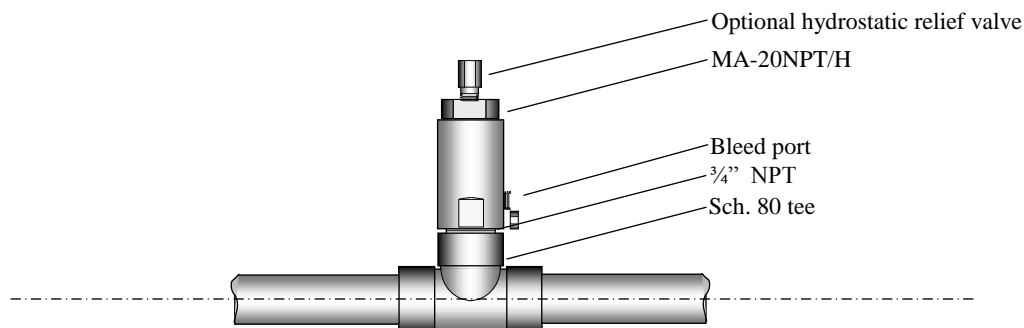
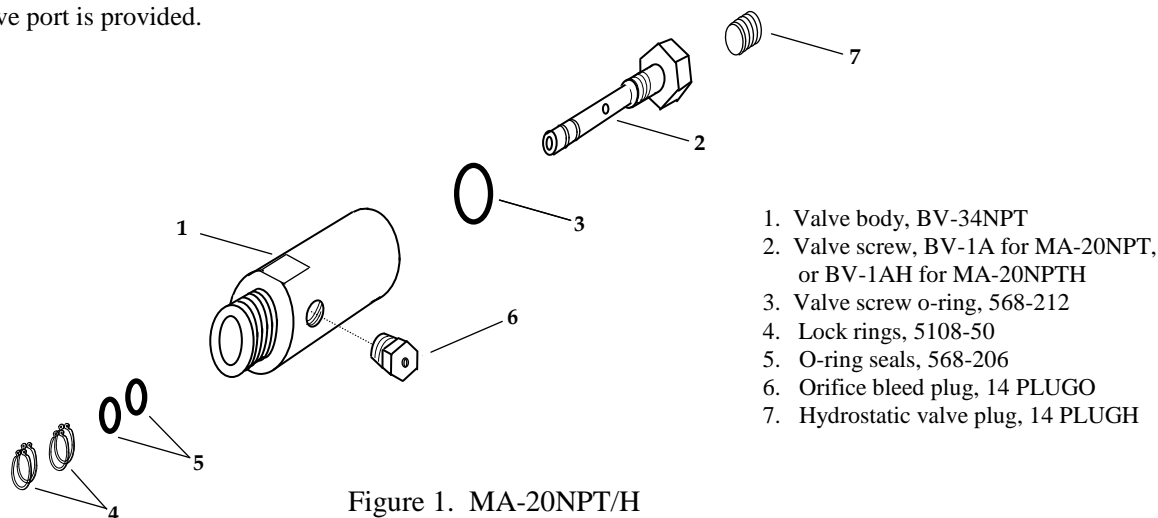


**READ THESE INSTRUCTIONS AND FAMILIARIZE YOURSELF WITH THIS PRODUCT,
BEFORE IT IS INSTALLED**

Installation/Operating Instructions for MA-20NPT, and MA-20NPTH Bleed Valve

The MA-20NPT/H bleed valve is designed to screw into a pipe tee so that section of pipe can be evacuated. The valve is completely fabricated from Stainless Steel. It is not necessary to paint the valve after installation. The MA-20NPT/H is a U.L. Recognized Component designed to screw into a ¾-inch female NPT thread.

Once installed, the intended purpose of the MA-20NPT/H is to quickly and safely evacuate product from the pipework. The MA-20NPT/H contains two o-ring seals that must be periodically replaced. Periodic replacement intervals depend on several factors involving use conditions. Failure to replace damaged o-ring seals will result in leakage. Inspect the o-ring seals at yearly intervals, and replace them if required. The MA-20NPTH contains a ¼-inch threaded port on the end of the valve screw so that a hydrostatic relief valve can be installed. The MA-20-NPT is identical, except that no hydrostatic relief valve port is provided.



Operation:

To evacuate product in the pipework, the MA-20NPT/H valve screw should be turned in a counterclockwise direction until product discharges from the bleed port. A ¼-inch plug with an orifice is screwed into the bleed port. For maximum discharge, the plug can be removed. While turning the valve screw counterclockwise to bleed product, at some point the valve screw will stop. At this point, do not continue to turn the valve screw in a counterclockwise direction.

This is the maximum bleed position where two lock rings on the valve screw are contacting the backside of the valve body and preventing the valve screw from turning any more. Damage to the lock rings will result if the valve screw continues to be loosened beyond this maximum bleed position. Close the MA-20NPT/H before the pipework is recharged.

O-ring Replacement:

It is necessary to remove the MA-20NPT/H from the pipework to replace the valve screw o-rings. Safely blow-down the pipework. Then, remove the MA-20NPT/H. To remove and reinstall the valve screw o-rings, the following steps should be followed:

- 1.) Remove the valve screw lock rings. There are four of them. If lost, use only Stainless Steel lock rings. Always reassemble four lock rings. Never reassemble and use the MA-20NPT/H unless all four lock rings are in place. Only use factory provided lock rings.
- 2.) Remove the valve screw from the valve body by turning the valve screw counterclockwise. When disengaged from the last thread, pull the valve screw out.
- 3.) The two valve screw o-rings to be replaced are located in the valve body. Remove them from their respective o-ring grooves by using a sharp instrument.
- 4.) Clean the inside of the hole in the valve body where the o-rings are located.
- 5.) Install two new o-rings in their respective o-ring grooves and lubricate with a Molybdenum based grease.
- 6.) Clean the valve screw and lubricate with Molybdenum based grease. Gently insert the valve screw into the valve body and turn clockwise to engage the threads. Tighten all the way, just hand tight. Replace all four lock rings. Then loosen by turning the valve screw counterclockwise. Then, tighten again, hand tight. Make sure there is no binding when turning the valve screw clockwise and counterclockwise.
- 7.) Check the condition of the o-ring that seals under the valve screw head and replace it if it appears damaged.
- 8.) Reinstall the MA-20NPT/H using a suitable Teflon® tape and thread sealant.

WARNING :

The first set of two lock rings on the valve screw acts as a stop when the valve screw is turned counterclockwise. Once the valve screw is backed out sufficiently, these two lock rings prevent the valve screw from unscrewing any further. In the event these two lock rings become damaged, the second set of lock rings at the end of the valve screw will prevent the valve screw from blowing out of the valve body under pressure. It is important that all four lock rings are in place and not damaged. Replace damaged lock rings and do not use the MA-20NPT/H if one or more lock rings is missing. If the valve screw is assembled into the valve body with no lock rings installed, the valve screw will blow out of the flange body when the system is charged. Serious injury may result if this occurs. Make sure that all four lock rings have been installed.

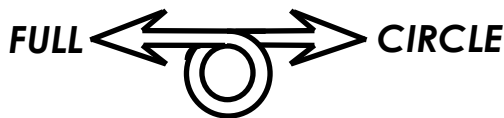
Do not use the MA-20NPT/H other than for its intended purpose as described in this manual.

Follow all safety guidelines for product evacuation as outlined in your company policies, NFPA-58, and other applicable Codes and Practices for the safe handling of LP-GAS.

Call us if you are uncertain how to safely use this product.

Maintenance:

The MA-20NPT/H should become a part of any periodic leak detection/maintenance program utilized by your company. Make sure that periodic checks are performed to determine if leakage is emanating from the MA-20NPT/H. Do not use the MA-20NPT/H if leakage is detected. Replace all o-rings if they appear to be damaged or worn flat. Periodic replacement of all o-rings is recommended before leakage is observed.



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