



T Series Filter Selection

Compressed air filter capacity varies with the operating air pressure. To select the correct Fusheng T Series filter for your application:

1. Check that the inlet air temperature to the filter is within the permissible range of 1 to 60°C.
2. Check that the inlet air pressure is within the permissible range of 100 to 1,600 kPa (1 to 16 bar or 14.5 to 232 psi).
3. Obtain the pressure correction factor, CF, by selecting the value from the table that corresponds to the application's inlet compressed air pressure.
4. Calculate the corrected air flow capacity required by using the formula:

$$\text{Corrected Air Flow Capacity} = \text{Maximum Air Consumption} \div \text{CF}$$

Compressed air consumption is typically variable and often doesn't exceed the air compressor's maximum free air delivery. In such cases, the latter value can be used in the formula instead.

5. Refer to the performance specifications table and select the filter model with air flow capacity that exceeds the corrected air flow capacity.

Filter selection example:

1. An application has a maximum compressed air consumption rate of 3.8 m³/min, minimum operating pressure of 900 kPa and an inlet temperature of 40°C.
2. The operating temperature and pressure of the compressed air flow are within their permissible ranges. Result OK.
3. The pressure correction factor, CF, by lookup from its table is 1.25.
4. Then by applying the capacity correction formula,

$$\text{Corrected Air Flow Capacity} = 3.8 \text{ m}^3/\text{min} \div 1.25 = 3.04 \text{ m}^3/\text{min}$$
5. The result is that the minimum size of filter suitable for this application would be a Fusheng model T20, which has an air flow capacity of 3.30 m³/min.

Note that for applications with a minimum operating pressure of more than 700 kPa, a simpler albeit more conservative method is to select the filter size as though the minimum operating pressure is 700 kPa.

For applications with a minimum operating pressure of less than 700 kPa, the filter selection must be based on the corrected air flow capacity.

Pressure Correction Factor (CF)	
Minimum Inlet Pressure (kPa)	Correction Factor
100	0.25
200	0.38
300	0.50
400	0.65
500	0.75
600	0.88
700	1.00
800	1.13
900	1.25
1,000	1.38
1,100	1.50
1,200	1.63
1,300	1.75
1,400	1.88
1,500	2.00
1,600	2.13

Performance Specifications	
Filter Model	Air Flow Capacity @ 700 kPa (m ³ /min)
T5	0.66
T10	1.32
T15	1.98
T20	3.30
T40	5.70
T60	9.00
T75	13.32
T125	17.46
T175	26.16
T250	37.50
T300	46.62