



ESG Service Information

File In/With: N/A

SI0051

New 01-03

Equipment Affected: All Chillers Using Water Boxes

Proper Installation of Water Box Gaskets

General

This information letter will provide the technician with instructions and procedures to properly install a water box gasket.

Required Tools and Material

- ▶ Standard wrench set
- ▶ Socket Set - 1/2" drive
- ▶ Deep Well 5/8" Socket
- ▶ Torque Wrench
- ▶ Loctite 7070 Cleaner (YORK p/n 013-02899-000)
- ▶ 5 oz. Tube of 3M Scotch Adhesive (YORK p/n 013-00995-000)
- ▶ Channel Gasket Material (YORK p/n 028-09951-000)
- ▶ Shop Rags

Background

Often water gaskets are improperly installed using the wrong torque value or tightening pattern. Also incorrect cutting and installation of the gasket can result in leaks. Failure to install the gaskets properly will lead to extra materials and labor to rework the installation. Use the following steps to correctly install the gasket.

Prepare the Surface

1. Scrap the old gasket material off the water box surfaces with a putty knife.
2. Clean the surfaces with a degreaser/cleaner (make sure the cleaner does not leave an oily surface).
3. Be sure the surfaces are clean and dry.

Cutting Gasket Material

1. When cutting the gasket material make sure the utility knife blade is sharp. A dull blade will tear the gasket material and could result in a bad seal.
2. Notch the gasket using a square butt joint as shown in Figure 1, Detail B (make sure the gasket is cut square).

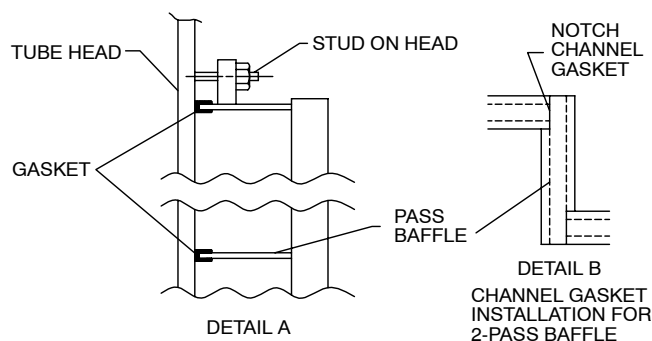
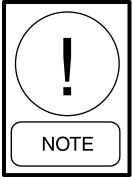


FIGURE 1 - TYPICAL 2-PASS BAFFLE CHANNEL GASKET

Water Box Assembly

1. Install the gaskets and place the water box on the studs.
2. Place nuts on the studs and draw up until the nuts contact the flange without compressing the gasket.
3. Using a torque wrench, tighten nuts to 30 ft./lbs using an alternating pattern similar as shown in Figure 2.
4. Using the same tightening pattern, torque the nuts to 60 ft./lbs. The rubber gasket material will stretch and the end sheet will have a slight bow in it. This will cause the gasket to be closer in the center of the water box than the outside edges. This is a normal condition.



Do Not over-torque the bolts. This will result in cutting the gasket and possible leaks.

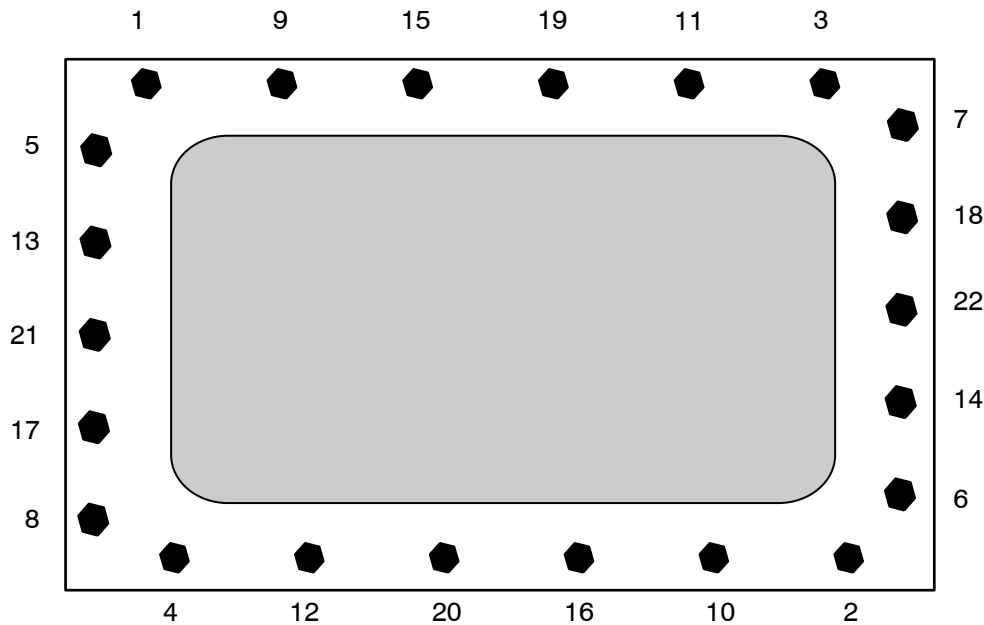


FIGURE 2 - TYPICAL TIGHTENING SEQUENCE FOR NUTS ON WATER BOX