



COPPER PRESS SYSTEM (GAS)

TECHNICAL AND INSTALLATION GUIDE

WE ARE HERE FOR THE LONG RUN AND SO ARE OUR PRODUCTS!

At the Plumbers' Supplies Co-operative we are very proud to have had over 60 successful years in business servicing the ever changing needs of our Members. Almost 10 years ago we decided to launch our own products, allowing us to be in full control of the quality, supply and marketing functions associated with the PSC Products brand. We place a large emphasis on quality, so you can be assured that if any products carry the PSC logo, you are buying a high quality, well supported product backed by PSC. PSC Products are produced and audited to the requirements of Australian Standards under the Watermark Scheme by SAI Global, offering an additional layer of independent quality assurance and compliance verification to Standards.

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PSC Press Gas is a comprehensive copper press fitting system for use with conformant copper tube to AS1432 Type A and B Only: providing a durable and secure leak-proof joint for many gas Applications. (Other Applications are possible based on requirements by consultation with PSC).

PSC Press Gas fittings are manufactured to AS3688



WHEN THINKING OF USING A COPPER PRESS SYSTEM

THINK **PSC**  Press

P
Precise ✓

Leak Detection

Design features on the O-ring allows for missed press leak detection when tested correctly using the defined procedure in this manual.

S
Secure ✓

Long Lasting Performance

When installed correctly as per the requirements of this document and other regulatory requirements.

C
Connection ✓

Secure Joint

Secure and durable permanent joint ensures the fitting cannot be tampered with.

Fully Certified and Tested

Extensive third party certification and testing offers peace of mind, in addition warranty and insurance is covered by PSC.

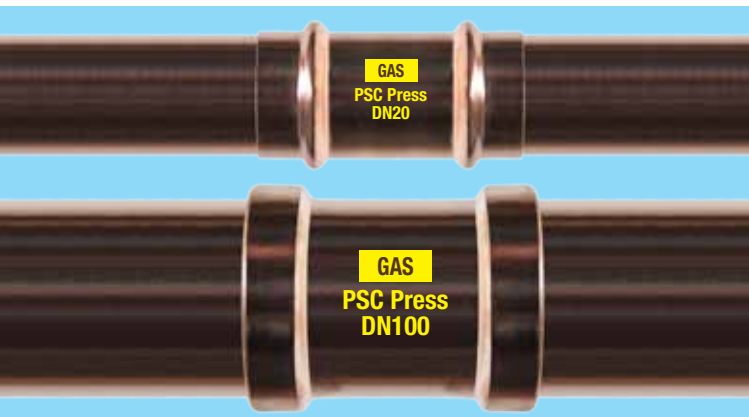
Flame Free

Flame free installation means no need for hot works permits and no need to lug around heavy bottles used for brazing.

Reduced Installation Time

Simple, quick and reliable installation translates to reduced labour time.

PSC Press Copper Crimp Fitting Information



Applications

PSC Press Gas Fittings are suitable for:

- Natural gas installations
- Liquid Petroleum Gas installations
- Other gas installations (see table pages 6 & 7)
- Other media also possible (with consultation on application to PSC for approval)

Leak Before Press

The precise design of PSC Press fittings allows air to pass the sealing element of unpressed fittings, thereby providing a leakage point during the commissioning of the system.

When the fitting is pressed, the O-ring material compresses, filling the gaps, creating a leak free joint.

Final testing of the system should be conducted in accordance with AS/NZS5601 and any other additional local regulations and/or requirements.

Testing with Air

IMPORTANT: Unpressed fittings are identified by pressurising the system slowly with air, increase the pressure to be between 50 kPa and 200 kPa. Inspect each joint with a leak check liquid material/spray for any visual signs of leakage. After conformance, conduct testing as per AS/NZS5601.



Warranty on PSC Press Fittings

We place a large emphasis on quality, so you can be assured that if any products carry the PSC logo, you are buying a high quality, well supported product backed by PSC. To back this up, when using PSC Press with Type A and B copper tube compliant with AS1432 other than PSC copper tube, PSC will provide warranty for the same period of the copper tube used, to a maximum of 25 Years. If the copper tube warranty on the tube used is 10 years, then the PSC warranty for the PSC Press fitting is also 10 Years. This is a maximum 25 year guarantee against faults caused by defective manufacturing of PSC Press fittings.

For Warranty to Apply

IMPORTANT:

- 1- TOOLING:** approved tools within manufacturer's service requirements, that are well maintained and used as per manufacturer's detailed requirements.
- 2- TUBE:** tube must be Type A or B conformant to AS1432.
- 3- ENVIRONMENT:** PSC Press must be installed in a suitable external environment and be used for the correct application.
- 4- INSTALLATION:** all PSC Press fittings must be installed by a licenced Gas Fitter in accordance with the PSC Press installation guidelines, AS/NZS5601 and any other additional local regulations and/or requirements.

Tooling Repair and Servicing

PSC recommends, supplies, repairs and services all Novopress copper battery tools; this is carried out in our Tooling Service Department located in our Head Office. Please contact your local branch for any repairs, testing, inspection or service of Novopress tools.

Technical Data/Uses (Gas)

PSC Press is suitable for use with Type A and B copper tube complying with AS1432.

Note: AS3688 covers Mechanical Joint Press fittings for GAS to 500Kpa at 70 Degrees Celcius, with fittings exposed to direct sunlight being able to support temperature up to 100 Degrees Celcius for intermittent periods.

PSC Press GAS HNBR O-rings have been tested up to 100 Degrees Celcius.

GAS O-RING SCOPE OF APPLICATION

Application	Comment	MOP [kPa]	TEMP [°C]	Gas (HNBR)
Natural Gas/LPG				
Natural Gas	Australian gas approved, Note: The scope of AS/ NZS5601 for all gas systems is restricted to 200kPa	200	70	✓
Liquid Petroleum Gas				✓

Other media can be used subject to request on application with PSC.

MOP[kPa] Maximum safe working pressure (continuous operating pressure), greater short duration peaks possible

TEMP(°C) Maximum continuous operating temperature (Celsius), greater short duration peaks possible

HNBR Hydrogenated Nitrile Butadiene Rubber

Not Suitable:

Acetylene, Ammoniac gases, Coolant Inhibitor, Glycerine Triacetate, Medical Gas Applications, Methanol, Refrigeration and Air Conditioning Applications, Sodium Hydroxide, Urea Solution.

APPROVED TOOLS (with compliant copper press jaws)

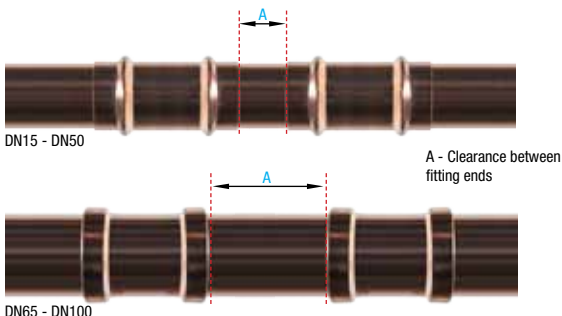
Manufacturer	Model/s	Approved
Novopress	ACO 152, ACO 203	✓
Milwaukee	M12HPT-0, M128HPT-0	✓
Viega	Picco, PT3-AH, 4B	✓
Rothenberger	Romax Compact, Romax 3000	✓
Ridgid	RP340 & RP210-B	✓
Kempres	KPS, KPL & KPL2	✓

Other tooling with compatible jaws may be approved on application to PSC. Written approval is required from PSC before use on PSC Press Product.

Design Considerations

Distance between PSC Press fittings

A minimum separation between fitting installation needs to occur to ensure the press forming does not possibly compromise either joint during installation. The concentricity of Copper Tube Wall Thickness in the pipework can also affect the fittings integrity to seal when they are installed too close together. The following table indicates the minimum separation distance required for PSC PRESS Fittings by size of fitting. This distance must be applied between any fittings as a minimum from fitting edge to fitting edge. This Design requirement needs to be conformant to have warranty coverage on all PSC Press fittings.



Tube Size	Minimum Clearance A (mm)
15mm	10
20mm	10
25mm	10
32mm	20
40mm	30
50mm	40
65mm	40
80mm	40
100mm	40

Brazing near PSC Press fittings

No Hot Works, (Soldering, Welding or Annealing) can be performed within a minimum defined distance of any installed PSC Press Fittings.

The minimum separation distance by size is stated in the table below.

Considerations should be made prior to any installation that may require any Soldering, Welding or Annealing to ensure it is done prior to installation with PSC Press Fittings.

If the defined minimum separation distances cannot be achieved and any Hot Work detailed needs to be performed, preventive measures need to be applied to ensure the installed fitting O-ring maximum operating temperature, defined in this document by O-ring Type, is not exceeded at any time by heat transfer or thermal conductivity.

It should also be noted that considerations also need to be taken to ensure installation location will not affect PSC Press fittings maximum operating temperature with radiant heat and/or heat transfer during installation, commissioning and operation.

Tube Size	Minimum Clearance (mm)
15mm	400
20mm	600
25mm	800
32mm	1000
40mm	1200
50mm	1500
65mm	1800
80mm	2000
100mm	2500

Installation Instructions

Note: Check pipe and fitting compatibility; both the piping material (must be Type A or B copper tube conformant to AS1432) and the O-Ring must be checked if suitable for purpose (see page 6) and the exterior environment must also be considered.

1. Cut the Tube

An appropriate copper tube cutter must be used to ensure a clean square cut.

Note: It is important that the copper tube is cut completely square, the end of the tube (outside) should be clean and free from any scratches or damage such as dints or deformity.



2. Remove Burrs

Make sure that the internal and external tube end is completely free from burrs or sharp edges by using a file or deburring tool.

Note: ensure over use does not affect the tube end outside diameter.

3. Inspect the Fitting

Before inserting the tube, check O-Rings (1-50mm) and also spacers/grab rings (65-100mm) for correct placement, they are free of damage or any dust, dirt or debris. We recommend the fittings are retained in packaging up to the point of use where ever possible.



4. Marking Insertion Depth on Tube

All cut and deburred Copper tube ends for insertion into the fitting require an insertion depth mark to be applied to the tube prior to insertion into the fitting. The mark will be applied by measuring from the end of the tube with a ruler or tape measure and using a marker pen to the required length. The mark will ensure the tube is inserted correctly into the fitting prior to press.

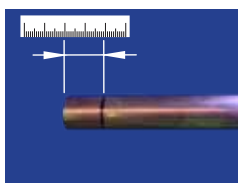


Table Insertion Marking Length by Size

Tube Size	Marking Insertion Depth
DN15	19mm
DN20	24mm
DN25	25mm
DN32	27mm
DN40	34mm
DN50	42mm
DN65	45mm
DN80	52mm
DN100	62mm

5. Tube Insertion

The Tube should be inserted Parallel into the fitting Coupling ensuring no damage is caused to the O-ring or grab ring and spacer (DN65-100mm), ensuring the insertion mark is visible at the end of the fitting next to the fitting coupling end.



6. Press Tool Selection

The tool to be used should be conformant, well maintained and within its Manufacturers service requirement. The correct jaw type and size should be inspected to ensure it is clean and free from defects and contamination.

Note: only approved tooling may be used on PSC Press fittings. Refer to Approved Tooling Table on page 6

7. Press the Joint

The jaw should be placed over the fitting, correctly aligned and positioned. When all requirements are correct, the tool should be activated to press the joint. The tool should complete the correct cycle and the jaw ends should fully close on completion. If the tool does not complete the required cycle during operation the fitting should be cut out, replaced then repressed. **No fitting should be pressed more than once. Tooling should be used as per its respective manufacturers' documented requirements.**



8. Joint Completion

The fitting should be inspected after pressing to ensure the correct press has been performed and no cracking or over deforming has occurred. The pipe insertion mark should be checked and be to the fitting edge, to ensure it has not moved. (DN65/DN80/DN100 has a sticker on each fitting that can be removed after press and inspection to ensure conformance).

IMPORTANT: Unpressed fittings are identified by pressurising the system slowly with air, increase the pressure to be between 50 kPa and 200 kPa. Inspect each joint with a leak check liquid material/spray for any visual signs of leakage. After conformance, conduct pressure testing as per AS/NZS5601.

PSC Press Fittings FAQ

PSC Press Fittings Frequently Asked Questions

Q. Do I need to lubricate the O-ring?

A. No, the O-ring is pre-lubricated. Using additional lubricants could reduce the longevity of the O-ring and void the warranty. Care should be taken during copper tube insertion to ensure the O-ring does not roll or dislodge.

Q. What grades/types of copper tube do the fittings suit?

A. Annealed (ANN), Bendable Quality (BQ) and Hard Drawn (HD) Type A and B copper tube compliant to AS1432.

Q. What pipe preparation is required?

A. Please see 'Installation Instructions' on pages 8 & 9.

Q. When using PSC Press with older pipes, what surface preparation is required?

A. The surface should be prepared in the same way as you normally would with brand new pipe.

Q. Can PSC Press Fittings be placed in the ground?

A. Yes, but the tube and fittings must be protected when installed in any corrosive and/or acidic environments, this includes possible ground water exposure, as per regulatory requirements.

Q. Can PSC Press Fittings be exposed to direct UV sunlight and heat?

A. Yes. Please refer to the Table on page 6.

Q. Can PSC Press Fittings be used with medical gases?

A. No, the fittings are not recommended for use with most medical gases. Consultation with PSC on specific installation requirements is recommended.

PSC Press Fittings Frequently Asked Questions

Q. Am I able to use other tools to crimp a PSC Press fitting?

A. Yes, PSC Press fittings use a V profile and are therefore compatible with the following tools and jaws that use the same profile: Novopress ACO 152/203, Milwaukee (M12HPT-0, M128HPT-0), Kempress tools (KPS, KPL & KPL2), Viega (Picco), Viega (PT3-AH & 4B), Rothenberger (Romax compact), Rothenberger (Romax 3000), Ridgid (RP340, RP210-B), hydraulic press tools.

Q. Does the clipping of fittings/tube differ from a welded copper application?

A. No, the same type of clips can be used when installed in accordance with Australian standards and any other local regulatory requirements.

Q. What is the recommended space between pressed fittings?

A. Please see the 'distance between PSC Press fittings' section on page 7.

Q. Can PSC Press fittings be dismantled and reused?

A. No, once pressed it is a permanent installation.

Q. Will I be able to rotate a PSC Press fitting once installed?

A. No, once pressed, a PSC Press fitting cannot be rotated.

Q. Can you braze (silver solder) near a PSC Press fitting?

A. See section on 'Brazing near PSC Press fittings' on page 7. It is not recommended unless distance and precautionary measures are taken to prevent damage to the sealing O-ring.

Q. What procedure should I follow to show any leaks at the end of my installation?

A. Refer to 'Testing with Air' on page 4 of this Technical and Installation Guide.

Q. What are some of the benefits of PSC Press fittings?

A. Fast, easy and ergonomic installation. The built in PSC Press Leak indicator design gives an indication of an unpressed joint (refer to instructions on page 4), which will help uncover possible problems with installation.



PRODUCT LISTING

PSC Press Gas Fittings

No 1 Coupling

Code	Size (D1)
163001	DN15
163002	DN20
163003	DN25
163004	DN32
163005	DN40
163006	DN50
163007	DN65
163008	DN80
163009	DN100



No 1S Slip Coupling

Code	Size (D1)
163020	DN15
163021	DN20
163022	DN25
163023	DN32
163024	DN40
163025	DN50
163026	DN65
163027	DN80
163028	DN100



No 1R Red Coupling

Code	Size (D1)
163160	DN 20 X 15 No 1R
163161	DN 25 X 15 No 1R
163162	DN 25 X 20 No 1R
163163	DN 32 X 25 No 1R
163164	DN 40 X 25 No 1R
163165	DN 40 X 32 No 1R
163166	DN 50 X 25 No 1R
163167	DN 50 X 32 No 1R
163168	DN 50 X 40 No 1R
163169	DN 65 X 32 No 1R
163170	DN 65 X 40 No 1R
163171	DN 65 X 50 No 1R
163172	DN 80 X 40 No 1R
163173	DN 80 X 50 No 1R
163174	DN 80 X 65 No 1R
163175	DN 100 X 50 No
163176	DN 100 X 65 No
163177	DN 100 X 80 No



PSC Press Gas Fittings

M&F Reducer

Code	Size (D1)
163190	DN 20 X 15
163191	DN 25 X 15
163192	DN 25 X 20
163193	DN 32 X 20
163194	DN 32 X 25
163195	DN 40 X 25
163196	DN 40 X 32
163197	DN 50 X 25
163198	DN 50 X 32
163199	DN 50 X 40
163200	DN 65 X 40
163201	DN 65 X 50
163202	DN 80 X 50
163203	DN 80 X 65
163204	DN 100 X 50
163205	DN 100 X 65
163206	DN 100 X 80



No 2 Female Coupling

Code	Size (D1)
163235	DN15 X 1/2" BSP
163236	DN20 X 3/4" BSP
163237	DN25 X 1" BSP
163238	DN32 X 1 1/4" BSP
163239	DN40 X 1 1/2" BSP
163240	DN50 X 2" BSP



No 3 Male Coupling

Code	Size (D1)
163245	DN15 X 1/2" BSP
163246	DN15 X 3/4" BSP
163247	DN20 X 1/2" BSP
163248	DN20 X 3/4" BSP
163249	DN25 X 3/4" BSP
163250	DN25 X 1" BSP
163251	DN32 X 1 1/4" BSP
163252	DN40 X 1 1/2" BSP
163253	DN50 X 2" BSP



PSC Press Gas Fittings

No 12 90D Elbow F&F

Code	Size (D1)
163030	DN15
163031	DN20
163032	DN25
163033	DN32
163034	DN40
163035	DN50
163036	DN65
163037	DN80
163038	DN100



No 12 90D Elbow M&F

Code	Size (D1)
163050	DN15
163051	DN20
163052	DN25
163053	DN32
163054	DN40
163055	DN50
163056	DN65
163057	DN80
163058	DN100



No 12 45D Elbow F&F

Code	Size (D1)
163070	DN15
163071	DN20
163072	DN25
163073	DN32
163074	DN40
163075	DN50
163076	DN65
163077	DN80
163078	DN100



No 12 45D Elbow M&F

Code	Size (D1)
163090	DN15
163091	DN20
163092	DN25
163093	DN32
163094	DN40
163095	DN50
163096	DN65
163097	DN80
163098	DN100



PSC Press Gas Fittings

No 13 Male Elbow

Code	Size (D1)
163258	DN20 X 3/4"



No 14 Female Elbow

Code	Size (D1)
163262	DN20 X 3/4"



No 15 Female Back Plate Elbow

Code	Size (D1)
163268	DN15 X 1/2"
163273	DN20 X 3/4"



No 19 Male Back Plate Elbow

Code	Size (D1)
163278	DN15 X 1/2" x 75MM long
163279	DN15 X 1/2" x 95MM long



PSC Press Gas Fittings

No 24 Tee Equal

Code	Size
163110	DN15
163111	DN20
163112	DN25
163113	DN32
163114	DN40
163115	DN50
163116	DN65
163117	DN80
163118	DN100



No 25 Tee Red

Code	Size
163130	DN 20 X 20 X 15
163133	DN 25 X 25 X 15
163134	DN 25 X 25 X 20
163135	DN 32 X 32 X 15
163136	DN 32 X 32 X 20
163137	DN 32 X 32 X 25
163138	DN 40 X 40 X 20
163139	DN 40 X 40 X 25
163140	DN 40 X 40 X 32
163141	DN 50 X 50 X 25
163142	DN 50 X 50 X 40
163143	DN 65 X 65 X 50
163144	DN 80 X 80 X 50
163145	DN 80 X 80 X 65
163146	DN 100 X 100 X 50
163147	DN 100 X 100 X 65
163148	DN 100 X 100 X 80



No 26 Tee Red

Code	Size
163131	DN 20 X 15 X 20



No 27 Tee Red

Code	Size
163132	DN 20 X 15 X 15



PSC Press Gas Fittings

No 61 End Cap

Code	Size
163220	DN15
163221	DN20
163222	DN25
163223	DN32
163224	DN40
163225	DN50



No 61 End Cap W/port

Code	Size
163226	DN65
163227	DN80
163228	DN100



No 62 Straight Loose Nut Connector

Code	Size
163285	DN15 X 1/2" BSP FI
163286	DN20 X 3/4" BSP FI



No 63 Loose Nut Connector

Code	Size
163290	DN15 X 1/2" BSP FI
163291	DN20 X 3/4" BSP FI



No 69 Male Union

Code	Size
163295	DN15 X 1/2" R BSP
163296	DN20 X 3/4" R BSP
163297	DN25 X 1" R BSP
163298	DN32 X 1 1/4" R BSP
163299	DN40 X 1 1/2" R BSP
163300	DN50 X 2" R BSP



PSC PEX Crimp Gas Adaptor

Code	Size
163306	DN15 CU X PEX DN16
163307	DN20 CU X PEX DN20
163308	DN20 CU X PEX DN25



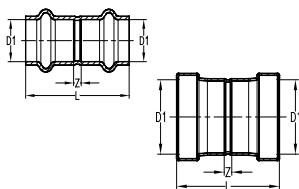


PRODUCT DIMENSIONS

PSC Press Gas Fittings

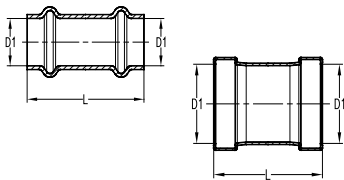
No 1 Coupling

Code	Size (D1)	L	Z
163001	DN15	41.5	4.5
163002	DN20	50.5	4.5
163003	DN25	53.5	5.5
163004	DN32	57.5	5.5
163005	DN40	71.5	5.5
163006	DN50	87.5	5.5
163007	DN65	95.0	7.0
163008	DN80	109.0	7.0
163009	DN100	129.0	7.0



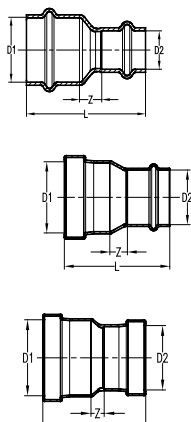
No 1S Slip Coupling

Code	Size (D1)	L
163020	DN15	41.5
163021	DN20	50.5
163022	DN25	53.5
163023	DN32	57.5
163024	DN40	71.5
163025	DN50	87.5
163026	DN65	95.0
163027	DN80	109.0
163028	DN100	129.0



No 1R Red Coupling

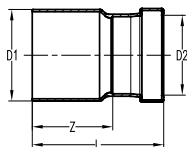
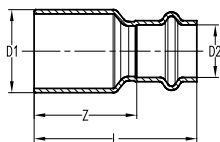
Code	Size (D1)	Size (D2)	L	Z
163160	DN20	DN15	50.5	9.0
163161	DN25	DN15	55.5	13.0
163162	DN25	DN20	56.5	9.5
163163	DN32	DN25	59.5	9.5
163164	DN40	DN25	72.5	15.5
163165	DN40	DN32	69.0	10.0
163166	DN50	DN25	90.0	25.0
163167	DN50	DN32	87.0	20.0
163168	DN50	DN40	88.0	14.0
163169	DN65	DN32	101.0	31.0
163170	DN65	DN40	103.5	26.5
163171	DN65	DN50	102.0	17.0
163172	DN80	DN40	121.0	37.0
163173	DN80	DN50	119.0	27.0
163174	DN80	DN65	108.0	13.0
163175	DN100	DN50	147.5	45.5
163176	DN100	DN65	134.0	29.0
163177	DN100	DN80	136.5	24.5



PSC Press Gas Fittings

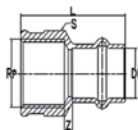
M&F Reducer

Code	Size (D1)	Size (D2)	L	Z
163190	DN20	DN15	48.5	30.0
163191	DN25	DN15	56.0	37.5
163192	DN25	DN20	55.5	32.5
163193	DN32	DN20	61.0	38.0
163194	DN32	DN25	60.5	36.5
163195	DN40	DN25	70.0	46.0
163196	DN40	DN32	69.5	43.5
163197	DN50	DN25	86.5	60.5
163198	DN50	DN32	89.0	56.0
163199	DN50	DN40	103.5	70.5
163200	DN65	DN40	103.5	70.5
163201	DN65	DN50	107.0	66.0
163202	DN80	DN50	118.5	77.5
163203	DN80	DN65	113.5	69.5
163204	DN100	DN50	149.0	108.0
163205	DN100	DN65	132.5	88.5
163206	DN100	DN80	132.5	81.5



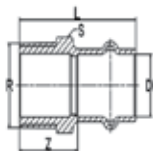
No 2 Female Coupling

Code	Size (D1)	Thread	L	Z	S
163235	DN15	1/2" RP	40.5	5.0	26.0
163236	DN20	3/4" RP	45.5	5.0	31.0
163237	DN25	1" RP	48.5	6.0	37.5
163238	DN32	1 1/4" RP	57	7.0	47.0
163239	DN40	1 1/2" RP	62.5	7.0	53.0
163240	DN50	2" RP	75.5	9.5	70.0



No 3 Male Coupling

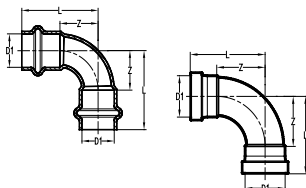
Code	Size (D1)	Thread	L	Z	S
163245	DN15	1/2" R	39.0	21.0	22.0
163246	DN15	3/4" R	41.0	23.0	28.0
163247	DN20	1/2" R	43.6	20.6	28.0
163248	DN20	3/4" R	46.0	23.0	28.0
163249	DN25	3/4" R	47.7	24.7	36.0
163250	DN25	1" R	50.0	27.0	36.0
163251	DN32	1 1/4" R	57.7	32.7	43.0
163252	DN40	1 1/2" R	63.3	32.3	50.0
163253	DN50	2" R	78.1	39.1	64.0



PSC Press Gas Fittings

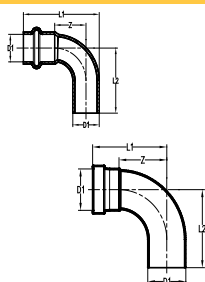
No 12 90D Elbow F&F

Code	Size (D1)	L	Z
163030	DN15	32.5	14.0
163031	DN20	44.5	21.5
163032	DN25	54.5	30.5
163033	DN32	62.0	36.0
163034	DN40	77.5	44.5
163035	DN50	100.5	59.5
163036	DN65	124.5	80.5
163037	DN80	147.0	96.0
163038	DN100	183.5	122.5



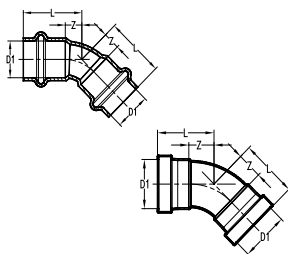
No 12 90D Elbow M&F

Code	Size (D1)	L1	Z	L2
163050	DN15	32.5	14.0	35.5
163051	DN20	44.5	21.5	45.0
163052	DN25	54.5	30.5	54.5
163053	DN32	62.0	36.0	62.0
163054	DN40	77.5	44.5	77.5
163055	DN50	100.5	59.5	102.0
163056	DN65	124.5	80.5	125.5
163057	DN80	147.0	96.0	152.5
163058	DN100	183.5	122.5	185.5



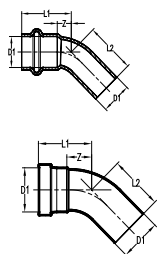
No 12 45D Elbow F&F

Code	Size (D1)	L	Z
163070	DN15	24.5	6.0
163071	DN20	32.0	9.0
163072	DN25	36.5	12.5
163073	DN32	41.0	15.0
163074	DN40	51.5	18.5
163075	DN50	64.5	23.5
163076	DN65	79.5	35.5
163077	DN80	93.0	42.0
163078	DN100	118.0	57.0



No 12 45D Elbow M&F

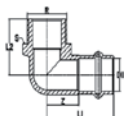
Code	Size (D1)	L1	Z	L2
163090	DN15	24.5	6.0	27.0
163091	DN20	32.0	9.0	34.0
163092	DN25	36.5	12.5	38.5
163093	DN32	41.0	15.0	43.0
163094	DN40	51.5	18.5	53.5
163095	DN50	64.5	23.5	67.5
163096	DN65	79.5	35.5	84.5
163097	DN80	93.0	42.0	99.0
163098	DN100	118.0	57.0	126.0



PSC Press Gas Fittings

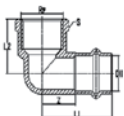
No 13 Male Elbow

Code	Size (D1)	Thread	L1	L2	Z	S
163258	DN20	3/4" R	44.0	32.5	21.0	29.0



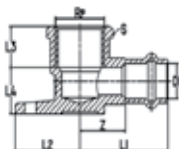
No 14 Female Elbow

Code	Size (D1)	Thread	L1	L2	Z	S
163262	DN20	3/4" RP	44.0	29.8	21.0	31.0



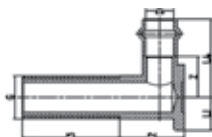
No 15 Female Back Plate Elbow

Code	Size (D1)	Thread	L1	L2	L3	L4	Z	S
163268	DN15	1/2" RP	37.5	27.5	15.0	17.0	19.5	26.0
163273	DN20	3/4" RP	41.0	27.5	16.3	24.1	24.0	32.0



No 19 Male Back Plate Elbow

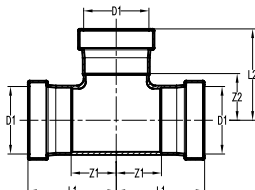
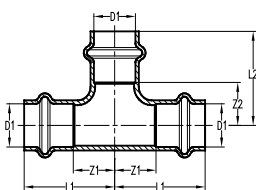
Code	Size (D1)	Thread	L1	L2	L3	L4	Z
163278	DN15	1/2" G	16.0	30.0	45.0	38.0	20.0
163279	DN15	1/2" G	16.0	30.0	65.0	38.0	20.0



PSC Press Gas Fittings

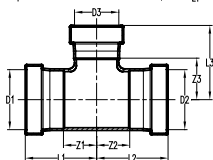
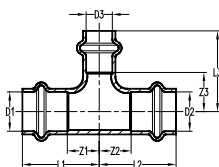
No 24 Tee Equal

Code	Size (D1)	L1	Z1	L2	Z2
163110	DN15	34.0	15.5	29.0	10.5
163111	DN20	44.0	21.0	37.5	14.5
163112	DN25	49.0	25.0	41.5	17.5
163113	DN32	51.0	25.0	48.0	22.0
163114	DN40	60.0	27.0	60.0	27.0
163115	DN50	74.5	33.5	74.5	33.5
163116	DN65	88.0	44.0	88.0	44.0
163117	DN80	100.0	49.0	100.0	49.0
163118	DN100	126.0	65.0	119.5	58.5



No 25 Tee Red

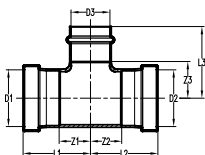
Code	Size (D1)	Size (D2)	Size (D3)	L1	Z1	L2	Z2	L3	Z3
163130	DN20	DN20	DN15	44.0	21.0	40.5	22.0	37.5	14.5
163133	DN25	DN25	DN15	41.0	17.0	41.0	17.0	36.0	17.5
163134	DN25	DN25	DN20	44.0	20.0	44.0	20.0	41.0	18.0
163135	DN32	DN32	DN15	40.5	14.5	40.5	14.5	40.0	21.5
163136	DN32	DN32	DN20	45.0	19.0	45.0	19.0	46.0	23.0
163137	DN32	DN32	DN25	48.0	22.0	48.0	22.0	46.0	22.0
163138	DN40	DN40	DN20	51.0	18.0	51.0	18.0	49.5	26.5
163139	DN40	DN40	DN25	52.0	19.0	52.0	19.0	50.5	26.5
163140	DN40	DN40	DN32	54.5	21.5	54.5	21.5	54.5	28.5
163141	DN50	DN50	DN25	60.0	19.0	60.0	19.0	58.5	34.5
163142	DN50	DN50	DN40	67.0	26.0	67.0	26.0	66.5	33.5
163143	DN65	DN65	DN50	83.5	39.5	83.5	39.5	84.5	43.5
163144	DN80	DN80	DN50	89.5	38.5	89.5	38.5	90.0	49.0
163145	DN80	DN80	DN65	92.5	41.5	92.5	41.5	96.0	52.0
163146	DN100	DN100	DN50	103.0	42.0	103.0	42.0	103.5	62.5
163147	DN100	DN100	DN65	103.5	42.5	103.5	42.5	107.5	63.5
163148	DN100	DN100	DN80	112.0	51.0	112.0	51.0	114.0	63.0



PSC Press Gas Fittings

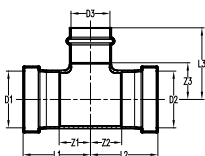
No 26 Tee Red

Code	Size (D1)	Size (D2)	Size (D3)	L1	Z1	L2	Z2	L3	Z3
163131	DN20	DN15	DN20	40.5	17.5	40.5	17.5	32.5	14.0



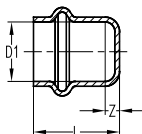
No 27 Tee Red

Code	Size (D1)	Size (D2)	Size (D3)	L1	Z1	L2	Z2	L3	Z3
163132	DN20	DN15	DN15	40.5	17.5	40.5	22.0	32.5	14.0



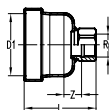
No 61 End Cap

Code	Size (D1)	L	Z
163220	DN15	22.0	3.5
163221	DN20	27.5	4.5
163222	DN25	28.0	4.0
163223	DN32	30.0	4.0
163224	DN40	37.5	4.5
163225	DN50	48.0	7.0



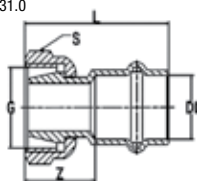
No 61 End Cap W/port

Code	Size (D1)	L	Z	Rp
163226	DN65	79.5	19.5	Rp 3/4"
163227	DN80	94.5	27.5	Rp 3/4"
163228	DN100	113.5	36.0	Rp 3/4"



No 62 Straight Loose Nut Connector

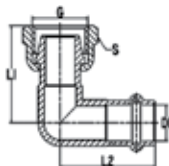
Code	Size	Thread	L	Z	S
163285	DN20 - Prostix	1/2" G	40.0	22.0	26.0
163286	DN20	3/4" G	45.0	22.0	31.0



PSC Press Gas Fittings

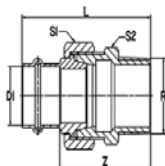
No 63 Loose Nut Connector

Code	Size	Thread	L1	L2	Z	S
163290	DN15	1/2" G	34.6	35.5	17.5	26.0
163291	DN20	3/4" G	35.5	41.0	18.0	31.0



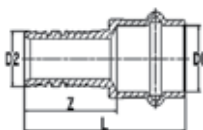
No 69 Male Union

Code	Size	Thread	L	Z	S1	S2
163295	DN15	1/2" R	56.0	38.0	30.0	27.0
163296	DN20	3/4" R	65.0	42.0	38.0	34.0
163297	DN25	1" R	72.0	49.0	47.0	43.5
163298	DN32	1 1/4" R	80.0	55.0	54.0	49.5
163299	DN40	1 1/2"	90.0	59.0	67.0	61.0
163300	DN50	2" R	105.0	66.0	77.5	70.0



GAS CONNECTOR PRESS TO PSC PEX-AL CRIMP GAS

CODE	Size (D1)	Size (D2)	L	Z	S
163306	DN15	DN16	49.5	31.5	26.0
163307	DN20	DN20	54.0	31.0	31.0
163308	DN20	DN25	54.0	31.0	31.0





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AS 3688-2005 - Water supply - Metallic fittings and end connectors

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Paul Simpson
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