

Intercooler Seal Kit for Superchiller and KE Intercoolers

Removal and Inspection

1. Remove both end caps from the Superchiller housing and slide the core out.
2. Take note of the length of the bolts as you remove them, as some models use different length bolts.
3. Identify which cap is the front cap and which is the rear, and whether the ports are near the top or bottom. They must be reinstalled in the proper location.
4. Handle the core with care to prevent dings, dents, or other damage.
5. Discard old O-rings (2) and paper end cap gaskets (2).
6. Inspect the O-ring groove of the core and the O-ring contact surfaces of the end caps for damage or excessive corrosion. All O-ring sealing surfaces must be free of damage and corrosion to ensure proper sealing.
7. Inspect the body of the core for physical damage, cracks, or corrosion.
8. Replace the core or end cap(s) if damaged or leaking.
9. Clean all mating surfaces with a solvent such as brake cleaner or lacquer thinner.

Installation

1. Assembly is easier if the Superchiller is removed from the motor. If not, rebuilding in place is possible but more difficult.
2. Brush paper gaskets with a thin fuel-safe gasket sealant such as Permatex #2 and install on one end cap, then bolt to one end of the Superchiller housing.
3. **IMPORTANT:** Blue Loctite 242 medium-strength thread locker (or equivalent) must be used on all end cap bolts!
4. Ensure proper length bolts are used; some models use shorter bolts on the outer 4 bolts.
5. Install new O-rings into the ends of the core. Ensure the O-ring is not twisted and is pushed into the corners to lay flat.
6. Slide the core into the Superchiller housing, making sure that the O-ring registers properly on the end cap.
7. Install a paper gasket on the other end cap and install the cap, ensuring it registers properly on the O-ring.
8. The core and end cap may require wiggling to seat properly. When properly seated, there will be an even 1/8" gap between the cap and the end of the Superchiller housing.
9. If the gap is uneven, an O-ring has shifted out of position. Remove the core and correct it before proceeding.
10. Once the end cap is situated properly, install the end cap bolts.
11. **IMPORTANT:** Blue Loctite 242 medium-strength thread locker (or equivalent) must be used on all end cap bolts!
12. Tighten each bolt until it just contacts the cap, then alternately tighten each bolt until the end cap fits tight against the Superchiller housing.
13. Ensure the cap remains parallel to the Superchiller housing while tightening to ensure even O-ring compression.

Pressure Test

1. After rebuilding any Superchiller, it must be pressure checked to ensure there are no leaks.
2. Using the necessary fittings and plugs, pressurize the Superchiller to 40 PSI.
3. **IMPORTANT:** The Superchiller must **NOT** be pressurized over 40 PSI, or damage may occur!
4. Check for leaks by:
 - o Listening for a hissing sound
 - o Watching the pressure gauge for loss of pressure
 - o Holding the Superchiller underwater and looking for bubbles
5. If the Superchiller passes the pressure test, it is ready to reinstall on the engine.
6. If it fails the pressure test, disassemble and repeat the assembly process. Either the O-rings are not sealing correctly, or the core has a leak.