

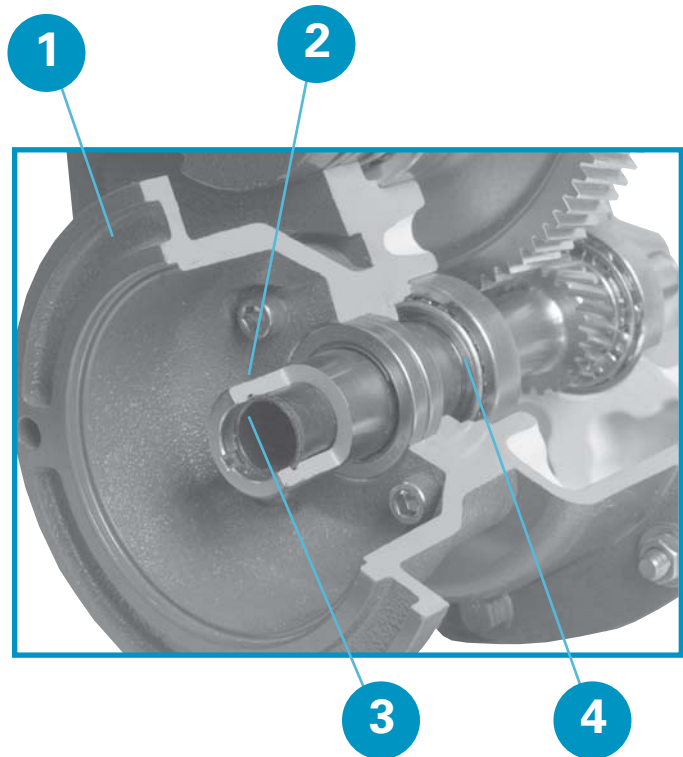
Innovative C-Face Motor Connections



Browning® C-Face TorqTaper Plus® Shaft Mount Reducers

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

- Eliminate belt guards, belt drives and motor mounts
- Combine with Intelligear® motor for variable speed control
- Patented mounting system, barrier seal system and increased ratings



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

Ordering Information

Example No. 1

Units 107 - 315 C-face Shaft Mounts

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

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

1. Determine the Load Classification

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

2. Determine the Speed Reducer Required

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

but to obtain the desired speed a variable frequency drive may be required. (Note: The motor and variable frequency drives are not included with the reducer.)

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

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

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

3. List Components

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

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

CMTP Availability Table

PART NO.	RATD	Q 56	Q 140	Q 180	Q 210	Q 250
107CMTP05	5.0588	107CMTP05 Q56	107CMTP05 Q140	-	-	-
107CMTP09	8.8205	107CMTP09 Q56	107CMTP09 Q140	-	-	-
107CMTP15	14.8276	107CMTP15 Q56	107CMTP15 Q140	-	-	-
107CMTP25	24.7250	107CMTP25 Q56	107CMTP25 Q140	-	-	-
107CMTP35	34.8778	107CMTP35 Q56	107CMTP35 Q140	-	-	-
115CMTP05	4.7000	115CMTP05 Q56	115CMTP05 Q140	115CMTP05 Q180	-	-
115CMTP09	8.8125	115CMTP09 Q56	115CMTP09 Q140	115CMTP09 Q180	-	-
115CMTP15	14.7759	115CMTP15 Q56	115CMTP15 Q140	115CMTP15 Q180	-	-
115CMTP25	24.8558	115CMTP25 Q56	115CMTP25 Q140	115CMTP25 Q180	-	-
115CMTP35	34.9487	115CMTP35 Q56	115CMTP35 Q140	115CMTP35 Q180	-	-
203CMTP05	5.1053	203CMTP05 Q56	203CMTP05 Q140	203CMTP05 Q180	203CMTP05 Q210	-
203CMTP09	8.8732	203CMTP09 Q56	203CMTP09 Q140	203CMTP09 Q180	203CMTP09 Q210	-
203CMTP15	14.9231	203CMTP15 Q56	203CMTP15 Q140	203CMTP15 Q180	203CMTP15 Q210	-
203CMTP25	24.7409	203CMTP25 Q56	203CMTP25 Q140	203CMTP25 Q180	203CMTP25 Q210	-
203CMTP35	34.6429	203CMTP35 Q56	203CMTP35 Q140	203CMTP35 Q180	203CMTP35 Q210	-
207CMTP05	5.1579	207CMTP05 Q56	207CMTP05 Q140	207CMTP05 Q180	207CMTP05 Q210	-
207CMTP09	8.8308	207CMTP09 Q56	207CMTP09 Q140	207CMTP09 Q180	207CMTP09 Q210	-
207CMTP15	14.7870	207CMTP15 Q56	207CMTP15 Q140	207CMTP15 Q180	207CMTP15 Q210	-
207CMTP25	24.7094	207CMTP25 Q56	207CMTP25 Q140	207CMTP25 Q180	207CMTP25 Q210	-
207CMTP35	35.0000	207CMTP35 Q56	207CMTP35 Q140	207CMTP35 Q180	207CMTP35 Q210	-
215CMTP05	5.1667	215CMTP05 Q56	215CMTP05 Q140	215CMTP05 Q180	215CMTP05 Q210	215CMTP05 Q250
215CMTP09	8.8482	215CMTP09 Q56	215CMTP09 Q140	215CMTP09 Q180	215CMTP09 Q210	215CMTP09 Q250
215CMTP15	14.8187	215CMTP15 Q56	215CMTP15 Q140	215CMTP15 Q180	215CMTP15 Q210	215CMTP15 Q250
215CMTP25	24.8502	215CMTP25 Q56	215CMTP25 Q140	215CMTP25 Q180	215CMTP25 Q210	215CMTP25 Q250
215CMTP35	34.8154	215CMTP35 Q56	215CMTP35 Q140	215CMTP35 Q180	215CMTP35 Q210	215CMTP35 Q250
307CMTP05	5.1111	307CMTP05 Q56	307CMTP05 Q140	307CMTP05 Q180	307CMTP05 Q210	307CMTP05 Q250
307CMTP09	8.7925	307CMTP09 Q56	307CMTP09 Q140	307CMTP09 Q180	307CMTP09 Q210	307CMTP09 Q250
307CMTP15	14.9704	307CMTP15 Q56	307CMTP15 Q140	307CMTP15 Q180	307CMTP15 Q210	307CMTP15 Q250
307CMTP25	24.7692	307CMTP25 Q56	307CMTP25 Q140	307CMTP25 Q180	307CMTP25 Q210	307CMTP25 Q250
307CMTP35	34.8791	307CMTP35 Q56	307CMTP35 Q140	307CMTP35 Q180	307CMTP35 Q210	307CMTP35 Q250
315CMTP05	4.8824	315CMTP05 Q56	315CMTP05 Q140	315CMTP05 Q180	315CMTP05 Q210	315CMTP05 Q250
315CMTP09	8.8620	315CMTP09 Q56	315CMTP09 Q140	315CMTP09 Q180	315CMTP09 Q210	315CMTP09 Q250
315CMTP15	14.5744	315CMTP15 Q56	315CMTP15 Q140	315CMTP15 Q180	315CMTP15 Q210	315CMTP15 Q250
315CMTP25	24.4118	315CMTP25 Q56	315CMTP25 Q140	315CMTP25 Q180	315CMTP25 Q210	315CMTP25 Q250
315CMTP35	34.0513	315CMTP35 Q56	315CMTP35 Q140	315CMTP35 Q180	315CMTP35 Q210	315CMTP35 Q250

Note: See "Application Considerations" on back cover.

Ordering Information

Example No. 2

Units 107 - 315 C-face Screw Conveyor Drive

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

1. Determine the Load Classification

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

2. Determine the Speed Reducer Required

From the *C-face Reducer Selection Chart* section, there are two tables for Class II Service. Locate the 70 rpm row in each table. Read across the row to find a column with a rating of 5 hp or greater. Read up the column to determine the basic reducer size that corresponds to the design hp. For this application, a 115CMTP05, 115CMTP09, 115CMTP15 or a 115CMTP25 may be used. For this example, select a 115CMTP25. When used with a 1750 rpm C-face motor, the 25:1 ratio will provide an output speed closest to the desired 70 rpm speed. Other ratios may be used, but to obtain the desired speed a variable frequency drive may be required. (Note: The motor and variable frequency drives are not included with the reducer.)

From the *CMTP Availability Table*, locate the row with the basic reducer size. At the top of the table, locate the column with the C-face motor frame designation required. The complete reducer part number is at the intersection of the selected row and column. For this example, a 115CMTP25 Q180 is selected.

3. Establish Sealing Required for Screw Conveyor

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

4. Select the Screw Conveyor Adapter and Screw Conveyor Shaft

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

5. Select the Trough End

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

6. List of Components:

- 1, 115CMTP25 Q180 reducer
- 1, 115SCA-P screw conveyor adapter
- 1, 115DSP200-3 screw conveyor drive shaft kit
- 1, 115-203WPP waste pack cartridge
- 1, SCTE12X2 trough end
- 1, C-face motor (separate) ▲

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

CMTP Exact Ratios

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