


P-715 Replacing the heat exchanger gasket

IBC Part #	Description	Boiler Model
255-073	Viton heat exchanger gasket	DC 15-96, DC 33-124, DC 20-125, DC 33-160 HC 15-96, HC 33-124, HC 20-125, HC 33-160



Warning

For your safety, turn off the electrical power supply  at the service panel, and allow the appliance to cool before proceeding. The ability to perform service on this equipment requires certain expertise, mechanical skills, tools, and equipment. If you do not possess these, do not attempt to perform any service on this equipment. Failure to follow this warning could result in damage to this equipment, serious personal injury, or death.

When to install the Viton heat exchanger gasket

The DC and HC series boilers model numbers listed above ship with a heat exchanger gasket that should be inspected annually (see section 3.5.1 of the *Installation and Operating Instructions* manual for detailed instructions on removing the heat exchanger cover and inspecting this gasket). The red gasket is referenced as IBC part number 250-670A1, Heat Exchanger Gasket, Large.

Observation from the field is that those boilers experiencing hard usage, such as might be expected in commercial settings, are much more likely to require a gasket replacement, sometimes as early as one year into their service.

IBC has responded by making available a high-performance heat exchanger gasket made of Viton, part number 255-073A1, sold as a P-715, Heat Exchanger Service Kit. We recommend that the heat exchanger gasket be upgraded to Viton for all applications with hard or commercial-scale use. It will still be necessary to inspect the gasket during annual service.



Installing the Viton heat exchanger gasket

To install the Viton heat exchanger gasket:

1. Remove any call for heat, and power off the boiler / water heater.
2. Remove the cabinet front door panel, and allow the boiler to cool.

Drain the boiler's water should the boiler be subject to freezing conditions while turned off.

3. Turn off the gas supply.
4. Disconnect the flue pipe from the condensate tray by rotating the nut counter-clockwise about a $\frac{1}{4}$ turn. Slide the flue pipe up, and disengage the bottom of the flue pipe from the condensate tray, and then slide down to remove.
5. Unplug the electrical connector at the gas valve.
6. Loosen the lower gas valve connection nut.

Note

There is an O-ring in the lower gas connection.

- a. Place this in a safe location for re-assembly later.
- b. Cover the gas piping connections to prevent debris from entering the gas piping.

7. CAUTION: When removing the heat exchanger cover in step 8, be careful not to damage the burner and refractory material located on the opposite side of the heat exchanger cover.



Caution

The heat exchanger has a small amount of combustion chamber insulation (refractory) that contains ceramic fibers. When exposed to extremely high temperatures, the ceramic fibers can be converted into cristobalite asbestos, classified as a possible human carcinogen. Care should be taken to avoid disturbing or damaging the refractory. If damage occurs, contact the factory for directions.

Avoid breathing the chemicals and avoid contact with skin and eyes. Follow these precautions:

- a. For conditions of frequent use or heavy exposure, respirator protection is required. Refer to the "NIOSH Guide to the Selection and Use of Particulate Respirators Certified under 42 CFR 84" for selection and use of respirators certified by NIOSH. For the most current information, NIOSH can be contacted at 1-800-356-4676 or on the web at www.cdc.gov/niosh.
- b. Wear long sleeved, loose fitting clothing, gloves and eyes protection.
- c. Assure adequate ventilation.
- d. Wash with soap and water after contact.
- e. Wash potentially contaminated clothes separately from other laundry and rinse washing machine thoroughly.
- f. Discard used insulation in an air tight plastic bag. NIOSH stated first aid:
 - » Eye contact - Irrigate and wash immediately.
 - » Breathing - Provide fresh air.

8. Remove all 6mm hex bolts and lock washers from the heat exchanger cover, and carefully remove the front cover complete with the fan and the gas valve attached. Carefully inspect the gasket sealing the heat exchanger to the heat exchanger cover for damage, hardness, cracks, and or discoloration. If damaged, you must replace the gasket.
9. Place the heat exchanger cover in a safe location.
10. Peel the original red heat exchanger gasket from its groove.
11. Replace with the black Viton gasket.
12. Reassemble in reverse order, or see section 3.5.1 of the *Installation and Operating Instructions* manual for detailed instructions.
13. Re-tighten the heat exchanger bolts in a cross pattern.
14. Soap test all gas connections.

