

# AirBrake® Bushing Mount Installation Instructions



Prior to installation please confirm that the following parts are present.



- Qty(1) AirBrake® bushing mount assembly
- Qty(1) Shackle with screw pin
- Qty(3) Wire rope clips
- Qty(1) Thimble
- Qty(1) 1/2"-13 Eye bolt, washer, and nut
- Qty(3) Mount Bolts
- Qty(3) Lock washers
- Qty(1) Stainless steel restraining cable assembly
- Qty(1) Package of Loctite 262

### CAUTION:

Prior to installation confirm the operation direction of the fan, and ensure this coincides with the direction of free rotation of the AirBrake®. Also ensure that the maximum overrunning speed does not exceed 600 RPM.

### STEP 1:

#### NOTE:

Confirm there is no more than 0.5 inches (12.7 mm) of shaft extension beyond the bushing and that there is at least 3 inches (76.2 mm) of clearance between the bottom of the bushing and the nearest obstacle. **On shafts greater than 2-15/16" (75 mm) in diameter there can be no shaft extension beyond the face of the bushing.**

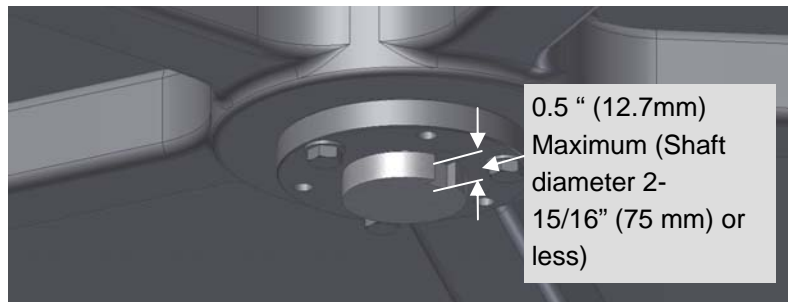


Figure 1. Maximum shaft extension.

### STEP 2:

Install the AirBrake® assembly onto the bushing by aligning the installation holes of the AirBrake® assembly with the threaded holes of the bushing. Install the required hardware, bolt and lock washer, as shown in figures 2 and 3 and torque the bolts to the values specified in Table 1.

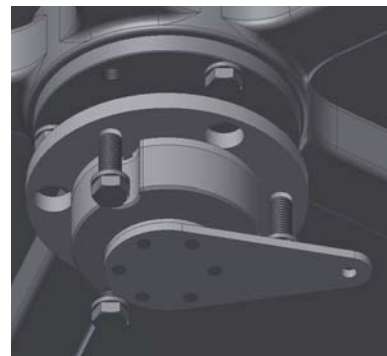


Figure 3. E, F, and J installation

**STEP 3:**

Insert the thimble portion of the cable assembly onto the shackle. Install the shackle on the arm of the AirBrake® assembly with the head of the bolt on the upper part of the shackle as shown in Figure 3. Tighten the nut of the bolt to 20 ft-lbs (2.8 kg-m) and install the cotter pin in the bolt.

**STEP 4:**

Attach the supplied 1/2"-13 eye bolt to a nearby support using the supplied lock washer and nut. Insert one end of the thimble through the eye bolt. Secure the free end of the restraining cable to the attached eyebolt using the supplied wire rope clips as shown in Figure 4. Ensure that the attachment to the support will not make the cable more than plus or minus 10° out of level as shown in Figure 5. Remove all of the slack out of the cable, apply Loctite 262 to the threads of the rope clips and tighten the clips.

**STEP 7.**

After the installation of the restraining cable, attempt to rotate the fan in the backwards direction by hand and ensure that the AirBrake® is working properly and that there is no slack in the restraining cable. Also, ensure that the restraining cable will not rub on any sharp edges that might lead to fraying of the cable.

**STEP 8.**

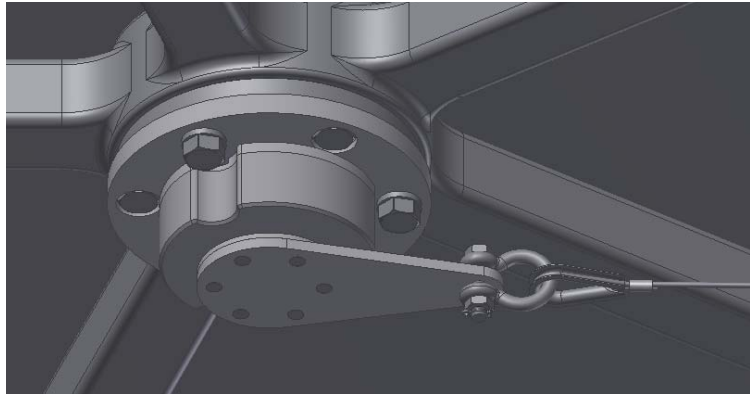
Install all required guards and confirm there is sufficient clearance for the AirBrake®.

**STEP 9.**

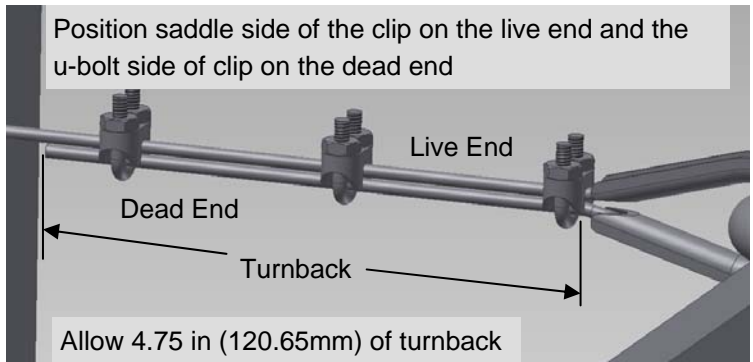
After all of the necessary guards have been installed, run the fan at full speed and ensure that the cable is taut and positioned properly, and that everything is working correctly.

**Table 1.** Torque values for installation bolts.

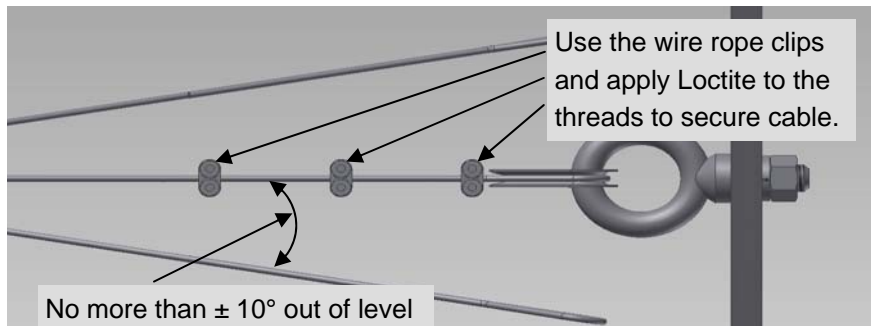
QD Bushing Size	Torque
E	60 ft-lbs (8.3 kg-m)
F	75 ft-lbs (10.4 kg-m)
J	135 ft-lbs (18.7 kg-m)



**Figure 3.** Installation of the shackle and cable assembly



**Figure 4.** Proper installation of wire rope clips.



**Figure 5.** Restraining cable angle tolerance.