Pressure drop diagram for straight hoses

This diagram helps you to choose the right hose according to the air consumption of the tool and the length of the hose. The purpose of the diagram is to ensure that the pressure drop in the hoses does not exceed 2.9 psi.

HOW TO READ THE DIAGRAM:

Look up the tools required air consumption at 87 psi.

Use this value in the diagram .

What length of hose do you need?

Look at the diagram to see which hose size you need.

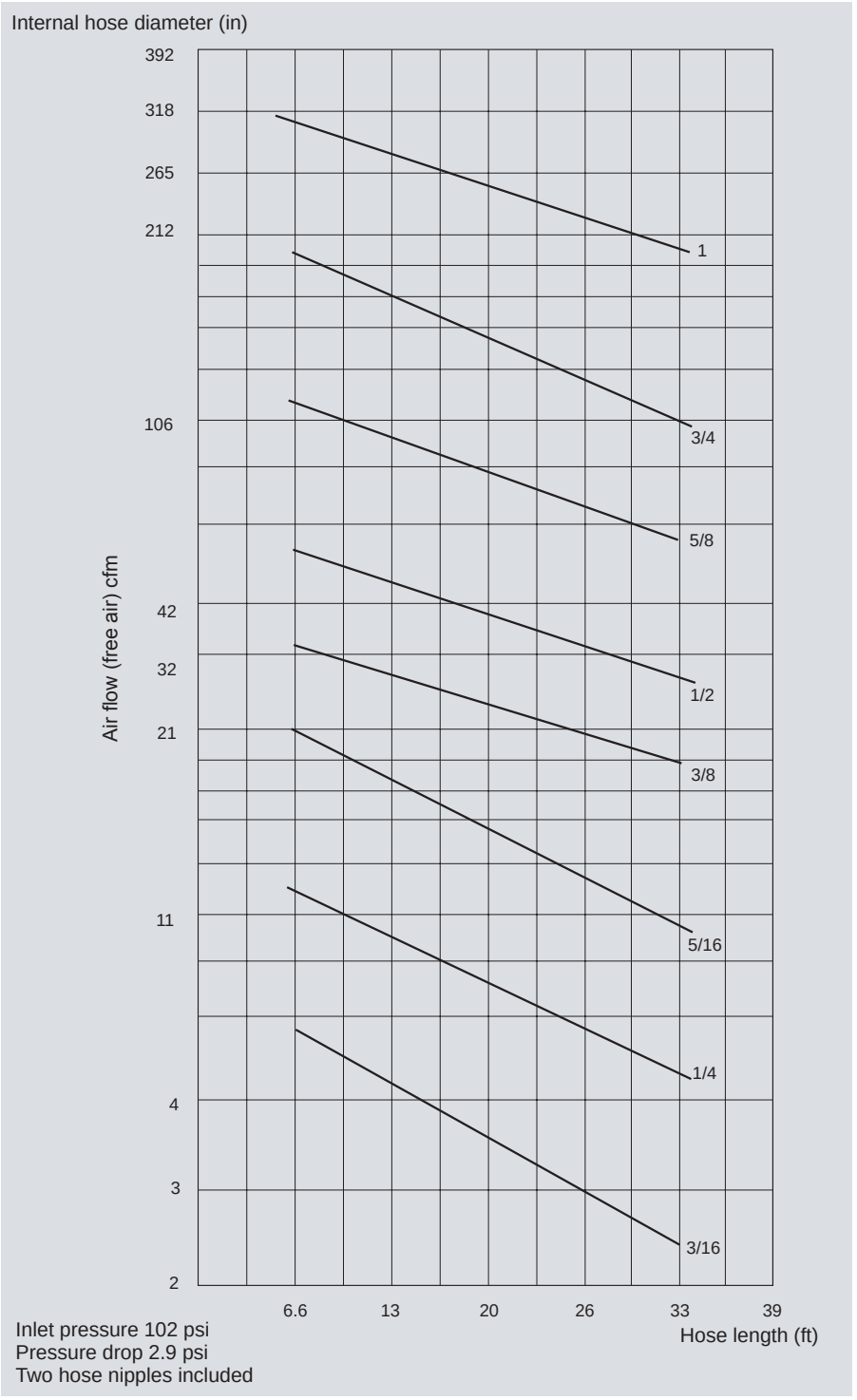
Decide which type of hose you need, Atlas Copco Tools has seven different hoses covering all types of needs for pneumatic hand tools.

EXAMPLE

The tool has an air consumption of 21 cfm and the application requires a hose length of 23 ft. These two values have a cross point slightly under the 3/8 inch size hose (23 ft of 3/8 inch hose gives a value of approximately 23.3 cfm).

Therefore a 3/8 inch hose will be suitable.

PRESSURE DROP DIAGRAM FOR HOSES



CABLAIR HOSES

SUPER-LIGHT FLEXIBLE PVC-HOSE

Cablair is made of high-strength, high performance PVC compound. The Cablair hose weighs 30-50% less and is much softer and more flexible than conventional PVC hoses. This ensures complete freedom of movement for operators of pneumatic hand tools in any working environment.

- Low weight.
- Extremely soft and flexible.
- Silicone free.
- Ergonomic.
- Working temperature +5ºF to +140ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure[a] psi	Max rec. air flow[b] cfm	Weight per 101 ft coil lb	Ordering No.
CABLAIR 06	1/4	7/20	260	9	2.6	9093 0035 11
CABLAIR 08	1/3	2/5	260	16	3.7	9093 0035 41
CABLAIR 10	2/5	1/2	203	28	4.6	9093 0035 71
CABLAIR 13	1/2	13/20	188	45	6.6	9093 0036 01
CABLAIR 16	5/8	4/5	160	91	11.9	9093 0036 31
CABLAIR 20	3/4	19/20	160	159	12.8	9093 0036 61
CABLAIR 25	1	1 1/5	145	265	23	9093 0036 91

[a] With a safety factor of 3 at 68ºF (at the max temp of +140ºF the working pressure should be reduced by 50%).
[b] The pressure drop will be 3 psi on a hose length of 16 ft.

CABLAIR ESD

EXTRA FLEXIBLE ANTISTATIC AIR HOSE

Cablair ESD is an extra flexible antistatic air hose designed specifically for use within the computer manufacturing industry. The hose possesses properties which enable ESDS (electrostatic sensitive devices) to be handled in a protected area with a low risk level, as a result of electrostatic discharge. In addition to a known demand in the computer industry, it is expected that potential exists in the electronics, radio and communication fields. The connection device must be earthed/grounded.

- Extra flexible.
- Antistatic.
- Silicone free.
- Testing in accordance with BS2050:1978 (1998) 4.12.
- Working temperature +5ºF to +140ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure[a] psi	Max rec. air flow cfm	Weight per 101 ft coil lb	Ordering No.
CABLAIR ESD 06	1/4	7/16	145	9	5	8202 0501 06
CABLAIR ESD 08	5/16	1/2	130	16	5.6	8202 0501 08
CABLAIR ESD 10	3/8	9/16	116	28	6	8202 0501 10
CABLAIR ESD 13	1/2	23/32	101	45	9.7	8202 0501 13

[a] With a safety factor of 3 at 68ºF (at the max temp of +140ºF the working pressure should be reduced by 50%).

PVC HOSES

STRONG PVC HOSE FOR HEAVY-DUTY APPLICATIONS

The PVC hose has high resistance to abrasion, which makes it the ideal hose for tough working environments such as workshops, factories, garages, etc. It is mainly recommended for indoor use.

- Long service life.
- Pliable.
- Transparent.
- Working temperature +5ºF to +140ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure[a] psi	Max rec. air flow[b] cfm	Weight per 101 ft coil lb	Ordering No.
PVC 03	1/8	11/40	290	2	3	9093 0037 21
PVC 05	3/16	7/20	261	5	4	9093 0037 51
PVC 06	1/4	2/5	261	9	5.5	9093 0037 81
PVC 08	5/16	1/2	261	16	6.4	9093 0038 11
PVC 10	3/8	11/20	203	28	8	9093 0038 41
PVC 13	1/2	7/10	188	45	13	9093 0038 71
PVC 16	5/8	9/10	174	91	16	9093 0039 01
PVC 20	3/4	1	174	159	18	9093 0039 31
PVC 25	1	1 1/5	160	265	27.5	9093 0039 61

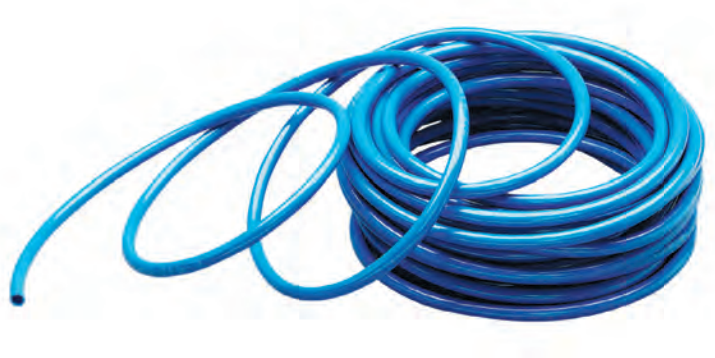
[a] With a safety factor of 3 at 68ºF (at the max temp of +140ºF the working pressure should be reduced by 50%).
[b] The pressure drop will be 3 psi on a hose length of 16 ft.

POLUR

HIGH RESISTANT POLYURETHANE HOSE

The Polur hose is the most environmentally friendly solution. It has high resistance to abrasion and it is oil resistant. The Polur hose has a much longer lifetime than PVC hoses. The Polur is ideal in tough working conditions such as workshops, factories, garages, shipyards and construction sites due to its flexibility, even at minus degrees. Polur is recommended for indoor and outdoor use.

- Oil resistant.
- Flexible.
- Long service life.
- Working temperature -22ºF to +140ºF.



Model	Hose inside dia in	Hose outside dia in	Max working pressure[a] psi	Max rec. air flow[b] cfm	Weight per 82 ft coil lb	Ordering No.
POLUR 08	5/16	1/2	290	16	5	8202 0601 08
POLUR 10	3/8	11/20	232	28	5.5	8202 0602 10
POLUR 13	1/2	7/10	188	45	9	8202 0603 13

[a] With a safety factor of 3 at 68ºF (at the max temp of +176ºF the working pressure should be reduced by 50%).
[b] The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

TURBO

SUPER-LIGHT FLEXIBLE RUBBER HOSE

The Turbo hose has been developed for flexible use both indoor and outdoor. The hose weighs 30-40% less than conventional rubber hoses, making it ideal for foundries, shipyards, engineering workshops and construction sites. The Turbo hose is oil resistant.

- Extremely low weight.
- Soft and flexible.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -22ºF to +158ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure [a] psi	Max rec. air flow [b] cfm	Weight per 65 ft coil lb	Weight per 101 ft coil lb	Ordering No.
TURBO 13	1/2	3/4	232	45	8.5	–	9093 0057 91
TURBO 13	1/2	3/4	232	45	–	13	9093 0057 93
TURBO 16	2/3	9/10	232	91	10.5	–	9093 0057 31
TURBO 16	2/3	9/10	232	91	–	16	9093 0057 33
TURBO 20	5/6	1	232	159	12	–	9093 0057 61
TURBO 20	5/6	1	232	159	–	17.9	9093 0057 62

[a] With a safety factor of 3 at 68°F.

[b] The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

RUBBER

DURABLE REINFORCED HEAVY DUTY RUBBER HOSE

The hose withstands rough handling and is suitable for the most demanding tasks in construction, mining, shipyards, foundries etc. The inner lining is black EPDM rubber, conductive to dissipate static electricity. Reinforcement with high tensile strength made of syntetic textile yarns.

- Durable.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -13ºF to +158ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure [a] psi	Max rec. air flow [b] cfm	Length ft	Weight lb	Ordering No.
RUBBER 06	1/4	1/2	232	9	98	7.7	9030 2036 00
RUBBER 10	3/8	2/3	232	27	98	15.2	9030 2037 00
RUBBER 13	1/2	5/8	232	44	98	27.1	9030 2038 00
RUBBER 16	5/8	3/4	232	91	98	30.6	9030 2039 00
RUBBER 20	3/4	1 1/5	232	159	98	42.5	9030 2040 00
RUBBER 20	3/4	1 1/5	232	159	65	28.4	9030 2040 03
RUBBER 25	1	1 1/2	232	265	98	52.9	9030 2041 00
RUBBER 25	1	1 1/2	232	265	65	32.3	9030 2041 03

[a] With a safety factor of 5 at 68ºF.

[b] The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.

RUBAIR

DURABLE REINFORCED HEAVY DUTY RUBBER HOSE

The Rubair hose is double reinforced to fulfil all general heavy duty demands and is recommended for indoor and outdoor use. The Rubair hose is oil resistant.

- Durable.
- Antistatic.
- Grinding and welding spatter resistant.
- Working temperature -4ºF to +176ºF.

Model	Hose inside dia in	Hose outside dia in	Max working pressure [a] psi	Max rec. air flow [b] cfm	Weight per 65 ft coil lb	Ordering No.
RUBAIR 10	3/8	5/8	232	27	7.9	8202 0402 10
RUBAIR 13	1/2	3/4	232	44	10.4	8202 0403 13
RUBAIR 16	5/8	1	232	91	13.5	8202 0404 16
RUBAIR 20	3/4	1	232	159	17.2	8202 0405 20
RUBAIR 25	1	1 1/3	232	265	26.0	8202 0406 25

[a] With a safety factor of 5 at 68°F.

[b] The pressure drop will be 3 psi on a hose length of 16 ft, including 2 nipples and at an inlet pressure of 101 psi.