

**Legris - Transair**

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[www.transair-usa.com](http://www.transair-usa.com)

[www.transair-usa.com](http://www.transair-usa.com)

Transair

Legris

**legris**  
transair

> Advanced industrial water pipework systems





## > System benefits

### COMPLETELY ADAPTABLE

> Removable and reusable components



### EASIER HANDLING

Pipe and fittings are supplied ready for immediate installation  
> NO PREPARATION REQUIRED

Quick assembly - no need to weld, solder, glue, crimp or thread  
> TIME SAVING

Easy to assemble  
> NO IN-DEPTH TRAINING REQUIRED

Lightweight, easy to cut pipe material  
> EASIER WORKING ON SITE  
Immediate Start-up  
> SYSTEM QUICKLY READY FOR TEST AND USE

### COMPONENTS GUARANTEED FOR 10 YEARS

### HIGH RESISTANCE TO

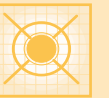
> corrosion  
> aggressive environments  
> thermal variations  
> Ultraviolet (U.V.)

### SAFETY

> Non-flammable with no propagation of flame

*Legris has a policy of continual product development and, therefore, reserves the right to modify any products shown in this catalog, without notification. All dimensions are indicative.*

## > Addresses



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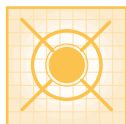
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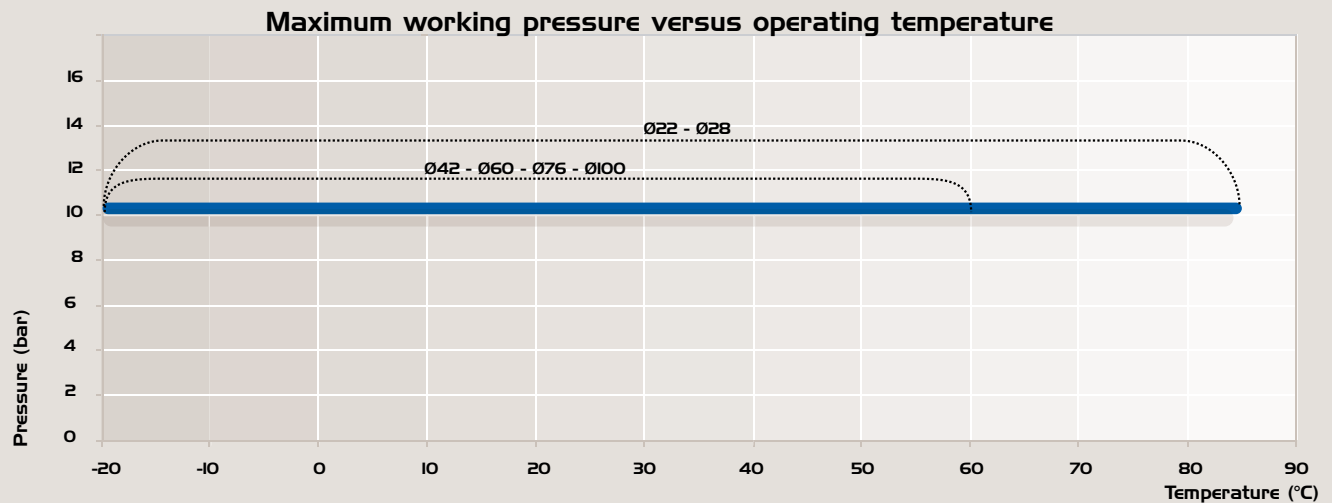
# > Technical specifications

## > Fluids

- Industrial water
- System compatible with additives (glycol or inhibitors) which prevent the formation of algae or fungus (list available upon request).

## > Maximum working pressure

Ø 1/2", Ø 3/4": 145 psi from -4°F to +185°F  
 Ø 1 1/2", Ø 2", Ø 3", Ø 4": 145 psi from -4°F to +140°F



## > Working temperature

Ø 1/2", Ø 3/4": from -4°F to +185°F  
 Ø 1 1/2", Ø 2", Ø 3", Ø 4": from -4°F to +140°F

## > Expansion coefficient

Expansion coefficient of Transair stainless steel pipe: 0.016 inches per feet per degree fahrenheit

## > Environment

- Materials are 100% recyclable.
- For silicone free applications: please consult us.

## > Water hammer

Ø 1/2", Ø 3/4": comply with norm BS. 7291 part 1  
 Ø 1 1/2", Ø 2", Ø 3", Ø 4": comply with norm NF T54-094

# > Sizing



Select the Transair diameter for your application based on required flow against pressure drop. Estimated values for: a closed loop network, a pressure of 58 psi with less than 10% pressure drop. Velocity: 13 feet/s.

Estimated flow rate				Equivalent length										
				30 ft	50 ft	75 ft	100 ft	150 ft	200 ft	300 ft	450 ft	600 ft	800 ft	1000 ft
m³/h	l/s	gpm	cfm	9.144 m	15.24 m	22.86 m	30.48 m	45.72 m	60.96 m	91.44 m	1137.16 m	182.88 m	243.84 m	304.8 m
0.11	1.89	0.5	0.07	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
0.23	3.79	1	0.13	1/2	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4
0.45	7.57	2	0.27	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1 1/2
0.57	9.46	2.5	0.33	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1 1/2	1 1/2	1 1/2
1.14	18.93	5	0.67	3/4	3/4	3/4	3/4	3/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
2.27	37.85	10	1.34	3/4	3/4	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
3.41	56.78	15	2.01	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2
4.54	75.71	20	2.67	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2	2
6.81	113.56	30	4.01	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2	2	2
11.36	189.27	50	6.68	1 1/2	1 1/2	1 1/2	2	2	2	2	3	3	3	3
17.03	283.91	75	10.03	1 1/2	1 1/2	2	2	2	2	3	3	4	4	4
22.71	378.54	100	13.37	2	2	2	2	3	3	4	4	4	4	4
34.07	567.81	150	20.05	2	2	3	3	3	3	4	4	4	4	
45.42	757.08	200	26.74	3	3	3	3	4	4	4	4			
56.78	946.35	250	33.42	3	3	3	4	4	4	4				
68.14	1135.62	300	40.10	4	4	4	4	4	4					
79.49	1324.89	350	46.79	4	4	4	4	4						
90.85	1514.16	400	53.47	4	4	4	4	4						
102.21	1703.44	450	60.16	4	4	4	4							

\* 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 or other fragile elements.

## > Example

Main system length (ring main): 100 feet  
 Required flow rate: 5 GPM  
 Working pressure: 58 psi  
 Pressure drop < 10 %  
 Velocity: 13 feet/s  
 The most suitable Transair diameter is: 3/4".

## > DIN 1988

The pressure drop per diameter is stated for a flow rate and a velocity, at a temperature of 68°F. Technical datasheet available upon request.

## > Safety and conformity

### > Fire resistance

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

- Pipe-to-pipe and threaded connectors, ball valves and butterfly valves: conform to the UL94HB standard.

### > Electrical conductivity

In areas of potential risk, the earthing and electrical continuity of metallic components are obligatory. The Transair system can be used in such environments by undertaking the appropriate precautions. For more information, please consult us.

### > CE conformity

Transair conforms to European standard 97/23 CEE - §3.3 (equipment under pressure).



#### **DECLARATION OF CE CONFORMITY** Supplied in conformity with the **DIRECTIVE on EQUIPMENT UNDER PRESSURE** **97/23/CEE**

We hereby declare that all Transair connectors manufactured by LEGRIS S.A. should be considered as piping components which are designed according to sound working practice. "Piping includes in particular a pipe or system of pipes, tubing, fittings, expansion joints, hoses, or other pressure-bearing components as appropriate" – cf acceptance by the "pressure working group" dated 28/01/1999 and by the GTP Commission dated 27/11/1998

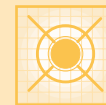
Products are designed according to the code of practice.

Product description:

Transair connectors Ø 1/2" - Ø 3/4" - Ø 1 1/2" - Ø 2" - Ø 3" - Ø 4"

Applicable approvals: AFAQ Certificate of Approval, EN ISO 9001

# > Certification and guarantee



## > Certification ISO 9001 version 2000



Legris S.A. is certified ISO 9001 version 2000 and operates a Quality Management System in order to ensure the level of quality and service that is expected by its customers.

## > TÜV certification



A product certified TÜV is a pledge of safety and quality. The Group TÜV thus certifies independent test results – in particular, the properties of the products and the standards where by they were examined.

## > ASME B31.1



Transair meets the requirement of ASME B31.1. – which stipulates “ the minimum requirements for the design, materials, fabrication, erection, test and inspection of power and auxiliary piping systems for industrial institutional plants”.

**All Transair components are guaranteed for 10 years.**



### - TRANSAIR GUARANTEE -

Legris SA agrees to replace free of charge any Transair component which does not function due to a manufacturing or material defect, within a period of 10 years from the date of the installation.

The current guarantee is valid on condition that:

- Legris SA is given reasonable access to examine the products at issue.
- A material or an assembly defect in the fitting or other Transair component must be clearly and obviously identified.

Claims under this Guarantee should be addressed in writing simultaneously to the distributor of the Transair products concerned and to Legris SA, 74, rue de Paris, BP 70411 -35704 Rennes Cedex7 France, and its subsidiary

Excluded from this guarantee, which is limited to the cost of product replacement, are defects outside the control of Legris SA, in particular:

- Defects resulting from shocks, vibrations or wear due to contact with any element external to the Transair installation.
- Defects due to installation not complying with Legris SA's guidelines and recommendations.
- Defects due to an installation being used outside the technical limits defined by Legris SA.
- Defects caused by product modifications not approved in advance by Legris SA.

Site owner: .....

Exact address: .....

Number.....

Street .....

Town / City.....



## > Materials

	Ø 1/2" - Ø 3/4"	Ø 1 1/2" - Ø 2"	Ø 3" - Ø 4"
<i>Tube</i>	stainless steel 304L	stainless steel 304L	
<i>Connector</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	body: polyamide with fiberglass nut: polyamide with fiberglass clamp: polyamide with fiberglass seal: EPDM	clamp: treated steel cartridge: polyamide with fiberglass and stainless steel seal: EPDM
<i>90° Elbow</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	body: polyamide with fiberglass nut: polyamide with fiberglass seal: EPDM	body: stainless steel 304
<i>45° Elbow</i>	-	body: stainless steel 304L	body: stainless steel 304L
<i>180° Elbow</i>	-	body: stainless steel 304L	-
<i>Tee</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	body: polyamide with fiberglass nut: polyamide with fiberglass seal: EPDM	body: stainless steel 304L
<i>Reducing tee</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	-	body: stainless steel 304L
<i>Threaded tee</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	-	body: stainless steel 304L
<i>In-line reducer</i>	treated brass	treated brass	body: stainless steel 304L
<i>End cap</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	treated brass	body: stainless steel 304L
<i>Male threaded fitting</i>	body: brass gripping ring: stainless steel retaining cap: polyamide with fiberglass O-ring: EPDM	-	-
<i>Male adaptor</i>	-	treated brass	treated brass
<i>Wall bracket</i>	treated brass	-	-
<i>Butterfly valve</i>	-	body: cast iron disc and shaft: stainless steel handle: aluminum	body and handle: iron disc and shaft: stainless steel
<i>Flange</i>	-	stainless steel 304L	stainless steel 304L
<i>Valve</i>	body: nickel-plated brass      seal: PTFE		
<i>Fixing clip</i>	stainless steel		
<i>Non slip clip</i>	collar: zinc-plated steel      lining: elastomer		
<i>Threaded rod</i>	steel		

>For all silicone free applications: please consult us.



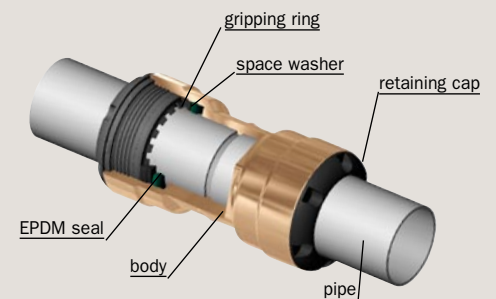
# > Transair technology



**Innovative technology at the heart of Transair enables rapid and easy assembly: quick connection of components to the stainless steel pipe. This technology takes into account the specific requirements of each diameter and provides the user with an optimum safety coefficient and easy connection.**

> Ø 1/2"  
> Ø 3/4"

Pipe-to-pipe and threaded connectors in Ø 1/2" and Ø 3/4" can be immediately connected to Transair 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.



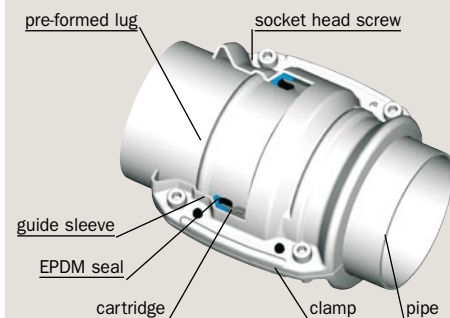
> Ø 1 1/2"  
> Ø 2"

Pipe-to-pipe and threaded connectors in Ø 1 1/2" and Ø 2" 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.



> Ø 3"  
> Ø 4"

Pipe-to-pipe and threaded connectors in Ø 3" and Ø 4" 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.



# > Services

A number of additional Transair services help you throughout your projects.

## > Project assistance



## Understanding, Proximity, Responsiveness.

### Field support

Transair technical-commercial teams are at your disposal to study and help design your pipe system. In particular, they assist you in your project with:

- Information on Transair products and services,
- Guidance and training on how to assemble the system,
- Advice on “best practice” in order to reduce your consumption of energy,
- Ongoing assistance and follow-up,
- On-site advisory presence at construction and installation locations.

### Internally

Our customer service teams will co-ordinate a quick response to your requirements.

## > Commercial service - International

- Product availability
- Order processing and follow-up
- Delivery time-phasing and modification
- Technical information

## > Costing service

- Advice
- Design software

> Wherever you are in the world, you can contact us:

- by phone
- by fax
- by post
- by e-mail

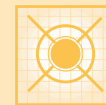
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To find the address of your nearest Transair contact, please see the page 47 of this catalog.



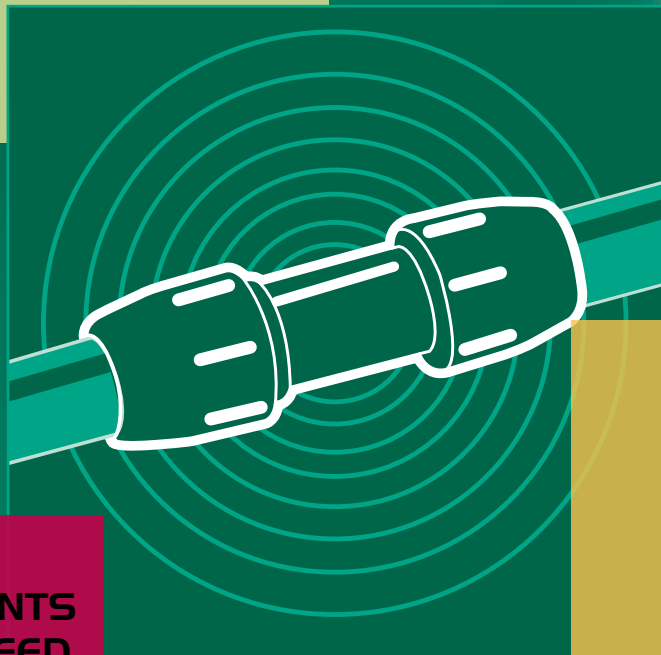
**> The Transair  
multi-fluid  
offer**

Transair capitalizes on over 10 years proven experience which represents more than 100,000 installations throughout the world, with an enthusiasm to continue to propose new products and services to support our customers.



COMPLETELY  
**ADAPTABLE**

> Removable and  
reusable components









**COMPONENTS  
GUARANTEED  
FOR  
10 YEARS**

**SAFETY**

> Non-flammable with no  
propagation of flame



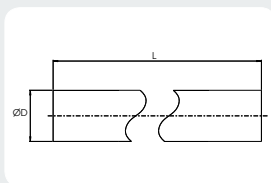
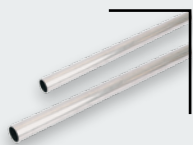
## > Products catalog

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		Pipe-to-pipe and threaded connectors	16-20
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		Valves and butterfly valves	22-23
		Tools	24
		Fixture accessories	25

# >Stainless steel pipe

- > Maximum working pressure: 145 psi
- > Working temperature:
  - Ø 1/2", Ø 3/4": from -4°F to +185°F
  - Ø 1 1/2", Ø 2", Ø 3", Ø 4": from -4°F to +140°F

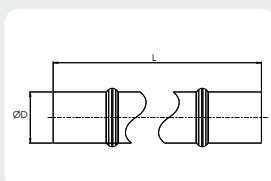
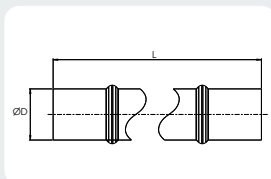
Ø  
1/2"  
3/4"



## Stainless steel pipe

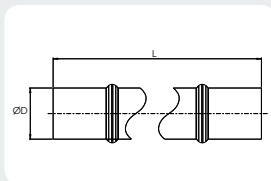
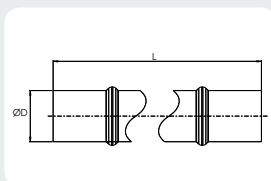
Transair	Ø D	Ø D	Ø int	L (ft)
TX16 H3 00	22	1/2	19.6	20
TX16 H5 00	28	3/4	25.6	20

Ø  
1 1/2"  
2"



Transair	Ø D	Ø D	Ø int	L (ft)
TX16 M4 00	42	1 1/2	39.1	20
TX16 M6 00	60	2	57.1	20

Ø  
3"  
4"



Transair	Ø D	Ø D	Ø int	L (ft)
TX16 L1 00	76	3	72.9	20
TX16 L3 00	100	4	97.6	20

Please consult the installation guide on pages 28 to 39 of this catalog.

## Norms

	Ø 1/2" - Ø 3/4"	Ø 1 1/2" - Ø 2"	Ø 3" - Ø 4"
<b>Manufacturing norms</b>	EN 10088/2	EN 10088/2	EN 10088/2
<b>Grade</b>	1.4404 / AISI 304L	1.4301 / AISI 304L	1.4301 / AISI 304L
<b>Welding norm</b>	DIN 17 457, NFA 49 147	DIN 17 457, NFA 49 147	DIN 17 457, NFA 49 147
<b>Tolerances</b>	DVGW - W541	EN 1127 D4 / T3	EN 1127 D4 / T3

## Tolerances

Length	External diameter		Thickness	
Standard pipe	in	Tolerance (including non-roundness)	mm	Tolerance
20 ft	1/2	± 0.11 mm	1.2	± 0.10 mm
20 ft	3/4	± 0.14 mm	1.2	± 0.10 mm
20 ft	1 1/2	± 0.45 mm	1.6	± 0.16 mm
20 ft	2	± 0.45 mm	1.6	± 0.16 mm
20 ft	3	± 0.38 mm	1.6	± 0.16 mm
20 ft	4	± 0.51 mm	2.0	± 0.20 mm

## Volume and mass

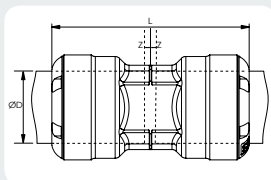
Ø ext (in)	Ø int (mm)	Value for 1 meter of pipe		
		volume (gal)	pipe mass (lbs)	mass of the network full of water (lbs)
1/2	19.6	0.08	1.38	2.05
3/4	25.6	0.13	1.78	2.92
1 1/2	39.1	0.32	3.56	6.21
2	57.1	0.68	5.14	10.79
3	72.9	1.10	6.52	15.72
4	97.6	1.98	10.90	31.80

# >Pipe-to-pipe and threaded connectors

The range of Transair pipe-to-pipe and threaded connectors provides versatility of design and helps to overcome constraints often encountered with the structure of industrial buildings.

- > Quick connection
- > Removable and reusable
- > Full bore design
- > Non-flammable materials (UL94HB standard)

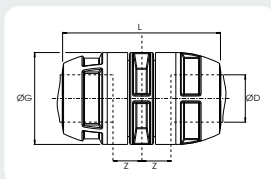
Ø  
1/2"  
3/4"



## Pipe-to-pipe connector

Transair	ØD (in)	L	Z
RR06 H3 01	1/2	63.2	1.2
RR06 H5 01	3/4	85.5	1.2

Ø  
1 1/2"  
2"

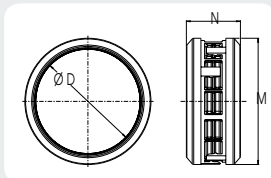
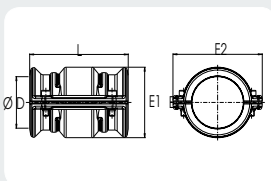


Transair	ØD (in)	ØG	L	Z
RP06 M4 01	1 1/2	82	155	2.6
RP06 M6 01	2	100	165	2.6

## Connector (clamp + cartridge assembly)

Transair	ØD (in)	L	E1	E2	M	N
RR01 L1 01	3	146	104	132	88.7	51.4
RR01 L3 01	4	146	128	157	125	52.7

Ø  
3"  
4"




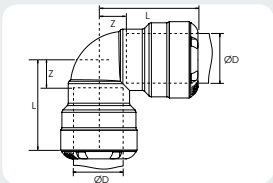

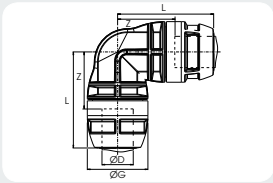

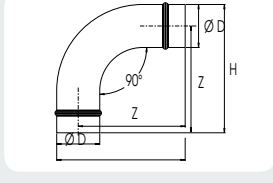
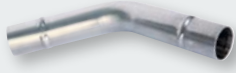
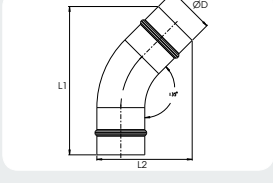

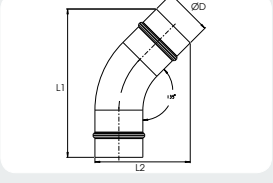

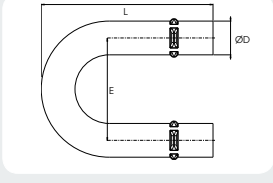


> Maximum working pressure: 145 psi

> Working temperature:

Ø 1/2", Ø 3/4": from -4°F to +185°F

Ø 1 1/2", Ø 2", Ø 3", Ø 4": from -4°F to +140°F

Ø 1/2" 3/4"		
Ø 1 1/2" 2"		
Ø 3" 4"		
Ø 1 1/2" 2"		
Ø 3" 4"		
Ø 1 1/2" 2"		

## 90° elbow

Transair	ØD	L	Z
RR02 H3 01	1/2	43.6	13.2
RR02 H5 01	3/4	56	14.5

Transair	ØD	ØG	L	Z
RP02 M4 01	1 1/2	82	130	55
RP02 M6 01	2	100	139	64

Transair	ØD	H	Z
RX02 L1 00	3	227	189
RX02 L3 00	4	278	221

Use two connectors RR01 to connect 90° elbow RX02 to Transair pipe.

## 45° elbow

Transair	ØD	L1	L2
RX12 M4 00	1 1/2	288	149
RX12 M6 00	2	300	167

Use two connectors RP06 to connect 45° elbow RX12 to Transair pipe.

Transair	ØD	L1	L2
RX12 L1 00	3	235.5	151.4
RX12 L3 00	4	271.4	184.3

Use two connectors RR01 to connect 45° elbow RX12 to Transair pipe.

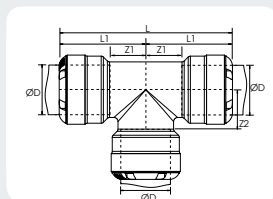
## 180° elbow

Transair	ØD	L	€
RX32 M4 00	1 1/2	216	128
RX32 M6 00	2	271	120.4

Use two connectors RP06 to connect RX32 180° elbow to Transair pipe.

# >Pipe-to-pipe and threaded connectors

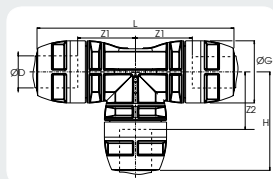
Ø  
1/2"  
3/4"



## Equal tee

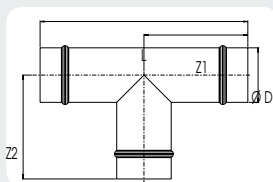
Transair	ØD (in)	L	LI	ZI	Z2
RR04 H3 01	1/2	42.1	43.6	11.7	11
RR04 H5 01	3/4	56	56	14.5	14.5

Ø  
1 1/2"  
2"



Transair	ØD (in)	ØG	L	H	ZI	Z2
RP04 M4 01	1 1/2	82	260	130	55	55
RP04 M6 01	2	100	279	139	64	64

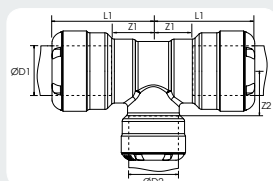
Ø  
3"  
4"



Transair	ØD (in)	L	ZI	Z2
RX04 L1 00	3	290	145	145
RX04 L3 00	4	310	135	135

Use three connectors RR01 to connect equal tee RX04 to Transair pipe.

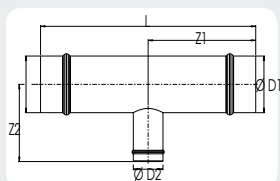
Ø  
1/2"  
3/4"



## Reducing tee


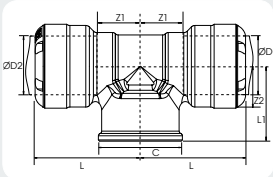

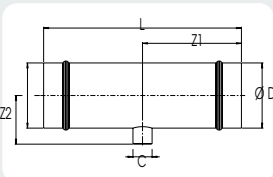

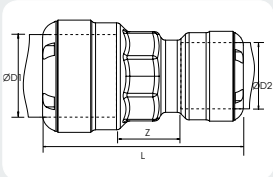

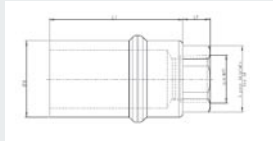

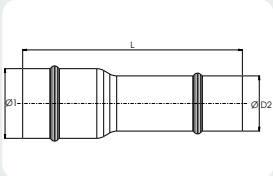
Transair	ØD1 (in)	ØD2 (in)	L	LI	ZI	Z2
RR04 H5 H3 01	3/4	1/2	53	46.6	11.5	16.2

Ø  
3"  
4"



Transair	ØD1 (in)	ØD2 (in)	L	ZI	Z2
RX04 L1 M4	3	1 1/2	290	145	183
RX04 L1 M6	3	2	290	145	183
RX04 L3 M4	4	1 1/2	310	155	195
RX04 L3 M6	4	2	310	155	195
RX04 L3 L1	4	3	310	155	135

Use two connectors RR01 to connect reducing tee RX04 to Transair pipes 3" and 4" and connector RP06 to connect pipe-to-pipe connector RP06 to Transair pipes, on pages 42 and 60 of this catalog.

<p>Ø</p> <p>1/2"</p> <p>3/4"</p>	 
<p>Ø</p> <p>3"</p> <p>4"</p>	 
<p>Ø</p> <p>1/2"</p> <p>3/4"</p>	 
<p>Ø</p> <p>1/2"</p> <p>3/4"</p>	 
<p>Ø</p> <p>1</p> <p>1/2"</p> <p>2"</p> <p>3"</p> <p>4"</p>	 

## Threaded tee

Transair	ØD (in)	L	LI	ZI	Z2
<b>RR26 H3N04 01</b>	1/2	42.1	30	11.7	13.7
<b>RR26 H5N06 01</b>	3/4	56	32.8	14.5	16.2

Transair	ØD (in)	C (in)	L	ZI	Z2
<b>RX20 L1N04</b>	3	1/2	290	145	63
<b>RX20 L3N04</b>	4	1/2	310	155	75.8

Use two connectors RR01 to connect threaded tee RX23 to Ø 3" or Ø 4" Transair pipe.

## Plug-in reducer

Transair	ØDI (in)	ØD2 (in)	L	Z
<b>RR06 H5 H3 01</b>	3/4	1/2	73.2	3.2

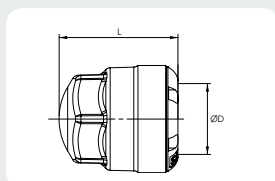
Transair	ØDI (in)	ØD2 (in)	L
<b>RR65 M4N06</b>	1 1/2	3/4	140
<b>RR65 M6N06</b>	2	3/4	150

Transair	ØDI (in)	ØD2 (in)	L
<b>RX66 M6 M4</b>	2	1 1/2	220
<b>RX66 L1 M6</b>	3	2	240
<b>RX66 L3 L1</b>	4	3	192

Use connector RR01 to connect plug-in reducer RX66 to Transair pipes Ø 3" or Ø 4" and pipe-to-pipe connector RP06 to connect to Transair pipe Ø 2".

# > Pipe-to-pipe and threaded connectors

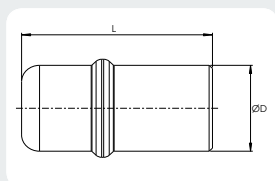
Ø  
1/2"  
3/4"



## End cap

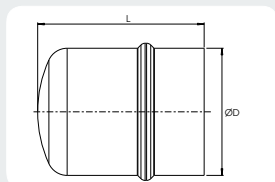
Transair	ØD (in)	L
RR25 H3 01	1/2	41.1
RR25 H5 01	3/4	54.5

Ø  
1 1/2"  
2"



Transair	ØD (in)	L
RR25 M4 00	1 1/2	85
RR25 M6 00	2	80

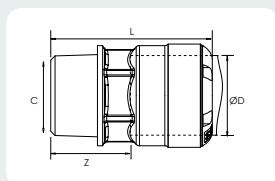
Ø  
3"  
4"



Transair	ØD	L
RX25 L1 00	3	99.6
RX25 L3 00	4	107.4

Use connector RR01 to connect end-cap RX25 to Transair pipe.

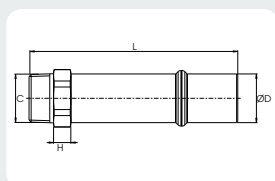
Ø  
1/2"  
3/4"



## Male stud fitting, NPT

Transair	ØD (in)	C	L	Z
RR05 H3N04 01	1/2	1/2	51.1	20.7
RR05 H3N06 01	1/2	3/4	52.6	22.2
RR05 H5N04 01	3/4	1/2	63.6	22.1
RR05 H5N06 01	3/4	3/4	65.5	22.1

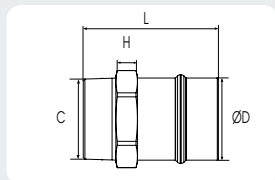
Ø  
1 1/2"  
2"



## Male adaptor, NPT

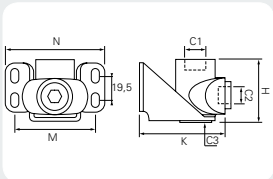
Transair	ØD	C	L	H
RR05 M4N10	1 1/2	1 1/4	183	15
RR05 M4N12	1 1/2	1 1/2	183	15
RR05 M6N16	2	2	192	15
RR05 M6N20	2	2 1/2	195	15

Ø  
3"



Transair	ØD	C (in)	L	H
RR21 L1N20	3	2 1/2	125	20
RR21 L1N24	3	3	125	20

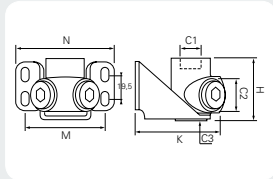




1 port wall bracket, NPT

Transair	C1 (in)	C2 (in)	C3 (in)	H	K	M	N
6687 22 22	1/2	1/2	1/4	48	72.5	66.5	82

Supplied with blanking plug.



2 port wall brackets, NPT

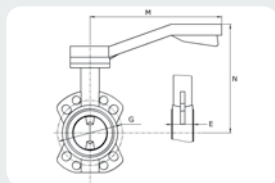
Transair	C1 (in)	C2 (in)	C3	H	K	M	N
6688 22 22	1/2	1/2	1/4	48	72.5	66.5	82

Supplied with blanking plug.

# >Ball valves and butterfly valves

Transair ball valves and butterfly valves placed regularly throughout the system and at key locations allow ease of system isolation, adaptation and maintenance.

Ø  
1 1/2"  
2"

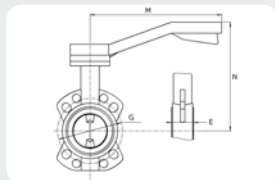


## Butterfly valve

Transair	ØD (in)	DN	G	M	N	€
VR02 M4 01	3	80	145	300	250	50
VR02 M6 01	4	100	180	270	210	56

Seal cast in one piece (do not use any flange gasket for mounting with a flange). Model with CE marking. Supplied with fixing bolts. Lockable version.

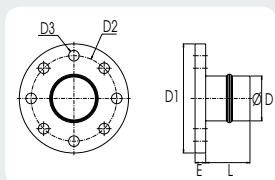
Ø  
3"  
4"



Transair	ØD (in)	DN	G	M	N	€
VR02 L1 01	3	80	145	300	250	50
VR02 L3 01	4	100	180	270	210	56

Seal cast in one piece (do not use any flange gasket for mounting with a flange). Model with CE marking. Supplied with fixing bolts. Lockable version.

Ø  
1 1/2"  
2"  
3"  
4"



## Flange and flange gasket

Transair	ØD (in)	DN	D1	D2	D3	€	L	Associated flange gasket
RX30 M4 00	1 1/2	32	140	100	18	10	163	EW05 M4 01
RX30 M6 00	2	50	165	125	18	10	141	EW05 M6 01
RX30 L1 00	3	65	185	145	18	10	75	EW05 L1 01
RX30 L3 00	4	100	220	180	18	10	75	EW05 L3 01
RX31 L1 00*	3	80	200	160	18	10	75	EW05 L1 01
RX31 L3 00*	4	100	220	180	18	10	75	EW05 L3 01

The flange can be directly connected to the butterfly valve (do not use an additional gasket). For any other type of fitting (to machinery for example), please use the flange gasket. Performance conforms to standards EN 1092-1 and ISO 7005. \*RX31 dimensions conform to ANSI standards.

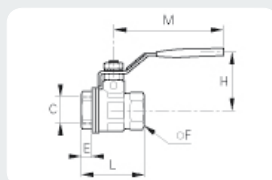


## Flange bolt kit

Transair	C	L
EW06 00 01	M16	60

Contains eight bolts and eight nuts.

- > Maximum working pressure: 145 psi
- > Working temperature:
  - Ø 1/2", Ø 3/4": from -4°F to +185°F
  - Ø 1 1/2", Ø 2", Ø 3", Ø 4": from -4°F to +140°F



### Double female valve, NPT

Transair	C	DN	Max. pressure (psi)	E	F	H	L	M
4962 60 14	1/4	10	435	11.4	20	43	51.5	98
4962 60 18	3/8	10	435	11.4	20	43	51.5	98
4962 65 22	1/2	15	435	13.5	25	47	55	98
4962 70 28	3/4	20	435	12.5	31	58	57.5	122
4962 75 35	1	25	435	15	38	60	69.5	122
4962 82 43*	1 1/4	32	362	17	48	77	81.5	153
4962 90 50*	1 1/2	40	362	28	54	83	95	153
4962 01 44*	2	50	362	22	66	95	113	162

\*Model with CE marking.



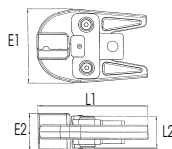
## Portable tool kit

**Transair**

**V**

**EW01 00 02**

This case contains: one portable tool, one 12V battery and battery charger.



## Jaw for portable tool

**Transair**

**EW02 M4 00**

**EW02 M6 00**

**EW02 L1 00**

**EW00 L3 00**

**ØD (in)**

**E1**

**E2**

**L1**

**L2**

1 1/2

103

28

154

46

2

103

42

154

46

3

103

52

154

46

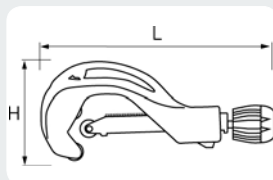
4

103

71

154

46



## Cutter for stainless steel pipe

**Transair**

**6698 03 01**

**EW08 00 01**

**L**

**H**

**Use for Transair pipe**

230

98

Ø 1/2" - 3/4" - 1 1/2" - 2"

360

155

Ø 2" - 3" - 4"

Spare rotary cutter blade for Transair cutter 6698 03 01: EW08 00 99

Spare rotary cutter blade for Transair cutter EW08 00 01: EW08 00 02



## Dismounting tool

**Transair**

**EW11 00 03**

Contains one key, five rings for dismantling Ø 1/2" and five rings for dismantling Ø 3/4".



## Maintenance set

**Transair**

**EW10 H3 01**

**EW10 H5 01**

**ØD (in)**

1/2

3/4


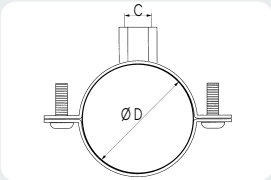

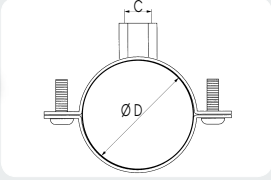
Contains five complete fitting accessories for Ø 1/2" or Ø 3/4" connectors.



## Set of tightening spanners

**Transair**

**6698 05 03**

<p>Ø</p> <p>1 1/2"</p> <p>3/4"</p> <p>1 1/2"</p> <p>2"</p> <p>3"</p> <p>4"</p>	 	<p><b>Fixing clip</b></p> <table> <tr> <th>Transair</th><th>ØD (in)</th><th>C</th></tr> <tr> <td>ER01 H3 00</td><td>1/2</td><td>3/8"</td></tr> <tr> <td>ER01 H5 00</td><td>3/4</td><td>3/8"</td></tr> <tr> <td>ER01 M4 00</td><td>1 1/2</td><td>3/8"</td></tr> <tr> <td>ER01 M6 00</td><td>2</td><td>3/8"</td></tr> <tr> <td>ER01 L1 00</td><td>3</td><td>3/8"</td></tr> <tr> <td>ER01 L3 00</td><td>4</td><td>3/8"</td></tr> </table>	Transair	ØD (in)	C	ER01 H3 00	1/2	3/8"	ER01 H5 00	3/4	3/8"	ER01 M4 00	1 1/2	3/8"	ER01 M6 00	2	3/8"	ER01 L1 00	3	3/8"	ER01 L3 00	4	3/8"
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EX01 L3 00	4	M8 / M10																					

# EASIER

## HANDLING

Pipes and fitting are supplied ready for an immediate installation  
> NO PREPARATION REQUIRED

Quick assembly - no need to weld, solder, glue, crimp or thread  
> TIME SAVING

Easy to assemble  
> NO IN-DEPTH TRAINING REQUIRED

## COMPLETELY ADAPTABLE

> Removable and reusable components

## HIGH RESISTANCE TO

> corrosion  
> aggressive environments  
> thermal variations  
> U.V.





## > Installation guide

### Golden rules of installation

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### Pipe

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# >Golden rules of installation

## > Installation instructions

### > General

Prior to the installation of a Transair cooling water distribution system, the installer should ensure that the installation area complies with any regulations applicable to areas exposed to explosive hazards (in particular the effect of static electricity in a silo area). When maintaining or modifying a Transair system, the relevant section should be purged prior to the commencement of any work. Installers should use only Transair components and accessories, in particular Transair pipe clips and fixture clamps. The technical properties of the Transair components, as described in the Transair catalog, must be respected.

### > Commissioning the installation

Once the Transair installation has been installed and prior to commissioning, the installer should complete all tests, inspections and compliance checks as stated in any contract and according to sound engineering practice and current local regulations.

### > Transair pipe and hoses

Transair pipe should be protected from mechanical impact, particularly if exposed to collision with fork-lift trucks or when sited in an environment with moving overhead loads. Similarly, rotation of the pipe and pipe supports should be avoided. Transair pipe must not be welded.

Note: In certain situations, Transair stainless steel pipe may be formed with a bend - please contact us for further information.

### > Component assembly

Transair components are provided with assembly instructions for their correct use - simply follow the methods and recommendations stated in this document or separate data sheets.

### > Transair installations - situations to avoid

- > installation within a solid mass (concrete, foam, etc.), especially underground
- > the suspension of any external equipment from Transair pipe
- > the use of Transair for earthing, or as a support for electrical equipment
- > exposure to chemicals that are incompatible with Transair components (please contact us for further details)

## **> Sound engineering practice for the optimization of an industrial water pipework system**

**> When installing a Transair system, work should be completed in accordance with sound engineering practice.**

**> Maintain a consistent level of good quality fluid.**

**> The diameter of the pipe will influence pressure drop and the operation of point-of-use equipment. Select the diameter according to the required flow rate and acceptable pressure drop at the point of use.**

**> Never encase the system in a hard solid mass, in order to facilitate maintenance or servicing.**

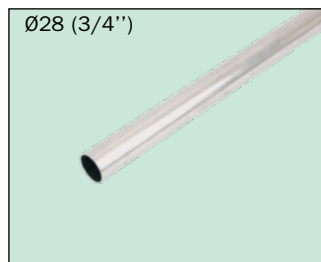
**> Position drops and feeds to take-off points as close as possible to the point of use.**

## > General

## > Presentation



Deburred and chamfered pipe



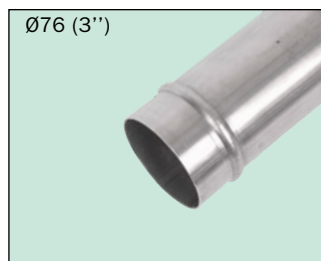
Deburred and chamfered pipe



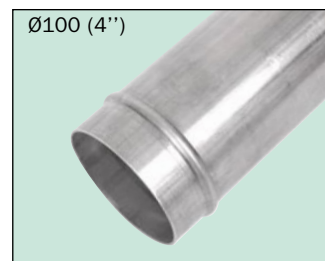
Pipe lugged at each end, deburred and chamfered



Pipe lugged at each end, deburred and chamfered



Pipe lugged at each end, deburred and chamfered



Pipe lugged at each end, deburred and chamfered

Transair stainless steel pipe is supplied ready for use. No particular preparation (cutting, deburring, chamfering, etc.) is required.

Thanks to the rigidity of Transair stainless steel pipe, temperature-related expansion/contraction is reduced to a minimum. The Transair system retains its straightness, and hence its performance, over time (reduction of pressure drop caused by surface friction).

Transair stainless steel pipe is calibrated and fits perfectly with all Transair components. Each connection is automatically secured and the seal is optimized, which minimizes corrosion to the internal surface.

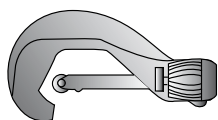
## > Applications

Transair Ø 1/2" - Ø 3/4" - Ø 1 1/2" - Ø 2" - Ø 3" - Ø 4" stainless steel pipes have been specially designed for the creation of primary and secondary systems for industrial water applications.

## > Stainless steel pipe section

> Ø 1/2" - 3/4"

### > Tools



Pipe cutter  
6698 03 01



Chamfering tool  
6698 04 01

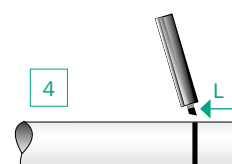
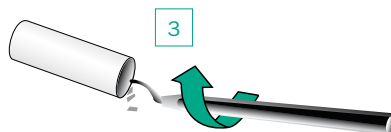
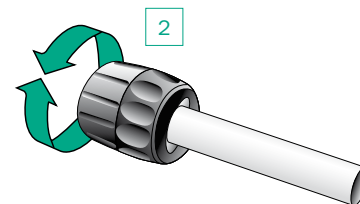
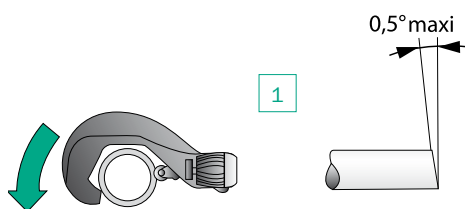


Deburring tool  
6698 04 02



Marker tool

### > Procedure



Ø 1/2" : L = 1.2"

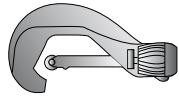
Ø 3/4" : L = 1.6"

- 1 - Cutting the pipe:
- place the pipe into the pipe cutter
  - position the blade onto the pipe
  - rotate the pipe cutter around the pipe while gently tightening the wheel

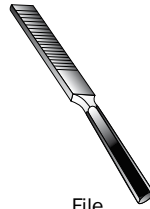
- 2 - Carefully chamfer the outer edges
- 3 - Also deburr the interior end of the pipe
- 4 - Mark the connection indicator using the marking tool

## > Pipe section

> Ø 1 1/2" - 2"  
Ø 3" - 4"



Pipe cutter  
6698 03 01



File



Deburring tool  
6698 04 02

### > Tools

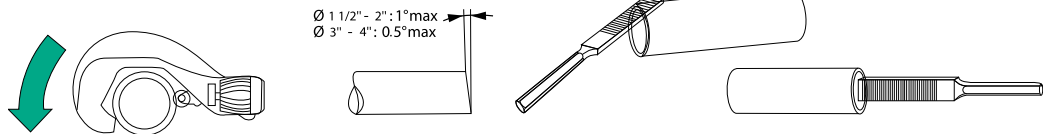


Portable tool kit ref.  
EW01 00 01 (12V)



Pipe forming tool jaw set ref.  
EW02 M4 00 (Ø 1 1/2")  
EW02 M6 00 (Ø 2")  
EW02 L1 00 (Ø 3")  
EW02 L3 00 (Ø 4")

## I - Pipe section



### > Procedure

- Cutting the pipe:
  - place the pipe into the pipe cutter
  - position the blade onto the pipe
  - rotate the pipe cutter around the pipe while gently tightening the wheel
- Carefully chamfer and deburr the end of the pipe with a file



> Procedure

2 - Preparation of the portable tool kit



Open the retaining pin at the front of the machine by pressing the jaw to release button\*.

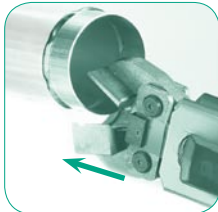


Place the jaws in the housing.



Lock in position by closing the retaining pin.

3 - How to create the lugs



Manually open the jaws of the clamp and insert the stainless steel pipe into the clamp as far as it will go.



Release the jaws. Press the trigger and crimp the tube until a 'snap' sound is heard.



Re-open the two jaws to remove the pipe and rotate the pipe slightly.



Renew the operation until the required minimum number of lugs for each diameter is achieved.

	Ø 1 1/2"	Ø 2"	Ø 3"	Ø 4"
Min. number of lugs	4	4	6	7

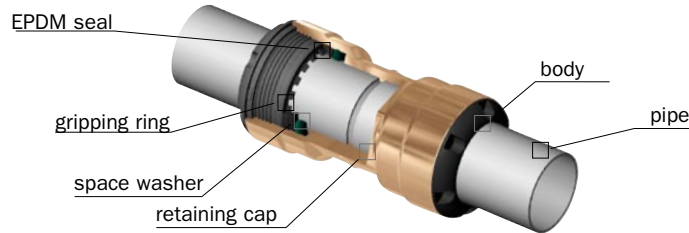
 **Important:**  
do not overlap the lugs!

# >Transair connectors

## > General

> Ø 1/2"  
Ø 3/4"

### Instant connection by means of a gripping ring



Pipe-to-pipe and threaded connectors in Ø 1/2" and Ø 3/4" can be immediately connected to Transair 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.

> Ø 1 1/2"  
Ø 2"

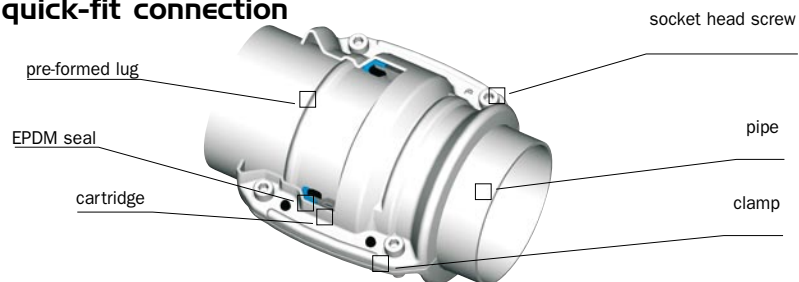
### Double-clamp quick-fit connection



Pipe-to-pipe and threaded connectors in Ø 1 1/2" and Ø 2" 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.

> Ø 3"  
Ø 4"

### Clamp quick-fit connection



Pipe-to-pipe and stud connectors in Ø 3" and Ø 4" 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.

## > Connection / Disconnection

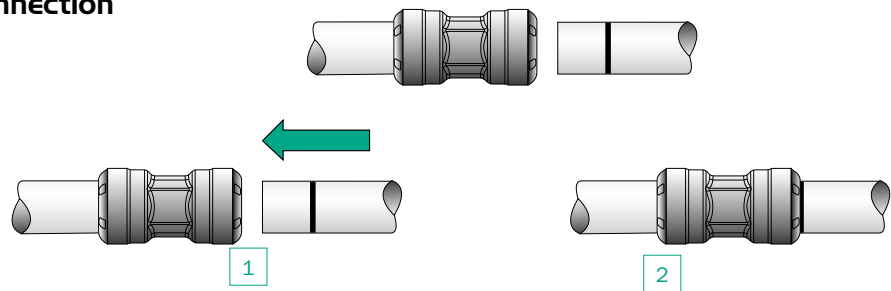
> Ø 1/2" - 3/4"

> Tools

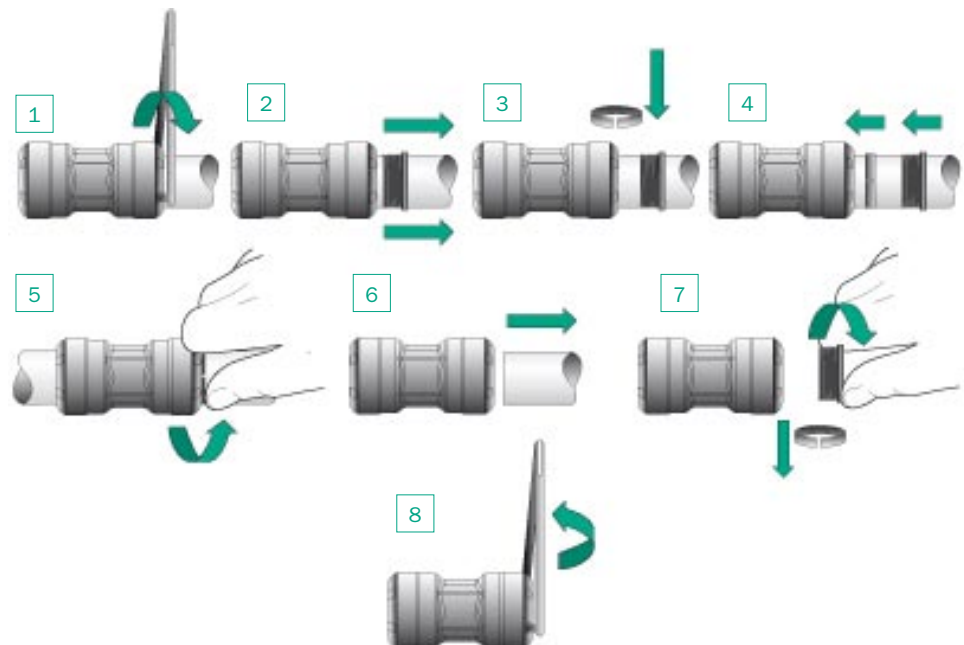


Dismounting tool  
EW11 0 0 03

### Connection



### Disconnection

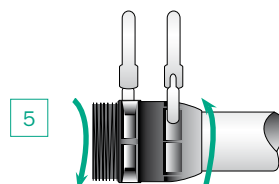
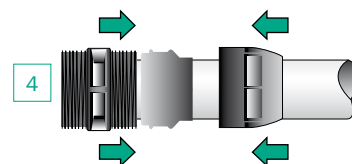
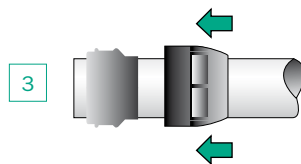
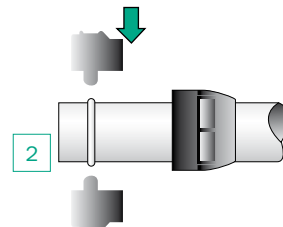
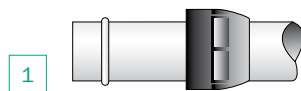


> Procedure

# >Transair connectors

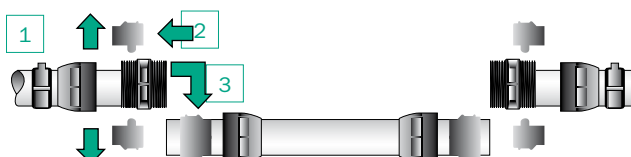
## > Connection / Disconnection

> Ø 1 1/2"  
Ø 2"



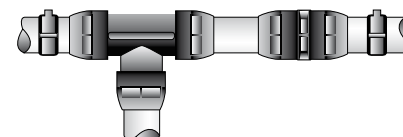
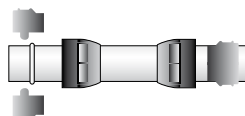
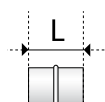
> Connection /  
Disconnection

## > Lateral dismounting



### Replace one connector by a tee

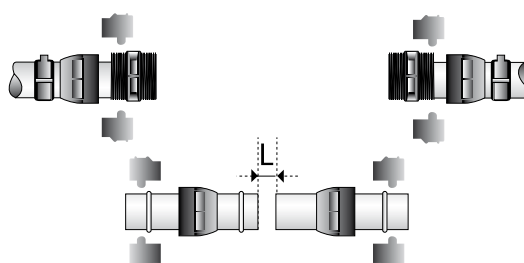
Ø	L (in)
42	1 1/2
60	2



1 - Cut the pipe and create the lugs  
(see pages 32/33)

2 - Connect the pipe

### Add one tee



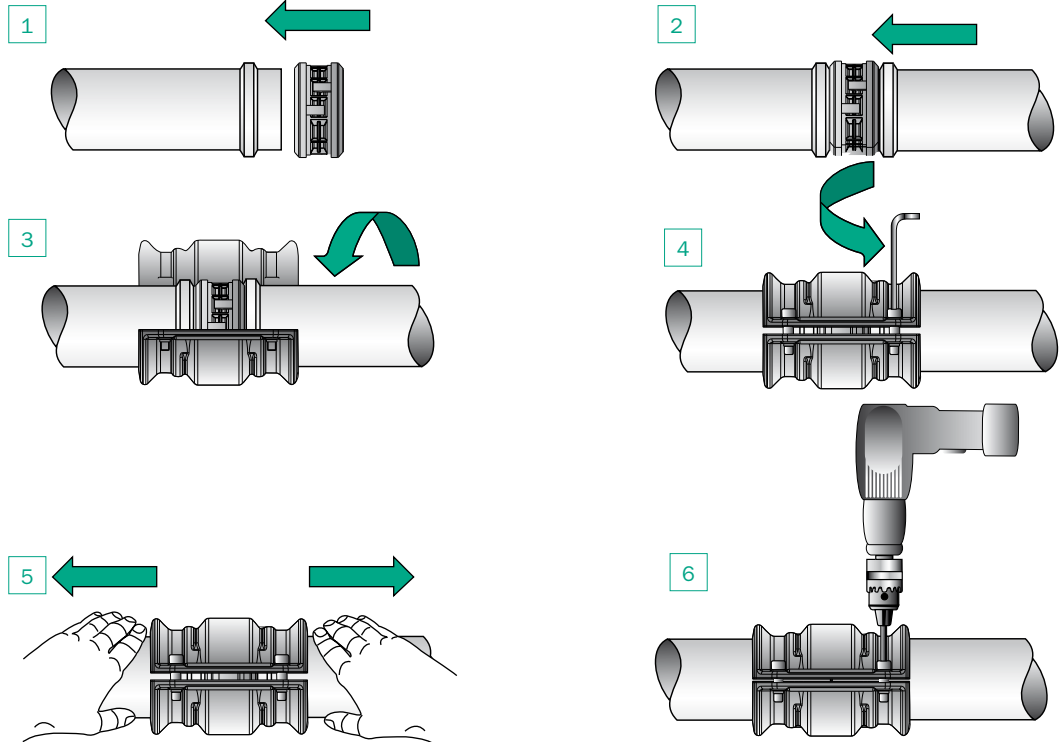
Ø	L (in)
42	1 1/2
60	2

1 - Cut the pipe and create the lugs  
(see pages 32/33)

2 - Connect the pipe

> Ø 3"  
Ø 4"

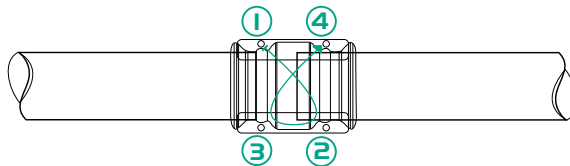
## Connection / Disconnection



- 1 - Slip the cartridge over the end of the first pipe fully up to the shoulder.
- 2 - Bring the second pipe to the cartridge and slide fully up to the shoulder.
- 3 - Position the clamp over the cartridge / pipe assembly.
- 4 - Hand tighten the pre-fitted screws with an Allen key.

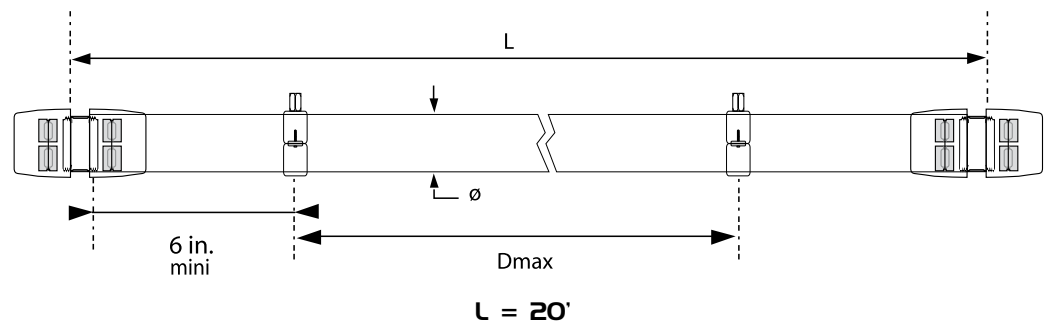
- 5 - Pull the pipes fully back towards the outside of the clamp.
- 6 - Fully tighten the clamp screws (maximum tightening torque: final closure of clamps).

For effective clamp sealing, screw tightening should be performed on alternate sides of the clamp as shown below:



To disconnect, perform the same operations in reverse order.





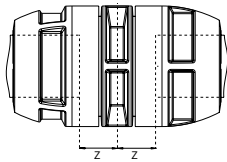
$\varnothing$	$D_{max}$ (ft)
1/2	10
3/4	10
1 1/2	13
2	13
3	17
4	17



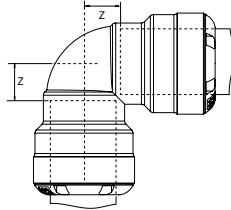
## >Z dimensions

Transair	Z	Z1	Z2
RP02 M4 01	55	-	-
RP02 M6 01	64	-	-
RP06 M4 01	2.6	-	-
RP06 M6 01	2.6	-	-
RR02 H3 01	13.2	-	-
RR02 H5 01	14.5	-	-
RR04 H3 01	-	11.7	11
RR04 H5 01	-	14.5	14.5
RR04 H5 H3 01	-	11.5	16.2
RR05 H3N04	20.7	-	-
RR05 H3N06	22.2	-	-
RR05 H5N04	22.1	-	-
RR05 H5N06	22.1	-	-
RR06 H3 01	1.2	-	-
RR06 H5 01	1.2	-	-
RR06 H5 H3 01	3.2	-	-
RR23 H3N04 01	-	11.7	13.7
RR23 H5N06 01		11.5	13.5
RX02 L1 00	189	-	-
RX02 L3 00	221	-	-
RX04 L1 00	-	145	145
RX04 L1 M4	-	145	183
RX04 L1 M6	-	145	183
RX04 L3 00	-	135	135
RX04 L3 L1	-	155	135
RX04 L3 M4	-	155	195
RX04 L3 M6	-	155	195
RX20 L1N04	-	145	63
RX20 L3N04	-	155	75.8

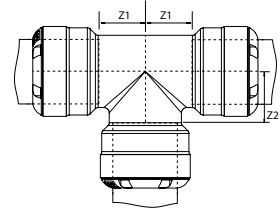
RP06 M4 01 - RP06 M6 01



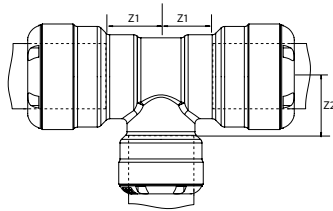
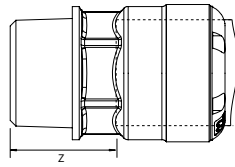
RR02 H3 01 - RR02 H5 01



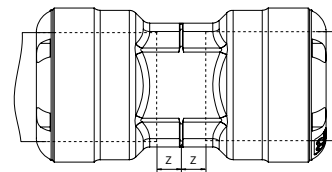
RR04 H3 01 - RR04 H5 01



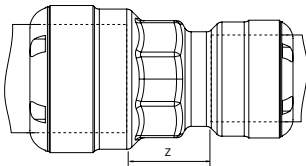
RR04 H5 H3 01

RR05 H3N04 - RR05 H3N06  
RR05 H5N04 01 - RR05 H5N06 01

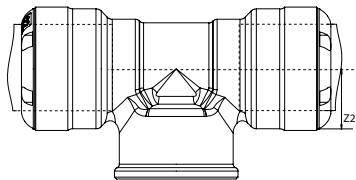
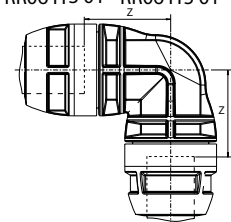
RR06 H3 01 - RR06 H5 01



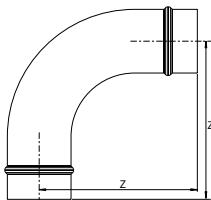
RR06 H5 H3 01



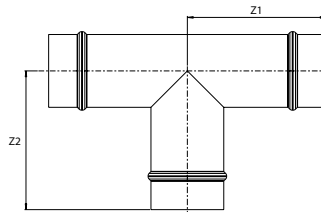
RR23 H3N04 01 - RR23 H5N06 01

RP02 H3 01 - RP06 H5 01  
RR06 H3 01 - RR06 H5 01

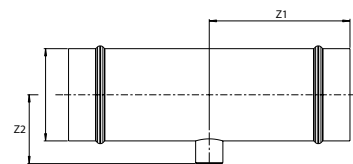
RX02 H3 00 - RX02 H5 00



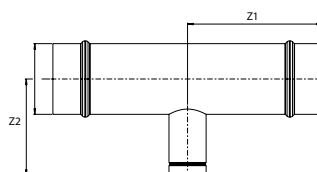
RX04 L1 00 - RX04 L3 00



RX20 L1N04 - RX20 L3N04



RX04 L1 M4 - RX04 L1 M6 - RX04 L3 M4 - RX04 L3 M6 - RX04 L3 L1



# >Conversion charts

## > Length

millimeter (mm)	meter (m)	inch (in)	foot (ft)	yard (yd)
10	0.01	0.39	0.03	0.01
20	0.02	0.79	0.07	0.02
30	0.03	1.18	0.10	0.03
40	0.04	1.57	0.13	0.04
50	0.05	1.97	0.16	0.05
60	0.06	2.36	0.20	0.07
70	0.07	2.76	0.23	0.08
80	0.08	3.15	0.26	0.09
90	0.09	3.54	0.30	0.10
100	0.10	3.94	0.33	0.11
150	0.15	5.91	0.49	0.16
200	0.20	7.87	0.66	0.22
250	0.25	9.84	0.82	0.27
300	0.30	11.81	0.98	0.33
350	0.35	13.78	1.15	0.38
400	0.40	15.75	1.31	0.44
450	0.45	17.72	1.48	0.49
500	0.50	19.69	1.64	0.55
550	0.55	21.65	1.80	0.60
600	0.60	23.62	1.97	0.65
700	0.70	27.56	2.30	0.76
800	0.80	31.50	2.62	0.87
900	0.90	35.43	2.95	0.98
1 000	1.00	39.37	3.28	1.09

## > Pressure

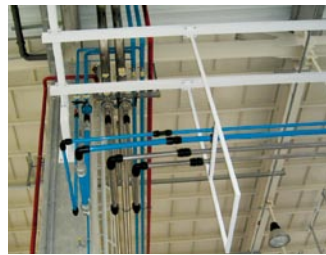
Bar	Kilo Pascal (KPa)	Atmosphere (atm)	PSI	Torr (mm Hg)
1	100	0.99	14.50	750
2	200	1.97	29.00	1 500
3	300	2.96	43.50	2 250
4	400	3.95	58.00	3 000
5	500	4.93	72.50	3 750
6	600	5.92	87.00	4 500
7	700	6.91	101.50	5 250
8	800	7.90	116.00	6 000
9	900	8.88	130.50	6 750
10	1000	9.87	145.00	7 500
11	1100	10.86	159.50	8 250
12	1200	11.84	174.00	9 000
13	1300	12.83	188.50	9 750
14	1400	13.82	203.00	10 500
15	1500	14.80	217.50	11 250
16	1600	15.79	232.00	12 000
20	2000	19.74	290.00	15 000

## &gt; Flow rate

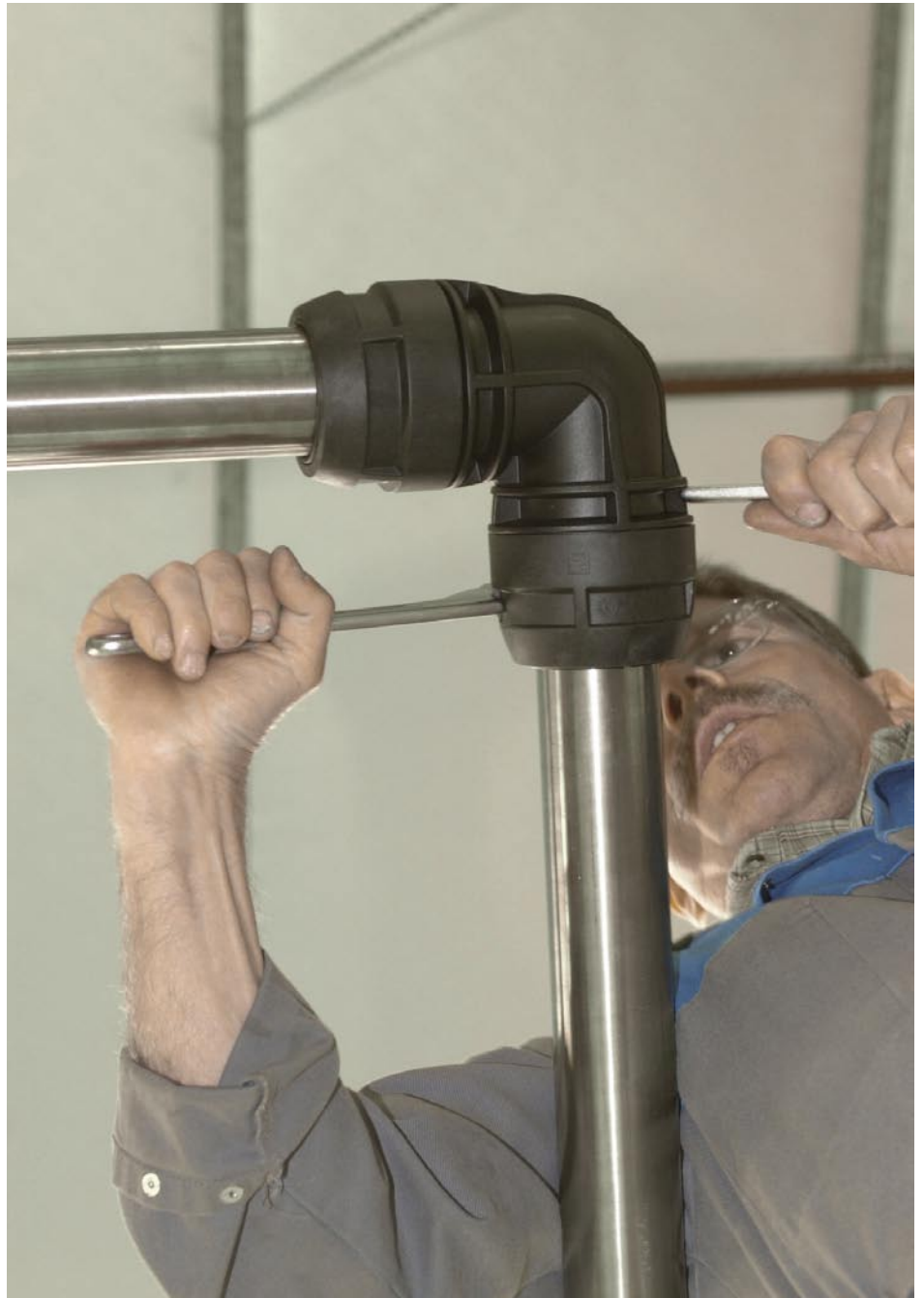
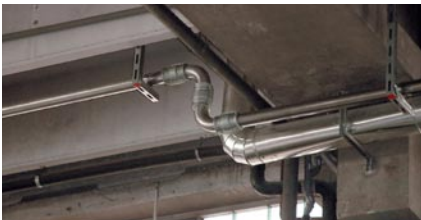
gallon per minute (g/min)	liter per minute (l/min)	cubic meter per minute (m <sup>3</sup> /min)	cubic meter per hour (m <sup>3</sup> /h)	cubic feet per minute (cfm)
159	600	0.60	36	21
317	1 200	1.20	72	42
476	1 800	1.80	108	64
634	2 400	2.40	144	85
793	3 000	3.00	180	106
951	3 600	3.60	216	127
1 110	4 200	4.20	252	148
1 268	4 800	4.80	288	169
1 427	5 400	5.40	324	191
1 585	6 000	6.00	360	212
2 378	9 000	9.00	540	318
3 170	12 000	12.00	720	424
3 962	15 000	15.00	900	530
4 755	18 000	18.00	1 080	635
5 547	21 000	21.00	1 260	741
6 340	24 000	24.00	1 440	847
7 132	27 000	27.00	1 620	953
7 925	30 000	30.00	1 800	1 059
8 717	33 000	33.00	1 980	1 165
9 510	36 000	36.00	2 160	1 271
11 095	42 000	42.00	2 520	1 483
12 680	48 000	48.00	2 880	1 694
14 265	54 000	54.00	3 240	1 906
15 850	60 000	60.00	3 600	2 118



## >Transair in use





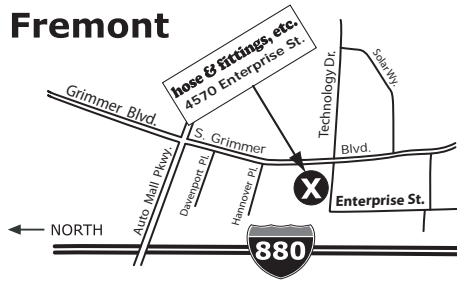


# >Part numbers index

Part Number		Part Number		Part Number		Part Number	
4960 65 22	23	EW11 00 03	24	RR21 L1N24	20	RX31 L1 00	22
4962 01 44	23	EX01 L1 00	25	RR25 H3 01	20	RX31 L3 00	22
4962 60 14	23	EX01 L3 00	25	RR25 H5 01	20	RX32 M4 00	17
4962 60 18	23	EX01 M4 00	25	RR25 M4 00	20	RX32 M6 00	17
4962 70 28	23	EX01 M6 00	25	RR25 M6 00	20	RX66 L3 L1	19
4962 75 35	23	RP02 H3 01	17	RR26 H3N04 01	19	RX66 L1 M6	19
4962 82 43	23	RP02 H5 01	17	RR26 H5N06 01	19	RX66 M6 M4	19
4962 90 50	23	RP02 M4 01	17	RR65 M4N06	19	TX16 H3 00	14
6687 22 22	21	RP02 M6 01	17	RR65 M6N06	19	TX16 H5 00	14
6688 22 22	21	RP04 M4 01	18	RX02 L1 00	17	TX16 L1 00	14
6698 03 01	24	RP04 M6 01	18	RX02 L3 00	17	TX16 L3 00	14
6698 05 03	24	RP06 M4 01	16	RX04 L1 00	18	TX16 M4 00	14
ER01 H3 00	25	RP06 M6 01	16	RX04 L1 M4	18	TX16 M6 00	14
ER01 H5 00	25	RR01 L1 01	16	RX04 L1 M6	18	VR02 L1 01	22
ER01 L1 00	25	RR01 L3 01	16	RX04 L3 00	18	VR02 L3 01	22
ER01 L3 00	25	RR04 H3 01	18	RX04 L3 L1	18	VR02 M4 01	22
ER01 M4 00	25	RR04 H5 01	18	RX04 L3 M4	18	VR02 M6 01	22
ER01 M6 00	25	RR04 H5 H3 01	18	RX04 L3 M6	18		
EW01 00 02	24	RR05 H3N04 01	20	RX12 L1 00	17		
EW02 L1 00	24	RR05 H3N06 01	20	RX12 L3 00	17		
EW02 L3 00	24	RR05 H5N04 01	20	RX12 M4 00	17		
EW02 M4 00	24	RR05 H5N06 01	20	RX12 M6 00	17		
EW02 M6 00	24	RR05 M4N10	20	RX20 L1N04	19		
EW05 L1 01	22	RR05 M4N12	20	RX20 L3N04	19		
EW05 M4 01	22	RR05 M6N16	20	RX25 L1 00	20		
EW05 M6 01	22	RR05 M6N20	20	RX25 L3 00	20		
EW06 00 01	22	RR06 H3 01	16	RX30 L1 00	22		
EW08 00 01	24	RR06 H5 01	16	RX30 L3 00	22		
EW10 H3 01	24	RR06 H5 H3 01	19	RX30 M4 00	22		
EW10 H5 01	24	RR21 L1N20	20	RX30 M6 00	22		

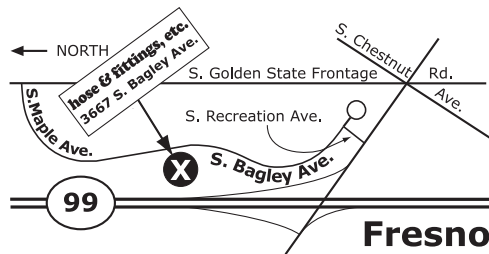
# Five convenient locations - same great service

## Fremont



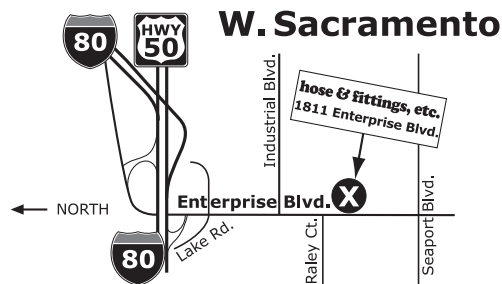
4570 Enterprise St.  
Fremont, CA 94538  
Phone: 510.661.0151  
Hours: 7 a.m. - 5 p.m. (M-F)

### QR Code



3667 South Bagley Ave., #102  
Fresno, CA 93725  
Phone: 559.495.1220  
Hours: 7 a.m. - 5 p.m. (M-F)

### QR Code

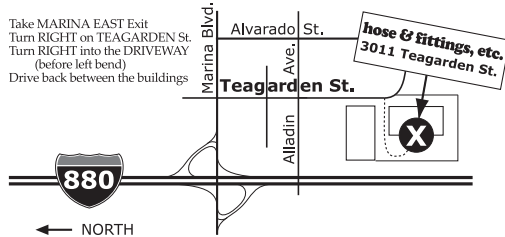


1811 Enterprise Blvd.  
West Sacramento, CA 95691  
Phone: 916.372.3888  
Hours: 7 a.m. - 5 p.m. (M-F)

### QR Code

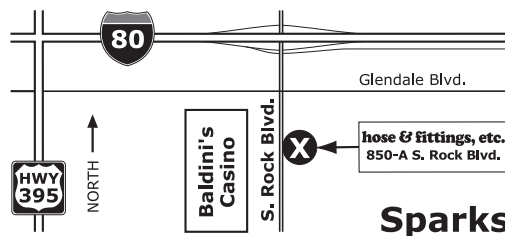


## San Leandro



3011 Teagarden St.  
San Leandro, CA 94577  
Phone: 510.352.1514  
Hours: 7 a.m. - 5 p.m. (M-F)

### QR Code



850-A South Rock Blvd.  
Sparks, NV 89431  
Phone: 775.331.4673  
Hours: 7 a.m. - 5 p.m. (M-F)

### QR Code



Phone: 888.715.4673  
E-mail: hfe@hfeweb.com  
**hfeweb.com**