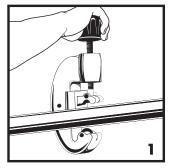
AHEAD OF THE FLOW®

NIBCO[®] Bench[®] Press[®]

1/2" - 2" Fitting Installation Instructions

For ASTM A53, A106, A135, A795 (schedule 10 to 40) carbon steel pipe in 1/2" to 2" sizes

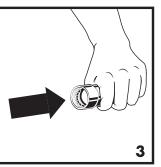


NIBCO

1. Select clean, undamaged pipe and cut to desired length. Cut tube end square using a pipe cutter or fine-toothed steel saw. If using a vise or other method to hold the pipe, do not damage the pipe section which is inserted into the fitting. Scratches or deformed pipe may result in an improper seal.



2. Prep pipe to a smooth and even surface with a fine grit sandpaper. The surface should be free of indentations, oil, and debris. Do not use engraved or stamped pipe. Indentations in the pipe may result in an improper seal. To avoid damage to the O-ring, the pipe must be free of burrs and sharp edges.



3. Visually inspect the fitting to ensure the grip ring, separator ring, and seal are in place, clean and, free of contaminants. Only original NIBCO black EPDM Bench Press[™] seals are to be used.



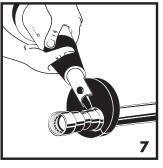
4. Mark the pipe to the proper insertion depth as indicated by the Insertion Depth Chart. Improper insertion depth may result in an improper seal.



5. Fully insert the pipe into the fitting. For fittings with stops, insert the pipe to make contact with the fitting stop. For fittings without a stop, insert the pipe to a depth no less than the specified insertion depth. Improper insertion depth may result in an improper seal. If necessary, the O-ring may be lubricated with water. Never use oils or lubricants as these can degrade or damage the sealing element.



6. Ensure the proper press jaw is installed in the pressing tool. Squeeze the jaw arms to open the jaw set. Place open jaws around the fitting end and ensure the jaw is properly aligned with the contour of the fitting. When using the ring and actuator instead of jaws, use the correct size ring an appropriate actuator. See NIBCO Tool and Jaw Compatibility Matrix for approved tools and jaws.



7. Make sure the pipe is inserted to the proper depth. With the tool square to the axis of the pipe, start pressing procedure. After the press is complete, remove the jaw from the fitting.

Pipe	Insertio	n Depth	Chart	

Tube Size (In.)	Insertion Depth (In.)	WARNING	MISE EN GARDE !	ADVERTENCIA
1/2	1-1/16	and fitting manufacturer's installation instructions before using. Failure to follow all instructions may result	ion d'emploi de la presse et les instruc- tions du fabricant des raccords avant d'utiliser l'appareil. Le stalación del acopl	Antes de usar, lea el Manual del Operario de esta herramienta de presión y las instrucciones de in-
3/4	1-1/16			stalación del acopliamiento propor- cionadas por su fabricante. Pueden
1	1-5/16	or serious personal injury. Call the NIBCO Technical Service Department	risquerait d'augmenter les risques	ocurrir daños materiales de gran envergadura y lesiones corporales
1-1/4	1-3/4	at 1.888.446.4226 if you have any ques-	at 1.888.446.4226 if you have any ques- ou de graves blessures corporelles. de gr	de gravedad si no se respetan todas las instrucciones. Si tiene alguna
1-1/2	1-13/16		éventuelles ou demandes de mode d'emploi à la NIBCO en composant le	pregunta o desea pedir un manual,
2	1-7/8			Técnico de NIBCO al 1.888.446.4226.



1/2" - 2" Fitting Installation Instructions, continued...

For ASTM A53, A106, A135, A795 (Schedule 10 to 40) carbon steel pipe in 1/2" to 2" sizes

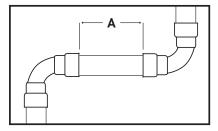
Notes:

- 1. To ensure a proper press, maintain the specified minimum distance between fittings. The pressing jaw must have clearance to the adjacent fitting. Failure to maintain the minimum specified distance may result in an improper seal.
- 2. A minimum distance to welds must always be maintained.

A minimum of 4 inches must be maintained when welding adjacent to a BenchPress fitting and a minimum of 3 feet must be maintained when welding in-line. The following precautions should be used to protect the BenchPress fitting:

- Wrap the press fitting connection with a cold wet rag
 - Protect the press fitting connection with a weld blanket
- Fabricate weld connections prior to installing the press fitting

Pipe Diameter (in)	Distance Between Fittings A (in)
1/2	0.20
3/4	0.20
1	0.20
1-1/4	0.59
1-1/2	0.59
2	0.59



Leak Testing: Unpressed connections are located by pressurizing the system with air or water. When testing with compressed air, the proper maximum pressure is 15 psi; when testing with water, the maximum pressure is 45 psi. Following a successful leak test, the system may be pressure tested up to 200 psi if required by local code requirements or project specifications. Leak testing with air can be dangerous at high pressures.

The following standards, codes, and instructions should be followed when installing NIBCO[®] BenchPressTM fittings:

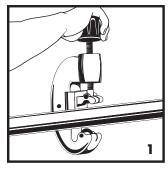
- The installation shall be made in accordance with local codes.
- For use with ASTM A53, A106, A795 and A135 carbon steel pipe.
- Undue stress or strain on the fittings and the tubing is to be avoided.
- Concealed pipe and fittings shall be protected from puncture threats.
- If the installation requires components in addition to those supplied by the fitting manufacturer, those components shall be specified. The instructions shall state that only the components provided or specified by the manufacturer are to be used in the installation.
- The fitting/pipe system shall not be used as a grounding electrode for an electrical system.
- The inspection, testing, and purging of the installation shall be performed in accordance with the requirements of the applicable local codes.
- The fitting/pipe system shall not be used as a means of support.



NIBCO[®] Bench[®] PressG[®]

1/2" - 2" Fitting Installation Instructions

For ASTM A53, A106, A135, A795 (Schedule 10 to 40) carbon steel pipe in 1/2" to 2" sizes



1. Select clean, undamaged pipe and cut to desired length. Cut tube end square using a pipe cutter or fine-toothed steel saw. If using a vise or other method to hold the pipe, do not damage the pipe section which is inserted into the fitting. Scratches or deformed pipe may result in an improper seal.



2. Prep pipe to a smooth and even surface with a fine grit sandpaper. The surface should be free of indentations, oil, and debris. Do not use engraved or stamped pipe. Indentations in the pipe may result in an improper seal. To avoid damage to the O-ring, the pipe must be free of burrs and sharp edges.



3. Visually inspect the fitting to ensure the grip ring, separator ring, and seal are in place, clean and free of contaminants. Only original NIBCO[®] yellow HNBR BenchPressGTM seals are to

be used.



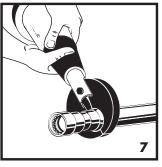
4. Mark the pipe to the proper insertion depth as indicated by the Insertion Depth Chart. Improper insertion depth may result in an improper seal.



5. Fully insert the pipe into the fitting. For fittings with stops, insert the pipe to make contact with the fitting stop. For fittings without a stop, insert the pipe to a depth no less than the specified insertion depth. Improper insertion depth may result in an improper seal. If necessary, the O-ring may be lubricated with water. Never use oils or lubricants as these can degrade or damage the sealing element.



6. Ensure the proper press jaw is installed in the pressing tool. Squeeze the jaw arms to open the jaw set. Place open jaws around the fitting end and ensure the jaw is properly aligned with the contour of the fitting. When using the ring and actuator instead of jaws, use the correct size ring an appropriate actuator. See NIBCO Tool and Jaw Compatibility Matrix for approved tools and jaws.



7. Make sure the pipe is inserted to the proper depth. With the tool square to the axis of the pipe, start pressing procedure. After the press is complete, remove the jaw from the fitting.

Pipe Insertion Depth Chart

Tube Size (In.)	Minimum Insertion Depth (In.)
1/2	1-1/16
3/4	1-1/16
1	1-5/16
1-1/4	1-3/4
1-1/2	1-13/16
2	1-7/8

WARNING	MISE E
d press tool operator's manual fitting manufacturer's installation rections before using. Failure to ow all instructions may result xtensive property damage and/ erious personal injury. Call the CO Technical Service Department .888.446.4226 if you have any ques- s or need assistance.	Familiarisez-vou d'emploi de la pu tions du fabricar avant d'utiliser l' non-respect de l risquerait d'aug de dégâts matéri ou de graves ble Veuillez adresse éventuelles ou d d'emploi à la NII

 M155 EN GARDE I

 Familiarisez-vous avec le mode d'emploi de la presse et les instructions du fabricant des raccords presis avant d'utiliser l'appareil. Le non-respect de leurs consignes risguerait d'augmenter les risques de dégâts matériels importants et/ ou de graves blessures corporelles. de uge Veuillez adresser toutes questions éventuelles ou demandes de mode d'emploi à la NIBCO en composant le Ilame 1.888.464.226.

ADVERTENCIA Antes de usar, lea el Manual del Operario de esta herramienta de presión y las instrucciones de instalación del acopliamiento proporcionadas por su fabricante. Pueden ocurrir daños materiales de gran envergadura y lesiones corporales de gravedad si no se respetan todas las instrucciones. Si tiene alguna pregunta o desea pedír un manual, lame al Departamento de Servicio Técnico de NIBCO al 1.888.446.4226.



1/2" - 2" Fitting Installation Instructions, continued...

For ASTM A53, A106, A135, A795 (Schedule 10 to 40) carbon steel pipe in 1/2" to 2" sizes

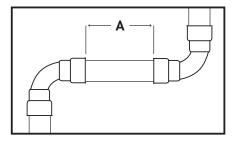
Notes:

- 1. To ensure a proper press, maintain the specified minimum distance between fittings. The pressing jaw must have clearance to the adjacent fitting. Failure to maintain the minimum specified distance may result in an improper seal.
- 2. A minimum distance to welds must always be maintained.

A minimum of 4 inches must be maintained when welding adjacent to a BenchPressG fitting and a minimum of 3 feet must be maintained when welding in-line. The following precautions should be used to protect the BenchPress fitting:

- Wrap the press fitting connection with a cold wet rag
- Protect the press fitting connection with a weld blanket
- Fabricate weld connections prior to installing the press fitting

Pipe Diameter (in)	Distance Between Fittings A (in)
1/2	0.20
3/4	0.20
1	0.20
1-1/4	0.59
1-1/2	0.59
2	0.59



Leak Testing: Unpressed connections are located by pressurizing the system with air. When testing with compressed air, the proper maximum pressure is 15 psi. Following a successful leak test, the system may be pressure tested up to 200 psi if required by local code requirements or project specifications. Leak testing with air can be dangerous at high pressures.

The following standards, codes, and instructions should be followed when installing $\rm NIBCO^{I\!R}$ BenchPressG^{TM} fittings for fuel gas:

- The installation of the fuel gas system shall be made in accordance with local codes, or in the absence of local codes, in accordance with the National Fuel Gas Code NFPA 54, the LP-Gas Code NFPA 58 as applicable.
- For use with ASTM A53, A106, A795 and A135 carbon steel pipe.
- Undue stress or strain on the fittings and the tubing is to be avoided.
- Concealed pipe and fittings shall be protected from puncture threats.
- If the installation requires components in addition to those supplied by the fitting manufacturer, those components shall be specified. The instructions shall state that only the components provided or specified by the manufacturer are to be used in the installation.
- The fitting/pipe system shall not be used as a grounding electrode for an electrical system.
- The inspection, testing and purging of the installation shall be performed using procedures specified in Part 4 of the National Fuel Gas Code NFPA 54, ANSI Z223.1, the LP-Gas Code NFPA 58 section 3.2-10 as applicable or in accordance with the requirements of the applicable local codes.
- For use with natural, propane, mixed, and manufactured gasses in the vapor state, not in the liquid state.
- The fitting/pipe system shall not be used as a means of support.