Operation Cont.

When any draining or flushing is to be carried out, always ensure the drain valve is in the closed position before the cap is removed. It is recommended that a suitable female threaded fitting attached to a hose is available which should be screwed onto the drain valve and a suitable receptacle or draining location used for collecting or directing the flush or drained water.

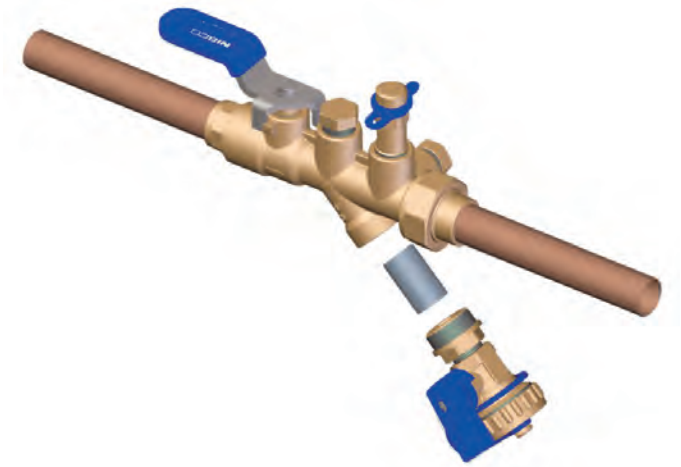
Always re-fit the screwed cap.

Maintenance

If the flushing operation fails to clear the strainer screen satisfactorily, it may be necessary to occasionally remove the strainer screen for cleaning.

Close the combination valve and the nearest downstream valve and drain that part of the system until water flow has stopped. Using a correctly sized spanner or wrench remove the cap from the body (there is no need to separately remove the drain valve).

The strainer screen may come out with the cap otherwise, carefully withdraw the strainer screen from the body.



If the screen is ruptured or badly damaged, it should be replaced. Check that the o-ring cap seal is undamaged. Replace if necessary.

The screen may be washed in a container of water or subjected to a jet of water. Place the cleaned screen into the internal cavity of the cap and ensure it is reasonably centralised and aligned. Holding the drain valve/cap, carefully enter the screen into the body and slowly screw in the cap. If any resistance is felt before the o-ring enters the body do not continue because the screen may not have located in the body correctly and damage may occur to the screen. Withdraw the cap, check the screen alignment and re-fit.

Tighten the cap to achieve metal/metal contact

Close the drain valve, re-fit the cap and open both isolating valves.

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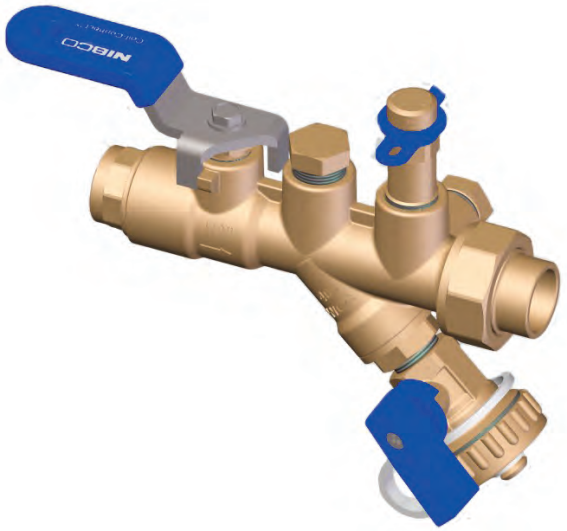
Installation, Operating and Maintenance Instructions NIBCO®

DZR Brass Combination Ball Valve with Strainer



DZR Brass Combination Ball Valve with Strainer

The combination ball valve with strainer comprises an isolating ball valve, strainer, drain valve, P/T port and two spare ports supplied fitted with blank plugs. The union connection at one end provides an easily demountable facility for localised pipework and flow control items such as valves. The spare ports provide the means of fitting other accessories. The drain valve is fitted with a security cap and the male thread allows the fitting of a hose connection when required.

The combination ball valve with strainer is a precision manufactured product and should be handled, installed and used with care as detailed in these instructions.

Valve Models

Fig. T1820 has female NPT threaded end connections as ANSI/ASME B1.20.1

Fig. S1820 has solder end connections as ASME/ANSI B16.22

The combination ball valve with strainer is supplied complete with a drain valve and P/T port fitted.

Limits of Use

The valve rating is shown in the table below and it must be installed in a system where the normal pressure and temperature does not exceed this rating.

The valve is intended for non-shock operating conditions.

Water hammer, impacts, stress loads, corrosive or erosive external environmental elements and the transport of fluids with abrasive properties should be avoided.

1820 Rev 0 May 2012

Operating Pressure and Temperature

Model	Non-Shock Pressure at Temperature Range	Non-Shock Pressure at Max. Temperature
T1820	400 psi from 15˚F(*) to 160˚F	150 psi at 260˚F
S1820	125 psi from 15˚F(*) to 175˚F	85 psi at 250˚F

(*) = temperatures apply only when glycol additives used.

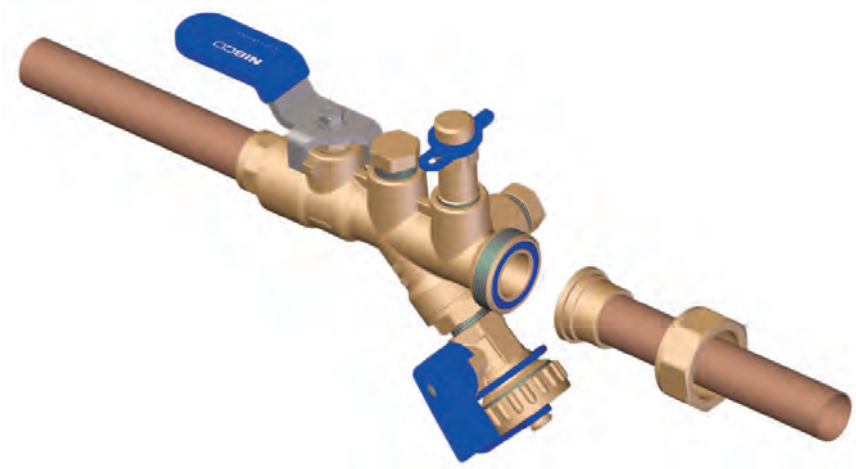
Layout and Siting

Prior to installation, it should be considered where the valve will be located to allow access for slackening the union nut, the insertion of a test probe and operation of the drain valve and withdrawal of the strainer basket. It should also be recognised that the connection of a drain hose may be occasionally required.

Installation

The combination ball valve with strainer is a precision manufactured product and should not be subjected to misuse. The valve should only be unpacked immediately prior to installation to avoid damage or foreign particles entering through the end ports. The valve and adjacent pipework should be checked for cleanliness and freedom from debris before installation. There should be no internal burrs in the pipe to be connected to the union.

Before proceeding with the installation, the union nut and pipe connector must be removed from the body. Ensure the body o-ring does not get damaged or lost.



Under no circumstances should attempts be made to solder a Fig. S1820 combination ball valve into the pipeline without first removing the union nut and solder connector from the body. This connector is soldered to the tube away from the valve. The warning label on the plastic bag should be read and understood.

NIBCO® Installation, Operating and Maintenance Instructions

Installation Cont.

When installing threaded valves, thread sealing liquids or tape may be used on the pipe threads but excessive use should be avoided. The use of hemp-style material should be avoided since this may cause overstressing of the female ends of the valve.

After the valve body and pipe connector/union nut have been fitted to each pipe pipe, the union nut may be assembled. Ensure that the body o-ring is in place and the orientation of the valve is with the drain valve at its lowest point. Hand tighten the union nut to the body, making sure the valve body and pipework are in line. Using a correctly fitting wrench or spanner, further tighten the union nut ¼ turn. Excessive force is not required.

Operation

The valve is opened and closed by operating the lever through 90° to a positive stop. Excessive force is not required. The open position is with the lever in line with the pipeline.

The valve is fitted with a P/T port complete with a blue colored strap and captive cap. For safety reasons, all manometer probe insertions of the P/T port must be carried out with the system cold.

Remove the screwed cap and insert the test probe into the P/T port. A silicone oil or grease should be lightly applied to the shaft of the probe before insertion. No other type of lubricant should be used. Always re-fit the screwed cap.

A drain valve is provided and after installation the drain valve should be vertically below the main valve and at its lowest point. This is a 90° operation ball valve providing positive isolation. The valve should always be set in the closed position – this is when the small lever is at 90° to the axis of the valve.

Ensure eye protection and gloves are worn before commencing any draining work.

The drain valve can also be used as a blow down valve. With the valve in the closed position and the cap removed the valve may be opened and the pressure in the system will flush out debris within the strainer screen.