

Installation Instructions – Supplemental

B&G HEAD/TANK GASKET REPLACEMENT INSTRUCTIONS (Leadercam 1/8" Gaskets)

The following instructions are included to assist in the proper replacement of B&G U-tube heat exchanger gaskets on PVI equipment. See B&G Service Manual HT-50B-SM for additional information. Installation and service must be performed by a qualified installer or service agency.

The enclosed gasket kit includes hardware required to bolt the heat exchanger front head, tube bundle and gaskets to the tank flange.

IMPORTANT: The heat exchanger Baffles can be easily bent and/or damage the tank flange coating if dragged over during removal and installation. Do not attempt to hold, lift, or position the heat exchanger without proper equipment capable of handling the weight.

U-TUBE GASKET REPLACEMENT PROCEDURE (Requires at least a 150ft.lb. torque wrench)

1. Shut off all electrical, fuel, and water sources to heater and drain the tank.
2. Disconnect and/or remove components, wiring, valves, pumps, or controls as needed.
3. Identify and mark top center of head or heat exchanger flange.
5. Remove bolts and separate the heat exchanger flange from the tank flange.
4. During bundle removal, the dead weight of bundle should never be supported on individual tubes. Rest the bundle on the tube sheet, support plates, or wood blocks cut to fit periphery of the bundle. Tube bundles may be raised using slings formed by bending light plates into a "U" form and attaching lifting lugs to the ends of the sheets.
5. Before reinserting the tube bundle into the shell or collar of a tank, place the ring/tank gasket over the end of the tube bundle and bring forward to the backside of the tube sheet.
6. **Important:** Insert the Bolt and Flat Washer on the head side. Attach the disc spring washer and nut to the flange side of the assembly.
CAUTION: Do not re-use existing bolts. Only use the hardware provided with these instructions.
7. When replacing the heads, use the following torque chart as a guide. All bolted joints should be tightened uniformly and in a diametrically staggered pattern as illustrated below. Following the staggered tightening pattern the bolts/studs torques should be checked for equilibrium since the tightening of one bolt/stud can relieve the stress on adjacent bolts/studs.
8. Re-install the removed components.
9. Fill the tank and check for leaks. Check torque again if leaks noted.
10. After re-assembly, allow the heater to get to operating temperature and check for leaks. It may be necessary to torque the bolts again.

U-TUBE BOLT TORQUES

U-Tube Size	Pressure Rating psi	Nut Mat'l	Bolt Mat'l	Gasket Mat'l	No. of Bolts	Bolt Diameter inches	Torque ft-lb	
4	150	Grade 8	Grade 8	Graphite or Spiral Wound	6	1/2	60	± 4 ft-lb
4	400	Grade 8	Grade 8	Graphite or Spiral Wound	6	1/2	60	
6	150	Grade 8	Grade 8	Graphite or Spiral Wound	8	1/2	60	
6	400	Grade 8	Grade 8	Graphite or Spiral Wound	12	1/2	60	
8	150	Grade 8	Grade 8	Graphite or Spiral Wound	8	1/2	60	
8	400	Grade 8	Grade 8	Graphite or Spiral Wound	12	1/2	60	
10	150	Grade 8	Grade 8	Graphite or Spiral Wound	8	5/8	120	± 8 ft-lb
10	400	Grade 8	Grade 8	Graphite or Spiral Wound	16	5/8	120	
12	150	Grade 8	Grade 8	Graphite or Spiral Wound	12	5/8	120	
12	400	Grade 8	Grade 8	Graphite or Spiral Wound	24	5/8	120	
14	150	Grade 8	Grade 8	Graphite or Spiral Wound	12	5/8	120	
14	400	Grade 8	Grade 8	Graphite	28	5/8	120	
16	150	Grade 8	Grade 8	Graphite or Spiral Wound	16	5/8	120	
16	400	Grade 8	Grade 8	Graphite	32	5/8	120	
18	150	Grade 8	Grade 8	Graphite or Spiral Wound	16	5/8	120	
18	400	Grade 8	Grade 8	Graphite	36	5/8	120	

