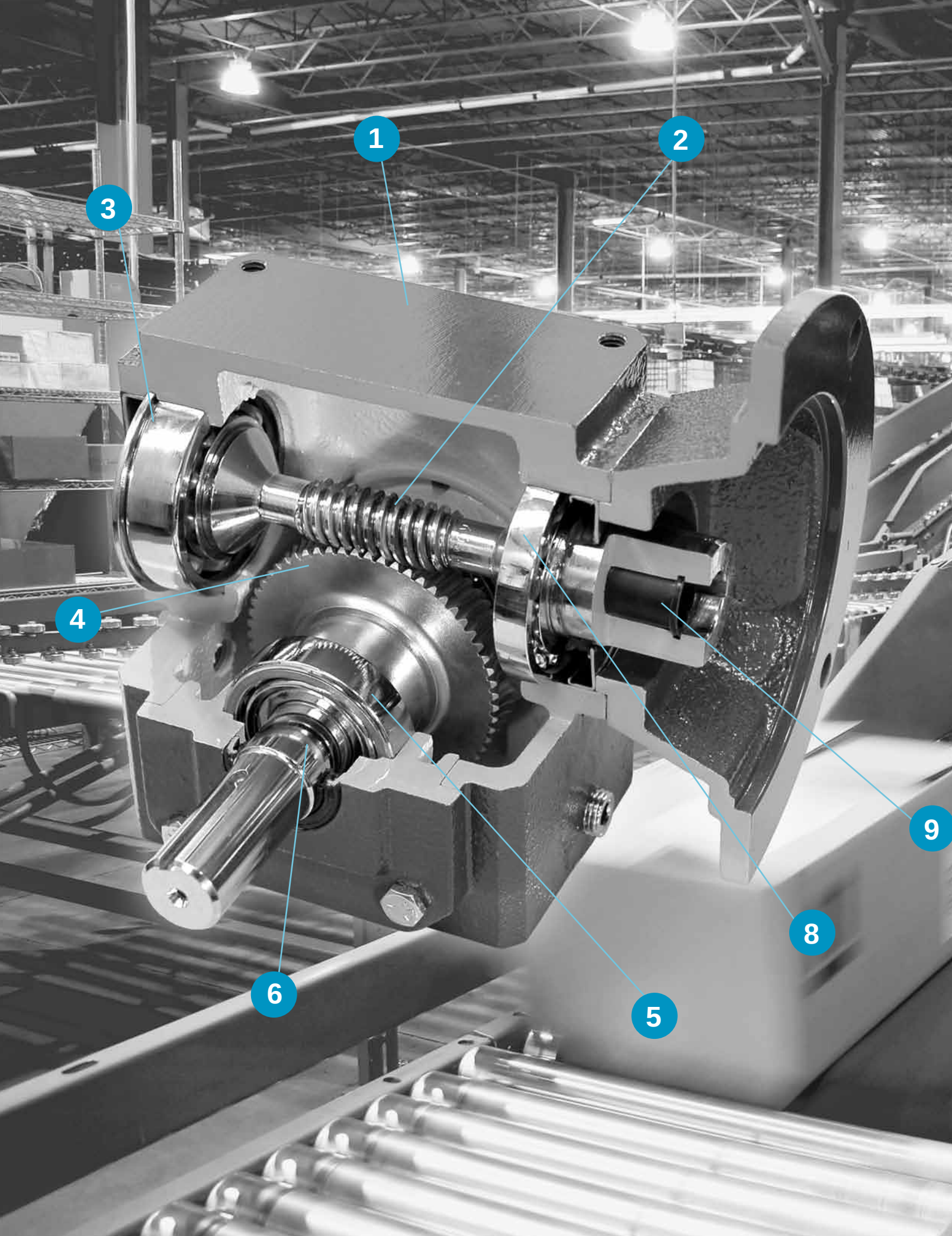
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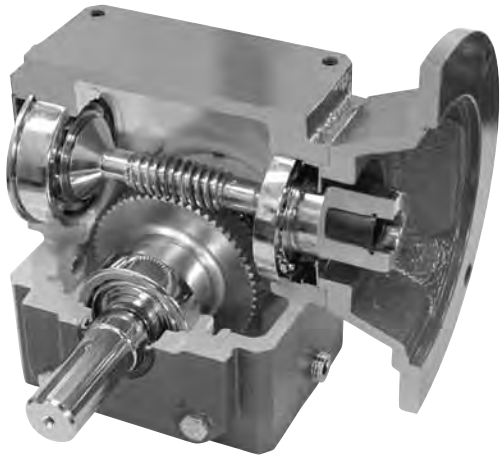
Morse® RAIDER Plus®



Design Features

1. **Rugged Cast Iron Housings**
   - Raider Plus speed reducers incorporate rugged cast iron single piece construction for all housings, motor adapters, covers and mounting bases, providing maximum strength and dependability.
2. **Integral Worm and Shaft**
   - Hardened to 58RC for extra durability and strength.
3. **Large, Single Row Ball Bearings**
   - Absorb radial and thrust loads on higher input speeds for increased efficiency. Tapered roller bearings are used in 375, 450, 516 and 600 units.
4. **Forged Bronze Worm Gears**
   - Provide greater tensile strength than cast bronze, are precision manufactured to AGMA specifications for long, trouble-free operation. Cast iron hubs are used in larger sizes for extra strength.
5. **Heavy-duty Tapered Roller Bearings on all Output Shafts**
   - Effectively handle inherent gear load and provide maximum overhung load capacity.
6. **Double Lip Seals on Emerson Exclusive Sealing Surfaces**
   - Helps keep contaminants out and lubrication in. Provision for an extra seal on both input and output shafts permits additional protection in highly contaminated applications - an exclusive Raider Plus feature.
7. **All Units Factory Filled with Polyglycol Oil**
8. **Bearing on input for support**
9. **Compact C-Face Quill Design**
   - Non-metallic liner to minimize fretting.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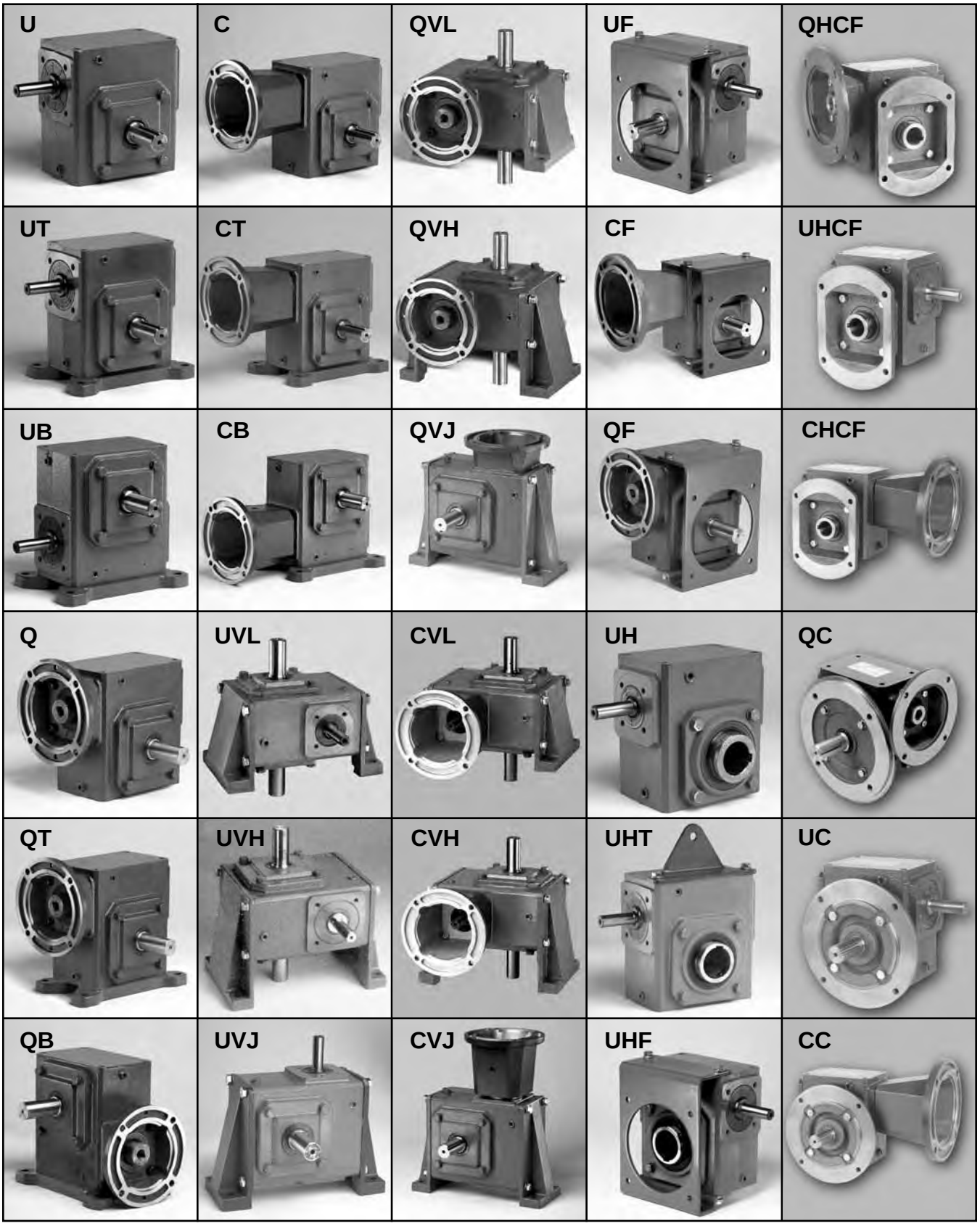
Morse® RAIDER Plus® Accessories

Need a reducer in a hurry? It's never a problem with Raider Plus worm gear speed reducers, because you need only four basic units to serve every conceivable application. Any of the Raider Plus component accessories can be added in just minutes to convert the basic unit to the desired style. That means absolute minimum inventory requirements - at absolute minimum costs!

Design Features

1. **Standard Horizontal Base Kit**
2. **Motor Adapter Kit**
3. **Econo Horizontal Base Kit**
4. **Vertical Low Base Kit**
5. **Vertical High Base Kit**
6. **Vertical "J" Base Kit**
7. **Torque Arm Kit**
8. **Plug In Shaft Kit**
9. **Cast Iron Flange Kit**
10. **Steel Flange Kit**
11. **Riser Block Kit**
12. **Tack on Adapter / C-Face Output Flange Kit**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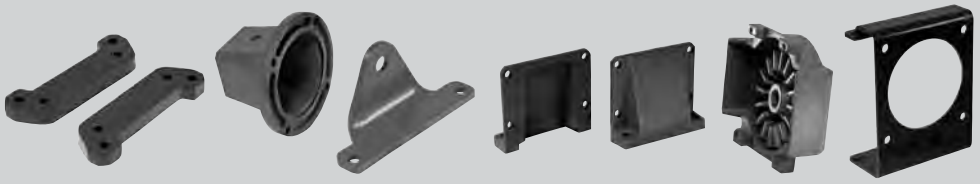
CHF 	Components 			

The Morse® Worm Gear Speed Reducer can easily be sized and ordered by following these instructions.

Basic Unit and Components

This method of ordering is used when versatility and modularity are desired. It is especially convenient for distributors and customers that want to stock the various basic units and components, so that an almost unlimited number of configurations can be put together. When ordering by this method, the basic unit and components will not be assembled, but will be shipped in separate cartons.

Ordering Steps:

1. Find the desired style to be ordered on pages 170 through 209 in this catalog.

2. Go to the dimension table for the specific style desired and find the “Components” section. The basic unit and component part numbers are shaded for easy reference.

3. Complete the basic unit part number by following the foot note instructions.

4. Order the complete basic unit part number along with the indicated component part numbers that will make up the desired Raider Plus style.

Example: A QT Style, 145TC NEMA frame, 30:1 Ratio, 3.25" C.D., with left output shaft. A standard base kit is also required.

Steps:

1. Go to pages 172 and 173 where style QT will be found.

2. The table on page 173 shows basic unit numbers and dimensions. The table shows components and dimensions for Style QT – with Base – Worm Top.

3. Find the unit size needed which is 325Q140, then complete the Basic Unit part number by adding shaft assembly and ratio symbol to unit size – 325Q140**L30**.

4. Basic unit part number and component part numbers required are:

Reducer:	**325Q140L30**
Base Kit:	**325S-BK**

Part Description Configuration

Center Distance	Type of Input	C Face Size (if applicable)	O.P. Shaft Arrangement	Ratio
133	**Q**	**56**	**LR**	**30**
1.00"=100	U = Universal, Shaft In	42CZ/48C = 40	L = Left Output	5
1.33"=133	**Q = C Face Quilled**	**56C = 56**	R = Right Output	10
1.54"=154		143/145TC = 140	**LR = Left & Right Output**	15
1.75"=175		182/184TC = 180	H = Hollow Output	20
2.06"=206		213/215T = 210		25
2.37"=237				**30**
2.62"=262				40
3.00"=300				50
3.25"=325				60
3.75"=375				
4.50"=450				
5.16"=516				
6.00"=600				

It is recommended to use the above chart to arrive at Raider Plus reducer part description.
The above sample part description is 133Q56LR30. This description does not include feet or other available mounting accessories that are available for the Raider Plus product. These accessories are sold separately using the part descriptions for the appropriate product. Not all ratios are available in each configuration.

Raider Plus units ordered with hollow outputs have a stock bore for each C.D. Bushing kits are available to help reducers fit on shafts that are smaller than the stock bore.

Kit Descriptions

Bushing Kits

203 BU 200
- 200 = I.D.
- BU = Bushing Kit
- 203 = O.D.

NEMA Frame Adapter Kit

375 MAK 56
- 56 = NEMA size 56 C Face
- MAK = Motor Adapter Kit
- 375 = Fits 3.75" C.D. Reducer

Torque Arm Kit

133 H - TAK
- TAK = Torque Arm Kit
- H = Generally used with Hollow Output Reducers (not limited to)
- 133 = Fits 1.33" C.D. Reducer

Adjustable Torque Arm Kit

133-175 ATAK
- ATAK = Adjustable Torque Arm Kit
- 133-175 = Fits Units 1.33"-1.75" C.D.

Fan Kit

375 FAN
- FAN = Fan Kit
- 375 = Fits 3.75" C.D. Reducer

Plug In Shaft

175 H - SK
- SK = Shaft Kit
- H = Hollow Output
- 175 = Fits 1.75" CD Reducer

Cast Iron Flange Kit

175 H - CFK
- CFK = Cast Iron Flange Kit
- H = Hollow Output
- 175 = Fits 1.75" CD Reducer

Econo Base Kit

175 E-BK
- E-BK = Econo Base Kit
- 175 = Fits 1.75" C.D. Reducer

Standard Base Kit

206 S-BK
- S-BK = Standard Base Kit
- 206 = Fits 2.06" C.D. Reducer

Flange Kit

206 H-FK
- FK = Flange Kit
- H = Generally used with Hollow Output Reducers (not limited to)
- 206 = Fits 2.06" C.D. Reducer

Vertical Low Base Kit

262 VL-BK
- VL-BK = Vertical Low Base Kit
- 262 = Fits 2.62" C.D. Reducer

Vertical High Base Kit

262 VH-BK
- VH-BK = Vertical High Base Kit
- 262 = Fits 2.62" C.D. Reducer

Vertical “J” Base Kit

262 VJ-BK
- VJ-BK = Vertical “J” Base Kit
- 262 = Fits 2.62" C.D. Reducer

Solid Base Kit

133 - BKS
- BKS = Base Kit - Solid
- 133 = Fits 1.33" C.D. Reducer

C-Face Output Kit

175 TAD Q140
- Q140 = NEMA Size 140C C-Face Motor Size
- TAD = Tack on Adapter
- 175 = Fits 1.75" CD Reducer

Selection Procedure of Raider Plus Worm Gear Speed Reducers

1. Determine Service Factor
From service factor tables on pages 162 and 163 determine service factor for the application.

2. Determine the Overall Drive Ratio

$$\text{Overall Drive Ratio} = \frac{\text{rpm of driver}}{\text{rpm of driven}}$$

When over-all drive ratio is not one of the stock speed reducer ratios shown in tables on page 170 through 209, a chain, belt, or gear drive with further reduction for either the input or output side will be necessary.

3. Determine Equivalent hp or Normal Torque

A. Horsepower Method:

Equivalent hp = Actual Motor hp × Service Factor (Step # 1)

B. Torque Method:

Normal Torque = Actual Torque × Service Factor (Step # 1)

4. Determine the Size of Speed Reducer Required

A. Horsepower Method:

Refer to pages 164 through 168 and select a speed reducer having a mechanical input horsepower equal to or slightly greater than the equivalent hp calculated in Step No. 3 above.

B. Torque Method:

Refer to pages 164 to 168 and select a speed reducer having a mechanical output torque rating equal to or slightly greater than the normal torque calculated in Step No. 3 above. If the required input and output speeds are not listed in these tables, the ratings can be determined by straight line interpolation. When the input speed is less than 100 rpm, ratings for 100 rpm must be used.

5. Check the Thermal Rating
The Thermal Rating is the maximum input horsepower or output torque that can be transmitted continuously without exceeding a 100° F temperature rise over ambient. The thermal rating should not be exceeded. Service Factors are not applied to Thermal Ratings.
It is not necessary to check thermal ratings when the reducer does not operate more than 1/2 hour at a time and is shut down for a minimum period equal to the running time.

A. Horsepower Method:

Check the actual motor hp against the thermal input hp ratings (see pages 164 to 168), and if the motor hp is greater, select either a unit with a fan and/or a larger speed reducer so that the thermal rating is greater than the actual hp.

B. Torque Method:

Check the actual torque against the thermal output ratings (see pages 164 to 168), and if the actual torque is greater, select a unit with a fan and/or a larger speed reducer so that the thermal rating is greater than the actual torque.

6. Determine the Motor Horsepower

Use the following equation when motor hp is not known:

$$\text{Motor Horsepower} = \frac{\text{Actual Torque} \times \text{Thermal Input hp}}{\text{Thermal Output Torque}}$$

7. Check the Overhung Load and Thrust Loads
Calculate the overhung load for drives to be mounted directly on the reducer shafts by following instructions on page 33. Check this and any existing thrust loads against the load values shown on pages 164 to 168, and if the calculated load is greater than the values in the table, select a larger speed reducer.

Note: Refer combined overhung and thrust loads to Application Engineering (1 800 626 2093).

Example No. 1 - Horsepower Method

Select a worm gear speed reducer for a dough mixer in a bakery. The speed reducer will be driven by a 1.0 hp, 1750 rpm, 56 Frame, C-Face Motor. The left reducer output shaft will be directly coupled to the mixer shaft. The mixer will operate 8 - 10 hours daily and the shaft speed is 58 rpm. The reducer also requires a horizontal mounting base with the worm on top.

1. Determine the Service Factor
From the table on page 162, note that the service factor for a dough mixer (Food Industry) operating 3 - 10 hours per day is 1.25.

2. Determine the Overall Drive Ratio

$$\text{Overall Drive Ratio} = \frac{\text{rpm of Driver}}{\text{rpm of Driven}} = \frac{1750}{58} = 30.17$$

Since there is not an auxiliary input or output drive required, the reducer ratio needed is 30:1.

3. Determine Equivalent Horsepower

$$\text{Equivalent hp} = \text{Actual Motor hp} \times \text{S F} =$$

$$1.0 \times 1.25 = 1.25 \text{ hp}$$

4. Determine the Size of Speed Reducer Required
From page 164 under “1750 rpm Driver -30:1 Ratio - 58.3 rpm Output” and under “Input hp Mechanical” find the rating equal to or greater than the 1.25 equivalent hp calculated in Step No. 3. Note that a 237 reducer has mechanical rating of 1.45 hp. The correct part numbers required are:

Reducer: **237Q56L30**
Base Kit: **237S-BK**

5. Check the Thermal Rating
From the rating tables on page 164, read to the right and note the Thermal hp is 1.24 hp, which is greater than the motor horsepower (1.0 hp), therefore, the unit is not thermally limited.

6. Determine the Motor Horsepower
The motor horsepower is already known to be 1.0 hp.

7. Check Overhung Load and Thrust Loads
The unit will be coupling connected on the output shaft. Overhung load does not need to be calculated. There is not any thrust on the output shaft. There is neither thrust nor overhung load on the input shaft because it is mated with a C-Face motor. Therefore, the reducer selected is the proper size.

Example No. 2 - Torque Method

Select a worm gear speed reducer for a belt conveyor (general purpose), not uniformly fed. The speed reducer will be driven by a 1750 rpm electric motor directly connected by a coupling, with a 1.23:1 ratio chain drive from the reducer to the head shaft of the conveyor. The pitch diameter of the driver sprocket mounted on the reducer output shaft is 5.032 inches. The conveyor will operate 10 hours per day, and the head shaft speed is 140 rpm. The reducer will also require a horizontal mounting base with the worm on top. Conveyor calculations indicate that 1710 inch pounds of torque is needed at the conveyor head shaft.

1. Determine the Service Factor

From the table on page 162, note that the service factor for a belt conveyor (general purpose) operating 3 - 10 hours per day is 1.25.

2. Determine the Overall Drive Ratio

$$\text{Overall Drive Ratio} = \frac{\text{rpm of Driver}}{\text{rpm of Driven}} = \frac{1750}{140} = 12.5 : 1$$

$$\text{Speed Reducer Ratio} = \frac{\text{Overall Drive Ratio}}{\text{Chain Drive Ratio}} = \frac{12.5}{1.23} = 10.16 : 1$$

3. Determine the Normal Torque

The normal torque required for reducer selection is the actual torque required at the reducer output shaft. Therefore, we must convert the 1710 inch pounds of actual torque at the conveyor head shaft to the actual required torque at the reducer output shaft, and then multiply by the service factor.

Actual Torque at Reducer Output Shaft =

$$\frac{\text{Actual Torque At Conveyor Head Shaft}}{\text{Chain Drive Ratio}} = \frac{1710}{1.23} = 1{,}390 \text{ In/lbs.}$$

Normal Torque =

Actual Reducer Output Torque × S F =

1,390 × 1.25 = 1738 in/lbs.

4. Determine the Size of Speed Reducer Required

From page 164 under “1750 rpm Driver - 10 to 1 ratio - 175 rpm Driven” and under “Mechanical Output Torque” find the rating equal to or greater than the 1738 inch-pounds normal torque calculated in step no. 3. Note that a 3.00 inch center distance reducer has a mechanical rating of 2004 inch-pounds.

5. Check the Thermal Rating

From the rating table on page 164, read to the right and note the thermal torque for a 3.00 inch C.D. reducer is 2004 inch-pounds, which is greater than the actual torque at the reducer output shaft (1,390 inch-pounds) calculated in step no. 3. Therefore, a 3.00 inch C.D. unit, which has a thermal rating of 2004 inch-pounds, can be used.

The correct part numbers required are:

Reducer: **300ULR10**
Base Kit: **300S-BK**

6. Determine the Motor Horsepower

$$\text{Motor Horsepower} = \frac{\text{Actual Torque X Thermal Input hp}}{\text{Thermal Output Torque}}$$

$$= \frac{1{,}390 \times 5.25}{2004}$$

$$= 3.64$$

Use a 5 horsepower motor.

7. Check Overhung and Thrust Loads

$$\text{OL (See below)} = \frac{2 \times T \times K}{\text{P.D. of Sprocket}}$$

$$= \frac{2 \times 1390 \times 1.0}{5.032}$$

$$= 552.50 \text{ Pounds}$$

From rating table on page 164, note the maximum overhung load for the output shaft of the 300ULR10 reducer is 987 lbs., which is greater than the calculated load on shaft of 553 lbs. There is no thrust on the output shaft. There is neither thrust or overhung load on the input shaft because it is direct couple connected. The reducer selection size is ample.

Overhung Loads

When a speed reducer is driven by any belt, chain or gear drive, or when the speed reducer drives a driven unit through a belt, chain or gear drive, overhung loads must not exceed those shown on pages 164 through 168. Use the following formula to calculate the overhung loads:

$$OL = \frac{2TK}{D}$$

where

OL	=	Overhung Load	
T	=	Actual Shaft Torque (inch-pounds)	
D	=	P. D. of Sprocket, Sheave , Pulley or Gear	
K	=	1.0	for Chain Drive
	=	1.25	for Gear Drive
	=	1.25	for Gearbelt Drive
	=	1.50	for V-Belt Drive
	=	2.50	for Flat Belt Drive

No overhung loads are encountered when the speed reducer is coupling connected to the driver and/or driven machine. However, care should be taken in aligning the shafts to avoid pre-loading bearings in misalignment.

Enclosed Worm Gear Applications

(Service factors shown apply only if electric or hydraulic motors are used. For single or multi-cylinder engines, see table on next page for conversion.)

APPLICATION	Up to 3 Hrs. Day	3-10 Hrs. Day	Over 10 Hrs. Day
AGITATORS (Mixers)			
Pure Liquids	–	1.00	1.25
Liquids and Solids	1.00	1.25	1.50
Liquids-Variable Density	1.00	1.25	1.50
BLOWERS			
Centrifugal	1.00	1.25	–
Lobe	1.00	1.25	1.50
Vane	–	1.00	1.25
BREWING AND DISTILLING			
Bottling Machinery	–	1.00	1.25
Brew Kettles, Continuous Duty	–	1.00	1.25
Cookers, Continuous Duty	–	1.00	1.25
Mash Tubs, Continuous Duty	–	1.00	1.25
Scale Hopper, Frequent Starts	1.00	1.25	1.50
CAN FILLING MACHINES	–	1.00	1.25
CAR DUMPERS	1.25	1.50	1.75
CAR PULLERS	1.00	1.25	1.50
CLARIFIERS	–	1.00	1.25
CLASSIFIERS	1.00	1.25	1.50
CLAY WORKING MACHINERY			
Brick Press	1.25	1.50	1.75
Briquette Machine	1.25	1.50	1.75
Pug Mill	1.00	1.25	1.50
COMPACTORS	1.50	1.75	2.00
COMPRESSORS			
Centrifugal	–	1.00	1.25
Lobe	1.00	1.25	1.50
Reciprocating, Multi-Cylinder	1.00	1.25	1.50
Reciprocating, Single-Cylinder	1.25	1.50	1.75
CONVEYORS - GENERAL PURPOSE			
Uniformly Loaded or Fed	–	1.00	1.25
Not Uniformly Fed	1.00	1.25	1.50
Reciprocating or Shaker	1.25	1.50	1.75
CRANES			
Dry Dock			
Main Hoist	1.25	1.50	1.75
Auxiliary	1.25	1.50	1.75
Boom Hoist	1.25	1.50	1.75
Slewing Drive	1.25	1.50	1.75
Traction Drive	1.50	1.50	1.50
Container			
Main Hoist	Refer To Application Engr.		
Boom Hoist	Refer To Application Engr.		
Trolley Drive (Gantry Drive)	Refer To Application Engr.		
(Traction Drive)	Refer To Application Engr.		
Mill Duty			
Main Hoist	Refer To Application Engr.		
Auxiliary	Refer To Application Engr.		
Bridge and Trolley Travel	Refer To Application Engr.		
Industrial Duty			
Main	1.00	1.25	1.50
Auxiliary	Refer To Application Engr.		
Bridge and Trolley Travel	Refer To Application Engr.		
CRUSHER			
Stone or Ore	1.50	1.75	2.00
DREDGES			
Cable Reels	1.00	1.25	1.50
Conveyors	1.00	1.25	1.50
Cutter Head Drives	1.25	1.50	1.75
Pumps	1.00	1.25	1.50
Screen Drives	1.25	1.50	1.75
Stackers	1.00	1.25	1.50
Winches	1.00	1.25	1.50
ELEVATORS			
Bucket	1.00	1.25	1.50
Centrifugal Discharge	–	1.00	1.25
Escalators	Refer To Application Engr.		
Freight	Refer To Application Engr.		
Gravity Discharge	–	1.00	1.25
EXTRUDERS			
General	1.25	1.25	1.25
Plastics			
(a) Variable Speed Drive	1.50	1.50	1.50
(b) Fixed Speed Drive	1.75	1.75	1.75
Rubber			
(a) Continuous Screw Operation	1.50	1.50	1.50
(b) Intermittent Screw Operation	1.75	1.75	1.75

APPLICATION	Up to 3 Hrs. Day	3-10 Hrs. Day	Over 10 Hrs. Day
FANS			
Centrifugal	–	1.00	1.25
Cooling Towers	Refer To Application Engr.		
Forced Draft	1.25	1.25	1.25
Induced Draft	1.00	1.25	1.50
Industrial & Mine	1.00	1.25	1.50
FEEDERS			
Apron	–	1.25	1.50
Belt	1.00	1.25	1.50
Disc	–	1.00	1.25
Reciprocating	1.25	1.50	1.75
Screw	1.00	1.25	1.50
FOOD INDUSTRY			
Cereal Cooker	–	1.00	1.25
Dough Mixer	1.00	1.25	1.50
Meat Grinders	1.00	1.25	1.50
Slicers	1.00	1.25	1.50
GENERATORS AND EXCITERS	–	1.00	1.25
HAMMER MILLS	1.50	1.50	1.75
HOISTS			
Heavy Duty	1.25	1.50	1.75
Medium Duty	1.00	1.25	1.50
Skip Hoist	1.00	1.25	1.50
LAUNDRY TUMBLERS	1.00	1.25	1.50
LAUNDRY WASHERS	1.25	1.25	1.50
LUMBER INDUSTRY			
Barkers			
-Spindle Feed	1.25	1.25	1.25
- Main Drive	1.50	1.50	1.50
Conveyors			
- Burner	1.25	1.25	1.50
- Main or Heavy Duty	1.50	1.50	1.50
- Main Log	1.50	1.50	1.50
- Re-saw, Merry-Go-Round	1.25	1.25	1.50
- Slab	1.50	1.50	1.75
- Transfer	1.25	1.25	1.50
Chains			
- Floor	1.50	1.50	1.50
- Green	1.50	1.50	1.50
Cut-Off Saws			
- Chain	1.50	1.50	1.50
- Drag	1.50	1.50	1.50
Debarking Drums	1.50	1.50	1.75
Feeds			
- Edger	1.25	1.25	1.50
- Gang	1.50	1.50	1.50
- Trimmer	1.25	1.25	1.50
Log Deck	1.50	1.50	1.50
Log Hauls-Incline-Well Type	1.50	1.50	1.50
Log Turning Devices	1.50	1.50	1.50
Planer Feed	1.25	1.25	1.50
Planer Tilting Hoists	1.50	1.50	1.50
Rolls-Live-off Brg.-Roll Cases	1.50	1.50	1.50
Sorting Table	1.25	1.25	1.50
Tipple Hoist	1.25	1.25	1.50
Transfers			
- Chain	1.50	1.50	1.50
- Causeway	1.50	1.50	1.50
Tray Drives	1.25	1.25	1.50
Veneer Lathe Drives	Refer To Application Engr.		
METAL MILLS			
Draw Bench Carriage and Main Drive	1.00	1.25	1.50
Runout Table			
Non-reversing			
Group Drives	1.00	1.25	1.50
Individual Drives	1.50	1.50	1.75
Reversing	1.50	1.50	1.75
Slab Pushers	1.25	1.25	1.50
Shears	1.50	1.50	1.75
Wire Drawing	1.00	1.25	1.50
Wire Winding Machine	1.00	1.25	1.50
METAL STRIP PROCESSING MACHINERY			
Bridles	1.25	1.25	1.50
Coilers & Uncoilers	1.00	1.00	1.25
Edge Trimmers	1.00	1.25	1.50
Flatteners	1.00	1.25	1.50
Loopers(Accumulators)	1.00	1.00	1.00
Pinch Rolls	1.00	1.25	1.50
Scrap Choppers	1.00	1.25	1.50
Shears	1.50	1.50	1.75
Slitters	1.00	1.25	1.50

Enclosed Worm Gear Applications

APPLICATION	Up to 3 Hrs. Day	3-10 Hrs. Day	Over 10 Hrs. Day
MILLS, ROTARY TYPE			
Ball & Rod			
Spur Ring Gear	1.50	1.50	1.75
Helical Ring Gear	1.50	1.50	1.50
Direct Connected	1.50	1.50	1.75
Cement Kilns	1.50	1.50	1.50
Dryers & Coolers	1.50	1.50	1.50
MIXERS, CONCRETE	1.00	1.25	1.50
PAPER MILLS			
Agitator(Mixer)	1.50	1.50	1.50
Agitator for Pure Liquids	1.25	1.25	1.25
Barking Drums	1.75	1.75	1.75
Barkers - Mechanical	1.75	1.75	1.75
Beater	1.50	1.50	1.50
Breaker Stack	1.25	1.25	1.25
❖ Calender	1.25	1.25	1.25
Chipper	1.75	1.75	1.75
Chip Feeder	1.50	1.50	1.50
Coating Rolls	1.25	1.25	1.25
Conveyors			
Chip, Bark, Chemical	1.25	1.25	1.25
Log(Including Slab)	1.75	1.75	1.75
Couch Rolls	1.25	1.25	1.25
Cutter	1.75	1.75	1.75
Cylinder Molds	1.25	1.25	1.25
❖ Dryers			
Paper Machine	1.25	1.25	1.25
Conveyor Type	1.25	1.25	1.25
Embosser	1.25	1.25	1.25
Extruder	1.50	1.50	1.50
Fourdrinier Rolls (Includes Lump Breaker, Dandy Roll, Wire Turning, and Return Rolls)	1.25	1.25	1.25
Jordan	1.25	1.25	1.25
Kiln Drive	1.50	1.50	1.50
Mt. Hope Roll	1.25	1.25	1.25
Paper Rolls	1.25	1.25	1.25
Platter	1.50	1.50	1.50
Presses- Felt & Suction	1.25	1.25	1.25
Pulper	1.50	1.50	1.75
Pumps- Vacuum	1.50	1.50	1.50
Reel (Surface Type)	1.25	1.25	1.50
Screens			
Chip	1.50	1.50	1.50
Rotary	1.50	1.50	1.50
Vibrating	1.75	1.75	1.75
Size Press	1.25	1.25	1.25
Super Calender (See Note)	1.25	1.25	1.25
Thickener			
(AC Motor)	1.50	1.50	1.50
(DC Motor)	1.25	1.25	1.25
Washer			
(AC Motor)	1.50	1.50	1.50
(DC Motor)	1.25	1.25	1.25
Wind and Unwind Stand	1.00	1.00	1.00
Winders (Surface Type)	1.25	1.25	1.25
❖ Yankee Dryers	1.25	1.25	1.25
PLASTICS INDUSTRY - PRIMARY PROCESSING			
Intensive Internal Mixers			
(a) Batch Mixers	1.75	1.75	1.75
(b) Continuous Mixers	1.50	1.50	1.50
Batch Drop Mill - 2 Smooth Rolls	1.25	1.25	1.25
Continuous Feed, Holding & Blend Mill	1.25	1.25	1.25
Compounding Mills	1.25	1.25	1.25
Calenders	1.50	1.50	1.50
PLASTICS INDUSTRY - SECONDARY PROCESSING			
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
Pre-Plasticizers	1.50	1.50	1.50
Rods	1.25	1.25	1.25
Sheet	1.25	1.25	1.25
Tubing	1.25	1.25	1.50
PULLERS - BARGE HAUL	1.00	1.50	1.75
PUMPS			
Centrifugal	–	1.00	1.25
Proportioning	1.00	1.25	1.50
Reciprocating			
Single Acting, 3 or More Cylinders	1.00	1.25	1.50
Double Acting, 2 or More Cylinders	1.00	1.25	1.50
Rotary			
- Gear Type	–	1.00	1.50
- Lobe	–	1.00	1.25
- Vane	–	1.00	1.25
RUBBER INDUSTRY			
Intensive Internal Mixers			
(a) Batch Mixers	1.50	1.75	1.75
(b) Continuous Mixers	1.25	1.50	1.50
Mixing Mill - 2 Smooth Rolls - (If corrugated rolls are used, then use the same service factors that are used for a Cracker-Warmer)	1.50	1.50	1.50
Batch Drop Mill - 2 Smooth Rolls	1.50	1.50	1.50
Cracker Warmer - 2 Roll: 1 Corrugated Roll	1.75	1.75	1.75
Cracker - 2 Corrugated Rolls	1.75	1.75	1.75

APPLICATION	Up to 3 Hrs. Day	3-10 Hrs. Day	Over 10 Hrs. Day
RUBBER INDUSTRY (Cont'd.)			
Holding, Feed and Blend Mill - 2 Rolls	1.25	1.25	1.25
Refiner - 2 Rolls	1.50	1.50	1.50
Calenders	1.50	1.50	1.50
SAND MILLER	1.00	1.25	1.50
SEWAGE DISPOSAL EQUIPMENT			
Bar Screens	–	1.00	1.25
Chemical Feeders	–	1.00	1.25
SEWAGE DISPOSAL EQUIPMENT (Cont'd.)			
Dewatering Screens	1.00	1.25	1.50
Scum Breakers	1.00	1.25	1.50
Slow Or Rapid Mixers	1.00	1.25	1.50
Sludge Collectors	1.00	1.00	1.25
Thickener	1.00	1.25	1.50
Vacuum Filters	1.00	1.25	1.50
SCREENS			
Air Washing	–	1.00	1.25
Rotary - Stone Or Gravel	1.00	1.25	1.50
Traveling Water Intake	–	1.00	1.25
SUGAR INDUSTRY			
Beet Slicer	1.50	1.50	1.75
Cane Knives	1.50	1.50	1.50
Crushers	1.50	1.50	1.50
Mills (Low Speed End)	1.50	1.50	1.50
TEXTILE INDUSTRY			
Batchers	1.00	1.25	1.50
Calenders	1.00	1.25	1.50
Cards	1.00	1.25	1.50
Dry Cans	1.00	1.25	1.50
Dryers	1.00	1.25	1.50
Dyeing Machinery	1.00	1.25	1.50
Looms	1.00	1.25	1.50
Mangles	1.00	1.25	1.50
Nappers	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

❖ Anti-Friction Bearings Only.

Note: A Service Factor of 1.0 may be applied at the base of a super calender, operating over a speed range where part of the range is constant horsepower and part of the range is constant torque, provided that the constant horsepower part is greater than 1.5 to 1. A service factor of 1.25 is applicable to super calenders operating over the entire speed range at constant torque, or where the constant horsepower speed range is less than 1.5 to 1.

Service Factors for Electric and Hydraulic Motors

(For Service Factors For Single Or Multi-Cylinder Engines, see below)

Duration of Service (Hours Per Day)	Uniform Load	Moderate Shock	Heavy Shock	Extreme Shock
Occasional 1/2 Hour	–	–	1.0	1.25
Less Than 3 Hours	1.0	1.0	1.25	1.50
3 - 10 Hours	1.0	1.25	1.50	1.75
Over 10 Hours	1.25	1.50	1.75	2.00

Conversion Table for Single or Multi-Cylinder Engines to find Equivalent Single or Multi-Cylinder Service Factors

Hydraulic or Electric Motor	Single Cylinder Engines	Multi-Cylinder Engines
1.00	1.50	1.25
1.25	1.75	1.50
1.50	2.00	1.75
1.75	2.25	2.00
2.00	2.50	2.25

Load and operating characteristics of both the driver and driven units must be considered throughly when selecting speed reducers. It is essential that all speed reducers be selected for maximum load conditions to be encountered. Worm gear speed reducers will safely transmit momentary starting loads as great as 300% of the mechanical input ratings.

Input Horsepower, Output Torque, Overhung Load and Thrust Load for Raider Plus Single Reduction Worm Gear Speed Reducers

Unit Size ■	Mechanical		Thermal		Maximum Overhung Lbs.	Max Thrust LoadLbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
1750 rpm Driver - 5:1 Ratio-350 pm Output						
100	0.58	94	0.58	94	147	◗
133	1.28	210	1.28	210	458	811
154	1.66	276	1.66	276	388	806
175	2.45	405	2.00	331	663	868
206	3.50	587	2.81	470	913	1265
237	5.11	861	3.98	672	843	1379
262	6.19	1045	4.68	790	1295	1596
300	9.46	1604	8.99	1524	987	2692
1750 rpm Driver - 10:1 Ratio-175 rpm Output						
100	0.37	117	0.37	117	147	◗
133	0.77	246	0.77	246	458	1001
154	1.06	339	1.06	339	388	1001
175	1.52	493	1.50	459	740	1098
206	2.24	731	2.00	653	1078	1580
237	3.34	1095	2.66	871	843	1714
262	4.07	1337	3.47	1143	1295	1976
300	6.04	2004	6.04	2004	987	3322
325	7.23	2401	7.23	2401	2401	2964
375	9.81	3286	8.48	2841	1678	2335
375 W/Fan	9.81	3286	9.64	3228	1678	2335
450	14.78	4981	11.52	3882	1549	4626
450W/Fan	14.78	4981	14.40	4853	1549	4626
516	19.86	6729	14.94	5060	2531	3889
516W/Fan	19.86	6729	18.66	6325	2531	3889
600	28.74	9722	21.70	7342	4417	5398
600W/Fan	28.74	9722	25.84	8740	4417	5398
1750 rpm Driver - 15:1 Ratio -116.6 rpm Output						
100	0.26	121	0.26	121	147	◗
133	0.56	259	0.56	259	458	1156
154	0.81	365	0.81	365	388	1146
175	1.14	531	1.10	516	740	1253
206	1.64	782	1.50	698	1078	1820
237	2.52	1191	2.08	986	843	1954
262	3.00	1440	2.50	1197	1295	2296
300	4.57	2197	4.57	2197	987	3410
325	5.42	2614	5.22	2521	2401	3364
375	7.35	3572	5.88	2858	1678	2655
375 W/Fan	7.35	3572	7.35	3572	1678	2655
450	11.09	5436	8.66	4246	1549	5346
450W/Fan	11.09	5436	10.82	4962	1549	5346
516	15.01	7421	10.95	5412	2531	4449
516W/Fan	15.01	7421	13.67	6764	2531	4449
600	21.19	10516	14.82	7355	4417	6198
600W/Fan	21.19	10516	18.08	8970	4417	6198
1750 rpm Driver - 20:1 Ratio -87.5 rpm Output						
100	0.23	135	0.23	135	147	◗
133	0.46	270	0.46	270	458	1241
154	0.64	373	0.64	373	388	1241
175	0.90	544	0.86	520	740	1358
206	1.33	812	1.25	762	1078	1980
237	1.99	1217	1.66	1012	843	2179
262	2.40	1490	2.09	1296	1295	2536
300	3.60	2251	3.60	2251	987	3410
325	4.28	2674	4.26	2662	2401	3410
375	6.01	3807	5.11	3235	1678	2895
375W/Fan	6.01	3807	6.01	3807	1678	2895
450	8.66	5544	7.28	4658	1549	5906
450W/Fan	8.66	5544	8.66	5544	1549	5906
516	11.68	7557	9.33	6035	2531	4929
516W/Fan	11.68	7557	11.11	7185	2531	4929
600	16.51	10696	13.20	8549	4417	6758
600W/Fan	16.51	10696	15.71	10178	4417	6758

Unit Size ■	Mechanical		Thermal		Maximum Overhung Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
1750 rpm Driver - 25:1 Ratio -70 rpm Output						
133	0.39	269	0.39	269	458	1322
154	0.55	375	0.55	375	388	1322
175	0.76	543	0.75	513	740	1380
206	1.14	812	1.06	761	1078	2143
237	1.63	1212	1.50	1033	843	2245
262	2.05	1495	1.78	1298	1295	2748
300	3.12	2270	3.12	2270	987	3410
325	3.70	2726	3.69	2720	2401	3410
375	5.22	3878	4.46	3315	1678	3133
375 W/Fan	5.22	3878	5.22	3878	1678	3133
450	7.45	5598	6.14	4589	1549	6305
450 W/Fan	7.45	5598	7.45	5598	1549	6305
516	10.05	7652	7.92	6013	2531	5252
516 W/Fan	10.05	7652	9.63	7337	2531	5252
600	14.16	10803	11.39	8697	4417	7281
600W/Fan	14.16	10803	13.48	10293	4417	7281
1750 rpm Driver - 30:1 Ratio -58.3 rpm Output						
100	0.16	138	0.16	138	147	◗
133	0.32	268	0.32	268	458	1399
154	0.47	377	0.47	377	388	1399
175	0.63	543	0.59	507	740	1399
206	0.94	813	0.87	759	1078	2300
237	1.45	1233	1.24	1055	843	2305
262	1.70	1498	1.50	1301	1295	2956
300	2.63	2290	2.63	2290	987	3410
325	3.14	2777	3.14	2777	2401	3410
375	4.43	3949	3.81	3396	1678	3375
375 W/Fan	4.43	3949	4.43	3949	1678	3375
450	6.23	5651	4.99	4521	1549	6706
450 W/Fan	6.23	5651	6.23	5651	1549	6706
516	8.43	7749	6.52	5992	2531	5569
516 W/Fan	8.43	7749	8.15	7490	2531	5569
600	11.80	10911	9.57	8846	4417	7798
600W/Fan	11.80	10911	11.26	10408	4417	7798
1750 rpm Driver - 40:1 Ratio -43.7 rpm Output						
100	0.13	136	0.13	136	147	◗
133	0.26	270	0.26	270	458	1399
154	0.38	371	0.38	371	388	1399
175	0.52	543	0.50	507	740	1399
206	0.76	811	0.75	756	1078	2305
237	1.14	1216	1.00	1025	843	2305
262	1.37	1489	1.18	1288	1295	3096
300	2.04	2261	2.04	2261	987	3410
325	2.43	2690	2.43	2690	2401	3410
375	3.35	3818	2.84	3245	1678	3695
375 W/Fan	3.35	3818	3.35	3818	1678	3695
450	4.96	5750	4.21	4888	1549	6820
450 W/Fan	4.96	5750	4.96	5750	1549	6820
516	6.39	7565	5.37	6354	2531	6209
516 W/Fan	6.39	7565	6.39	7565	2531	6209
600	9.05	10716	7.30	8641	4417	8518
600W/Fan	9.05	10716	8.68	10287	4417	8518
1750 rpm Driver - 50:1 Ratio -35 rpm Output						
100	0.09	121	0.09	121	147	◗
133	0.22	256	0.22	256	458	1399
154	0.31	355	0.31	355	388	1399
175	0.41	520	0.41	520	740	1399
206	0.62	780	0.59	743	1078	2305
237	0.91	1166	0.78	1009	843	2305
262	1.10	1438	1.00	1256	1295	3336
300	1.64	2178	1.64	2178	987	3410

■ Basic unit size. See assembly drawings, pages 170 - 217, to determine components needed and complete the part numbers following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
Find ratings for input speeds not shown by straight line interpolation.
Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering.

◗ Contact Application Engineering (1 800 626 2093).

Contact Application Engineering for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

Input Horsepower, Output Torque, Overhung Load and Thrust Load for Raider Plus Single Reduction Worm Gear Speed Reducers

Unit Size■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
1750 rpm Driver - 50:1 Ratio -35 rpm Output						
325	2.05	2684	2.05	2684	2401	3410
375	2.82	3818	2.45	3321	1678	4015
375 W/Fan	2.82	3818	2.82	3818	1678	4015
450	3.99	5589	3.35	4694	1549	6820
450 W/Fan	3.99	5589	3.99	5589	1549	6820
516	5.12	7280	4.14	5896	2531	6689
516 W/Fan	5.12	7280	5.12	7280	2531	6689
600	7.07	10228	5.84	8456	4417	9238
600 W/Fan	7.07	10228	6.80	9833	4417	9238
1750 rpm Driver - 60:1 Ratio -29.1 rpm Output						
133	0.19	240	0.19	240	458	1399
154	0.28	399	0.28	399	388	1399
175	0.35	490	0.35	490	740	1399
206	0.52	737	0.52	737	1078	2305
237	0.76	1102	0.69	1003	843	2305
262	0.91	1359	0.82	1224	1295	3410
300	1.36	2063	1.36	2063	987	3410
325	1.76	2651	1.76	2651	2401	3410
375	2.39	3761	1.93	3045	1678	4255
375 W/Fan	2.39	3761	2.39	3761	1678	4255
450	3.39	5474	2.71	4379	1549	6820
450 W/Fan	3.39	5474	3.39	5474	1549	6820
516	4.13	6825	3.35	5528	2531	6820
516W/Fan	4.13	6825	4.13	6825	2531	6820
600	5.83	9743	4.92	8216	4417	9798
600 W/Fan	5.83	9743	5.78	9666	4417	9798
1160 rpm Driver - 5:1 Ratio-232 rpm Output						
100	0.45	101	0.45	101	147	◗
133	0.96	236	0.96	236	458	916
154	1.29	317	1.29	317	388	911
175	1.93	477	1.62	401	740	973
206	2.83	708	2.32	580	1078	1415
237	4.23	1062	3.38	849	843	1534
262	5.15	1299	4.02	1014	1295	1776
300	7.78	1964	7.47	1885	987	2997
1160 rpm Driver - 10:1 Ratio-116 rpm Output						
100	0.30	124	0.30	124	147	◗
133	0.56	263	0.56	263	458	1151
154	0.80	375	0.80	375	388	1141
175	1.13	547	1.11	534	740	1238
206	1.72	836	1.60	776	1078	1740
237	2.62	1273	2.22	1075	843	1944
262	3.23	1578	3.02	1477	1295	2216
300	4.89	2412	4.89	2412	987	3410
325	6.03	2961	6.03	2961	2401	3284
375	8.12	4045	7.07	3519	1678	2575
375 W/Fan	8.12	4045	8.12	4045	1678	2575
450	12.20	6115	9.76	4892	1549	5106
450W/Fan	12.20	6115	11.84	5936	1549	5106
516	16.23	8186	12.50	6303	2531	4289
516 W/Fan	16.23	8186	15.58	7859	2531	4289
600	23.15	11675	19.91	10041	4417	6038
600 W/Fan	23.15	11675	22.22	11208	4417	6038
1160 rpm Driver - 15:1 Ratio -77.3 rpm Output						
100	0.22	129	0.22	129	14	◗
133	0.40	276	0.40	276	458	1311
154	0.60	405	0.60	405	388	1296
175	0.86	589	0.83	563	740	1399
206	1.27	881	1.18	819	1078	2060
237	1.99	1389	1.76	1229	843	2194
262	2.36	1677	2.08	1481	1295	2536
300	3.73	2645	3.73	2645	987	3410
325	4.45	3171	4.31	3076	2401	3410

Unit Size■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
1160 rpm Driver - 5:1 Ratio -77.3 pm Output						
375	6.16	4425	5.05	3629	1678	2975
375 W/Fan	6.16	4425	6.16	4425	1678	2975
450	9.23	6693	7.38	5355	1549	5906
450 W/Fan	9.23	6693	9.14	6626	1549	5906
516	12.29	9020	9.34	6856	2531	4929
516 W/Fan	12.29	9020	11.30	8299	2531	4929
600	17.08	12579	13.15	9686	4417	6918
600 W/Fan	17.08	12579	15.20	11194	4417	6918
1160 rpm Driver - 20:1 Ratio-58 rpm Output						
100	0.20	146	0.20	146	147	◗
133	0.34	288	0.34	288	458	1399
154	0.48	410	0.48	410	388	1399
175	0.67	599	0.67	599	740	1399
206	1.03	916	1.03	916	1078	2220
237	1.56	1403	1.50	1281	843	2305
262	1.92	1748	1.84	1672	1295	2776
300	2.92	2676	2.92	2676	987	3410
325	3.56	3275	3.56	3275	2401	3410
375	4.82	4499	4.23	3959	1678	3295
375 W/Fan	4.82	4499	4.85	4499	1678	3295
450	7.27	6856	6.25	5896	1549	6546
450 W/Fan	7.27	6856	7.27	6856	1549	6546
516	9.69	9252	7.85	7494	2531	5489
516 W/Fan	9.69	9252	9.30	8883	2531	5489
600	13.47	12917	11.18	10721	4417	7638
600 W/Fan	13.47	12917	12.94	12401	4417	7638
1160 rpm Driver - 25:1 Ratio -46.4 rpm Output						
133	0.34	288	0.34	288	458	1399
154	0.48	410	0.48	410	388	1399
175	0.67	599	0.67	599	740	1399
206	1.03	916	1.03	916	1078	2220
237	1.56	1403	1.50	1281	843	2305
262	1.92	1748	1.84	1672	1295	2776
300	2.92	2676	2.92	2676	987	3410
325	3.56	3275	3.56	3275	2401	3410
375	4.82	4499	4.23	3959	1678	3295
375 W/Fan	4.82	4499	4.82	4499	1678	3295
450	7.27	6856	6.25	5896	1549	6546
450 W/Fan	7.27	6856	7.27	6856	1549	6546
516	9.69	9252	7.85	7494	2531	5489
516 W/Fan	9.69	9252	9.30	8883	2531	5489
600	13.47	12917	11.18	10721	4417	7638
600 W/Fan	13.47	12917	12.94	12401	4417	7638
1160 rpm Driver - 30:1 Ratio -38.6 rpm Output						
100	0.15	149	0.15	149	147	◗
133	0.24	284	0.24	284	458	1399
154	0.37	418	0.37	418	388	1399
175	0.48	591	0.48	591	740	1399
206	0.74	911	0.73	911	1078	2305
237	1.16	1435	1.08	1325	843	2305
262	1.36	1740	1.25	1612	1295	3176
300	2.16	2737	2.16	2737	987	3410
325	2.54	3296	2.54	3296	2401	3410
375	3.53	4582	3.04	3940	1678	3775
375 W/Fan	3.53	4582	3.53	4582	1678	3775
450	5.25	6937	4.31	5690	1549	6820
450 W/Fan	5.25	6937	5.25	6937	1549	6820
516	7.01	9412	5.61	7530	2531	6289
516 W/Fan	7.01	9412	6.52	8754	2531	6289
600	9.64	13066	8.20	11106	4417	8678
600 W/Fan	9.64	13066	8.97	12151	4417	8678

■ Basic unit size. See assembly drawings, pages 170 - 217, to determine components needed and complete the part numbers following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
Find ratings for input speeds not shown by straight line interpolation.
Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering (1 800 626 2093).

◗ Contact Application Engineering (1 800 626 2093).

Contact Application Engineering for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

Input Horsepower, Output Torque, Overhung Load and Thrust Load for Raider Plus Single Reduction Worm Gear Speed Reducers

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
1160 rpm Driver - 40:1 Ratio - 29 rpm Output						
100	0.11	144	0.11	144	147	◗
133	0.20	287	0.20	287	458	1399
154	0.29	409	0.29	409	388	1399
175	0.39	599	0.39	599	740	1399
206	0.59	914	0.59	914	1078	2305
237	0.91	1401	0.85	1312	843	2305
262	1.11	1745	1.03	1631	1295	3176
300	1.68	2684	1.68	2684	987	3410
325	2.06	3270	2.06	3270	2401	3410
375	2.73	4516	2.37	3929	1678	4175
375 W/Fan	2.73	4516	2.73	4516	1678	4175
450	4.10	6887	3.53	5923	1549	6820
450 W/Fan	4.10	6887	4.10	6887	1549	6820
516	5.41	9300	4.38	7533	2531	6820
516 W/Fan	5.41	9300	5.20	8929	2531	6820
600	7.53	13003	6.32	10922	4417	9558
600 W/Fan	7.53	13003	7.22	12484	4417	9558
1160 rpm Driver - 50:1 Ratio - 23.2 rpm Output						
100	0.09	123	0.09	123	147	◗
133	0.16	273	0.16	273	458	1399
154	0.24	389	0.24	389	388	1399
175	0.32	569	0.32	569	740	1399
206	0.48	874	0.48	874	1078	2305
237	0.73	1326	0.71	1275	843	2305
262	0.90	1663	0.82	1511	1295	3410
300	1.34	2559	1.34	2559	987	3410
325	1.67	3144	1.67	3144	2401	3410
375	2.22	4333	1.95	3814	1678	4495
375 W/Fan	2.22	4333	2.22	4333	1678	4495
450	3.30	6610	2.84	5685	1549	6820
450 W/Fan	3.30	6610	3.30	6610	1549	6820
516	4.32	8966	3.58	7441	2531	6820
516 W/Fan	4.32	8966	4.32	8966	2531	6820
600	5.98	12488	5.03	10490	4417	10358
600 W/Fan	5.98	12488	5.86	12238	4417	10358
1160 rpm Driver - 60:1 Ratio - 19.3 rpm Output						
133	0.14	258	0.14	258	458	1399
154	0.21	428	0.21	428	388	1399
175	0.27	534	0.27	534	740	1399
206	0.40	822	0.40	822	1078	2305
237	0.60	1257	0.57	1184	843	2305
262	0.74	1571	0.67	1438	1295	3410
300	1.10	2405	1.10	2405	987	3410
325	1.38	2977	1.38	2977	2401	3410
375	1.81	4094	1.52	3438	1678	4815
375 W/Fan	1.81	4094	1.81	4094	1678	4815
450	2.70	6246	2.24	5184	1549	6820
450 W/Fan	2.70	6246	2.70	6246	1549	6820
516	3.57	8501	2.97	7056	2531	6820
516 W/Fan	3.57	8501	3.57	8501	2531	6820
600	4.95	11852	4.21	10080	4417	10998
600 W/Fan	4.95	11852	4.95	11852	4417	10998
690 rpm Driver - 5:1 Ratio - 138 rpm Output						
100	0.26	108	0.26	108	147	◗
133	0.65	261	0.65	261	458	1071
154	0.87	355	0.87	355	388	1066
175	1.34	548	1.18	482	740	1118
206	2.02	832	1.74	715	1078	1650
237	3.08	1278	2.59	1074	843	1784
262	3.83	1591	3.14	1305	1295	2056
300	5.94	2477	5.94	2477	987	3402

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
690 rpm Driver - 10:1 Ratio - 69 rpm Output						
100	0.17	132	0.17	132	147	◗
133	0.36	279	0.36	279	458	1321
154	0.53	408	0.53	408	388	1321
175	0.75	593	0.75	593	740	1399
206	1.17	924	1.17	924	1078	2060
237	1.80	1439	1.80	1439	843	2274
262	2.27	1813	2.27	1813	1295	2616
300	3.49	2822	3.49	2822	987	3410
325	4.43	3577	3.80	3061	2401	3410
375	6.01	4926	4.65	3813	1678	2975
375 W/Fan	6.01	4926	4.92	4037	1678	2975
450	9.30	7684	7.62	6301	1549	5906
450 W/Fan	9.30	7684	9.11	7530	1549	5906
516	12.65	10528	10.12	8423	2531	4929
516 W/Fan	12.65	10528	10.51	8738	2531	4929
600	18.45	15368	16.24	13523	4417	6838
600 W/Fan	18.45	15368	18.07	15060	4417	6838
690 rpm Driver - 15:1 Ratio - 46 rpm Output						
100	0.12	138	0.12	138	147	◗
133	0.26	290	0.26	290	458	1399
154	0.41	442	0.41	442	388	1399
175	0.57	637	0.57	637	740	1399
206	0.85	966	0.85	966	1078	2305
237	1.40	1576	1.40	1576	843	2305
262	1.64	1895	1.56	1801	1295	2936
300	2.68	3097	2.68	3097	987	3410
325	3.25	3773	2.57	2990	2401	3410
375	4.59	5400	3.85	4536	1678	3375
375 W/Fan	4.59	5400	4.26	5013	1678	3375
450	7.11	8432	5.83	6914	1549	6786
450 W/Fan	7.11	8432	6.29	7471	1549	6786
516	9.67	11635	7.55	9075	2531	5729
516 W/Fan	9.67	11635	7.76	9332	2531	5729
600	13.79	16612	11.03	13289	4417	7958
600 W/Fan	13.79	16612	12.08	14540	4417	7958
690 rpm Driver - 20:1 Ratio - 34.5 rpm Output						
100	0.11	150	0.11	150	147	◗
133	0.22	315	0.22	315	458	1399
154	0.33	457	0.33	457	388	1399
175	0.45	645	0.45	645	740	1399
206	0.70	1009	0.70	1009	1078	2305
237	1.09	1570	1.09	1570	843	2305
262	1.40	1978	1.38	1949	1295	3256
300	2.08	3092	2.08	3092	987	3410
325	2.63	3906	2.37	3517	2401	3410
375	3.59	5424	3.22	4882	1678	3775
375 W/Fan	3.59	5424	3.59	5431	1678	3775
450	5.51	8471	4.85	7455	1549	6820
450 W/Fan	5.51	8471	5.08	7811	1549	6820
516	7.52	11721	6.17	9611	2531	6289
516 W/Fan	7.52	11721	6.41	9987	2531	6289
600	10.86	16942	9.70	15136	4417	8758
600 W/Fan	10.86	16942	10.10	15756	4417	8758
690 rpm Driver - 25:1 Ratio - 27.6 rpm Output						
133	0.19	322	0.19	322	458	1399
154	0.28	468	0.28	468	388	1399
175	0.37	645	0.37	645	740	1399
206	0.59	1007	0.59	1007	1078	2305
237	0.95	1597	0.95	1597	843	2305
262	1.14	1968	1.11	1894	1295	3410
300	1.78	3146	1.78	3146	942	3410
325	2.17	3898	1.95	3509	2401	3410

■ Basic unit size. See assembly drawings, pages 170 - 217, to determine components needed and complete the part numbers following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
Find ratings for input speeds not shown by straight line interpolation.
Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering.

◗ Contact Application Engineering (1 800 626 2093).

Contact Application Engineering for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

Input Horsepower, Output Torque, Overhung Load and Thrust Load for Raider Plus Single Reduction Worm Gear Speed Reducers

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
690 rpm Driver (Continued) - 25:1 Ratio - 27.6 rpm Output						
375	3.06	5503	2.72	4897	1678	4050
375 W/Fan	3.06	5503	3.06	5503	1678	4050
450	4.68	8593	4.02	7387	1549	6820
450 W/Fan	4.68	8593	4.49	8262	1549	6820
516	6.35	11881	4.94	9241	2531	6820
516 W/Fan	6.35	11881	5.25	9837	2531	6820
600	9.11	17115	7.99	15001	4417	9402
600 W/Fan	9.11	17115	8.28	15590	4417	9402
690 rpm Driver - 30:1 Ratio - 23 rpm Output						
100	0.08	154	0.08	154	147	◗
133	0.15	326	0.15	326	458	1399
154	0.25	477	0.25	477	388	1399
175	0.32	649	0.32	649	740	1399
206	0.50	993	0.50	993	1078	2305
237	0.84	1621	0.84	1621	843	2305
262	0.96	1957	0.90	1839	1295	3410
300	1.58	3198	1.58	3198	987	3410
325	1.88	3882	1.69	3494	2401	3410
375	2.70	5579	2.38	4909	1678	4335
375 W/Fan	2.70	5579	2.70	5579	1678	4335
450	4.11	8716	3.45	7322	1549	6820
450 W/Fan	4.11	8716	4.11	8716	1549	6820
516	5.58	12034	4.10	8864	2531	6820
516 W/Fan	5.58	12034	4.48	9662	2531	6820
600	7.95	17281	6.84	14861	4417	10038
600 W/Fan	7.95	17281	7.10	15422	4417	10038
690 rpm Driver - 40:1 Ratio - 17.2 rpm Output						
100	0.07	152	0.07	152	147	◗
133	0.13	295	0.13	315	458	1399
154	0.20	460	0.20	460	388	1399
175	0.26	642	0.26	642	740	1399
206	0.42	1005	0.42	1005	1078	2305
237	0.65	1565	0.65	1569	843	2305
262	0.79	1973	0.79	1973	1295	3410
300	1.22	3084	1.22	3084	987	3410
325	1.55	3898	1.36	3433	2401	3410
375	2.07	5413	1.82	4763	1678	4815
375 W/Fan	2.07	5413	2.07	5413	1678	4815
450	3.16	8455	2.72	7271	1549	6820
450 W/Fan	3.16	8455	2.95	7887	1549	6820
516	4.28	11752	3.47	9519	2531	6820
516 W/Fan	4.28	11752	3.56	9798	2531	6820
600	6.16	16920	5.23	14355	4417	11078
600 W/Fan	6.16	16920	5.45	14960	4417	11078
690 rpm Driver - 50:1 Ratio - 13.8 rpm Output						
100	0.06	132	0.06	132	147	◗
133	0.11	286	0.11	286	458	1399
154	0.17	418	0.17	418	388	1399
175	0.22	609	0.22	609	740	1399
206	0.34	954	0.34	954	1078	2305
237	0.52	1467	0.52	1467	843	2305
262	0.65	1880	0.65	1880	1295	3410
300	0.98	2921	0.98	2921	987	3410
325	1.27	3738	1.13	3335	2401	3410
375	1.67	5135	1.47	4519	1678	5215
375 W/Fan	1.67	5135	1.67	5135	1678	5215
450	2.55	8081	2.20	6950	1549	6820
450 W/Fan	2.55	8081	2.55	8081	1549	6820
516	3.41	11151	2.79	9130	2531	6820
516 W/Fan	3.41	11151	2.99	9781	2531	6820
600	4.83	15989	4.00	13262	4417	11958
600 W/Fan	4.83	15989	4.32	14328	4417	11958

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
690 rpm Driver - 60:1 Ratio - 11.5 rpm Output						
133	0.09	265	0.09	265	458	1399
154	0.13	440	0.13	440	388	1399
175	0.19	570	0.19	570	740	1399
206	0.29	897	0.29	897	1078	2305
237	0.43	1385	0.43	1385	843	2305
262	0.54	1767	0.54	1767	1295	3410
300	0.80	2729	0.80	2729	987	3410
325	1.07	3520	1.01	3336	2401	3410
375	1.38	4818	1.16	4047	1678	5615
375 W/Fan	1.38	4818	1.38	4818	1678	5615
450	2.10	7575	1.75	6287	1549	3820
450 W/Fan	2.10	7575	2.10	7575	1549	6820
516	2.78	10481	2.31	8700	2531	6820
516 W/Fan	2.78	10481	2.62	9874	2531	6820
600	4.03	15173	3.22	12161	4417	12487
600 W/Fan	4.03	15173	3.56	13420	4417	12487
100 rpm Driver - 5:1 Ratio - 20 rpm Output						
100	0.04	113	0.04	113	147	◗
133	0.11	292	0.11	292	458	1399
154	0.15	406	0.15	406	388	1399
175	0.25	644	0.25	644	740	1399
206	0.38	1005	0.38	1005	1078	2305
237	0.60	1603	0.60	1603	843	2305
262	0.77	2050	0.77	2050	1295	3410
300	1.24	3326	1.24	3326	987	3410
100 rpm Driver - 10:1 Ratio - 10 rpm Output						
100	0.03	135	0.03	135	147	◗
133	0.06	300	0.06	300	458	1399
154	0.09	451	0.09	451	388	1399
175	0.13	654	0.13	654	740	1399
206	0.21	1047	0.21	1047	1078	2305
237	0.32	1665	0.32	1665	843	2305
262	0.42	2139	0.42	2139	1295	3410
300	0.66	3398	0.66	3398	987	3410
325	0.82	4190	0.82	4190	2401	3410
375	1.06	5508	1.06	5508	1678	5615
375 W/Fan	1.06	5508	1.06	5508	1678	5615
450	1.73	9126	1.73	9126	1549	6820
450 W/Fan	1.73	9126	1.73	9126	1549	6820
516	2.16	11556	2.16	11556	2531	6820
516 W/Fan	2.16	11556	2.16	11556	2531	6820
600	3.77	19948	3.77	19948	4417	12487
600 W/Fan	3.77	19948	3.77	19948	4417	12487
100 rpm Driver - 15:1 Ratio - 6.6 rpm Output						
100	0.02	151	0.02	151	147	◗
133	0.04	308	0.04	308	458	1399
154	0.07	489	0.07	489	388	1399
175	0.10	702	0.10	702	740	1399
206	0.15	1077	0.15	1077	1078	2305
237	0.26	1832	0.26	1832	843	2305
262	0.30	2202	0.30	2202	1295	3410
300	0.53	3743	0.53	3743	987	3410
325	0.57	4190	0.57	4190	2401	3410
375	0.76	5508	0.76	5508	1678	6244
375 W/Fan	0.76	5508	0.76	5508	1678	6244
450	1.23	9126	1.23	9126	1549	6820
450 W/Fan	1.23	9126	1.23	9126	1549	6820
516	1.53	11556	1.53	11556	2531	6820
516 W/Fan	1.53	11556	1.53	11556	2531	6820
600	2.79	21060	2.79	21060	4417	12487
600 W/Fan	2.79	21060	2.79	21060	4417	12487

■ Basic unit size. See assembly drawings, pages 170 - 217, to determine components needed and complete the part numbers following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
Find ratings for input speeds not shown by straight line interpolation.
Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering.

◗ Contact Application Engineering (1 800 626 2093).

Contact Application Engineering for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

Input Horsepower, Output Torque, Overhung Load and Thrust Load for Raider Plus Single Reduction Worm Gear Speed Reducers

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
100 rpm Driver - 20:1 Ratio - 5 rpm Output						
100	0.02	162	0.02	162	147	I
133	0.04	324	0.04	324	458	1399
154	0.06	487	0.06	487	388	1399
175	0.08	706	0.08	706	740	1399
206	0.13	1132	0.13	1132	1078	2305
237	0.21	1797	0.21	1797	843	2305
262	0.26	2316	0.26	2316	1295	3410
300	0.41	3677	0.41	3677	987	3410
325	0.46	4190	0.46	4190	2401	3410
375	0.59	5508	0.59	5508	1678	6244
375 W/Fan	0.59	5508	0.59	5508	1678	6244
450	0.98	9126	0.98	9126	1549	6820
450 W/Fan	0.98	9126	0.98	9126	1549	6820
516	1.21	11556	1.21	11556	2531	6820
516 W/Fan	1.21	11556	1.21	11556	2531	6820
600	2.25	21384	2.25	21384	4417	12487
600 W/Fan	2.25	21384	2.25	21384	4417	12487
100 rpm Driver - 25:1 Ratio -4 rpm Output						
133	0.03	320	0.03	320	458	1399
154	0.05	496	0.05	496	388	1399
175	0.06	698	0.06	698	740	1399
206	0.10	1119	0.10	1119	1078	2305
237	0.19	1836	0.19	1836	843	2305
262	0.23	2289	0.23	2289	1295	3410
300	0.36	3759	0.36	3759	987	3410
325	0.40	4190	0.40	4190	2401	3410
375	0.50	5508	0.50	5508	1678	6244
375 W/Fan	0.50	5508	0.50	5508	1678	6244
450	0.85	9126	0.85	9126	1549	6820
450 W/Fan	0.85	9126	0.85	9126	1549	6820
516	1.06	11723	1.06	11723	2531	6820
516 W/Fan	1.06	11723	1.06	11723	2531	6820
600	1.95	21763	1.95	21763	4417	12487
600 W/Fan	1.95	21763	1.95	21763	4417	12487
100 rpm Driver - 30:1 Ratio -3.3 rpm Output						
100	0.01	164	0.01	164	147	◗
133	0.03	315	0.03	315	458	1399
154	0.05	502	0.05	502	388	1399
175	0.06	687	0.06	687	740	1399
206	0.09	1104	0.09	1104	1078	2305
237	0.16	1877	0.16	1877	843	2305
262	0.18	2257	0.18	2257	1295	3410
300	0.32	3836	0.32	3836	987	3410
325	0.35	4190	0.35	4190	2401	3410
375	0.45	5508	0.45	5508	1678	6244
375 W/Fan	0.45	5508	0.45	5508	1678	6244
450	0.75	9126	0.75	9126	1549	6820
450 W/Fan	0.75	9126	0.75	9126	1549	6820
516	0.94	11880	0.94	11880	2531	6820
516 W/Fan	0.94	11880	0.94	11880	2531	6820
600	1.75	22140	1.75	22140	4417	12487
600 W/Fan	1.75	22140	1.75	22140	4417	12487

Unit Size ■	Mechanical		Thermal		Maximum Overhung Load Lbs.	Max. Thrust Load Lbs.
	Input hp	Output Torque	Input hp	Output Torque	Output Shaft	Output Shaft
100 rpm Driver - 40:1 Ratio -2.5 rpm Output						
100	0.01	162	0.01	162	147	◗
133	0.02	322	0.02	322	458	1399
154	0.04	484	0.04	484	388	1399
175	0.05	702	0.05	702	740	1399
206	0.08	1125	0.08	1125	1078	2305
237	0.13	1792	0.13	1792	843	2305
262	0.16	2301	0.16	2301	1295	3410
300	0.26	3655	0.26	3655	987	3410
325	0.30	4190	0.30	4190	2401	3410
375	0.38	5508	0.38	5508	1678	6244
375 W/Fan	0.38	5508	0.38	5508	1678	6244
450	0.60	9126	0.60	9126	1549	6820
450 W/Fan	0.60	9126	0.60	9126	1549	6820
516	0.75	11556	0.75	11556	2531	6820
516 W/Fan	0.75	11556	0.75	11556	2531	6820
600	1.33	20520	1.33	20520	4417	12487
600 W/Fan	1.33	20520	1.33	20520	4417	12487
100 rpm Driver - 50:1 Ratio -2 rpm Output						
100	0.01	140	0.01	140	147	◗
133	0.02	303	0.02	303	458	1399
154	0.03	457	0.03	457	388	1399
175	0.04	662	0.04	662	740	1399
206	0.07	1063	0.07	1063	1078	2305
237	0.10	1661	0.10	1661	843	2305
262	0.14	2176	0.14	2176	1295	3410
300	0.21	3419	0.21	3419	987	3410
325	0.26	4190	0.26	4190	2401	3410
375	0.32	5508	0.32	5508	1678	6244
375 W/Fan	0.32	5508	0.32	5508	1678	6244
450	0.53	9126	0.53	9126	1549	6820
450 W/Fan	0.53	9126	0.53	9126	1549	6820
516	0.64	11556	0.64	11556	2531	6820
516 W/Fan	0.64	11556	0.64	11556	2531	6820
600	1.06	19440	1.06	19440	4417	12487
600 W/Fan	1.06	19440	1.06	19440	4417	12487
100 rpm Driver - 60:1 Ratio -1.6 rpm Output						
133	0.02	284	0.02	284	458	1399
154	0.03	452	0.03	452	388	1399
175	0.03	620	0.03	620	740	1399
206	0.06	997	0.06	997	1078	2305
237	0.09	1562	0.09	1562	843	2305
262	0.12	2038	0.12	2038	1295	3410
300	0.17	3172	0.17	3172	987	3410
325	0.22	3953	0.22	3953	2401	3410
375	0.28	5508	0.28	5508	1678	6224
375 W/Fan	0.28	5508	0.28	5508	1678	6224
450	0.44	9126	0.44	9126	1549	6820
450 W/Fan	0.44	9126	0.44	9126	1549	6820
516	0.54	11556	0.54	11556	2531	6820
516 W/Fan	0.54	11556	0.54	11556	2531	6820
600	0.86	18360	0.86	18360	4417	12487
600 W/Fan	0.86	18360	0.86	18360	4417	12487

■ Basic unit size. See assembly drawings, pages 170 - 217, to determine components needed and complete the part numbers following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
Find ratings for input speeds not shown by straight line interpolation.
Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering.

◗ Contact Application Engineering (1 800 626 2093).

Contact the Application Engineering for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

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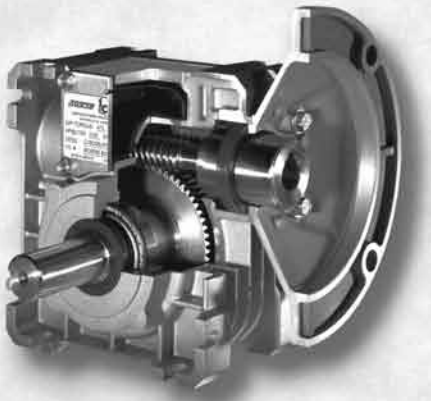
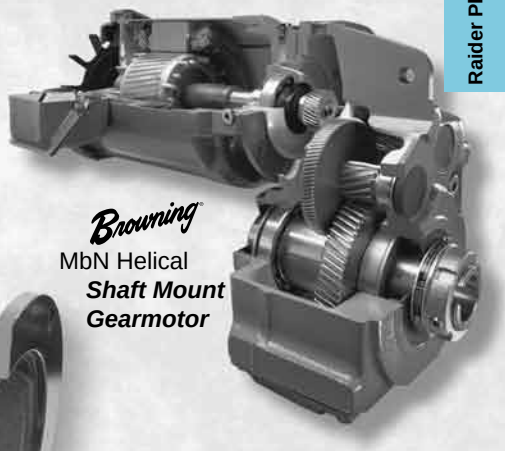
Browning
CbN In-line
Concentric Gearmotor

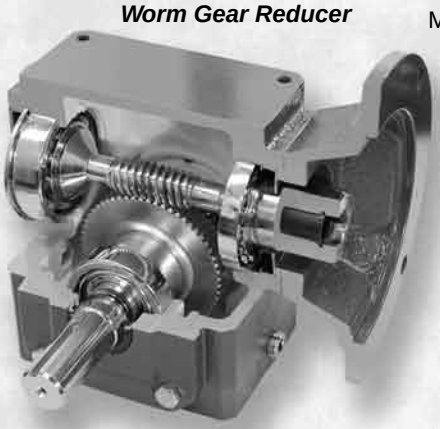


Morse
Cobra
Worm Gear Reducer

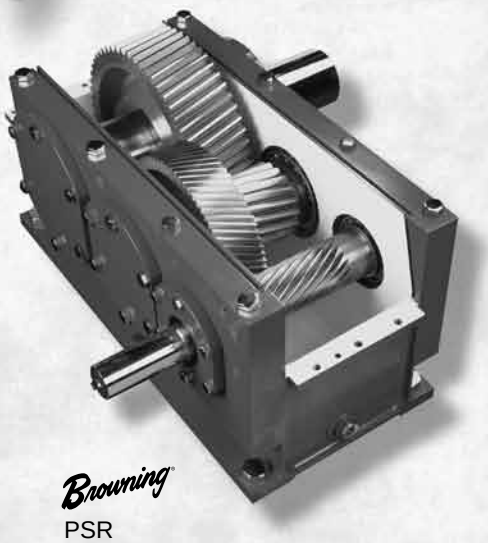
Morse
Raider Plus
Worm Gear Reducer



Browning
MbN Helical
Shaft Mount Gearmotor



Morse
PoweRgear
Worm Gear Reducer

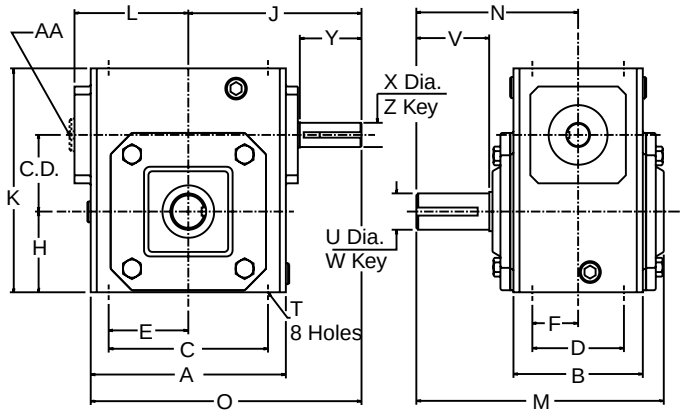


Browning
PSR
Helical Parallel Shaft Gear Reducer

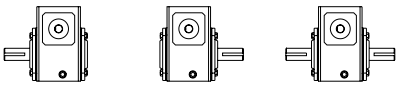
Browning
TORQ TAPER *Plus*
Shaft Mount Speed Reducer

Style U

Universal —Basic Unit



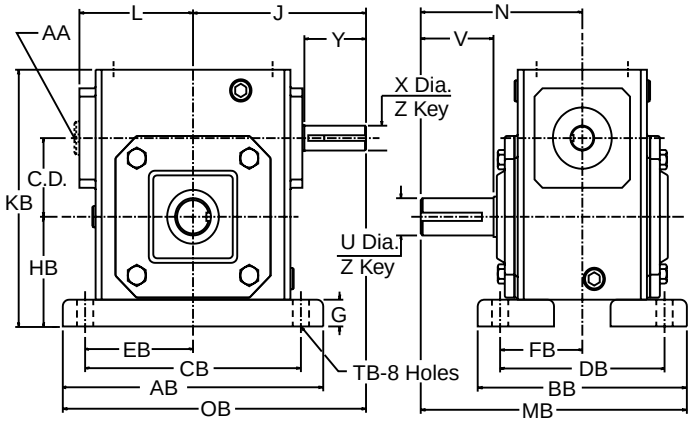
Assembly Drawing and Sample of Components



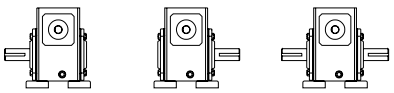
133UL10 133UR10 133ULR10

Style UT

Universal Worm Top



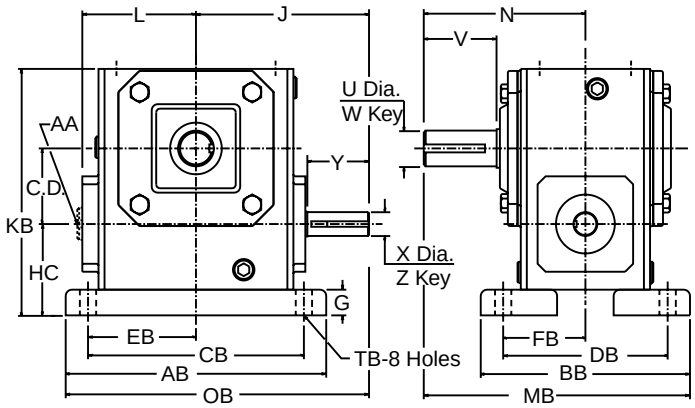
Assembly Drawing and Sample of Components



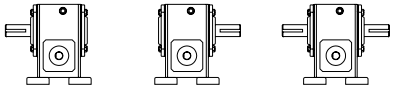
133UL10 133UR10 133ULR10
133S-BK 133S-BK 133S-BK

Style UB

Universal Worm Bottom



Assembly Drawing and Sample of Components



133UR10 133UL10 133ULR10
133S-BK 133S-BK 133S-BK

Dimensions (Inches) for Style "U"

C.D.	Basic Unit ★	A	B	C	D	E	F	H	J	K	L	M	N	O
1.00	100U	3.30	2.50	2.63	1.69	1.31	.84	1.31	3.00	3.63	1.71	4.40	2.88	4.65
1.33	133U	4.00	2.88	3.25	2.00	1.63	1.00	1.72	4.03	4.66	2.12	6.03	4.00	6.03
1.54	154U	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.69	5.38	2.75	6.76	4.31	7.25
1.75	175U	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.68	5.75	2.75	6.75	4.31	7.09
2.06	206U	5.50	3.75	5.00	2.88	2.50	1.44	2.28	5.06	6.38	3.00	7.25	4.69	7.73
2.37	237U	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.44	6.94	3.56	7.78	5.08	8.51
2.62	262U	7.12	4.44	6.38	3.38	3.19	1.69	2.94	6.23	8.00	3.69	8.50	5.63	9.79
3.00	300U	8.50	5.50	7.00	4.00	3.50	2.00	3.25	7.00	8.88	4.50	10.25	6.75	11.25
3.25	325U	8.50	5.00	7.50	4.00	3.75	2.00	3.50	7.06	9.38	4.50	10.60	7.06	11.31
3.75	375U	9.50	6.38	8.50	4.75	4.25	2.38	3.88	8.38	10.44	5.74	11.88	7.75	13.13
4.50	450U	10.88	7.38	9.56	5.81	4.78	2.91	4.50	9.59	11.94	6.42	13.16	8.44	15.09
5.16	516U	12.50	7.38	11.00	5.81	5.50	2.91	5.31	10.69	13.75	7.42	13.91	9.06	16.94
6.00	600U	14.50	8.13	12.75	6.38	6.38	3.19	6.50	11.75	16.50	8.25	15.31	10.00	19.00

C.D.	T		OUTPUT SHAFT				INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
			U	V	W Key		X	Y	Z Key											
	Size	Deep	+.000 -.001		Sq.	Lgth.	+.000 -.001		Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.00	1/4-20	.44	.500	1.25	.125	.88	.375	1.23	.094	.75	x	x	x	x	-	x	x	x	-	6.0
1.33	5/16-18	.50	.625	2.00	.188	1.31	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	11.0
1.54	5/16-18	.50	.750	1.78	.188	1.25	.625	1.69	.188	.94	x	x	x	x	x	x	x	x	x	18.0
1.75	5/16-18	.61	.875	1.88	.188	1.38	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	20.0
2.06	3/8-16	.61	1.000	2.00	.250	1.75	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	25.0
2.37	3/8-16	.60	1.125	2.37	.250	1.75	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	31.0
2.62	3/8-16	.58	1.125	2.50	.250	2.00	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	43.0
3.00	7/16-14	.80	1.250	3.25	.250	2.25	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	57.0
3.25	7/16-14	.80	1.375	3.25	.313	2.88	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	72.0
3.75	1/2-13	1.00	1.625	3.50	.375	2.81	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	105.0
4.50	5/8-11	1.00	1.625	3.38	.375	2.50	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	151.0
5.16	5/8-11	1.00	2.000	4.16	.500	2.81	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	198.0
6.00	5/8-11	1.00	2.250	4.56	.500	3.50	1.500	3.75	.375	2.94	x	x	x	x	x	x	x	x	x	240.0

Dimensions (Inches) for Style "UT" - With Base - Worm Top

Components ◆		AB	BB	CB	DB	EB	FB	G	HB	KB	MB	OB	TB	Wt. Lbs.
Basic Unit ★	Base Kit ▲ Standard													
100U	100S-BK	4.37	3.50	3.75	2.88	1.88	1.44	.38	1.75	4.07	4.63	5.19	.344	6.5
133U	133S-BK	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	5.19	6.09	6.72	.344	11.5
154U	154S-BK	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	5.97	7.03	7.91	.406	18.8
175U	175S-BK	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	6.44	7.09	8.18	.406	21.0
206U	206S-BK	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	7.09	7.57	8.90	.469	26.5
237U	237S-BK	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	7.69	8.18	9.69	.469	32.8
262U	262S-BK	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	8.75	8.88	10.86	.531	45.0
300U	300S-BK	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	9.75	10.44	12.08	.531	59.5
325U	325S-BK	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	10.25	10.94	12.63	.531	75.0
375U	375S-BK	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	11.38	12.06	14.38	.594	115.0
450U	450S-BK	13.88	9.31	12.13	7.63	6.06	3.81	1.13	5.63	13.06	13.13	16.53	.656	168.0
516U	516S-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	14.88	14.25	18.88	.781	224.0
600U	600S-BK	19.00	12.00	16.50	9.50	8.25	4.75	1.25	7.75	17.75	16.00	21.25	.906	283.0

Dimensions (Inches) for Style "UB"

Components ◆		HC
Basic Unit ★	Base Kit ▲ Standard	
100U	100S-BK	1.75
133U	133S-BK	2.14
154U	154S-BK	2.50
175U	175S-BK	2.63
206U	206S-BK	2.75
237U	237S-BK	2.81
262U	262S-BK	3.19
300U	300S-BK	3.50
325U	325S-BK	3.50
375U	375S-BK	3.75
450U	450S-BK	4.06
516U	516S-BK	4.40
600U	600S-BK	5.25

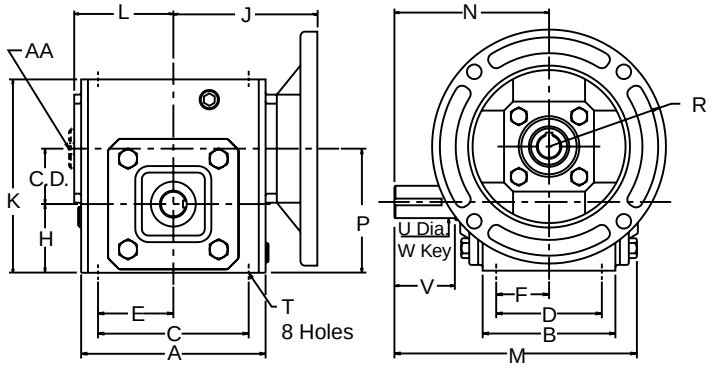
Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375U	375 FAN	3/8-24	3/4	7.66	2.8
450U	450 FAN	3/8-24	3/4	8.36	2.8
516U	516 FAN	3/8-24	3/4	9.18	2.8
600U	600 FAN	3/8-24	3/4	10.70	4.2

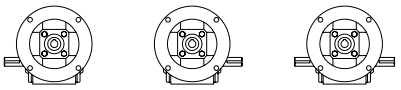
★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133ULR10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BKS); base kits are shown on page 212. Consult factory for ratios not shown as standard.

Style Q

C-Face Quilled – Basic Unit



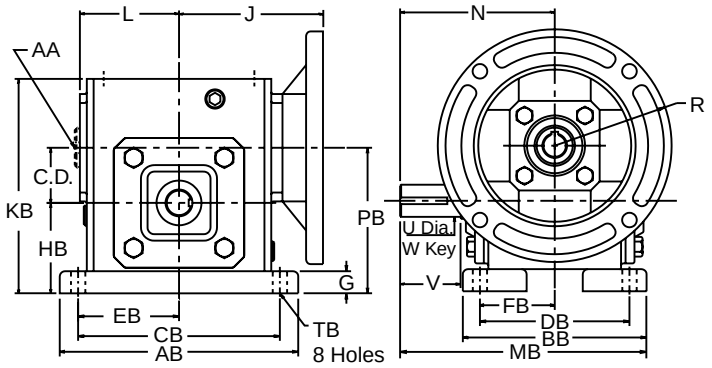
Assembly Drawing and Sample of Components



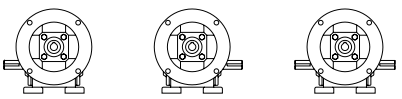
133Q56L10 133Q56R10 133Q56LR10

Style QT

Worm Top



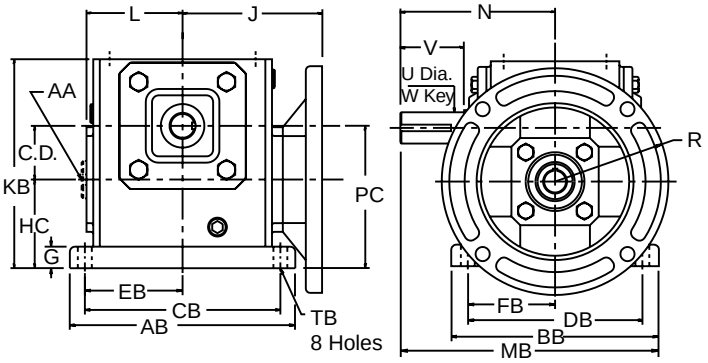
Assembly Drawing and Sample of Components



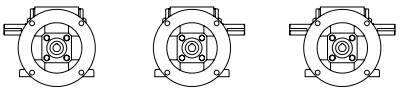
133Q56L10 133Q56R10 133Q56LR10
133S-BK 133S-BK 133S-BK

Style QB

Worm Bottom



Assembly Drawing and Sample of Components



133Q56R10 133Q56L10 133Q56LR10
133S-BK 133S-BK 133S-BK

Note: When mounting Style "QB", interference may occur; use a Riser Block or consult Application Engineering (1 800 626 2093).

Dimensions (Inches) for Style "Q"

C.D.	Basic Unit★	NEMA.FrameA		B	C	D	E	F	H	J	K	L	M	N	P	R
1.00	100Q40	42CZ/48C	3.30	2.50	2.63	1.69	1.31	0.84	1.31	3.16	3.63	1.71	4.40	2.88	2.31	2.13
1.00	100Q56	56C	3.30	2.50	2.63	1.69	1.31	0.84	1.31	3.53	3.63	1.71	4.40	2.88	2.31	3.25
1.33	133Q56	56C	4.00	2.88	3.25	2.00	1.63	1.00	1.72	3.94	4.66	2.12	6.03	4.00	3.05	3.25
1.54	154Q56	56C	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	5.38	2.75	6.76	4.31	3.45	3.25
1.54	154Q140	143/145TC	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	5.38	2.75	6.76	4.31	3.45	3.25
1.75	175Q56	56C	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	5.75	2.75	6.75	4.31	3.81	3.25
1.75	175Q140	143/145TC	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	5.75	2.75	6.75	4.31	3.81	3.25
2.06	206Q56	56C	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	6.38	3.00	7.25	4.69	4.34	3.25
2.06	206Q140	143/145TC	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	6.38	3.00	7.25	4.69	4.34	3.25
2.37	237Q56	56C	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	6.94	3.56	7.78	5.08	4.88	3.25
2.37	237Q140	143/145TC	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	6.94	3.56	7.78	5.08	4.88	3.25
2.62	262Q56	56C	7.12	4.44	6.38	3.38	3.19	1.69	2.94	5.69	8.00	3.69	8.50	5.63	5.57	3.25
2.62	262Q140	143/145TC	7.12	4.44	6.38	3.38	3.19	1.69	2.94	5.69	8.00	3.69	8.50	5.63	5.57	3.25
2.62	262Q180	182/184TC	7.12	4.44	6.38	3.38	3.19	1.69	2.94	6.13	8.00	3.69	8.50	5.63	5.57	4.50
3.00	300Q56	56C	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	8.88	4.50	10.25	6.75	6.25	3.25
3.00	300Q140	143/145TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	8.88	4.50	10.25	6.75	6.25	3.25
3.00	300Q180	182/184TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	6.45	8.88	4.50	10.25	6.75	6.25	4.50
3.25	325Q56	56C	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.38	4.50	10.60	7.06	6.75	3.25
3.25	325Q140	143/145TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.38	4.50	10.60	7.06	6.75	3.25
3.25	325Q180	182/184TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	7.00	9.38	4.50	10.60	7.06	6.75	4.50
3.75	375Q56	56C	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	10.44	5.74	11.88	7.75	7.63	3.38
3.75	375Q140	143/145TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	10.44	5.74	11.88	7.75	7.63	3.38
3.75	375Q180	182/184TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	10.44	5.74	11.88	7.75	7.63	4.50
3.75	375Q21O	213/215TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	10.44	5.74	11.88	7.75	7.63	4.50
4.50	450Q140	143/145TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	6.69	11.94	6.42	13.16	8.44	9.00	3.38
4.50	450Q180	182/184TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	11.94	6.42	13.16	8.44	9.00	4.50
4.50	450Q210	213/215TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	11.94	6.42	13.16	8.44	9.00	4.50
5.16	516Q180	182/184TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	13.75	7.42	13.91	9.06	10.47	4.50
5.16	516Q210	213/215TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	13.75	7.42	13.91	9.06	10.47	4.50
6.00	600Q180	213/215TC	14.50	8.13	12.75	6.38	6.38	3.19	6.50	9.68	6.50	8.25	15.31	10.00	12.50	4.50
6.00	600Q210	213/215TC	14.50	8.13	12.75	6.38	6.38	3.19	6.50	9.68	6.50	8.25	15.31	10.00	12.50	4.50

C.D.	N.E.M.A. Frame	T		INPUT		OUTPUT SHAFT U +.000 -.000	V	W Key		Stock Ratios marked x									Wt. Lbs.
		Size	Deep	Bore	Keyway			Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.00	42CZ/48C	1/4-20	.44	.500	1/8 X 1/16	.500	1.25	.125	0.88	x	x	x	x	-	x	x	x	-	9.0
1.00	56C	1/4-20	.44	.625	3/16 X 3/32	.500	1.25	.125	0.88	x	x	x	x	-	x	x	-	-	9.0
1.33	56C	5/16-18	.50	.625	3/16 X 3/32	.625	2.00	.188	1.31	x	x	x	x	x	x	x	x	x	17.0
1.54	56C	5/16-18	.50	.625	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	24.0
1.54	143/145TC	5/16-18	.50	.875	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	-	-	-	-	-	-	24.0
1.75	56C	5/16-18	.61	.625	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	27.0
1.75	143/145TC	5/16-18	.61	.875	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	-	-	-	-	-	-	27.0
2.06	56C	3/8-16	.61	.625	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	32.0
2.06	143/145TC	3/8-16	.61	.875	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	-	-	-	-	32.0
2.37	56C	3/8-16	.60	.625	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	38.0
2.37	143/145TC	3/8-16	.60	.875	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	-	-	38.0
2.62	56C	3/8-16	.58	.625	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	50.0
2.62	143/145TC	3/8-16	.58	.875	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	50.0
2.62	182/184TC	3/8-16	.58	1.125	1/4 X 1/8	1.125	2.50	.250	2.00	x	x	-	-	-	-	-	-	-	50.0
3.00	56C	7/16-14	.80	.625	3/16 X 3/32	1.250	3.25	.250	2.25	-	-	x	x	x	x	x	x	x	68.0
3.00	143/145TC	7/16-14	.80	.875	3/16 X 3/32	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	68.0
3.00	182/184TC	7/16-14	.80	1.125	1/4 X 1/8	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	68.0
3.25	56C	7/16-14	.80	.625	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	87.0
3.25	143/145TC	7/16-14	.80	.875	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	87.0
3.25	182/184TC	7/16-14	.80	1.125	1/4 X 1/8	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	87.0
3.75	56C	1/2-13	1.00	.625	3/16 X 3/32	1.625	3.50	.375	2.81	-	-	-	-	-	-	x	x	x	120.0
3.75	143/145TC	1/2-13	1.00	.875	3/16 X 3/32	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	120.0
3.75	182/184TC	1/2-13	1.00	1.125	1/4 X 1/8	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	-	120.0
3.75	213/215TC	1/2-13	1.00	1.375	5/16 X 5/32	1.625	3.50	.375	2.81	-	x	x	-	-	-	-	-	-	120.0
4.50	143/145TC	5/8-11	1.00	.875	3/16 X 3/32	1.625	3.88	.375	2.50	-	-	-	-	-	-	x	x	x	170.0
4.50	182/184TC	5/8-11	1.00	1.125	1/4 X 1/8 1	1.625	3.38	.375	2.50	-	-	x	x	x	x	x	x	x	170.0
4.50	213/215TC	5/8-11	1.00	1.375	5/16X5/32	1.625	3.38	.375	2.50	-	x	x	x	x	-	-	-	-	170.0
5.16	182/184TC	5/8-11	1.00	1.125	1/4 X 1/8	2.000	4.16	.500	2.81	-	-	-	-	-	-	x	x	x	221.0
5.16	213/215TC	5/8-11	1.00	1.375	5/16 X 5/32	2.000	4.16	.500	2.81	-	x	x	x	x	x	-	-	-	221.0
6.00	182/184TC	5/8-11	1.00	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	x	x	x	x	x	x	270.0
6.00	213/215TC	5/8-11	1.00	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	-	x	x	x	x	x	270.0

Dimensions (Inches) for Style "QT" - Worm Top

Components♦		AB	BB	CB	DB	EB	FB	G	HB	KB	MB	PB	TB	Wt. Lbs.
Ref. No.	Standard Base Kit A▲													
100Q	100S-BK	4.37	3.50	3.75	2.88	1.88	1.44	.38	1.75	4.07	4.63	2.75	.344	9.5
133Q	133S-BK	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	5.19	6.09	3.58	.344	17.5
154Q	154S-BK	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	5.97	7.03	4.04	.406	24.8
175Q	175S-BK	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	6.44	7.09	4.50	.406	28.0
206Q	206S-BK	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	7.09	7.57	5.06	.469	33.5
237Q	237S-BK	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	7.69	8.18	5.62	.469	39.8
262Q	262S-BK	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	8.75	8.88	6.31	.531	52.0
300Q	300S-BK	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	9.75	10.44	7.13	.531	70.5
325Q	325S-BK	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	10.25	10.94	7.63	.531	90.0
375Q	375S-BK	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	11.38	12.06	8.56	.594	130.0
450Q	450S-BK	13.88	9.31	12.13	7.63	6.06	3.81	1.13	5.63	13.06	13.13	10.19	.656	187.0
516Q	516S-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	14.88	14.25	11.60	.781	247.0
600Q	600S-BK	19.00	12.00	16.50	9.50	8.25	4.75	1.25	7.75	17.75	16.00	13.75	.906	313.0

Dimensions (Inches) for Style "QB"

Components♦		HC	PC
Ref. No.	Base Kits Standard		
100Q	100S-BK	1.75	2.75
133Q	133S-BK	2.14	3.47
154Q	154S-BK	2.50	4.04
175Q	175S-BK	2.63	4.38
206Q	206S-BK	2.75	4.81
237Q	237S-BK	2.81	5.19
262Q	262S-BK	3.19	5.81
300Q	300S-BK	3.50	6.50
325Q	325S-BK	3.50	6.75
375Q	375S-BK	3.75	7.50
450Q	450S-BK	4.06	8.63
516Q	516S-BK	4.40	9.56
600Q	600S-BK	5.25	11.25

Fan Kit

Basic Unit★	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375Q	375 FAN	3/8/24	3/4	2.8
450Q	450 FAN	3/8/24	3/4	2.8
516Q	516 FAN	3/8/24	3/4	2.8
600Q	600 FAN	3/8/24	3/4	4.2

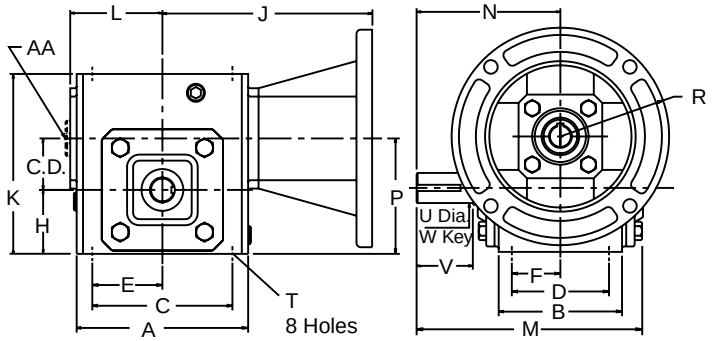
★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56LR10.

◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table to left.

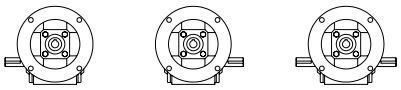
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BKS); base kits are shown on page 220.
Consult factory for ratios not shown as standard.

Style C

C-Face Coupled



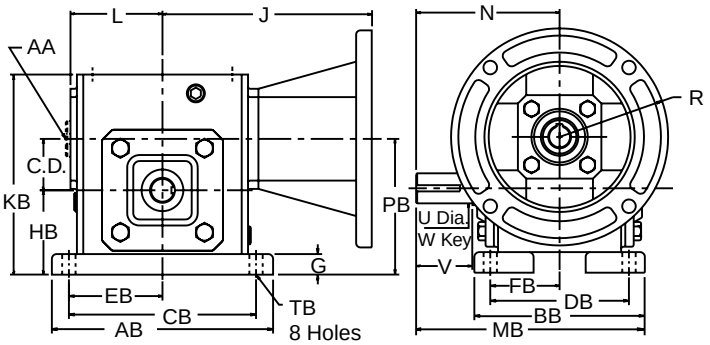
Assembly Drawing and Sample of Components



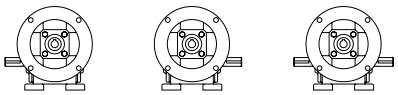
133UL10	133UR10	133ULR10
133MAK56	133MAK56	133MAK56

Style CT

C Face Coupled Worm Top



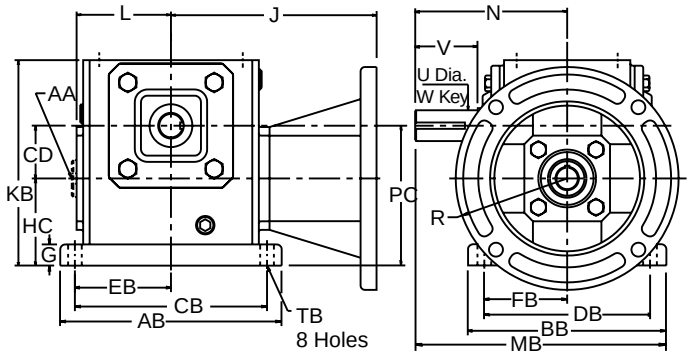
Assembly Drawing and Sample of Components



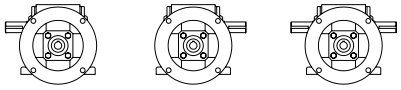
133UL10	133UR10	133ULR10
133MAK56	133MAK56	133MAK56
133S-BK	133S-BK	133S-BK

Style CB

C Face Coupled Worm Bottom



Assembly Drawing and Sample of Components



133UR10	133UL10	133ULR10
133MAK56	133MAK56	133MAK56
133S-BK	133S-BK	133S-BK

Note: When mounting Style "CB", interference may occur; use a Riser Block or consult Application Engineering (1 800 626 2093).

Dimensions (Inches) for Style "C"

C.D.	Component ◆		A	B	C	D	E	F	H	K	L	M	N	P	T	
	Basic Unit ★	Adapter Kit													Size	Deep
1.33	133U	See Adapter Kit Table Below	4.00	2.88	3.25	2.00	1.63	1.00	1.72	4.66	2.12	6.03	4.00	3.05	5/16-18	.50
1.54	154U		5.13	3.69	4.19	2.75	2.09	1.38	1.91	5.38	2.75	6.76	4.31	3.45	5/16-18	.50
1.75	175U		4.81	3.38	4.19	2.75	2.09	1.38	2.06	5.75	2.75	6.75	4.31	3.81	5/16-18	.61
2.06	206U		5.50	3.75	5.00	2.88	2.50	1.44	2.28	6.38	3.00	7.25	4.69	4.34	3/8-16	.61
2.37	237U		6.13	4.06	5.00	2.88	2.50	1.44	2.50	6.94	3.56	7.78	5.08	4.88	3/8-16	.60
2.62	262U		7.12	4.44	6.38	3.38	3.19	1.69	2.94	8.00	3.69	8.50	5.63	5.57	3/8-16	.58
3.00	300U		8.50	5.50	7.00	4.00	3.50	2.00	3.25	8.88	4.50	10.25	6.75	6.25	7/16-14	.80
3.25	325U		8.50	5.00	7.50	4.00	3.75	2.00	3.50	9.38	4.50	10.60	7.06	6.75	7/16-14	.80
3.75	375U		9.50	6.38	8.50	4.75	4.25	2.38	3.88	10.44	5.74	11.88	7.75	7.63	1/2-13	1.00
4.50	450U		10.88	7.38	9.56	5.81	4.78	2.91	4.50	11.94	6.42	13.16	8.44	9.00	5/8-11	1.00
5.16	516U		12.50	7.38	11.00	5.81	5.50	2.91	5.31	13.75	7.42	13.91	9.06	10.47	5/8-11	1.00
6.00	600U		14.50	8.13	12.75	6.38	6.38	3.19	6.50	16.50	8.25	15.31	10.00	12.50	5/8-11	1.00

C.D.	OUTPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	U +.000 -.001	V	W Key											
			Sq.	Lgth.	05	10	15	20	25	30	40	50	60	
1.33	.625	2.00	.188	1.31	x	x	x	x	x	x	x	x	x	18.0
1.54	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	25.0
1.75	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	27.0
2.06	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	32.0
2.37	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	39.0
2.62	1.125	2.50	.250	2.00	x	x	x	x	x	x	x	x	x	54.0
3.00	1.250	3.25	250	2.25	x	x	x	x	x	x	x	x	x	68.0
3.25	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	83.0
3.75	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	117.5
4.50	1.625	3.38	.375	2.50	-	x	x	x	x	x	x	x	x	167.0
5.16	2.000	4.16	.500	2.81	-	x	x	x	x	x	x	x	x	216.0
6.00	2.250	4.56	.500	3.50	x	x	x	x	x	x	x	x	x	270.0

Dimensions (Inches) for Style "CT" - With Base - Worm Top

Components ◆			AB	BB	CB	DB	EB	FB	G	HB	KB	MB	PB	TB	Wt. Lbs.
Basic Unit ★	Adapter Kit	Standard Base Kit ▲													
133U	See Adapter Kit Table Below	133S-BK	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	5.19	6.09	3.58	.344	18.5
154U		154S-BK	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	5.97	7.03	4.04	.406	25.8
175U		175S-BK	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	6.44	7.09	4.50	.406	28.0
206U		206S-BK	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	7.09	7.57	5.06	.469	33.5
237U		237S-BK	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	7.69	8.18	5.62	.469	40.8
262U		262S-BK	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	8.75	8.88	6.31	.531	56.0
300U		300S-BK	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	9.75	10.44	7.13	.531	70.5
325U		325S-BK	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	10.25	10.94	7.63	.531	86.0
375U		375S-BK	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	11.38	12.06	8.56	.594	127.5
450U		450S-BK	13.88	9.31	12.13	7.63	6.06	3.81	1.13	5.63	13.06	13.13	10.19	.656	184.0
516U		516S-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	14.88	14.25	11.60	.781	242.0
600U		600S-BK	19.00	12.00	16.50	9.50	8.52	4.75	1.25	7.75	17.75	16.00	13.75	.906	313.0

Dimensions (Inches) for Style "CB"

Components ◆			HC	PC
Basic Unit ★	Adapter Kit	Standard Base Kit ▲		
133U	See Adapter Kit Table Below	133S-BK	2.14	3.47
154U		154S-BK	2.50	4.04
175U		175S-BK	2.63	4.38
206U		206S-BK	2.75	4.81
237U		237S-BK	2.81	5.19
262U		262S-BK	3.19	5.81
300U		300S-BK	3.50	6.50
325U		325S-BK	3.50	6.75
375U		375S-BK	3.75	7.50
450U		450S-BK	4.06	8.63
516U		516S-BK	4.40	9.56
600U		600S-BK	5.25	11.25

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375U	375 FAN	3/8-24	3/4	7.66	2.8
450U	450 FAN	3/8-24	3/4	8.36	2.8
516U	516 FAN	3/8-24	3/4	9.18	2.8
600U	600 FAN	3/8-24	3/4	10.70	4.2

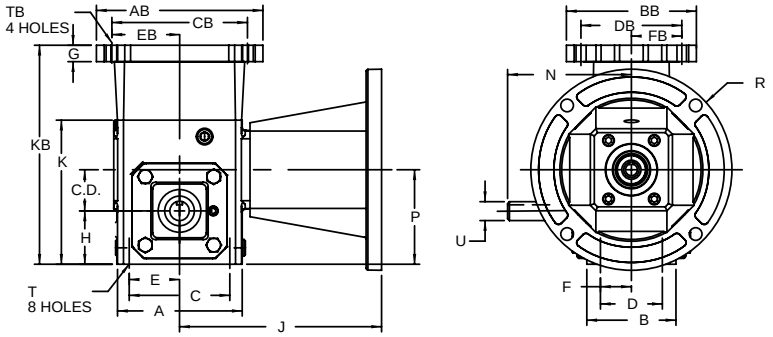
N.E.M.A. Frame Adapter Kits and Dimensions

C.D.	56C Input: .625 Kw.: 3/16 x 3/32			143/145TC Input: .875 Kw.: 3/16 x 3/32			182/184TC Input: 1.125 KW.: 1/4 x 1/8			213/215TC Input: 1.375 Kw.: 5/16 x 5/32			254/256TC Input: 1.625 Kw.: 3/8 x 3/16		
	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

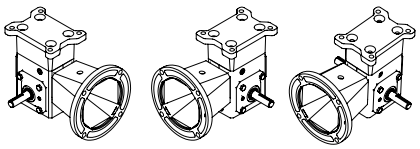
★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133ULR10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BK); base kits are shown on page 220. Consult factory for ratios not shown as standard.

Style CRT

C-Face Coupled - Riser Block
Worm Top



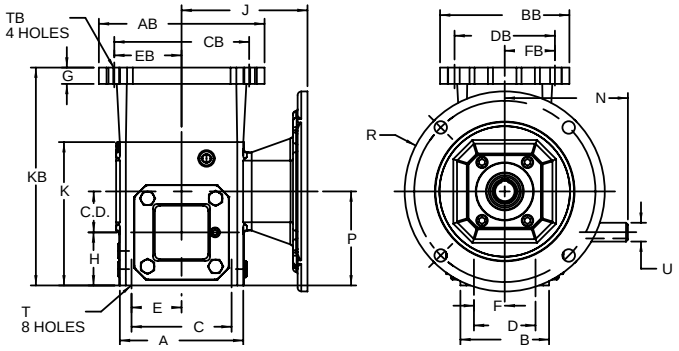
Assembly Drawing and Sample of Components



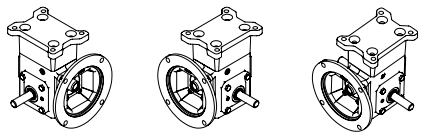
133UL10	133UR10	133ULR10
133R-BK	133R-BK	133R-BK
133MAK56	133MAK56	133MAK56
133S-BK	133S-BK	133S-BK

Style QRT

C-Face Quilled - Riser Block
Worm Top



Assembly Drawing and Sample of Components



133Q56L10	133Q56R10	133Q56LR10
133R-BK	133R-BK	133R-BK
133S-BK	133S-BK	133S-BK

DIMENSIONS (INCHES) FOR STYLE "QT" - WORM TOP

C.D.	BASIC UNIT ★	N.E.M.A. FRAME	A	B	C	D	E	F	H	J "Q"	J "C"	N	P	R
1.33	**133Q56**	56C	4.00	2.88	3.25	2.00	1.63	1.00	1.82	3.94	6.38	4.00	3.05	3.25
1.54	**154Q56**	56C	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	7.13	4.31	3.45	3.25
1.54	**154Q140**	143/145TC	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	7.13	4.31	3.45	3.25
1.75	**175Q56**	56C	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	7.00	4.31	3.81	3.25
1.75	**175Q140**	143/145TC	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	7.00	4.31	3.81	3.25
2.06	**206Q56**	56C	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	7.37	4.69	4.34	3.25
2.06	**206Q140**	143/145TC	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	7.37	4.69	4.34	3.25
2.37	**237Q56**	56C	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	7.69	5.08	4.88	3.25
2.37	**237Q140**	143/145TC	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	7.69	5.08	4.88	3.25
2.62	**262Q56**	56C	7.12	4.44	6.38	3.38	3.09	1.69	2.94	5.69	8.50	5.63	5.57	3.25
2.62	**262Q140**	143/145TC	7.12	4.44	6.38	3.38	3.09	1.69	2.94	5.69	8.50	5.63	5.57	3.25
2.62	**262Q180**	182/184TC	7.12	4.44	6.38	3.38	3.09	1.69	2.94	6.13	9.72	5.63	5.57	4.50
3.00	**300Q56**	56C	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	9.35	6.75	6.25	3.25
3.00	**300Q140**	143/145TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	9.35	6.75	6.25	3.25
3.00	**300Q180**	182/184TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	6.45	10.57	6.75	6.25	4.50
3.25	**325Q56**	56C	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.37	7.06	6.75	3.25
3.25	**325Q140**	143/145TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.37	7.06	6.75	3.25
3.25	**325Q180**	182/184TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	7.00	10.59	7.06	6.75	4.50
3.75	**375Q56**	56C	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	11.47	7.75	7.63	3.38
3.75	**375Q140**	143/145TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	11.47	7.75	7.63	3.38
3.75	**375Q180**	182/184TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	12.92	7.75	7.63	4.50
3.75	**375Q210**	213/215TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	12.92	7.75	7.63	4.50
4.50	**450Q140**	143/145TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	6.69	12.15	8.44	9.00	3.38
4.50	**450Q180**	182/184TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	13.60	8.44	9.00	4.50
4.50	**450Q210**	213/215TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	13.60	8.44	9.00	4.50
5.16	**516Q180**	182/184TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	14.40	9.06	10.47	4.50
5.16	**516Q210**	213/215TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	14.40	9.06	10.47	4.50

C.D.	N.E.M.A. FRAME	T		OUTPUT SHAFT			STOCK RATIOS MARKED "X"									
				U	W KEY											
		SIZE	DEEP	+.000/-.001	SQ.	LGTH.	5	10	15	20	25	30	40	50	60	WT. LBS
1.33	56C	5/16-18	0.50	0.625	0.188	1.31	x	x	x	x	x	x	x	x	x	19.41
1.54	56C	5/16-18	0.50	0.625	0.188	1.25	x	x	x	x	x	x	x	x	x	26.65
1.54	143/145TC	5/16-18	0.50	0.875	0.188	1.25	x	x	x	-	-	-	-	-	-	26.65
1.75	56C	5/16-18	0.61	0.625	0.188	1.38	x	x	x	x	x	x	x	x	x	29.39
1.75	143/145TC	5/16-18	0.61	0.875	0.188	1.38	x	x	x	-	-	-	-	-	-	29.39
2.06	56C	3/8-16	0.61	0.625	0.250	1.75	x	x	x	x	x	x	x	x	x	34.81
2.06	143/145TC	3/8-16	0.61	0.875	0.250	1.75	x	x	x	x	x	x	x	x	x	34.81
2.37	56C	3/8-16	0.60	0.625	0.250	1.75	x	x	x	x	x	x	x	x	x	45.28
2.37	143/145TC	3/8-16	0.60	0.875	0.250	1.75	x	x	x	x	x	x	x	x	x	45.28
2.62	56C	3/8-16	0.58	0.625	0.250	2.00	-	x	x	x	x	x	x	x	x	56.02
2.62	143/145TC	3/8-16	0.58	0.875	0.250	2.00	-	x	x	x	x	x	x	x	x	56.02
2.62	182/184TC	3/8-16	0.58	1.125	0.250	2.00	x	x	-	-	-	-	-	-	-	56.02
3.00	56C	7/16-14	0.80	0.625	0.250	2.25	-	-	x	x	x	x	x	x	x	74.76
3.00	143/145TC	7/16-14	0.80	0.875	0.250	2.25	-	x	x	x	x	x	x	x	x	74.76
3.00	182/184TC	7/16-14	0.80	1.125	0.250	2.25	-	x	x	x	x	x	x	x	x	74.76
3.25	56C	7/16-14	0.80	0.625	0.313	2.88	-	x	x	x	x	x	x	x	x	92.17
3.25	143/145TC	7/16-14	0.80	0.875	0.313	2.88	-	x	x	x	x	x	x	x	x	92.17
3.25	182/184TC	7/16-14	0.80	1.125	0.313	2.88	-	x	x	x	x	x	x	x	x	92.17
3.75	56C	1/2-13	1.00	0.625	0.375	2.81	-	-	-	-	-	-	x	x	x	126.03
3.75	143/145TC	1/2-13	1.00	0.875	0.375	2.81	-	x	x	x	x	x	x	x	x	126.03
3.75	182/184TC	1/2-13	1.00	1.125	0.375	2.81	-	x	x	x	x	x	x	x	-	126.03
3.75	213/215TC	1/2-13	1.00	1.375	0.375	2.81	-	x	x	-	-	-	-	-	-	126.03
4.50	143/145TC	5/8-11	1.00	0.875	0.375	2.50	-	-	-	-	-	-	x	x	x	179.62
4.50	182/184TC	5/8-11	1.00	1.125	0.375	2.50	-	-	x	x	x	x	x	x	x	179.62
4.50	213/215TC	5/8-11	1.00	1.375	0.375	2.50	-	x	x	x	x	-	-	-	-	179.62
5.16	182/184TC	5/8-11	1.00	1.125	0.500	2.81	-	-	-	-	-	-	x	x	x	230.19
5.16	213/215TC	5/8-11	1.00	1.375	0.500	2.81	-	x	x	x	x	x	-	-	-	230.19

DIMENSIONS (INCHES) FOR STYLE "QT" - WORM TOP

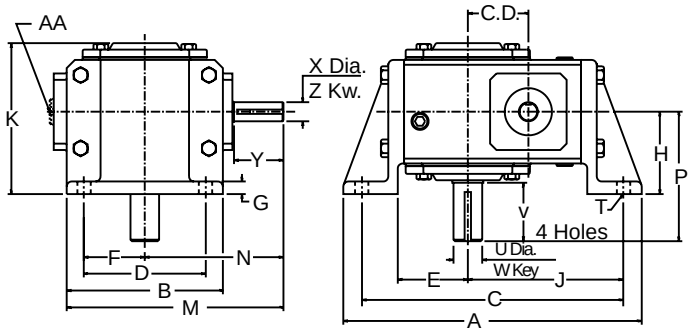
COMPONENTS ◆		AB	BB	CB	DB	EB	FB	G	KB	TB
REF. NO.	RISER BLOCK KIT									
133Q	133R-BK	5.38	4.19	4.38	3.31	2.19	1.66	0.47	7.07	0.38
154Q	154R-BK	6.44	5.44	5.25	4.31	2.63	2.16	0.59	7.52	0.44
175Q	175R-BK	7.00	5.56	5.75	4.50	2.88	2.25	0.69	8.05	0.44
206Q	206R-BK	7.69	5.76	6.38	4.69	3.19	2.34	0.72	8.51	0.50
237Q	237R-BK	8.50	6.19	7.06	4.88	3.53	2.44	0.75	10.38	0.50
262Q	262R-BK	9.25	6.50	8.00	5.25	4.00	2.63	0.75	11.15	0.56
300Q	300R-BK	10.17	7.38	8.44	5.88	4.22	2.94	0.88	11.88	0.56
325Q	325R-BK	11.12	7.75	9.50	6.13	4.75	3.06	0.88	12.13	0.56
375Q	375R-BK	12.00	8.63	10.38	7.00	5.19	3.50	0.94	13.15	0.59
450Q	450R-BK	13.88	9.31	12.13	7.63	6.06	3.81	1.13	15.33	0.66
516Q	516R-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	16.88	0.78

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56H10.

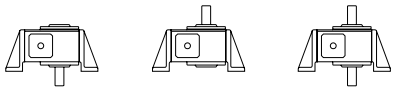
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table at the left. Consult factory for ratios not shown as standard.

Style UVL

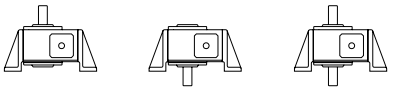
Vertical Low Base



Assembly Drawing and Sample of Components



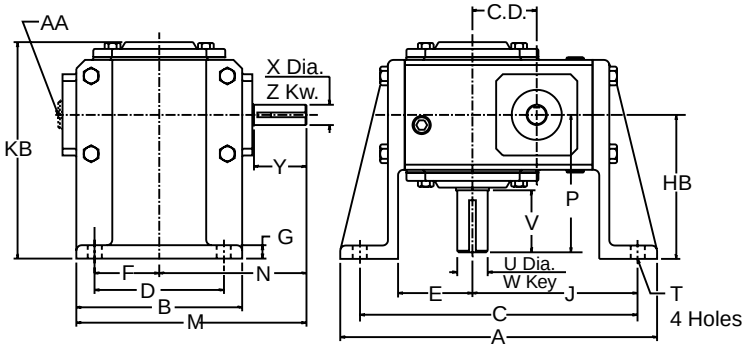
133UL10 133VL-BK | 133UR10 133VL-BK | 133ULR10 133VL-BK



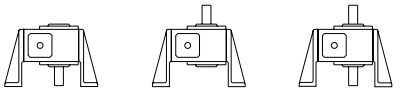
133UL10 133VL-BK | 133UR10 133VL-BK | 133ULR10 133VL-BK

Style UVH

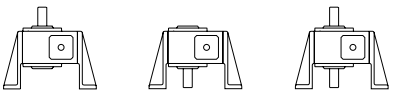
Vertical High Base



Assembly Drawing and Sample of Components



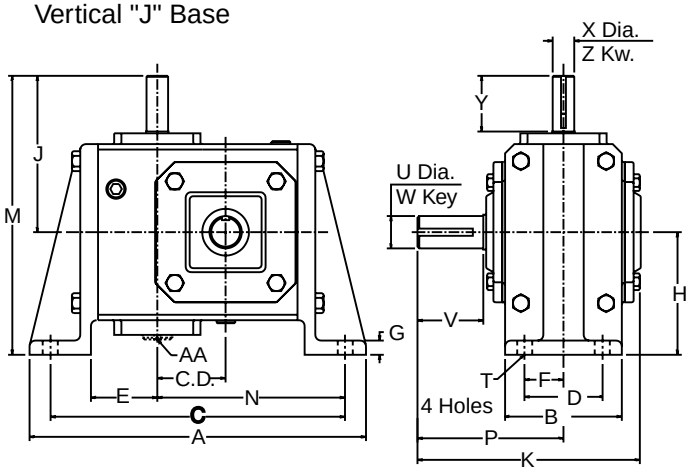
133UL10 133VH-BK | 133UR10 133VH-BK | 133ULR10 133VH-BK



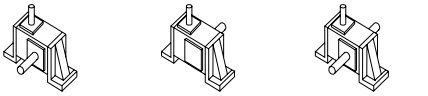
133UL10 133VH-BK | 133UR10 133VH-BK | 133ULR10 133VH-BK

Style UVJ

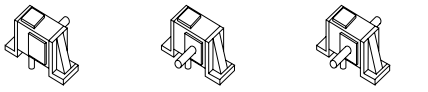
Vertical "J" Base



Assembly Drawing and Sample of Components



133UL10 133VJ-BK | 133UR10 133VJ-BK | 133ULR10 133VJ-BK



133UL10 133VJ-BK | 133UR10 133VJ-BK | 133ULR10 133VJ-BK

Note: If mounting a fan unit with input up, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "UVL" - With Vertical Low Base

C.D.	Components ◆		A	B	C	D	E	F	G	H	J	K	M	N	P	T
	Basic Unit ★	Base Kit														
1.00	100U	100VL-BK	5.75	3.30	5.13	2.31	1.31	1.15	.13	1.83	3.06	3.46	4.65	3.00	2.88	.342
1.33	133U	133VL-BK	7.10	4.00	6.16	3.25	1.81	1.63	.53	2.31	3.69	4.31	6.03	4.03	4.00	.344
1.54	154U	154VL-BK	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.28	5.50	7.25	4.69	4.31	.406
1.75	175U	175VL-BK	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.50	5.41	7.09	4.68	4.31	.406
2.06	206U	206VL-BK	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	5.09	5.73	7.87	5.06	4.69	.469
2.37	237U	237VL-BK	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.44	6.08	8.50	5.44	5.08	.469
2.62	262U	262VL-BK	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	6.13	6.50	9.79	6.23	5.63	.531
3.00	300U	300VL-BK	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	6.88	8.19	11.25	7.00	6.75	.531
3.25	325U	325VL-BK	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	7.13	8.37	11.31	7.06	7.06	.531
3.75	375U	375VL-BK	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	8.31	9.58	13.13	8.38	7.75	.594
4.50	450U	450VL-BK	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	8.94	9.78	15.09	9.59	8.44	.688
5.16	516U	516VL-BK	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	10.56	11.25	16.93	10.69	9.06	.781
6.00	600U	600VL-BK	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	12.19	12.63	19.13	11.75	10.00	.906

C.D.	OUTPUT SHAFT				INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	U +.000 -.001	V	W Key		X +.000 -.001	Y	Z Key		5	10	15	20	25	30	40	50	60	
			Sq.	Lgth.			Sq.	Lgth.										
1.00	.500	1.25	.125	.88	.375	1.23	.094	.75	x	x	x	x	x	x	x	x	-	7.8
1.33	.625	2.00	.188	1.31	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	13.3
1.54	.750	1.78	.188	1.25	.625	1.69	.188	.94	x	x	x	x	x	x	x	x	x	21.4
1.75	.875	1.88	.188	1.38	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	24.5
2.06	1.000	2.00	.250	1.75	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	32.0
2.37	1.125	2.37	.250	1.75	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	39.0
2.62	1.125	2.50	.250	2.00	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	52.0
3.00	1.250	3.25	.250	2.25	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	69.5
3.25	1.375	3.25	.313	2.88	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	88.0
3.75	1.625	3.50	.375	2.81	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	130.0
4.50	1.625	3.38	.375	2.50	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	184.0
5.16	2.000	4.16	.500	2.81	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	246.0
6.00	2.250	4.56	.500	3.50	1.500	3.75	.375	2.94	x	x	x	x	x	x	x	x	x	316.0

Dimensions (Inches) for Style "UVH"

Components ◆		HB	KB	Wt. Lbs.
Basic Unit ★	Base Kit			
100U	100VH-BK	2.96	4.59	7.8
133U	133VH-BK	3.56	5.56	14.3
154U	154VH-BK	4.38	6.88	22.4
175U	175VH-BK	4.38	6.78	25.5
206U	206VH-BK	4.88	7.48	33.0
237U	237VH-BK	5.25	7.96	41.5
262U	262VH-BK	5.60	8.47	56.0
300U	300VH-BK	6.25	9.75	73.0
325U	325VH-BK	6.25	9.93	91.0
375U	375VH-BK	7.00	11.33	133.5
450U	450VH-BK	8.56	13.28	192.0
516U	516VH-BK	8.63	13.50	258.0
600U	600VH-BK	9.63	14.94	331.0

Fan Kit

Basic Unit ★	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375U	375 FAN	3/8-24	3/4	2.8
450U	450 FAN	3/8-24	3/4	2.8
516U	516 FAN	3/8-24	3/4	2.8
600U	600 FAN	3/8-24	3/4	4.2

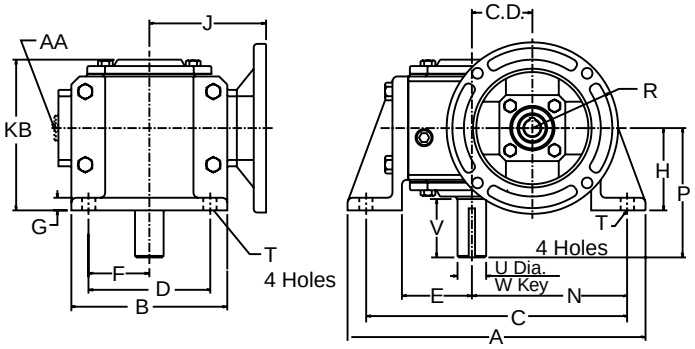
Dimensions (Inches) for Style "UVJ" - With Vertical "J" Base

Components ◆		A	B	C	D	E	F	G	H	J	K	M	N	P	T	Wt. Lbs.
Base Unit ★	Base Kit															
133U	133VJ-BK	7.28	2.88	6.42	2.00	1.66	1.00	.53	2.94	4.03	5.31	6.97	3.93	2.66	.344	15.0
154U	154VJ-BK	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.69	6.44	8.19	4.39	3.22	.406	22.0
175U	175VJ-BK	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.68	5.70	8.18	4.75	2.85	.406	25.0
206U	206VJ-BK	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	5.06	6.44	9.00	5.46	3.22	.469	31.0
237U	237VJ-BK	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.44	6.31	9.50	6.00	3.16	.469	47.0
262U	262VJ-BK	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	6.23	6.88	10.98	6.75	3.44	.531	58.0
300U	300VJ-BK	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	7.00	8.38	12.94	7.94	4.19	.531	82.0
325U	325VJ-BK	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	7.06	8.50	12.75	8.44	4.25	.531	85.0
375U	375VJ-BK	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	8.38	9.63	14.38	9.06	4.81	.594	117.5
450U	450VJ-BK	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	9.59	11.13	16.96	8.94	5.56	.688	151.0
516U	516VJ-BK	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	10.69	11.31	18.44	12.35	5.66	.781	240.0
600U	600VJ-BK	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	11.75	12.63	20.25	14.25	6.31	.906	342.0

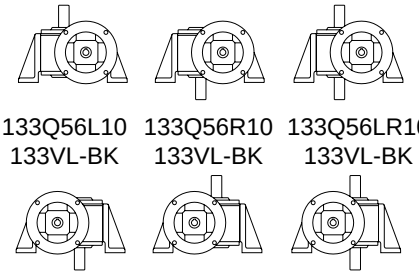
★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133ULR10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above. Consult factory for ratios not shown as standard.

Style QVL

Vertical Low Base



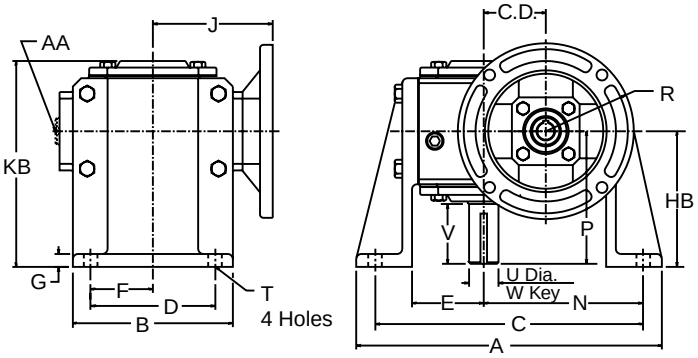
Assembly Drawing and Sample of Components



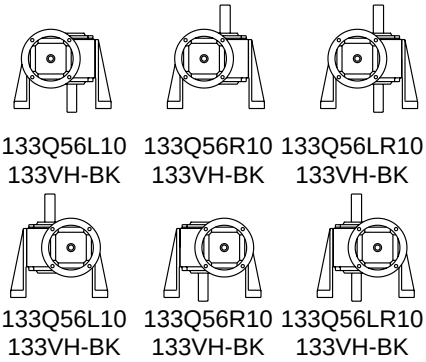
133Q56L10 133VL-BK	133Q56R10 133VL-BK	133Q56LR10 133VL-BK
133Q56L10 133VL-BK	133Q56R10 133VL-BK	133Q56LR10 133VL-BK

Style QVH

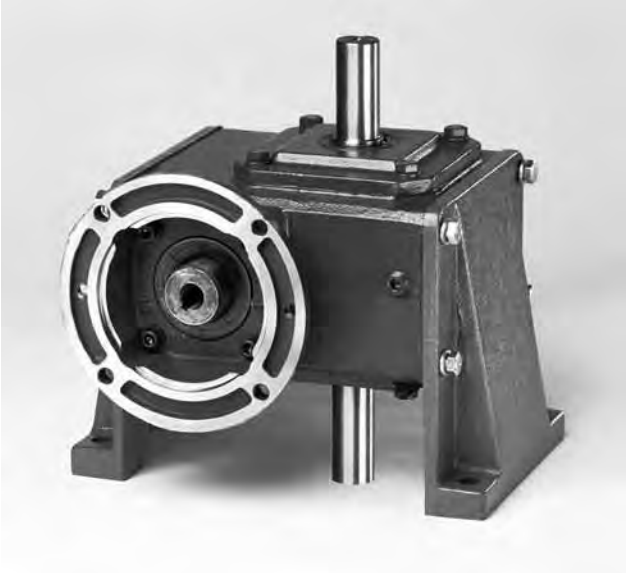
Vertical High Base



Assembly Drawing and Sample of Components



133Q56L10 133VH-BK	133Q56R10 133VH-BK	133Q56LR10 133VH-BK
133Q56L10 133VH-BK	133Q56R10 133VH-BK	133Q56LR10 133VH-BK



Dimensions (Inches) for Style "QVL" - With Vertical Low Base

C.D.	Components ◆		N.E.M.A. Frame	A	B	C	D	E	F	G	H	J	K	N	P
	Part No. ★	Base Kit													
1.00	**100Q40**	**100VL-BK**	42CZ/48C	5.75	3.30	5.13	2.31	1.31	1.15	.13	1.83	3.16	3.46	3.06	2.88
1.00	**100Q56**	**100VL-BK**	56C	5.75	3.30	5.13	2.31	1.31	1.15	.13	1.83	3.53	3.46	3.06	2.88
1.33	**133Q56**	**133VL-BK**	56C	7.38	4.00	6.16	3.25	1.81	1.63	.53	2.31	3.94	4.31	3.69	4.00
1.54	**154Q56**	**154VL-BK**	56C	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.52	5.50	4.28	4.31
1.54	**154Q140**	**154VL-BK**	143/145TC	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.52	5.50	4.28	4.31
1.75	**175Q56**	**175VL-BK**	56C	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.38	5.41	4.50	4.31
1.75	**175Q140**	**175VL-BK**	143/145TC	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.38	5.41	4.50	4.31
2.06	**206Q56**	**206VL-BK**	56C	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	4.75	5.73	5.09	4.69
2.06	**206Q140**	**206VL-BK**	143/145TC	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	4.75	5.73	5.09	4.69
2.37	**237Q56**	**237VL-BK**	56C	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.06	6.08	5.44	5.08
2.37	**237Q140**	**237VL-BK**	143/145TC	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.06	6.08	5.44	5.08
2.62	**262Q56**	**262VL-BK**	56C	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	5.69	6.50	6.13	5.63
2.62	**262Q140**	**262VL-BK**	143/145TC	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	5.69	6.50	6.13	5.63
2.62	**262Q180**	**262VL-BK**	182/184TC	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	5.69	6.50	6.13	5.63
3.00	**300Q56**	**300VL-BK**	56C	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	5.67	8.19	6.88	6.75
3.00	**300Q140**	**300VL-BK**	143/145TC	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	5.67	8.19	6.88	6.75
3.00	**300Q180**	**300VL-BK**	182/184TC	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	6.45	8.19	6.88	6.75
3.25	**325Q56**	**325VL-BK**	56C	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	6.56	8.37	7.13	7.06
3.25	**325Q140**	**325VL-BK**	143/145TC	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	6.56	8.37	7.13	7.06
3.25	**325Q180**	**325VL-BK**	182/184TC	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	7.00	8.37	7.13	7.06
3.75	**375Q56**	**375VL-BK**	56C	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	6.01	9.58	8.31	7.75
3.75	**375Q140**	**375VL-BK**	143/145TC	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	6.01	9.58	8.31	7.75
3.75	**375Q180**	**375VL-BK**	182/184TC	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	7.29	9.58	8.31	7.75
3.75	**375Q210**	**375VL-BK**	213/215TC	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	7.29	9.58	8.31	7.75
4.50	**450Q140**	**450VL-BK**	143/145TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	6.69	9.78	8.94	8.44
4.50	**450Q180**	**450VL-BK**	182/184TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	7.97	9.78	8.94	8.44
4.50	**450Q210**	**450VL-BK**	213/215TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	7.97	9.78	8.94	8.44
5.16	**516Q180**	**516VL-BK**	182/184TC	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	8.78	11.25	10.56	9.06
5.16	**516Q210**	**516VL-BK**	213/215TC	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	8.78	11.25	10.56	9.06
6.00	**600Q180**	**600VL-BK**	213/215TC	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	9.68	12.63	12.19	10.00
6.00	**600Q210**	**600VL-BK**	213/215TC	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	9.68	12.63	12.19	10.00

C.D.	N.E.M.A. Frame	R	T	INPUT		OUTPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
						U +.000 / -.001	V	W Key											
				Bore	Keyway			Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.00	42CZ/48C	2.13	.320	.500	1/8 X 1/16	.500	1.25	.125	.88	x	x	x	x	-	x	x	x	-	10.8
1.00	56C	3.25	.320	.625	3/16 X 3/32	.500	1.25	.125	.88	x	x	x	x	-	x	x	-	-	10.8
1.33	56C	3.25	.344	.625	3/16 X 3/32	.625	2.00	.188	1.31	x	x	x	x	x	x	x	x	x	19.3
1.54	56C	3.25	.406	.625	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	27.4
1.54	143/145TC	3.25	.406	.875	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	-	-	-	-	-	-	27.4
1.75	56C	3.25	.406	.625	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	31.5
1.75	143/145TC	3.25	.406	.875	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	-	-	-	-	-	-	31.5
2.06	56C	3.25	.469	.625	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	39.0
2.06	143/145TC	3.25	.469	.875	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	-	-	-	-	39.0
2.37	56C	3.25	.469	.625	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	46.0
2.37	143/145TC	3.25	.469	.875	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	-	-	46.0
2.62	56C	3.25	.531	.625	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	59.0
2.62	143/145TC	3.25	.531	.875	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	59.0
2.62	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.125	2.50	.250	2.00	x	x	-	-	-	-	-	-	-	59.0
3.00	56C	3.25	.531	.625	3/16 X 3/32	1.250	3.25	.250	2.25	-	-	x	x	x	x	x	x	x	80.5
3.00	143/145TC	3.25	.531	.875	3/16 X 3/32	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	80.5
3.00	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	80.5
3.25	56C	3.25	.531	.625	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	103.0
3.25	143/145TC	3.25	.531	.875	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	103.0
3.25	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	103.0
3.75	56C	3.38	.594	.625	3/16 X 3/32	1.625	3.50	.375	2.81	-	-	-	-	-	-	x	x	x	145.0
3.75	143/145TC	3.38	.594	.875	3/16 X 3/32	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	145.0
3.75	182/184TC	4.50	.594	1.125	1/4 X 1/8	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	-	145.0
3.75	213/215TC	4.50	.594	1.375	5/16 X 5/32	1.625	3.50	.375	2.81	-	x	x	NA	-	-	-	-	-	145.0
4.50	143/145TC	3.38	.688	.875	3/16 X 3/32	1.625	3.38	.375	2.50	-	-	-	-	-	-	x	x	x	203.0
4.50	182/184TC	4.50	.688	1.125	1/4 X 1/8	1.625	3.38	.375	2.50	-	-	x	x	x	x	x	x	x	203.0
4.50	213/215TC	4.50	.688	1.375	5/16 X 5/32	1.625	3.38	.375	2.50	-	x	x	x	x	-	-	-	-	203.0
5.16	182/184TC	4.50	.781	1.125	1/4 X 1/8	2.000	4.16	.500	2.81	-	-	-	-	-	-	x	x	x	269.0
5.16	213/215TC	4.50	.781	1.375	5/16 X 5/32	2.000	4.16	.500	2.81	-	x	x	x	x	x	x	-	-	269.0
6.00	182/184TC	4.50	.906	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	x	x	x	x	x	x	346.0
6.00	213/215TC	4.50	.906	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	-	x	x	x	x	x	346.0

Dimensions (Inches) for Style "QVH" - With Vertical High Base

C.D.	Components ◆		N.E.M.A. Frame	HB	KB	Wt. Lbs.	C.D.	Components ◆		N.E.M.A. Frame	HB	KB	Wt. Lbs.
	Basic Unit ★	Base Kit						Basic Unit ★	Base Kit				
1.00	**100Q40**	**100VH-BK**	42CZ/48C	2.96	4.59	10.8	3.25	**325Q56**	**325VH-BK**	56C	6.25	9.93	106.0
1.00	**100Q56**	**100VH-BK**	56C	2.96	4.59	10.8	3.25	**325Q140**	**325VH-BK**	143/145TC	6.25	9.93	106.0
1.33	**133Q56**	**133VH-BK**	56C	3.56	5.56	20.3	3.25	**325Q180**	**325VH-BK**	182/184TC	6.25	9.93	106.0
1.54	**154Q56**	**154VH-BK**	56C	4.38	6.88	28.4							
1.54	**154Q140**	**154VH-BK**	143/145TC	4.38	6.88	28.4	3.75	**375Q56**	**375VH-BK**	56C	7.00	11.33	148.5
1.75	**175Q56**	**175VH-BK**	56C	4.38	6.78	32.5	3.75	**375Q180**	**375VH-BK**	182/184TC	7.00	11.33	148.5
1.75	**175Q140**	**175VH-BK**	143/145TC	4.38	6.78	32.5	3.75	**375Q210**	**375VH-BK**	213/215TC	7.00	11.33	148.5
2.06	**206Q56**	**206VH-BK**	56C	4.88	7.48	40.0							
2.06	**206Q140**	**206VH-BK**	143/145TC	4.88	7.48	40.0	4.50	**450Q140**	**450VH-BK**	143/145TC	8.56	13.28	211.0
2.37	**237Q56**	**237VH-BK**	56C	5.25	7.96	48.5	4.50	**450Q180**	**450VH-BK**	182/184TC	8.56	13.28	211.0
2.37	**237Q140**	**237VH-BK**	143/145TC	5.25	7.96	48.5	4.50	**450Q210**	**450VH-BK**	213/215TC	8.56	13.28	211.0
2.62	**262Q56**	**262VH-BK**	56C	5.60	8.47	63.0	5.16	**516Q180**	**516VH-BK**	182/184TC	8.63	13.50	281.0
2.62	**262Q140**	**262VH-BK**	143/145TC	5.60	8.47	63.0	5.16	**516Q210**	**516VH-BK**	213/215TC	8.63	13.50	281.0
2.62	**262Q180**	**262VH-BK**	182/184TC	5.60	8.47	63.0							
3.00	**300Q56**	**300VH-BK**	56C	6.25	9.75	84.0	6.00	**600Q210**	**600VH-BK**	213/215TC	9.63	14.94	361.0
3.00	**300Q140**	**300VH-BK**	143/145TC	6.25	9.75	84.0							
3.00	**300Q180**	**300VH-BK**	182/184TC	6.25	9.75	84.0							

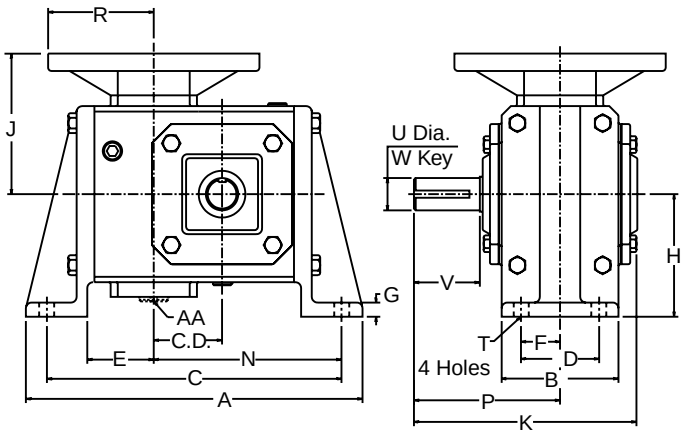
Fan Kit

Ref. No.	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375Q	**375 FAN**	3/8-24	3/4	2.8
450Q	**450 FAN**	3/8-24	3/4	2.8
516Q	**516 FAN**	3/8-24	3/4	2.8
600Q	**600 FAN**	3/8-24	3/4	4.2

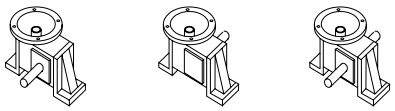
★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56LR10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table at the left.
Consult factory for ratios not shown as standard.

Style QVJ

Vertical "J" Base



Assembly Drawing and Sample of Components



133Q56L10	133Q56R10	133Q56LR10
133VJ-BK	133VJ-BK	133VJ-BK

NOTE: If mounting a fan unit, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "QVJ" - With Vertical "J" Base

C.D.	Components♦		N.E.M.A. Frame	A	B	C	D	E	F	G	H	J	K	N	P
	Part No. ★	Base Kit													
1.00	**100Q40**	**100VJ-BK**	42CZ/48C	5.88	2.50	5.13	1.69	1.32	.85	.13	2.31	3.16	4.50	3.06	2.88
1.00	**100Q56**	**100VJ-BK**	56C	5.88	2.50	5.13	1.69	1.32	.85	.13	2.31	3.53	4.50	3.06	2.88
1.33	**133Q56**	**133VJ-BK**	56C	7.28	2.88	6.42	2.00	1.66	1.00	.53	2.94	3.94	6.03	3.93	4.00
1.54	**154Q56**	**154VJ-BK**	56C	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.52	6.76	4.39	4.31
1.54	**154Q140**	**154VJ-BK**	143/145TC	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.52	6.76	4.39	4.31
1.75	**175Q56**	**175VJ-BK**	56C	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.38	6.75	4.75	4.31
1.75	**175Q140**	**175VJ-BK**	143/145TC	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.38	6.75	4.75	4.31
2.06	**206Q56**	**206VJ-BK**	56C	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	4.75	7.25	5.46	4.69
2.06	**206Q140**	**206VJ-BK**	143/145TC	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	4.75	7.25	5.46	4.69
2.37	**237Q56**	**237VJ-BK**	56C	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.06	7.78	6.00	5.08
2.37	**237Q140**	**237VJ-BK**	143/145TC	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.06	7.78	6.00	5.08
2.62	**262Q56**	**262VJ-BK**	56C	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	5.69	8.50	6.75	5.63
2.62	**262Q140**	**262VJ-BK**	143/145TC	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	5.69	8.50	6.75	5.63
2.62	**262Q180**	**262VJ-BK**	182/184TC	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	6.13	8.50	6.75	5.63
3.00	**300Q56**	**300VJ-BK**	56C	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	5.67	10.25	7.94	6.75
3.00	**300Q140**	**300VJ-BK**	143/145TC	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	5.67	10.25	7.94	6.75
3.00	**300Q180**	**300VJ-BK**	182/184TC	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	6.45	10.25	7.94	6.75
3.25	**325Q56**	**325VJ-BK**	56C	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	6.56	10.60	8.44	7.06
3.25	**325Q140**	**325VJ-BK**	143/145TC	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	6.56	10.60	8.44	7.06
3.25	**325Q180**	**325VJ-BK**	182/184TC	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	7.00	10.60	8.44	7.06
3.75	**375Q56**	**375VJ-BK**	56C	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	6.01	11.88	9.06	7.75
3.75	**375Q140**	**375VJ-BK**	143/145TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	6.01	11.88	9.06	7.75
3.75	**375Q180**	**375VJ-BK**	182/184TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	7.29	11.88	9.06	7.75
3.75	**375Q210**	**375VJ-BK**	213/215TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	7.29	11.88	9.06	7.75
4.50	**450Q140**	**450VJ-BK**	143/145TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	6.69	13.16	10.50	8.44
4.50	**450Q180**	**450VJ-BK**	182/184TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	7.97	13.16	10.50	8.44
4.50	**450Q210**	**450VJ-BK**	213/215TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	7.97	13.16	10.50	8.44
5.16	**516Q180**	**516VJ-BK**	182/184TC	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	8.78	13.91	12.35	9.06
5.16	**516Q210**	**516VJ-BK**	213/215TC	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	8.78	13.91	12.35	9.06
6.00	**600Q180**	**600VJ-BK**	182/184TC	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	9.68	15.31	14.25	10.00
6.00	**600Q210**	**600VJ-BK**	213/215TC	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	9.68	15.31	14.25	10.00

C D	N.E.M.A. Frame	R	T	INPUT		OUTPUT SHAFT				Stock Ratios marked x									Wt. Lbs.
						U	V	W K ey											
				Bore	Keyway	+000 -.001		Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.00	42CZ/48C	2.13	.320	.500	1/8 X 1/16	.500	1.25	.125	.88	x	x	x	x	-	x	x	x	-	9.8
1.00	56C	3.25	.320	.625	3/16 X 3/32	.500	1.25	.125	.88	x	x	x	x	-	x	x	x	-	9.8
1.33	56C	3.25	.344	.625	3/16 X 3/32	.625	2.00	.188	1.31	x	x	x	x	x	x	x	-	x	18.0
1.54	56C	3.25	.406	.625	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	26.0
1.54	143/145TC	3.25	.406	.875	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	-	-	-	-	-	-	26.0
1.75	56C	3.25	.406	.625	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	29.0
1.75	143/145TC	3.25	.406	.875	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	-	-	-	-	-	-	29.0
2.06	56C	3.25	.469	.625	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	35.0
2.06	143/145TC	3.25	.469	.875	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	-	-	-	-	35.0
2.37	56C	3.25	.469	.625	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	41.0
2.37	143/145TC	3.25	.469	.875	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	-	-	41.0
2.62	56C	3.25	.531	.625	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	54.0
2.62	143/145TC	3.25	.531	.875	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	54.0
2.62	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.125	2.50	.250	2.00	x	x	-	-	-	-	-	-	-	54.0
3.00	56C	3.25	.531	.625	3/16 X 3/32	1.250	3.25	.250	2.25	-	-	x	x	x	x	x	x	x	74.0
3.00	143/145TC	3.25	.531	.875	3/16 X 3/32	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	74.0
3.00	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	74.0
3.25	56C	3.25	.531	.625	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	93.0
3.25	143/145TC	3.25	.531	.875	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	93.0
3.25	182/184TC	4.50	.531	1.125	1/4 X 1/8	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	93.0
3.75	56C	3.38	.594	.625	3/16 X 3/32	1.625	3.50	.375	2.81	-	-	-	-	-	-	x	x	x	128.5
3.75	143/145TC	3.38	.594	.875	3/16 X 3/32	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	128.5
3.75	182/184TC	4.50	.594	1.125	1/4 X 1/8	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	-	128.5
3.75	213/215TC	4.50	.594	1.375	5/16 X 5/32	1.625	3.50	.375	2.81	-	x	x	-	-	-	-	-	-	128.5
4.50	143/145TC	3.38	.688	.875	3/16 X 3/32	1.625	3.38	.375	2.50	-	-	-	-	-	-	x	x	x	181.0
4.50	182/184TC	4.50	.688	1.125	1/4 X 1/8	1.625	3.38	.375	2.50	-	-	x	x	x	x	x	x	x	181.0
4.50	213/215TC	4.50	.688	1.375	5/16 X 5/32	1.625	3.38	.375	2.50	-	x	x	x	x	-	-	-	-	181.0
5.16	182/184TC	4.50	.781	1.125	1/4 X 1/8	2.000	4.16	.500	2.81	-	-	-	-	-	-	x	x	x	239.0
5.16	213/215TC	4.50	.781	1.375	5/16 X 5/32	2.000	4.16	.500	2.81	-	x	x	x	x	x	-	-	-	239.0
6.00	182/184TC	4.50	.906	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	x	x	x	x	x	x	291.0
6.00	213/215TC	4.50	.906	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	-	x	x	x	x	x	291.0

Fan Kit

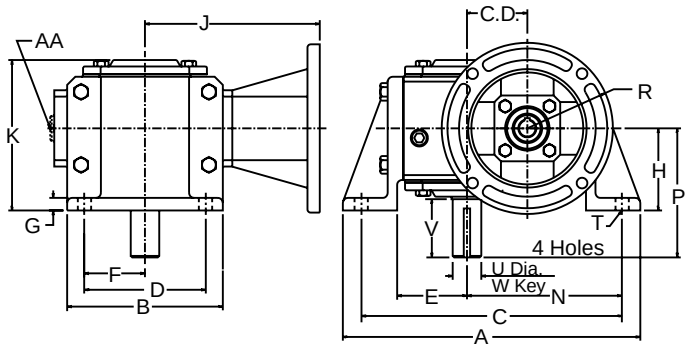
Ref. No.	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375Q	**375 FAN**	3/8-24	3/4	2.8
450Q	**450 FAN**	3/8-24	3/4	2.8
516Q	**516 FAN**	3/8-24	3/4	2.8
600Q	**600 FAN**	3/8-24	3/4	4.2

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56LR10.

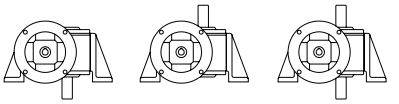
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table at the left.
Consult factory for ratios not shown as standard.

Style CVL

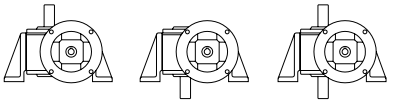
Vertical Low Base



Assembly Drawing and Sample of Components



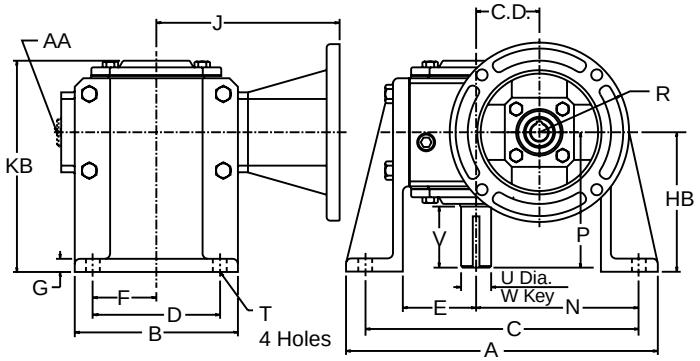
133UL10	133UR10	133ULR10
133VL-BK	133VL-BK	133VL-BK
133MAK56	133MAK56	133MAK56



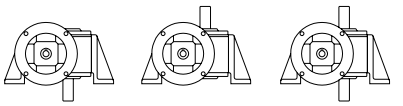
133UL10	133UR10	133ULR10
133VL-BK	133VL-BK	133VL-BK
133MAK56	133MAK56	133MAK56

Style CVH

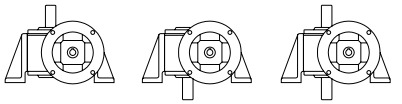
Vertical High Base



Assembly Drawing and Sample of Components



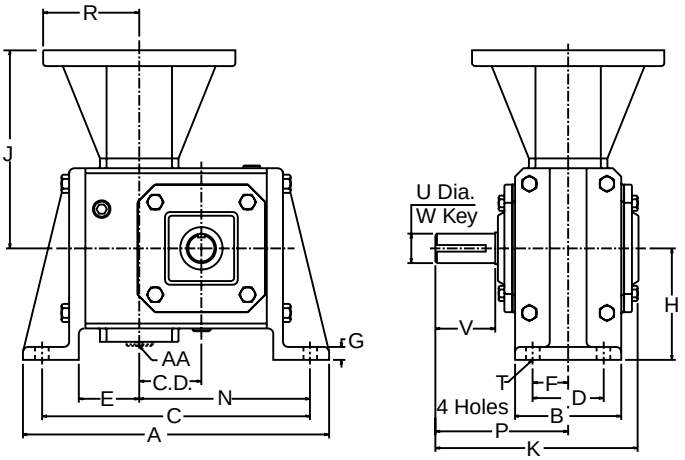
133UL10	133UR10	133ULR10
133VH-BK	133VH-BK	133VH-BK
133MAK56	133MAK56	133MAK56



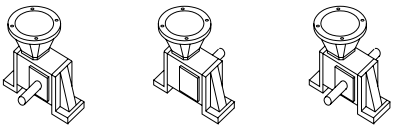
133UL10	133UR10	133ULR10
133VH-BK	133VH-BK	133VH-BK
133MAK56	133MAK56	133MAK56

Style CVJ

Vertical "J" Base



Assembly Drawing and Sample of Components



133UL10	133UR10	133ULR10
133VJ-BK	133VJ-BK	133VJ-BK
133MAK56	133MAK56	133MAK56

Note: If mounting a fan unit, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "CVL" - With Vertical Low Base

C.D.	Components ◆			A	B	C	D	E	F	G	H	K	N	P	T
	Base Unit. ★	Adapter Kit	Base Kit												
1.33	133U	See Adapter Kit Table Below	133VL-BK	7.10	4.00	6.16	3.25	1.81	1.63	.53	2.31	4.31	3.69	4.00	.344
1.54	154U		154VL-BK	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	5.50	4.28	4.31	.406
1.75	175U		175VL-BK	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	5.41	4.50	4.31	.406
2.06	206U		206VL-BK	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	5.73	5.09	4.69	.469
2.37	237U		237VL-BK	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	6.08	5.44	5.08	.469
2.62	262U		262VL-BK	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	6.50	6.13	5.63	.531
3.00	300U		300VL-BK	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	8.19	6.88	6.75	.531
3.25	325U		325VL-BK	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	8.37	7.13	7.06	.531
3.75	375U		375VL-BK	15.69	9.50	13.94	8.00	3.44	4.00	.88	5.25	9.58	8.31	7.75	.594
4.50	450U		450VL-BK	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	9.78	10.56	8.44	.688
5.16	516U		516VL-BK	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	11.25	10.56	9.06	.781
6.00	600U		600VL-BK	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	12.63	12.19	10.00	.906

C.D.	OUTPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	U +.000 -.001	V	W Key											
			Sq.	Lgth.	05	10	15	20	25	30	40	50	60	
1.33	.625	2.00	.188	1.31	x	x	x	x	x	x	x	x	x	20.3
1.54	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	28.4
1.75	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	31.5
2.06	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	39.0
2.37	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	47.0
2.62	1.125	2.50	.250	2.00	x	x	x	x	x	x	x	x	x	63.0
3.00	1.250	3.25	.250	2.25	x	x	x	x	x	x	x	x	x	80.5
3.25	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	99.0
3.75	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	142.5
4.50	1.625	3.38	.375	2.50	-	x	x	x	x	x	x	x	x	200.0
5.16	2.000	4.16	.500	2.81	-	x	x	x	x	x	x	x	x	264.0
6.00	2.250	4.56	.500	3.50	x	x	x	x	x	x	x	x	x	356.0

Dimensions (Inches) for Style "CVH"

Components ◆			HB	KB	Wt. Lbs.
Base Unit. ★	Adapter Kit	Base Kit			
133U	See Adapter Kit Table Below	133VH-BK	3.56	5.56	21.3
154U		154VH-BK	4.38	6.88	29.4
175U		175VH-BK	4.38	6.78	32.5
206U		206VH-BK	4.88	7.48	40.0
237U		237VH-BK	5.25	7.96	49.5
262U		262VH-BK	5.60	8.47	67.0
300U		300VH-BK	6.25	9.75	84.0
325U		325VH-BK	6.25	9.93	102.0
375U		375VH-BK	7.00	11.33	146.0
450U		450VH-BK	8.56	13.28	208.0
516U		516VH-BK	8.63	13.50	276.0
600U		600VH-BK	9.63	14.94	361.0

Fan Kit

Basic Unit ★	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375U	375 FAN	3/8-24	3/4	2.8
450U	450 FAN	3/8-24	3/4	2.8
516U	516 FAN	3/8-24	3/4	2.8
600U	600 FAN	3/8-24	3/4	4.2

Dimensions (Inches) for Style "CVJ" - Vertical "J" Base

Components ◆			A	B	C	D	E	F	G	H	K	N	P	T	Wt. Lbs.
Base Unit ★	Adapter Kit	Base Kit													
133U	See Adapter Kit Table Below	133VJ-BK	7.28	2.88	6.42	2.00	1.66	1.00	.53	2.94	6.03	3.93	4.00	.344	19.0
154U		154VJ-BK	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	6.76	4.39	4.31	.406	27.0
175U		175VJ-BK	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	6.75	4.75	4.31	.406	29.0
206U		206VJ-BK	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	7.25	5.46	4.69	.469	35.0
237U		237VJ-BK	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	7.78	6.00	5.08	.469	42.0
262U		262VJ-BK	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	8.50	6.75	5.63	.531	58.0
300U		300VJ-BK	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	10.25	7.94	6.75	.531	74.0
325U		325VJ-BK	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	10.60	8.44	7.06	.531	89.0
375U		375VJ-BK	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	11.88	9.06	7.75	.594	126.0
450U		450VJ-BK	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	13.16	8.94	8.44	.688	178.0
516U		516VJ-BK	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	13.91	12.35	9.06	.781	234.0
600U		600VJ-BK	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	15.31	14.25	10.00	.906	291.0

N.E.M.A. Frame Adapter Kits and Dimensions

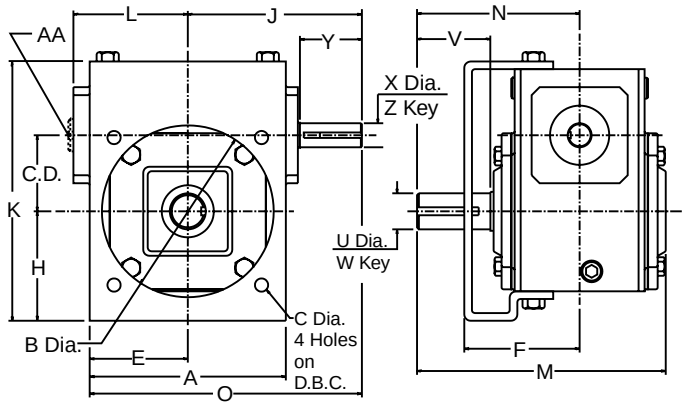
C.D.	56C Input: .625 Kw.: 3/16 x 3/32			143/145TC Input: .875 Kw.: 3/16 x 3/32			182/184TC Input: 1.125 KW.: 1/4 x 1/8			213/215TC Input: 1.375 Kw.: 5/16 x 5/32			254/256TC Input: 1.625 Kw.: 3/8 x 3/16		
	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133ULR10.

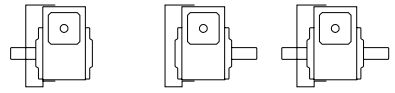
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above. Consult factory for ratios not shown as standard.

Style UF

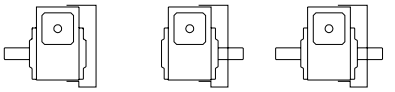
Flange Bracket



Assembly Drawing and Sample of Components



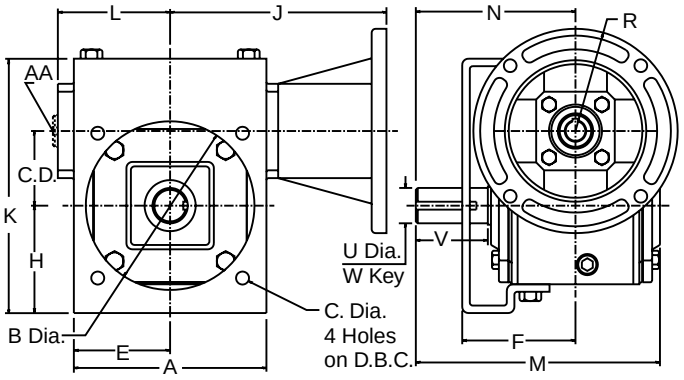
133UL10 133H-FK | 133UR10 133H-FK | 133ULR10 133H-FK



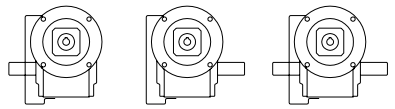
133UL10 133H-FK | 133UR10 133H-FK | 133ULR10 133H-FK

Style CF

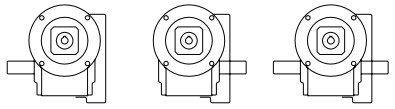
Flange Bracket



Assembly Drawing and Sample of Components



133UL10 133H-FK 133MAK56 | 133UR10 133H-FK 133MAK56 | 133ULR10 133H-FK 133MAK56



133UL10 133H-FK 133MAK56 | 133UR10 133H-FK 133MAK56 | 133ULR10 133H-FK 133MAK56

Dimensions (Inches) for Style "UF" - With Flange

C.D.	Components ◆		A	B	C	D	E	F	H	J	K	L	M	N	O
	Basic Unit ★	Flange Kit													
1.33	133U	133H-FK	4.25	3.63	.344	5.000	2.13	3.00	2.44	4.03	5.57	2.12	6.03	4.00	6.16
1.54	154U	154H-FK	4.75	3.63	.344	5.000	2.38	3.56	2.54	4.69	6.20	2.75	6.76	4.31	7.07
1.75	175U	175H-FK	4.81	4.06	.344	5.875	2.41	3.50	2.78	4.68	6.66	2.75	6.75	4.31	7.09
2.06	206U	206H-FK	5.75	4.50	.406	6.500	2.88	3.75	3.14	5.06	7.43	3.00	7.25	4.69	7.94
2.37	237U	237H-FK	6.13	5.00	.406	7.500	3.06	3.72	3.61	5.44	8.24	3.56	7.78	5.08	8.51
2.62	262U	262H-FK	7.18	6.00	.406	8.000	3.59	4.06	3.94	6.23	9.25	3.69	8.50	5.63	9.82
3.00	300U	300H-FK	8.50	7.00	.406	9.000	4.25	4.50	4.14	7.00	10.02	4.50	10.25	6.75	11.25
3.25	325U	325H-FK	8.50	7.00	.563	10.000	4.25	5.25	4.75	7.06	10.89	4.50	10.60	7.06	11.31
3.75	375U	375H-FK	9.54	8.00	.563	11.500	4.77	5.46	5.04	8.38	11.85	5.74	11.88	7.75	13.13
4.50	450U	450H-FK	10.88	9.00	.563	11.500	5.44	6.88	5.34	9.59	13.10	6.42	13.16	8.44	15.09
5.16	516U	516H-FK	12.50	10.00	.688	14.000	6.25	6.58	6.57	10.69	15.33	7.42	13.91	9.06	16.94
6.00	600U	600H-FK	14.50	12.00	.688	15.560	7.25	7.22	7.85	11.75	18.22	8.25	15.31	10.00	19.00

C.D.	OUTPUT SHAFT				INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	U +.000 -.000	V	W Key		X +.000 -.001	Y	Z Key		5	10	15	20	25	30	40	50	60	
			Sq.	Lgth.			Sq.	Lgth.										
1.33	.625	2.00	.188	1.31	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	13.7
1.54	.750	1.78	.188	1.25	.625	1.69	.188	.94	x	x	x	x	x	x	x	x	x	21.3
1.75	.875	1.88	.188	1.38	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	23.4
2.06	1.000	2.00	.250	1.75	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	29.6
2.37	1.125	2.37	.250	1.75	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	36.1
2.62	1.125	2.50	.250	2.00	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	51.4
3.00	1.250	3.25	.250	2.25	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	67.1
3.25	1.375	3.25	.313	2.88	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	83.9
3.75	1.625	3.50	.375	2.81	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	118.3
4.50	1.625	3.38	.375	2.50	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	172.8
5.16	2.000	4.16	.500	2.81	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	224.9
6.00	2.250	4.56	.500	3.50	1.500	3.75	.375	2.94	x	x	x	x	x	x	x	x	x	284.7

Dimensions (Inches) for Style "CF"

Components ◆			Wt. Lbs.
Basic Unit ★	Adapter Kit	Flange Kit	
133U	See Adapter Kit Table Below	133H-FK	20.7
154U		154H-FK	28.3
175U		175H-FK	30.4
206U		206H-FK	36.6
237U		237H-FK	44.1
262U		262H-FK	62.4
300U		300H-FK	78.1
325U		325H-FK	94.9
375U		375H-FK	130.8
450U		450H-FK	188.8
516U		516H-FK	242.9
600U		600H-FK	314.7

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375U	375 FAN	3/8-24	3/4	7.66	2.8
450U	450 FAN	3/8-24	3/4	8.36	2.8
516U	516 FAN	3/8-24	3/4	9.18	2.8
600U	600 FAN	3/8-24	3/4	10.70	4.2

N.E.M.A. Frame Adapter Kits and Dimensions

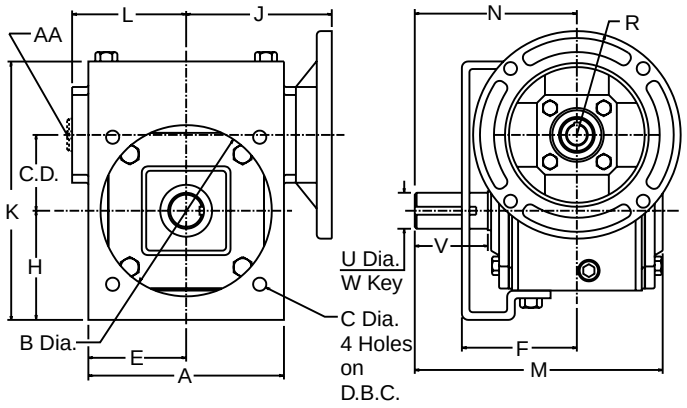
C.D.	56C Input: .625 Kw.: 3/16 x 3/32			143/145TC Input: .875 Kw.: 3/16 x 3/32			182/184TC Input: 1.125 KW.: 1/4 x 1/8			213/215TC Input: 1.375 Kw.: 5/16 x 5/32			254/256TC Input: 1.625 Kw.: 3/8 x 3/16		
	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133ULR10.

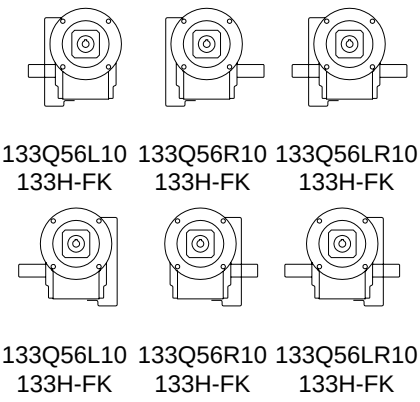
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above. Consult factory for ratios not shown as standard.

Style QF

Flange Bracket



Assembly Drawing and Sample of Components



133Q56L10 133H-FK | 133Q56R10 133H-FK | 133Q56LR10 133H-FK

133Q56L10 133H-FK | 133Q56R10 133H-FK | 133Q56LR10 133H-FK

Dimensions (Inches) for Style "QF" - With Flange

C.D.	Components ◆		N.E.M.A. Frame	A	B	C	D	E	F	H	J	K	L	M
	Part No. ★	Flange Kit												
1.33	**133Q56**	**133H-FK**	56C	4.25	3.63	.344	5.000	2.13	3.00	2.44	3.94	5.57	2.12	6.03
1.54	**154Q56**	**154H-FK**	56C	4.75	3.63	.344	5.000	2.38	3.56	2.54	4.52	6.20	2.75	6.76
1.54	**154Q140**	**154H-FK**	143/145TC	4.75	3.63	.344	5.000	2.38	3.56	2.54	4.52	6.20	2.75	6.76
1.75	**175Q56**	**175H-FK**	56C	4.81	4.06	.344	5.875	2.41	3.50	2.78	4.38	6.66	2.75	6.75
1.75	**175Q140**	**175H-FK**	143/145TC	4.81	4.06	.344	5.875	2.41	3.50	2.78	4.38	6.66	2.75	6.75
2.06	**206Q56**	**206H-FK**	56C	5.75	4.50	.406	6.500	2.88	3.75	3.14	4.75	7.43	3.00	7.25
2.06	**206Q140**	**206H-FK**	143/145TC	5.75	4.50	.406	6.500	2.88	3.75	3.14	4.75	7.43	3.00	7.25
2.37	**237Q56**	**237H-FK**	56C	6.13	5.00	.406	7.500	3.06	3.72	3.61	5.06	8.24	3.56	7.78
2.37	**237Q140**	**237H-FK**	143/145TC	6.13	5.00	.406	7.500	3.06	3.72	3.61	5.06	8.24	3.56	7.78
2.62	**262Q56**	**262H-FK**	56C	7.18	6.00	.406	8.000	3.59	4.06	3.94	5.69	9.25	3.69	8.50
2.62	**262Q140**	**262H-FK**	143/145TC	7.18	6.00	.406	8.000	3.59	4.06	3.94	5.69	9.25	3.69	8.50
2.62	**262Q180**	**262H-FK**	182/184TC	7.18	6.00	.406	8.000	3.59	4.06	3.94	6.13	9.25	3.69	8.50
3.00	**300Q56**	**300H-FK**	56C	8.50	7.00	.406	9.000	4.25	4.50	4.14	5.67	10.02	4.50	10.25
3.00	**300Q140**	**300H-FK**	143/145TC	8.50	7.00	.406	9.000	4.25	4.50	4.14	5.67	10.02	4.50	10.25
3.00	**300Q180**	**300H-FK**	182/184TC	8.50	7.00	.406	9.000	4.25	4.50	4.14	6.45	10.02	4.50	10.25
3.25	**325Q56**	**325H-FK**	56C	8.50	7.00	.563	10.000	4.25	5.25	4.75	6.56	10.89	4.50	10.60
3.25	**325Q140**	**325H-FK**	143/145TC	8.50	7.00	.563	10.000	4.25	5.25	4.75	6.56	10.89	4.50	10.60
3.25	**325Q180**	**325H-FK**	182/184TC	8.50	7.00	.563	10.000	4.25	5.25	4.75	7.00	10.89	4.50	10.60
3.75	**375Q56**	**375H-FK**	56C	9.54	8.00	.563	11.500	4.77	5.46	5.04	6.01	11.85	5.74	11.88
3.75	**375Q140**	**375H-FK**	143/145TC	9.54	8.00	.563	11.500	4.77	5.46	5.04	6.01	11.85	5.74	11.88
3.75	**375Q180**	**375H-FK**	182/184TC	9.54	8.00	.563	11.500	4.77	5.46	5.04	7.29	11.85	5.75	11.88
3.75	**375Q210**	**375H-FK**	213/215TC	9.54	8.00	.563	11.500	4.77	5.46	5.04	7.29	11.85	5.74	11.88
4.50	**450Q140**	**450H-FK**	143/145TC	10.88	9.00	.563	11.500	5.44	6.88	5.34	6.69	13.10	6.42	13.16
4.50	**450Q180**	**450H-FK**	182/184TC	10.88	9.00	.563	11.500	5.44	6.88	5.34	7.97	13.10	6.42	13.16
4.50	**450Q210**	**450H-FK**	213/215TC	10.88	9.00	.563	14.000	5.44	6.88	5.34	7.97	13.10	6.42	13.16
5.16	**516Q180**	**516H-FK**	182/184TC	12.50	10.00	.688	14.000	6.25	6.58	6.57	8.78	15.33	7.42	13.91
5.16	**516Q210**	**516H-FK**	213/215TC	12.50	10.00	.688	14.000	6.25	6.58	6.57	8.78	15.33	7.42	13.91
6.00	**600Q180**	**600H-FK**	182/184TC	14.50	12.00	.688	15.560	7.25	7.22	7.85	9.68	18.22	8.25	15.31
6.00	**600Q210**	**600H-FK**	213/215TC	14.50	12.00	.688	15.560	7.25	7.22	7.85	9.68	18.22	8.25	15.31

C.D.	N.E.M.A. Frame	N	R	INPUT		OUTPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
						U +.000 -.001	V	W Key											
				Bore	Keyway			Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.33	56C	4.00	3.25	.625	3/16 X 3/32	.625	2.00	.188	1.31	x	x	x	x	x	x	x	x	x	19.7
1.54	56C	4.31	3.25	.625	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	x	x	x	x	x	x	27.3
1.54	143/145TC	4.31	3.25	.875	3/16 X 3/32	.750	1.78	.188	1.25	x	x	x	-	-	-	-	-	-	27.3
1.75	56C	4.31	3.25	.625	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	x	x	x	x	x	x	30.4
1.75	143/145TC	4.31	3.25	.875	3/16 X 3/32	.875	1.88	.188	1.38	x	x	x	-	-	-	-	-	-	30.4
2.06	56C	4.69	3.25	.625	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	x	x	x	x	36.6
2.06	143/145TC	4.69	3.25	.875	3/16 X 3/32	1.000	2.00	.250	1.75	x	x	x	x	x	-	-	-	-	36.6
2.37	56C	5.08	3.25	.625	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	x	x	43.1
2.37	143/145TC	5.08	3.25	.875	3/16 X 3/32	1.125	2.37	.250	1.75	x	x	x	x	x	x	x	-	-	43.1
2.62	56C	5.63	3.25	.625	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	58.4
2.62	143/145TC	5.63	3.25	.875	3/16 X 3/32	1.125	2.50	.250	2.00	-	x	x	x	x	x	x	x	x	58.4
2.62	182/184TC	5.63	4.50	1.125	1/4 X 1/8	1.125	2.50	.250	2.00	x	x	-	-	-	-	-	-	-	58.4
3.00	56C	6.75	3.25	.625	3/16 X 3/32	1.250	3.25	.250	2.25	-	-	x	x	x	x	x	x	x	78.1
3.00	143/145TC	6.75	3.25	.875	3/16 X 3/32	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	78.1
3.00	182/184TC	6.75	4.50	1.125	1/4 X 1/8	1.250	3.25	.250	2.25	-	x	x	x	x	x	x	x	x	78.1
3.25	56C	7.06	3.25	.625	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	98.9
3.25	143/145TC	7.06	3.25	.875	3/16 X 3/32	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	98.9
3.25	182/184TC	7.06	4.50	1.125	1/4 X 1/8	1.375	3.25	.313	2.88	-	x	x	x	x	x	x	x	x	98.9
3.75	56C	7.75	3.38	.625	3/16 X 3/32	1.625	3.50	.375	2.81	-	-	-	-	-	-	x	x	x	133.3
3.75	143/145TC	7.75	3.38	.875	3/16 X 3/32	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	x	133.3
3.75	182/184TC	7.75	4.50	1.125	1/4 X 1/8	1.625	3.50	.375	2.81	-	x	x	x	x	x	x	x	-	133.3
3.75	213/215TC	7.75	4.50	1.375	5/16 X 5/32	1.625	3.50	.375	2.81	-	x	x	-	-	-	-	-	-	133.3
4.50	143/145TC	8.44	3.38	.875	3/16 X 3/32	1.625	3.38	.375	2.50	-	-	-	-	-	-	x	x	x	191.8
4.50	182/184TC	8.44	4.50	1.125	1/4 X 1/8	1.625	3.38	.375	2.50	-	-	x	x	x	x	x	x	x	191.8
4.50	213/215TC	8.44	4.50	1.375	5/16 X 5/32	1.625	3.38	.375	2.50	-	x	x	x	x	-	-	-	-	191.8
5.16	182/184TC	9.06	4.50	1.125	1/4 X 1/8	2.000	4.16	.500	2.81	-	-	-	-	-	-	x	x	x	247.9
5.16	213/215TC	9.06	4.50	1.375	5/16 X 5/32	2.000	4.16	.500	2.81	-	x	x	x	x	x	x	-	-	247.9
6.00	182/184TC	10.00	4.50	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	x	x	x	x	x	x	314.7
6.00	213/215TC	10.00	4.50	1.375	5/16 X 5/32	2.250	4.56	.500	3.50	-	-	-	-	x	x	x	x	x	314.7

Fan Kit

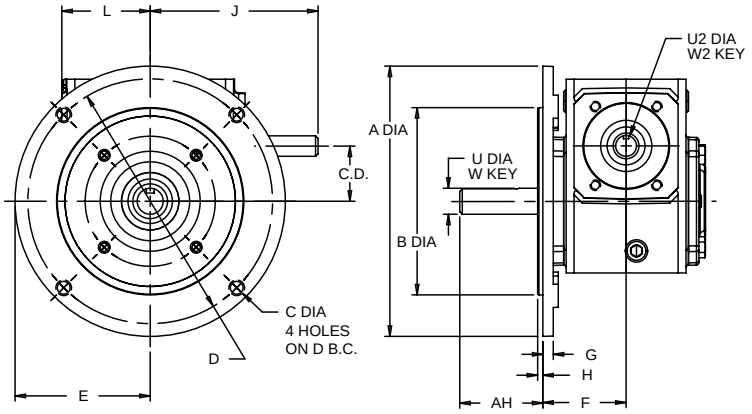
Ref. No.	Fan Kit	AA		Wt. Lbs.
		Tap	Deep	
375Q	**375 FAN**	3/8-24	3/4	2.8
450Q	**450 FAN**	3/8-24	3/4	2.8
516Q	**516 FAN**	3/8-24	3/4	2.8
600Q	**600 FAN**	3/8-24	3/4	4.2

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56H10.

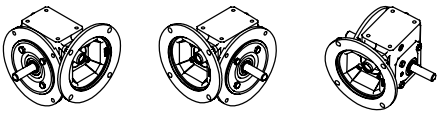
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table at the left.
Consult factory for ratios not shown as standard.

Style QC

C-Face Quilled
C-Face Output Bracket



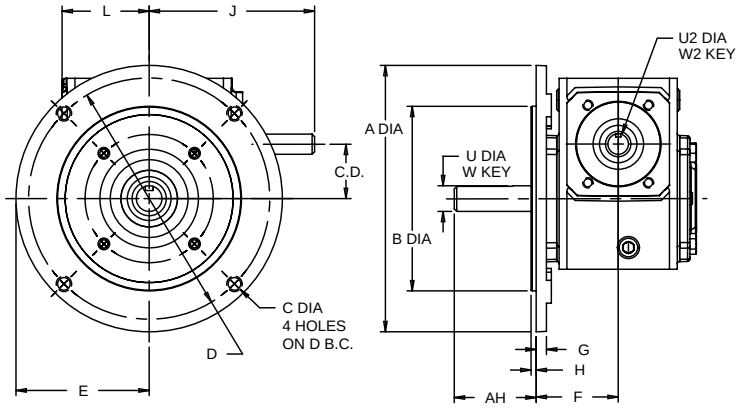
Assembly Drawing and Sample of Components



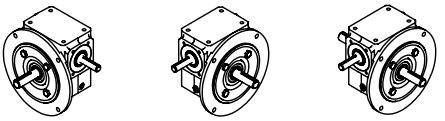
133Q56L10 133TAD Q56 | 133Q56R10 133TAD Q56 | 133Q56LR10 133TAD Q56

Style UC

Universal
C-Face Output Bracket



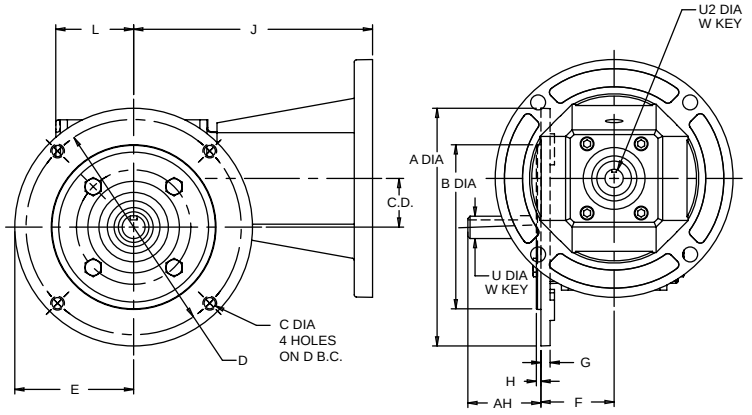
Assembly Drawing and Sample of Components



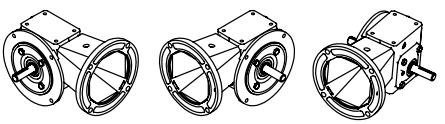
133UL10 133TAD Q56 | 133UR10 133TAD Q56 | 133ULR10 133TAD Q56

Style CC

C-Face Coupled
C-Face Output Bracket



Assembly Drawing and Sample of Components



133UL10 133MAK56 133TAD Q56 | 133UR10 133MAK56 133TAD Q56 | 133ULR10 133MAK56 133TAD Q56

CD	UNIT SIZE	N.E.M.A. FRAME	A	B	C	D	E	F	G	H	AH	J	L	U	W	U2	W2
1.33	133U	56C	6.50	4.50	3/8-16	5.88	3.25	2.00	0.25	0.12	2.00	4.03	2.13	0.50	3/16x3/32	0.625	1/8x1/16
1.75	175U	143/145TC	6.50	4.50	3/8-16	5.88	3.25	2.38	0.25	0.18	1.93	4.69	2.77	0.625	3/16x3/32	0.875	3/16x3/32
2.37	237U	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.49	0.20	0.25	2.59	5.44	3.56	1.125	1/4x1/8	0.75	3/16x3/32
2.62	262U	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.83	0.30	0.25	2.80	6.23	3.69	1.125	1/4x1/8	0.75	3/16x3/32
3.25	325U	213/215TC	9.00	8.50	1/2-13	7.25	4.50	3.64	0.45	0.25	3.42	7.06	4.5	1.375	5/16x5/32	0.875	3/16x3/32

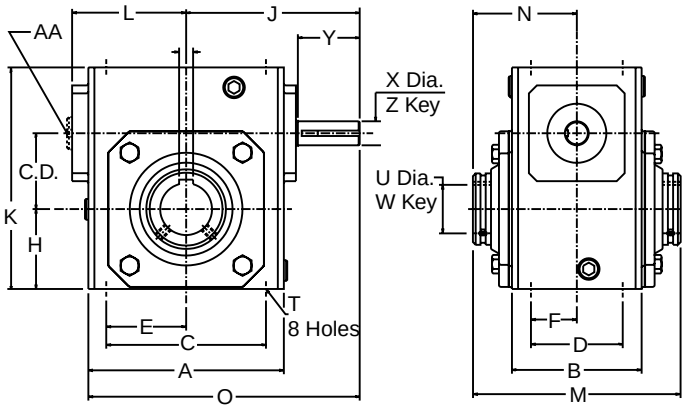
CD	UNIT SIZE	N.E.M.A. FRAME	A	B	C	D	E	F	G	H	AH	J	L	U	W	U2	W2
1.33	133Q	56C	6.50	4.50	3/8-16	5.88	3.25	2.00	0.25	0.12	2.00	4.09	2.13	0.63	3/16x3/32	0.625	1/8x1/16
1.75	175Q	143/145TC	6.50	4.50	3/8-16	5.88	3.25	2.38	0.25	0.18	1.93	4.40	2.77	0.75	3/16x3/32	0.875	3/16x3/32
2.37	237Q	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.49	0.20	0.25	2.59	5.06	3.56	1.125	1/4x1/8	0.88	3/16x3/32
2.62	262Q	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.83	0.30	0.25	2.80	5.69	3.69	1.125	1/4x1/8	1.125	3/16x3/32
3.25	325Q	213/215TC	9.00	8.50	1/2-13	7.25	4.50	3.64	0.45	0.25	3.42	6.56	4.5	1.375	5/16x5/32	1.125	3/16x3/32

CD	UNIT SIZE	FLANGE KIT	N.E.M.A. FRAME	A	B	C	D	E	F	G	H	AH	J	L	U	W	U2	W2
1.33	133C	133TAD Q56	56C	6.50	4.50	3/8-16	5.88	3.25	2.00	0.25	0.12	2.00	6.53	2.13	0.50	3/16x3/32	0.625	1/8x1/16
1.75	175C	175TAD Q140	143/145TC	6.50	4.50	3/8-16	5.88	3.25	2.38	0.25	0.18	1.93	7.00	2.77	0.625	3/16x3/32	0.875	3/16x3/32
2.37	237C	237TAD Q180	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.49	0.20	0.25	2.59	7.69	3.56	1.125	1/4x1/8	0.75	3/16x3/32
2.62	262C	262TAD Q180	182/184TC	9.00	8.50	1/2-13	7.25	4.50	2.83	0.30	0.25	2.80	8.50	3.69	1.125	1/4x1/8	0.75	3/16x3/32
3.25	325C	325TAD Q120	213/215TC	9.00	8.50	1/2-13	7.25	4.50	3.64	0.45	0.25	3.42	9.37	4.5	1.375	5/16x5/32	0.875	3/16x3/32

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56H10.
◆ Components needed to make assembled reducer must be ordered separately.
Consult factory for ratios not shown as standard.

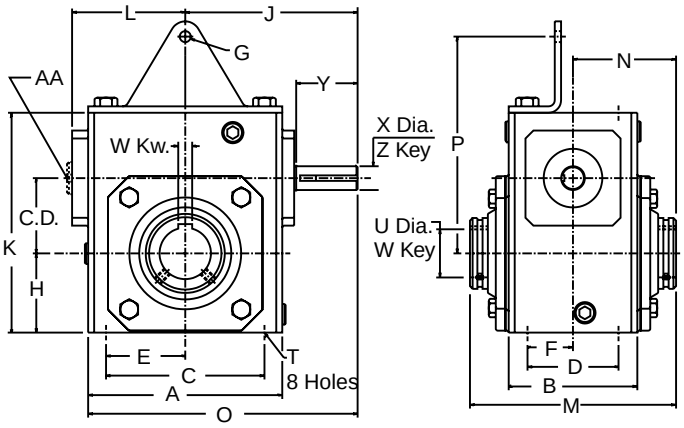
Style UH

Hollow – Basic Unit

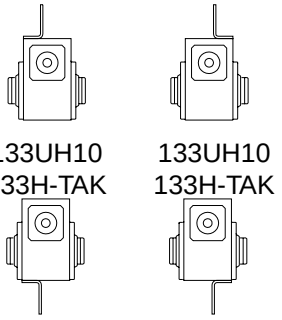


Style UHT

Torque Arm



Assembly Drawing and Sample of Components



133UH10
133H-TAK

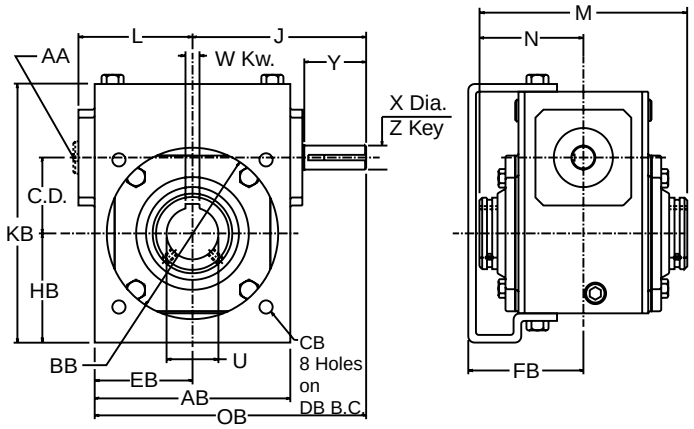
133UH10
133H-TAK

133UH10
133H-TAK

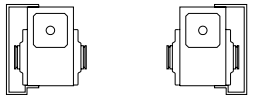
133UH10
133H-TAK

Style UHF

Flange Bracket



Assembly Drawing and Sample of Components



133UH10
133H-FK

Dimensions (Inches) for Style "UH"

C.D.	Basic Unit ★	A	B	C	D	E	F	H	J	K	L	M	N	O
1.33	133UH	4.00	2.88	3.25	2.00	1.63	1.00	1.72	4.03	4.66	2.12	5.31	2.66	6.03
1.54	154UH	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.69	5.38	2.75	6.44	3.22	7.25
1.75	175UH	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.68	5.75	2.75	5.70	2.85	7.09
2.06	206UH	5.50	3.75	5.00	2.88	2.50	1.44	2.28	5.06	6.38	3.00	6.44	3.22	7.73
2.37	237UH	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.44	6.94	3.56	6.31	3.16	8.51
2.62	262UH	7.12	4.44	6.38	3.38	3.19	1.69	2.94	6.23	8.00	3.69	6.88	3.44	9.79
3.00	300UH	8.50	5.50	7.00	4.00	3.50	2.00	3.25	7.00	8.88	4.50	8.38	4.19	11.25
3.25	325UH	8.50	5.00	7.50	4.00	3.75	2.00	3.50	7.06	9.38	4.50	8.50	4.25	11.31
3.75	375UH	9.50	6.38	8.50	4.75	4.25	2.38	3.88	8.38	10.44	5.74	9.63	4.81	13.13
4.50	450UH	10.88	7.38	9.56	5.81	4.78	2.91	4.50	9.59	11.94	6.42	11.13	5.56	15.09
5.16	516UH	12.50	7.38	11.00	5.81	5.50	2.91	5.31	10.69	13.75	7.42	11.31	5.66	16.94
6.00	600UH	14.50	8.13	12.75	6.38	6.38	3.19	6.50	11.75	16.50	8.25	12.63	6.31	19.00

C.D.	T		OUTPUT BORE ✚		INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	Size	Deep	U +.0015 -.0000	W Keyway	X +.000 -.001	Y	Z Key Sq.	Z Key Lgth.	5	10	15	20	25	30	40	50	60	
1.33	5/16-18	.50	.6250	3/16 x 3/32	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	14.0
1.54	5/16-18	.50	1.0000	1/4 x 1/8	.625	1.69	.188	1.25	x	x	x	x	x	x	x	x	x	20.0
1.75	5/16-18	.61	1.0000	1/4 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	23.0
2.06	3/8-16	.61	1.4375	3/8 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	28.0
2.37	3/8-16	.60	1.4375	3/8 x 1/8	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	44.0
2.62	3/5-16	.58	1.9375	1/2 x 1/8	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	54.0
3.00	7/16-14	.80	2.1875	1/2 x 3/16	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	76.0
3.25	7/16-14	.80	2.1875	1/2 x 3/16	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	79.0
3.75	1/2-13	1.00	2.4375	5/8 x 3/16	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	109.0
4.50	5/8-11	1.00	2.9375	3/4 x 1/4	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	140.0
5.16	5/8-11	1.00	3.4375	7/8 x 1/4	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	222.0
6.00	5/8-11	1.00	3.9375	1 x 1/4	1.500	3.75	.375	2.94	x	x	x	x	x	x	x	x	x	321.0

Dimensions (Inches) for Style "UHT" - With Torque Arm

Components ◆		G	P	Wt. Lbs.
Basic Unit ★	Torque Arm Kit			
133UH	133H-TAK	.53	4.16	14.6
154UH	154H-TAK	.53	4.55	20.7
175UH	175H-TAK	.53	5.06	23.9
206UH	206H-TAK	.53	6.07	29.0
237UH	237H-TAK	.53	6.69	45.2
262UH	262H-TAK	.53	7.44	55.4
300UH	300H-TAK	.53	8.25	77.7
325UH	325H-TAK	.53	9.06	81.0
375UH	375H-TAK	.53	9.56	111.6
450UH	450H-TAK	.81	10.94	143.4
516UH	516H-TAK	.81	12.45	227.5
600UH	600H-TAK	.81	14.63	327.9

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

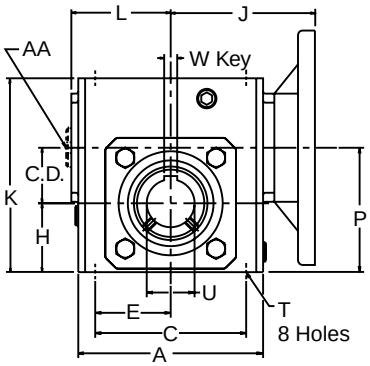
Dimensions (Inches) for Style "UHF" - With Flange

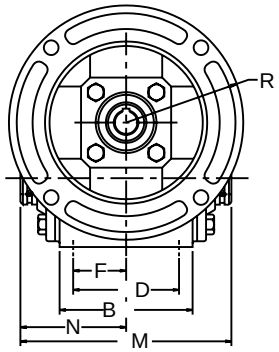
Components ◆		AB	BB	CB	DB	EB	FB	HB	J	KB	L	M	N	OB	Wt. Lbs.
Basic Unit ★	Flange Kit														
133UH	133H-FK	4.25	3.63	.344	5.000	2.13	3.00	2.44	4.03	5.57	2.12	5.31	2.66	6.16	16.7
154UH	154H-FK	4.75	3.63	.344	5.000	2.38	3.56	2.54	4.69	6.20	2.75	6.44	3.22	7.07	23.3
175UH	175H-FK	4.81	4.06	.344	5.875	2.41	3.50	2.78	4.68	6.66	2.75	5.70	2.85	7.09	26.4
206UH	206H-FK	5.75	4.50	.406	6.500	2.88	3.75	3.14	5.06	7.43	3.00	6.44	3.22	7.94	32.6
237UH	237H-FK	6.13	5.00	.406	7.500	3.06	3.72	3.61	5.44	8.24	3.56	6.31	3.16	8.51	49.1
262UH	262H-FK	7.18	6.00	.406	8.000	3.59	4.06	3.94	6.23	9.25	3.69	6.88	3.44	9.82	62.4
300UH	300H-FK	8.50	7.00	.406	9.000	4.25	4.50	4.14	7.00	10.02	4.50	8.38	4.19	11.25	86.1
325UH	325H-FK	8.50	7.00	.563	10.000	4.25	5.25	4.75	7.06	10.89	4.50	8.50	4.25	11.31	90.9
375UH	375H-FK	9.54	8.00	.563	11.500	4.77	5.46	5.04	8.38	11.85	5.74	9.63	4.81	13.13	122.3
450UH	450H-FK	10.88	9.00	.563	11.500	5.44	6.88	5.34	9.59	13.10	6.42	11.13	5.56	15.09	161.8
516UH	516H-FK	12.50	10.00	.688	14.000	6.25	6.58	6.57	10.69	15.33	7.42	11.31	5.66	16.94	248.9
600UH	600H-FK	14.50	12.00	.688	15.560	7.25	7.22	7.85	11.75	18.22	8.25	12.63	6.31	19.00	365.7

★ To complete Part No. add ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits, see the table on page 218.
Consult factory for ratios not shown as standard.

Style QH

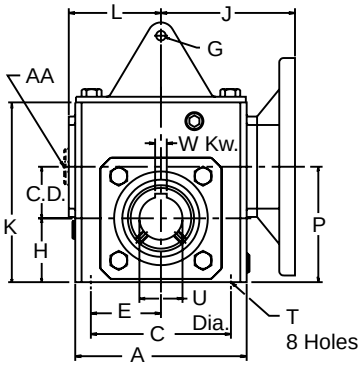
C-Face Quilled–Hollow

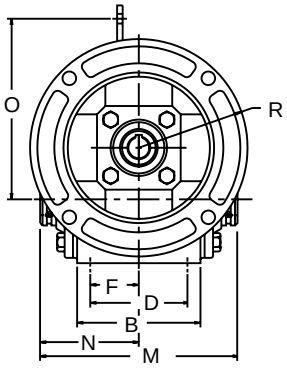




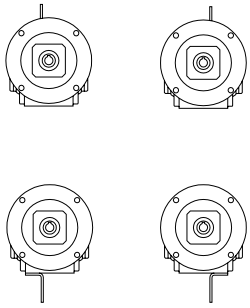
Style QHT

Torque Arm



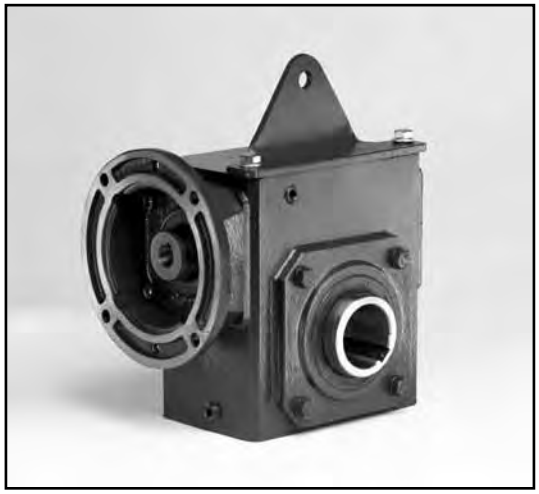


Assembly Drawing and Sample of Components



133Q56H10

133H-TAK



Dimensions (Inches) for Style "QH"

C.D.	Basic Unit ★	N.E.M.A. Frame	A	B	C	D	E	F	H	J	K	L	M	N	P	R
1.33	**133Q56H**	56C	4.00	2.88	3.25	2.00	1.63	1.00	1.72	3.94	4.66	2.12	5.31	2.66	3.05	3.25
1.54	**154Q56H**	56C	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	5.38	2.75	6.44	3.22	3.45	3.25
1.54	**154Q140H**	143/145TC	5.13	3.69	4.19	2.75	2.09	1.38	1.91	4.52	5.38	2.75	6.44	3.22	3.45	3.25
1.75	**175Q56H**	56C	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	5.75	2.75	5.70	2.85	3.81	3.25
1.75	**175Q140H**	143/145TC	4.81	3.38	4.19	2.75	2.09	1.38	2.06	4.38	5.75	2.75	5.70	2.85	3.81	3.25
2.06	**206Q56H**	56C	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	6.38	3.00	6.44	3.22	4.34	3.25
2.06	**206Q140H**	143/145TC	5.50	3.75	5.00	2.88	2.50	1.44	2.28	4.75	6.38	3.00	6.44	3.22	4.34	3.25
2.37	**237Q56H**	56C	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	6.94	3.56	6.31	3.16	4.88	3.25
2.37	**237Q140H**	143/145TC	6.13	4.06	5.00	2.88	2.50	1.44	2.50	5.06	6.94	3.56	6.31	3.16	4.88	3.25
2.62	**262Q56H**	56C	7.12	4.44	6.38	3.38	3.19	1.69	2.94	5.69	8.00	3.69	6.88	3.44	5.57	3.25
2.62	**262Q140H**	143/145TC	7.12	4.44	6.38	3.38	3.19	1.69	2.94	5.69	8.00	3.69	6.88	3.44	5.57	3.25
2.62	**262Q180H**	182/184TC	7.12	4.44	6.38	3.38	3.19	1.69	2.94	6.13	8.00	3.69	6.88	3.44	5.57	4.50
3.00	**300Q56H**	56C	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	8.88	4.50	8.38	4.19	6.25	3.25
3.00	**300Q140H**	143/145TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	5.67	8.88	4.50	8.38	4.19	6.25	3.25
3.00	**300Q180H**	182/184TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	6.45	8.88	4.50	8.38	4.19	6.25	4.50
3.25	**325Q56H**	56C	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.38	4.50	8.50	4.25	6.75	3.25
3.25	**325Q140H**	143/145TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	6.56	9.38	4.50	8.50	4.25	6.75	3.25
3.25	**325Q180H**	182/184TC	8.50	5.00	7.50	4.00	3.75	2.00	3.50	7.00	9.38	4.50	8.50	4.25	6.75	4.50
3.75	**375Q56H**	56C	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	10.44	4.93	9.63	4.81	7.63	3.38
3.75	**375Q140H**	143/145TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	6.01	10.44	4.93	9.63	4.81	7.63	3.38
3.75	**375Q180H**	182/184TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	10.44	4.93	9.63	4.81	7.63	4.50
3.75	**375Q210H**	213/215TC	9.50	6.38	8.50	4.75	4.25	2.38	3.88	7.29	10.44	4.93	9.63	4.81	7.63	4.50
4.50	**450Q140H**	143/145TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	6.69	11.94	6.42	11.13	5.56	9.00	3.38
4.50	**450Q180H**	182/184TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	11.94	6.42	11.31	5.66	9.00	4.50
4.50	**450Q210H**	213/215TC	10.88	7.38	9.56	5.81	4.78	2.91	4.50	7.97	11.94	6.42	11.31	5.66	9.00	4.50
5.16	**516Q180H**	182/184TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	13.75	7.42	11.31	5.66	10.47	4.50
5.16	**516Q210H**	213/215TC	12.50	7.38	11.00	5.81	5.50	2.91	5.31	8.78	13.75	7.42	11.31	5.66	10.47	4.50
6.00	**600Q180H**	182/184TC	14.50	8.13	12.75	6.38	6.38	3.19	6.50	9.68	16.50	8.25	12.63	6.31	12.50	4.50
6.00	**600Q210H**	213/215TC	14.50	8.13	12.75	6.38	6.38	3.19	6.50	9.68	16.50	8.25	12.63	6.31	12.50	4.50

C.D.	N.E.M.A. Frame	T		INPUT		OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
		Size	Deep	Bore	Keyway	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	56C	5/16-18	.50	.625	3/16 x 3/32	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	17.0
1.54	56C	5/16-18	.50	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	22.0
1.54	143/145TC	5/16-18	.50	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	-	-	-	-	-	-	-	22.0
1.75	56C	5/16-18	.61	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	25.0
1.75	143/145TC	5/16-18	.61	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	-	-	-	-	-	-	25.0
2.06	56C	3/8-16	.61	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	33.0
2.06	143/145TC	3/8-16	.61	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	-	-	-	-	33.0
2.37	56C	3/8-16	.60	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	47.0
2.37	143/145TC	3/8-16	.60	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	-	-	47.0
2.62	56C	3/8-16	.58	.625	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	57.0
2.62	143/145TC	3/8-16	.58	.875	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	57.0
2.62	182/184TC	3/8-16	.58	1.125	1/4 x 1/8	1.9375	1/2 x 1/8	x	x	-	-	-	-	-	-	-	57.0
3.00	56C	7/16-14	.80	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	-	x	x	x	x	x	x	x	80.0
3.00	143/145TC	7/16-14	.80	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	80.0
3.00	182/184TC	7/16-14	.80	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	80.0
3.25	56C	7/16-14	.80	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	83.0
3.25	143/145TC	7/16-14	.80	.875	3/16 x 3/32	2.1875	1/2 x 3/16		x	x	x	x	x	x	x	x	83.0
3.25	182/184TC	7/16-14	.80	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	83.0
3.75	56C	1/2-13	1.00	.625	3/16 x 3/32	2.4375	5/8 x 3/16	-	-	-	-	-	-	x	x	x	116.0
3.75	143/145TC	1/2-13	1.00	.875	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	116.0
3.75	182/184TC	1/2-13	1.00	1.125	1/4 x 1/8	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	-	116.0
3.75	213/215TC	1/2-13	1.00	1.375	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	-	-	-	-	-	-	116.0
4.50	143/145TC	5/8-11	1.00	.875	3/16 x 3/32	2.9375	3/4 x 1/4	-	-	-	-	-	-	x	x	x	150.0
4.50	182/184TC	5/8-11	1.00	1.125	1/4 x 1/8	2.9375	3/4 x 1/4	-	-	x	x	x	x	x	x	x	150.0
4.50	213/215TC	5/8-11	1.00	1.375	5/16 x 5/32	2.9375	3/4 x 1/4	-	x	x	x	x	-	-	-	-	150.0
5.16	182/184TC	5/8-11	1.00	1.125	1/4 x 1/8	3.4375	7/8 x 1/4	-	-	-	-	-	-	x	x	x	230.0
5.16	213/215TC	5/8-11	1.00	1.375	5/16 x 5/32	3.4375	7/8 x 1/4	-	x	x	x	x	x	-	-	-	230.0
6.00	182/184TC	5/8-11	1.00	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	x	x	x	x	x	x	344.0
6.00	213/215TC	5/8-11	1.00	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	-	x	x	x	x	x	344.0

Dimensions (Inches) for Style "QHT"

Components ◆		G	O	Wt. Lbs.
Ref. No.	Torque Arm Kit			
133QH	**133H-TAK**	.53	4.16	17.6
154QH	**154H-TAK**	.53	4.55	22.7
175QH	**175H-TAK**	.53	5.06	25.9
206QH	**206H-TAK**	.53	6.07	34.0
237QH	**237H-TAK**	.53	6.69	48.2
262QH	**262H-TAK**	.53	7.44	58.4
300QH	**300H-TAK**	.53	8.25	81.7
325QH	**325H-TAK**	.53	9.06	85.0
375QH	**375H-TAK**	.53	9.56	118.6
450QH	**450H-TAK**	.81	10.94	153.4
516QH	**516H-TAK**	.81	12.45	235.5
600QH	**600H-TAK**	.81	14.63	350.9

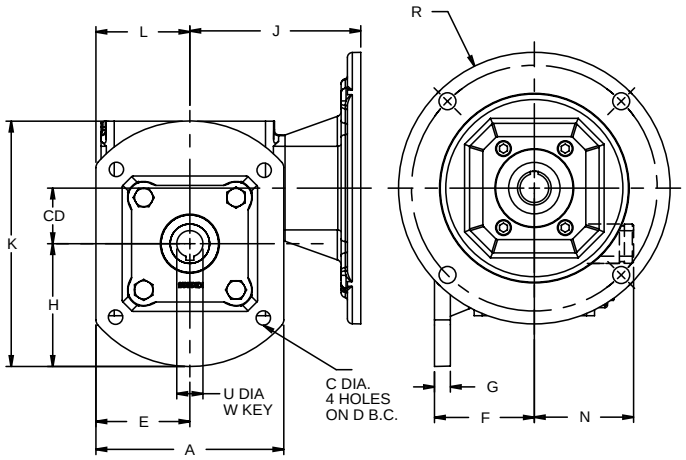
Fan Kit

Ref. No.	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375QH	**375 FAN**	3/8-24	3/4	7.66	2.8
450QH	**450 FAN**	3/8-24	3/4	8.36	2.8
516QH	**516 FAN**	3/8-24	3/4	9.18	2.8
600QH	**600 FAN**	3/8-24	3/4	10.70	4.2

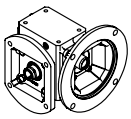
★ To complete Part No. add ratio symbol to size - for example 133Q56H10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits, see the table on page 218. Consult factory for ratios not shown as standard.

Style QHCF

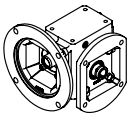
C-Face Quilled
Cast Iron Output Flange Hollow



Assembly Drawing and Sample of Components



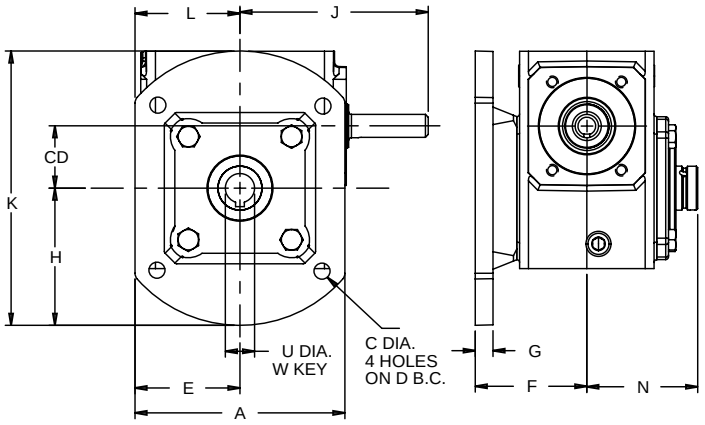
133Q56H10
133H-SK



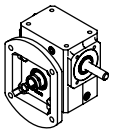
133Q56H10
133H-SK

Style UHCF

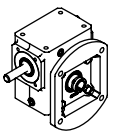
Universal
Cast Iron Output Flange Hollow



Assembly Drawing and Sample of Components



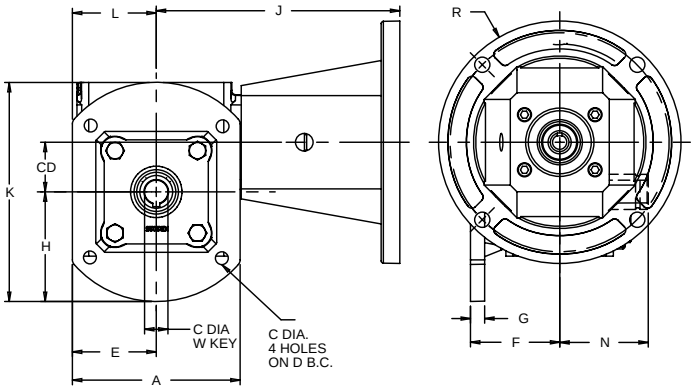
133UH10
133H-SK



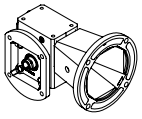
133UH10
133H-SK

Style CHCF

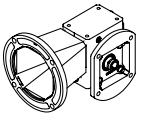
C-Face Coupled
Cast Iron Output Flange Hollow



Assembly Drawing and Sample of Components



133UH10
133MAK56
133H-SK



133UH10
133MAK56
133H-SK

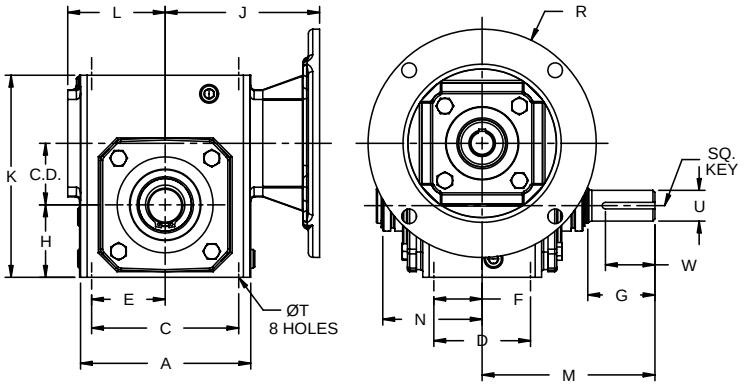
C.D.	COMPONENTS ◆		N.E.M.A. FRAME	A	C	D	E	F	G	H	J	K	L
	PART NO. ★	FLANGE KIT											
1.33	**133Q56H**	133C-FK	56C	4.50	0.344	5.00	2.25	3.00	0.38	2.94	4.09	5.88	2.25
1.54	**154Q56H**	154C-FK	56C	4.50	0.344	5.00	2.25	3.54	0.28	2.88	4.5	5.75	2.25
1.54	**154Q140H**	154C-FK	143/145TC	4.50	0.344	5.00	2.25	3.54	0.28	2.88	4.5	5.75	2.25
1.75	**175Q56H**	175C-FK	56C	4.88	0.344	5.87	2.44	3.50	0.38	3.38	4.38	6.75	2.44
1.75	**175Q141H**	175C-FK	143/145TC	4.88	0.344	5.87	2.44	3.50	0.38	3.38	4.38	6.75	2.44
2.06	**206Q56H**	206C-FK	56C	5.75	0.344	7.00	2.88	3.75	0.38	1.44	4.75	7.87	2.88
2.06	**206Q140H**	206C-FK	143/145TC	5.75	0.406	7.00	2.88	3.75	0.38	1.44	4.75	7.87	2.88
2.37	**237Q56H**	237C-FK	56C	6.80	0.406	7.50	3.40	3.74	0.38	4.30	5.06	8.60	3.40
2.37	**237Q140H**	237C-FK	143/145TC	6.80	0.406	7.50	3.40	3.74	0.38	4.30	5.06	8.60	3.40
2.62	**262Q56H**	262C-FK	56C	7.75	0.406	8.00	3.88	4.06	0.38	4.44	5.69	8.88	3.88
2.62	**262Q140H**	262C-FK	143/145TC	7.75	0.406	8.00	3.88	4.06	0.38	4.44	5.69	8.88	3.88
2.62	**262Q180H**	262C-FK	182/184TC	7.75	0.406	8.00	3.88	4.06	0.38	4.44	6.13	8.88	3.88
3.00	**300Q56H**	300C-FK	56	8.20	0.406	9.00	4.10	4.75	0.38	5.08	5.67	10.15	4.10
3.00	**300Q140H**	300C-FK	143/145TC	8.20	0.406	9.00	4.10	4.75	0.38	5.08	5.67	10.15	4.10
3.00	**300Q180H**	300C-FK	182/184TC	8.20	0.406	9.00	4.10	4.75	0.38	5.08	6.45	10.15	4.10
3.25	**325Q56H**	325C-FK	56C	9.00	0.531	10.00	4.50	5.25	0.50	5.50	6.56	11.00	4.50
3.25	**325Q140H**	325C-FK	143/145TC	9.00	0.531	10.00	4.50	5.25	0.50	5.50	6.56	11.00	4.50
3.25	**325Q180H**	325C-FK	182/184TC	9.00	0.531	10.00	4.50	5.25	0.50	5.50	7.00	11.00	4.50

C.D.	N.E.M.A. FRAME			INPUT		OUTPUT BORE		STOCK RATIOS MARKED "X"								
						U	W KEYWAY									
		N	R	BORE	KEYWAY	+.0015/-.0000		5	10	15	20	25	30	40	50	60
1.33	56C	2.38	3.25	0.625	3/16x3/32	0.625	3/16x3/32	x	x	x	x	x	x	x	x	x
1.54	56C	3.22	3.25	0.625	3/16x3/32	1.000	1/4x1/8	x	x	x	x	x	x	x	x	x
1.54	143/145TC	3.22	3.25	0.875	3/16x3/32	1.000	1/4x1/8	x	x	-	-	-	-	-	-	-
1.75	56C	2.85	3.25	0.625	3/16x3/32	1.000	1/4x1/8	x	x	x	x	x	x	x	x	x
1.75	143/145TC	2.85	3.25	0.875	3/16x3/32	1.000	1/4x1/8	x	x	x	-	-	-	-	-	-
2.06	56C	3.22	3.25	0.625	3/16x3/32	1.438	3/8x1/8	x	x	x	x	x	x	x	x	x
2.06	143/145TC	3.22	3.25	0.875	3/16x3/32	1.438	3/8x1/8	x	x	x	x	x	-	-	-	-
2.37	56C	3.16	3.25	0.625	3/16x3/32	1.438	3/8x1/8	x	x	x	x	x	x	x	x	x
2.37	143/145TC	3.16	3.25	0.875	3/16x3/32	1.438	3/8x1/8	x	x	x	x	x	x	x	-	-
2.62	56C	3.44	3.25	0.625	3/16x3/32	1.938	1/2x1/8	-	x	x	x	x	x	x	x	x
2.62	143/145TC	3.44	3.25	0.875	3/16x3/32	1.938	1/2x1/8	-	x	x	x	x	x	x	x	x
2.62	182/184TC	3.44	4.50	1.125	1/4x1/8	1.938	1/2x1/8	x	x	-	-	-	-	-	-	-
3.00	56C	4.19	3.25	0.625	3/16x3/32	2.188	1/2x3/16	-	-	x	x	x	x	x	x	x
3.00	143/145TC	4.19	3.25	0.875	3/16x3/32	2.188	1/2x3/16	-	x	x	x	x	x	x	x	x
3.00	182/184TC	4.19	4.50	1.125	1/4x1/8	2.188	1/2x3/16	-	x	x	x	x	x	x	x	x
3.25	56C	4.25	3.25	0.625	3/16x3/32	2.188	1/2x3/16	-	x	x	x	x	x	x	x	x
3.25	143/145TC	4.25	3.25	0.875	3/16x3/32	2.188	1/2x3/16	-	x	x	x	x	x	x	x	x
3.25	182/184TC	4.25	4.50	1.125	1/4x1/8	2.188	1/2x3/16	-	x	x	x	x	x	x	x	x

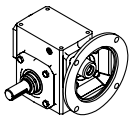
★ To complete Part No. add ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits, see the table on page 218.
Consult factory for ratios not shown as standard.

Style QHP

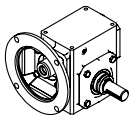
C-Face Quilled
Plug In Shaft



Assembly Drawing and Sample of Components



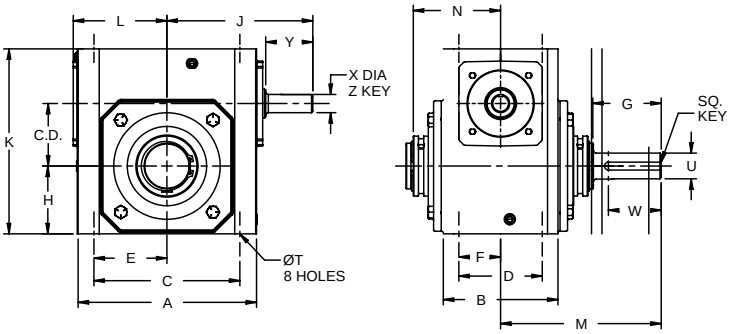
133Q56H10
133H-SK



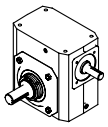
133Q56H10
133H-SK

Style UHP

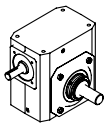
Universal
Plug In Shaft



Assembly Drawing and Sample of Components



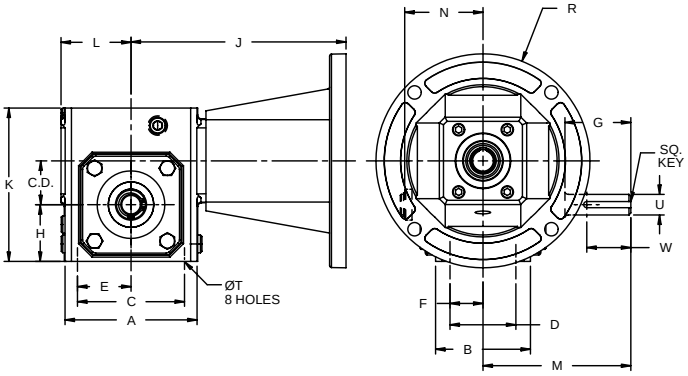
133UH10
133H-SK



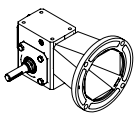
133UH10
133H-SK

Style CHP

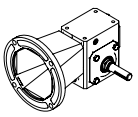
C-Face Coupled
Plug In Shaft



Assembly Drawing and Sample of Components



133UH10
133MAK56
133H-SK



133UH10
133MAK56
133H-SK

DIMENSIONS (INCHES) FOR STYLE "QH"

C.D.	BASIC UNIT	SHAFT KIT	N.E.M.A. FRAME	A	B	C	D	E	F	G	H	J	K	L	M	N	R
1.33	133Q56H	133H-SK	56C	4.00	2.88	3.25	2.00	1.63	1.00	2.00	1.72	3.94	4.66	2.12	4.49	2.66	3.25
1.54	154Q56H	154H-SK	56C	5.13	3.69	4.19	2.75	2.09	1.38	1.81	1.91	4.52	5.38	2.75	4.90	3.22	3.25
1.54	154Q140H	154H-SK	143/145TC	5.13	3.69	4.19	2.75	2.09	1.38	1.81	1.91	4.52	5.38	2.75	4.90	3.22	3.25
1.75	175Q56H	175H-SK	56C	4.81	3.38	4.19	2.75	2.09	1.38	1.91	2.06	4.38	5.75	2.75	4.92	2.85	3.25
1.75	175Q140H	175H-SK	143/145TC	4.81	3.38	4.19	2.75	2.09	1.38	1.91	2.06	4.38	5.75	2.75	4.92	2.85	3.25
2.06	206Q56H	206H-SK	56C	5.50	3.75	5.00	2.88	2.50	1.44	2.00	2.28	4.75	6.38	3.00	5.43	3.22	3.25
2.06	206Q140H	206H-SK	143/145TC	5.50	3.75	5.00	2.88	2.50	1.44	2.00	2.28	4.75	6.38	3.00	5.43	3.22	3.25
2.37	237Q56H	237H-SK	56C	6.13	4.06	5.00	2.88	2.50	1.44	2.37	2.50	5.06	6.94	3.56	5.74	3.16	3.25
2.37	237Q140H	237H-SK	143/145TC	6.13	4.06	5.00	2.88	2.50	1.44	2.37	2.50	5.06	6.94	3.56	5.74	3.16	3.25
2.62	262Q56H	262H-SK	56C	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	5.69	8.00	3.69	6.21	3.44	3.25
2.62	262Q140H	262H-SK	143/145TC	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	5.69	8.00	3.69	6.21	3.44	3.25
2.62	262Q180H	262H-SK	182/184TC	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	6.13	8.00	3.69	6.21	3.44	4.50
3.00	300Q56H	300H-SK	56C	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	5.67	8.88	4.50	7.74	4.19	3.25
3.00	300Q140H	300H-SK	143/145TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	5.67	8.88	4.50	7.74	4.19	3.25
3.00	300Q180H	300H-SK	182/184TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	6.45	8.88	4.50	7.74	4.19	4.50
3.25	325Q56H	325H-SK	56C	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	6.56	9.38	4.50	7.74	4.25	3.25
3.25	325Q140H	325H-SK	143/145TC	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	6.56	9.38	4.50	7.74	4.25	3.25
3.25	325Q180H	325H-SK	182/184TC	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	7.00	9.38	4.50	7.74	4.25	4.50

C.D.	N.E.M.A. FRAME	T		OUTPUT SHAFT U	OUTPUT SHAFT W	OUTPUT SHAFT SQ	INPUT SHAFT		STOCK RATIOS MARKED "X"									WT.
		SIZE	DEEP	+.0015/.0000	KW LGTH	KEY	BORE	KEYWAY	5	10	15	20	25	30	40	50	60	LBS.
1.33	56C	5/16-18	0.50	0.625	1.313	0.188	0.625	3/16X3/32	X	X	X	X	X	X	X	X	X	17.0
1.54	56C	5/16-18	0.50	1.000	1.250	0.188	0.625	3/16X3/32	X	X	X	X	X	X	X	X	X	22.0
1.54	143/145TC	5/16-18	0.50	1.000	1.250	0.188	0.875	3/16X3/32	X	X	-	-	-	-	-	-	-	22.0
1.75	56C	5/16-18	0.61	1.000	1.375	0.188	0.625	3/16X3/32	X	X	X	X	X	X	X	X	X	25.0
1.75	143/145TC	5/16-18	0.61	1.000	1.375	0.188	0.875	3/16X3/32	X	X	X	-	-	-	-	-	-	25.0
2.06	56C	3/8-16	0.61	1.438	1.750	0.250	0.625	3/16X3/32	-	X	X	X	X	X	X	X	X	33.0
2.06	143/145TC	3/8-16	0.61	1.438	1.750	0.250	0.875	3/16X3/32	X	X	X	X	X	-	-	-	-	33.0
2.37	56C	3/8-16	0.60	1.438	1.750	0.250	0.625	3/16X3/32	-	X	X	X	X	X	X	X	X	47.0
2.37	143/145TC	3/8-16	0.60	1.438	1.750	0.250	0.875	3/16X3/32	X	X	X	X	X	X	X	-	-	14.0
2.62	56C	3/8-16	0.58	1.938	2.000	0.250	0.625	3/16X3/32	-	X	X	X	X	X	X	X	X	57.0
2.62	143/145TC	3/8-16	0.58	1.938	2.000	0.250	0.875	3/16X3/32	-	X	X	X	X	X	X	X	X	57.0
2.62	182/184TC	3/8-16	0.58	1.938	2.000	0.250	1.125	1/4X1/8	X	X	-	-	-	-	-	-	-	57.0
3.00	56C	7/16-14	0.80	2.188	2.250	0.250	0.625	3/16X3/32	-	-	X	X	X	X	X	X	X	80.0
3.00	143/145TC	7/16-14	0.80	2.188	2.250	0.250	0.875	3/16X3/32	-	X	X	X	X	X	X	X	X	80.0
3.00	182/184TC	7/16-14	0.80	2.188	2.250	0.250	1.125	1/4X1/8	-	X	X	X	X	X	X	X	X	80.0
3.25	56C	7/16-14	0.80	2.188	2.875	0.313	0.625	3/16X3/32	-	X	X	X	X	X	X	X	X	53.0
3.25	143/145TC	7/16-14	0.80	2.188	2.875	0.313	0.875	3/16X3/32	-	X	X	X	X	X	X	X	X	53.0
3.25	182/184TC	7/16-14	0.80	2.188	2.875	0.313	1.125	1/4X1/8	-	X	X	X	X	X	X	X	X	53.0

DIMENSIONS (INCHES) FOR STYLE "UH"

C.D.	BASIC UNIT	A	B	C	D	E	F	G	H	J	K	L	M	N
1.33	**133UH**	4.00	2.88	3.25	2.00	1.63	1.00	2.00	1.72	4.03	4.66	2.12	4.49	2.66
1.54	**154UH**	5.13	3.69	4.19	2.75	2.09	1.38	1.81	1.91	4.69	5.38	2.75	4.90	3.22
1.75	**175UH**	4.81	3.38	4.19	2.75	2.09	1.38	1.91	2.06	4.68	5.75	2.75	4.92	2.85
2.06	**206UH**	5.50	3.75	5.00	2.88	2.50	1.44	2.00	2.28	5.06	6.38	3.00	5.43	3.22
2.37	**237UH**	6.13	4.06	5.00	2.88	2.50	1.44	2.37	2.50	5.44	6.94	3.56	5.74	3.16
2.62	**262UH**	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	6.23	8.00	3.69	6.21	3.44
3.00	**300UH**	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	7.00	8.88	4.50	7.74	4.19
3.25	**325UH**	5.00	5.00	7.50	4.00	3.75	2.00	3.25	3.50	7.06	9.38	4.50	7.74	4.29

C.D.	T		OUTPUT SHAFT U	OUTPUT SHAFT W	OUTPUT SHAFT SQ	INPUT SHAFT X	INPUT SHAFT Y	INPUT SHAFT Z KEY		STOCK RATIOS MARKED "X"										WT.
	SIZE	DEEP	+.0015/.0000	KW LGTH	KEY	+.000/-.001		SQ.	LGTH.	5	10	15	20	25	30	40	50	60	60	LBS.
1.33	5/16-18	0.50	0.625	1.313	0.188	0.500	1.81	0.125	1.38	X	X	X	X	X	X	X	X	X	X	14.0
1.54	5/16-18	0.50	1.000	1.250	0.188	0.625	1.69	0.188	1.25	X	X	X	X	X	X	X	X	X	X	20.0
1.75	5/16-18	0.61	1.000	1.375	0.188	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	X	23.0
2.06	3/8-16	0.61	1.438	1.750	0.250	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	X	28.0
2.37	3/8-16	0.60	1.438	1.750	0.250	0.750	1.94	0.188	1.31	X	X	X	X	X	X	X	X	X	X	44.0
2.62	3/8-16	0.58	1.938	2.000	0.250	0.750	2.31	0.188	1.88	X	X	X	X	X	X	X	X	X	X	54.0
3.00	7/16-14	0.80	2.188	2.250	0.250	0.875	2.26	0.188	1.31	X	X	X	X	X	X	X	X	X	X	76.0
3.25	7/16-14	0.80	2.188	2.875	0.313	0.875	2.31	0.188	1.63	-	X	X	X	X	X	X	X	X	X	79.0

DIMENSIONS (INCHES) FOR STYLE "CH"

C.D.	BASIC UNIT	N.E.M.A. FRAME	A	B	C	D	E	F	G	H	J	K	L	M	N	R
1.33	133Q56H	56C	4.00	2.88	3.25	2.00	1.63	1.00	2.00	1.72	6.38	4.66	2.12	4.49	2.66	3.25
1.54	154Q56H	56C	5.13	3.69	4.19	2.75	2.09	1.38	1.81	1.91	7.13	5.38	2.75	4.90	3.22	3.25
1.54	154Q140H	143/145TC	5.13	3.69	4.19	2.75	2.09	1.38	1.81	1.91	7.13	5.38	2.75	4.90	3.22	3.25
1.75	175Q56H	56C	4.81	3.38	4.19	2.75	2.09	1.38	1.91	2.06	7.00	5.75	2.75	4.92	2.85	3.25
1.75	175Q140H	143/145TC	4.81	3.38	4.19	2.75	2.09	1.38	1.91	2.06	7.00	5.75	2.75	4.92	2.85	3.25
2.06	206Q56H	56C	5.50	3.75	5.00	2.88	2.50	1.44	2.00	2.28	7.37	6.38	3.00	5.43	3.22	3.25
2.06	206Q140H	143/145TC	5.50	3.75	5.00	2.88	2.50	1.44	2.00	2.28	7.37	6.38	3.00	5.43	3.22	3.25
2.37	237Q56H	56C	6.13	4.06	5.00	2.88	2.50	1.44	2.37	2.50	7.69	6.94	3.56	5.74	3.16	3.25
2.37	237Q140H	143/145TC	6.13	4.06	5.00	2.88	2.50	1.44	2.37	2.50	7.69	6.94	3.56	5.74	3.16	3.25
2.62	262Q56H	56C	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	8.50	8.00	3.69	6.21	3.44	3.25
2.62	262Q140H	143/145TC	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	8.50	8.00	3.69	6.21	3.44	3.25
2.62	262Q180H	182/184TC	7.12	4.44	6.38	3.38	3.19	1.69	2.50	2.94	9.72	8.00	3.69	6.21	3.44	4.50
3.00	300Q56H	56C	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	9.35	8.88	4.50	7.74	4.19	3.25
3.00	300Q140H	143/145TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	9.35	8.88	4.50	7.74	4.19	3.25
3.00	300Q180H	182/184TC	8.50	5.50	7.00	4.00	3.50	2.00	3.25	3.25	10.57	8.88	4.50	7.74	4.19	4.50
3.25	325Q56H	56C	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	9.37	9.38	4.50	7.74	4.25	3.25
3.25	325Q140H	143/145TC	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	9.37	9.38	4.50	7.74	4.25	3.25
3.25	325Q180H	182/184TC	8.50	5.00	7.50	4.00	3.75	2.00	3.25	3.50	10.59	9.38	4.50	7.74	4.25	4.50

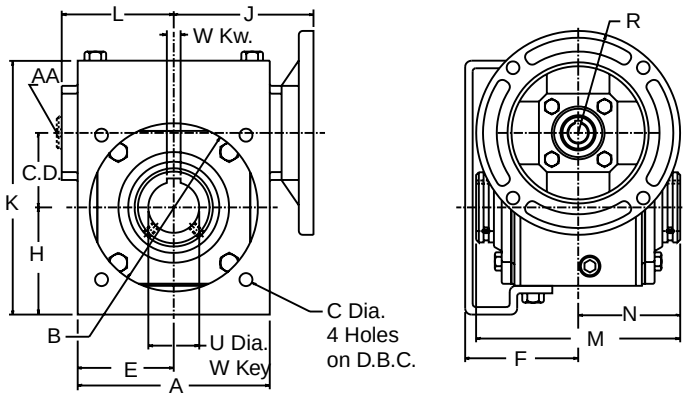
C.D.	N.E.M.A. FRAME	T		OUTPUT SHAFT U	OUTPUT SHAFT W	OUTPUT SHAFT SQ	INPUT SHAFT X	INPUT SHAFT Y	INPUT SHAFT Z KEY		STOCK RATIOS MARKED "X"										WT.
		SIZE	DEEP	+.0015 /.0000	KW LGTH	KEY	+.000/-.001		SQ.	LGTH.	5	10	15	20	25	30	40	50	60	LBS.
1.33	56C	5/16-18	0.50	0.625	1.313	0.188	0.500	1.81	0.125	1.38	X	X	X	X	X	X	X	X	X	17.0
1.54	56C	5/16-18	0.50	1.000	1.250	0.188	0.625	1.69	0.188	1.25	X	X	X	X	X	X	X	X	X	22.0
1.54	143/145TC	5/16-18	0.50	1.000	1.250	0.188	0.625	1.69	0.188	1.25	X	X	X	X	X	X	X	X	X	22.0
1.75	56C	5/16-18	0.61	1.000	1.375	0.188	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	25.0
1.75	143/145TC	5/16-18	0.61	1.000	1.375	0.188	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	25.0
2.06	56C	3/8-16	0.61	1.438	1.750	0.250	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	33.0
2.06	143/145TC	3/8-16	0.61	1.438	1.750	0.250	0.625	1.81	0.188	1.50	X	X	X	X	X	X	X	X	X	33.0
2.37	56C	3/8-16	0.60	1.438	1.750	0.250	0.750	1.94	0.188	1.31	X	X	X	X	X	X	X	X	X	47.0
2.37	143/145TC	3/8-16	0.60	1.438	1.750	0.250	0.750	1.94	0.188	1.31	X	X	X	X	X	X	X	X	X	14.0
2.62	56C	3/8-16	0.58	1.938	2.000	0.250	0.750	2.31	0.188	1.88	X	X	X	X	X	X	X	X	X	57.0
2.62	143/145TC	3/8-16	0.58	1.938	2.000	0.250	0.750	2.31	0.188	1.88	X	X	X	X	X	X	X	X	X	57.0
2.62	182/184TC	3/8-16	0.58	1.938	2.000	0.250	0.750	2.31	0.188	1.88	X	X	X	X	X	X	X	X	X	57.0
3.00	56C	7/16-14	0.80	2.188	2.250	0.250	0.875	2.26	0.188	1.31	X	X	X	X	X	X	X	X	X	80.0
3.00	143/145TC	7/16-14	0.80	2.188	2.250	0.250	0.875	2.26	0.188	1.31	X	X	X	X	X	X	X	X	X	80.0
3.00	182/184TC	7/16-14	0.80	2.188	2.250	0.250	0.875	2.26	0.188	1.31	X	X	X	X	X	X	X	X	X	80.0
3.25	56C	7/16-14	0.80	2.188	2.875	0.313	0.875	2.31	0.188	1.63	-	X	X	X	X	X	X	X	X	53.0
3.25	143/145TC	7/16-14	0.80	2.188	2.875	0.313	0.875	2.31	0.188	1.63	-	X	X	X	X	X	X	X	X	53.0
3.25	182/184TC	7/16-14	0.80	2.188	2.875	0.313	0.875	2.31	0.188	1.63	-	X	X	X	X	X	X	X	X	53.0

★ To complete Part No. add shaft assembly (L, R, LR) and ratio symbol to size - for example 133Q56H10.

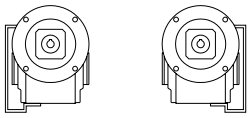
◆ Components needed to make assembled reducer must be ordered separately.
Consult factory for ratios not shown as standard.

Style QHF

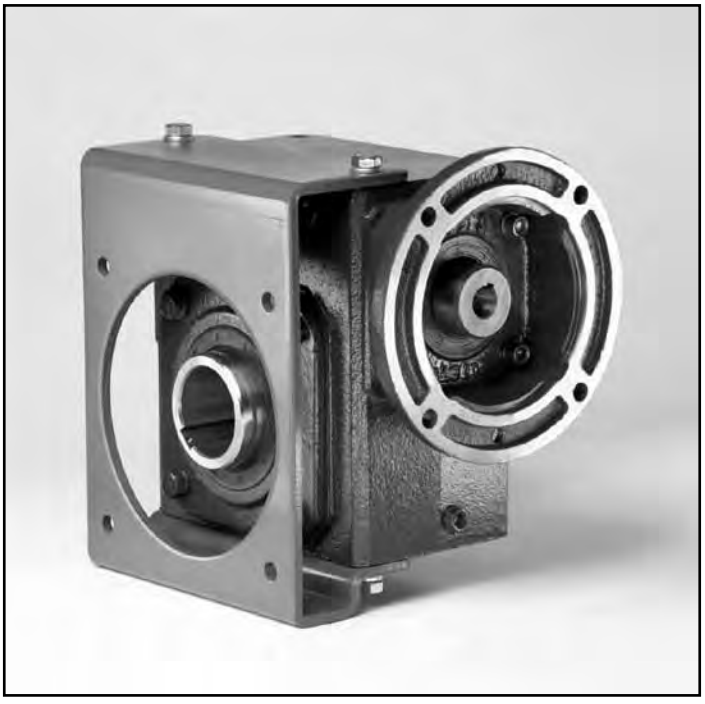
Flange Bracket



Assembly Drawing and Sample of Components



133Q56H10
133H-FK



Dimensions (Inches) for Style "QHF" - With Flange

C.D.	Components ◆		N.E.M.A. Frame	A	B	C	D	E	F	H	J	K	L	M
	Part No. ★	Flange Kit												
1.33	133Q56H	133H-FK	56C	4.25	3.63	0.34	5.00	2.13	3.00	2.44	3.94	5.57	2.12	5.31
1.54	154Q56H	154H-FK	56C	4.75	3.63	0.34	5.00	2.38	3.56	2.54	4.52	6.20	2.75	6.44
1.54	154Q140H	154H-FK	143/145TC	4.75	3.63	0.34	5.00	2.38	3.56	2.54	4.52	6.20	2.75	6.44
1.75	175Q56H	175H-FK	56C	4.81	4.06	0.34	5.88	2.41	3.50	2.78	4.38	6.66	2.75	5.70
1.75	175Q140H	175H-FK	143/145TC	4.81	4.06	0.34	5.88	2.41	3.50	2.78	4.38	6.66	2.75	5.70
2.06	206Q56H	206H-FK	56C	5.75	4.50	0.41	6.50	2.88	3.75	3.14	4.75	7.43	3.00	6.44
2.06	206Q140H	206H-FK	143/145TC	5.75	4.50	0.41	6.50	2.88	3.75	3.14	4.75	7.43	3.00	6.44
2.37	237Q56H	237H-FK	56C	6.13	5.00	0.41	7.50	3.06	3.72	3.61	5.06	8.24	3.56	6.31
2.37	237Q140H	237H-FK	143/145TC	6.13	5.00	0.41	7.50	3.06	3.72	3.61	5.06	8.24	3.56	6.31
2.62	262Q56H	262H-FK	56C	7.18	6.00	0.41	8.00	3.59	4.06	3.94	5.69	9.25	3.69	6.88
2.62	262Q140H	262H-FK	143/145TC	7.18	6.00	0.41	8.00	3.59	4.06	3.94	5.69	9.25	3.69	6.88
2.62	262Q180H	262H-FK	182/184TC	7.18	6.00	0.41	8.00	3.59	4.06	3.94	6.13	9.25	3.69	6.88
3.00	300Q56H	300H-FK	56C	8.50	7.00	0.41	9.00	4.25	4.50	4.14	5.67	10.02	4.50	8.38
3.00	300Q140H	300H-FK	143/145TC	8.50	7.00	0.41	9.00	4.25	4.50	4.14	5.67	10.02	4.50	8.38
3.00	300Q180H	300H-FK	182/184TC	8.50	7.00	0.41	9.00	4.25	4.50	4.14	6.45	10.02	4.50	8.38
3.25	325Q56H	325H-FK	56C	8.50	7.00	0.56	10.00	4.25	5.25	4.75	6.56	10.89	4.50	8.50
3.25	325Q140H	325H-FK	143/145TC	8.50	7.00	0.56	10.00	4.25	5.25	4.75	6.56	10.89	4.50	8.50
3.25	325Q180H	325H-FK	182/184TC	8.50	7.00	0.56	10.00	4.25	5.25	4.75	7.00	10.89	4.50	8.50
3.75	375Q56H	375H-FK	56C	9.54	8.00	0.56	11.50	4.77	5.46	5.04	6.01	11.85	4.93	9.63
3.75	375Q140H	375H-FK	143/145TC	9.54	8.00	0.56	11.50	4.77	5.46	5.04	6.01	11.85	4.93	9.63
3.75	375Q180H	375H-FK	182/184TC	9.54	8.00	0.56	11.50	4.77	5.46	5.04	7.29	11.85	4.93	9.63
3.75	375Q210H	375H-FK	213/215TC	9.54	8.00	0.56	11.50	4.77	5.46	5.04	7.29	11.85	4.93	9.63
4.50	450Q140H	450H-FK	143/145TC	10.88	9.00	0.56	11.50	5.44	6.88	5.34	6.69	13.10	6.42	11.13
4.50	450Q180H	450H-FK	182/184TC	10.88	9.00	0.56	11.50	5.44	6.88	5.34	7.97	13.10	6.42	11.13
4.50	450Q210H	450H-FK	213/215TC	10.88	9.00	0.56	14.00	5.44	6.88	5.34	7.97	13.10	6.42	11.13
5.16	516Q180H	516H-FK	182/184TC	12.50	10.00	0.69	14.00	6.25	6.58	6.57	8.78	15.33	7.42	11.13
5.16	516Q210H	516H-FK	213/215TC	12.50	10.00	0.69	14.00	6.25	6.58	6.57	8.78	15.33	7.42	11.13
6.00	600Q180H	600H-FK	182/184TC	14.50	12.00	0.69	15.56	7.25	7.22	7.85	9.68	18.22	8.25	12.63
6.00	600Q210H	600H-FK	213/215TC	14.50	12.00	0.69	15.56	7.25	7.22	7.85	9.68	18.22	8.25	12.63

C.D.	N.E.M.A. Frame	N	R	INPUT		OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
				Bore	Keyway	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	56C	2.66	3.25	.625	3/16 x 3/32	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	19.7
1.54	56C	3.22	3.25	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	25.3
1.54	143/145TC	3.22	3.25	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	-	-	-	-	-	-	-	25.3
1.75	56C	2.85	3.25	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	28.4
1.75	143/145TC	2.85	3.25	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	-	-	-	-	-	-	28.4
2.06	56C	3.22	3.25	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	37.6
2.06	143/145TC	3.22	3.25	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	-	-	-	-	37.6
2.37	56C	3.16	3.25	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	52.1
2.37	143/145TC	3.16	3.25	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	-	-	52.1
2.62	56C	3.44	3.25	.625	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	65.4
2.62	143/145TC	3.44	3.25	.875	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	65.4
2.62	182/184TC	3.44	4.50	1.125	1/4 x 1/8	1.9375	1/2 x 1/8	x	x	-	-	-	-	-	-	-	65.4
3.00	56C	4.19	3.25	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	-	x	x	x	x	x	x	x	90.1
3.00	143/145TC	4.19	3.25	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	90.1
3.00	182/184TC	4.19	4.50	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	90.1
3.25	56C	4.25	3.25	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	94.9
3.25	143/145TC	4.25	3.25	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	94.9
3.25	182/184TC	4.25	4.50	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	94.9
3.75	56C	4.81	3.38	.625	3/16 x 3/32	2.4375	5/8 x 3/16	-	-	-	-	-	-	x	x	x	129.3
3.75	143/145TC	4.81	3.38	.875	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	129.3
3.75	182/184TC	4.81	4.50	1.125	1/4 x 1/8	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	-	129.3
3.75	213/215TC	4.81	4.50	1.375	5/16 x 5/32	2.4375	5/8 x 3/16	-	x	x	-	-	-	-	-	-	129.3
4.50	143/145TC	5.56	3.38	.875	3/16 x 3/32	2.9375	3/4 x 1/4	-	-	-	-	-	-	x	x	x	171.8
4.50	182/184TC	5.56	4.50	1.125	1/4 x 1/8	2.9375	3/4 x 1/4	-	-	x	x	x	x	x	x	x	171.8
4.50	213/215TC	5.56	4.50	1.375	5/16 x 5/32	2.9375	3/4 x 1/4	-	x	x	x	x	-	-	-	-	171.8
5.16	182/184TC	5.56	4.50	1.125	1/4 x 1/8	3.4375	7/8 x 1/4	-	-	-	-	-	-	x	x	x	256.9
5.16	213/215TC	5.56	4.50	1.375	5/16 x 5/32	3.4375	7/8 x 1/4	-	x	x	x	x	x	-	-	-	256.9
6.00	182/184TC	6.31	4.50	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	x	x	x	x	x	x	388.7
6.00	213/215TC	6.31	4.50	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	-	x	x	x	x	x	388.7

Fan Kit

Ref. No.	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375QH	375 FAN	3/8-24	3/4	7.66	2.8
450QH	450 FAN	3/8-24	3/4	8.36	2.8
516QH	516 FAN	3/8-24	3/4	9.18	2.8
600QH	600 FAN	3/8-24	3/4	10.70	4.2

★ To complete Part No. ratio symbol to size - for example 133Q56H10.

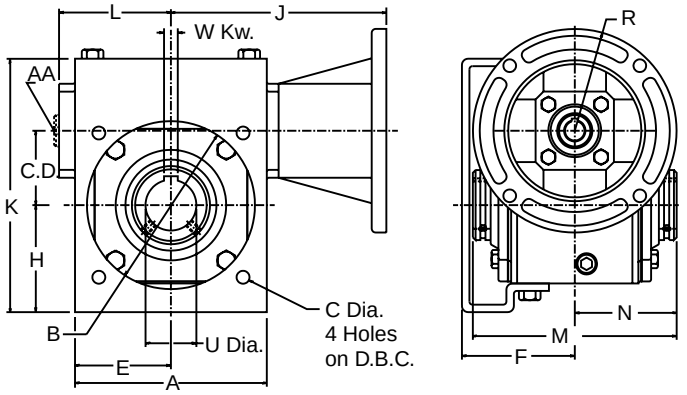
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table at the left.

✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits, see the table on page 218.

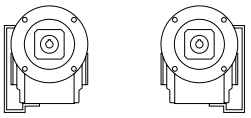
Consult factory for ratios not shown as standard.

Style CHF

Flange Bracket



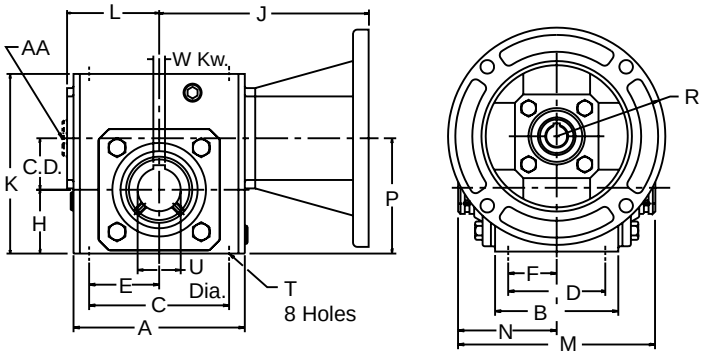
Assembly Drawing and Sample of Components



133UH10
133H-FK
133MAK56

Style CH

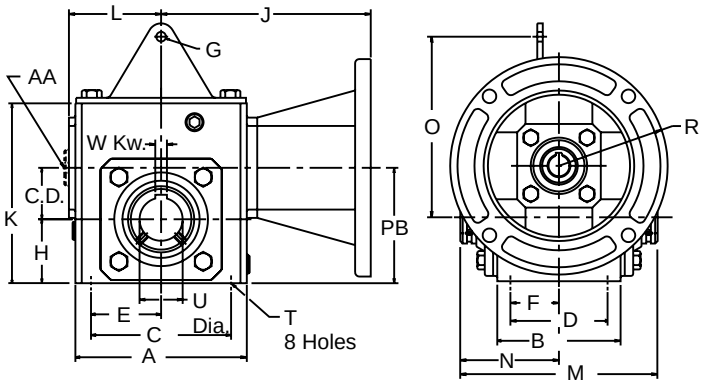
C-Face Coupled–Hollow



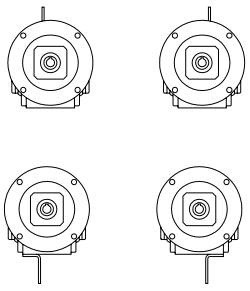
Sample of Components
133UH10
133MAK56

Style CHT

Torque Arm



Assembly Drawing and Sample of Components



133UH10
133H-TAK
133MAK56

Dimensions (Inches) for Style "CH"

C.D.	Components ◆		A	B	C	D	E	F	H	K	L	M	N	P	T	
	Basic Unit. ★	Adapter Kit													Size	Deep
1.33	133UH	See Adapter Kit Table Below	4.00	2.88	3.25	2.00	1.63	1.00	1.72	4.66	2.12	5.31	2.66	3.05	5/16-18	.50
1.54	154UH		5.13	3.69	4.19	2.75	2.09	1.38	1.91	5.38	2.75	6.44	3.22	3.45	5/16-18	.50
1.75	175UH		4.81	3.38	4.19	2.75	2.09	1.38	2.06	5.75	2.75	5.70	2.85	3.81	5/16-18	.61
2.06	206UH		5.50	3.75	5.00	2.88	2.50	1.44	2.28	6.38	3.00	6.44	3.22	4.34	3/8-16	.61
2.37	237UH		6.13	4.06	5.00	2.88	2.50	1.44	2.50	6.94	3.56	6.31	3.16	4.88	3/8-16	.60
2.62	262UH		7.12	4.44	6.38	3.38	3.19	1.69	2.94	8.00	3.69	6.88	3.44	5.57	3/8-16	.58
3.00	300UH		8.50	5.50	7.00	4.00	3.50	2.00	3.25	8.88	4.50	8.38	4.19	6.25	7/16-14	.80
3.25	325UH		8.50	5.00	7.50	4.00	3.75	2.00	3.50	9.38	4.50	8.50	4.25	6.75	7/16-14	.80
3.75	375UH		9.50	6.38	8.50	4.75	4.25	2.38	3.88	10.44	4.93	9.63	4.81	7.63	1/2-13	1.00
4.50	450UH		10.88	7.38	9.56	5.81	4.78	2.91	4.50	11.94	6.42	11.13	5.56	9.00	5/8-11	1.00
5.16	516UH		12.50	7.38	11.00	5.81	5.50	2.91	5.31	13.75	7.42	11.31	5.66	10.47	5/8-11	1.00
6.00	600UH		14.50	8.13	12.75	6.38	6.38	3.19	6.50	16.50	8.25	12.63	6.31	12.50	5/8-11	1.00

C.D.	OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	21.0
1.54	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	27.0
1.75	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	30.0
2.06	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	35.0
2.37	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	52.0
2.62	1.9375	1/2 x 1/8	x	x	x	x	x	x	x	x	x	65.0
3.00	2.1875	1/2 x 3/16	x	x	x	x	x	x	x	x	x	87.0
3.25	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	90.0
3.75	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	121.5
4.50	2.9375	3/4 x 1/4	-	x	x	x	x	x	x	x	x	156.0
5.16	3.4375	7/8 x 1/4	-	x	x	x	x	x	x	x	x	240.0
6.00	3.9375	1 x 1/4	-	x	x	x	x	x	x	x	x	351.0

Dimensions (Inches) for Style "CHT"

Components ◆			G	O	Wt. Lbs.
Basic Unit ★	Adapter Kit	Torque Arm Kit			
133UH	See Adapter Kit Table Below	133H-TAK	.53	4.16	21.6
154UH		154H-TAK	.53	4.55	27.7
175UH		175H-TAK	.53	5.06	30.9
206UH		206H-TAK	.53	6.07	36.0
237UH		237H-TAK	.53	6.69	53.2
262UH		262H-TAK	.53	7.44	66.4
300UH		300H-TAK	.53	8.25	88.7
325UH		325H-TAK	.53	9.06	92.0
375UH		375H-TAK	.53	9.56	124.1
450UH		450H-TAK	.81	10.94	159.4
516UH		516H-TAK	.81	12.45	245.5
600UH		600H-TAK	.81	14.63	357.9

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

Dimensions (Inches) for Style "CHF" - With Flange

Components ◆			A	B	C	D	E	F	H	K	L	M	N	Wt. Lbs.
Basic Unit ★	Adapter	Flange Kit												
133UH	See Adapter Kit Table Below	133H-FK	4.25	3.63	.344	5.000	2.13	3.00	2.44	5.57	2.12	5.31	2.66	23.7
154UH		154H-FK	4.75	3.63	.344	5.000	2.38	3.56	2.54	6.20	2.75	6.44	3.22	30.3
175UH		175H-FK	4.81	4.06	.344	5.875	2.41	3.50	2.78	6.66	2.75	5.70	2.85	33.4
206UH		206H-FK	5.75	4.50	.406	6.500	2.88	3.75	3.14	7.43	3.00	6.44	3.22	39.6
237UH		237H-FK	6.13	5.00	.406	7.500	3.06	3.72	3.61	8.24	3.56	6.31	3.16	57.1
262UH		262H-FK	7.18	6.00	.406	8.000	3.59	4.06	3.94	9.25	3.69	6.88	3.44	73.4
300UH		300H-FK	8.50	7.00	.406	9.000	4.25	4.50	4.14	10.02	4.50	8.38	4.19	97.1
325UH		325H-FK	8.50	7.00	.563	10.000	4.25	5.25	4.75	10.89	4.50	8.50	4.25	101.9
375UH		375H-FK	9.54	8.00	.563	11.500	4.77	5.46	5.04	11.85	4.93	9.63	4.81	134.8
450UH		450H-FK	10.88	9.00	.563	11.500	5.44	6.88	5.34	13.10	6.42	11.13	5.56	177.8
516UH		516H-FK	12.50	10.00	.688	14.000	6.25	6.58	6.57	15.33	7.42	11.31	5.66	266.9
600UH		600H-FK	14.50	12.00	.688	15.560	7.25	7.22	7.85	18.22	8.25	12.63	6.31	395.7

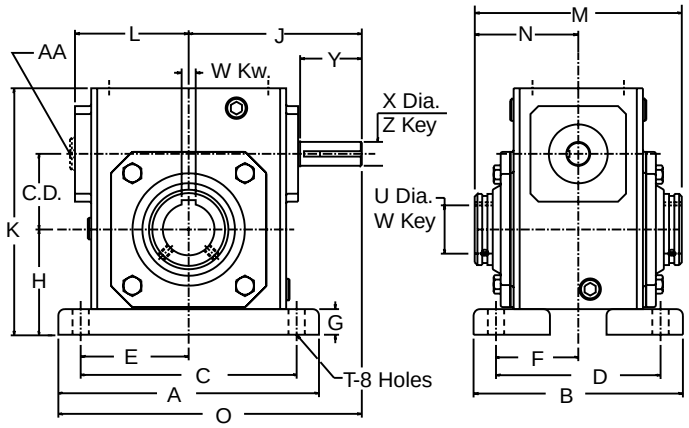
N.E.M.A. Frame Adapter Kits and Dimensions

C.D.	56C Input: .625 Kw.: 3/16 x 3/32			143/145TC Input: .875 Kw.: 3/16 x 3/32			182/184TC Input: 1.125 KW.: 1/4 x 1/8			213/215TC Input: 1.375 Kw.: 5/16 x 5/32			254/256TC Input: 1.625 Kw.: 3/8 x 3/16		
	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

★ To complete Part No. add ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218.
Consult factory for ratios not shown as standard.

Style UHMT

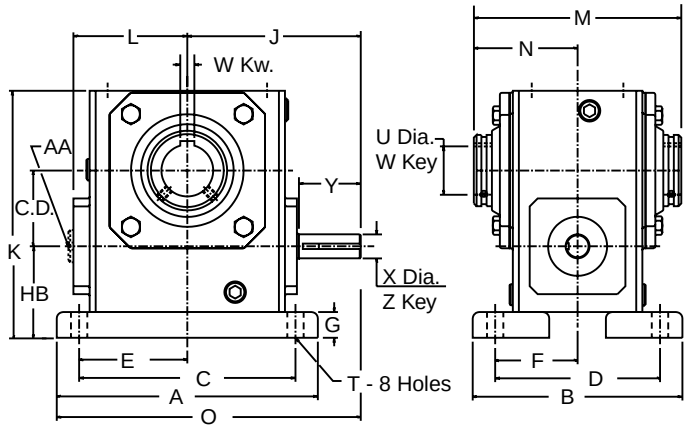
Worm Top



Sample of Components
133UH10
133S-BK

Style UHMB

Worm Bottom



Sample of Components
133UH10
133S-BK

Dimensions (Inches) for Style "UHMT" - With Base - Worm Top

C.D.	Components ◆		A	B	C	D	E	F	G	H	J	K	L	M	N
	Basic Unit ★	Base Kits Standard ▲													
1.33	133UH	133S-BK	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	4.03	5.19	2.12	5.31	2.66
1.54	154UH	154S-BK	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	4.69	5.97	2.75	6.44	3.22
1.75	175UH	175S-BK	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	4.68	6.44	2.75	5.70	2.85
2.06	206UH	206S-BK	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	5.06	7.09	2.75	6.44	3.22
2.37	237UH	237S-BK	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	5.44	7.69	3.56	6.31	3.16
2.62	262UH	262S-BK	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	6.23	8.75	3.69	6.88	3.44
3.00	300UH	300S-BK	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	7.00	9.75	4.50	8.38	4.19
3.25	325UH	325S-BK	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	7.06	10.25	4.50	8.50	4.25
3.75	375UH	375S-BK	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	8.38	11.38	4.93	9.63	4.81
4.50	450UH	450S-BK	13.88	9.33	12.13	7.63	6.06	4.22	1.19	5.69	9.59	13.13	6.42	11.13	5.56
5.16	516UH	516S-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	10.69	14.88	7.42	11.31	5.66
6.00	600UH	600S-BK	19.00	12.00	16.50	9.50	8.25	4.75	1.25	7.75	11.75	17.75	8.25	12.63	6.31

C.D.	O	T	OUTPUT BORE ✚		INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
			U +.0015 -.0000	W Keyway	X +.000 -.001	Y	Z Key		5	10	15	20	25	30	40	50	60	
							Sq.	Lgth.										
1.33	6.72	.344	.6250	3/16 x 3/32	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	14.5
1.54	7.91	.406	1.0000	1/4 x 1/8	.625	1.69	.188	1.25	x	x	x	x	x	x	x	x	x	20.8
1.75	8.18	.406	1.0000	1/4 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	24.0
2.06	8.90	.469	1.4375	3/8 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	29.5
2.37	9.69	.469	1.4375	3/8 x 1/8	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	45.8
2.62	10.86	.531	1.9375	1/2 x 1/8	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	56.0
3.00	12.08	.531	2.1875	1/2 x 3/16	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	78.5
3.25	12.63	.531	2.1875	1/2 x 3/16	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	82.0
3.75	14.38	.594	2.4375	5/8 x 3/16	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	119.0
4.50	16.53	.656	2.9375	3/4 x 1/4	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	157.0
5.16	18.88	.781	3.4375	7/8 x 1/4	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	248.0
6.00	21.25	.906	3.9375	1 x 1/4	1.500	3.75	.375	2.94	-	x	x	x	x	x	x	x	x	364.0

Dimensions (Inches) for Style "UHMB"

Components ◆		HB
Basic Unit ★	Base Kits Standard ▲	
133UH	133S-BK	2.14
154UH	154S-BK	2.50
175UH	175S-BK	2.63
206UH	206S-BK	2.75
237UH	237S-BK	2.81
262UH	262S-BK	3.19
300UH	300S-BK	3.50
325UH	325S-BK	3.50
375UH	375S-BK	3.75
450UH	450S-BK	4.06
516UH	516S-BK	4.40
600UH	600S-BK	5.25

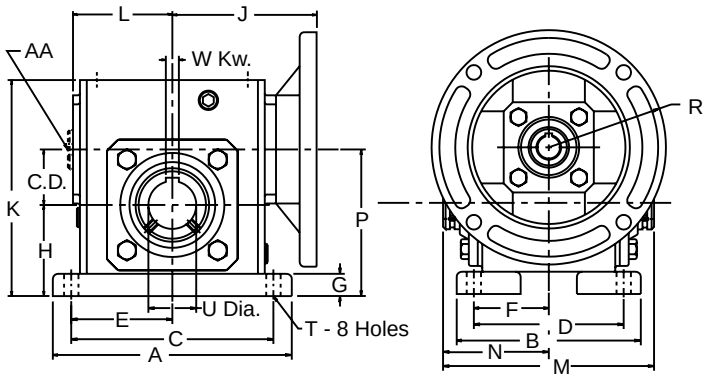
Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

★ To complete Part No. ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BKS); base kits are shown on page 220.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218.
Consult factory for ratios not shown as standard.

Style QHMT

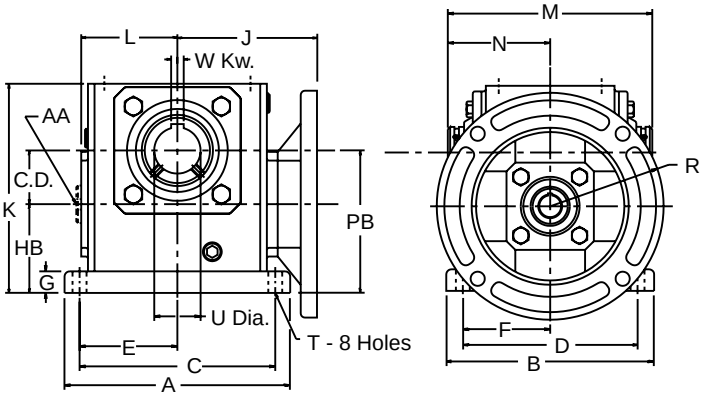
Worm Top



Sample of Components
133Q56H10
133S-BK

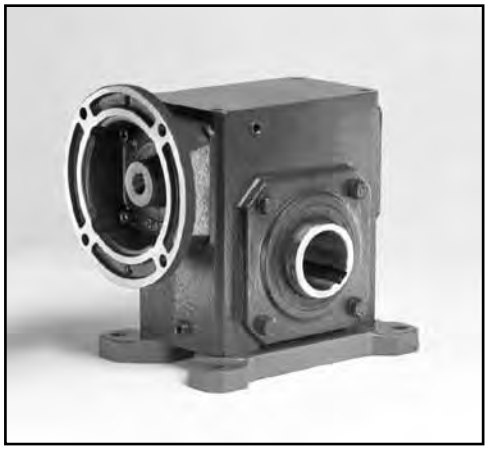
Style QHMB

Worm Bottom



Sample of Components
133Q56H10
133S-BK

Note: When mounting Style "QHMB", interference may occur; use a Riser Block or consult Application Engineering (1 800 626 2093).



Dimensions (Inches) for Style "QHMT" With Base - Worm Top

C.D.	Components◆		N.E.M.A Frame	A	B	C	D	E	F	G	H	J	K	L	M	N
	Basic Unit★	Standard Base Kit ▲														
1.33	133Q56H	133S-BK	56C	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	3.94	5.19	2.12	5.31	2.66
1.54	154Q56H	154S-BK	56C	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	4.52	5.97	2.75	6.44	3.22
1.54	154Q140H	154S-BK	143/145TC	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	4.52	5.97	2.75	6.44	3.22
1.75	175Q56H	175S-BK	56C	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	4.38	6.44	2.75	5.70	2.85
1.75	175Q140H	175S-BK	143/145TC	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	4.38	6.44	2.75	5.70	2.85
2.06	206Q56H	206S-BK	56C	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	4.75	7.09	3.00	6.44	3.22
2.06	206Q140H	206S-BK	143/145TC	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	4.75	7.09	3.00	6.44	3.22
2.37	237Q56H	237S-BK	56C	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	5.06	7.69	3.56	6.31	3.16
2.37	237Q140H	237S-BK	143/145TC	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	5.06	7.69	3.56	6.31	3.16
2.62	262Q56H	262S-BK	56C	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	5.69	8.75	3.69	6.88	3.44
2.62	262Q140H	262S-BK	143/145TC	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	5.69	8.75	3.69	6.88	3.44
2.62	262Q180H	262S-BK	182/184TC	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	6.13	8.75	3.69	6.88	3.44
3.00	300Q56H	300S-BK	56C	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	5.67	9.75	4.50	8.38	4.19
3.00	300Q140H	300S-BK	143/145TC	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	5.67	9.75	4.50	8.38	4.19
3.00	300Q180H	300S-BK	182/184TC	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	6.45	9.75	4.50	8.38	4.19
3.25	325Q56H	325S-BK	56C	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	6.56	10.25	4.50	8.50	4.25
3.25	325Q140H	325S-BK	143/145TC	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	5.69	10.25	4.50	8.50	4.25
3.25	325Q180H	325S-BK	182/184TC	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	7.00	10.25	4.50	8.50	4.25
3.75	375Q56H	375S-BK	56C	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	6.01	11.38	4.93	9.63	4.81
3.75	375Q140H	375S-BK	143/145TC	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	6.01	11.38	4.93	9.63	4.81
3.75	375Q180H	375S-BK	182/184TC	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	7.29	11.38	4.93	9.63	4.81
3.75	375Q210H	375S-BK	213/215TC	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	7.29	11.38	4.93	9.63	4.81
4.50	450Q140H	450S-BK	143/145TC	13.88	9.33	12.13	7.63	6.06	4.22	1.19	5.69	6.69	13.13	6.42	11.13	5.56
4.50	450Q180H	450S-BK	182/184TC	13.88	9.33	12.13	7.63	6.06	4.22	1.19	5.69	7.97	13.13	6.42	11.13	5.56
4.50	450Q210H	450S-BK	213/215TC	13.88	9.33	12.13	7.63	6.06	4.22	1.19	5.69	7.97	13.13	6.42	11.13	5.56
5.16	516Q180H	516S-BK	182/184TC	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	8.78	14.88	7.42	11.31	5.66
5.16	516Q210H	516S-BK	213/215TC	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	8.78	14.88	7.42	11.31	5.66
6.00	600Q180H	600S-BK	182/184TC	19.00	12.00	16.50	9.50	8.25	4.75	1.25	7.75	9.68	17.75	8.25	12.63	6.31
6.00	600Q210H	600S-BK	213/215TC	19.00	12.00	16.50	9.50	8.25	4.75	1.25	7.75	9.68	17.75	8.25	12.63	6.31

C.D.	N.E.M.A. Frame	P	R	T	INPUT		OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
					Bore	Keyway	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	56C	3.58	3.25	.344	.625	3/16 x 3/32	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	17.5
1.54	56C	4.04	3.25	.406	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	22.8
1.54	143/145TC	4.04	3.25	.406	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	-	-	-	-	-	-	-	22.8
1.75	56C	4.50	3.25	.406	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	26.0
1.75	143/145TC	4.50	3.25	.406	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	-	-	-	-	-	-	26.0
2.06	56C	5.06	3.25	.469	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	34.5
2.06	143/145TC	5.06	3.25	.469	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	-	-	-	-	34.5
2.37	56C	5.62	3.25	.469	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	48.8
2.37	143/145TC	5.62	3.25	.469	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	-	-	48.8
2.62	56C	6.31	3.25	.469	.625	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	59.0
2.62	143/145TC	6.31	3.25	.469	.875	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	59.0
2.62	182/184TC	6.31	4.50	.469	1.125	1/4 x 1/8	1.9375	1/2 x 1/8	x	x	-	-	-	-	-	-	-	59.0
3.00	56C	7.13	3.25	.469	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	-	-	x	x	x	x	x	x	82.5
3.00	143/145TC	7.13	3.25	.469	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	82.5
3.00	182/184TC	7.13	4.50	.469	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	82.5
3.25	56C	7.63	3.25	.469	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	86.0
3.25	143/145TC	7.63	3.25	.469	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	86.0
3.25	182/184TC	7.93	4.50	.469	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	86.0
3.75	56C	8.56	3.38	.594	.625	3/16 x 3/32	2.4375	5/8 x 3/16	-	-	-	-	-	-	x	x	x	126.0
3.75	143/145TC	8.56	3.38	.594	.875	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	126.0
3.75	182/184TC	8.56	4.50	.594	1.125	1/4 x 1/8	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	-	126.0
3.75	213/215TC	8.56	4.50	.594	1.375	5/16 x 5/32	2.4375	5/8 x 3/16	-	x	x	-	-	-	-	-	-	126.0
4.50	143/145TC	10.19	3.38	.656	.875	3/16 x 3/32	2.9375	3/4 x 1/4	-	-	x	x	-	-	x	x	x	167.0
4.50	182/184TC	10.19	4.50	.656	1.125	1/4 x 1/8	2.9375	3/4 x 1/4	-	-	x	x	x	x	x	x	x	167.0
4.50	213/215TC	10.19	4.50	.656	1.375	5/16 x 5/32	2.9375	3/4 x 1/4	-	x	x	x	x	-	-	-	-	167.0
5.16	182/184TC	11.60	4.50	.781	1.125	1/4 x 1/8	3.4375	7/8 x 1/4	-	-	-	-	-	-	x	x	x	256.0
5.16	213/215TC	11.60	4.50	.781	1.375	5/16 x 5/32	3.4375	7/8 x 1/4	-	x	x	x	x	x	-	-	-	256.0
6.00	182/184TC	13.75	4.50	.906	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	x	x	x	x	x	x	367.0
6.00	213/215TC	13.75	4.50	.906	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	-	x	x	x	x	x	367.0

Dimensions (Inches) for Style "QHMB"

Components◆		HB	PB
Ref. No.	Base Kits Standard▲		
133QH	133S-BK	41.2	.374
154QH	154S-BK	05.2	40.4
175QH	175S-BK	36.2	.483
206QH	206S-BK	57.2	18.4
237QH	237S-BK	18.2	.591
262QH	262S-BK	91.3	18.5
300QH	300S-BK	05.3	05.6
325QH	325S-BK	05.3	57.6
375QH	375S-BK	57.3	05.7
450QH	450S-BK	60.4	36.8
516QH	516S-BK	04.4	65.9
600QH	600S-BK	52.5	1 52.1

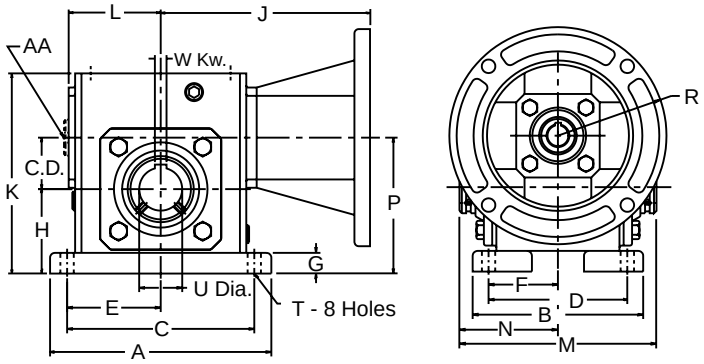
Fan Kit

Ref. No.	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375QH	375 FAN	3/8-24	3/4	7.66	2.8
450QH	450 FAN	3/8-24	3/4	8.36	2.8
516QH	516 FAN	3/8-24	3/4	9.18	2.8
600QH	600 FAN	3/8-24	3/4	10.70	4.2

★ To complete Part No. add ratio symbol to size - for example 133Q56H10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BKS); base kits are shown on page 220.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218. Consult factory for ratios not shown as standard.

Style CHMT

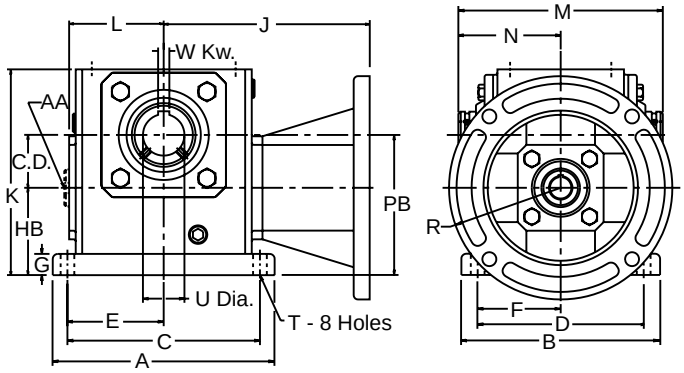
Worm Top



Sample of Components
133UH10
133S-BK
133MAK56

Style CHMB

Worm Bottom



Sample of Components
133UH10
133S-BK
133MAK56

Note: When mounting Style "CHMB", interference may occur; use a Riser Block or consult Application Engineering (1 800 626 2093).

Dimensions (Inches) for Style "CHMT" - With Base - Worm Top

C.D.	Components ◆ Basic Unit ★	Adapter	Base Kit u Standard	A	B	C	D	E	F	G	H	K	L	M	N
1.33	133UH	See Adapter Kit Table Below	133S-BK	5.38	4.19	4.38	3.31	2.19	1.66	.47	2.25	5.19	2.12	5.31	2.66
1.54	154UH		154S-BK	6.44	5.44	5.25	4.31	2.63	2.16	.59	2.50	5.97	2.75	6.44	3.22
1.75	175UH		175S-BK	7.00	5.56	5.75	4.50	2.88	2.25	.69	2.75	6.44	2.75	5.70	2.85
2.06	206UH		206S-BK	7.69	5.76	6.38	4.69	3.19	2.34	.72	3.00	7.09	3.00	6.44	3.22
2.37	237UH		237S-BK	8.50	6.19	7.06	4.88	3.53	2.44	.75	3.25	7.69	3.56	6.31	3.16
2.62	262UH		262S-BK	9.25	6.50	8.00	5.25	4.00	2.63	.75	3.69	8.75	3.69	6.88	3.44
3.00	300UH		300S-BK	10.17	7.38	8.44	5.88	4.22	2.94	.88	4.13	9.75	4.50	8.38	4.19
3.25	325UH		325S-BK	11.12	7.75	9.50	6.13	4.75	3.06	.88	4.38	10.25	4.50	8.50	4.25
3.75	375UH		375S-BK	12.00	8.63	10.38	7.00	5.19	3.50	.94	4.81	11.38	4.93	9.63	4.81
4.50	450UH		450S-BK	13.88	9.33	12.13	7.63	6.06	4.22	1.19	5.69	13.13	6.42	11.13	5.56
5.16	516UH		516S-BK	16.38	10.38	14.13	8.38	7.06	4.19	1.13	6.44	14.88	7.42	11.31	5.66
6.00	600UH		600S-BK	19.00	12.00	16.50	9.50	8.52	4.75	1.25	7.75	17.75	8.25	12.63	6.31

C.D.	P	T	OUTPUT BORE ✚ U +.0015 -.0000	OUTPUT BORE ✚ W Keyway	Stock Ratios marked "x" 5	10	15	20	25	30	40	50	60	Wt. Lbs.
1.33	3.58	.344	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	21.5
1.54	4.04	.406	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	27.8
1.75	4.50	.406	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	31.0
2.06	5.06	.469	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	36.5
2.37	5.62	.469	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	53.8
2.62	6.31	.531	1.9375	1/2 x 1/8	x	x	x	x	x	x	x	x	x	67.0
3.00	7.13	.531	2.1875	1/2 x 3/16	x	x	x	x	x	x	x	x	x	89.5
3.25	7.63	.531	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	93.0
3.75	8.56	.594	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	131.5
4.50	10.19	.656	2.9375	3/4 x 1/4	-	x	x	x	x	x	x	x	x	173.0
5.16	11.60	.781	3.4375	7/8 x 1/4	-	x	x	x	x	x	x	x	x	266.0
6.00	13.75	.906	3.9375	1 x 1/4	-	x	x	x	x	x	x	x	x	394.0

Dimensions (Inches) for Style "CHMB"

Components ◆ Basic Unit ★	Adapter Kit	Base Kit ▲ Standard	HB	PB
133UH	See Adapter Kit Table Below	133S-BK	2.14	3.47
154UH		154S-BK	2.50	4.04
175UH		175S-BK	2.63	4.38
206UH		206S-BK	2.75	4.81
237UH		237S-BK	2.81	5.19
262UH		262S-BK	3.19	5.81
300UH		300S-BK	3.50	6.50
325UH		325S-BK	3.50	6.75
375UH		375S-BK	3.75	7.50
450UH		450S-BK	4.06	8.63
516UH		516S-BK	4.40	9.56
600UH		600S-BK	5.25	11.25

Fan Kit

Basic Unit ★	Fan Kit	AA Tap	AA Deep	L	Wt. Lbs.
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

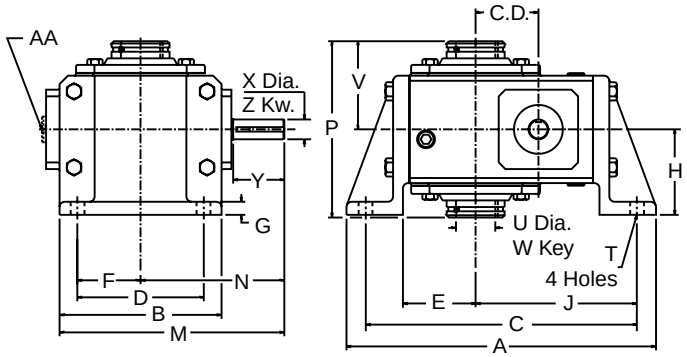
N.E.M.A. Frame Adapter Kits and Dimensions

C.D.	56C Input: .625 Kw.: 3/16 x 3/32 Adapter Kit No.	J	R	143/145TC Input: .875 Kw.: 3/16 x 3/32 Adapter Kit No.	J	R	182/184TC Input: 1.125 KW.: 1/4 x 1/8 Adapter Kit No.	J	R	213/215TC Input: 1.375 Kw.: 5/16 x 5/32 Adapter Kit No.	J	R	254/256TC Input: 1.625 Kw.: 3/8 x 3/16 Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

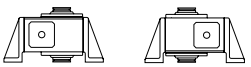
★ To complete Part No. ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
▲ Select either Standard Base Kit (S-BK) or Econo Base Kit (E-BK) or Solid Base Kit (BKS); base kits are shown on page 220.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218. Consult factory for ratios not shown as standard.

Style UHVL

Vertical Low Base



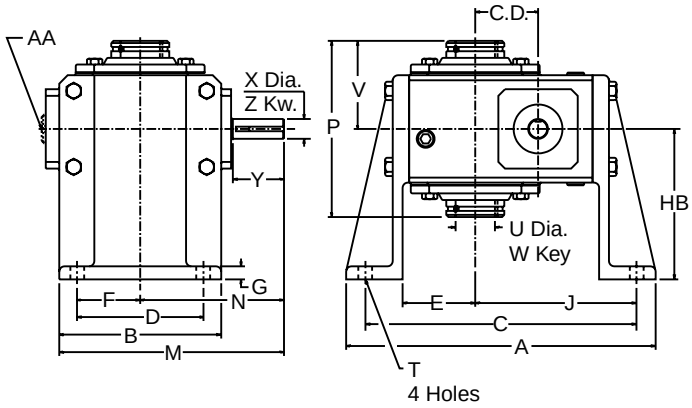
Assembly Drawing and Sample of Components



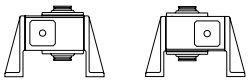
133UH10
133VL-BK

Style UHVH

Vertical High Base



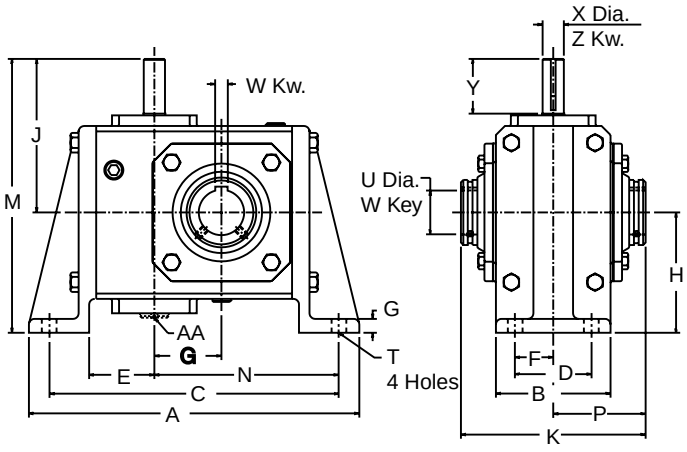
Assembly Drawing and Sample of Components



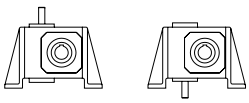
133UH10
133VH-BK

Style UHVJ

Vertical "J" Base



Assembly Drawing and Sample of Components



133UH10
133VJ-BK

Note: If mounting a fan unit, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "UHVL" - With Vertical Low Base

C.D.	Components ◆		A	B	C	D	E	F	G	H	J	M	N	P	T	V
	Basic Unit ★	Base Kit														
1.33	133UH	133VL-BK	7.10	4.00	6.16	3.25	1.81	1.63	.53	2.31	3.69	6.03	4.03	5.31	.344	2.66
1.54	154UH	154VL-BK	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.28	7.25	4.69	6.44	.406	3.22
1.75	175UH	175VL-BK	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.50	7.09	4.68	5.70	.406	2.85
2.06	206UH	206VL-BK	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	5.09	7.87	5.06	6.44	.469	3.22
2.37	237UH	237VL-BK	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.44	8.50	5.44	6.31	.469	3.16
2.62	262UH	262VL-BK	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	6.13	9.79	6.23	6.88	.531	3.44
3.00	300UH	300VL-BK	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	6.88	11.25	7.00	8.38	.531	4.19
3.25	325UH	325VL-BK	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	7.13	11.31	7.06	8.50	.531	4.25
3.75	375UH	375VL-BK	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	8.31	13.13	8.38	9.63	.594	4.81
4.50	450UH	450VL-BK	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	8.94	15.09	9.59	11.13	.688	5.56
5.16	516UH	516VL-BK	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	10.56	16.93	10.69	11.31	.781	5.66
6.00	600UH	600VL-BK	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	12.19	19.13	11.75	12.63	.906	6.31

C.D.	OUTPUT BORE ✚		INPUT SHAFT				Stock Ratios marked "x"									Wt. Lbs.
	U +.0015 -.0000	W Keyway	X +.000 -.001	Y	Z Key											
					Sq.	Lgth.	5	10	15	20	25	30	40	50	60	
1.33	.6250	3/16 x 3/32	.500	1.81	.125	1.38	x	x	x	x	x	x	x	x	x	16.3
1.54	1.0000	1/4 x 1/8	.625	1.69	.188	.94	x	x	x	x	x	x	x	x	x	23.4
1.75	1.0000	1/4 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	27.5
2.06	1.4375	3/8 x 1/8	.625	1.81	.188	1.50	x	x	x	x	x	x	x	x	x	35.0
2.37	1.4375	3/8 x 1/8	.750	1.94	.188	1.31	x	x	x	x	x	x	x	x	x	52.0
2.62	1.9375	1/2 x 1/8	.750	2.31	.188	1.88	x	x	x	x	x	x	x	x	x	63.0
3.00	2.1875	1/2 x 3/16	.875	2.26	.188	1.31	x	x	x	x	x	x	x	x	x	88.5
3.25	2.1875	1/2 x 3/16	.875	2.31	.188	1.63	-	x	x	x	x	x	x	x	x	95.0
3.75	2.4375	5/8 x 3/16	1.000	2.91	.250	1.75	-	x	x	x	x	x	x	x	x	134.0
4.50	2.9375	3/4 x 1/4	1.125	3.48	.250	2.50	-	x	x	x	x	x	x	x	x	173.0
5.16	3.4375	7/8 x 1/4	1.250	3.75	.250	2.56	-	x	x	x	x	x	x	x	x	270.0
6.00	3.9375	1 x 1/4	1.500	3.75	.375	2.94	-	x	x	x	x	x	x	x	x	397.0

Dimensions (Inches) for Style "UHVH"

Components ◆		HB	Wt. Lbs.
Basic Unit ★	Base Kit		
133UH	133VH-BK	3.56	17.3
154UH	154VH-BK	4.38	24.4
175UH	175VH-BK	4.38	28.5
206UH	206VH-BK	4.38	36.0
237UH	237VH-BK	5.25	54.5
262UH	262VH-BK	5.60	67.0
300UH	300VH-BK	6.25	92.0
325UH	325VH-BK	6.25	98.0
375UH	375VH-BK	7.00	137.5
450UH	450VH-BK	8.56	181.0
516UH	516VH-BK	8.63	282.0
600UH	600VH-BK	9.63	412.0

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

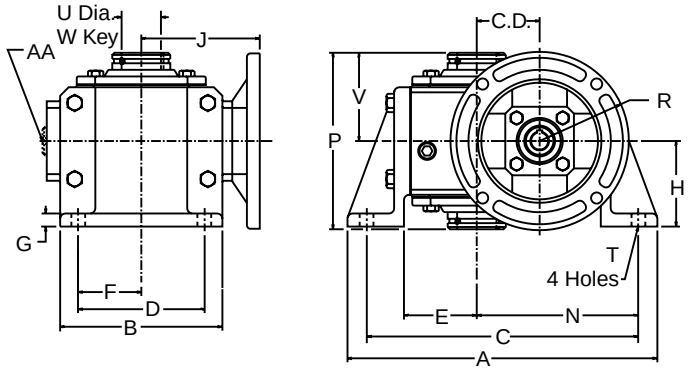
Dimensions (Inches) for Style "UHVJ" - With Vertical "J" Base

Components ◆		A	B	C	D	E	F	G	H	J	K	M	N	P	T	Wt. Lbs.
Base Unit ★	Base Kit															
133U	133VJ-BK	7.28	2.88	6.42	2.00	1.66	1.00	.53	2.94	4.03	5.31	6.97	3.93	2.66	.344	15.0
154U	154VJ-BK	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.69	6.44	8.19	4.39	3.22	.406	22.0
175U	175VJ-BK	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.68	5.70	8.18	4.75	2.85	.406	25.0
206U	206VJ-BK	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	5.06	6.44	9.00	5.46	3.22	.469	31.0
237U	237VJ-BK	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.44	6.31	9.50	6.00	3.16	.469	47.0
262U	262VJ-BK	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	6.23	6.88	10.98	6.75	3.44	.531	58.0
300U	300VJ-BK	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	7.00	8.38	12.94	7.94	4.19	.531	82.0
325U	325VJ-BK	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	7.06	8.50	12.75	8.44	4.25	.531	85.0
375U	375VJ-BK	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	8.38	9.63	14.38	9.06	4.81	.594	117.5
450U	450VJ-BK	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	9.59	11.13	16.96	10.50	5.56	.688	151.0
516U	516VJ-BK	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	10.69	11.31	18.44	12.35	5.66	.781	240.0
600U	600VJ-BK	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	11.75	12.63	20.25	14.25	6.31	.906	342.0

★ To complete Part No. ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218.
Consult factory for ratios not shown as standard.

Style QHVL

Vertical Low Base

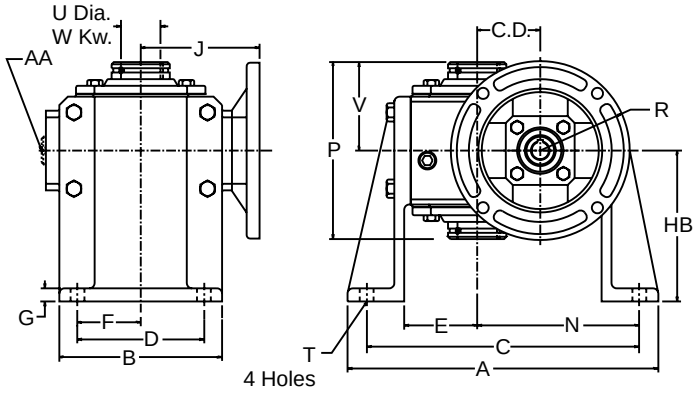


Assembly Drawing and Sample of Components

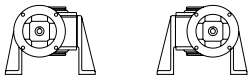
133Q56H10
133VL-BK

Style QHVH

Vertical High Base



Assembly Drawing and Sample of Components



133Q56H10
133VH-BK

Dimensions (Inches) for Style "QHVL" - With Vertical Low Base

C.D.	Components ◆		N.E.M.A. Frame	A	B	C	D	E	F	G	H	J	N	P	R
	Part No. ★	Base Kit													
1.33	**133QH56**	**133VL-BK**	56C	7.10	4.00	6.16	3.25	1.81	1.63	.53	2.31	3.94	3.69	5.31	3.25
1.54	**154QH56**	**154VL-BK**	56C	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.52	4.28	6.44	3.25
1.54	**154QH140**	**154VL-BK**	143/145TC	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.52	4.28	6.44	3.25
1.75	**175QH56**	**175VL-BK**	56C	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.38	4.50	5.70	3.25
1.75	**175QH140**	**175VL-BK**	143/145TC	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.38	4.50	5.70	3.25
2.06	**206QH56**	**206VL-BK**	56C	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	4.75	5.09	6.44	3.25
2.06	**206QH140**	**206VL-BK**	143/145TC	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	4.75	5.09	6.44	3.25
2.37	**237QH56**	**237VL-BK**	56C	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.06	5.44	6.31	3.25
2.37	**237QH140**	**237VL-BK**	143/145TC	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.06	5.44	6.31	3.25
2.62	**262QH56**	**262VL-BK**	56C	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	5.69	6.13	6.88	3.25
2.62	**262QH140**	**262VL-BK**	143/145TC	11.25	7.13	10.13	5.75	3.00	2.88	75	3.63	5.69	6.13	6.88	3.25
2.62	**262QH180**	**262VL-BK**	182/184TC	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	6.13	6.13	6.88	4.50
3.00	**300QH56**	**300VL-BK**	56C	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	5.67	6.88	8.38	3.25
3.00	**300QH140**	**300VL-BK**	143/145TC	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	5.67	6.88	8.38	3.25
3.00	**300QH180**	**300VL-BK**	182/184TC	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	6.45	6.88	8.38	4.50
3.25	**325QH56**	**325VL-BK**	56C	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	6.56	7.13	8.50	3.25
3.25	**325QH140**	**325VL-BK**	143/145TC	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	6.56	7.13	8.50	3.25
3.25	**325QH180**	**325VL-BK**	182/184TC	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	7.00	7.13	8.50	4.50
3.75	**375QH56**	**375VL-BK**	56C	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	6.01	8.31	9.63	3.38
3.75	**375QH140**	**375VL-BK**	143/145TC	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	6.01	8.31	9.63	3.38
3.75	**375QH180**	**375VL-BK**	182/184TC	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	7.29	8.31	9.63	4.50
3.75	**375QH210**	**375VL-BK**	213/215TC	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	7.29	8.31	9.63	4.50
4.50	**450QH140**	**450VL-BK**	143/145TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	6.69	8.94	11.13	3.38
4.50	**450QH180**	**450VL-BK**	182/184TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	7.97	8.94	11.13	4.50
4.50	**450QH210**	**450VL-BK**	213/215TC	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	7.97	8.94	11.13	4.50
5.16	**516QH180**	**516VL-BK**	182/184TC	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	8.78	10.56	11.31	4.50
5.16	**516QH210**	**516VL-BK**	213/215TC	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	8.78	10.56	11.31	4.50
6.00	**600QH180**	**600VL-BK**	182/184TC	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	9.68	12.19	12.63	4.50
6.00	**600QH210**	**600VL-BK**	213/215TC	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	9.68	12.19	12.63	4.50

C.D.	N.E.M.A. Frame	T	V	INPUT		OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
				Bore	Keyway	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	56C	.344	2.66	.625	3/16 x 3/32	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	19.3
1.54	56C	.406	3.22	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	25.4
1.54	143/145TC	.406	3.22	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	-	-	-	-	-	-	-	25.4
1.75	56C	.406	2.85	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	29.5
1.75	143/145TC	.406	2.85	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	-	-	-	-	-	-	29.5
2.06	56C	.469	3.22	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	40.0
2.06	143/145TC	.469	3.22	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	-	-	-	-	40.0
2.37	56C	.469	3.16	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	55.0
2.37	143/145TC	.469	3.16	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	-	-	55.0
2.62	56C	.531	3.44	.625	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	66.0
2.62	143/145TC	.531	3.44	.875	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	66.0
2.62	182/184TC	.531	3.44	1.125	1/4 x 1/8	1.9375	1/2 x 1/8	x	x	-	-	-	-	-	-	-	66.0
3.00	56C	.531	4.19	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	-	x	x	x	x	x	x	x	92.5
3.00	143/145TC	.531	4.19	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	92.5
3.00	182/184TC	.531	4.19	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	92.5
3.25	56C	.531	4.25	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	99.0
3.25	143/145TC	.531	4.25	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	99.0
3.25	182/184TC	.531	4.25	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	99.0
3.75	56C	.594	4.81	.625	3/16 x 3/32	2.4375	5/8 x 3/16	-	-	-	-	-	-	x	x	x	141.0
3.75	143/145TC	.594	4.81	.875	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	141.0
3.75	182/184TC	.594	4.81	1.125	1/4 x 1/8	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	-	141.0
3.75	213/215TC	.594	4.81	1.375	5/16 x 5/32	2.4375	5/8 x 3/16	-	x	x	-	-	-	-	-	-	141.0
4.50	143/145TC	.656	5.56	.875	3/16 x 3/32	2.9375	3/4 x 1/4	-	-	-	-	-	-	x	x	x	183.0
4.50	182/184TC	.656	5.56	1.125	1/4 x 1/8	2.9375	3/4 x 1/4	-	-	x	x	x	x	x	x	x	183.0
4.50	213/215TC	.656	5.56	1.375	5/16 x 5/32	2.9375	3/4 x 1/4	-	x	x	x	x	-	-	-	-	183.0
5.16	182/184TC	.781	5.56	1.125	1/4 x 1/8	3.4375	7/8 x 1/4	-	-	-	-	-	-	x	x	x	278.0
5.16	213/215TC	.781	5.56	1.375	5/16 x 5/32	3.4375	7/8 x 1/4	-	x	x	x	x	x	-	-	-	278.0
6.00	182/184TC	.906	6.31	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	x	x	x	x	x	x	420.0
6.00	213/215TC	.906	6.31	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	-	x	x	x	x	x	420.0

Dimensions (Inches) for Style "QHVH" - With Vertical High Base

C.D.	Components ◆		N.E.M.A. Frame	HB	Wt. Lbs.	C.D.	Components ◆		N.E.M.A. Frame	HB	Wt. Lbs.
	Basic Unit ★	Base Kit					Basic Unit ★	Base Kit			
1.33	**133Q56H**	**133VH-BK**	56C	3.56	20.3	3.25	**325Q56H**	**325VH-BK**	56C	6.25	102.0
1.54	**154Q56H**	**154VH-BK**	56C	4.38	26.4	3.25	**325Q140H**	**325VH-BK**	143/145TC	6.25	102.0
1.54	**154Q140H**	**154VH-BK**	143/145TC	4.38	26.4	3.25	**325Q180H**	**325VH-BK**	182/184TC	6.25	102.0
1.75	**175Q56H**	**175VH-BK**	56C	4.38	30.5	3.75	**375Q56H**	**375VH-BK**	56C	7.00	144.5
1.75	**175Q140H**	**175VH-BK**	143/145TC	4.38	30.5	3.75	**375Q140H**	**375VH-BK**	143/145TC	7.00	144.5
2.06	**206Q56H**	**206VH-BK**	56C	4.88	41.0	3.75	**375Q180H**	**375VH-BK**	182/184TC	7.00	144.5
2.06	**206Q140H**	**206VH-BK**	143/145TC	4.88	41.0	3.75	**375Q210H**	**375VH-BK**	213/215TC	7.00	144.5
2.37	**237Q56H**	**237VH-BK**	56C	5.25	57.5	4.50	**450Q140H**	**450VH-BK**	143/145TC	8.56	191.0
2.37	**237Q140H**	**237VH-BK**	143/145TC	5.25	57.5	4.50	**450Q180H**	**450VH-BK**	182/184TC	8.56	191.0
2.62	**262Q56H**	**262VH-BK**	56C	5.60	70.0	4.50	**450Q210H**	**450VH-BK**	213/215TC	8.56	191.0
2.62	**262Q140H**	**262VH-BK**	143/145TC	5.60	70.0	5.16	**516Q180H**	**516VH-BK**	182/184TC	8.63	290.0
2.62	**262Q180H**	**262VH-BK**	182/184TC	5.60	70.0	5.16	**516Q210H**	**516VH-BK**	213/215TC	8.63	290.0
3.00	**300Q56H**	**300VH-BK**	56C	6.25	96.0	6.00	**600Q210H**	**600VH-BK**	213/215TC	9.63	435.0
3.00	**300Q140H**	**300VH-BK**	143/145TC	6.25	96.0						
3.00	**300Q180H**	**300VH-BK**	182/184TC	6.25	96.0						

Fan Kit

Ref. No.	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375QH	**375 FAN**	3/8-24	3/4	7.66	2.8
450QH	**450 FAN**	3/8-24	3/4	8.36	2.8
516QH	**516 FAN**	3/8-24	3/4	9.18	2.8
600QH	**600 FAN**	3/8-24	3/4	10.70	4.2

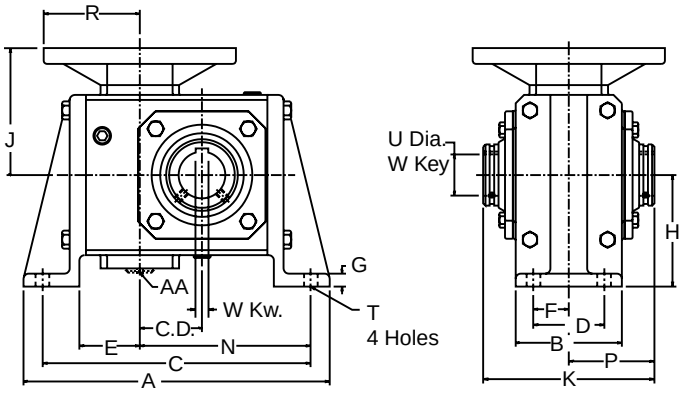
★ To complete Part No. add ratio symbol to size - for example 133Q56H10.

◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.

✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218. Consult factory for ratios not shown as standard.

Style QHVJ

Vertical "J" Base



Sample of Components

133Q56H10
133VJ-BK

Note: If mounting fan unit, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "QHVJ" - With Vertical "J" Base

C.D.	Components ◆		N.E.M.A. Frame	A	B	C	D	E	F	G	H	J	K	N	P
	Part No. ★	Base Kit													
1.33	**133Q56H**	**133VJ-BK**	56C	7.25	2.88	6.42	2.00	1.66	1.00	.53	2.94	3.94	5.31	3.93	2.66
1.54	**154Q56H**	**154VJ-BK**	56C	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.52	6.44	4.39	3.22
1.54	**154Q140H**	**154VJ-BK**	143/145TC	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	4.52	6.44	4.39	3.22
1.75	**175Q56H**	**175VJ-BK**	56C	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.38	5.70	4.75	2.85
1.75	**175Q140H**	**175VJ-BK**	143/145TC	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	4.38	5.70	4.75	2.85
2.06	**206Q56H**	**206VJ-BK**	56C	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	4.75	6.44	5.46	3.22
2.06	**206Q140H**	**206VJ-BK**	143/145TC	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	4.75	6.44	5.46	3.22
2.37	**237Q56H**	**237VJ-BK**	56C	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.06	6.31	6.00	3.16
2.37	**237Q140H**	**237VJ-BK**	143/145TC	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	5.06	6.31	6.00	3.16
2.62	**262Q56H**	**262VJ-BK**	56C	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	5.69	6.88	6.75	3.44
2.62	**262Q140H**	**262VJ-BK**	143/145TC	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	5.69	6.88	6.75	3.44
2.62	**262Q180H**	**262VJ-BK**	182/184TC	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	6.13	6.88	6.75	3.44
3.00	**300Q56H**	**300VJ-BK**	56C	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	5.67	8.38	7.94	4.19
3.00	**300Q140H**	**300VJ-BK**	143/145TC	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	5.67	8.38	7.94	4.19
3.00	**300Q180H**	**300VJ-BK**	182/184TC	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	6.45	8.38	7.94	4.19
3.25	**325Q56H**	**325VJ-BK**	56C	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	6.56	8.50	8.44	4.25
3.25	**325Q140H**	**325VJ-BK**	143/145TC	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	6.56	8.50	8.44	4.25
3.25	**325Q180H**	**325VJ-BK**	182/184TC	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	7.00	8.50	8.44	4.25
3.75	**375Q56H**	**375VJ-BK**	56C	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	6.01	9.63	9.06	4.81
3.75	**375Q140H**	**375VJ-BK**	143/145TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	6.01	9.63	9.06	4.81
3.75	**375Q180H**	**375VJ-BK**	182/184TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	7.29	9.63	9.06	4.81
3.75	**375Q210H**	**375VJ-BK**	213/215TC	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	7.29	9.63	9.06	4.81
4.50	**450Q140H**	**450VJ-BK**	143/145TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	6.69	11.13	10.50	5.56
4.50	**450Q180H**	**450VJ-BK**	182/184TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	7.97	11.13	10.50	5.56
4.50	**450Q210H**	**450VJ-BK**	213/215TC	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	7.97	11.13	10.50	5.56
5.16	**516Q180H**	**516VJ-BK**	182/184TC	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	8.78	11.13	12.35	5.66
5.16	**516Q210H**	**516VJ-BK**	213/215TC	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	8.78	11.13	12.35	5.66
6.00	**600Q180H**	**600VJ-BK**	182/184TC	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	9.68	12.63	14.25	6.31
6.00	**600Q210H**	**600VJ-BK**	213/215TC	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	9.68	12.63	14.25	6.31

C.D.	N.E.M.A. Frame	R	T	INPUT		OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
				Bore	Keyway	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	56C	3.25	.344	.625	3/16 x 3/32	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	18.30
1.54	56C	3.25	.406	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	24.0
1.54	143/145TC	3.25	.406	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	-	-	-	-	-	-	-	24.0
1.75	56C	3.25	.406	.625	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	27.0
1.75	143/145TC	3.25	.406	.875	3/16 x 3/32	1.0000	1/4 x 1/8	x	x	x	-	-	-	-	-	-	27.0
2.06	56C	3.25	.469	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	36.0
2.06	143/145TC	3.25	.469	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	-	-	-	-	36.0
2.37	56C	3.25	.469	.625	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	50.0
2.37	143/145TC	3.25	.469	.875	3/16 x 3/32	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	-	-	50.0
2.62	56C	3.25	.531	.625	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	61.0
2.62	143/145TC	3.25	.531	.875	3/16 x 3/32	1.9375	1/2 x 1/8	-	x	x	x	x	x	x	x	x	61.0
2.62	182/184TC	4.50	.531	1.125	1/4 x 1/8	1.9375	1/2 x 1/8	x	x	-	-	-	-	-	-	-	61.0
3.00	56C	3.25	.531	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	-	x	x	x	x	x	x	x	86.0
3.00	143/145TC	3.25	.531	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	86.0
3.00	182/184TC	4.50	.531	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	86.0
3.25	56C	3.25	.531	.625	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	89.0
3.25	143/145TC	3.25	.531	.875	3/16 x 3/32	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	89.0
3.25	182/184TC	4.50	.531	1.125	1/4 x 1/8	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	89.0
3.75	56C	3.38	.594	.625	3/16 x 3/32	2.4375	5/8 x 3/16	-	-	-	-	-	-	x	x	x	124.5
3.75	143/145TC	3.38	.594	.875	3/16 x 3/32	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	124.5
3.75	182/184TC	4.50	.594	1.125	1/4 x 1/8	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	-	124.5
3.75	213/215TC	4.50	.594	1.375	5/16 x 5/32	2.4375	5/8 x 3/16	-	x	x	-	-	-	-	-	-	124.5
4.50	143/145TC	3.38	.656	.875	3/16 x 3/32	2.9375	3/4 x 1/4	-	-	-	-	-	-	x	x	x	161.0
4.50	182/184TC	4.50	.656	1.125	1/4 x 1/8	2.9375	3/4 x 1/4	-	-	x	x	x	x	x	x	x	161.0
4.50	213/215TC	4.50	.656	1.375	5/16 x 5/32	2.9375	3/4 x 1/4	-	x	x	x	x	-				161.0
5.16	182/184TC	4.50	.781	1.125	1/4 x 1/8	3.4375	7/8 x 1/4	-	-	-	-	-	-	x	x	x	248.0
5.16	213/215TC	4.50	.781	1.375	5/16 x 5/32	3.4375	7/8 x 1/4	-	x	x	x	x	x	-	-	-	248.0
6.00	182/184TC	4.50	.906	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	x	x	x	x	x	x	365.0
6.00	213/215TC	4.50	.906	1.375	5/16 x 5/32	3.9375	1 x 1/4	-	-	-	-	x	x	x	x	x	365.0

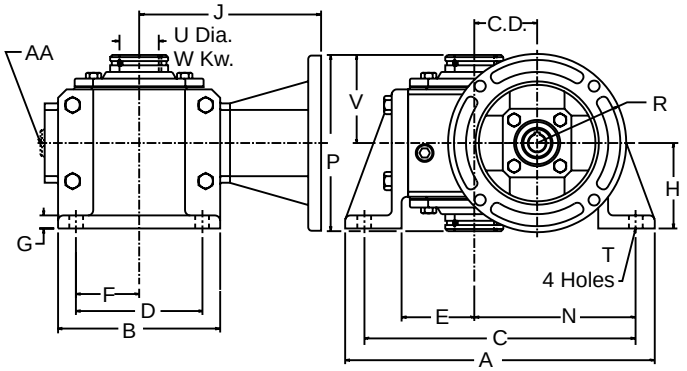
Fan Kit

Ref. No.	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375QH	**375 FAN**	3/8-24	3/4	7.66	2.8
450QH	**450 FAN**	3/8-24	3/4	8.36	2.8
516QH	**516 FAN**	3/8-24	3/4	9.18	2.8
600QH	**600 FAN**	3/8-24	3/4	10.70	4.2

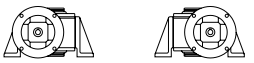
★ To complete Part No. add ratio symbol to size - for example 133Q56H10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218. Consult factory for ratios not shown as standard.

Style CHVL

Vertical Low Base



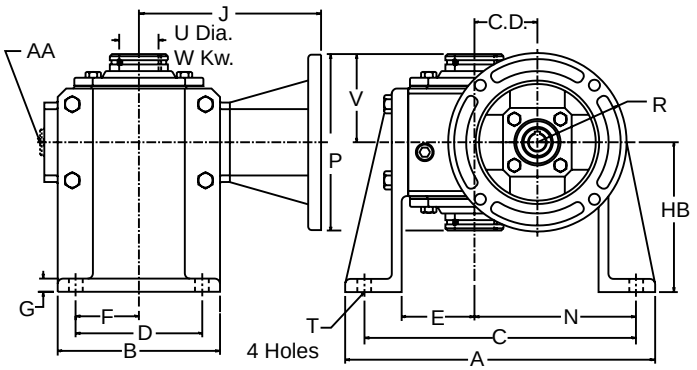
Assembly Drawing and Sample of Components



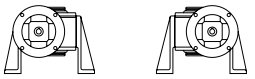
133UH10
133VL-BK
133MAK56

Style CHVH

Vertical High Base



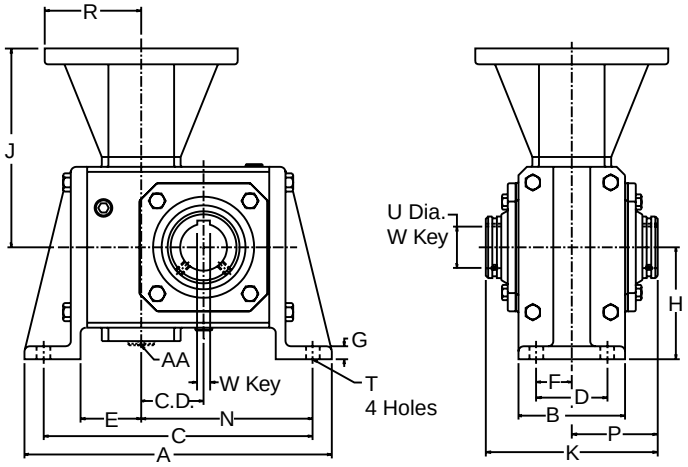
Assembly Drawing and Sample of Components



133UH10
133VH-BK
133MAK56

Style CHVJ

Vertical "J" Base



Sample of Components

133UH10
133VJ-BK
133MAK56

Note: If mounting fan unit, fan extends beyond "H" dimension.

Dimensions (Inches) for Style "CHVL" - Vertical Low Base

C.D.	Components ◆			A	B	C	D	E	F	G	H	N	P	T	V
	Basic Unit ★	Adapter Kit	Base Kit												
1.33	133UH	See Adapter Kit Table Below	133VL-BK	7.10	4.00	6.16	3.25	1.81	1.63	.53	2.31	3.69	5.31	.344	2.66
1.54	154UH		154VL-BK	8.06	5.12	7.00	4.00	1.97	2.00	.69	3.00	4.28	6.44	.406	3.22
1.75	175UH		175VL-BK	8.44	4.81	7.38	4.00	2.12	2.00	.69	3.00	4.50	5.70	.406	2.85
2.06	206UH		206VL-BK	9.50	5.63	8.38	4.88	2.34	2.44	.72	3.13	5.09	6.44	.469	3.22
2.37	237UH		237VL-BK	10.06	6.12	8.94	4.88	2.56	2.44	.75	3.38	5.44	6.31	.469	3.16
2.62	262UH		262VL-BK	11.25	7.13	10.13	5.75	3.00	2.88	.75	3.63	6.13	6.88	.531	3.44
3.00	300UH		300VL-BK	12.88	8.50	11.38	6.13	3.31	3.06	.81	4.69	6.88	8.38	.531	4.19
3.25	325UH		325VL-BK	13.38	8.50	11.88	6.13	3.56	3.06	.81	4.69	7.13	8.50	.531	4.25
3.75	375UH		375VL-BK	15.69	10.50	13.94	8.00	3.44	4.00	.88	5.25	8.31	9.63	.594	4.81
4.50	450UH		450VL-BK	16.94	10.88	14.94	9.56	4.63	4.78	.88	5.06	8.94	11.13	.688	5.56
5.16	516UH		516VL-BK	20.57	12.50	18.00	10.00	5.44	5.00	1.00	6.38	10.56	11.31	.781	5.66
6.00	600UH		600VL-BK	23.25	14.75	20.88	11.75	6.63	5.88	1.13	7.31	12.19	12.63	.906	6.31

C.D.	OUTPUT BORE ✚		Stock Ratios marked "x"									Wt. Lbs.
	U +.0015 -.0000	W Keyway	5	10	15	20	25	30	40	50	60	
1.33	.6250	3/16 x 3/32	x	x	x	x	x	x	x	x	x	23.3
1.54	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	30.4
1.75	1.0000	1/4 x 1/8	x	x	x	x	x	x	x	x	x	34.5
2.06	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	42.0
2.37	1.4375	3/8 x 1/8	x	x	x	x	x	x	x	x	x	60.0
2.62	1.9375	1/2 x 1/8	x	x	x	x	x	x	x	x	x	74.0
3.00	2.1875	1/2 x 3/16	x	x	x	x	x	x	x	x	x	99.5
3.25	2.1875	1/2 x 3/16	-	x	x	x	x	x	x	x	x	106.0
3.75	2.4375	5/8 x 3/16	-	x	x	x	x	x	x	x	x	146.5
4.50	2.9375	3/4 x 1/4	-	x	x	x	x	x	x	x	x	189.0
5.16	3.4375	7/8 x 1/4	-	x	x	x	x	x	x	x	x	288.0
6.00	3.9375	1 x 1/4	x	x	x	x	x	x	x	x	x	427.0

Dimensions (Inches) for Style "CHVH"

Components ◆			HB	Wt. Lbs.
Base Unit ★	Adapter Kit	Base Kit		
133UH	See Adapter Kit Table Below	133VH-BK	3.56	24.3
154UH		154VH-BK	4.38	31.4
175UH		175VH-BK	4.38	35.5
206UH		206VH-BK	4.88	43.0
237UH		237VH-BK	5.25	62.5
262UH		262VH-BK	5.60	78.0
300UH		300VH-BK	6.25	103.0
325UH		325VH-BK	6.25	109.0
375UH		375VH-BK	7.00	150.0
450UH		450VH-BK	8.56	197.0
516UH		516VH-BK	8.63	300.0
600UH		600VH-BK	9.63	442.0

Fan Kit

Basic Unit ★	Fan Kit	AA		L	Wt. Lbs.
		Tap	Deep		
375UH	375 FAN	3/8-24	3/4	7.66	2.8
450UH	450 FAN	3/8-24	3/4	8.36	2.8
516UH	516 FAN	3/8-24	3/4	9.18	2.8
600UH	600 FAN	3/8-24	3/4	10.70	4.2

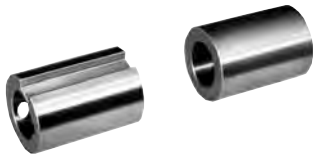
Dimensions (Inches) for Style "CHVJ" - Vertical "J" Base

Components ◆			A	B	C	D	E	F	G	H	K	N	P	T	Wt. Lbs.
Base Unit. ★	Adapter Kit	Base Kit													
133UH	See Adapter Kit Table Below	133VJ-BK	7.28	2.88	6.42	2.00	1.66	1.00	.53	2.94	5.31	3.93	2.66	.344	22.0
154UH		154VJ-BK	8.25	3.69	7.25	2.50	1.98	1.25	.69	3.50	6.44	4.39	3.22	.406	29.0
175UH		175VJ-BK	8.63	3.38	7.63	2.50	2.00	1.25	.69	3.50	5.70	4.75	2.85	.406	32.0
206UH		206VJ-BK	9.75	3.75	8.62	2.62	2.09	1.31	.72	3.94	6.44	5.46	3.22	.469	38.0
237UH		237VJ-BK	10.30	4.06	9.19	2.88	2.12	1.44	.75	4.06	6.31	6.00	3.16	.469	55.0
262UH		262VJ-BK	11.75	4.44	10.38	3.13	2.50	1.56	.75	4.75	6.88	6.75	3.44	.531	69.0
300UH		300VJ-BK	13.50	5.00	12.25	4.00	2.69	2.00	.81	5.94	8.38	7.94	4.19	.531	93.0
325UH		325VJ-BK	14.00	5.00	12.75	4.00	2.69	2.00	.81	5.69	8.50	8.44	4.25	.531	96.0
375UH		375VJ-BK	15.06	6.25	13.31	4.75	2.94	2.38	.88	6.00	9.63	9.06	4.81	.594	130.0
450UH		450VJ-BK	16.94	7.38	14.94	5.81	3.06	2.91	.88	7.38	11.13	10.50	5.56	.688	167.0
516UH		516VJ-BK	19.38	7.38	17.50	5.81	3.40	2.91	1.00	7.75	11.31	12.35	5.66	.781	258.0
600UH		600VJ-BK	22.00	8.13	20.00	6.38	4.12	3.19	1.13	8.50	12.63	14.25	6.31	.906	372.0

N.E.M.A. Frame Adapter Kits and Dimensions

C.D.	56C Input: .625 Kw.: 3/16 x 3/32			143/145TC Input: .875 Kw.: 3/16 x 3/32			182/184TC Input: 1.125 KW.: 1/4 x 1/8			213/215TC Input: 1.375 Kw.: 5/16 x 5/32			254/256TC Input: 1.625 Kw.: 3/8 x 3/16		
	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R	Adapter Kit No.	J	R
1.33	133MAK56	6.38	3.25	133MAK140											
1.54	154-206MAK56	7.13	3.25	154-206MAK140	7.13	3.25									
1.75	154-206MAK56	7.00	3.25	154-206MAK140	7.00	3.25									
2.06	154-206MAK56	7.37	3.25	154-206MAK140	7.37	3.25									
2.37	237MAK56	7.69	3.25	237MAK140	7.69	3.25									
2.62	262MAK56	8.50	3.25	262MAK140	8.50	3.25	262MAK180	9.72	4.50						
3.00	300-325MAK56	9.35	3.25	300-325MAK140	9.35	3.25	300-325MAK180	10.57	4.50						
3.25	300-325MAK56	9.37	3.25	300-325MAK140	9.37	3.25	300-325MAK180	10.59	4.50	325MAK210					
3.75	375MAK56	11.47	3.38	375MAK140	11.47	3.38	375MAK180	12.92	4.50	375MAK210	12.92	4.50			
4.50				450MAK140	12.15	3.38	450MAK180	13.60	4.50	450MAK210	13.60	4.50			
5.16							516MAK180	14.40	4.50	516MAK210	14.40	4.50			
6.00							600MAK180	16.97	4.50	600MAK210	16.97	4.50	600MAK250	16.97	4.50

★ To complete Part No. add ratio symbol to size - for example 133UH10.
◆ Components needed to make assembled reducer must be ordered separately. If Fan Kit is required, see the table above.
✚ For adapting reducers to shafts smaller than output bore, use Bushing Kits; see the table on page 218.
Consult factory for ratios not shown as standard.



Bushings for Raider Hollow Shaft Reducers

Reducer C.D.	Shaft Dia.	Shaft Keyseat	Bushing Kit No.	Wt. Lbs.
1.54	3/4	3/16 x 3/32 x 1 1/8	**100BU012**	.3
&	7/8	3/16 x 3/32x 1 1/8	**100BU014**	.1
1.75	15/16	1/4 x 1/8 x 1 1/8	**100BU015**	.1
2.06	3/4	3/16 x 3/32 x 2	**107BU012**	1.4
&	7/8	3/16 x 3/32 x 2	**107BU014**	1.2
2.37	15/16	1/4 x 1/8 x 2	**107BU015**	1.1
	1	1/4 x 1/8 x 2	**107BU100**	1.0
	1 1/16	1/4 x 1/8 x 2	**107BU101**	.9
	1 1/8	14 x 1/8 x 2	**107BU102**	.8
	1 3/16	1/4 x 1/8 x 2	**107BU103**	.6
	1 1/4	1/4 x 1/8 x 2	**107BU104**	.5
	1 5/16	5/16 x 5/32 x 2	**107BU105**	.4
2.62	15/16	1/4 x 1/8 x 2 1/2	**115BU015**	3.2
	1	1/4 x 1/8 x 2 1/2	**115BU100**	3.1
	1 1/6	1/4 x 1/8 x 2 1/2	**115BU101**	3.0
	1 1/8	1/4 x 1/8 x 2 1/2	**115BU102**	2.8
	1 3/16	1/4 x 1/8 x 2 1/2	**115BU103**	2.7
	1 1/4	1/4 x 1/8 x 2 1/2	**115BU104**	2.5
	1 5/16	5/16 x 5/32 x 2 1/2	**115BU105**	2.3
	1 3/8	5/16 x 5/32 x 2 1/2	**115BU106**	2.1
	1 7/16	3/8 x 3/16 x 2 1/2	**115BU107**	1.9
	1 1/2	3/8 x 3/16 x 2 1/2	**115BU108**	1.7
	1 5/8	3/8 x 3/16 x 2 1/2	**115BU110**	1.3
	1 11/16	3/8 x 3/16 x 2 1/2	**115BU111**	1.1
	1 3/4	3/8 x 3/16 x 2 1/2	**115BU112**	.8
3.00	1 3/16	1/4 x 1/8 x 2 1/2	**203BU103**	3.8
&	1 1/4	1/4 x 1/8 x 2 1/2	**203BU104**	3.6
3.25	1 5/16	5/16 x 5/32 x 2 1/2	**203BU105**	3.5
	1 3/8	5/16 x 5/32 x 2 1/2	**203BU106**	3.4
	1 7/16	3/8 x 3/16 x 2 1/2	**203BU107**	3.1
	1 1/2	3/8 x 3/16 x 2 1/2	**203BU108**	2.9
	1 5/8	3/8 x 3/16 x 2 1/2	**203BU110**	2.4
	1 11/16	3/8 x 3/16 x 2 1/2	**203BU111**	2.2
	1 3/4	3/8 x 3/16 x 2 1/2	**203BU112**	2.0
	1 7/8	1/2 x 1/4 x 2 1/2	**203BU114**	1.5
	1 15/16	1/2 x 1/4 x 2 1/2	**203BU115**	1.2
	2	1/2 x 1/4 x 2 1/2	**203BU200**	.9

Reducer C.D.	Shaft Dia.	Shaft Keyseat	Bushing Kit No.	Wt. Lbs.
3.75	1 3/8	5/16 x 5/32 x 3 1/2	**207BU106**	6.4
	1 7/16	3/8 x 3/16 x 3 1/2	**207BU107**	6.1
	1 1/2	3/8 x 3/16 x 3 1/2	**207BU108**	5.8
	1 5/8	3/8 x 3/16 x 3 1/2	**207BU110**	5.2
	1 11/16	3/8 x 3/16 x 3 1/2	**207BU111**	4.9
	1 3/4	3/8 x 3/16 x 3 1/2	**207BU112**	4.5
	1 7/8	1/2 x 1/4 x 3 1/2	**207BU114**	3.8
	1 15/16	1/2 x 1/4 x 3 1/2	**207BU115**	3.5
	2	1/2 x 1/4 x 3 1/2	**207BU200**	3.1
	2 1/8	1/2 x 1/4 x 3 1/2	**207BU202**	2.3
	2 3/16	1/2 x 1/4 x 3 1/2	**207BU203**	1.8
	2 1/4	1/2 x 1/4 x 3 1/2	**207BU204**	1.4
4.50	1 7/16	3/8 x 3/16 x 4	**215BU107**	11.7
	1 1/2	3/8 x 3/16 x 4	**215BU108**	11.4
	1 11/16	3/8 x 3/16 x 4	**215BU111**	10.3
	1 3/4	3/8 x 3/16 x 4	**215BU112**	9.9
	1 7/8	1/2 x 1/4 x 4	**215BU114**	9.1
	1 15/16	1/2 x 1/4 x 4	**215BU115**	8.7
	2	1/2 x 1/4 x 4	**215BU200**	8.3
	2 3/16	1/2 x 1/4 x 4	**215BU203**	6.9
	2 1/4	1/2 x 1/4 x 4	**215BU204**	6.4
	2 7/16	5/8 x 5/16 x 4	**215BU207**	4.8
	2 1/2	5/8 x 5/16 x 4	**215BU208**	4.3
	2 11/16	5/8 x 5/16 x 4	**215BU211**	2.5
5.16	1 15/16	1/2 x 1/4 x 4 1/2	**307BU115**	16.2
	2	1/2 x 1/4 x 4 1/2	**307BU200**	15.7
	2 3/16	1/2 x 1/4 x 4 1/2	**307BU203**	14.1
	2 1/4	1/2 x 1/4 x 4 1/2	**307BU204**	13.6
	2 7/16	5/8 x 5/16 x 4 1/2	**307BU207**	11.8
	2 1/2	5/8 x 5/16 x 4 1/2	**307BU208**	11.2
	2 11/16	5/8 x 5/16 x 4 1/2	**307BU211**	9.3
	2 7/8	3/4 x 3/8 x 4 1/2	**307BU214**	7.1
	2 15/16	3/4 x 3/8 x 4 1/2	**307BU215**	6.4
6.00	2 7/16	5/8 x 5/16 x 4 1/2	**315BU207**	19.2
	2 1/2	5/8 x 5/16 x 4 1/2	**315BU208**	18.6
	2 11/16	5/8 x 5/16 x 4 1/2	**315BU211**	16.6
	2 13/16	3/4 x 3/8 x 4 1/2	**315BU213**	15.2
	2 7/8	3/4 x 3/8 x 4 1/2	**315BU214**	14.5
	2 15/16	3/4 x 3/8 x 4 1/2	**315BU215**	13.8
	3	3/4 x 3/8 x 4 1/2	**315BU300**	13.1
	3 3/16	3/4 x 3/8 x 4 1/2	**315BU303**	10.7
	3 7/16	7/8 x 7/16 x 4 1/2	**315BU307**	7.4

Fan Kit

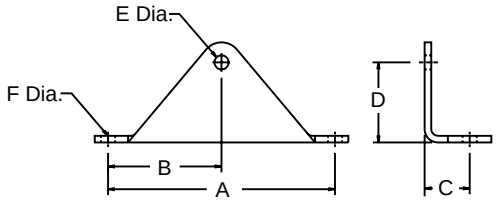
Fan Kit	Wt. Lbs.
375 Fan Kit	2.8
450 Fan Kit	2.8
516 Fan Kit	2.8
600 Fan Kit	4.2

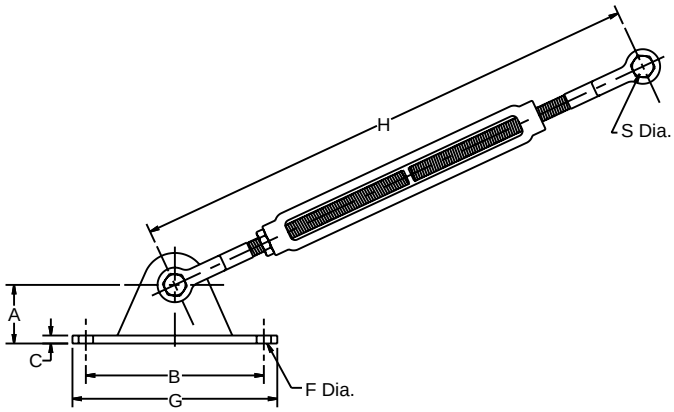
N.E.M.A. Frame Adapter Kit

Kit Part No.	Frame Size	Wt./Lbs.
133MAK56	56C	7.0
154-206MAK56	56C	7.0
154-206MAK140	143/145TC	7.0
237MAK56	56C	8.0
237MAK140	143/145TC	8.0
262MAK56	56C	8.0
262MAK140	143/145TC	8.0
262MAK180	182/184TC	11.0
300-325MAK56	56C	11.0
300-325MAK140	143/145TC	11.0
300-325MAK180	182/184TC	11.0
325MAK210	213/215TC	11.0
375MAK56	56C	12.5
375MAK140	143/145TC	12.5
375MAK180	182/184TC	12.5
375MAK210	213/215TC	12.5
450MAK140	143/145TC	14.0
450MAK180	182/184TC	16.0
450MAK210	213/215TC	16.0
516MAK180	182/184TC	18.0
516MAK210	213/215TC	18.0
600MAK180	182/184TC	22.0
600MAK210	213/215TC	22.0
600MAK250	254/256TC	30.0

Dimensions (Inches) for Torque Arm Kit

Part No.	A	B	C	D	E	F	Wt./Lbs.
133H-TAK	3.25	1.63	.75	1.22	.53	.344	.6
154H-TAK	4.19	2.09	.82	1.08	.53	.344	.7
175H-TAK	4.19	2.09	.95	1.38	.53	.344	.9
206H-TAK	5.00	2.50	1.28	1.97	.53	.406	1.0
237H-TAK	5.00	2.50	1.28	2.25	.53	.406	1.2
262H-TAK	6.38	3.19	1.31	2.38	.53	.406	1.4
300H-TAK	7.00	3.50	1.44	2.62	.53	.468	1.7
325H-TAK	7.50	3.75	1.35	3.19	.53	.468	2.0
375H-TAK	8.50	4.25	1.68	3.00	.53	.531	2.5
450H-TAK	9.56	4.78	1.94	3.50	.81	.656	3.4
516H-TAK	11.00	5.50	1.75	4.00	.81	.687	5.5
600H-TAK	12.75	6.38	1.75	4.63	.81	.687	6.9



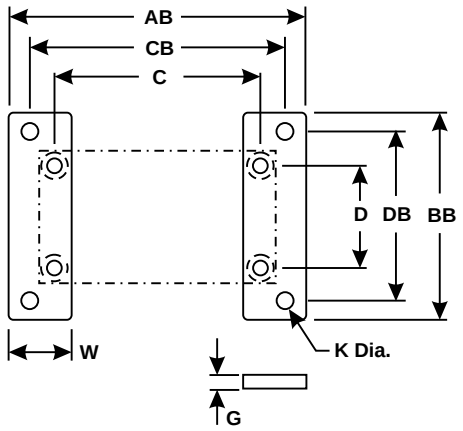


Dimensions (Inches) for Adjustable Torque Arm Kit

Part No.	B	C	F	G	H	S	Wt./Lbs.
133-175ATAK	2.50	.18	.375	3.50	9-15	.53	2.0
206-375ATAK	2.50	.18	.375	3.50	24-30	.53	3.8
450-600ATAK	3.00	.18	.438	4.25	27-33	.81	6.3

Dimensions (Inches) for Horizontal Econo Base Kit

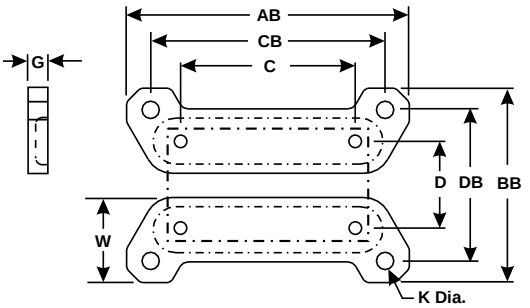
Part No.	AB	BB	C	CB	D	DB	G	K	W	Wt./Lbs.
100E-BK	4.37	3.50	2.63	3.75	1.69	2.88	0.25	0.344	1.25	0.8
133E-BK	5.37	4.19	3.25	4.37	2.00	3.31	0.25	0.344	1.50	1.1
154E-BK	6.31	5.38	4.19	5.25	2.75	4.31	0.25	0.406	1.50	1.3
175E-BK	6.81	5.50	4.19	5.75	2.75	4.50	0.25	0.406	1.81	1.7
206E-BK	7.56	5.75	5.00	6.38	2.88	4.69	0.25	0.469	1.75	1.9
237E-BK	8.30	6.12	5.00	7.06	2.88	4.88	0.38	0.469	2.25	4.0
262E-BK	9.00	6.25	6.38	8.00	3.38	5.25	0.38	0.531	1.94	3.8
300E-BK	9.76	7.12	7.00	8.44	4.00	5.88	0.38	0.531	2.00	4.2
325E-BK	10.50	7.12	7.50	9.50	4.00	6.12	0.38	0.531	2.00	4.5



Dimensions (Inches) for Horizontal Standard Base Kit

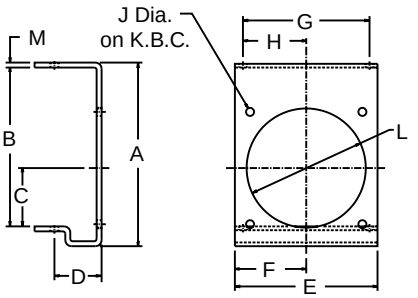
Part No.	AB	BB	C	CB	D	DB	G	K	W	Wt./Lbs.
100S-BK	4.37	3.50	2.63	3.75	1.69	2.88	0.38	0.344	N/A *	0.9
133S-BK	5.38	4.19	3.25	4.38	2.00	3.31	0.47	0.344	N/A *	1.3
154S-BK	6.44	5.44	4.19	5.25	2.75	4.31	0.59	0.406	2.04	1.5
175S-BK	7.00	5.56	4.19	5.75	2.75	4.50	0.69	0.406	2.18	2.0
206S-BK	7.69	5.76	5.00	6.38	2.88	4.69	0.72	0.469	2.31	2.2
237S-BK	8.50	6.19	5.00	7.06	2.88	4.88	0.75	0.469	2.47	4.4
262S-BK	9.25	6.50	6.38	8.00	3.38	5.25	0.75	0.531	2.50	4.6
300S-BK	10.17	7.38	7.00	8.44	4.00	5.88	0.88	0.531	2.62	4.8
325S-BK	11.12	7.75	7.50	9.50	4.00	6.13	0.88	0.531	2.81	5.2
375S-BK	12.00	8.63	8.50	10.38	4.75	7.00	0.94	0.594	2.88	10.0
450S-BK	13.88	9.33	9.56	12.12	5.81	7.63	1.12	0.656	2.88	17.0
516S-BK	16.38	10.37	11.00	14.13	5.81	8.37	1.12	0.781	3.47	26.0
600S-BK	19.00	12.00	12.75	16.50	6.38	9.50	1.25	0.906	4.00	43.0

*One-piece Base



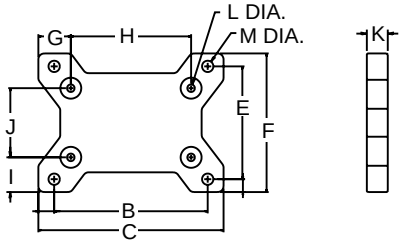
Dimensions (Inches) for Flange Kit

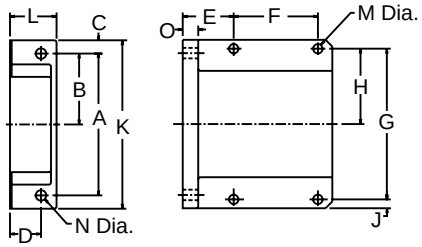
Part No.	A	B	C	D	E	F	G	H	J	K	L	M	Wt./Lbs.
133H-FK	5.56	4.66	1.72	2.00	4.25	2.13	3.25	1.63	.344	5.000	3.63	.19	2.7
154H-FK	6.19	5.38	1.91	2.19	4.75	2.38	4.19	2.09	.344	5.000	3.63	.19	3.3
175H-FK	6.66	5.75	2.06	2.13	4.81	2.41	4.19	2.09	.344	5.875	4.06	.19	3.4
206H-FK	7.43	6.38	2.28	2.31	5.75	2.88	5.00	2.50	.406	6.500	4.50	.19	4.6
237H-FK	8.24	6.94	2.50	2.28	6.13	3.06	5.00	2.50	.406	7.500	5.00	.19	5.1
262H-FK	9.25	8.00	2.94	2.37	7.18	3.59	6.38	3.19	.406	8.000	6.00	.25	8.4
300H-FK	10.02	8.88	3.25	2.50	8.50	4.25	7.00	3.50	.406	9.000	7.00	.25	10.1
325H-FK	10.89	9.38	3.50	3.25	8.50	4.25	7.50	3.75	.563	10.000	7.00	.25	11.9
375H-FK	11.85	10.44	3.88	3.08	9.54	4.77	8.50	4.25	.563	11.500	8.00	.25	13.3
450H-FK	13.10	11.94	4.50	3.96	10.88	5.44	9.56	4.78	.563	11.500	9.00	.31	21.8
516H-FK	15.33	13.75	5.31	3.67	12.50	6.25	11.00	5.50	.687	14.000	10.00	.31	26.9
600H-FK	18.22	16.50	6.50	4.03	14.50	7.25	12.75	6.38	.687	15.563	12.00	.38	44.7



Dimensions (Inches) for Solid Horizontal One Piece Base

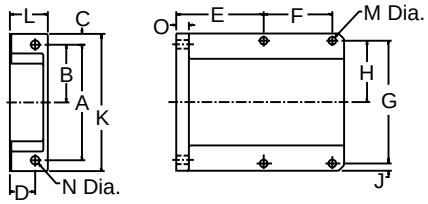
Part No.	A	B	C	D	E	F	G	H	I	J	K	L Dia.	M Dia.
133-BKS	.50	4.38	5.38	.44	3.31	4.19	1.06	3.25	1.10	2.00	.53	.38	.38
154-BKS	.60	5.25	6.44	.57	4.32	5.46	1.13	4.19	1.35	2.75	.59	.38	.44
175-BKS	.62	5.75	7.00	.53	4.50	5.56	1.41	4.19	1.40	2.75	.69	.38	.44
206-BKS	.66	6.38	7.69	.53	4.69	5.76	1.35	5.00	1.44	2.88	.72	.44	.50
237-BKS	.72	7.06	8.50	.66	4.88	6.20	1.75	5.00	1.66	2.88	.75	.44	.50
262-BKS	.63	8.00	9.25	.62	5.25	6.50	1.44	6.38	1.56	3.38	.75	.44	.56
300-BKS	.86	8.44	10.16	.74	5.88	7.36	1.58	7.00	1.68	4.00	.88	.50	.56
325-BKS	.82	9.50	11.13	.81	6.13	7.75	1.82	7.50	1.88	4.00	.88	.50	.56





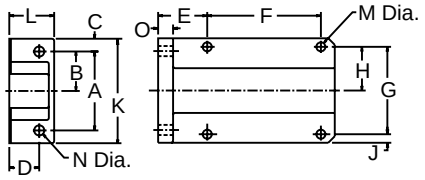
Dimensions (Inches) for Vertical Low Base Kit

Part No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Wt./Lbs.
100VL-BK	2.31	1.16	.49	.75	1.00	1.69	2.62	1.31	.34	3.30	1.06	.320	.288	.13	1.8
133VL-BK	3.25	1.62	.38	.75	1.31	2.00	3.25	1.62	.38	4.00	1.22	.344	.344	.53	2.3
154VL-BK	4.00	2.00	.56	.81	1.63	2.75	4.19	2.09	.47	5.12	1.34	.344	.406	.69	3.4
175VL-BK	4.00	2.00	.41	.81	1.63	2.75	4.19	2.09	.31	4.81	1.34	.344	.406	.69	4.5
206VL-BK	4.88	2.44	.38	1.00	1.69	2.88	5.00	2.50	.31	5.63	1.56	.406	.469	.72	7.0
237VL-BK	4.88	2.44	.63	1.00	1.94	2.88	5.00	2.50	.56	6.12	1.56	.406	.469	.75	8.0
262VL-BK	5.75	2.88	.69	1.06	1.94	3.38	6.38	3.19	.38	7.12	1.63	.406	.531	.75	9.0
300VL-BK	6.13	3.06	1.19	1.25	2.69	4.00	7.00	3.50	.75	8.50	2.00	.469	.531	.81	12.5
325VL-BK	6.13	3.06	1.19	1.25	2.69	4.00	7.50	3.75	.50	8.50	2.00	.469	.531	.81	16.0
375VL-BK	8.00	4.00	.75	1.75	2.88	4.75	8.50	4.25	.50	9.50	2.63	.531	.594	.88	25.0
450VL-BK	9.56	4.78	.66	1.50	2.16	5.81	9.56	4.78	.66	10.88	2.50	.687	.687	.88	33.0
516VL-BK	10.00	5.00	1.25	2.13	3.47	5.82	11.00	5.50	.75	12.50	3.44	.687	.781	1.00	48.0
600VL-BK	11.75	5.88	1.50	2.19	3.94	6.38	12.75	6.38	1.00	14.75	3.38	.687	.906	1.13	76.0



Dimensions (Inches) for Vertical High Base Kit

Part No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Wt./Lbs.
100VH-BK	2.31	1.16	.49	.75	2.13	1.69	2.62	1.31	.34	3.30	1.06	.320	.288	.13	1.8
133VH-BK	3.25	1.62	.38	.75	2.56	2.00	3.25	1.62	.38	4.00	1.22	.344	.344	.53	3.3
154VH-BK	4.00	2.00	.56	.81	3.01	2.75	4.19	2.09	.47	5.12	1.34	.344	.406	.69	4.4
175VH-BK	4.00	2.00	.41	.81	3.01	2.75	4.19	2.09	.31	4.81	1.34	.344	.406	.69	5.5
206VH-BK	4.88	2.44	.38	1.00	3.44	2.88	5.00	2.50	.31	5.63	1.56	.406	.469	.72	8.0
237VH-BK	4.88	2.44	.63	1.00	3.81	2.88	5.00	2.50	.56	6.12	1.56	.406	.469	.75	10.5
262VH-BK	5.75	2.88	.69	1.06	3.91	3.38	6.38	3.19	.38	7.12	1.63	.406	.531	.75	13.0
300VH-BK	6.13	3.06	1.19	1.25	4.25	4.00	7.00	3.50	.75	8.50	2.00	.469	.531	.81	16.0
325VH-BK	6.13	3.06	1.19	1.25	5.00	4.00	7.50	3.75	.50	8.50	2.00	.469	.531	.81	19.0
375VH-BK	8.00	4.00	.75	1.75	4.63	4.75	8.50	4.25	.50	9.50	2.63	.531	.594	.88	28.5
450VH-BK	9.56	4.78	.66	1.50	5.66	5.81	9.56	4.78	.66	10.88	2.50	.687	.687	.88	41.0
516VH-BK	10.00	5.00	1.25	2.13	5.72	5.82	11.00	5.50	.75	12.50	3.44	.687	.781	1.00	60.0
600VH-BK	11.75	5.88	1.50	2.19	6.26	6.38	12.75	6.38	1.00	14.75	3.38	.687	.906	1.13	91.0

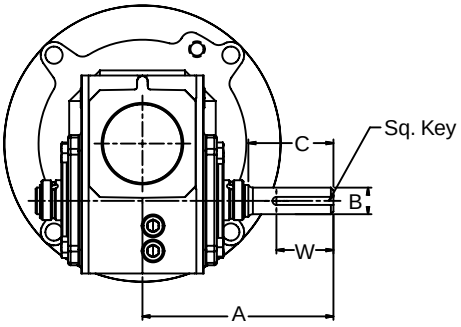


Dimensions (Inches) for Vertical "J" Base Kit

Part No.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	Wt./Lbs.
100VJ-BK	1.69	.85	.41	.75	1.00	2.62	1.69	.85	.41	2.50	1.12	.320	.288	.13	.8
133VJ-BK	2.00	1.00	.44	.88	1.31	3.25	2.00	1.00	.44	2.88	1.31	.344	.344	.53	1.0
154VJ-BK	2.50	1.25	.60	.94	1.41	4.19	2.75	1.38	.47	3.69	1.44	.344	.406	.69	2.0
175VJ-BK	2.50	1.25	.44	.94	1.41	4.19	2.75	1.38	.31	3.38	1.44	.344	.406	.69	2.0
206VJ-BK	2.62	1.31	.57	1.12	1.44	5.00	2.88	1.44	.44	3.75	1.69	.406	.469	.72	3.0
237VJ-BK	2.88	1.44	.59	1.12	1.56	5.00	2.88	1.44	.59	4.06	1.69	.406	.469	.75	3.0
262VJ-BK	3.13	1.56	.66	1.19	1.56	6.38	3.38	1.69	.53	4.44	1.88	.406	.531	.75	4.0
300VJ-BK	4.00	2.00	.50	1.69	2.44	7.00	4.00	2.00	.50	5.00	2.31	.469	.531	.81	6.0
325VJ-BK	4.00	2.00	.50	1.69	1.94	7.50	4.00	2.00	.50	5.00	2.31	.469	.531	.81	6.0
375VJ-BK	4.75	2.38	.75	1.44	1.75	8.50	4.75	2.38	.75	6.25	2.31	.531	.594	.88	8.5
450VJ-BK	5.81	2.91	.79	1.50	2.60	9.56	5.81	2.91	.79	7.38	2.50	.687	.687	.88	11.0
516VJ-BK	5.81	2.91	.79	1.88	2.25	11.00	5.82	2.91	.78	7.38	2.81	.687	.781	1.00	18.0
600VJ-BK	6.38	3.19	.88	1.75	2.12	12.75	6.38	3.19	.88	8.13	2.75	.687	.906	1.13	21.0

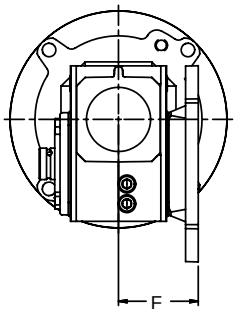
Dimensions (Inches) for Output Plug-In Shaft Kit

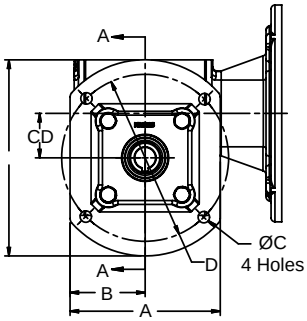
Part No.	A	B	C	W	Sq. Key
133H-SK	4.49	0.625	2.00	1.312	0.1875
154H-SK	4.90	0.750	1.81	1.250	0.1875
175H-SK	4.92	0.875	1.91	1.375	0.1875
206H-SK	5.43	1.000	2.00	1.750	0.2500
237H-SK	5.74	1.125	2.37	1.750	0.2500
262H-SK	6.21	1.125	2.50	2.000	0.2500
300H-SK	7.74	1.250	3.25	2.250	0.2500
325H-SK	7.74	1.375	3.25	2.875	0.3125

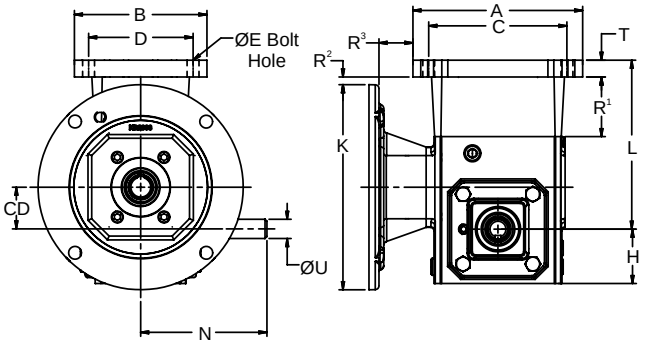


Dimensions (Inches) for Cast Iron Output Flange Kit

Part No.	CD	A	B	C	D	E	F
133H-CFK	1.33	4.50	2.25	0.344	5.00	5.88	3.00
154H-CFK	1.54	4.50	2.25	0.344	5.00	5.75	3.54
175H-CFK	1.75	4.88	2.44	0.344	5.87	6.75	3.50
206H-CFK	2.06	5.75	2.88	0.406	7.00	7.87	3.75
237H-CFK	2.37	6.80	3.40	0.405	7.50	8.60	3.74
262H-CFK	2.62	7.75	3.88	0.406	8.00	8.88	4.06
300H-CFK	3.00	8.20	4.10	0.405	9.00	10.15	4.75
325H-CFK	3.25	9.00	4.50	0.531	10.00	11.00	5.25



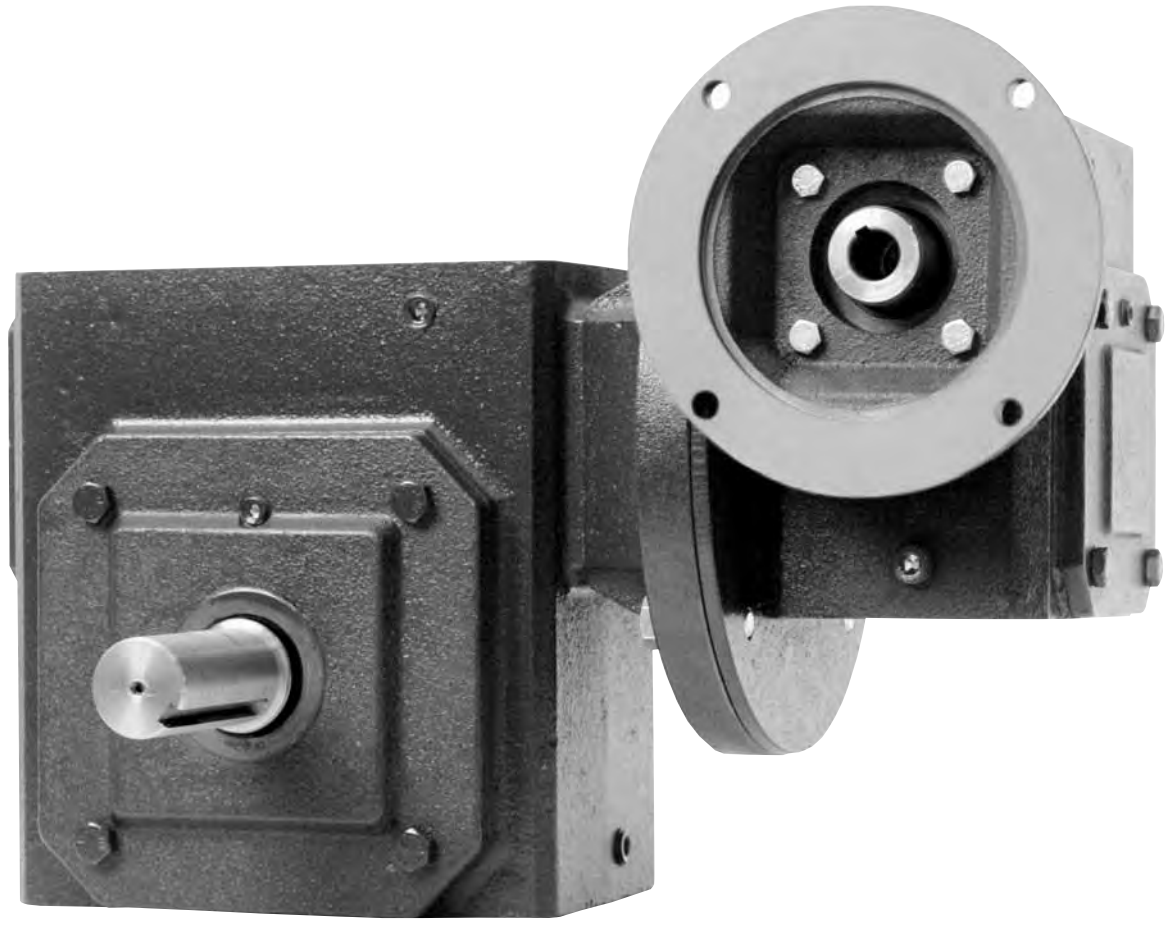




Dimensions (Inches) for Base Kit/Riser Kit

Base Kit	Riser Block Kit	C.D.	C-Face	R¹	R²	R³	T	A	B	C	D	E	K	H	L	N	U
133-BKS	133R-BK	1.33	56/140	1.89	0.24	1.07	0.53	5.38	4.20	4.38	3.31	0.38	6.50	1.72	5.35	4.00	0.62
154-BKS	154R-BK	1.54	56/140	1.55	0.23	0.97	0.59	6.44	5.46	5.25	4.32	0.44	6.50	1.91	5.61	4.31	0.75
175-BKS	175R-BK	1.75	56/140	1.61	0.30	0.57	0.69	7.00	5.56	5.75	4.50	0.44	6.50	2.06	5.99	4.31	0.88
206-BKS	206R-BK	2.06	56/140	1.42	0.20	0.57	0.72	7.70	5.76	6.38	4.69	0.50	6.50	2.28	6.23	4.72	1.00
237-BKS	237R-BK	2.37	56/140	2.69	1.51	0.50	0.75	8.50	6.20	7.06	4.88	0.50	6.50	2.50	7.88	5.08	1.13
262-BKS	262R-BK	2.62	56/140 180	2.40	1.59 0.34	0.59 0.72	0.75	9.26	6.50	8.00	5.25	0.56	6.50 9.00	2.93	8.22	5.63	1.13
300-BKS	300R-BK	3.00	56/140 180	2.12	1.50 0.25	0.11 0.58	0.88	10.16	7.36	8.44	5.88	0.56	6.50 9.00	3.25	8.63	6.75	1.25
325-BKS	325R-BK	3.25	56/140 180	1.87	1.25 0	0.82 0.65	0.88	11.14	7.76	9.50	6.13	0.56	6.50 9.00	3.50	8.63	7.06	1.38
375S-BK	375R-BK	3.75	56/140 180	1.77	1.2 0.08	0.53	0.94	12.00	8.63	10.38	7.00	0.59	6.76 9.00	3.88	9.27	7.75	1.63
450S-BK	450R-BK	4.50	140 180/215	2.27	1.83 0.71	0.28	1.12	13.88	9.33	12.12	7.63	0.66	6.76 9.00	4.50	10.83	8.44	1.63
516S-BK	516R-BK	5.16	180/215	2.01	0.78	-	1.12	16.38	10.37	14.13	8.37	0.78	9.00	5.31	11.57	9.06	2.00

Off the shelf Tack-On Adapter Kits can be used to combine standard Raider Plus reducers to achieve ratios to 3600:1.



Select a speed reducer drive for a belt conveyor which is not uniformly fed. The speed reducer will be driven by a 1750 rpm electric motor, C-Flange connected. Conveyor head shaft speed is 3.5 rpm and conveyor operates 8 to 10 hours daily. Conveyor calculations indicate that 2200 inch-pounds torque is needed at the head shaft.

1. Determine the Service Factor

From the table on page 162, note that the service factor for a conveyor, not uniformly loaded, operating 8 - 10 hours per day is 1.25.

2. Determine the Overall Drive Ratio

$$\text{Overall Drive Ratio} = \frac{\text{1750 rpm of Driver}}{\text{3.5 rpm of Driven}} = 500 : 1$$

3. Calculate the Normal Torque

The normal torque required for reducer selection is the actual torque at the reducer output shaft multiplied by the service factor.

Normal Torque = 2200 x 1.25 = 2750 inch-pounds

4. Determine the Primary and Secondary Speed Reducer Ratios

From page 227 note that for an overall ratio of 500:1, all possible reducer combinations consist of a 10:1 primary and a 50:1 secondary.

5. Determine the Size of the Secondary Speed Reducer Required

From the 500:1 ratio portion of the tables on page 227 note that a 325-50 with a minimum allowable output torque of 4090 in-lbs. is required. Referring to pages 172 and 173, the secondary unit basic size is 325Q56. The complete part number would be 325Q56LR50.

6. Determine the Size of the Primary Speed Reducer Required

From the tables for a 500:1 ratio on page 227, and using a 325-50 as the secondary unit, the primary unit is a 133-10. Referring to pages 172 and 173, the primary unit basic size is 133Q56. The complete part number would be 133Q56LR10.

7. Select the Adapter

From the tables on page 230, note that a 133TADQ56 adapter is required.

8. Check the Tack-On Assembly

From the Tack-On Assembly drawings on page 225, select the assembly which will give the desired position and direction of projection of the input and output shafts. Assuming that output shaft bottom and input vertical with motor UP is desired, note that an "L2" assembly is the correct one. Tack-On assemblies must be checked for non-stock reducers and/or appropriate base kit requirements.

9. Determine the Motor Horsepower

From the 500:1 Ratio Table on page 227, note that .563 input hp is required for the selected reducer combination.

Use a 1/2 hp motor. If the selected motor horsepower is more than the reducer combination required horsepower then a torque limiting device must be used on the output of the secondary reducer.

10. Check the Overhung Loads

From page 159

$$\text{Overhung Load} = \frac{2 \times T \times K}{\text{P.D. of Sprocket}}$$

Note that since the input is C-Flanged, there is no input overhung load. Output overhung load is dependent upon the size and type of the output drive.

11. List Drive Components

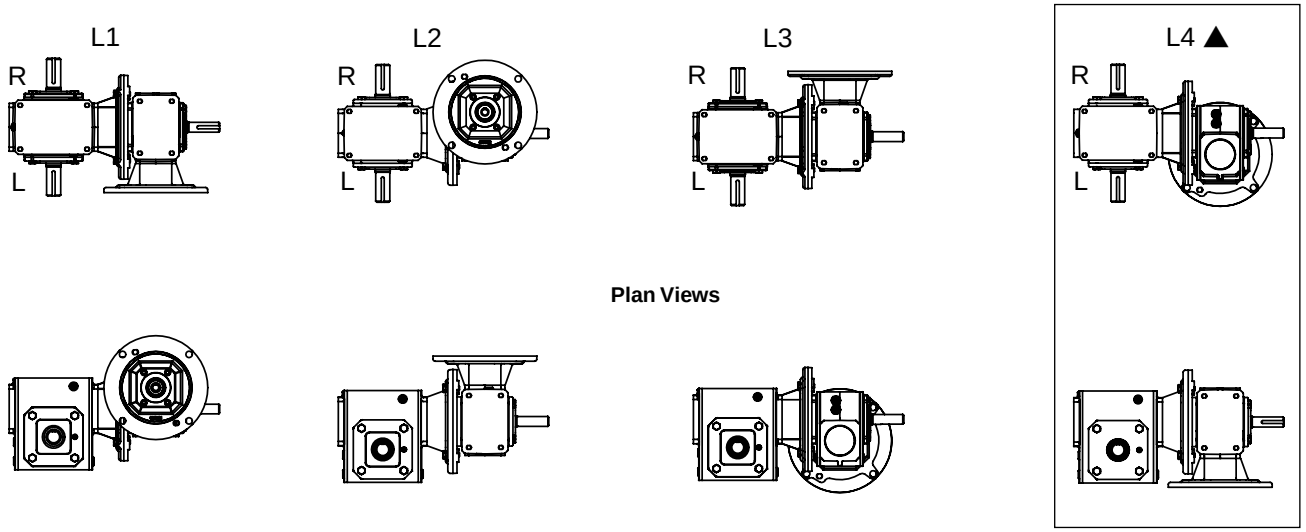
See Motor Catalog for Motor Selection

133Q56LR10	Primary Reducer
325Q56LR50	Secondary Reducer
133TAD Q56 Kit	Adapter

Floor Mount Tack-On Reducer Assemblies

All Arrangements Show Secondary Reducer in Standard Position, Worm-Over and Input to Right

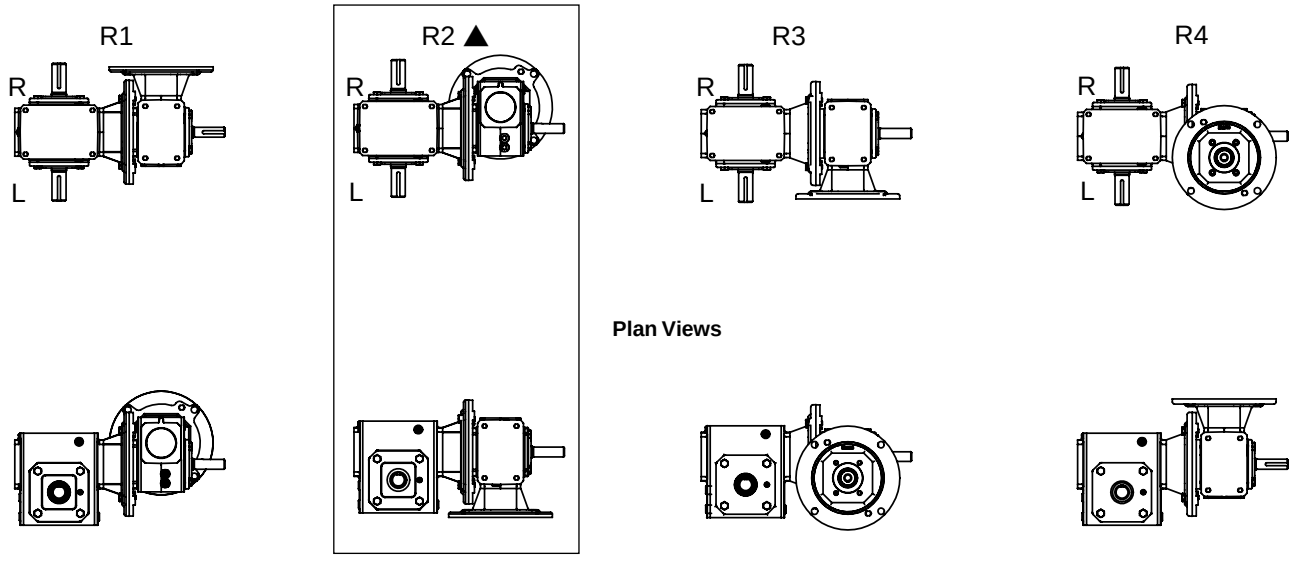
Primary Unit Using Left Output Extension to Secondary Input



Plan Views

Elevation View

Primary Unit Using Right Output Extension to Secondary Input



Plan Views

Elevation Views

Notes:

Primary unit can be C-Flanged or universal style input and L, R, or LR output style.
Secondary unit must be C-Flanged style input - any output style can be used.
▲ All possible combinations are shown, as the secondary unit being floor-mounted. In it's installed location neither unit should be mounted with the worm vertical, and input down. This mounting configuration is not recommended
The oil level in each unit should be adjusted for the actual orientation of the unit.

Input Horsepower and Output Torque for Coupled Raider Plus Single Reduction Worm Gear Speed Reducers

(1750 rpm Driver – 1.0 Service Factor)

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
25:1 Ratio - 70 rpm Output			
133-5	133-5	0.372	221
133-5	154-5	0.572	343
133-5	175-5	0.773	465
50:1 Ratio - 35 rpm Output			
133-5	133-10	0.229	263
133-5	154-10	0.375	425
133-5	175-10	0.492	571
133-5	206-10	0.813	947
133-5	237-10	1.255	1470
175-5	262-10	1.715	2039
262-5	375-10	4.589	5636
75:1 Ratio - 23.3 rpm Output			
133-5	133-15	0.166	270
133-5	154-15	0.295	460
133-5	175-15	0.355	589
133-5	206-15	0.591	980
133-5	237-15	0.983	1613
133-5	262-15	1.255	2112
175-5	262-15	1.243	2112
175-5	300-15	2.050	3460
237-5	375-15	3.590	6214
262-5	375-15	3.580	6214
325-5	450-15	5.649	9989
325-5	516-15	7.779	13950
100:1 Ratio - 17.5 rpm Output			
133-5	133-20	0.140	284
133-5	154-20	0.234	459
133-5	175-20	0.298	619
133-5	206-20	0.494	1028
133-5	237-20	0.764	1595
133-5	262-20	1.042	2212
175-5	262-20	1.032	2212
175-5	300-20	1.585	3423
175-5	325-20	2.063	4421
237-5	375-20	2.764	6138
237-5	450-20	4.393	9886
262-5	375-20	2.756	6138
262-5	450-20	4.380	9886
133-10	133-10	0.124	269
133-10	154-10	0.206	439
133-10	175-10	0.269	592
133-10	206-10	0.449	988
133-10	237-10	0.698	1542
175-10	262-10	0.954	2151
175-10	300-10	1.464	3336
237-10	375-10	2.594	6059
262-10	375-10	2.583	6059
325-10	375-10	2.562	6059
325-10	450-10	4.150	9893
325-10	516-10	5.731	13800
150:1 Ratio - 11.67 rpm Output			
133-5	133-30	0.107	278
133-5	154-30	0.187	472
133-5	175-30	0.211	605
133-5	206-30	0.353	1006
133-5	237-30	0.602	1658
133-5	262-30	0.743	2167
133-5	300-30	1.251	3558
175-5	262-30	0.737	2167
175-5	300-30	1.239	3558
175-5	325-30	1.482	4359
237-5	375-30	2.149	6386
237-5	450-30	3.393	10283
262-5	375-30	2.143	6386
262-5	450-30	3.383	10283
262-5	516-30	4.617	14383

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
150:1 Ratio - 11.67 rpm Output			
133-10	133-15	0.090	277
133-10	154-15	0.165	476
133-10	175-15	0.194	607
133-10	206-15	0.326	1018
133-10	237-15	0.554	1694
133-10	262-15	0.703	2216
175-10	262-15	0.693	2216
175-10	300-15	1.156	3674
175-10	325-15	1.408	4514
237-10	375-15	2.047	6692
262-10	375-15	2.038	6692
262-10	450-15	3.295	10936
325-10	450-15	3.268	10936
325-10	516-15	4.543	15437
200:1 Ratio - 8.75 rpm Output			
133-5	133-40	0.087	282
133-5	154-40	0.149	457
133-5	175-40	0.182	616
133-5	206-40	0.302	1022
133-5	237-40	0.468	1588
133-5	262-40	0.633	2202
133-5	300-40	0.965	3405
133-5	325-40	1.264	4399
175-5	262-40	0.627	2202
175-5	300-40	0.955	3405
175-5	325-40	1.252	4399
237-5	375-40	1.652	6119
237-5	450-40	2.605	9862
237-5	516-40	3.510	13677
262-5	375-40	1.648	6119
262-5	450-40	2.596	9862
262-5	516-40	3.499	13677
133-10	133-20	0.077	291
133-10	154-20	0.132	475
133-10	175-20	0.165	640
133-10	206-20	0.275	1068
133-10	237-20	0.431	1670
133-10	262-20	0.591	2324
175-10	262-20	0.583	2324
175-10	300-20	0.896	3613
175-10	325-20	1.178	4720
237-10	375-20	1.575	6567
237-10	450-20	2.540	10732
262-10	375-20	1.567	6567
262-10	450-20	2.529	10732
325-10	450-20	2.508	10732
325-10	516-20	3.442	15003
225:1 Ratio - 7.78 rpm Output			
133-15	133-15	0.064	279
133-15	154-15	0.118	483
133-15	175-15	0.138	614
133-15	206-15	0.231	1029
133-15	237-15	0.396	1721
133-15	262-15	0.500	2251
175-15	262-15	0.493	2251
175-15	300-15	0.827	3747
175-15	325-15	1.008	4606
237-15	375-15	1.469	6853
262-15	375-15	1.456	6853
325-15	450-15	2.335	11249
325-15	516-15	3.257	15931
250:1 Ratio - 7 rpm Output			
133-5	133-50	0.072	268
133-5	154-50	0.122	433
133-5	175-50	0.149	583
133-5	206-50	0.247	968
133-5	237-50	0.372	1479

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
250:1 Ratio - 7 rpm Output			
133-5	262-50	0.518	2088
133-5	300-50	0.771	3197
133-5	325-50	1.037	4188
175-5	262-50	0.512	2088
175-5	300-50	0.764	3197
175-5	325-50	1.027	4188
237-5	375-50	1.336	5789
237-5	450-50	2.103	9333
237-5	516-50	2.798	12877
262-5	375-50	1.332	5789
262-5	450-50	2.096	9333
262-5	516-50	2.790	12877
300:1 Ratio - 5.83 rpm Output			
133-5	175-60	0.125	546
133-5	206-60	0.208	909
133-5	237-60	0.314	1393
133-5	262-60	0.434	1960
133-5	300-60	0.635	2974
133-5	325-60	0.872	3941
175-5	262-60	0.429	1960
175-5	300-60	0.630	2974
175-5	325-60	0.863	3941
237-5	450-60	1.727	8699
237-5	516-60	2.291	11978
262-5	450-60	1.721	8699
262-5	516-60	2.285	11978
133-10	133-30	0.056	284
133-10	154-30	0.107	489
133-10	175-30	0.119	622
133-10	206-30	0.198	1044
133-10	237-30	0.347	1739
133-10	262-30	0.425	2273
133-10	300-30	0.724	3768
175-10	262-30	0.420	2273
175-10	300-30	0.725	3768
175-10	325-30	0.853	4637
237-10	375-30	1.251	6866
237-10	450-30	2.009	11230
262-10	375-30	1.246	6866
262-10	450-30	2.000	11230
325-10	516-30	2.730	15850
325-10	600-30	4.077	23625
133-15	133-20	0.055	293
133-15	154-20	0.094	480
133-15	175-20	0.118	646
133-15	206-20	0.197	1082
133-15	237-20	0.306	1693
133-15	262-20	0.423	2362
175-15	262-20	0.415	2362
175-15	300-20	0.641	3682
175-15	325-20	0.850	4821
237-15	375-20	1.134	6718
237-15	450-20	1.833	11029
262-15	375-20	1.124	6718
262-15	450-20	1.817	11029
325-15	450-20	1.799	11029
325-15	516-20	2.466	15433
400:1 Ratio - 4.37 rpm Output			
133-10	133-40	0.048	290
133-10	154-40	0.086	472
133-10	175-40	0.104	635
133-10	206-40	0.172	1062
133-10	237-40	0.270	1660
133-10	262-40	0.367	2313
133-30	206-30	0.082	1069
133-30	237-30	0.146	1793
133-30	262-30	0.177	2345
133-10	300-40	0.562	3596

Input Horsepower and Output Torque for Coupled Raider Plus Single Reduction Worm Gear Speed Reducers
(1750 rpm Driver – 1.0 Service Factor)

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
400:1 Ratio - 4.37 rpm Output			
133-10	325-40	0.743	4697
175-10	262-40	0.362	2313
175-10	300-40	0.555	3596
175-10	325-40	0.735	4697
237-10	375-40	0.962	6535
237-10	450-40	1.543	10692
237-10	516-40	2.088	14932
262-10	375-40	0.958	6535
262-10	450-40	1.537	10692
262-10	516-40	2.080	14932
325-10	600-40	3.138	22584
133-20	133-20	0.044	295
133-20	154-20	0.074	483
133-20	175-20	0.093	650
133-20	206-20	0.157	1089
133-20	237-20	0.245	1705
133-20	262-20	0.336	2382
175-20	262-20	0.329	2382
175-20	300-20	0.508	3711
175-20	325-20	0.673	4872
237-20	375-20	0.894	6784
237-20	450-20	1.452	11171
262-20	375-20	0.884	6784
262-20	450-20	1.437	11171
262-20	516-20	1.975	15660
325-20	450-20	1.418	11171
325-20	516-20	1.949	15660
450:1 Ratio - 3.89 rpm Output			
133-15	133-30	0.040	287
133-15	154-30	0.076	495
133-15	175-30	0.086	629
133-15	206-30	0.143	1056
133-15	237-30	0.251	1766
133-15	262-30	0.305	2309
133-15	300-30	0.526	3841
175-15	262-30	0.300	2309
175-15	300-30	0.518	3841
175-15	325-30	0.619	4727
237-15	375-30	0.910	7029
237-15	450-30	1.466	11556
262-15	375-30	0.903	7029
262-15	450-30	1.453	11556
325-15	516-30	1.981	16361
325-15	600-30	2.989	24550
500:1 Ratio - 3.5 rpm Output			
133-10	133-50	0.041	274
133-10	154-50	0.070	447
133-10	175-50	0.085	601
133-10	206-50	0.142	1006
133-10	237-50	0.215	1542
133-10	262-50	0.303	2191
133-10	300-50	0.451	3364
133-10	325-50	0.614	4458
175-10	262-50	0.299	2191
175-10	300-50	0.446	3364
175-10	325-50	0.606	4458
237-10	375-50	0.782	6166
237-10	450-50	1.247	10068
237-10	516-50	1.669	13996

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
500:1 Ratio - 3.5 rpm Output			
262-10	375-50	0.778	6166
262-10	450-50	1.242	10068
262-10	516-50	1.661	13996
325-10	516-50	1.648	13996
325-10	600-50	2.363	20370
600:1 Ratio - 2.92 rpm Output			
133-10	175-60	0.072	562
133-10	206-60	0.120	943
133-10	237-60	0.183	1452
133-10	262-60	0.254	2054
133-10	300-60	0.374	3125
133-10	325-60	0.518	4188
175-10	262-60	0.251	2054
175-10	300-60	0.370	3125
175-10	325-60	0.510	4188
237-10	450-60	1.027	9351
237-10	516-60	1.372	12990
262-10	450-60	1.022	9351
262-10	516-60	1.367	12990
325-10	600-60	2.011	19333
133-15	133-40	0.035	292
133-15	154-40	0.062	477
133-15	175-40	0.075	642
133-15	206-40	0.124	1076
133-15	237-40	0.195	1683
133-15	262-40	0.266	2350
133-15	300-40	0.409	3659
133-15	325-40	0.547	4796
175-15	262-40	0.262	2350
175-15	300-40	0.402	3659
175-15	325-40	0.538	4796
237-15	375-40	0.703	6677
237-15	450-40	1.127	10962
237-15	516-40	1.527	15367
262-15	375-40	0.697	6677
262-15	450-40	1.117	10962
262-15	516-40	1.514	15367
325-15	600-40	2.306	23388
133-20	133-20	0.031	288
133-20	154-30	0.062	497
133-20	175-30	0.069	632
133-20	206-30	0.114	1063
133-20	237-30	0.202	1779
133-20	262-30	0.245	2327
133-20	300-30	0.422	3880
175-20	262-30	0.240	2327
175-20	300-30	0.412	3880
175-20	325-30	0.492	4773
237-20	375-30	0.724	7110
237-20	450-30	1.171	11710
262-20	375-30	0.716	7110
262-20	450-30	1.159	11710
325-20	516-30	1.579	16603
325-20	600-30	2.384	25013
750:1 Ratio - 2.33 rpm Output			
133-15	133-50	0.028	276
133-15	154-50	0.512	451
133-15	175-50	0.062	607
133-15	206-50	0.104	1017

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
750:1 Ratio - 2.33 rpm Output			
133-15	237-50	0.156	1563
133-15	262-50	0.219	2226
133-15	300-50	0.329	3418
133-15	325-50	0.452	4546
175-15	262-50	0.216	2226
175-15	300-50	0.324	3418
175-15	325-50	0.445	4546
237-15	375-50	0.573	6294
237-15	450-50	0.916	10320
237-15	516-50	1.224	14375
262-15	375-50	0.568	6294
262-15	450-50	0.908	10320
262-15	516-50	1.213	14375
325-15	600-50	1.731	21038
800:1 Ratio - 2.18 rpm Output			
133-20	133-40	0.028	293
133-20	154-40	0.049	480
133-20	175-40	0.060	645
133-20	206-40	0.100	1082
133-20	237-40	0.158	1695
133-20	262-40	0.214	2369
133-20	300-40	0.328	3691
133-20	325-40	0.440	4846
175-20	262-40	0.209	2369
175-20	300-40	0.322	3691
175-20	325-40	0.431	4846
237-20	375-40	0.558	6748
237-20	450-40	0.901	11104
237-20	516-40	1.224	15582
262-20	375-40	0.553	6748
262-20	450-40	0.892	11104
262-20	516-40	1.212	15582
325-20	600-40	1.848	23817
900:1 Ratio - 1.94 rpm Output			
133-15	133-60	0.024	258
133-15	154-60	0.045	425
133-15	175-60	0.052	568
133-15	206-60	0.087	954
133-15	237-60	0.134	1470
133-15	262-60	0.185	2084
133-15	300-60	0.273	3174
133-15	325-60	0.384	4271
175-15	262-60	0.182	2084
175-15	300-60	0.267	3174
175-15	325-60	0.377	4271
237-15	450-60	0.755	9583
237-15	516-60	1.008	13318
262-15	450-60	0.749	9583
262-15	516-60	1.000	13318
325-15	450-60	0.741	9583
325-15	516-20	0.989	13318
325-15	600-60	1.478	19970
133-30	133-30	0.023	289
133-30	154-30	0.045	500
133-30	175-30	0.049	635
133-30	300-30	0.307	3915
175-30	262-30	0.172	2345
175-30	300-30	0.299	3915
175-30	325-30	0.356	4827

■ Basic unit size. See assembly drawings to determine Raider Plus assembled part no. and complete the part no. following the directions on that page.

Above ratings are not applicable when reducer shafts are subjected to combined overhung and thrust loads.
See pages 164 - 168 for overhung loads. Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering .

Contact Application Engineering (1 800 626 2093) for the following:
1. High starting torques exceeding 300% of the reducer mechanical rating.
2. Frequent starting or repetitive shock applications.
3. Applications where high energy loads must be absorbed as when stalling.

Input Horsepower and Output Torque for Coupled Raider Plus Single Reduction Worm Gear Speed Reducers
(1750 rpm Driver – 1.0 Service Factor)

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
900:1 Ratio - 1.94 rpm Output			
237-30	375-30	0.526	7199
237-30	450-30	0.851	11879
262-30	450-30	0.833	11879
325-30	516-30	1.128	16862
325-30	600-30	1.721	25502
1000:1 Ratio - 1.75 rpm Output			
133-20	133-50	0.023	277
133-20	154-50	0.041	453
133-20	175-50	0.049	610
133-20	206-50	0.084	1024
133-20	237-50	0.125	1575
133-20	262-50	0.178	2242
133-20	300-50	0.265	3445
133-20	325-50	0.364	4595
175-20	262-50	0.174	2242
175-20	300-50	0.259	3445
175-20	325-50	0.356	4595
237-20	375-50	0.456	6365
237-20	450-50	0.735	10455
237-20	516-50	0.981	14562
262-20	375-50	0.451	6365
262-20	450-50	0.727	10455
262-20	516-50	0.971	14562
325-20	600-50	1.389	21367
1200:1 Ratio - 1.46 rpm Output			
133-20	175-60	0.041	571
133-20	206-60	0.071	960
133-20	237-60	0.107	1481
133-20	262-60	0.150	2102
133-20	300-60	0.220	3199
133-20	325-60	0.308	4311
175-20	262-60	0.147	2102
175-20	300-60	0.215	3199
175-20	325-60	0.302	4311
237-20	450-60	0.606	9691
237-20	516-60	0.810	13487
262-20	450-60	0.600	9691
262-20	516-60	0.802	13487
325-20	450-60	0.592	9691
325-20	516-60	0.791	13487
325-20	600-60	1.191	20278
133-30	133-40	0.020	294
133-30	154-40	0.036	483
133-30	175-40	0.043	649
133-30	206-40	0.074	1090
133-30	237-40	0.114	1708
133-30	262-40	0.157	2388
133-30	300-40	0.241	3723
133-30	325-40	0.323	4897
175-30	262-40	0.153	2388
175-30	300-40	0.234	3723
175-30	325-40	0.314	4897
237-30	375-40	0.408	6823
237-30	450-40	0.658	11246
237-30	516-40	0.892	15806
262-30	375-40	0.399	6823
262-30	450-40	0.644	11246
262-30	516-40	0.872	15806
325-30	600-40	1.334	24231
1500:1 Ratio - 1.17 rpm Output			
133-30	133-50	0.016	245
133-30	154-50	0.029	456
133-30	175-50	0.036	613
133-30	206-50	0.061	1030
133-30	237-50	0.092	1585

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
133-30	262-50	0.130	2260
133-30	300-50	0.195	3475
133-30	325-50	0.268	4644
1500:1 Ratio - 1.17 rpm Output			
175-30	262-50	0.125	2260
175-30	300-50	0.190	3475
175-30	325-50	0.261	4644
237-30	375-50	0.334	6430
237-30	450-50	0.537	10582
237-30	516-50	0.717	14761
262-30	375-50	0.327	6430
262-30	450-50	0.525	10582
262-30	516-50	0.702	14761
262-30	600-50	1.018	21712
325-30	375-50	0.320	6430
325-30	450-50	0.517	10582
325-30	516-50	0.690	14761
1600:1 Ratio -1.09 rpm Output			
133-40	133-40	0.017	294
133-40	154-40	0.029	484
133-40	175-40	0.037	651
133-40	206-40	0.061	1092
133-40	237-40	0.094	1713
133-40	262-40	0.131	2399
133-40	300-40	0.201	3739
133-40	325-40	0.270	4921
175-40	262-40	0.125	2399
175-40	300-40	0.193	3739
175-40	325-40	0.261	4921
237-40	375-40	0.331	6857
237-40	450-40	0.535	11316
237-40	516-40	0.726	15909
262-40	375-40	0.326	6857
262-40	450-40	0.525	11316
262-40	516-40	0.712	15909
325-40	600-40	1.086	24433
1800:1 Ratio - .97 rpm Output			
133-30	175-60	0.032	573
133-30	206-60	0.051	966
133-30	237-60	0.078	1490
133-30	262-60	0.111	2118
133-30	300-60	0.162	3226
133-30	325-60	0.229	4358
175-30	262-60	0.108	2118
175-30	300-60	0.158	3226
175-30	325-60	0.222	4358
237-30	450-60	0.445	9811
237-30	516-60	0.594	13659
262-30	375-60	0.271	5966
262-30	450-60	0.435	9811
262-30	516-60	0.581	13659
325-30	600-60	0.861	20605
2000:1 Ratio - .87 rpm Output			
133-40	133-50	0.014	279
133-40	154-50	0.024	457
133-40	175-50	0.029	615
133-40	206-50	0.050	1032
133-40	237-50	0.076	1590
133-40	262-50	0.108	2268
133-40	300-50	0.162	3491
133-40	325-50	0.225	4666
175-40	262-50	0.104	2268
175-40	300-50	0.156	3491
175-40	325-50	0.217	4666
237-40	375-50	0.271	6460
237-40	450-50	0.437	10645

Reducers ■		Primary	Secondary
Primary	Secondary	Input hp	Output Torque (In.-Lbs)
237-40	516-50	0.584	14857
262-40	375-50	0.267	6460
262-40	450-50	0.429	10645
262-40	516-50	0.573	14857
325-40	600-50	0.816	21878
2400:1 Ratio - .73 rpm Output			
133-40	175-60	0.024	576
133-40	206-60	0.041	967
133-40	237-60	0.064	1495
133-40	262-60	0.093	2124
133-40	300-60	0.134	3241
133-40	325-60	0.192	4379
175-40	262-60	0.089	2124
175-40	300-60	0.130	3241
175-40	325-60	0.184	4379
237-40	450-60	0.363	9861
237-40	516-60	0.485	13745
262-40	450-60	0.356	9861
262-40	516-60	0.476	13745
325-40	450-60	0.348	9861
325-40	516-60	0.464	13745
325-40	600-60	0.705	20765
2500:1 Ratio - .70 rpm Output			
133-50	133-50	0.011	279
133-50	154-50	0.022	457
133-50	175-50	0.026	615
133-50	206-50	0.043	1034
133-50	237-50	0.066	1592
133-50	262-50	0.092	2272
133-50	300-50	0.137	3499
133-50	325-50	0.192	4682
175-50	262-50	0.087	2272
175-50	300-50	0.132	3499
175-50	325-50	0.184	4682
237-50	375-50	0.230	6482
237-50	450-50	0.372	10685
237-50	516-50	0.495	14909
262-50	375-50	0.226	6482
262-50	450-50	0.364	10685
262-50	516-50	0.485	14909
325-50	600-50	0.690	21972
3000:1 Ratio - .58 rpm Output			
133-50	175-60	0.022	576
133-50	206-60	0.037	970
133-50	237-60	0.057	1498
133-50	262-50	0.078	2128
133-50	300-60	0.116	3246
133-50	325-60	0.165	4393
175-50	262-50	0.075	2128
175-50	300-60	0.110	3246
175-50	325-60	0.158	4393
237-50	450-60	0.307	9892
237-50	516-60	0.412	13805
262-50	450-60	0.302	9892
262-50	516-60	0.404	13805
325-50	450-60	0.293	9892
325-50	516-60	0.393	13805
325-50	600-60	0.596	20854
3600:1 Ratio - .49 rpm Output			
175-60	262-60	0.046	2276
175-60	300-60	0.097	3250
175-60	325-60	0.140	4399
237-60	450-60	0.270	9922
237-60	516-60	0.361	13840
262-60	450-60	0.264	9922
262-60	516-60	0.353	13840
325-60	600-60	0.522	20924

■ Basic unit size. See assembly drawings to determine Raider Plus assembled part no. and complete the part no. following the directions on that page.

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See pages 164 - 168 for overhung loads. Maximum overhung loads are at center of keyseats and on one end of output shaft only. Overhung loads applied closer to the reducer housing are desirable, but overhung loads farther out on the shaft and overhung loads on both ends of output shaft should be referred to Application Engineering .

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2. Frequent starting or repetitive shock applications.
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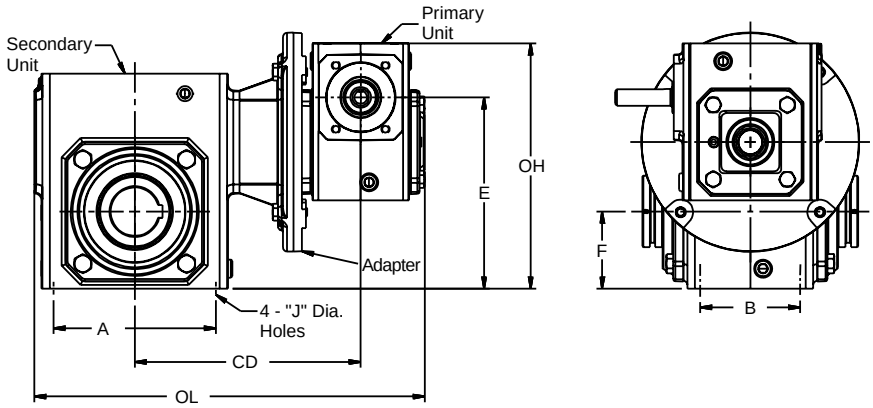


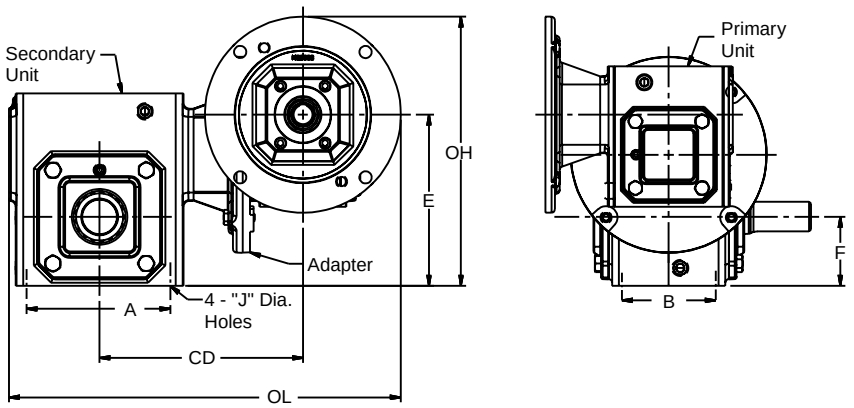
U-Style Input — Dimensions (inches)

SECONDARY UNIT *	PRIMARY UNIT **	A	B	E	F	J	CD	OL	OH
133Q56	133U	3.25	2.00	4.39	1.72	5/16-18	6.09	10.12	5.99
145Q56	133U	4.19	2.75	4.78	1.91	5/16-18	6.51	11.17	6.39
175Q56	133U	4.19	2.75	5.14	2.06	5/16-18	6.42	11.08	6.75
206Q56	133U	5.00	2.88	5.67	2.28	3/8-16	6.75	11.66	7.28
237Q56	133U	5.00	2.88	6.21	2.50	3/8-16	7.06	12.53	7.81
262Q56	133U	6.38	3.38	6.89	2.94	3/8-16	7.69	13.29	8.50
262Q140	175U	6.38	3.38	7.31	2.94	3/8-16	8.06	14.01	9.25
300Q56	133U	7.00	4.00	7.58	3.25	7/16-14	7.66	14.06	9.19
300Q140	175U	7.00	4.00	8.00	3.25	7/16-14	8.03	14.78	9.34
325Q56	133U	7.50	4.00	8.08	3.50	7/16-14	8.56	14.97	9.69
325Q140	175U	7.50	4.00	8.50	3.50	7/16-14	8.93	15.69	10.44
375Q180	237U	8.50	4.75	10.01	3.88	1/2-13	9.78	18.05	12.07
375Q180	262U	8.50	4.75	10.25	3.88	1/2-13	10.12	18.80	12.69
375Q210	325U	8.50	4.75	10.88	3.88	1/2-13	11.16	20.43	13.51
450Q180	237U	9.56	5.81	11.38	4.50	5/8-11	10.46	19.41	13.44
450Q180	262U	9.56	5.81	11.62	4.50	5/8-11	10.80	20.16	14.06
450Q210	325U	9.56	5.81	12.25	4.50	5/8-11	11.84	21.79	14.88
516Q180	237U	11.00	5.81	12.86	5.31	5/8-11	11.27	21.22	14.92
516Q180	262U	11.00	5.81	13.10	5.31	5/8-11	11.61	21.97	15.54
516Q210	325U	11.00	5.81	13.73	5.31	5/8-11	12.65	23.60	16.36
600Q210	325U	12.75	6.38	15.75	6.50	5/8-11	13.55	25.33	18.38

U-Style Input — Dimensions (inches)

SECONDARY UNIT *	PRIMARY UNIT **	ADAPTER KIT	SECONDARY OUTPUT SHAFT				PRIMARY INPUT SHAFT			
			DIA +.000 _.001	LENGTH	KEY SQ	KEY LENGTH	DIA +.000 _.001	LENGTH	KEY SQ	KEY LENGTH
133Q56	133U	133TAD Q56	0.625	2.00	0.188	1.31	0.500	1.81	0.125	1.38
145Q56	133U	133TAD Q56	0.750	1.78	0.188	1.25	0.500	1.81	0.125	1.38
175Q56	133U	133TAD Q56	0.875	1.88	0.188	1.38	0.500	1.81	0.125	1.38
206Q56	133U	133TAD Q56	1.000	2.00	0.250	1.75	0.500	1.81	0.125	1.38
237Q56	133U	133TAD Q56	1.125	2.37	0.250	1.75	0.500	1.81	0.125	1.38
262Q56	133U	133TAD Q56	1.125	2.50	0.250	2.00	0.500	1.81	0.125	1.38
262Q140	175U	175TAD Q140	1.125	2.50	0.250	2.00	0.625	1.81	0.188	1.50
300Q56	133U	133TAD Q56	1.250	3.25	0.250	2.25	0.500	2.26	0.125	1.38
300Q140	175U	175TAD Q140	1.250	3.25	0.250	2.25	0.625	2.26	0.188	1.50
325Q56	133U	133TAD Q56	1.375	3.25	0.313	2.88	0.500	1.81	0.125	1.38
325Q140	175U	175TAD Q140	1.375	3.25	0.313	2.88	0.625	1.81	0.188	1.50
375Q180	237U	237TAD Q180	1.625	3.50	0.375	2.81	0.750	1.94	0.188	1.31
375Q180	262U	262TAD Q180	1.625	3.50	0.375	2.81	0.750	2.31	0.188	1.88
375Q210	325U	325TAD Q210	1.625	3.50	0.375	2.81	0.875	2.31	0.188	1.63
450Q180	237U	237TAD Q180	1.625	3.38	0.375	2.50	0.750	1.94	0.188	1.31
450Q180	262U	262TAD Q180	1.625	3.38	0.375	2.50	0.750	2.31	0.188	1.88
450Q210	325U	325TAD Q210	1.625	3.38	0.375	2.50	0.875	2.31	0.188	1.63
516Q180	237U	237TAD Q180	2.000	4.16	0.500	2.81	0.750	1.94	0.188	1.31
516Q180	262U	262TAD Q180	2.000	4.16	0.500	2.81	0.750	2.31	0.188	1.88
516Q210	325U	325TAD Q210	2.000	4.16	0.500	2.81	0.875	2.31	0.188	1.63
600Q210	325U	325TAD Q210	2.250	4.56	0.500	3.50	0.875	2.31	0.188	1.63

* To complete part number, add shaft assembly code and ratio to size - for example, 133Q56LR10.
* Style QH can be substituted for the secondary unit.
** To complete part number,add shaft assembly code and ratio to size, for example 133ULR10.



Q-Style Input **Dimensions (inches)**

SECONDARY UNIT *	PRIMARY UNIT **	A	B	E	F	J	CD	OL	OH
133Q56	133Q	3.25	2.00	4.39	1.72	5/16-18	6.09	11.47	7.64
154Q56	133Q	4.19	2.75	4.78	1.91	5/16-18	6.51	12.51	8.03
175Q56	133Q	4.19	2.75	5.14	2.06	5/16-18	6.42	12.42	8.39
206Q56	133Q	5.00	2.88	5.67	2.28	3/8-16	6.75	13.00	8.92
237Q56	133Q	5.00	2.88	6.21	2.50	3/8-16	7.06	13.87	9.46
262Q56	133Q	6.38	3.38	6.89	2.94	3/8-16	7.69	14.63	10.14
262Q140	175Q	6.38	3.38	7.31	2.94	3/8-16	8.06	15.00	10.56
300Q56	133Q	7.00	4.00	7.58	3.25	7/16-14	7.66	15.41	10.83
300Q140	175Q	7.00	4.00	8.00	3.25	7/16-14	8.03	15.78	11.25
325Q56	133Q	7.50	4.00	8.08	3.50	7/16-14	8.56	16.31	11.33
325Q140	175Q	7.50	4.00	8.50	3.50	7/16-14	8.93	16.68	11.75
375Q180	237Q	8.50	4.75	10.01	3.88	1/2-13	9.78	18.77	14.51
375Q180	262Q	8.50	4.75	10.25	3.88	1/2-13	10.12	19.11	14.75
375Q210	325Q	8.50	4.75	10.88	3.88	1/2-13	11.16	20.15	15.38
450Q180	237Q	9.56	5.81	11.38	4.50	5/8-11	10.46	20.13	15.88
450Q180	262Q	9.56	5.81	11.62	4.50	5/8-11	10.80	20.46	16.12
450Q210	325Q	9.56	5.81	12.25	4.50	5/8-11	11.84	21.51	16.75
516Q180	237Q	11.00	5.81	12.86	5.31	5/8-11	11.27	21.94	17.36
516Q180	262Q	11.00	5.81	13.10	5.31	5/8-11	11.61	22.28	17.60
516Q210	325Q	11.00	5.81	13.73	5.31	5/8-11	12.65	23.32	18.23
600Q210	325Q	12.75	6.38	15.75	6.50	5/8-11	13.55	25.05	20.25

Q-Style Input **Dimensions (inches)**

SECONDARY UNIT *	PRIMARY UNIT **	ADAPTER KIT	SECONDARY OUTPUT SHAFT			
			DIA +.000 _.001	LENGTH	KEY SQ	KEY LENGTH
133Q23	133Q	133TAD Q56	0.625	2.00	0.188	1.31
154Q56	133Q	133TAD Q56	0.750	1.78	0.188	1.25
175Q56	133Q	133TAD Q56	0.875	1.88	0.188	1.38
206Q56	133Q	133TAD Q56	1.000	2.00	0.250	1.75
237Q56	133Q	133TAD Q56	1.125	2.37	0.250	1.75
262Q56	133Q	133TAD Q56	1.125	2.50	0.250	2.00
262Q140	175Q	175TAD Q140	1.125	2.50	0.250	2.00
300Q56	133Q	133TAD Q56	1.250	3.25	0.250	2.25
300Q140	175Q	175TAD Q140	1.250	3.25	0.250	2.25
325Q56	133Q	133TAD Q56	1.375	3.25	0.313	2.88
325Q140	175Q	175TAD Q140	1.375	3.25	0.313	2.88
375Q180	237Q	237TAD Q180	1.625	3.50	0.375	2.81
375Q180	262Q	262TAD Q180	1.625	3.50	0.375	2.81
375Q210	325Q	325TAD Q210	1.625	3.50	0.375	2.81
450Q180	237Q	237TAD Q180	1.625	3.38	0.375	2.50
450Q180	262Q	262TAD Q180	1.625	3.38	0.375	2.50
450Q210	325Q	325TAD Q210	1.625	3.38	0.375	2.50
516Q180	237Q	237TAD Q180	2.000	4.16	0.500	2.81
516Q180	262Q	262TAD Q180	2.000	4.16	0.500	2.81
516Q210	325Q	325TAD Q210	2.000	4.16	0.500	2.81
600Q210	325Q	325TAD Q210	2.250	4.56	0.500	3.50

* To complete part number, add shaft assembly code and ratio to size - for example, 133Q56LR10.
* Style QH can be substituted for the secondary unit.
** To complete part number, add motor frame size, shaft assembly code and ratio to size, for example 133Q56LR10.

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 Emerson Power Transmission Corporation 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 PURPOS 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.