



Installation, Operating and Maintenance Instructions		
PRODUCT DATA SHEET	PRODUCT TYPE	
JET RANGE VALVES	JET51 and JET51LS Bronze gate valves- compression ends	
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The Pressure Equipment Directive 97/23/EC and CE Marking

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 are categorised 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") are designated SEP regardless of the fluid group.). Valves classified from the piping chart would not be included in Category IV.

PRODUCT LIFE SPAN

The life of the valve is dependent on its application, frequency of use and freedom from misuse. The system into which it is installed must also be compatible with respect to the fluid being transported with reference to its temperature, pressure and other properties, which may cause premature failure or non-operability. A well-designed system will take into consideration all the factors considered in the valve design, but additionally electrolytic interaction between dissimilar metals in the valve and the system must be examined. 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.

LIMITS OF USE

Operating pressures and temperatures

PN rated valves

PN	Non-shock pressure at temperature range	Non-shock pressure at Maximum temperature
20	20 bar -10°C up to 100°C	9 bar at 180°C

Not suitable for fatigue loading, creep conditions, fire testing, fire hazard environment, corrosive or erosive service, transporting fluids with abrasive solids.

SELECTION

When selecting this valve please ensure that it is suitable for the service conditions for which it is intended.

Jet valves are not designed to withstand the effects of fire, wind, earthquakes and traffic.

When Jet valves are fitted with pressure equipment or assemblies', suitable protective devices may be required.

Suitable for non -shock:

Steam	Water	Oil	Air	Gas	Gas	Gas	Gas
				Inert	Combustible	Corrosive	Oxygen
YES	YES	YES	NO	NO	NO	NO	NO

PRESSURE/TEMPERATURE RATING

Valves rated at PN20 must be installed in a piping system whose normal pressure and temperature do not exceed these ratings.

If system testing will subject the valve to pressures in excess of the working pressure rating, this should be within the "shell test pressure for the body" to a maximum of 1.5 times the PN rating and conducted with the valve fully opened.

The maximum allowable pressure in valves as specified in the standards is for non- shock conditions. Water hammer and impact for example, should be avoided.

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, adjustment, maintenance and repair.

Valves must be provided with adequate support. Adjoining pipe work must be supported to avoid the imposition of pipeline strains on the valve body, which would impair its performance,

Heavy valves may need independent support or anchorage.

Gate valves may be installed in:

- a) Horizontal pipe work with stem vertical and upright.
- b) Vertical pipe work with stem horizontal

The valve should not be installed in horizontal pipe work with stem horizontal because shut off performance may be impaired over time because of system debris.

OPERATION - JET51 Bronze gate valve with hand wheel

The valve is opened by anti-clockwise rotation of the handwheel to a positive stop. Further effort is not necessary. When fully open it is advantageous to rotate the handwheel clockwise 1/2 turn.

To close the valve, the hand wheel is rotated clockwise to a positive stop.

Wheel keys or other similar devices should not be used.

Note: When the valve is closed at extreme temperature and then cooled, the wedge may become tight in the valve and prove difficult to open.

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

The valve should only be used in the fully open or fully closed position.

Regulating and throttling service should be avoided.

OPERATION-JET51LS Bronze gate valve with lock shield

The valve is opened by anti-clockwise rotation of a suitable lock shield key to a positive stop. Further effort is not necessary. When fully open it is advantageous to rotate the lock shield key clockwise 1/2 turn.

To close the valve, the lock shield key is rotated clockwise to a positive stop.

Note: When the valve is closed at extreme temperature and then cooled, the wedge may become tight in the valve and prove difficult to open.

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

The valve should only be used in the fully open or fully closed position.

Regulating and throttling service should be avoided.

MAINTENANCE

The valve should be at zero pressure and ambient temperature prior to any maintenance.

Maintenance Engineers and Operators are reminded to use the correct fitting tools and equipment.

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

The risk assessment must take into account the possibility of the limits of use being exceeded whereby a potential hazard could result.

A maintenance program should therefore include checks on the development of unforeseen conditions, which could lead to failure.

Gland Adjustment

The gland may need adjustment during installation and then periodically thereafter to maintain a stem gland seal.

NOTE: It is recommended that within the 1st year the gland be inspected at 3 monthly intervals to check for gland leakage

For technical assistance contact:

Head Office : Wolseley UK
Telephone : Technical assistance Valvestock (Pipe) 01329 283425
Internet : www.pipecenter.co.uk

Reference Material:

A Technical File is held at Pipe Center as part of the requirements for compliance to the European Pressure Equipment Directive (PED 97/23 EC)

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