



Cast iron wafer pattern check valve. Wafer dual plate check valve, 16 bar from -10 deg C to 120 deg C.

## GENERAL INFORMATION

Size	Pattern No.	Pack 1 Qty	Code	Barcode
65mm	V909	1	15398	5022050084583
80mm	V909	1	15399	5022050086020
100mm	V909	1	15400	5022050120946
125mm	V909	1	15401	5022050087294
150mm	V909	1	15402	5022050088086
200mm	V909	1	15403	5022050088994
250mm	V909	1	15404	5022050089076
300mm	V909	1	15405	5022050089267

## DIMENSIONS (mm)

Code	Description	A	B	C	Kg
15398	65mm V909	54	78	126	2.39
15399	80mm V909	57	90	141	3.20
15400	100mm V909	64	115	161	4.80
15401	125mm V909	70	141	191	7.60
15402	150mm V909	76	170	217	10.00
15403	200mm V909	95	210	272	14.00
15404	250mm V909	108	273	327	23.56
15405	300mm V909	143	324	382	36.00

## GUARANTEE

### Pegler Yorkshire 5 Year Guarantee - Terms and Conditions

Products are subject to a 5 year guarantee that is between Pegler Yorkshire and the final purchaser of the product.

The guarantee is subject to proof of purchase being supplied.

This guarantee does not affect any statutory rights the consumer may have in law.

The guarantee covers manufacturing or material defects when installed in accordance with our instructions on specified tube materials and applications, and does not cover parts subject to normal wear and tear.

This product range has been designed for the use of homeowners, domestic and commercial applications and therefore the Guarantee is subject to the product being properly selected for their intended service conditions.

The guarantee is not applicable where the product is fitted contrary to the conditions in the fitting instructions.

This is reinforced where valves are covered by the European Pressure Equipment Directive (PED97/23/EC) where Installation, Operating and Maintenance Instructions are supplied with each product and/or carton.

Provided it is installed correctly and receives adequate preventative maintenance it should give years of trouble-free service.

Abusive behaviour and accidental damage to the product are not covered by this guarantee.

The extent of this liability is limited to the cost of the replacement of the defective item and not to installation or consequential damages.



## Installation, Operating and Maintenance Instructions

### V909 Cast Iron Dual Plate Check Valve



V909

#### THE PRESSURE EQUIPMENT DIRECTIVE 97/23/EC and CE MARKING

The Pressure Equipment Regulations 1999 (SI 1999/2001) have now been introduced into United Kingdom law.

Valves with a maximum allowable pressure greater than 0.5 bar are covered by these new Regulations. Valves are categorised according to their maximum working pressure, size and rising level of hazard. The level of hazard varies according to the fluid being carried. Fluids are classified as Group 1, dangerous fluids or Group 2, all other fluids including steam. The Categories designated are SEP (sound engineering practice). Valves up to and including 25mm (1") are designated SEP regardless of the fluid group. Those identified as having increased hazard are Categorised as, 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 carries the CE mark and require a Declaration of Conformity. Valves classified from the piping chart would not be included in Category IV.

#### Section 1-Technical Details

The Pegler Commercial Cast Iron V909 series (available from Pegler Yorkshire Group) are intended to prevent back flow in sections of pipe work and equipment in HVAC applications.

##### 1.1 Tube compatibility

Valve Type	Flange Connection Specification
V909 PN16	Fits between flanges to BS EN1092-2:1997 PN16

##### 1.2 Pressure and Temperature ratings

Valves must be installed in a piping system whose normal pressure and temperature does not exceed the stated rating of the valve. The maximum allowable pressure in valves as specified in the standard is for non shock conditions. Water hammer and impact should also be avoided.

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

It may be hazardous to use these valves outside of their specified pressure and temperature limitations and also when not used for the correct application

#### Technical Performance Specification

V909 all sizes rated at PN16

Comply with BS EN12334:2001

Self acting, spring assisted closure.

Size range DN65-DN300

Fits between raised Flanges in accordance with BS EN1092-2:1997 PN16, and secured by the flange bolts.

EPDM seat.



## **Section 2-Installation**

### **2.1 Electrical continuity**

All metallic pipework should comply with the equipotential bonding requirements of the current edition of the IEE wiring regulations (BS7671:2001). After all plumbing work has been completed continuity checks are to be conducted by a qualified electrician in accordance with the regulations.

### **2.2 Heat free**

The Pegler V909 Series offers Heat free jointing across its whole range of flanged valves. These valve connections must not be brazed.

### **2.3 Insulation**

For all Pegler V909 Series valves, it is recommended that you adhere to the insulation requirements as specified by the Water Supply (Water Fittings Regulations 1999, ensuring at all times that access for valve operation is taken into consideration.

### **2.4 Valve selection**

Valves must be properly selected for their intended services conditions. Provided it is installed correctly and receives adequate preventative maintenance it should give years of trouble free service.

They must be compatible with the system design, pressure and temperature requirements and must be suitable for the fluids that they are intended to carry. Interactions between metals in the pipe system must be considered as part of the valve selection.

V909 Dual plate spring loaded check valves perform equally well in horizontal and vertical positions, taking regard of the directional flow arrow on the body.

### **2.5 Location/end of line service**

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.

To ensure ease of operation, adjustment, maintenance and repair, valve siting should be decided during the system design phase.

These check valves must not be used in an end of line application without a blanking flange being fitted on the downstream end of the valve.

### **2.6 Pre Installation- Health and Safety**

Before starting work on any installation a risk assessment must be made to consider the possibility of operational limits being exceeded and reduction or elimination of any potential hazards.

1. Protective clothing and safety equipment must be utilized as appropriate to the hazard presented by the nature of the process to which the valve is being installed or maintained.
2. Before installing or removing a valve the pipeline circulating pumps (when fitted) must be turned off. The pipeline must be depressurised, drained and vented. Valves must be fully opened to ensure release of any pipeline or valve pressure.
3. Fitters must be trained in manual and mechanical handling to enable them to safely lift and install Pegler valves.
4. The valve selected must be suitable for the required service conditions. The pressure and temperature limitations are indicated on the valve nameplates, body or data plate. They must not be exceeded.
5. The V909 is designed to prevent back flow in pipe lines protecting upstream equipment from potential contamination.
6. Any flushing fluid used to clean the pipeline must not cause any damage to the valve and its components.
7. Pegler valves must not be misused by lifting them by their hand wheels, levers or valve stems.
8. Pegler valves are not suitable for fatigue loading, creep conditions, fire testing, fire hazard environment, corrosive or erosive service, or for carrying fluids containing abrasive solids. There is no allowance for corrosion in the design of these valves. Design for this valve do not allow for decomposition of unstable fluids and must not be used where this could occur.
9. Pegler valves are not designed to withstand the effects of fire, wind, earthquakes and traffic.
10. All Health and Safety Rules must be followed when installing and maintaining valves.



### Installation – V909 Dual plate spring operated check valves

Prior to installation a check of the nameplate and body markings must be made to ensure that the correct valve is being installed.

Valves are precision manufactured items and as such, should not be subjected to misuse such as careless handling, allowing dirt to enter the valve through the end ports, lack of cleaning of both valve and system before operation and excessive force during assembly.

Unpack the valve and check the bores are clean and free from foreign material. 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. Allow space for the removal of the strainer basket in the event that cleaning is required.

Valves should not be lifted without taking into consideration the weight for health and safety reasons.

Pipework must be assembled with the correct gaskets and mating flanges that are compatible with the V909 spring check valves. Prior to assembly the gasket and mating flange must be inspected to ensure that they are clean and free from damage.

Installing damaged or unclean gaskets and mating flanges could lead to valve failure.

When assembled with the gasket and mating flanges correct size bolts must be used and tightened in sequence to ensure that the gasket is compressed equally across its surface to give the correct seal. All bolt holes should be utilized.

In systems where corrosion could be a potential hazard, wall thickness checks on the body and bonnet should be made. This requires either the removal of the valve from the pipeline or the removal of the bonnet with system at zero pressure. If the wall thickness of the valve has reduced by 25% then the valve should be replaced.

### Section 3 Testing

#### 3.1 TESTING

DN65 to DN300 - each product shall be pneumatically tested at 6 bar (90psig) for 5 sec. There shall be no signs of visible leakage from the Body / Bonnet joint, surfaces or seals.

After testing the valves shall be left fully 'Open'.

**Type Testing**-These tests shall be carried out at Pegler Limited on a sample basis in accordance with BS6001.

	<u>DN65 to DN300</u>
a) Hydrostatic body test	24bar
b) Hydraulic seat test	17.6bar
c) Pneumatic body test	6 bar
d) Pneumatic seat test	6 bar

Valve Type	Max. working Pressure(bar)	Temperature at Max. working Pressure	Max. Working Temperature	Max. Working pressure at Max. temperature(bar)
Flanged to EN1092-2 PN16	16.0	up to 120°C	Up to 120°C	16.0

#### PN rated valves

- All sizes Categorized as S.E.P. (Sound Engineering Practice).

PN	Non-shock pressure at temperature range	Non-shock pressure at Maximum temperature
16	16bar -10°C up to 120°C	16.0bar at 120°C
Suitable for use with Group 2 Liquids only		

**Not suitable for use with Group 1 Liquids, Group 1 or Group 2 Gases**



### **Certification**

Not applicable

### **Operation/ Commissioning**

The valve is self acting but the strainer may require cleaning after commissioning and then at regular intervals during its lifecycle.

In systems where corrosion could be a potential hazard, wall thickness checks on the body and bonnet should be made. This requires either the removal of the valve from the pipeline or the removal of the bonnet with system at zero pressure. If the wall thickness of the valve has reduced by 25% then the valve should be replaced.

### **We do not recommend any servicing or maintenance is carried out on these valves.**

Should a valve need replacing 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.

The correct fitting tools and equipment should be used for valve replacement work.

Separate means of draining the pipe work must be provided when carrying out any replacement of V909 Spring operated dual plate check valves.

Where there may be any system debris this should be collected and /or filtered by installation of the appropriate protective device.

### **3.2 Additives**

It is strongly recommended to consult a commissioning engineer in conjunction with the manufacturer prior to their use.

### **3.3 Warranty**

Products are subject to a 5 year guarantee that is between Pegler Yorkshire and the final purchaser of the product.

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### **Section 4-Storage**

Valves should be stored off the ground in a clean, dry, indoor area. Where desiccant bags are included these should be changed after a period of six months.

Pegler valves are supplied in appropriate packaging to give adequate protection from damage. Cast iron and steel valves may also have end protection caps.

When Pegler valves are fitted to pressure equipment or assemblies, suitable protective devices may be required.



## PRODUCT LIFE SPAN

When a valve is properly selected for its service conditions it should give years of trouble-free service provided it is installed correctly and receives adequate preventative maintenance. By not considering the compatibility of the system design and the pressure and temperature requirements the life expectancy of the valves can be adversely affected and valve failure may occur. The nature of the fluid being carried through the valve could also affect the valve performance as this could lead to premature valve failure. There may also be interactions between metals

in the pipe system and the valve which need to be considered. Appropriate flushing and cleaning of the pipe work installation should take place when commissioning the system as this would help extend the valve life.

### Section5 -Contact details

For further details please contact our technical department: **0800 156 0050**

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