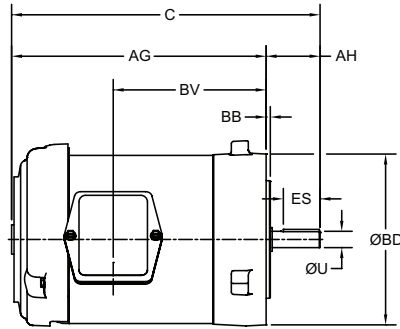


## State-of-the-Art Features Built into Every Paint Free Washdown Motor

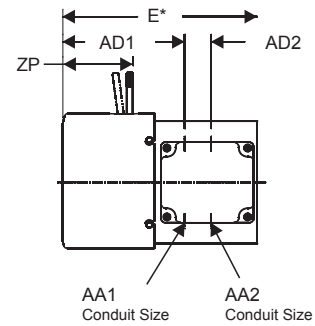
C-Face without Base – 1725 rpm

hp	NEMA Frame	Volts	Catalog Number	SF	Amps	Overall Length Including Shaft	Shaft Dia.	Shaft Length	Ship Wgt.
1/2	56C	208-230/460	WDP12S2ACR	1.15	2.0-1.9/0.9	12.38	.625	2.06	36
3/4	56C	208-230/460	WDP34S2ACR	1.15	2.8-2.7/1.3	12.38	.625	2.06	38
1	56C	208-230/460	WDP1S2AFCR	1.15	3.5-3.4/1.7	12.75	.625	2.06	37
1	145TC	208-230/460	WDP1S2ACR	1.15	3.5-3.4/1.7	14.06	.875	2.13	37
1 1/2	56C	208-230/460	WDP32S2AFCR	1.00	4.9-4.8/2.4	13.75	.625	2.06	39
1 1/2	145TC	208-230/460	WDP32S2ACR	1.00	4.9-4.8/2.4	13.81	.875	2.13	39
2	56C	208-230/460	WDP2S2AFCR	1.00	6.5-6.3/3.3	14.00	.625	1.90	44
2	145TC	208-230/460	WDP2S2ACR	1.00	6.5-6.3/3.3	14.00	.875	1.90	44

C-Face Motor



Brakemotor Supplement



Standard C-Face Motor

FRAME	C	P2	U	AA		AB
			-0.001	Size	Qty	
56C	11.81	7.22	0.625	3/4	1	6.09
B56C	13.06	7.22	0.625	3/4	1	6.09
140TC	13.12	7.22	0.875	3/4	1	6.09
180TC	16.02	4.33	1.250	3/4 NPT	2	7.80

FRAME	AC	AF	AG	AH	AJ	AK
						-0.003
56C	4.50	1.57	9.74	2.06	5.875	4.500
B56C	4.50	1.57	11.00	2.06	5.875	4.500
140TC	4.50	1.57	11.00	2.13	5.875	4.500
180TC	4.94	2.32	13.4	2.62	7.250	8.500

FRAME	BB min.	BV	BF	ES	SQ
56C	0.16	5.85	3/8-16 x 0.56	1.38	0.188
B56C	0.16	7.10	3/8-16 x 0.56	1.38	0.188
140TC	0.16	7.10	3/8-16 x 0.56	1.38	0.188
180TC	0.25	5.85	1/2-13 x 0.75	1.78	0.250

Brakemotor Supplement

FRAME	E 7	O	P	AA1	
				Size	Qty
56C	2.63	5.80	7.24	3/4 NPT	2
B56C	2.63	5.80	7.24	3/4 NPT	2
140TC	2.63	5.80	7.24	3/4 NPT	2
180TC	1.95	7.30	9.23	3/4 NPT	1

FRAME	AA2		AB	AC	AD1
	Size	Qty			
56C	1/2 NPT	2	6.38	4.94	6.43
B56C	1/2 NPT	2	6.38	4.94	6.43
140TC	1/2 NPT	2	6.38	4.94	6.43
180TC	3/4 NPT	1	7.8	6.14	8.84

FRAME	AD2	AF	AF2	P2	ZP
56C	1.38	2.13	4.25	3.46	3.54
B56C	1.38	2.13	4.25	3.46	3.54
140TC	1.38	2.13	4.25	3.46	3.54
180TC	1.81	2.32	4.65	N/A	4.41

<sup>1</sup> All rough dimensions may vary by .25 due to casting and/or fabrication variations.

<sup>2</sup> Largest motor width.

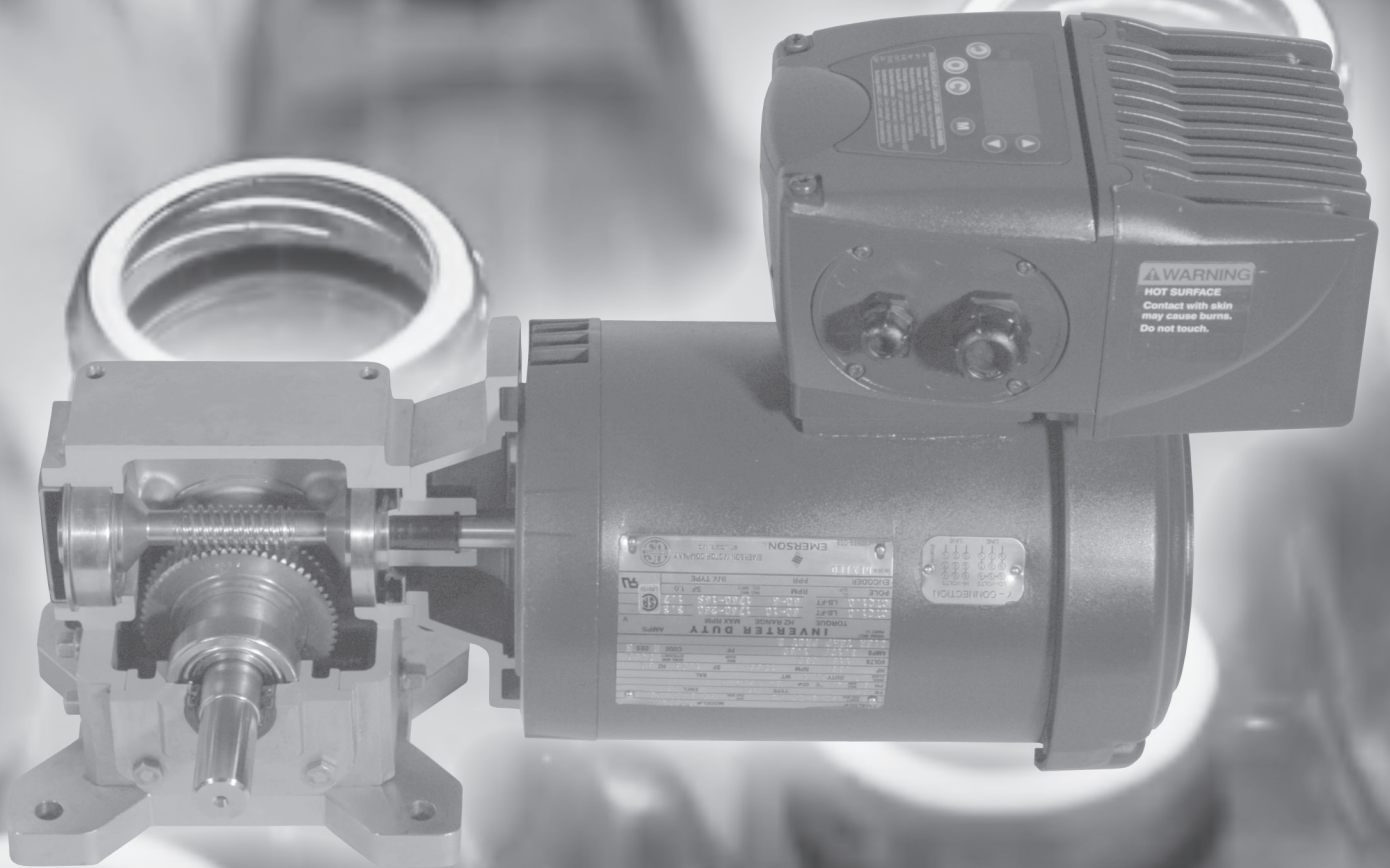
<sup>3</sup> Tap size and bolt penetration allowance.

<sup>4</sup> All tapped holes are unified national course, right hand thread.

<sup>5</sup> Conduit box may be located on either side of motor. Conduit openings may be located in steps of 180 degrees regardless of location. Standard as shown with conduit opening down.

<sup>6</sup> Tolerances shown are in inches only.

<sup>7</sup> Add "E" to C and AG of equivalent three phase frame





# Browning®

## C-Face IntelliGear Plus

Innovative C-Face Motor with Point-of-Use  
Variable Speed Controls



- 1/3 - 10 hp
- TEFC Motor
- Built-In NEMA 4 Variable Frequency Drive
- Factory pre-wired and pre-programmed
- Multiple Operator Control Options:
  - Digital keypad
  - Start/Stop/Speed Pot
  - Run Fwd/Run Rev/Stop/Speed Pot
  - Speed Pot with Start/Stop via Starter
- Open Loop Vector Control
  - High breakaway torque
  - Wide speed range
  - Quick response
  - Can be controlled locally or remotely

## Variable Speed Gearmotors

### General Information

#### 1 - General Information

##### 1.1 - General operating principle

The IntelliGear Plus is a combination of a 3-phase induction motor and an integrated open loop vector variable speed drive. The motor can be combined with many gear types from Regal Power Transmission Solutions's range.

In the standard product version, the integrated drive does not require any connection other than the power supply. The options may be used to broaden the application range of the IntelliGear Plus. Based on the advanced technology of the IGBT power module, very high efficiency and reduced noise levels are achieved.

##### 1.2 - Product name

IntelliGear Plus Range							
115V Single Phase Power Supply		230V Single Phase Power Supply		230V Three Phase Power Supply		460V Three Phase Power Supply	
Catalog Number	Motor HP	Catalog Number	Motor HP	Catalog Number	Motor HP	Catalog Number	Motor HP
310 M 033	0.33	31 M 033	0.33	31 T 033	0.33	31 T 033	0.33
310 M 050	0.50	31 M 050	0.50	31 T 050	0.50	31 T 050	0.50
32 M 075	0.75	31 M 075	0.75	31 T 075	0.75	31 T 075	0.75
		31 M 100	1	31 T 100	1	31 T 100	1
		32 M 150	1.5	32 T 150	1.5	31 T 150	1.5
		32 M 200	2	32 T 200	2	31 T 200	2
				33 T 300	3	32 T 300	3
				33 T 500	5	32 T 500	5
						33 T 750	7.5
						33 T 1000	10

IntelliGear Plus Speed Controlling Options	
Designation	Description
PD	Digital keypad on enclosure For./Rev./stop/speed-up/speed-down/speed display
P1	Run/Stop/Control knob mounted on enclosure
P2	For./Rev./Stop/Control knob mounted on enclosure
P3	Control knob (only) mounted on enclosure
P4	Control knob (only) mounted inside enclosure w/trim potentiometers
R	Remote signal following (either 0-10 vDC or 4-20 mA)
RP	Fieldbus controlled by customer's PROFIBUS DP

IntelliGear Plus Options	
Part ID	Description
KEYPAD LCD	Parameter setting console w/cable to locally to customize parameters
PX KEY	Drive parameter set-up key storage Fob
AEM904KA006	DC Braking resistors 100W
AEM904KA007	DC Braking resistors 200W
VMA30SOFT	CD w/cable and USB to locally to customize parameters



## Variable Speed Gearmotors

### 1.3 - Characteristics

#### 1.3.1 - Electrical Data

##### Single Phase Design

Power supply	115 V ± 10%, 50 - 60 Hz	230 V ± 10%, 50 - 60 Hz
Output voltage	From input voltage down to (input voltage/speed range)	
Power range	0.33, 0.50, 0.75 HP	0.33, 0.50, 0.75, 1.0, 1.5, 2.0 HP
Maximum numbers of power-ups per hour	10	

##### Three Phase Design

Power supply	230 V ± 10%, 50 - 60 Hz	460 V ± 10%, 50 - 60 Hz
Output voltage	From input voltage down to (input voltage/speed range)	
Power range	0.33, 0.50, 0.75, 1.0, 1.5, 2.0, 3, 5 HP	0.33, 0.50, 0.75, 1.0, 1.5, 2.0, 3.0, 5.0, 7.5, 10 HP
Maximum numbers of power-ups per hour	1500	

#### 1.3.2 - Characteristics and Functions

Characteristic	IntelliGear Plus	
Overload	150 % of full load setting for 60 seconds, 10 times per hour	
Motor Frequency Variation Ranges	Standard	60 to 10 Hz 6:1 constant torque up through 3 HP
		74 to 12 Hz 6:1 constant torque for 5 through 10 HP
	Optional	60 to 6 Hz 10:1 constant torque up through 1.5 HP
		90 to 9 Hz 10:1 constant torque for 2 through 10 HP
Special	120 to 2 Hz depending on thermal and mechanical limits	
Efficiency	97.5 % x motor efficiency x gear efficiency (if applicable)	

Drive Control	IntelliGear Plus
Speed Reference	<ul style="list-style-type: none"> <li>• Analog reference               <ul style="list-style-type: none"> <li>( 0V or 4mA = minimum speed)</li> <li>(10V or 20mA = maximum speed)</li> <li>- 0 to 10V with integral potentiometer on enclosure ( P1,P2 and P3)</li> <li>- 0 to 10V with integral potentiometer in enclosure (P4)</li> <li>- 4 to mA with external reference</li> <li>- Digital references</li> <li>- Fieldbus using Profibus DP</li> </ul> </li> </ul>
Speed regulation	<ul style="list-style-type: none"> <li>- Speed regulation with encoder feedback option ( only size 33)</li> <li>- Regulation of a reference with integrated PI loop</li> </ul>

## Variable Speed Gearmotors

Drive Control	IntelliGear Plus
Run/Stop	<ul style="list-style-type: none"> <li>- With power supply</li> <li>- With remote volt-free contact</li> <li>- With fieldbus</li> <li>- With local run/stop control</li> </ul>
Forward/Reverse	<ul style="list-style-type: none"> <li>- With internal connection on the terminal block</li> <li>- With remote volt-free contact</li> <li>- With fieldbus</li> <li>- With local For./Rev. controls</li> </ul>
Stop Mode	<ul style="list-style-type: none"> <li>- On ramps (using volt-free contact of integrated control)</li> <li>- Freewheel</li> <li>- With electromechanical brake</li> </ul>
Ramps	- Ramps are adjustable from 3 to 600 seconds
Fieldbus	- PROFIBUS DP

Protection	IntelliGear Plus
Power	<ul style="list-style-type: none"> <li>- Undervoltage</li> <li>- Overvoltage</li> <li>- Overloads                             <ul style="list-style-type: none"> <li>• thermal of motor or drive</li> <li>• protection from locked rotor</li> <li>• motor windings</li> </ul> </li> <li>- Short-circuit</li> <li>- Overspeed</li> </ul>
Control	- Short circuit on 0 - 10V/24V inputs or outputs
Drive reset	- By switching off the IntelliGear Plus or by opening/closing the connection between the 24V and ENA (size 31 and 32) terminals, or SD1 and SDI 2 (size 33)

Characteristics	Level - IntelliGear Plus	
Degree of protection	TEFC Version	TEFC motor and NEMA 4/12 Controller
Storage temperature	-40 oC to +70 oC	
Transport temperature	-40 oC to +70 oC	
Ambient operating temperature	-20 oC to +40 oC (above 40 oC requires derating 1% per oC)	
Altitude	Up to 3000 feet above sea level without derating	
Ambient humidity	95% non-condensing	
Humidity during storage	93%, 40 oC, 4 days	
Vibration	<ul style="list-style-type: none"> <li>- Exposed product: 0.01 g<sub>2</sub> /Hz 1 hr. in accordance with IEC 60068-2-34</li> <li>- Sinusoidal vibration: 2-9 Hz 3.5 ms<sup>-2</sup> - 9-200 Hz 10 ms<sup>-2</sup> in accordance with IEC 60068-2-6</li> </ul>	
Shocks	Packaged product: 15 g, 6 ms, 500 times/direction in all 6 directions in accordance with Standard IEC 60068-2-29	
Immunity	Conforming to EN61000-6-2	
Radiated and conducted emissions	Conforming to EN500081-2 with internal filters	
UL and cUL Standards	Conforming to UL 508 C (E211799)	

\* C-Face motors

## Variable Speed Gearmotors

### 2 - Faults - Diagnostics

Information relating to the status of the IntelliGear Plus is provided by two indicator lamps located on the control options P1, P2 or P3 or by the internal LED in 31/32.

The fault is cleared by switching off the IntelliGear Plus or by opening/closing the connection between terminals 12: ENA and 11: +24V (31/32) or SDI1 and SDI2 (33).

### 3 - Operating Extensions

#### 3.1 - Digital Keypad on enclosure with For./Rev./Stop/Speedup and down/Speed display/Fault Display

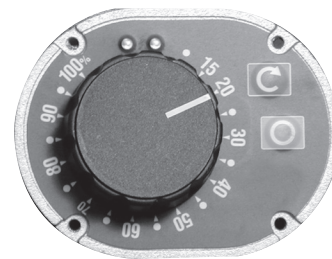


Ref.	Function
A	Display comprising 4 x 7 segment digits for indicating: - the drive operating status - certain operating data - the adjustment parameters (01 to 80) and their value
B	LED providing a sign for the data (the lit LED corresponds to the "-" sign)
C	Keys which can be used to scroll up and down through the parameters or their value. These keys can also be used to vary the speed.
D	Keys which can be used to switch from standard mode to parameter-setting mode. In parameter-setting mode, the parameter number and value are displayed alternately on the display.
E F G	In keypad mode, these buttons are used for the following commands: - Reverse (standerly disabled) - Stop, clear fault - Forward

#### 3.2 - Control knob with integrated run/stop control option (P1)

In addition to speed control, a run button and a stop button make it possible to control the IntelliGear Plus locally, once it is has been switched on, as required. For a run command to be taken into account, the button must be held down for one second.

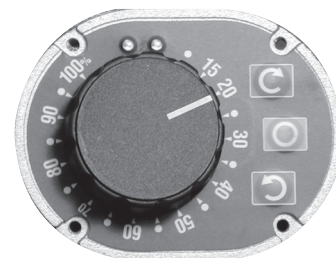
- It is connected on the P2 connector.
- Has two indicator lights.



#### 3.3 - Control knob with forward/reverse/stop control option (P2)

In addition to speed control, a forward button, a reverse button and a stop button make it possible to control the IntelliGear Plus locally, once it has been switched on, as required. For a run command to be taken into account, the button must be held down for one second.

- Connected on the P2 connector
- Has two indicator lights



### Variable Speed Gearmotors

#### 3.4 - Speed control knob option (P3)

The speed is set using a knob with graduations from 15 to 100 percent. Has two indicator lamps. It is connected on the P2 connector.



#### 3.5 - Internal speed control option (P4)

The speeds are set on potentiometers, which are accessible once the cover has been removed.

- a max. spd potentiometer: calibration of the maximum speed
- a min. spd potentiometer: calibration of the minimum speed
- an int. spd potentiometer: speed control, which replaces control via the control knob.

There are also two indicator lights.



#### 3.6 - Braking resistor option (RF100 - RF200)

For operation in four quadrants and energy dissipation, resistors are mounted directly onto the IntelliGear Plus.



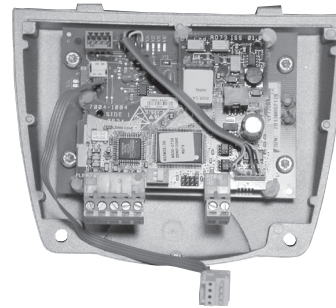
	RF100	RF200 (2x100)		Minimum ohmic value
	P peak kW	P peak kW	Resistor connection	
I31	5.6	2.8	series	100Ω
I31M	1.3	2.6	parallel	50Ω
I32	5.6	11.2	parallel	50Ω

RF100 = thermal power 100W  
RF200 = thermal power 200W

External resistors with greater thermal power can be used, provided that the minimum ohmic value is maintained.

#### 3.7 - Fieldbus options

The interface card is fixed inside the casing cover. Protocols: Profibus DP.



#### 3.8 - Parameter-setting console option (Keypad LCD)

The console option provides access to the drive Internet settings (terminal block configuration, ramp, speed and P1 settings, etc.).

See IntelliGear Plus parameter-setting manual included.

Description of the option:

- 1 Keypad LCD console
- 1 cable (3m long)



#### 3.9 - Programming CD (VMA30SOFT)

This CD with manual provides access to the drive internal settings (terminal block configuration, range, speed and PI settings, etc.).

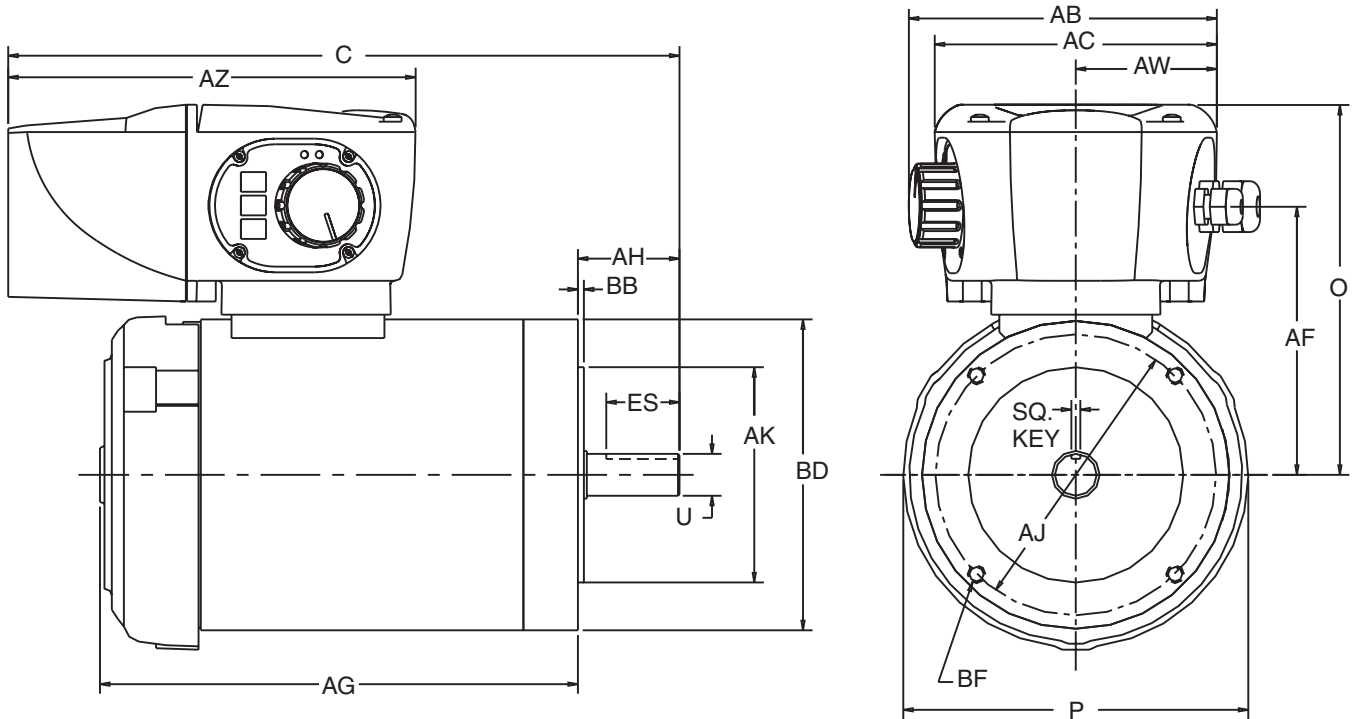
Descriptions of the option:

- 1 CD in case
- 1 cable (3m long)

#### 3.10 - XPress Key (PX Key)

The XPress Key option is used to save a copy of all the IntelliGear Plus parameters so that they can be duplicated very simply in another drive.

## TEFC Designs



Note: Illustration is with cable entry A. Cable entry will be reversed if cable entry B is specified.

Motor HP	Frame Size	Line Voltage	AB <sup>2</sup>	AC	AF	AG	AH	AK	AJ	AW	AZ	BB
1/3 or 1/2	56C	All	6.45	5.91	5.61	10	2.06	4.5	5.875	2.95	8.53	0.13
3/4	56C	115 V	6.45	5.91	5.61	10	2.06	4.5	5.875	2.95	9.12	0.13
1/2 or 3/4	56C	230 or 460 V	6.45	5.91	5.61	10	2.06	4.5	5.875	2.95	8.53	0.13
1	56C	All	6.45	5.91	5.61	11	2.06	4.5	5.875	2.95	8.53	0.13
1	143TC	All	6.45	5.91	5.61	11	2.13	4.5	5.875	2.95	8.53	0.13
1 1/2 or 2	145TC	230 V	6.45	5.91	5.61	11	2.13	4.5	5.875	2.95	9.12	0.13
1 1/2 or 2	145TC	460 V	6.45	5.91	5.61	11	2.13	4.5	5.875	2.95	8.53	0.13
3 or 5	182TC, 184TC	460 V	6.45	5.91	6.58	13.5	2.53	8.5	7.25	2.95	9.12	0.25
7 1/2	213TC	460 V	8.97	8.44	7.08	16.85	3.12	8.5	7.25	4.22	13.10	0.25
10	215TC	460 V	8.97	8.44	7.08	17	3.12	8.5	7.25	4.22	13.10	0.25

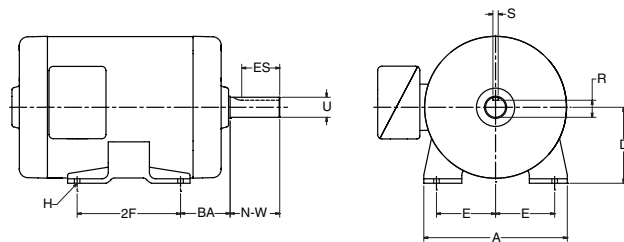
Motor HP	Frame Size	Line Voltage	BD	BF	C	O	P	SQ-Key	U <sup>1</sup>	ES Min.
1/3 or 1/2	56C	All	6.5	3/8-16 NC x .75 deep	13.98	7.74	7.31	0.188	0.626	1.53
3/4	56C	115 V	6.5	3/8-16 NC x .75 deep	14.57	7.74	7.31	0.188	0.626	1.53
1/2 or 3/4	56C	230 & 460 V	6.5	3/8-16 NC x .75 deep	13.98	7.74	7.31	0.188	0.626	1.53
1	56C	All	6.5	3/8-16 NC x .75 deep	14.98	7.74	7.31	0.188	0.626	1.53
1	143TC	All	6.5	3/8-16 NC x .75 deep	15.05	7.74	7.31	0.188	0.875	1.53
1 1/2 or 2	145TC	230 V	6.5	3/8-16 NC x .75 deep	15.64	7.74	7.31	0.188	0.875	1.53
1 1/2 or 2	145TC	460 V	6.5	3/8-16 NC x .75 deep	15.05	7.74	7.31	0.188	0.875	1.53
3 or 5	182TC, 184TC	460 V	9	1/2-13 NC x .75 deep	19.62	9.71	9.5	0.25	1.125	1.78
7 1/2	213TC	460 V	9	1/2-13 NC x .75 deep	11.97	11.98	11.25	0.312	1.375	2.41
10	215TC	460 V	9	1/2-13 NC x .75 deep	12.12	11.98	11.25	0.312	1.375	2.41

<sup>1</sup> Shaft extension tolerance: +.0000"; -.0005" up to 1.5" diameter inclusive. Larger diameters: +.000"; -.001".

<sup>2</sup> Speed pot knob applies only if P1, P2, or P3 is required.



The motor dimensions and ratings shown in the table below are for "General Purpose Motors". They are shown as a guide only and are subject to change without notice. Before finalizing a drive system design, consult with the motor manufacturer to obtain current motor dimensions.



NEMA FRAME No.	DIMENSIONS (in.)								KEYSEAT			APPROX. MAX HP FOR TEFC MOTORS AT VARIOUS RPM			
	A Max	D	E	2F	BA	H	U	N-W	ES Min	S	R	3600	1800	1200	900
<b>FRACTIONAL HORSEPOWER MOTORS</b>															
48	-	3.00	2.12	2.75	2.50	0.34	0.500	1.50	-	FLAT	0.453	0.5	0.333	0.167	-
56	-	3.50	2.44	3.00	2.75	0.34	0.625	1.88	1.41	0.188	0.517	1	1	0.5	-
<b>INTEGRAL HORSEPOWER MOTORS</b>															
143T	7.0	3.50	2.75	4.00	2.25	0.34	0.875	2.25	1.41	0.188	0.771	1.5	1	.75	.5
145T	7.0	3.50	2.75	5.00	2.25	0.34	0.875	2.25	1.41	0.188	0.771	2	2	1	.75
182T	9.0	4.50	3.75	4.50	2.75	0.41	1.125	2.75	1.78	0.250	0.986	3	3	1.5	1
184T	9.0	4.50	3.75	5.50	2.75	0.41	1.125	2.75	1.78	0.250	0.986	5	5	2	1.5
213T	10.5	5.25	4.25	5.50	3.50	0.41	1.375	3.38	2.41	0.312	1.201	7.5	7.5	3	2
215T	10.5	5.25	4.25	7.00	3.50	0.41	1.375	3.38	2.41	0.312	1.201	10	10	5	3
254T	12.5	6.25	5.00	8.25	4.25	0.53	1.625	4.00	2.91	0.375	1.416	15	15	7.5	5
256T	12.5	6.25	5.00	10.00	4.25	0.53	1.625	4.00	2.91	0.375	1.416	20	20	10	7.5
284T	14.0	7.00	5.50	9.50	4.75	0.53	1.875	4.62	3.28	0.500	1.591	-	25	15	10
284TS*	14.0	7.00	5.50	9.50	4.75	0.53	1.625	3.25	1.91	0.375	1.416	25	-	-	-
286T	14.0	7.00	5.50	11.00	4.75	0.53	1.875	4.62	3.28	0.500	1.591	-	30	20	15
286TS*	14.0	7.00	5.50	11.00	4.75	0.53	1.625	3.25	1.91	0.375	1.416	30	-	-	-
324T	16.0	8.00	6.25	10.50	5.25	0.66	2.125	5.25	3.91	0.500	1.845	-	40	25	20
324TS*	16.0	8.00	6.25	10.50	5.25	0.66	1.875	3.75	2.03	0.500	1.591	40	-	-	-
326T	16.0	8.00	6.25	12.00	5.25	0.66	2.125	5.25	3.91	0.500	1.845	-	50	30	25
326TS*	16.0	8.00	6.25	12.00	5.25	0.66	1.875	3.75	2.03	0.500	1.591	50	-	-	-
364T	18.0	9.00	7.00	11.25	5.88	0.66	2.375	5.88	4.28	0.625	2.021	-	60	40	30
364TS*	18.0	9.00	7.00	11.25	5.88	0.66	1.875	3.75	2.03	0.500	1.591	60	60	-	-
365T	18.0	9.00	7.00	12.25	5.88	0.66	2.375	5.88	4.28	0.625	2.021	-	75	50	40
365TS*	18.0	9.00	7.00	12.25	5.88	0.66	1.875	3.75	2.03	0.500	1.591	75	75	-	-
404T	20.0	10.00	8.00	12.25	6.62	0.81	2.875	7.25	5.65	0.750	2.45	-	-	60	50
404TS*	20.0	10.00	8.00	12.25	6.62	0.81	2.125	4.25	2.78	0.500	1.845	-	-	-	-
405T	20.0	10.00	8.00	13.75	6.62	0.81	2.875	7.25	5.65	0.750	2.45	-	100	75	60
405TS*	20.0	10.00	8.00	13.75	6.62	0.81	2.125	4.25	2.78	0.500	1.845	100	100	-	-
444T	22.0	11.00	9.00	14.50	7.50	0.81	3.375	8.50	6.91	0.875	2.88	-	125	100	75
444TS*	22.0	11.00	9.00	14.50	7.50	0.81	2.375	4.75	3.03	0.625	2.021	125	125	-	-
445T	22.0	11.00	9.00	16.50	7.50	0.81	3.375	8.50	6.91	0.875	2.88	-	150	125	100
445TS*	22.0	11.00	9.00	16.50	7.50	0.81	2.375	4.75	3.03	0.625	2.021	150	150	-	-

“\*” Standard short shaft for direct coupled connection.

“” Indicates slots rather than holes.

### Decimal - Millimeter Equivalentents

Fractional	Decimal	M.M.	Fractional	Decimal	M. M.
1/64	.015625	.397	33/64	.515625	13.097
1/32	.03125	.794	17/32	.53125	13.494
3/64	.046875	1.191	35/64	.546875	13.891
1/16	.0625	1.588	9/16	.5625	14.288
5/64	.078125	1.985	37/64	.578125	14.684
3/32	.09375	2.381	19/32	.59375	15.081
7/64	.109375	2.778	39/64	.609375	15.478
1/8	.125	3.175	5/8	.625	15.875
9/64	.140625	3.572	41/64	.640625	16.272
5/32	.15625	3.969	21/32	.65625	16.669
11/64	.171875	4.366	43/64	.671875	17.066
3/16	.1875	4.763	11/16	.6875	17.463
13/64	.203125	5.159	45/64	.703125	17.859
7/32	.21875	5.556	23/32	.71875	18.256
15/64	.234375	5.953	47/64	.734375	18.653
1/4	.250	6.350	3/4	.750	19.050
17/64	.265625	6.747	49/64	.765625	19.447
9/32	.28125	7.144	25/32	.78125	19.844
19/64	.296875	7.541	51/64	.796875	20.241
5/16	.3125	7.938	13/16	.8125	20.638
21/64	.328125	8.334	53/64	.828125	21.034
11/32	.34375	8.731	27/32	.84375	21.431
23/64	.359375	9.128	55/64	.859375	21.828
3/8	.375	9.525	7/8	.875	22.225
25/64	.390625	9.922	57/64	.890625	22.622
13/32	.40625	10.319	29/32	.90625	23.019
27/64	.421875	10.716	59/64	.921875	23.416
7/16	.4375	11.113	15/16	.9375	23.813
29/64	.453125	11.509	61/64	.953125	24.209
15/32	.46875	11.906	31/32	.96875	24.606
31/64	.484375	12.303	63/64	.984375	25.003
1/2	.500	12.700	1	1.000	25.400

### HP and Torque

HP is the common unit of mechanical power.

$$HP = \frac{\text{Force} \times \text{Feet per Minute}}{33000}$$

$$HP = \frac{\text{Torque in In.-Lbs.} \times \text{rpm}}{63025}$$

One HP = .746 kilowatt

One kilowatt = 1.34 HP

Torque is a twisting moment or turning effort.

Torque in inch-pounds = Force x Lever Arm (Inches)

$$\text{Torque in inch-pounds} = \frac{63025 \times HP}{rpm}$$

The following table gives the torque in Inch-Pounds for one HP at various speeds.

### Torque at One HP

R.P.M.	In.-Lbs.	R.P.M.	In.-Lbs.	R.P.M.	In.-Lbs.	R.P.M.	In.-Lbs.
3500	18	580	109	90	700	14	4502
3000	21	500	126	80	788	12	5252
2400	26	400	158	70	900	10	6300
2000	32	300	210	60	1050	8	7878
1750	36	200	315	50	1260	6	10504
1600	39	180	350	40	1576	5	12605
1200	53	160	394	30	2101	4	15756
1160	54	140	450	20	3151	3	21008
1000	63	120	525	18	3501	2	31513
870	72	100	630	16	3939	1	63025

### Minimum Sheave Sizes NEMA Standards

The National Electrical Manufacturers Association recommends certain limitations on sheave diameter and width for satisfactory motor operation. The selected sheave diameter should not be smaller nor the width greater than the dimensions below. These dimensions are from NEMA Standard MG1-14.42.

NEMA Frame Number	Horsepower at Synchronous Speed, RPM				V-Belt Sheave (inches)			
					Conventional A, B, C, and D Sections		Narrow (358) 3V, 5V, and 8V Sections	
	3600	1800	1200	900	Min. Pitch Dia.	Max. Width	Min. Outside Dia.	Max Width
143T	1 1/2	1	3/4	.5	2.2	4.25	2.2	2.25
145T	2-3	1.5-2	1	.75	2.4	4.25	2.4	2.25
182T	3	3	1.5	1	2.4	5.25	2.4	2.75
182T	5	-	-	-	2.6	5.25	2.4	2.75
184T	-	-	2	1.5	2.4	5.25	2.4	2.75
184T	5	-	-	-	2.6	5.25	2.4	2.75
184T	7.5	5	-	-	3.0	5.25	3.0	2.75
213T	7.5-10	7.5	3	2	3.0	6.51	3.0	3.38
215T	10	-	5	3	3.0	6.51	3.0	3.38
215T	15	10	-	-	3.8	6.45	3.8	3.35
254T	15	-	7.5	-	3.8	7.75	3.8	4.00
254T	20	15	-	-	4.4	7.75	4.4	4.00
256T	20-25	-	10	7.5	4.4	7.75	4.4	4.00
256T	-	20	-	-	4.6	7.75	4.4	4.00
284T	-	-	15	10	4.6	8.99	4.4	4.62
284T	-	25	-	-	5.0	8.99	4.4	4.62
286T	-	30	20	15	5.4	8.99	5.2	4.62
324T	-	40	25	20	6.0	10.25	6.0	5.25
326T	-	50	30	25	6.8	10.25	6.8	5.25
364T	-	-	40	30	6.8	11.51	6.8	5.88
364T	-	60	-	-	7.4	11.51	7.4	5.88
365T	-	-	50	40	8.2	11.51	8.2	5.88
365T	-	75	-	-	9.0	11.51	8.6	5.88
404T	-	-	60	-	9.0	14.25	8.0	7.25
404T	-	-	-	50	9.0	14.25	8.4	7.25
404T	-	100	-	-	10.0	14.25	8.6	7.25
405T	-	-	75	60	10.0	14.25	10.0	7.25
405T	-	100	-	-	10.0	14.25	8.6	7.25
405T	-	125	-	-	11.5	14.25	10.5	7.25
444T	-	-	100	-	11.0	16.75	10.0	8.50
444T	-	-	-	75	10.5	16.75	9.5	8.50
444T	-	125	-	-	11.0	16.75	9.5	8.50
444T	-	150	-	-	-	-	10.5	8.50
445T	-	-	125	-	12.5	16.75	12.0	8.50
445T	-	-	-	100	12.5	16.75	12.0	8.50
445T	-	150	-	-	-	-	10.5	8.50
445T	-	200	-	-	-	-	13.2	8.50

To obtain the minimum pitch diameters for flat belt, gearbelt, Poly-V®, chain or gear drives, multiply the 358 sheave pitch diameters in the table above by the following factors:

Drive	Factor
Chain	0.70
Flat Belt (Single Ply)	1.33
Gearbelt	0.90
Helical Gear	0.85
Poly-V	1.00
Spur Gear	0.75

Poly-V is believed to be a trademark and/or a trade name of Goodyear Tire and Rubber Co. and is not owned or controlled by Regal Power Transmission Solutions. This trademark and/or registered trademark of others is used herein for product comparison purposes only, is the property of their respective owners and is not owned or controlled by Regal Power Transmission Solutions. While reasonable efforts have been made to confirm ownership of the marks and names listed above, Regal Power Transmission Solutions cannot and does not represent or warrant the accuracy of this information.

# Time-tested Brand Performance

Power Transmission Solutions is a family of respected product brands that supply a variety of power transmission components designed to increase both uptime and productivity. Each of our brands brings years of time-tested reliability and proven performance results. Together they deliver a product line unparalleled in its breadth.

*Browning*

Founded in 1886, Browning is the world leader in V-belt drives and helical shaft-mounted speed reducers. Browning also offers a broad range of other products, including gearing, bearings and sprockets.

**JAURE**

Founded in 1958 in Spain, Jaure is a leader in the European marketplace. Jaure provides highly engineered couplings for industries ranging from steel and paper, hoisting to windmills and marine applications.

**KOP-FLEX**

Founded in 1920, Kop-Flex brings over 80 years of design and application experience to a wide range of industries. Kop-Flex products include gear, disc and resilient shaft couplings.

**McGILL**

Founded in 1905, McGill patented the CAMROL® cam-follower bearing, which today is offered in more than 1,400 different combinations and configurations. McGill products also include aerospace bearings, needle and spherical bearings.

*Morse*

Founded in 1880, Morse is well known for its performance-proven roller-chain drives, clutches, worm-gear speed reducers and couplings.

**ROLLWAY**

Founded in 1908, Rollway provides over 2,000 different types of cylindrical roller bearings, cylindrical and tapered thrust bearings and extra-large roller bearings. Rollway also offers a mounted metric ball bearing.

**SEALMASTER**

Founded in 1935, Sealmaster is the industry's preferred bearing product, known for its premium-quality mounted ball-bearing line, as well as its mounted roller bearings.

**SYSTEM  
PLAST**

Founded in 1985, System Plast S.p.A. is a global supplier of steel and engineered plastic conveying chains and chain tracks, modular plastic belts, composite housed bearings and Valu Guide® conveyor components and guide rails.

## Put it all together.

Our family of product brands bring you a crucial advantage: the opportunity to look to a single source for all of your power transmission solutions. With the broadest product lines available anywhere, we offer you the ability to bundle products and develop custom solutions that save you both time and money.



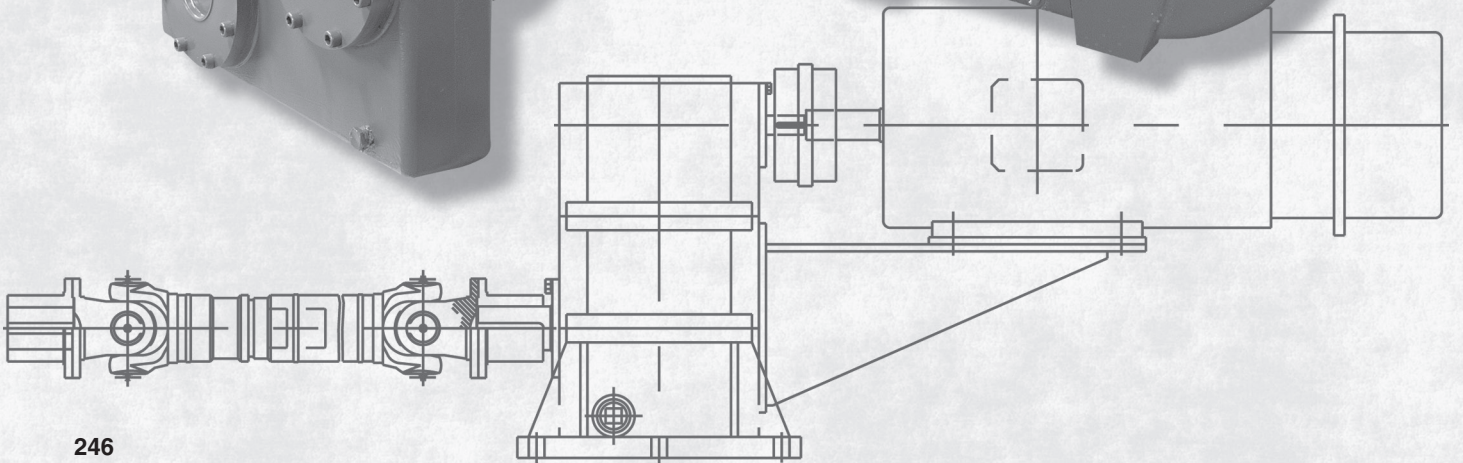
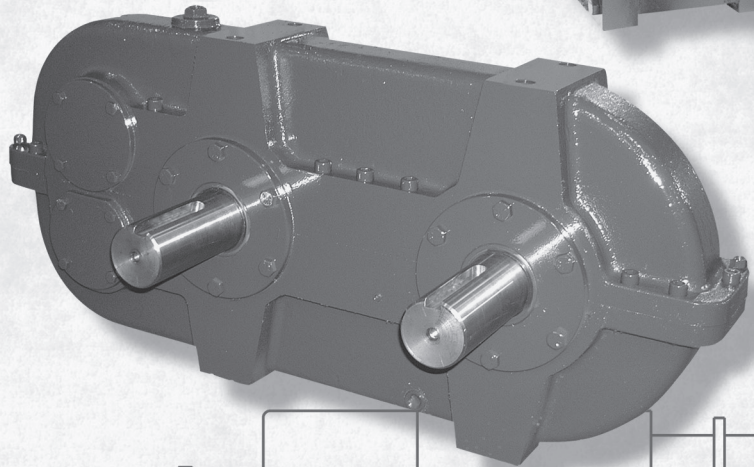
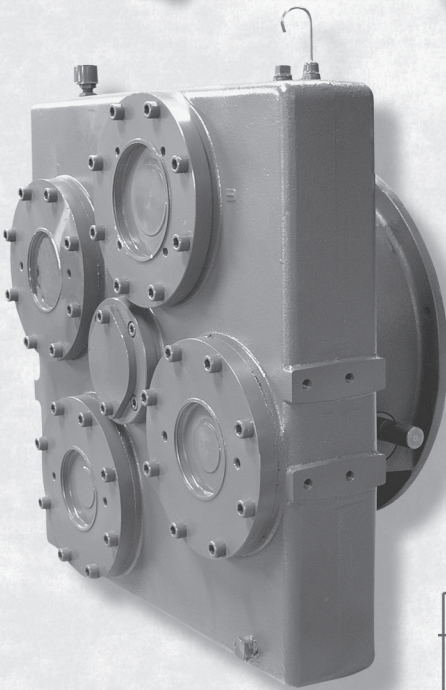
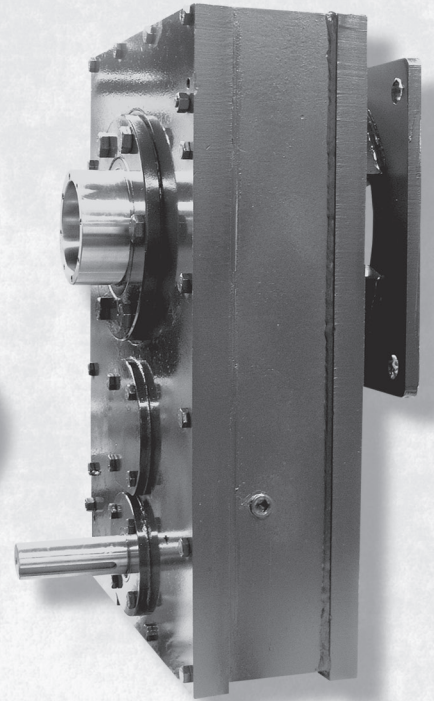
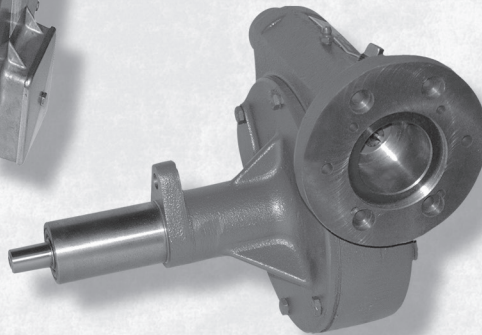
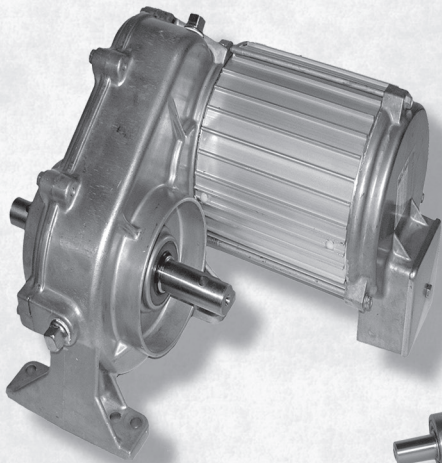


# Complete Gearing Solutions...

## Custom Enclosed Gearboxes Limited Only by the Imagination

We've made gearboxes small enough to fit in the palm of your hand - and as big as a small automobile.

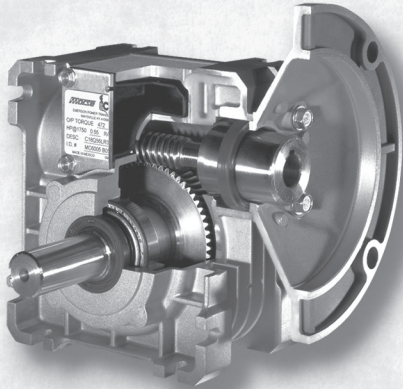
The possible combinations of Regal Power Transmission Solutions gearbox components are virtually endless. We can design and manufacture gearboxes to order - and package them to work together in a completely integrated drive system, tailor-made to your particular needs.



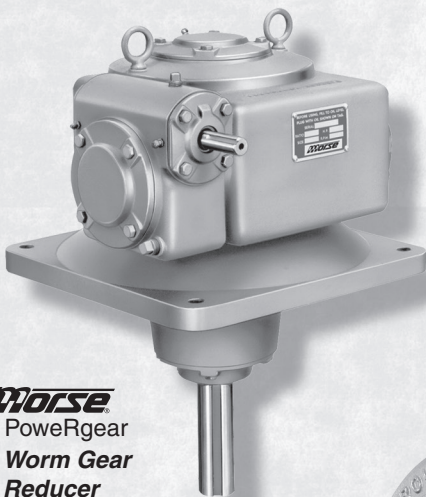


# One Source

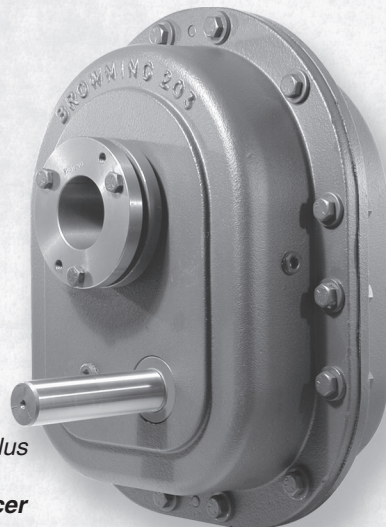
Regal Has the Industry's  
Broadest Line of Standard  
Gearmotors and Speed  
Reducers



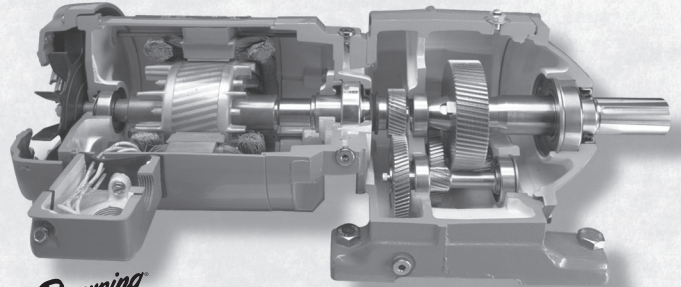
**Morse**  
Cobra  
Worm Gear Reducer



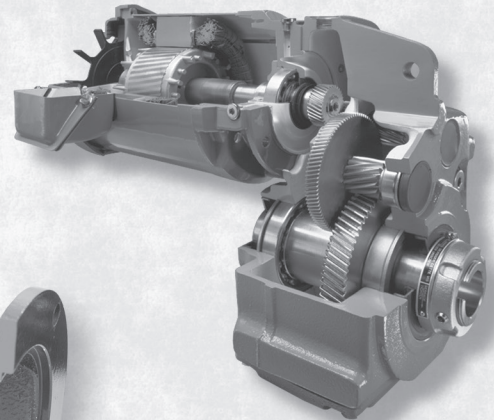
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PowerRgear  
Worm Gear  
Reducer



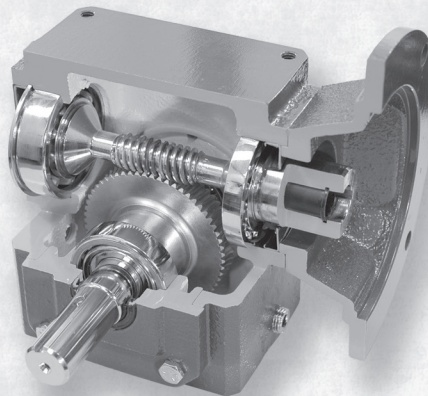
**Browning**  
TORQ TAPER Plus  
Shaft Mount  
Speed Reducer



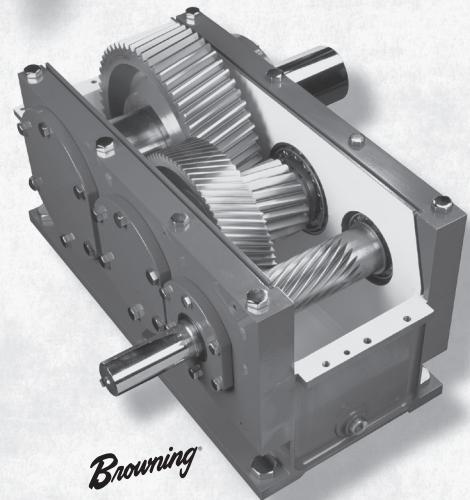
**Browning**  
CbN In-line  
Concentric Gearmotor



**Browning**  
MbN Helical  
Shaft Mount  
Gearmotor



**Morse**  
Raider Plus  
Worm Gear Reducer



**Browning**  
PSR  
Helical Parallel Shaft  
Gear Reducer



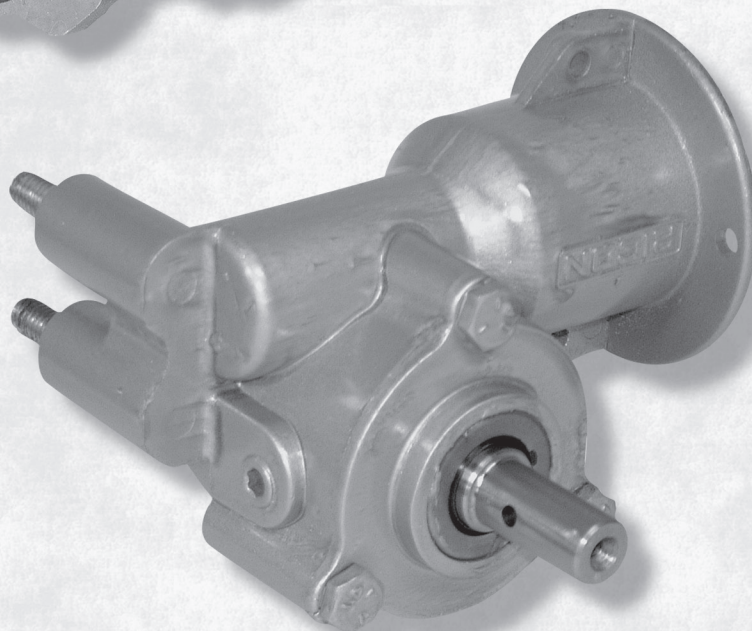
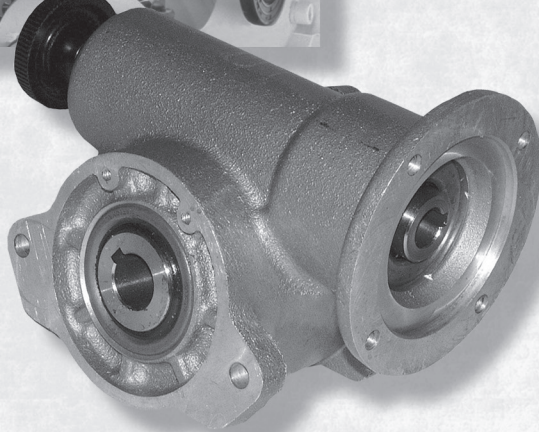
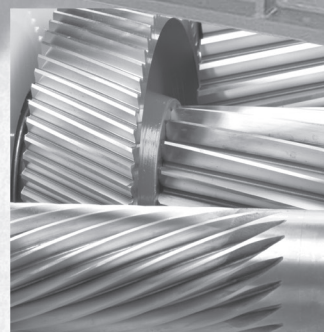
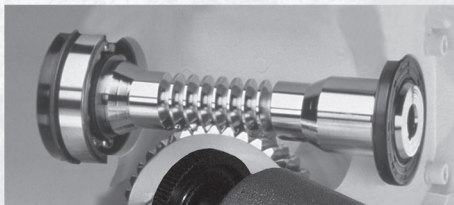
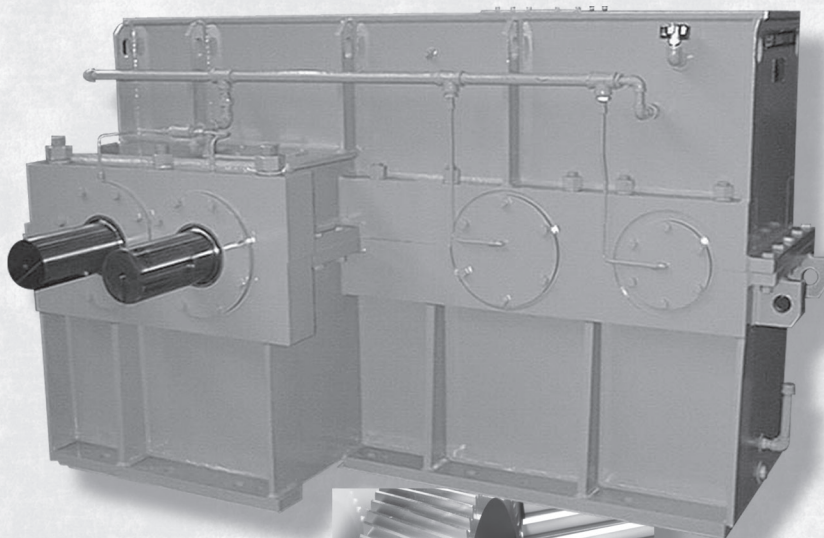
# Complete Gearing Solutions... One Source

## Gear Types

- Helical
- Worm
- Spiral Bevel
- Bevel
- Spur
- Combination Gearboxes

## Housing Materials

- Fabricated Steel
- Cast Iron
- Ductile Iron
- Aluminum
- Stainless Steel





All sales are made on our STANDARD TERMS AND CONDITIONS OF SALE in effect at the time a customer's order is accepted. The current Terms and Conditions are set forth below:

## STANDARD TERMS AND CONDITIONS OF SALE (September 2, 2009)

These Terms and Conditions, the attendant quotation or acknowledgment and all documents incorporated by specific reference therein, will be the complete and exclusive statement of the terms of the agreement governing the sale of goods ("Goods") by Regal Power Transmission Solutions and its divisions and subsidiaries ("Seller") to Customer ("Buyer"). Buyer's acceptance of the Goods will manifest Buyer's assent to these Terms and Conditions. If these Terms and Conditions differ in any way from the terms and conditions of Buyer's order, or other documentation, this document will be construed as a counteroffer and will not be deemed an acceptance of Buyer's terms and conditions which conflict herewith.

- 1. PRICES:** Unless otherwise specified in writing by Seller, Seller's price for the goods shall remain in effect for thirty (30) days after the date of Seller's quotation or acknowledgment of Buyer's order for the Goods, whichever occurs first, provided an unconditional, complete authorization for the immediate shipment of the Goods is received and accepted by Seller within such time period. If such authorization is not received by Seller within such thirty (30) day period, Seller shall have the right to change the price for the Good to Seller's price for the Goods at the time of shipment.
- 2. TAXES:** Any tax or governmental charge or increase in same hereafter becoming effective increasing the cost to Seller of producing, selling or delivering the Goods or of procuring material used therein, and any tax now in effect or increase in same payable by the Seller because of the manufacture, sale or delivery of the Goods, may at Seller's option, be added to the price.
- 3. TERMS OF PAYMENT:** Subject to the approval of Seller's Credit Department, terms are net thirty (30) days from date of Seller's invoice in U.S. currency. If any payment owed to Seller is not paid when due, it shall bear interest, at a rate to be determined by Seller, which shall not exceed the maximum rate permitted by law, from the date on which it is due until it is paid. Seller shall have the right, among other remedies, either to terminate the Agreement or to suspend further performance under this and/or other agreements with Buyer in the event Buyer fails to make any payment when due. Buyer shall be liable for all expenses, including attorneys' fees, relating to the collection of past due amounts.
- 4. SHIPMENT AND DELIVERY:** Shipments are made F.O.B. Seller's shipping point. Any claims for shortages or damages suffered in transit shall be submitted by the Buyer directly to the carrier. While Seller will use all reasonable commercial efforts to maintain the delivery date acknowledged or quoted by Seller, all shipping dates are approximate. Seller reserves the right to make partial shipments and to segregate "specials" and made-to-order Goods from normal stock Goods. Seller shall not be bound to tender delivery of any Goods for which Buyer has not provided shipping instructions.
- 5. QUANTITY:** Buyer agrees to accept overruns of up to ten percent (10%) of the order on "made-to-order" Goods, including parts. Any such additional items shall be priced at the price per item charged for the specific quantity ordered.
- 6. LIMITED WARRANTY:** Subject to the limitations of Section 7, Seller warrants that the Goods will be free from defects in material and workmanship under normal use, service and maintenance for a period of one year (unless otherwise specified by Seller in writing) from the date of shipment of the Goods by Seller. **THIS IS THE SOLE AND EXCLUSIVE WARRANTY GIVEN BY SELLER WITH RESPECT TO THE GOODS AND IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARISING BY OPERATION OF LAW OR OTHERWISE, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WHETHER OR NOT THE PURPOSE OR USE HAS BEEN DISCLOSED TO SELLER IN SPECIFICATIONS, DRAWINGS OR OTHERWISE, AND WHETHER OR NOT SELLER'S PRODUCTS ARE SPECIFICALLY DESIGNED AND/OR MANUFACTURED BY SELLER FOR BUYER'S USE OR PURPOSE.**

This warranty does not extend to any losses or damages due to misuse, accident, abuse, neglect, normal wear and tear, unauthorized modification or alteration, use beyond rated capacity, or improper installation, maintenance or application. To the extent that Buyer or its agents has supplied specifications, information, representation of operating conditions or other data to Seller in the selection or design of the Goods and the preparation of Seller's quotation, and in the event that actual operating conditions or other conditions differ from those represented by Buyer, any warranties or other provisions contained herein which are affected by such conditions shall be null and void. If within thirty (30) days after Buyer's discovery of any warranty defects within the warranty period, Buyer notifies Seller thereof in writing, Seller shall, at its option, repair or replace F.O.B. point of manufacture, or refund the purchase price for that portion of the goods found by Seller to be defective. Failure by Buyer to give such written notice within the applicable time period shall be deemed an absolute and unconditional waiver of Buyer's claim for such defects. Goods repaired or replaced during the warranty period shall be covered by the foregoing warranty for the remainder of the original warranty period or ninety (90) days, whichever is longer. Buyer assumes all other responsibility for any loss, damage, or injury to persons or property arising out of, connected with, or resulting from the use of Goods, either alone or in combination with other products/components.

**SECTIONS 6 AND 7 APPLY TO ANY ENTITY OR PERSON WHO MAY BUY, ACQUIRE OR USE SELLER'S GOODS, INCLUDING ANY ENTITY OR PERSON WHO BUYS THE GOODS FROM SELLER'S DISTRIBUTOR AND SUCH ENTITY OR PERSON SHALL BE BOUND BY THE LIMITATIONS THEREIN.**

**7. LIMITATION OF REMEDY AND LIABILITY: THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY WARRANTY HEREUNDER (OTHER THAN THE WARRANTY PROVIDED UNDER SECTION 13) SHALL BE LIMITED TO REPAIR, REPLACEMENT OR REFUND OF THE PURCHASE PRICE UNDER SECTION 6. SELLER SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY DELAY IN PERFORMANCE AND IN NO EVENT, REGARDLESS OF THE FORM OF THE CLAIM OR CAUSE OF ACTION (WHETHER BASED IN CONTRACT, INFRINGEMENT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE), SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXCEED THE PRICE TO BUYER OF THE SPECIFIC GOODS PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. BUYER AGREES THAT IN NO EVENT SHALL SELLER'S LIABILITY TO BUYER AND/OR ITS CUSTOMERS EXTEND TO INCLUDE INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES. THE TERM "CONSEQUENTIAL DAMAGES" SHALL INCLUDE, BUT NOT BE LIMITED TO, LOSS OF ANTICIPATED PROFITS, LOSS OF USE, LOSS OF REVENUE, COST OF CAPITAL AND DAMAGE OR LOSS OF OTHER PROPERTY OR EQUIPMENT.**

It is expressly understood that any technical advice furnished by Seller with respect to the use of the Goods is given without charge, and Seller assumes no obligation

or liability for the advice given, or results obtained, all such advice being given and accepted at Buyer's risk.

**GOODS AND/OR SERVICES SOLD HEREUNDER ARE NOT FOR USE IN ANY NUCLEAR AND RELATED APPLICATIONS.** Buyer accepts goods and/or services with the foregoing understanding, agrees to communicate the same in writing to any subsequent purchaser or users and to defend, indemnify and hold harmless Seller from any claims, losses, suits, judgments and damages, including incidental and consequential damages, arising from such use, whether the cause of action be based in tort, contract or otherwise, including allegations that the Seller's liability is based on negligence or strict liability.

**8. EXCUSE OF PERFORMANCE:** Seller shall not be liable for delays in performance or for non-performance due to acts of God, acts of Buyer, war, riot, fire, flood, other severe weather, sabotage, or epidemics; strikes or labor disturbances; governmental requests, restrictions, laws, regulations, orders or actions; unavailability of or delays in transportation; default of suppliers; or unforeseen circumstances or any events or causes beyond Seller's reasonable control. Deliveries may be suspended for an appropriate period of time as a result of the foregoing. If Seller determines that its ability to supply the total demand for the Goods, or to obtain material used directly or indirectly in the manufacture of the Goods, is hindered, limited or made impracticable due to causes addressed in this Section 8, Seller may allocate its available supply of the Goods or such material (without obligation to acquire other supplies of any such Goods or material) among itself and its purchasers on such basis as Seller determines to be equitable without liability for any failure of performance which may result therefrom. Deliveries suspended or not made by reason of this section may be canceled by Seller upon notice to Buyer without liability, but the balance of the agreement shall otherwise remain unaffected.

**9. CANCELLATIONS AND DELAYS:** The Buyer may cancel orders only upon written notice and upon payment to Seller of cancellation charges which include, among other things, all costs and expenses incurred and commitments made by the Seller and a reasonable profit thereon. Any request by Buyer to extend the delivery schedule must be agreed to in writing by the Seller. If agreement cannot be reached, Seller may deliver product to the last known ship to address and invoice the Buyer upon completion of the product or prior delivery date, whichever is later.

**10. CHANGES:** Buyer may request changes or additions to the Goods consistent with Seller's specifications and criteria. In the event such changes or additions are accepted by Seller, Seller may revise the price and delivery schedule. Seller reserves the right to change designs and specifications for the Goods without prior notice to Buyer, except with respect to Goods being made-to-order for Buyer.

**11. TOOLING:** Tool, die, and pattern charges, if any, are in addition to the price of the Goods and are due and payable upon completion of the tooling. All such tools, dies and patterns shall be and remain the property of Seller. Charges for tools, dies, and patterns do not convey to Buyer, title, ownership interests in, or rights to possession or removal, nor prevent their use by Seller for other purchasers, except as otherwise expressly provided by Seller and Buyer in writing with reference to this provision.

**12. ASSIGNMENT:** Buyer shall not assign its rights or delegate its duties hereunder or any interest therein or any rights hereunder without the prior written consent of the Seller, and any such assignment, without such consent, shall be void.

**13. PATENTS AND COPYRIGHTS:** Subject to Section 7, Seller warrants that the Goods sold, except as are made specifically for Buyer according to Buyer's specifications, do not infringe any valid U.S. patent or copyright in existence as of the date of delivery. This warranty is given upon the condition that Buyer promptly notify Seller of any claim or suit involving Buyer in which such infringement is alleged, and, that Buyer cooperate fully with Seller and permit Seller to control completely the defense or compromise of any such allegation of infringement. Seller's warranty as to use only applies to infringements arising solely out of the inherent operation (i) of such Goods, or (ii) of any combination of Goods in a system designed by Seller. In the event such Goods, singularly or in combination, are held to infringe a U.S. patent or copyright in such suit, and the use of such Goods is enjoined, or in the case of a compromise by Seller, Seller shall have the right, at its option and expense, to procure for Buyer the right to continue using such Goods, or replace them with non-infringing Goods; or modify same to become non-infringing; or grant Buyer a credit for the depreciated value of such Goods and accept return of them.

**14. MISCELLANEOUS:** These terms and conditions set forth the entire understanding and agreement between Seller and Buyer, and supersede all other communications, negotiations and prior oral or written statements regarding the subject matter of these terms and conditions. No change, modification, rescission, discharge, abandonment, or waiver of these terms and conditions of Sale shall be binding upon the Seller unless made in writing and signed on its behalf by an officer of the Seller. No conditions, usage or trade, course of dealing or performance, understanding or agreement purporting to modify, vary, explain, or supplement these Terms and Conditions shall be binding unless hereafter made in writing and signed by the party to be bound, and no modification shall be affected by the acceptance of purchase orders or shipping instruction forms containing terms at variance with or in addition to those set forth herein. Any such modifications or additional terms are specifically rejected by Seller. No waiver by Seller with respect to any breach or default or any right or remedy and no course of dealing, shall be deemed to constitute a continuing waiver of any other breach or default or of any other right or remedy, unless such waiver be expressed in writing and signed by the party to be bound. Seller is not responsible for typographical or clerical errors made in any quotation, orders or publications. All such errors are subject to correction. The validity, performance, and all other matters relating to the interpretation and effect of this contract shall be governed by the law of the state of New York. The United Nations Convention on the International Sale of Goods shall not apply to any transaction hereunder.

SMTP	<a href="#">TorqTaper Plus Shaft Mount Reducers</a>
HMTP	<a href="#">Hydraulic Input TorqTaper Plus Shaft Mount Reducers</a>
CMTTP	<a href="#">C-Face Input TorqTaper Plus Shaft Mount Reducers</a>
Shaft Mount Accessories	<a href="#">TorqTaper Plus Accessories</a>
Shaft Mount Engineering	<a href="#">TorqTaper Plus Engineering Data</a>
Raider Plus	<a href="#">Raider Plus Worm Gear Reducers</a>
WD Raider Plus	<a href="#">Washdown Duty Raider Plus Worm Gear Reducers</a>
SS Raider Plus	<a href="#">Stainless Steel Raider Plus Worm Gear Reducers</a>
Cobra	<a href="#">Cobra Worm Gear Reducers</a>
PoweRgear	<a href="#">PoweRgear W, V, G and S Worm Gear Reducers</a>
IRA Gearmotors	<a href="#">IRA Industrial Right Angle Worm Gearmotors</a>
IRA Reducers	<a href="#">IRA Industrial Right Angle Worm Gear Reducers</a>
Bevel Red. Cast Iron	<a href="#">Cast Iron Right Angle Bevel Reducers</a>
ARA Reducers	<a href="#">ARA Aluminum Right Angle Bevel Reducers</a>
Bevel Red. M Series	<a href="#">M Series Right Angle Bevel Reducers</a>
C-Face Motors	<a href="#">C-Face Standard and Stainless Steel Motors</a>
C-Face IntelliGear	<a href="#">C-Face IntelliGear Plus Variable Speed Motors</a>



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Power of  
Power Transmission  
Solutions Edge®  
Online*

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**Product Selection (an industry first)** - selection tools with extensive engineering efficiency benefits

**Smart Interchange** - a dynamic tool that provides the user an intelligent interchange for competitive parts

**Media Library** - digital (PDF) version of paper catalogs, documents and downloadable installation and maintenance instructions

**CAD** - an online service that allows users to view and upload a 2D or 3D CAD template drawing in a number of customer-compatible formats to be integrated into your drawings

*Application  
Engineering*

**1 800 626 2093**



**Browning**<sup>®</sup>

**Morse**<sup>®</sup>

Regal Power Transmission Solutions  
7120 New Buffington Rd  
Florence, KY 41042  
Customer Service: 866-765-8744  
Fax: 866-447-6587  
Technical Service: 800-626-2093

[www.RegalPTS.com](http://www.RegalPTS.com)

**APPLICATION CONSIDERATIONS**

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal-Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

For a copy of our Standard Terms and Conditions of Sale, Disclaimers of Warranty, Limitation of Liability and Remedy, please contact Customer Service at 1-800-626-2120. These terms and conditions of sale, disclaimers and limitations of liability apply to any person who may buy, acquire or use a Regal-Beloit America Inc. product referred to herein, including any person who buys from a licensed distributor of these branded products.

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