Flange-Lock Flanged Coupling Adapter
for PVC, Ductile Iron Pipe and Carbon Steel (3”-48”)

**WARNING:**
Do not remove retaining washer under Cam-Lock™ torque-off nut.
Do not use **red** wedges on ductile iron pipe or carbon steel.
Do not use black wedges on PVC pipe.
Flange-Lock 920 limited to SDR 26 or heavier pipe wall.
Not for use on plain-end fittings.

Flange-Lock™ Flanged Coupling Adapters utilize Cam-Locks™ designed for use with PVC pipe (red wedges), ductile iron pipe and carbon steel 3”-12” (black wedges).

**PVC Flange-Lock™ (with red wedges)**
Do not use **RED** wedges on ductile iron pipe or carbon steel. Flange-Lock 920 is designed for use on PVC pipe conforming to requirements of AWWA C900/C905 having cast iron OD’s, & for use on PVC pipe conforming to requirements of ASTM D-2241 having IPS (steel) OD’s. For 4”-24” sizes, Flange-Lock 920 is rated at the pressure rating of the pipe on which it is used, up to 150 psi. It is rated at 125 psi for 36” sizes. Do not remove retaining washers under torque-off nuts.

**Ductile Iron and Carbon Steel (3”-48”) Flange-Lock™ (with black wedges)**
Do not use **BLACK** wedges on PVC pipe. Flange-Lock 911 is designed for use with ductile iron pipe conforming to requirements of AWWA C151 and schedule 20, 40 and 80 carbon steel (3”-48”). Pressure rating is 150 psi.

**Flange-Lock™ Installation Instructions**
Please read installation instructions carefully and fully.

**Step 1**
Bolt adapter body to companion flange.

**Step 2**
Wedges may have moved during transit and could prevent the Flange-Lock from sliding easily over pipe. Using a 1-1/4” socket, hand-tighten torque-off nuts in a counterclockwise fashion until wedges are seated firmly against gland.

**Step 3**
Clean the pipe end, mechanical joint socket and gasket. Inspect the pipe, fitting, and gasket for any defects and repair or replace as necessary. Place the Flange-Lock gland on the plain end of the pipe with the lip extension toward the plain end. Lubricate pipe end and gasket with soapy water or suitable pipe lubricant as per AWWA-C111/ANSI-A21.11. Slip gasket onto the plain end with taper toward the plain end.

**Step 4**
Insert pipe into the socket and press gasket firmly and evenly into gasket recess. Keep joint straight during assembly.

**Step 5**
Push Flange-Lock gland toward the socket and center it around pipe with gland lip against the gasket. Insert T-bolts and hand-tighten the nuts. Make deflection (Max. 3° on 3”; 5° on 4”-12”; 2° on 14” & 16”; 1-1/2° on 18”-24”; 1° on 30”-48”) after joint assembly but before tightening T-bolts. Note: Use T-bolts conforming to requirements of AWWA C111 only. T-Bolts of lesser physical and chemical properties are not satisfactory.

**Step 6**
Tighten T-bolts while maintaining equal distance between the gland and face of the M.J. flange at all points around the socket. This can be accomplished by partially tightening bottom T-bolt first, then top T-bolt, next the T-bolts at either side, and finally remaining T-bolts. Repeat the process until all T-bolts are tightened to within recommended torque range (45-60 ft-lb for 3”; 75-90 ft-lb for 4-24”; 100-120 ft-lb for 30-36”; 120-150 ft-lb for 42-48”). The use of a torque wrench is recommended. Do not over-torque the T-bolts.

**Step 7**
Hand-tighten Flange-Lock™ torque-off nuts in a clockwise fashion until all wedges touch the pipe. Then tighten torque-off nuts in an alternating pattern turning each nut ½ turn until all nuts twist off. Never turn a single torque-off nut more than ½ turn without moving to another nut. Do not tighten further after nuts twist off. Flange-Lock only requires 45-60 ft-lb torque to set wedges.

If removal and re-assembly are required, use 5/8” hex that remains after nuts have twisted off. Follow above instructions in reverse order to completely remove the Flange-Lock fitting. Reassemble Flange-Lock following above instructions, using a torque wrench to set wedges to 45-60 ft-lb.

Questions: Call 1-800-643-9705 or visit www.smith-blair.com