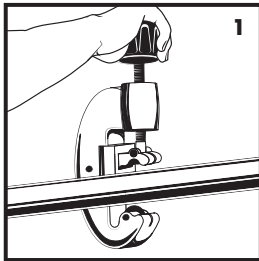
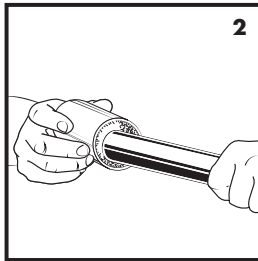


NIBCO® PressACR® — Fitting Installation Instructions

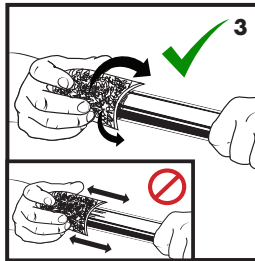
For hard or annealed ACR copper tubing



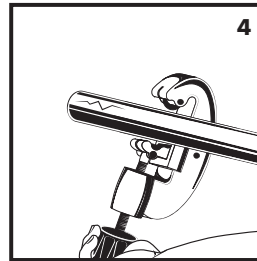
1. Select clean, undamaged copper tube and cut to desired length using a wheel type cutter. Do not use a hacksaw or reciprocating saw. Do not crimp over any etched print on the tube.



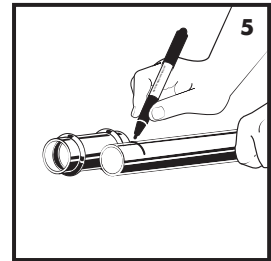
2. Remove all external sharp edges to the tube end. A cone type deburring tool should be used on the tube outer diameter and inner diameter (rotated 5-7 times). A pen type deburring tool may be used on the tube inner diameter. It is critical to visually inspect and feel the end of the tube to make sure it is free of any sharp edges which could damage the fitting seal.



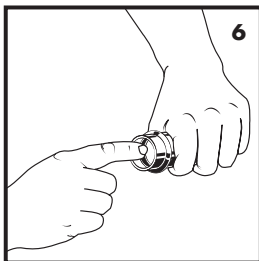
3. Polish the end of the tube with an abrasive pad (such as Scotch-Brite® 7447 Maroon by 3M® or equivalent) in a radial manner for 5-7 seconds. Do not polish axially. The tube end must be free from any oxidation, dirt, debris, and any imperfections. The surface of the tube should be shiny and bright. If sandpaper or emery cloth must be used, polish with 360-400 grit.



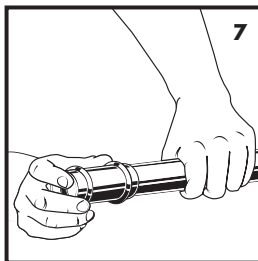
4. Inspect the polished tube end for any imperfections or scratches. Any surface imperfection that cannot be corrected must be cut-off and the tube preparation restarted.



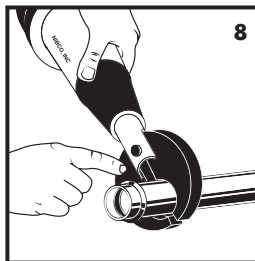
5. Mark the tube with the proper insertion depth using a NIBCO insertion depth tool and a permanent marker. Improper insertion depth may result in an improper seal.



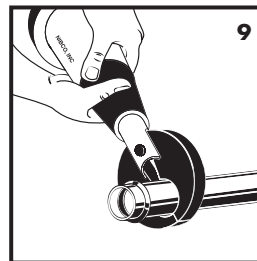
6. Check each opening of the fitting to make sure that the seal is in place. Only original NIBCO gray HNBR seals are to be used. Do not use a fitting that does not have a visible seal.



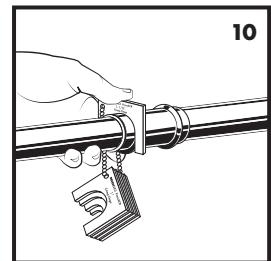
7. Insert the tube into the fitting using a twisting motion to the marked depth. Note that the tubing should contact the fitting tube stop. If tube is difficult to insert, some refrigerant lubricant may be added to the seal. Use only approved lubricants as listed on page 10 of the PressACR catalog.



8. Ensure that the proper pressing jaws are installed in the pressing tool and squeeze jaw arms to open jaw set. Place open jaws around the fitting end and ensure the jaw is properly aligned with the contour of the fitting. For sizes 1-1/8" and above, the jaw has a pipe side and bead side orientation.



9. Before pressing, make sure that the tube is inserted to the proper depth in the fitting. Start the pressing process. Refer to the tool operating instructions for proper tool operation. Squeeze jaw arms to open jaw set and remove from the pressed tube fitting assembly.



10. Use the NIBCO PressACR Crimp Gauge to ensure a quality installation. Place the crimp gauge adjacent to the outside of the bead (copper tube side) where the jaws close. There should be a slight copper deformation in that location. If the gauge is in complete contact with the fitting, the crimp has been successful. Each pressed connection should be gauged using the crimp gauge.

Tube Insertion Depth Chart

Tube Size (In. OD)	Insertion Depth (In.)
1/4 – 3/4	11/16
7/8 – 1-1/8	7/8
1-3/8	1

WARNING

Read press tool operator's manual and fitting manufacturer's installation instructions before using. Failure to follow all instructions may result in extensive property damage and/or serious personal injury. Call the NIBCO Technical Service Department at 1.888.446.4226 if you have any questions or need assistance.

MISE EN GARDE !

Familiarisez-vous avec le mode d'emploi de la presse et les instructions du fabricant des raccords avant d'utiliser l'appareil. Le non-respect de leurs consignes risquerait d'augmenter les risques de dégâts matériels importants et/ou de graves blessures corporelles. Veuillez adresser toutes questions éventuelles ou demandes de mode d'emploi à la NIBCO en composant le 1.888.446.4226.

ADVERTENCIA

Antes de usar, lea el Manual del Operario de esta herramienta de presión y las instrucciones de instalación del acoplamiento 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 pedir un manual, llame al Departamento de Servicio Técnico de NIBCO al 1.888.446.4226.

Note: PressACR fittings can only be installed with NIBCO PressACR jaws. Use of any other jaw will void the product warranty.

Not suitable for use with ammonia (R717).

Visit www.NIBCO.com for approved list of refrigerants.

Leak Testing: Once all fittings are installed and pressed, the system may be tested for leaks. Testing for leaks should consist of pressurizing the system with nitrogen and using leak detect fluid or tracer gas to detect leaks. Pressurize system to a minimum of 50% of the maximum rated pressure of the system, but no more than 700 PSI. Check the system for leaks and make repairs/replacements where necessary, and verify.

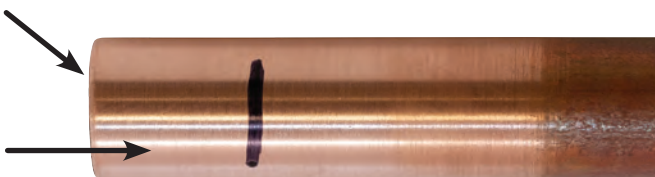
Visit our website for the most current information.

NIBCO® PressACR® — Fitting Installation Instructions, *cont.*

Properly Prepped Tube ✓

The tube has been deburred and chamfered.

After polishing the tube the surface should be smooth and free from scratches or etched print.



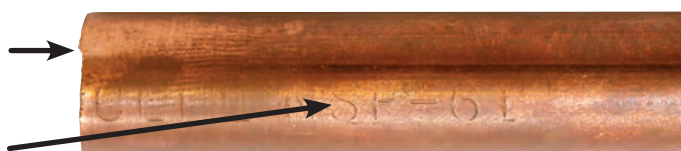
Tube polishing should be done radially with an abrasive pad such as Scotch-Brite® 7447 Maroon by 3M®

Unprepped Tube ❌

The tube has not been deburred or chamfered.

A sharp edge can be seen at the end of the tube. This sharp edge could potentially cause damage to the O-ring during insertion.

Etched markings can also be seen on the tube, these could create leak paths past the O-ring. The etchings should be cut out and replaced with clean, smooth tube.



Improperly Prepped Tube ❌

The tube has been deburred and polished but a deep scratch is still present. The tube should either be polished until the scratch is removed or cut out and a cleaner portion of tube should be chosen.



Tube Insertion

Tube should be marked and fully inserted into the fitting.

The left side of the picture shows the insertion depth marking sticking far away from the end of the fitting. This could cause a leak because the tube may not be fully engaged with the O-ring.



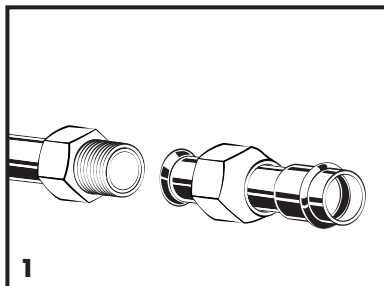
The right side of the picture shows a fully inserted tube. The insertion depth marking should be in contact or inserted into the fitting end.



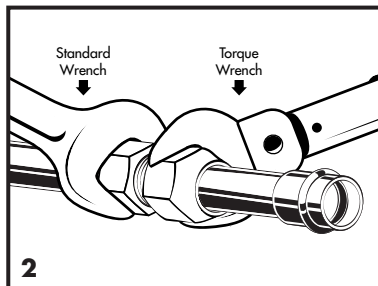
Visit our website for the most current information.

NIBCO® PressACR® — SAE Flares Installation Instructions

Install PressACR® Female Flare Connector to a Male Flare Connector by making the flare connection prior to pressing the joint.



1. Apply compatible refrigerant lubricating oil to inner and outer surface of flare. To avoid overtightening, do not apply oil to the threads. Hand-tighten nut onto flare.



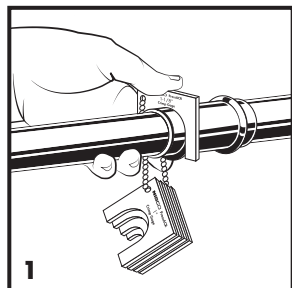
2. Complete joint by applying the specified torque to the nut and flare fittings, as shown in the table below. Always use an open ended wrench and a torque wrench to ensure integrity of fittings. Do not use a pipe wrench. Do not exceed the maximum torque listed below.

Flares Tightening Torque (DO NOT OVERTIGHTEN)

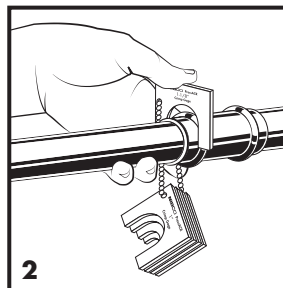
Tube Diameter	Recommended Torque	Maximum Torque
1/4"	12,2 Nm (9 ft. lbs.)	13,5 Nm (10 ft. lbs.)
3/8"	27,0 Nm (20 ft. lbs.)	33,7 Nm (25 ft. lbs.)
1/2"	40,5 Nm (30 ft. lbs.)	47,2 Nm (35 ft. lbs.)
5/8"	60,8 Nm (45 ft. lbs.)	74,2 Nm (55 ft. lbs.)
3/4"	107,0 Nm (79 ft. lbs.)	119,0 Nm (88 ft. lbs.)

*See warning at bottom of page

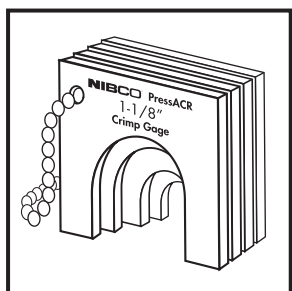
NIBCO® PressACR® — Crimp Gauge Instructions



1. After crimping the PressACR fitting, place the Crimp Gauge adjacent to the outside of the bead (copper tube side) where the jaws close. There should be a slight copper deformation in that location. If the gauge is in complete contact with the copper fitting, the crimp has been successful. Each pressed connection on the fitting should be gauged.



2. If you are unable to obtain complete contact with the copper fitting or see any kind of gap between the gauge and the fitting at the top of the gauge (arch), the crimp has not been successful.



NIBCO offers the PressACR Crimp Gauge to ensure quality installations.

WARNING

Read press tool operator's manual and fitting manufacturer's installation instructions before using. Failure to follow all instructions may result in extensive property damage and/or serious personal injury. Call the NIBCO Technical Service Department at 1.888.446.4226 if you have any questions or need assistance.

MISE EN GARDE !

Familiarisez-vous avec le mode d'emploi de la presse et les instructions du fabricant des raccords avant d'utiliser l'appareil. Le non-respect de leurs consignes risquerait d'augmenter les risques de dégâts matériels importants et/ou de graves blessures corporelles. Veuillez adresser toutes questions éventuelles ou demandes de mode d'emploi à la NIBCO en composant le 1.888.446.4226.

ADVERTENCIA

Antes de usar, lea el Manual del Operario de esta herramienta de presión y las instrucciones de instalación del acoplamiento 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 pedir un manual, llame al Departamento de Servicio Técnico de NIBCO al 1.888.446.4226.

Visit our website for the most current information.

Frequently Asked Questions

Q: Can you re-crimp PressACR fittings and do you have to align it like press for water service?

A: Yes, you can re-crimp and it still needs to be aligned with the bead. When doing a second crimp, it is recommended to rotate the head between 30°-90° from the original crimp.

Q: What is the testing protocol?

A: Test with nitrogen and use leak detect fluid or a tracer gas with a detector. Test with at least 50% of maximum design pressure but no more than 700 psi. Refer to the installation guide for more details.

Q: What do I do if the tube is difficult to insert?

A: Some refrigerant lubricant may be added to the seal to allow for easier insertion. Increasing the chamfer on the end of the tube OD will also reduce the force it takes to get the tube past the O-ring.

Q: Can you press both ways?

A: On sizes 7/8" and below you can press both ways. You cannot on the 1-1/8"; the jaw has a gauge that will not allow you to orient them incorrectly.

Q: What is reasoning behind the gauge on the 1-1/8" jaw and putting it on one way?

A: For the 1-1/8", the crimp is deeper on the outboard side of the bead than the inboard side of the bead. That orientation allows the larger diameter fittings to survive the pressure cycle requirements in a high-pressure system.

Q: Is the gauge heavier on one side?

A: Yes, on the 1-1/8".

Q: Is the pressure to crimp adjustable?

A: No, the pressure to crimp is controlled by the tool and cannot be adjusted.

Q: Will our packaging be in plastic?

A: Yes. All PressACR fittings will be in a gray plastic bag.

Q: Do the jaws have a witness mark?

A: No. The smaller sizes did not have room for the witness mark. We wanted to have consistency between all sizes.

Q: Can you tell it has been crimped?

A: Yes, you can visibly see it.

Q: Is using a polishing cloth a new step?

A: Yes, it is only recommended to polish in a radial direction and with an abrasive pad (such as Scotch-Brite® 7447 Maroon by 3M® or equivalent).

Q: Why do we use Scotch Brite® 7447 Maroon by 3M®?

A: There are 2 reasons: The first reason we do it is to provide a smooth and uniform surface for the seal. The second reason is to allow for a nice clean surface for grooves to bite into.

Q: Are the PressG seals and the PressACR seals the same material?

A: The grey seal in PressACR is HNBR. This seal is not the same as the PressG HNBR yellow seal. The seals are different formulations and dimensionally distinct. They are not interchangeable.

Q: Can PressACR be used with R-22 refrigerants?

A: No, R-22 refrigerants are being phased out.

Q: What is the tool calibration requirement?

A: Same as our current tool - 10,000 cycles. Please note, there is a sticker on the jaws suggesting that they are calibrated once a year. We also recommend the jaws are kept clean of any debris and copper shards.

Q: How far do we have to be away from brazed joints?

A: Depending upon existing joints you are crimping, you must be mindful of brazed joints. See chart on page 10.

Q: Can you crimp PressACR fittings directly on a service valve?

A: We do not have a solution for crimping directly to the service valve at this time. NIBCO PressACR fittings require a minimum of 3" from an existing brazed connection.

Visit our website for the most current information.
