CONNECT + CONTROL

PEGLER PY
Valve technology

PRESS-FIT SYSTEMS FOR LARGE APPLICATIONS

CONNECT WITH CONFIDENCE

XPress

PEGLER PY
Valve technology

CONNECT WITH CONFIDENCE

With a wealth of expertise and the broadest range of solutions and systems on the market, Pegler Yorkshire's Connect products mean you'll complete your installation as seamlessly, efficiently and effectively as possible.

TOTAL FUNCTIONALITY, COMPLETE EFFICIENCY

Pegler Yorkshire's range of **Connect** solutions offer innovatively designed, efficient and reliable products and systems that reduce installation time and cost without compromising quality, aesthetics or reliability.

Our **XPress** and **Tectite** product ranges are designed to perform faultlessly in a variety of applications and environments – so you can always be sure to connect with confidence whatever your challenge.

GLOBAL EXPERIENCE, COMBINED EXPERTISE

With over 100 years of manufacturing and innovation combined with extensive industry knowledge and worldwide market experience, Pegler Yorkshire offers the most advanced and complete **Connect + Control** systems on a global scale.

As one of Britain's largest and most respected manufacturers and suppliers of products for the plumbing and heating industries, Pegler Yorkshire is confident we can provide you with all the connection, control and support your project needs.

For more information visit
www.pegleryorkshire.co.uk

XPress

CONNECT ✚ CONTROL

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Pegler Yorkshire is pleased to be associated with several influential industry organisations:

Association of Plumbing and Heating Contractors

The Bathroom Manufacturers Association

The UK Copper Board

Heating and Ventilating Contractors Association

The Brass Page for specifiers, designers, engineers and manufacturers

British Plumbing Employers Council

British Electrotechnical Allied Manufacturers Association

Construction Products Association

The Copper Development Association

Scottish and Northern Ireland Plumbing Employers Federation

Builders Merchants Federation

Institute of Plumbing

The UK District Energy Association

The Chartered Institution of Building Services Engineers

British Automatic Fire Sprinkler Association

Bundesverband Technischer Brandschutz e.V.

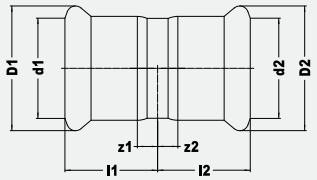
European Fire Sprinkler Network

NEW 139.7 & 168.3mm 316 STAINLESS STEEL PRESS JOINTING SYSTEM

Please visit the PY website for full dimensional data and drawings

SS1
Straight coupling

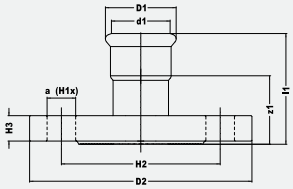
Press x press



Size	l1	d1	D1	z1	l2	d2	D2	z2	DN1	DN2	Code
139.7mm	125	140	166	27	125	140	166	27	DN125	DN125	11470
168.3mm	150	168	195	32	150	168	195	32	DN150	DN150	11471

SS1FMF
Female metric flange PN16

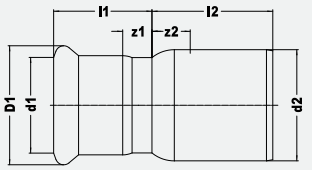
Press x steel flange to EN 1092-1:1997 (BS 4504)



Size	l1	d1	D1	z1	D2	DN1	DN2	Code
139.7mm x DN125 (5”)	138	140	166	41	250	DN125	DN125	11472
168.3mm x DN150 (6”)	171	168	195	54	285	DN150	DN150	11473

SS6
Reducer

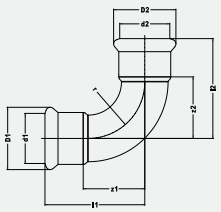
Larger end male for insertion into a fitting x press



Size	l1	d1	D1	z1	l2	d2	z2	DN1	DN2	Code
139.7 x 88.9	80	89	109	22.5	254.5	140	159	DN80	DN125	11474
139.7 x 108	94.5	108	133	23.5	212	140	111.5	DN100	DN125	11475
168.3 x 88.9	80	89	109	22.5	298.5	168	177	DN80	DN150	11476
168.3 x 108	94.5	108	133	23.5	265	168	143.5	DN100	DN150	11477
168.3 x 139.7	124	140	166	26	298.5	168	177	DN125	DN150	11478

SS12
Elbow 90°

Press x press



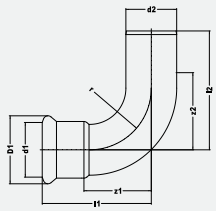
Size	l1	d1	D1	z1	l2	d2	D2	z2	DN1	DN2	Code
139.7mm	314	140	166	216	314	140	166	216	DN125	DN125	11479
168.3mm	386	168	195	268	386	168	195	268	DN150	DN150	11480

FEATURES

- Heat-free jointing provides time and cost saving benefits to contractors/installers
- Compressed air

SS12S
Street elbow 90°

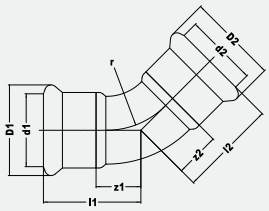
Press x male end for insertion into a fitting



Size	l1	d1	D1	z1	l2	d2	z2	DN1	DN2	Code
139.7mm	314	140	166	216	322	140	190	DN125	DN125	11481
168.3mm	386	168	195	268	404	168	229	DN150	DN150	11482

SS21
Obtuse elbow 45°

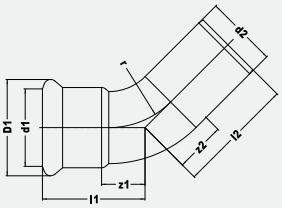
Press x press



Size	l1	d1	D1	z1	l2	d2	D2	z2	DN1	DN2	Code
139.7mm	203	140	166	105	203	140	166	105	DN125	DN125	11483
168.3mm	252	168	195	134	252	168	195	134	DN150	DN150	11484

SS21S
Obtuse street elbow 45°

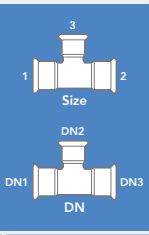
Press x male end for insertion into a fitting

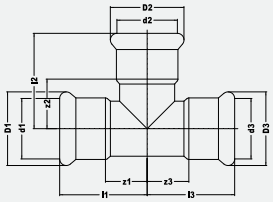


Size	l1	d1	D1	z1	l2	d2	z2	DN1	DN2	Code
139.7mm	203	140	166	105	210	140	166	DN125	DN125	11485
168.3mm	252	168	195	134	253	168	195	DN150	DN150	11486

SS24
Equal tee

Press on all ends



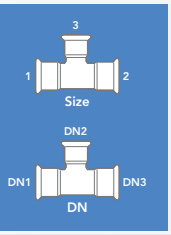


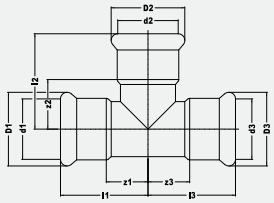
Size	m1	m2	s1	s2	DN1	DN2	DN3	Code
139.7mm	197	197	99	99	DN125	DN125	DN125	11487
168.3mm	257	235	139	118	DN150	DN150	DN150	11488

Please visit the PY website for full dimensional data and drawings

SS25
Tee with reduced central branch

Press on all ends





Size	l1	d1	D1	z1	l2	d2	D2	z2	l3	d3	D3	z3	DN1	DN2	DN3	Code
139.7 x 139.7 x 76.1	197	140	166	99	143	140	166	88	197	76	166	99	DN125	DN65	DN125	11489
139.7 x 139.7 x 88.9	197	140	166	99	153	140	166	95	197	89	166	99	DN125	DN80	DN125	11490
139.7 x 139.7 x 108	197	140	166	99	167	140	166	96	197	108	166	99	DN125	DN100	DN125	11491
168.3 x 168.3 x 76.1	257	140	195	139	157	140		103	257	76	195	139	DN150	DN65	DN150	11492
168.3 x 168.3 x 88.9	257	168	195	139	167	168		110	257	89	195	139	DN150	DN80	DN150	11493
168.3 x 168.3 x 108	257	168	195	139	182	168		111	257	108	195	139	DN150	DN100	DN150	11494
168.3 x 168.3 x 139.7	257	168	195	139	211	168		113	257	140	195	139	DN150	DN125	DN150	11495

SS100
Replacement O-Rings EPDM

Size	Code
139.7mm	11496
168.3mm	11497

SV105
FKM O-Rings

Size	Code
139.7mm	11498
168.3mm	11499

O-RING TYPE

EPDM (Black) Ethylene rubber, resistant to aging and hot water.

Temperature: From -20°C to +110°C - (recommended maximum constant temperature +90°C for EPDM)

Applications:
Hot water, heating, fire protection and compressed air (oil-free)

FKM (Green) Flourine rubber

Temperature: From -20°C to +200°C (recommended maximum constant temperature +130°C for FKM)

Applications:
Oils, hydrocarbons (except diesel), solar power installations, compressed air

FITTING APPLICATIONS

WRAS APPROVED

XPress Stainless Steel fittings are tested and comply with the requirements of the United Kingdom Water Regulations Byelaws (Scotland). The XPress stainless steel system has been designed to provide optimum performance and cost saving benefits for commercial and industrial potable water applications.

DRINKING WATER

All design, calculation, installation and bringing into service of drinking water facilities is subject to the provisions of regulations applicable at the time.

AISI 316L stainless steel tubes and accessories have no effect on the perfect quality of drinking water.

The O-ring seal complies with recommendations for drinking water installations (EPDM O-ring seals are used for sanitation water installations).

SOLAR POWER FACILITIES

Solar power installations obtain heat energy from the Sun. This energy is captured by a solar collector and, once absorbed, it is conducted by a solar fluid (a mixture of steam and anti-freeze) to the heat accumulator.

We recommend that Viton (green) O-ring seals are used in such installations as they can withstand temperatures of up to 200°C.

The anti-freezes used are basically chemical preparations based on glycol which lower the freezing point. These anti-freezes always contain other additives, and it is advisable to consult the manufacturer when such additives are used.

The main reason for using stainless steel in such installations are:

- Low maintenance
- Better performance
- Less labour needed

***SOLAR EXPOSURE TABLE**

Temperature	Durability
200°C	Cumulative exposure 20hrs/year
180°C	Cumulative exposure 60hrs/year
150°C	Cumulative exposure 480hrs/year
90 - 130°C	Normal working temperature
-20°C	Winter temperature

(For short time exposure)

COMPRESSED AIR

Compressed air is used in a wide range of applications.

Service pressures in compressed air installations goes up to a maximum of 10 bar. However, tools frequently only require a maximum connection pressure of 6 bar.

FKM (Green) O-ring seals are used in such installations. These O-ring seals are used because there are often traces of oil in most compressed air installations. The standard O-ring (EPDM black) can be used when the volume of residual oil is below 1 mg/m³.

FIRE FIGHTING

Water-based fire fighting systems consist of fixed tubing with fittings for connecting hoses and other outlet systems.
These tubes can be divided into:

- Wet tubes: these are always full of water.
- Dry tubes: the tubes are filled by fire-fighters or by automatic devices which are activated in an emergency.

These installations are subject to the accreditation and approval conditional of insurance companies.

TYPICAL APPLICATION
XPRESS STAINLESS
Potable water applications where water quality and hygiene are crucial
Pharmaceutical, food and health-care environments
Chilled water applications
Sprinkler System applications
Solar water heating systems

XPress

3.1 TECHNICAL DATA

TUBES, PIPE AND THEIR COMPATIBILITIES

STAINLESS STEEL SYSTEM TUBE

Specially designed to be used with XPress stainless steel fittings, System tube is available in 6m straight lengths in sizes from 139.7 - 168.3mm. The tube is manufactured from BS 316 S31/DIN 1.4404 stainless steel strip conforming to BS10088 Part 2 and thanks to its thin-walled geometry, is stiff, lightweight and easy to handle.

SS650 Stainless Steel 304 Tube 1.4301
Suitable for Heating and XPress Sprinkler Systems

Outer Size	Tube Length metre	Inner ø	Wall thickness	Specifications/ Table	Mass Kg/m	Tube Capacity L/m	Code
139.7mm	6m	135.7	2mm	EN 10312	6.9	14.45	11502
168.3mm	6m	164.3	2mm	EN 10312	8.4	21.20	11503

SS620 Stainless Steel 316 Tube 1.4404
Suitable for Heating, Potable Water and XPress Sprinkler Systems

Outer Size	Tube Length metre	Inner ø	Wall thickness	Specifications/ Table	Mass Kg/m	Tube Capacity	Code
139.7mm	6m	135.7	2mm	EN 10312	6.9	14.45	11500
168.3mm	6m	164.3	2mm	EN 10312	8.4	21.20	11501

Working Temperatures and Pressures

XPress fitting	Tube/pipe used with	Min. temperature and pressure	Max. temperature and pressure
XPress Stainless Steel	Stainless Steel	-20°C 16bar	+110°C 16bar

3.2 TECHNICAL DATA

XPRESS TUBE SPECIFICATIONS

XPRESS STAINLESS STEEL TUBE (SS600/SS620) 1.4401 (AISI 316)

The XPress stainless steel tube has been tested and approved for potable water installations by many international certification institutes such as WRAS and DVGW.

APPLICATIONS

- Installations always have to comply with local regulations
- Suitable for a wide range of applications including (H.W.S) Heating, Water and Stainless Sprinkler System
- All potable water installations in accordance with international drinking water institutes, for example, WRAS the German Potable Water Decree (TrinkwV) and EU council directive98/83/EC, DIN50930 Part 6 and in compliance with DIN 1988
- Water supply and rain water installations
- Potable water for industrial applications
- Conditioned water such as decalcified/ softened water, partly and completely desalinated water, distilled water, water with glycol.*
- Compressed air

*Further additives for antifreeze must be compatible with EPDM O Rings. Approval must be sought from Pegler Yorkshire prior to installation.

TUBE SPECIFICATIONS

In accordance with the EN 10312 standard. This meets the 1.4404/1.4301 AISI 304 standard under UNE EN 10088.

TECHNICAL CHARACTERISTICS	
Material	Stainless steel tube X2CrNiMo 17 12 2 Material no. 1.4404 according to DIN-EN 10088-2
Tolerances	According to EN 10312
Surface finish	Dull Matt Grey
Marking	Size, specification, cast number
Supply mode	Tubes, length of 6m +0/-50mm
Heat expansion coefficient	0.0160mm/m withΔT=1K
Max. operating pressure	16bar

XPress

3.3 TECHNICAL DATA
SYSTEM DESIGN CONSIDERATIONS

Format supplied: 6 metre lengths

STORAGE
Damage and lack of cleanliness should be avoided during transport and storage. Accessories are packed effectively each item comes into a carton box to ensure that they are received by the warehouse or installer in perfect condition.

CUTTING
Once the tubes have been measured, they can be cut to the correct length using: a fine tooth saw, or a tube cutting knife or an electric fine tooth saw. The tools must be suitable for stainless steel.

Cutting using abrasive discs makes the stainless steel more fragile as a result of the high temperature caused by the friction.

After cutting the tube, the inside and outside of the ends should be thoroughly deburred to avoid damaging the O-ring seal when the cut tube is inserted into the accessory.

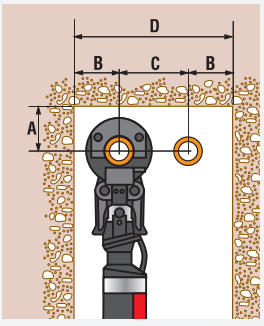
When tubes are cut using electro-mechanical saws which are cooled with oil or other refrigerants, all traces of oil should be removed so as not to affect the O-ring seals on the accessories.

FIXING OF TUBES

Maximum support distance		
Diameter x thickness (mm)	Horizontal pitch (m)	Vertical pitch (m)
139.7 x 2	4.2	5.0
168.3 x 2	4.6	5.4

INSTALLATION SPACING

Pipework clearance (mm)				
Size	A	B	C	D
139.7mm	230	230	290	750
168.3mm	260	260	330	850



INSTALLATION SPACING

THERMAL EXPANSION

Small longitudinal changes in tubes can be offset by expansion space or absorbed by the elasticity of the tube network.

Elongation compensators (such as flexible arms, expansion bends) should be used in large tube networks. The choice of the compensator to be used depends upon the material and characteristics of the construction and its service temperature.

In stainless steel tubes, the longitudinal changes resulting from thermal elongation (from 20°C to 100°C) is given by:

$\Delta l = l_o \times a \times \Delta u$

With a thermal elongation coefficient of
$a[10^{-6}K^{-1}] = 16.5$

For tube length 10m:
$\Delta u = 50$ K. Δl (mm) = 8.3

EXPANSION SPACE

In installations we have to distinguish the following types of tubes:

- Those that are visible or installed under galleries
- Those which are to be under plaster (built in)
- Those which are under floating floors

In the case of visible installations or those under galleries, there is sufficient space. In the case of tubes which are built in, we should ensure the installation of an elastic protective filling of insulating fibre such as for example glass fibre, rock wool or sponge materials with closed pores.

EXPANSION COMPENSATION

Whilst in use, tubes are subject to thermal loads which elongate them to differing degrees depending on temperature differences. Tube installations should take into account such thermal elongation by:

- Allowing space for longitudinal expansion
- Elongation compensators
- Correct fixing of the fixed and sliding fastenings

The flexion and torsion effects on a tube during use can easily be absorbed if these factors are taken into account during assembly (to offset the expansion).

XPRESS STAINLESS STEEL SYSTEM TUBE EXPANSION

Temperature change	Tube Length									
	3m	4m	5m	6m	7m	8m	9m	10m	12m	25m
10°C	0.5mm	0.6mm	0.8mm	1.0mm	1.1mm	1.3mm	1.4mm	1.6mm	1.9mm	4.0mm
20°C	1.0mm	1.3mm	1.6mm	1.9mm	2.2mm	2.6mm	2.9mm	3.2mm	3.8mm	8.0mm
30°C	1.4mm	1.9mm	2.4mm	2.9mm	3.4mm	3.8mm	4.3mm	4.8mm	5.8mm	12.0mm
40°C	1.9mm	2.6mm	3.2mm	3.8mm	4.5mm	5.1mm	5.8mm	6.4mm	7.7mm	16.0mm
50°C	2.4mm	3.2mm	4.0mm	4.8mm	5.6mm	6.4mm	7.2mm	8.0mm	9.6mm	20.0mm
60°C	2.9mm	3.8mm	4.8mm	5.8mm	6.7mm	7.7mm	8.6mm	9.6mm	11.5mm	24.0mm
70°C	3.4mm	4.5mm	5.6mm	6.7mm	7.8mm	9.0mm	10.1mm	11.2mm	13.4mm	28.0mm
80°C	3.8mm	5.1mm	6.4mm	7.7mm	9.0mm	10.2mm	11.5mm	12.8mm	15.4mm	32.0mm
90°C	4.3mm	5.8mm	7.2mm	8.6mm	10.1mm	11.5mm	13.0mm	14.4mm	17.3mm	36.0mm
100°C	4.8mm	6.4mm	8.0mm	9.6mm	11.2mm	12.8mm	14.4mm	16.0mm	19.2mm	40.0mm

XPress

3.5 TECHNICAL DATA

SYSTEM DESIGN CONSIDERATIONS AND TUBE EXPANSION

CONNECTING TUBES MADE FROM DISSIMILAR METAL

The UK Water Regulations recommend that tubes and fittings made from different types of metals shall not be connected directly together except where galvanic action is unlikely or where effective measures are taken to prevent it. Galvanic corrosion is a process whereby the materials that come into contact with each other oxidises or corrodes. If you are in doubt, we recommend you refer to the full and detailed information provided in Water Regulations Guide (G2.11 and R3.2), or by contacting the Water Regulations Advisory Scheme info@wras.co.uk.

MIXED METAL INSTALLATIONS

The substitution of stainless steel XPress or Tectite 316 fittings on a galvanised carbon steel installation is acceptable in heating and chilled water applications, if required.

When joining copper to carbon steel we recommend the use of a yellow metal i.e. brass or gunmetal to prevent galvanic corrosion.

When doing this, care must be taken to protect the SC640 galvanised tube surface from the increased risk of external corrosion at the stainless/galvanised steel interface.

Galvanised carbon steel is anodic to stainless steel in air and, if the pipeline is allowed to become wet, there is a risk of localised corrosion of the carbon steel tube surface adjacent to the stainless steel fitting. This potential problem is less likely in heating pipe work which usually remains hot and dry.

In chilled water installations, an accumulation of environmental condensate on the pipe work could, under some circumstances, leach out aggressive chemicals from the insulation, resulting in corrosion, particularly at the stainless steel/carbon steel interface. Consequently, we recommend that where stainless steel fittings are installed on carbon steel pipe, the joint area should be provided with additional protection to prevent localised corrosion. This can be as simple as wrapping the interface area with an impervious material such as PVC tape. Provided these precautions are taken, there is no reason why the combination of stainless steel fittings and carbon steel tube should not be entirely satisfactory. Provided used on closed system.

HEAT LOSSES

Repective insulation for limiting heat losses is also required for the tubes in the XPress system, not just to save energy but also based on current norms and legal provisions (for example German law of 10/91, DIN 1988, part 2, EnEV). We refer to these regulations and their implementation regulations and the respective tables showing the minimum insulation thickness.

PRESSURE TESTING OF PIPEWORK SYSTEMS

It is recommended that completed pipework systems are pressure tested prior to being covered (insulation, or paint), and should be performed prior to commencing the cleaning procedure.

The entire system should be pressure tested in accordance of BSRIA and B&ES.

This pressure test can be both pneumatic and hydraulic and is determined by the installed and planned commissioning regime.

If the pipe system is to be left empty after the pressure test, then a pressure test with dry air and/or inert gas should be performed, (microbiological contamination through bacteria and corrosion of carbon steel systems has to be avoided).

The pressure test should consist of two steps;

Leak test

Tightness test

The leak test involves inspecting the system for joint integrity (tightness), the tightness test focuses on checking the system for strength.

The tightness test with water is described in the B&ES Guide to Good Practice TR/6, BS EN 806-4, BS6700.

If pre-fabricated pipework or equipment has been hydraulically pressure tested, off site prior to installation, this should be notified to the cleaning/ chemical treatment specialist as these may have already developed an internal layer of corrosion, microbiological, biofilm build up etc.

Due to the inherent dangers associated with pneumatic testing using inert gas or dry air a responsible person must be in charge of this operation at all times.

The following must be understood as a recommendation only.

BASIC PROCEDURE

If the system is to be pressure tested (as recommended) then the following procedure applies to each section in turn.

1. Test Preparation

a. Check that all high points have suitable vents to facilitate removal of air during filling and that these are all closed.

b. Install suitable drainage facilities at all low points for drainage.

c. Blank plug or seal any open ends and close all valves at the limits of the test section of the piping

d. Remove, blank off all terminal units that may be damaged by the test pressure.

e. Open all valves within the enclosed test section.

f. Check that the test gauge is working correctly and has been calibrated, and has the correct range.

g. If the compressed dry air or inert gas is at a higher pressure than is required for the test (maximum 0.5bar pressure) a pressure reducing valve, pressure gauge and pressure relief valve set to open at the test pressure should be fitted to the connecting pipework.

h. If possible the compressed air supply should be outside the test area

i. Check that there is a suitable method for draining the system.

It is recommended that systems be tested with a nitrogen rich (90%)/air mixture. If air is to be used it should be clean, dry and free from oil, the drying performance should conform to 'purity class 3 under the ISO 8573' for particulate contamination, water and oil content.

Guidance should be sought from the relevant compressor manufacturer.

Excessive oil carry over in compressed air may be detrimental to the EPDM seals as well as causing bacteriological issues. Pure Nitrogen is also acceptable but consideration should be taken of HSE guidelines or recommendations.

2. Pneumatic Pressure Testing

a. An initial low-pressure test at 0.5 bar is to be carried out, having put the necessary safety measures in place, to enable any leaks to be found.
Significantly leaking, un-pressed or damaged joints shall be replaced, but those with low leakage rates s`e identified for close inspection during the high-pressure test.

b. This test pressure is to be maintained / pumped for a period of 30 minutes minimum.

c. The test is passed if the pressure in the system is maintained for one hour and there is no visible leakage throughout the test.

d. If required, a signature should be obtained on a test certificate.

e. After testing, safely release the pressure, if necessary ensure that all vents on cylinder tanks and pressure vessels are opened to atmosphere BEFORE draining down and refitting vulnerable items.

These test times may vary according to the pipework system (plastic pipe systems may take longer to achieve stable pressures).

Water Regulation 12 requires 'that the water system shall be capable of withstanding an internal water pressure not less than 1.5 times the maximum pressure to which the installation or relevant part is designed to be subjected to in operation'.

When hydraulic testing is undertaken then the following should be carried out.

The test water should contain anti-corrosion inhibitors / long lasting biocide chemicals with the intention that post testing the system shall be left completely full of the test water (suitable protection against freezing and the onset of biological growth will also have to be considered). Circulation of the system test is strongly recommended.

If leaving the system full of water is not practical then every effort shall be made to fully drain and dry the pipe work by purging with dry air/nitrogen. If the system is to be left not in use for longer than 5 days, we recommend that the system be left charged with an inert gas to reduce the risk of onset corrosion and /or bacterial growth.

Do not leave a Carbon Steel system empty without drying as oxygen will begin to corrode the internal surface.

Inspection of the internal condition to the pipework is recommended so that the water treatment specialist understands the correct process required when cleaning.

3. Hydraulic Pressure Testing

a. Start to fill the system and 'walk' the route of the pipework being tested. Visually checking for leaks and listening for the sound of escaping air.

b. Release air from all the high points systematically through the system to ensure the system is completely filled with water. (The full loading of the o rings often resolves small leaks identified during the 0.5 bar test).

c. Turn the pump on to allow the system water to circulate to help reduce the risk of trapped air, bleed the system if necessary.
Turn off the pump set when completed.

d. Check the system contains the correct amount of inhibitors and biocides.

e. Using an independent pump set, progressively increase the pressure until the system pressure achieves 1.5 times normal working pressure, (verifythat this pressure is within the capability of the system components), record the test pressure.

f. Leave the system for 30 minutes minimum.

g. The test is passed if the pressure in the system is maintained for the next one hour and there is no visible leakage throughout the test.

h. Leaking joints at this stage should be identified and marked for replacement.

i. The system pressure should then be reduced to 0.5 bar again to confirm that no persistent low-pressure leaks are present.

Further information can be found in;

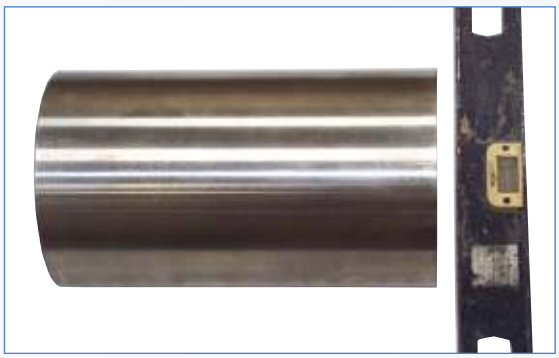
Guides issued by BSRIA, B&ES, CIBSE, WRAS and the Copper Development Association (CDA) Guideline document 'Pressure Testing Piping Systems'.

XPress

4.0 INSTALLATION INSTRUCTIONS

XPRESS FITTINGS INSTALLATION INSTRUCTIONS FOR SIZES 139.7 - 168.3

Remove the fitting from its packaging and check the fitting and o-ring for any damage or debris.



1. Cut tube square to the required length using a fine tooth electric saw and deburr the outer and inner end in order to prevent any damage to the O-Ring.

2. Measure and mark required depth on the tube using a tape measure and marker pen.

3. Add a 'V' to the mark.
NB: Depth for 139.7mm fitting is 100mm.
Depth for 168.3mm fitting is 121mm.

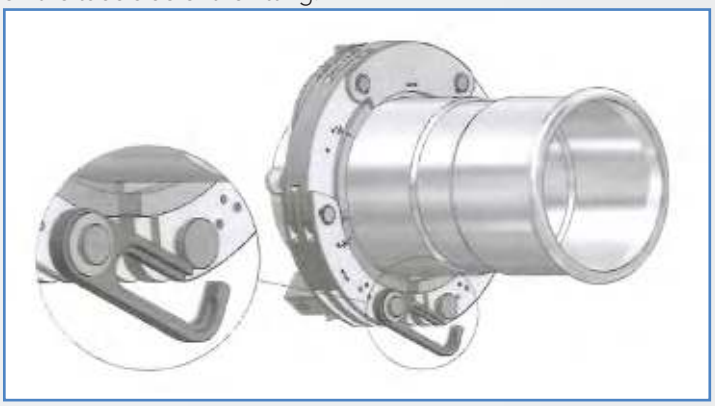
4. Insert the tube into the fitting until it meets the fitting stop and check that the line and 'V' marking is visible.
Refer to the XPress Tooling Operating Procedure on page 15-16.

XPRESS TOOLING OPERATING PROCEDURE FOR SIZES 139.7 - 168.3

5. Check the press machine and pressing collar for any signs of damage. If any of these components appear to be damaged, do not continue with the pressing procedure. Be sure to check the tool is within calibration date.

6. Open the collar and place it on the bead of the fitting (the collar joints are spring pre-loaded). Make sure that the wheels are positioned on the tube side of the fitting.

7. Close the collar and press the lock button



8. Attach the press tool to the mouth of the fitting - use the handle at the top of the press tool to open the jaws on the adaptor. Swivel the catch inwards and secure the lock. The claws of the adapter jaw must be firmly gripped onto the press collar.

9. Perform pressing operation 1, release the catch and remove the collar. Inspect the finished joint. There will be visible witness marks from your press slings.

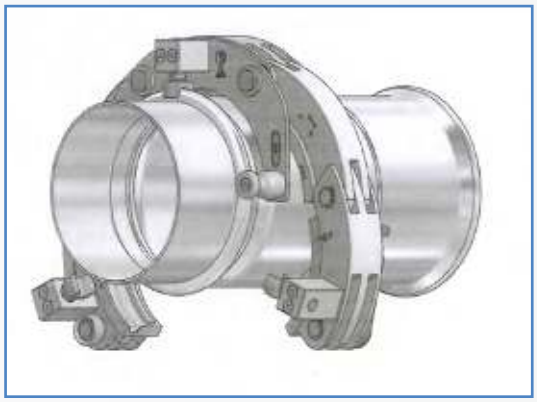
DRI-SLIDE LUBRICANT

Use of S135 Dri-Slide lubricant is essential when jointing large sizes only. The pressing profile groove of the sling jaws should be cleaned and lubricated after every 5 joints.

NOTE: Dri-Slide lubricant should never be used to lubricate the O-ring.

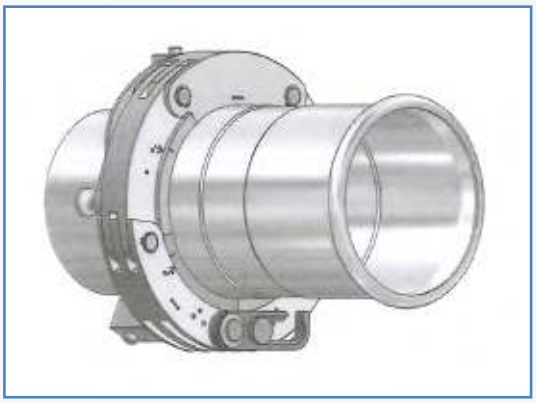
4.2 INSTALLATION INSTRUCTIONS

XPRESS TOOLING OPERATING PROCEDURE FOR SIZES 139.7 - 168.3

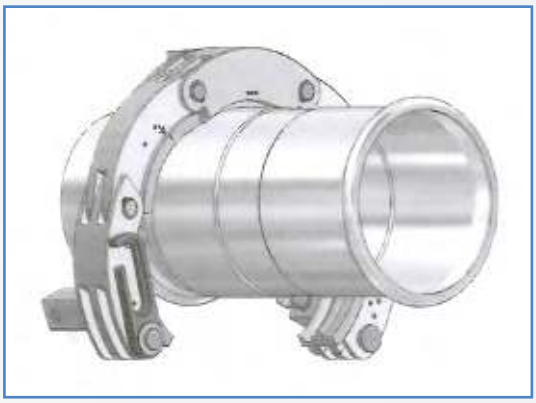


10. Open the mouth of the sling and slide the sling down the fitting until the wheel guides are sitting against the end socket of the fitting.

11. Close the collar, press the lock button, swivel the catch inwards and secure the lock.



12. Attach the press tool to the mouth of the fitting- use the handle at the top of the press tool to open the jaws on the adapter. The claws of the adapter jaw must be firmly gripped onto the press colour.Perform pressing operation 2.



13. Open the lock, swivel the catch away, open the collar and remove it from the fitting.

CHECK THE JOINT:

Inspect the finished joint making sure all is in order, when satisfied the joint has been made correctly mark the joint as complete.

The socket depth mark you made indicates that full socket depth has been maintained throughout the pressing cycle.
The fitting and pipe bear the witness marks from your jaws/sling jaws.
We recommend all systems are thoroughly pressure tested before hand over to end user.

4.3 INSTALLATION INSTRUCTIONS

XPRESS INSTALLATION INSTRUCTIONS

NOTE: Always refer to the manufacturer's instructions for detailed information on how to operate your press-tool safely.

NOTE: Check that the press tool and relevant jaws/slings have been maintained in accordance with their servicing/calibration schedule.

Make the tool safe by isolating it from the power supply. Select the correct jaws/sling jaws/sling jaw adaptor for the joint being made, checking that they are free from damage.
Attach the jaws/sling jaws/sling jaw adaptor to your press-tool, following the instructions for your particular press-tool, and reconnect the power supply when ready.

Press Tool and Jaw Capacity	
Technical Data	**ACO 401**
Power Supply	18 V/ 3 Ah
Power	400 W
Dimensions (L x W x H)	660 x 100 x 250 mm
Weight	13 Kg
Piston Stroke	60 mm
Piston Force	100 kN

NOTES

NOTES

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Valve technology

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