General Suppliers

Stainless Steel Ball Valve – 1000WOG MV10 - 11234

Installation & Maintenance Instructions

CE MARKING AND THE PRESSURE EQUIPMENT DIRECTIVE 97/23/EC

This has been implemented in United Kingdom law by the Pressure Equipment Regulations 1999 (SI 1999/2001).

The regulations apply to all valves with a maximum allowable pressure greater than 0.5 bar.

Valves with a maximum allowable pressure not exceeding 0.5 bar are outside the scope of the Directive.

Valves are categorized in accordance with the maximum working pressure, size and ascending level of hazard, which is dependent on the fluid being transported.

Fluids are classified as Group 1, dangerous fluids or Group 2, all other fluids including steam. Categories are SEP (sound engineering practice) and for ascending levels of hazard, I, II, III or IV. All valves designated as SEP do not bear the CE mark nor require a Declaration of Conformity.

Categories I, II, III or IV carry the CE mark and require a Declaration of Conformity

(Note- all valves up to and including 25mm (1”) having a maximum allowable pressure greater than 0.5 bar are designated SEP regardless of fluid group).

THE ATEX Directive 94/9/EC

These ball valves are excluded from the ATEX Directive since they have no source of ignition, should not be installed in potentially explosive atmospheres and should only transport Group 2 non-hazardous liquids.

PRODUCT LIFE CYCLE

The life of the valve is dependent on its application, frequency of use and freedom from misuse.

The properties of the fluid being transported such as pressure and temperature must be taken into account to avoid premature failure.

Other factors to be considered are the electrolytic interaction between dissimilar metal used in the system, dezincification and stress corrosion cracking occurring on chilled water service.

Before commissioning a system, it should be flushed to eliminate debris and chemically cleaned as appropriate to eliminate contamination, all of which will prolong the life of the valve.

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LIMITS OF USE

These products are categorized as SEP for Group 2 Liquid, but are not necessarily suitable for all fluids in this group.

These valves shall not use on Group 2 Gases and Group 1 Liquids.

Operating pressures and temperatures

Maximum non shock pressure and temperature range:

1000 PSI WOG from -10˚C to100˚C

Water hammer and other shock conditions should be avoided. Not suitable for fatigue loading, creep conditions, fire testing, fire hazard environment, corrosive service or transporting abrasive solids.

Warning: The maximum surface temperatures are given above. Care should be taken when operating the valve at these temperatures, to avoid severe burns to the skin.

PRESSURE / TEMPERATURE RATING

These valves must be installed in a piping system where the normal pressure and temperature do not exceed the above ratings.

If system testing will subject the valve to pressures in excess of the working pressure rating, this should be within the test pressure for the body with the valve in the open position.

If the limits of use specified in these instructions are exceeded or if the valve is used on applications for which it was not designed, a potential hazard could result.

LAYOUT AND SITING

It should be considered at the design stage where valves will be located to give access for operation, and routine inspection.

Ball valves are bi-directional and can be installed with the flow in any direction.

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INSTALLATION

Prior to installation, a check of the identification plate and body marking must be made to ensure that the correct valve is being installed.

Maplef ball valves are manufactured to high quality standards and should not be subjected to misuse. The following should be avoided:

- Careless handling of the valve - valves should not be lifted using the lever.
- Dirt and debris entering the valve through the end ports.
- Excessive force during assembly and lever operation.

All special packaging material must be removed.

Ball valves may be fixed in any orientation, always leaving enough space for the 90° operation of the lever handle where fitted.

Confirm that the pipe threading length is correct to avoid excessive penetration of the pipe into the valve which would otherwise cause damage.

It is common practice to apply thread sealing compounds appropriate to the application but excessive use should be avoided, since this increase thread interference and may cause overstressing of the body ends.

The direction arrow cast on the body must be coincident with the direction of flow in the pipeline.

Ensure the threads are properly engaged and proceed to tighten the valve onto the pipe. The wrench must only be located on the valve end into which the pipe is being threaded to avoid distortion of the valve.

Valves and adjoining pipe work must be provided with adequate support to avoid inducing bending stresses into the valve body, which will impair its performance.

Immediately prior to valve installation, the pipe work to which the valve is to be fastened should be checked for cleanliness and freedom from debris.

After installation, the valve may be opened and closed fully to confirm satisfactory operation.

It is recommended that valves installed on end of line service and unused for prolonged periods should be fitted with a blank flange.

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OPERATION

Ball valves have a quarter turn operation (clockwise to close) providing quick and positive isolation. The lever will be in line with the pipeline with the valve in the open position.

Close the valves by rotating the lever clockwise until a positive stop is felt.

Note: Rapid closure of a quarter turn valve on liquid service may cause a shock to the valve and 'water hammer' in the pipe work system.

Extensions to the lever or similar devices should not be used.

The operator should use suitable hand protection at extreme temperature conditions.

Ball valves should only be used in the full open or closed position and should not be used for regulation.

MAINTENANCE

Maplef ball valves will provide a long service life and no maintenance is required

In the unlikely event that a valve requires replacement then the following should be taken into consideration.

The valve should be at zero pressure and ambient temperature before any valve replacement is carried out and correctly fitting tools should be used for the valve replacement work. Eye protection and gloves must be worn for this operation.

As the valve is removed there will be water loss between the two isolation points, therefore unless the pipe work has been drained at another location, a means of collecting the discharged water is recommended.

A full risk assessment and methodology statement must be compiled prior to any Maintenance.

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