



Installation Instructions

911 & 920

Flange-Lock™ Flanged Coupling Adapter
for PVC, Ductile Iron, and Carbon Steel Pipe

WARNING:

Do not remove retaining washer under Cam-Lock™ torque-off nut.

Do not use **red** wedges on ductile iron or carbon steel pipe.

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 on PVC (**red** wedges) pipe or ductile iron (black wedges) and carbon steel (black wedges) pipe.

PVC Flange-Lock™ (with red wedges)

Do not use **RED** wedges on ductile iron or carbon steel pipe. Flange-Lock™ 920 is designed for use on PVC pipe conforming to requirements of AWWA C900/C905 having DIPS (ductile iron) OD's 3"-36", and for use on PVC pipe conforming to requirements of ASTM D-2241 having IPS (steel) OD's 3"-12". Flange-Lock™ 920, 3"-12" are rated at 175 psi, 14"-30" are rated at 150 psi, and 36" is rated at 125 psi.

Ductile Iron and Carbon Steel Flange-Lock™ (with black wedges)

Do not use **BLACK** wedges on PVC pipe. Flange-Lock™ 911 is designed for use on ductile iron pipe (3"-48") conforming to requirements of AWWA C151 and schedule 20, 40, and 80 carbon steel pipe (3"-12"). Flange-Lock™ 911, 3"-12" are rated at 175 psi and 14"-48" are rated at 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 the pipe surface and gasket using a soap and water solution (anti-freeze may be required). All lubricant solutions should meet the requirements of the water and pipe supplier. 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. Ensure pipe is inserted at least 3" past MJ flange face (see figure, reverse). 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 after joint assembly but before tightening T-head bolts (see table, reverse).

Note: Use T-head bolts conforming to requirements of AWWA C111 only. Bolts of lesser physical and chemical properties are not satisfactory.

STEP 6

Tighten T-head bolts while maintaining equal distance between the gland and face of the MJ flange at all points around the socket. This can be accomplished by using an alternating pattern of tightening opposite T-head bolts. Repeat the process until all bolts are tightened to within the recommended torque range (see table, reverse). The use of a torque wrench is recommended. Do not over-torque the T-head 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 1/2 turn until all nuts twist off. Never turn a single torque-off nut more than 1/2 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.

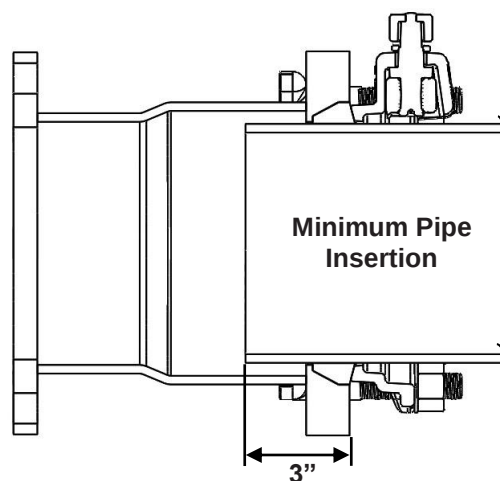
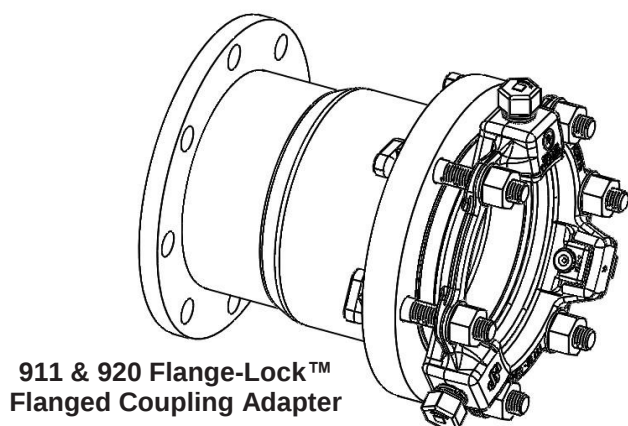
If removal and re-assembly are required, use 5/8" hex that remains after nuts have twisted off. Follow above instructions in reverse order to completely remove the Flange-Lock fitting. Reassemble Flange-Lock following above instructions, using a torque wrench to set wedges to 45-60 ft-lb.

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Nominal Size	Maximum Deflection	T-head Bolt Torque
3"	3°	45-60 ft-lb
4"-12"	5°	75-90 ft-lb
14"-16"	2°	
18"-24"	1-1/2°	
30"-36"	1°	100-120 ft-lb
42"-48"		120-150 ft-lb



IMPROPER INSTALLATION CAN RESULT IN PRODUCT FAILURE.

Failure to follow proper installation procedures can result in dangerous pipe content escape, property damage, serious injury, and/or death. Read the product installation instructions prior to installing this product.

WARRANTY

Smith-Blair, Inc. warrants its products to be free of defects in materials and workmanship for a period of one (1) year from the date of shipment by Smith-Blair, Inc. (the "Warranty Period"). Dated proof of purchase, such as a bill of sale, is required to establish warranty eligibility. If a product fails to perform due to a defect in materials or workmanship during the Warranty Period, Smith-Blair, Inc. will repair or, at Smith Blair, Inc.'s option, replace the product with the same or comparable item. In the event that the product cannot be repaired and a suitable replacement item is not available, Smith-Blair, Inc. will refund the original purchase price shown on the proof of purchase. In all cases, the customer is responsible for returning the allegedly defective product to the factory or warehouse designated by Smith-Blair, Inc.

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CORROSION & PRODUCT SELECTION NOTICE

Metal products are subject to corrosion, particularly when used outdoors and/or underground. A large number of factors and local conditions affect the rate of corrosion. Consult a local corrosion expert to determine the life expectancy of this product when used with your pipeline content, soil, and environment. Also, consult your system designer to determine the suitability of this product in your piping system. Failure to determine the suitability of this product in your application, soil, and/or environment can result in premature product failure. Smith-Blair will provide additional information about this product's material specifications at your request. You may also obtain product information at www.smith-blair.com.

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