PURESTREAM
PIPING
BY AIRCOM

TECHNICAL CATALOGUE

Pipes and Fittings for Compressed Air

ZERTIFIKAT ◆ CERTIFICATE ◆ 認證證書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD

Italia

CERTIFICATO

Nr 50 100 4121 - Rev. 04

Si attesta che / *This is to certify that*

IL SISTEMA QUALITÀ DI
THE QUALITY SYSTEM OF

AIRCOM S.r.l.

SEDE LEGALE E OPERATIVA:
REGISTERED OFFICE AND OPERATIONAL SITE:

VIALE TRATTATO DI MAASTRICHT SNC
I-15067 NOVI LIGURE (AL)

È CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

UNI EN ISO 9001:2008

QUESTO CERTIFICATO È VALIDO PER IL SEGUENTE CAMPO DI APPLICAZIONE
THIS CERTIFICATE IS VALID FOR THE FOLLOWING SCOPE

Progettazione e fabbricazione di tubi, raccordi ed accessori in materiale termoplastico e tecnopolimero per la distribuzione di aria compressa e fluidi; progettazione di raccordi in alluminio. Commercializzazione di tubi in alluminio, valvole ed accessori per la distribuzione di aria compressa (IAF 14, 29)

Design and manufacturing of pipes, fittings and accessories in thermoplastic and technopolymer material for compressed air and fluid distribution; design of aluminum fittings. Trade of aluminum pipes, valves and accessories for compressed air distribution (IAF 14, 29)

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

SGQ N° 049A SSI N° 005G PRD N° 081B
SGA N° 018D ITX N° 001L ISP N° 057E
SCR N° 009F PRS N° 077C LAB N° 0078

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

Per l'Organismo di Certificazione
For the Certification Body
TÜV Italia S.r.l.

Andrea Coscia
Direttore Divisione Management Service

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PRIMA CERTIFICAZIONE / *FIRST CERTIFICATION:* **2004-03-16**

"LA VALIDITÀ DEL PRESENTE CERTIFICATO È SUBORDINATA A SORVEGLIANZA PERIODICA A 12 MESI E AL RIESAME COMPLETO DEL SISTEMA DI GESTIONE AZIENDALE CON PERIODICITÀ TRIENNALE"

"THE VALIDITY OF THE PRESENT CERTIFICATE DEPENDS ON THE ANNUAL SURVEILLANCE EVERY 12 MONTHS AND ON THE COMPLETE REVIEW OF COMPANY'S MANAGEMENT SYSTEM AFTER THREE-YEARS"

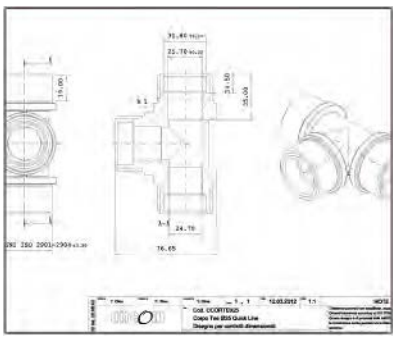
PURESTREAM PIPING BY AIRCOM

DESIGN AND QUALITY CONTROL

AIRCOM products come under the aegis of Made in Italy, and product quality is therefore of the very highest standard.

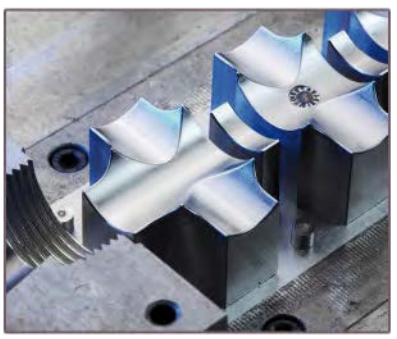
The Company has numerous departments dedicated to specific activities.

One is dedicated to Design, others to R&D, mould production and maintenance, production and, lastly, a department specifically for quality control where our products undergo very rigorous tests until the quality standards obtained are of the highest possible international level.



Design

3D Prototyping



Creating moulds

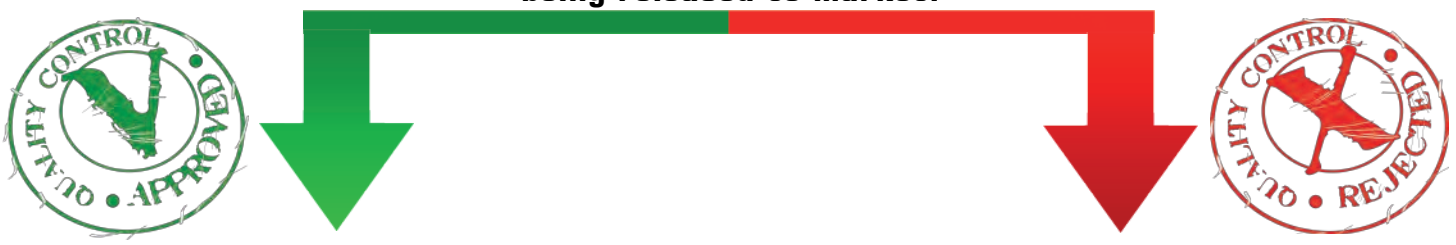
Production

QUALITY CONTROL

TEST

- Mould controls
- Size controls
- Pneumatic leak tests at **PN 16 bar**
- Resistance factor 4
- Polymer ageing tests at **64 bar**
- Resistance tests at up to **120 bar**
- Size tests
- Pressure tests with compressed air
- Pressure tests with water

Product conforms or does not conform before being released to market:



CONFORMS
The component has passed internal tests and is ready for release to market.

NON-CONFORMS
Does not conform to tests, the component goes back to the R&D department to be analysed, redesigned and once more subjected to validation tests.

REACTION TO FIRE

All AIRCOM components are self-extinguishing and do not propagate flames
Pipes, fittings and soft pipes comply with:

EN13501-1:2007+A1:2009
EN ISO 11925-2:2010
EN ISO 13823:2010

SYSTEM VERSATILITY

AIRCOM products have been specifically studied and designed to crate complete systems for the distribution of compressed air and pressurised fluids. Thanks to their versatility, they can be connected to already existing plant units.

CE CONFORMITY

All our products comply with 97/23/EC

TEN-YEAR GUARANTEE

In line with high quality performance of its product range, AIRCOM offers a ten-year guarantee on materials.

To read the Terms of Cover of the guarantee, refer to the Technical Catalogue.

CONTENTS

Information provided in this document were compiled according to our science and conscience and are representative of state of art. Information, data and pictures of Aircom products herein supplied are not binding and are supplied as a guide only. We reserve the right to introduce possible technical modifications without notice. We recommend to always check effective suitability of the product/s for the intended use. Any reprint or copying of this document and its annexes, or of part of them, requires prior written consent from Aircom Srl. All rights reserved. (E. and O. E.)

PRODUCT DESCRIPTION

The constant development of plants, the growth and the modifications of factories, the production technology progress, the strong push to automation are asking for pressured air plants correctly sized and easy modifiable.

The PURESTREAM by Aircom was expressly designed and developed for the delivery and distribution of compressed air.

Materials and connection peculiarity allow the assembling of flexible plants; these can be integrated by all the Aircom components and work out all the problems and the needs of the more complex plants.

Perfect hydraulic seal, remarkable mechanical endurance and efficiency in the time are guaranteed, in spite off the easy and quick installation.

CORROSION

The special aluminium alloy of pipes, coated by hot electroctrostatic paint, the aluminium alloy and special coating of cast injected fittings, the tecnoplymers of QL fittings and components, create a corrosion-free pipeline both in internal and external surface. This guarantee, at least, 50 year life of the product under normal working conditions.

IMPACT RESISTANCE

The materials guarantee excellent performance relating to mechanical resistance and internal pressure resistance. The pipeline can support violent impacts.

U.V. RAYS

U.V. rays do not affect aluminium. For this reason the PURESTREAM pipes can be layed indoor and outdoor.

FIRE RESISTANCE

The aluminium alloy of the pipes allows an excellent fire resistance (flames cannot spread or progress)

AIR DELIVERY

Because of the low friction factor and the large inside pipe section, the PURESTREAM by Aircom offers higher air delivery then others pipes at the corresponding inside diameter.

INSTALLATION

PURESTREAM by Aircom allows the highest flexibility and integrability to any other kind of system and, off course, to all the others AIRCOM systems. The absolutely quick and easy installation allows to get "zero" waiting time before starting the plant.

DIMENSIONS AND STANDARD

All the items of PURESTREAM by Aircom are in accordance to adapt to USA standards as regards to pipes, fittings and valves under pressure.

COMPRESSORS OIL COMPATIBILITY

Normally the PURESTREAM by Aircom components can work with a large range of lubricating oils for compressors. A detailed list is continually updated.
Ask for the compatibility list to the AIRCOM technical assistance.

ALL THE AIRCOM ITEMS ARE GUARANTEED "SILICON FREE"

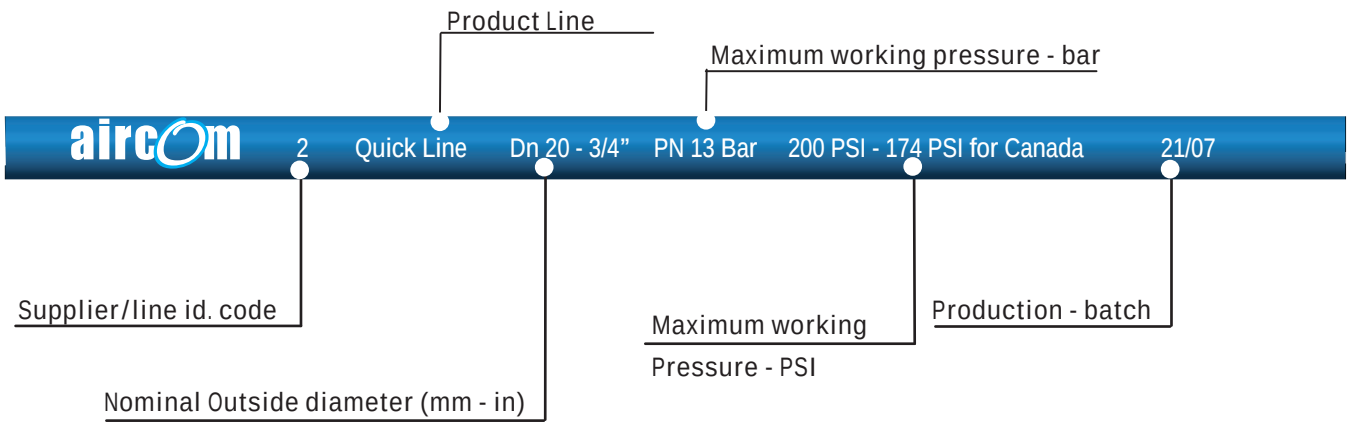
PRODUCT VISUAL IDENTIFICATION

The pipe color identifies the carried fluid

Aircom BLU Pipe: Compressed Air

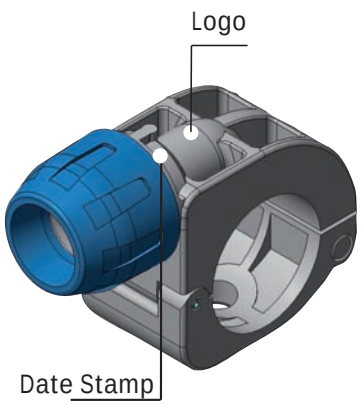
Aircom Green Pipe: Other Industrial Fluids

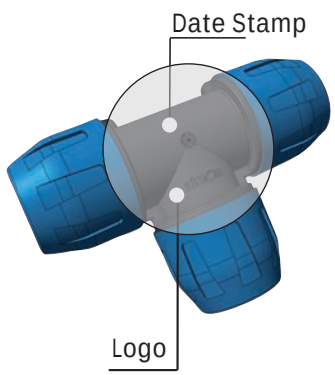
MARKING OF ALUMINIUM PURESTREAM PIPE



Pipe marking is black ink painted

MARKING OF FITTINGS





TECHNICAL SPECIFICATIONS

APPLICATION FIELDS

1. COMPRESSED AIR

PURESTREAM by Aircom system is mainly dedicated to COMPRESSED AIR distibution up to a maximum pressure of 200 PSI.

The wide range of products allows do develop plants starting from compressor, through the treatment units, through the distribution ring, up to the peripherical connections.

A set of special components allows quick and effective solutions to settle all the specific installation problems related to commpressed air.

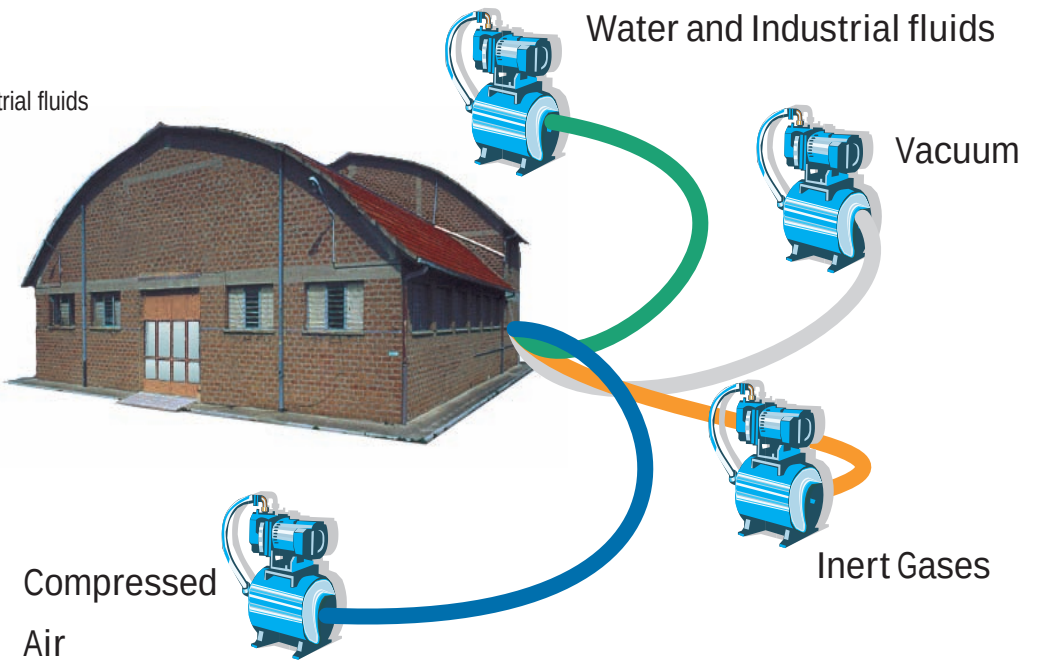
PURESTREAM by Aircom sistem is perfectly integrable with all the others Aircom product range as CLASSIC Line.

2. OTHER USES

. Inert gases

. Vacuum

. Water (not alimentary) and industrial fluids



Pipelines Distiguishing Colors

The Standard settles the colors in order to identify the carried fluid.

Fluid	Basic Color	RAL
Fire estinguishing		3000
Water		6032
Steam		9006
Air		-
Combustible end/or Inflammable Mineral Oils		8007
Gaseous or Liquified Gases (air excluded)		1024
Acids		2010
Dangerous Fluids		1021

Colors of the most common fluids

PLANT DESIGN

There are two way to design a main line: through a single way pipeline (the line start from the compressor following all the connections up to the farest one) or through a closed ring (the line start and go back to the compressor). The ring is usually the advisable solution because of a more equilibrate delivery and because it makes possible, with valves, to cut parts af the plant in order to set, modify, or enlarge the pipeline without complete stop of the air delivery in the firm.

The volume of the ring-line forms an air-storage, helping to keep the pressure value constant, especially during strong and sudden air requests.

To calculate the dimension of the main pipe ring, we must know all detailed data of each tool, machine, equipement etc. regarding the air comsumption, usually expressed in cubic feet per minute (cfm), and the correct working pressure value (min and max).

So, the rigth dimensioning of a main line, needs to consider several factors as following:

1. Air Flow Rate

The flow rate is estimated on the basis of the different users as well as on the operation frequency of all users ; the total average flow rate of all off takes will show the the maximum necessary quantity for the main pipeline. A certain precautionary increaseand an estimate of future increase is to be added to the above value.

This datum will allow us to size the compressor to be installed and consequently other necessary elements (receiver, main filter, oil separator, drier etc.).

2. Compressors - Indicative Air Delivery

The following table shows the air delivery values available for compressors with different powers.

KW	CV	cfm
1,5	2	9
3	4	15
4	6	20
5,5	7,5	35
7,5	10	45
11	15	65
12,5	17	75
15	20	95
18	25	110
22	30	130
29	40	170
37	50	205
45	60	260
55	75	315
74	100	445
92	125	555
110	150	665
132	180	780
170	230	960
200	270	1150

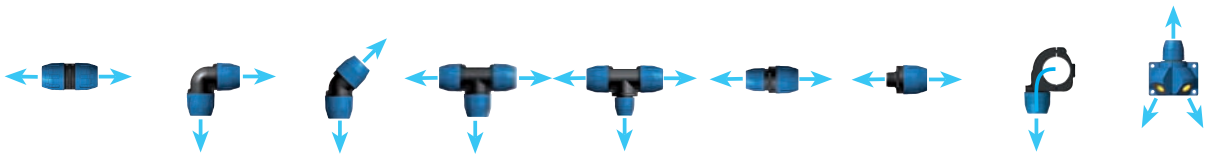
3. Working Pressure and Loss of Charge

The designe must fix the minimum needed pressure for each user and its position: far from compressor the available pressure will decrease because of many reasons:

- Air driers, filters
- Drop legs
- Restrictions (valvs etc.)
- Frictions from the flow speed
- Pipe section changes, direction changes, elbows, fittings and other accessories

In order to get a rigth plant dimensioning, we must think of losses of charge due to fittings.This value change time by time according to the quantity and the shape of them.

The table below indicates the correspondence to pipe feet for every assembled fitting. The equivalent length obtained from all fittings will be added to the average length of the installed pipe.



	QLMAPA	QLGO90PA	QLGO45PA	QLTEPA	QLTRPA	QLRIDPA	QLMNPA	QLDERPA	QLAPL
16 - 1/4"	0,3'	2,3'		0,3"			0,3'		6,6'
20 - 3/4"	0,7'	4'	3,3'	0,7"			0,7'		10'
25 - 1"	0,7'	6,6'	4,3'	1'	6'		0,7'	6,6'	13'
32 - 1.1/4"	1'	10'	5'	1'	8'	2,4'	1'	10'	
40 - 1.1/2"	1'	12'	6'	1,3'	11'	4'	1'	13'	
50 - 2"	1,3'	14'	7'	1,3'	18'	6'	1,3'	20'	
63 - 2.1/2"	1,6'	16'		1,6'			1,3'	23'	
80 - 3"	2,3'	21'		1,6'			1,3'	30'	

PLANT LENGTH

When we know the service pressure, the required flow and the length of the pipe from the compressor line to the most distant air user (considering the sum in meters of the equivalent lengths - see table 1), we will be able to calculate the correct dimensioning of the main pipe.

CHOICE OF THE QLTUAL PIPE FOR THE MAIN RING
Values referred to a 120 psi pressure and a maximum pressure drop of 5%
Distance between the compressor and the most distant user (in feet)

Cf / h	cfm	80'	160'	320'	480'	640'	960'	1280'	1600'	3200'
1260	21	16	16	20	20	25	25	25	25	32
1890	32	16	20	20	25	25	25	32	32	40
2520	42	20	25	25	25	32	32	32	32	40
3675	61	25	25	32	32	32	40	40	40	50
5250	88	25	32	32	32	40	40	40	50	50
7350	123	32	32	40	40	40	50	50	50	63
9450	158	32	32	40	40	50	50	50	50	63
12600	210	40	40	40	50	50	50	63	63	63
17850	298	40	40	50	50	50	63	63	63	80
25200	420	50	50	50	63	63	63	80	80	80
37800	630	50	63	63	63	80	80	80	80	
44100	735	63	63	63	80	80	80	80		
65100	1085	63	80	80	80	80				
94500	1575	80	80	80						

ACCORDING THE TABLE INDICATIONS THE MAXIMUM PRESSURE DROP WILL BE APPROX 5%

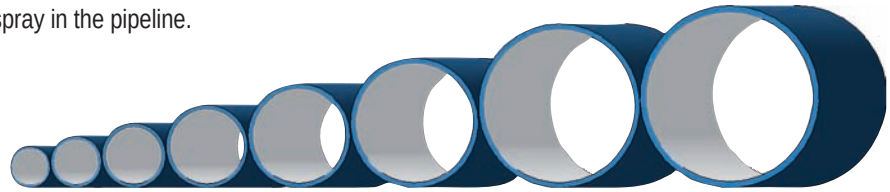
If the instant flow rate is equal or inferior to the one produced by the compressor and the ring is shorter than the suggested for a given pipe diameter, the pressure loss will not exceed 5%.

We recommend to use larger pipelines for possible future expansions and to avoid an excessive speed of the compressed air inside the piping system.

FLOW RATE/PRESSURE DROP TABLE

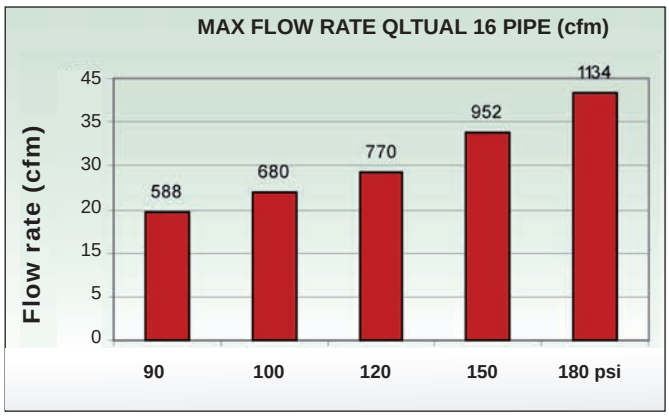
We indicate hereunder the maximum suggested flow rate not to create high speed in the air flow which will determinate :

a. Increase of turbolence with relative pressure drop;
b. high and eventually unlegal noises;
c. condence spray in the pipeline.

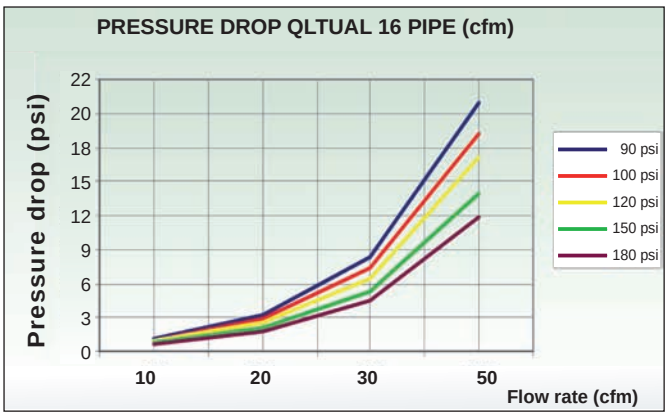


16 20 25 32 40 50 63 80 mm
1/2" 3/4" 1" 1.1/4" 1.1/2" 2" 2.1/2" 3"

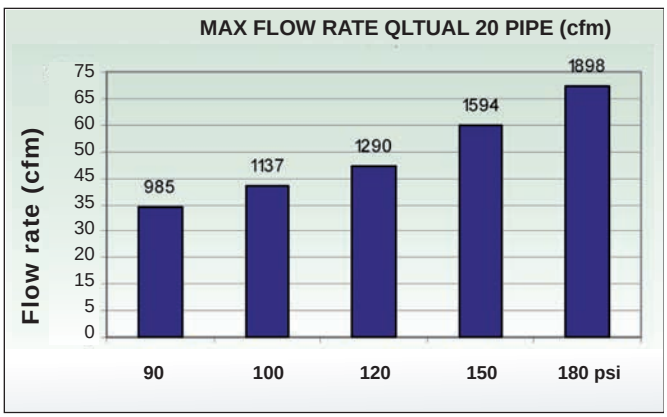
PIPE FLOW RATE TABLES



- Table 1a



- Table 1b



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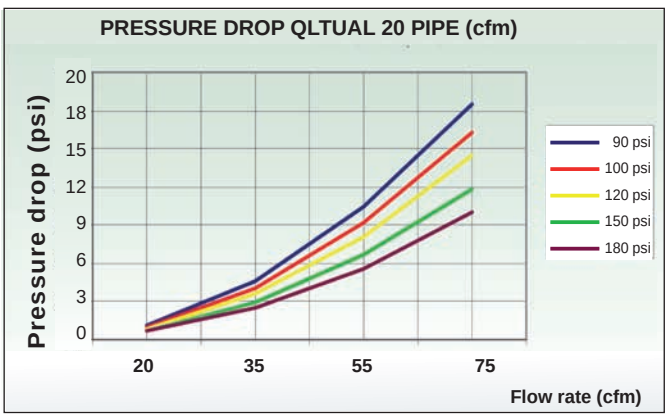
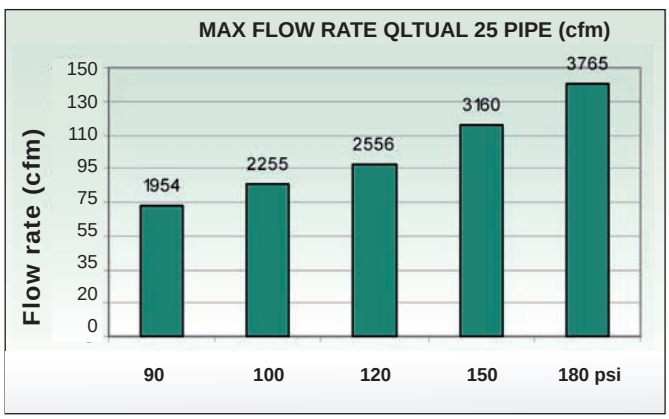
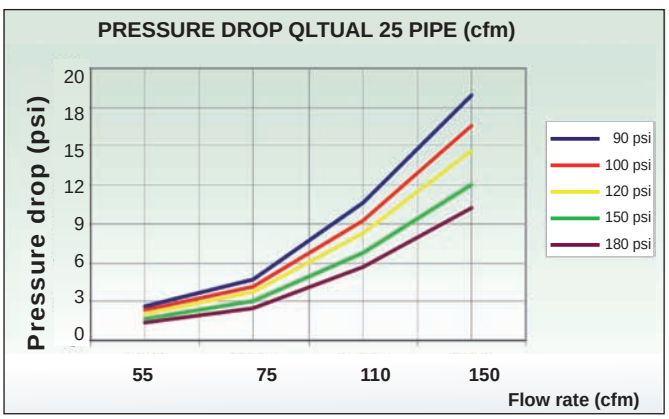


- Table 2b

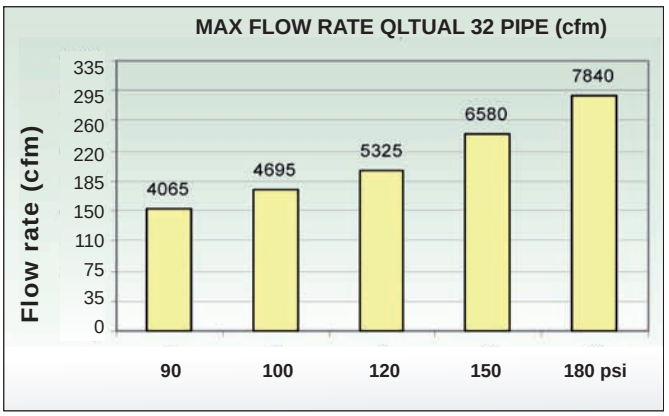


- Table 3a

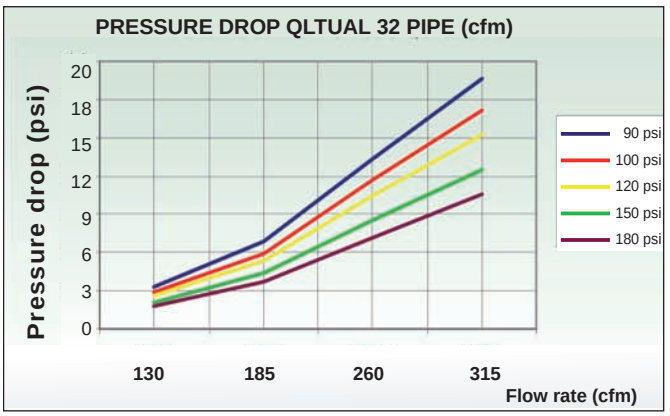


- Table 3b

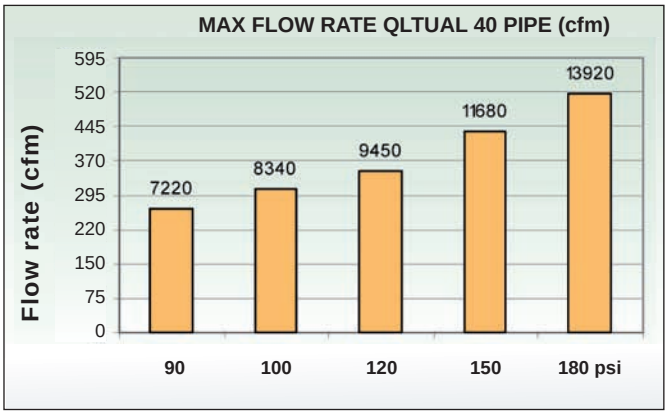
PIPE FLOW RATE TABLES



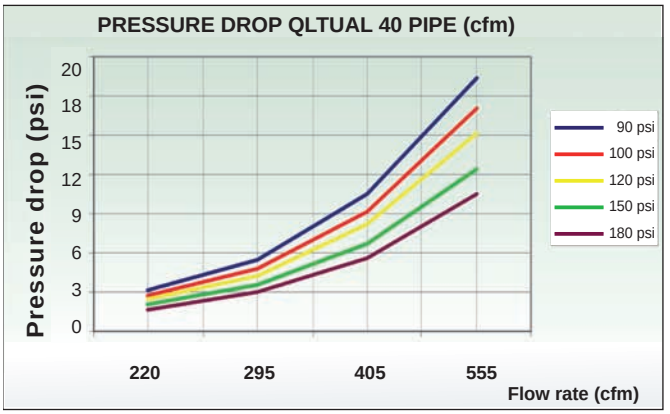
- Table 4a



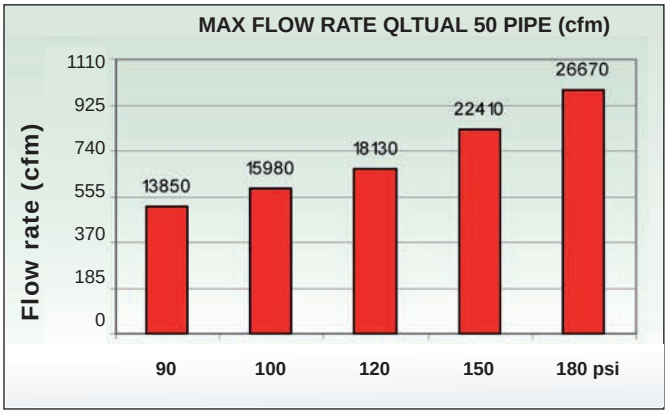
- Table 4b



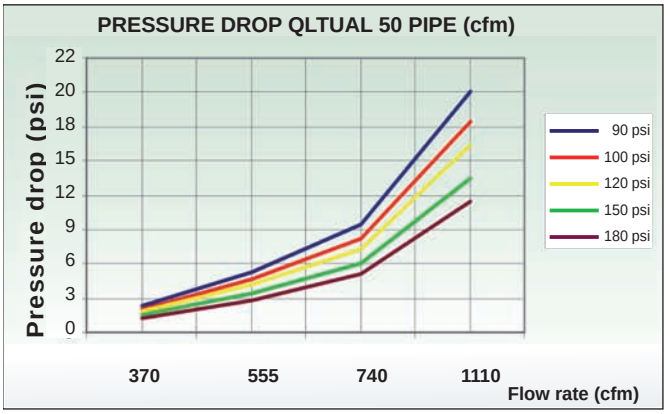
- Table 5a



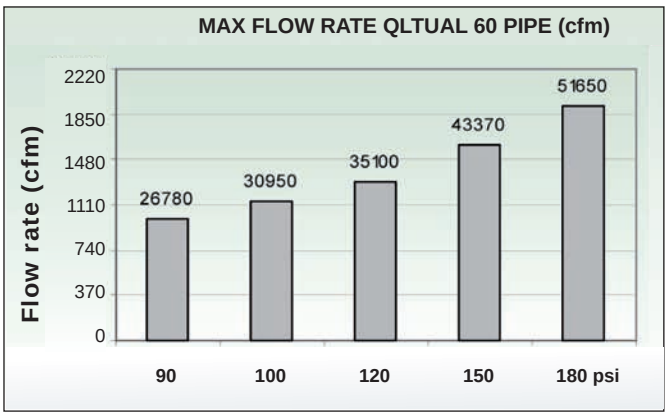
- Table 5b



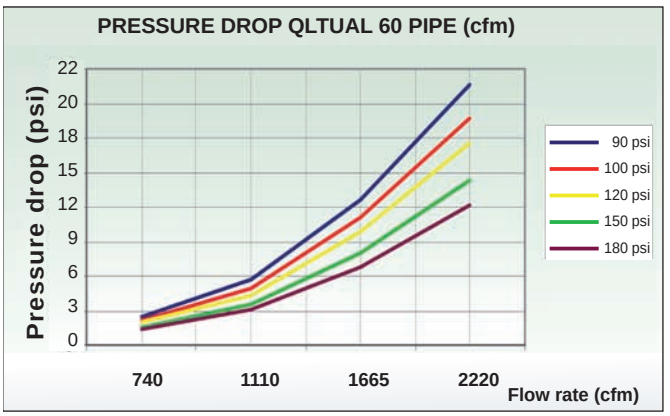
- Table 6a



- Table 6b

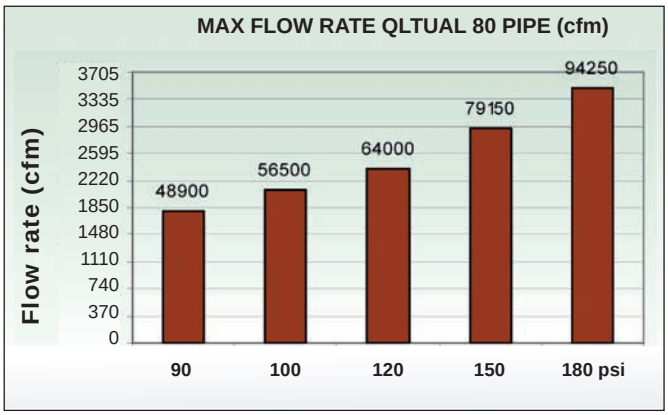


- Table 7a

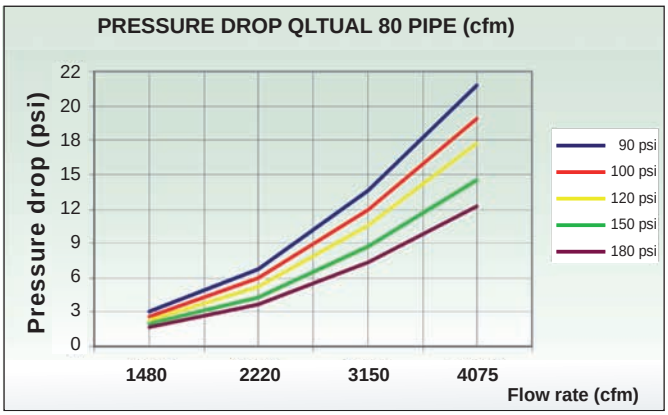


- Table 7b

PIPE FLOW RATE TABLES



- Table 8a



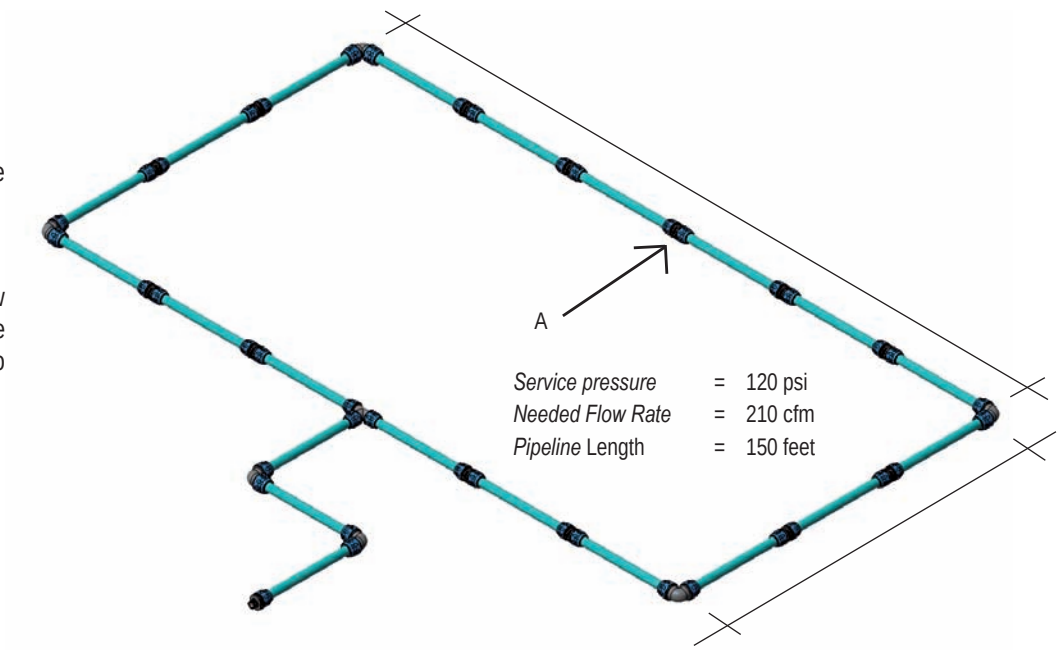
- Table 8b

Ring dimensioning example and pressure drop calculation in a Quick Line worknet.

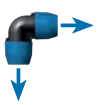
The most distant point, in the pipeline lay-out, from the compressor will be:

300/2 feet= 150 feet (point "A")

If we compare this value with the flow rate indicated in Table 5b (page xx) we shall obtain the pipe size we have to install (in this case 1.1/2").



To know the pressure loss at point "A" we have to calculate the **equivalent length** (Leq.):

Leq = 150 ' + ( 1 x 6) + ( 12 x 4) + ( 8 x1) + ( 3x1) = 215 '

IIf in table C we cross the flow rate of 210 cfm with the curve at 120 psi we get a pressure loss (Δp) of 0,18 bar.

$$2{,}6 \text{ psi} : 100\text{ '} = \Delta p : Leq$$

$$\Delta p = \frac{2{,}6 \text{ psi} \times 200\text{ '}}{100\text{ '}} = 5{,}2 \text{ psi}$$

The pressure loss is lower than 5%.

The value obtained for a 100 ' pipeline is around 2,2 psi; as our datum is 313 ', the pressure loss will be : $\Delta p = (313 \times 2{,}2) / 100\text{ '} = 6{,}9$ psi

In this calculation we did not consider pressure drops due to the possible presence of treatment groups : air drier, filters, etc.
These values may be found on the instructions manual of the machine or may be requested to the machine supplier.

MATERIALS AND REFERENCE STANDARDS

Purestream System	Material	Reference Standards
Pipe	Aluminium extrusion Alloy EN AW T6 UNI-EN 755-2 with inside and outside titanium-based, chrome-free and RoHS-complying treating and electrocoated outside surface	UNI-EN 755-2
Ring nuts up to dia. 50	Polyamide 6 Dia.16÷50	ISO 1043
Ring nuts larger than dia.50	Aluminium Alloy EN-AB 46100	UNI-EN 1676
Bodies up to dia. 50	Polyamide 6	ISO 1043
Bodies larger than dia.50	Aluminium Alloy EN-AB 46100	UNI-EN 1676
Push ring	Poliammyde 6	ISO 1043
Split ring	Stainless steel X10CrNi18-8	UNI-EN 10088
Gaskets	NBR 70 (Viton® on request)	ISO 1043
Aluminium bodies and joints	Aluminium Alloy EN-AW 2011	UNI-EN 755-2
Brass bodies and joints	Brass Alloy CW 617N	UNI-EN 12165
Threaded inserts	Polyamide 6	ISO 1043
Applique bodies	Polyamide 6	ISO 1043
Quick branch bodies	Polyamide 6	ISO 1043
Brackets	Polypropylene	ISO 1043
M8 screw-bolts	Galvanized steel	UNI-EN-ISO 4032
Spacers	Polypropylene	ISO 1043
Bracket systems	Galvanized steel	-

IMPORTANT NOTES:

80 mm ALUMINUM FITTINGS PRESSURE AND TEMPERATURE RATINGS: 174 psig @ 80 °C (176°F) maximum and 10°C (14 °F) minimum

20 mm – 63 mm ALUMINUM FITTINGS PRESSURE AND TEMPERATURE RATINGS: 232 psig @ 80 °C (176°F) maximum and - 10°C (14 °F) minimum

20 mm – 63 mm PLASTIC FITTINGS PRESSURE AND TEMPERATURE RATINGS: contact CAG Purification for scope of supply pressure ratings

ALUMINIUM PIPE - ALUMINIUM ALLOY EN AW 6060

CHEMICAL COMPOSITION

Si	Fe	Cu	Mn	Mg	Cr	Zn	Others	Al
0,30 ÷ 0,60	0,10 ÷ 0,30	0,10 max	0,10 max	0,35 ÷ 0,60	0,05 max	0,15 max	0,15 max	Rest

PHISICAL AND MECHANICAL CHARACTERISTICS

Characteristic	Value	Note
Treatment	T6	-
Density	2,7 Kg/dm³	-
Elastic Modulus	69 KN/mm²	-
Thermal Expansion	23 µm/m/°F	between 20°F and 100°F
Thermal Conductivity	200 W/(m·K)	at 20°F
Specific Warmth	880 ÷ 900 J/(Kg·K)	between 0°F and 100°F
Fusion Temperature	600 ÷ 660 °F	
Tensile Strength Rm	190 N/mm²	Minimum
Yield Strength Rp	150 N/mm²	Minimum
Elongation A %	8	Minimum
Elongation A (50mm) %	6	Minimum

CHEMICAL COMPATIBILITY

Aircom systems guarantee a very high resistance against corrosion in standard working areas. In the following table you will find chemical compatibilities of our products with some organic compound, solvents, gases, acids, salts, bases.

CHEMICAL AGENTS

MATERIALS present in Aircom systems

COMPATIBILITY WITH AIRCOM MATERIALS

	ALUMINIUM	NBR (O-ring)	VITON * (O-ring)	CANSAR (Inox)	PA (Poliammide)	PVC	QL PA6 fittings	ALUMINIUM pipe	PVC pipe	ALUMINIUM fittings	Accessories
ACETALDEHYDE	B	D	A	A	A	D	OK*	OK		OK*	OK
ACETIC ACID 20%	B	B	B	A	D	B		OK	OK	OK	
ACETONE	A	D	D	A	A	D		OK			
ACETYLENE	A	B	A	A	A	A	OK	OK	OK	OK	OK
AMMONIUM	B	A	D	A	A	B	OK	OK	OK	OK	OK
BENZENE	B	D	A	B	B	C	OK*	OK		OK*	OK
BORIC ACID	C	A	A	A	B	A			OK		
BURNT LIME	A	A	A	A	A	A	OK	OK	OK	OK	OK
BUTANOL	A	B	A	A	D	A	OK		OK		
BUTTER	A	A	A	A	A	A	OK	OK	OK	OK	OK
CARBON DIOXIDE	A	A	A	A	A	A	OK	OK	OK	OK	OK
CARBON MONOXIDE	A	A	A	A	A	A	OK	OK	OK	OK	OK
CAUSTIC SODA	C	B	A	A	B	A	OK		OK		OK
CHLOROFORM	B	D	A	A	A	A	OK*	OK	OK	OK*	OK
CITRIC ACID	C	A	A	A	A	A	OK		OK	OK	OK
CLHORIC ACID (20%)	D	D	D	D	D	A			OK		
DIESEL GAS	B	A	A	B	A	-	OK	OK		OK	
ETHANOL	A	A	A	B	B	A	OK	OK	OK	OK	OK
ETHYLENE GLYCOL	A	A	A	B	A	A	OK	OK	OK	OK	OK
FAT ACIDS	A	B	A	A	A	A	OK	OK	OK	OK	OK
FORMALDEHYDE 40%	B	B	A	A	A	A	OK	OK	OK	OK	OK
FUEL OIL	A	A	A	A	A	-	OK	OK	OK	OK	
GLUCOSE	A	A	A	A	A	A	OK	OK	OK	OK	OK
GLYCERINE	A	A	A	A	A	A	OK	OK	OK	OK	OK
HEPTAN	A	A	A	A	A	-	OK	OK		OK	OK
HYDROGEN (GAS)	A	A	A	A	A	A	OK	OK	OK	OK	OK
METHYL ALCOHOL	B	A	C	A	B	A	OK*	OK	OK	OK*	OK
MILK	A	A	A	A	A	A	OK	OK	OK	OK	OK
MINERAL OIL	A	A	A	A	A	-	OK	OK	OK	OK	
MOTOR OIL	A	A	A	A	A	-	OK	OK	OK	OK	
NATURAL GAS (METHANE)	A	A	A	A	A	A	OK	OK	OK	OK	OK
NITRIC ACID (20%)	C	D	A	B	D	A			OK		
NITROBENZENE	B	D	B	B	B	-		OK			
OLEIC ACID	A	B	B	A	B	A	OK	OK	OK	OK	OK
OXALIC ACID	A	C	A	A	B	A	OK*	OK	OK	OK*	OK
PETROL	B	A	A	A	A	A	OK	OK	OK	OK	OK
PHENOL	A	D	A	B	D	D		OK			
POTASSIUM PERMANGANATE	B	C	A	B	D	A			OK		
PROPYLENE GLYCOL	B	A	A	B	A	A	OK	OK	OK	OK	OK
SILICONE	A	A	A	A	A	A	OK	OK	OK	OK	OK
SUGAR	A	A	A	A	A	A	OK	OK	OK	OK	OK
SULPHURIC ACID	C	D	B	D	D	A			OK		
TANNIC ACID	C	A	A	A	C	A			OK		
TARTARIC ACID	B	A	A	B	B	A	OK	OK	OK	OK	OK
TOLUENE	A	D	C	B	B	D		OK			
UREA	B	B	A	B	A	A	OK	OK	OK	OK	OK
VASELINE	A	A	A	A	A	A	OK	OK	OK	OK	OK
VINEGAR	D	B	A	A	A	A	OK		OK	OK	OK
XYLENE	A	D	B	B	B	A	OK*	OK	OK	OK*	OK

Legend

Compatibility between chemical agents and materials — A = Optimum; B = Good; C = Modest; D = Poor; * VITON O- Ring

Compatibility with Aircom products — OK Compatible; NON Compatibile; Unavailable datum

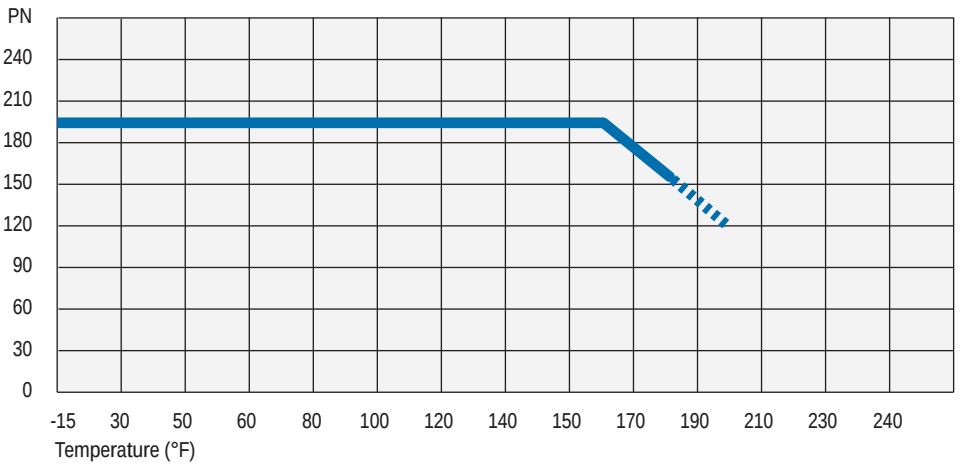
N:B: If you need further information on compatibilities, please contant AIRCOM technical office.

RATIO BETWEEN PRESSURE AND TEMPERATURE

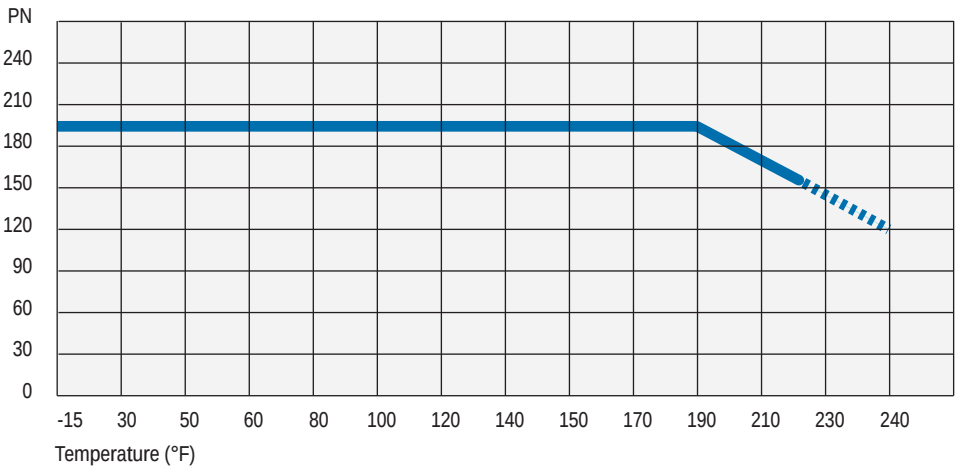
The indication Pn 188 means that AIRCOM Quick Line products may be used up to a maximum pressure of 188 psi.

If the temperature rises the nominal service pressure lowers according the curves showed in the following graphs:

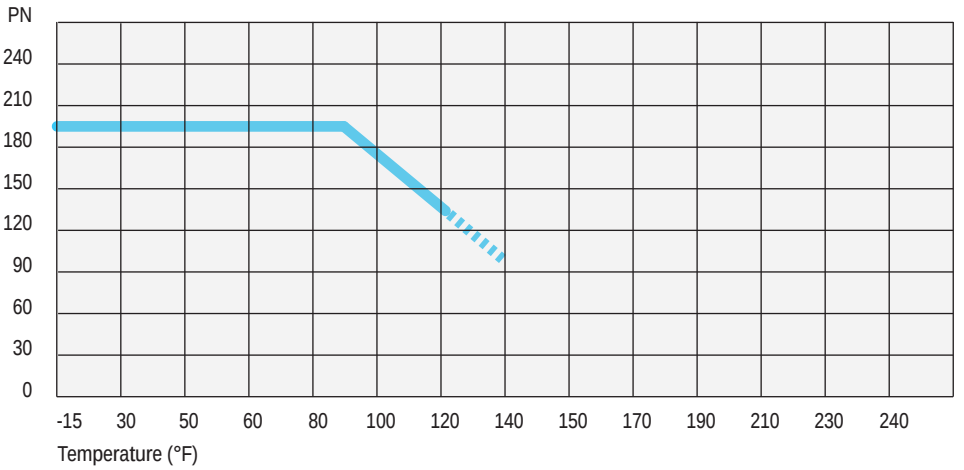
RATIO BETWEEN PRESSURE AND TEMPERATURE WITH ALUMINUM "QUICK" PIPE AND PA PURESTREAM FITTINGS



RATIO BETWEEN PRESSURE AND TEMPERATURE WITH ALUMINUM "QUICK" PIPE AND ALUMINIUM PURESTREAM FITTINGS



RATIO BETWEEN PRESSURE AND TEMPERATURE WITH "CLASSIC" PIPE



N.B.: (in graphs pressures are espressed in bars and temperatures in °F)

LINEAR THERMAL EXPANSION/CONTRACTION

All materials change their dimensions according to temperature variations; usually plastic materials are liable to higher variations than metals.

Considering the installation temperature as a reference:

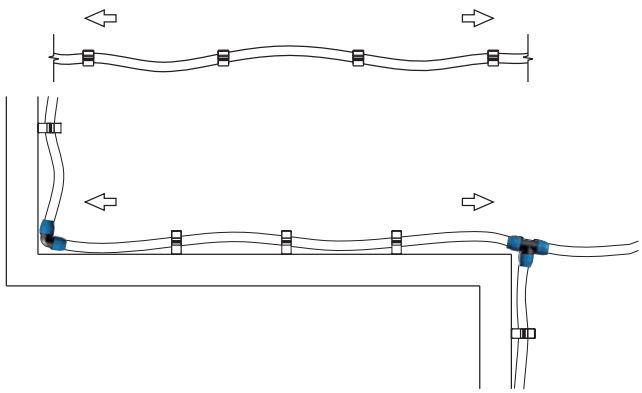
- they expand when temperature rises,
- they contract when temperature decrease.

The main general consequences of expansions and contractions are:

EXPANSION EFFECTS

Buckling of a pipeline segment included between two fixed points .

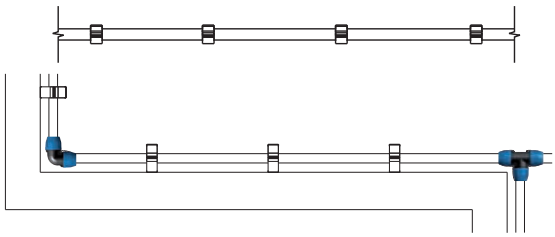
Compression of brackets, machines connections and/or other equipments which form fixed ponts with risk of stressing and breaking them.



NEUTRAL CONDITION

The are no visible bucklings due to expansion/contraction.

This condition mostly occurs during the installation, provided that the room temperature is not subject to excessive variations.



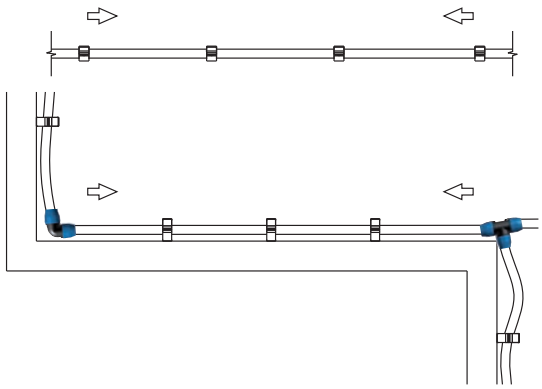
CONTRACTION EFFECTS

Pipelines traction of a segment included between two fixed points.

Traction of thebrackets, machines connections and /or other equipments which form fixed ponts with risk of stressing and breaking them.

In order to avoid that compression/traction effects may cause heavy damages to the plant (in addition to aesthetic defects), it is necessary to observe the following rules to allow free sliding of pipes and to compensate pipe's expansion/contraction:

- support and bracket the pipeline in order to allow pipeline free sliding between two fixed points;
- insert a compensator between two fixed points if they are positioned at a distance which may cause sensible contractions/expansions.



The measure of these variations is given by the linear expansion coefficient d

for PURESTREAM by Aircom with aluminum pipe this coefficient is 0,023 mm/m/°C
that means 0,023 inch per feet per °F degree

for PURESTREAM by Aircom with CLASSIC pipe this coefficient is 0,075 mm/m/°C
that means 0,023 inch per feet per °F degree

Please find hereunder the comparison between the linear thermal expansion/contractions coefficients for some materials of frequent use:

Steel	12,8 x 10^{-6} m/m °F
Copper	16,5 x 10^{-6} m/m °F
Aluminum (Alloys)	23 x 10^{-6} m/m °F
uPVC CLASSIC - FREEZE	75 x 10^{-6} m/m °F
ABS	101 x 10^{-6} m/m °F
PVDF	120 x 10^{-6} m/m °F
PP	150 x 10^{-6} m/m °F
PE	200 x 10^{-6} m/m °F

The design and execution of a plant must consider this phenomenon which is calculated through the following formula:

$\Delta L = d \times L \times \Delta T$

where: d = linear expansion coefficient

L = pipeline length

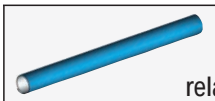
ΔT = temperature difference in °F degrees

ΔL = length difference (expansion or contraction)

Example: installation temperature 50 °F; pipeline length 65 '; service temperature 95°F

$\Delta T = 95 - 18 = 77$ °F

$\Delta L = 0{,}023 \times 20 \times 25 = 0{,}45$ in



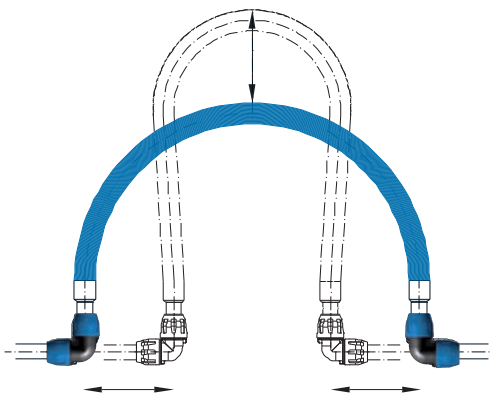
QLTUAL (PURESTREAM by Aircom Aluminium PIpe)
CONTRACTION/EXPANSION "ΔL"
relating to pipeline length "L" and to temperature difference"ΔT"

L (ft)	ΔT=50°F	ΔT=59°F	ΔT=68°F	ΔT=77°F	ΔT=86°F	ΔT=95°F	ΔT=104°F
	ΔL (in)	ΔL (in)	ΔL (in)	ΔL (in)	ΔL (in)	ΔL (in)	ΔL (in)
100	0,272	0,407	0,543	0,679	0,815	1,344	1,087
135	0,362	0,543	0,724	0,906	1,087	1,268	1,449
150	0,453	0,679	0,906	1,132	1,358	1,585	1,811
180	0,543	0,815	1,087	1,358	1,630	1,902	2,173
210	0,634	0,951	1,268	1,585	1,902	2,219	2,535
240	0,724	1,087	1,449	1,811	2,173	2,535	2,898
270	0,815	1,222	1,630	2,037	2,445	2,852	3,260
300	0,906	1,358	1,811	2,264	2,717	3,169	3,622

EXPANSION/CONTRACTION COMPENSATION

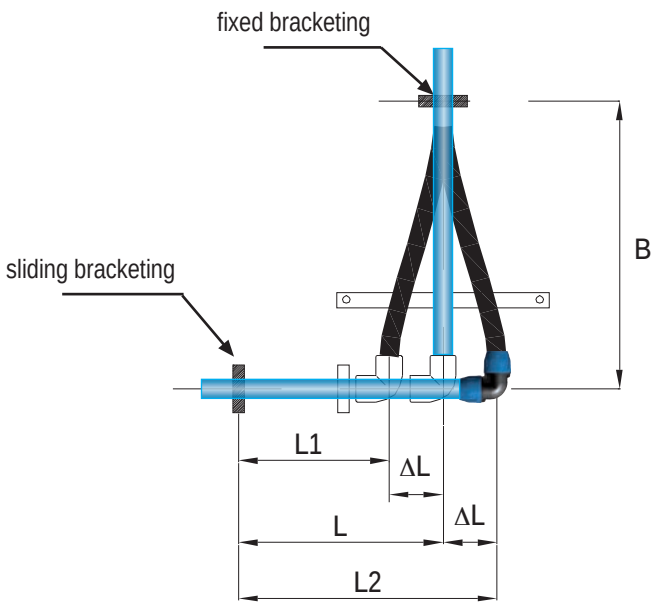
Among the most efficient compensation methods we suggest you the "LIRA" (lyre) (or OMEGA) or "DIRECTION CHANGE".

Lira and Direction Change are obtained with elbows and pipes; as they are perfectly homogeneous with the plant, of easy installation and economic, we think they represent the best remedy to expansions/contractions if the are no obstacles to their use.



LIRA

Diameter (mm - in)	Hose length (ft)
20 - 3/4”	4
25 - 1”	4,8”
32 - 1.1/4”	5,4”
40 - 1.1/2”	6
50 - 2”	6,8”
63 - 2.1/2”	8



DIRECTION CHANGE

L: piepeline length at the installation

L1: length with minimum temperature

L2: length with maximum temperature

ΔL: length difference due to ΔT

B: length of the arms of the Lira or of the direction change

BRACKETING METHOD

Special attention has to be paid in choosing pipe brackets.

They have to meet some requirements:

1. they have to anchor the pipeline to the holding structure steadily;
2. they must not, in any way ,scratch or damage the pipe;
3. they must leave sufficient space between the pipeline and the wall or other obstacles to allow confortable maintenance or other operations ;
4. the must hold the pipeline perfectly straight and support the pipeline itself and all sliding accessories weight.

Great attention has to be paid in bracketing of heavy accessories and valves; their anchoring has to be independent from the pipe one as they are subject to operation stresses and must allow assembly and disassembly.

Bracketing and fixing of pipelines ends (caps, appliques, descents) have to be executed accurately to prevent damages in case of explosion.

BRACKETS SPACING

Brackets spacing follows standard tables executed according to pipe diameter and temperature and weight of the transported fluid.

Diameter	Spacing in feet (ft) related to the maximum temperature difference "ΔT"		
mm - inches	ΔT< 68 °F	ΔT 86 °F	ΔT 104 °F
16 - 1/2"	7	7	5
20 - 3/4"	8	7	5
25 - 1"	10	8	7
32 - 1.1/4"	12	10	8
40 - 1.1/2"	14	12	10
50 - 2"	14	12	10
63 - 2.1/2"	14	12	10

Spacing expressed in meters with reference to maximum temperature Δ

Brackets are positioned avoiding any contact with fittings or other accessories liable to block the sliding of the pipe.

In case of horizontal or vertical pipeline installation at a height from 0 up to 10 inches from the ground it's advisable to double the bracket quantity so to fix better the pipeline to the structure.

SAFETY INSTRUCTIONS

AIRCOM system has been designed to carry fluids under pressure.

The installer has to follow safe working procedures and to observe all requirements and local standards concerning working safety.

Installation, operation, maintenance and repairs have to be done by authorized, qualified and specialized personnel following what stated by standards and laws.

Before carrying out any maintenance, repair, adjustment or non-routine control operation, depressurize the system and isolate it accurately from any pressure source.

Do not use any component in a different manner from what stated by the producer.

AIRCOM pipes and fittings are not suitable for buried or embedded plants.

Do not use AIRCOM system as a support for electrical equipments or as a conductor in grounding third machineries or equipments.

Use correct tools only.

Use original spare parts only.

Plastics fittings are sensitive to UV: in case provide an adeguate protection. The aluminium pipes offer a full UV resistance.

Never bend or weld the pipes.

Aircom pipelines must be protected from hard impacts.

Before connecting , pipes must be free the of end protection caps.

Avoid solvents or chemical agents that should damage the pipeline components.

Check AIRCOM pipes surface before the installation (they have to show no scratches, abrasions or dents).

Never connect AIRCOM pipes to a vibrations source; if necessary, use hoses.

Before operating a system the technician has to verify its complying with all tests, controls and standards which apply to compressed air plants.

At the initial starting, submit the system to a test pressure of 20 PSI to check possible leakages or defective joints. After the inspection, increase the pressure gradually and constantly (max. 15 PSI every 30 seconds).

The pipeline has to be grounded. Where polymer fittings are used it is necessary to connect pipe bars with a copper plait of suitable section using a couple of collar terminals for each pipe bar.

10 YEARS AIRCOM WARANTY

Following the high quality performances of AIRCOM products, we offer our customers a 10 years' warranty against possible damages due to faulty materials of aluminium pipes or AIRCOM fittings.

Guarantee terms and conditions

- Use original parts and spare parts only.
- Execute the installation following the instructions and guide lines supplied in this catalogue
- A test certificate must be done after first plant test
- Do no use components beyond their service limits.
- Protect the plant from shocks, vibrations or corrosive situations.
- Before forwarding any complaint, check the damaged parts and/or the site conditions.
- AIRCOM guarantee is limited to the component replacement only.
- Complaints are to be shipped to AIRCOM, Novi Ligure (AL), following the standard procedure.

PLANT TEST

All AIRCOM Quick Line System items are produced observing the U.S. standards ; they are tested and controlled during the whole production phases and at end of them.

All products are guaranteed if used as indicated and only within the limits foreseen by the present technical catalogue and they fulfil the RES (Safety Essential Requirements) according to what stated by the directive 97/23/CE PED.

During the installation and at its end it's advisable anyway to make specific checks and a final test.

1. Inspection

After the assembling it's advisable to check the presence of anomalies, shocks, cuts and abrasions, to inspect that the bracketing and the execution of the plant are in accordance with the project. In case of anomalies it is necessary to replace immediately defective parts or parts different from the design.

Check that all supporting brackets are installed correctly. Check that a discharge valve has been installed and that it is working. Close all discharge points. Check the maximum service pressure of any component (valves, reducers, filters, balancers, etc.)

2. Pressurisation of the system

It's absolutely necessary that the whole working area is clear before pressurization of the plant.

The hydraulic pressure test (with water) can be carried at 300 PSI; in one hour the pressure loss can achieve 6% max. due to adjustment no leakages should appear and the test can be considered positively settled after two hours.

The "pneumatic" test is to be carried out with air at a pressure level between of 1,2 and 1,5 times max. service pressure, foreseen or according to design. Any components with test pressure lower than the stated one (valves, reducers, filters, balancers, etc.) are to be cut off by means of suitable segmentings. They will also reduce the reduction of the test pressure.

3. Analisys of the pressure loss (pnumatic test)

After twenty minutes form the first setting in pressure it's advisable to restore the test pressure in the plant in order to balance any adjustment, 6% approx., and the air cooling, 5% approx.
The test can be considered passed if no leakages showed after two hours, excluding any variation due to thermal exchanges.

It's advisable to carry out the pneumatic tests keeping in mind the following points:

a. The test fluid can't be any flammable or toxic gas.

b. Before reaching the foreseen test pressure, make a preliminary test up to 20 PSI so to check any losses and/or incomplete or imperfect connections in advance.

c. After all checkings and adjustments, keep the pressure at 20 PSI waiting 5 minutes at least before the following raise.

We suggest always to raise the pressure gradually and constantly (15 PSI every 4-6 seconds) up to the reaching of the foreseen pressure.

ENERGY SAVING AND EFFICIENTY IN INDUSTRY

In recent decades "energy management" has taken on an increasing importance in industry.

This expression refers to a variety of mechanisms and economic, managerial, strategic, bureaucratic assessments that are nowadays required in any kind of industry using energy.

On one hand, fossil fuel prices are rising significantly, pushing up electric energy costs, which represent a consistent amount of the company costs, while on the other side recent legislation on environmental protection impose limits) in emissions from power plants(and the trend is towards an increase of these limitations.

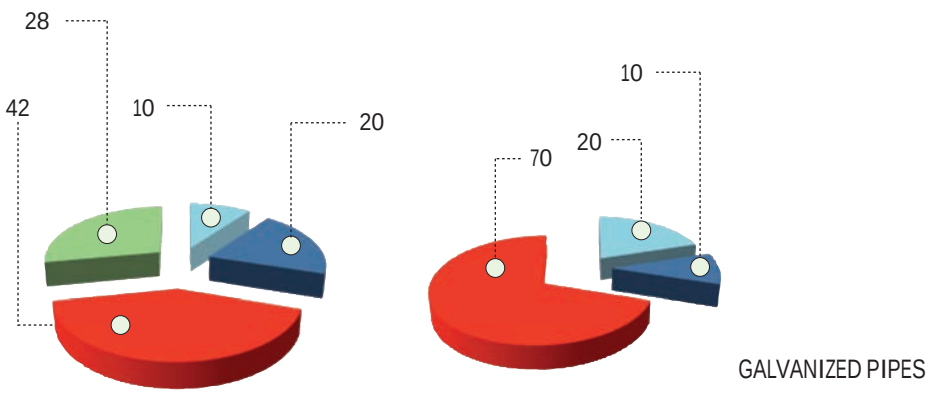
In this context, those company found themselves between the requirement of production, increase and the reduction of energy costs incompliance with the environment protection requirements.

Aircom has recently launched a project intended to achieve appreciable energy savings achievable through the proper sizing and a targeted use of materials in installations for the transport and distribution of compressed air, both of new construction or existing,thorugh a detailed analysis of production cycle and energy use.

Aircom makes available to designers, users and maintainers, design / monitoring / control tools aimed to determine, in a quick and unambiguous manner, the real value of energy needs, in relation to the real amount of compressed air actually needed by users (mc / h) in relation with components changes or, on the same basis, the verify of existing plant performances.

Based on the results of research it's also possible the realization of improved geometric shapes, the use of different materials, both for individual components, and for the whole construction. These actions could reduce significantly the costs of energy.

The margins of energy saving appear, even in a first approximation, so broad as to be not only marginally beneficial, but so consistent to grant, in a few years, investments pay-back.



AIRCOM PIPES

GALVANIZED PIPES

GLOBAL COSTS SAVINGS - 30%

GLOBAL COSTS SAVINGS

energy cost

initial pipelines investment

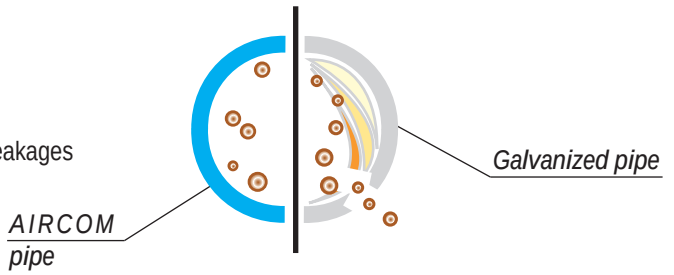
assembly and brackets installation labour

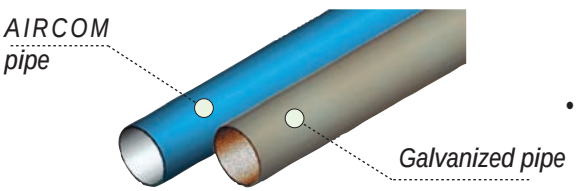
ENERGY SAVINGS ANALYSIS IN COMPRESSED AIR DISTRIBUTION

Compressed air plants are present in many different industrial sectors (whole industry, handcrafts, agriculture, etc..) where the fluid is used as a driving force to operate equipments, machinery, tools and accessories.

The optimum distribution of pneumatic energy should reach following targets:

- maintain pressure (minimum pressure drops due to narrowing in the pipe)
- reduction / elimination of leakages





- grant the best air quality (lack of rust, dust, water, oil, etc...).

The factors that affect the overall performance of the system (from beginning to final use) belong basically to 2 categories: pressure drops and loss of air (concentrated and distributed) on which our attention should be focused.

Pressure drops are mainly due to wrong layout and sizing of the distribution network and of accessories, compared to the changes in demand and production of pneumatic energy.

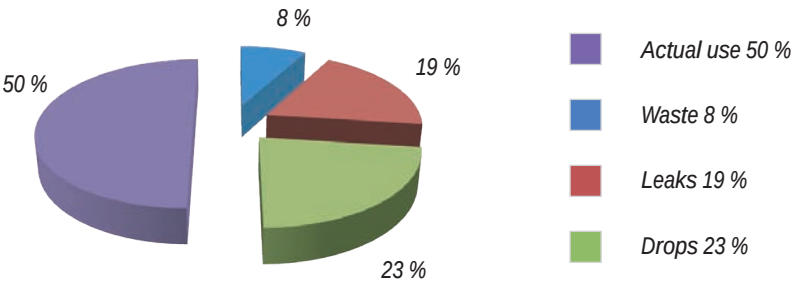
Differentiated levels of pressure and air treatment play both a significant role in the delivery of a certain volume of air.

The losses due to leakage should be identified and surveyed.

The analysis of the amount of pneumatic energy produced,and necessary for correct functioning of factory utilities, and measurement of pressure changes in the network will give us the opportunity to check its size, knowing wasteful and justify interventions programs.

80% of existing distribution networks of compressed air cause wastage of up to 50% of the used energy.

DIVISION COSTS OF COMPRESSED AIR PRODUCED IN A TRADITIONAL PLANT



APPENDIX B

PURESTREAM SYSTEM TECHNICAL SCHEDULE

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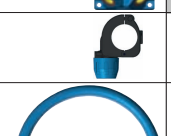
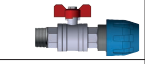
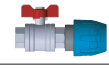
(E. and O. E.)

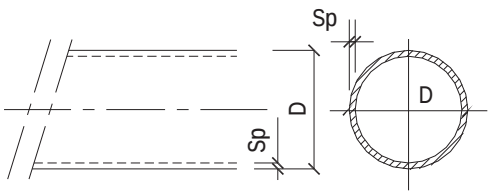
	Code	Description	16 mm 1/2"	20 mm 3/4"	25 mm 1"	32 mm 1.1/4"	40 mm 1.1/2"	50 mm 2"	63 mm 2.1/2"	80 mm 3.1/4"	Page
Aluminum Pipes • *PURESTREAM System*	QLTUAL	Aluminum pipe									5
	QLTUALG	Green Aluminum pipe									5
	QLSCI	Double Bend									5
Fittings diam 16 ÷ 63 mm • *PURESTREAM System*	QLMAPA QLMASPA	Coupling Sliding Coupling									7
	QLGO90PA	90° Elbow									7
	QLGO45PA	45° Elbow									8
	QLTEPA	90° Tee									8
	QLCAPA	End Cap									9
	QLTPPA	90° threaded Tee		1/2"	1/2"						9
	QLTRPA	Reducing Tee		1/2"	1/2" 3/4"	3/4" 1"	3/4" 1" 1.1/4"	1.1/4" 1.1/2"	1.1/2"		10
	QLRIDPA	Reduction			3/4"	1"	1.1/4"	1.1/2"			10
	QLMNPA	Nipple Socket	1/2"	1/2" 3/4"	1/2" 3/4" 1"	1" 1.1/4"	1" 1.1/4" 1.1/2"	1.1/2" 2"	2"		11
	QLMNM	Nipple Socket - Aluminum body		1/2" 3/4"	1"	1.1/4"	1.1/2"	2"			12
	QLMPM	Female Nipple Socket - Aluminum body		1/2" 3/4"	1"	1.1/4"	1.1/2"	2"			12
Aluminum Fittings diam 63 - 80 mm • *PURESTREAM System*	QLMAAL QLMASAL	Coupling Sliding Coupling									13
	QLGO90AL	90° Elbow									13
	QLTEAL	90° Tee									13
	QLCAAL	End Cap									13
	QLTPAL	90°Tee threaded f							2"	2.1/2"	14
	QLMNMAL	Nipple Socket - Aluminum body							2.1/2"	2.1/2" 3"	14
	QLMPMAL	Female Nipple Socket - Aluminum body							2.1/2"		14

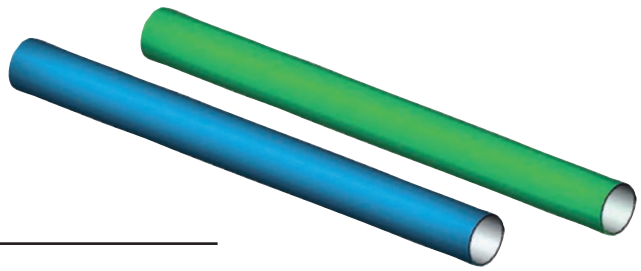
	Code	Description	16 mm 1/2"	20 mm 3/4"	25 mm 1"	32 mm 1.1/4"	40 mm 1.1/2"	50 mm 2"	63 mm 2.1/2"	80 mm 3.1/4"	Page
PURESTREAM Accessories	QLAPM	Wall mount manifold single port, F thread 									15
	QLAPMVA	Female Single port wall plate manifold with ball valve QL 									15
	QLAPL	Wall plate manifold, F thread 									16
	QLAPLVA	Wall plate manifold with ball valve 									16
	QLDERPA	Quick branch plug 			1/2" 3/4"	1/2" 3/4"	1/2" 3/4" 1"	1/2" 3/4" 1"	3/4" 1" 1.1/4"	3/4" 1" 1.1/4"	17
	QLFLEX	Flexible expansion hose 									18
	QLPUNM	Male threaded PURESTREAM spigot		1/2" 3/4"	1"	1.1/4"	1.1/2"		2"	3"	18
	QLVAVIP	Pneumatic single action Valve • 									19
	QLVAM	PURESTREAM male threaded connection ball valve 	1/2"	1/2" 3/4"	3/4"						19
	QLVAF	PURESTREAM female threaded connection ball valve 	1/2"	1/2" 3/4"	3/4"						19
	QLCLE	Wrench for Aircom fittings 									20
	QLMIS	Pipe insertion meter 									20

PURESTREAM SYSTEM TECHNICAL SCHEDULE

Aluminum Pipes

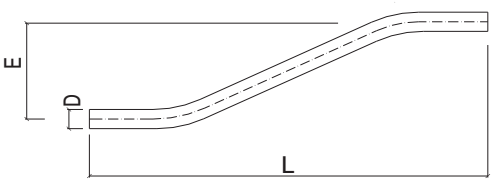
QLTUAL	Aluminum pipe			
Code	Oz	D	bar length	sp
QLTUAL3016	3,6	1/2”	118,1	0,04
QLTUAL3020	7,1	3/4”	118,1	0,05
QLTUAL6020	7,1	3/4”	236,2	0,05
QLTUAL3025	9,6	1”	118,1	0,06
QLTUAL6025	9,6	1”	236,2	0,06
QLTUAL3032	14,2	1.1/4”	118,1	0,06
QLTUAL6032	14,2	1.1/4”	236,2	0,06
QLTUAL3040	20,7	1.1/2”	118,1	0,07
QLTUAL6040	20,7	1.1/2”	236,2	0,07
QLTUAL6050	28,9	2”	236,2	0,08
QLTUAL6063	36,6	2.1/2”	236,2	0,08
QLTUAL6080	55,8	3.1/4”	236,2	0,09



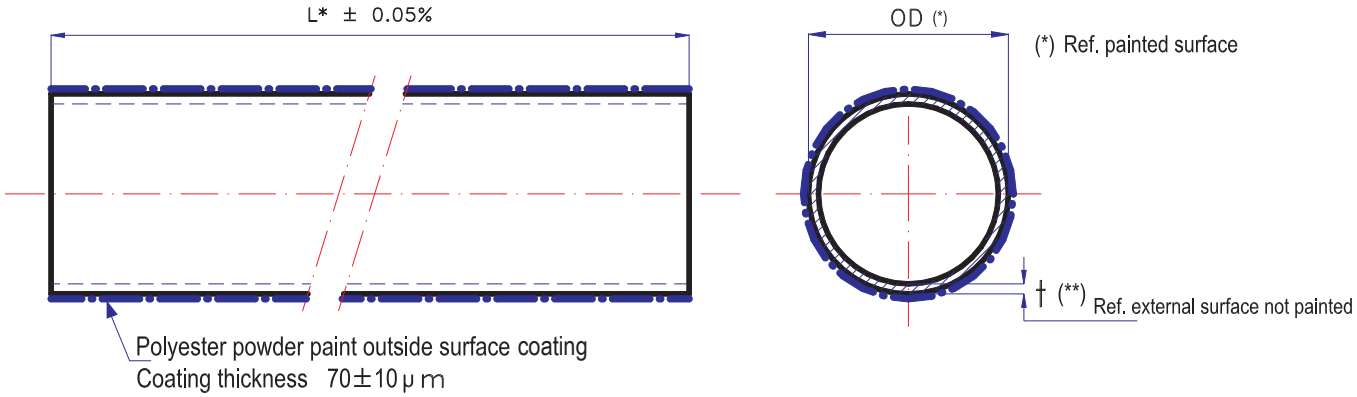


QLTUALG	Green Aluminum pipe			
Code	Oz	D	bar length	sp
QLTUALG6020	7,1	3/4”	236,2	0,06
QLTUALG6025	9,6	1”	236,2	0,06
QLTUALG6040	20,7	1.1/2”	236,2	0,08

QLSCI	Double Bend			
Code	Oz	D	L	E
QLSCI016	70	1/2”		
QLSCI020	100	3/4”	1,69	0,59
QLSCI025	130	1”	1,85	0,71



Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

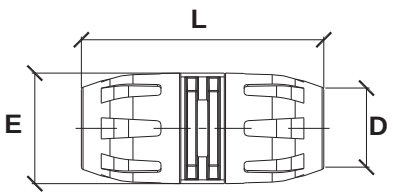


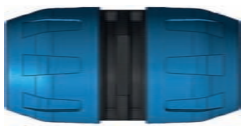
	DIMENSIONS (mm)					DIMENSIONS (in)					
CODE	OD Outside Diameter	Outside Diameter Tollerance	Ovality	t thickness	thickness tollerance	OD Outside Diameter	Outside Diameter Tollerance	Ovality	t thickness	thickness tollerance	Q.ty / Pack
AIRTUAL016	16	±0.1	0.2	1.00	±0.1	0.629	±0.0039	0.008	0.039	±0.0039	
AIRTUAL020	20	+0.1 +0.3	0.3	1.30	+0.1 -0.2	0.787	+0.004 +0.012	0.008	0.051	+0.0039 -0.0078	10
AIRTUAL025	25	+0.1 +0.3	0.3	1.40	+0.1 -0.2	0.984	+0.004 +0.012	0.008	0.059	+0.0039 -0.0078	10
AIRTUAL032	32	+0.1 +0.3	0.3	1.50	+0.2 -0.1	1.259	+0.004 +0.012	0.008	0.059	+0.0078 -0.0039	5
AIRTUAL040	40	+0.1 +0.35	0.3	1.80	±0.2	1.574	+0.004 -0	0.008	0.070	±0.0078	5
AIRTUAL050	50	+0.1 +0.5	0.4	2.00	±0.2	1.574	+0.004 +0.012	0.012	0.078	±0.0078	4
AIRTUAL063	63	+0.1 +0.5	0.4	2.00	±0.2	2.480	+0.004 0.016	0.012	0.078	±0.0078	3
AIRTUAL080	80	+0.1 +0.5	0.5	2.40	±0.2	3.140	+0.004 0.016	0.012	0.078	±0.0078	3
AIRTUAL110	110	+0.1 +0.5	0.5	2.50	±0.2	4.330	+0.004 0.016	0.012	0.078	±0.0078	2

Max. Operating Pressure
13 Bar, From -10°C To +90°C
Inside Pressure Test
55 Bar For 1 Hour At +20°C
Material
Aluminum Extrusion Alloy EN AW T6 UNI-EN 755-2 With Inside And Outside Titanium-Based, Chrome-Free And Rohs-Complying Treating And Electrocoated Outside Surface
Colour
Blue RAL 5012 – Green Similar To RAL 6032
Manufacturing Process
Seamless Extrusion Process

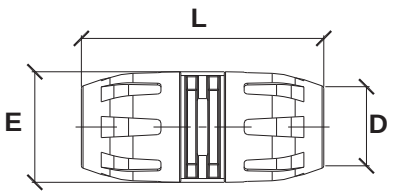
PURESTREAM Fittings diam 16 ÷ 63 mm

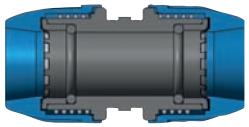
QLMAPA	Coupling				
Code	Oz	D	L	E	C
QLMAPA016	1,8	1/2"	3,2	1,5	1,5
QLMAPA020	3,2	3/4"	3,9	1,8	1,9
QLMAPA025	4,7	1"	4,2	2,0	2,0
QLMAPA032	7,5	1.1/4"	4,9	2,4	2,4
QLMAPA040	12,3	1.1/2"	5,6	3,0	2,8
QLMAPA050	17,8	2"	6,3	3,4	3,1
QLMAPA063	20,1	2.1/2"	6,7	4,3	3,2





QLMASPA	Sliding Coupling				
Code	Oz	D	L	E	
QLMASPA016	1,8	1/2"	3,2	1,5	
QLMASPA020	3,2	3/4"	3,9	1,8	
QLMASPA025	4,7	1"	4,2	2,0	
QLMASPA032	7,5	1.1/4"	4,9	2,4	
QLMASPA040	12,3	1.1/2"	5,6	3,0	
QLMASPA050	17,8	2"	6,3	3,4	
QLMASPA063	20,1	2.1/2"	6,7	4,3	



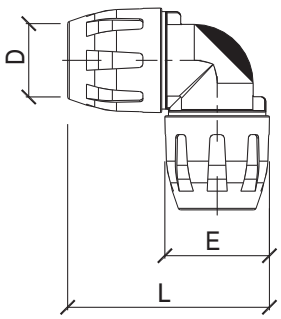


Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Fittings diam 16 ÷ 63 mm

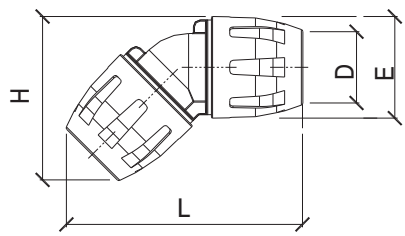
QLGO90PA — 90° Elbow

Code	Oz	D	L	E	C
QLGO90PA016	2,5	1/2"	2,8	1,5	1,5
QLGO90PA020	3,5	3/4"	3,4	1,8	1,9
QLGO90PA025	4,9	1"	3,7	2,0	2,0
QLGO90PA032	8,5	1.1/4"	4,8	2,4	2,4
QLGO90PA040	13,8	1.1/2"	5,1	3,0	2,8
QLGO90PA050	20,5	2"	6,0	3,4	3,1
QLGO90PA063	28,2	2.1/2"	6,5	4,3	3,2



QLGO45PA — 45° Elbow

Code	Oz	D	L	H	E	C
QLGO45PA020	3,5	3/4"	4,1	2,8	1,8	1,9
QLGO45PA025	5,1	1"	4,5	3,2	2,0	2,0
QLGO45PA032	8,3	1.1/4"	5,4	3,8	2,4	2,4
QLGO45PA040	13,2	1.1/2"	6,3	4,5	3,0	2,8
QLGO45PA050	19,0	2"	7,3	5,3	3,4	3,1
QLGO45PA063	27,2	2.1/2"	8,3	5,5	4,3	3,2

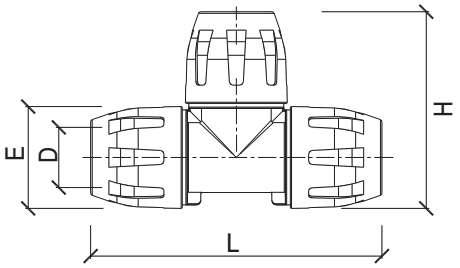


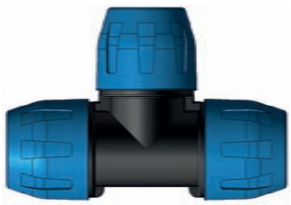
Legenda

C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

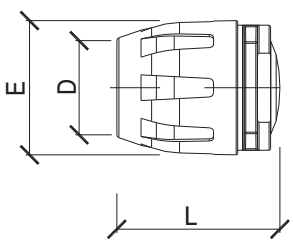
PURESTREAM Fittings diam 16 ÷ 63 mm

QLTEPA	90° Tee					
Code	Oz	D	L	E	H	C
QLTEPA016	3,2	1/2"	4,3	1,5	2,9	1,5
QLTEPA020	5,6	3/4"	5,0	1,8	3,4	1,9
QLTEPA025	7,4	1"	5,5	2,0	3,7	2,0
QLTEPA032	12,7	1.1/4"	6,7	2,4	4,8	2,4
QLTEPA040	19,9	1.1/2"	7,3	3,0	5,1	2,8
QLTEPA050	30,0	2"	8,5	3,4	6,0	3,1
QLTEPA063	42,3	2.1/2"	9,3	4,3	7,1	3,2





QLCAPA	End Cap				
Code	Oz	D	L	E	C
QLCAPA016	1,1	1/2"	2,0	1,5	1,5
QLCAPA020	2,0	3/4"	2,1	1,8	1,9
QLCAPA025	2,6	1"	2,4	2,0	2,0
QLCAPA032	4,4	1.1/4"	2,8	2,4	2,4
QLCAPA040	7,1	1.1/2"	3,1	3,0	2,8
QLCAPA050	10,5	2"	3,3	3,4	3,1
QLCAPA063	12,3	2.1/2"	3,5	4,3	3,2



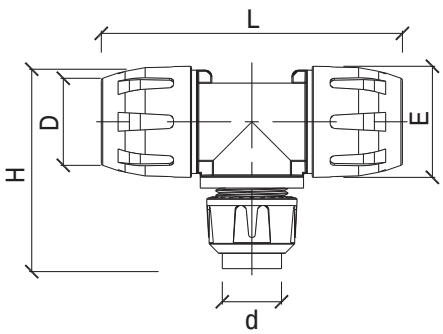
Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

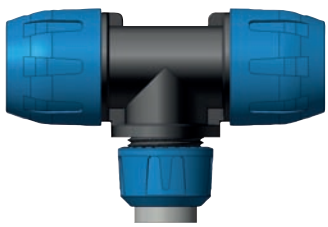
PURESTREAM Fittings diam 16 ÷ 63 mm

QLTPPA — 90° threaded Tee

Code**	Oz	D	d	L	E	H	C
QLTPPA020048	5,6	3/4"	1/2"	5,0	1,8	3,0	1,9
QLTPPA025048	7,4	1"	1/2"	5,5	2,0	3,1	2,0

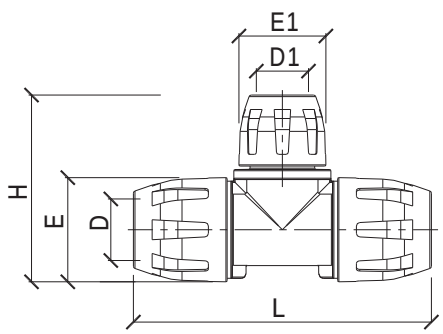
***NPT thread available*

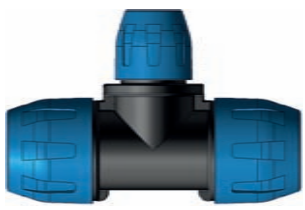




QLTRPA — Reducing Tee

Code	Oz	D	D1	L	E	E1	H	C	C1
QLTRPA020016	5,3	3/4"	1/2"	5,0	1,8	1,5	3,1	1,9	1,5
QLTRPA025016	7,1	1"	1/2"	5,5	2,0	1,8	3,5	2,0	1,5
QLTRPA025020	7,4	1"	3/4"	5,5	2,0	1,5	3,9	2,0	1,9
QLTRPA032020	12,0	1.1/4"	3/4"	6,7	2,4	1,8	4,4	2,4	1,9
QLTRPA032025	12,0	1.1/4"	1"	6,7	2,4	2,0	4,4	2,4	2,0
QLTRPA040025	18,0	1.1/2"	1"	7,3	3,0	2,0	5,0	2,8	2,0
QLTRPA040032	19,0	1.1/2"	1.1/4"	7,3	3,0	2,4	5,2	2,8	2,4
QLTRPA050032	26,8	2"	1.1/4"	8,5	3,4	2,4	5,8	3,1	2,4
QLTRPA050040	28,9	2"	1.1/2"	8,5	3,4	3,0	5,9	3,1	2,8
QLTRPA063040	39,5	2.1/2"	1.1/2"	9,3	4,3	3,0	6,3	3,2	2,8





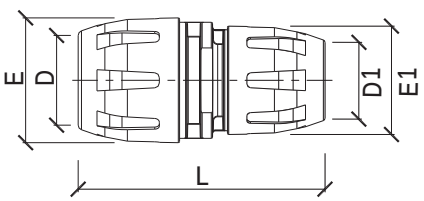
PURESTREAM SYSTEM TECHNICAL SCHEDULE

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Fittings diam 16 ÷ 63 mm

QLRIDPA — Reduction

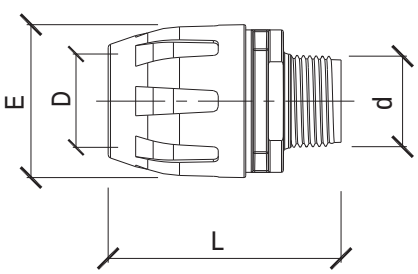
Code	Oz	D	D1	L	E	E1	C	C1
QLRIDPA025020	4,2	1"	3/4"	4,0	2,0	1,8	2,0	1,9
QLRIDPA032025	6,3	1.1/4"	1"	4,5	2,4	2,0	2,4	2,0
QLRIDPA040032	10,2	1.1/2"	1.1/4"	5,2	3,0	2,0	2,8	2,4
QLRIDPA050040	15,9	2"	1.1/2"	5,9	3,4	3,0	3,1	2,8



QLMNPA — Nipple socket

Code**	Oz	D	d	L	E	C
QLMNPA016048	1,1	1/2"	1/2"	2,5	1,5	1,5
QLMNPA020048	2,1	3/4"	1/2"	2,7	1,8	1,9
QLMNPA020068	2,1	3/4"	3/4"	2,7	1,8	1,9
QLMNPA025048	2,8	1"	1/2"	2,8	2,0	2,0
QLMNPA025068	2,8	1"	3/4"	2,9	2,0	2,0
QLMNPA025088	2,8	1"	1"	3,0	2,0	2,0
QLMNPA032088	4,2	1.1/4"	1"	3,3	2,4	2,4
QLMNPA032108	4,6	1.1/4"	1.1/4"	3,4	2,4	2,4
QLMNPA040088	7,1	1.1/2"	1"	3,8	3,0	2,8
QLMNPA040108	7,1	1.1/2"	1.1/4"	3,8	3,0	2,8
QLMNPA040128	7,1	1.1/2"	1.1/2"	3,9	3,0	2,8
QLMNPA050128	10,6	2"	1.1/2"	4,3	3,4	3,1
QLMNPA050168	10,2	2.1/2"	2"	4,4	3,4	3,1
QLMNPA063168	12,3	2.1/2"	2"	4,5	4,3	3,2

***NPT thread available*



Legenda

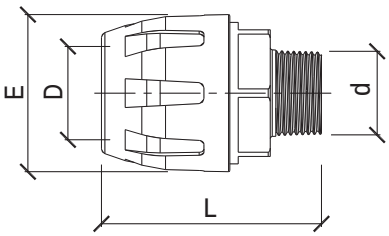
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

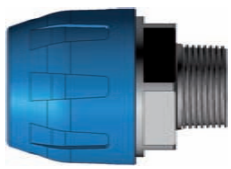
PURESTREAM Fittings diam 16 ÷ 63 mm

QLMNM — Nipple Socket - Aluminum body

Code**	Oz	D	d	L	E	C
QLMNM020048	3,5	3/4"	1/2"	2,6	1,8	1,9
QLMNM020068	3,9	3/4"	3/4"	2,6	1,8	1,9
QLMNM025088	4,6	1"	1"	3,0	2,0	2,0
QLMNM032108	7,8	1.1/4"	1.1/4"	3,4	2,4	2,4
QLMNM040128	14,8	1.1/2"	1.1/2"	3,9	3,0	2,8
QLMNM050168	20,5	2"	2"	4,4	3,4	3,1

***NPT thread available*

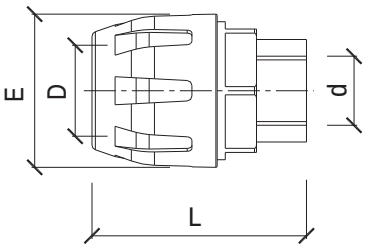


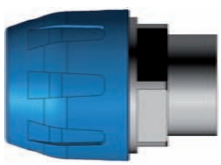


QLMPM — Female Nipple Socket - Aluminum body

Code **	Oz	D	d	L	E	C
QLMPM020048	3,9	3/4"	1/2"	2,6	1,8	1,9
QLMPM020068	3,9	3/4"	3/4"	2,6	1,8	1,9
QLMPM025088	5,3	1"	1"	3,0	2,0	2,0
QLMPM032108	8,1	1.1/4"	1.1/4"	3,4	2,4	2,4
QLMPM040128	16,2	1.1/2"	1.1/2"	3,9	3,0	2,8
QLMPM050168	20,8	2"	2"	4,4	3,4	3,1

***NPT thread available*





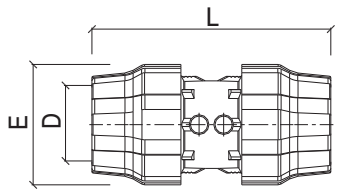
PURESTREAM SYSTEM TECHNICAL SCHEDULE

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Fittings diam 63 ÷ 80 mm

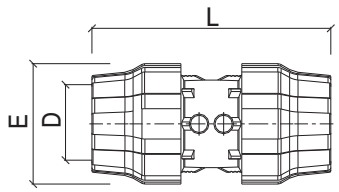
QLMAAL — Coupling

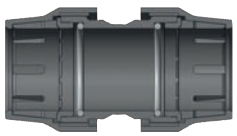
Code	Oz	D	L	E	C
QLMAAL063	31,4	2.1/2"	7,6	3,8	3,7
QLMAAL080	52,6	3.1/4"	9,1	4,6	4,5



QLMASAL — Sliding Coupling

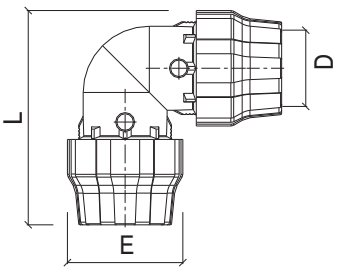
Code	Oz	D	L	E	
QLMASAL063	31,4	2.1/2"	7,6	3,8	
QLMASAL080	52,6	3.1/4"	9,1	4,6	





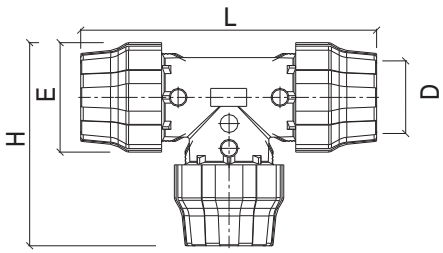
QLGO90AL — 90° Elbow

Code	Oz	D	L	E	C
QLGO90AL063	37,0	2.1/2"	7,1	3,8	3,7
QLGO90AL080	63,5	3.1/4"	8,5	4,6	4,5



QLTEAL — 90° Tee

Code	Oz	D	L	E	H	C
QLTEAL063	45,1	2.1/2"	10,4	3,8	181	3,7
QLTEAL080	91,0	3.1/4"	12,5	4,6	217	4,5



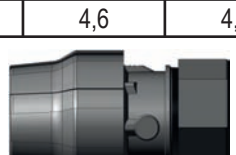
Legenda

C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Fittings diam 63 ÷ 80 mm

QLCAAL — End Cap

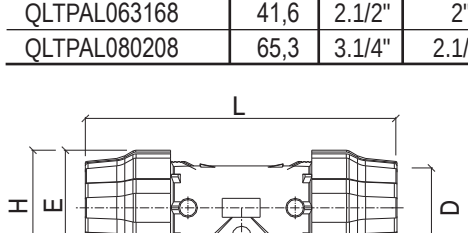
Code	Oz	D	L	E	C
QLCAAL063	43,4	2.1/2"	5,5	3,8	3,7
QLCAAL080	55,0	3.1/4"	6,4	4,6	4,5

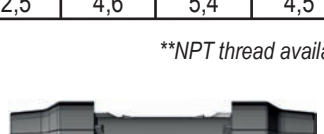


QLTPAL — 90°Tee threaded f

Code **	Oz	D	d	L	E	H	C
QLTPAL063168	41,6	2.1/2"	2"	10,4	3,8	4,4	3,7
QLTPAL080208	65,3	3.1/4"	2.1/2"	12,5	4,6	5,4	4,5

***NPT thread available*

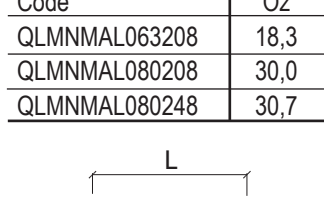


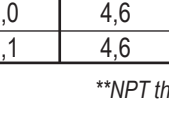


QLMNMAL — Nipple Socket - Aluminum body

Code **	Oz	D	d	L	E	C
QLMNMAL063208	18,3	2.1/2"	2.1/2"	5,1	3,8	3,7
QLMNMAL080208	30,0	3.1/4"	2.1/2"	6,0	4,6	4,5
QLMNMAL080248	30,7	3.1/4"	3"	6,1	4,6	4,5

***NPT thread available*

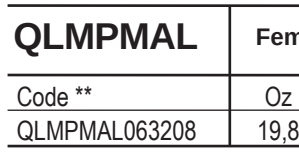


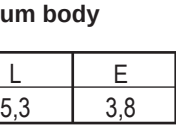


QLMPMAL — Female Nipple Socket - Aluminum body

Code **	Oz	D	d	L	E	C
QLMPMAL063208	19,8	2.1/2"	2.1/2"	5,3	3,8	3,7

***NPT thread available*





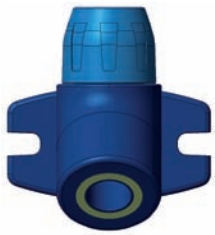
Legenda

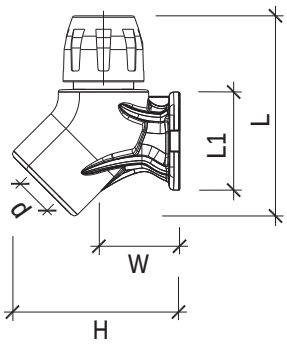
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

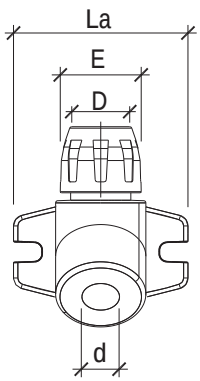
PURESTREAM Accessories

QLAPM	Wall-mount manifold single port									
Code**	Oz	D	d	L	L1	La	H	E	W	C
QLAPM016	4,2	1/2"	1/2"	3,7	1,8	3,1	1,6	1,5	1,4	1,5
QLAPM020	6,7	3/4"	1/2"	3,8	1,8	3,1	1,6	1,8	1,4	1,9

***NPT thread available*

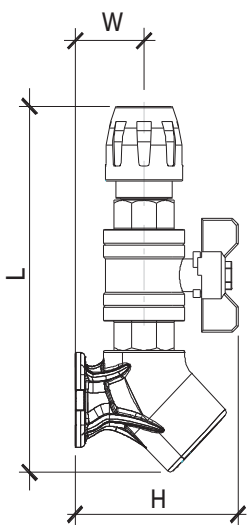


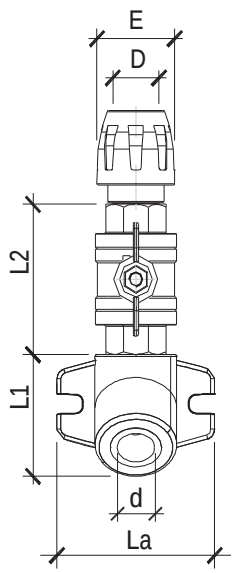




QLAPMVA	Female Single port wall plate manifold with ball valve										
Code**	Oz	D	d	L	L1	L2	La	H	E	W	C
QLAPMVA016	12,0	1/2"	1/2"	6,2	2,2	2,3	3,1	3,7	1,5	1,4	1,5
QLAPMVA020	16,2	3/4"	1/2"	7,1	2,2	2,7	3,1	3,8	1,8	1,4	1,9
QLAPMVA025	16,6	1"	1/2"	7,3	2,2	2,7	3,1	3,8	2,0	1,4	2,0

***NPT thread available*



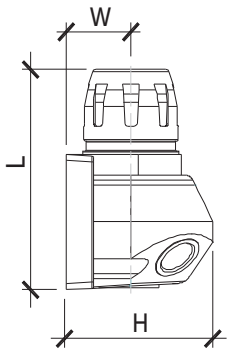


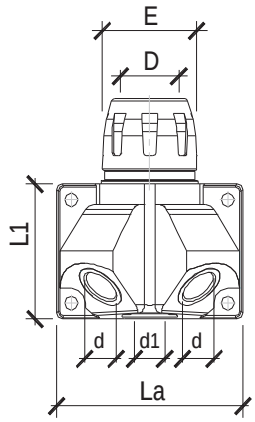
Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Accessories

QLAPL	Wall plate manifold, F thread										
Code**	Oz	D	d	d1	L	L1	La	H	E	W	C
QLAPL016	9,5	1/2"	1/2"	1/4"	3,9	2,7	3,9	3,1	1,5	1,4	1,5
QLAPL020	11,3	3/4"	1/2"	1/4"	4,3	2,7	3,9	3,1	1,8	1,4	1,9
QLAPL025	11,6	1"	1/2"	1/4"	4,3	2,7	3,9	3,1	2,0	1,4	2,0

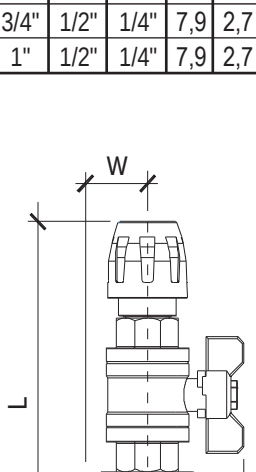
***NPT thread available*

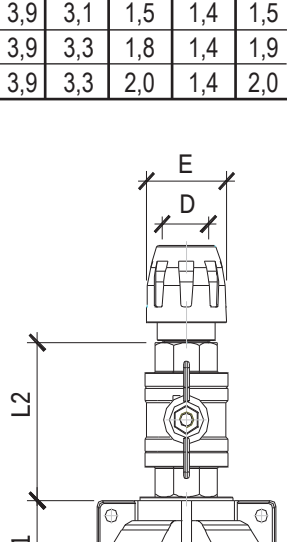




QLAPLVA	Wall plate manifold with ball valve											
Code**	Oz	D	d	d1	L	L1	L2	La	H	E	W	C
QLAPLVA016	18,3	1/2"	1/2"	1/4"	7,1	2,7	2,3	3,9	3,1	1,5	1,4	1,5
QLAPLVA020	23,3	3/4"	1/2"	1/4"	7,9	2,7	2,7	3,9	3,3	1,8	1,4	1,9
QLAPLVA025	23,8	1"	1/2"	1/4"	7,9	2,7	2,7	3,9	3,3	2,0	1,4	2,0

***NPT thread available*



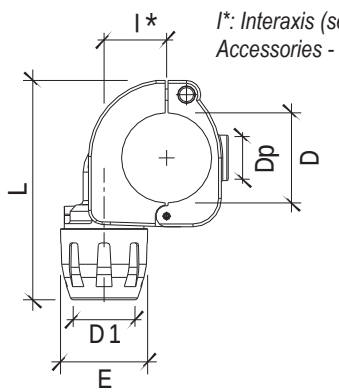


PURESTREAM SYSTEM TECHNICAL SCHEDULE

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Accessories

QLDERPA	Quick branch plug						
Code	Oz	D	D1	L	E	La	Dp
QLDERPA025016	7,4	1"	1/2"	4,4	1,5	2,0	0,6
QLDERPA025020	8,1	1"	3/4"	4,4	1,8	2,0	0,6
QLDERPA032016	7,1	1.1/4"	1/2"	4,4	1,5	2,0	0,6
QLDERPA032020	7,8	1.1/4"	3/4"	4,4	1,8	2,0	0,6
QLDERPA040016	8,8	1.1/2"	1/2"	4,9	1,5	2,0	0,8
QLDERPA040020	9,5	1.1/2"	3/4"	4,9	1,8	2,0	0,8
QLDERPA040025	9,9	1.1/2"	1"	4,9	2,0	2,0	0,8
QLDERPA050016	14,8	2"	1/2"	5,7	1,5	2,4	0,8
QLDERPA050020	14,8	2"	3/4"	5,7	1,8	2,4	0,8
QLDERPA050025	15,2	2"	1"	5,7	2,0	2,4	0,8
QLDERPA063020	14,1	2.1/2"	3/4"	5,7	1,8	2,4	0,8
QLDERPA063025	14,5	2.1/2"	1"	5,7	2,0	2,4	0,8
QLDERPA063032	14,8	2.1/2"	1.1/4"	5,8	2,4	2,4	0,8
QLDERPA080020	39,2	3.1/4"	3/4"	8,7	1,8	2,5	0,9
QLDERPA080025	39,5	3.1/4"	1"	8,7	2,0	2,5	0,9
QLDERPA080032	39,9	3.1/4"	1.1/4"	8,7	2,4	2,5	0,9



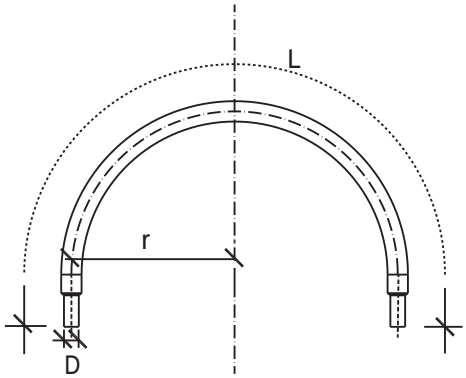
I: Interaxis (see DIRDERFF in Aircom System Accessories - Technical Schedules)*

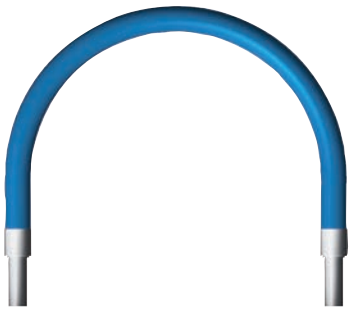
Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Accessories

QLFLEX — Flexible expansion hose

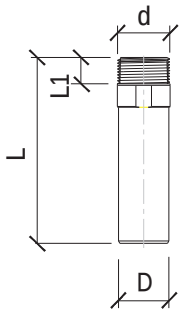
Code	Oz	D	< r >		L
QLFLEX020	14,8	3/4"	59,1	78,7	311,0
QLFLEX025	26,8	1"	70,9	98,4	315,0
QLFLEX032	50,4	1.1/4"	90,6	126,0	378,0
QLFLEX040	67,0	1.1/2"	114,2	149,6	472,4
QLFLEX050	123,5	2"	141,7	185,0	551,2
QLFLEX063	176,4	2.1/2"	177,2	232,3	629,9





QLPUNM — Male threaded PURESTREAM spigot

Code	Oz	D	d	L (in)	L1 (in)
QLPUNM020048	1,3	3/4"	1/2"	3,7"	0,5"
QLPUNM020068	1,5	3/4"	3/4"	3,8"	0,5"
QLPUNM025088	2,6	1"	1"	4,3"	0,6"
QLPUNM032108	3,4	1.1/4"	1.1/4"	4,7"	0,7"
QLPUNM040128	5,4	1.1/2"	1.1/2"	5,3"	0,8"
QLPUNM063168	18,2	2.1/2"	2"	6,2"	0,9"
QLPUNM080248	23,8	3"	3"	6,7"	1,0"



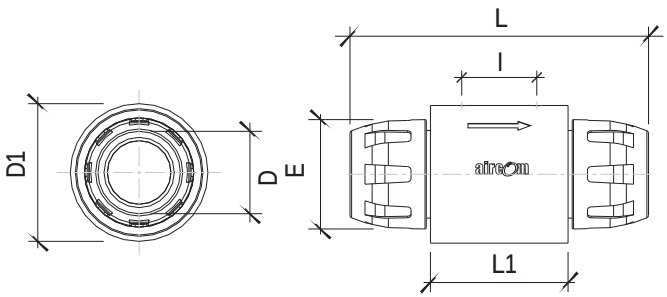
PURESTREAM SYSTEM TECHNICAL SCHEDULE

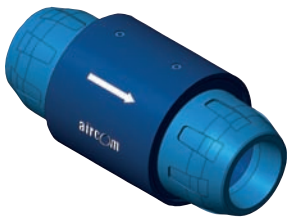
Legenda

C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

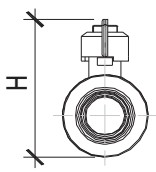
PURESTREAM Accessories

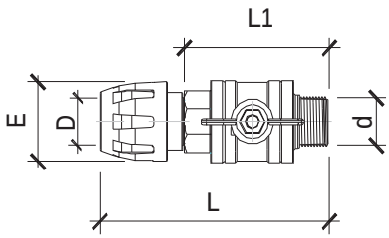
QLVAVIP	Pneumatic single action Valve						
Code	Oz	D	D1	L	L1	E	C
QLVAVIP032	44,1	1.1/4"	3,5	7,9	3,6	2,4	1,4
QLVAVIP040	50,1	1.1/2"	3,5	8,3	3,6	3,0	1,4
QLVAVIP050	74,8	2"	4,3	9,6	4,3	3,4	2,8
QLVAVIP063	82,9	2.1/2"	5,5	11,4	5,5	3,8	3,7

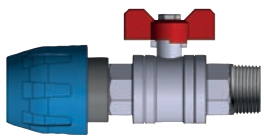




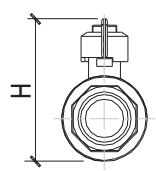
QLVAM	PURESTREAM male threaded connection ball valve							
Code	Oz	D	d	L	L1	H	E	C
QLVAM016048	7,9	1/2"	1/2"	4,1	2,4	2,3	1,5	1,5
QLVAM020048	12,7	3/4"	1/2"	4,7	2,6	2,7	1,8	1,9
QLVAM020068	12,8	3/4"	3/4"	4,9	2,6	2,7	1,8	1,9
QLVAM025068	13,2	1"	3/4"	5,0	2,8	2,9	2,0	2,0

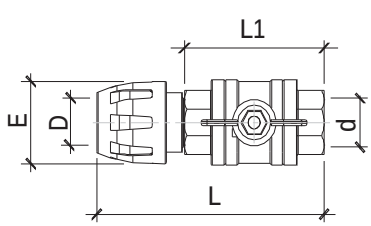


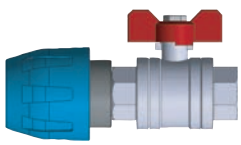




QLVAF	PURESTREAM female threaded connection ball valve							
Code	Oz	D	d	L	L1	H	E	C
QLVAF016048	7,9	1/2"	1/2"	4,1	2,4	2,3	1,5	1,5
QLVAF020048	12,7	3/4"	1/2"	4,7	2,6	2,7	1,8	1,9
QLVAF020068	12,8	3/4"	3/4"	4,9	2,6	2,7	1,8	1,9
QLVAF025068	13,2	1"	3/4"	5,0	2,8	2,9	2,0	2,0





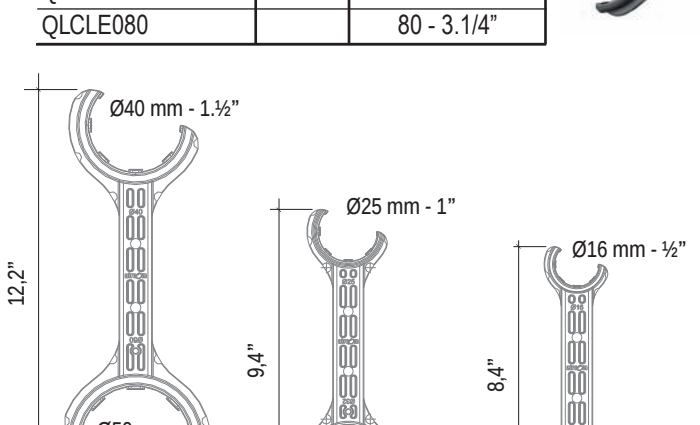


Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM Accessories

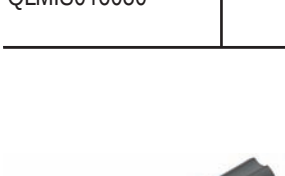
QLCLE — Wrench for Purestream by Aircom fittings

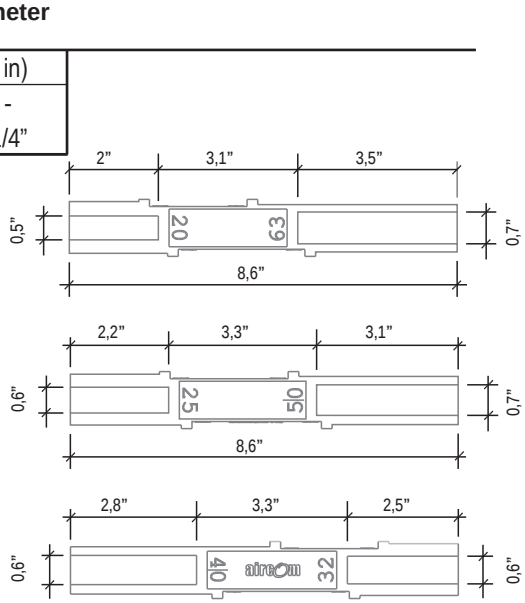
Code	Oz	D (mm - in)
QLCLE016020		16÷20 - 1/2"÷3/4"
QLCLE025032	3,5	25÷32 - 1"÷1.1/4"
QLCLE040050		40÷50 - 1.1/2"÷2"
QLCLE063		63 - 2.1/2"
QLCLE080		80 - 3.1/4"



QLMIS — Pipe insertion meter

Code	Oz	D (mm - in)
QLMIS016080		16÷80 - 1/2"÷3.1/4"





PURESTREAM SYSTEM TECHNICAL SCHEDULE

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

TERMS USED IN THE LEGEND

Means and explanations

C - Socket length in inches

It is the length of the pipe section which is to be introduced completely into the fitting, from the nut entrance to the inner stop of the fitting.

D - Socket diameter in inches

It is the nominal diameter of the fitting. It corresponds to the external nominal diameter of the pipe.

Dp - Guide diameter of the hollow mill in inches

It is the hollow diameter situated on one of the two parts of the quick branch. This hollow is located perpendicularly to the main pipeline and it is used as a drilling template durind the assembling of the branch. It allows the positioning and keeping in place of the milling cutter during the drilling.

d - thread diameter in inches

It indicates the nominal dimension of the fitting threads which is usually shown by a corresponding designation (ex. R ½" Iso 7-1 or simply ½").

E - Maximum nut diameter in inches

Maximum overall diameter of fitting nuts.

Oz - Weight in Ounce

Weight of the fitting or of an accessory including all its components, in Ounce.

H - Height in inches

Maximum height of the product.

I - Distance between centers in inches

Pipe or fitting or valve axis.

L - Length in inches

Maximum length of the product.

La - Width in inches

Maximum width of the product.

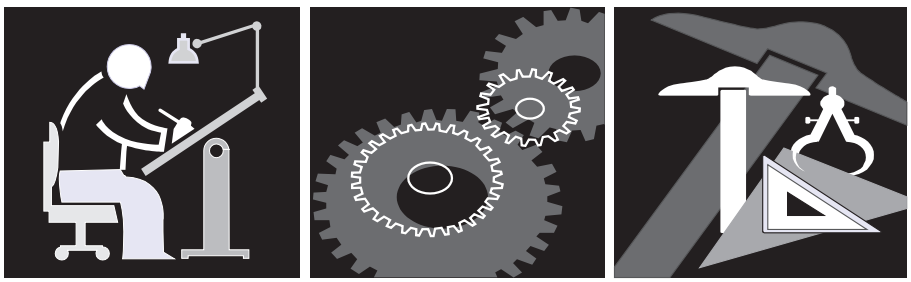
W - Distance axis-wall in inches

Distance between the supporting surface (wall or panel) and the component center-axis.

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

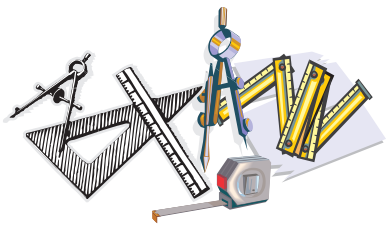
PURESTREAM ACCESSORIES

TECHNICAL SCHEDULES



Classic Line - Freeze Line - Purestream

code	description	1/2"	3/4"	page
DIRAPMFF	Applique mono for wall-mounting, F/F 	1/2"		3
DIRAPL	Nipple for wall-mounting 	1/2"	1/2"	3
DIRPMU	Multiple Applique 10 connections f/f 		1/4"x3/8"	4



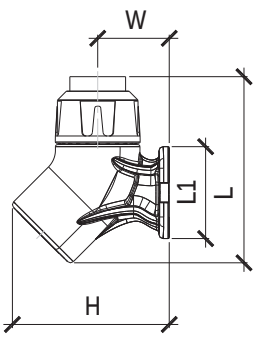
code	description	16 mm 1/2"	20 mm 3/4"	25 mm 1"	32 mm 1/1.4"	40 mm 1.1/2"	50 mm 2"	63 mm 2.1/2"	75 mm 3"	80 mm 3.1/4"	90 mm 3.1/2"	110 mm 4"	page
DIRDERFF	Quick branch plug, f thread, brass 			1/2"	1/2"	1/2" 3/4"	1/2" 3/4"	1/2" 3/4" 1"		3/4" 1"			5
DIRFEM8CF	Bracket M8 thread insert pieces 												6
DIRSPE	Thicknesses 												6

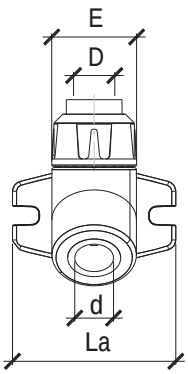
Information provided in this document were compiled according to our science and conscience and are representative of state of art. Information, data and pictures of Purestream by Aircom products herein supplied are not binding and are supplied as a guide only. We reserve the right to introduce possible technical modifications without notice. We recommend to always check effective suitability of the product/s for the intended use. Any reprint or copying of this document and its annexes, or of part of them, requires prior written consent from Purestream by Aircom. All rights reserved. (E. and O. E.)

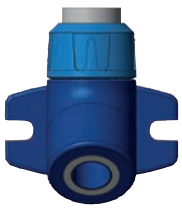
Quick Classic Freeze Line Accessories

DIRAPMFF — Applique mono for wall-mounting, F/F

Code	Oz	D	d	L	L1	La	H	E	W
DIRAPMFF048038	6,7	1/2"	3/8"	2,9	1,8	3,1	3,0	1,5	1,4
DIRAPMFF048048	7,1	1/2"	1/2"	3,0	1,8	3,1	3,0	1,8	1,4

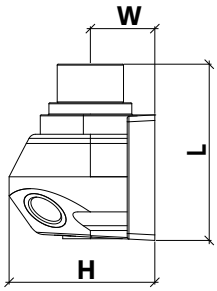


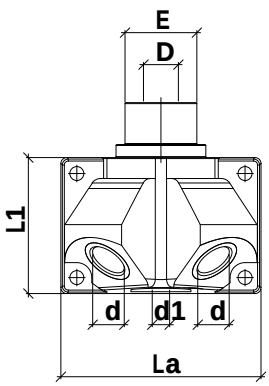




DIRAPL — Nipple for wall-mounting

Code	Oz	D	d	d1	L	L1	La	H	E	W
DIRAPL048	11,6	1/2"	1/2"	1/4"	3,8	2,7	3,9	3,1	0,7	1,4
DIRAPL068	12,3	3/4"	1/2"	1/4"	3,8	2,7	3,9	3,1	0,7	1,4





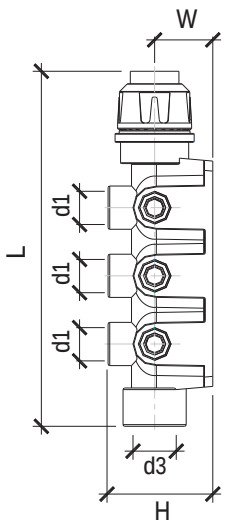
Legenda

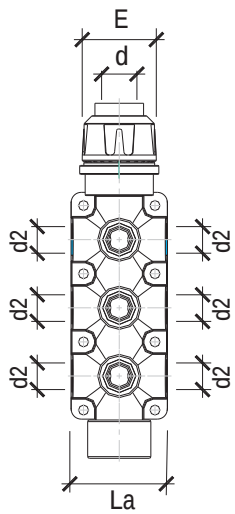
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

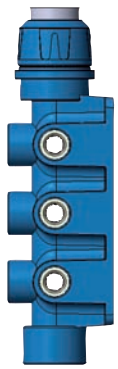
Quick Classic Freeze Line Accessories

DIRPMU — Multiple Applique 10 connections f/f

Code	Oz	d	d1	d2	d3	E	H	L	La	W
DIRPMU048028038	14,1	1/2"	1/4"	3/8"	1/2"	1,5	2,5	8,4	2,2	1,4







PURESTREAM ACCESSORIES TECHNICAL SCHEDULES

Legenda

C	Socket depth (inches)
C1	Socket depth 1 (inches)
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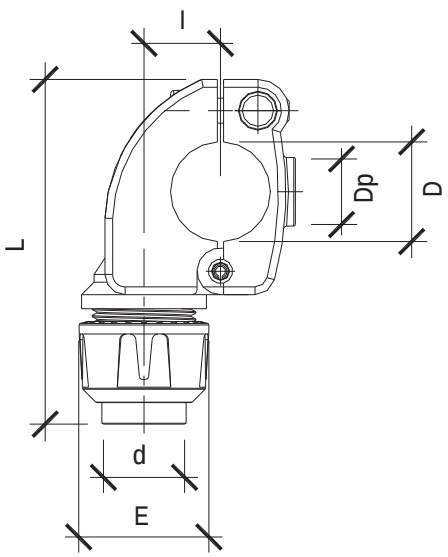
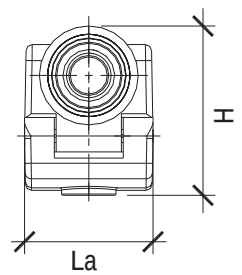
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

Quick Classic Freeze Line Accessories

DIRDERFF	Quick branch plug, f thread, brass							
Code **	Oz	D	d	L	E	La	Dp	l
DIRDERFF025048	8,5	1”	1/2"	4,4	1,8	2,0	0,6	1,0
DIRDERFF032048	8,1	1.1/4”	1/2"	4,4	1,8	2,0	0,6	1,0
DIRDERFF040048	9,2	1.1/2"	1/2"	4,9	1,8	2,0	0,8	1,2
DIRDERFF040068	10,6	1.1/2"	3/4"	4,9	2,0	2,0	0,8	1,2
DIRDERFF050048	16,2	2”	1/2"	5,7	1,8	2,4	0,8	1,2
DIRDERFF050068	19,4	2”	3/4"	5,7	2,0	2,4	0,8	1,2
DIRDERFF063048	14,8	2.1/2"	1/2"	5,7	1,8	2,4	0,8	1,7
DIRDERFF063068	18,3	2.1/2"	3/4"	5,7	2,0	2,4	0,8	1,7
DIRDERFF063088	21,9	2.1/2"	1"	5,8	2,4	2,4	0,8	1,7
DIRDERFF080048	39,5	3.1/4”	1/2"	8,7	1,8	2,5	0,9	2,8
DIRDERFF080068	43,7	3.1/4”	3/4"	8,7	2,0	2,5	0,9	2,8
DIRDERFF080088	47,6	3.1/4”	1"	8,7	2,4	2,5	0,9	2,8

*** NPT thread available*





Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
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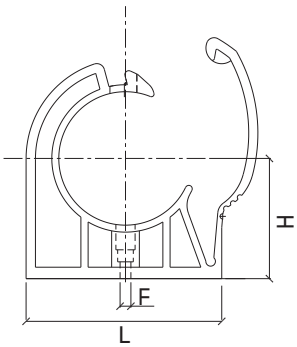
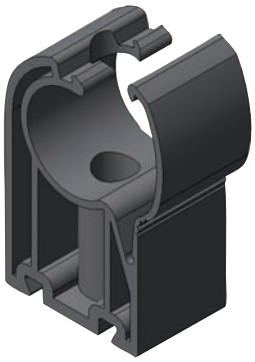
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

Quick Classic Freeze Line Accessories

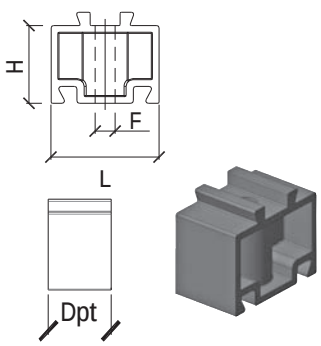
DIRFEM8CF	Bracket M8 thread insert pieces					
Code	Oz	D	L	H	F	Dpt*
DIRFEM8016CF	0,3	1/2”	1,2	1,4	0,4	1,2
DIRFEM8020CF	0,7	3/4”	1,2	1,4	0,4	1,2
DIRFEM8025CF	1,1	1“	1,5	1,4	0,4	1,2
DIRFEM8032CF	2,5	1.1/4”	1,9	1,4	0,4	1,2
DIRFEM8040CF	2,8	1.1/2”	2,4	2,8	0,4	1,6
DIRFEM8050CF	3,0	2“	3,0	2,8	0,4	1,6
DIRFEM8063CF	3,9	2.1/2”	3,7	2,8	0,4	1,6
DIRFEM8075CF	9,2	3”	4,6	3,9	0,4	1,9
DIRFEM8080CF	8,8	3.1/4”	4,7	3,9	0,4	1,9
DIRFEM8090CF	8,5	3.1/2”	4,7	3,9	0,4	1,9
DIRFEM80110CF	11,6	4”	6,4	3,9	0,4	1,9

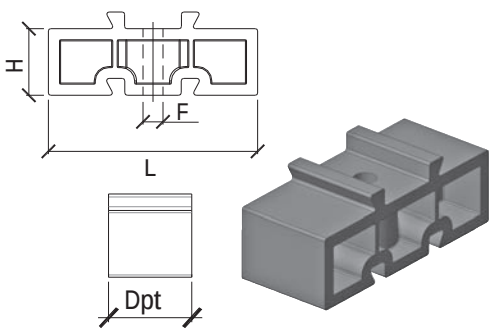




Dpt: Depth*

DIRSPE	Thicknesses					
Code	Oz	D	L	H	F	Dpt*
DIRSPE020032	0,7	0,8 - 1,3	1,9	1,4	0,4	1,2
DIRSPE040063	1,9	1,6 - 2,5	3,7	1,2	0,4	1,6





PURESTREAM ACCESSORIES TECHNICAL SCHEDULES

Legenda	
C	Socket depth (inches)
C1	Socket depth 1 (inches)
D	Socket diameter (inches)
D1	Socket diameter 1 (inches)
Dp	Hollow mill driving diameter (inches)
d	Thread diameter (inches)
d1	Thread diameter 1 (inches)
d2	Thread diameter 2 (inches)
E	Overall outside diameter ring nut (in)
E1	Overall outside diameter ring nut 1 (in)
Oz	Weight in Ounce
H	Heigh (inches)
L	Length (inches)
L1	Length 1 (inches)
L2	Length 2 (inches)
La	Width (inches)
W	Wall-axis distance (inches)

TERMS USED IN THE LEGEND

Means and explanations

C - Socket length in inches

It is the length of the pipe section which is to be introduced completely into the fitting, from the nut entrance to the inner stop of the fitting.

D - Socket diameter in inches

It is the nominal diameter of the fitting. It corresponds to the external nominal diameter of the pipe.

Dp - Guide diameter of the hollow mill in inches

It is the hollow diameter situated on one of the two parts of the quick branch. This hollow is located perpendicularly to the main pipeline and it is used as a drilling template durind the assembling of the branch. It allows the positioning and keeping in place of the milling cutter during the drilling.

d - thread diameter in inches

it indicates the nominal dimension of the fitting threads which is usually shown by a corresponding designation (ex. R ½" Iso 7-1 or simply ½").

E - Maximum nut diameter in inches

Maximum overall diameter of fitting nuts.

Oz - Weight in Ounce

Weight of the fitting or of an accessory including all its components, in Ounce.

H - Height in inches

Maximum height of the product.

I - Distance between centers in inches

Pipe or fitting or valve axis.

L - Length in inches

Maximum length of the product.

La - Width in inches

Maximum width of the product.

W - Distance axis-wall in inches

Distance between the supporting surface (wall or panel) and the component center-axis.

Legenda	
C	Socket depth (inches)
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L1	Length 1 (inches)
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La	Width (inches)
W	Wall-axis distance (inches)

PURESTREAM PIPING BY AIRCOM

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