TB-017: HEAT EXCHANGER STARTER GASKET

PURPOSE

To educate customers and employees on the procedure and practices for creating a starter plate gasket for plate heat exchangers.

The "starter plate" is the first plate in a heat exchanger plate pack and seals the fluid paths from the frame and serves as the inlet and outlet for both fluid paths in the plate pack.

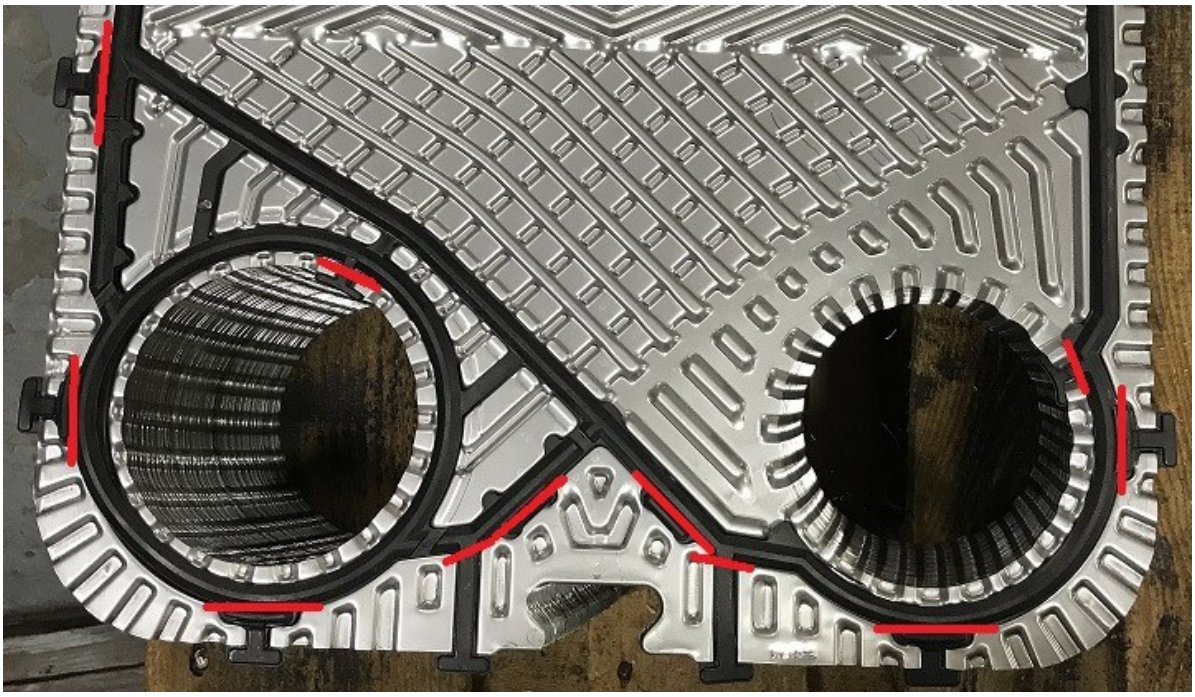
PREPARING THE GASKET

The starter gasket used on Dry Coolers plate heat exchangers is formed using two standard gaskets.

Safety Note: The thin sheet metal of the plates have sharp edges that can cut bare skin when handling. Take caution when working with heat exchanger plates and use appropriate safety gear, such as leather gloves.

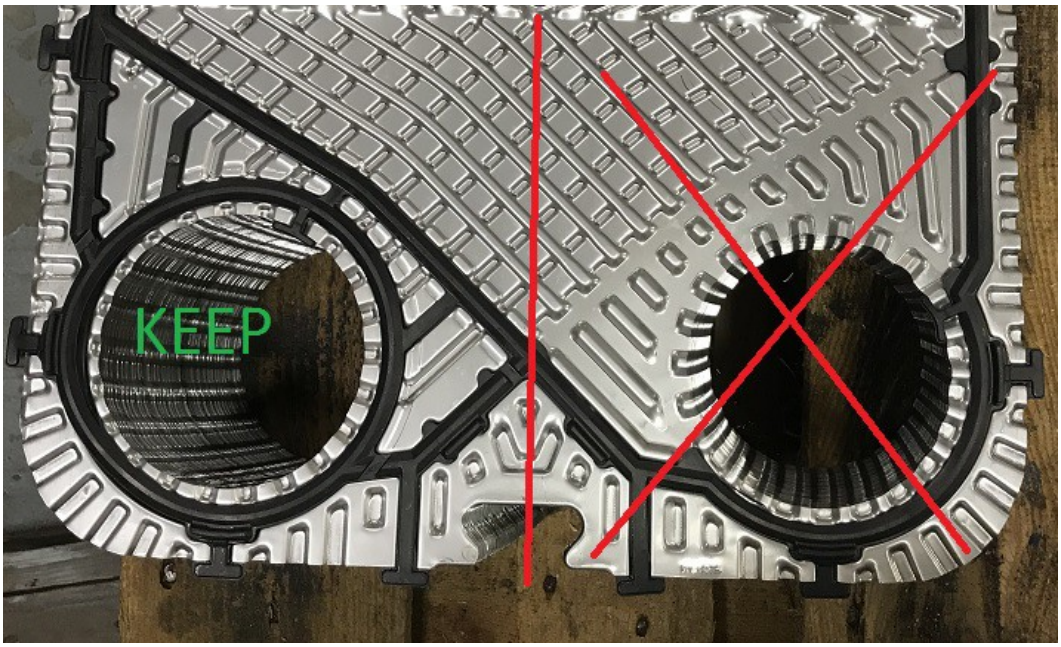
The first step is to remove the raised tabs and mounting hangers/clips from both gaskets. These features will interfere with creating a solid seal against the frame of the heat exchanger.

The soft rubber of the gasket can be easily cut with a standard pair of scissors. Take care not to cut into the main seal portion of the gasket. Lay the gasket onto a plate to use as a guide and to help ensure only non-sealing portions of the gasket are being cut. Refer to the *Finished Starter Gasket* image on Page 3 to view a fully-trimmed gasket with no non-sealing features.

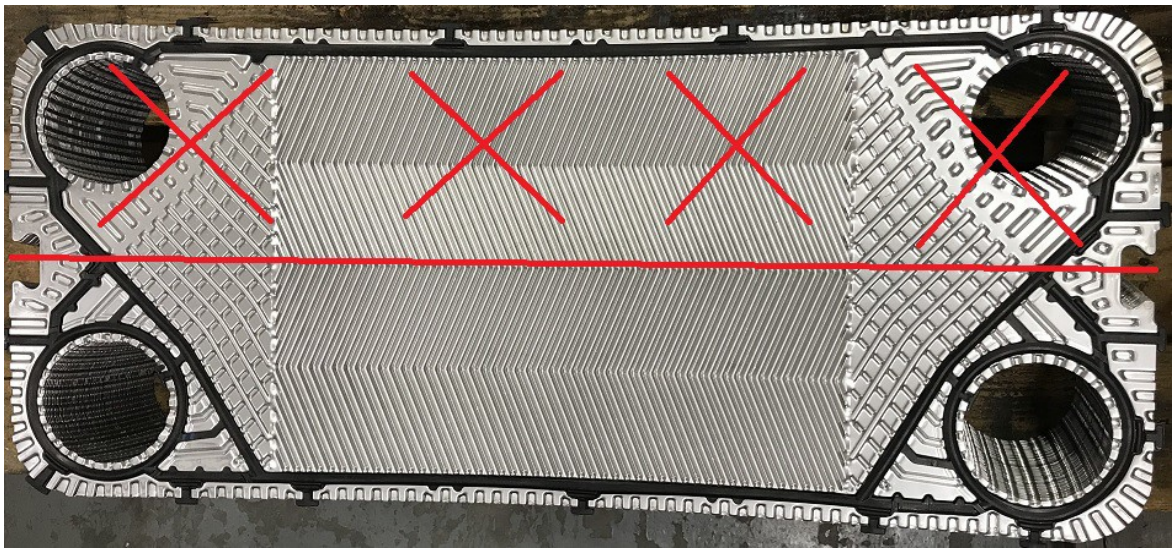


Trimming Off The Raised Guides & Hangers/Clips

Once two gaskets are prepped, cut them in half vertically. Discard the open-port half and save the closed-port half from each gasket. The cut portion will be trimmed to size at the final step, so be sure to not cut too much material away.



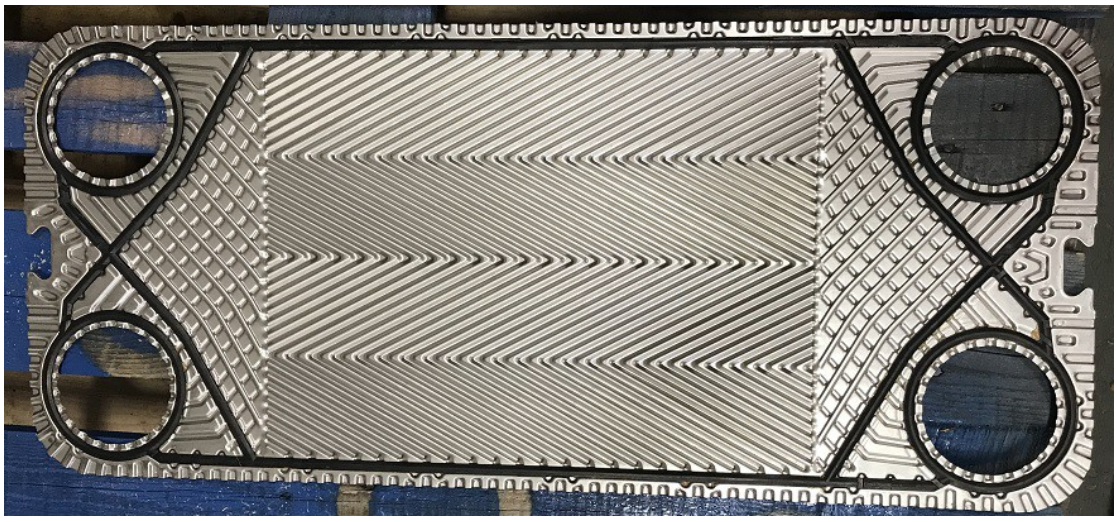
Cutting the Gasket in Half – Close View



Cutting the Gasket in Half – Full View

Place the two half-gaskets on a standard plate and begin gluing the gaskets onto the plate in the gasket groove. An adhesive such as "3M Scotch-Grip™ Plastic Adhesive 1099" is required to fix the gaskets in place.

At the two points where the gaskets join together ensure the rubber is fully mated. Trim the gaskets as needed until a nearly seamless joint is created. Apply adhesive to bond the two gaskets together.



Finished Starter Gasket

Gasket Joint Close-up

With the gasket fully glued check to make sure the gasket is sitting flat in the groove along the entire plate. Place another plate on top of the gasket and apply pressure (use available items as weight or clamps) evenly on the entire gasket. Wait until the adhesive is fully cured to ensure the seal is complete and will not shift when the heat exchanger is being assembled. If the cure time is not known, wait at least 24 hours.

RELATED BULLETINS:

- TB-016 Plate Heat Exchanger Servicing

REVISION LEVEL:

- Rev 0: Original, rdp 10/19/2017