

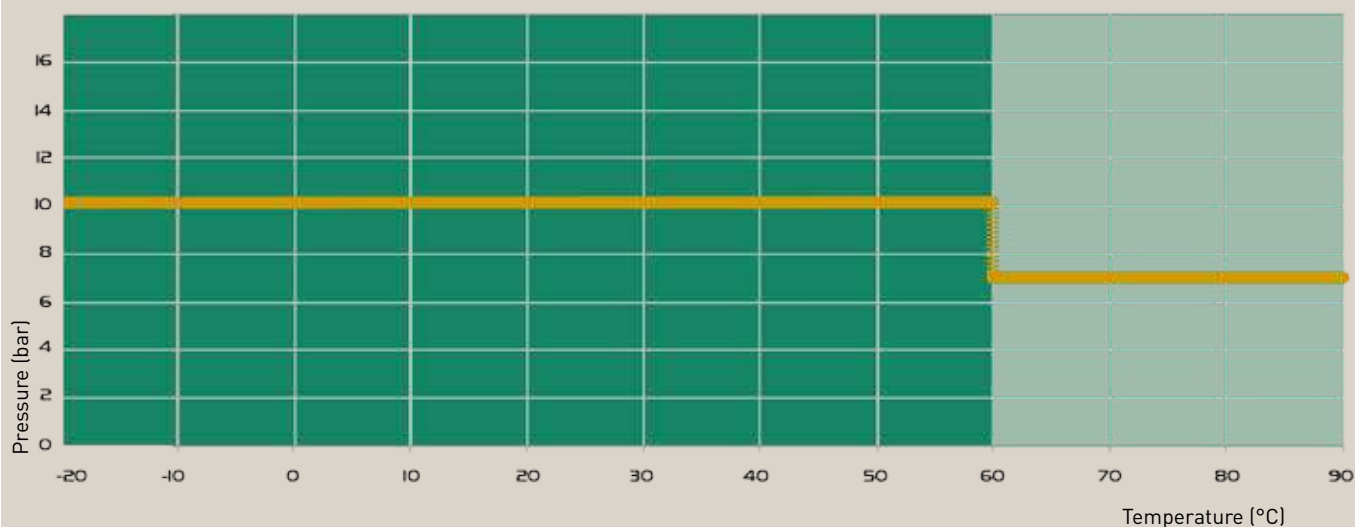


TECHNICAL SPECIFICATIONS

Fluids

- Industrial water
- System compatible with additives (glycol or inhibitors) which prevent the formation of algae or fungus (list available upon request)
- Lubricating oils
- Compressed air (dry, wet, lubricated)
- Vacuum
- Inert gases (argon, nitrogen)
- Others: please consult us

Maximum Working Pressure According to the Temperature



Working Pressure

- 10 bar from -20°C to +60°C
- 7 bar from -20°C to +90°C

Expansion Coefficient

- Expansion coefficient of Transair® stainless steel pipe: 0.016 mm per metre per degree celcius

Resistance

- to corrosion
- to aggressive environments
- to mechanical shocks
- to thermal variations
- to U.V.

Environment and Sustainable Development

Transair® materials are 100 % recyclable.

Water Hammer

- Ø22, Ø28: comply with standard BS, 7291 part 1
- Ø42, Ø60, Ø76, Ø100: comply with standard NF T54-091



CHEMICAL COMPATIBILITY

1 Compatible

2 Compatible (except for diameters 22-28 mm in bronze)

3 Do not use

CHEMICAL PRODUCT	SYMBOL	SEAL SELECTION		CHEMICAL PRODUCT	SYMBOL	SEAL SELECTION	
		EPDM	FKM			EPDM	FKM
• Acetaldehyde, Aldehyd acid	C2H4O	2	3	• Methanol, methyl alcohol (MKB, MEK, MIBK)		1	3
• Acetic acid (10%, 20°C)	CH3COOH	2	3	• Methyl Alcohol	CH4O	1	3
• Acetic acid (50%, 20°C)	CH3COOH	3	3	• Mineral oil		3	1
• Acetone, Propan-2-one, Dimethyl cetone	C3H6O	1	3	• Motor oil		3	1
• Air (dry)		1	1	• MPG, mono propylen glycol	C3H8O2	2	2
• Air (lubricated)		3	1	• Naphta		3	1
• Ammonia liquid	NH3 + H2O	2	3	• Nitric acid	HNO3	3	3
• Ammonium hydroxide	NH4OH	3	3	• Nitrogen (gas)	N	1	1
• Ammonium nitrate		2	2	• Oil ASTM n°1		3	1
• Ammonium phosphate		3	2	• Oil ASTM n°2		3	1
• Argon (gas)	Ar	1	1	• Oil ASTM n°3		3	1
• Boric acid (23°C)	H3BO3	1	1	• Oxalique acid (10%, 23°C)	HOO-COOH	2	2
• Brine	NaCl + H2O	2	2	• Oxygen (>20%)	O	3	3
• Calcium hydroxide, Slaked lime	Ca(OH)2	1	1	• Ozone	O	2	2
• Carbolic acid		3	3	• Perchloric acid (70%)		3	3
• Carbon monoxide (60°C)	CO	1	1	• Phosphate ester hydraulic fluid, Skydrol		1	3
• Carbon dioxide (dry)	CO2	1	1	• Phosphoric acid, Orthophosphoric acid	H3PO4	2	2
• Carbon dioxide (wet or 60°C)	CO2	3	2	• Potassium hydroxide (50%, 85°C)	KOH	2	3
• Carbon sulfite		3	2	• Sea water	H2O,NaCl	2	2
• Chlorine (sea chlorinated fluid)		3	3	• Silicon emulsions		1	1
• Citric acid (50%)	C6H8O7	2	2	• Sodium bicarbonate, baking soda (23°C)		1	1
• Diacetone alcohol	C6H12O2	1	3	• Sodium carbonate		1	1
• Ethane-diol, monoethylene glycol, MEG	C2H6O2	2	2	• Sodium hydroxide, caustic soda (50%)	NAOH	2	3
• Ethylene glycol	C2H4 (OH)2	1	1	• Sodium nitrite		2	2
• Formic acid, methanoic acid	CH2O2	3	3	• Sodium peroxide	Na2O2	3	3
• Gallic acid (5%)	C7H6O5	1	1	• Sodium phosphate	NA3PO4	2	2
• Glycol		1	1	• Sodium sulphate	Na2SO4	1	1
• Glycolic acid (50%)		3	3	• Aqueous solution of detergent		2	2
• Helium (gas)	He	1	1	• Sulfuric acid (10%, 20°C)	H2SO4	3	3
• Hydraulic fluid - mineral oil	-	3	1	• Tartric acid (50%, 23°C)		3	2
• Hydraulic fluid - petroleum based	-	3	1	• Trichlorethylene, Trichloride ethylene	C2HCl3	3	3
• Hydraulic fluid - silicone based	-	1	1	• Triethanolamine, TEA	C6H15O3N	2	3
• Hydrofluoridric acid	HF	3	3	• Water demineralised	H2	2	2
• Hydrogen bromide (20%)	HBr	3	3	• Water drinkable	H2O	3	3
• Hydrogen peroxide (30%)	H2O2	3	1	• Water industrial	H2	1	1
• Hydrogen sulfide	H2S	3	3	• Water with chlorine (5%, 23°C)	H2O,Cl,NaOCl	3	3
• Hydrolchloric acid (3%), Hydrogen chloride	HCl	3	3				

This information is given for information only.

For further information and specific conditions of use, please contact our technical department.



IZING A NETWORK

Select the Transair® diameter for your application, based on required flow against pressure drop.

Estimated values for a closed loop network, a pressure of 4 bar with less than 10% pressure drop.

Velocity: 4 m/s.

Estimated Flow Rate				Equivalent Length									
				32.8 ft	65.6 ft	98.4 ft	131.2 ft	164 ft	246 ft	328 ft	492 ft	656 ft	984 ft
m³/h	l/s	l/min	cfm	10 m	20 m	30 m	40 m	50 m	75 m	100 m	150 m	200 m	300 m
0.5	0.14	8	0.3	22	22	22	22	22	22	22	22	22	28
1	0.28	17	0.6	22*	22*	22*	22*	22*	28	28	28	28	42
2.5	0.69	42	1.5	22*	28*	28*	28*	42	42	42	42	42	42
3.5	0.97	58	2.1	28	28	42	42	42	42	42	42	42	60
5	1.39	83	3	28*	42*	42*	42*	42*	42*	42*	60	60	60
10	2.77	167	6	42*	42*	42*	60*	60*	60*	60*	60*	76	76
15	4.17	250	9	42*	60*	60*	60*	60*	60*	76	76	76	76
20	5.56	333	12	60*	60*	60*	60*	60*	76*	76*	76*	100	100
30	8.33	500	18	60*	60*	76*	76*	76*	76*	100*	100*	100*	100*
40	11.11	667	24	76*	76*	76*	76*	76*	100*	100*	100*	100*	
50	13.89	833	29	76*	76*	76*	100*	100*	100*	100*			
75	20.83	1250	44	100*	100*	100*	100*	100*					
80	22.22	1333	47	100*	100*	100*	100*	100*					
100	27.78	1667	59	100*	100*	100*	100*						

* These results should be taken into account in order to ensure the best practice for industrial water networks. An anti-water hammer device is necessary for the protection of regulation components of other fragile elements.

Example (with the above values)

- Main network length (main ring): 50 metres
- Required flow rate: 15 m³/h
- Working pressure: 4 bar
- Pressure drop < 10 %
- Velocity: 4m/s
- The most suitable Transair® diameter is: Ø60.

DIN 1988

The pressure drop per diameter is stated for a flow rate and a velocity, at a temperature of 20°C. Technical data sheet available upon request.

I TRANSAIR® STANDARDS AND CERTIFICATIONS

Transair® stainless steel range certifications fall within the standard and regulation universe described on pages 8 and 9 of this catalogue.

Standards Related to Transair® Stainless Steel Pipe



I Transair® stainless steel range conforms to the standards below related to mechanical and chemical properties per diameter.

	Ø 22 - Ø 28	Ø 42 - Ø 60	Ø 76 - Ø 100
Manufacturing Standards	EN 10217-7	EN 10217-7	EN 10217-7
Grade	EN 10088-2, 4404, AISI 316L	1.4301 / AISI 304	1.4301 / AISI 304
Welding Standard	DIN 17 457, EN 10217-7	DIN 17 457, EN 10217-7	DIN 17 457, EN 10217-7
Tolerances	DVGW - W541	EN 1127D4/T3	EN 1127D4/T3

The quality and consistency of the stainless steel grade used allow to bend Transair® stainless steel pipe according to the best practice, as described in page 149 of this catalogue.

Applications



21 CFR Part 11

I FDA Certificate – CFR 21

Transair® stainless steel drops diameter 22mm presented on pages 152 and 153 of this catalogue conform to FDA – CFR 21 requirements.

Safety



I UL94 Certificate

All Transair® components are non-flammable with no propagation of flame.

Pipe-to-pipe connectors, ball valves and butterfly valves conform to UL94HB standards.

The above mentioned certificates are available upon request.



MATERIAL STAINLESS STEEL RANGE

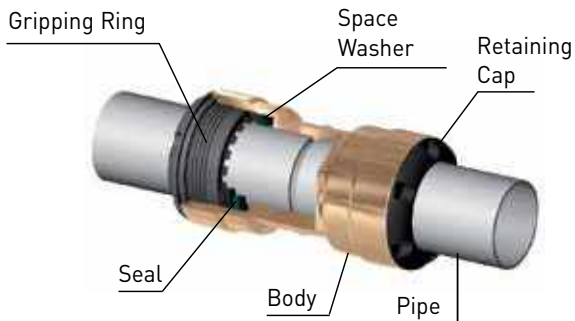
	Ø22 - Ø28	Ø42 - Ø60	Ø76 - Ø100
PIPE	316L Stainless Steel	304 Stainless Steel	304 Stainless Steel
CONNECTOR	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	Body: HR Polymer Nut: HR Polymer Clamp: HR Polymer	Clamp: treated steel Cartridge: HR Polymer and stainless steel
90° ELBOW	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	Body:HR Polymer Nut: HR Polymer	304 Stainless Steel
45° ELBOW	-	304 Stainless Steel	304 Stainless Steel
180° ELBOW	-	304 Stainless Steel	-
TEE	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	Body:HR Polymer Nut: HR Polymer	304 Stainless Steel
REDUCING TEE	Body:bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	-	304 Stainless Steel
IN-LINE REDUCER	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	Treated Brass	304 Stainless Steel
END-CAP	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	304 Stainless Steel	304 Stainless Steel
MALE STUD FITTING	Body: bronze Gripping Ring: stainless steel Retaining cap: HR Polymer	-	-
MALE ADAPTOR	-	Treated Brass	Treated Brass
WALL BRACKET	Treated Brass	-	-
BUTTERFLY VALVE	-	Body: iron / Handle: aluminium	Body and handle: iron Disc and shaft: stainless steel /Handle: aluminium
QUICK ASSEMBLY BRACKET	-	Iron and treated steel	Iron and treated steel
FLANGE	-	304 Stainless Steel	304 Stainless Steel
BALL VALVE	Body: nickel-plated brass Seal: PTFE		
FIXING CLIP	304 Stainless Steel		
NON SLIP CLIP	Collar: zinc-plated steel Lining: elastomer		
THREADED ROD	Steel		
SCREW TYPE BEAM CLAMP	Formed Steel		

All seals are available in EPDM or FKM (unless otherwise stated).



TRANSAIR® CONNECTION TECHNOLOGIES

Transair® innovative technology takes into account the specific requirements of each diameter and provides the user with an optimum safety coefficient and easy connection.



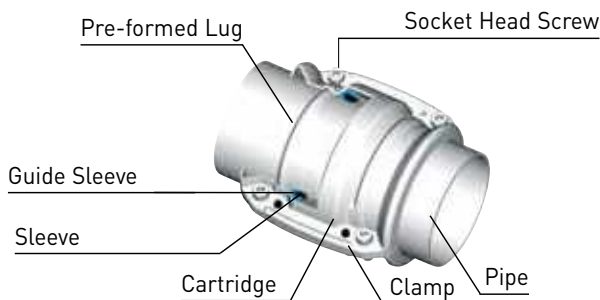
Ø22 - Ø28mm

Pipe-to-pipe and stud connectors in Ø22 and Ø28 can be immediately connected to Transair® stainless steel -pipe – simply push the pipe into the connector up to the connection mark. The gripping ring of each fitting is then automatically secured and the connection is safe.



Ø42 - Ø60mm

Pipe-to-pipe and stud connectors in Ø42 and Ø60 can be quickly connected to Transair® stainless steel pipe by means of a double clamp ring. This secures the connection between the nut and the pipe – tightening of the nuts secures the final assembly.



Ø76 - Ø100mm

Pipe-to-pipe and stud connectors in Ø76 and Ø100 can be quickly connected to Transair® stainless steel pipe. Position the pipes to be connected within the Transair® cartridge and close/tighten the Transair® clamp.