Pegler Valve

Ballofix isolating ball valve - straight pattern. Compression x BSP parallel female thread. DZR, commercial chrome finish

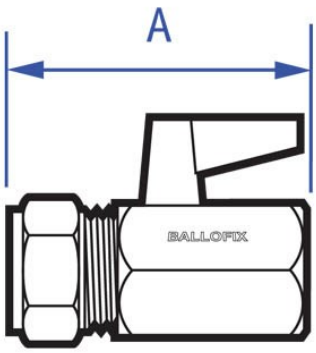
3331ZP Ball valve



General Information

Size	Pattern No.	Pack 1 Qty	Pack 2 Qty	Code	Barcode	Price (£) each ex VAT
15mm x 1/2"		1	10	13236	5708537343113	£27.59

3331ZP Ball valve



Dimensions

Code	Description	A
13236	15mm x 1/2" 3331ZP	51 0.13

Pegler Yorkshire reserve the right to change specifications

Guarantee

Pegler 5 Year Guarantee - Terms and Conditions

Products are subject to a 5 year guarantee that is between Pegler 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.

Materials

Component	Material

Component	Material
Body	DZR brass, chrome plated
Ball	DZR brass, nickel plated
'O' rings	EPDM
Handle	Nylon PA6.6 (30% glass reinforced)
Compression nut	Forged brass, chrome plated
Compression cone	Brass

installation instructions

the pressure equipment directive

97/23/EC & 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 carry the CE mark and require a Declaration of Conformity. Valves classified from the piping chart would not be included in Category IV.

CE marking & the ATEX Directive 94/9/EC
Concerning equipment and protection systems intended for use in potentially explosive atmospheres. This has been implemented in United Kingdom law by the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmosphere Regulations 1996(31 1996/192) and amended by The Equipment and Protective Systems (amendment) Regulations 2001 (SI2001/3766). The regulations apply to all valves where each valve: a) has its own potential source of ignition. b) operates in a potentially explosive atmosphere created by:

i) the presence of air/dust mixtures external to the valve.
ii) the presence of gases, vapours, mists released from the valve through leakage.

The regulations will not apply to a valve without a potential source of ignition, which operates in a dust free environment and the fluid being transported is cold, inert gas or non-flammable liquid. The requisite level of protection for valves not exempt from the regulations is defined as Group II category 2 and shall bear the following markings: ExII 2 GD X

valve selection

selection, storage & protection
Valves must be properly selected for their intended service 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 and the valve must be considered as part of the valve selection.

Valves should be stored off the ground in a clean, dry, indoor area. Where desiccant bags are included with the valve these should be changed after a period of 6 months.

Pegler valves are supplied in cardboard cartons or are bagged as appropriate and so adequate protection from damage is provided. When Pegler valves are fitted with pressure equipment or assemblies, suitable protective devices may be required.

pressure/temperature rating
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 standards 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 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.

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.

location/end-of-line service
To ensure ease of operation, adjustment, maintenance and repair, valve siting should be decided during the system design phase. To prevent imposing strain on the valve seat, pipe work and valves they must be adequately supported.

The 1072, 1070/125, 1065 and 1068 Gate valves are suitable for end of line service but we strongly recommend the fitting of a blanking plug to the downstream end of the valve. Pegler Ball, Globe, Check, Flanged and Lever Gate valves are not suitable for end-of-line service.

installation

health & 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 utilised 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 nameplate, body or data plate. These must not be exceeded.
5. Valve seats, seals and internal components can be damaged by system debris. Protective devices may need to be fitted and system flushing may be required.
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 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. Designs 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
Unpack the valve and check that the flow paths and valve threads are clean and free from debris.

Check the body markings and nameplate to ensure that the correct valve has been selected for installation.

Gate valves and Globe valves may be fixed in "Vertical pipe work with stem horizontal" or "Horizontal pipe work with stem vertical and upright". Globe valves are marked with a directional flow arrow on the body. The valve will function correctly providing it is fitted so that the fluid transported follows the indicated flow direction.

Make sure that a gate valve is fully closed during installation.

Fitting a gate valve in the open position may cause twisting and the gate and seating may not mate properly. The valve should be operated from fully open to fully closed to test that it has been correctly installed.

The valve should not be installed in horizontal pipe work with stem horizontal because full closure may be impeded by an accumulation of system debris. Pegler Valves are manufactured to exacting standards and, therefore, should not be subjected to misuse. The following should be avoided: ***careless handling** of the valve (Valves should not be lifted using the hand wheel, lever or the stem). ***dirt and debris** entering the valve through the end ports. ***Excessive force** during assembly and hand wheel operation.

Ball valves may be fixed in any orientation, always leaving enough space for the 90° operation of the lever handle. Horizontal and vertical pattern check valves may be fitted in horizontal pipe work with the cap upper most and vertically with the flow in an upwards direction. The valve is marked with a directional flow arrow on the body. The valve will function correctly providing it is fitted so that the fluid transported follows the indicated flow direction. Check valves having 6 diameters of straight length of pipe upstream and 3 diameters downstream are suitable for velocities of 3 metres per second. If the valve is situated such that non uniform or pulsating flow enters the valve, e.g. the valve is close to reciprocating pumps, then the velocity should not exceed 2 metres per second. Use suitable hangers close to both ends of the valve in order to remove stresses transmitted by the pipe. Confirm that the pipe threading length is correct to avoid excessive penetration of the pipe into the valve that would otherwise cause damage. Care should be taken to apply jointing compound to the pipe only and not in the valve threads. Surplus compound will then be forced outwards and will not enter the valve. Over use of compound can lead to valve failure on the body ends. Threads should be engaged correctly when tightening the valve onto the pipe. The wrench should always be fitted on the body end adjacent to the joint being made. Severe damage can occur to stems, valves and seats by the use of hand wheels or levers larger than those originally supplied by the manufacturer, and by wheel keys. Any electrical component e.g. actuators, limit switches must be explosion proof and comply with the ATEX Directive and Standards as listed in BS EN 1127-1 clause 6.4.5.

operation

gate valves
To open - an anti-clockwise rotation of the hand wheel will open the valve. When it will go no further return the hand wheel clockwise 1/2 turn. To close the valve a clockwise rotation of the hand wheel will close the valve. Closure will be confirmed when the handle can be turned no further.

caution: Service applications with extremes of temperature may cause the wedge to become tight in the valve. The valve may be become stiff to operate in these circumstances. Suitable hand protection should be worn when operating valves used in extreme temperature applications. The valve should only be used in the fully open or fully closed position. Gate valves are not suitable for regulating and throttling service.

globe valves
To open - an anti-clockwise rotation of the hand wheel will open the valve. When it will go no further return the hand wheel clockwise 1/2 turn. To close the valve a clockwise rotation of the hand wheel will close the valve. Closure will be confirmed when the handle can be turned no further.

caution: Suitable hand protection should be worn when operating valves used in extreme temperature applications. Globe valves are suitable for regulating and throttling service.

check valves
The Horizontal/vertical pattern check valves operate according to the flow within the pipeline and there is no external method of operation.

ball valves
PB LEVER HANDLE To open - turn the lever 90° so that it is in line with the pipe run in which it is installed. To close - turn the lever 90° so that it is across the line of the pipe in which it is installed. Full opening and closing is completed when a full 90° is achieved and the lever is firmly set against the stop on the valve body.

PB T Models have lockable handles for use in both open and closed positions. In the fully open position the T handle is in line with the pipe work. To lock the valve in the open position a hexagon key of the appropriate size can be used to remove the securing screw. The T handle can then be lifted from the valve. This should then be rotated through 180° and refitted on to the valve spindle ensuring the handle slot engages on to the body lug. Insert the securing screw and re-tighten with the hexagon key.

PB EL models are fitted with an extended spindle mechanism that lifts the lever away from the body and is particularly useful when pipe insulation is being used. This version is only available with a standard lever handle. Caution: Service applications with extremes of temperature may cause the ball to become tight in the valve. The valve may be become stiff to operate in these circumstances. Suitable hand protection should be worn when operating valves used in extreme temperature applications. The valve should only be used in the fully open or fully closed position. Ball valves are not suitable for regulating or throttling applications.

maintenance

A regular maintenance program is the most efficient method of ensuring longer term operational efficiency of the selected valve. Such a program would need to include a risk assessment and a planned procedure of how the maintenance will be carried out. The possibility of operational limits being exceeded and the potential hazards ensuing must be considered as part of this assessment. This should be implemented to include visual checks on the valve's condition and any development of unforeseen conditions, which could lead to failure. The correct fitting tools and equipment should be used for valve maintenance work. Separate means of draining the pipe work must be provided when carrying out any maintenance to valves. Where there may be any system debris this should be collected and/or filtered by installation of the appropriate protective device.

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.

gland replacement
Under normal working conditions Pegler gate and globe valves do not normally require any maintenance, however, in the event of maintenance being necessary, the following procedure should be followed: Before starting work, de-pressurise the system, turn off any circulating pumps. Slacken the hand wheel nut and remove the nut, nameplate and hand wheel. Remove the gland nut and gland ring. Using a suitable tool, lift out the existing packing and make sure the stem and stuffing box are clean & free from debris. Care must be taken not to damage the valve stem.

Fit a replacement Pegler packing gland into the stuffing box and push down firmly.

Re-assemble the gland ring and gland nut.

Re-attach the handwheel, nameplate and nut.

Tighten the gland nut and confirm stem resistance while operating the valve. Once line pressure is re-established a check for leak tightness should be made, further adjust the gland nut as required necessary to achieve a satisfactory seal.

note:

maintenance Permanent removal of the gland nut and /or the Data. Plate will invalidate the CE compliance of this valve. Pegler Ball valves and Check valves are generally NOT suitable for maintenance.

According to valve type, gland packing and valve discs may be replaced. Valves within the scope of the ATEX Directive with a protective level defined as Group II category 2 will operate in Zone 1 (gases/vapours) or Zone 21 (dust) designated in BS1127-1 Explosion prevention and protection. Tools are either "single spark" e.g. screwdriver, spanner, impact screwdriver or "shower of sparks" e.g. sawing or grinding. Only steel "single spark" tools are permitted in Zones 1 & 21. Tools causing showers of sparks are only permissible if: a) no hazardous explosive atmosphere is present. b) dust deposits have been removed and no dust cloud is present. The use of tools on equipment in Zones 1 and 21 should be subject to a "permit to work" system.

1029 renewable valve disc replacement
Before starting work de-pressurise the system, turn off any circulating pumps, and ensure the valve is empty of fluid. Using a suitable wrench remove the complete bonnet assembly from the valve. Care should be taken to ensure the pipework is held securely during this process so that there is no distortion to the valve threads. Any damage to the threads could lead to valve failure. Slacken and remove disc nut and disc.

Assess damage to valve seat replacing the whole valve if necessary.

The valve disc can be replaced with an equivalent size disc and type as appropriate. Re-attach a replacement disc and disc nut. Re-assemble the bonnet in to the valve body, checking for damage. Ensure the valve bonnet is joined securely to body and will not leak.

note:

the 1029 Globe valves have non-metallic PTFE valve discs.

installation, operating & maintenance instructions are available from sales office
Pegler recommended spares must be used. Refer to Pegler Technical Department for further information.

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. Reference Material: Pegler Valves Package Brochure, Pegler Spares Catalogue, and Spares Price list. A Technical File is held at Doncaster as part of the requirements for compliance to the European Pressure Equipment Directive (PED 97/23 EC).

maintaining a policy of continual product development pegler ltd reserves the right to change specification, design and materials of products listed in this leaflet without prior notice.

valve suitability

	Product	Steam	Water	Oil	Air	Gas Inert	Gas Combustible	Gas Corrosive	Gas Oxygen
ball valves	PB700	✓	✓	✓	✓*	✓*	✓*	✓*	✗
	PB500 red	✓	✓	✓	✓*	✗	✗	✗	✗
	PB500 yellow	✓	✓	✓	✓*	✓*	✓*	✓*	✗
	PB300 red/blue	✓	✓	✓	✓*	✗	✗	✗	✗
	PB300 yellow	✓	✓	✓	✓*	✓*	✓*	✓*	✗
	PB100	✗	✓	✓	✓*	✗	✗	✗	✗
gate valves	1065	✗	✓	✓	✗	✗	✗	✗	✗
	1068	✓	✓	✓	✗	✗	✗	✗	✗
	1072	✓	✓	✓	✗	✗	✗	✗	✗
	1070/125	✓	✓	✓	✗	✗	✗	✗	✗
	P81M	✓	✓	✓	✗	✗	✗	✗	✗
	63	✗	✓	✓	✗	✗	✗	✗	✗
	GM63	✗	✓	✓	✗	✗	✗	✗	✗
globe valves	1029	✓	✓	✓	✓*	✓*	✓*	✓*	✗
	1031	✓	✓	✓	✗	✗	✗	✗	✗
check valves	1039	✓	✓	✓	✗	✗	✗	✗	✗
	1060A	✓	✓	✓	✗	✗	✗	✗	✗
	1062	✓	✓	✓	✗	✗	✗	✗	✗
	1063	✗	✓	✗	✓**	✗	✗	✗	✗
	1064	✗	✓	✗	✓**	✗	✗	✗	✗
draincocks	1832	✗	✓	✗	✗	✗	✗	✗	✗
	833GM, GM LS	✗	✓	✗	✗	✗	✗	✗	✗

* Pressure limited to 10 bar for Air & Gas applications. ** Pressure limited to 5 bar for Air applications.

thread depths (mm)

	Product	¼"	⅜"	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
ball valves	PB700	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
	PB500 red	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
	PB500 yellow	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
	PB300 red/blue	-	-	-	-	-	-	-	-	-	-	-
	PB300 yellow	-	-	-	-	-	-	-	-	-	-	-
	PB100	-	-	12.7	14.0	16.2	18.5	18.5	22.8	-	-	-
gate valves	1065	-	-	12.7	14.0	16.1	18.5	18.5	22.8	-	-	-
	1068	-	-	15.0	16.3	19.1	21.4	21.4	25.7	30.2	33.3	39.3
	1072	-	-	15.0	16.3	19.1	21.4	21.4	25.7	-	-	-
	1070/125	11.4	11.4	15.0	16.3	19.1	21.4	21.4	25.7	30.2	33.3	39.3
	P81M	-	-	-	-	-	-	-	-	-	-	-
	63	-	-	-	-	-	-	-	-	-	-	-
	GM63	-	-	-	-	-	-	-	-	-	-	-
globe valves	1029	7.5	7.9	9.9	11.1	12.3	14.3	14.3	18.2	19.8	22.6	-
	1031	-	-	9.9	11.1	12.3	14.3	14.3	18.2	-	-	-
check valves	1039	-	-	9.9	11.1	12.3	14.3	14.3	18.2	-	-	-
	1060A	-	-	15.0	16.3	19.1	21.4	21.4	25.7	25.0	33.0	33.0
	1062	-	-	15.9	16.7	19.0	-	-	-	-	-	-
	1063	-	10.3	12.8	14.2	15.0	15.2	16.4	17.2	19.8	26.0	26.6
	1064	-	10.3	12.8	14.2	15.0	15.2	16.4	17.2	19.8	26.0	26.6
draincocks	1832	-	-	-	-	-	-	-	-	-	-	-
	833GM, GM LS	-	-	-	-	-	-	-	-	-	-	-

valve suitability

	Product	PN	Non - shock pressure @ temp. range	Non - shock pressure @ max. range
ball valves	PB700	40*	40 bar - 10°C to 110°C	10 bar at 180°C
	PB500 red	25	25 bar - 10°C to 100°C	16.5 bar at 150°C
	PB500 yellow	25*	25 bar - 10°C to 100°C	16.5 bar at 150°C
	PB300 red/blue	16	16 bar - 10°C to 30°C	5 bar at 120°C
	PB300 yellow	16*	16 bar - 10°C to 30°C	5 bar at 120°C
	PB100	25	25 bar - 10°C to 100°C	4 bar at 120°C
gate valves	1065	17.5	17.5 bar - 0°C to 25°C	17.5 bar at 93°C
	1068	20	20 bar - 10°C to 100°C	9 bar at 180°C
	1072	32	32 bar - 10°C to 100°C	14 bar at 198°C
	1070/125	20	20 bar - 10°C to 100°C	9 bar at 180°C
	P81M	16	20 bar - 10°C to 100°C	9 bar at 180°C
	63	16	16 bar - 10°C to 30°C	5 bar at 120°C
	GM63	16	16 bar - 10°C to 30°C	5 bar at 120°C
globe valves	1029	32*	32 bar - 10°C to 100°C	14 bar at 198°C
	1031	32	32 bar - 10°C to 100°C	14 bar at 198°C
check valves	1039	32	32 bar - 10°C to 100°C	14 bar at 198°C
	1060A	25	25 bar - 10°C to 100°C	10.5 bar at 186°C
	1062	25	25 bar - 10°C to 100°C	10.5 bar at 186°C
	1063	8 - 12	0°C to 90°C	90°C
	1064	8 - 12	0°C to 90°C	90°C
draincocks	1832	10	10 bar - 0°C to 120°C	10 bar at 120°C
	833GM, GM LS	10	20 bar - 10°C to 100°C	13 bar at 120°C

* 10 bar for Gas

thread depths (mm)

	Product	¼"	⅜"	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
ball valves	PB700	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1
	PB500 red	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
	PB500 yellow	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1
	PB300 red/blue	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
	PB300 yellow	-	-	S.E.P	S.E.P	S.E.P	-	-	-	-	-	-
	PB100	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
gate valves	1065	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
	1068	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
	1072	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
	1070/125	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
	P81M	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
	63	-	-	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-	-	-
	GM63	-	-	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
globe valves	1029	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 2	Cat 2	-
	1031	-		S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
check valves	1039	-		S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	-	-	-
	1060A	-		S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 2
	1062	-		S.E.P	S.E.P	S.E.P	-	-	-	-	-	-
	1063	-		S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
	1064	-		S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
draincocks	1832	-	-		S.E.P	S.E.P	-	-	-	-	-	-
	833GM, GM LS	-	-	S.E.P	-	-	-	-	-	-	-	-

Category 1 and Category 2 carry the CE mark

further details

Aalberts Integrated Piping Systems Ltd
St. Catherine's Avenue / Doncaster
South Yorkshire / DN4 8DF / England
tel: +44 (0) 800 1560 050
email: technical@aalberts-ips.com
www.pegler.co.uk

Compression connections



1. Select the correct size of tube for the job. Ensure that it is clean, in good condition and free from damage and imperfections. If the tube is oval or damaged, use a re-rounding tool. Copper tube should be of half-hard (R250) or hard (R290) temper. Annealed soft temper tube (R220) can be used.

2. Cut the tube square using a rotary tube cutter wherever possible. If a hacksaw is used to cut the tube, a fine toothed blade should be used.

3. Remove any burr from the inside and outside of the tube ends using a fine toothed file or a S120 deburring tool from the XPress accessories range.

Connecting copper tube

There are two methods of making a compression joint.

1. Insert the tube firmly into the compression fitting, ensuring that the compression ring seats centrally and that the tube makes firm contact with the tube stop in the body of the fitting.

2. Remove the compression nut and compression ring, then put the nut and then the ring on the tube. Insert the tube end up to the fitting's tube stop. Slide the ring and the nut down to the fitting body.

3. Tighten the nut using your fingers until tight.

4. Tighten the nut further using high quality open ended or adjustable spanners. Spanner flats are incorporated into the design of the fitting bodies. The second spanner must be used to prevent the fitting rotating as the nut is tightened. For normal joint making, tighten the nut 1 turn (360°) for fittings in sizes from 6mm to 12mm, or 3/4 turn (270°) for fittings in sizes from 15mm to 54mm. A few drops of light oil on the threads will assist, especially on sizes 35mm and above. When jointing stainless steel or R220 copper tube some variation may be needed – the nut may be tightened further if necessary. Take care not to over tighten the compression nut, as this will not result in a stronger joint and could lead to problems in service.

Connecting half-hard thick walled R250 copper tube

This copper tube is significantly thicker than other varieties and special care needs to be taken during installation.

1. Ensure pipework is supported during and after installation, as thick-walled copper tube is less tolerant of stress on the joints. The pipework should be clipped as close as possible to the fittings, particularly where long runs are involved.

2. Use spanners of the correct size and length. More torque is required to tighten fittings with thick walled copper tube, and care should be taken to ensure neighbouring joints are not disturbed.

3. Apply a light oil to the threads and chamfers where possible. This will reduce assembly torque and minimise the risk of damage. This is essential on sizes above 28mm.

4. If a sealant is required, use a suitable PTFE based compound, eg. Loctite 577 or PTFE tape.

Connecting imperial copper tube

Pegler valves with compression connections can be used in maintenance applications to connect copper tube to former imperial sizes, such as BS 3931.

Connecting carbon steel and stainless steel tube

Stainless steel tube to BS EN 10312 (formerly BS 4127), DVGW GW541; and carbon steel tube to DIN 2394/ NEN 1982, can be jointed in sizes up to and including 28mm using Pegler compression fittings. Carbon steel tubes are for use on non potable closed circuit systems only. To achieve sound joints, the following precautions should be taken:

1. Ensure no flats or score marks are visible on the outside surface of the tube. The weld bead should not be visible.

2. A suitable jointing compound should be applied to the sealing faces prior to tightening of the compression nuts. Sealants with PTFE fillers are preferred, with PTFE tape as an alternative.

CERTIFICATE

UK APPROVAL (ATS3)
Certificate Number: 2001771

Date Issued: 29 January 2020
Date Expired: 28 January 2025

Description: In-line and angled (42147100, 42193700 & 42193900 models) screwdriver operated spherical valves with DZR brass or chromium plated DZR brass bodies, brass ball, EPDM 'O'-rings and PTFE seats. 421 prefix models can also have EPDM seats. The 4361500 model incorporates a stainless steel filter.
Maximum working pressure 10.0 bar. Maximum operating temperature 95°C.

Product Designation: Please see attached approval letter for full range of models.

This is to certify that the above range of products manufactured / supplied by

Company Name: BROEN A/S

has been tested and found to comply with the requirements of the Water Supply (Water Fittings) Regulations 1999 for England and Wales, the Water Byelaws 2014, Scotland and the Water Regulations Northern Ireland.

This certificate must be read in conjunction with the acceptance letter for this product.

This approval is intended for compliance with the above Regulations and must not be considered equivalent to the product certification provided by Kiwa N.V.

To comply with the Regulations and Byelaws all products require the correct installation. Details of the installation requirements (IRN's) can be obtained from the acceptance letter supplied with this certificate.

Applicable IRN's for this certificate – R001

Authorised Signature

Kiwa Watertec
(A Trading Division of
Kiwa Ltd)
Unit 26A
Rassau Industrial Estate
Ebbw Vale, Gwent,
NP23 5SD
UNITED KINGDOM
Tel: 0044 (0) 1495 308185
Web: www.kiwa.co.uk

Certificate Issued to –
Broen A/S
Skovvej 30
5610 Assens
DK - Denmark

kiwa approved
UK WATER SUPPLY REGULATIONS

Kiwa Watertec

Kiwa Ltd
Unit 26a, Rassau Industrial Estate
Rassau
Ebbw Vale
Gwent
NP23 5SD

+44 (0)1495 308185
uk.water@kiwa.com

www.kiwa.co.uk/water

Date: 29 January 2020

Our Ref: 2001771
Sample No: S190057

Broen A/S
Skovvej 30
5610 Assens
DK - Denmark

Dear Sir,

1. Samples of fittings or units described below have been subjected to relevant tests and examinations contained in the "UK Regulators Specification", and after considering the test reports, Kiwa Ltd finds that the fittings or units so described, comply with, when correctly installed, the requirements of the UK Water Supply (Water Fittings) Regulations 1999, The water supply (water fittings) Byelaws 2014 Scotland and the Water Supply (Water Fittings) Regulations (Northern Ireland) 2009.

DIRECTORY INDEX CATEGORY 2260

VALVES
Spherical – Metal

IRN: R001

In-line and angled (42147100, 42193700 & 42193900 models) screwdriver operated spherical valves with DZR brass or chromium plated DZR brass bodies, brass ball, EPDM 'O'-rings and PTFE seats. 421 prefix models can also have EPDM seats. The 4361500 model incorporates a stainless steel filter.
Maximum working pressure 10.0 bar. Maximum operating temperature 95°C.

Size/Model:		
	B3800 (42100100):	G3/8" (F) x G3/8" (F)
	B3800 (42100200):	1/4" (F) x G1/4" (F)
	B3800 (43100800):	G1/2" (F) x G1/2" (F)
	B3800 (44150300):	G3/4" (F) x G3/4" (F)
	B3800 (45150300):	G1" (F) x G1" (F)
	B3800 (45150400):	G1" (F) x G1" (F)
	B3801 (42100300):	G3/8" (F) x G3/8" (M)
	B3801 (42100400):	G1/4" (F) x G1/4" (M)
	B3801 (4354500):	G1/2" (F) x G1/2" (M)
	B3801 (44150100):	G3/4" (F) x G3/4" (M)
	B3801 (45150200):	G1" (F) x G1" (M)
	B3802 (42179500):	G3/8" (F) x Compression Ø10mm
	B3802 (42179600):	G3/8" (F) x Compression Ø12mm
	B3802 (43150100):	G1/2" (F) x Compression Ø15mm
	B3802 (43169700):	G1/2" (F) x Compression Ø12mm
	B3802 (43169900):	G1/2" (F) x Compression Ø10mm
	B3802 (44154500):	G3/4" (F) x Compression Ø22mm
	B3803 (42100500):	G1/2" (F) x G1/2" (F)
	B3803 (42100600):	G1/2" (M) x G1/2" (M)
	B3803 (43100700):	G1/2" (M) x G1/2" (M)
	B3803 (44100900):	G3/4" (M) x G3/4" (M)

B3804 (42174100):	G1/2" (M) x Compression Ø10mm
B3804 (42174200):	G1/2" (M) x Compression Ø12mm
B3804 (42174300):	G1/2" (M) x Compression Ø15mm
B3805 (42176600):	Swivel nut - G1/2" x G1/2" (M)
B3805 (44147900):	Swivel nut - G3/4" x G3/4" (M)
B3806 (42100700):	Compression Ø15mm x Compression Ø15mm
B3806 (42100800):	Compression Ø15mm x Compression Ø10mm
B3806 (42100900):	Compression Ø12mm x Compression Ø12mm
B3806 (42101000):	Compression Ø12mm x Compression Ø10mm
B3806 (42178200):	Compression Ø8mm x Compression Ø8mm
B3806 (42178300):	Compression Ø10mm x Compression Ø8mm
B3806 (42178400):	Compression Ø10mm x Compression Ø10mm
B3806 (42178500):	Compression Ø12mm x Compression Ø8mm
B3806 (42178800):	Compression Ø15mm x Compression Ø8mm
B3806 (42179000):	Compression Ø15mm x Compression Ø12mm
B3806 (42179200):	Compression Ø16mm x Compression Ø10mm
B3806 (42179300):	Compression Ø16mm x Compression Ø12mm
B3806 (43151300):	Compression Ø17mm x Compression Ø10mm
B3806 (43159100):	Compression Ø15mm x Compression Ø15mm
B3806 (43159300):	Compression Ø22mm x Compression Ø15mm
B3806 (44153700):	Compression Ø18mm x Compression Ø18mm
B3806 (44153800):	Compression Ø22mm x Compression Ø22mm
B3806 (45152500):	Compression Ø28mm x Compression Ø28mm
B3812 (42193700):	Compression Ø12mm x Compression Ø12mm
B3812 (42193900):	Compression Ø15mm x Compression Ø15mm
B9027 (4361500):	Compression Ø15mm x Compression Ø15mm
B9041 (42182300):	G3/8" (M) x Tectite Ø10
B9041 (42182400):	G3/8" (M) x Tectite Ø12
B9041 (42182600):	G1/2" (M) x Tectite Ø12
B9041 (42182700):	G3/8" (M) x Tectite Ø15
B9041 (43100300):	G1/2" (M) x Tectite Ø15
B9044 (42182500):	Tectite Ø15 x Tectite Ø15
B9044 (43101800):	Tectite Ø10 x Tectite Ø15
B9045 (42176400):	Swivel nut - G1/2" x Compression Ø12mm
B9045 (42177000):	Swivel nut - G1/2" x Compression Ø15mm
B9055 (42147100):	Swivel nut - G1/2" x Compression Ø15mm

Marking: Ballofix logo (brand of Broen), size, pressure and DR on the body.

Manufacturer: BROEN A/S

2. Installation Requirements & Notes are set out at the end of this approval letter.

3. Fittings or units (and any non-metallic components within them) are re-assessed and, where necessary, retested every 5 years. You will be advised when your product is due for re-assessment. The extent of any retesting required for a product will be at the discretion of the Technical Manager.

4. Acceptance for listing entitles the applicant to identify your product with the Scheme's (Kiwa Water Regulations Approval Scheme) mark. The use of the Mark will make the identification easier of the approved products by the Water Undertakers. Copies of the Mark are available on request for the purposes of producing artwork.

5. Manufactures or applicants may only quote in their sales literature, items used in this letter when indicating the decision of the Scheme in respect to their fittings or units, namely that the

use of these fittings or units, when correctly installed, will not contravene the requirements of the Water Supply (Water Fittings) Regulations 1999, Water Byelaws 2004 Scotland or Water Regulations (Northern Ireland) 2009 and that a reference to the fittings or units will be included in the Scheme's web site.

6. Since the incorrect installation of water fittings could result in contravention of the Regulations or Byelaws requirements, the attention of your customers should be drawn to any Installation Requirements for Regulations or Byelaws compliance set out on Page 3.

7. Would you please supply the Scheme with a copy of any of your company literature, which may or will make reference to the Scheme's decisions about the products and/or quotes any of the installation requirements.

8. A condition of listing is that no modifications to these fittings or units described above shall be made without first notifying the Scheme and submitting to the Scheme details of the modifications and, if so required, samples of the fittings or units as so modified for consideration by the Scheme. Failure to comply with this condition may result in the removal from the Scheme's listing for the entry relating to the fittings or units in question.

9. Your products are requested to be replicas of the samples described above, and the right is reserved to carry out quality surveillance inspections of your production arrangements, reasonable written notice of which will be given.

10. Please note that the use of the items described in any particular area of supply is at the discretion of the Local Water Undertaking.

11. Manufactures or factors having appliances or units referred to in the Scheme's listing which incorporated individually approved components and materials are asked to ensure that such components and materials continue to be approved and/or listed in the relevant approved listings, during the current period of approval of their appliance. This may require modifications to approved appliances to ensure their retention in the Scheme's listings. The Scheme must be informed of any modifications (See Paragraph 8).

12. You are asked to verify the details of your products as set out in Paragraph 1 and advise us of any discrepancies.

Yours faithfully

David Jay
Business Manager

Installations Requirements & Notes.

IRN R001
See text of entry for Installation Requirements or Notes.

WRAS APPROVED PRODUCT

This certifies that

PEGLER YORKSHIRE GROUP LTD

has had the undermentioned product examined, tested and found, when correctly installed, to comply with the requirements of the United Kingdom Water Supply (Water Fittings) Regulations and Scottish Water Byelaws.

RANGE OF BALLOFIX SPHERICAL VALVES

The certificate by itself is not evidence of a valid WRAS Approval. Confirmation of the current status of an approval must be obtained from the WRAS Directory (www.wras.co.uk/directory)

The product so mentioned will be valid until the end of:

January 2025

2001373

Certificate No.

J Furnival

Secretary

Chairman, Product Assessment Group