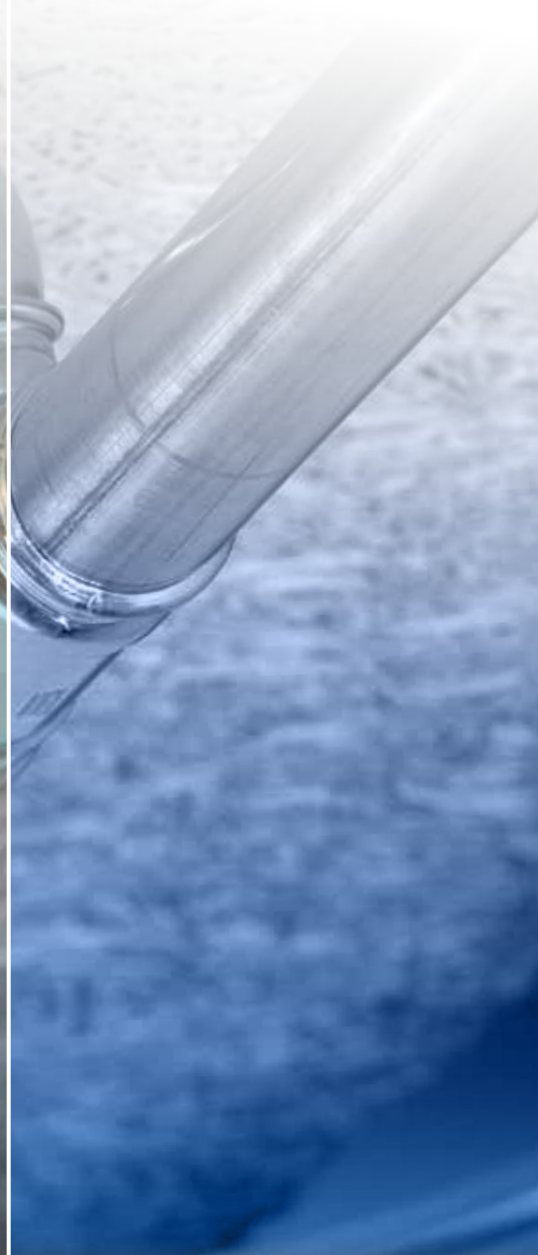


CONNECT + CONTROL



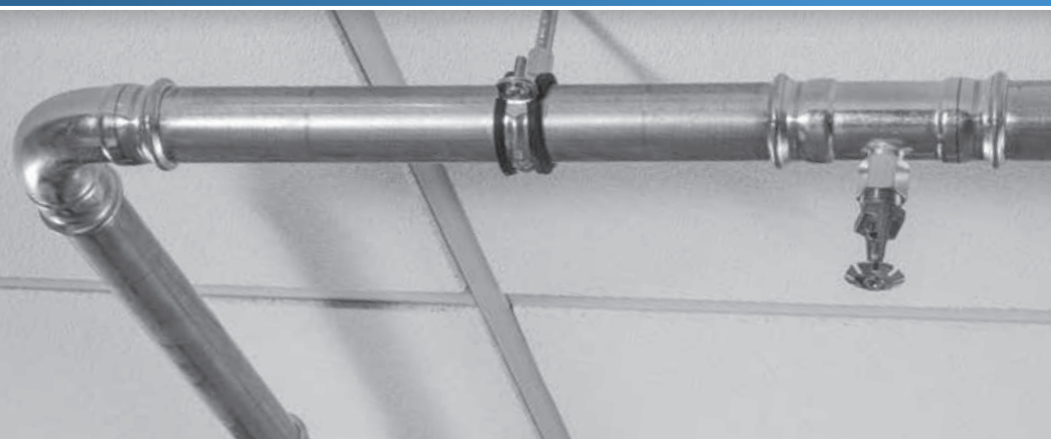
Pegler Yorkshire



PRESS-FIT SYSTEM FOR SPRINKLER

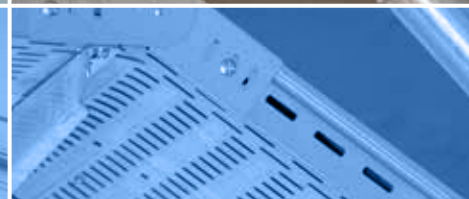
CONNECT WITH CONFIDENCE

***XP*Press**





Pegler Yorkshire



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 **Tectite**, **Henco** and **XPress** 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.pegler-yorkshire.co.uk/





CONNECT + CONTROL

CONTENTS

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

Brass

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
European Fire
Sprinkler Network

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THE COMPLETE RANGE

Your lightweight, easy and fast to install, cost-saving alternative for wet and dry sprinkler installations.

INTRODUCTION TO XPRESS SPRINKLER SYSTEMS

With the growing importance of the fire safety and security market on one hand and the lack of time on the building site on the other, making the XPress system available for sprinkler installations was an obvious choice.



By obtaining the VdS approval in the beginning of 2008 for both carbon and stainless steel, this was the start to evolve the XPress system into XPress Sprinkler. Many approvals, such as FM, FG, SBSC, LPCB, UL/cUL and CNBOP, have followed since and will continue to follow.

XPress Sprinkler is available in sizes DN20-DN100 (22-108mm), either in carbon or stainless steel and has been tested and certified for use in wet and dry fixed waterbased fire fighting systems. The system can operate at working pressures of up to 16 bar, depending on the dimensions and relevant approvals.

ADVANTAGES OF XPRESS

In the building installation market the advantages of press systems over traditional solutions such as threading, soldering and welding have long been recognized. The same advantages apply for XPress in sprinkler installations:

- + Performance guaranteed
- + Reliable
- + Easy & clean
- + Safe
- + Speed

Apart from these advantages, the aesthetics of an XPress installation (compared to for example black steel) are often a reason for architects and designers to prescribe our system for in-sight/exposed installations.

PERFORMANCE GUARANTEED

Manufacturing all fittings in a state-of-the-art factory guarantees consistent quality and supply. High-tech manufacturing, using laser welding technology, ensures that all welded fittings are tested 100%. This leak test is entirely integrated and automated in the laser welding process. All straight connectors with a threaded end and reducers are made out of one piece, eliminating the risk of leakage and short build-in dimensions.

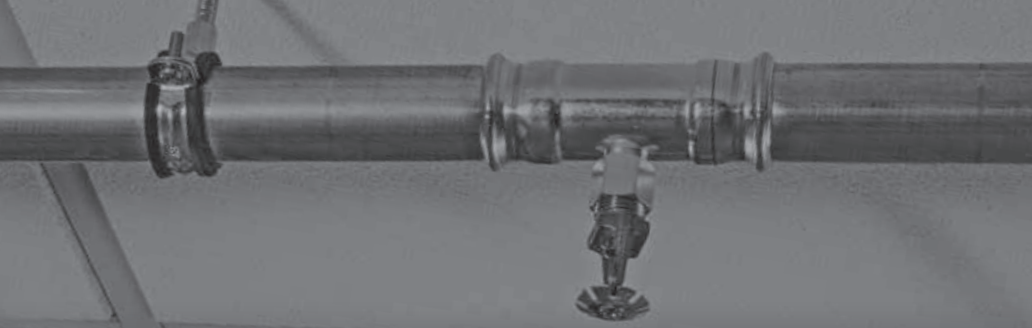
Performance in flow is obvious, with the extremely smooth surface of tubes and fittings, flow rates are much better than those in traditional solutions.

RELIABLE LEAK BEFORE PRESS (LBP) FEATURE

In XPress Sprinkler systems, the quality of the connection is mainly determined by the tool and not the operator, therefore reducing the risk of installation mistakes. All fittings are equipped with a Leak Before Pressed (LBP) function, to reduce this risk even further.



The LBP function is achieved either by a special 'O' ring or by the specific design of the fitting. This LBP function ensures that fittings, which have not been pressed, will leak during the initial pressure test. The installer can immediately see which fitting he forgot to press and correct this. Once pressed, the system is guaranteed water and air tight.



CONNECT + CONTROL

EASY AND CLEAN

XPress Sprinkler is an extremely user friendly solution:

- + No need to thread the tubes
- + No lubrication needed for installation
- + Easy tube insertion of the tube in the fitting due to the special design of fittings
- + Short radius bends which ensure a compact installation

The above features make sure that less skills for installation are required and that installation can take place in a more pleasant environment.

Moreover, the light weight of the precision steel tubes ensures improved labour conditions and as such brings a healthier way of working.



SAFE

The installation of the XPress Sprinkler system does not require a heat source (as for example with welding or soldering) or other potentially heavy and dangerous tools. This feature makes XPress Sprinkler an ideal solution for retrofit or renovation projects, since you can ensure a minimum of disturbances during installation.



SPEED

Reduced labour time is probably the most important advantage of the XPress Sprinkler system, not only resulting in reduced costs but also important in times when it is difficult to find sufficiently skilled people to work on the projects.

The advantages of the Xpress Sprinkler system can be experienced across all type of sprinkler systems, but are particularly noticeable on branch distribution systems owing to the higher number of joints.

XPress Sprinkler, an imPRESSive solution!



PRODUCT OVERVIEW

Your lightweight, easy and fast to install, cost-saving alternative for wet and dry sprinkler installations.

XPRESS SPRINKLER SYSTEM – GALVANISED STEEL

The fittings incorporate a black EPDM (Ethylene Propylene Diene Monomer) 'O' ring and a unique "Leak Before Press" (LBP) design. LBP has been developed as a final check to the system to provide instant identification of joints that have been assembled correctly but mistakenly left unpressed. This feature saves time, money and potentially expensive call backs.



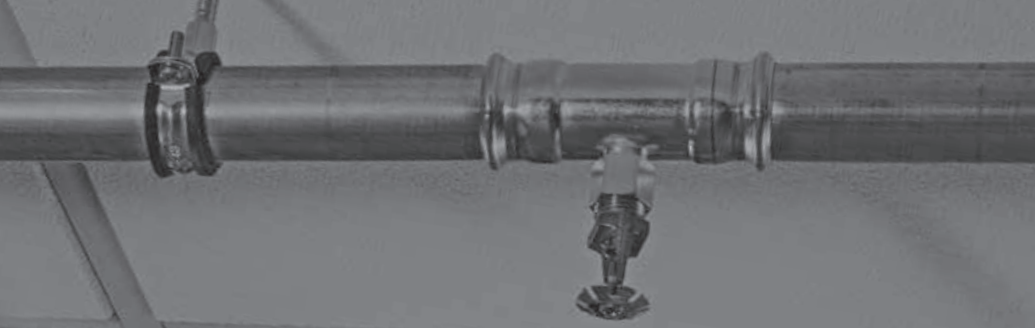
You can recognise the XPress Sprinkler range by the laser marking on the fitting which makes it easy for you to identify the fitting used. Information such as material, approvals and dimensions are all permanently marked onto the fitting.

The XPress Sprinkler range is a complete system, where the combination of tube, fitting and tools is combined into a certified sprinkler system.

FEATURES

- ✚ Installed cost savings with joints made in a fraction of the time
- ✚ Clean heat-free jointing, no hot works permits required
- ✚ Leak before press design
- ✚ Light weight, easier to manual handling on site
- ✚ Low scrap value, less desirable to thieves

Laser marking	Packaging label
XPress	Type C...
Galvanised	Dimension
Approvals	Description: ...C-Pr
Dimension	EAN Nr.
Traceability code	Art Nr Pegler Yorkshire
	Approvals
	Number of pieces



CONNECT + CONTROL

XPRESS SPRINKLER SYSTEM – STAINLESS STEEL

The fittings incorporate a black EPDM (Ethylene Propylene Diene Monomer) 'O' ring and a unique "Leak Before Press" (LBP) design. LBP has been developed as a final check to the system to provide instant identification of joints that have been assembled correctly but mistakenly left unpressed. This feature saves time, money and potentially expensive call backs.

You can recognise the XPress Sprinkler range by the laser marking on the fitting which makes it easy for you to identify the fitting used. Information such as material, approvals and dimensions are all permanently marked onto the fitting.

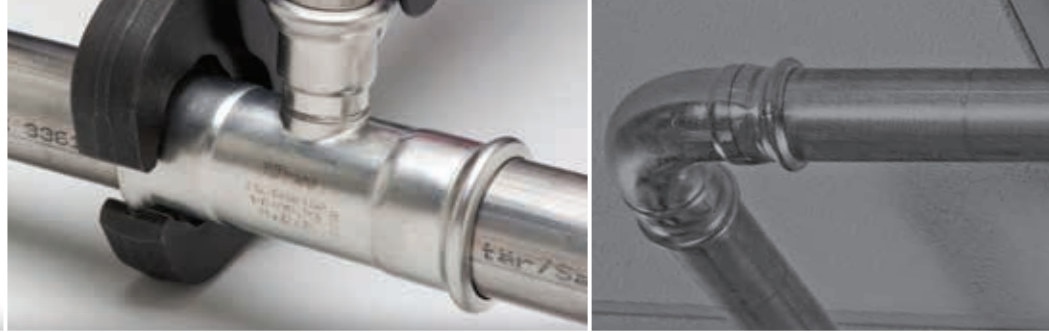
The XPress Sprinkler range is a complete system, where the combination of tube, fitting and tools are combined into a certified sprinkler system.



FEATURES

- + Installed cost savings with joints made in a fraction of the time
- + Clean heat-free jointing, no hot works permits required
- + Leak before press design
- + Light weight, easier to manual handling on site
- + Long system life with guarantee of up to 30 Years

Laser marking	Packaging label
XPress	Type R...
316L	Dimension
Approvals	Description: ...S-PR
Dimension	EAN Nr.
Traceability code	Art Nr Pegler Yorkshire
	Approvals
	Number of pieces



STANDARDS APPROVALS

It is Pegler Yorkshire policy to provide a range of products and services which meet, or exceed, the requirements of our customers in respect of quality, cost and delivery.

STANDARDS AND APPROVALS

Current and future standards

We at Pegler Yorkshire are dedicated to designing, developing and manufacturing products of the highest quality. It is on this basis that you can trust the XPress range to achieve all relevant British, European and International standards.

Over recent years, tube and fittings for plumbing and heating systems have been subject to a gradual harmonisation of standards. Today, a further harmonisation is taking place that is set to incorporate copper and copper alloy press-fit fittings within pr EN 1254 under Part 7.

It is a sign of our standing in the industry that we at Pegler Yorkshire are helping to draft this and other new European standards, assisted by our fellow members on the various European standards committees. So, you can rest assured that whatever developments arise, our products will always meet the latest standards.

Sprinkler systems must be designed and installed in accordance with guideline CEA 4001 (VdS) and/or local regulations. Here the following steps must be carried out.

✚ Planning ✚ Installation ✚ Maintenance

Product Approvals		
Approval	XPress Stainless steel	XPress Galvanised steel
LPCB	✓	✓
UL/cUL	✓	✓
FM	✓	✓
VdS	✓	✓

LPCB CERTIFICATE



The XPress Sprinkler system has been tested and certified in accordance with the LPCB guidelines (TS1599 draft 5) for both the Galvanised and stainless steel system for use in fixed sprinkler systems for above ground applications. These guidelines refer to the XPress Sprinkler system with a working pressure of as stated in working pressures table page 11 in the dimensions DN20 up to DN50 (22-54mm). Except where correct fittings are used to connect the system to other ISO 65 or EN 10255 medium weight piping systems, XPress system components shall not be used in conjunction with other press piping systems. The

connection of other non-system components is only admissible via detachable metal connections. It is not allowed to insert additives or anticorrosive agents in the extinguishing water unless previously released by Pegler Yorkshire. Painting of the installation is allowed as long as the painting is done after installation and the paint used is water based. For XPress Sprinkler installations according to LPCB allowed hazard classes range from LH up to OH3.

XPress Sprinkler Stainless LPCB

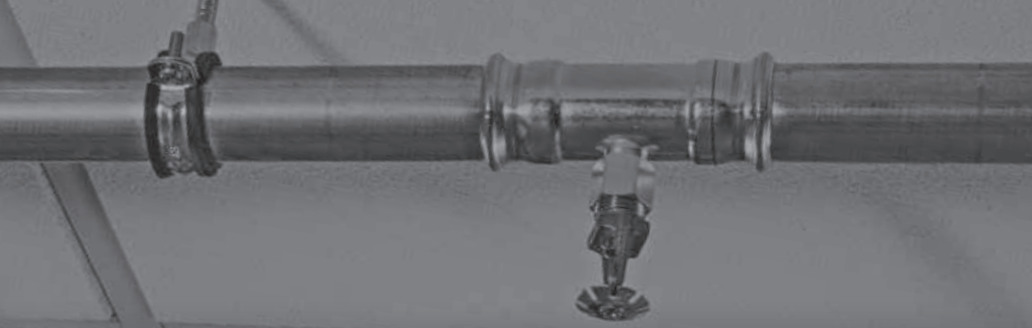
The XPress Sprinkler Stainless system has a LPCB certification for fittings and tubes according to the LPCB approval standard TS1599 for the application in wet sprinkler systems with a maximum pressure of 16 bar. XPress Sprinkler stainless also allowed to be used in embedded installations. The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN50 (22-54mm). According to LPCB the system is certified for using XPress stainless steel tubes with material code 1.4401 (AISI 316). XPress Sprinkler Stainless is WRAS approved in combination with 1.4401 tubes.

XPress Sprinkler Galvanised LPCB

The XPress Sprinkler Galvanised system has a LPCB certification for fittings and tubes according to the LPCB approval standard TS1599 for the application in wet sprinkler systems with a maximum working pressure of 16 bar. The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN50 (22-54mm). According to LPCB the system is certified for using XPress Galvanised Sendzimir tubes. When installing XPress Galvanised to a potable water network, care should be taken to use a WRAS approved water back flow preventer. Installations made by XPress Sprinkler should be inspected regularly on corrosion.

Assembly, installation and maintenance of LPCB approved sprinkler installations

The assembly, installation and maintenance of the XPress Sprinkler system may only be performed by trained technical personnel who are qualified to work on sprinkler systems. For example, the guideline LPC Rules for Automatic Sprinkler Installation, incorporating BS EN12845 contains the requirements for the assembly and maintenance of a fixed sprinkler system. The company performing the installation must comply at all times with the guidelines. When installing XPress Sprinkler, the installer must always ensure that adequate (meeting the requirements of the building regulations and LPC Sprinkler Rules) fire stopping is undertaken following the routing of the pipes. When installing



CONNECT + CONTROL

XPress Stainless embedded in concrete, no specific limitations apply on isolation (thermal or acoustic) other than those prescribed in the XPress Technical Manual. During the installations special care should be taken to ensure the concrete fully surrounds the piping and to avoid any empty spaces between concrete and piping. It is of great importance to use a concrete mixture which doesn't contain chlorides or other substances which could negatively influence the stainless steel. Pressure testing of the installation has to be done before embedding the pipes and fittings in concrete. Any faults disclosed, such as permanent deformations, ruptures or leakages shall be corrected, and the pressure test must be repeated.

UL/cUL CERTIFICATE

The XPress Sprinkler system has been tested and certified in accordance with the UL/cUL guidelines (VIZM/VIZY) for both the galvanized and stainless steel system for use in fixed sprinkler systems for above ground applications. These guidelines refer to the XPress Sprinkler system with a working pressure as stated in table on page 11 in the dimensions DN20 up to DN80 (22-88,9 mm) for XPress Sprinkler Galvanized and DN20 up to DN100 (22-108 mm) for XPress Sprinkler Stainless. Per NFPA13, steel water distribution piping of DN25 (28 mm) minimum diameter shall be used. Based on this, DN20 (22 mm) is limited to use in trim and drain applications. Fittings are to be UL Listed for use with a maximum ambient temperature of 65,6°C (150°F) and cUL listed for use with a maximum ambient temperature of 48,9°C (120°F). Only the use of battery operated Novopress tools is allowed within the UL/cUL certificate. The use is limited to the connection of the system components among each other. No limitations on hazard classes apply, when using XPress Sprinkler, when installing according to NFPA13. The UL/cUL Listing requires use of a C-factor of 120 for XPress Sprinkler Galvanized pipe.

Maximum weight and hanger spacing for straight unions and connectors			
DN	Outside ø (mm)	Max. weight (kg)	Max. support (cm)
20	22	5,4	61
25	28	8,2	61
32	35	8,2	61
40	42	8,2	61
50	54	13,6	61

Maximum weight and hanger spacing for straight unions and connectors

According to the UL Listings, straight unions and threaded connectors are intended for the sole use of connecting to fire equipment, i.e. backflows, pressure reliefs, drain valves, etc., items typically removed for maintenance or replaced throughout the life of the system. The maximum weight and hanger spacing of these components is found in the table left:

According to the UL/cUL Listing, tees with threaded outlets are for the sole use of joining sprinkler heads and flexible drops. Threaded steel pipe shall not be joined to these fittings, with exception to the Tee piece with 2" outlet which have to fulfill the hangers requirements as stated in table left.

XPress Sprinkler Galvanized UL/cUL

The XPress Sprinkler Galvanized system has a UL/cUL certification for fittings and tubes according to the UL/cUL approval standards under the category VIZM/VIZY for the application in wet sprinkler systems with a maximum pressure of 175 psi (12,1 bar). The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN80 (22-88,9 mm). According UL/cUL the system is certified for using XPress Galvanized Sendzimir tubes.

XPress Sprinkler Stainless UL/cUL

The XPress Sprinkler Stainless system has a UL/cUL certification for fittings and tubes according UL/cUL approval standards under the category VIZM/VIZY for application in wet and dry sprinkler system with a maximum pressure of 175 psi (12,1 bar). The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN100 (22-108 mm). According UL/cUL the system is certified for using XPress stainless steel tubes with material code 1.4401 (AISI 316).

Assembly and Installation of UL/cUL approved sprinkler installations

The assembly and installation of the XPress Sprinkler system may only be performed by trained technical personnel who are qualified to work on sprinkler systems. When making a transition from traditional thick wall tubes to the XPress Sprinkler system in the dimensions DN20 to DN100 (22-108 mm), it is mandatory to use a transition from press to a listed grooved coupling (product group C 1442 and R 2748). When installing the transition coupling from press to grooved, always make sure to use the complete insertion depth, as stated in table on page 10. The installer must verify that the XPress grooved fitting dimensions are within the groove specification for the coupling.



GUARANTEES

<FM> CERTIFICATE



XPress Sprinkler Stainless <FM>

The XPress Sprinkler Stainless system has an FM certification for fittings and tubes according FM approval standard 1630 and 1920 for application in wet and dry sprinkler system with a maximum pressure of 175 psi (12.1 bar). The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN100 (22-108mm). According FM the system is certified for using XPress stainless steel tubes with material code 1.4401 (AISI 316), 1.4520 (AISI 439) and 1.4521 (AISI 444). No limitations on hazard classes apply, when using XPress Sprinkler stainless, when installing according to FM standards.

XPress Sprinkler Galvanised <FM>

The XPress Sprinkler Galvanised system has a FM certification for fittings and tubes according the FM approval standards 1630 and 1920 for the application in wet sprinkler systems with a maximum pressure of 175 psi (12.1 bar). The approval refers to the XPress Sprinkler system in the dimensions DN20 to DN50 (22-54mm). According FM the system is certified for using XPress Galvanised Sendzimir tubes. No limitations on hazard classes apply, when using XPress Sprinkler Galvanised, when installing according to FM standards.

Assembly and installation of approved sprinkler installations

The assembly and installation of the XPress Sprinkler system may only be performed by trained technical personnel who are qualified to work on sprinkler systems. When making a transition from traditional thick wall tubes to the XPress Sprinkler system in the dimensions DN20 to DN100 (22-108 mm), it is mandatory to use a transition from press to grooved coupling (product group C 1442 and R 2748).

When installing the transition coupling from press to grooved, always make sure to use the complete insertion depth.

Minimum insertion depth transition coupling

DN	Outside \varnothing (mm)	Insertion depth (mm)
25	28	46
32	35	52
40	42	60
50	54	70
65	76.1	54
80	88.9	64
100	108	74

VdS CERTIFICATE



The XPress Sprinkler system has been tested and certified in accordance with the VdS guidelines for both the Galvanised and stainless steel system for use in fixed sprinkler systems behind the alarm valve. These guidelines refer to the XPress Sprinkler system with a working pressure of as stated in table on page 9 in the dimensions DN20 up to DN100 (22-108mm), for all products within in the XPress Sprinkler range.

The use is limited to the connection of the system components amongst each other. The connection of other non-system components is only admissible via detachable metal connections. It is not allowed to insert additives in the extinguishing water. Exceptions are anticorrosive agents according to the manufacturer release and previous agreement with VdS Schadenverhütung. The admissible hanger spacings for copper pipes according to VdS CEA4001 do apply.

XPress Sprinkler Stainless VdS

[XPress Sprinkler Stainless G4080037](#)

- [XPress Sprinkler Stainless fitting](#)
- [XPress Sprinkler Stainless tube](#)
- [Press tools](#)

The XPress Sprinkler stainless system may be used in fixed wet and dry sprinkler systems in the hazard classes LH up to partially OH4 (theatres, concert halls, movie theatres). The approval applies to the dimensional range with a diameter DN20 to DN100 (22-108mm) with an operating pressure as stated in table 20. The XPress stainless fittings are made of 1.4404 (AISI 316L) stainless steel, the tubes are made of 1.4401 (AISI 316) stainless steel. The application is limited to installation behind the alarm valve.

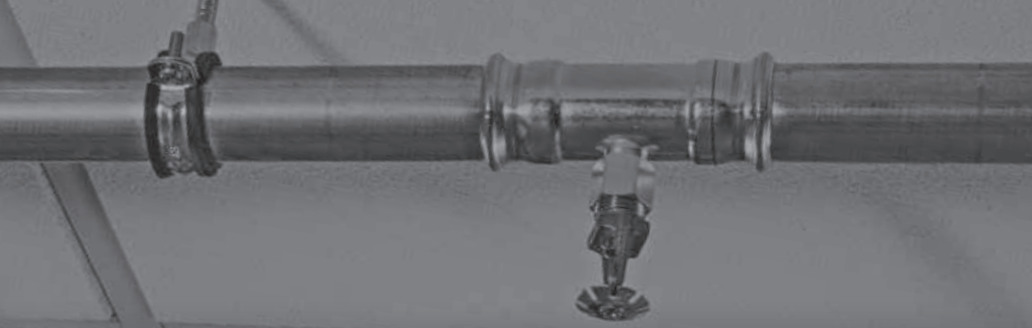
XPress Sprinkler Galvanised VdS

VdS is a system approval, meaning that the approval is only valid when all components are combined:

[XPress Sprinkler Galvanised G4080007](#)

- [XPress Sprinkler Galvanised fitting](#)
- [XPress Sprinkler Galvanised tube](#)
- [Press tools](#)

The XPress Sprinkler Galvanised system may be used in fixed wet sprinkler systems in the hazard classes LH up to partially OH4 (exhibition halls, theatres, concert halls, movie theatres). The approval applies to the dimensional range with a diameter DN20 up to DN100 (22-108mm) with a maximum operating pressure as mentioned in table 20. XPress Sprinkler Galvanised fittings are made of zinc-plated unalloyed steel, combined with a carbon-steel tube produced specifically for the XPress Sprinkler Galvanised system which inner and outer surface is Galvanised (Sendzimir tube). The application is limited to installations behind the alarm valve in branch and distribution lines and should be inspected regularly on corrosion.



Assembly and installation of VdS approved sprinkler installations

The assembly and installation of the XPress Sprinkler system may only be performed by trained technical personnel who are qualified to work on sprinkler systems. For example, the guideline CEA 4001 (VdS) contains the requirements for the assembly of a fixed sprinkler system. The company performing the installation must comply at all times with the guidelines.

ISO



ISO is achieved through the continuous improvement of our Quality Management System in line with the requirements of BS EN ISO 9001: 2008.

All of the bodies involved in the acceptance test for the system must be included in the entire process from project planning to the acceptance test itself. Depending on the approvals, different working pressures apply. Please check the table below for the applicable pressures when installing under VdS, FM, UL/cUL or LPCB.

GUARANTEES

10 YEAR GUARANTEE

XPress Carbon Sprinkler is guaranteed against all manufacturing defects for 10 years when installed as a system using the respective XPress Carbon Sprinkler tube and fittings.

25 YEAR GUARANTEE

The XPress stainless Sprinkler ranges are guaranteed against all manufacturing defects for 25 years when installed as a system using respective XPress stainless Sprinkler tube and fittings.

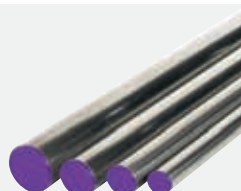
XPress Sprinkler system fittings and tube	Guarantee Period (Years)		
	5	10	25
XPress Stainless steel fittings			✓
XPress Stainless steel fittings			✓
XPress Galvanised fittings		✓	
XPress Galvanised fittings tube		✓	
To qualify for guarantees, all products must be installed in accordance with our instructions on specified applications			

Working pressures XPress Sprinkler

DN	Outside Ø (mm)	VdS		FM		UL		LPCB	
		Wet Galvanised	Wet and dry Stainless	Wet Galvanised	Wet and dry Stainless	Wet Galvanised	Wet and dry Stainless	Wet Galvanised	Wet Stainless
20	22	16 bar	16 bar	175psi	175psi	175psi	175psi	16 bar	16 bar
25	28	16 bar	16 bar	175psi	175psi	175psi	175psi	16 bar	16 bar
32	35	16 bar	16 bar	175psi	175psi	175psi	175psi	16 bar	16 bar
40	42	16 bar	16 bar	175psi	175psi	175psi	175psi	16 bar	16 bar
50	54	16 bar	16 bar	175psi	175psi	175psi	175psi	16 bar	16 bar
65	76.1	12.5 bar	16 bar	-	175psi	175psi	175psi	-	-
80	88.9	10 bar	12.5 bar	-	175psi	175psi	175psi	-	-
100	108	10 bar	10 bar	-	175psi	-	175psi	-	-



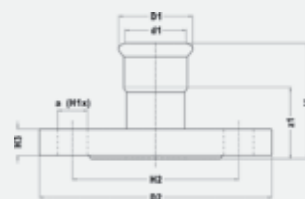
SC645 Galvanised Sprinkler Tube



Size	d1	DN1	Code
22mm x 1.5mm x 6.0m	22.0	DN20	25094
28mm x 1.5mm x 6.0m	28.0	DN25	25095
35mm x 1.5mm x 6.0m	35.0	DN32	25096
42mm x 1.5mm x 6.0m	42.0	DN40	25097
54mm x 1.5mm x 6.0m	54.0	DN50	25098
76.1mm x 2.0mm x 6.0m	76.1	DN65	25099
88.9mm x 2.0mm x 6.0m	88.9	DN80	25100
108mm x 2.0mm x 6.0m	108.0	DN100	25101

SC1FMF Flanged Connect

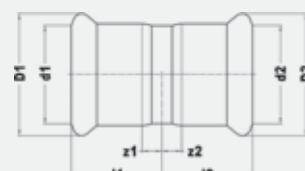
Connection: Press x Flange



Size	L1	d1	D1	es1	z1	D2	DN1	DN2	Code
76.1mm x DN65 (2 1/2")	111.7	76.1	94.5	55.0	56.7	185.0	DN65	DN65	20659
88.9mm x DN80 (3")	117.7	88.9	109.5	63.0	54.7	200.0	DN80	DN80	20660
108mm x DN65 (4")	113.7	108.0	132.6	77.0	36.7	220.0	DN100	DN100	20661

SC1 Straight coupling

Connection: Press x press



Size	L1	d1	D1	es1	z1	L2	d2	D2	es2	z2	DN1	DN2	Code
22mm	27.5	22.0	31.6	21.0	6.5	27.5	22.0	31.6	21.0	6.5	DN20	DN20	20138
28mm	29.9	28.0	37.5	23.0	6.9	29.0	28.0	37.5	23.0	6.9	DN25	DN25	20139
35mm	33.0	35.0	44.6	26.0	7.0	33.0	35.0	44.6	26.0	7.0	DN32	DN32	20140
42mm	38.0	42.0	53.6	30.0	8.0	38.0	42.0	53.6	30.0	8.0	DN40	DN40	20141
54mm	43.0	54.0	65.3	35.0	8.0	43.0	54.0	65.3	35.0	8.0	DN50	DN50	20142
66.7mm	59.6	66.7	83.0	50.0	9.6	59.6	66.7	83.0	50.0	9.6	DN65	DN65	20662
76.1mm	63.2	76.1	94.5	55.0	8.2	63.2	76.1	94.5	55.0	8.2	DN65	DN65	20620
88.9mm	71.6	88.9	109.5	63.0	8.6	71.6	88.9	109.5	63.0	8.6	DN80	DN80	20621
108mm	85.5	108.0	132.6	77.0	8.5	85.5	108.0	132.6	77.0	8.5	DN100	DN100	20622

Vds 22 - 108mm, LPCB and FM 22-54mm, UL/cUL 22 - 88.9mm

FEATURES

✚ Installed cost savings with joints made in a fraction of the time

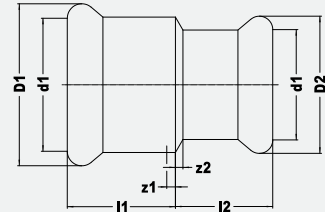
✚ Clean heat-free jointing, no hot works permits required

✚ Leak before press design

✚ Low scrap value, less desirable to thieves

SC1R Straight reduced coupling

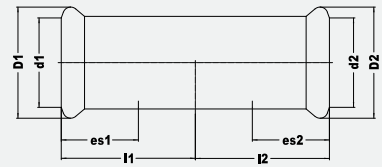
Connection: Press x Press



Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
28 x 22mm	25.0	28.0	37.4	23.0	2.0	22.5	22.0	31.5	21.0	1.5	DN25	DN20	20154

SC1 Slip Straight coupling slip pattern

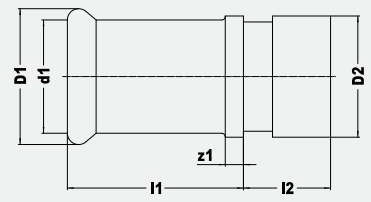
Connection: Press x Press



Size	l1	d1	D1	es1	l2	d2	D2	es2	DN1	DN2	Code
22mm	42.0	22.0	31.6	25.0	42.0	22.0	31.6	25.0	DN20	DN20	20146
28mm	46.0	28.0	37.5	30.0	46.0	28.0	37.5	30.0	DN25	DN25	20147
35mm	51.5	35.0	44.6	30.0	51.5	35.0	44.6	30.0	DN32	DN32	20148
42mm	60.6	42.0	53.6	40.0	60.6	42.0	53.6	40.0	DN40	DN40	20149
54mm	70.0	54.0	65.3	40.0	70.0	54.0	65.3	40.0	DN50	DN50	20150
76.1mm	115.2	76.1	94.5	60.0	115.2	76.1	94.5	60.0	DN65	DN65	20623
88.9mm	130.6	88.9	109.5	70.0	130.6	88.9	109.5	70.0	DN80	DN80	20624
108mm	150.5	108.0	132.6	80.0	150.5	108.0	132.6	80.0	DN100	DN100	20625

SC1V Transition for grooved coupling

Connection: Press x Groove



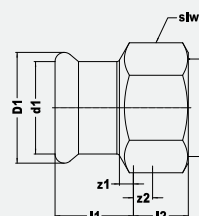
Size	l1	d1	D1	es1	z1	l2	d2	DN1	DN2	Code
28 x 34mm	48.5	28.0	37.5	23.0	25.5	24.0	33.7	DN25	DN25	20187
35 x 42mm	54.0	35.0	44.6	26.0	28.0	24.0	42.4	DN32	DN40	20188
42 x 48mm	61.0	42.0	53.6	30.0	31.0	24.0	48.3	DN40	DN40	20189
54 x 60mm	72.5	54.0	65.3	35.0	37.5	24.0	60.3	DN50	DN50	20190
76.1 x 76.1mm	56.0	76.1	94.5	55.0	1.0	24.0	76.1	DN65	DN65	20731
88.9 x 88.9mm	76.0	88.9	109.5	63.0	13.0	24.0	88.9	DN80	DN780	20732
108 x 114mm	84.0	108.0	132.6	77.0	7.0	26.0	114.0	DN100	DN100	20733



SC2

Straight female connector

Press-fit x BSP parallel female thread

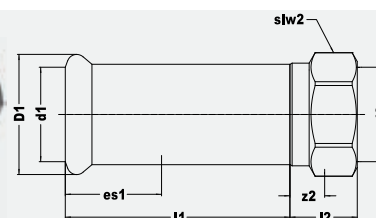


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	22.1	22.0	31.6	21.0	1.1	14.4	0.0	32.0	37.0	DN20	1/2" (DN15)	20245
22mm x 3/4"	23.0	22.0	31.5	21.0	2.0	20.0	3.7	32.0	37.0	DN20	3/4" (DN20)	20240
28mm x 1/2"	24.0	28.0	37.4	23.0	1.0	14.2	0.5	41.0	47.4	DN25	1/2" (DN15)	20244
28mm x 3/4"	24.0	28.0	37.5	23.0	1.0	16.5	0.2	38.0	43.9	DN25	3/4" (DN20)	20246
28mm x 1"	26.0	28.0	37.4	23.0	3.0	23.0	4.0	41.0	47.4	DN25	1" (DN25)	20241
35mm x 1/2"	30.0	35.0	44.4	26.0	4.0	12.0	1.3	46.0	53.1	DN32	1/2" (DN15)	20365
35mm x 3/4"	28.4	35.0	44.4	26.0	2.4	14.6	2.8	46.0	53.1	DN32	3/4" (DN20)	20366
35mm x 1"	33.0	35.0	44.4	26.0	7.0	13.0	0.0	46.0	53.1	DN32	1" (DN25)	20367
35mm x 1 1/4"	28.3	35.0	44.4	26.0	2.3	21.7	6.7	46.0	53.1	DN32	1 1/4" (DN32)	20247
42mm x 1 1/2"	32.0	42.0	53.5	30.0	2.0	22.0	6.0	54.0	62.4	DN40	1 1/2" (DN40)	20209
54mm x 2"	36.9	54.0	65.2	35.0	1.9	26.0	8.0	67.0	77.4	DN50	2" (DN50)	20210

SC2LC

Slip long connector

Connection: Press x BSP parallel female thread

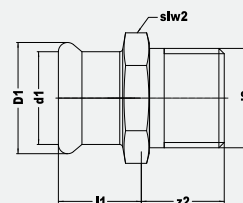


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	92.0	22.0	31.6	21.0	71.0	22.0	15.0	28.0	32.3	DN20	1/2" (DN15)	20323
22mm x 3/4"	97.0	22.0	31.6	21.0	76.0	27.0	16.5	32.0	37.0	DN20	3/4" (DN20)	20324
28mm x 1/2"	94.0	28.0	37.5	23.0	71.0	24.0	15.0	32.0	37.0	DN25	1/2" (DN15)	20325
28mm x 3/4"	93.0	28.0	37.5	23.0	70.0	23.0	16.5	32.0	37.0	DN25	3/4" (DN20)	20326

SC3

Straight male connector.

Connection: Press x BSP taper male thread



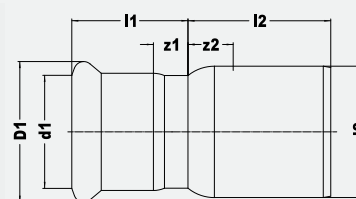
Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	21.0	22.0	31.6	21.0	0.0	22.0	22.0	32.0	37.0	DN20	1/2" (DN15)	20242
22mm x 3/4"	21.0	22.0	31.6	21.0	0.0	23.0	23.0	32.0	37.0	DN20	3/4" (DN20)	20231
22mm x 1"	21.0	22.0	31.6	21.0	0.0	29.0	29.0	34.0	39.3	DN20	1" (DN25)	20243
28mm x 3/4"	23.0	28.0	37.5	23.0	0.0	23.0	23.0	38.0	43.9	DN25	3/4" (DN20)	20236
28mm x 1"	23.0	28.0	37.5	23.0	0.0	25.0	25.0	41.0	47.3	DN25	1" (DN25)	20232
35mm x 1 1/4"	26.0	35.0	44.6	26.0	0.0	29.0	29.0	46.0	53.1	DN32	1 1/4" (DN32)	20233
42mm x 1 1/2"	30.0	42.0	53.6	30.0	0.0	29.0	29.0	55.5	63.5	DN40	1 1/2" (DN40)	20234
54mm x 2"	35.0	54.0	65.3	35.0	0.0	34.0	34.0	70.0	80.8	DN50	2" (DN50)	20235
76.1mm x 2 1/2"***	55.0	76.1	94.5	55.0	0.0	63.9	63.9	80.0	92.4	DN65	2 1/2" (DN65)	20713
88.9mm x 3"***	63.0	88.9	109.5	63.0	0.0	68.5	68.5	95.0	109.7	DN80	3" (DN80)	20714

Vds 22 - 108mm, LPCB and FM 22-54mm, UL/cUL 22 - 88.9mm *Not LPCB. **Not UL/cUL Listed



SC6 Reducer

Connection: Male XPress

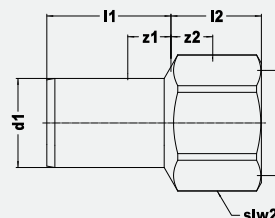


Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
28 x 18mm	29.5	18.0	26.5	20.0	9.5	36.0	28.0	23.0	13.0	DN15	DN25	20218
28 x 22mm	32.6	22.0	31.6	21.0	11.6	32.9	28.0	23.0	9.9	DN20	DN25	20219
35 x 22mm	30.4	22.0	31.6	21.0	9.4	41.1	35.0	26.0	15.1	DN20	DN32	20220
35 x 28mm	36.0	28.0	37.5	23.0	13.0	34.0	35.0	26.0	8.0	DN25	DN32	20221
42 x 22mm*	32.3	22.0	31.6	21.0	11.3	50.7	42.0	30.0	20.7	DN20	DN40	20248
42 x 28mm	32.3	28.0	37.5	23.0	9.3	50.7	54.0	35.0	15.7	DN25	DN50	20212
42 x 35mm	38.7	35.0	44.6	26.0	12.7	41.3	42.0	30.0	11.3	DN32	DN40	20222
54 x 22mm*	34.3	22.0	31.6	21.0	13.3	62.7	54.0	35.0	27.7	DN20	DN50	20223
54 x 28mm*	33.1	28.0	37.5	23.0	10.1	58.4	54.0	35.0	23.4	DN25	DN50	20224
54 x 35mm	38.1	35.0	44.6	26.0	12.1	56.9	54.0	35.0	21.9	DN32	DN50	20226
54 x 42mm	44.4	42.0	53.6	30.0	14.4	51.6	54.0	35.0	16.6	DN40	DN50	20225
22 x 15mm	29.4	15	23.4	20.0	9.4	31.6	22.0	21.0	10.6	DN12	DN20	20215
76.1 x 42mm	49.6	42.0	53.6	30.0	19.6	96.7	76.1	55.0	41.7	DN40	DN65	20715
76.1 x 54mm	54.5	54.0	65.3	35.0	19.5	85.8	76.1	55.0	30.8	DN50	DN65	20639
88.9 x 54mm	54.3	54.0	65.3	35.0	19.3	101.0	88.9	63.0	38.0	DN50	DN80	20640
88.9 x 76mm	68.0	76.1	94.5	55.0	13.0	90.0	88.9	63.0	27.0	DN65	DN80	20641
108 x 76.1mm	68.0	76.1	94.5	55.0	13.0	120.0	108.0	77.0	43.0	DN65	DN100	20642
108 x 88.9mm	76.6	88.9	109.5	63.0	13.6	109.8	108.0	77.0	32.8	DN80	DN100	20643

SC7

Female adaptor

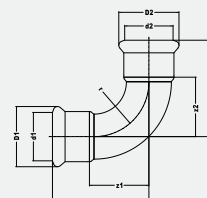
Connection: Male x PSP parallel female thread



Size	l1	d1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	29.0	22.0	21.0	8.0	21.0	6.0	24.0	27.7	DN20	1/2" (DN15)	20256
22mm x 3/4"	29.0	22.0	21.0	8.0	24.0	7.7	30.0	34.7	DN20	3/4" (DN20)	20257

SC12 Elbow

Connection: Press x Press



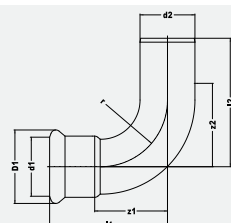
Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
22mm	51.0	22.0	31.6	21.0	30.0	51.0	22.0	31.6	21.0	30.0	DN20	DN20	20157
28mm	60.5	28.0	37.5	23.0	37.5	60.5	28.0	37.5	23.0	37.5	DN25	DN25	20158
35mm	71.5	35.0	44.6	26.0	45.5	71.5	35.0	44.6	26.0	45.5	DN32	DN32	20159
42mm	86.6	42.0	53.6	30.0	56.6	86.6	42.0	53.6	30.0	56.6	DN40	DN40	20160
54mm	105.0	54.0	65.3	35.0	70.0	105.0	54.0	65.3	35.0	70.0	DN50	DN50	20161
76.1mm	155.2	76.1	94.5	55.0	100.2	155.2	76.1	94.5	55.0	100.2	DN65	DN65	20626
88.9mm	178.6	88.9	109.5	63.0	115.6	178.6	88.9	109.5	63.0	115.6	DN80	DN80	20627
108mm	215.5	108.0	132.6	77.0	138.5	215.5	108.0	132.6	77.0	138.5	DN100	DN100	20628



SC12S

Street elbow 90°

Connection: Press x Male

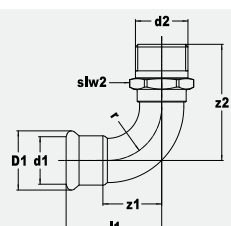


Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm	51.0	22.0	31.6	20.0	30.0	58.1	22.0	21.0	37.1	DN20	DN20	20165
28mm	60.5	28.0	37.5	23.0	37.5	65.5	28.0	23.0	42.5	DN25	DN25	20166
35mm	71.5	35.0	44.6	26.0	45.5	75.9	35.0	26.0	49.9	DN32	DN32	20167
42mm	86.6	42.0	53.6	30.0	56.6	92.5	42.0	30.0	62.5	DN40	DN40	20168
54mm	104.6	54.0	65.3	35.0	69.6	110.6	54.0	35.0	75.6	DN50	DN50	20169
76.1mm	155.2	76.1	94.5	55.0	100.2	168.0	76.1	55.0	113.0	DN65	DN65	20629
88.9mm	178.6	88.9	109.5	63.0	115.6	193.0	88.9	63.0	130.0	DN80	DN80	20630
108mm	215.5	108.0	132.6	77.0	138.5	233.0	108.0	77.0	156.0	DN100	DN100	20631

SC13

Male elbow 90°

Press fit x male BSP taper thread

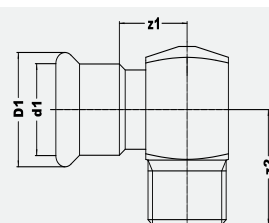


Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm x 3/4"	51.0	22.0	31.6	21.0	30.0	61.5	61.5	30.0	34.7	DN20	3/4" (DN20)	20201
28mm x 1"	60.5	28.0	37.5	23.0	37.5	73.5	73.5	36.0	41.6	DN25	1" (DN25)	20202
35mm x 1 1/4"	71.5	35.0	44.6	26.0	45.5	85.5	85.5	46.0	53.1	DN32	1 1/4" (DN32)	20206
42mm x 1 1/2"	86.5	42.0	53.6	30.0	56.5	95.5	95.5	50.0	57.8	DN40	1 1/2" (DN40)	20204
54mm x 2"	105.0	54.0	65.3	35.0	70.0	115.5	115.5	60.0	69.3	DN50	2" (DN50)	20205

SC13A

Angle adaptor 90°

Press x male BSP taper thread

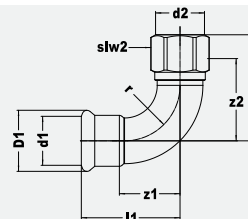


Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm x 3/4"	44.5	22.0	31.6	21.0	23.5	32.0	32.0	28.0	32.3	DN20	3/4" (DN20)	20208



SC14 Elbow 90°

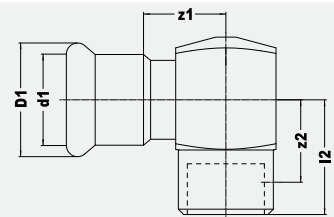
Press x BSP parallel female thread



Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	51.0	22.0	31.6	21.0	30.0	59.0	44.0	27.0	31.2	DN20	1/2" (DN15)	20345
22mm x 3/4"	51.0	22.0	31.6	21.0	30.0	29.0	42.7	30.0	34.7	DN20	3/4" (DN20)	20346
28mm x 1/2"	60.5	28.0	37.5	23.0	37.5	65.0	50.0	32.0	37.0	DN25	1/2" (DN15)	20347
28mm x 3/4"	60.5	28.0	37.5	23.0	37.5	65.0	48.7	32.0	37.0	DN25	3/4" (DN20)	20348
28mm x 1"	60.5	28.0	37.5	23.0	37.5	69.5	50.5	41.0	47.4	DN25	1" (DN25)	20349
35mm x 1/2"	71.5	35.0	44.6	26.0	45.5	74.5	54.5	41.0	47.4	DN32	1/2" (DN15)	20350
35mm x 3/4"	71.5	35.0	44.6	26.0	45.5	74.5	53.5	41.0	47.4	DN32	3/4" (DN20)	20351
35mm x 1"	71.5	35.0	44.6	26.0	45.5	74.5	55.5	41.0	47.4	DN32	1" (DN25)	20352

SC14A Angle adaptor 90°

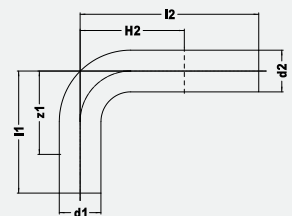
Press x BSP parallel female thread



Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	44.5	22.0	31.6	21.0	23.5	31.0	16.0	28.0	32.3	DN20	1/2" (DN15)	20355
28mm x 1/2"	50.5	28.0	37.5	23.0	27.5	35.0	20.0	36.0	41.6	DN25	1/2" (DN15)	20356
35mm x 1/2"	56.5	35.0	44.6	26.0	30.5	35.0	20.0	42.0	48.5	DN32	1/2" (DN15)	20357

SC19S Bend 90°

Male x male



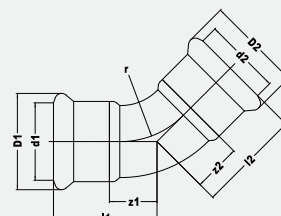
Size	l1	d1	es1	z1	l2	d2	es2	DN1	DN2	Code
22mm	73.5	22.0	21.0	52.5	121.5	22.0	21.0	DN20	DN20	20370
28mm	83.5	28.0	23.0	60.5	121.5	28.0	23.0	DN25	DN25	20371
35mm	121.5	35.0	26.0	95.5	201.5	35.0	26.0	DN32	DN32	20372
42mm	151.5	42.0	30.0	121.5	251.5	42.0	30.0	DN40	DN40	20373
54mm	201.5	54.0	35.0	166.5	301.5	54.0	35.0	DN50	DN50	20374



SC21

Obtuse elbow

Press x Press

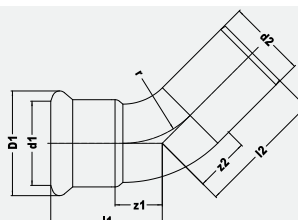


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
22mm	35.2	22.0	31.6	21.0	14.2	35.2	22.0	31.6	21.0	14.2	DN20	DN20	20172
28mm	40.1	28.0	37.5	23.0	17.1	40.1	28.0	37.5	23.0	17.1	DN25	DN25	20173
35mm	46.4	35.0	44.6	26.0	20.4	46.4	35.0	44.6	26.0	20.4	DN32	DN32	20174
42mm	56.1	42.0	53.6	30.0	26.1	56.1	42.0	53.6	30.0	26.1	DN40	DN40	20175
54mm	66.9	54.0	65.3	35.0	31.9	66.9	54.0	65.3	35.0	31.9	DN50	DN50	20176
76.1mm	101.3	76.1	94.5	55.0	46.3	101.3	76.1	94.5	55.0	46.3	DN65	DN65	20632
88.9mm	116.0	88.9	109.5	63.0	53.0	116.0	88.9	109.5	63.0	53.0	DN80	DN80	20633
108mm	139.4	108.0	132.6	77.0	62.4	139.4	108.0	132.6	77.0	62.4	DN100	DN100	20634

SC21S

Obtuse street elbow

Press x male

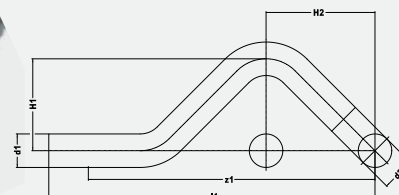


Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm	35.2	22.0	31.6	21.0	14.2	42.3	22.0	21.0	21.3	DN20	DN20	20179
28mm	40.1	28.0	37.5	23.0	17.1	45.6	28.0	23.0	22.6	DN25	DN25	20180
35mm	46.4	35.0	44.6	26.0	20.4	51.3	35.0	26.0	25.3	DN32	DN32	20181
42mm	56.1	42.0	53.6	30.0	26.1	62.6	42.0	30.0	32.6	DN40	DN40	20182
54mm	66.9	54.0	65.3	35.0	31.9	72.5	54.0	35.0	37.5	DN50	DN50	20183
76.1mm	101.3	76.1	94.5	55.0	46.3	114.1	76.1	55.0	59.1	DN65	DN65	20635
88.9mm	116.0	88.9	109.5	63.0	53.0	130.3	88.9	63.0	67.3	DN80	DN80	20636
108mm	139.4	108.0	132.6	77.0	62.4	156.9	108.0	77.0	79.9	DN100	DN100	20637

SC22S

Crossover

Male x male

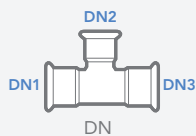
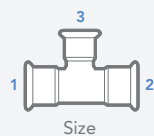


Size	l1	d1	es1	z1	d2	es2	DN1	DN2	Code
22mm	178.0	22.0	21.0	157.0	22.0	21.0	DN20	DN20	20195
28mm	210.0	28.0	23.0	187.0	28.0	23.0	DN25	DN25	20196

Vds 22 - 108mm, LPCB and FM 22-54mm, UL/cUL 22 - 88.9mm

Tee sizes are listed using the UK specification

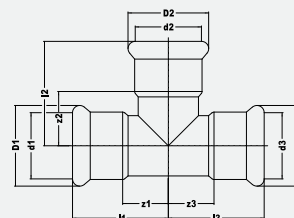
(See page 46)



SC24

Equal tee

Press all ends

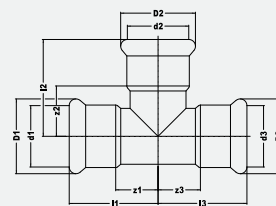


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
22mm	39.5	22.0	31.6	21.0	18.5	48.5	22.0	31.6	21.0	27.5	39.5	22.0	31.6	21.0	18.5	DN20	DN20	DN20	20251
28mm	45.0	28.0	37.5	23.0	22.0	53.5	28.0	37.5	23.0	30.5	45.0	28.0	37.5	23.0	22.0	DN25	DN25	DN25	20252
35mm	51.5	35.0	44.6	26.0	25.5	60.0	35.0	44.6	26.0	34.0	51.5	35.0	44.6	26.0	25.5	DN32	DN32	DN32	20253
42mm	60.5	42.0	53.6	30.0	30.5	67.0	42.0	53.6	30.0	37.0	60.5	42.0	53.6	30.0	30.5	DN40	DN40	DN40	20254
54mm	71.0	54.0	65.3	35.0	36.0	77.5	54.0	65.3	35.0	42.5	71.0	54.0	65.3	35.0	36.0	DN50	DN50	DN50	20255
76.1mm	115.0	76.1	94.5	55.0	60.0	110.0	76.1	94.5	55.0	55.0	115.0	76.1	94.5	55.0	60.0	DN65	DN65	DN65	20644
88.9mm	130.0	88.9	109.5	63.0	67.0	128.0	88.9	109.5	63.0	65.0	130.0	88.9	109.5	63.0	67.0	DN80	DN80	DN80	20645
108mm	155.0	108.0	132.6	77.0	78.0	153.0	108.0	132.6	77.0	76.0	155.0	108.0	132.6	77.0	78.0	DN100	DN100	DN100	20646

SC25

Tee, reduced branch

Press all ends



Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
28 x 28 x 22mm	45.0	28.0	37.5	23.0	22.0	51.5	22.0	31.6	21.0	30.5	45.0	28.0	37.5	23.0	22.0	DN25	DN20	DN25	20264
35 x 35 x 22mm	51.5	35.0	44.6	26.0	25.5	55.0	22.0	31.6	21.0	34.0	51.5	35.0	44.6	26.0	25.5	DN32	DN20	DN32	20267
35 x 35 x 28mm	51.5	35.0	44.6	26.0	25.5	57.0	28.0	37.5	23.0	34.0	51.5	35.0	44.6	26.0	25.5	DN32	DN25	DN32	20268
42 x 42 x 22mm	60.2	42.0	53.6	30.0	30.2	57.5	22.0	31.6	21.0	36.5	60.2	42.0	53.6	30.0	30.2	DN40	DN20	DN40	20269
42 x 42 x 28mm	60.2	42.0	53.6	30.0	30.2	59.5	28.0	37.5	23.0	36.5	60.2	42.0	53.6	30.0	30.2	DN40	DN25	DN40	20270
42 x 42 x 35mm	60.2	42.0	53.6	30.0	30.2	63.1	35.0	44.6	26.0	37.1	60.2	42.0	53.6	30.0	30.2	DN40	DN32	DN40	20271
54 x 54 x 22mm	71.0	54.0	65.3	35.0	36.0	63.5	22.0	31.6	21.0	42.5	71.0	54.0	65.3	35.0	36.0	DN50	DN20	DN50	20272
54 x 54 x 28mm	71.0	54.0	65.3	35.0	36.0	65.5	28.0	37.5	23.0	42.5	71.0	54.0	65.3	35.0	36.0	DN50	DN25	DN50	20273
54 x 54 x 35mm	71.0	54.0	65.3	35.0	36.0	69.0	35.0	44.6	26.0	43.0	71.0	54.0	65.3	35.0	36.0	DN50	DN32	DN50	20274
54 x 54 x 42mm	71.0	54.0	65.3	35.0	36.0	73.0	42.0	53.6	30.0	43.0	71.0	54.0	65.3	35.0	36.0	DN50	DN40	DN50	20275
76.1 x 76.1 x 22mm	115.0	76.1	94.5	55.0	60.0	68.0	22.0	31.6	21.0	47.0	115.0	76.1	94.5	55.0	60.0	DN65	DN20	DN65	20686
76.1 x 76.1 x 28mm	115.0	76.1	94.5	55.0	60.0	85.0	28.0	37.5	23.0	62.0	115.0	76.1	94.5	55.0	60.0	DN65	DN25	DN65	20687
76.1 x 76.1 x 35mm	115.0	76.1	94.5	55.0	60.0	87.0	35.0	44.6	26.0	61.0	115.0	76.1	94.5	55.0	60.0	DN65	DN32	DN65	20688
76.1 x 76.1 x 42mm	115.0	76.1	94.5	55.0	60.0	97.0	42.0	53.6	30.0	67.0	115.0	76.1	94.5	55.0	60.0	DN65	DN40	DN65	20689
76.1 x 76.1 x 54mm	115.0	76.1	94.5	55.0	60.0	110.0	54.0	65.3	35.0	75.0	115.0	76.1	94.5	55.0	60.0	DN65	DN50	DN65	20647
88.9 x 88.9 x 22mm	130.0	88.9	109.5	63.0	67.0	76.0	22.0	31.6	21.0	55.0	130.0	88.9	109.5	63.0	67.0	DN80	DN20	DN80	20690
88.9 x 88.9 x 28mm	130.0	88.9	109.5	63.0	67.0	92.0	28.0	37.5	23.0	69.0	130.0	88.9	109.5	63.0	67.0	DN80	DN25	DN80	20691
88.9 x 88.9 x 35mm	130.0	88.9	109.5	63.0	67.0	97.0	35.0	44.6	26.0	71.0	130.0	88.9	109.5	63.0	67.0	DN80	DN32	DN80	20692
88.9 x 88.9 x 42mm	130.0	88.9	109.5	63.0	67.0	105.0	42.0	53.6	30.0	75.0	130.0	88.9	109.5	63.0	67.0	DN80	DN40	DN80	20693
88.9 x 88.9 x 54mm	130.0	88.9	109.5	63.0	67.0	117.0	54.0	65.3	35.0	82.0	130.0	88.9	109.5	63.0	67.0	DN80	DN50	DN80	20694
88.9 x 88.9 x 76mm	130.0	88.9	109.5	63.0	67.0	117.0	76.1	94.5	55.0	62.0	130.0	88.9	109.5	63.0	67.0	DN80	DN65	DN80	20648
108 x 108 x 22mm	155.0	108.0	132.6	77.0	78.0	85.0	22.0	31.6	21.0	64.0	155.0	108.0	132.6	77.0	78.0	DN100	DN20	DN100	20695



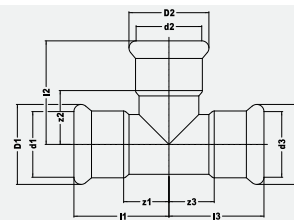
SC25 Tee, reduced branch (cont.)

Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
108 x 108 x 28mm	155.0	108.0	132.6	77.0	78.0	102.0	28.0	37.5	23.0	79.0	155.0	108.0	132.6	77.0	78.0	DN100	DN25	DN100	20696
108 x 108 x 35mm	155.0	108.0	132.6	77.0	78.0	107.0	35.0	44.6	26.0	81.0	155.0	108.0	132.6	77.0	78.0	DN100	DN32	DN100	20697
108 x 108 x 42mm	155.0	108.0	132.6	77.0	78.0	115.0	42.0	53.6	30.0	85.0	155.0	108.0	132.6	77.0	78.0	DN100	DN40	DN100	20698
108 x 108 x 54mm	155.0	108.0	132.6	77.0	78.0	128.0	54.0	65.3	35.0	93.0	155.0	108.0	132.6	77.0	78.0	DN100	DN50	DN100	20699
108 x 108 x 76.1mm	155.0	108.0	132.6	77.0	78.0	128.0	76.1	94.5	55.0	73.0	155.0	108.0	132.6	77.0	78.0	DN100	DN65	DN100	20700
108 x 108 x 89.1mm	155.0	108.0	132.6	77.0	78.0	137.0	76.1	94.5	55.0	82.0	155.0	108.0	132.6	77.0	78.0	DN100	DN65	DN100	20649

SC28

Tee, both ends reduced

Press on all ends

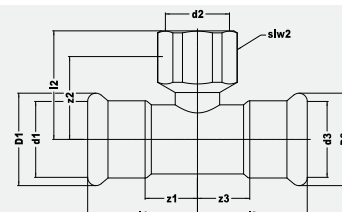


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
22 x 22 x 28mm	39.5	22.0	31.6	21.0	18.5	52.0	28.0	37.5	23.0	29.0	39.5	22.0	31.6	21.0	18.5	DN20	DN25	DN20	20712

SC30

Female branch tee

Press x BSP parallel female branch

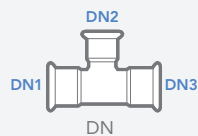
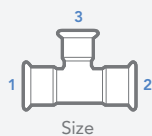


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	Code
22x22mm x 1/2"	39.5	22.0	31.6	21.0	18.5	39.0	24.0	24.0	27.7	39.5	22.0	31.6	21.0	18.5	DN20	1/2" (DN15)	DN20	20283
22x22mm x 3/4"	39.5	22.0	31.6	21.0	18.5	41.0	24.7	30.0	34.7	39.5	22.0	31.6	21.0	18.5	DN20	3/4" (DN20)	DN20	20288
28x28mm x 1/2"	45.0	28.0	37.5	23.0	22.0	42.0	27.0	24.0	27.7	45.0	28.0	37.5	23.0	22.0	DN25	1/2" (DN15)	DN25	20284
28x28mm x 3/4"	45.0	28.0	37.5	23.0	22.0	44.0	27.7	30.0	34.7	45.0	28.0	37.5	23.0	22.0	DN25	3/4" (DN20)	DN25	20289
28 x 28mm x 1"	45.0	28.0	37.5	23.0	22.0	48.0	25.0	41.0	47.4	45.0	28.0	37.5	23.0	22.0	DN25	1" (DN25)	DN25	20279
35x35mm x 1/2"	51.5	35.0	44.6	26.0	25.5	45.5	30.5	24.0	27.7	51.5	35.0	44.6	26.0	25.5	DN32	1/2" (DN15)	DN32	20285
35x35mm x 3/4"	51.5	35.0	44.6	26.0	25.5	47.5	31.2	30.0	34.7	51.5	35.0	44.6	26.0	25.5	DN32	3/4" (DN20)	DN32	20290
35 x 35mm x 1"	51.5	35.0	44.6	26.0	25.5	51.5	28.5	41.0	47.4	51.5	35.0	44.6	26.0	25.5	DN32	1" (DN25)	DN32	20280
42x42mm x 1/2"	60.7	42.0	53.6	30.0	30.7	48.0	33.0	24.0	27.7	60.7	42.0	53.6	30.0	30.7	DN40	1/2" (DN15)	DN40	20286
42x42mm x 3/4"	60.7	42.0	53.6	30.0	30.7	50.0	33.7	30.0	34.7	60.7	42.0	53.6	30.0	30.7	DN40	3/4" (DN20)	DN40	20291
42 x 42mm x 1"	60.7	42.0	53.6	30.0	30.7	54.0	31.0	41.0	47.4	60.7	42.0	53.6	30.0	30.7	DN40	1" (DN25)	DN40	20294
54x54mm x 1/2"	71.0	54.0	65.3	35.0	36.0	54.0	39.0	24.0	27.7	71.0	54.0	65.3	35.0	36.0	DN50	1/2" (DN15)	DN50	20287
54x54mm x 3/4"	71.0	54.0	65.3	35.0	36.0	56.0	39.7	30.0	34.7	71.0	54.0	65.3	35.0	36.0	DN50	3/4" (DN20)	DN50	20292
54 x 54mm x 1"	71.0	54.0	65.3	35.0	36.0	60.0	37.0	41.0	47.4	71.0	54.0	65.3	35.0	36.0	DN50	1" (DN25)	DN50	20293
76.1x76.1mm x 3/4"	115.0	76.1	94.5	55.0	60.0	82.0	65.5	30.0	34.7	115.0	76.1	94.5	55.0	60.0	DN65	3/4" (DN20)	DN65	20650
88.9x88.9mm x 3/4"	130.0	88.9	109.5	63.0	67.0	84.0	67.5	30.0	34.7	130.0	88.9	109.5	63.0	67.0	DN80	3/4" (DN20)	DN80	20651
108x108mm x 3/4"	155.0	108.0	132.6	77.0	78.0	94.0	77.5	30.0	34.7	155.0	108.0	132.6	77.0	78.0	DN100	3/4" (DN20)	DN100	20652

Vds 22 - 108mm, LPCB and FM 22-54mm, UL/cUL 22 - 88.9mm

Tee sizes are listed using the UK specification

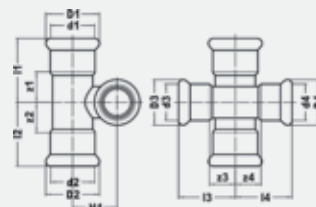
(See page 46)



SC50

Cross

Press on all ends

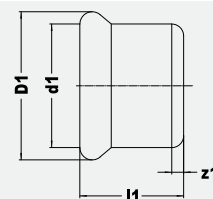


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	l4	d4	D4	es4	z4	DN1	DN2	DN3	DN4	Code
35mm	51.5	35.0	44.6	26.0	25.5	60.0	35.0	44.6	26.0	34.0	51.5	35.0	44.6	26.0	25.5	60.0	35.0	44.7	26.0	25.5	DN32	DN32	DN32	DN32	20327
42mm	60.5	42.0	53.6	30.0	30.5	67.0	42.0	53.6	30.0	37.0	60.5	42.0	53.6	30.0	30.5	67.0	42.0	53.7	30.0	30.5	DN40	DN40	DN40	DN40	20328
54mm	71.0	54.0	65.3	35.0	36.0	77.5	54.0	65.3	35.0	42.5	71.0	54.0	65.3	35.0	36.0	77.5	54.0	65.4	35.0	36.0	DN50	DN50	DN50	DN50	20329
35 x 28mm	51.5	35.0	44.6	26.0	25.5	57.0	28.0	37.5	23.0	34.0	51.5	35.0	44.6	26.0	25.5	57.0	28.0	37.6	23.0	34.0	DN32	DN25	DN32	DN25	20334
42 x 28mm	60.5	42.0	53.6	30.0	30.5	59.5	28.0	37.5	23.0	36.5	60.5	42.0	53.6	30.0	30.5	59.5	28.0	37.6	23.0	36.5	DN40	DN25	DN40	DN25	20335
54 x 28mm	71.0	54.0	65.3	35.0	36.0	65.5	28.0	37.5	23.0	42.5	71.0	54.0	65.3	35.0	36.0	65.5	28.0	37.6	23.0	42.5	DN50	DN25	DN50	DN25	20336

SC61

Stop end

Press



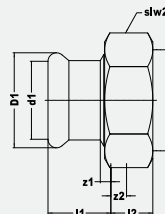
Size	l1	d1	D1	es1	z1	DN1	Code
22mm	24.2	22.0	31.6	21.0	3.2	DN20	20297
28mm	26.2	28.0	37.5	23.0	3.2	DN25	20298
35mm	29.2	35.0	44.6	26.0	3.2	DN32	20299
42mm	36.6	42.0	53.6	30.0	6.6	DN40	20300
54mm	41.6	54.0	65.3	35.0	6.6	DN50	20301
76.1mm	63.7	76.1	94.5	55.0	8.7	DN65	20656
88.9mm	72.1	88.9	109.5	63.0	9.1	DN80	20657
108mm	96.5	108.0	132.6	77.0	19.5	DN100	20658



SC68FF

Half union

Press x BSP female union end

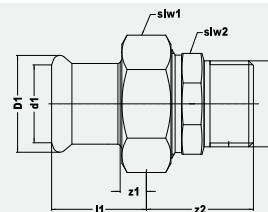


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1"	30.0	22.0	31.6	21.0	9.0	10.2	2.0	36.0	41.6	DN20	1" (DN25)	20337
28mm x 1 1/2"	31.0	28.0	37.5	23.0	8.0	10.2	2.0	46.0	53.1	DN25	1 1/4" (DN32)	20338
35mm x 1 1/2"	34.0	35.0	44.6	26.0	8.0	11.1	2.0	52.0	60.1	DN32	1 1/2" (DN40)	20339
42mm x 1 3/4"	41.0	42.0	53.6	30.0	11.0	11.1	2.0	52.0	60.1	DN40	1 3/4" (DN40)	20340
54mm x 2 3/8"	47.0	54.0	65.3	35.0	12.0	11.2	3.0	75.0	86.6	DN50	2 3/8" (DN50)	20341

SC69

Straight male union

Press x BSP taper male thread

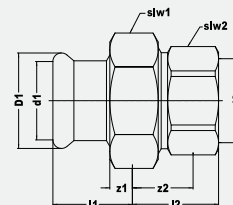


Size	l1	d1	D1	es1	z1	slw1	sks1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 3/4"	30.0	22.0	31.5	21.0	9.0	36.0	41.6	40.0	40.0	32.0	37.0	DN20	3/4" (DN20)	20307
28mm x 1"	31.0	28.0	37.4	23.0	8.0	46.0	53.1	43.7	43.7	39.0	45.0	DN25	1" (DN25)	20309
35mm x 1 1/4"	34.0	35.0	44.4	26.0	8.0	52.0	60.1	47.8	47.8	49.0	56.6	DN32	1 1/4" (DN32)	20310
42mm x 1 1/2"	41.0	42.0	53.5	30.0	11.0	58.0	67.0	47.0	47.0	51.0	58.9	DN40	1 1/2" (DN40)	20311
54mm x 2"	47.0	54.0	65.2	35.0	12.0	75.0	86.6	53.0	53.0	65.0	75.1	DN50	2" (DN50)	20312

SC69F

Straight female union connector

Press x BSP parallel female thread



Size	l1	d1	D1	es1	z1	slw1	sks1	l2	z2	slw2	sks2	DN1	DN2	Code
18mm x 1/2"	29.0	18.0	26.3	20.0	9.0	30.0	34.6	29.5	14.5	27.0	31.2	DN15	1/2" (DN15)	20315
22mm x 3/4"	30.0	22.0	31.5	21.0	9.0	36.0	41.6	33.0	16.7	34.0	39.3	DN20	3/4" (DN20)	20317
28mm x 1"	31.0	28.0	37.4	23.0	8.0	46.0	53.1	34.0	15.0	42.0	48.5	DN25	1" (DN25)	20319
35mm x 1 1/4"	34.0	35.0	44.4	26.0	8.0	52.0	60.0	41.5	20.1	5.0	57.8	DN32	1 1/4" (DN32)	20320
42mm x 1 1/2"	41.0	42.0	53.5	30.0	11.0	58.0	67.0	41.5	20.1	55.0	63.5	DN40	1 1/2" (DN40)	20321
54mm x 2"	47.0	54.0	65.2	35.0	12.0	75.0	86.6	45.5	19.8	70.0	80.9	DN50	2" (DN50)	20322

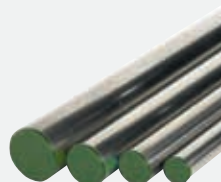
STAINLESS STEEL SPRINKLER SYSTEM



SS600

Stainless Steel 316 System tube 1.4401

6 metre lengths

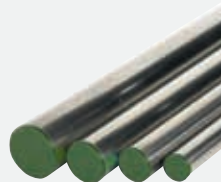


Size	d1	DN1	Code
22 x 1.2mm x 6.0m	22.0	DN20	25052
28 x 1.2mm x 6.0m	28.0	DN25	25053
35 x 1.5mm x 6.0m	35.0	DN32	25054
42 x 1.5mm x 6.0m	42.0	DN40	25055
54 x 1.5mm x 6.0m	54.0	DN50	25056

SS620

Stainless Steel 316 System tube 1.4401

6 metre lengths

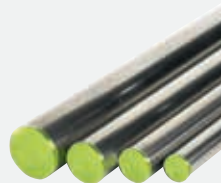


Size	d1	DN1	Code
76.1 x 2.0mm x 6.0m	76.1	DN65	25026
88.9 x 2.0mm x 6.0m	88.9	DN80	25028
108 x 2.0mm x 6.0m	108.0	DN100	25030

SS630

Stainless Steel 444 System tube 1.4521

6 metre lengths



Size	d1	DN1	Code
22 x 1.2mm x 6.0m	22.0	DN20	25072
28 x 1.2mm x 6.0m	28.0	DN25	25073
35 x 1.5mm x 6.0m	35.0	DN32	25074
42 x 1.5mm x 6.0m	42.0	DN40	25075
54 x 1.5mm x 6.0m	54.0	DN50	25076

SS640

Stainless Steel 439 System tube 1.4520

6 metre lengths



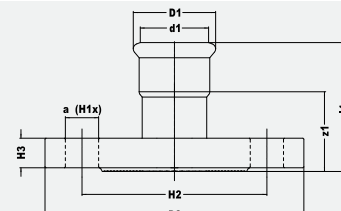
Size	d1	DN1	Code
22 x 1.2mm x 6.0m	22.0	DN20	25067
28 x 1.2mm x 6.0m	28.0	DN25	25068
35 x 1.5mm x 6.0m	35.0	DN32	25069
42 x 1.5mm x 6.0m	42.0	DN40	25070
54 x 1.5mm x 6.0m	54.0	DN50	25071



SS1FMF

Female metric flange PN16

Press fit x steel flange to EN1092-1:1997 (BS4504)

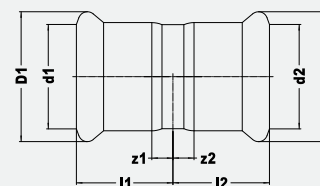


Size	l1	d1	D1	es1	z1	D2	DN1	DN2	Code
22mm	59.0	22.0	31.7	21.0	38.0	105.0	DN20	DN20	11570
28mm	65.0	28.0	37.5	23.0	42.0	115.0	DN25	DN25	11571
35mm	69.0	35.0	44.6	26.0	43.0	140.0	DN32	DN32	11572
42mm x DN40 (1 1/2")	77.0	42.0	53.6	30.0	47.0	150.0	DN40	DN40	11680
54mm x DN50 (2")	87.0	54.0	65.3	35.0	52.0	165.0	DN50	DN50	11681
76.1mm x DN65 (2 1/2")	126.0	76.1	94.3	55.0	71.0	185.0	DN65	DN65	20412
88.9mm x DN80 (3")	147.0	88.9	109.1	63.0	84.0	200.0	DN80	DN80	20413
108mm x DN100 (4")	167.0	108.0	132.7	77.0	90.0	220.0	DN100	DN100	20414

SS1

Straight coupling

Press X Press fit



Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
22mm	26.0	22.0	31.7	21.0	5.0	26.0	22.0	31.7	21.0	5.0	DN20	DN20	11696
28mm	27.9	28.0	37.5	23.0	4.9	27.9	28.0	37.5	23.0	4.9	DN25	DN25	11697
35mm	30.8	35.0	44.6	26.0	4.8	30.8	35.0	44.6	26.0	4.8	DN32	DN32	11698
42mm	36.2	42.0	53.6	30.0	6.2	36.2	42.0	53.6	30.0	6.2	DN40	DN40	11699
54mm	41.1	54.0	65.3	35.0	6.1	41.1	54.0	65.3	35.0	6.1	DN50	DN50	11700
76.1mm	71.0	76.1	94.3	55.0	16.0	71.0	76.1	94.3	55.0	16.0	DN65	DN65	20415
88.9mm	81.5	88.9	109.1	63.0	18.5	81.5	88.9	109.1	63.0	18.5	DN80	DN80	20416
108mm	96.0	108.0	132.7	77.0	19.0	96.0	108.0	132.7	77.0	19.0	DN100	DN100	20417

SS1Slip

Straight coupling slip pattern

Press fit X Press-fit (without tube stop)



Size	l1	d1	D1	es1	l2	d2	D2	es2	DN1	DN2	Code
22mm	42.0	22.0	31.7	25.0	42.0	22.0	31.7	25.0	DN20	DN20	11729
28mm	45.6	28.0	37.5	30.0	45.6	28.0	37.5	30.0	DN25	DN25	11731
35mm	50.8	35.0	44.6	30.0	50.8	35.0	44.6	30.0	DN32	DN32	11732
42mm	59.7	42.0	53.6	40.0	59.7	42.0	53.6	40.0	DN40	DN40	11733
54mm	70.0	54.0	65.3	40.0	70.0	54.0	65.3	40.0	DN50	DN50	11734
76.1mm	115.0	76.1	94.3	60.0	115.0	76.1	94.3	60.0	DN65	DN65	20428
88.9mm	129.0	88.9	109.1	70.0	129.0	88.9	109.1	70.0	DN80	DN80	20429
108mm	152.5	108.0	132.7	80.0	152.2	108.0	132.7	80.0	DN100	DN100	20430

Vds, UL/cUL and FM 22 - 108mm, LPCB 22 - 54mm

FEATURES

✚ Installed cost savings with joints made in a fraction of the time

✚ Clean heat-free jointing, no hot works permits required

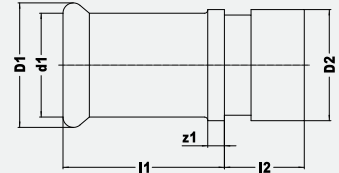
✚ Leak before press design

✚ Long system life with guarantee of up to 30 Years.

SS1V

Transition for grooved couplings

X Press fit x groove

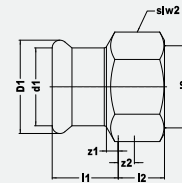


Size	l1	d1	D1	es1	z1	l2	d2	DN1	DN2	Code
28 x 34mm	48.5	28.0	37.5	23.0	25.5	24.0	33.7	DN25	DN25	11675
35 x 42mm	54.0	35.0	44.6	26.0	28.0	24.0	42.4	DN32	DN40	11676
42 x 48mm	61.0	42.0	53.6	30.0	31.0	24.0	48.3	DN40	DN40	11677
54 x 60mm	72.5	54.0	65.3	35.0	37.5	24.0	60.3	DN50	DN50	11678
76.1 x 76.1mm	76.0	76.1	94.3	55.0	21.0	24.0	76.1	DN65	DN65	20461
88.9 x 88.9mm	86.0	88.9	109.1	63.0	23.0	24.0	88.9	DN80	DN80	20462
108 x 114mm	84.0	108.0	132.7	77.0	26.0	114.0		DN100	DN100	20463

SS2

Straight female connector

Press-fit x BSP parallel female thread

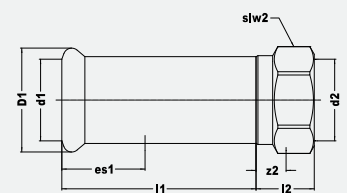


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	21.2	22.0	31.5	21.0	0.2	15.3	5.3	32.0	37.0	DN20	1/2" (DN15)	11646
22mm x 3/4"	23.0	22.0	31.5	21.0	2.0	16.5	5.5	32.0	37.0	DN20	3/4" (DN20)	11647
22mm x 1"	24.1	22.0	31.5	21.0	3.1	19.5	6.5	38.0	43.9	DN20	1" (DN25)	11649
28mm x 1/2"	26.0	28.0	37.4	23.0	3.0	12.2	1.3	38.0	43.9	DN25	1/2" (DN15)	11631
28mm x 3/4"	23.4	28.0	37.4	23.0	23.0	0.4	16.6	5.6	38.0	DN25	3/4" (DN20)	11650
28mm x 1"	25.1	28.0	37.4	23.0	2.1	19.5	5.5	38.0	43.9	DN25	1" (DN25)	11648
28mm x 1 1/4"	25.3	28.0	37.4	23.0	2.3	21.7	6.7	46.0	53.1	DN25	1 1/4" (DN32)	11651
35mm x 1"	26.5	35.0	44.4	26.0	0.5	19.5	6.5	46.0	53.1	DN32	1" (DN25)	11652
35mm x 1 1/4"	28.3	35.0	44.4	26.0	2.3	21.7	6.7	46.0	53.1	DN32	1 1/4" (DN32)	11653
35mm x 1 1/2"	28.0	35.0	44.4	26.0	2.0	22.0	8.0	54.0	62.4	DN32	1 1/2" (DN40)	11632
42mm x 1 1/4"	30.0	42.0	53.5	30.0	0.0	22.0	0.0	54.0	62.4	DN40	1 1/4" (DN32)	11655
42mm x 1 1/2"	32.0	42.0	53.5	30.0	2.0	22.0	8.0	54.0	62.4	DN40	1 1/2" (DN40)	11654
54mm x 1 1/2"	35.7	54.0	65.1	35.0	0.7	22.2	8.2	67.0	77.4	DN50	1 1/2" (DN40)	11633
54mm x 2"	36.9	54.0	65.1	35.0	1.9	26.0	8.0	67.0	77.4	DN50	2" (DN50)	11657

SS2LC

Slip long connector

Press fit x BSP parallel female thread



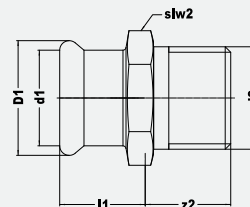
Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	70.0	22.0	31.7	21.0	68.0	19.0	15.0	28.0	32.3	DN20	1/2" (DN15)	11590
22mm x 3/4"	70.0	22.0	31.7	21.0	73.0	24.0	16.5	32.0	37.0	DN20	3/4" (DN20)	11591
28mm x 1/2"	70.0	28.0	37.5	23.0	68.0	21.0	15.0	34.0	39.3	DN25	1/2" (DN15)	11592
28mm x 3/4"	70.0	28.0	37.5	23.0	68.0	21.0	16.5	34.0	39.3	DN25	3/4" (DN20)	11593



SS3

Straight male connector

Press fit x BSP taper male thread

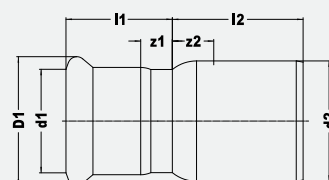


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	21.0	22.0	31.7	21.0	0.0	21.0	21.0	32.0	37.0	DN20	1/2" (DN15)	11662
22mm x 3/4"	21.0	22.0	31.7	21.0	0.0	22.3	22.3	32.0	37.0	DN20	3/4" (DN20)	11664
22mm x 1"	21.0	22.0	31.7	21.0	0.0	27.5	27.5	34.0	39.0	DN20	1" (DN25)	11663
28mm x 3/4"	23.0	28.0	37.5	23.0	0.0	22.2	22.2	38.0	44.0	DN25	3/4" (DN20)	11642
28mm x 1"	23.0	28.0	37.5	23.0	0.0	25.0	25.0	38.0	44.0	DN25	1" (DN25)	11665
28mm x 1 1/4"	23.0	28.0	37.5	23.0	0.0	28.5	28.5	43.0	50.0	DN25	1 1/4" (DN32)	11666
35mm x 1"	26.0	35.0	44.6	26.0	0.0	26.7	26.7	54.0	52.0	DN32	1" (DN25)	11667
35mm x 1 1/4"	26.0	35.0	44.6	26.0	0.0	29.0	29.0	54.0	52.0	DN32	1 1/4" (DN32)	11670
35mm x 1 1/2"	26.0	35.0	44.6	26.0	0.0	30.0	30.0	49.0	57.0	DN32	1 1/2" (DN40)	11645
42mm x 1 1/4"	30.0	42.0	53.6	30.0	0.0	29.0	29.0	54.0	62.0	DN40	1 1/4" (DN32)	11668
42mm x 1 1/2"	30.0	42.0	53.6	30.0	0.0	29.0	29.0	54.0	62.0	DN40	1 1/2" (DN40)	11671
54mm x 1 1/2"	35.0	54.0	65.3	35.0	0.0	29.6	29.6	67.0	77.0	DN50	1 1/2" (DN40)	11656
54mm x 2"	35.0	54.0	65.3	35.0	0.0	33.9	33.9	67.0	77.0	DN50	2" (DN50)	11674
76.1mm x 2 1/2"***	55.5	76.1	94.3	55.5	0.0	75.0	75.0	80.0	92.0	DN65	2 1/2" (DN65)	20458
88.9mm x 3"***	63.0	88.9	109.1	63.0	0.0	74.0	74.0	95.0	109.0	DN80	3" (DN80)	20459

SS6

Reducer

X Press x male end



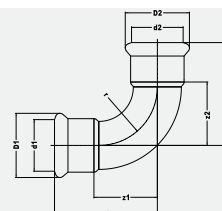
Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
28 x 22mm	28.6	22.0	31.7	21.0	7.6	33.9	28.0	23.0	10.9	DN20	DN25	11717
35 x 22mm	29.1	22.0	31.7	21.0	8.1	42.4	35.0	26.0	16.4	DN20	DN32	11719
35 x 28mm	31.0	28.0	37.5	23.0	8.0	38.0	35.0	26.0	12.0	DN25	DN32	11720
42 x 22mm*	32.5	22.0	31.7	21.0	11.5	53.0	42.0	30.0	23.0	DN20	DN40	11659
42 x 28mm	30.7	28.0	37.5	23.0	7.7	50.8	42.0	30.0	20.8	DN25	DN40	11722
42 x 35mm	34.1	35.0	44.6	26.0	8.1	42.4	42.0	30.0	12.4	DN32	DN40	11723
54 x 22mm*	33.1	22.0	31.7	21.0	12.1	66.4	54.0	35.0	31.4	DN20	DN50	11724
54 x 28mm*	34.3	28.0	37.5	23.0	11.3	62.4	54.0	35.0	27.4	DN25	DN50	11725
54 x 35mm	33.6	35.0	44.6	26.0	7.6	59.9	54.0	35.0	24.9	DN32	DN50	11726
54 x 42mm	40.0	42.0	53.6	30.0	10.0	55.0	54.0	35.0	20.0	DN40	DN50	11727
76.1 x 42mm	79.0	42.0	53.6	30.0	49.0	72.0	76.1	55.0	17.0	DN40	DN65	20460
76.1 x 54mm	42.0	54.0	65.3	35.0	7.0	98.0	76.1	55.0	43.0	DN50	DN65	20422
88.9 x 54mm	42.0	54.0	65.3	35.0	7.0	114.0	88.9	63.0	51.0	DN50	DN80	20423
88.9 x 76mm	68.0	76.1	94.3	55.0	13.0	88.0	88.9	63.0	25.0	DN65	DN80	20424
108 x 54mm	66.0	54.0	65.3	35.0	31.0	138.0	108.0	77.0	61.0	DN50	DN100	20425
108 x 76.1mm	69.0	76.1	94.3	55.0	14.0	127.0	108.0	77.0	50.0	DN65	DN100	20426
108 x 88.9mm	77.0	88.9	109.1	63.0	14.0	113.0	108.0	77.0	36.0	DN80	DN100	20427

Vds, UL/cUL and FM 22 - 108mm, LPCB 22 - 54mm. *Not LPCB approved. **Not UL/CUL Listed



SS12 Elbow 90°

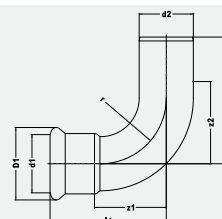
Press X Press



Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
22mm	51.0	22.0	31.7	21.0	30.0	51.0	22.0	31.7	21.0	30.0	DN20	DN20	11622
28mm	60.0	28.0	37.5	23.0	37.0	60.0	28.0	37.5	23.0	37.0	DN25	DN25	11623
35mm	70.8	35.0	44.6	26.0	44.8	70.8	35.0	44.6	26.0	44.8	DN32	DN32	11624
42mm	86.3	42.0	53.6	30.0	56.3	86.3	42.0	53.6	30.0	56.3	DN40	DN40	11625
54mm	104.6	54.0	65.3	35.0	69.6	104.6	54.0	65.3	35.0	69.6	DN50	DN50	11626
76.1mm	150.0	76.1	94.3	55.0	95.0	150.0	76.1	94.3	55.0	95.0	DN65	DN65	20406
88.9mm	174.0	88.9	109.1	63.0	111.0	174.0	88.9	109.1	63.0	111.0	DN80	DN80	20407
108mm	215.0	108.0	132.7	77.0	138.0	215.0	108.0	132.7	77.0	138.0	DN100	DN100	20408

SS12S Street elbow 90°

Press x male end for insertion into a fitting



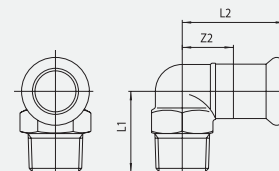
Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm	51.0	22.0	31.7	21.0	30.0	60.0	22.0	21.0	39.0	DN20	DN20	11636
28mm	60.1	28.0	37.5	23.0	37.1	65.5	28.0	23.0	42.5	DN25	DN25	11637
35mm	70.8	35.0	44.6	26.0	44.8	75.9	35.0	26.0	49.9	DN32	DN32	11638
42mm	86.3	42.0	53.6	30.0	56.3	92.5	42.0	30.0	62.5	DN40	DN40	11639
54mm	104.6	54.0	65.3	35.0	69.6	110.6	54.0	35.0	75.6	DN50	DN50	11640
76.1mm	150.0	76.1	94.3	55.0	95.0	165.0	76.1	55.0	110.0	DN65	DN65	20409
88.9mm	175.0	88.9	109.1	63.0	112.0	190.0	88.9	63.0	127.0	DN80	DN80	20410
108mm	216.0	108.0	132.7	77.0	139.0	238.0	108.0	77.0	161.0	DN100	DN100	20411



SS13

Male elbow

Press x BSP taper male thread

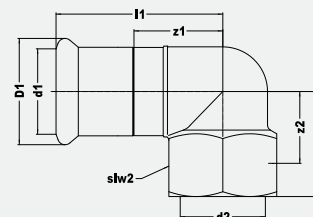


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
18mm x 1/2"	43.5	18.0	26.5	20.0	23.5	31.5	31.5	24.0	27.7	DN15	1/2" (DN15)	11688
22mm x 3/4"	48.5	22.0	31.7	21.0	27.5	38.5	38.5	30.0	34.7	DN20	3/4" (DN20)	11689
28mm x 1"	53.0	28.0	37.5	23.0	30.0	46.0	46.0	34.0	39.3	DN25	1" (DN25)	11690
35mm x 1 1/4"	60.0	35.0	44.6	26.0	34.0	52.0	52.0	43.0	49.7	DN32	1 1/4" (DN32)	11691
42mm x 1 1/2"	69.0	42.0	53.6	30.0	39.0	58.0	58.0	49.0	56.6	DN40	1 1/2" (DN40)	11692
54mm x 2"	82.0	54.0	65.3	35.0	47.0	68.0	68.0	62.0	71.6	DN50	-	11693

SS14

Female elbow

Press fit x BSP parallel female thread

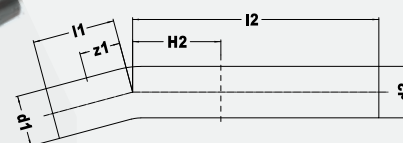


Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	45.2	22.0	31.7	21.0	24.2	31.0	16.0	24.0	27.7	DN20	1/2" (DN15)	11683
22mm x 3/4"	48.5	22.0	31.7	21.0	27.5	33.0	16.7	30.0	34.7	DN20	3/4" (DN20)	11684
28mm x 1/2"	47.8	28.0	37.5	23.0	24.8	35.0	20.0	24.0	27.7	DN25	1/2" (DN15)	11600
28mm x 3/4"	50.8	28.0	37.5	23.0	27.8	35.0	18.7	30.0	34.7	DN25	3/4" (DN20)	11601
28mm x 1"	54.5	28.0	37.5	23.0	31.5	37.0	24.0	38.0	43.9	DN25	1" (DN25)	11685
35mm x 1/2"	56.2	35.0	44.6	26.0	30.2	35.0	20.0	24.0	27.7	DN32	1/2" (DN15)	11602
35mm x 3/4"	57.6	35.0	44.6	26.0	31.6	37.0	20.7	30.0	34.7	DN32	3/4" (DN20)	11603
35mm x 1"	58.0	35.0	44.6	26.0	32.0	40.5	27.5	38.0	43.9	DN32	1" (DN25)	11669
35mm x 1 1/4"	62.0	35.0	44.6	26.0	36.0	42.2	27.2	46.0	53.1	DN32	1 1/4" (DN32)	11686

SS19S

15° bend

Male x male



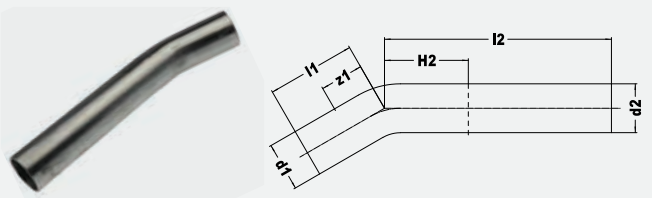
Size	l1	d1	es1	z1	l2	d2	DN1	DN2	Code
28mm	45.0	28.0	23.0	22.0	134.0	28.0	DN25	DN25	11550
35mm	73.0	35.0	26.0	47.0	222.0	35.0	DN32	DN32	11551
42mm	89.0	42.0	30.0	59.0	280.0	42.0	DN40	DN40	11552
54mm	122.0	54.0	35.0	87.0	337.0	54.0	DN50	DN50	11553

Vds, UL/cUL and FM 22 - 108mm, LPCB 22 - 54mm



SS19S 30° bend

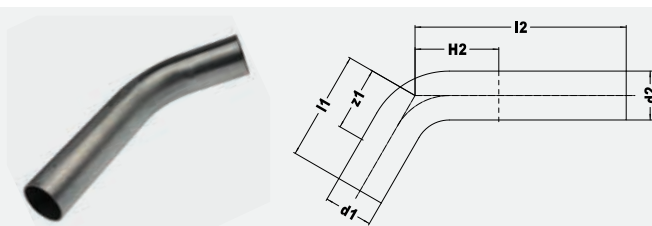
Male x male



Size	l1	d1	es1	z1	l2	d2	DN1	DN2	Code
28mm	51.0	28.0	23.0	28.0	130.0	28.0	DN25	DN25	11554
35mm	73.0	35.0	26.0	47.0	214.0	35.0	DN32	DN32	11795
42mm	99.0	42.0	30.0	69.0	272.0	42.0	DN40	DN40	11796
54mm	134.0	54.0	35.0	99.0	326.0	54.0	DN50	DN50	11797

SS19S 60° bend

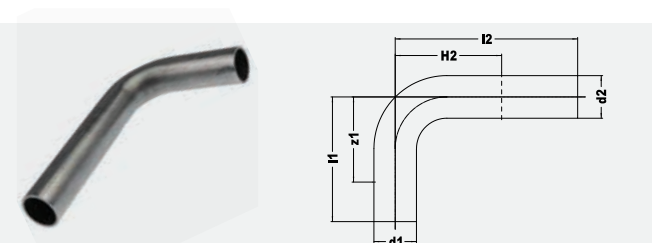
Male x male



Size	l1	d1	es1	z1	l2	d2	DN1	DN2	Code
28mm	63.0	28.0	23.0	40.0	121.0	28.0	DN25	DN25	11555
35mm	97.0	35.0	26.0	71.0	203.0	35.0	DN32	DN32	11556
42mm	102.0	42.0	30.0	72.0	256.0	42.0	DN40	DN40	11557
54mm	162.0	54.0	35.0	127.0	306.0	54.0	DN50	DN50	11558

SS19S 90° bend

Male x male

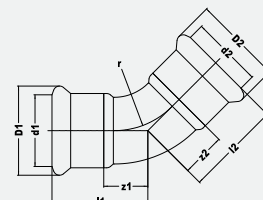


Size	l1	d1	es1	z1	l2	d2	es2	DN1	DN2	Code
22mm	72.0	22.0	21.0	51.0	120.0	22.0	21.0	DN20	DN20	11561
28mm	82.0	28.0	23.0	59.0	120.0	28.0	23.0	DN25	DN25	11562
35mm	120.0	35.0	26.0	94.0	200.0	35.0	26.0	DN32	DN32	11563
42mm	150.0	42.0	30.0	120.0	250.0	42.0	30.0	DN40	DN40	11564
54mm	200.0	54.0	35.0	165.0	300.0	54.0	35.0	DN50	DN50	11565



SS21 Obtuse elbow

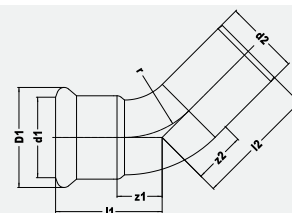
Press fit X Press



Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	DN1	DN2	Code
22mm	35.2	22.0	31.7	21.0	14.2	35.2	22.0	31.7	21.0	35.2	DN20	DN20	11606
28mm	40.2	28.0	37.5	23.0	17.2	40.2	28.0	37.5	23.0	40.2	DN25	DN25	11607
35mm	46.5	35.0	44.6	26.0	20.5	46.5	35.0	44.6	26.0	46.5	DN32	DN32	11608
42mm	56.3	42.0	53.6	30.0	26.3	56.3	42.0	53.6	30.0	56.3	DN40	DN40	11609
54mm	66.9	54.0	65.3	35.0	31.9	66.9	54.0	65.3	35.0	66.9	DN50	DN50	11610
76.1mm	98.0	76.1	94.3	55.0	43.0	98.0	76.1	94.3	55.0	43.0	DN65	DN65	20400
88.9mm	112.0	88.9	109.1	63.0	49.0	112.0	88.9	109.1	63.0	49.0	DN80	DN80	20401
108mm	138.0	108.0	132.7	77.0	61.0	138.0	108.0	132.7	77.0	61.0	DN100	DN100	20402

SS21S Obtuse street elbow

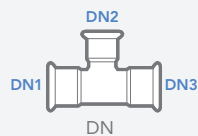
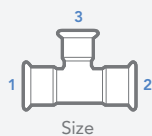
Press fit x male



Size	l1	d1	D1	es1	z1	l2	d2	es2	z2	DN1	DN2	Code
22mm	34.9	22.0	31.7	21.0	13.9	42.3	22.0	21.0	21.3	DN20	DN20	11613
28mm	39.9	28.0	37.5	23.0	16.9	45.6	28.0	23.0	22.6	DN25	DN25	11614
35mm	46.2	35.0	44.6	26.0	20.2	51.3	35.0	26.0	25.3	DN32	DN32	11615
42mm	56.4	42.0	53.6	30.0	36.4	62.6	42.0	30.0	32.6	DN40	DN40	11616
54mm	64.8	54.0	65.3	35.0	29.8	72.5	54.0	35.0	37.5	DN50	DN50	11617
76.1mm	98.0	76.1	94.3	55.0	43.0	117.0	76.1	55.0	62.0	DN65	DN65	20403
88.9mm	112.0	88.9	109.1	63.0	49.0	131.0	88.9	63.0	68.0	DN80	DN80	20404
108mm	138.0	108.0	132.7	77.0	61.0	154.0	108.0	77.0	77.0	DN100	DN100	20405

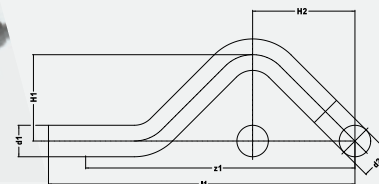
Tee sizes are listed using the UK specification

(See page XX)



SS22S Crossover

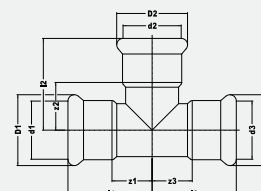
Male x male



Size	l1	d1	es1	z1	d2	DN1	DN2	Code
22mm	178.0	22.0	21.0	157.0	22.0	DN20	DN20	11618
28mm	210.0	28.0	23.0	187.0	28.0	DN25	DN25	11619

SS24 Equal tee

Press fit on all end



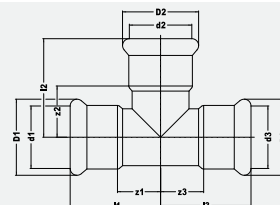
Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
22mm	39.5	22.0	31.7	21.0	18.5	43.5	22.0	31.7	21.0	22.5	39.5	22.0	31.7	21.0	18.5	DN20	DN20	DN20	11740
28mm	44.5	28.0	37.5	23.0	21.5	48.5	28.0	37.5	23.0	25.5	44.5	28.0	37.5	23.0	21.5	DN25	DN25	DN25	11744
35mm	51.0	35.0	44.6	26.0	25.0	55.0	35.0	44.6	26.0	29.0	51.0	35.0	44.6	26.0	25.0	DN32	DN32	DN32	11749
42mm	59.7	42.0	53.6	30.0	29.7	61.5	42.0	53.6	30.0	31.5	59.7	42.0	53.6	30.0	29.7	DN40	DN40	DN40	11753
54mm	70.6	54.0	65.3	35.0	35.6	72.4	54.0	65.3	35.0	37.4	70.6	54.0	65.3	35.0	35.6	DN50	DN50	DN50	11758
76.1mm	116.0	76.1	94.3	55.0	116.0	116.0	76.1	94.3	55.0	116.0	116.0	76.1	94.3	55.0	116.0	DN65	DN65	DN65	20431
88.9mm	231.0	88.9	109.1	63.0	231.0	231.0	88.9	109.1	63.0	231.0	231.0	88.9	95.0	63.0	231.0	DN80	DN80	DN80	20432
108mm	156.0	108.0	132.7	77.0	156.0	156.0	108.0	132.7	77.0	156.0	156.0	108.0	132.7	77.0	156.0	DN100	DN100	DN100	20433



SS25

Tee, reduced branch

Press fit on all ends

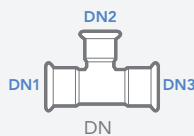
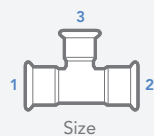


Size	l1	d1	D1	es1	z1	l2	d2	D2	es2	z2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
28 x 28 x 22mm	44.5	28.0	37.5	23.0	21.5	46.5	22.0	31.7	21.0	25.5	44.5	28.0	37.5	23.0	21.5	DN25	DN20	DN25	11743
35 x 35 x 22mm	51.0	35.0	44.6	26.0	25.0	50.0	22.0	31.7	21.0	29.0	51.0	35.0	44.6	26.0	25.0	DN32	DN20	DN32	11747
35 x 35 x 28mm	51.0	35.0	44.6	26.0	25.0	52.0	28.0	37.5	23.0	29.0	51.0	35.0	44.6	26.0	25.0	DN32	DN25	DN32	11748
42 x 42 x 22mm	59.7	42.0	53.6	30.0	29.7	52.5	22.0	31.7	21.0	31.5	59.7	42.0	53.6	30.0	29.7	DN40	DN20	DN40	11750
42 x 42 x 28mm	59.7	42.0	53.6	30.0	29.7	54.5	28.0	37.5	23.0	31.5	59.7	42.0	53.6	30.0	29.7	DN40	DN25	DN40	11751
42 x 42 x 35mm	59.7	42.0	53.6	30.0	29.7	57.5	35.0	44.6	26.0	31.5	59.7	42.0	53.6	30.0	29.7	DN40	DN32	DN40	11752
54 x 54 x 22mm	70.6	54.0	65.3	35.0	35.6	58.5	22.0	31.7	21.0	37.5	70.6	54.0	65.3	35.0	35.6	DN50	DN20	DN50	11754
54 x 54 x 28mm	70.6	54.0	65.3	35.0	35.6	60.5	28.0	37.5	23.0	37.5	70.6	54.0	65.3	35.0	35.6	DN50	DN25	DN50	11755
54 x 54 x 35mm	70.6	54.0	65.3	35.0	35.6	63.5	35.0	44.6	26.0	37.5	70.6	54.0	65.3	35.0	35.6	DN50	DN32	DN50	11756
54 x 54 x 42mm	70.6	54.0	65.3	35.0	35.6	57.5	42.0	53.6	30.0	27.5	70.6	54.0	65.3	35.0	35.6	DN50	DN40	DN50	11757
76.1x76.1x22mm	116.0	76.1	94.3	55.0	61.0	68.0	22.0	31.7	21.0	45.0	116.0	76.1	94.3	55.0	61.0	DN65	DN20	DN65	20434
76.1x76.1x28mm	116.0	76.1	94.3	55.5	61.0	71.0	28.0	37.5	23.0	74.0	116.0	76.1	94.3	55.0	61.0	DN65	DN25	DN65	20435
76.1x76.1x35mm	116.0	76.1	94.3	55.0	61.0	75.0	35.0	44.6	26.0	48.0	116.0	76.1	94.3	55.0	61.0	DN65	DN32	DN65	20436
76.1x76.1x42mm	116.0	76.1	94.3	55.0	61.0	79.0	42.0	53.6	30.0	47.0	116.0	76.1	94.3	55.0	61.0	DN65	DN40	DN65	20437
76.1x76.1x54mm	116.0	76.1	94.3	55.0	61.0	80.0	54.0	65.3	35.0	43.0	116.0	76.1	94.3	55.0	61.0	DN65	DN50	DN65	20438
88.9x88.9x22mm	131.0	88.9	109.1	63.0	68.0	76.0	22.0	31.7	21.0	53.0	131.0	88.9	95.0	63.0	68.0	DN80	DN20	DN80	20439
88.9x88.9x28mm	131.0	88.9	109.1	63.0	68.0	76.0	28.0	37.5	23.0	52.0	131.0	88.9	95.0	63.0	68.0	DN80	DN25	DN80	20440
88.9x88.9x35mm	131.0	88.9	109.1	63.0	68.0	83.0	35.0	44.6	26.0	56.0	131.0	88.9	95.0	63.0	68.0	DN80	DN32	DN80	20441
88.9x88.9x42mm	131.0	88.9	109.1	63.0	68.0	85.0	42.0	53.6	30.0	53.0	131.0	88.9	95.0	63.0	68.0	DN80	DN40	DN80	20442
88.9x88.9x54mm	131.0	88.9	109.1	63.0	68.0	93.0	54.0	65.3	35.0	56.0	131.0	88.9	95.0	63.0	68.0	DN80	DN50	DN80	20443
88.9x88.9x76.1mm	131.0	88.9	109.1	63.0	68.0	116.0	76.1	94.3	55.0	61.0	131.0	88.9	95.0	63.0	68.0	DN80	DN65	DN80	20444
108x108x22mm	156.0	108.0	132.7	77.0	79.0	85.0	22.0	31.7	21.0	62.0	156.0	108.0	132.7	77.0	79.0	DN100	DN20	DN100	20445
108x108x28mm	156.0	108.0	132.7	77.0	79.0	88.0	28.0	37.5	23.0	64.0	156.0	108.0	132.7	77.0	79.0	DN100	DN25	DN100	20446
108x108x35mm	156.0	108.0	132.7	77.0	79.0	94.0	35.0	44.6	26.0	67.0	156.0	108.0	132.7	77.0	79.0	DN100	DN32	DN100	20447
108x108x42mm	156.0	108.0	132.7	77.0	79.0	96.0	42.0	53.6	30.0	64.0	156.0	108.0	132.7	77.0	79.0	DN100	DN40	DN100	20448
108x108x54mm	156.0	108.0	132.7	77.0	79.0	102.0	54.0	65.3	35.0	65.0	156.0	108.0	132.7	77.0	79.0	DN100	DN50	DN100	20449
108x108x76.1mm	156.0	108.0	132.7	77.0	79.0	125.0	76.1	94.3	55.0	70.0	156.0	108.0	132.7	77.0	79.0	DN100	DN65	DN100	20450
108x108x88.9mm	156.0	108.0	132.7	77.0	79.0	135.0	88.9	109.1	63.0	72.0	156.0	108.0	132.7	77.0	79.0	DN100	DN80	DN100	20451

Vds, UL/cUL and FM 22 - 108mm, LPCB 22 - 54mm.

Tee sizes are listed using the UK specification

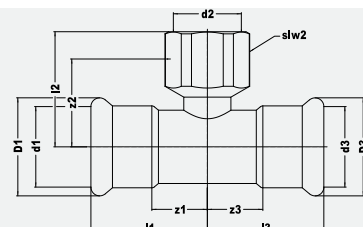
(See page XX)



SS30

Female branch tee

Press x BSP parallel female branch



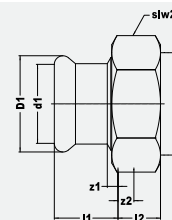
Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	l3	d3	D3	es3	z3	DN1	DN2	DN3	Code
22 x 22mm x 1/2"	39.5	22.0	31.7	21.0	18.5	37.0	27.0	24.0	27.7	39.5	22.0	31.7	21.0	18.5	DN20	1/2" (DN15)	DN20	11762
22 x 22mm x 3/4"	39.5	22.0	31.7	21.0	18.5	39.0	28.0	30.0	34.7	39.5	22.0	31.7	21.0	18.5	DN20	3/4" (DN20)	DN20	11763
28 x 28mm x 1/2"	44.5	28.0	37.5	23.0	21.5	40.0	30.0	24.0	27.7	44.5	28.0	37.5	23.0	21.5	DN25	1/2" (DN15)	DN25	11765
28 x 28mm x 3/4"	44.5	28.0	37.5	23.0	21.5	42.0	31.0	30.0	34.7	44.5	28.0	37.5	23.0	21.5	DN25	3/4" (DN20)	DN25	11766
28 x 28mm x 1"	44.5	28.0	37.5	23.0	21.5	46.3	33.3	38.0	43.9	44.5	28.0	37.5	23.0	21.5	DN25	1" (DN25)	DN25	11627
35 x 35mm x 1/2"	51.0	35.0	44.6	26.0	25.0	43.5	33.5	24.0	27.7	51.0	35.0	44.6	26.0	25.0	DN32	1/2" (DN15)	DN32	11767
35 x 35mm x 3/4"	51.0	35.0	44.6	26.0	25.0	45.5	34.5	30.0	34.7	51.0	35.0	44.6	26.0	25.0	DN32	3/4" (DN20)	DN32	11768
35 x 35mm x 1"	51.0	35.0	44.6	26.0	25.0	49.8	36.8	38.0	43.9	51.0	35.0	44.6	26.0	25.0	DN32	1" (DN25)	DN32	11628
42 x 42mm x 1/2"	59.7	42.0	53.6	30.0	29.7	46.0	36.0	24.0	27.7	59.7	42.0	53.6	30.0	29.7	DN40	1/2" (DN15)	DN40	11769
42 x 42mm x 3/4"	59.7	42.0	53.6	30.0	29.7	48.0	37.0	30.0	34.7	59.7	42.0	53.6	30.0	29.7	DN40	3/4" (DN20)	DN40	11770
42 x 42mm x 1"	59.7	42.0	53.6	30.0	29.7	52.3	39.3	38.0	43.9	59.7	42.0	53.6	30.0	29.7	DN40	1" (DN25)	DN40	11629
54 x 54mm x 1/2"	70.6	54.0	65.3	35.0	35.6	52.0	42.0	24.0	27.7	70.6	54.0	65.3	35.0	35.6	DN50	1/2" (DN15)	DN50	11771
54 x 54mm x 3/4"	70.6	54.0	65.3	35.0	35.6	54.0	43.0	30.0	34.7	70.6	54.0	65.3	35.0	35.6	DN50	3/4" (DN20)	DN50	11773
54 x 54mm x 1"	70.6	54.0	65.3	35.0	35.6	58.3	45.3	38.0	43.9	70.6	54.0	65.3	35.0	35.6	DN50	1" (DN25)	DN50	11630
54 x 54mm x 2"	70.6	54.0	65.3	35.0	35.6	64.7	46.7	67.0	77.4	70.6	54.0	65.3	35.0	35.6	DN50	2" (DN50)	DN50	11772
76.1x76.1mmx3/4"	116.0	76.1	94.3	55.0	61.0	68.0	55.0	30.0	34.7	116.0	76.1	94.3	55.0	61.0	DN65	3/4" (DN20)	DN65	20452
76.1x76.1mmx2"	116.0	76.1	94.3	55.0	61.0	81.0	59.0	65.0	75.1	116.0	76.1	94.3	55.0	61.0	DN65	2" (DN50)	DN65	20453
88.9x88.9mmx3/4"	131.0	88.9	109.1	63.0	68.0	87.0	74.0	30.0	34.7	131.0	88.9	95.0	63.0	68.0	DN80	3/4" (DN20)	DN80	20454
88.9x88.9mmx2"	131.0	88.9	109.1	63.0	68.0	88.0	66.0	65.0	75.1	131.0	88.9	95.5	63.0	68.0	DN80	2" (DN50)	DN80	20455
108x108mmx3/4"	156.0	108.0	132.7	77.0	79.0	86.0	73.0	30.0	34.7	156.0	108.0	134.0	77.0	79.0	DN100	3/4" (DN20)	DN100	20456
1089x108mmx2"	156.0	108.0	132.7	77.0	79.0	98.0	76.0	65.0	75.1	156.0	108.0	134.0	77.0	79.0	DN100	2" (DN50)	DN100	20457

STAINLESS STEEL SPRINKLER SYSTEM & ACCESSORIES



SS68FF Flat faced union adaptor

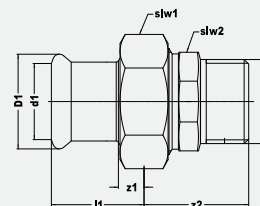
Press x BSP female union end



Size	l1	d1	D1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1"	30.0	22.0	31.7	21.0	9.0	10.2	2.0	37.0	42.7	DN20	1" (DN25)	11891
28mm x 1 1/4"	31.0	28.0	37.5	23.0	8.0	10.2	2.0	46.0	53.1	DN25	1 1/4" (DN32)	11892
35mm x 1 1/2"	34.0	35.0	44.6	26.0	8.0	11.1	2.0	52.0	60.1	DN32	1 1/2" (DN40)	11893
42mm x 1 3/4"	41.0	42.0	53.6	30.0	11.0	11.2	2.0	58.0	67.0	DN40	1 3/4" (DN40)	11894
54mm x 2 3/8"	46.8	54.0	65.3	35.0	11.8	11.2	3.0	75.0	86.6	DN50	2 3/8" (DN50)	11895

SS69 Straight male union connector

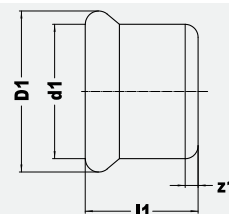
BSP taper male thread



Size	l1	d1	D1	es1	z1	slw1	sks1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 1/2"	30.0	22.0	31.5	21.0	9.0	37.0	42.7	33.0	33.0	25.0	28.9	DN20	1/2" (DN15)	11721
22mm x 3/4"	30.0	22.0	31.5	21.0	9.0	37.0	42.7	28.5	28.5	32.0	37.0	DN20	3/4" (DN20)	11779
22mm x 1"	30.0	22.0	31.5	21.0	9.0	37.0	42.7	41.8	41.8	39.0	45.0	DN20	1" (DN25)	11764
28mm x 1"	31.0	28.0	37.4	23.0	8.0	46.0	53.1	41.8	41.8	39.0	45.0	DN25	1" (DN25)	11781
35mm x 1 1/4"	34.0	35.0	44.4	26.0	8.0	52.0	60.1	44.2	44.2	49.0	56.6	DN32	1 1/4" (DN32)	11782
42mm x 1 1/2"	41.0	42.0	53.6	30.0	11.0	58.0	67.0	44.4	44.4	51.0	58.9	DN40	1 1/2" (DN40)	11783
54mm x 2"	47.0	54.0	65.1	35.0	12.0	75.0	86.6	53.0	53.0	65.0	75.1	DN50	-	11784

SS61 Stop end

Press



Size	l1	d1	D1	es1	z1	DN1	Code
22mm	24.1	22.0	31.7	21.0	3.1	DN20	11703
28mm	26.1	28.0	37.5	23.0	3.1	DN25	11704
35mm	29.1	35.0	44.6	26.0	3.1	DN32	11705
42mm	36.6	42.0	53.6	30.0	6.6	DN40	11706
54mm	41.5	54.0	65.3	35.0	6.5	DN50	11707
76.1mm	95.0	76.1	94.3	55.0	40.0	DN65	20418
88.9mm	107.0	88.9	109.1	63.0	44.0	DN80	20419
108mm	127.0	108.0	132.7	77.0	50.0	DN100	20420

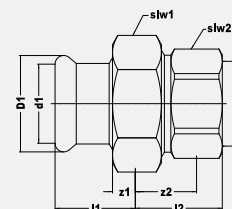
Vds, UL/cUL and FM 22 - 108mm, LPCB 22 - 54mm. †Not <FM> approved.



SS69F

Straight female union connector

Press x BSP parallel female thread



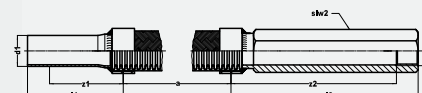
Size	l1	d1	D1	es1	z1	slw1	sks1	l2	z2	slw2	sks2	DN1	DN2	Code
22mm x 3/4"	30.0	22.0	31.5	21.0	9.0	37.0	42.7	33.0	22.0	30.0	34.7	DN20	3/4" (DN20)	11789
22mm x 1"	30.0	22.0	31.5	21.0	9.0	37.0	42.7	35.8	22.8	38.0	43.9	DN20	1" (DN25)	11798
28mm x 1"	31.0	28.0	37.4	23.0	8.0	46.0	53.1	34.0	21.0	38.0	43.9	DN25	1" (DN25)	11791
35mm x 1 1/4"	34.0	35.0	44.4	26.0	8.0	52.0	60.1	39.0	24.0	46.0	53.1	DN32	1 1/4" (DN32)	11792
42mm x 1 1/2"	41.0	42.0	53.5	30.0	11.0	58.0	67.0	41.0	27.0	54.0	62.4	DN40	1 1/2" (DN40)	11793
54mm x 2"	47.0	54.0	65.1	35.0	12.0	75.0	86.6	44.0	26.0	67.0	77.4	DN50	2" (DN50)	11794

SS80

Straight flexible hose



All flexible hoses are supplied including universal mounting bracket, square pipe 700mm, moveable sprinkler clamp (closed), multiclips x 2 with BSP parallel female thread



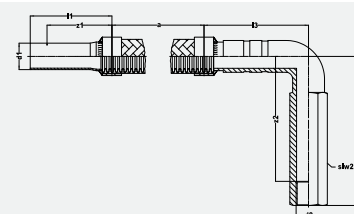
Size	l1	d1	es1	z1	l2	z2	slw2	sks2	DN1	DN2	Code
22 x 1000mm†	60.0	22.0	21.0	39.0	125.0	110.0	27.0	31.2	DN20	1/2" (DN15)	11575
22 x 1500mm†	60.0	22.0	21.0	39.0	125.0	110.0	27.0	31.2	DN20	1/2" (DN15)	11576
22 x 2000mm†	60.0	22.0	21.0	39.0	125.0	110.0	27.0	31.2	DN20	1/2" (DN15)	11577
28 x 1000mm	68.0	28.0	23.0	45.0	125.0	110.0	27.0	31.2	DN25	1/2" (DN15)	11578
28 x 1500mm	68.0	28.0	23.0	45.0	125.0	110.0	27.0	31.2	DN25	1/2" (DN15)	11579
28 x 2000mm	68.0	28.0	23.0	45.0	125.0	110.0	27.0	31.2	DN25	1/2" (DN15)	11580

SS82

Bent flexible hose 90°



All flexible hoses are supplied including universal mounting bracket, square pipe 700mm, moveable sprinkler clamp (closed), multiclips x 2 with BSP parallel female thread



Size	l1	d1	es1	z1	l2	z2	slw2	sks2	l3	DN1	DN2	Code
22 x 800mm†	60.0	22.0	21.0	39.0	145.0	130.0	27.0	31.2	79.0	DN20	1/2" (DN15)	11581
22 x 1000mm†	60.0	22.0	21.0	39.0	145.0	130.0	27.0	31.2	79.0	DN20	1/2" (DN15)	11582
22 x 1500mm†	60.0	22.0	21.0	39.0	145.0	130.0	27.0	31.2	79.0	DN20	1/2" (DN15)	11583
28 x 800mm	68.0	28.0	23.0	45.0	145.0	130.0	27.0	31.2	79.0	DN25	1/2" (DN15)	11584
28 x 1000mm	68.0	28.0	23.0	45.0	145.0	130.0	27.0	31.2	79.0	DN25	1/2" (DN15)	11585
28 x 1500mm	68.0	28.0	23.0	45.0	145.0	130.0	27.0	31.2	79.0	DN25	1/2" (DN15)	11586



SS100

Replacement O Rings

For use on XPress
Connection: Black EPDM



Size	Code
22mm	27002
28mm	27003
35mm	27004
42mm	27005
54mm	27006
76.1mm	27007
88.9mm	27008
108mm	27009

TX100

Replacement 'O' ring

For use with Tectite only



Size	Code
35mm	46147
42mm	46148

TS61 Stop end

Connection: Push-fit



Size	Code
22mm	25874
28mm	25876
35mm	25878
42mm	25880
54mm	25882

TS106

Replacement grab ring for Tectite 316



Size	Code
35mm	46183
42mm	46184
54mm	46185

SS111 Depth gauge

Suitable for carbon and stainless steel



Size	Code
12mm - 108mm	39174

DC

Disconnecting clip



Size	Code
22mm	46107
28mm	46108

S120

Deburring tool



Size	Code
15 - 54mm	39168

DTX

Disconnecting tool



Size	Code
35 - 54mm	46145

PRESS-FIT POWER TOOLS

Pegler Yorkshire recommends the preferred XPress branded tooling for jointing XPress fitting Systems utilising the XPress Slings, Jaws and Tools. New and improved, they provide greater performance whilst being lighter and easier to handle. Incorporating an 'X' symbol, they provide an instant visual aid indicating the joint has been pressed using the preferred XPress tooling. The maintenance of tooling is critical to the joint integrity, therefore the installer should ensure the tools are maintained in accordance with the manufacturer's instructions and serviced by a recommended tool-hire service centre.

S226 ACO202



Power	Charging Time	Piston Force:	Piston Stroke:	Code
Battery 18v Li-Ion 1.5/3.0Ah	60 min	Max. 32kN	40mm	39201
Tube/Pipe: Copper	Tube/Pipe: Steel	Tool Dimensions		Other
15-54mm	15-54mm	408 x 80 x 125mm 3.3Kg X		Visible electronic sensor for jaw locking bolt. Contains electronic log book for analysis
Compatible with XPress Systems:		Contains:		
Copper, Carbon Steel, Stainless Steel, Copper Gas, Stainless Steel Gas and Solar, Sprinkler		S226 ACO202: 1x Battery, Battery Charger, Carry Case 557 x 422 x 132mm Total Weight: 7.9Kg		

S303 ECO301



Power	Piston Force:	Piston Stroke:	Code
Mains 110v, 560W	Max. 45kN	45mm	39199
Tube/Pipe: Copper	Tube/Pipe: Steel	Tool Dimensions	Other
15-108mm	15-108mm	420 x 85 x 110mm 5.0Kg	Fast pressing cycle for quick installation. Microprocessor driven for constant optimisation of pressing performance
Compatible with XPress Systems:		Contains:	
Copper, Carbon Steel, Stainless Steel, Copper Gas, Stainless Steel Gas and Solar, Sprinkler ≤ 54mm Carbon Steel and Sprinkler ≤ 54mm Stainless Steel.		S303 ECO301 Carry Case 639 x 466 x 151mm Total Weight: 12.3Kg	

S400 ACO401

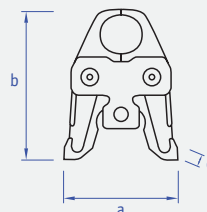


Power	Piston Force:	Piston Stroke:	Code
Battery 18v Li-Ion	Max. 100kN	60mm	39267
Tube/Pipe: Copper	Tube/Pipe: Steel	Tool Dimensions	Other
Not Compatible	76.1 - 108mm	660 x 100 x 250mm 13.0Kg	Microprocessor driven for constant optimisation of pressing performance
Compatible with XPress Systems:		Contains:	
Sprinkler; Carbon Steel and Sprinkler; Stainless Steel in sizes 76.1 – 108mm.		S400 ACO401 Carry Case 630 x 130 x 465mm Total Weight: 25Kg	



S227 ECOTEC Jaws

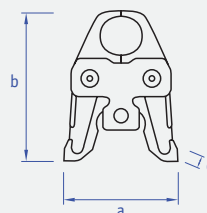
Compatibility: ■ +



Size	a	b	c	Kg	Code
22mm	146.8	110	39.3	2.0	39181
28mm	146.8	110	39.3	2.0	39183

S327 ECO301 Jaws

Compatibility: ◆

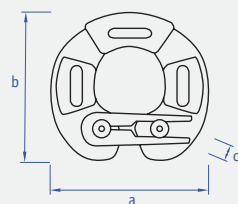


Size	a	b	c	Kg	Code
22mm	153.6	127	39.3	2.0	39206
28mm	153.6	127	39.3	2.0	39207

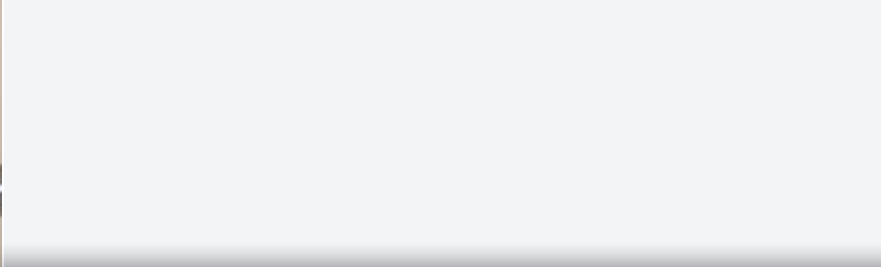
S410 HP Snap on Sling 35mm

Not suitable for copper

Compatibility: ■ ◆ +



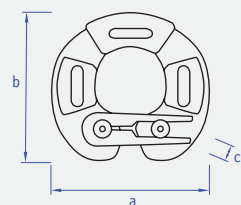
Size	a	b	c	Kg	Code
35mm	112	100	41	1.5	39268
42mm	125	120	41	1.7	39269
54mm	125	122	41	2.0	39271



S411-HP401 SNAP on Sling

Carbon and stainless only

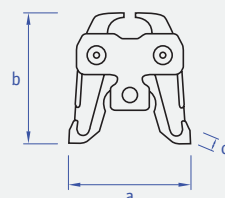
Compatibility: ●



Size	a	b	c	Kg	Code
76.1mm	290	400	100	7.8	39273
88.9mmmm	290	400	100	8.4	39277
108mm	290	400	100	9.4	39279

S229 ZB203 Adaptor

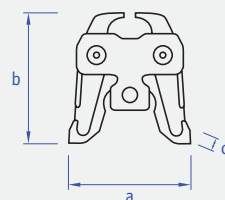
Compatibility: ■



Size	a	b	c	Kg	Code
35 - 54mm	141.6	124.1	32.5	0.6	39190

S329 ZB303 Adaptor

Compatibility: ◆



Size	a	b	c	Kg	Code
35 - 54mm	144.3	128.5	39.3	1.2	39227



APPLICATIONS

FIXED FIRE SPRINKLER SYSTEMS

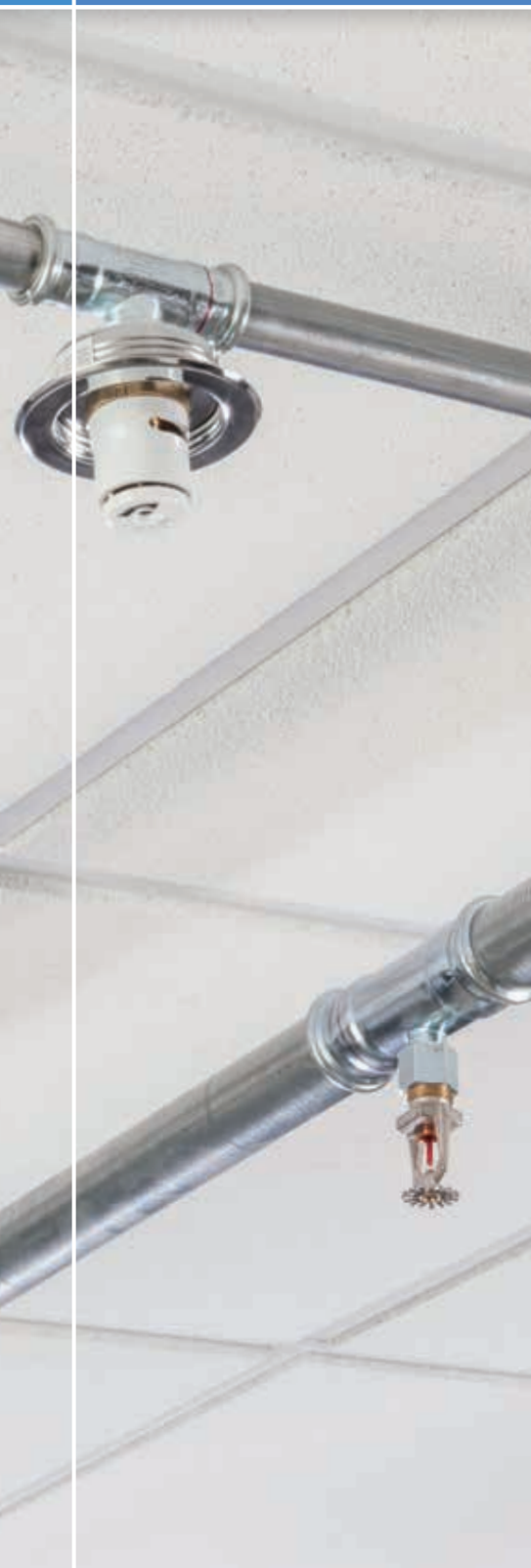
Fixed sprinkler systems are permanently installed fire suppressing and fire protection systems, which independently detect and report a fire and automatically start the suppressing process.

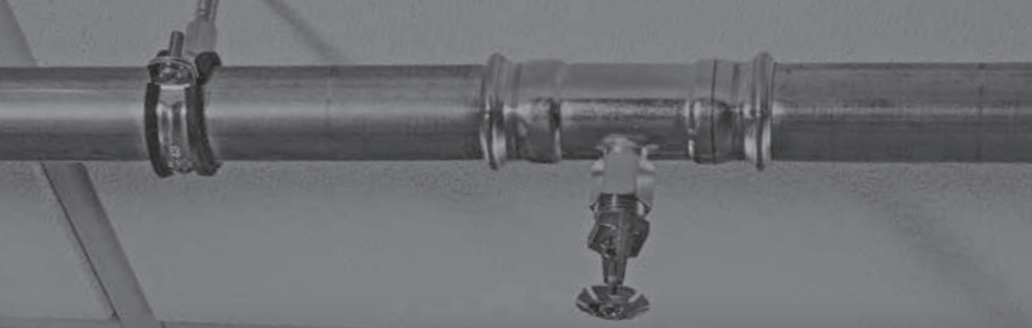
INSTALLATION

The installation of the XPress Sprinkler system in sprinkler systems is carried out in accordance with appropriate guidelines e.g. VdS-CEA 4001, EN 12845 or , ANSI/NFPA 13 "Installation of Sprinkler Systems", ANSI/NFPA 14 "Installation of Standpipe and Hose Systems" or ANSI/NFPA 15 "Water Spray Fixed Systems for Fire Protection). Depending on the material installed (stainless or Galvanised steel) and the applicable approval, the system can either be used in wet or dry fixed sprinkler systems. XPress Galvanised Sprinkler system tube can only be used in a sprinkler installation and should not be used in general plumbing application. XPress Sprinkler Galvanised is only suitable for use in fixed wet sprinkler systems, where XPress Sprinkler Stainless can be used in both wet and dry fixed sprinkler systems depending on the approval

With different approvals under which the XPress Sprinkler system is installed, also different hazard classes may apply. For more detailed information on applicable hazard classes, please contact Pegler Yorkshire directly.

When the XPress Sprinkler system is used, it should also be ensured that no loads can fall onto the tube network under normal conditions or in the case of a fire; for example ventilation ducts and cable trays should not be installed above the sprinkler tubes. If due to building constraints loads could fall onto the tube network this can be solved by securing the sprinkler tube on both sides of the load with sprinkler certified components.





CONNECT + CONTROL



PIPE SUPPORTS

Pipe supports shall be fixed directly to the building or, if necessary, to machines, storage racks or other structures. They shall not be used to support any other installations. They shall be of the adjustable type in order to secure an even load-bearing capability. Supports shall completely surround the pipe and shall not be welded to the pipe or fittings.

Distribution pipes and risers shall have a suitable number of fixed points to take account of axial forces. No part of any support shall be made of combustible material. Nails shall not be used. Supports for stainless steel pipes shall be provided with a suitable lining with sufficient electrical resistance, in order to prevent contact corrosion (for example steel Munsen

ring and/or clip with an elastomeric or fabric material).

Make sure to use the appropriate hangers for sprinkler applications which are also suitable for the outside diameters of XPress Sprinkler and that no hangers are mounted on the fittings. Where a reducer is installed, a pipe hanger shall be used adjacent to the reducer on the larger pipe.

Depending on your type of system and the approval which applies to your fixed sprinkler system, different fastener distances apply. In VdS sprinkler applications the fastener distances for steel press systems are based on the values used for copper tube, where FM and LPCB have specific fastener distances prescribed for XPress.

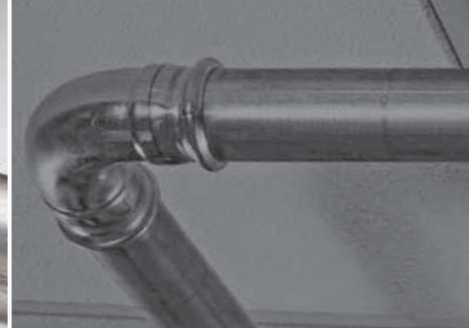
Always follow the valid local guidelines and please make sure to follow these fastener distances correctly. Make sure to use the appropriate hangers for sprinkler applications which are also suitable for the outside diameters of XPress Sprinkler and that no hangers are mounted on the fittings.

Additional requirements for spacing and location of supports for XPress Sprinkler are:

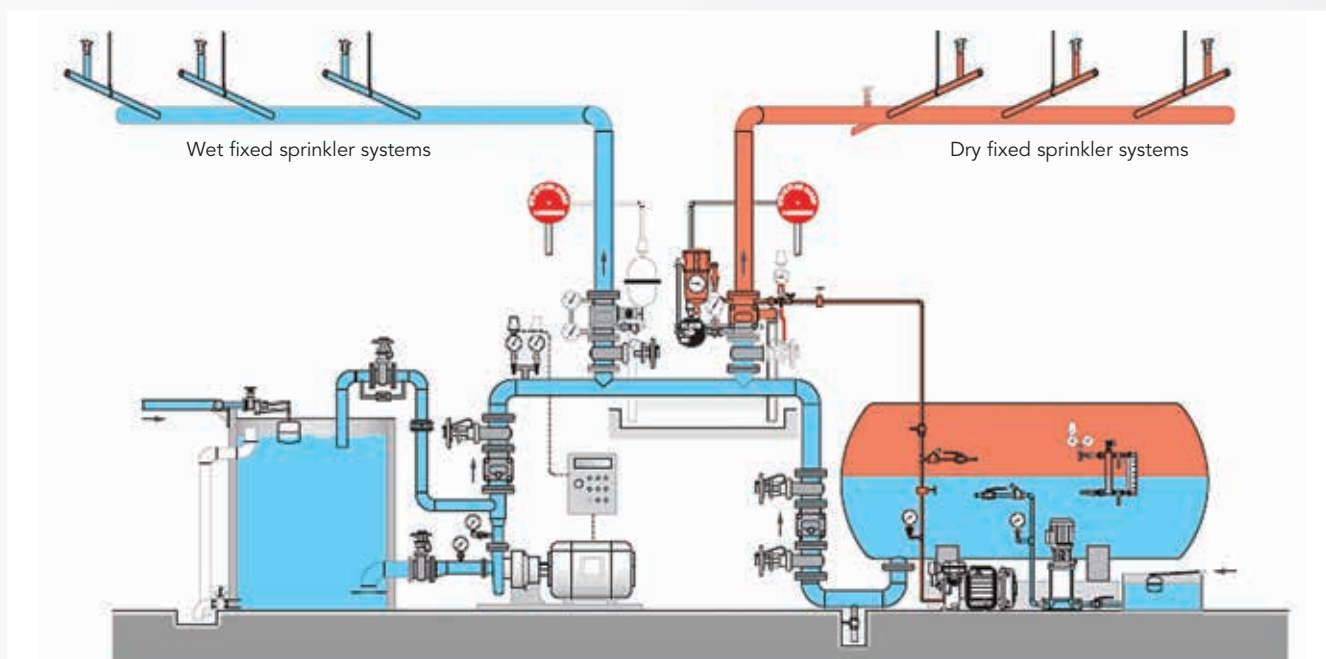
- ✚ There shall be at least one support within 1 m of each joint;
- ✚ There shall be at least one support on each pipe section.
- ✚ The distance from any terminal sprinkler to a support shall not exceed - 0.9 m for DN25/28 mm diameter piping; - 1.2 m for piping greater than DN25/28 mm diameter.
- ✚ The distance from any upright sprinkler to a support shall not be less than 0.15 m.
- ✚ Vertical pipes shall have additional supports in the following cases: pipes more than 2 m long; pipes more than 1m long feeding single sprinklers.
- ✚ Pipes that are at a low level or otherwise vulnerable to mechanical impact shall be separately supported except for the following cases: - horizontal pipes less than 0.45 m long feeding individual sprinklers; - drop or rise pipes less than 0.6 m long feeding individual sprinklers

FASTENER DISTANCES FOR XPRESS SPRINKLER TUBES

DN	Tube dimension	Fastener distances (m)			
		CEA 4001 (vdS)	FM/UL/cUL	LPCB	DIN 1988-2
20	22	2.00	3.66	2.50	2.00
25	28	2.00	3.66	2.50	2.25
32	35	2.00	3.66	3.50	2.75
40	42	2.00	3.66	3.50	3.00
50	54	2.00	3.66	3.50	3.50
65	76.1	2.00	3.66	-	4.25
80	88.9	2.00	3.66	-	4.75
100	108	2.00	3.66	-	5.00



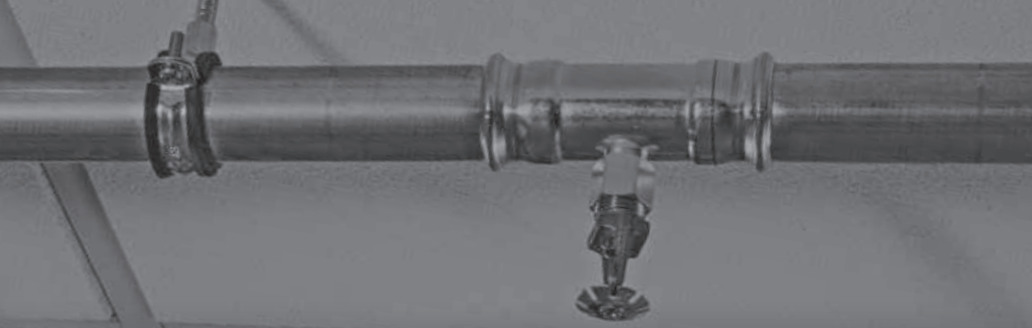
APPLICATIONS



CORROSIVE ENVIRONMENT

XPress Sprinkler stainless is the preferred solution when looking to sprinkler installations which are installed in an aggressive environment such as for example paper factories or where high standards apply on hygiene such as pharma and food and beverage. Combined with the ship building approvals Germanischer Lloyd, RINA and Det Norske Veritas XPress Sprinkler stainless is also a very suitable solution for sprinkler installations on ships.





CONNECT + CONTROL

XPRESS FLEXIBLE HOSES

The lining up of sprinklers using rigid piping in suspended ceiling systems can be very time consuming and costly. The use of XPress flexible hoses for sprinkler installations enables a quick and easy connection of sprinkler heads within a circular area defined by the hose length. With the flexible sprinkler hoses it is possible to mount sprinklers in suspended ceilings systems without any problems, resulting in significant time and cost savings.

The supplied mounting brackets ensure a reliable and secure attachment of the sprinkler hose to the ceiling system substructure.

The XPress flexible hoses are part of the XPress Sprinkler VdS and FM (only DN25) approval for fixed sprinkler installations. Pegler Yorkshire can offer you 2 versions, either with a straight end or an angle of 90°. Available dimensions are DN20 and DN25 in the lengths 800, 1000, 1500 and 2000mm.

Application

The XPress flexible hoses are suitable to be installed in:

- + I-beam lay-in ceiling systems with mineral fibre panels and metal cassettes (main and ancillary profiles)
- + Clamping profile ceiling systems
- + Plasterboard ceiling systems
- + Suspension-mounted standard sprinklers
- + Hidden or recessed sprinklers

The special feature of these hoses is the straight pipe which is 100% compatible to the XPress Sprinkler system. The straight pipe end assures an easy connection from the flexible hose to the XPress Sprinkler systems. Where with threaded connections the whole hose needs to be rotated, with the straight pipe end you only need to position the pipe end in the fitting and you are ready for pressing.

Advantages

The XPress flexible hoses are suitable to be installed in:

- + Simple and quick installation with the flexible sprinkler hose using standard tooling
- + Entire sprinkler hose is made of stainless steel
- + Easy bypass of other parts and building components
- + No rotation of complete hose during installation because of straight pipe end
- + Flexibility of positioning the sprinkler mounting system across the ceiling panel
- + No bending or lifting of ceiling elements as sprinkler hose is fixed on ceiling substructure
- + Where leaks on rigid piping systems can only be detected when the ceiling panels have already been installed, leaks on sprinkler systems equipped with flexible hose are already detected in building shells. Expensive water damage can thus be prevented
- + The sprinkler system does not need to be reinstalled for renovation or conversion. Hoses and brackets can be dismantled and remounted at the new location without emptying the complete installation, within the circular area defined by the hose length
- + Easy vertical positioning due to scaling on sprinkler sleeve



FLEXIBLE SPRINKLER HOSES SUITABLE FOR XPRESS SPRINKLER; FLEXIBLE, SIMPLE, SECURE AND COST SAVING

Length (mm)	Sprinkler discharge	Sprinkler connection	Pipe conn. (mm)	Press. loss* (bar)	Equiv. pipe length* (m)
1000	straight	Rp ½"	Ø22	0.9	8
1500	straight	Rp ½"	Ø22	1.3	12
2000	straight	Rp ½"	Ø22	1.7	14
1000	straight	Rp ½"	Ø28	0.5	8
1500	straight	Rp ½"	Ø28	0.8	11
2000	straight	Rp ½"	Ø28	1.0	12
800	90° angle	Rp ½"	Ø22	0.8	8
1000	90° angle	Rp ½"	Ø22	0.9	8
1500	90° angle	Rp ½"	Ø22	1.3	12
800	90° angle	Rp ½"	Ø28	0.5	8
1000	90° angle	Rp ½"	Ø28	0.5	8
1500	90° angle	Rp ½"	Ø28	0.8	11

*Pressure losses and equivalent pipe lengths correspond with VdS specifications



TECHNICAL SPECIFICATION



O RING

The XPress Sprinkler fittings are supplied with an EPDM Leak Before Pressed O-ring in the dimensions DN20-DN50 (22-54 mm) with the following data:

Technical data of the XPress LBP EPDM O-ring

Material	EPDM
Colour	Black
Coating	Silicone-free
Min./max. temperature (°C)	-35°C up to +135°C
Max. short-term operating temperature (°C)	150°C
Max. operating pressure (bar)	16 bar
Fields of operation	Wet and dry tube sprinkler systems

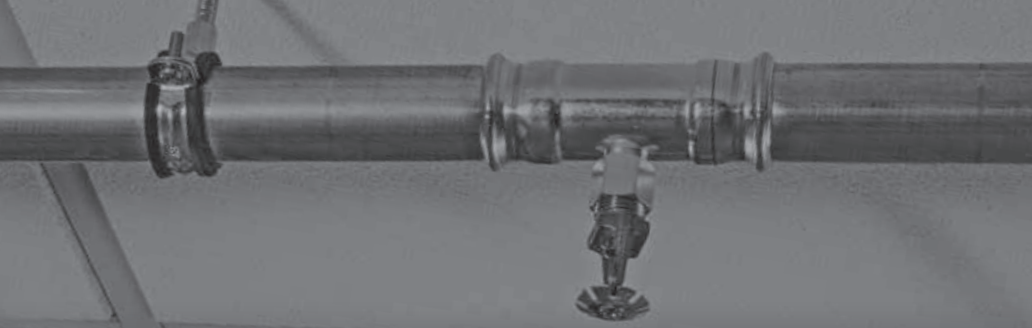
Dimensions and technical data for the XPress LBP EPDM O-ring

For the dimensions DN65-DN100 (76.1-108mm) all fittings are supplied with a standard EPDM O-ring:

Technical data of the XPress EPDM O-ring

Material	EPDM
Colour	Black
Coating	Silicone-free
Min./max. temperature (°C)	-35°C until +135°C
Max. short-term operating temperature (°C)	150°C
Max. operating pressure (bar)	16 bar
Fields of operation	Wet and dry tube sprinkler systems

Technical data XPress EPDM O-ring



XPRESS SPRINKLER TUBE

Dimensions

Dimensions of XPress Sprinkler Galvanised tube

Model	DN	Outside ø (mm)	Wall thickness (mm)	Wall thickness	Weight (kg)	Capacity (l/m)
XC22	20	22	1.5	± 0.15	0.761	0.284
XC28	25	28	1.5	± 0.15	0.980	0.491
XC35	32	35	1.5	± 0.15	1.241	0.804
XC42	40	42	1.5	± 0.15	1.542	1.195
XC54	50	54	1.5	± 0.15	1.999	2.043
XC76	65	76.1	2.0	± 0.20	3.503	4.083
XC89	80	88.9	2.0	± 0.20	4.412	5.661
XC108	100	108	2.0	± 0.20	5.382	8.495

Dimensions of XPress Sprinkler Galvanised tube

Dimensions of XPress Sprinkler Stainless tube

Model	DN Outside ø (mm)	Wall thickness (mm)	Wall thickness	tolerance (mm)	Weight (kg)	Capacity (l/m)
XS22	20	22	1.2	± 0.10	0.624	0.302
XS28	25	28	1.2	± 0.10	0.790	0.515
XS35	32	35	1.5	± 0.10	1.240	0.804
XS42	40	42	1.5	± 0.10	1.503	1.195
XS54	50	54	1.5	± 0.10	1.972	2.043
XS76	65	76.1	2.0	± 0.15	3.550	4.548
XS89	80	88.9	2.0	± 0.15	4.150	5.661
XS108	100	108	2.0	± 0.15	5.050	8.495

Dimensions of XPress Sprinkler Stainless tube

The model designation, which is marked on the product, identifies the manufacturer, tube type, size and wall thickness of the pipe and is identified by the product code as follows:

+ X: XPress

+ C: Galvanised tube

+ S: Stainless steel tube

+ 22/28/35/42/54/76/89/108: outside diameter, wall thickness and nominal size according to the tables above.



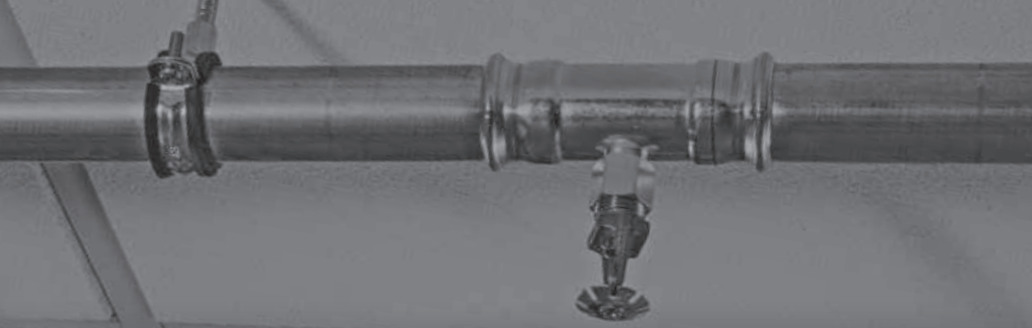
TECHNICAL SPECIFICATION

TUBE

Material specifications of XPress Sprinkler Galvanised tube	
Material	Unalloyed ULC ('Ultra Light Carbon') C-steel, E190 part no. 1.0031 according EN 10305-3
Specifications	EN10305-3
Approvals	VdS, FM, FG, CNBOP, SBSC, LPCB, SETSCO, UL, cUL
Type of tubing	HF welded
Welding deterioration reduction	100% EDDY CURRENT tested according to EN10893-2:2011
Weld slag removal	Outside weld flat, insight raising max. 0.5 mm, for dimensions >54 mm 0.8 mm
Tolerances	According to EN10305-3
Finishing	Zinc coating of at least 15-27m ² (275g/m ²) steel grade ZNT275. The tube welding seam is subsequently Galvanised on the outside.
Surface finish	Silver-coloured
Marking	XPress Sprinkler Galvanised DN[]/[size x wall thickness] LPCB VdS G4080007 [working pressure VdS] bar <FM> [working pressure FM] psi C(UL)US Listed 4NB1 [working pressure UL] psi CRR UL [CRR UL] CRR cUL [CRR cUL] DNV GL NDE [batch number or production date] [supplier code] [max. every 60 cm the model designation repeated]
Smallest bending radius	3.5 x external diameter of the tube (max. 28 mm)
Supply mode	Tubes, length of 6 m +0/-50 mm, with protective caps
Heat expansion coefficient	0.0108 mm/m with Δ T= 1K
Max. operating pressure	16 bar

Technical data of the XPress Sprinkler Galvanised tube

Material specifications of XPress Sprinkler Stainless tube			
Material	1.4401	1.4521	1.4520
Specifications	X5CrNiMo 17 12 2 Material no. 1.4401 according to DIN-EN 10088-2	X2CrMoTi 18 2 Material no. 1.4521 according to DIN-EN 10088-2	X2CrTi17 Material no. 1.4520 according to DIN-EN 10088-2
	EN 10312 – DVGW worksheet GW541 (2004) Table 2	EN 10312 – DVGW worksheet GW541 (2004) Table 2	EN 10296-2
Approvals	DVGW, SVGW, ETA, ÖVGW, BYGGFORSK, STF, PZH, SITAC, CSTBat, WRAS, VdS, FM, FG, CNBOP, SBSC, SETSCO, LPCB, DNV, GL, LR, UL, cUL	DVGW, SVGW, ETA, FM, ÖVGW, FG, LPCB, DNV, GL, LR,	FM, FG, LPCB,
Type of tubing	TIG or laser welded	Laser welded	Laser welded
Welding deterioration reduction	100% EDDY CURRENT tested according to EN10093-2:2011	100% EDDY CURRENT tested according to EN10093-2:2011	100% EDDY CURRENT tested according to EN10093-2:2011
Weld slag removal	Outside	Outside	Outside
Tolerances	According to EN 10312 table 2	According to EN 10312 table 2	According to EN 10296-2
Finishing	Annealed under a protective atmosphere W2R	Annealed under a protective atmosphere W2R	Annealed under a protective atmosphere W2R
Surface finish	Matt silver-coloured	Matt silver-coloured	Matt silver-coloured



CONNECT + CONTROL

Marking	XPress stainless DN[]/[size x wall thickness] mm, Stainless steel/Edelstahl – Sanitary/Sanitär – GAS 1.4401/AISI316 W2R EN10312 DVGW GW541 Reg.nr. DW-7301BM5610 SVGW ÖVGW W1.397 WRAS ETA BYGGFORSK STF PZH SITAC 0168/04 CSTBat 116-1482 LPCB VdS G4080037 [working pressure VdS] bar <FM> [working pressure FM] psi C(UL)US Listed 4NB1 [working pressure UL] psi DNV GL NDE KELIT [batch number or production date] [supplier code] [max. every 60 cm the model designation repeated]	XPress stainless DN[]/[size x wall thickness] mm Edelstahl/ Stainless steel 1.4521/AISI444 W2R EN10312 DVGW GW541 Reg.nr. DW-7301BP5610 SVGW ÖVGW ETA LPCB <FM> [working pressure FM] psi DNV GL NDE KELIT Tectite 316 [batch number or production date] [supplier code] [max. every 60 cm the model designation repeated]	XPress stainless DN[]/[size x wall thickness] mm Stainless steel/Edelstahl 1.4520/AISI439 Heating/Compressed air - Heizung/Druckluft LPCB <FM> [working pressure FM] psi NDE [batch number or production date] [supplier code] [max. every 60 cm the model designation repeated]
Smallest bending radius	3.5 x external diameter of the tube (max. 28 mm)	3.5 x external diameter of the tube (max. 28 mm)	3.5 x external diameter of the tube (max. 28 mm)
Supply mode	Tubes, length of 6 m +0/-50 mm, with protective caps	Tubes, length of 6 m +0/-50 mm, with protective caps	Tubes, length of 6 m +0/-50 mm, with protective caps
Heat expansion coefficient	0.0160 mm/m with $\Delta T = 1 K$	0.0104 mm/m with $\Delta T = 1 K$	0.0104 mm/m with $\Delta T = 1 K$
Max. operating pressure	16 bar	16 bar	16 bar

Technical data of the XPress Sprinkler Stainless tube (1.4401/1.4520/1.4521)

XPRESS FLEXIBLE HOSES TECHNICAL DATA

Technical data XPress flexible hoses	
Sprinkler hose	Type RS 339L92, DN20 / DN25, flexible design with braiding, completely made of stainless steel, welded fittings
Sprinkler connection (straight)	Stainless steel bend pipe thread as per DIN EN 10226 (ISO 7/1), Rp. 1/2" (SW 27). Scaling for simple vertical alignment. Application when space is limited. Installation height (x) only 170 mm above lower edge of suspended ceiling
Sprinkler connection (90° design)	Stainless steel bend pipe thread as per DIN EN 10226 (ISO 7/1), Rp. 1/2" (SW 27). Scaling for simple vertical alignment. Application when space is limited. Installation height (x) only 170 mm above lower edge of suspended ceiling
Connection to water supply	Stainless steel straight pipe end with diameter of 22 or 28 mm to be connected with XPress Sprinkler fittings
Nominal length	800, 1000, 1500 and 2000 mm
Max. operating pressure	16 bar, 100% leak tightness tested

Technical data flexible hoses



TECHNICAL SPECIFICATION

XPRESS SYSTEM TUBE

XPress Sprinkler tubes are available in the dimensions DN20 to DN100 (22-108mm). Entry of dirt during transportation or storage is prevented by caps at both ends of the tube and utilizing the correct packaging for distribution.

Fire behaviour

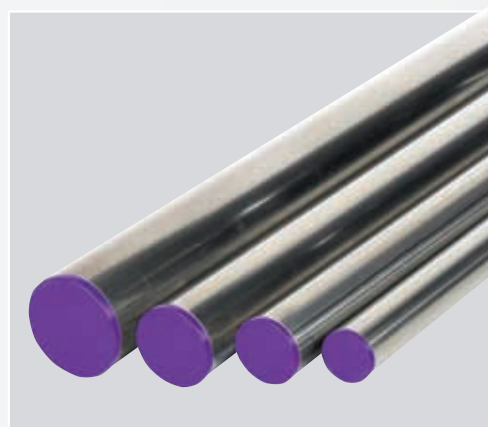
XPress Sprinkler tubes are classified as non-combustible red tubes of building material class A, DIN 4102, part 1.

XPRESS SPRINKLER SYSTEM – GALVANISED STEEL TUBE

The XPress Sprinkler Galvanised tubes (SC645) for wet sprinkler systems are thin-walled precision steel tubes. The tubes are made from cold rolled steel that is Galvanised using the Sendzimir process. During this process zinc is brought onto the metal strip, running through a zinc bath, covering both sides simultaneously. The tube is protected both on the inside and outside with a zinc layer. The thickness of this layer is 15-27µm (275 g/m²).

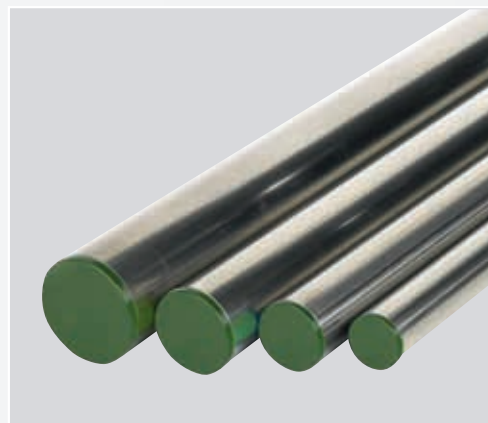
After welding the welding seam zinc is reapplied sealing the seam. With the Sendzimir process a good adhesion of the zinc layer and corrosion resistance are achieved.

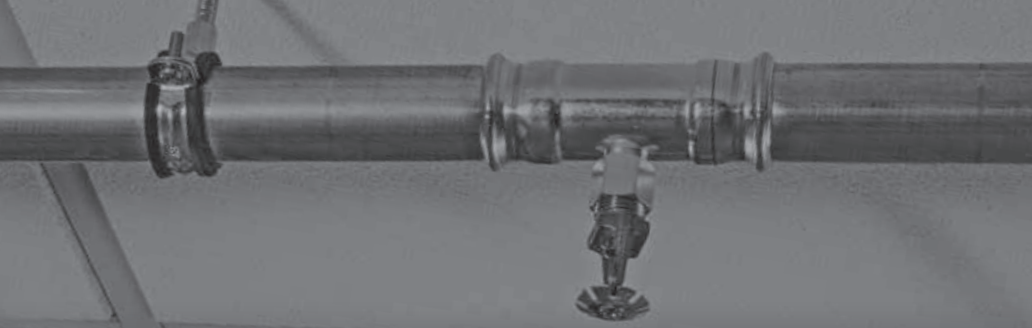
XPress Galvanised Sprinkler system tube can only be used in a sprinkler installation and should not be used in a general plumbing application.



XPRESS 316 SYSTEM – STAINLESS STEEL TUBE

The XPress Sprinkler Stainless tubes (SS600, SS620, SS630, SS640) are suitable for wet and dry sprinkler systems and are thin-walled precision steel tubes. The outer and inner surfaces of the tubes are blank, free of discolouration and are supplied free of manufacturing residue that could otherwise cause corrosion. The strict size tolerances and welding seam quality are checked on both the outside and inside.





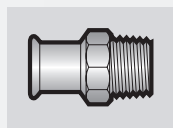
THREADED COUPLINGS

The XPress Sprinkler product range also comprises articles with internal and external thread for connection with other threaded parts of a tube network (for example sprinklers, valves, mountings). Internal and external threads are produced in accordance with DIN 2999/ISO 7/1.

PTFE may be used as sealing material for the carbon steel threads. Only industry standard chloride free sealants should be used to seal the thread connections in the case of stainless steel fittings. Teflon® thread sealing band cannot be used in conjunction with stainless steel due to water-soluble chloride ions contained therein. For threaded connections we recommend that the pressed connections are not be subjected to a load.

CONNECTORS

Male connectors

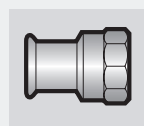


XPress male connectors have threads to BS 21/

ISO 7/EN 10226-1. Inert jointing compounds or PTFE tape should be applied to taper threads and good quality jointing washers should be used with parallel threaded fittings. PTFE tape should not be used in conjunction with stainless steel threads due to the water soluble chloride ions it contains.

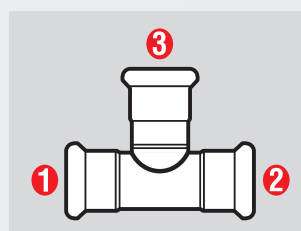
Female connectors

XPress female threaded connectors have internal



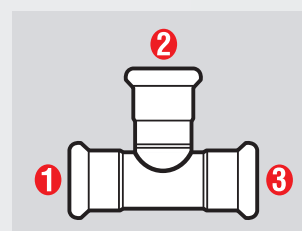
parallel threads to ISO 7/EN 10226-1.

TEE SPECIFICATION



UK specification

First quote the ends on the run (larger end first) and then the branches.



European specification

Quote the larger end first, then the branch, followed by the remaining end.



SYSTEM DESIGN CONSIDERATIONS

When looking at more traditional connection methods, the products used in sprinkler installations are often approved as a product only. The XPress Sprinkler range is a complete system, where the combination of tube, fitting and tools are combined into a certified sprinkler system. XPress Galvanised Sprinkler system tube can only be used in a sprinkler installations and should not be used in a general plumbing application. The components of which our XPress Sprinkler system consist are:

- ✚ XPress Sprinkler fittings either in carbon or stainless steel in the dimensions 22-108mm
- ✚ XPress Sprinkler tubes, which can be Sendzimir tube in combination with our carbon steel fittings, but also 3 different grades of stainless steel for our stainless steel fittings, depending on relevant approvals
- ✚ XPress Sprinkler press tools, either battery or mains operated
- ✚ Accessories such as our flexible hoses, especially adapted for an optimal combination with our XPress Sprinkler fittings and installation tools

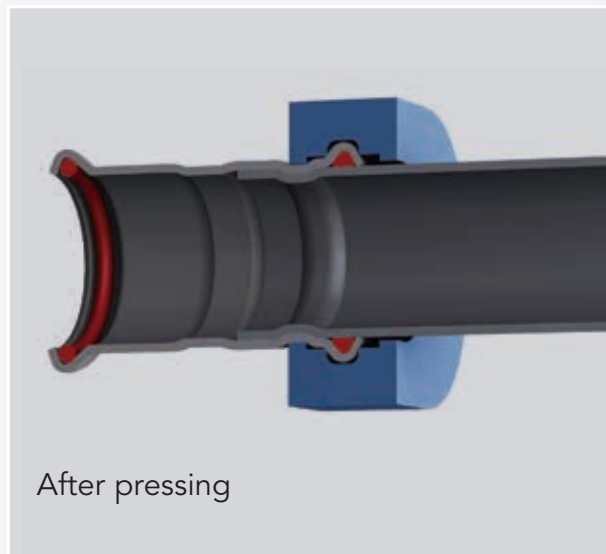
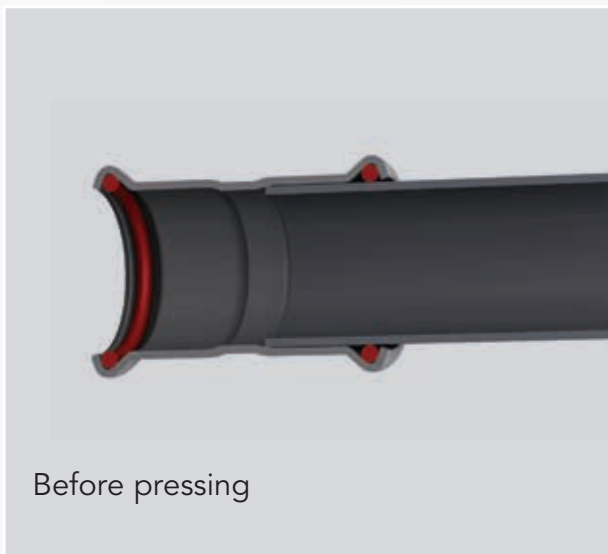
XPress Sprinkler fittings

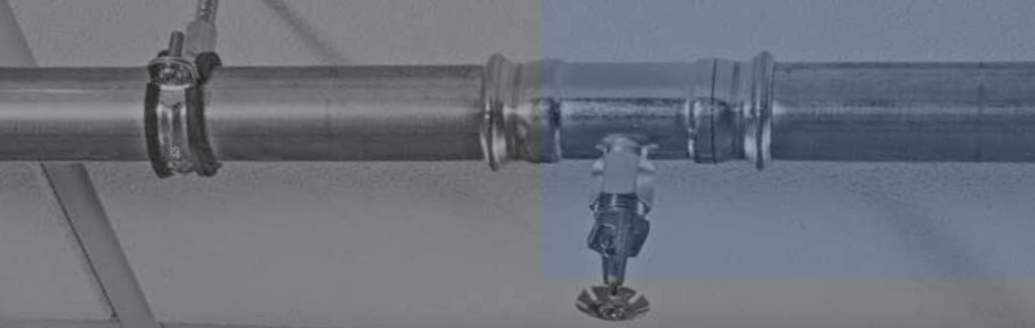
The XPress Sprinkler fittings are available either in carbon or in stainless steel. The carbon steel fittings are manufactured from unalloyed steel (material 1.0034/St 34-2) and are protected against corrosion by means of a zinc layer (8-15 µm) which is applied by electroplating.

The stainless steel fittings are manufactured from stainless steel (material 1.4404 /AISI 316L). XPress Sprinkler fittings are equipped with an EPDM O-ring as standard in the dimensions DN20 to DN100 (22-108 mm).

All XPress fittings are equipped with LBP functionality as standard to reduce the risk of installation errors.

The joint between the tube and the fitting is created by pressure using a press tool. The fitting sleeve is deformed and adapts to the surface of the tube, which is then pressed in turn against the sealing rings on the surface of the fitting. This process ensures the sealing effect and prevents the tube from slipping out.



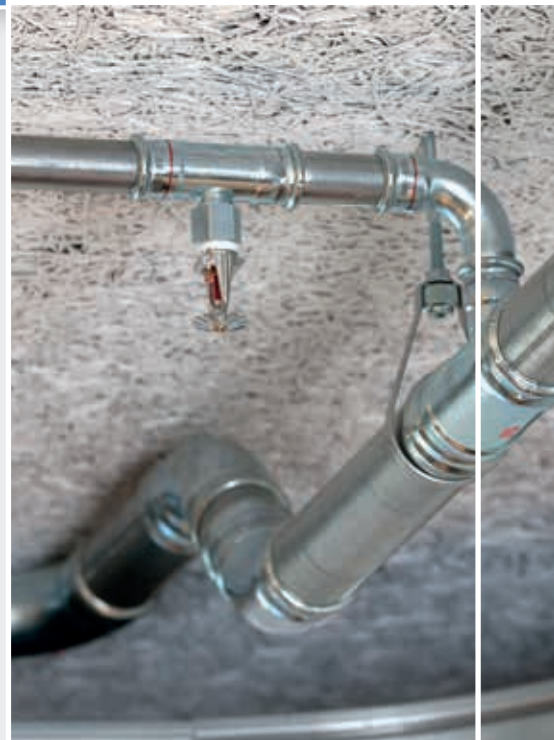


CONNECT + CONTROL



XPress 'Leak Before Press'

Thanks to the special grooves in the 'O' ring the Leak Before Pressed 'O' ring (LBP) ensures optimum control of the system during pressure testing (such as for example described in the CEA 4001, no. 17.1.1). Unpressed joints will leak water resulting in pressure loss and are afterwards easy to detect. During the pressing procedure the 'O' ring deforms, closing the special grooves, and the connection between the tube and fittings is sealed, ensuring a water tight joint.





INSTALLATION INSTRUCTIONS

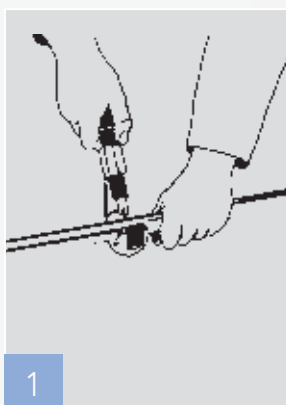
Making a press connection is very easy, especially due to the light weight of fittings and tube and the machine controlled process which is taking place during the connection of tube and fitting. To always ensure an optimal connection between tube and fitting it is mandatory to follow up the installation instructions which are illustrated below, and which are also supplied on each bag of fittings.

TRANSPORT AND STORAGE

During transport and storage of XPress Sprinkler tubes and press fittings it is important to avoid damage and soiling. The best storage temperature for fittings and tubes is between 10°C and 25°C and they should be stored in a dry area (maximum humidity 65%). The storage of tubes should be horizontal, separated by wooden blocks. Don't stack the bundles too high to prevent tubes from getting oval (the maximum height should not exceed 6 bundles, when stacking stack in 2x2/3x3, etc.). Please make sure not to mix tube materials (carbon and stainless steel) in storage.

CUTTING THE TUBE TO SIZE

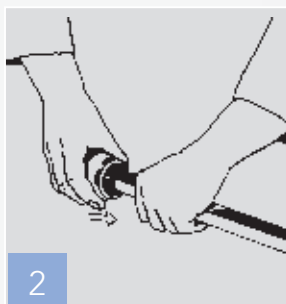
After the measurements have been taken, the XPress Sprinkler tube can be cut to size with a tube cutter, a fine-toothed handsaw or a mechanical saw with motor suitable for the tube material. The tube should always be cut completely. Never partially cut the tube and then break it (this could cause corrosion). **Do not use oil cooled saws, abrasive wheels or flame cutting.**



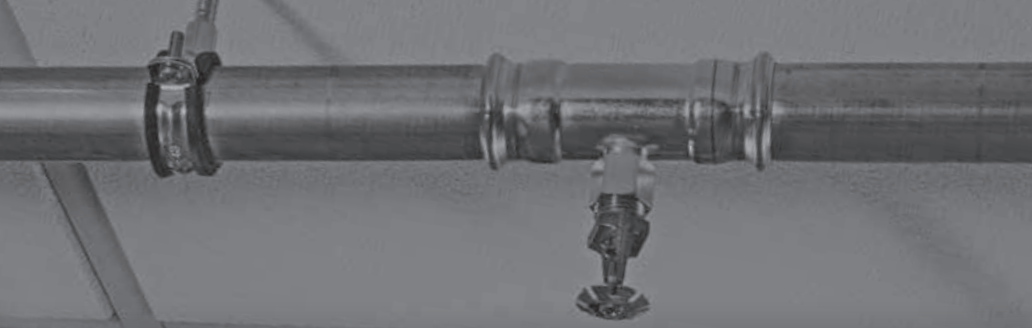
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DEBURRING THE TUBE

The tube ends should be carefully deburred on the inside and outside after cutting to length to prevent damages to the sealing ring when the tube is inserted into the press fitting. Deburring can be carried out both on the inside and outside either using a manual or an electric deburring tool. Burrs sticking to the tube must be removed.



2



CONNECT + CONTROL



INSERTION DEPTH MARKING

Mark the insertion depth on the tube in order to guarantee a safe and proper connection with a suitable marking tool as supplied by Pegler Yorkshire. Reliable pressing with the corresponding tensile strengths can only be achieved by a proper installation. The pressing operation behind the crimp is of crucial importance for the tensile strength. The marking on the tube must remain visible (but close to the fitting) after the connection is pressed to identify any movement before or after pressing.



CHECK THE FITTING AND TUBE

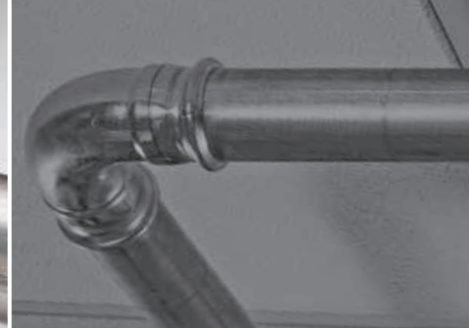
Before assembly, the fitting must be checked to ensure the correct position and presence of the 'O' rings. The tube, fitting and 'O' ring should be examined for foreign material (e.g. dirt, burrs), which should be removed if present.



ASSEMBLY OF FITTING AND TUBE

Insert the tube into the press fitting up to the marked insertion depth while being rotated slightly and pushed in an axial direction at the same time. The marking for the insertion depth must still be visible. In case of fittings without a stop the fittings should be inserted at least as far as the marked insertion depth. Rough and careless insertion of the tube into the press fitting may result in damage to the 'O' ring and is therefore not permitted. When assembly is more difficult due to permitted tolerances in sizes, a lubricant such as water or soap may be used, but never use oil or grease. **Under no circumstances may oils or grease be used as lubricants**



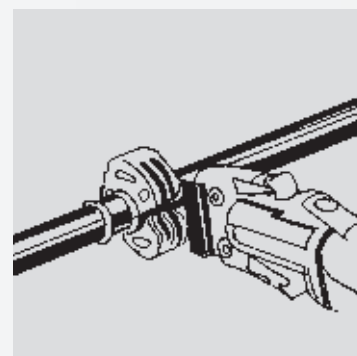
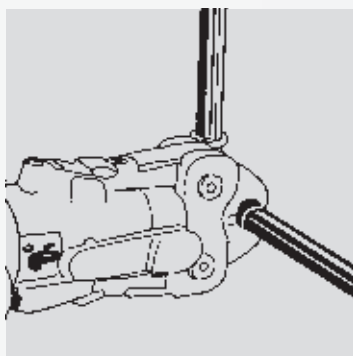
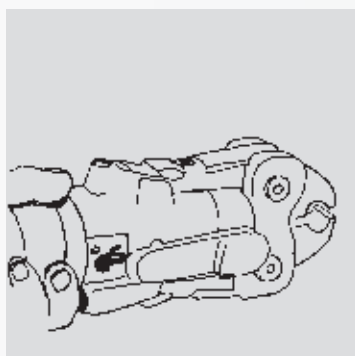


INSTALLATION INSTRUCTIONS

TRANSPORT AND STORAGE

During transport and storage of XPress Sprinkler tubes and press fittings it is important to avoid damage and soiling. The best storage temperature for fittings and tubes is between 10°C and 25°C and they should be stored in a dry area (maximum humidity 65%). The storage of tubes should be horizontal, separated by wooden blocks. Don't stack the bundles too high to prevent tubes from getting oval (the maximum height should not exceed 6 bundles, when stacking stack in 2x2/3x3, etc.). Please make sure not to mix tube materials (carbon and stainless steel) in storage.

PRESSING

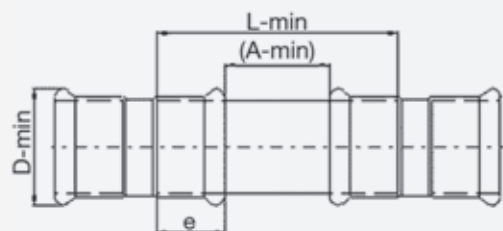


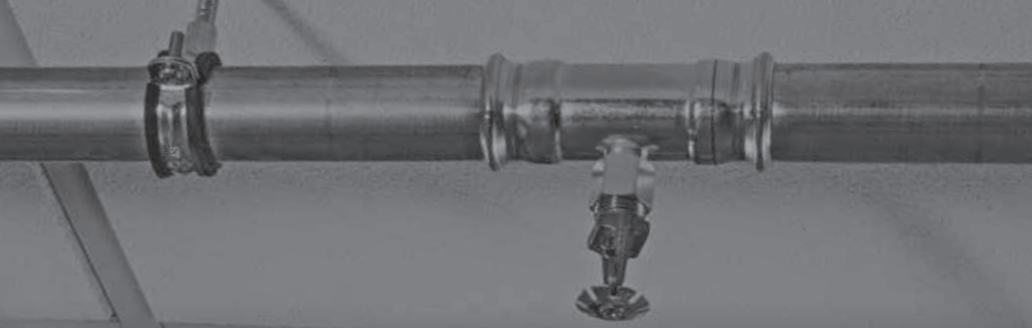
Before starting to press, the press jaws and slings must be checked for dirt, which must be removed if present. Furthermore, it must be ensured that the press machine is in good condition and that the instructions for operating the device, maintenance and the manufacturers' instructions have been followed. Also make sure that you use the correct press jaws and slings for the XPress Sprinkler application. In order to create a proper pressed connection, the groove of the press tool must enclose the press fitting 'O' ring bead. Once the pressing has started, always complete the press cycle and under no circumstances interrupt the process.

It is not allowed to press a fitting twice or more

MINIMUM DISTANCE BETWEEN FITTINGS

The XPress fittings are all equipped with the M-profile. To ensure a proper mounting of the press jaws and slings there should always be a minimum clearance available between the fittings. Before the final pressing operation is carried out for the different tube connections, the minimum clearances must be checked against the table below.





CONNECT + CONTROL

Minimum distance between pressings							
DN	Insertion depth		Minimum distance between 2 pressings		Minimum tube length required		
	Outside \varnothing (mm)	e (mm)	A-min (mm)		2 x e + A-min (mm) L-min		
		C-steel	St. steel	C-steel	St. steel	C-steel	St. steel
20	22	21	21	10	10	52	52
25	28	23	23	10	10	56	56
32	35	26	26	10	10	62	62
40	42	30	30	20	20	80	80
50	54	35	35	20	20	90	90
65	76.1	55	55	40	40	165	165
80	88.9	63	63	50	50	186	186
100	108	77	77	50	50	234	234

AVAILABLE SPACE NEEDED FOR PRESS TOOL

Using a press tool including the press jaws and slings can be limited due to the available space for the press tool. To make sure that there is enough space available for the press tool, please make sure to follow the minimum distances in the table below. The table below lists the important minimum distances and the space requirement for an installation in order to guarantee correct processing.

The sizes refer to the general installation geometries and are shown schematically in illustrations A, B and C.

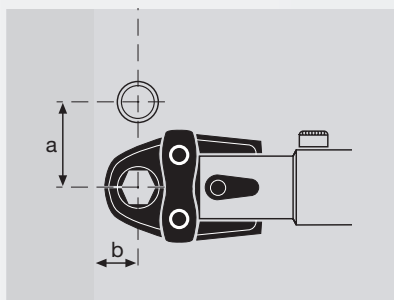


Figure A

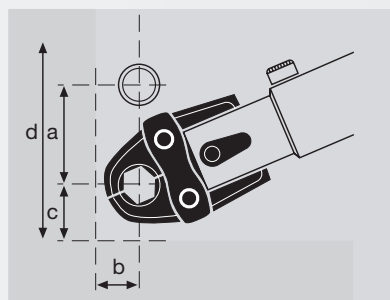


Figure B

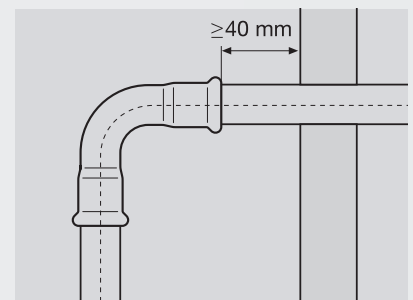
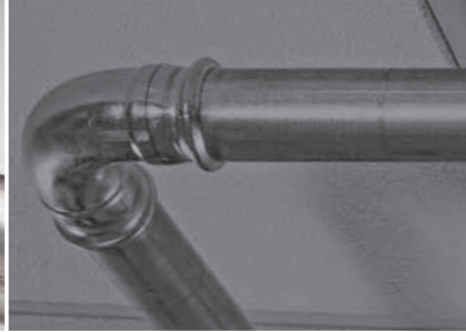


Figure C

Space needed for installation (*press slings)								
DN	External \varnothing (mm)	a	Figure A		Figure B		Figure C	
			b	a	b	c	d	Tube depth (mm)
20	22	65	25	80	31	35	150	40
25	28	75	25	80	31	35	150	60
32	35	115	75	115	75	75	265	70
40	42	120	75	115	75	75	265	70
50	54	250	85	120	85	85	290	70
65	76.1	250	170	200	170	190	390	80
80	88.9	250	170	250	170	210	460	90
100	108	250	170	250	170	210	460	10



INSTALLATION INSTRUCTIONS

BENDING

Depending on the system, it may be necessary to bend the tube during installation. For this, commercially available manual, hydraulic or electric bending tools with the corresponding bending segments are used. The suitability of the bending tool is defined by the manufacturer. XPress Sprinkler tubes for sprinkler installations are cold pliable in the sizes 22 and 28mm.

The minimum bending radius is as follows:

Carbon and stainless steel tube	$r_{min} = 3.5 \times d$ (max. 28mm)
XPress flexible hoses	22mm = 70mm
	28mm = 85mm

Due to the danger of corrosion the tube must not be bent when it is warm

GENERAL INSTRUCTIONS FOR USE

Flushing the network

After completion of the installation work the entire sprinkler system has to be thoroughly rinsed through with filtered (drinking) water. Flushing of the system is necessary in order to guarantee that it is working correctly and to prevent contamination within the system. After the system has been rinsed through it has to be drained off. The sprinklers then have to be attached after the removal of all the materials required for flushing the network.

Filling and bleeding the tube network

After flushing of the tube network has been carried out, the network should be filled with filtered drinking water and completely bled.

Pressure testing

The tubes belonging to the sprinkler system must be subjected to a pressure test according to valid guidelines, for example CEA 4001, no. 17.1.1. (VdS). In general testing should last at least two hours at a the test pressure (measured at the alarm valves) corresponding to 1,5 times the maximum operating pressure - but at least 15 bar - must be maintained. The pressure loss, for example due to temperature changes, should be monitored for 24 h. Dry sprinkler systems shall also be tested pneumatically to a pressure of not less than 2.5 bars for not less than 24 hours. Every leakage which occurs and results in a pressure drop of more than 0.15 bar for the 24 h, shall be corrected. Any faults disclosed, such as permanent deformations, ruptures or leakages shall be corrected, and the pressure test must be repeated.

Flow loss

Every fluid that flows through a tubing system experiences continuous and local flow resistances that are apparent from the pressure drop in the system. There is a difference between the continuous and the local pressure drop. The continuous pressure drop is mainly caused by the flow resistance in straight tube sections, which in turn essentially results from the friction between the fluid and the tube wall. Local pressure drops, on the contrary, are those flow resistances that are caused by turbulence, for instance where there is a change of internal tube diameter, a tube branch, in an elbow, etc.

Continuous pressure drop

To calculate the total pressure drop resulting from the flow of fluids in a straight section of the tubing system, first determine the pressure drop over a unit of length and then multiply the total length with this value. This value can be determined analytically using the Hazen-Williams formula.

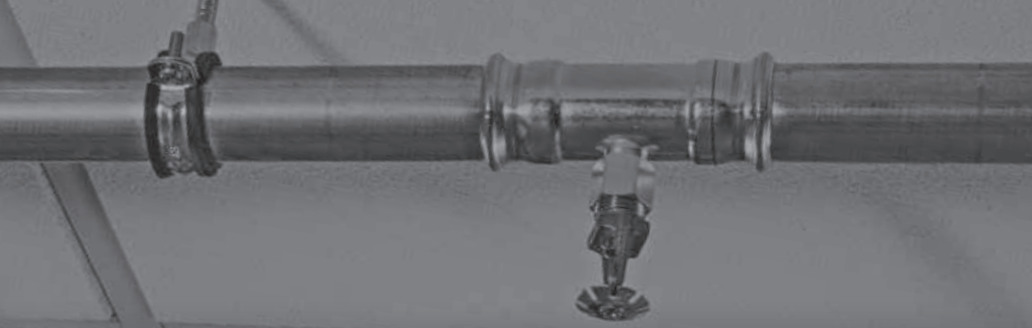
$$p = \frac{6.05 \times 10^5}{C^{1.85} \times d_i^{4.87}} \times Q^{1.85}$$

- p = pressure loss in the tube [bar/m]
- Q = flow through the tube [l/min]
- d_i = mean internal diameter of the tube [mm]
- C = constant for type and condition of the tube
 $C=140$ for XPress Sprinkler tube

The pressure loss due to velocity may be ignored.

Local pressure drops








Local pressure drop is, as mentioned in the introduction of this section, the resistance to flow that results from changes in the flow direction and cross-sectional area, flow splitting over several channels, etc. There are in general two possibilities to calculate these flow resistances: the direct analytical method and the method using equivalent lengths.



EQUIVALENT LENGTH METHOD

This is a calculation method that solves the calculation problem as a function of a particular local resistance and gives the equivalent length of a straight piece of tube with the same diameter that would have the same pressure drop. In order to use this method of calculation all length-equivalent values for each fitting type in the table

below are to be added to the actual length of the supply network. The total calculation of the equivalent length is multiplied by continuous pressure drop [bar/m]. This will show the overall resistance in the circuit. This method is not as accurate as the direct analytical method but has the advantage that the calculation can be carried out faster.

OD DN		ζ Direct analytical method / equivalent length (m)													
															
		ζ	(m)	ζ	(m)	ζ	(m)	ζ	(m)	ζ	(m)	ζ	(m)	ζ	(m)
22	20	0,44	0,35	0,38	0,30	0,15	0,12	1,05	0,84	0,11	0,08	0,73	0,59	1,29	1,04
28	25	0,35	0,38	0,28	0,32	0,13	0,28	0,93	1,01	0,05	0,06	0,65	0,72	0,82	0,92
35	32	0,31	0,43	0,29	0,40	0,08	0,11	0,93	1,34	0,03	0,04	0,53	0,79	1,47	2,19
42	40	0,25	0,48	0,22	0,42	0,11	0,20	1,20	2,27	0,06	0,11	0,46	0,85	-	-
54	50	0,30	0,79	0,19	0,49	0,09	0,24	1,15	3,06	0,06	0,14	0,36	1,43	-	-
76,1	65	0,25	1,04	0,15	0,62	0,08	0,31	1,07	4,42	0,04	0,17	0,32	1,68	-	-
88,9	80	0,24	1,22	0,13	0,66	0,07	0,36	1,06	5,38	0,04	0,20	0,27	2,10	-	-
108	100	0,23	1,51	0,12	0,76	0,07	0,43	1,05	6,90	0,03	0,20	-	-	-	-

DIRECT ANALYTICAL METHOD

The local pressure drop can be calculated with the following mathematical equation:

$$\Delta p_l = \sum \zeta \times v^2 \times \gamma / 2 \times 10^{-5} \text{ [bar]}$$

v = flow velocity of the fluid [m/s]

γ = specific density of the fluid [kg/m³]

ζ = local flow resistance coefficient

The table below gives the $[\zeta]$ values for every type of fitting. We can assume that $[\zeta]$ is velocity independent for those velocities that occur in domestic installations or in other normal applications; this is supported by the fact that the change of $[\zeta]$ as a function of the Reynolds number in these velocity ranges is only minimal. Once the $[\zeta]$ value is known, one can read off directly the corresponding local pressure drop.



PRESS-FIT TOOLING

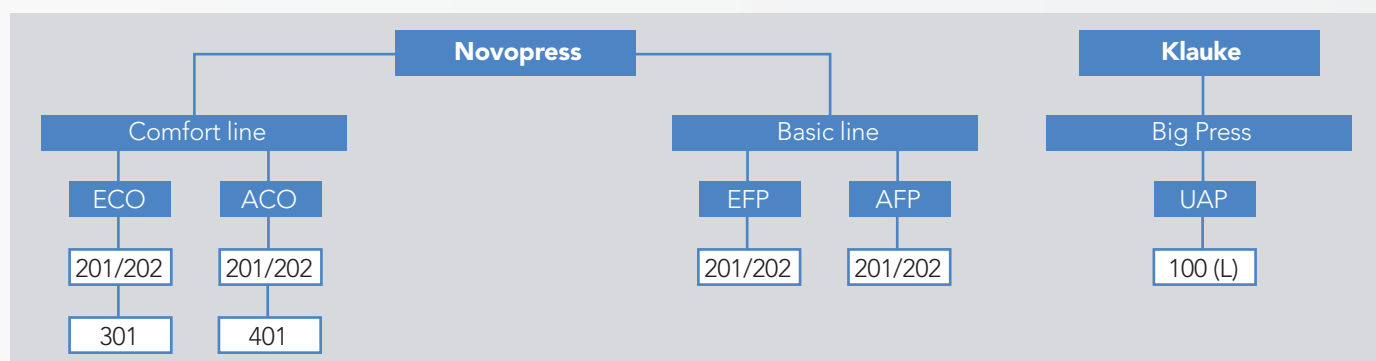
XPRESS SPRINKLER TOOLS

An important part of the XPress Sprinkler range is the press tools which are used to make a press joint. The tools which we prescribe for the XPress Sprinkler range consist of a press machine and the accompanying press jaws or slings.


Depending on the outside diameter of the tube, you should choose the corresponding press jaws or slings to ensure a completely tight joint. Only tools made by Novopress for the dimensions DN20 to DN100 (22-108mm) or Klauke for stainless steel in the dimensions DN65 to DN100 (76.1-108mm) (suitable for M-Profile) are

permitted to be used in combination with the XPress Sprinkler system. Other brands of machines and press jaws or slings are currently not permitted due to the certification of our sprinkler range.

SPRINKLER APPROVED MACHINES NOVOPRESS AND KLAUKE



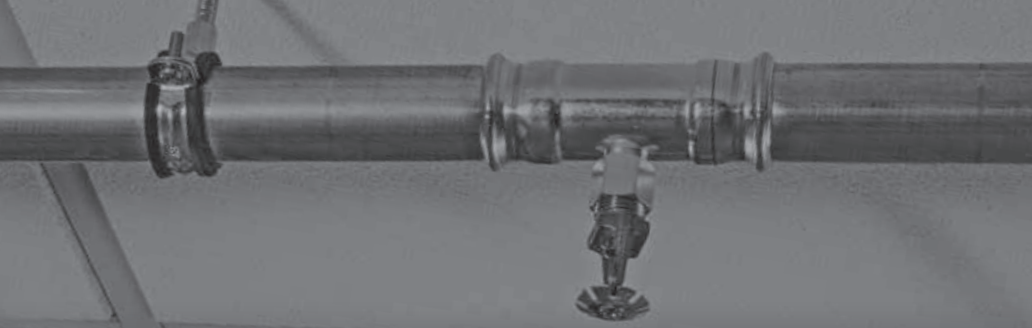
RANGE OF APPROVED NOVOPRESS PRESS MACHINES

Novopress ACO 202 DN20-50 (22-54mm)		
	Power supply	18V/ 3.0Ah
	Power	400W
	Piston force	32kN
	Piston stroke	40mm
	Dimensions L x W x H	410 x 80 x 125mm
	Weight	3.3kg

Pegler Yorkshire has passed the different certification tests for XPress Sprinkler with a wide range of machines from Novopress. Depending on the dimensions to be installed and the worksite, different machines can be used. The Novopress ACO 202 is the preferred work site machine for the dimensions DN20 to DN50 (22-54mm).

- ✚ Suitable for dimensions from DN20 to DN50 (22-54mm)
- ✚ ACO is battery operated with Li-Ion technology
- ✚ The low weight and ergonomic shape render even narrow press areas readily accessible

- ✚ Convenience features, such as the electronically controlled press procedure with automatic return and electronic retaining bolt securing device, guarantee perfect pressing
- ✚ The diagnostic function enables optimum fault analysis for targeted servicing
- ✚ Short press cycles, irrespective of the nominal widths, guarantee fast and economical working procedures



CONNECT + CONTROL

Novopress ECO 301 DN20-50 (22-54mm)



Power supply	220 - 240V/50Hz
Power	560W
Piston force	45kN
Piston stroke	45mm
Dimensions L x W x H	420 x 85 x 110mm
Weight	5.0kg

The Novopress ECO 301 is the preferred workshop machine for the dimension DN20 to DN50 (22-54mm).

- + Compact dimensions, suitable for dimensions from DN20 to DN50 (22-54mm)
- + ECO 301 is mains operated
- + Control and monitoring of the entire press cycle is carried out by a microprocessor which ensures optimum press performance at all times over the entire period of use

- + The simple operation and ergonomic design render even narrow press areas readily accessible
- + Fast and economical. Short press cycles of approx. 12 seconds irrespective of the nominal widths
- + The electronic retaining bolt securing device and automatic return after completion of the press cycle are tried and tested standards

Novopress ACO401 DN65-100 (76.1-108mm)



Power supply	18V/3.0Ah
Power	400W
Piston force	100kN
Piston stroke	60mm
Dimensions L x W x H	660 x 100 x 250mm
Weight	13.0kg

When pressing sprinkler installations in the dimension DN65 to DN100 (76.1-108 mm) the machine of choice is the Novopress ACO401.

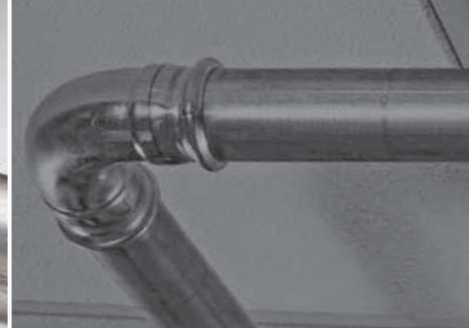
The ACO401 press machine is a perfect solution for fire sprinkler systems, potable water, ship building and industrial purposes. The dimensions DN65 to DN100 (76.1-108mm) can be pressed in a safe and reliable way by using the special HP401 slings.

- + Control and monitoring of the entire press cycle is carried out by a microprocessor which ensures optimum press performance at all times over the entire period of use

- + The simple hand operation of the machine allows the installer work at locations that are difficult to access (e.g. ceilings)
- + Automatic processing including the return after completion of the press cycle is a proven standard
- + Press cycles of ca. 25 seconds, independent of nominal diameter enable fast and economical performance
- + The cylinder including sling adaptor can be turned 180° and enables installation at difficult access locations

Other approved Novopress machines for the dimensions DN20 to DN50 (22-54mm):


- + Novopress ECO 201 and 202
- + Novopress ACO 201
- + Novopress EFP 2, 201 and 202
- + Novopress AFP 201 and 202



PRESS-FIT TOOLING

APPROVED NOVOPRESS JAWS AND SLINGS

Depending on the outside diameter of the tube the pressing should be executed with a press jaw or a press sling. In the dimensions 22 and 28mm a regular press jaw from Novopress can be used. When going to bigger dimensions the pressing should be done by means of a press sling (starting from 35mm). Depending on the type of machine different slings can be used, which are specific HP versions. These special XPress Power Slings are especially designed for the XPress Sprinkler system.

Novopress jaws and slings			
		DN/dimension	Nominal width (mm)
	Press jaws	20	22
		25	28
	Press slings	32	35
		40	42
		50	54
		65	76.1
		80	88.9
		100	108

Overview of Novopress press jaws and press slings

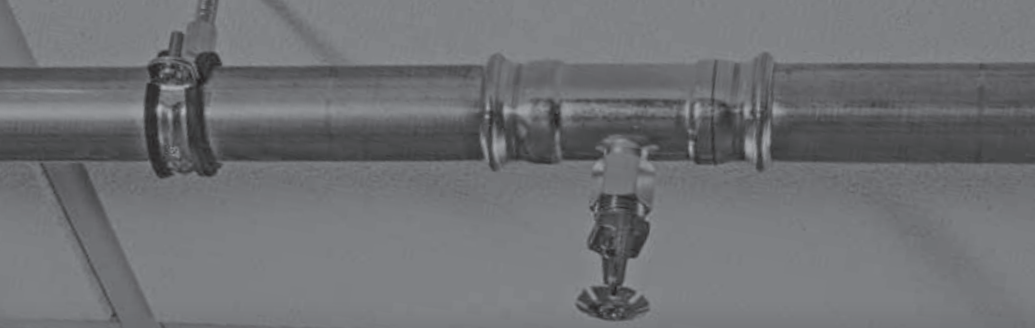
Special care should be taken in the combination of press machine and press sling. Always make sure to use the appropriate adapter. In the table below you can find the different combinations approved of machine and press jaw and sling.

Pressing tools ECO 201/202, ACO 201/202, EFP 2/201/202 & AFP 201/202			
	DN/dimension	Nominal width (mm)	Adapter
ECOTEC jaw	20	22	-
ECOTEC jaw	25	28	-
Press sling 35	32	35	ZB201/ZB203
Snap on HP 35	32	35	ZB 203
Snap on HP 42	40	42	ZB 203
Snap on HP 54	50	54	ZB 203

Pressing with ECO 201/202, ACO 201/202, EFP 2/201/202 and AFP 201/202 press tools

Pressing tool ECO 301			
	DN/dimension	Nominal width (mm)	Adapter
ECO 301 jaw	20	22	-
ECO 301 jaw	25	28	-
Press sling 35	32	35	ZB 302
XPress power sling	40	42	ZB 302
XPress power sling	50	54	ZB 302
Snap on HP 35	32	35	ZB 303
Snap on HP 42	40	42	ZB 303
Snap on HP 54	50	54	ZB 303

Pressing with ECO 301




CONNECT + **CONTROL**

Pressing tool ACO 401		
	DN/dimension	Nominal width (mm)
Press sling HP 401 76.1	65	76.1
Press sling HP 401 88.9	80	88.9
Press sling HP 401 108	100	108

Pressing with ACO 401

RANGE OF APPROVED KLAUKE PRESS MACHINES (ONLY FOR STAINLESS STEEL)

For stainless steel installation in the dimensions DN65 to DN100 (76.1-108mm) it is also allowed to use the Klauke UAP100 in combination with Klauke slings

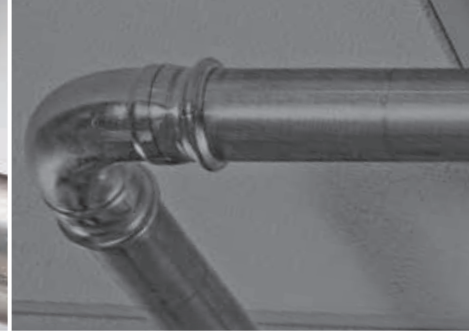
Press slings UAP 100 DN65-100 (76.1-108mm)			
	Press sling	DN/dimension	Nominal width (mm)
	KSP 3	65	76.1
	KSP 3	80	88.9
	KSP 3	100	108

Overview of Klauke press slings

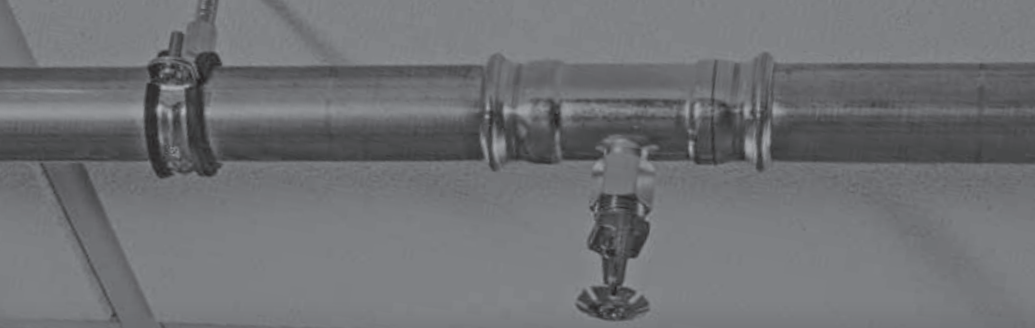
If the press tools are correctly used, reliable pressing with the XPress Sprinkler system is guaranteed. Regular maintenance and lubrication of the press jaws, slings, adapters and tools is required. Please see the Novopress and Klauke instructions for use and maintenance.

**For information on tooling for the XPress Sprinkler system,
please contact the Pegler Yorkshire helpdesk on 0800 156 0050**

XPress



NOTES



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