



System Design

Pipe Range

Metric Compression Fittings

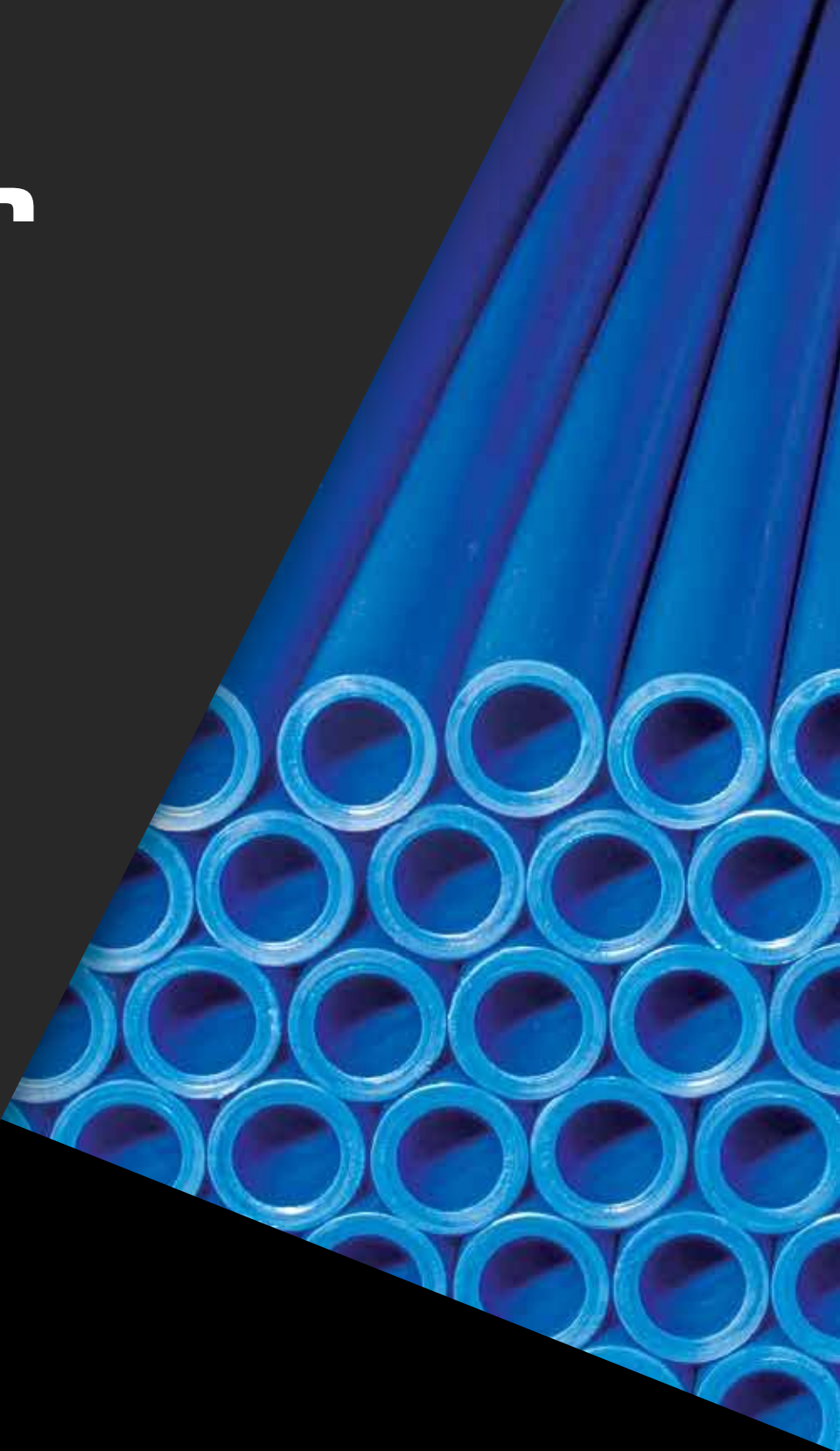
Socket Fusion Fittings

Electrofusion Fittings

Clips and Fixings

Installation Tools

Technical Guidelines



COMPRESSED AIR SOLUTIONS

PRODUCT CATALOGUE & TECHNICAL MANUAL

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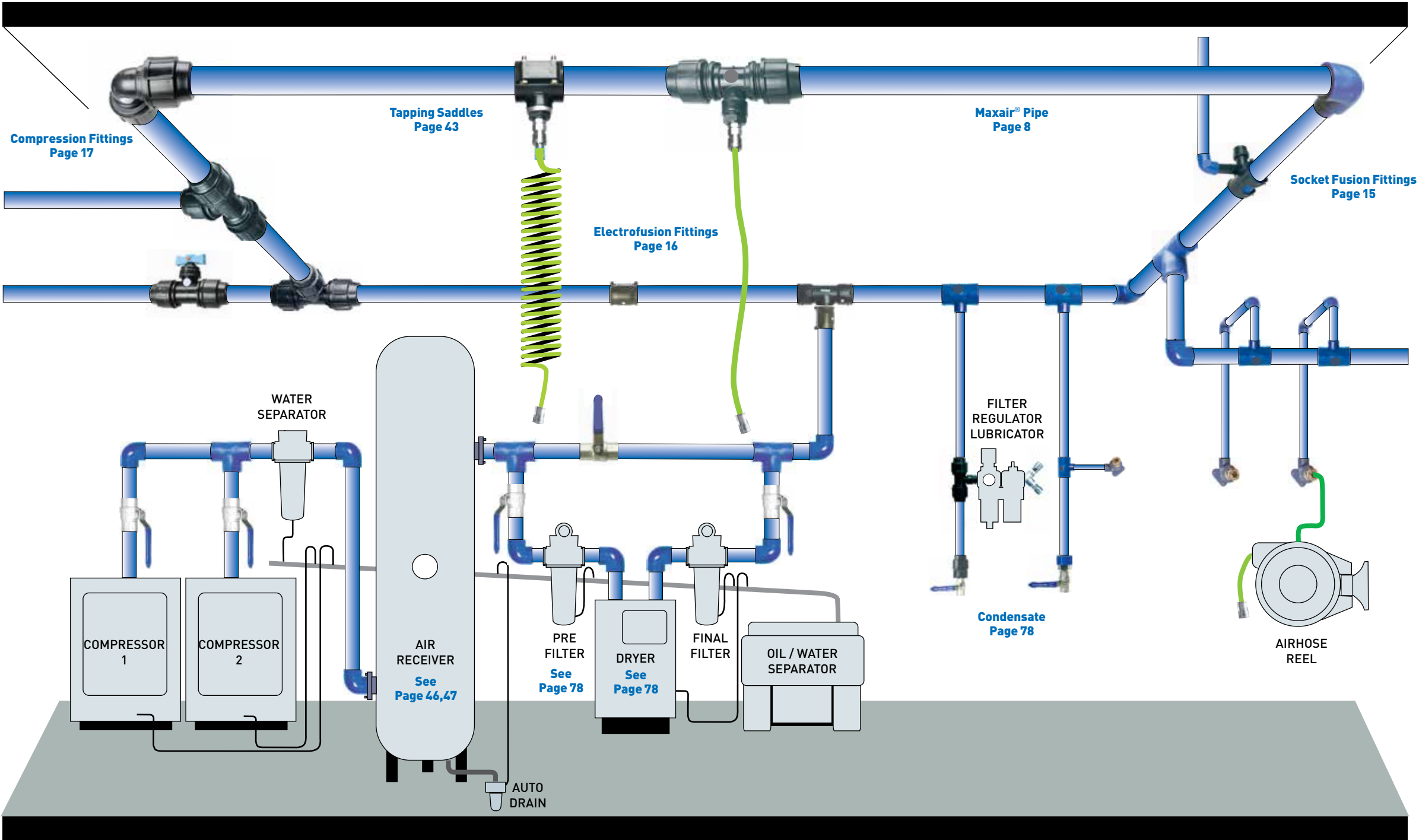


Maxair® is the original and market leader in compressed air pipe systems. The new Maxair® Technical Manual and Product Catalogue is designed to give you access to a superior system for your compressed air reticulation requirements. Maxair® pipe is extruded from PE100, an advanced materials technology and the highest grade commercially available. Maxair® outperforms other pipes for pressure, flow, corrosion resistance, compatibility with compressor oils & ease of installation or alteration.

Complementing this outstanding and proven development in clean robust pipework is a comprehensive range of quality components to help you select the best solution for your individual requirements. This range is a result of ongoing research, experience and continual improvement within a broad cross-section of industrial applications.

This manual includes technical data and installation guidelines to assist you design an air system that is precisely tailored to your requirements.

Compressed gases have inherent dangers, so an uncompromising standard of quality, conservative pressure ratings and the highest safety factors of any polymer piping system as set out in Australian Standards is here available.



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Plastics Industry Pipe Association
of Australia Limited

Industry Guidelines

POLYETHYLENE (PE) PIPES AND FITTINGS FOR COMPRESSED AIR

Ref: POP002
14 AUGUST, 2014

ISSUE 6.9

PE has a number of attributes which make it ideally suited to compressed air applications:

Fracture resistance

High resistance to fracture propagation limits the extent of fracture in the event of external damage. This feature means that PE, unlike some other thermoplastics, will present minimal hazard in the event of accidental damage and the pipe system would not normally require additional protection.

Corrosion resistance

Unlike metallic pipework, PE will not corrode.

Chemical resistance

PE has excellent chemical resistance and is suitable for use in contact with compressor oils, whereas some other thermoplastics have limited or poor resistance to compressor oils. Some synthetic oils, including aromatic, polyester, and di-ester types, may not be suitable. If in doubt, the advice of the manufacturer should be sought.

Impact resistance

PE has high impact strength compared with other thermoplastics, which maximises resistance to external damage.

Impact resistance

PE has high impact strength compared with other thermoplastics, which maximises resistance to external damage.

MANUFACTURING STANDARDS

PE - PIPES AS/NZS 4130 Polyethylene (PE) pipes for pressure applications

PE - FITTINGS AS/NZS 4129 Fittings for polyethylene (PE) pipes for pressure applications

PE pipe for compressed air has dimensions to Series I pipe requirements of AS/NZS 4130.



Pipelines Integrity For a Cleaner Environment

Extract from PIPA Industry Guidelines POP002



CONFORMANCE TO RELATIVE AUSTRALIAN STANDARDS

PE100 Maxair® conforms to **AS/NZS 4020** (requirements are of a higher level than European standards BS 6920) for contact with Drinking Water, and **AS 3855-1997** Standard for Distribution of potable water. Our product is manufactured from food grade material and will not taint purified air, or support micro-organisms. We are confident that Maxair® PE 100 is safe for breathing air applications where air supply has been filtered in the correct manner, provided appropriate cleaning and sterilisation occurs.

Maxair® pipes are manufactured in accordance with **AS/NZS 4131** and are suitable for long term use when correctly handled, installed, and operated.

AS/NZS 4130, PE pipes for pressure applications, requires that PE pressure pipes be manufactured from compounds conforming with **AS/NZS 4131**

In AS/NZS 4131, the basis of stress rating is the 50 year figure on long term stress regression. This figure is used as a design basis only, and actual life is expected to be much longer, provided recommended design, installation, and operational practices are adopted.

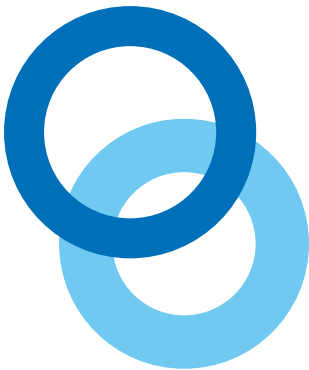
As established from long term testing, Maxair® pipe may be operated continuously under pressure for up to 200 years at 20°C

Maxair® pipe is manufactured in accordance with **AS/NZS 4131** and non-conformance is not specifically limited by time.

Warranties that may be offered by other manufacturers often limit the user's rights in setting time limits and often do not quantify the warranty conditions that may also limit the user's rights.

Although light blue RAL 5012 is referenced in AS1345 for colour of pipes for compressed air, **AS4131** makes clear that light blue RAL 5012 is for the lower grade PE80. PE100 is to be no lighter than dark blue RAL 5005 as per Maxair®.

Maxair® PE 100 is the highest grade of PE in Australian Standard AS4131. Blue colour to assist in identification and colour coding without painting. (Australian Standards require marking/colour coding).



Maxair® High Grade PE 100

Low Grade PE 80

Pipe Markings as per AS/NZS 4130



Brand / Product code / Approved Fluid / Series / Pipe sizing / PE classification / Pressure rating / Au/NZ Standard / Production batch



- 50 YEAR WARRANTY
- SIMPLE & FAST TO INSTALL
- EASY TO ALTER OR ADAPT
- LIGHTWEIGHT
- STRONG, ROBUST, SAFE
- NO CORROSION
- FOOD GRADE MATERIALS
- LOW FRICTION, SMOOTH BORE
- BROAD CHEMICAL RESISTANCE
- NO METALLIC CONTAMINATION
- WIDE RANGE OF PIPE SIZES 20MM TO 160MM
- SUITABLE FOR BREATHING AIR
- DISTINCTIVE BLUE COLOUR
- GOOD THERMAL PROPERTIES
- SUITABLE UNDERGROUND

DESIGN FLEXIBILITY

The three extensive ranges of Maxair® fittings - Socket Fusion, Electro Fusion or Compression, all using the same pipe, offer the Designer/Engineer maximum design flexibility.

The value to Industry of a total package which is readily altered at any stage is inestimable. This system is ideally suited to today's requirement for rapid installation schedules.



ELIMINATION OF PIPE CORROSION

A major disadvantage with traditional galvanised iron air pipe has been corrosion of pipe with consequent problems: Contamination of air supply, damaging tools & pneumatics, increased friction giving energy losses, reduced bore and eventual need for replacement. Maxair® eliminates this corrosion giving cleaner air and long lasting smooth bore.

Even copper develops green corrosion and can contaminate the airstream.

The smooth bore of Maxair® resists attachment and build-up of impurities.



REDUCE NOISE AND VIBRATION TRANSMISSION

One of the inherent qualities of PE100 compared to any metal pipe system is its ability to absorb and dampen transmission of noise and vibration making a quieter working environment. Transmitted vibrations can cause problems with pneumatic valves and equipment.

Maxair® is also Electrically non-conductive, so can be installed on cable trays along with cables etc.



QUICK, CLEAN, SIMPLE INSTALLATION

No tedious threading of pipe, flaring or gluing.

Installation can be 2-5 times quicker than with traditional materials. Simple to modify.

New branches, extensions or take-offs can be added with a minimum of disruption & cost. The typical inflexibility of traditional systems is overcome. An extensive range of fittings provides further design versatility.



CHEMICAL RESISTANCE

Maxair® has broad chemical compatibility and provides a solution for harsh corrosive environments. Fusion welded fittings provide a high degree of safety in these areas.

Welded PE 100 is the ultimate Polyethylene system due to its fused jointing, minimum entrapment and high safety factor.

PE pipe is suitable for use with compressor oils, whereas some other thermoplastics have limited or poor resistance. Some synthetic oils including aromatic, polyester, and di-ester types may not be suitable.

Please refer to Technical Department for specific applications.



FOOD CONTACT GRADE MATERIALS

Maxair® PE100 pipe and fittings conform with AS2070.1 "Plastic material for food contact use", providing system approval for use within a food plant.

Maxair® PE100 does not support micro-organisms or bacterial growth. Maxair® Compression fittings conform to AS4129, BS6920.

Maxair® Heavy Duty B.S.P threaded fittings conform with AS3855.3.



SUPERIOR STRENGTH

Maxair® has set the standard in the industry for high strength, and a conservative safety factor of 2:1 in compressed air pipe. By comparison a safety factor of 1:1.25 is approved for water. Maxair® has excellent pressure/ temperature capabilities with minimum 50 year design life.

Manufactured to PN25 providing a compressed air rating in accordance with Australian Standard AS4130 of 16 bar or 235 P.S.I. @ 20°C with a 2:1 safety factor.

Extremely robust. Impact resistant - is ductile in nature so will not shatter like PVC (PVC is not safe for compressed air). Excellent for underground applications.

Thermally stable and suitable for -20°C to +60°C continuous, with peaks of up to 95°C.

Meets Australian Standards AS4130 & AS4131 and made in Australia under strict ISO 9002 Certified Quality Systems.





MANUFACTURED
TO AS/NZS 4130
Rated to 16 bar for
compressed air



Economic Advantages of Maxair® Air Pipe Systems

ECONOMIC ADVANTAGES OF Maxair® AIR PIPE SYSTEMS

- \$ Elimination of costly air leaks. This is now possible with fusion welded fittings and/or proven O-Ring fittings.
- \$ Common problems with traditional materials such as maintaining air pressure and recurring air leaks, prove costly in both wastage of valuable compressed air and downtime/maintenance costs to rectify leaks.
- \$ Energy savings through reduced friction. Ultra smooth bore and low friction material.
- \$ Savings in labour costs in installation & modification.
- \$ Low capital costs.
- \$ Low maintenance. Along with low initial costs, the true economy of the Maxair® PE 100 pipe system is realised in long term efficiency, reliability, versatility and minimisation of maintenance.

GUARANTEE

Maxair® PE 100 pipe is manufactured in accordance to AS 4130 / AS 4131 and is accordingly guaranteed for 50 years provided recommended design, installation and operation practices are adopted. As established from long term testing, PE 100 may be operated continuously under pressure for up to 200 years at 20°C.

Product code	Wall thickness mm	PN rating	Nominal I.D. Imperial equivalent	O.D. mm	Length metres	Shipping Weight Kg/6m
AIR20	2.8	PN25	5/8"	20	6	0.9
AIR25	3.5	PN25	3/4"	25	6	1.4
AIR32	4.4	PN25	1"	32	6	2.4
AIR40	5.5	PN25	1 1/4"	40	6	3.5
AIR50	6.9	PN25	1 1/2"	50	6	5.5
AIR63	8.6	PN25	2"	63	6	8.7
AIR90	12.5	PN25	3"	90	6	18
AIR110	15.2	PN25	4"	110	6	27
AIR160	22	PN25	6"	160	6 or 12	55

Maxair® coils are also available:

COMPRESSED AIR SYSTEMS CONTAIN SUBSTANTIAL STORED ENERGY, WHICH, IF RELEASED SUDDENLY, COULD CAUSE INJURY. IT IS RECOMMENDED THAT PIPE SYSTEM DESIGN, INSTALLATION AND MAINTENANCE BE CONDUCTED BY THOSE WITH APPROPRIATE KNOWLEDGE AND EXPERIENCE.

CONDENSATE DRAINAGE

Ideally, condensate should be removed as soon as possible in the system. A suitably sized compressed air dryer after the Air Receiver is the recommended method for removing condensate from the air supply(see page 79). If high, short term peaks of dry air are required, then the dryer would be better installed prior to the Receiver. The good thermal characteristics of Maxair® are a further advantage.

The system should be designed to minimise or eliminate harmful condensate from being discharged into air tools and equipment when dryers are not fitted. Various methods are suitable for this purpose.

- Sloping of horizontal pipe at a slight gradient to strategically positioned drainlegs.
- Outlet droppers to come off the top of the pipework to avoid precipitated condensate being discharged in the airstream.
- In most instances however the recommended method is to install the dropper from the bottom of the branch or mainline with a short extra length of pipe extending below the outlet with a drain valve.



UNDERGROUND PIPEWORK

Maxair® pipe is ideal for underground installation with its high strength characteristics and ability to absorb ground movement.

It is recommended to lay pipework in sand and grade to avoid low points. A drain valve with a purge line should be installed in strategic positions to trap and purge any condensate that may accumulate.

HAZARDOUS AREAS

A. Corrosive Chemicals - Maxair® has excellent resistance to a broad range of chemicals and is ideal for use in many areas where corrosive liquids or atmosphere may contact the pipe. Compression fittings come standard in polypropylene construction with O-Rings of nitrile rubber and Split Grip Rings in Polyacetal. The Nitrile gives excellent resistance to oils in the compressed air. For aggressive chemical applications CPVC Split Rings and O-Rings in EPDM or Viton are available.

Fusion welded fittings provide a further degree of safety in these areas. User should verify compatibility of components with their application. Extensive compatibility charts are available. Resistance to specific chemicals should be checked with Technical Department.

B. Explosive or ignitable atmosphere. Compressed air can carry static charges which may accumulate. The user/customer/purchaser is responsible to identify any potential hazardous areas and to take necessary measures or precautions for complete safety. Information on protective measures is available with advice on your specific application.



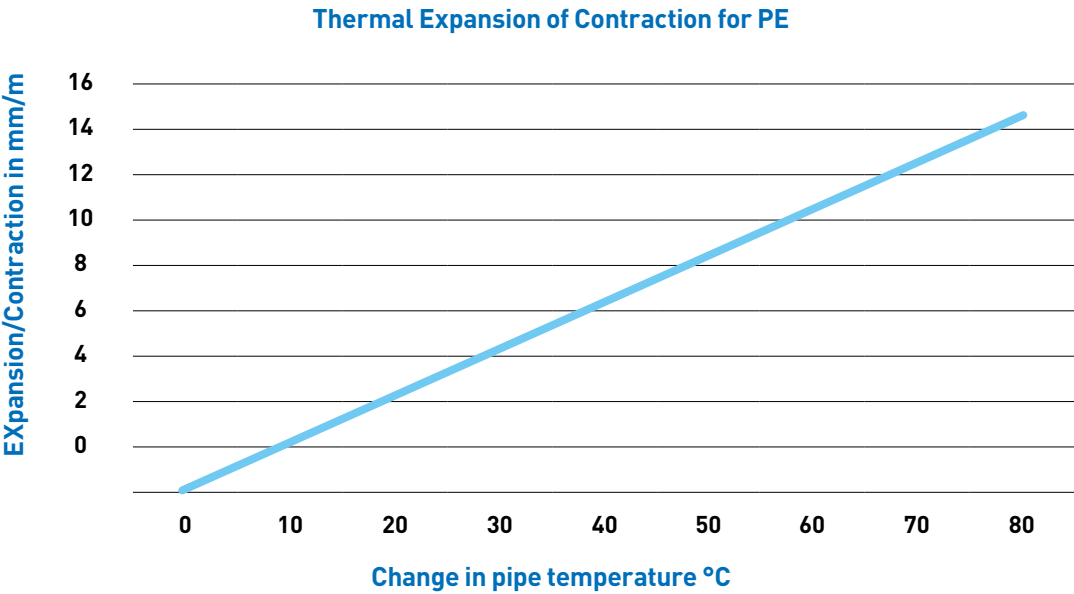
HEAT SOURCES AND EXTERIOR PIPEWORK

Care is needed to avoid unplanned overheating of the system. Air compressors will produce air which may be considerably above ambient temperature. For air-cooled compressors without dryers, conveyed air averages 15°C above ambient temperatures.

Industry best practice of shielding equipment and pipework from direct heat sources should be adopted to prevent excessive heat build-up. In the event that pipe is exposed to direct sunlight a surface layer forms overtime, creating a barrier which impedes further effects. As with all plastic pipe systems exposed to direct UV there may be some reduction of impact resistance over time; however longevity and pressure rating of the pipe system are not affected by UV rays.

In addition, compounds used in the manufacture of Maxair® pipes and fittings meet the UV exposure requirements of AS/NZS 4131 and ISO Standards applicable to gas and water pipes. These requirements, whilst having only temporary exposure in mind, ensure that UV protection is optimised for Maxair® pipes and fittings.

THERMAL EXPANSION AND CONTRACTION



The coefficient of the thermal expansion and contraction of Maxair® PE 100 pipe may be taken as 0.18 mm per metre per °C.

If pipework is to be subjected to thermal temperature change, expansion and contraction needs to be considered during installation. Generally movement can be absorbed on changes of direction, elbows, etc. but on longer lengths the recommended installation principles as set out below should be adhered to.

This movement is virtually eliminated in constant temperature areas.

Operating Temperature °C	Design life years	Permissible Working Pressure		
		Bar	kpa	psi
-20° to 20°	50	16	1600	235
30°	50	14.1	1410	205
40°	50	12	1200	175
50°	50	10.2	1020	150
60°	50	8.8	880	130
Above ratings are at safety factor of 2:1				
Fluid at 20°	50	25	2500	360
For fluids other than compressed gases safety factor of 1.25:1				

SHORT TERM TEMPERATURE RISES

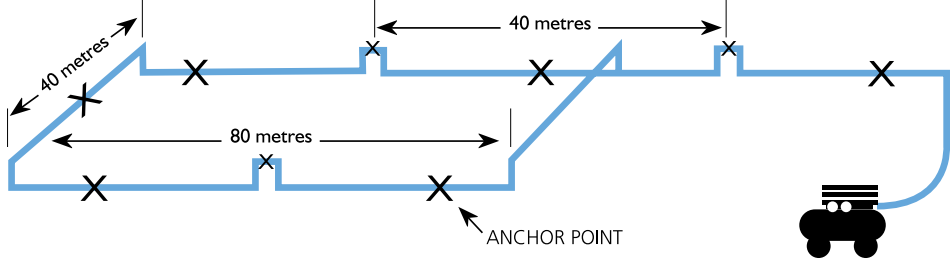
Temperatures quoted relate to constant temperature over a period of 50 years, rather than short term peak temperatures. Maxair® PE 100 can safely handle short term peaks in compressed air temperature up to 95°C.

Circumstances vary and each high temperature application should be checked with the Technical Department.

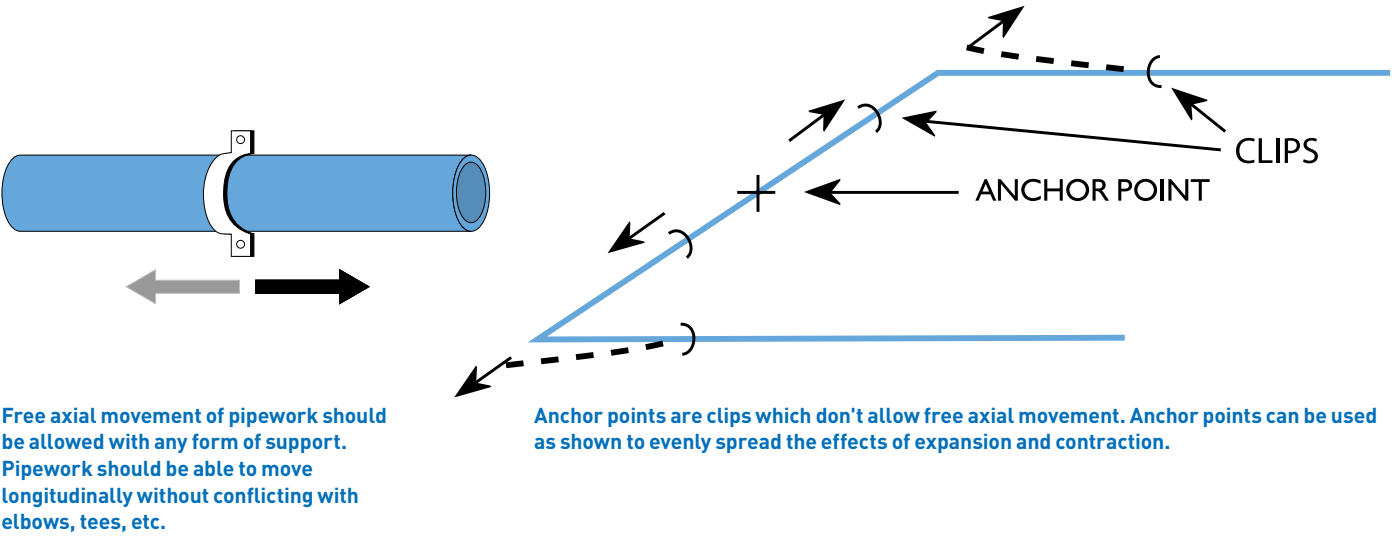
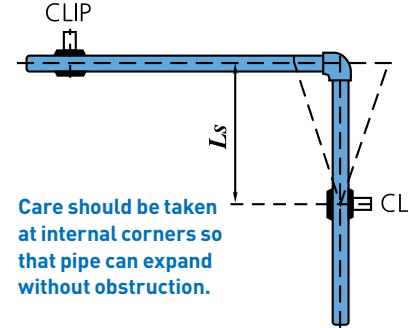
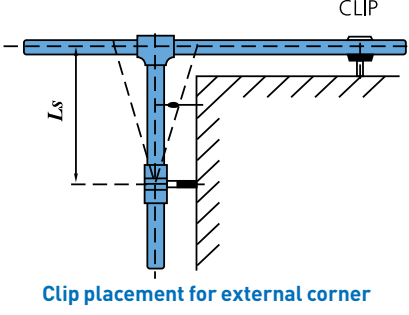
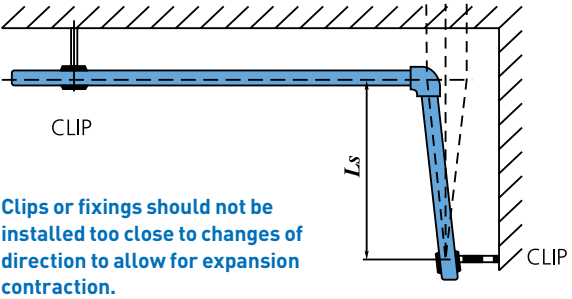
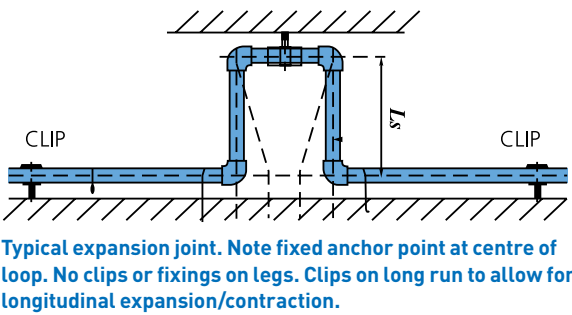
EXPANSION LOOPS

Expansion loops are recommended at intervals of approx. 30-40m on long runs. Suggested leg lengths are as per table.

It is general practice for loops up to AIR 63 to span between purlins. Space constraints may also need to be considered. Please contact our technical department for accurate sizing if required.



EXPANSION LOOPS	
pipe diameter	min leg length (metres)
20	0.5
25	0.6
32	0.7
40	0.9
50	1
63	1.2
90	1.8
110	2
160	2.4





SELECT PIPE SIZE

COMPRESSED AIR SYSTEMS CONTAIN SUBSTANTIAL STORED ENERGY, WHICH, IF RELEASED SUDDENLY, COULD CAUSE INJURY. IT IS RECOMMENDED THAT PIPE SYSTEM DESIGN, INSTALLATION AND MAINTENANCE BE CONDUCTED BY THOSE WITH APPROPRIATE KNOWLEDGE AND EXPERIENCE.

Five factors need to be considered when selecting pipe sizes for compressed air reticulation -

- Flow
- Pressure
- Distance
- Number of Elbows, etc.
- Future Expansion

A pipe size should be selected using the compressor’s output Free Air Delivery (F.A.D.) at the required operating pressure, and allow for length of pipe and future growth or expansion.

PRESSURE / FLOW

PRESSURE		AIR20		AIR25		AIR32		AIR40		AIR50		AIR63		AIR90		AIR110		AIR160		PRESSURE	
Bar	psi	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	l/sec	cfm	Bar	psi
3	43.5	7	15	14	30	28	59	48	101	88	186	475	370	475	1006	781	1654	2195	4652	3	43.5
4	58	10	21	20	42	39	83	67	141	122	259	661	515	661	1401	1087	2303	3056	6476	4	58
5	72.5	13	28	26	55	50	107	86	182	158	335	855	665	855	1811	1405	2977	3950	8371	5	72.5
6	87	16	34	32	68	62	132	106	225	195	413	1054	820	1054	2233	1732	3671	4872	10323	6	87
7	102	19	41	38	81	74	157	127	268	233	494	1258	980	1258	2667	2068	4383	5816	12326	7	102
7.5	109	21	44	41	87	80	170	137	291	252	534	1362	1060	1362	2887	2239	4745	6297	13343	7.5	109
8	116	22	47	44	94	87	184	148	313	272	576	1467	1142	1467	3109	2412	5111	6782	14372	8	116
10	145	29	61	57	122	112	237	191	405	351	744	1896	1476	1896	4019	3117	6606	8766	18576	10	145
13	189	39	83	78	164	151	321	258	547	475	1006	2564	1996	2564	5434	4215	8933	11853	25118	13	189

SOME USEFUL CONVERSION FACTORS

PRESSURE		FLOW	
1 psi	0.069 bar	1 cfm	0.4719 l/sec
1 kpa	0.145 psi	1 l/sec	2.119 cfm
1 bar	100 kpa	1 m³/min	35.3147 cfm
1 bar	14.5 psi	1 m³/min	16.67 l/sec
1 kg/cm²	1 bar		

The flow values allow for a pressure drop of 4% of applied pressure over 30 metres of pipe. If a maximum pressure drop of 2% is desired, figures listed above should be de-rated by approximately 20%-30%.

The above table is calculated using values derived from Mueller’s formula for gaseous flows.

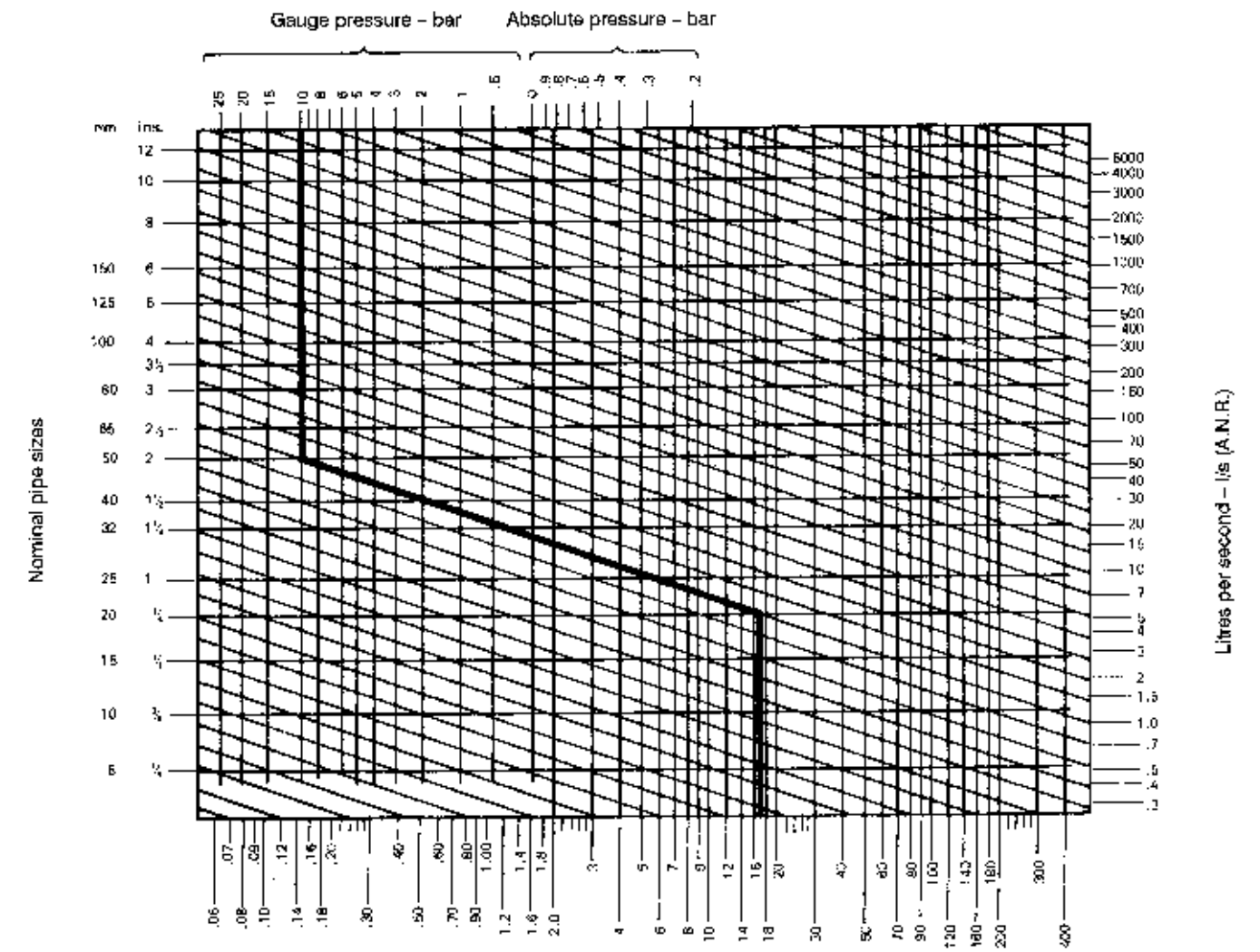
PIPE EQUIVALENTS OF FITTINGS (IN METRES)

	AIR20	AIR25	AIR32	AIR40	AIR50	AIR63	AIR 90	AIR110
45° Elbow	0.2	0.3	0.3	0.4	0.5	0.7	1	1.2
90° Elbow	0.8	1	1.3	1.6	2	2.6	3.7	4.5
Tee in line	0.3	0.3	0.4	0.5	0.6	0.8	1.1	14
Tee branch	0.9	1.2	1.5	1.9	2.4	3	4.2	5.2
Reducer	0	0	0	0.1	0.1	0.1	0.1	0.2
Ball Valve	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5

As part of a complete compressor installation, sizing of Receivers, Filters, Dryers and Condensate Separators are important components.

Receivers are on **page 46,47**. Ask for the Industrial Compressed Air Equipment Product & Technical Manual

Four quantities are involved in the use of this chart, these being air pressure, rate of flow, pipe size and pressure drop. Any one of these can be determined providing the remaining three are known.



PROBLEM 1:

Air initially at 10 bar is being transmitted at a rate of 60 l/s free air through 20mm pipe. What will be the pressure drop due to friction through 30 metres of pipe?

SOLUTION:

(This example is plotted on the chart) From the point representing 10 bar at the top of the chart proceed down vertically to intersect with the horizontal line representing 60 l/s on the right hand scale.

Proceed diagonally downwards, parallel to the guide lines to intersect the horizontal line representing 20mm on the left hand side scale.

From this point proceed vertically to the pressure drop scale on the bottom of the chart and take the reading.

The pressure drop is found to be approximately 17 mbar per metre of pipe or 510 mbar (0.5 bar) per 30 metres of pipe.

PROBLEM 2:

10 l/s of free air is required at a pressure of 4 bar with a maximum allowable pressure drop of 140 mbar per 30 metres of pipe. What would be the recommended pipe size for this application?

SOLUTION:

From the point representing 4 bar on the top axis of the chart proceed down vertically to intersect the horizontal line representing 10 l/s on the right hand scale.

Proceed diagonally, parallel to the guide lines to intersect the vertical line from the bottom scale representing the allowable pressure drop of 140 mbar per 30 metres of pipe (Read 140/30 = 4.5).

From this intersection point proceed horizontally to the left hand side of the chart. The point falls between 10mm and 15mm pipe sizes. The correct selection therefore, is 15mm pipe.

STORAGE AND TRANSPORT

Pipe should be stored and transported straight and true. The storage area must be free from sharp objects (e.g. stones, metal components). The pipes should be uniformly supported to prevent any distortion of the pipes prior to installation. Care should be exercised to prevent scuffing or scoring the pipes by rough handling.

OTHER APPLICATIONS

Suitability for other applications. Products in this technical manual are also suitable for:

- Chilled Water
- Warm Water
- High pressure Fluid to 25 bar
- Inert Gases
- Chemical Piping
- Vacuum Piping.

Please refer to Technical Department for details. Pipe contents need to be clearly identified by use of standard Pipe Markers. (see page 76)



BREATHING AND MEDICAL APPLICATIONS

Maxair® is suitable for breathing air and medical applications, provided Technical Department recommendations are adopted.

It is the user's responsibility to provide and maintain supply air at a suitable level of purity for these applications.

See our Industrial Compressed Air Equipment manual for a complete range of Breathing Air Filtration and Air Treatment.



PIPE WEIGHTS COMPARISON

Maxair®			Galvanised Mild Steel			Copper		
size	Weight Kg/m	per 6m	size	Weight Kg/m	per 6m	size	Weight Kg/m	per 6m
AIR20	0.15	0.9 Kg	½"	1.45	8.7 Kg	½"	0.35	2.1 Kg
AIR25	0.24	1.44 Kg	¾"	1.9	11.4 Kg	¾"	0.7	4.2 Kg
AIR32	0.4	2.4 Kg	1"	2.97	16.2 Kg	1"	1.09	6.54 Kg
AIR40	0.59	3.54 Kg	1¼"	3.34	20.04 Kg	1¼"	1.38	8.28 Kg
AIR50	0.92	5.52 Kg	1½"	4.43	26.58 Kg	1½"	1.67	10.02 Kg
AIR63	1.45	8.7 Kg	2"	6.17	36.6 Kg	2"	2.25	13.5 Kg
AIR90	3.04	18.24 Kg	3"	10.1	60.6 Kg	3"	4.23	25.38 Kg
AIR110	4.51	27.06 Kg	4"	14.4	86.4 Kg	4"	5.68	34.08 Kg
AIR160	9.17	55.02 Kg	6"	23.33	139.98 Kg	6"	8.67	52.02 Kg

QUICK, CLEAN, SIMPLE INSTALLATION

No tedious threading of pipe, flaring or gluing. Installation can be 2-5 times quicker than with traditional materials. Simple to modify. New branches, extensions or take-offs can be added with a minimum of disruption & cost. The typical inflexibility of traditional systems is overcome. An extensive range of fittings provides further design versatility.

JOINTING

It is especially important that installation be carried out by qualified and experienced operators under controlled conditions. All jointing should be conducted in accordance with the manufacturer's recommendations. There are three approved jointing methods, each with their own distinct benefits. Fabricated fittings should not be used for compressed gases.

(a) Blue PE 100 Socket Fusion Joints

(b) Electrofusion Joints

(c) Mechanical Compression O-Ring Joints

Any combination of fittings is often used depending on the application.

SOCKET FUSION WELDED FITTINGS

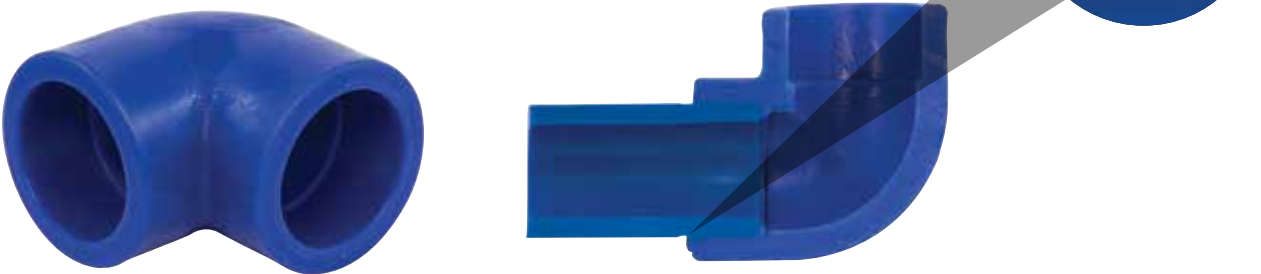


Photo of Cutaway weld shows the homogenous weld joint of the pipe and fitting

Pipe and fittings are welded by means of socket fusion according to AS2033-1980. Fittings comply with D1N16963 (see pages 18-23). These specially engineered fittings, in dimensions and tolerances to co-ordinate with pipe, are heated simultaneously with pipe then joined to give an extremely strong weld of high pressure capability, fusing pipe and fitting into one integral piece. Made in Europe from PE100 expressly for compressed air pipe systems, the fittings are joined quickly and easily using a welding tool (see page 81) and results in a fully fused joint of highest integrity which is leak free, tamper proof and visually pleasing.

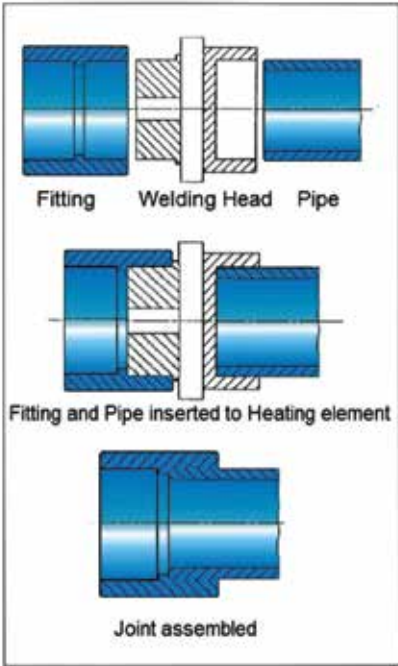
The fittings are very compact, and being the same raw material as the pipe, form a homogenous whole. Designed for sizes 20 mm to 110mm, however they excel in the sizes 20mm to 50mm.

The fusion process is achieved by heating the spigot and socket jointing surfaces above the crystalline melt point temperature of PE by insertion into a heated element tool. The heated joint sections are then assembled, and held until cooling to ambient temperature takes place. *Step by step instructions on page 81*

The heater elements are PTFE coated, and at all times must be kept clean and free from contamination.

The heater tools need to be set and calibrated to maintain a surface temperature range of 260°C +/- 5°C. All jointing must be performed in a protected area to prevent contamination of the joints by dirt, moisture or cold wind.

SOCKET FUSION WELDING





ELECTROFUSION WELD FITTINGS

Electrofusion Fittings (pages 24 –33) are positioned on the pipework by hand and then an electric current is applied via an Electro Fusion Welder (See page 82). These fittings enable one or more joints to be assembled and aligned or adjusted prior to welding. This makes the installation of large bore pipework extremely quick and simple plus giving the advantage of a fully welded system.

Also included in this range are “Under pressure air saddles” which are designed for installation under pressure thus eliminating the need to shut down plant and equipment for new connections. They are particularly useful in large plants with 24 hour operations.

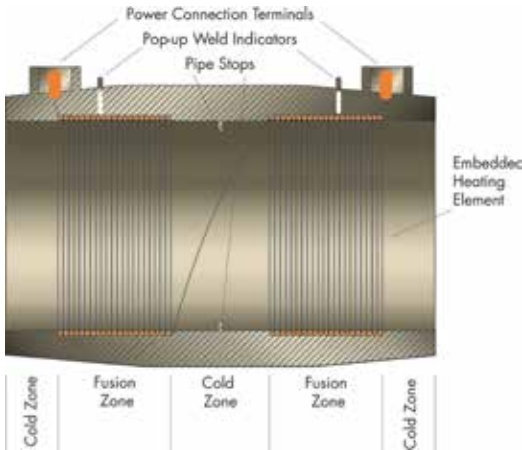
The electrofusion system consists of moulded fittings with electric elements contained in the fitting.(see image on right)

When a controlled electrical current is passed through the resistance wire, the fusion zone has a temperature increase to above 200°C, the resulting heat being transferred to the jointing surfaces until melting occurs. The cold zones prevent the molten PE escaping, thus increasing the pressure for a more effective joint. The pop-up weld indicators are activated when the joint reaches the required temperature and pressure.

The electrofusion fittings require a 39.5 (40) Volt power source provided by a control box from a 240 Volt 501-1z, single phase supply. Where a generator is used, this requires a minimum power of 3 kVa. If multiple control boxes are used on a project, then a 5 kVA generator may be required. The fittings use a single connection pin of 4.7 mm diameter.

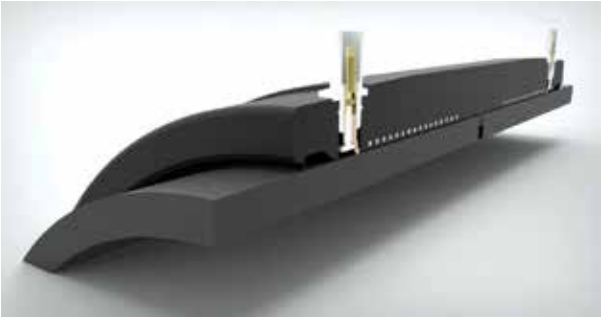
Electrofusion control boxes must not be used in explosive atmospheres. In deep trenches, tunnels, or mine workings, the power source may require approval by the local electricity utility.

All electrofusion joints must be carried out to prevent contamination by dust, moisture and dirt, and be clamped to prevent movement in the joint until the cooling period has been completed.



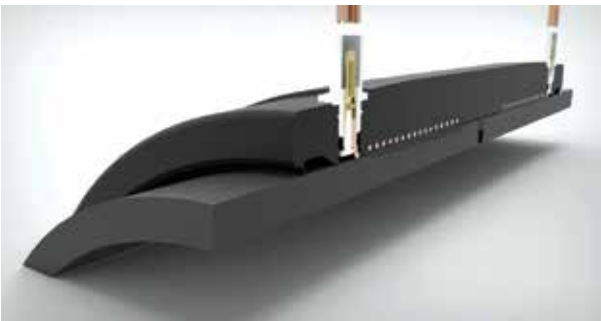
Cutaway of Joint before welding

Note embedded heating wire, both terminals



Cutaway of Joint after welding

Note fused material in 'hot zone'



COMPRESSION"O" RING FITTINGS

(See pages 34-43) are joined quickly and easily by hand (see page 83) and offer the advantage of being removable and reusable.

In order for PP mechanical compression fittings to comply with the requirements of AS/ NZS 4129, it is normally considered necessary to provide reinforcement to female threads larger than 25mm. This reinforcement should also be corrosion resistant and is normally provided in the form of a stainless steel ring. Threaded outlets larger than 50mm should be avoided. The use of PTFE (Teflon) tape is solely recommended for all fittings with plastics threads.

Quality Certifications

These fittings are manufactured under a certified quality system, ISO 9001:2008, which has been approved by CCC and IQNet. The complete range of mechanical compression fittings have been tested and approved by leading certification agencies, they have Australian Watermark approval and comply with AS/NZS 4129:2008 and NATA accredited Australian Water Quality Centre as well as internationally recognised DVGW (D), KIWA (NL), WRAS (GB), SII (IL), BV (AUS) and many others worldwide.

Furthermore, the fittings are endorsed with product certifications on all related standards such as ISO 14236, EN 12201 & DIN 8076.

Projected Life Expectancy

Based on the information available and the successful performance under the nominated test procedures, the design life expectancy is rated at 50 years before replacement or major repair. This rating is only a general guide to life expectancy and may increase or decrease depending on the quality of the installation, system operation and environment conditions as well as other geographical and site specific factors.

Operating Temperature

The fittings are not to be used in hot water although they withstand the same temperature as the polyethylene pipe itself. The fittings withstand sub-zero temperatures.

The pressure rating has to be adjusted as shown in the figure below, if the fittings are to be used in higher temperature.

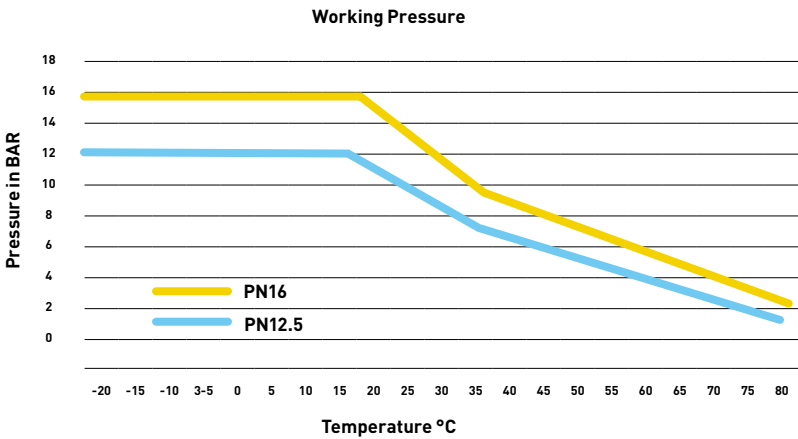
The range of metric compression fittings are suitable for high pressure conveyance of water, irrigation, gaseous fuels, compressed air, chemical solutions and slurries.

Range: 16mm pipe up to 110mm

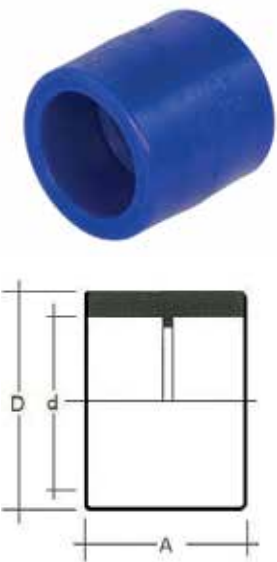
Pressure Rating:

16 bar at 20°C for fittings from 20mm up to 63mmØ

12.5 bar at 20°C for fittings from 75mm up to 110mmØ

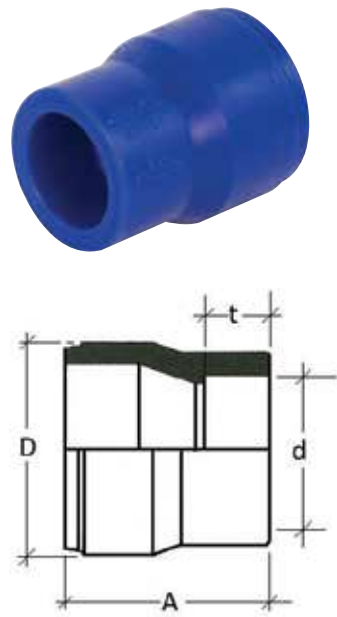


- 1. Fitting Body: Polypropylene copolymer PP-B
- 2. O-Ring: Elastomeric rubber NBR70
- 3. Insert: Polypropylene copolymer PP-B
- 4. Grip Ring: Polyacetal
- 5. Nut: Polypropylene copolymer PP-B



Welded Coupling

Part No.	d pipe x pipe	Imperial equivalent	A	D	Weight g
WC20	20 x 20	1/2"	35	30	13
WC25	25 x 25	3/4"	39	35	17
WC32	32 x 32	1"	43	43	25
WC40	40 x 40	1 1/4"	46	52	36
WC50	50 x 50	1 1/2"	51	64	65
WC63	63 x 63	2"	59	81	118
WC90	90 x 90	3"	78	114	303
WC110	110 x 110	4"	90	133	410

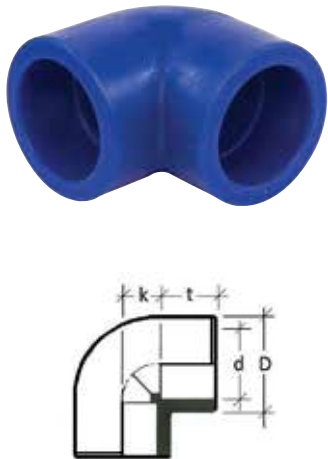


Welded Reducing Coupler

Part No.	D pipe	d pipe	A	t	Weight g
WRC2520	25	20	38	16	11
WRC3220	32	20	44	16	17
WRC3225	32	25	44	18	18
WRC4020	40	20	50	16	22
WRC4025	40	25	50	18	24
WRC4032	40	32	50	20	28
WRC5020	50	20	55	16	33
WRC5025	50	25	54	18	34
WRC5032	50	32	54	18	37
WRC5040	50	40	54	26	45
WRC6325	63	25	64	18	56
WRC6332	63	32	64	20	58
WRC6340	63	40	64	21	66
WRC6350	63	50	64	25	74
WRC9063	90	63	86	28	180
WRC11063	110	63	88	29	250
WRC11090	110	90	88	38	310

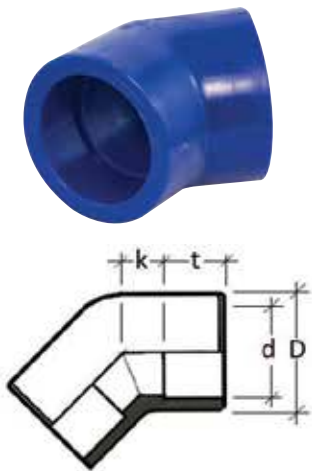
Welded Elbow 90°

Part No.	d pipe x D pipe	Imperial equivalent	t	k	Weight g
WE20	20 x 20	1/2"	16	14	22
WE25	25 x 25	3/4"	18	17	27
WE32	32 x 32	1"	19	20	46
WE40	40 x 40	1 1/4"	21	25	75
WE50	50 x 50	1 1/2"	24	28	138
WE63	63 x 63	2"	27	35	230
WE90	90 x 90	3"	35	49	601
WE110	110 x 110	4"	43	57	810



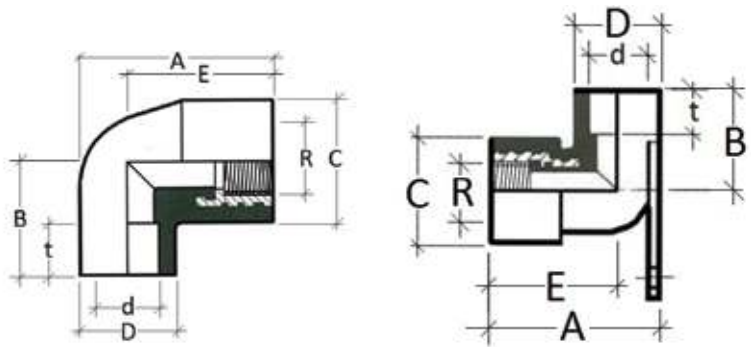
Welded Elbow 45°

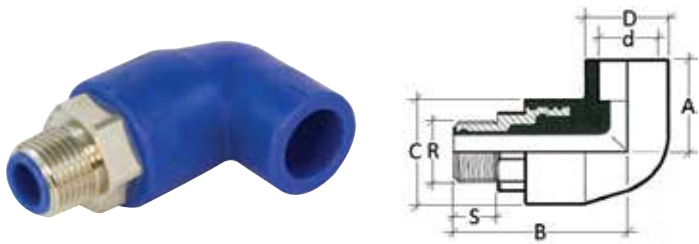
Part No.	d pipe x D pipe	Imperial equivalent	t	k	Weight g
W45E20	20 x 20	1/2"	16	11	17
W45E25	25 x 25	3/4"	17	14	23
W45E32	32 x 32	1"	20	17	39
W45E40	40 x 40	1 1/4"	21	21	62
W45E50	50 x 50	1 1/2"	24	26	99
W45E63	63 x 63	2"	28	33	179
W45E90	90 x 90	3"	37	46	434
W45E110	110 x 110	4"	43	56	590



Welded Female Elbow

Part No.	Lugged	d pipe	R Female Thread	A	B	C	D	E	t	Weight g
WEF2015	✓	20	1/2" bsp	49	29	39	30	35	16	126
WEF2520	x	25	3/4" bsp	54	39	46	35	39	18	112





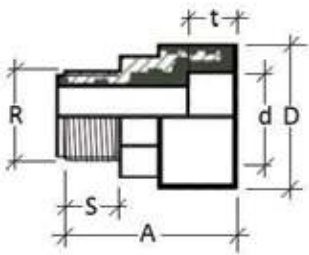
Welded Male Elbow

Part No.	d pipe	R Male Thread	A	B	C	D	S	Weight g
WEM2015	20	½"bsp	33	66	36	29	15	125



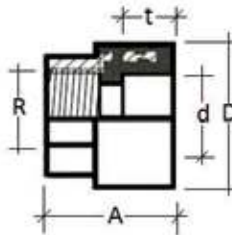
Welded Male Adaptor

Part No.	d pipe	R Male Thread	A	D	S	t	Weight g
WMA2015	20	½"	57	43	16	15	170
WMA2520	25	¾"	61	46	19	17	220
WMA3225	32	1"	66	53	22	18	300
WMA4032	40	1½"	71	66	24	21	480
WMA5040	50	1½"	77	77	27	24	660
WMA6350	63	2"	83	91	30	28	920



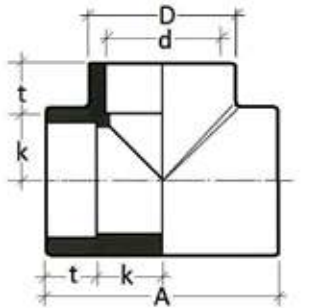
Welded Female Adaptor

Part No.	d pipe	R Female Thread	A	D	t	Weight g
WFA2015	20	½"	41	42	16	170
WFA2520	25	¾"	41	46	16	220
WFA3225	32	1"	47	53	18	300
WFA4032	40	1½"	560	65	20	480
WFA5040	50	1½"	58	77	23	660
WFA6350	63	2"	65	90	27	920



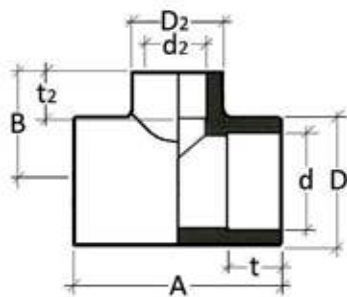
Welded Tee

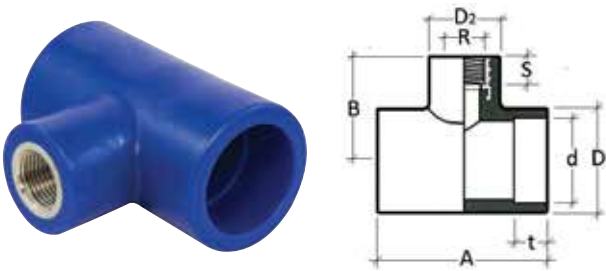
Part No.	d pipe	A	D	t	k	Weight g
WT20	20 x 20 x 20	60	29	16	11	26
WT25	25 x 25 x 25	70	35	18	14	37
WT32	32 x 32 x 32	79	43	19	17	65
WT40	40 x 40 x 40	91	53	22	21	101
WT50	50 x 50 x 50	106	65	25	26	202
WT63	63 x 63 x 63	128	81	28	31	322
WT90	90 x 90 x 90	184	113	37	51	858
WT110	110 x 110 x 110	210	133	42	58	1073



Welded Reducing Tee

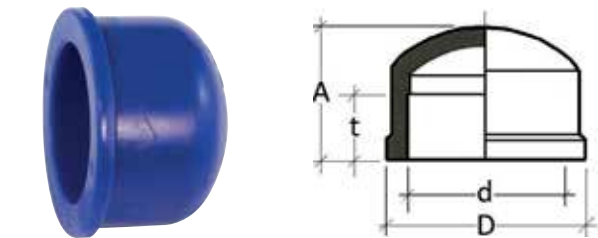
Part No.	d pipe	d2 pipe	A	B	D	D2	t	t2	Weight g
WRT2520	25	20	68	32	35	30	18	16	38
WRT3220	32	20	79	39	43	30	20	16	54
WRT3225	32	25	79	39	43	35	20	18	55
WRT4020	40	20	89	45	54	30	21	16	75
WRT4025	40	25	91	44	53	35	22	16	80
WRT4032	40	32	91	45	53	43	22	19	100
WRT5020	50	20	109	50	65	30	26	16	158
WRT5025	50	25	109	51	65	35	25	18	160
WRT5032	50	32	107	53	65	43	24	19	170
WRT5040	50	40	107	53	65	53	25	21	173
WRT6325	63	25	129	65	80	36	29	18	269
WRT6332	63	32	129	65	81	43	29	19	271
WRT6340	63	40	129	65	81	53	29	22	276
WRT6350	63	50	129	65	81	66	29	24	283





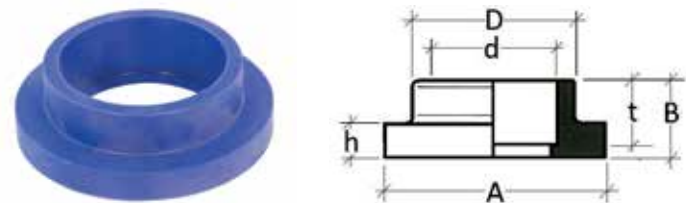
Welded Tee Female takeoff

Part No.	d pipe	R Female Thread	A	B	D	D2	S	t	Weight g
WTF2015	20	½"	61	45	30	39	14	17	86
WTF2515	25	½"	71	46	36	39	14	19	97
WTF3215	32	½"	80	52	43	39	14	20	116
WTF4015	40	½"	92	56	54	39	14	23	183



Welded End Cap

Part No.	d pipe	D	A	t	Weight g
WEC20	20	33	27	16	10
WEC25	25	38	31	18	14
WEC32	32	47	35	21	22
WEC40	40	58	38	22	33
WEC50	50	70	47	25	65
WEC63	63	87	60	29	125
WEC90	90	119	80	38	245
WEC110	110	140	94	43	430

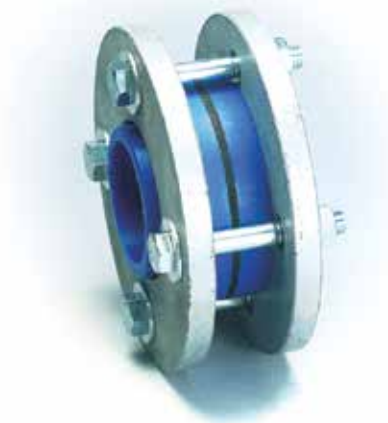


Welded Stub Flange

Part No.	d pipe	A	B	D	h	t	Weight g
WF20	20	45	21	27	10	15	14
WF25	25	58	23	33	10	16	24
WF32	32	68	24	41	10	18	38
WF40	40	78	27	50	11	21	49
WF50	50	88	30	61	12	24	67
WF63	63	102	34	75	14	27	89
WF90	90	138	42	105	17	36	208
WF110	110	158	48	131	18	42	289

Flange Kit Type A

Comprises 2 Backing rings, 2 Stub flanges, 1 Gasket, Bolts, washers & nuts			
Part No.	d pipe	d pipe	Bolt kit
FKA20	20	20	M10 x 75
FKA25	25	25	M10 x 75
FKA32	32	32	M10 x 75
FKA40	40	40	M10 x 75
FKA50	50	50	M10 x 75
FKA63	63	63	M16 x 70
FKA90	90	90	M16 x 70
FKA110	110	110	M16 x 70



Flange Kit Type B

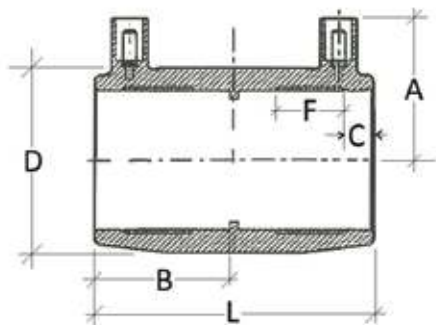
Comprises 1 Backing ring, 1 Stub flange, 1 Threaded flange Table E, 1 Gasket, Bolts, washers & nuts			
Part No.	d pipe	BSP thread	Bolt kit
FKB20	20	½"	M10 x 30
FKB25	25	¾"	M10 x 30
FKB32	32	1"	M10 x 75
FKB40	40	1¼"	M10 x 75
FKB50	50	1½"	M10 x 75
FKB63	63	2"	M16 x 70
FKB90	90	3"	M16 x 70
FKB110	110	4"	M16 x 70



Flange Kit Type C

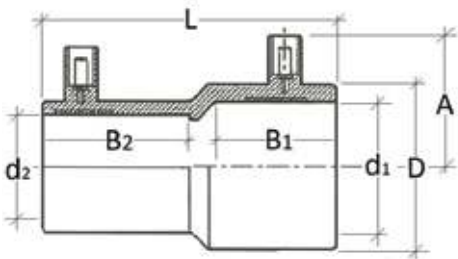
Comprises 1 Backing ring Table E, 1 Stub flange, 1 Gasket, Bolts, washers & nuts		
Part No.	d pipe	Bolt kit
FKA20	20	M10 x 30
FKA25	25	M10 x 30
FKA32	32	M10 x 75
FKA40	40	M10 x 75
FKA50	50	M10 x 75
FKA63	63	M16 x 70
FKA90	90	M16 x 70
FKA110	110	M16 x 70





Electrofusion Coupler

Part No.	d pipe	A	B	C	F	L	Weight g
EFC20	20	38	35	7	21	71	48
EFC25	25	38	35	7	17	71	38
EFC32	32	44	39	7	22	80	56
EFC40	40	47	44	8	23	90	98
EFC50	50	52	49	12	23	100	148
EFC63	63	58	58	13	31	118	224
EFC90	90	77	72	16	39	146	558
EFC110	110	83	80	19	35	163	792
EFC160	160	113	96	29	50	194	1760

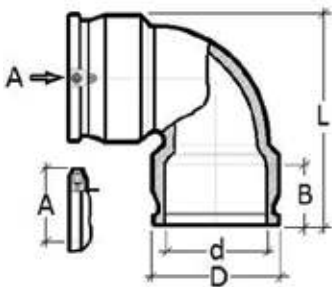


Electrofusion Reducing Coupler

Part No.	d1 pipe	d2 pipe	A	B1	B2	D	L	Weight g
EFRC2520	25	20	39	35	35	36	71	49
EFRC3220	32	20	43	40	35	45	81	59
EFRC3225	32	25	43	40	35	45	81	56
EFRC4025	40	25	47	44	40	56	90	86
EFRC4032	40	32	47	44	40	56	90	92
EFRC5025	50	25	52	49	41	68	100	118
EFRC5032	50	32	52	49	40	68	100	135
EFRC5040	50	40	52	49	44	68	100	180
EFRC6332	63	32	59	57	40	82	119	180
EFRC6340	63	40	59	57	44	82	119	192
EFRC6350	63	50	59	57	49	82	119	224
EFRC9050	90	50	78	71	49	116	143	430
EFRC9063	90	63	78	71	57	116	143	160
EFRC11063	110	63	84	84	57	139	161	639
EFRC11090	110	90	84	78	72	139	161	1019
EFRC16090	160	90	105	105	72	199	193	1440
EFRC160110	160	110	105	105	81	199	193	1520

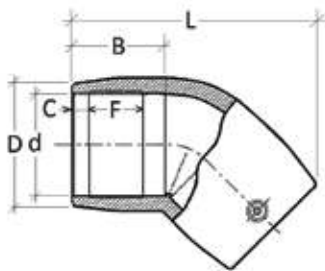
Electrofusion Elbow 90°

Part No.	d pipe	A	B	D	L	Weight g
EFE20	20	36	35	36	66	65
EFE25	25	38	37	36	66	53
EFE32	32	43	40	44	83	85
EFE40	40	47	44	55	92	138
EFE50	50	52	48	68	108	211
EFE63	63	59	57	81	131	320
EFE90	90	69	78	113	213	875
EFE110	110	79	79	143	243	1519
EFE160	160	106	87	209	323	3990



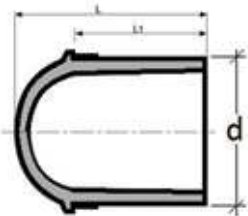
Electrofusion Elbow 45°

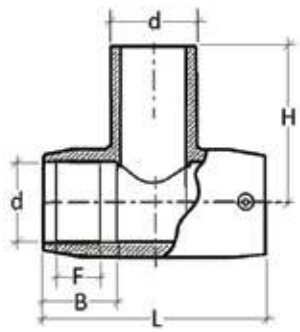
Part No.	d pipe	B	C	D	F	L	Weight g
EF45E32	32	39	9	45	22	95	75
EF45E40	40	42	8	55	23	108	117
EF45E50	50	49	12	68	23	125	181
EF45E63	63	57	11	81	31	148	264
EF45E90	90	75	13	112	3	243	759
EF45E110	110	81	16	13	46	243	1269
EF45E160	160	95	17	209	48	350	3990



Electrofusion End Plug

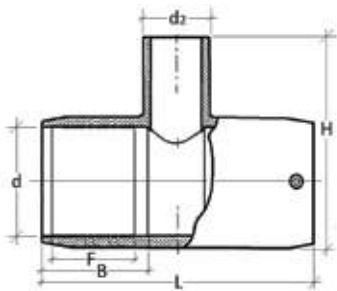
Part No.	d pipe	B	L	Weight g
EFEC20	20	35	43	8
EFEC25	25	36	46	10
EFEC32	32	39	52	17
EFEC40	40	43	59	29
EFEC50	50	48	108	52
EFEC63	63	57	81	94
EFEC90	90	70	105	250
EFEC110	110	78	121	430
EFEC160	160	94	157	1149





Electrofusion Tee

Part No.	pipe d	B	D	F	H	L	Weight g
EFT20	20	37	33	20	60	96	61
EFT25	25	39	44	17	66	103	110
EFT32	32	39	44	22	74	104	97
EFT40	40	47	56	23	90	120	165
EFT50	50	48	68	23	102	139	257
EFT63	63	58	82	31	119	167	417
EFT90	90	71	113	39	137	294	1090
EFT110	110	71	143	42	160	326	1955
EFT160	160	86	208	49	206	440	4700

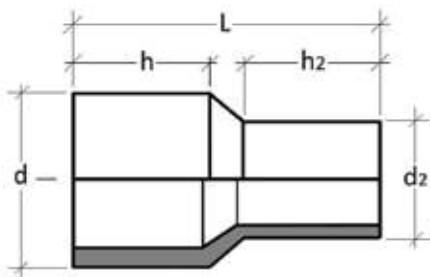


Electrofusion Reducing Tee

Part No.	pipe d	pipe d2	B	D	F	H	L	Weight g
EFRT2520	25	20	39	44	17	66	104	108
EFRT3220	32	20	39	44	22	66	104	89
EFRT3225	32	25	39	44	22	66	104	91
EFRT4020	40	20	43	56	23	72	120	151
EFRT4025	40	25	43	56	23	72	120	150
EFRT4032	40	32	43	56	23	75	120	152
EFRT5020	50	20	48	68	23	78	139	224
EFRT5025	50	25	48	68	23	78	139	225
EFRT5032	50	32	48	68	23	78	139	228
EFRT5040	50	40	48	68	23	90	139	237
EFRT6320	63	20	58	82	31	85	167	348
EFRT6332	63	32	58	82	31	93	167	363
EFRT6340	63	40	58	82	31	104	167	365
EFRT6350	63	50	58	82	31	109	167	381
EFRT9063	90	63	68	113	38	124	294	1050
EFRT11063	110	63	71	143	35	134	326	1715
EFRT11090	110	90	71	143	35	147	326	1815
EFRT16090	160	90	86	208	49	180	440	4450
EFRT160110	160	110	96	208	49	193	440	4450

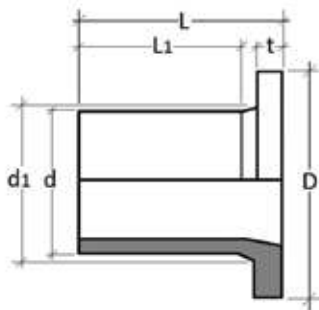
Electrofusion Reducing Spigot

Part No.	d pipe	d2 pipe	h	h2	L	Weight g
EFRS3225	32	25	50	48	104	30
EFRS4032	40	32	59	56	123	90
EFRS5032	50	32	59	60	131	100
EFRS5040	50	40	59	56	129	80
EFRS6332	63	32	59	58	131	110
EFRS6340	63	40	59	58	132	120
EFRS6350	63	50	60	60	132	125
EFRS9050	90	50	81	59	156	280
EFRS9063	90	63	80	65	160	300
EFRS11063	110	63	83	66	167	450
EFRS11090	110	90	83	80	178	510
EFRS16090	160	90	79	120	248	1060
EFRS160110	160	110	101	84	219	1360



Electrofusion Stub Flange

Part No.	d stub	d1	D	L	L1	t	Weight g
EFF25	25	37	58	77	50	9	60
EFF32	32	40	68	96	70	10	60
EFF40	40	50	78	89	64	11	91
EFF50	50	59	88	90	63	12	133
EFF63	63	73	96	95	63	14	230
EFF90	90	102	128	119	80	17	510
EFF110	110	121	158	128	83	18	805
EFF160	160	167	212	148	100	18	1863



Electrofusion Male Adaptor

Part No.	d pipe	G Male Thread	A	D	L	L1	Weight g
EFMA2015	20	½"	34	1	105	29	129
EFMA2520	25	¾"	37	19	111	29	160
EFMA3215	32	½"	42	23	117	29	142
EFMA3220	32	¾"	42	23	117	29	263
EFMA3225	32	1"	42	23	122	34	285
EFMA3232	32	1¼"	42	23	124	36	393
EFMA3240	32	1½"	42	23	124	36	404
EFMA4025	40	1"	46	29	131	47	409
EFMA4032	40	1¼"	46	29	133	47	462
EFMA4040	40	1½"	46	29	133	36	483
EFMA4050	40	2"	46	29	138	41	500
EFMA5025	50	1"	51	50	135	34	513
EFMA5032	50	1¼"	51	38	137	36	569
EFMA5040	50	1½"	51	38	137	36	660
EFMA5050	50	2"	51	38	137	36	547
EFMA6332	63	1¼"	57	48	153	36	884
EFMA6340	63	1½"	57	48	153	36	845
EFMA6350	63	2"	57	48	158	41	913

Electrofusion Female Adaptor

Part No.	d pipe	G Female Thread	A	D	L	L1	Weight g
EFFA2015	20	½"	35	14	96	20	130
EFFA2520	25	¾"	38	19	105	23	145
EFFA3220	32	¾"	42	23	113	25	316
EFFA3225	32	1"	42	23	113	25	265
EFFA3240	32	1½"	42	23	113	25	410
EFFA4025	40	1"	46	29	122	25	507
EFFA4032	40	1¼"	46	29	122	25	407
EFFA4040	40	1½"	46	29	122	25	419
EFFA5040	50	1½"	51	38	126	25	491
EFFA5050	50	2"	51	38	131	30	685
EFFA6340	63	1½"	57	48	147	30	975
EFFA6350	63	2"	57	48	147	30	879

SS Electrofusion Male Adaptor

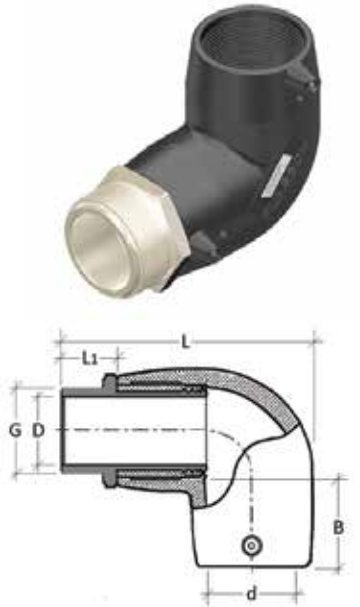
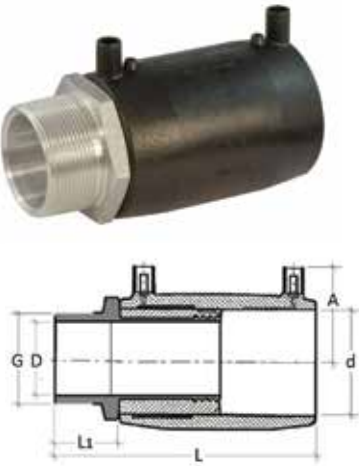
Part No.	d pipe	G Male Thread	A	D	L	L1	Weight g
EFMA3225S	32	1"	41	23	124	34	285
EFMA3240S	32	1½"	45	23	126	36	449
EFMA4032S	40	1¼"	45	29	134	36	455
EFMA4040S	40	1½"	50	29	134	36	455
EFMA5040S	50	1½"	57	38	137	36	535
EFMA6340S	63	1½"	57	48	154	36	800
EFMA6350S	63	2"	57	48	159	41	888

SS Electrofusion Male Elbow

Part No.	d pipe	G Male Thread	B	D	L	L1	Weight g
EFME4032S	40	1¼"	44	29	129	36	488
EFME4040S	40	1½"	44	29	129	36	495
EFME5040S	50	1½"	48	38	145	36	597
EFME6340S	63	1½"	57	48	168	36	899
EFME6350S	63	2"	57	48	173	41	1083

SS Electrofusion Male 45 Elbow

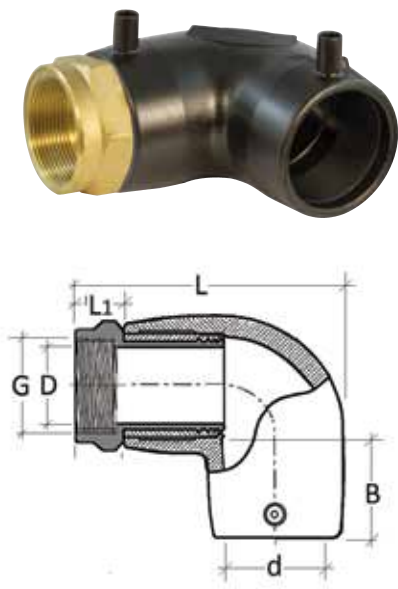
Part No.	d pipe	G Male Thread	B	D	L	L1	Weight g
EFM45E4032S	40	1¼"	44	29	134	25	490
EFM45E4040S	40	1½"	44	29	134	25	510
EFM45E5040S	50	1½"	49	38	149	25	590
EFM45E6340S	63	1½"	57	48	179	30	860
EFM45E6350S	63	2"	57	48	179	30	945





Electrofusion Male Elbow

Part No.	d pipe	G Male Thread	B	D	L	L1	Weight g
EFME2015	20	½"	35	14	95	29	153
EFME2520	25	¾"	37	19	95	29	168
EFME3215	32	½"	40	23	112	29	259
EFME3220	32	¾"	40	23	112	29	262
EFME3225	32	1"	40	23	117	34	300
EFME3232	32	1¼"	40	23	119	36	419
EFME3240	32	1½"	40	23	119	36	436
EFME4025	40	1"	44	29	126	34	458
EFME4032	40	1¼"	44	29	128	36	500
EFME4040	40	1½"	44	29	128	36	510
EFME4050	40	2"	44	29	133	41	725
EFME5025	50	1"	48	38	142	34	624
EFME5032	50	1¼"	48	38	144	36	679
EFME5040	50	1½"	48	38	144	36	655
EFME5050	50	2"	48	38	149	41	806
EFME6332	63	1¼"	57	48	167	36	985
EFME6340	63	1½"	57	48	167	36	1040
EFME6350	63	2"	57	57	172	41	1125

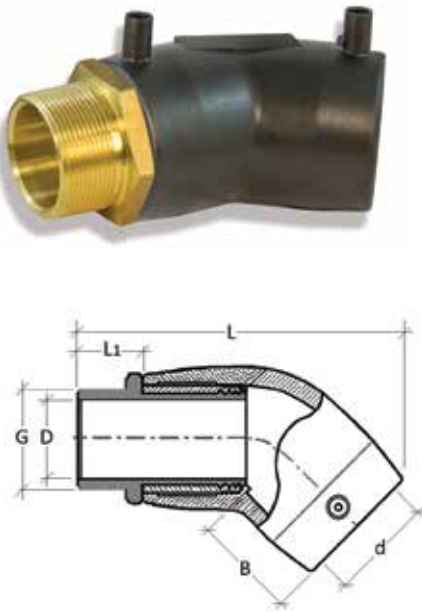


Electrofusion Female Elbow

Part No.	d pipe	G Female Thread	B	D	L	L1	Weight g
EFFE2015	20	½"	35	14	86	20	142
EFFE2520	25	¾"	37	19	89	23	160
EFFE3220	32	¾"	40	23	108	25	280
EFFE3225	32	1"	40	23	108	25	280
EFFE4025	40	1"	44	29	117	25	535
EFFE4032	40	1¼"	44	29	117	25	432
EFFE4040	40	1½"	44	29	117	25	453
EFFE5040	50	1½"	48	38	133	25	560
EFFE5050	50	2"	48	38	138	30	744
EFFE6340	63	1½"	57	48	161	30	1072
EFFE6350	63	2"	57	48	161	30	959

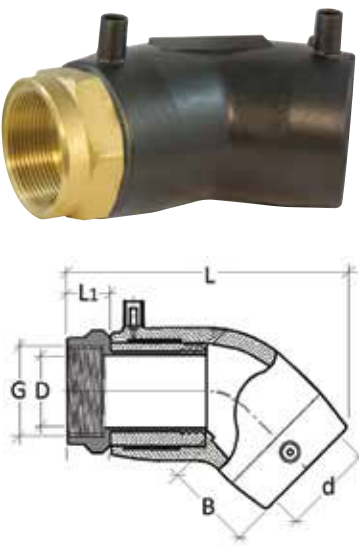
Electrofusion Male 45 Elbow

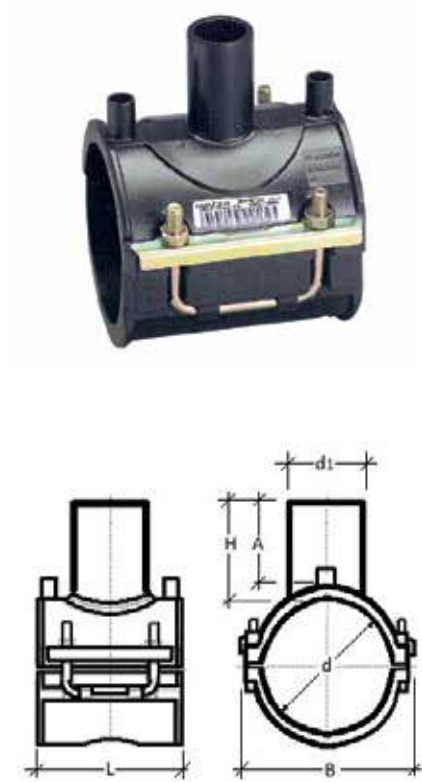
Part No.	d pipe	G Male Thread	B	D	L	L1	Weight g
EFM45E3215	32	½"	39	23	124	29	249
EFM45E3220	32	¾"	39	23	123	29	250
EFM45E3225	32	1"	39	23	129	34	375
EFM45E3232	32	1¼"	39	23	130	36	479
EFM45E3240	32	1½"	39	23	130	36	488
EFM45E4025	40	1"	44	29	142	34	433
EFM45E4032	40	1¼"	44	29	144	36	485
EFM45E4040	40	1½"	44	29	144	36	499
EFM45E4050	40	2"	44	29	149	41	685
EFM45E5025	50	1"	49	38	161	34	564
EFM45E5032	50	1¼"	49	38	161	36	610
EFM45E5040	50	1½"	49	38	166	36	600
EFM45E5050	50	2"	49	38	165	41	778
EFM45E6332	63	1¼"	57	48	184	36	927
EFM45E6340	63	1½"	57	48	184	36	893
EFM45E6350	63	2"	57	48	189	41	953



Electrofusion Female 45 Elbow

Part No.	d pipe	G Female Thread	B	D	L	L1	Weight g
EFF45E3225	32	1"	39	23	120	25	342
EFF45E3232	32	1½"	39	23	120	25	488
EFF45E4025	40	1"	44	29	133	25	510
EFF45E4032	40	1¼"	44	29	133	25	419
EFF45E4040	40	1½"	44	29	133	25	479
EFF45E5040	50	1½"	49	38	150	25	532
EFF45E5050	50	2"	49	38	155	30	714
EFF45E6340	63	1½"	57	48	178	30	1019
EFF45E6350	63	2"	57	48	178	30	912
EFM45E6350S	63	2"	57	48	179	30	945



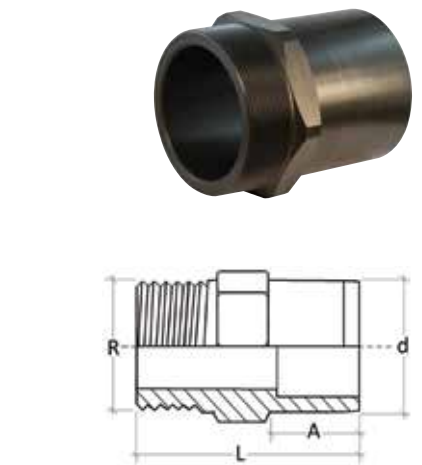
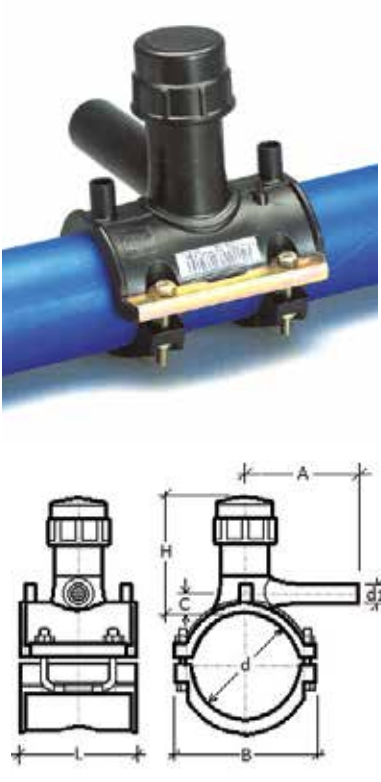


Electrofusion Branch Saddle

Part No.	d pipe	d1 pipe	A	B	H	L	Weight g
EFBS6332	63	32	49	100	59	118	394
EFBS6340	63	40	66	100	78	118	400
EFBS6350	63	50	82	100	93	118	430
EFBS6363	63	63	85	100	94	118	462
EFBS9032	90	32	49	126	59	118	519
EFBS9040	90	40	68	126	78	118	529
EFBS9050	90	50	82	126	93	118	550
EFBS9063	90	63	85	126	94	118	608
EFBS9090	90	90	90	139	105	176	934
EFBS11032	110	32	49	148	59	118	585
EFBS11040	110	40	68	148	78	118	598
EFBS11050	110	50	82	148	93	118	629
EFBS11063	110	63	85	148	94	118	658
EFBS11090	110	90	90	162	105	176	948
EFBS16040	160	32	49	200	59	118	708
EFBS16040	160	40	68	200	78	118	722
EFBS16050	160	50	82	200	93	118	787
EFBS16063	160	63	85	200	94	118	825
EFBS16090	160	90	90	176	105	176	956

Electrofusion Air Saddle under Pressure Tapping

Part No.	d pipe	d1 pipe	A	B	C	H	L	Weight g
EFASP4020	40	20	107	66	7	94	100	290
EFASP4025	40	25	90	65	7	98	100	349
EFASP4032	40	32	121	66	12	94	100	370
EFASP5020	50	20	110	76	7	98	100	390
EFASP5025	50	25	91	76	10	98	100	390
EFASP5032	50	32	122	76	12	98	100	410
EFASP6320	63	20	90	100	10	90	118	355
EFASP6325	63	25	93	100	12	90	118	363
EFASP6332	63	32	99	100	12	90	118	380
EFASP6340	63	40	142	100	64	177	118	1070
EFASP6350	63	50	154	100	64	177	118	1094
EFASP6363	63	63	175	100	64	177	118	1180
EFASP9020	90	20	117	126	16	114	118	1120
EFASP9025	90	25	108	126	16	114	118	1120
EFASP9032	90	32	126	126	16	114	118	1120
EFASP9040	90	40	134	126	21	114	118	1130
EFASP9050	90	50	123	126	64	177	118	1235
EFASP9063	90	63	175	126	64	177	118	1270
EFASP11020	110	20	119	148	16	114	118	1160
EFASP11025	110	25	118	148	16	114	118	1160
EFASP11032	110	32	127	148	16	114	118	970
EFASP11040	110	40	138	148	21	114	118	1190
EFASP11050	110	50	123	148	64	177	118	1293
EFASP11063	110	63	175	148	64	177	118	1380
EFASP16020	160	20	118	199	21	138	118	1330
EFASP16032	160	32	144	199	16	138	118	1345
EFASP16040	160	40	157	199	21	138	118	1360
EFASP16050	160	50	175	199	24	138	118	1375
EFASP16063	160	63	197	199	20	138	118	1390

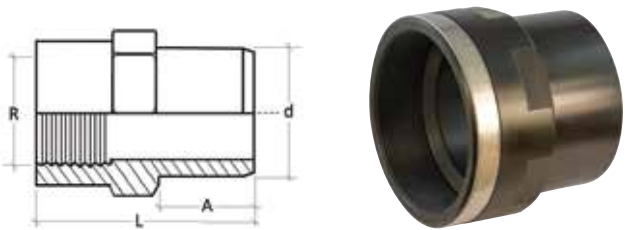


Electrofusion Male Adaptor Poly

Part No.	d pipe	R Male Thread	A	L	Weight g
EFMA3225P	32	1"	43	75	36
EFMA4032P	40	1½"	49	84	52
EFMA5040P	50	1½"	54	92	76
EFMA5050P	50	2"	52	95	108
EFMA6340P	63	1½"	52	95	104
EFMA6350P	63	2"	63	110	112
EFMA9080P	90	3"	63	115	268
EFMA110100P	100	4"	65	120	404

Electrofusion Female Adaptor Poly

Part No.	d pipe	R Female Thread	A	L	Weight g
EFFA3225P	32	1"	43	83	68
EFFA4032P	40	1½"	49	90	185
EFFA5040P	50	1½"	54	98	180
EFFA6350P	63	2"	63	108	296
EFFA9080P	90	3"	63	120	460
EFFA110100P	100	4"	65	130	630





Coupling

Code	pipe x pipe	A	B	C	Weight g
C020	20 x 20	104	39.5	46	88.7
C025	25 x 25	109	41.25	52.5	104
C032	32 x 32	132	51.75	63.75	172
C040	40 x 40	146	60.75	78.25	307
C050	50 x 50	174.4	68.5	92.5	437
C063	63 x 63	208	82.75	109	625
C075	75 x 75	250.9	107.5	132.5	1158
C090	90 x 90	293.4	131.25	151.5	1691
C110	110 x 110	382.6	166.5	175.5	1983



Reducing Coupling

Code	pipe x pipe	A	B	C	D	E	Weight g
RC025020	25 x 20	106.48	39.5	41.25	46	52.5	97.6
RC032020	32 x 20	120.1	39.5	51.75	46	63.75	138
RC032025	32 x 25	125.38	41.25	51.75	52.5	63.75	142
RC040025	40 x 25	129.75	41.25	60.75	52.5	78.25	207
RC040032	40 x 32	140.38	51.75	60.75	63.75	78.25	232
RC050032	50 x 32	162.08	51.75	68.5	63.75	92.5	307
RC050040	50 x 40	162.7	60.75	68.5	78.25	92.5	367
RC063032	63 x 32	169	51.75	82.75	63.75	109	440
RC063050	63 x 50	193.33	68.5	82.75	92.5	109	523
RC075063	75 x 63	231.95	82.75	107.5	109	132.5	882
RC090063	90 x 63	253.08	82.75	131.25	109	151.5	1384
RC090075	90 x 75	264.78	107.5	131.25	132.5	151.5	1400
RC110075	110 x 75	347.75	107.5	166.5	132.5	175.5	1763
RC110090	110 x 90	352.88	131.25	166.5	151.5	175.5	1900

Slip Coupling (Repair)

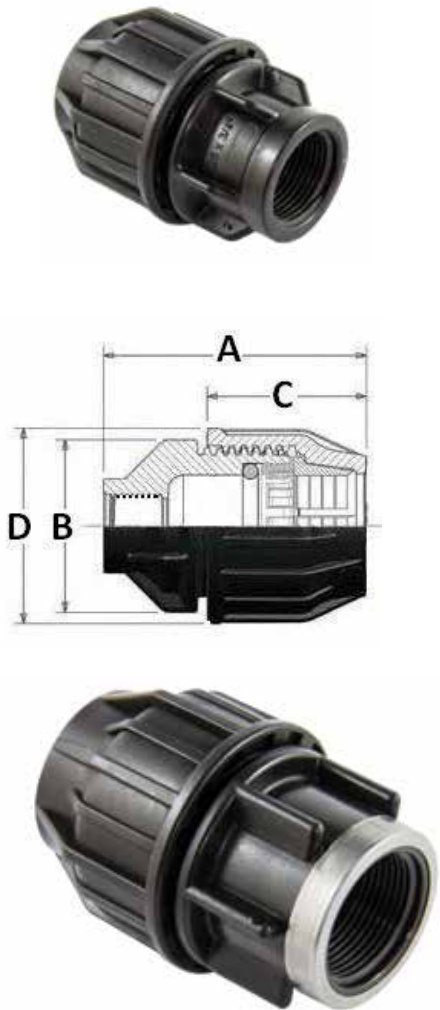
Code	pipe x pipe	A	B	C	D	Weight g
SC020	20 x 20	89	39.5	46	22	
SC025	25 x 25	118.5	41.25	52.5	26.5	99
SC032	32 x 32	178.75	51.75	63.75	33.5	200
SC040	40 x 40	209.25	60.75	78.25	41.5	345
SC050	50 x 50	239.4	68.5	92.5	51.5	505
SC063	63 x 63	296	82.75	109	64.5	810
SC075	75 x 75	250.9	107.5	132.5	77.25	1158
SC090	90 x 90	293.4	131.25	151.5	91.5	1691
SC110	110 x 110	382.6	166.5	175.5	112.5	1983



Female Adaptor

Code	pipe x thread	A	B	C	D	Weight g
FA020015	20 x 1/2	70.1	40.5	39.5	46	53.5
FA020020	20 x 3/4	70.35	41	39.5	46	50.5
FA025015	25 x 1/2	73.13	46.5	41.25	52.5	69.2
FA025020	25 x 3/4	73.13	46.5	41.25	52.5	65.5
FA025025	25 X 1	77.88	54	41.25	52.5	60.1
FA032015	32 x 1/2	86.25	56	51.75	63.75	115
FA032020	32 x 3/4	86.25	56.5	51.75	63.75	109
FA032025	32 x 1	87.75	56	51.75	63.75	103
FA032032	32 x 1 1/4	101.75	68.75	51.75	63.75	119
FA032040	32 x 1 1/2	103.75	55.75	51.75	63.75	133
FA040025	40 x 1	115.13	70	60.75	78.25	181
FA040032	40 x 1 1/4	106.38	68.25	83.75	78.25	186
FA040040	40 x 1 1/2	106.63	69	60.75	78.25	199
FA050032	50 x 1 1/4	120.58	82.5	68.5	92.5	253
FA050040	50 x 1 1/2	122.33	82.75	68.5	92.5	262
FA050050	50 x 2	132.58	74.25	68.5	92.5	401
FA063040	63 x 1 1/2	141.75	99	82.75	109	379
FA063050	63 x 2	151.5	99	82.75	109	313
FA063065	63 x 2 1/2	153	99	82.75	109	402
FA075050	75 x 2	167.95	116.5	107.5	132.5	665
FA075065	75 x 2 1/2	172.7	117	107.5	132.5	691
FA075080	75 x 3	173.2	117	107.5	132.5	695
FA090065	90 x 2 1/2	208.58	136.5	131.25	151.5	710
FA090080	90 x 3	221.08	137.5	131.25	151.5	897
FA090100	90 x 4	219.58	156.5	131.25	151.5	905
FA110080	110 x 3	279.55	156.5	166.5	175.5	1150
FA110100	110 x 4	292.55	157	166.5	175.5	1186

All female adaptors from 40mm and above have a SS reinforcing ring





Male Adaptor

Code	pipe x thread	A	B	C	D	Weight g
MA020015	20 x ½	88.35	41.5	39.5	22.2	55.7
MA020020	20 x ¾	88.35	41	39.5	22.2	56.8
MA020025	20 x 1	91.85	42.5	39.5	22.2	62
MA025015	25 x ½	92.38	46	41.25	26.75	66.5
MA025020	25 x ¾	82.63	46	41.25	26.75	68
MA025025	25 X 1	84.13	46	41.25	26.75	71.5
MA032015	32 x ½	100.25	56.25	51.75	34	105
MA032020	32 x ¾	95.25	55.5	51.75	34	103
MA032025	32 x 1	96.25	55.5	51.75	34	107
MA032032	32 x 1¼	98.75	55.5	51.75	34	113
MA032040	32 x 1½	99.25	55.5	51.75	34	117
MA040025	40 x 1	110.13	69.5	60.75	41.5	176
MA040032	40 x 1¼	108.88	68.5	60.75	41.5	179
MA040040	40 x 1½	109.38	69.75	60.75	41.5	199
MA040050	40 x 2	112.63	69	60.75	41.5	194
MA050025	50 x 1	129.58	81.25	60.75	41.5	265
MA050032	50 x 1¼	132.33	80.5	60.75	41.5	269
MA050040	50 x 1½	124.08	79.5	60.75	41.5	268
MA050050	50 x 2	127.08	79.5	60.75	41.5	274
MA063040	63 x 1½	166	98.5	82.75	64.5	402
MA063050	63 x 2	164.75	97.5	82.75	64.5	409
MA063065	63 x 2½	164.25	99	82.75	64.5	407
MA075050	75 x 2	171.95	117.5	107.5	76	677
MA075065	75 x 2½	172.95	117.5	107.5	76	687
MA075080	75 x 3	176.7	116.5	107.5	76	693
MA090050	90 x 2	199.83	136.5	131.25	94	996
MA090065	90 x 2½	201.33	137.5	131.25	94	1030
MA090080	90 x 3	207.33	138	131.25	94	1048
MA090100	90 x 4	213.58	137	131.25	94	1070
MA110050	110 x 2	241.8	164	166.5	112.5	1142
MA110080	110 x 3	250.55	164.25	166.5	112.5	1126
MA110100	110 x 4	257.05	164.25	166.5	112.5	1168

Elbow 90°

Code	pipe x pipe	A	B	C	Weight g
E020	20 x 20	87.85	46	39.5	92.4
E025	25 x 25	97.88	52.5	41.25	112
E032	32 x 32	118.25	63.75	51.75	181
E040	40 x 40	140.43	78.25	60.75	339
E050	50 x 50	150.18	92.5	68.5	484
E063	63 x 63	197	109	82.75	701
E075	75 x 75	215.45	132.5	107.5	1230
E090	90 x 90	267.83	151.5	131.25	2019
E110	110 x 110	369.05	175.5	166.5	2269

Elbow 45°

Code	pipe x pipe	A	B	C	Weight g
E45032	32 X 32	80	63	66	202
E45040	40 x 40	99	82	84	330
E45050	50 x 50	106	95	92	486
E45063	63 x 63	130	113	110	755
E45075	75 X 75	157	132	135	1265
E45090	90 x 90	192	152	162	2062
E45110	110 x 110	235	181	194	3575

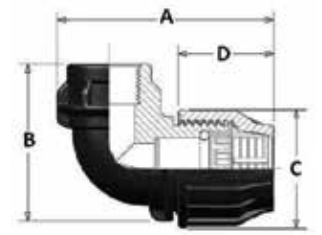
Compression Valve PN 10

Code	pipe x pipe	A	B	C	D	Weight g
CV20	20 x 20	144	112	47	51	160
CV25	25 x 25	155	115	53	54	190
CV 32	32 x 32	178	118	63	63	250

Male Elbow

Code	pipe x thread	A	B	C	D	Weight g
EM020015	20 x ½	85.1	61.25	46	39.5	52
EM020020	20 x ¾	88.6	32.75	46	39.5	62.2
EM025015	25 x ½	89.63	68.75	52.5	41.25	74.8
EM025020	25 x ¾	90.88	69.25	52.5	41.25	75.6
EM025025	25 X 1	92.93	78.25	52.5	41.25	79
EM032020	32 x ¾	120.75	84.5	63.75	51.75	122
EM032025	32 x 1	112.25	83.75	63.75	51.75	119
EM040032	40 x 1¼	136.38	92	78.25	60.75	237
EM040040	40 x 1½	137.13	92.25	78.25	60.75	247
EM050040	50 x 1½	152.83	110.75	92.5	68.5	345
EM050050	50 x 2	153.33	115	92.5	68.5	355
EM063050	63 x 2	191.25	133	109	82.75	525
EM063065	63 x 2½	191	133.75	109	82.75	559
EM075065	75 x 2½	219.2	172.25	132.5	107.5	871
EM075080	75 x 3	218.2	171.25	132.5	107.5	835
EM090080	90 x 3	265.08	171.5	151.5	131.25	1180
EM110100	110 x 4	335.8	221	175.5	166.5	1684



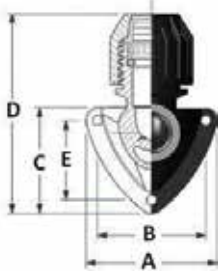
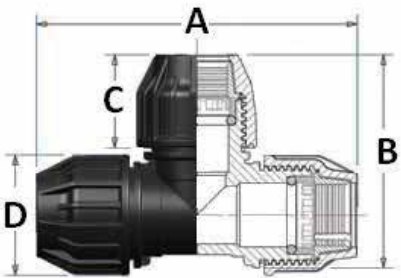


Female Elbow

Code	pipe x thread	A	B	C	D	Weight g
EF020015	20 x ½	91.35	68.25	46	39.5	68.1
EF020020	20 x ¾	91.35	67.5	46	39.5	64.9
EF025015	25 x ½	104.13	73.75	52.5	41.25	83.8
EF025020	25 x ¾	103.88	74.25	52.5	41.25	78.7
EF025025	25 X 1	92.38	74.75	52.5	41.25	82.9
EF032020	32 x ¾	121.25	80	63.75	51.75	122
EF032025	32 x 1	121	74.5	63.75	51.75	117
EF040032	40 x 1¼	136.63	97.7	78.25	60.75	229
EF040040	40 x 1½	137.28	96.95	78.25	60.75	239
EF050040	50 x 1½	153.98	111.5	92.5	60.75	325
EF050050	50 x 2	156.38	112.6	92.5	60.75	312
EF063050	63 x 2	190.65	134.25	109	82.75	55
EF063065	63 x 2½	190.6	137.5	109	82.75	487
EF075065	75 x 2½	217.2	173	132.5	107.5	945
EF075080	75 x 3	219.7	175	132.5	107.5	871
EF090080	90 x 3	264.83	170.5	151.5	131.25	1218
EF110100	110 x 4	433	240	175.5	166.5	1620

Tee

Code	pipe x pipe	A	B	C	D	Weight g
T020	20 x 20 x 20	135.2	87.85	39.5	46	138
T025	25 x 25 x 25	148.25	97.38	41.25	52.5	165
T032	32 x 32 x 32	178.75	118	51.75	63.75	273
T040	40 x 40 x 40	209.25	203.13	60.75	78.25	502
T050	50 x 50 x 50	239.4	160.33	68.54	92.5	701
T063	63 x 63 x 63	296	197.25	82.75	109	960
T075	75 x 75 x 75	319.9	216.7	107.5	132.5	1801
T090	90 x 90 x 90	401.65	265.83	131.25	151.5	2873
T110	110 x 110 x 110	564.6	364.55	166.5	175.5	3285

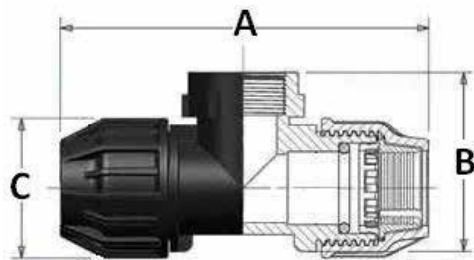


Female Elbow Lugged

Code	pipe x thread	A	B	C	D	E	Weight g
LEF020015	20 x ½	72.75	60	58.47	110.52	34.97	72
LEF025020	25 x ¾	85.7	73.45	69.15	126.7	54.4	96

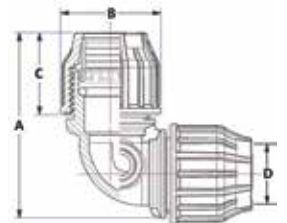
Female Centred Tee

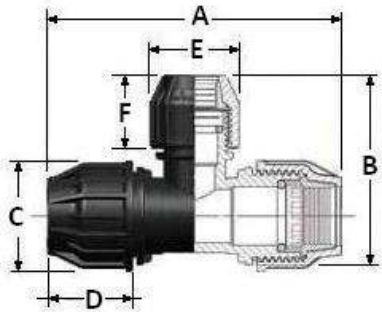
Code	pipe x thread x pipe	A	B	C	Weight g
TF020015	20 x ½ x 20	132.2	54.5	46	103
TF020020	20 x ¾ x 20	132.2	54.25	46	101
TF025015	25 x ½ x 25	139.25	57.75	52.5	129
TF025020	25 x ¾ x 25	139.25	57.75	52.5	126
TF025025	25 X 1 x 25	141.75	60.75	52.5	131
TF032020	32 x ¾ x 32	169.5	66.75	63.75	203
TF032025	32 x 1 x 32	169.5	66.75	63.75	198
TF040032	40 x 1¼ x 40	209.25	98.5	78.25	380
TF040040	40 x 1½ x 40	209.25	100.25	78.25	387
TF050040	50 x 1½ x 50	234.65	113.25	92.5	551
TF050050	50 x 2 x 50	234.65	113.25	92.5	536
TF063050	63 x 2 x 63	281.5	122	109	735
TF063065	63 x 2½ x 63	281.5	142	109	739
TF075050	75 x 2 x 75	321.4	172	132.5	1384
TF075065	75 x 2½ x 75	321.4	173.75	132.5	1506
TF075080	75 x 3 x 75	321.4	174.75	132.5	1416
TF090080	90 x 3 x 90	402.15	200.5	151.5	2221
TF110100	110 x 4 x 110	564.6	230	175.5	2643



Elbow Take-Off Female

Code	pipe x thread x pipe	A	B	C	D	Weight g
ETF025015	25 x ½ x 25	97.88	52.5	41.25	26.75	108
ETF032015	32 x ½ x 32	118.25	63.75	51.75	34	192
ETF032020	32 x ¾ x 32	118.25	63.75	51.75	34	192



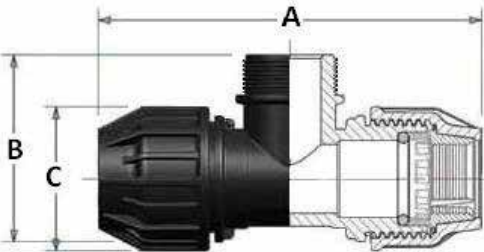


Reducing tee

Code	pipe x pipe	A	B	C	D	E	F	Weight g
RT025020	25 x 20 x 25	148.75	98.1	52.5	41.25	46	39.5	163
RT032025	32 x 25 x 32	178	104.38	63.75	51.75	52.5	41.25	201
RT040032	40 x 32 x 40	208.25	135.75	78.25	60.75	63.75	51.75	419
RT050040	50 x 40 x 50	238.65	150.13	92.5	68.5	78.25	60.75	623
RT063050	63 x 50 x 63	295.5	182.08	109	82.75	92.5	68.5	870
RT075063	75 x 63 x 75	318.4	207.55	132.5	107.5	109	82.75	1613
RT090075	90 x 75 x 90	401.65	246.2	151.5	131.25	132.5	107.5	2566
RT110090	110 x 90 x 110	561.85	301.83	175.5	166.5	151.5	131.25	3183

Male Centred Tee

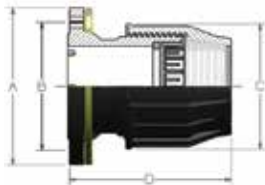
Code	pipe x thread x pipe	A	B	C	Weight g
TM020015	20 x 1/2 x 20	117.1	63.75	46	104
TM020020	20 x 3/4 x 20	117.1	65.75	46	104
TM020025	20 x 1 x 20	117.1	67.75	46	113
TM025015	25 x 1/2 x 25	130.38	72.25	52.5	129
TM025020	25 x 3/4 x 25	130.38	72.5	52.5	132
TM025025	25 X 1 x 25	130.38	74	52.5	133
TM032015	32 x 1/2 x 32	152.5	78.5	63.75	196
TM032020	32 x 3/4 x 32	152.5	79	63.75	206
TM032025	32 x 1 x 32	152.5	83	63.75	204
TM040025	40 x 1 x 40	178.13	96	78.25	367
TM040032	40 x 1 1/4 x 40	178.13	101	78.25	368
TM040040	40 x 1 1/2 x 40	179.13	110.754	78.25	373
TM050040	50 x 1 1/2 x 50	198.58	110.75	92.5	528
TM050050	50 x 2 x 50	198.58	115	92.5	538
TM063050	63 x 2 x 63	248.5	138.25	109	717
TM075050	75 x 2 x 75	275.7	170	132.5	1348
TM075065	75 x 2 1/2 x 75	275.7	171	132.5	1432
TM075080	75 x 3 x 75	275.7	171	132.5	1416
TM090080	90 x 3 x 90	344.33	196.5	151.5	2181
TM110100	110 x 4 x 110	564.6	220	175.5	2683



Flange Adaptor (Din) Check With Tech Dept For Table E

Comes complete with bolts and unique in-situ gasket for effortless installation.

Code	pipe x flange	A	B (PCD)	C	D	Bolt Hole	Weight g
FLA050040	50 x 1 1/2	150	110	92.5	136	4 x 18	1250
FLA050050	50 x 2	165	125	92.5	136	4 x 18	1350
FLA063050	63 x 2	165	125	109.0	153	4 x 18	1560
FLA075065	75 x 2 1/2	185	145	132.5	168	4 x 18	2004
FLA075080	75 x 3	200	160	132.5	168	8 x 18	2047
FLA090080	90 x 3	200	160	151.5	200	8 x 18	2623
FLA090100	90 x 4	220	180	151.5	200	8 x 18	2623
FLA110100	110 x 4	220	180	175.5	231	8 x 18	3100



Transition Coupling PE metric to PE imperial, Copper, Galvanised steel, PVC.

Code	pipe x pipe	A	B	C	D	E	F	G	Weight g
TC20A	15/22 X 20	120	21.5	23	51.5	39.5	15/22	22.2	181
TC25A	15/22 X 25	125.1	26.5	23	51.5	41.25	15/22	26.75	192
TC25B	20/27 X 25	123.25	26.5	27.85	54.2	41.25	20/27	26.75	230
TC32B	20/27 X 32	134	33.5	27.85	54.2	51.75	20/27	34	261
TC25C	27/34 X 25	127.25	26.5	35.15	58.2	41.25	27/34	26.75	277
TC32C	27/34 X 32	137.9	33.5	35.15	58.2	51.75	27/34	34	308

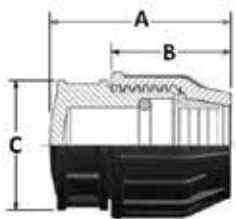


O- Ring Use FPM or EPDM for aggressive & acidic environment, check with Technical Dept.



D pipe size	Code NBR std Nitrile	Code FPM (Viton)	Code EPDM	A	B
20	ORNIT020	ORVIT020	OREPDM020	19.20	3
25	ORNIT025	ORVIT025	OREPDM025	24.00	4
32	ORNIT032	ORVIT032	OREPDM032	31.00	5
40	ORNIT040	ORVIT040	OREPDM040	39.00	6
50	ORNIT050	ORVIT050	OREPDM050	49.00	7
63	ORNIT063	ORVIT063	OREPDM063	62.00	7
75	ORNIT075	ORVIT075	OREPDM075	74.00	8
90	ORNIT090	ORVIT090	OREPDM090	89.00	8
110	ORNIT110	ORVIT110	OREPDM110	108.00	9

END CAP

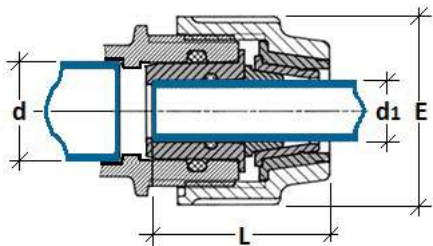


End Cap

Code	pipe	A	B	C	Weight g
EC020	20	63.85	39.5	41.25	55
EC025	25	66.63	41.25	46.25	66
EC032	32	78	51.75	55.75	104
EC040	40	89.63	60.75	69	171
EC050	50	104.58	68.5	80	266
EC063	63	125.75	82.75	98	402
EC075	75	149.7	107.5	117.5	685
EC090	90	175.33	131.25	137	1026
EC110	110	224.8	166.5	164	1120

REDUCING SETS

The reducing sets are designed to reduce the pipe diameter on any one side of a compression fitting. Using the existing nut, insert the reducing collar, and replace the grip ring with the new size. Insert the rubber reducer into the fitting, then assemble fitting to the pipe.

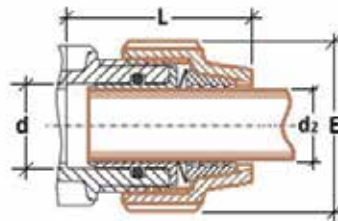


Reducing Sets

Part No.	pipe d	pipe d 1	E	L	Weight g
RS025020	25	20	54	56	22
RS032020	32	20	64	62	38
RS032025	32	25	64	60	35
RS040020	40	20	82	73	62
RS040025	40	25	82	69	81
RS040032	40	32	82	77	62
RS050025	50	25	96	85	114
RS050032	50	32	96	87	112
RS050040	50	40	96	85	97
RS063025	63	25	113	103	217
RS063032	63	32	113	102	214
RS063040	63	40	113	103	201
RS063050	63	50	113	105	186
RS0110063	110	63	181	131	703

POLY COPPER ADAPTORS

The 1/2" copper kit is designed to convert a 20mm poly fitting. The 3/4" and 1" copper conversion kits are suitable for 25mm poly fittings. The 1/2" and 3/4" kits include the copper coloured nut, the rubber bush, SS gripper and copper coloured taper cone. The 1" kit contains all of the above except for the rubber bush which is not required.



Poly Copper Adaptors

Part No.	Poly pipe d	Copper pipe d 1	E	L	Weight g
PCS020015	20	1/2"	48	67	20
PCS025020	25	3/4"	54	67	23
PCS025025	25	1"	64	77	35

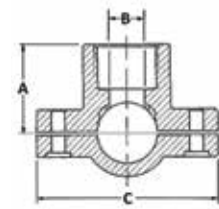
PIPE SADDLES

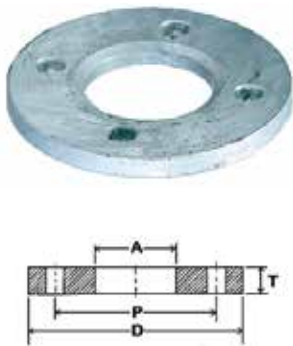
Plastic pipe saddles or Tapping Saddles for secondary branch lines suitable for use on PE for compressed air, PVC or PP irrigation, high pressure conveyance of water, chemical solutions and slurries.

- Range: Clamping body from Ø20mm up to Ø63mm
- Threaded take-off: From Ø1/2" to Ø4"
- Pressure Rating: 16 bar at 20° C for 20mm up to 63mm Ø saddles
- Safety Factor: 2 x Working Pressure (max 32 bar)
- Materials: Body: Polypropylene copolymer PP-B
- O-Ring: Elastomeric rubber
- Reinforcing Ring: Stainless Steel
- Bolts: Galvanized Steel or Stainless Steel

Pipe Saddle 16 Bar

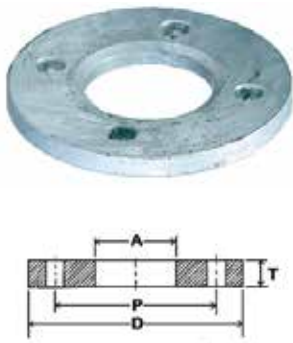
Code	pipe x thread	bolts	A	B	C	D	bar @ 20°C	Weight g
PS020015	20 x 1/2	2	60	46	32	37	16	63.9
PS025015	25 x 1/2	2	72	45	30	50	16	63.9
PS025020	25 x 3/4	2	73	49	33	50	16	61.4
PS302015	32 x 1/2	2	73	55	36	49	16	74.5
PS032020	32 x 3/4	2	72	58	37	49	16	72
PS040015	40 x 1/2	2	90	69	45	61	16	107
PS040020	40 x 3/4	2	90	70	46	61	16	104
PS040025	40 x 1	2	90	72	47	60	16	109
PS050015	50 x 1/2	4	96	89	44	60	16	164
PS050020	50 x 3/4	4	93	78	48	60	16	164
PS050025	50 x 1	4	94	80	51	67	16	166
PS050040	50 x 1 1/4	4	95	89	58	69	16	166
PS063015	63 x 1/2	4	108	87	50	61	16	174
PS063020	63 x 3/4	4	109	90	53	60	16	175
PS063025	63 x 1	4	109	94	57	60	16	175
PS063032	63 x 1 1/4	4	109	98	61	77	16	205
PS063040	63 x 1 1/2	4	109	98	61	77	16	214





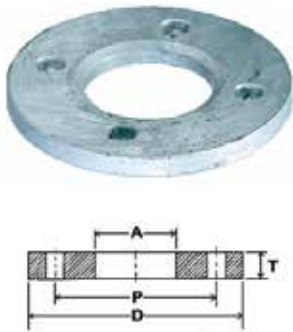
BACKING RINGS Table E NP 16 bar Galvanised

Part No	PIPE SIZE mm	INCH SIZE	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia	BOLT	Weight Kg
BR20	20	1/2"	67	32.0	95	6.0	4 x 14	M12	0.36
BR25	25	3/4"	73	37.0	100	6.0	4 x 14	M12	0.47
BR32	32	1"	83	44.0	115	7.0	4 x 14	M12	0.63
BR40	40	1½"	87	52.0	120	8.0	4 x 14	M12	0.66
BR50	50	1½"	98	62.0	135	9.0	4 x 14	M12	0.81
BR63	63	2"	114	78.0	150	10.0	4 x 18	M16	0.9
BR90	90	3"	146	108.0	185	12.0	4 x 18	M16	1.27
BR110	110	4"	178	128.0	215	13.0	8 x 18	M16	1.96
BR160	160	6"	235	178.0	280	17.0	8 x 22	M20	4.08



BACKING RINGS DIN 16 Galvanised

Part No	PIPE SIZE mm	INCH SIZE	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia	BOLT	Weight Kg
BR32-DIN	32	1"	85	44	115	12	4 x 14	M12	0.78
BR40-DIN	40	1½"	100	52	140	14	4 x 18	M16	1.35
BR50-DIN	50	1½"	110	62	150	14	4 x 18	M16	1.5
BR63-DIN	63	2"	125	74	165	16	4 x 18	M16	2.02
BR90-DIN	90	3"	160	103	200	18	8 x 18	M16	2.97
BR110-DIN	110	4"	180	125	220	18	8 x 18	M16	3.35
BR160-DIN	160	6"	240	175	285	20	8 X 22	M20	5.76

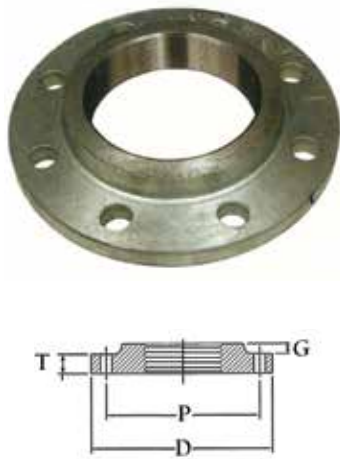


BACKING RINGS ANSI 150 Galvanised

Part No	PIPE SIZE mm	INCH SIZE	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia	BOLT	Weight Kg
BR20-ANSI	20	1/2"	61	32	89	6	4 x 16	M12	0.21
BR25-ANSI	25	3/4"	70	37	98	8	4 x 16	M12	0.34
BR32-ANSI	32	1"	80	44	108	8	4 x 16	M12	0.35
BR40-ANSI	40	1½"	89	52	117	8	4 x 16	M12	0.47
BR50-ANSI	50	1½"	99	62	127	10	4 x 16	M12	0.67
BR63-ANSI	63	2"	121	78	152	10	4 x 20	M16	0.92
BR90-ANSI	90	3"	153	108	191	12	4 x 20	M16	1.66
BR110-ANSI	110	4"	191	128	229	12	4 x 20	M16	2
BR160-ANSI	160	6"	242	178	279	16	8 x 23	M20	3.99

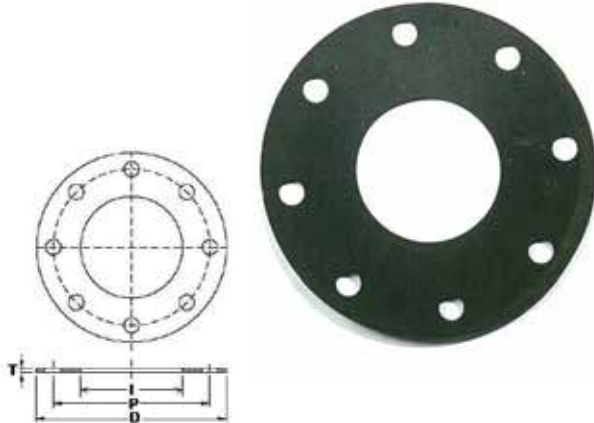
TABLE E Screw Flanges NP 16 bar AS 2129 1994

Part No	NOMINAL FLANGE SIZE	INCH SIZE	P (mm)	D (mm)	T (mm)	G (mm)	BOLT HOLES No. x dia	BOLT
CFEF.000015	15	1/2"	65.0	95	14.0	2.0	4 x 14	M12
CFEF.000020	20	3/4"	75.0	105	16.0	2.0	4 x 14	M12
CFEF.000025	25	1"	85.0	115	16.0	2.0	4 x 14	M12
CFEF.000035	32	1½"	100.0	140	18.0	2.0	4 x 18	M16
CFEF.000040	40	1½"	110.0	150	18.0	3.0	4 x 18	M16
CFEF.000050	50	2"	125.0	165	20.0	3.0	4 x 18	M16
CFEF.000065	65	2½"	145.0	185	20.0	3.0	8 x 18	M16
CFEF.000080	80	3"	160.0	200	20.0	3.0	8 x 18	M16
CFEF.000100	100	4"	180.0	220	22.0	3.0	8 x 18	M16
CFEF.000125	125	5"	210.0	250	22.0	3.0	8 x 18	M16
CFEF.000150	150	6"	240.0	285	24.0	3.0	8 x 22	M 20



GASKETS Table E Full Face Rubber

Part No	"PIPE SIZE mm	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia
WFG20	20	67	20	95	3	4 x 14
WFG25	25	73	25	100	3	4 x 14
WFG32	32	83	32	115	3	4 x 14
WFG40	40	87	40	120	3	4 x 14
WFG50	50	98	50	135	3	4 x 14
WFG63	63	114	63	150	3	4 x 18
WFG90	90	146	90	185	3	4 x 18
WFG110	110	178	110	215	3	8 x 18
WFG160	160	235	160	280	3	8 x 22



GASKETS ANSI Full Face Rubber

Part No	"PIPE SIZE mm	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia
WFG20-ANSI	20	61	20	89	3	4 x 16
WFG25-ANSI	25	70	25	98	3	4 x 16
WFG32-ANSI	32	80	32	108	3	4 x 16
WFG40-ANSI	40	89	40	117	3	4 x 16
WFG50-ANSI	50	99	50	127	3	4 x 16
WFG63-ANSI	63	121	63	152	3	4 x 20
WFG90-ANSI	90	153	90	191	3	4 x 20
WFG110-ANSI	110	191	110	229	3	4 x 20
WFG160-ANSI	160	242	160	279	3	8 x 23

GASKETS DIN 16 Full Face Rubber

Part No	"PIPE SIZE mm	P (mm)	A (mm)	D (mm)	T (mm)	BOLT HOLES No. x dia
WFG32-DIN	32	85	32	115	3	4 x 14
WFG40-DIN	40	100	40	140	3	4 x 18
WFG50-DIN	50	110	50	150	3	4 x 18
WFG63-DIN	63	125	63	165	3	4 x 18
WFG90-DIN	90	160	90	200	3	8 x 18
WFG110-DIN	110	180	110	220	3	8 x 18
WFG160-DIN	160	240	160	285	3	8 X 22

Air Receivers

Volume litres	Diameter mm	Shell length mm	Pressure kPa	Weight approx kg	Overall height mm	Inlet/ outlet mm BSP or T/E	Safety valve mm bsp	Pressure gauge mm bsp	Drain mm bsp	Product code
150	375	1200	1450	80	1800	25 bsp	20	15	15	375/150/1200
220	458	1200	1200	85	1850	40 bsp	20	15	15	458/220/1050
274	458	1500	1200	95	2150	40 bsp	20	15	15	458/274/1050
30	458	1800	1200	120	2450	40 bsp	20	15	15	458/330/1050
400	508	1800	1420	170	2450	50 bsp	20	15	15	508/400/1100
520	508	2400	1420	210	3100	50 bsp	20	15	15	508/520/1100
510	572	1800	1200	215	2500	50 bsp	20	15	15	572/520/1200
584	610	1800	1150	235	2500	50 bsp	20	15	15	610/584/1150
750	610	2400	1150	310	3100	50 bsp	20	15	15	610/750/1150
786	762	1500	1000	270	2200	50 bsp	20	15	15	762/786/1000
786	762	1500	1200	282	2200	50 bsp	20	15	15	762/786/1200
919	762	1800	1000	305	2500	50 bsp	20	15	15	762/919/1000
919	762	1800	1200	317	2500	50 bsp	20	15	15	762/919/1200
1050	762	2100	1000	340	2800	50 bsp	20	15	15	762/1050/1000
1050	762	2100	1200	352	2800	50 bsp	20	15	15	762/1050/1200
1450	762	3000	1000	410	3700	50 bsp	20	15	15	762/1490/1000
1450	762	3000	1200	422	3700	50 bsp	20	15	15	762/1490/1200
1730	914	2400	1050	450	3200	50 bsp	25	15	20	914/1730/1050
2110	914	3000	1050	580	3800	50 bsp	25	15	20	914/2110/1050
2380	1067	2400	1200	820	3250	100 T/E	40	20	20	1067/2380/1200
2900	1067	3000	1200	840	3850	100 T/E	40	20	20	1067/2900/1200
3870	1219	3000	1090	1100	3950	100 T/E	40	20	25	1219/3830/1090
5200	1219	4200	1090	1400	5150	100 T/E	40	20	25	1219/5200/1090
6144	1219	5000	1090	1600	5950	100 T/E	40	20	25	1219/6144/1090
6870	1372	4200	950	1835	5200	100 T/E	40	20	25	1372/6870/950
7090	1372	4200	1200	2200	5400	100 T/E	40	20	25	1372/7090/1200
8050	1372	5000	950	2000	5800	100 T/E	40	20	25	1372/7758/950
8270	1372	5000	1200	2400	6200	100 T/E	40	20	25	1372/8270/1200
10600	1524	5400	1100	3100	6500	100 T/E	40	20	25	1524/10600/1100

Air Receivers are a vital part of a compressed air installation. They are normally installed after the compressor and before the filters and dryer. There are exceptions to this, for example in sandblasting or processes where short bursts of high volume dry air is required.

Size of receivers shall be calculated as optimally 10 times the flow in l/s of the compressor, or as a minimum 6 times the flow in l/s.

Air receivers which are NOT grit blasted are solvent cleaned, primed and painted with fast dry enamel.

Some dished ends will have mill scale on them. Special nonstandard receivers not on this list can be individually quoted.

Correct installation is with direction of flow in at the lower port and out at the top port. Receivers should be drained every day of accumulated condensate, best practice is to install a no-loss automatic drain.



PRESSURE GAUGES

We stock a range of pressure gauges in either 304 Stainless Steel or black painted steel.

The dials are usually dual scale showing kPa in black print and psi in red font on white backgrounds.

The windows on 40, 50 & 63 are polycarbonate with glass for sizes 80 & 100mm.

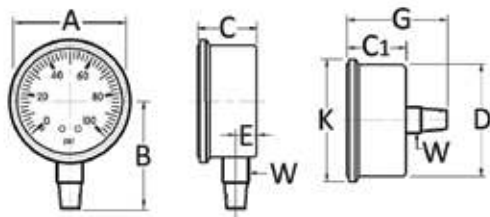
Accuracy on these general purpose gauges is $\pm 2.5\%$ of the full scale. Higher accuracies are available on test gauges.

Front mounting or panel mounting flanges are available to suit the rear entry 63mm models.



Part No.	Face Diameter mm				Dry/Liquid filled		Inlet bspt			Entry rear/ bottom		Range		case		Weight
	40	50	63	100	Dry	Liquid	1/8"	1/4"	3/8"	R	B	kPa	psi	black steel	S/ Steel	
PG40D-06R-250	✓				✓		1/8"			R		0-250	0-35	✓		90
PG40D-06R-1000	✓				✓		1/8"			R		0-1000	0-145	✓		90
PG40D-06B-1600	✓				✓		1/8"				B	0-1600	0-230	✓		60
PG50D-06R-1000		✓			✓		1/8"			R		0-1000	0-145	✓		125
PG50-06R-1600SS		✓			✓		1/8"			R		0-1600	0-230		✓	125
PG50D-08B-1000		✓			✓		1/4"				B	0-1000	0-145	✓		115
PG50D-08B-1600		✓			✓		1/4"				B	0-1000	0-145	✓		115
PG50D-08R-1600		✓			✓		1/4"			R		0-1600	0-230	✓		120
PG63L-08B-400SS			✓			✓	1/4"				B	0-400	0-60		✓	225
PG63D-08B-800			✓		✓		1/4"				B	0-800	0-115	✓		146
PG63D-08B-800SS			✓		✓		1/4"				B	0-800	0-116		✓	225
PG63L-08B-1600SS			✓			✓	1/4"				B	0-1600	0-230		✓	225
PG63D-08B-1600			✓		✓		1/4"				B	0-1600	0-230	✓		145
PG63D-08R-1600			✓		✓		1/4"			R		0-1600	0-230	✓		205
PG63D-08R-1600SS			✓			✓	1/4"			R		0-1600	0-230		✓	260
PG63D-08B-VAC100			✓		✓		1/4"				B	0 to -100 vacuum		✓		225
PG100D-10B-800				✓	✓			✓			B	0-800	0-115	✓		400
PG100D-10B-1000				✓	✓			✓			B	0-1000	0-145	✓		400
PG100D-10B-1600				✓	✓			✓			B	0-1600	0-230	✓		400
PG100L-10B-1600SS				✓	✓			✓			B	0-1600	0-230		✓	515

Other sizes and specifications available on request



Bottom entry Rear entry Back flange 100 BE Panel mount 63 RE Front flange 63mm RE

Pressure gauge general purpose

Code	Size mm	inch size	B	C	C1	D	E	G	K	W
PG40	40	1½"	37	22	26	41	7	46	42	11
PG50	50	2"	45	28	28	52	10	45	58	14
PG63	63	2½"	54	30	30	63	9	52	69	14
PG80	80	3"	68	35	33	77	13	54	77	14
PG100	100	4"	81	36	x	101	13	x	104	22

PRESSURE SAFETY VALVE

Compact size, high flow

All brass construction

Stainless steel spring on ¾" & 1" sizes

Zinc plated piano wire spring on ¼" & ½" sizes

O-ring seal

Set pressure tolerance $\pm 3\%$,

120 °C max temp.

Other sizes and ratings available on request



Pressure Safety valve

Code	Size mm	bsp size	set pressure kPa	set pressure psi	H hex mm	L mm	Weight g
PSV08-965	8	1/4"	965	140	17.5	51	60
PSV08-1035	8	1/4"	1035	150	17.5	51	60
PSV08-1100	8	1/4"	1100	160	17.5	51	60
PSV15-965	15	1/2"	965	140	22.2	86	170
PSV15-1035	15	1/2"	1035	150	22.2	86	170
PSV15-1135	15	1/2"	1135	165	22.2	86	170
PSV15-1200	15	1/2"	1200	174	22.2	86	170
PSV15-1380	15	1/2"	1380	200	22.2	86	170
PSV20-860	20	3/4"	860	125	27	98	285
PSV20-1035	20	3/4"	1035	150	27	98	285
PSV25-965	25	1"	965	140	41.5	123	790
PSV25-1035	25	1"	1035	150	41.5	123	790



SPRING NON RETURN VALVE

- Light weight plastic jumper – won't corrode or jam
- NBR seat
- Can be installed horizontal or vertical
- Not suitable for potable water
- All valves pressure tested during manufacture
- 10mm to 100mm
- Temperature -20°C to 70°C
- Cracking pressure 3 kPa

Spring non return valve

Code	Size mm	bsp size	H	L	Kv m³/h	Pressure rating kPa	Weight kg
NRV08	6	¼"	28	47	7	4000	0.105
NRV10	10	⅜"	35	47	2	1200	0.18
NRV15	15	½"	31	45	4	1200	0.11
NRV20	20	¾"	39	50	8	1200	0.19
NRV25	25	1"	47	58	12	1200	0.26
NRV32	32	1¼"	56	64	22	1000	0.4
NRV40	40	1½"	66	69	29	1000	0.53
NRV50	50	2"	83	77	51	1000	0.79
NRV65	65	2½"	107	87	70	800	1.34
NRV80	80	3"	109	102	99	800	1.59
NRV100	100	4"	140	112	158	800	2.79

Y LINE STRAINER

- Watermark to AS 3688
- DZR brass body and cap
- Stainless steel mesh
- EPDM peroxide O-ring
- Arrow direction of flow indicator
- 500 micron mesh standard
- Other mesh sizes on request
- Temperature -20°C to 99°C
- All valves pressure tested during manufacture



Y Line Strainer

Code	Size mm	bsp size	A	L	Kv m³/h	Weight kg
LS06	6	¼"	39	54	2	0.1
LS10	10	⅜"	39	57	3	0.11
LS15	15	½"	39	67	5	0.15
LS20	20	¾"	50	81	8	0.23
LS25	25	1"	55	97	11	0.37
LS32	32	1¼"	66	104	17	0.52
LS40	40	1½"	75	118	25	0.79
LS50	50	2"	90	145	36	1.03

Max operating pressure at nominal temperatures 2500 kPa

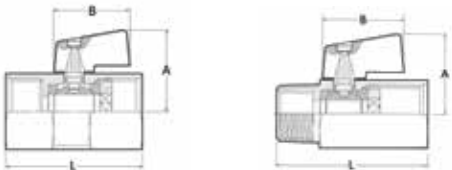


Mini ball valve

Code	Description	Size mm	inch size	A	B	L	Kv m³/h	Weight kg
MVMF06	male & female	6	⅛"	22	19	40	1.3	0.078
MVMF08	male & female	8	¼"	22	19	40	1.3	0.078
MVMF10	male & female	10	⅜"	23	19	44	2.7	0.085
MVMF15	male & female	15	½"	30	30	54.5	1.32	0.13
MVF 08	female/female	8	¼"	28	22	42	0.77	0.075
MVF 10	female/female	10	⅜"	28	22	47	1.32	0.108
MVF 15	female/female	15	½"	28	22	50	1.97	149

MINI BALL VALVE

- Blow-out proof stem
- Must be operated either fully closed or fully open
- All valves pressure tested during manufacture
- Temperature 0°C to 80°C
- Max operating pressure at nominal temperatures 1600 kPa

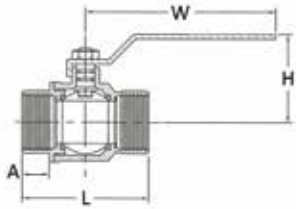


BRASS BALL VALVE NICKEL PLATED

- Full bore
- Double Viton O-ring stem sealing system suitable for diesel & petrol
- Blow-out proof stem
- Suitable for vacuum
- Must be operated either fully open or fully closed
- All valves pressure tested in manufacture
- Temp -20°C to 150°C



Code	Size mm	inch size	A	H	L	W	Pressure rating kPa	Weight kg
BV06	6	¼"	12	35	50	85	4000	0.16
BV10	10	⅜"	16	35	50	85	4000	0.14
BV15	15	½"	16.5	39	60	95	4000	0.2
BV20	20	¾"	18	43	67	115	3000	0.3
BV25	25	1"	19.5	60	76	115	3000	0.43
BV32	32	1¼"	23	63	93	125	2500	0.73
BV40	40	1½"	23	77	101	180	2500	1.12
BV50	50	2"	27	89	122	180	2500	1.72
BV65	65	2½"	30	112	151	257	2000	3.84
BV80	80	3"	37	120	174	301	2000	5.39



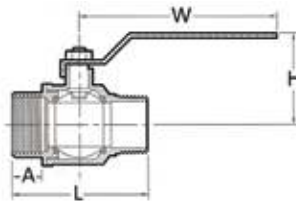
BRASS BALL VALVE NICKEL PLATED MALE/FEMALE

- Full bore
- Blow-out proof stem
- Suitable for vacuum
- Must be operated either fully open or fully closed
- All valves pressure tested in manufacture
- Temp -20°C to 150°C



M&F Brass Ball valve nickel plated

Code	Size mm	inch size	A	H	L	W	Pressure rating kPa	Weight kg
BVMF06	6	⅛"	12	35	50	85	2500	0.16
BVMF10	10	⅜"	16	35	50	85	2500	0.14
BVMF15	15	½"	16.5	39	60	95	2500	0.2
BVMF20	20	¾"	18	43	67	115	2500	0.3
BVMF25	25	1"	19.5	60	76	115	2500	0.43
BVMF32	32	1¼"	23	63	93	125	2500	0.74
BVMF40	40	1½"	23	77	101	180	2500	1.1
BVMF50	50	2"	27	89	122	180	2500	1.72

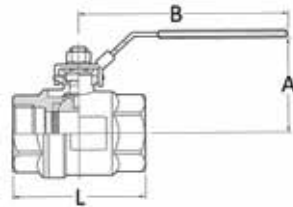


2-PIECE STAINLESS STEEL LOCKABLE BALL VALVE



Code	Size mm	inch size	A	B	L	Kv m³/h	Pressure kPa	Weight kg
SS2BV08	6	¼"	57	105	58	5	8000	0.2
SS2BV10	10	⅜"	57	105	58	10	8000	0.21
SS2BV15	15	½"	59	105	60	16	8000	0.26
SS2BV20	20	¾"	63	105	70	32	8000	0.34
SS2BV25	25	1"	71	128	82	55	8000	0.54
SS2BV32	32	1½"	76	128	96	88	7000	0.86
SS2BV40	40	1½"	89	154	112	123	7000	1.44
SS2BV50	50	2"	98	154	126	308	6000	2.2

- 316 Stainless Steel -body, end adaptor, ball, stem
- 304 Stainless steel – gland, handle, spring washer, nut
- Full bore
- Can be locked open or closed
- Reinforced PTFE seals, gasket, thrust washer, packing
- Must be operated either fully open or fully closed
- All valves pressure tested in manufacture
- Temp -20°C to 200°C



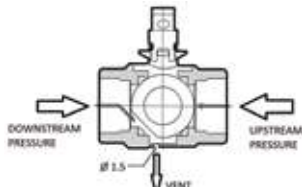
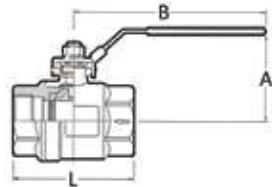
2-PIECE STAINLESS STEEL SELF-VENTING LOCKABLE BALL VALVE

- Self-venting operates in the closed position
- Arrow indicates direction of flow
- Can be locked open or closed
- 316 Stainless Steel -body, cap, ball, stem
- 304 Stainless steel – gland, handle, spring washer, nut
- Full bore

- Blow-out proof stem
- Reinforced PTFE seals
- Must be operated either fully open or fully closed
- All valves pressure tested in manufacture
- Temp -20°C to 200°C
- Max operating pressure at nominal temperatures 7000 kPa



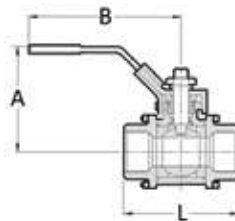
Code	Size mm	inch size	A	B	L	Kv m³/h	Weight kg
SS2BV08V	6	¼"	57	105	58	5	0.2
SS2BV10V	10	⅜"	57	105	58	10	0.21
SS2BV15V	15	½"	59	105	60	16	0.26
SS2BV20V	20	¾"	63	105	70	32	0.34
SS2BV25V	25	1"	71	128	82	55	0.54
SS2BV32V	32	1½"	76	128	96	88	0.86
SS2BV40V	40	1½"	89	154	112	123	1.44
SS2BV50V	50	2"	98	154	126	308	2.2



STAINLESS STEEL 3 PIECE BALL VALVE

- 316 Stainless steel
- Lockable handle in either shut or open position
- Blow-out proof stem
- Full bore
- Reinforced PTFE seals
- Must be operated fully open or fully closed
- All valves pressure tested during manufacture
- Temperature -20°C to 220°C

Code	Size mm	inch size	A	B	L	Kv m³/h	Pressure rating kPa	Weight kg
SS3BV06	6	¼"	50	99	58	7	8500	0.37
SS3BV10	10	⅜"	50	99	58	8	8500	0.34
SS3BV15	15	½"	53	121	64	12	8500	0.51
SS3BV20	20	¾"	64	121	73	29	8500	0.66
SS3BV25	25	1"	66	121	85	41	8500	0.96
SS3BV32	32	1¼"	79	121	96	53	7000	1.5
SS3BV40	40	1½"	83	180	114	93	7000	2.2
SS3BV50	50	2"	94	180	134	128	6000	3.32
SS3BV65	65	2½"	136	245	180	360	6000	7.21
SS3BV80	80	3"	149	245	200	418	6000	12.6
SS3BV100	100	4"	175	245	228	951	6000	19.6



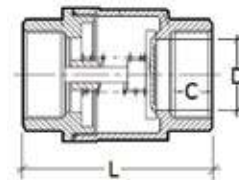
Stainless Steel spring non return valve

Code	Size mm	Size bsp	H	L	C	Pressure rating kPa	Pressure rating psi	Temperature
SSNRV15	15	½"	31	61	14	1375	200	-29 to 175
SSNRV20	20	¾"	39	70	16	1375	200	-29 to 175
SSNRV25	25	1"	47	80	18	1375	200	-29 to 175
SSNRV32	32	1¼"	56	90	20	1375	200	-29 to 175
SSNRV40	40	1½"	66	100	202	1375	200	-29 to 175
SSNRV50	50	2"	83	120	22	1375	200	-29 to 175

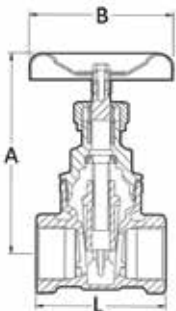


Materials

Part	Material
Body	ASTM A351 CF8M
Spring	304/316
Disc	ASTM A351 CF8M
Cap	316
Gasket	PTFE
Seat	316
Stem	316



GATE VALVE



- Full bore
- Watermark to AS 1628
- Suitable for diesel
- Internal guides ensure proper closure
- Cast iron hand wheel
- Precompressed PTFE gland packing
- Must be operated fully open or fully closed
- All valves pressure tested during manufacture
- Temperature -20°C to 99°C
- Max operating pressure at nominal temperatures 2500 kPa

Code	Size mm	inch size	A	B	L	Kv m³/h	Weight kg
GV15	15	½"	77	55	58	13	0.395
GV20	20	¾"	95	58	63	40	0.59
GV25	25	1"	104	58	73	60	0.81
GV32	32	1¼"	122	75	83	100	1.11
GV40	40	1½"	138	90	86	150	1.62
GV50	50	2"	160	95	99	270	2.58

BUTTERFLY VALVES

Resilient seat Butterfly Valves are compact and give bubble tight shut off as well as having good regulating capabilities.

CF8M is a molybdenum bearing modification of of CF8 alloy and is the cast equivalent of wrought AISI 316 stainless steel. The presence of molybdenum increases the general corrosion resistance and the resistance to pitting by chloride

Butterfly wafer valve

Part	Cast Iron body style	SS body style
Body	Cast Iron	CF8M
Handle	Ductile Iron	SS304
Stem	SS416	SS416
Hub shaft	CF8M	SS416
Bushing	PTFE	PTFE
O-ring	NBR	EPDM

Butterfly lugged valve

Part	Cast Iron body style
Body	Cast Iron
Handle	Ductile Iron
Stem	SS416
Hub shaft	CF8M
Bushing	PTFE
O-ring	NBR

Resilient seat material for Butterfly valves

Common name	ASTM designation D1418-64	Temperature	Composition	Generally resistant to	Generally affected or attacked by
Buna-N or Nitrile	NBR	Temp. + 100°C	Nitrile Butadiene	Many Hydrocarbons, fats, oils, greases, hydraulic fluids and chemical	Ozone's, keytones, esters, aldehydes, chlorinated and nitro hydrocarbons
EPT or EPDM	EPDM	Temp. + 120°C	Ethylene-propylene-dieneterpolymer	Animal and vegetable oils, ozone, strong and oxidising chemicals	Mineral oils and solvents, aromatic hydrocarbons
Viton	FPM	Temp. + 150°C	Hexfluoropropylene Vinylidene Fluoride	All aliphatic, aromatic and halogenated Hydrocarbons, acids, animal and vegetable oils	Keytones, Low mole weight ester and nitro containing compounds
Teflon	TFE	Temp. + 230°C	Tetrafluoro-Ethylene Resin	Most known fluid chemicals	107

WAFER BUTTERFLY STYLE

The wafer style is designed for inline applications and relies on a flange either side of the valve to secure it in the pipeline The body design is such that it can be used with most international flanges including AS2129, BSI 0, ANSI, DIN & JIS Standards in sizes 50mm to 300mm..

Sizes 50mm to 300mm Wafer Butterfly Style EPDM version is Australian Standard Watermark (Certificate No: WMKA25460) approved and using Akzo Nobel Paint.



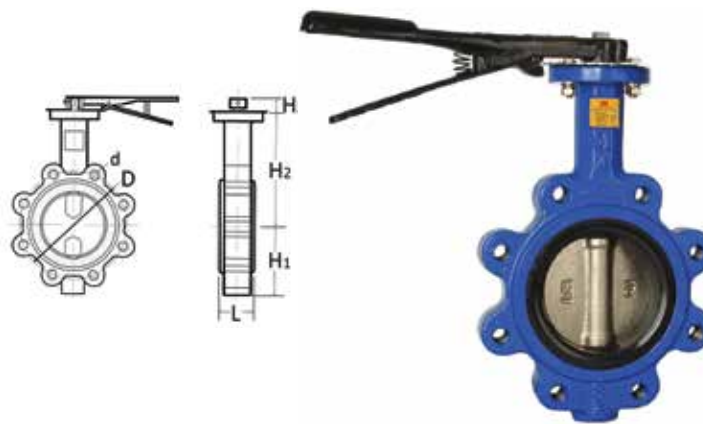
Wafer Butterfly Valve with stainless steel disc

Code	Size mm	inch size	D PCD	L	H1	H2	H3	d bolt hole	Weight kg
BVFW50	50	2"	125	42	70	140	32	4 x 19	3.09
BVFW65	65	2½"	145	45	79	155	32	4 x 19	3.8
BVFW80	80	3"	160	45	83	160	32	8 x 19	4.29
BVFW100	100	4"	180	52	107	180	32	8 x 19	5.08
BVFW125	125	5"	210	54	127	193	32	8 x 19	7.1
BVFW150	150	6"	240	56	139	200	32	8 x 23	8.1

LUGGED BUTTERFLY STYLE

Like the wafer style, the lugged body is compact but has a series of lugs cast into the body which are tapped with a metric thread for the fixing of a flange on one side at a time. The benefit of this being the valve can be mounted at the end of a pipeline without the need for a flange on the downstream (discharge) side of the valve.

The 50mm to 300mm Lugged Butterfly Style EPDM version is Australian Standard Watermark (Certificate No: WMKA25460) approved and using Akzo Nobel Paint.



Lugged Butterfly Valve with stainless steel disc

Code	Size mm	inch size	D PCD	L	H1	H2	H3	d	Weight kg
BVFL50	50	2"	114	42	80	161	32	4 x M16	4.73
BVFL65	65	2½"	127	45	89	175	32	4 x M16	5.28
BVFL80	80	3"	146	45	95	181	32	4 x M16	5.42
BVFL100	100	4"	178	52	114	200	32	8 x M16	8.84
BVFL125	125	5"	210	54	127	213	32	8 x M16	11.06
BVFL150	150	6"	235	56	139	226	32	8 x M20	13

REDUCING HEX BUSH



Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/4" x 1/8"	X	BRB0806	GRB0806	SSRB0806
3/8" x 1/4"	X	BRB1008	GRB1008	SSRB1008
1/2" x 1/4"	PRB1508	BRB1508	GRB1508	SSRB1508
1/2" x 3/8"	PRB1510	BRB1510	GRB1510	SSRB1510
3/4" x 1/4"	PRB2008	BRB2008	GRB2008	SSRB2008
3/4" x 3/8"	PRB2010	BRB2010	GRB2010	SSRB2010
3/4" x 1/2"	PRB2015	BRB2015	GRB2015	SSRB2015
1" x 1/2"	PRB2515	BRB2515	GRB2515	SSRB2515
1" x 3/4"	PRB2520	BRB2520	GRB2520	SSRB2520
1 1/4" x 1/2"	PRB3215	BRB3215	GRB3215	SSRB3215
1 1/4" x 3/4"	PRB3220	BRB3220	GRB3220	SSRB3220
1 1/4" x 1"	PRB3225	BRB3225	GRB3225	SSRB3225
1 1/2" x 1/2"	X	BRB4015	X	SSRB4015
1 1/2" x 3/4"	PRB4020	BRB4020	GRB4020	SSRB4020
1 1/2" x 1"	PRB4025	BRB4025	GRB4025	SSRB4025
1 1/2" x 1 1/4"	PRB4032	BRB4032	GRB4032	SSRB4032
2" x 3/4"	PRB5020	BRB5020	GRB5020	SSRB5020
2" x 1"	PRB5025	BRB5025	GRB5025	SSRB5025
2" x 1 1/4"	PRB5032	BRB5032	GRB5032	SSRB5032
2" x 1 1/2"	PRB5040	BRB5040	GRB5040	SSRB5040
2 1/2" x 2"	PRB6550	BRB6550	GRB6550	SSRB6550
3" x 1 1/2"	PRB8040	X	GRB8040	SSRB8040
3" x 2"	PRB8050	BRB8050	GRB8050	SSRB8050
3" x 2 1/2"	PRB8065	BRB8065	GRB8065	SSRB8065
4" x 2"	PRB10050	BRB10050	GRB10050	SSRB10050
4" x 2 1/2"	PRB10065	BRB10065	GRB10065	SSRB10065
4" x 3"	PRB10080	BRB10080	GRB10080	SSRB10080

Elbow F & F

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/4"	x	BE08	GE08	SSMFE08
3/8"	x	BE10	GE10	SSMFE10
1/2"	PE15	BE15	GE15	SSMFE15
3/4"	PE20	BE20	GE20	SSMFE20
1"	PE25	BE25	GE25	SSMFE25
1 1/4"	PE32	BE32	GE32	SSMFE32
1 1/2"	PE40	BE40	GE40	SSMFE40
2"	PE50	BE50	GE50	SSMFE50
3"	x	BE65	GE65	SSMFE65
4"	x	BE100	GE100	SSMFE100



ELBOW F&F

Tee (equal) F x F x F

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/8"	x	BT06	x	SST06
1/4"	x	BT08	x	SST08
3/8"	x	BT10	x	SST10
1/2"	PT15	BT15	GT15	SST15
3/4"	PT20	BT20	GT20	SST20
1"	PT25	BT25	GT25	SST25
1 1/4"	PT32	BT32	GT32	SST32
1 1/2"	PT40	BT40	GT40	SST40
2"	PT50	BT50	GT50	SST50
2 1/2"	PT65	BT65	GT65	SST65
3"	PT80	BT80	GT80	SST80
4"	PT100	BT100	GT100	SST100



EQUAL TEE

ELBOW M&F



Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/4"	x	BMFE08	GMFE08	SSMFE08
3/8"	x	BMFE10	GMFE10	SSMFE10
1/2"	PMFE15	BMFE15	GMFE15	SSMFE15
3/4"	PMFE20	BMFE20	GMFE20	SSMFE20
1"	PMFE25	BMFE25	GMFE25	SSMFE25
1 1/4"	PMFE32	BMFE32	GMFE32	SSMFE32
1 1/2"	PMFE40	BMFE40	GMFE40	SSMFE40
2"	PMFE50	BMFE50	GMFE50	SSMFE50
3"	x	BMFE65	GMFE65	SSMFE65
4"	x	BMFE100	GMFE100	SSMFE100

Hex Nipple

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/8"	PHN06	BHN06	GHN06	SSHN06
1/4"	PHN08	BHN08	GHN08	SSHN08
3/8"	PHN10	BHN10	GHN10	SSHN10
1/2"	PHN15	BHN15	GHN15	SSHN15
3/4"	PHN20	BHN20	GHN20	SSHN20
1"	PHN25	BHN25	GHN25	SSHN25
1 1/4"	PHN32	BHN32	GHN32	SSHN32
1 1/2"	PHN40	BHN40	GHN40	SSHN40
2"	PHN50	BHN50	GHN50	SSHN50
3"	PHN80	BHN80	GHN80	SSHN80
4"	PHN100	BHN100	GHN100	SSHN100



HEX NIPPLE

REDUCING HEX NIPPLE



Reducing Hex Nipple

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/4" x 1/8"	PRHN0806	BRHN0806	x	SSRHN0806
3/8" x 3/8"	PRHN1006	BRHN1006	x	x
3/8" x 1/4"	PRHN1008	BRHN1008	GRHN1008	SSRHN1008
1/2" x 3/8"	PRHN1506	BRHN1506	x	x
1/2" x 1/4"	PRHN1508	BRHN1508	GRHN1508	SSRHN1508
1/2" x 3/16"	PRHN1510	BRHN1510	GRHN1510	SSRHN1510
3/4" x 3/8"	PRHN2010	x	GRHN2010	SSRHN2010
3/4" x 1/2"	PRHN2015	BRHN2015	GRHN2015	SSRHN2015
1" x 3/8"	x	x	x	SSRHN2510
1" x 1/2"	PRHN2515	BRHN2515	GRHN2515	SSRHN2515
1" x 3/4"	PRHN2520	BRHN2520	GRHN2520	SSRHN2520
1 1/4" x 1/2"	x	x	x	SSRHN3215
1 1/4" x 3/4"	PRHN3220	BRHN3220	GRHN3220	SSRHN3220
1 1/4" x 1"	PRHN3225	BRHN3225	GRHN3225	SSRHN3225
1 1/2" x 3/4"	PRHN4020	BRHN4020	x	SSRHN4020
1 1/2" x 1"	PRHN4025	BRHN4025	GRHN4025	SSRHN4025
1 1/2" x 1 1/4"	PRHN4032	BRHN4032	GRHN4032	SSRHN4032
2" x 1/2"	x	BRHN5015	x	x
2" x 3/4"	PRHN5020	BRHN5020	x	x
2" x 1"	PRHN5025	BRHN5025	GRHN5025	SSRHN5025
2" x 1 1/4"	PRHN5032	BRHN5032	GRHN5032	SSRHN5032
2" x 1 1/2"	PRHN5040	BRHN5040	GRHN5040	SSRHN5040
2 1/2" x 1 1/4"	PRHN6532	x	x	x
2 1/2" x 1 1/2"	PRHN6540	x	x	SSRHN6540
2 1/2" x 2"	PRHN6550	BRHN6550	GRHN6540	SSRHN6550
3" x 1 1/2"	PRHN8040	x	x	SSRHN8040
3" x 2"	PRHN8050	BRHN8050	GRHN8050	SSRHN8050
3" x 2 1/2"	PRHN8065	BRHN8065	GRHN8065	SSRHN8065
4" x 2"	PRHN10050	BRHN10050	GRHN10050	SSRHN10050
4" x 2 1/2"	PRHN10065	BRHN10065	GRHN10065	SSRHN10065
4" x 3"	PRHN10080	BRHN10080	GRHN10080	SSRHN10080

CROSS



Cross

Size	Brass	Galvanised Iron	316 Stainless steel
1/8"	BX06	x	x
1/4"	BX08	x	SSX08
3/8"	BX10	x	SSX10
1/2"	BX15	GX15	SSX15
3/4"	x	GX20	SSX20
1"	x	GX25	SSX25
1 1/4"	x	GX32	SSX32

Socket

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/8"	x	BS06	x	SSS06
1/4"	x	BS08	GS08	SSS08
3/8"	x	BS10	GS10	SSS10
1/2"	PS15	BS15	GS15	SSS15
3/4"	PS20	BS20	GS20	SSS20
1"	PS25	BS25	GS25	SSS25
1 1/4"	PS32	BS32	GS32	SSS32
1 1/2"	PS40	BS40	GS40	SSS40
2"	PS50	BS50	GS50	SSS50
2 1/2"	PS65	BS65	x	SSS65
3"	PS80	BS80	GS80	SSS80
4"	PS100	BS100	GS100	SSS100

Barrel Union M&F

Size	Brass	316 Stainless steel
1/4"	BMFU08	SSMFU08
3/8"	BMFU10	SSMFU10
1/2"	BMFU15	SSMFU15
3/4"	BMFU20	SSMFU20
1"	BMFU25	SSMFU25
1 1/4"	BMFU32	SSMFU32
1 1/2"	BMFU40	SSMFU40
2"	BMFU50	SSMFU50

Barrel Union F&F

Size	Brass	Galvanised Iron bronze seat	316 Stainless steel
1/8"	x	x	SSBU06
1/4"	BBU08	x	SSBU08
3/8"	BBU10	x	SSBU10
1/2"	BBU15	GBU15	SSBU15
3/4"	BBU20	GBU20	SSBU20
1"	BBU25	GBU25	SSBU25
1 1/4"	BBU32	GBU32	SSBU32
1 1/2"	BBU40	GBU40	SSBU40
2"	BBU50	GBU50	SSBU50
3"	x	GBU80	SSBU80
4"	x	GBU100	SSBU100

SOCKET



BARREL UNION M&F



BARREL UNION F&F



REDUCING SOCKET



Reducing Socket

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/4" x 1/8"	x	BRS0806	x	SSRS0806
3/8" x 1/4"	x	BRS1008	x	SSRS1008
1/2" x 1/8"	x	BRS1506	x	x
1/2" x 1/4"	x	BRS1508	GSRS1508	SSRS1508
1/2" x 3/8"	x	BRS1510	GSRS1510	SSRS1510
3/4" x 3/8"	x	BRS2010	GSRS2010	SSRS2010
3/4" x 1/2"	PRS2015	BRS2015	GSRS2015	SSRS2015
1" x 3/8"	x	x	GSRS2510	SSRS2510
1" x 1/2"	PRS2515	x	GSRS2515	SSRS2515
1" x 3/4"	PRS2520	BRS2520	GSRS2520	SSRS2520
1 1/4" x 1/2"	x	x	GSRS3215	SSRS3215
1 1/4" x 3/4"	PRS3220	x	GSRS3220	SSRS3220
1 1/4" x 1"	PRS3225	x	GSRS3225	SSRS3225
1 1/2" x 3/4"	PRS4020	x	x	x
1 1/2" x 1"	PRS4025	x	GSRS4025	SSRS4025
1 1/2" x 1 1/4"	PRS4032	x	GSRS4032	SSRS4032
2" x 3/4"	PRS5020	x	x	x
2" x 1"	PRS5025	x	GSRS5025	SSRS5025
2" x 1 1/4"	PRS5032	x	GSRS5032	SSRS5032
2" x 1 1/2"	PRS5040	x	GSRS5040	SSRS5040
2 1/2" x 1 1/2"	PRS6540	x	x	SSRS6540
2 1/2" x 2"	PRS6550	x	GSRS6550	SSRS6550
3" x 1 1/2"	x	x	x	SSRS8040
3" x 2"	PRS8050	x	GSRS8050	SSRS8050
3" x 2 1/2"	PRS8065	x	GSRS8065	SSRS8065
4" x 2"	PRS10050	x	GSRS10050	SSRS10050
4" x 2 1/2"	PRS10065	x	GSRS10065	SSRS10065
4" x 3"	PRS10080	x	GSRS10080	SSRS10080

PLUG



Plug

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/8"	BP06	BP06	x	SSP06
1/4"	BP08	BP08	GP08	SSP08
3/8"	BP10	BP10	GP10	SSP10
1/2"	BP15	BP15	GP15	SSP15
3/4"	BP20	BP20	GP20	SSP20
1"	BP25	BP25	GP25	SSP25
1 1/4"	BP32	BP32	GP32	SSP32
1 1/2"	BP40	BP40	GP40	SSP40
2"	BP50	BP50	GP50	SSP50
2 1/2"	x	x	GP65	SSP65
3"	BP65	BP65	GP80	SSP80
4"	BP100	BP100	GP100	SSP100

Cap

Size	Glass filled Nylon	Brass	Galvanised Iron	316 Stainless steel
1/8"	x	x	x	SSC06
1/4"	x	x	x	SSC08
3/8"	x	x	x	SSC10
1/2"	PC15	BC15	GC15	SSC15
3/4"	PC20	BC20	GC20	SSC20
1"	PC25	BC25	GC25	SSC25
1 1/4"	PC32	BC32	GC32	SSC32
1 1/2"	PC40	BC40	GC40	SSC40
2"	PC50	BC50	GC50	SSC50
3"	PC65	BC65	GC80	SSC80
4"	PC100	BC100	GC100	SSC100

CAP



All thread/ Pipe extension

Size	Brass	Galvanised Iron	316 Stainless steel
1/4" x 6"	BAT08150	GPE08150	
1/4" x 12"	BAT08300		
3/8" x 6"	BAT10150		
1/2" x 6"	BAT15150	GPE15150	SSPE15150
1/2" x 12"	BAT15300	GPE15300	
1/2" x 16"		GPE15400	
1/2" x 24"		GPE15600	
3/4" x 6"	BAT20150	GPE20150	SSPE20150
3/4" x 12"	BAT20300		
1" x 3"		GPE2575	
1" x 6"		GPE25150	
1" x 12"	BAT25300	GPE25300	
1" x 1 metre		GPE251000	
1 1/4" x 12"	BAT32300		
1 1/4" x 18"		GPE32450	
1 1/2" x 6"		GPE40150	
1 1/2" x 10"		GPE40250	
1 1/2" x 12"	BAT40300	GPE40300	
1 1/2" x 20"		GPE40500	
1 1/2" x 1 metre		GPE401000	
2" x 4"		GPE50100	
2" x 6"		GPE50150	
2" x 8"		GPE50200	
2" x 10"		GPE50250	
2" x 12"	BAT50300	GPE50300	
2" x metre		GPE501000	

ALL THREAD/ PIPE EXTENSION





LOCK NUT

Lock Nut

Size	Brass	Brass flanged	Galvanised Iron	316 Stainless steel
1/8"	LN06	x	x	SST06
1/4"	LN08	x	x	SST08
3/8"	LN10	x	x	SST10
1/2"	LN15	LN15	GLN15	SST15
3/4"	LN20	LN20	GLN20	SST20
1"	LN25	LN25	GLN25	SST25
1 1/4"	LN32	LN32	GLN32	x
1 1/2"	LN40	LN40	GLN40	x
2"	LN50	LN50	GLN50	x
3"	x	x	GLN80	x
4"	x	x	GLN100	x

Tee

Size	Nickel plated Brass
1/8"	NBT06
1/4"	NBT08
3/8"	NBT10
1/2"	NBT15



Tee F x M x F

Size	Nickel plated Brass
1/8"	NBMFT06
1/4"	NBMFT08
3/8"	NBMFT10
1/2"	NBMFT15



Hex Nipple

Size	Nickel Plated Brass
1/4"	NBHN08
3/8"	NBHN10
1/2"	NBHN15
3/4"	NBHN20



Tee F x F x M

Size	Nickel plated Brass
1/8"	NBTMFF06
1/4"	NBTMFF08
3/8"	NBTMFF10
1/2"	NBTMFF15



HOSE BARB MALE



Hose Barb Male

Size	Brass	316 Stainless steel
1/4" x 1/4"	BHB0808	SSHB0808
1/4" x 3/8"	BHB0810	x
3/8" x 1/4"	BHB1008	x
3/8" x 3/8"	BHB1010	SSHB1010
3/8" x 1/2"	BHB1015	x
1/2" x 1/4"	BHB1208	x
1/2" x 3/8"	BHB1210	x
1/2" x 1/2"	BHB1215	SSHB1215
1/2" x 3/4"	BHB1220	x
3/4" x 1/2"	BHB2015	SSHB2015
3/4" x 3/4"	BHB2020	SSHB2020
3/4" x 1"	BHB2025	x
1" x 3/4"	BHB2520	x
1" x 1"	BHB2525	SSHB2525

Elbow M & F

Size	Nickel Plated Brass
1/4"	NBMFE08
3/8"	NBMFE10
1/2"	NBMFE15



Elbow F & F

Size	Nickel Plated Brass
1/4"	NBE08
3/8"	NBE10
1/2"	NBE15



HOSE BARB FEMALE



Hose Barb Female

Size	Brass
3/8" x 1/4"	FBHB1008
3/8" x 1/2"	FBHB1015
1/2" x 1/4"	FBHB1208
1/2" x 1/2"	FBHB1215

Plug

Size	Nickel plated Brass
1/8"	NBP06
1/4"	NBP08
3/8"	NBP10
1/2"	NBP15



Cross

Size	Nickel plated Brass
1/8"	NBX06
1/4"	NBX08
3/8"	NBX10
1/2"	NBX15



HOSE BARB TEE



HOSE BARB JOINER



Hose Barb

Size inch	Metric	Brass	Brass
1/4"	8	BHT08	BHJ08
3/8"	10	BHT10	BHJ10
1/2"	12	BHT12	BHJ12
3/4"	20	BHT20	BHJ20

Tee

Joiner

Reducing Bush

Size	Nickel plated Brass
1/4" x 1/8"	NBRB0806
3/8" x 1/4"	NBRB1008
1/2" x 1/4"	NBRB1508
1/2" x 3/8"	NBRB1510
3/4" x 1/2"	NBRB2015



Socket

Size	Nickel plated Brass
1/4"	NBS 08
3/8"	NBS10
1/2"	NBS15



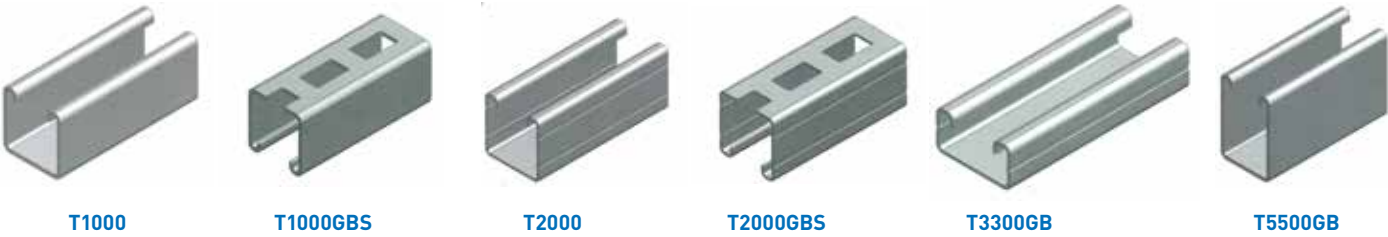
Lock Nut

Size	Nickel plated Brass
1/4"	NBLN 08
3/8"	NBLN10
1/2"	NBLN15



Adaptor

Size	Nickel plated Brass
1/8" F x 1/8" M	NBA0606
1/8" F x 1/4" M	NBA0608
1/4" F x 3/8" M	NBA0810



Universal Strut

Part #	Description	Width mm	Height mm	Length	Thick-ness mm	Finish	Load Kg @ 250mm	Load Kg @ 500mm	Load Kg @ 750mm	Load Kg @ 1500mm	Load Kg @ 3000mm
T1000GB	standard	41	41	6m	2.5	Galvabond	1308	654	436	218	109
T1000HDGB	standard	41	41	6m	2.5	Hot Dip Galvanised	1308	654	436	218	109
T1000SS	standard	41	41	6m	2.5	Stainless Steel	1308	654	436	218	109
T1000GBS	standard, slotted	41	41	6m	2.5	Galvabond					
T2000GB	light weight, ribbed	41	41	6m	1.6	Galvabond	945	471	314	157	78
T2000HDGB	light weight, ribbed	41	41	6m	1.6	Hot Dip Galvanised	945	471	314	157	78
T2000GBS	light weight, ribbed, slotted	41	41	6m	1.6	Galvabond					
T3300GB	low profile	41	21	6m	2.5	Galvabond	945	471	314	157	78
T3300GBS	low profile, slotted	41	21	6m	2.5	Galvabond					
T3300HDGB	low profile	41	21	6m	2.5	Hot Dip Galvanised	945	471	314	157	78
T4000GB	low profile ribbed	41	21	6m	1.6	Galvabond	350	175	116	58	30
T5500GB	very heavy duty	41.3	61.9	6m	2.5	Galvabond	2488	1244	830	414	207

ANGLE



Angle

Part #	Description	Gauge	Width mm	Height mm	Length	Finish
HSEA3030-3	Slotted Angle	3mm	30	30	3m	Galvabond
ALA2016	Aluminium Angle	1.6mm	20	20	6.5m	Aluminium
ALA4016	Aluminium Angle	1.6mm	40	40	6.5m	Aluminium

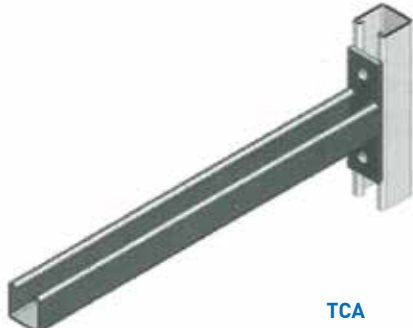
Strut Nuts

Part #	Description	Finish
TSSN06	M6 Strut nut	Galvanised
TSSN06L	M6 Strut nut w long spring	Galvanised
TSSN8	M8 Strut nut	Galvanised
TSSN8L	M8 Strut nut w long spring	Galvanised
TSSN10	M10 Strut nut	Galvanised
TSSN10S	M10 Strut nut w spring	Galvanised
TSSN10L	M10 Strut nut w long spring	Galvanised
TSSN10SS	M10 Strut nut stainless steel	316 SS
TSSN12	M12 Strut nut	Galvanised
TSSN12L	M12 Srut nut w long spring	Galvanised
TSSN12SS	M12 Strut nut stainless steel	316SS
TSTN10	T-nut- strut nut fitted with M10 stub thread	Zinc plated
T2050	Threaded rod clamp M10 clamps on side of all thread with M10 stub thread	Zinc plated



Cantilever Arms

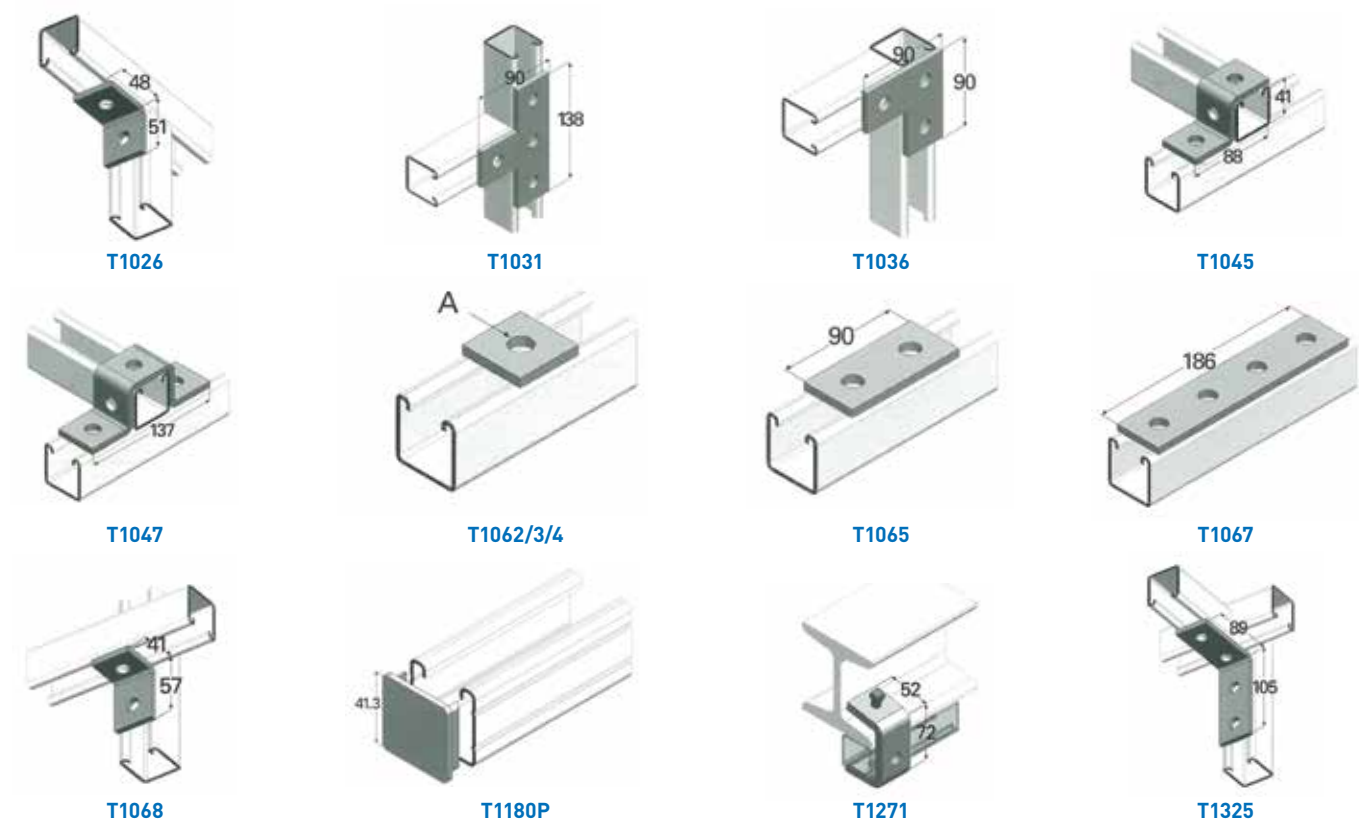
Part #	Description	Load Kg	Weight Kg	Finish
TCA150	Cantilever arms 150mm	516Kg	0.63	Galvanised
TCA200	Cantilever arms 200mm	350Kg		Galvanised
TCA300	Cantilever arms 300mm	258 Kg	1.03	Galvanised
TCA350	Cantilever arms 350mm	220Kg		Galvanised
TCA450	Cantilever arms 450mm	178 Kg	1.42	Galvanised
TCA500	Cantilever arms 500mm	150Kg		Galvanised
TCA650	Cantilever arms 650mm	129Kg	1.81	Galvanised
TCA750	Cantilever arms 750mm	103 Kg	2.21	Galvanised
TCA900	Cantilever arms 900mm	86Kg	2.6	Galvanised



Clip Heads

Part #	Description	Pipe size mm	Thread size mm
HSBC20M10	Bolted Pipe Clip	20	M10
HSBC25M10	Bolted Pipe Clip	25	M10
HSBC32M10	Bolted Pipe Clip	32	M10
HSBC40M10	Bolted Pipe Clip	40	M10
HSBC50M10	Bolted Pipe Clip	50	M10
HSBC63M10	Bolted Pipe Clip	63	M10
HSBC90M10	Bolted Pipe Clip	90	M10
HSBC90M12	Bolted Pipe Clip	90	M12
HSBC110M10	Bolted Pipe Clip	110	M10
HSBC110M12	Bolted Pipe Clip	110	M12
HSBC160M12	Bolted Pipe Clip	160	M12





Strut fittings

Part #	Description	Finish	Weight Kg
T1026	Strut Angle Bracket	Galvanised	0.17
T1031	T bracket 4 hole	Galvanised	0.44
T1036	L bracket 3 hole	Galvanised	0.11
T1045	Z fitting 3 hole	Galvanised	0.2
T1047	U fitting 5 hole	Galvanised	0.33
T1062	M8 plate	Galvanised	0.071
T1063	M10 plate	Galvanised	0.065
T1064	M12 plate	Galvanised	0.064
T1065	Joiner 2 hole	Galvanised	0.013
T1067	Joiner 4 hole	Galvanised	0.27
T1068	Angle bracket 41 x 57mm	Galvanised	0.14
T1180P	T2000B Channel end cap	Plastic	
T1271	Beam Clamps	Galvanised	0.47
T1325	Angle bracket 4 hole	Galvanised	0.28
T1326	Angle bracket 3 hole	Galvanised	0.24
T1386	H Beam clamp to strut	Galvanised	0.11
T1796	H beam clamp to strut	Galvanised	0.37
T2072A	Base plate 2 hole	Galvanised	1.5
T2346	Wing fitting HD	Galvanised	0.55
T2452	Angled brace	Galvanised	0.98
T2750	4 wheel strut trolley	Zinc plated	0.43
T2785	U bolt adjustable beam clamp	Zinc plated	0.43
T3087	Internal column bracket	Galvanised	0.84

Hanging System components

Part #	Description
H1	J-hook 20-32mm
H2	J-hook 40-50mm
H3	J-hook 63-90mm
HS1	Purlin clip for wire or 3mm rod
HS1A	Long purlin clip can mount CL clips
HS1AH1	Long purlin clip with H1 J-hook
HS1AH2	Long purlin clip with H2 J-hook
HS2A	Beam clamp 3mm - 7mm Spring steel
HS2B	Beam clamp 8mm - 13mm Spring steel
HS2C	Beam clamp 14mm - 20mm Spring steel
HS2AH1	Beam clamp 3 - 7mm w H1 J-hook > 32 pipe
HS2AH2	Beam clamp 3 - 7mm w H2 J-hook > 50 pipe
HS2BH1	Beam clamp 8 - 13mm w H1 J-hook > 32 pipe
HS2BH2	Beam clamp 8 - 13mm w H2 J-hook > 50 pipe
HS2CH1	Beam clamp 14 - 20mm w H1 J-hook > 32 pipe
HS2CH2	Beam clamp 14 - 20mm w H2 J-hook > 50 pipe
HS2U	Beam clamp spring steel > 16mm, suits 6mm bolts or 10mm
HS3	Universal clamp < 17mm beam
HS3-30	Universal clamp < 30mm beam
HS3-45	Universal clamp < 45mm beam
HS5H1	Spring steel clamp for suspended ceiling w H1 < 32 pipe
HS5H2	Spring steel clamp for suspended ceiling w H2 < 50 pipe
HSP10	Purlin clip for 10mm all thread
HSPH10	Heavy duty purlin clip for 10mm all thread
HSPH12	Heavy duty purlin clip for 12mm all thread
HSCMP08	Mounting plate centre M8
HSCMP10	Mounting plate centre M10
HSCMP10SS	Mounting plate centre M10SS
HSCMP12	Mounting plate centre M12
HSHP10	Mounting plate horizontal M10
HSHP12	Mounting plate horizontal M12
HSVMP10	Mounting plate vertical M10
HSVMP12	Mounting plate vertical M12
HSCSP10	Mounting plate w M10 x 30 set screw
HSJM08	Threaded Rod Hex Joiner M8
HSJM10	Threaded Rod Hex Joiner M10
HSJM12	Threaded Rod Hex Joiner M12
HSN08	Threaded rod nut 8mm
HSN10	Threaded rod nut 10mm
HSN12	Threaded rod nut 12mm
HSROD08	Threaded rod M8 x 3m Zinc plated
HSROD08SS	Threaded rod M8 x 3m 316 Stainless steel
HSROD10	Threaded rod M10 x 3m Zinc plated
HSROD10SS	Threaded rod M10 x 3m 316 Stainless steel
HSROD12	Threaded rod M12 x 3m Zinc plated
HSROD12SS	Threaded rod M12 x 3m 316 Stainless steel
HSTKN08	Beam clamp < 16mm, mounts 8mm threaded rod
HSTKN10	Beam clamp < 16mm, mounts 10mm threaded rod
HSTKN12	Beam clamp < 16mm, mounts 12mm threaded rod
JC2.530	Jack chain 2.5mm 30m bucket



CLIP HEAD TO SUIT HS3

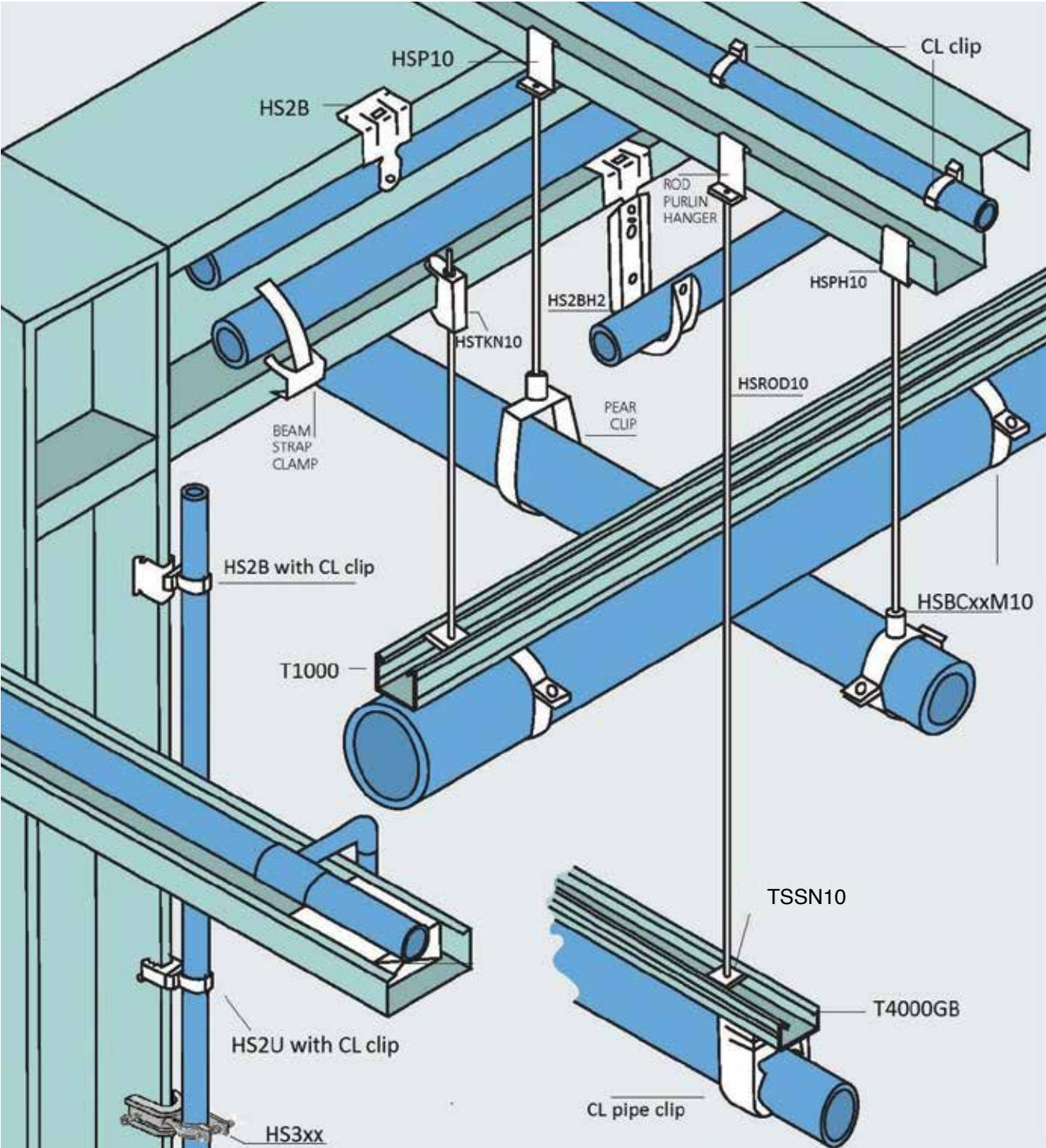


Strut Nuts

Part #	Description	Pipe size mm
HS320	clip head to suit HS3 BOLTED PIPE CLIP	20
HS325	clip head to suit HS3 BOLTED PIPE CLIP	25
HS332	clip head to suit HS3 BOLTED PIPE CLIP	32
HS340	clip head to suit HS3 BOLTED PIPE CLIP	40
HS350	clip head to suit HS3 BOLTED PIPE CLIP	50
HS363	clip head to suit HS3 BOLTED PIPE CLIP	63

Hanging System components

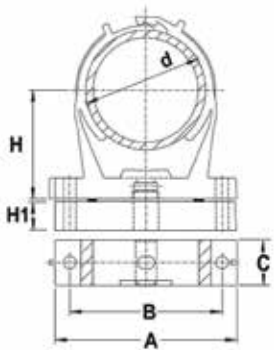
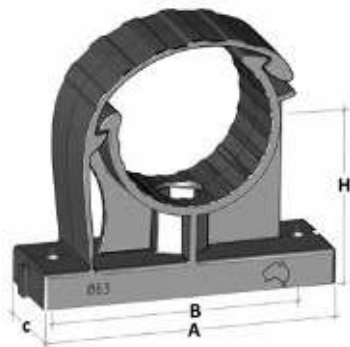
Part #	Description	gauge / diameter	length mm
F1	Button head timber point	7 #	25
F1M	Button head metal self drilling	8 #	25
F2	Button head timber point	8 #	32
F3	Button head timber point	10 #	40
F4	PVC wall plug green	6.5	30
F5	Hex head self taper Type 17 timber point	12 #	45
F5-SH	Hex head self taper Type 17 timber short	12 #	25
F6	Hex head self taper metal self drilling	12 #	45
F6-25	Hex head self taper metal self drilling Short	12 #	25
F6-SH	Hex head self taper metal self drilling Short	10 #	16
F7	Hex head self taper metal drill point	12 #	75
F8	Hex head self taper metal long drill point	12 #	32
F9	Hex head self taper metal long drill point	12 #	50
F10	Hex head Type 17 timber point	12 #	90
F10M	Hex head self taper metal self drilling	12 #	90
F11	Nylon anchor	50	40
F12	Nylon anchor	6.50	25
F13	Nylon anchor	6.50	40
F14	Nylon anchor	6.50	50
F15	Nylon anchor	6.50	75
F20	Toggle bolts		
F21	Dynabolts	6.5	40
F22	Dynabolts	8	40
F23	Dynabolts	10	40
F24	Dynabolts	10	50
F25	Dynabolts	10	60
F26	Dynabolts	20	60
F27	Dynabolts	16	65
F28-M6	Drop in Anchor	M6	
F28-M8	Drop in Anchor	M8	
F28-M10	Drop in Anchor	M10	
F29-M12	Drop in Anchor	M12	
F30	Plastermate Nylon		
F35-02	Plastic packing shims 100 x 150	2mm	
F35-05	Plastic packing shims 100 x 150	5mm	
F35-10	Plastic packing shims 100 x 150	10mm	
F35-15	Plastic packing shims 100 x 150	15mm	
F35-20	Plastic packing shims 100 x 150	20mm	
F40	Square nut & bolt to suit CL clips	M5	12
CT1	Cable Ties pkt 100	4.8	190
CT2	Cable Ties pkt 100	4.8	300
CT3	Cable Ties pkt 100	4.8	370
CT4	Cable Ties pkt 100	7.6	370



THESE INNOVATIVE AND VERSATILE PIPE CLIPS ARE PACKED WITH FEATURES THAT PROVIDE A SIMPLE, QUICK AND ROBUST SOLUTION TO PIPE MOUNTING APPLICATIONS.

Made from virgin polypropylene to prevent brittleness or breakages.
Available as CL20 18-22mm, CL25 25-28mm, CL32 31-35mm, CL 40 39-44mm, CL50 47-53mm, pictured opposite: or below, following extensive research and development is the rugged CL63.

CL63



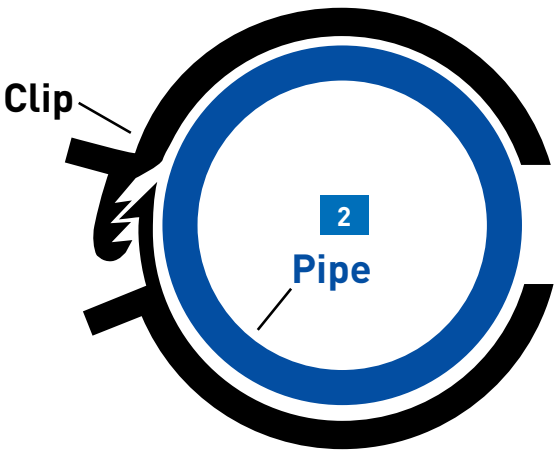
- Innovative design features include:
- Very heavy duty-will replace need for bolted clip heads
 - One piece construction- no loose nuts, bolts saddles etc
 - Choice of center or side fixing
 - Centre recess holds 10mm nut for all thread applications
 - Compatible for nylon anchors
 - Open access for drills or cordless tools
 - Secure positive double latch design
 - Anti friction grooves facilitate longitudinal pipe expansion
 - Virgin PP material - almost unbreakable
 - Dovetail interlock compatibility
 - Reinforced base and mounting holes
 - Accidental disconnection protector
 - Suits vertical wall or overhead installation
 - Mounts perfectly on Unistrut style channel
 - Non corroding suits PE, PP, SS, Aluminum pipe systems
 - Environmentally friendly, 100% recyclable

Code	size d	A	B	C	H	H1	weight g
CL 20	18 - 22	56	41.5	14	28	10	10
CL 25	25 - 28	62	47	16	30	10	13.6
CL 32	31 - 35	67	52	16	35	10	15.8
CL 40	39 - 44	86	70	18	40	10	21
CL 50	48 - 53	94	78	18	46	10	24.6
CL 63	63	123	103	40	70	n/a	77.4

TYPICAL PROPERTIES	Method	Value Unit
Physical		
Density (Method D)	ISO 1183	0.90 g/cm³
Melt flow rate (MFR) [230°C/2.16 kg]	ISO 1133	6.4 g/10 min
Mechanical		
Tensile stress at yield	ISO 527-1, -2	23 Mpa
Flexural modulus	ISO 178	1050 Mpa
Impact		
Notched izod impact strength	ISO 180	
23°C, type 1, notch A		6.0 kJ/m²
0°C, type 1, notch A		3.5 kJ/m²
-20°C, type 1, notch A		3.0 kJ/m²
Hardness		
Shore hardness (Shore D)	ISO 868	66
Thermal		
Heat deflection temperature B (0.45 Mpa) unannealed	ISO 75B-1, -2	70°C
Heat deflection temperature A (1.80 Mpa) unannealed	ISO 75A-1, -2	50°C
Vicat softening temperature [Method A]	ISO 306	150°C

Pipe Support Spacing

Code	Up to 25°C	Up to 50°C
AIR20	700	600
AIR25	900	750
AIR32	1200	900
AIR40	1400	1100
AIR50	1600	1200
AIR63	1800	1400
AIR90	2000	1600
AIR110	2400	1800
AIR160	2700	2100



Before beginning, if installing pipework along a wall, mark a straight line with a laser or chalk line. Old text manuals stipulated to allow fall on all horizontal pipes in the direction of flow, to allow for drainage of condensate. Best practice is to include a dryer and filters after the receiver to remove damaging condensate entirely. Nevertheless, low points that could become water trap hazards should be avoided in the possibility of the dryer being turned off or not working. It is recommended to allow drainage discharge points at significant locations, especially for any underground installation.

1. Mount clips at approved spacing, allowing for expansion and extra support either side of branch lines, droppers or isolating valves.
2. When mounting clips vertically for horizontal pipeline, ensure female ratchet is uppermost.
3. Spread apart the 2 arms of the clip and insert pipe.
4. Press the pipe down into the clip so that the 2 arms self-lock around the pipe. Adjust tightness of ratchet grip.
5. To remove pipe from clip, push the 2 arms in opposite directions longitudinally to disengage the ratchet.

Clip spacing may need to be adjusted for various ambient temperatures that may be encountered. Refer to technical department. For vertical pipework, clip spacing can be increased approx. 20%. Spacing will need to be decreased if pipework is conveying liquids.

CL50

CL40

CL32

CL25

CL20



Hose Clamps



Hose clamp worm drive

Code	Size mm	All 316 Stainless steel
HC8-12	8-12	✓
HC8-16	8-16	✓
HC12-20	12-20	✓
HC16-27	16-28	✓
HC20-32	20-33	✓
HC25-40	25-41	✓
HC30-45	30-46	✓
HC32-50	32-51	✓
HC40-60	40-61	✓
HC50-70	50-71	✓
HC60-80	60-81	✓
HC90-110	90-111	✓



Hose clamp 2 ear crimp

Code	Size mm	Zinc plated	All 316 Stainless steel
HC2E3-5	3-5	✓	
HC2E5-7	5-7	✓	
HC2E5-7SS	5-7		✓
HC2E7-9	7-9	✓	
HC2E7-9SS	7-9		✓
HC2E9-11	9-11	✓	
HC2E11-13	11-13	✓	
HC2E13-15	13-15	✓	
HC2E15-17	15-17	✓	
HC2E15-17SS	15-17		✓
HC2E15-18	15-18	✓	
HC2E16-19	16-19	✓	
HC2E17-20	17-20	✓	
HC2E19-22	19-22	✓	
HC2E20-23	20-23	✓	
HC2E22-25	22-25	✓	
HC2E23-27	23-27	✓	
HC2E25-28	25-28	✓	
HC2E31-34	31-34	✓	
HC2E34-37	34-37	✓	
HC2E37-40	37-40	✓	
HC2E40-43	40-43	✓	
HC2E43-46	43-46	✓	



Hose clamp heavy duty bolted

Code	Size mm	SS Band Zinc plated Bolt	All 316 Stainless steel
GBS18/18W4	17-19		✓
GBS20/18W2	19-21	✓	
GBS22/18W2	21-23	✓	
GBS22/18W4	21-23		✓
GBS24/18W2	23-25	✓	
GBS24/18W4	23-25		✓
GBS26/18W2	25-27	✓	
GBS26/18W4	25-27		✓
GBS28/18W4	27-29		✓
GBS30/18W4	29-31		✓
GBS33/18W2	31-34	✓	
GBS33/18W4	31-34		✓
GBS36/18W4	34-37		✓
GBS39/18W2	37-40	✓	
GBS42/18W4	40-43		✓
GBS45/20W2	43-47	✓	
GBS49/20W2	47-51	✓	
GBS53/20W2	51-55	✓	
GBS57/20W4	55-59		✓
GBS63/20W4	59-63		✓
GBS108/25W4	104-112		✓
GBS121/25W4	112-121		✓
GBS156/25W4	150-162		✓
GBS168/30W4	162-174		✓
GBS187/28W4	174-187		✓
GBS220/30W4	213-226	✓	✓

Accessories

Accessories

Product	Code	Size	Description
Ceiling Penetration Flange	CPF14	up to 14mm	protects edges of holes in plaster ceilings or ceiling tiles, restricts entry of insects etc.
	CPF19	up to 19mm	
	CPF25	up to 25mm	
	CPF32	up to 32mm	
	CPF38	up to 38mm	
Floor mount post	CPF48	up to 48mm	
	FMP	75mm x 75mm x 2 metre	Utility services pole mount for power, data point, compressed air outlet hose reel etc. Jack chain attachment
Outlet mounting bracket	TFWM15	½" hole	Wall bracket to rigidly mount Tf or EF compression outlets suits 20, 25, & 32 pipe fittings
	TFWM20	¾" hole	
Threaded cover plate	SSWCP15	½" hole	Stainless steel mounting flange with bsp female outlet
	SSWCP20	¾" hole	
SS wall cover plates 2" x ¾"	SSSCP15	15mm	Split half Escutcheon plates pre or post fitting wall cover plate
	SSSCP22	22mm	
	SSSCP28	28mm	
	SSSCP35	35mm	
	SSSCP42	42mm	
Wall Penetration Flange	SSSCP54	54mm	
	WPF15	½" bsp	PN16 rated ½" bsp female outlet suits wall thickness up to 85mm plus backing nut.
Weatherproof pipe penetration seal	DEK05-55	05-56mm	EPDM flexible weathertight seal suitable for pre or post installation. Ozone & UV resistant. Full range of sizes. -40°C to 115°C
	DEK25-70	25-71mm	
	DEK50-100	50-101mm	
	DEK90-150	90-151mm	
Retrofit clip	DEK125-200	125-201mm	Aluminium or SS clasp to seal retrofitted flashing joint
	DEKCLIP		
Mounting pad	AVR-S	65 x65 x9	Anti vibration rubber pad - honeycomb pattern



CPF



CPF typical installation



TFWM



TFWM typical installation



SSWCP



ESC



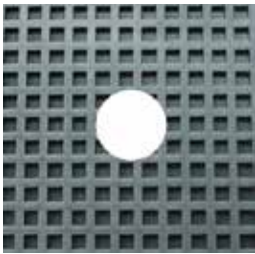
FMP fitted with hose reel for illustration purpose only



DEK



DEKCLIP



AVR-S



WPF15



TEFLON & SEALANTS

Code	Description	Application	Size
TS1	Teflon tape white	General purpose economic PTFE tape	10m
TS1-G	Teflon yellow Gas tape	The Yellow Gas Seal Tape is a thick, full or maximum density PTFE thread sealing tape designed specifically for gas lines. Unlike most thread sealing tapes on the market our Yellow Gas Seal Tape has not been stretched during the manufacturing process and is recommended for pipe made from galvanized steel, iron, brass, copper, aluminium, stainless steel, polyethylene, polypropylene, PVC, C PVC, ABS and fibreglass.	10m
TS1-O	Teflon green Oxygen tape	The Green Oxygen Seal Tape is a thick, full or maximum density PTFE thread sealing tape designed specifically for oxygen lines. PTFE thread sealing tape is manufactured from PTFE resin mixed with a small amount of solvent. So our Green Oxygen Tape is put through a rigorous process to remove the solvent and is pigmented green to ensure that it can be easily recognized. BAM approved	10m
TS6	LOXEAL 58-11	Ideal for sealing threaded joints against gas, water, oils and other chemicals • Anaerobic adhesive for the sealing of threaded metal to metal joints • Seals against gas, water, LPG, hydrocarbons, oils and other chemicals • High viscosity – won't run on thread • Sealing unaffected by shock/vibration within temperature range: -55°C to + 150°C • Rapid cure time - functional in less than 3 hrs • Water-safe & AGA-approved • Non-Toxic	250ml
SL	Silicone Spray	lubricant to assist in assembling fittings on some pipes, do not use on spray paint applications	500 ml
EFPW	Pipe Wipes	Isopropyl Alcohol cleaner of pipe & fitting surfaces prior to welding	Qty 75

Tools



PIPE CUTTERS

Code	Size	Description	Weight g
SC32	16 - 32	scissor action pipe cutter	100
PC40	20 - 40	ratchet pipe cutter	0.271
PC63	20 - 63	ratchet pipe cutter	0.271
TF054108	54 - 110	Rotary pipe cutter	1.30

CHAMFER TOOL

Code	Size	Description	Weight g
CHAM2063P	16 - 63	External chamfer on plastic pipe	99.6
TT015168	16 - 110	External chamfer on plastic pipe 2 spare blades in handle	36.2

PIPE SCRAPER

Code	Size	Description	Weight g
WPS20	20	Scraper for removing oxide layer from pipe	307
WPS25	25	Scraper for removing oxide layer from pipe	296
WPS32	32	Scraper for removing oxide layer from pipe	285
WPS40	40	Scraper for removing oxide layer from pipe	487
WPS50	50	Scraper for removing oxide layer from pipe	491
WPS63	63	Scraper for removing oxide layer from pipe	716
WPS50160	50 - 160	Scraper for removing oxide layer from pipe	2500
WPS63225	63 - 225	Mechanical scraper with fast, even, controlled spiral cut	3000
WPSHAND	All sizes, blade 40 x 40mm	Hand scraper, ideal for preparing for E/F tapping saddles	100

WELDER

Code	Size	Description
SFHM	20-63	Socket Fusion welder hand operated
SFBM	20 - 90	Socket Fusion welder mechanical operated
EFWELDER	20 - 110	Electrofusion welder - Automatic fitting recognition, Barcode scanning, Manual entry



NUT WRENCH

Code	Size	Description	Weight g
NW	16 - 40	Red Plastic wrench for tightening nut on fittings	65
NW1	40 - 75	Red Aluminium wrench for tightening nut on fittings	280
ENW2	63 - 110	Aluminium wrench for tightening nut on fittings	750
NW2	63 - 125	Red Aluminium wrench for tightening nut on fittings	855



SELF ADHESIVE PIPE MARKERS

Pipe Markers help to quickly and easily identify pipe contents. This is especially helpful in an emergency situation. It also saves time during maintenance. Australian Standard AS 1345-1995 - "Identification of the contents of pipes, conduits and ducts" - specifies guidelines for pipe marking.

A marker consists of printed text on a coloured background with a contrasting border and a chevron to show flow direction. To indicate direction of flow cut off the arrow not required.

The colours are determined by the pipes contents. Text and marker sizes are also specified. Markers must be placed adjacent to all junctions, valves, wall penetrations etc.

Markers shall be spaced no more than 8m apart, except for long uninterrupted straight runs of external services where spacing shall not exceed 50m.

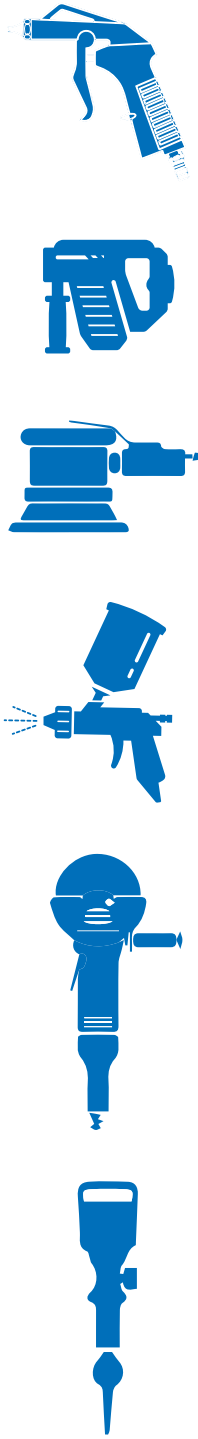
Pipe Markers are made from a Premium Grade self-adhesive indoor/outdoor vinyl. Simply peel marker off the release coated backing paper and press the marker in place. Weather resistant ink provide years of performance. They come in 2 standard sizes 30 x 380 for most applications, or on small diameter pipes use 100 x 10.

Sample Label	Code
BREATHING AIR	PL19S-BA
COMPRESSED AIR	PL19S-COMP
CHILLED WATER	PL19S-CHIL/WATER
MAINS WATER	PL19S-MAI WATER
WATER	PL19S-WATER
ACETYLENE	PL19S-ACET
ARGON	PL19S-ARG
ARGO SHIELD	PL19S-ARG SH
INSTRUMENT AIR	PL19S-IAIR
NITROGEN	PL19S-NITROGEN
NITROGEN GAS	PL19S-GAS NIT
OXYGEN	PL19S-OXYGEN
OXYGEN GAS	PL19S-GAS OX

Common Pneumatic tools Air Consumption
Ratings based on 25% load factor ie. tools in use 25% of time

Tool	cfm	Tool	cfm
Air Filter Cleaner	3	Impact Driver 3/4"	7.5
Air Hammer, light	4	Impact Driver 1"	12
Air Hammer, heavy	22	Impact Wrenches - 3/8"	2-5
Air Hoist, 1000 lb	5	Impact Wrenches - 1/2"	4.5
Air Motor - 0.5 hp	6-10	Impact Wrenches - 1"	10
Air Motor - 1 hp	12-15	Jackhammer, medium	135
Air Motor - 2 hp	18 - 20	Jitterbug Sander	6
Brad Nailer	0.5	Lift, Bus or Truck	10
Blow Gun	3	Lift, Car	6
Body Polisher	2	Mini Die Grinder	4-6
Body Orbital Sander	5	Nailer, Brad (30 psi)	2
Burr Tool, small	4	Nailer, Framing (50 psi)	4
Burr Tool, large	5-6	Needle Scaler	8-16
Bus Lift	6	Nibbler	4
Car Lift	6	Nutsetter - 3/8" inch	3-6
Caulking Gun	4	Nutsetter - 3/4" inch	5-8
Chipping Hammer	30 - 40	Orbital Sander	6-9
Chisel Hammer	3-10	Paint Sprayers, production gun	20
Circular Saw - 8 inch	12	Paint Sprayers, Small Hand Operated	3-7
Circular Saw - 12 inch	17	Ratchet, 1/4"	3
Concrete Vibrator	20 - 50	Ratchet, 3/8"	4
Demolition Tool	30 - 40	Rotational Sander	8 - 15
Cut-Off Tool	4-10	Sand Blasters	6 - 400
Die Grinder 1/4"	4-6	Sander, Dual	11 - 13
Disc Grinder - 7"	5-8	Screwdriver	1-6
Drill 1/2"	4	Spark plug cleaner	5
Dust Blow Gun	3	Spray Cleaner	5
Grease Gun	4	Spray gun, Basic (20 - 45 psi)	0.5 - 3.5
Grinder 2 in Horizontal	5-10	Spray gun, Commercial (30 - 70 psi)	4 - 7
High Speed Grinder	8	Strait line Sander	4 - 7
Hoists, 1 ton	1	Tapper - 3/8" inch	3-5
Hydraulic Riveter	4	Tire Changer	1
Hydraulic Lift, 8000lb	6	Tire Inflation	2
Hydraulic Floor Jack	6	Upholstery Stapler (30 psi)	2
Impact Driver 1/2"	4	Teflon yellow Gas tape	M10

AIR	GASES	ACIDS & ALKALIS	WATER
AIR	AMMONIA	ALKALI	AUXILIARY WATER
AIR EXTRACTION	ARGON	CAUSTIC	BACKWASH
AIR VENT	ARGOSHIELD	CAUSTIC SODA	BOILER FEED WATER
BREATHING AIR	CARBON DIOXIDE	CHEMICAL DOSING	BORE WATER
COMPRESSED AIR	CARBON MONOXIDE	CAUSTIC	BRINE
DRY COMPRESSED AIR	EXHAUST	CITRIC ACID	CHILLED WATER
GENERAL PURPOSE AIR	GAS	CYANIDE SOLUTION	CIRCULATING WATER
HIGH PRESSURE AIR	GASEOUS AMMONIA	DETERGENT	COLD WATER
H. P. INSTRUMENT AIR	GASEOUS NITROGEN	DILUTE ACID	COLD WATER RETURN
INSTRUMENT AIR	GASEOUS OXYGEN	DILUTE CAUSTIC	COLD WATER FLOW
LOW PRESSURE AIR	HELIUM	HYDROCHLORIC ACID	CONDENSATE
L. P. INSTRUMENT AIR	L. P. GAS	LIME	CONDENSER WATER
MEDICAL AIR	LIQUID AMMONIA	PHOSPHATE	COOLING WATER
MEDICAL BREATHING AIR	LIQUID NITROGEN	PHOSPHORIC ACID	DE-IONIZED WATER
MEDICAL SUCTION	LIQUID OXYGEN	POLYELECTROLYTE	DEMINERALISED WATER
PLANT AIR	MEDICAL OXYGEN	RECYCLED WATER	DISTILLED WATER
RETURN AIR	NATURAL GAS	WASTE WATER	DOM. HOT WATER
SERVICE AIR	NITROGEN GASEOUS	SODIUM HYDROXIDE	DOM. COLD WATER
VACUUM	OXYGEN	SULPHURIC ACID	DOMESTIC WATER
VACUUM AIR	PROPANE GAS		DRAIN WATER
VENT	REFRIGERANT		DRINKING WATER
	SLUDGE GAS		EFFLUENT
	VENT		FEED WATER
			FILTERED WATER
			FRESH WATER
			HEATING HOT WATER





This catalogue provides all the componentry to build a corrosion free modern compressed air pipework system.

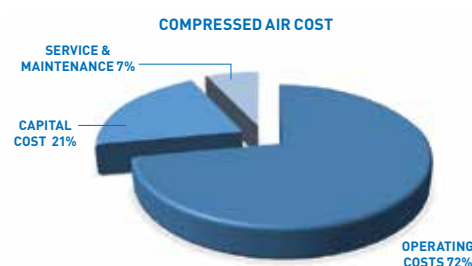


COMPRESSORS

Other vital components of a complete compressed air system begin with the selection of an energy efficient Air Compressor. Get advice from your Maxair® independent, experienced supplier as the running costs far outweigh the initial capital expense. Real quality is important and is deeper than the external skin.

Air is compressed by one of 2 major types of compressor - reciprocating piston or rotary screw; other less common types include oil free, centrifugal and scroll.

Selection of the best type and size will vary by each application.



FILTERS

Quality filters are an essential part of providing clean dry air for your processes.

Falcon high efficiency compressed air filters are vital for removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air systems. To meet the required compressed air quality appropriate filter element (B, P, R, M, S, A, A2, H2) must be installed into filter housing.

Common types: particulate, coalescing or adsorption.

The filter elements need changing regularly as the fine borosilicate fabrics can develop tiny holes too small for the human eye to see, so that the air takes the path of least resistance and effectively bypasses the intended entrapment of contaminants.

Ask for the Compressed Air Equipment manual.

AUTODRAINS

Drains are needed at all separators, filters, dryers and receivers in order to remove the liquid condensate from the compressed air system. Lack of drains can allow slugs of moisture to flow downstream that can overload the air dryer and foul end use equipment. Main types are zero air loss, electrically operated solenoid valves, float operated mechanical drains or manual drains.

Zero loss automatic drains are the most economic and require minimum maintenance

Ask for the Compressed Air Equipment manual.



DRYERS

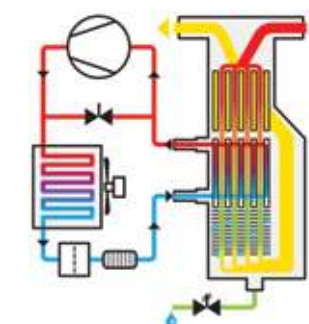
Compressed air leaving the compressor is normally warmer than the ambient air and fully saturated with moisture. As the air cools the moisture will condense in the compressed air lines. Excessive entrained moisture can result in undesired pipe corrosion and contamination of tools or product. For this reason an air dryer is normally required. Common types: refrigerant, desiccant or membrane.

REFRIGERATED DRYER

Falcon dryers achieve excellent performance even in instances of high ambient and high inlet temperatures. The highly efficient and ultra-compact heat exchanger is able to operate effectively in ambient temperatures up to 45°C and inlet temperatures of 55°C, ensuring a reduced compressed air pressure drop.

The counterflow design maximises efficiency by balancing incoming hot air, outgoing cooled air and the flow path of the refrigerant.

Ask for the Dryer catalogue



OIL-WATER SEPARATOR

Local environmental laws and regulations state that condensate drained from compressed air systems cannot be discharged to the sewage system due to the presence of compressor lubricating oil. Oil/water separators are one of the most effective and economical solutions and are sized by the output of the compressors and the regional ambient humidity.

Ask for the Compressed Air Equipment manual.



POINT-OF-USE

No compressed air system is complete without the final outlets fitted with pressure regulators, lubricators etc. Here also is another hidden potential area of pressure drop. The products we stock and recommend are not just economical but reliable and efficient

Ask your Maxair® supplier for the best product and price



QUICK CONNECT COUPLERS, HOSES, HOSE REELS

Increasingly, astute managers are realising that safety couplers and well-engineered couplers are an integral part of intelligent decision and energy saving installations. A well-engineered coupler can save \$75/year per coupler compared to a cheap substitute. Reliable hose reels and safety couplers are part of providing a safe workplace that reduces costs and improves efficiency.



DESICCANT DRYER

Some end-use applications require very dry air, such as food processing, instruments, electronics, high quality manufacturing or compressed air distribution systems where pipes are exposed to cold conditions. Drying the air to dew points below the coldest ambient conditions is necessary to prevent ice buildup.

The desiccant is in 2 towers that operate alternately. The tower cycled off can use heat or use a small diversion of dry air to regenerate the desiccant.

Ask for the Compressed Air Equipment manual.



Ask for the comprehensive
HOSE REELS & COUPLERS
product catalogue

Technical Specifications For Maxair® Pe100 Systems

1.1 The Compressed Air Reticulation Pipe shall be of non-metallic, blue in colour, corrosion free, High Density Polyethylene (HDPE) PE100 conforming to AS/NZS 4130/4131 and be made to PN 25 under an accredited AS 3902 Quality Control System and commercially known as Maxair® PE100.

1.2 The pipe shall be PN 25 rated at 16 Bar / 20degC / 50 year design life and 8.8 Bar / 60degC / 50 year with applied safety factor of 2:1.

2.1 All fittings shall be Socket Fusion, Electro Fusion or Compression style fittings which comply with Australian Standards as listed below and commercially known as Maxair®.

2.2 Socket Fusion fittings shall be Blue PE100 type made to DIN 16963 which shall be welded to AS 2033.

2.3 Electro fusion fittings shall comply with AS/NZS 4129 and carry a Standards Mark Licence under Quality Assurance System in accordance with ISO 9002.

2.4 Compression fittings shall be either 'O' Ring or tapered seal to comply with AS/NZS 4129 and carry a Standards Mark Licence No. 26038 in accordance with ISO 9002.

3.1 Fixing of pipe shall be of a type and spacing approved for use on HDPE PE100 as per Maxair® Technical Manual.

TERMS OF TRADING

Whilst due care and revision has been taken in preparation of this Manual, the Company takes no liability for accuracy of information contained herein.

As part of a process of continual improvement, the Company reserves the right to upgrade or modify components from the description in this manual at any time without notice. No part may be reproduced in any way without written permission from the Company. All Sales are subject to the Company's Terms and Conditions of Sale. E&OE.

SOCKET FUSION WELDING AIR20 TO AIR63

- Heating element Socket Fusion to welding guidelines AS/NZS 2033-2008.
- Weld surfaces must be clean and dry.
- Welding tool must be up to temperature 230°C - 250°C before commencing.
- Protect against cold and windy conditions.
- Do not realign joint after adjusting time, see table below.
- Do not over scrape pipe - interference fit must be retained.
- Do not twist pipe into fitting when fusing.

Socket Fusion welding time chart

Pipe O.D. mm	Pre-heating sec	Adjusting sec	Cooling min
20	5	4	2
25	7	4	2
32	8	6	4
40	12	6	4
50	18	6	4
63	24	8	6
90	40	8	6
110	50	10	8



1. Turn on welder. Do not attempt welding unless tool is up to temperature (250°C). The indicator LED will cycle on/off with thermostat control when temp is correct. Cut pipe to length with approved cutters for a square swarf-free finish.



2. Use scraper to remove oxide layer from pipe and ensure correct tolerance. Use welding wipes to clean surfaces if needed.



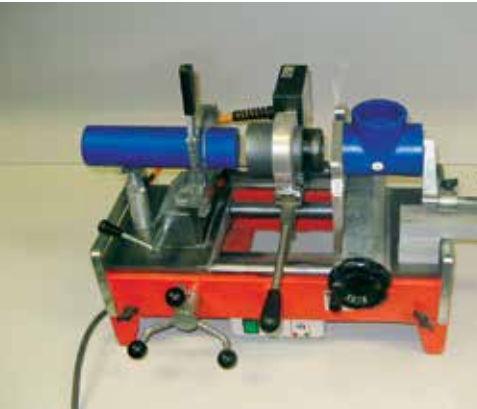
3. Simultaneously insert pipe and fitting onto socket and spigot to full depth without twisting. Hold for 'pre-heat' time as per table.



4. Remove pipe and fitting from heating element, immediately insert pipe into fitting without twisting.



5. Check alignment within 'adjusting seconds' as per table. During 'cooling' avoid mechanical strain or movement on welded joint.



The bench mounted socket fusion welder is recommended for AIR90 and 110, but is very good for AIR63 and smaller sizes. It provides mechanical advantage and consistency for the larger sizes.

ELECTROFUSION WELDING

recommended for AIR63 to AIR160. Available for smaller sizes

- Fittings for electrofusion comply with AS/NZS 4129-2008.
 - Automatic control box tool reads inbuilt resistor and sets and welds the correct time. Fittings are also labelled for manual setting times.
 - Weld surfaces must be clean and dry.
 - Do not over scrape pipe. Use correct scrapers. Do not use emery or metal files.
 - Ensure uninterrupted electricity supply during weld cycle.
 - Ensure uninterrupted electricity supply during weld cycle.
- IMPORTANT:** Do not allow movement in the joint until cooling period (marked on fitting) has been completed. In some cases, clamps may be required.



1. Cut pipe to length with approved cutters for a square swarf-free finish.



2. Use scraper to remove oxide layer approx. 0.3mm from pipe and ensure correct tolerance.



3. Use welding wipes to clean pipe and fitting surfaces. Allow cleaner to evaporate



4. Witness mark correct insertion depth.



5. Assemble pipe and fitting making sure pipe is fully inserted, check witness mark. Clamps can be used to stabilise joint during welding.



6. Connect welder leads onto fitting terminals (non specific). If using manual setting follow weld time as per label on fitting. Press start to commence weld cycle. Rising melt indicators confirm successful completion of weld. Remove leads and allow to cool without movement or strain on joint.

SIZES 20 UP TO 63MM



Cut pipe to length with pipe cutters for a clean swarf free finish.



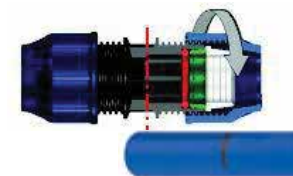
Use chamfer tool to remove sharp edge off the pipe and facilitate insertion through the O-Ring.



Witness mark the insertion depth.



Lubricate the pipe if needed with water or silicone spray.*



Undo the nut up to the last thread, do not remove the nut from the body. Insert the pipe through the nut into the fitting until it meets the stop.



Firmly hand tighten the nut to the back stop. Check witness mark.



For sizes 40-63, use a nut wrench to nip up the nut a further half turn.

SIZES 75 UP TO 110MM



Cut pipe to length with pipe cutters for a clean swarf free finish.



Use chamfer tool to remove sharp edge off the pipe and facilitate insertion through the O-Ring.



Loosen the nut and grip ring off the fitting and assemble onto the pipe a distance about 2x the pipe diameter.



Assembly is easier if the pipe and inside of fitting is lubricated with water or silicone spray.*



Insert the pipe through the O-Ring until it meets the stop.



Slide the grip ring and nut forward until they touch the fitting, then hand tighten.



For sizes 75 -110mm use two nut wrenches to tighten the nut. Nut should be firmly tightened, but does not need to actually meet the external stop.

*Lubrication with water, soapy water or silicone spray will assist inserting the pipe through the O-Ring.
Do not use silicone spray if intended use is for powder coating, spray painting or breathing air.
Do NOT use fluids such as WD40, 5-56, Penetrene, etc.



National Stock Available

Ask for your nearest distributor

The logo for maxair, featuring the word "maxair" in a bold, lowercase, sans-serif font. The "a" is stylized with a yellow circle around it. The background of the entire advertisement is a blue-tinted photograph of industrial machinery, including pipes, valves, and a large cylindrical component.

THE ORIGINAL AND STILL THE BEST

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