

# Airflow piping system

The smart connector system from AIRKO.

## Plug it in and it's ready: AIRKO Airflow piping system

Airflow, the low-cost, easy-to-assemble and zero-maintenance pipework system for supply and control lines, is made of high-quality polyamide. A legend – and quality that has been speaking for itself for 40 years.

Polyamide is so tough, it's even used in the brake lines of lorries. It's perfect for the safe transport of compressed air.

## AIRKO Airflow is a connector system with decisive benefits that keeps energy flowing while minimising costs:

- Pressure-resistant to 15 bar
- Temperature- and UV-resistant
- Shock- and vibration-resistant
- Completely sealed
- Electrically non-conductive
- Age- and corrosion-resistant
- Maintenance-free and non-rusting

Because the material is conducive to flow, pressure losses are dramatically reduced and it is even possible to use smaller cross-sections than with steel pipes.

## The system doesn't even require 'assembly' as such: it relies on simple plug connections.

No tools are needed to lay an Airflow network, nor is there any need for time-consuming thread-cutting. This makes it around 80 % faster than with other methods. If you want to lay your own pipework, now you can do it with peace of mind.

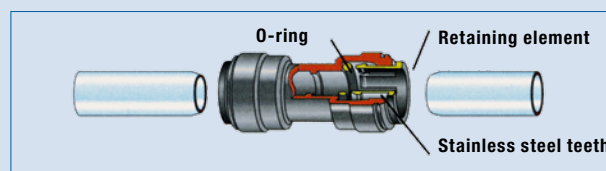
Airflow connectors are also suitable for precision steel pipes and are quickly and easily removed by hand.

Airflow is a well-designed and trusted modular system for pipes measuring 12–22 mm in diameter. The list of possible pipe variants is virtually unlimited.

The completed network is corrosion-proof, maintenance-free and pressure-resistant to 15 bar and can be added to or reconfigured with ease.

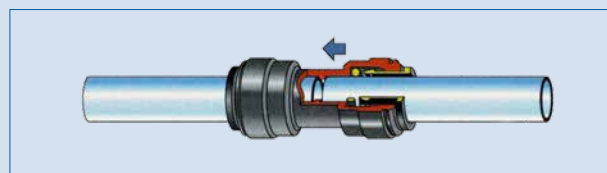
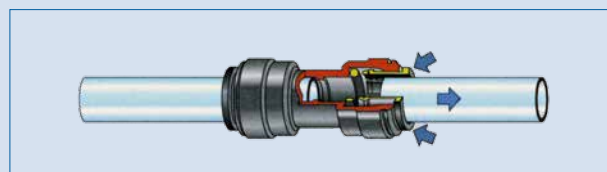
## Making a connection: diameter 12–22 mm

The pipe is to be cut straight and at right angles. There must be no sharp edges or other damage.



## Connection engages before being sealed

The connector engages before it is sealed. The pipe is inserted as far as it will go, and the stainless steel teeth on the retaining element grip the pipe inside the connector. The O-ring then creates a completely sealed connection.



## Checking the connection

You can check whether the pipe is properly engaged by gently pulling the two parts in opposite directions.



## Releasing the connection

Press back the retaining element to release the pipe from the connection.



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**Airflow piping system:  
design your own Airflow networks.**

**Decide which pipe diameter you need.**

Refer to the tables below to see which pipe cross-section you need. This depends on the length of the pipe and the air throughput. Identify the pipe lengths required for ring lines and stub lines.

The calculations below are based on the following assumptions:

- Operating pressure 7 bar
- Desired max. pressure drop 0.2 bar throughout length of pipe
- Pipe cross-sections in mm (inner diameter) (DN)

## Compressed air distribution with ring line

Delivery volume of compressor [l/min]	Length [m]						
	25	50	100	150	200	250	300
200	12	12	12	12	12	15	15
400	12	<b>12</b>	15	15	18	18	18
500	12	15	15	18	18	18	22
750	15	15	18	22	22	22	22
1000	15	18	22	22	<b>25</b>	25	25
1500	18	22	25	25	32	32	32
2000	22	22	25	32	32	32	32
3000	22	32	32	32	40	40	40
4000	28	32	32	40	40	40	40

**Example 1:** With a compressor capacity of **1000 l/min** and a ring line of **200 metres** you will need a pipe cross-section of **DN 25**.

**Example 2:** With a compressor capacity of **400 l/min** and a ring line of **50 metres** you will need a pipe cross-section of **DN 12**.

## Compressed air distribution with stub line

Delivery volume of compressor [l/min]	Length [m]						
	25	50	100	150	200	250	300
200	12	12	12	15	15	15	18
400	12	<b>15</b>	18	18	18	22	22
500	15	15	18	22	22	22	22
750	15	18	22	22	25	25	25
1000	18	22	25	25	<b>32</b>	32	32
1500	22	25	32	32	32	32	40
2000	22	25	32	32	40	40	40
3000	32	32	40	40	40	40	40
4000	32	32	40	40	63	63	63

**Example 1:** With a compressor capacity of **1000 l/min** and a stub line of **200 metres** you will need a pipe cross-section of **DN 32**.

**Example 2:** With a compressor capacity of **400 l/min** and a stub line of **50 metres** you will need a pipe cross-section of **DN 15**.

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Item name	Illustration	Order no.	EAN code
Airflow pipe TR 12/9 wswLT roll (100 m)	<b>1</b>	429.026	9009261290268
Airflow pipe TR 15/12 wswLT roll (100 m)		429.030	9009261290305
Airflow pipe TR 18/14 wswLT roll (100 m)		429.034	9009261290343
Airflow pipe TR 22/18 wswLT roll (100 m)		429.038	9009261290381
Airflow pipe TR 28/23 wswLT roll (50 m)		429.516	9009261295164
Airflow pipe TR 15/12 hswLT bar (3 m)		429.028	9009261290282
Airflow pipe TR 18/14 hswLT bar (3 m)		429.032	9009261290329
Airflow pipe TR 22/18 hswLT bar (3 m)		429.036	9009261290367
Airflow pipe TR 28/23 hswLT bar (3 m)		429.517	9009261295171
Airflow aluminium pipe 15 mm coated on inside (3 m)		429.022	9009261290220
Airflow aluminium pipe 22 mm coated on inside (3 m)		429.024	9009261290244
Airflow aluminium pipe 28 mm coated on inside (3 m)		429.039	9009261290398
Plastic diaphragm WSK G 1/2"	<b>2</b>	429.044	9009261290442
Aluminium diaphragm 1/2"	<b>3</b>	429.042	9009261290428
Sealing plug 1/2" for diaphragm		429.040	9009261290404
Diaphragm Ms 15 mm x 1/2"	<b>4</b>	429.046	9009261290466
Diaphragm Ms 22 mm x 3/4"		429.048	9009261290480
Connector G12	<b>5</b>	429.004	9009261290046
Connector G15		429.006	9009261290060
Connector G18		429.008	9009261290084
Connector G22		429.010	9009261290107
Connector G28		429.514	9009261295140
Connector GE12R3/8	<b>6</b>	429.014	9009261290145
Connector GE12R1/2		429.012	9009261290121
Connector GE15R1/2		429.016	9009261290169
Connector GE18R1/2		429.018	9009261290183
Connector GE22R3/4		429.020	9009261290206
Connector GE28 1"		429.021	9009261290213
Screw-in connector MS 15 mm 1/2"	<b>7</b>	429.000	9009261290008
Screw-in connector MS 22 mm 3/4"		429.002	9009261290022
Screw-in connector MS 28 mm 3/4"		429.518	9009261295188
Screw-in connector MS 28 mm 1"		429.519	9009261295195
Right-angle connector W12		429.096	9009261290961
Right-angle connector W15	<b>8</b>	429.098	9009261290985
Right-angle connector W18		429.100	9009261291005
Right-angle connector W22		429.102	9009261291029
Right-angle connector W28		429.510	9009261295102
T-connector T12	<b>9</b>	429.084	9009261290848
T-connector T15		429.086	9009261290862
T-connector T18		429.088	9009261290886
T-connector T22		429.090	9009261290909
T-connector T28		429.508	9009261295089
Connector TR 18/18/15	<b>10</b>	429.092	9009261290923
Connector TR 22/15/22		429.094	9009261290947
Pipe connection RSZ12 R3/8	<b>11</b>	429.064	9009261290640
Pipe connection RSZ12 R1/2		429.062	9009261290626
Pipe connection RSZ15 R3/8		429.068	9009261290688
Pipe connection RSZ15 R1/2		429.066	9009261290664
Pipe connection RSZ18 R1/2		429.070	9009261290701
Pipe connection RSZ22 R1/2		429.072	9009261290725
Pipe connection RSZ22 R3/4		429.074	9009261290749
Screw-in fitting MS 15 mm 1/2"	<b>12</b>	429.054	9009261290541
Screw-in fitting MS 22 mm 3/4"		429.056	9009261290565
Screw-in fitting MS 28 mm 3/4"		429.520	9009261295201
Screw-in fitting MS 28 mm 1"		429.521	9009261295218

\* Price per m and/or per unit

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Item name	Illustration	Order no.	EAN code
Screw-on fitting MS 15 mm 1/2"	<b>13</b>	429.050	9009261290503
Screw-on fitting MS 22 mm 3/4"		429.052	9009261290527
Plug-in connector W 15	<b>14</b>	429.058	9009261290589
Plug-in connector W 22		429.060	9009261290602
Reducing plug-in fitting G12RS15	<b>15</b>	429.076	9009261290763
Reducing plug-in fitting G15RS22		429.080	9009261290800
Reducing plug-in fitting G15RS18		429.078	9009261290787
Reducing plug-in fitting G18RS22		429.082	9009261290824
Reducing plug-in fitting G15RS28		429.513	9009261295133
Reducing plug-in fitting G22RS28		429.512	9009261295126
Sealing plug VST12	<b>16</b>	429.108	9009261291081
Sealing plug VST15		429.110	9009261291104
Sealing plug VST18		429.112	9009261291128
Sealing plug VST22		429.114	9009261291142
Sealing plug VST28		429.522	9009261295225
Pipe clamp RK12	<b>17</b>	429.120	9009261291203
Pipe clamp RK15		429.122	9009261291227
Pipe clamp RK18		429.124	9009261291241
Pipe clamp RK22		429.126	9009261291265
Pipe clamp RK28		429.523	9009261295232
Ball valve, female/female thread IG/IG 1/2"	<b>18</b>	426.066	9009261291043
Ball valve, female/female thread IG/IG 3/4"		426.052	9009261291067
Airflow shears – 28 mm	<b>19</b>	429.118	9009261291180
Spare blades x 2 – 28 mm	<b>20</b>	429.116	9009261291166
Water separator 22 mm / T-piece	<b>21</b>	429.128	9009261291289
Protective cap 15 mm	<b>22</b>	429.130	9009261291302
Protective cap 22 mm		429.132	9009261291326
Circlip 15 mm	<b>23</b>	429.134	9009261291340
Circlip 18 mm		429.138	9009261291388
Circlip 22 mm		429.136	9009261291364

\* Price per m and/or per unit