



### INTRODUCTION

The following instructions cover the assembly of couplings and mounting of motors after the Type F or FB unit has been mounted on the motor plate.

### GENERAL INSTRUCTIONS

- Prior to assembly, inspect all parts for cleanliness. Remove burrs from all mounting surfaces.
- Place the motor plate (with F unit already in place) on a flat and rigid surface plate or foundation. Shim under the motor plate foot pads until the motor plate is level and ALL motor plate feet are in the same plane.
- Refer to Table 1 for motor mounting bolt sizes, clearance hole or tapped hole sizes and tightening torques.

- Position the coupling guard over the coupling (when furnished). Maintain .125" minimum clearance with all rotating parts. Scribe the coupling guard mounting holes on the motor plate (or pedestal) surface. Refer to Manual 148-114 for complete installation instructions for coupling guards.
- Remove the motor and coupling guard.
- Determine whether motor mounting holes are thru-drilled or drilled and tapped in the motor plate (or pedestal) per Table 2.
- Refer to Table 1 for drill and tap sizes.
- Thru-drill (or drill and tap) motor mounting holes and coupling guard holes on the motor plate (or pedestal).
- Replace motor and shims on the motor plate (or pedestal).
- Align coupling.
- Refer to Table 2 to determine if motor fasteners are assembled from the top or bottom of the motor plate (or pedestal).

**TABLE 1** Motor Foundation Bolt and Hole Diameters and Tightening Torques

Motor Frame	Bolt Diameter or Tap Size (In.)	Clearance Hole Diameter (In.)	Tightening* Torque (Lb.-In.)
140T	.312	.375	85
180T	.375	.4375	145
210T	.375	.4375	145
250T	.500	.5625	360
280T	.500	.5625	360
280TS	.500	.5625	360
320T	.625	.6875	720
320TS	.625	.6875	720
360T	.625	.6875	720
360TS	.625	.6875	720
400T	.750	.875	1290
400TS	.750	.875	1290
440T	.750	.875	1290
440TS	.750	.875	1290

\* Tightening torques listed are for Grade 2 fasteners. If higher grade bolts are used, higher tightening torques may be used.

### MOTOR PLATE ASSEMBLY (WITH OR WITHOUT PEDESTAL)

- Determine shaft gap, coupling gap and, when required, coupling overhang.
- Assemble coupling hubs to motor and unit shafts.
  - Position motor on motor plate.
- Align coupling hubs per the coupling installation manual. Determine where to thru-drill or drill and tap holes on the motor plate (or pedestal) for motor mounting. Scribe motor mounting holes onto the surface of the motor plate (or pedestal).
  - Shims up to 3.75 inches may be required to obtain the correct height. These shims are furnished by Falk when specified on the purchase order; otherwise they will be the purchaser's responsibility.

**TABLE 2** Type F — Motor Mounting Holes in Motor Plates

Motor Frame	1020	1030	1040	1050	1060	1070	1080	1090	1100	1110	1120	1130
140T	1*	1*	1	1	1	1	1	1*	1	1*	1*	1*
180T	1*	1*	1	1	1	1	1	1*	1	1	1	1*
210T	1*	1*	2	1	1	1	1	1*	1	1	1	1*
250T	...	1*	2	2	1	1	1	1	1	1	1	1*
280T	...	...	2	2	2	1	1	1	1	1	1	1*
280TS	...	...	2	2	2	1	1	1	1	1	1	1*
320T	...	...	2	2	2	2	1	1	1	1	1	1
320TS	...	...	2	2	2	2	1	1	1	1	1	1
360T	...	...	2	2	2	2	2	1	1	1	1	1
360TS	...	...	2	2	2	2	2	1	1	1	1	1
400T	...	...	...	2	2	2	2	1	1	1	1	1
400TS	...	...	...	2	2	2	2	1	1	1	1	1
440T	...	...	...	...	2	2	2	1	1	1	1	1
440TS	...	...	...	...	2	2	2	1	1	1	1	1

1 Drill thru.  
2 Drill and tap.  
\* Insert fastener from bottom.

- Refer to Table 1 for the required fastener and tightening torque. Fasten the motor to the motor plate (or pedestal).
  - Units equipped with a backstop and assembled complete with a motor by Falk are shipped to the user with the coupling disconnected. Make electrical connections and verify the correct rotation of the motor and unit shafts. Then check coupling alignment and complete coupling assembly.
- Lubricate and assemble the coupling as specified in the coupling installation manual.
- Complete coupling guard assembly.