Product Catalogue and Technical Manual 2009

maXair

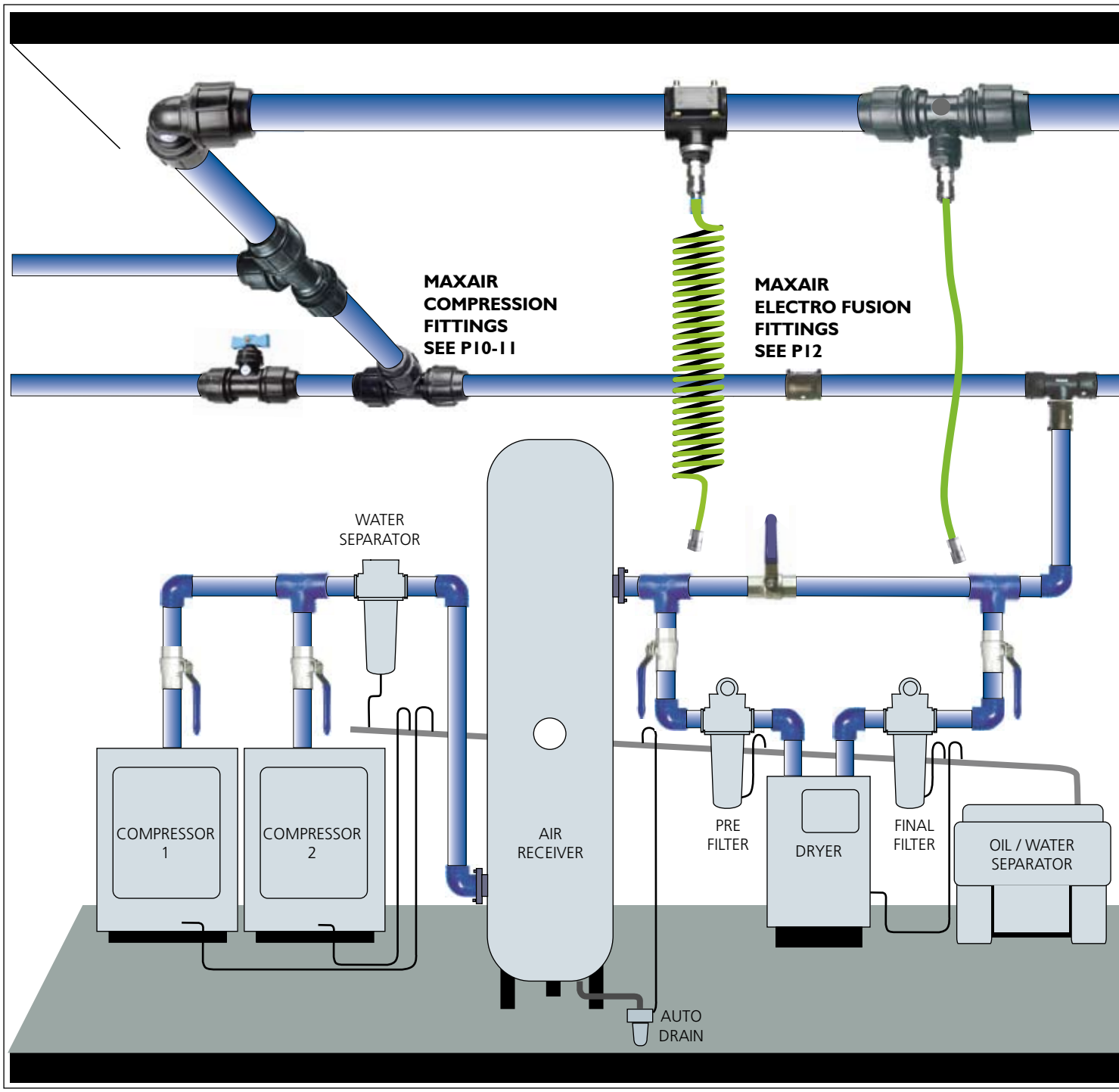
Including extensive Data, Information and Instructions. Everything you need for a modern, efficient Compressed Air Pipe System.







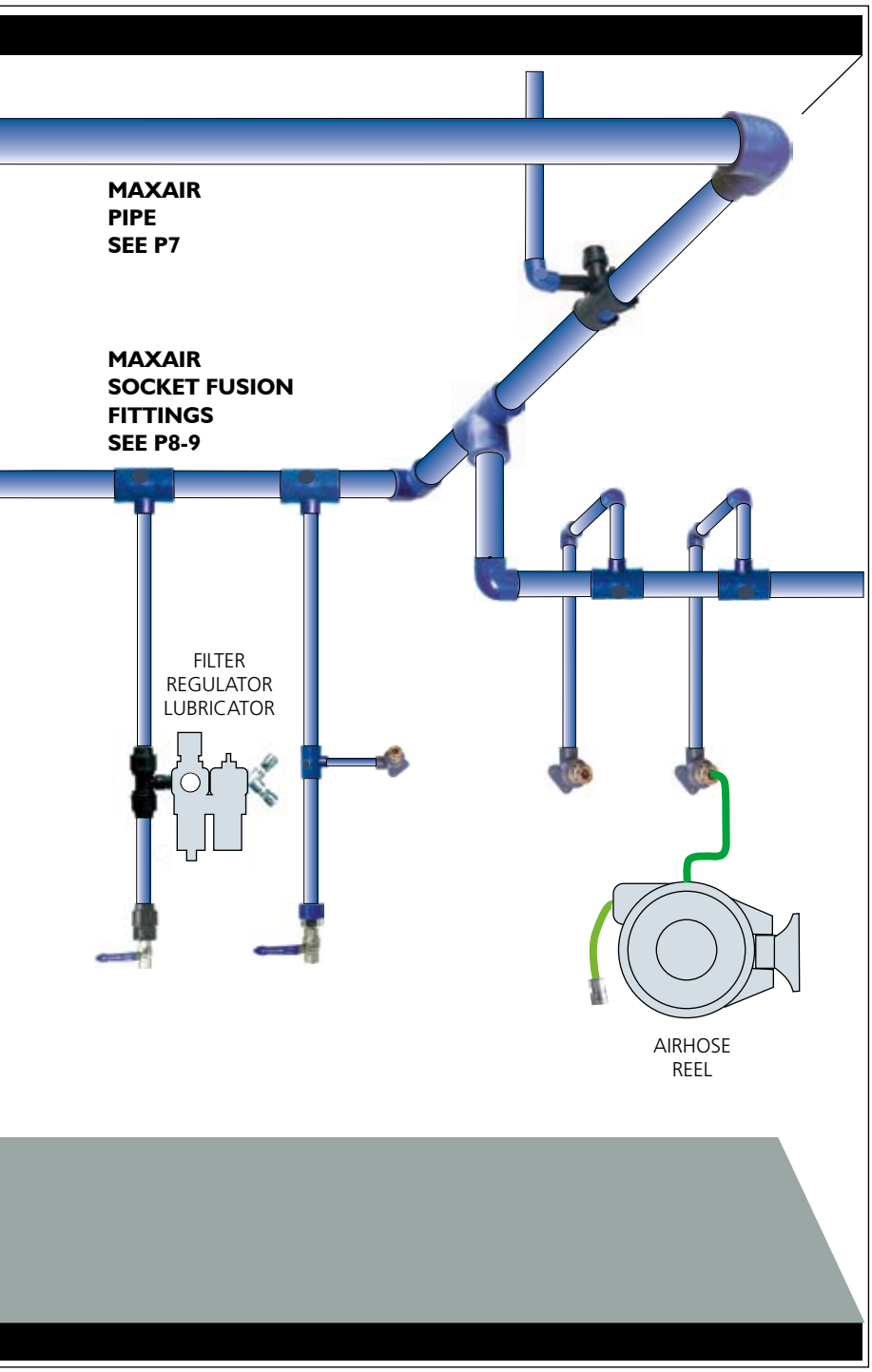
SCHEMATIC OF A TYPICAL AIR LINE SYSTEM



MAXAIR AIR PIPE SYSTEMS

This new technical and product manual is designed to give you access to a superior system for your compressed air reticulation requirements.
Maxair utilises PE100, a product of advanced materials technology which outperforms other pipes for pressure, flow, corrosion resistance, compatibility with compressor oils & ease of installation and alteration.

Complementing this outstanding 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 research and experience within a broad cross section of industrial applications.
This manual includes technical data and installation guidelines to assist you to design an air supply system that is precisely tailored to your requirements.
Compressed gasses 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 and New Zealand Standards is now available.



INDEX

FEATURES & BENEFITS OF MAXAIR AIR PIPE SYSTEMS

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

QUALITY 50 YEAR GUARANTEE

Meets Australian and NZ Standards AS/NZS4130 & AS/NZS4131 and made in Australia under strict ISO 9002 Certified Quality Systems. Maxair PE100 is the highest grade of PE in pipe standard AS/NZS4131. Blue colour to assist in identification and colour coding without painting. (Australian and New Zealand Standards require marking/colour coding).

GUARANTEE.

Maxair PE100 pipe is manufactured in accordance with AS/NZS4130 and ASNZS4131 and is accordingly guaranteed for 50 years provided recommended design, installation and operation practices are adopted. As established from long term testing, PE100 may be operated continuously under pressure for up to 200 years at 20°C.

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.

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.

QUICK, CLEAN, SIMPLE INSTALLATION

No tedious threading of pipe, flaring or glueing. 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.

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 of 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. The Maxair 'Air Saddle' (page 12) allows you to branch off the mains while under pressure, saving you factory downtime costs.
- Low capital costs.
- Low maintenance. Along with low initial costs, the true economy of the Maxair PE100 pipe system is realised in long term efficiency, reliability, versatility and minimisation of maintenance.

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. Maxair has a high resistance to compressor oils, unlike PP. Compressor oils have a pronounced effect on the life expectancy of PP, therefore it cannot be recommended for compressed air applications. Please refer to Technical Department for specific applications.

FOOD CONTACT GRADE MATERIALS

Maxair PE100 pipe and fittings conform with AS/NZS2070.1 "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 AS/NZS1460, BS6920. Maxair Heavy Duty B.S.P threaded fittings conform with AS/NZS3855.3.

SUPERIOR STRENGTH

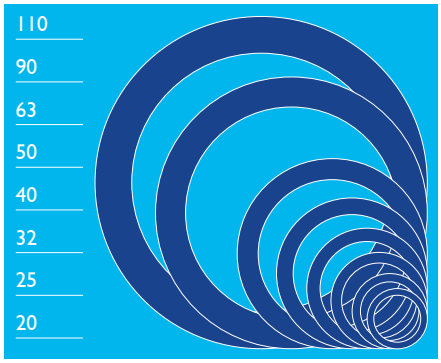
Maxair has higher strength, greater wall thickness and a higher safety factor of 2:1 than other grades of PE currently on the market. Maxair has excellent pressure/temperature capabilities with minimum 50 year design life. Conservatively rated at PN16 for compressed air (16 bar or 235 P.S.I. pressure) @ 20deg C plus additional safety factor 2:1. 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 -20deg C to +60deg C continuous, with peaks of up to 95deg C.

STEP ONE: SELECTION OF PIPE SIZE.

Three factors need to be taken into consideration when selecting pipe sizes for compressed air reticulation.

-Flow required
-Pressure
-Distance & Future Expansion

A pipe size should be selected using the chart that allows for maximum compressor output Free Air Delivery (F.A.D.) at the required operating pressure and allow an additional margin for long distance and future expansion.
In practice we recommend a minimum reserve margin of 30%. Larger pipe provides reserve capacity for peak demands.



PRESSURE/FLOW TABLE

Maximum recommended air flow for each pipe size. Litres / sec shown in Black, c.f.m. in Blue.

PSI	BAR	AIR20	AIR25	AIR32	AIR40	AIR50	AIR63	AIR90	AIR110
40	2.76	6.6 l/s	14	24	45	92	161	450	773
40	2.76	14cfm	29	50	96	194	340	954	1638
60	4.14	10	22	37	72	146	256	718	1232
60	4.14	22	46	79	153	309	542	1521	2611
80	5.52	14	30	52	101	203	356	999	1714
80	5.52	30	64	111	213	430	754	2117	3635
100	6.9	18	39	68	130	262	460	1292	2218
100	6.9	39	83	143	276	555	975	2737	4699
150	10.34	29	62	108	208	418	733	2059	3535
150	10.34	62	132	228	440	885	1553	4362	7490
200	13.7	41	87	150	289	582	1021	2866	4921
200	13.7	87	184	317	612	1232	2163	6073	10427

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%.

Compressor output can be approximately calculated using:
1kw x 1.35 = HP x 4 =CFM for Screw compressors.
For Piston compressors some manufacturers quote displacement which needs to be derated by 0.75 to calculate F.A.D. (Free Air Delivery).
Size of receivers shall be calculated as 10 times the flow in l/s optimum or 6 times the flow in l/s minimum.

CONVERSION FACTORS

PRESSURE	FLOW
1 psi = 0.069bar	1 cfm = 0.4719 L/sec
1 kpa = 0.145psi	1 l/sec = 2.119 cfm
1 bar = 100kpa	1 m^3/min = 35.3147 cfm
1 bar = 14.5psi	1 m^3/min = 16.67 L/sec
1 kg/cm^2 = 1 bar	

STEP TWO: SELECTION OF FITTINGS.

Select the fitting style most suitable to your requirements. Three ranges are presented. Note that a combination is often used.

Socket Fusion Weld Fittings
(See P8-9) are joined quickly and easily using a welding process (see p25) and results in a fully fused joint of highest integrity which is leak free, tamper proof and visually pleasing.

Compression "0" Ring Fittings
(See P10-11) are joined quickly and easily by hand (see P24) and offer the advantage of being removable and reusable.

Electro Fusion Weld Fittings
(See P12) are assembled by hand and an electric current is applied via an Electro Fusion Welder (see P25). 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 under pressure connections thus eliminating the need to shut down plant and equipment for new connections. They are particularly useful in large plants with 24 hour operations.

STEP THREE: SELECTION OF OUTLET REQUIREMENTS

Select the outlet that suits your requirements (page 20) from our ready-to-use outlet options.

MAXAIR PE100 COMPRESSED AIR PIPE

MANUFACTURED TO AS/NZS4130 STANDARD.

QUALITY 50 YEAR GUARANTEE

PRODUCT CODE	WALL THICKNESS	NOM. I.D O.D. Imperial equivalent		LENGTH Metres
AIR 20	2.8mm	5/8"	20mm	6m
AIR 25	3.5mm	3/4"	25mm	6m
AIR 32	4.4mm	1"	32mm	6m
AIR 40	5.5mm	11/4"	40mm	6m
AIR 50	6.9mm	11/2"	50mm	6m
AIR 63	8.6mm	2"	63mm	6m
AIR 90	12.5mm	3"	90mm	6m
AIR 110	15.2mm	4"	110mm	6m

PIPE CLIPS

CL PIPE CLIPS

A quick and versatile clip that has the following features:

- Three optional positions for fixings
- Slots for cable-tie fixings.
- Removable spacer allows greater/less clearance to wall.
- Precise dovetailing on base inter-locks to enable neat multiple pipe alignments.
- Adjustable settings allow for movement due to expansion and contraction.

SIZE	COD
20	CL20
25	CL25
32	CL32
40	CL40
50	CL50
63	CL63
90	CL90
110	CL110

90 DEG TEE

PIPExPIPExPIPE	CODE
20 x 20 x 20	WT 20
25 x 25 x 25	WT 25
32 x 32 x 32	WT 32
40 x 40 x 40	WT 40
50 x 50 x 50	WT 50
63 x 63 x 63	WT 63
90 x 90 x 90	WT 90
110 x 110 x 110	WT 110

REDUCING 90 DEG TEE

PIPExPIPExPIPE	CODE
25 x 20 x 25	WRT 2520
32 x 20 x 32	WRT 3220
32 x 25 x 32	WRT 3225
40 x 20 x 40	WRT 4020
40 x 25 x 40	WRT 4025
40 x 32 x 40	WRT 4032
50 x 20 x 50	WRT 5020
50 x 25 x 50	WRT 5025
50 x 32 x 50	WRT 5032
50 x 40 x 50	WRT 5040
63 x 25 x 63	WRT 6325
63 x 32 x 63	WRT 6332
63 x 40 x 63	WRT 6340
63 x 50 x 63	WRT 6350

COUPLINGS

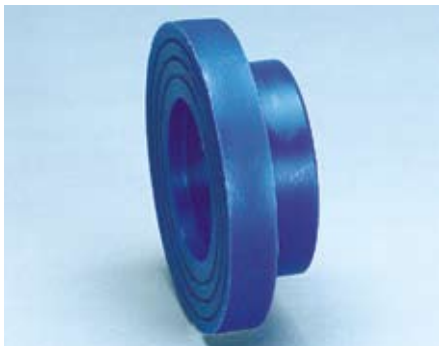
PIPExPIPE	CODE
20 x 20	WC 20
25 x 25	WC 25
32 x 32	WC 32
40 x 40	WC 40
50 x 50	WC 50
63 x 63	WC 63
90 x 90	WC 90
110 x110	WC 110

REDUCING COUPLINGS

FITTINGxPIPE	CODE
25 x 20	WRC 2520
32 x 20	WRC 3220
32 x 25	WRC 3225
40 x 20	WRC 4020
40 x 25	WRC 4025
40 x 32	WRC 4032
50 x 20	WRC 5020
50 x 25	WRC 5025
50 x 32	WRC 5032
50 x 40	WRC 5040
63 x 25	WRC 6325
63 x 32	WRC 6332
63 x 40	WRC 6340
63 x 50	WRC 6350
90 x 63	WRC 9063
110 x 63	WRC 11063
110 x 90	WRC 11090

THREADED FLANGE TABLE D

FLANGExTHREAD	CODE
20 x 1/2"	FT 20
25 x 3/4"	FT 25
32 x 1"	FT 32
40 x 11/4"	FT 40
50 x 1 1/2''	FT 50
63 x 2"	FT 63
90 x 3"	FT 90
110 x 4"	FT 110



STUB FLANGE

PIPE	CODE
20	WF 20
25	WF 25
32	WF 32
40	WF 40
50	WF 50
63	WF 63
90	WF 90
110	WF 110

FLANGE KITS TYPE A

PIPExPIPE	CODE
20 x 20	FKA 20
25 x 25	FKA 25
32 x 32	FKA 32
40 x 40	FKA 40
50 x 50	FKA 50
63 x 63	FKA 63
90 x 90	FKA 90
110 x 110	FKA110

CONSISTS OF: 2 x BACKING RING, 2 x STUB FLANGE, 1 x GASKET, BOLTS, WASHERS & NUTS

FLANGE KITS TYPE B

PIPExTHREAD	CODE
20 x 1/2"	FKB 20
25 x 3/4"	FKB 25
32 x 1"	FKB 32
40 x 11/4"	FKB 40
50 x 11/2''	FKB 50
63 x 2"	FKB 63
90 x 3"	FKB 90
110 x 4"	FKB 110

CONSISTS OF: 1 x BACKING RING, 1 x THREADED FLANGE, 1 x STUB FLANGE, 1 x GASKET, BOLTS, WASHERS & NUTS

FLANGE KITS TYPE C TABLE D

PIPExEXIST FLANGE	CODE
20	FKC 20
25	FKC 25
32	FKC 32
40	FKC 40
50	FKC 50
63	FKC 63
90	FKC 90
110	FKC 110

CONSISTS OF: 1 x BACKING RING, 1 x STUB FLANGE, 1 x GASKET, BOLTS, WASHERS & NUTS

BACKING RING & GASKETS

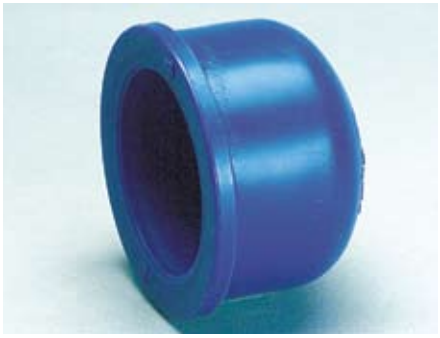
SIZE	RING	$PRICE	GASKET
20	BR 20	4.30	WFG 20
25	BR 25	5.00	WFG 25
32	BR 32	5.75	WFG 32
40	BR 40	8.70	WFG 40
50	BR 50	17.45	WFG 50
63	BR 63	23.90	WFG 63
90	BR 90	39.95	WFG 90
110	BR 110	52.25	WFG 110

THREADED 90 DEG TEE

PIPExTHREAD	CODE
20 x 1/2"	WTF 2015
25 x 1/2"	WTF 2515
32 x 1/2"	WTF 3215
40 x 1/2"	WTF 4015

END CAPS

PIPE	CODE
20	WEC 20
25	WEC 25
32	WEC 32
40	WEC 40
50	WEC 50
63	WEC 63
90	WEC 90
110	WEC 110



90 DEG ELBOW

PIPExPIPE	CODE
20 x 20	WE 20
25 x 25	WE 25
32 x 32	WE 32
40 x 40	WE 40
50 x 50	WE 50
63 x 63	WE 63
90 x 90	WE 90
110 x 110	WE 110

45 DEG ELBOW

PIPExPIPE	CODE
20 x 20	W45 E20
25 x 25	W45 E25
32 x 32	W45 E32
40 x 40	W45 E40
50 x 50	W45 E50
63 x 63	W45 E63
90 x 90	W45 E90
110 x 110	W45E 110

MALE ADAPTOR

PIPExTHREAD	CODE
20 x 1/2"	WMA 2015
25 x 3/4"	WMA 2520
32 x 1"	WMA 3225
40 x 11/4"	WMA 4032
50 x 11/2"	WMA 5040
63 x 2"	WMA 6350

FEMALE ADAPTOR

PIPExTHREAD	CODE
20 x 1/2"	WFA 2015
25 x 3/4"	WFA 2520
32 x 1"	WFA 3225
40 x 11/4"	WFA 4032
50 x 11/2''	WFA 5040
63 x 2"	WFA 6350

THREADED 90 DEGREE ELBOWS

PIPE x THREAD	CODE
20 x 1/2''	WEF 2015 Lugged (Right)
25 x 3/4"	WEF 2520 No lug (Left)

MAXAIR COMPRESSION FITTINGS FOR COMPRESSED AIR AS1460

Other fittings and sizes are available

COUPLING

PIPE x PIPE	CODE
20 x 20	C 20
25 x 25	C 25
32 x 32	C 32
40 x 40	C 40
50 x 50	C 50
63 x 63	C 63
90 x 90	C 90
110 x 110	C 110

REDUCING COUPLING

PIPE x PIPE	CODE
25 x 20	RC 2520
32 x 25	RC 3225
40 x 32	RC 4032
50 x 40	RC 5040
63 x 50	RC 6350

AIR SADDLE

PIPE x FEM THREAD	CODE
40 x 1/2"- 3/4" - 1"	AS 40*
50 x 1/2"- 3/4" - 1"	AS 50*
63 x 1/2", 3/4", 1", 1 1/4", 1 1/2"	AS 63*
90 x 1", 1 1/4", 1 1/2", 2"	AS 90*
110 x 1", 1 1/4", 1 1/2", 2"	AS110*

(*When ordering please complete code)

FEMALE ADAPTOR

PIPE x THREAD	CODE
20 x 1/2"	FA 2015
25 x 3/4"	FA 2520
32 x 1"	FA 3225
40 x 11/4"	FA 4032
50 x 11/2"	FA 5040
63 x 2"	FA 6350
90 x 3"	FA 9075
110 x 4"	FA1104

MALE ADAPTOR

PIPE x THREAD	CODE
20 x 1/2"	MA 2015
25 x 1/2"	MA 2515
25 x 3/4"	MA 2520
32 x 1"	MA 3225
40 x 11/4"	MA 4032
50 x 11/2"	MA 5040
63 x 2"	MA 6350
90 x 3"	MA 9075
110 x 4"	MA 1104

BLANKING PLUG

PIPE	CODE
20mm	BP20
25mm	BP25
32mm	BP32
40mm	BP40
50mm	BP50
63mm	BP62

END CAPS

PIPE	CODE
25	EC 25
32	EC 32
40	EC 40
50	EC 50
63	EC 63
90	EC 90
110	EC 110

90 DEG TEE

PIPE x PIPE x PIPE	CODE
20 x 20 x 20	T 20 *
25 x 25 x 25	T 25 *
32 x 32 x 32	T 32
40 x 40 x 40	T 40
50 x 50 x 50	T 50
63 x 63 x 63	T 63
90 x 90 x 90	T 90
110 x 110 x 110	T 110

* Add $10.00 for non-drip option

90 DEG TEE with threaded Female Offtake

PIPE x THREAD x PIPE	CODE
20 x 1/2" x 20	TF 2015
25 x 3/4" x 25	TF 2520
32 x 1" x 32	TF 3225
40 x 11/4" x 40	TF 4032
50 x 11/2" x 50	TF 5040
63 x 2" x 63	TF 6350
90 x 3" x 90	TF 9075

REDUCING 90 DEG TEE

PIPE x PIPE x PIPE	CODE
25 x 20 x 25	RT 2520 *
32 x 25 x 32	RT 3225 *
40 x 25 x 40	RT 4025
40 x 32 x 40	RT 4032
50 x 25 x 50	RT 5025
50 x 40 x 50	RT 5040
63 x 50 x 63	RT 6350

* Add $10.00 for non-drip option

REDUCING SET

25 x 20	RS 2520
32 x 20	RS 3220
32 x 25	RS 3225
40 x 25	RS4025
40 x 32	RS 4032
50 x 25	RS 5025
50 x 32	RS 5032
50 x 40	RS 5040
63 x 25	RS 6325
63 x 32	RS 6332
63 x 40	RS 6340
63 x 50	RS 6350

90 DEG ELBOW

PIPE x PIPE	CODE
20 x 20	E 20
25 x 25	E 25
32 x 32	E 32
40 x 40	E 40
50 x 50	E 50
63 x 63	E 63
90 x 90	E 90
110 x 110	E 110

90 DEG ELBOW

with threaded Female Offtake

PIPE x PIPE	CODE
20 x 1/2"	EF 2015
25 x 3/4"	EF 2520
32 x 1"	EF 3225
40 x 11/4"	EF 4032
50 x 11/2"	EF 5040
63 x 2"	EF 6350

90 DEG ELBOW

with threaded Male Offtake

PIPE x THREAD	CODE
20 x 1/2"	EM 2015
25 x 3/4"	EM 2520
32 x 1"	EM 3225
40 x 11/4"	EM 4032
50 x 11/2"	EM 5040
63 x 2"	EM 6350

ELBOW FEMALE (LUGGED)

PIPE x THREAD	CODE
20 x 1/2"	LEF 2015
25 x 3/4"	LEF 2520

COMPRESSION VALVE

PIPE	CODE
20	CV 20
25	CV 25
32	CV 32

UNIVERSAL ADAPTOR

PIPE x METAL PIPE	CODE
25 x 15-22mm	UA 25A
25 x 20-27mm	UA 25B
25 x 27-35mm	UA 25C
32 x 27-35mm	UA 32
50 x 35-50mm	UA 50

JOINER

PIPE x PIPE	CODE
50 x 50	EFC 50
63 x 63	EFC 63
90 x 90	EFC 90
110 x 110	EFC 110

REDUCING JOINER

PIPE x PIPE	CODE
32 x 25	EFRC 3225
50 x 32	EFRC 5032
50 x 40	EFRC 5040
63 x 32	EFRC 6332
63 x 40	EFRC 6340
63 x 50	EFRC 6350
90 x 63	EFRC 9063
110 x 90	EFRC 11090

TEE

PIPE x FITTING	CODE
50 x 50	EFT 50
63 x 63	EFT 63
90 x 90	EFT 90
110 x 110	EFT 110

REDUCING SPIGOT

FITTING x FITTING	CODE
63 x 50	EFRS 6350
90 x 50	EFRS 9050
90 x 63	EFRS 9063
110 x 63	EFRS 11063
110 x 90	EFRS 11090

MALE ADAPTOR

PIPE x THREAD	CODE
50 x 1"	EFMA 5025
50 x 1½"	EFMA 5040
63 x 1½"	EFMA 6340
63 x 2"	EFMA 6350

FEMALE ADAPTOR

PIPE x THREAD	CODE
50 x 1½"	EFFA 5040
63 x 2"	EFFA 6350

THREADED FLANGE TABLE D

PIPE x FLANGE	CODE
50 x 1½"	FT 50
63 x 2"	FT 63
90 x 3"	FT 90
110 x 4"	FT 110

*NOTE Smaller sizes of most fittings are available if required.

90 DEG ELBOW

PIPE x PIPE	CODE
50 x 50	EFE 50
63 x 63	EFE 63
90 x 90	EFE 90
110 x 110	EFE110

45 DEG ELBOW

PIPE x PIPE	CODE
50 x 50	EF45E 50
63 x 63	EF45E 63
90 x 90	EF45E 90
110 x 110	EF45E 110

END CAP

FITTING	CODE
50	EFEC 50
63	EFEC 63
90	EFEC 90
110	EFEC 110

STUB FLANGE

FITTING x FLANGE	CODE
63 x 63	EFF 63
90 x 90	EFF 90
110 x 110	EFF 110

AIR SADDLE

for under pressure connections

PIPE x FITTING	CODE
50 x 32	EFASP 5032
63 x 32	EFASP 6332
90 x 32	EFASP 9032
90 x 63	EFASP 9063
110 x 32	EFASP 11032
110 x 63	EFASP 11063

BRANCH SADDLE

PIPE x FITTING	CODE
63 x 32	EFBS 6332
90 x 32	EFBS 9032
90 x 63	EFBS 9063
110 x 32	EFBS 11032
110 x 63	EFBS 11063

BACKING RING TABLE D

PIPE x FLANGE	CODE
50 x 50	BR 50
63 x 63	BR 63
90 x 90	BR 90
110 x 110	BR 110

GASKET

FLANGE	CODE
50	WFG 50
63	WFG 63
90	WFG 90
110	WFG 110

PIPE WIPES

For pre-cleaning of weld surfaces
CODE (50 per container)
EFPW

MAXAIR INSTALLATION TOOLS

PIPE CUTTERS

FOR PIPE SIZES	CODE
20-25mm	SC1
20-32mm	PC32
20-40mm	PC40
20-63mm	PC63

NUT WRENCH

CODE	SIZE
NW1	40-63mm
NW2	63-110mm

SOCKET FUSION WELDING MACHINE

STYLE	CODE
Hand machine 20-63mm	SFHM

ELECTRO FUSION WELDER

PIPE	CODE
20-110mm	EF WELDER

PIPE CHAMFERING TOOLS

FOR PIPE SIZES	CODE
20 - 63mm	CHAM 2063

PIPE SCRAPERS

for fusion weld process

PIPE	CODE
20mm	WPS 20
25mm	WPS 25
32mm	WPS 32
40mm	WPS 40
50mm	WPS 50
63mm	WPS 63

UNIVERSAL TOOL

Multiple use tool for pipe scraping, cutting & chamfering

SIZE	CODE
63-110mm	UT 110

VALVES

BALL VALVES FEM & FEMALE

SIZE	CODE
1/2"	BV15
3/4"	BV20
1"	BV25
1 1/4"	BV32
1 1/2"	BV40
2"	BV50

BALL VALVES MALE & FEMALE

SIZE	CODE
1/4"	VMF08
1/2"	VMF15

BUTTERFLY VALVES

TYPE	CODE
50mm WAFER	BVFW50
50mm LUGGED	BVFL50
80mm WAFER	BVFW80
80mm LUGGED	BVFL80
100mm WAFER	BVFW100
100mm LUGGED	BVFL100

Lugged Valves have M16 threads and are Table D.

HIRE TOOLS

ALL TOOLS SHOWN ARE AVAILABLE FOR HIRE

Cutters	PC40
	PC63
Chamfering Tool	
Nut Wrench	NW1
	NW2
Pipe Scrapers	WPS 20-32
	WPS 40-63
Universal Tool	UT 110
Socket Fusion Welder for up to 63mm	
Electro Fusion Welder	
Socket Fusion Weld Kit	
Electro Fusion Welder Kit	

MAXAIR BSP THREADED FITTINGS

Heavy duty fittings made from highest quality engineering grade materials.
Maximum material temperature range with load 100deg C.
Pressure ratings @ 20 Deg C.
Up to 50mm 16 bar / 235psi
65mm 12 bar /175psi
80 and 100mm 10 bar /145 psi

REDUCING HEX BUSH

SIZE	CODE
1/2" x 1/4"	PRB 1508
1/2" x 3/8"	PRB 1510
3/4" x 1/4"	PRB 2008
3/4" x 3/8"	PRB 2010
3/4" x 1/2"	PRB 2015
1" x 1/2"	PRB 2515
1" x 3/4"	PRB 2520
1 1/4" x 3/4"	PRB 3220
1 1/4" x 1"	PRB 3225
1 1/2" x 3/4"	PRB 4020
1 1/2" x 1"	PRB 4025
1 1/2" x 11/4"	PRB 4032
2" x 3/4"	PRB 5020
2" x 1"	PRB 5025
2" x 1 1/4"	PRB 5032
2" x 1 1/2"	PRB 5040
2 1/2" x 2"	PRB 6550
3" x 1 1/2"	PRB 8040
3" x 2"	PRB 8050
3" x 2 1/2"	PRB 8065
4" x 2"	PRB 10050
4" x 2 1/2"	PRB 10065
4" x 3"	PRB 10080
BRASS	
1/4" x 1/8"	32240402
3/8" x 1/4"	32240604
1/2" x 1/4"	32240804
1/2" x 3/8"	32240806
3/4" x 1/4"	32241204
3/4" x 1/2"	32241208

ELBOW M & F

SIZE	CODE
1/2"	PMFE 15
3/4"	PMFE 20
1"	PMFE 25
1 1/4"	PMFE 32
1 1/2"	PMFE 40
2"	PMFE 50
BRASS	
1/8"	340002
1/4"	340004
3/8"	340006
1/2"	340008

ELBOW F & F

SIZE	CODE
1/2"	PE 15
3/4"	PE 20
1"	PE 25
1 1/4"	PE 32
1 1/2"	PE 40
2"	PE 50
BRASS	
1/8"	350002
1/4"	350004
3/8"	350006
1/2"	350008

HEX NIPPLE

SIZE	CODE
1/4"	PHN 08
3/8"	PHN 10
1/2"	PHN 15
3/4"	PHN 20
1"	PHN 25
1 1/4"	PHN 32
1 1/2"	PHN 40
2"	PHN 50
2 1/2"	PHN 65
3"	PHN 80
4"	PHN 100
BRASS	
1/8"	332502
1/4"	332504
3/8"	332506
1/2"	332508

All fittings listed are available in brass. When ordering in brass, substitute "P" with "B".

REDUCING HEX NIPPLE

SIZE	CODE
1/2" x 1/8"	PRHN 1506
1/2" x 1/4"	PRHN 1508
1/2" x 3/8"	PRHN 1510
3/4" x 3/8"	PRHN 2010
3/4" x 1/2"	PRHN 2015
1" x 1/2"	PRHN 2515
1" x 3/4"	PRHN 2520
1 1/4" x 3/4"	PRHN 3220
1 1/4" x 1"	PRHN 3225
1 1/2" x 3/4"	PRHN 4020
1 1/2" x 1"	PRHN 4025
1 1/2" x 1 1/4"	PRHN 4032
2" x 3/4"	PRHN 5020
2" x 1"	PRHN 5025
2" x 1 1/4"	PRHN 5032
2" x 1 1/2"	PRHN 5040
2 1/2" x 2"	PRHN 6550
3" x 1 1/2"	PRHN 8040
3" x 2"	PRHN 8050
3" x 2 1/2"	PRHN 8065
4" x 2"	PRHN 10050
4" x 2 1/2"	PRHN 10065
4" x 3"	PRHN 10080
BRASS	
1/4" x 1/8"	33240402
3/8" x 1/4"	33240604
1/2" x 1/4"	33240804
1/2" x 3/8"	33240806
3/4" x 1/4"	33241204

TEE

SIZE	CODE
1/2"	PT 15
3/4"	PT 20
1"	PT 25
1 1/4"	PT 32
1 1/2"	PT 40
2"	PT 50
BRASS	
SIZE	CODE
1/8"	370002
1/4"	370004
3/8"	370006
1/2"	370008

DOUBLE OULET - BRASS MALE INLET

SIZE	CODE
1/4" x 1/4"	BDOMF 08
3/8" x 3/8"	BDOMF 10
1/2" x 1/2"	BDOMF 15

DOUBLE OULET - BRASS FEMALE INLET

SIZE	CODE
1/4" x 1/4"	BDO 08
3/8" x 3/8"	BDO 10
1/2" x 1/2"	BDO 15

BRASS LUGGED ELBOW

SIZE	CODE
15	BLE 15
20	BLE 20

TEE M&F BRASS

SIZE	CODE
1/2"	BMFT15

MAXAIR BSP THREADED FITTINGS

TRIPLE OUTLET - ALLOY

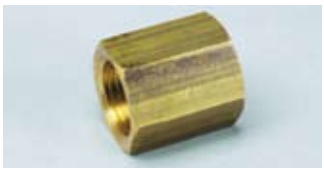
SIZE	CODE
MALE x FEMALE	
1/2" x 1/4" F x 3	ATO 1508
3/4" x 1/4" F x 3	ATO 2008
1" x 1/4" F x 3	ATO 2508

5 WAY STRAIGHT MANIFOLD

SIZE	CODE
1/4" x 2	AN 2
1/4" x 3	AN 3
1/4" x 4	AN 4
1/4" x 5	AN 5
Other styles available	

SOCKET

SIZE	CODE
1/2"	PS 15
3/4"	PS 20
1"	PS 25
1 1/4"	PS 32
1 l/2"	PS 40
2"	PS 50
2 1/2"	PS 65
3"	PS 80
4"	PS 100
BRASS	
1/8"	330002
1/4"	330004
3/8"	330006
1/2"	330008



REDUCING SOCKET

SIZE	CODE
3/4" x 1/2"	PRS 2015
1" x 1/2"	PRS 2515
1" x 3/4"	PRS 2520
1 1/4" x 3/4"	PRS 3220
1 1/4" x l"	PRS 3225
1 1/2" x 3/4"	PRS 4020
1 1/2" x 1"	PRS 4025
1 1/2" x 1 1/4"	PRS 4032
2" x 3/4"	PRS 5020
2" x 1"	PRS 5025
2" x 1 1/4"	PRS 5032
2" x 1 1/2"	PRS 5040
2 1/2" x 1 1/2"	PRS 6540
2 1/2" x 2"	PRS 6550
3" x 2"	PRS 8050
3" x 2 1/2"	PRS 8065
4" x 2 1/2"	PRS 10065
4" x 3"	PRS 10080

PLUG

SIZE	CODE
1/2"	PP 15
3/4"	PP 20
1"	PP 25
1 1/4"	PP 32
1 1/2''	PP 40
2"	PP 50
2 1/2''	PP 65
3''	PP 80
4''	PP 100
BRASS	
1/8"	315202
1/4"	315204
3/8"	315206
1/2"	315208

BRASS BARREL UNIONS M&F

SIZE	CODE
1/2"	BBU 15
3/4"	BBU 2O
1"	BBU 25
1 1/4"	BBU 32
1 1/2"	BBU 40
2"	BBU 5O
F & F also available	

LINE STRAINER

SIZE	CODE
1/2"	LS 15
3/4"	LS 20

PORTING BLOCK

SIZE	CODE
1/4"	PB 08
3/8"	PB 10
1/2"	PB 15

HOSE BARBS - BRASS

HOSE SIZE x THREAD	CODE
1/4" x 1/4"	2090404
3/8" x 1/4"	2090604
1/2" x 1/4"	2090804
1/4" x 3/8"	2090406
3/8" x 3/8"	2090606
1/2" x 3/8"	2090806
3/8" x 1/2"	2090608
1/2" x 1/2"	2090808
3/4" x 1/2"	2091208
1/2" x 3/4"	2090812
3/4" x 3/4"	2091212
1" x 3/4"	2091612
3/4" x 1"	2091216
1" x 1"	2091616

FEM HOSE BARBS - BRASS

HOSE x THREAD	CODE
3/8" x 1/4"	2070604
1/2" x 1/4"	2070804

BARBED TEE - BRASS

HOSE SIZE	CODE
3/8" x 3/8"	20306
1/2" x 1/2"	20308

BARBED HOSE JOINER-BRASS

HOSE SIZE	CODE
3/8" x 3/8"	20506
1/2" x 1/2"	20508

PRESSURE SAFETY VALVE

SIZE	CODE
1/4"	PSV 08
1/2"	PSV 15
3/4"	PSV 20
1"	PSV 25

(Refer to technical department for recommended ratings).

NON-RETURN VALVE

SIZE	CODE
1/4"	NRV 08
1/2"	NRV 15
3/4"	NRV 20
1"	NRV 25
1 1/4"	NRV 32
1 1/2"	NRV 40
2"	NRV 50

PURLIN HANGER

CODE	DESCRIPTION
HS 1 (above)	Used to hang wire or rod
HS 1A (below)	Used to mount CL pipe clips

BEAM CLAMPS

CODE	DESCRIPTION
HS2U (above)	FOR UP TO 16mm BEAMS (For hanging 10mm threaded rod, mounting CL pipe clips etc)
HS 2A	FOR 3mm-7mm BEAMS
HS 2B	FOR 8mm-13mm BEAMS
HS 2C (below)	FOR 14mm-20mm BEAMS (For hanging HS4 rod, mounting CL pipe clips/cable ties etc)

BEAM CLAMP PIPE HANGER

CODE	DESCRIPTION
HS 2A H1	FOR PIPE UP TO 32mm
HS 2B H1	FOR PIPE UP TO 32mm
HS 2C H1	FOR PIPE UP TO 32mm
HS 2A H2	FOR PIPE UP TO 50mm
HS 2B H2	FOR PIPE UP TO 50mm
HS 2C H2	FOR PIPE UP TO 50mm

BEAM STRAP CLAMP

CODE	DESCRIPTION
HS 2A ST3	Retains pipe in crane beams, etc
HS 2B ST3	Retains pipe in crane beams, etc
HS 2C ST3	Retains pipe in crane beams, etc

3=75mm strap, 150mm is available

UNIVERSAL CLAMP

CODE	DESCRIPTION
HS3	Suits beams up to 18mm Has 2-cup head attachment positions

CLIP HEAD TO SUIT HS3

CODE	DESCRIPTION
HS3 20	20mm
HS3 25	25mm
HS3 32	32mm
HS3 40	40mm
HS3 50	50mm
HS3 63	63mm

ROD CLAMP PIPE HANGER

CODE	DESCRIPTION
5mm Rod Clamp Pipe Hanger for use above suspended ceilings	
HS5 H1	UP TO 32mm
HS5 H2	UP TO 50mm

PURLIN HANGER FOR PIPE

CODE	DESCRIPTION
HS1AH1	FOR PIPE UP TO 32mm
HS1AH2	FOR PIPE UP TO 50mm

Left in Photo.

HANGING CLIPS

CODE	DESCRIPTION
H1	FOR PIPE UP TO 32mm
H2	FOR PIPE UP TO 50mm

Right in Photo.

METAL ROD (shown left, assembled)

CODE	DESCRIPTION
HS4	5mm GAL ROD - 4m length

ROD JOINER (shown left assembled)

CODE	DESCRIPTION
HS4J	JOINER FOR HS4 ROD

SPRING CLIP

CODE	DESCRIPTION
HS5	FITS TO CL CLIPS & HS4 ROD

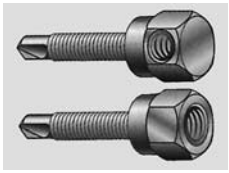
MOUNTING PLATES

CODE	DESCRIPTION
HSCMP10	SUITS M10 ROD
HSCMP12	SUITS M12 ROD

ROD PURLIN HANGER

(SUITS THREADED ROD)

CODE	DESCRIPTION
HSP 10	LIGHT DUTY SUITS M10 ROD
HSPH 10	HEAVY DUTY SUITS M10 ROD
HSPH 12	HEAVY DUTY SUITS M12 ROD



VERTIGO BOLTS

CODE
HSVH10
HSVV10

(SUITS M10 THREADED ROD)

THREADED ROD (shown assembled with nut)

CODE	DESCRIPTION
HS ROD10	10mm 2 metre length
HS ROD12	12mm 2 metre length

THREADED ROD NUT

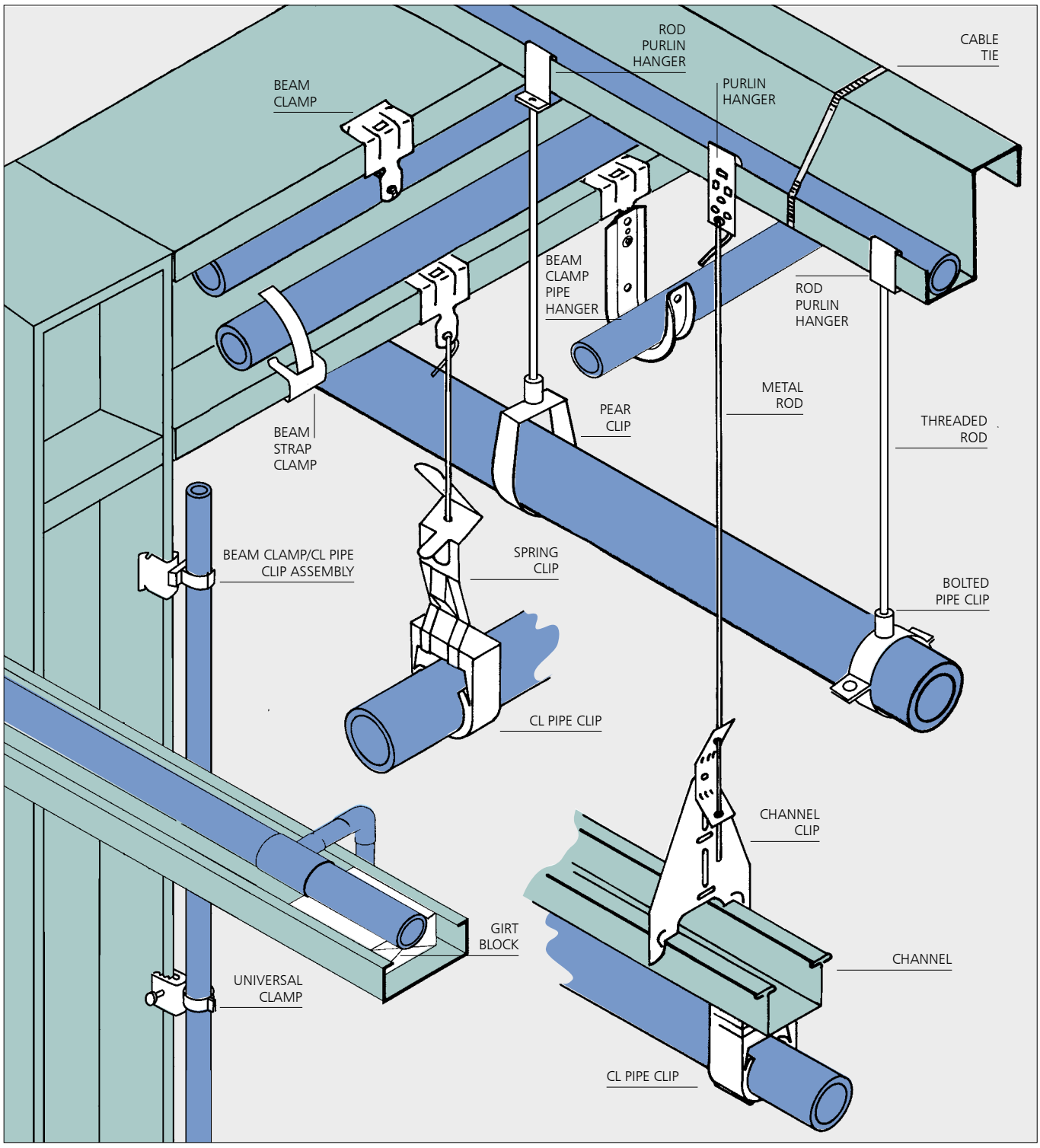
CODE	DESCRIPTION
HSN10	10mm NUT
HSN12	12mm NUT

BOLTED PIPE CLIP TO SUIT ROD

CODE	To Suit:
HSBC 20M10	20mm PIPE / 10mm ROD
HSBC 25M10	25mm PIPE / 10mm ROD
HSBC 32M10	32mm PIPE / 10mm ROD
HSBC 40M10	40mm PIPE / 10mm ROD
HSBC 50M10	50mm PIPE / 10mm ROD
HSBC 63M10	63mm PIPE / 10mm ROD
HSBC 90M10	90mm PIPE / 10mm ROD
HSBC 110M10	110mm PIPE / 10mm ROD
HSBC 90M12	90mm PIPE / 12mm ROD
HSBC 110M12	110mm PIPE/12mm ROD

PEAR CLIP TO SUIT ROD

CODE	DESCRIPTION
HSPC 20M10	20mm PIPE / 10mm ROD
HSPC 25M10	25mm PIPE / 10mm ROD
HSPC 32M10	32mm PIPE / 10mm ROD
HSPC 40M10	40mm PIPE / 10mm ROD
HSPC 50M10	50mm PIPE / 10mm ROD
HSPC 63M12	63mm PIPE / 12mm ROD
HSPC 90M12	90mm PIPE / 12mm ROD

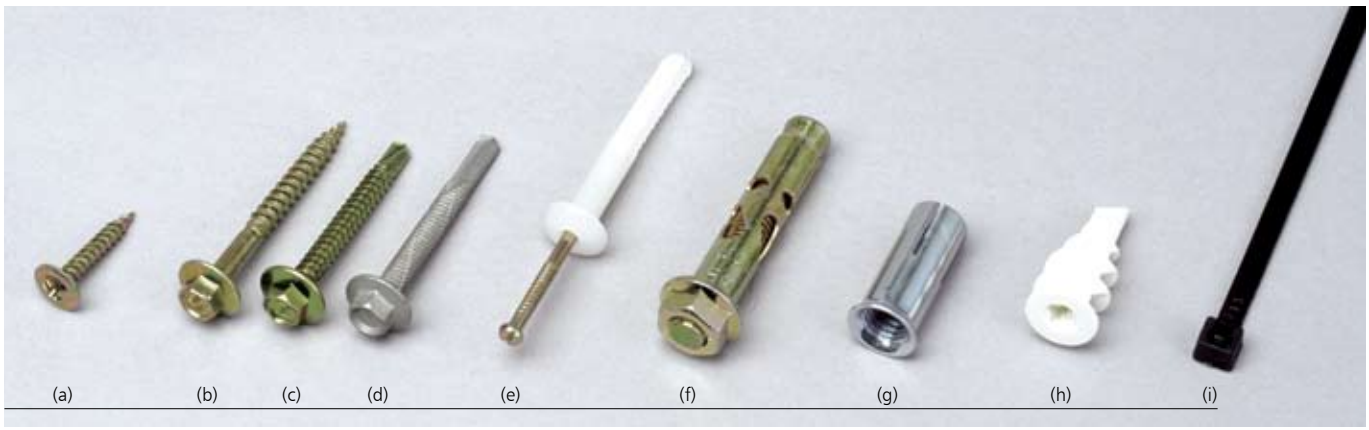


CONTINUOUS SUPPORT CHANNEL

Used to increase the spacing between clips and is particularly useful for spanning between unistrut, pipe racks, etc.
2 clips per length.

CODE	SIZE	LENGTH
HSS25	25	3m
HSS32	32	3m
HSS40	40	3m
HSS50	50	3m
HSS63	63	3m

FASTENERS



SCREWS BUTTON HEAD (a)

CODE	SIZE
F1	8G x 25
F2	8G x 32
F3	12G x 40

NYLON ANCHORS (e) *

CODE	SIZE
F14	6.5 x 50
F15	6.5 x 75

DROP IN ANCHOR (g)

CODE	SIZE
F28	10mm
F29	12mm

NYLON CABLE TIES (i)

CODE	SIZE
CT1	190 x 4.8
CT2	300 x 4.8
CT3	370 x 4.8
CT4	380 x 7.6

SCREWS HEX HEAD

CODE	SIZE
F5 (b)	12G x 45 TYPE17 TIMBER
F6 (c)	12G x 45 STEEL
F7	12G x 75 STEEL
F8 (d)	12G x 32 LONG DRILL POINT FOR HEAVY STEEL

DYNA BOLTS (f)

CODE	SIZE
F24	10 x 50
F25	10 x 60
F26	12 x 60
F27	16 x 65

PLASTERMATE (h)

CODE
F30

*HEAVY DUTY REMOVABLE NYLON ANCHORS ALSO AVAILABLE

MAXAIR ACCESSORIES

MOUNTING BRACKETS

CODE	THREAD
TFWM15	1/2"
TFWM20	3/4"
TFWM25	1"

Designed to rigidly mount TF or EF fittings suits 20, 25, & 32mm Pipe fittings.
Shown below - typical use.

See page 20 for made-up options.

CEILING PENETRATION FLANGE

CODE	SIZE
CPF14	14mm
CPF19	19mm
CPF25	25mm
CPF32	32mm
CPF38	38mm
CPF48	48mm

Suitable for Suspended & Plaster ceilings

TEFLON TAPE

CODE
TS 1

SILICONE LUBRICANT

CODE	DESCRIPTION
SL	500ml AEROSOL

Compression fitting lubricating spray.

THREADSEALER/ACTIVATOR

CODE	DESCRIPTION
53.14	Threadseal, 10ml
53.14	Threadseal, 50ml
AT11	Activator, 200ml

210 SERIES COUPLINGS

CODE	DESCRIPTION
A210-F	Coupler - ¼" BSPF (a)
A210-14M	Coupler - ¼" BSPM (b)
A210-38M	Coupler - ⅜" BSPM (c)
A210-12M	Coupler - ½" BSPM
A210-38T	Coupler - ¾" Tail (d)
A210-12T	Coupler - ½" Tail
A210-SAF	Coupler - Safety - ¼" BSPF (e)
A2609	Connector - ¼" BSPF (f)
A2608	Connector - ¼" BSPM (g)
A2700	Connector - ⅜" BSPM (h)
A3948	Connector - ⅜" Tail (i)

380 SERIES COUPLINGS

CODE	DESCRIPTION
A380	Coupler - ⅜" BSPF (a)
A3809	Connector - ⅜" BSPF (b)
A3807	Connector - ¼" BSPM
A3800	Connector - ⅜" BSPM (c)
A3810	Connector - ⅜" Tail (d)

400 SERIES COUPLINGS

CODE	DESCRIPTION
A400	Coupler - ½" BSPF (a)
A300415	Connector - ½" BSPF (b)
A300405	Connector - ½" BSPM (c)
A308005	Connector - ½" Tail (d)

AIR HOSE

Quality PVC and Rubber Air Hose
Bore sizes: 10mm, 12mm, 20mm etc.
(Available up to 100mm)
Lengths: 20m, 30m, 100m etc.

CODE	DESCRIPTION
MAX-10PVC	10mm ID PVC Hose
MAX-12PVC	12mm ID PVC Hose
MAX-10R	10mm ID Rubber Hose
MAX-12R	12mm ID Rubber Hose

PVC AIR HOSE SETS c/w 210 coupling

CODE	
PVC 10m x 10mm	MAX1010
PVC 20m x 10mm	MAX2010

RUBBER AIR HOSE SETS c/w 210 coupling

CODE	
Rubber 10m x 10mm	MAX1010R
Rubber 20m x 10mm	MAX1020R

HOSE CLAMPS - Wide range including...

GBSN Heavy Duty | Stainless steel Worm Drive | 2-Ear Clamps | Stainless Steel Cobra

PNEUMATIC TUBING

A complete range of pneumatic tubing is available.
4, 6, 8, 10, 12 & 16mm.
Blue, black, silver, red, green, yellow, clear.

INDUSTRIAL RECOIL HOSES

CODE	
RH8	8mm OD
RH10	10mm OD
RH12	12mm OD

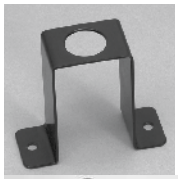
HOSE REELS

A wide range of Hose Reels available including •Compact Units, •Reels to suit Polyurethane Hose, •Reels to suit Air Hose (as pictured), •Reels for other applications

ReCoila Gen III

AW1015
10mm ID
Length: 15m
3/8" BSPF IN
3/8" BSPM OUT
240psi Max.

AW1215
12mm ID
Length: 15m
1/2" BSPF IN
1/2" BSPM OUT
240psi Max.



LEFT:
TFWM
IN USE

MOUNTING BRACKETS

CODE
TFWM 15
TFWM 20
TFWM 25

COMPRESSION SYSTEM DRAIN OUTLETS

CODE
CSD/20/1/¼
CSD/20/2/¼
CSD/20/3/¼
CSD/20/1/⅜
CSD/20/2/⅜
CSD/25/1/¼
CSD/25/2/¼
CSD/25/3/¼
CSD/25/1/⅜
CSO/25/2/⅜

AUTOMATIC DRAIN FILTER OUTLETS

CODE
ADF/20/1/¼
ADF/20/2/¼
ADF/20/3/¼
ADF/20/1/⅜
ADF/20/2/⅜
ADF/20/3/⅜
ADF/25/1/¼
ADF/25/2/¼
ADF/25/3/¼
ADF/25/1/⅜
ADF/25/2/⅜
ADF/25/3/⅜

COMPRESSION SYSTEM DRIP LEG DRAIN OUTLETS

CODE
DLD/20/1/¼
DLD/20/2/¼
DLD/20/3/¼
DLD/20/1/⅜
DLD/20/2/⅜
DLD/25/1/¼
DLD/25/2/¼
DLD/25/3/¼
DLD/25/1/⅜
DLD/25/2/⅜

AIR SUPPLY TEE WITH DRAIN

Mains air dump/drain.
Install between compressor and factory mains.

CODE
AST 20
AST 25
AST 32
AST 40

WELDED SYSTEM DRAIN OUTLETS

CODE
WSO/20/1/¼
WSO/20/2/¼
WSO/20/3/¼
WSO/20/1/⅜
WSO/20/2/⅜

COMPRESSION SYSTEM OUTLETS

CODE
CSO/20/1/¼
CSO/20/2/¼
CSO/20/3/¼
CSO/20/1/⅜
CSO/20/2/⅜
CSO/25/1/¼
CSO/25/2/¼
CSO/25/3/¼
CSO/25/1/⅜
CSO/25/2/⅜

WELDED SYSTEM DRIP LEG DRAIN OUTLETS

CODE
WDLD/20/1/¼
WDLD/20/2/¼
WDLD/20/3/¼
WDLD/20/1/⅜
WDLD/20/2/⅜
WDLD/25/1/¼
WDLD/25/2/¼
WDLD/25/3/¼
WDLD/25/1/⅜
WDLD/25/2/⅜

AIR TREATMENT

Compressed Air contains impurities such as dust and dirt (approximately 80% of these pass through the compressor inlet filter), and water vapour is also present as humidity, concentrated eight times as compared to the air we breath.

These impurities combine with traces of compressor oil to form an abrasive sludge which wears and corrodes bearings and seals in pneumatic tools and equipment. For this reason it is imperative to include **Air Treatment** in your system which will protect your equipment. We can assess and advise you as to your particular requirements, please refer to technical department.

MINI AIR SERVICE UNITS

CODE	DESCRIPTION
R55-2W	¼" Regulator c/w Gauge (a)
F50-2W	¼" Manual Filter (b)
FD50-2W	¼" Auto-Drain Filter
CFR-55-2W	¼" Manual Filter/Reg c/w Gauge
CFDR-55-2W	¼" Auto-Drain Filter/Reg c/w Gauge

AIR REGULATORS

CODE	DESCRIPTION
R60-2W	¼" Regulator c/w Gauge
R60-4W	½" Regulator c/w Gauge
R180M-6W	¾" Regulator c/w Gauge
R180M-8W	1" Regulator c/w Gauge
R180-10W	1¼" Regulator c/w Gauge
R180-12W	1½ Regulator c/w Gauge

GENERAL PURPOSE FILTERS

CODE	DESCRIPTION
BF70-2W	¼" Manual Filter
BF70-4W	½" Manual Filter
BF200-6W	¾" Manual Filter
BF200-8W	1" Manual Filter
BF200-10W	1¼" Manual Filter
BF200-12W	1½" Manual Filter

* Auto-Drain Unit BD-130 add (per unit)

AIR FILTERS / REGULATORS

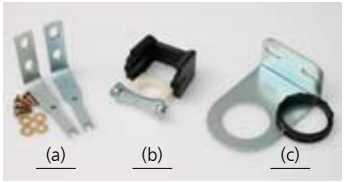
CODE	DESCRIPTION
BCFR70-2W	¼" Filter/Reg c/w Gauge
BCFR70-4W	½" Filter/Reg c/w Gauge

* Auto-Drain Unit BD-130 add (per unit)

COALESCING FILTERS - 0.3μm

CODE	DESCRIPTION
BFC70-2W	¼" Coalescing Filter
BFC70-4W	½" Coalescing Filter
BFC201-6W	¾" Coalescing Filter
BFC201-8W	1" Coalescing Filter
BFC201-10W	1¼" Coalescing Filter
BFC201-12W	1½" Coalescing Filter

* Auto-Drain Unit BD-130 add (per unit)



MOUNTING BRACKETS

CODE	DESCRIPTION
K30-8	Wall Mount Kit for 70 Series (a)
KA30-04	Modular Connector Kit for 70 Series allows you to join units together (b)
A33-82	Regulator Wall Mount Bracket for 55 & 70 Series (c)

BLOWGUNS

BLOW GUNS

Standard Blow Guns, Long Nozzle, Safety Tip, Rubber Tip, Flat Nozzle, Blow / Vacuum Venturi Effect, Reduced Pressure Safety Styles.

CODE		
124140101	Standard Blow Gun	(a)
124140125	Silent/Safety Blow Gun	(b)
124140112	Long Blow Gun, 300mm	(d)
124140113	Long Blow Gun, 600mm	
124140114	Long Blow Gun, 1000m	
12410026	Jet Airboy™ Blow Gun	(c)

PUSH-IN FITTINGS

A full range of Push-in Fittings.

A wide range of Push-in Fittings are available to suit flexible tubing in 4mm, 6mm, 8mm, 10mm, 12mm, & 16mm.
Thread sizes: 1/8", 1/4", 3/8", & 1/2" BSP.
Some common fittings are pictured, the range also includes multiple manifold outlets, isolating valve fittings, speed controllers, rotating fittings, check valves and more.
Phone for your specific requirements.

MAXAIR SYSTEM DESIGN GUIDELINES

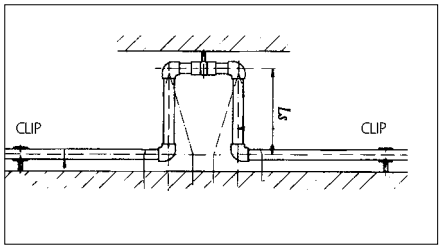
RECOMMENDED INSTALLATION PRINCIPLES

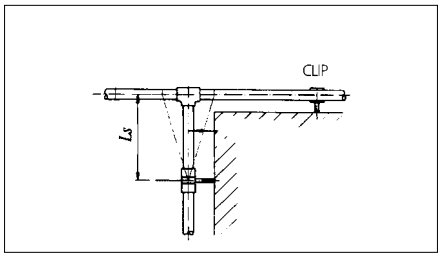
THERMAL EXPANSION AND CONTRACTION AND PIPE CLIPS / PIPING LAYOUT

The coefficient of the thermal expansion and contraction of Maxair PE100 pipe may be taken as 0.18mm per metre per Deg C. If pipework is to be subjected to thermal temperature change, expansion and contraction needs to be considered for 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 minimised if areas in which pipework is installed are heated or cooled and virtually eliminated in constant temperature areas.

EXPANSION LOOPS

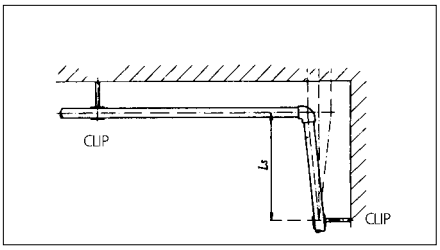
Expansion loops are recommended at intervals of approx. 30-40m on long runs. Suggested leg lengths are as per table below. It is general practice for loops up to AIR 63 to span between purlins. Space constraints may also need to be considered. Please contact our technical department for accurate sizing if required.





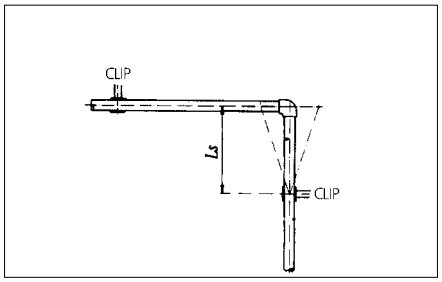
PRE STRESSING

Pipework can be prestressed, and particular note should be made of this when installation is carried out in cold conditions.



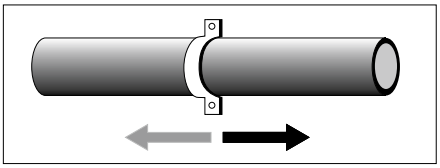
Suggested L s Length (Metres)

20	0.5
25	0.6
32	0.7
40	0.9
50	1.0
63	1.2
90	1.8
110	2.0



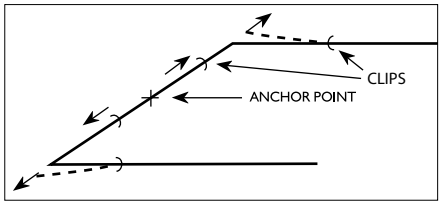
PIPE CLIPS

Free axial movement of pipework should be allowed with any form of support. Pipework should be able to move on elbows, tees, etc.

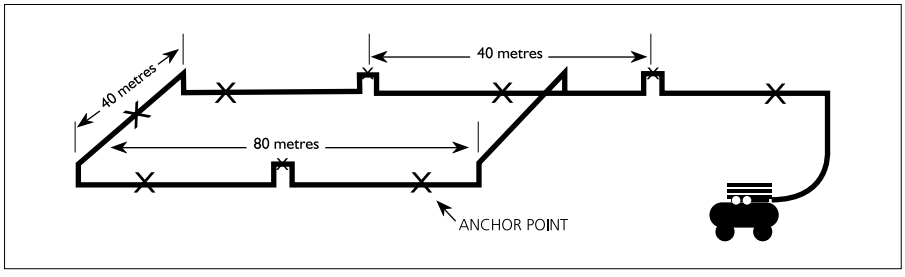


ANCHOR POINTS

Anchor points are clips which don't allow free axial movement. Anchor points can be used as shown to evenly spread the effects of expansion and contraction.



Below: Working example of Ring Main showing typical expansion loops and anchor point positions for this schematic.



OPERATING PARAMETERS OF MAXAIR PE100

OPERATING TEMP °C	DESIGN LIFE YEARS	PERMISSIBLE WORKING PRESSURE		
		BAR	KPA	PSI
- 20° TO 20°	50	16	1600	235
30°	50	14	1400	205
40°	50	12	1200	175
50°	50	10.2	1020	150
60°	50	8.8	880	130
ABOVE RATINGS HAVE AN ADDITIONAL SAFETY FACTOR OF 2:1				
Fluid at 20° C	50	25	2500	360

SHORT TERM TEMPERATURE RISES

Temperatures quoted relate to constant temperature over a period of 50 years, rather than short term peak temperatures. Maxair PE100 can safely handle short term peaks in compressed air temperature up to 95deg C. Circumstances vary and each high temperature application should be checked with your distributor.

SAFETY FACTOR

At all rated pressures for compressed air as above Maxair PE100 is manufactured with a safety factor of 2. On a typical installation this gives an effective safety factor of 4 at 800 kpa/20deg C /50 years.

GUARANTEE

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

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. 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 (see schematic illustration P2).

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.

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, grade and install drain valves in strategic positions.

HEAT SOURCES AND EXTERIOR PIPEWORK

Maxair is suitable for outdoor installation

Industry best practice of shielding equipment and pipework from direct heat sources should be adopted to prevent excessive heat buildup. In the event that pipe is exposed to direct sunlight a surface layer forms over time creating a barrier which impedes further U.V. effects. As with all Polymer pipe systems exposed to direct U.V., there maybe some reduction of impact resistance over time however longevity and pressure rating of Maxair is not affected.

PIPE WEIGHTS COMPARISON

MAXAIR		GALVANISED MILD STEEL		COPPER	
SIZE	WEIGHT Kg/m	SIZE	WEIGHT Kg/m	SIZE:	WEIGHT Kg/m
AIR 20	0.15	1/2"	1.45	1/2"	0.35
AIR 25	0.24	3/4"	1.90	3/4"	0.70
AIR 32	0.40	1"	2.97	1"	1.09
AIR 40	0.59	1 1/4"	3.34	1 1/4"	1.38
AIR 50	0.92	1 1/2"	4.43	1 1/2"	1.67
AIR 63	1.45	2"	6.17	2"	2.25
AIR 90	3.04	3 "	10.1	3 "	4.23
AIR 110	4.51	4"	14.4	4"	5.68

FITTINGS FOR SOCKET FUSION WELDING

Pipe and fittings are welded by means of socket fusion according to AS2033-1980. Fittings comply with DIN16963. 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.

COMPRESSION O-RING TYPE FITTINGS

Made under ISO 9002 Quality System. Standards Mark Licence No 1237-AS1460. Air seal is provided by a heavy duty O-Ring and pipe is securely held by split grip ring and nut. Extensive research and experience has confirmed our confidence in the range of fittings offered being of the highest quality and reliability. These fittings are approved by the manufacturer for compressed air applications and, whilst they are conservatively rated at PN16 (16 bar)/20Deg C/50 years for other applications, with a view to an additional safety factor for compressed air, we recommend these fittings for installations subject to conditions not exceeding 10 bar pressure at constant average temperature of 30Deg C. The majority of installations would be expected to average less than these conditions. For conditions above these, socket fusion welded fittings should be considered.

Compression Fittings AIR20mm to AIR63

1. Cut pipe to length with appropriate cutter (PC...) for a swarf-free finish.

2. Chamfer with appropriate chamfering tool. (CHAM...) This may not be necessary for AIR20, 25, 32.

3. Remove nut and conical grip ring from fitting and mount on pipe in the same order with the large end of the grip ring facing fitting. Lubricate, see notes*, **.

4. Insert the pipe into fitting with a twisting motion until it passes through the "0" ring and meets the internal shoulder. Ensure that grip ring is touching the fitting.

5. Screw and tighten the nut onto the fitting firmly by hand. The larger pipe sizes 40mm & upward will need tightening with the appropriate wrench (NW1) however, do not use excessive torque.

Compression Fittings AIR90 to AIR110mm

1. Cut pipe to length and chamfer.
2, Remove nut, conical grip ring, bushing and "0" ring and mount on pipe in the same order leaving out grip ring.
3. Lubricate pipe end and inside of fitting.(See note below**)

4. Insert pipe into the fitting until it meets the internal shoulder.

5. Bring up the "0" ring and bushing and tighten nut until they are fully in place.

6. Unscrew nut, open grip ring and put on pipe with the large end touching the bushing.

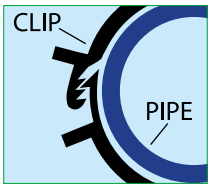
7. Tighten nut with the appropriate wrench (NW2) taking care not to use excessive force.

*Fitting may be supplied with a tapered seal instead of O-Ring, -in this case nut need not be removed, - simply chamfer pipe, lubricate, fully insert, and tighten.

** Lubricate with silicone spray, soapy water or vaseline except on applications where air will be used for spray painting DO NOT use penetrating fluids such as WD40, 5-56, Penetrene etc.

CL Pipe Clips Installation

1. Mount pipe clip using appropriate fastener. In vertical mounting situations (horizontal pipework) ensure female ratchet is uppermost as shown below.



2. Pull clip apart and put the pipe in.

3. Press the pipe into clip towards the clip base and set to appropriate setting.

To remove pipe from clip push the 2 bands sideways in opposite directions to disengage.

Pipe Support spacings

	HORIZONTAL SUPPORT SPACING	
PIPE SIZE	UP TO 25˚C	UP TO 50˚ C
AIR20	**700**	600
AIR25	**900**	750
AIR32	**1200**	900
AIR40	**1400**	1100
AIR50	**1700**	1300
AIR63	**2000**	1550
AIR90	**2300**	1800
AIR110	**2600**	2000

Spacings may need to be altered for various ambient temperatures encountered. Refer to Technical Department. For vertical fixing, the spacings may be increased approximately 20%. Spacings may also be increased using Continuous support Channel, see P17. Spacings will need to be decreased if pipework is conveying fluids.

Electro Fusion Welding – Recommended for AIR90 and AIR110

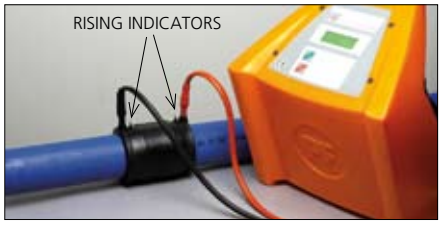
Available in smaller sizes if required

1. Cut pipe to length using appropriate cutters.
2. Use scraper UT110 to remove oxide layer from pipe for full fitting insertion length to approximate depth of 0.3mm.

3. Wipe surfaces to be welded with Welding Wipes (EFPW) to remove dust etc, and allow cleaner to evaporate.

4. Assemble pipe and fitting making sure pipe is FULLY inserted. Clamps may be attached to stabilise joint during welding.

5. Connect welder leads onto fitting terminals. Set correct weld time (marked on each fitting). Follow instructions for particular welder. Press start for weld cycle to commence. Allow to cool, time is marked on each fitting.



6. Rising melt indicators confirm successful completion of weld. When Weld cycle is completed, allow assembly to cool without any movement or strain.

WELDING GUIDELINES.

Socket Fusion and Electro Fusion welding is a quick and simple operation for a joint of the highest integrity.

SOCKET FUSION

Heating element socket fusion to welding guideline AS 2033-1980. Fittings for socket fusion welding comply with DIN 16963.
Weld surfaces must be clean and dry. Welding machine must be up to temperature 230° - 250° C before commencing. Avoid cold windy conditions. Do not realign joint after adjusting time see table. Do not overscrape pipe - interference fit must be retained. Do not twist pipe into fitting when fusing.

Socket Fusion Welding Time/Temperature Chart

Pipe OD 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

ELECTRO FUSION

Fittings for electro fusion comply with AS1129 and carry a standards mark licence No 2018 under a Quality Assurance System in accordance with ISO 9002.
The fittings incorporate a resistor in one of the terminals which is specific to that fitting. The automatic control box reads the resistor and sets and welds the correct time, avoiding operator error. Fittings are also labelled for barcode reading and manual setting times. Rising melt indicators confirm successful completion of weld.
IMPORTANT: Do not allow movement in the joint until cooling period has been completed. In some cases clamps may be required. Ensure continuous electricity supply during weld cycle.

Socket fusion Welding Instructions AIR20 to AIR63

1. Turn on Welder SFHM. Do not attempt welding unless tool is up to temperature (250°C). The light will flash on/off with thermostat control when temp. is correct.
2. Cut pipe to length required with (PC...) cutters for a swarf free finish.

3. Clean pipe & fitting. Use scraper (WPS...) to remove oxide layer from pipe and ensure correct tolerance. Welding wipes (EFPW) may be used if required.

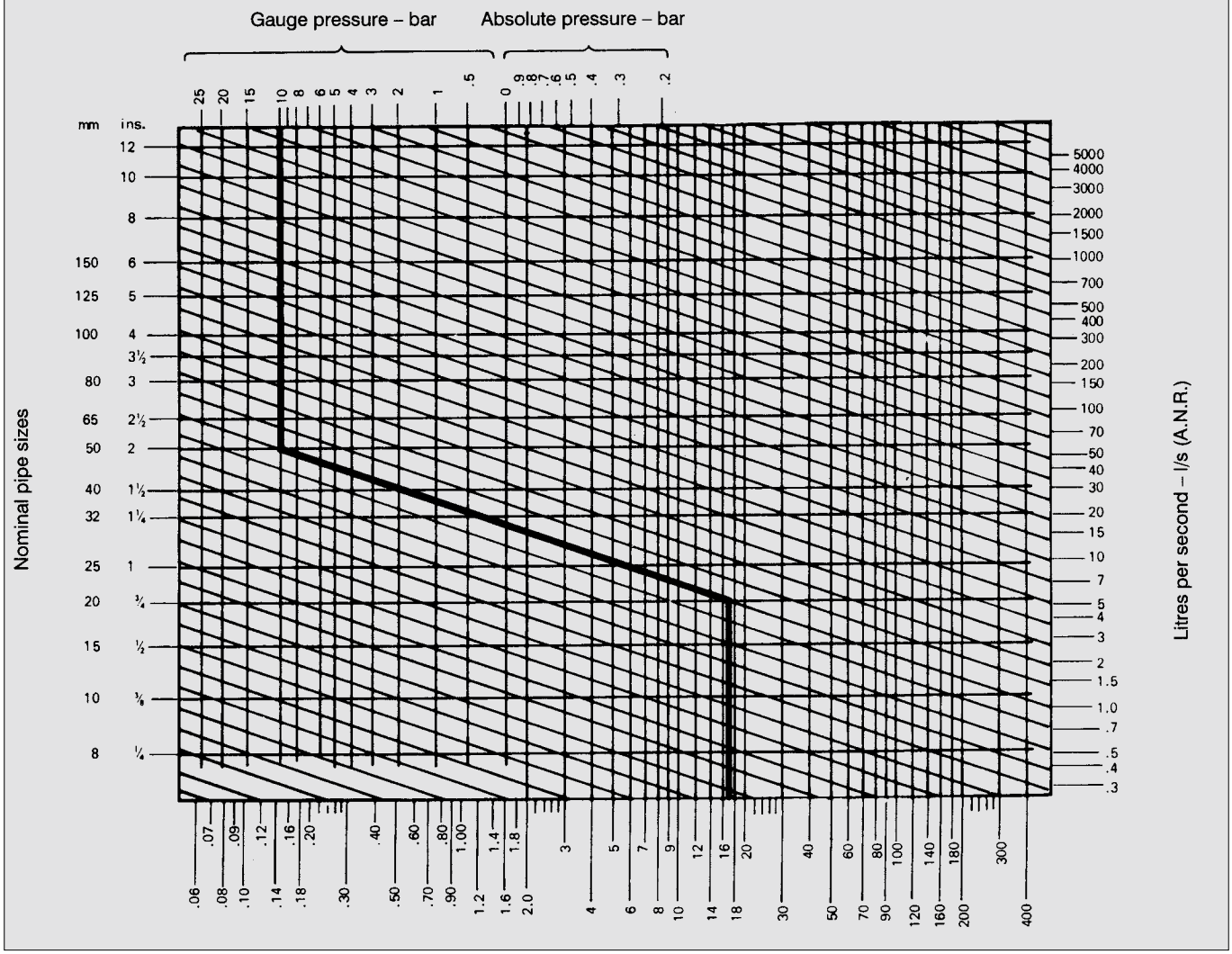
4. Simultaneously insert pipe and fitting onto socket and spigot to full depth without twisting. Hold for correct time as per table 'Pre-heating seconds' (left) .

5. Remove pipe & fitting from heating element, immediately insert pipe into fitting without twisting.

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

COMPRESSED AIR FLOW CHART

FOR USE WITH LARGE INSTALLATIONS OR LONG DISTANCES OF PIPE.



Note: A.N.R. (Atmosphere Normale de Reference) Standard Reference Atmosphere ISO R554 - 20degC 65% Relative Humidity 1013 mbar

Conversion: 1mbar=0.1 kpa
11/s=2.1191cfm

How to use the compressed air flow chart.

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 1/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 1/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 1/s of free air is required at a pressure of 4 bar with a maximum allowable pressure drop of 140 m 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 1/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, is15mm pipe.

BREATHING AIR

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.

STORAGE

Storage and transport
Pipe should be stored and transported straight and true.

Shipping Weights.

AIR20	0.9 Kg / 6m length
AIR25	1.4 Kg / 6m length
AIR32	2.4 Kg / 6m length
AIR40	3.5 Kg / 6m length
AIR50	5.5 Kg / 6m length
AIR63	8.7 Kg / 6m length
AIR90	18.2 Kg / 6m length
AIR110	27 Kg / 6m length

OTHER USES

Suitability for other applications.
Products in this technical manual are also suitable for Chilled Water, Warm Water, High pressure Fluid to 25 bar, Inert Gasses, Chemical Piping, Vacuum Piping.
Please refer to Technical Department for details.

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 an accredited AS 3902 Quality Control System and commercially known as MAXAIR PE100.

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

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

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

2.3 Electro Fusion fittings shall comply with AS/NZS 4129 and carry a Standards Mark Licence No. 2018 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. 1237 in accordance with ISO 9002.

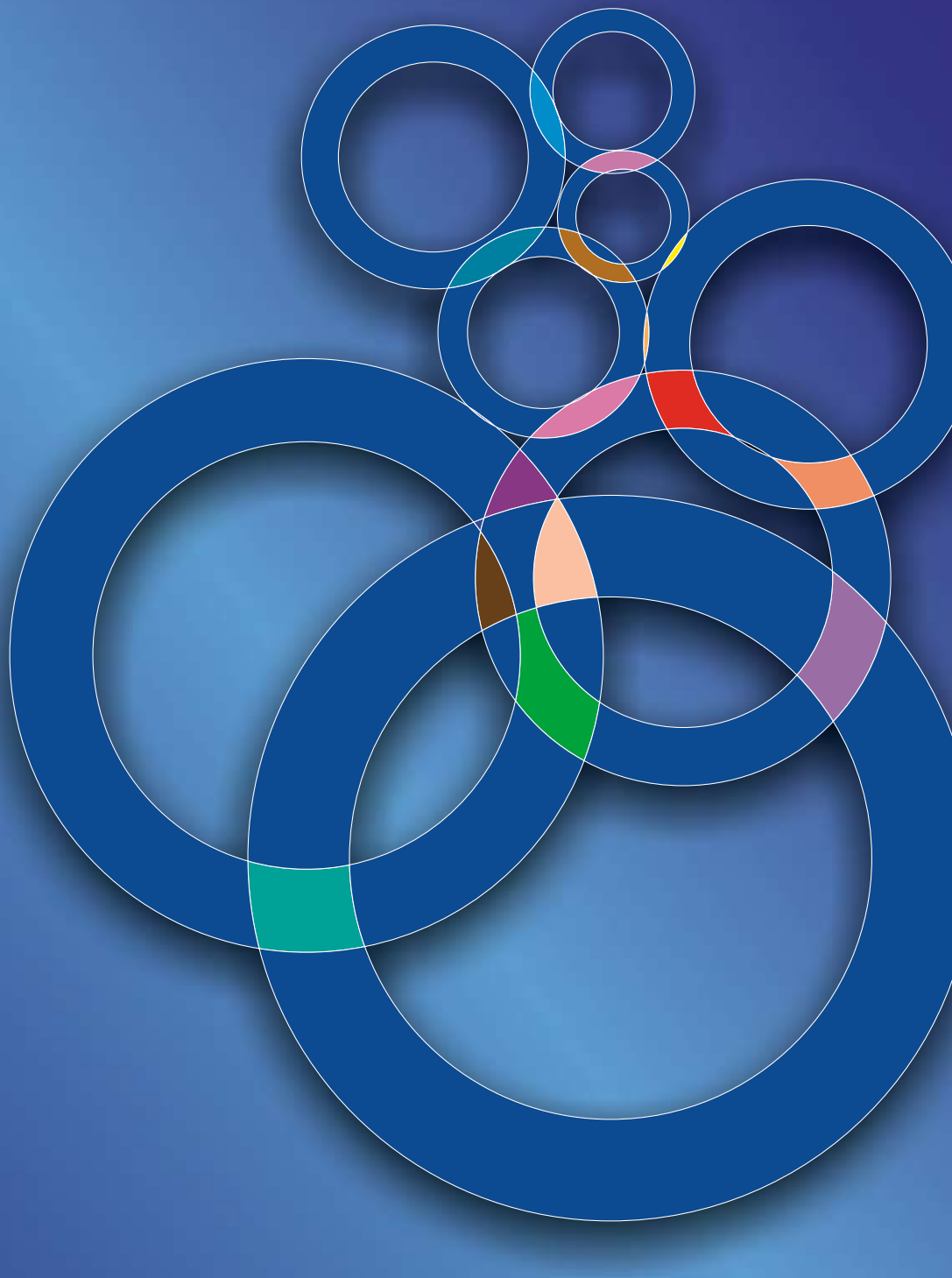
3.1 Fixing of pipe shall be of a type and spacing approved for use on HDPE PE100 as per MAXAIR Technical Manual.

TRADING TERMS

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.

All Sales are subject to the Company's Terms and Conditions of Sale.
E & OE.
All prices exclude GST and freight.

maXair



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