

Disposable Filter Elements

Disposable bonded microfibre filter elements are manufactured from precise mixtures of borosilicate glass microfibres to the very highest standards of quality control. These elements offer exceptional filtration efficiency at very low pressure drops and being +90% void volume they give a very long service life.

The elements are bonded to impart high strength and eliminate fibre shedding and the choice between the different binders available will depend on each application. Disposable elements are self-sealing and sealed into a filter housing by axial compression.

Coalescing or Particulate Applications

There are two types of filter element available, particulate and coalescing. The particulate filter elements use a single layer of filter media whereas coalescing elements have a fine capture layer and a coarse drainage layer.

The coarsest grade that will adequately protect the application should be chosen as this will result in the most economical solution to the contamination problem by extending the service life. Disposable bonded microfibre filter elements are suitable for both gas and liquid applications.



Particulate Filter Element



Glass Microfibres



Coalescing Filter Element

Fine inner capture layer

Coarse outer drainage layer

Binder Types

Particulate Applications

E	Epoxy ester binder suitable for all general purpose particulate removal applications in non-corrosive gases and liquids
K	PVDF binder has an excellent chemical resistance for use with corrosive gases and liquids. Very low levels of adsorption.
S	Silica binder giving a completely inorganic filter element. For high temperatures and solvent applications.
L	Silicone binder is hydrophobic and prevents the pores being filled with condensate. The maximum temperature is 200°C

Coalescing Applications

CE	Epoxy ester binder suitable for all general purpose aerosol and particulate removal applications in non-corrosive gases
CK	PVDF binder has an excellent chemical resistance for use with corrosive gases. Very low levels of adsorption
CR	PVDF binder as above with the addition of a reinforcing mesh embedded within the structure
CS	Silica binder giving a completely inorganic filter element. For high temperatures and solvent applications.
W	Silicone binder is hydrophobic and prevents the pores being filled with condensate. The maximum temperature is 200°C



Filter Elements

Disposable Grades & Dimensions

All disposable filter elements have a part number arranged in three sections, for example 25.64.7K

The first part refers to the inside diameter of the element in millimetres, the second figure refers to the overall length in millimetres and the third part is the designation for the grade and binder.

Standard Sizes

Filter Elements are available in a wide range of standard diameters and lengths. These are based on traditional industry standard sizes and allow the elements to be installed in other proprietary equipment.

12.32.□ 12.57.□ 25.64.□ 25.127.□ 25.178.□ 38.58.□ 38.152.□ 45.127.□ 51.230.□ 51.89.□ 51.476.□ 63.762.□

Replace the □ in the part numbers shown with the grade selected from the tables below. More information about the binder types can be found on page CF/2.0/021.

Efficiency

Each filter element type is available in a selection of grades covering a efficiency range from coarse bulk contamination removal and the essentially complete removal of submicron particles.

The standard grades are shown in the tables below.

Particulate Applications - Gas								
% Removal of 0.1 micron particles								
Binder		Max. Temp.	+99.99998%	+99.9999%	+99.99%	+99.5%	+95%	+75%
E	Epoxy Ester	150°C	3E	4E	5E	6E	7E	8E
K	PVDF Fluorocarbon	150°C	3K	4K	5K	6K	7K	8K
S	Silica Inorganic	500°C	3S	4S	5S	6S	7S	8S
L	Silicone	200°C		4L		6L		

Coalescing Applications - Gas						
% Removal of 0.1 micron particles & aerosols						
Binder		Max. Temp.	+99.99%	+99.5%	+95%	+75%
CE	Epoxy Ester	150°C	5CE	6CE	7CE	8CE
CK	PVDF Fluorocarbon	150°C	5CK	6CK	7CK	8CK
CR	PVDF Fluorocarbon	150°C	5CR	6CR	7CR	8CR
CS	Silica Inorganic	500°C	5CS	6CS	7CS	8CS
W	Silicone	200°C	5W	6W	7W	8W

Particulate Applications - Liquid								
+98% Removal of particles at stated size								
Binder		Max. Temp.	0.3 µm	1 µm	2 µm	8 µm	25 µm	75 µm
E	Epoxy Ester	150°C	3E	4E	5E	6E	7E	8E
K	PVDF Fluorocarbon	150°C	3K	4K	5K	6K	7K	8K
S	Silica Inorganic	500°C	3S	4S	5S	6S	7S	8S

Special Sizes

Special size filter elements can also be manufactured in a wide range of different diameters and lengths.

Inside Diameters: **7mm to 150mm**

Lengths: **9mm to 1000mm**

Please enquire with any specific requirements.

Disposable Filter Elements

Dimensions & Tolerances

Disposable Filter Element Dimensions & Tolerances

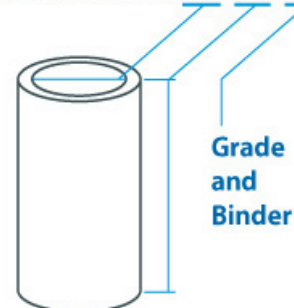
Filter elements are available in a wide range of standard diameters and lengths. These are based on traditional industry standard sizes and allow the element to be installed in other proprietary equipment.

This chart shows you a list of all our standard disposable filter elements, particulate and coalescing, along with their actual sizes in millimetres and the standard tolerances we use in manufacturing.

Particulate Types						
Element Code	Inside Ø	Tolerance	Outside Ø	Tolerance	Length	Tolerance
10.32.□	10.0	±0.25	14.0	±0.50	32.0	±0.25
10.57.□	10.0	±0.25	14.0	±0.50	57.0	±0.25
12.20.□	12.5	±0.25	17.0	±0.50	20.0	±0.25
12.25.□	12.5	±0.25	17.0	±0.50	25.4	±0.25
12.32.□	12.5	±0.25	17.0	±0.50	32.0	±0.25
12.57.□	12.5	±0.25	17.0	±0.50	57.0	±0.25
16.32.□	16.0	±0.25	22.0	±0.50	32.0	±0.25
16.41.□	16.0	±0.25	22.0	±0.50	41.0	±0.25
25.30.□	25.5	±0.25	31.0	±0.50	30.0	±0.25
25.51.□	25.5	±0.25	31.0	±0.50	51.0	±0.25
25.64.□	25.5	±0.25	31.0	±0.50	64.0	±0.25
25.127.□	25.5	±0.25	31.0	±0.50	127.0	±0.25
25.178.□	25.5	±0.25	31.0	±0.50	178.0	±0.25
38.58.□	38.5	±0.25	45.0	±0.50	58.0	±0.25
38.89.□	38.5	±0.25	45.0	±0.50	89.0	±0.25
38.115.□	38.5	±0.25	45.0	±0.50	115.0	±0.25
38.152.□	38.5	±0.25	45.0	±0.50	152.0	±0.25
38.178.□	38.5	±0.25	45.0	±0.50	178.0	±0.25
51.89.□	51.5	±0.25	59.0	±0.50	89.0	±0.25
51.230.□	51.5	±0.25	59.0	±0.50	230.0	±0.25
51.476.□	51.5	±0.25	59.0	±0.50	476.0	±0.25
63.476.□	63.5	±0.25	72.0	±0.50	476.0	±0.25
63.762.□	63.5	±0.25	72.0	±0.50	762.0	±0.25

Coalescing Types						
Element Code	Inside Ø	Tolerance	Outside Ø	Tolerance	Length	Tolerance
10.57.□	10.0	±0.25	18.0	±0.50	32.0	±0.25
10.57.□	10.0	±0.25	18.0	±0.50	57.0	±0.25
12.32.□	12.5	±0.25	19.0	±0.50	32.0	±0.25
12.57.□	12.5	±0.25	19.0	±0.50	57.0	±0.25
25.35.□	25.5	±0.25	35.0	±0.50	35.0	±0.25
25.64.□	25.5	±0.25	35.0	±0.50	64.0	±0.25
27.64.□	27.0	±0.25	39.0	±0.50	64.0	±0.25
25.127.□	25.5	±0.25	35.0	±0.50	127.0	±0.25
25.178.□	25.5	±0.25	35.0	±0.50	178.0	±0.25
38.58.□	38.5	±0.25	50.0	±0.50	58.0	±0.25
38.89.□	38.5	±0.25	50.0	±0.50	89.0	±0.25
38.115.□	38.5	±0.25	50.0	±0.50	115.0	±0.25
38.152.□	38.5	±0.25	50.0	±0.50	152.0	±0.25
38.178.□	38.5	±0.25	50.0	±0.50	178.0	±0.25
51.89.□	51.5	±0.25	63.0	±0.50	89.0	±0.25
51.230.□	51.5	±0.25	63.0	±0.50	230.0	±0.25
51.476.□	51.5	±0.25	63.0	±0.50	476.0	±0.25
63.476.□	63.5	±0.25	76.0	±0.50	476.0	±0.25
63.762.□	63.5	±0.25	76.0	±0.50	762.0	±0.25

Part Number: 25.64.5K



Special Sizes

Special size filter elements can also be produced that are not included on this chart. We can manufacture in a wide range of different diameters and lengths.

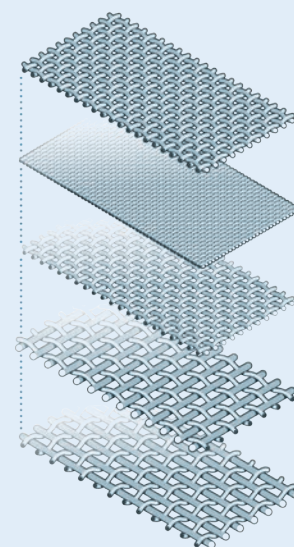
Please enquire if you have any specific requirements.

5-Layer Sintered Stainless Steel Elements

Stainless steel filter elements are made up of five layers of 316 mesh that are sintered together to form an integrated porous element. The middle mesh is of very fine gauge and determines the filtration rates, this layer is then overlaid with inner and outer layers of coarser mesh to give support and protection.



These elements are very useful in heavily contaminated applications and for use as pre-filters before disposable type final filters. Seals are required and the options are, Viton, PTFE, or copper-alloy for high temperature applications.



Five Layers of SS Mesh

The middle mesh determines the filtration rate and this is overlaid with inner and outer layers of coarser mesh to give support.

5-Layer Sintered Stainless Steel Element Grades

Seals	Max. T.	1µm	2µm	5µm	10µm	20µm	40µm	100µm	200µm
Viton	200°C	S1V	S2V	S5V	S10V	S20V	S40V	S100V	S200V
Nitrile	110°C	S1N	S2N	S5N	S10N	S20N	S40N	S100N	S200N
EPDM	150°C	S1E	S2E	S5E	S10E	S20E	S40E	S100E	S200E
PTFE	200°C	S1T	S2T	S5T	S10T	S20T	S40T	S100T	S200T
Copper	480°C	S1H	S2H	S5H	S10H	S20H	S40H	S100H	S200H

Standard Sizes

Filter Elements are available in a wide range of standard diameters and lengths. These are based on traditional industry standard sizes and allow the elements to be installed in other proprietary equipment

12.32.□ 12.57.□ 25.64.□ 25.178.□ 38.58.□ 38.152.□ 51.89.□ 51.230.□ 51.476.□

Replace the □ in the part numbers shown with the grade selected from the tables above.

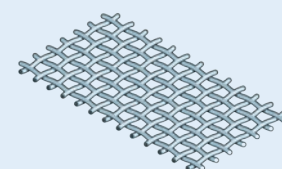
Single Layer Woven Mesh SS Elements

These stainless steel filter elements are made up of a single layer of 316 woven wire mesh. Ideal for applications where a low cost stainless steel filter alternative is required.

Due to the method of the construction these filter elements do not require any seals.

Woven Mesh Stainless Steel Element Grades

25µm	50µm	75µm	100µm	150µm	200µm	250µm	300µm	350µm	400µm
SS25	SS50	SS75	SS100	SS150	SS200	SS250	SS300	SS350	SS400



Single Layer SS Mesh

Standard Sizes

12.32.□ 12.57.□ 25.64.□ 25.178.□ 38.152.□

Replace the □ in the part numbers shown with the grade selected from the tables above.

PTFE Filter Elements

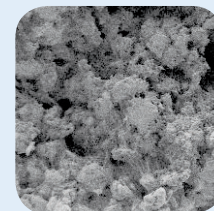
PTFE filter elements are produced by sintering pure PTFE granules, no other substances are used in the construction. These filter elements are usually offered when only 100% pure PTFE can be used. Normally it is preferable to offer a K type disposable filter element, if these are suitable, as both pressure drop and service life characteristics are superior to the PTFE filters.

The advantages of PTFE is the higher maximum temperature, up to 200°C, and a better chemical resistance to certain substances. PTFE elements can be ultrasonically cleaned.

PTFE filter elements can be supplied in 2, 20 or 40 micron.



PTFE Filter Element



PTFE Granules

Standard Sizes

Filter Elements are available in a wide range of standard diameters and lengths. These are based on traditional industry standard sizes and allow the elements to be installed in other proprietary equipment.

12.32.□ 12.57.□ 25.64.□ 25.178.□ 38.58.□ 38.152.□ 45.127.□ 51.89.□ 51.230.□ 51.476.□

Replace the □ in the part numbers shown with the grade T2, T20, T40.

PE Filter Elements

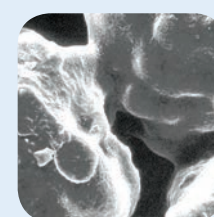
These polyethylene filter elements are sintered using pure PE granules. The maximum temperature is 150°C

Ideal for applications where a low cost plastic filter element is required. Due to the method of the construction these filter elements do not require any seals.

PE elements can be supplied in 2, 10, 20, 40 or 100 micron.



PE Filter Element



PE Granules

Standard Sizes

Filter Elements are available in a wide range of standard diameters and lengths. These are based on traditional industry standard sizes and allow the elements to be installed in other proprietary equipment.

12.32.□ 12.57.□ 25.64.□ 25.178.□ 38.58.□ 38.152.□ 45.127.□ 51.89.□ 51.230.□ 51.476.□

Replace the □ in the part numbers shown with the grade, PE2, PE10, PE20, PE40, PE100

Special Sizes

Both the PTFE and PE elements can be supplied with special diameters and lengths.

Let us know what you need.

Air Flow Rates

Disposable Type Filter Elements

Air flow rates in Nm³/hr at stated line pressure with a 0.1 Bar pressure drop

Flow rates will depend on which filter element grade is installed in the filter housing. First check the size of the filter element installed using the housing data sheets and then use the charts below to read the flow rate at the desired pressure against the element grade. Replace the □ in the part number shown with the required grade, for example 12.57.7K would be a grade 7 on the charts below.

The maximum flow rate also depends on the flow path through the housing - for housings with a smaller port size please consult us for the exact figure.

12.32.□	Air Pressure (Bar), 1/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	350	700
4	1.6	2.6	3.7	5.3	6.3	7.9	11.8	18.4	28.9	36.8	52.5
5	3.2	5.3	7.4	10.5	12.6	15.8	23.6	36.8	57.8	73.5	105.0
6	5.5	9.2	12.9	18.4	22.1	27.6	41.3	64.3	101.1	128.6	183.8
7	6.3	10.5	14.7	21.0	25.2	31.5	47.3	73.5	115.5	147.0	210.0
8	7.1	11.8	16.5	23.6	28.4	35.4	53.2	82.7	129.9	165.4	236.3

12.57.□	Air Pressure (Bar), 1/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	350	700
4	2.6	4.3	6.0	8.5	10.2	12.8	19.1	29.8	46.8	59.5	85.0
5	5.1	8.5	11.9	17.0	20.4	25.5	38.3	59.5	93.5	119.0	170.0
6	8.9	14.9	20.8	29.8	35.7	44.6	66.9	104.1	163.6	208.3	297.5
7	10.2	17.0	23.8	34.0	40.8	51.0	76.5	119.0	187.0	238.0	340.0
8	11.5	19.1	26.8	38.3	45.9	57.4	86.1	133.9	210.4	267.8	382.5

25.64.□	Air Pressure (Bar), 1/2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	700
4	5.6	9.3	13.0	18.5	22.2	27.8	41.6	64.8	101.8	138.8	185.0
5	11.1	18.5	25.9	37.0	44.4	55.5	83.3	129.5	203.5	277.5	370.0
6	19.4	32.4	45.3	64.8	77.7	97.1	145.7	226.6	356.1	485.6	647.5
7	22.2	37.0	51.8	74.0	88.8	111.0	166.5	259.0	407.0	555.0	740.0
8	25.0	41.6	58.3	83.3	99.9	124.9	187.3	291.4	457.9	624.4	832.5

25.178.□	Air Pressure (Bar), 3/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	700
4	15.8	26.3	36.8	52.5	63.0	78.8	118.1	183.8	288.8	393.8	525.0
5	31.5	52.5	73.5	105.0	126.0	157.5	236.3	367.5	577.5	787.5	1050.0
6	55.1	91.9	128.6	183.8	220.5	275.6	413.4	643.1	1010.6	1378.1	1837.5
7	63.0	105.0	147.0	210.0	252.0	315.0	472.5	735.0	1155.0	1575.0	2100.0
8	70.9	118.1	165.4	236.3	283.5	354.4	531.6	826.9	1299.4	1771.9	2362.5

38.152.□	Air Pressure (Bar), 1" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
4	20.3	33.8	47.3	67.5	81.0	101.3	151.9	236.3	371.3	506.3	
5	40.5	67.5	94.5	135.0	162.0	202.5	303.8	472.5	742.5	1012.5	
6	70.9	118.1	165.4	236.3	283.5	354.4	531.6	826.9	1299.4	1771.9	
7	81.0	135.0	189.0	270.0	324.0	405.0	607.5	945.0	1485.0	2025.0	
8	91.1	151.9	212.6	303.8	364.5	455.6	683.4	1063.1	1670.6	2278.1	

51.230.□	Air Pressure (Bar), 2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
4	41.9	69.8	97.7	139.5	167.4	209.3	313.9	488.3	767.3	1046.3	
5	83.7	139.5	195.3	279.0	334.8	418.5	627.8	976.5	1534.5	2092.5	
6	146.5	244.1	341.8	488.3	585.9	732.4	1098.6	1708.9	2685.4	3661.9	
7	167.4	279.0	390.6	558.0	669.6	837.0	1255.5	1953.0	3069.0	4185.0	
8	188.3	313.9	439.4	627.8	753.3	941.6	1412.4	2197.1	3452.6	4708.1	

51.476.□	Air Pressure (Bar), 2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
4	86.9	144.8	202.7	289.5	347.4	434.3	651.4	1013.3	1592.3	2171.3	
5	173.7	289.5	405.3	579.0	694.8	868.5	1302.8	2026.5	3184.5	4342.5	
6	304.0	506.6	709.3	1013.3	1215.9	1519.9	2279.8	3546.4	5572.9	7599.4	
7	347.4	579.0	810.6	1158.0	1389.6	1737.0	2605.5	4053.0	6369.0	8685.0	
8	390.8	651.4	911.9	1302.8	1563.3	1954.1	2931.2	4559.6	7165.1	9770.6	

Notes (1) The above flow rates are for air at 20°C. Flow rates for other gases can be derived from relative viscosity data.

(2) Flow rates are generally proportional to pressure drop. If an initial drop of 0.2 bar can be tolerated flow rates can be doubled.

Air Flow Rates

Stainless Steel Filter Elements

Air flow rates in Nm³/hr at stated line pressure with a 0.1 Bar pressure drop

Flow rates will depend on which filter element grade is installed in the filter housing. First check the size of the filter element installed using the housing data sheets and then use the charts below to read the flow rate at the desired pressure against the element grade. Replace the □ in the part number shown with the required grade, for example 12.57.S2V would be a grade S2 on the charts below.

The maximum flow rate also depends on the flow path through the housing - for housings with a smaller port size please consult us for the exact figure.

12.32.□	Air Pressure (Bar), 1/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	350	700
S1	0.5	0.8	1.1	1.5	1.8	2.3	3.4	5.3	8.3	10.5	15.0
S2	0.9	1.5	2.1	3.0	3.6	4.5	6.8	10.5	16.5	21.0	30.0
S10	2.1	3.5	4.9	7.0	8.4	10.5	15.8	24.5	38.5	49.0	70.0
S20	2.6	4.3	6.0	8.5	10.2	12.8	19.1	29.8	46.8	59.5	85.0
S40	2.8	4.7	6.5	9.4	13.2	14.0	21.0	32.7	51.4	77.0	110.0
S100	4.3	7.2	10.1	14.5	20.4	21.7	32.5	50.6	79.5	119.0	170.0
S200	5.7	9.6	13.4	19.1	27.0	28.7	43.0	66.9	105.2	157.5	225.0

12.57.□	Air Pressure (Bar), 1/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	350	700
S1	0.8	1.3	1.8	2.6	3.1	3.8	5.7	8.9	14.0	17.9	25.5
S2	1.5	2.6	3.6	5.1	6.1	7.7	11.5	17.9	28.1	35.7	51.0
S10	3.6	6.0	8.3	11.9	14.3	17.9	26.8	41.7	65.5	83.3	119.0
S20	4.3	7.2	10.1	14.5	17.3	21.7	32.5	50.6	79.5	101.2	144.5
S40	4.8	7.9	11.1	15.9	22.4	23.8	35.8	55.6	87.4	130.9	187.0
S100	7.4	12.3	17.2	24.6	34.7	36.8	55.3	86.0	135.1	202.3	289.0
S200	9.8	16.3	22.8	32.5	45.9	48.8	73.2	113.8	178.8	267.8	382.5

25.64.□	Air Pressure (Bar), 1/2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	700
S1	1.8	2.9	4.1	5.9	7.0	8.8	13.2	20.5	32.2	43.9	58.5
S2	3.5	5.9	8.2	11.7	14.0	17.6	26.3	41.0	64.4	87.8	117.0
S10	8.2	13.7	19.1	27.3	32.8	41.0	61.4	95.6	150.2	204.8	273.0
S20	9.9	16.6	23.2	33.2	39.8	49.7	74.6	116.0	182.3	248.6	331.5
S40	10.9	18.2	25.5	36.5	51.5	54.7	82.0	127.6	200.6	321.8	429.0
S100	16.9	28.2	39.4	56.4	79.6	84.5	126.8	197.2	310.0	497.3	663.0
S200	22.4	37.3	52.2	74.6	105.3	111.9	167.8	261.1	410.2	658.1	877.5

25.178.□	Air Pressure (Bar), 3/4" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	700
S1	5.2	8.6	12.1	17.3	20.7	25.9	38.8	60.4	94.9	129.4	172.5
S2	10.4	17.3	24.2	34.5	41.4	51.8	77.6	120.8	189.8	258.8	345.0
S10	24.2	40.3	56.4	80.5	96.6	120.8	181.1	281.8	442.8	603.8	805.0
S20	29.3	48.9	68.4	97.8	117.3	146.6	219.9	342.1	537.6	733.1	977.5
S40	32.3	53.8	75.3	107.5	151.8	161.3	241.9	376.3	591.4	948.8	1265.0
S100	49.9	83.1	116.3	166.2	234.6	249.3	373.9	581.6	914.0	1466.3	1955.0
S200	66.0	110.0	154.0	219.9	310.5	329.9	494.9	769.8	1209.7	1940.6	2587.5

38.152.□	Air Pressure (Bar), 1" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
S1	6.8	11.3	15.8	22.5	27.0	33.8	50.6	78.8	123.8	168.8	
S2	15.8	26.3	36.8	52.5	63.0	78.8	118.1	183.8	288.8	393.8	
S10	31.5	52.5	73.5	105.0	126.0	157.5	236.3	367.5	577.5	787.5	
S20	38.3	63.8	89.3	127.5	153.0	191.3	286.9	446.3	701.3	956.3	
S40	42.1	70.1	98.2	140.3	198.0	210.4	315.6	490.9	771.4	1237.5	
S100	65.0	108.4	151.7	216.8	306.0	325.1	487.7	758.6	1192.1	1912.5	
S200	86.1	143.4	200.8	286.9	405.0	430.3	645.5	1004.1	1577.8	2531.3	

51.230.□	Air Pressure (Bar), 2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
S1	13.5	22.5	31.5	45.0	54.0	67.5	101.3	157.5	247.5	337.5	
S2	27.0	45.0	63.0	90.0	108.0	135.0	202.5	315.0	495.0	675.0	
S10	63.0	105.0	147.0	210.0	252.0	315.0	472.5	735.0	1155.0	1575.0	
S20	76.5	127.5	178.5	255.0	306.0	382.5	573.8	892.5	1402.5	1912.5	
S40	84.2	140.3	196.4	280.5	396.0	420.8	631.1	981.8	1542.8	2475.0	
S100	130.1	216.8	303.5	433.5	612.0	650.3	975.4	1517.3	2384.3	3825.0	
S200	172.1	286.9	401.6	573.8	810.0	860.6	1290.9	2008.1	3155.6	5062.5	

51.476.□	Air Pressure (Bar), 2" Port Size										
Grade	1	2	4	7	10	16	34	100	200	400	
S1	28.4	47.3	66.2	94.5	113.4	141.8	212.6	330.8	519.8	708.8	
S2	56.7	94.5	132.3	189.0	226.8	283.5	425.3	661.5	1039.5	1417.5	
S10	132.3	220.5	308.7	441.0	529.2	661.5	992.3	1543.5	2425.5	3307.5	
S20	160.7	267.8	374.9	535.5	642.6	803.3	1204.9	1874.3	2945.3	4016.3	
S40	176.7	294.5	412.3	589.1	831.6	883.6	1325.4	2061.7	3239.8	5197.5	
S100	273.1	455.2	637.2	910.4	1285.2	1365.5	2048.3	3186.2	5006.9	8032.5	
S200	361.5	602.4	843.4	1204.9	1701.0	1807.3	2711.0	4217.1	6626.8	10631.3	

Notes (1) The above flow rates are for air at 20°C. Flow rates for other gases can be derived from relative viscosity data.
 (2) Flow rates are generally proportional to pressure drop. If an initial drop of 0.2 bar can be tolerated flow rates can be doubled.

Air Flow Rates

PTFE & PE Filter Elements

Air flow rates in Nm³/hr at stated line pressure with a 0.1 Bar pressure drop

Flow rates will depend on which filter element grade is installed in the filter housing. First check the size of the filter element installed using the housing data sheets and then use the charts below to read the flow rate at the desired pressure against the element grade. Replace the □ in the part number shown with the required grade, for example 12.57.T20 would be a grade T20 on the charts below.

The maximum flow rate also depends on the flow path through the housing - for housings with a smaller port size please consult us for the exact figure.

12.32.□		Air Pressure (Bar), 1/4" Port Size										
Grade		1	2	4	7	10	16	34	100	200	400	700
T2	PE2	0.2	0.3	0.4	0.5	0.6	0.8	1.1	1.8	2.8	3.5	5.0
	PE10	0.5	0.8	1.1	1.5	1.8	2.3	3.4	5.3	8.3	10.5	15.0
T20	PE20	0.7	1.1	1.6	2.3	2.7	3.4	5.1	7.9	12.4	15.8	22.5
T40	PE40	1.0	1.6	2.3	3.3	3.9	4.9	7.3	11.4	17.9	22.8	32.5
	PE100	1.1	1.9	2.6	3.8	4.5	5.6	8.4	13.1	20.6	26.3	37.5

12.57.□		Air Pressure (Bar), 1/4" Port Size										
Grade		1	2	4	7	10	16	34	100	200	400	700
T2	PE2	0.3	0.5	0.6	0.9	1.1	1.4	2.0	3.2	5.0	6.3	9.0
	PE10	0.8	1.4	1.9	2.7	3.2	4.1	6.1	9.5	14.9	18.9	27.0
T20	PE20	1.2	2.0	2.8	4.1	4.9	6.1	9.1	14.2	22.3	28.4	40.5
T40	PE40	1.8	2.9	4.1	5.9	7.0	8.8	13.2	20.5	32.2	41.0	58.5
	PE100	2.0	3.4	4.7	6.8	8.1	10.1	15.2	23.6	37.1	47.3	67.5

25.64.□		Air Pressure (Bar), 1/2" Port Size										
Grade		1	2	4	7	10	16	34	100	200	400	700
T2	PE2	0.6	1.0	1.4	2.0	2.4	3.0	4.5	7.0	11.0	15.0	20.0
	PE10	1.8	3.0	4.2	6.0	7.2	9.0	13.5	21.0	33.0	45.0	60.0
T20	PE20	2.7	4.5	6.3	9.0	10.8	13.5	20.3	31.5	49.5	67.5	90.0
T40	PE40	3.9	6.5	9.1	13.0	15.6	19.5	29.3	45.5	71.5	97.5	130.0
	PE100	4.5	7.5	10.5	15.0	18.0	22.5	33.8	52.5	82.5	112.5	150.0

25.178.□		Air Pressure (Bar), 3/4" Port Size										
Grade		1	2	4	7	10	16	34	100	200	400	700
T2	PE2	1.7	2.9	4.1	5.8	7.0	8.7	13.1	20.3	31.9	43.5	58.0
	PE10	5.2	8.7	12.2	17.4	20.9	26.1	39.2	60.9	95.7	130.5	174.0
T20	PE20	7.8	13.1	18.3	26.1	31.3	39.2	58.7	91.4	143.6	195.8	261.0
T40	PE40	11.3	18.9	26.4	37.7	45.2	56.6	84.8	132.0	207.4	282.8	377.0
	PE100	13.1	21.8	30.5	43.5	52.2	65.3	97.9	152.3	239.3	326.3	435.0

38.152.□		Air Pressure (Bar), 1" Port Size									
Grade		1	2	4	7	10	16	34	100	200	400
T2	PE2	2.3	3.8	5.3	7.5	9.0	11.3	16.9	26.3	41.3	56.3
	PE10	6.8	11.3	15.8	22.5	27.0	33.8	50.6	78.8	123.8	168.8
T20	PE20	10.1	16.9	23.6	33.8	40.5	50.6	75.9	118.1	185.6	253.1
T40	PE40	14.6	24.4	34.1	48.8	58.5	73.1	109.7	170.6	268.1	365.6
	PE100	16.9	28.1	39.4	56.3	67.5	84.4	126.6	196.9	309.4	421.9

51.230.□		Air Pressure (Bar), 2" Port Size									
Grade		1	2	4	7	10	16	34	100	200	400
T2	PE2	4.5	7.5	10.5	15.0	18.0	22.5	33.8	52.5	82.5	112.5
	PE10	13.5	22.5	31.5	45.0	54.0	67.5	101.3	157.5	247.5	337.5
T20	PE20	20.3	33.8	47.3	67.5	81.0	101.3	151.9	236.3	371.3	506.3
T40	PE40	29.3	48.8	68.3	97.5	117.0	146.3	219.4	341.3	536.3	731.3
	PE100	33.8	56.3	78.8	112.5	135.0	168.8	253.1	393.8	618.8	843.8

51.476.□		Air Pressure (Bar), 2" Port Size									
Grade		1	2	4	7	10	16	34	100	200	400
T2	PE2	9.3	15.5	21.7	31.0	37.2	46.5	69.8	108.5	170.5	232.5
	PE10	27.9	46.5	65.1	93.0	111.6	139.5	209.3	325.5	511.5	697.5
T20	PE20	27.9	69.8	97.7	139.5	167.4	209.3	313.9	488.3	767.3	1046.3
T40	PE40	60.5	100.8	141.1	201.5	241.8	302.3	453.4	705.3	1108.3	1511.3
	PE100	69.8	116.3	162.8	232.5	279.0	348.8	523.1	813.8	1278.8	1743.8

Notes (1) The above flow rates are for air at 20°C. Flow rates for other gases can be derived from relative viscosity data.

(2) Flow rates are generally proportional to pressure drop. If an initial drop of 0.2 bar can be tolerated flow rates can be doubled.

Liquid Flow Rates

Stainless Steel Filter Elements

Liquid flow rates in Ltrs/hr at 0.15 Bar pressure drop

Flow rates will depend on which filter element grade is installed in the filter housing. First check the size of the filter element using the housing data sheets and then use the charts below to read the flow rate against the element grade. Replace the □ in the part number shown with the required grade, for example 12.57.S20V

The figures shown here are based on the viscosity of water and oil (32cSt). See note (4) for other liquids.

12.32.□	Flow Rates in Ltrs/hr 1/8" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	3.0	7.0	16	33	66	98	131	262
Oil (32 cSt)	0.1	0.2	0.6	1.2	2.4	3.5	4.7	9.4

12.57.□	Flow Rates in Ltrs/hr for 1/4" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	6	12	31	61	122	183	244	489
Oil (32 cSt)	0.2	0.4	1.1	2.2	4.4	6.6	8.8	17.5

25.64.□	Flow Rates in Ltrs/hr for 1/4" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	14	29	72	144	287	481	575	720 ⁽⁵⁾
Oil (32 cSt)	0.5	1.0	2.6	5.2	10.3	15.5	20.6	25.8 ⁽⁵⁾

25.178.□	Flow Rates in Ltrs/hr for 1/2" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	41	82	206	412	825	1080 ⁽⁵⁾	1080 ⁽⁵⁾	1080 ⁽⁵⁾
Oil (32 cSt)	1.5	3.0	7.4	14.8	29.6	38.7 ⁽⁵⁾	38.7 ⁽⁵⁾	38.7 ⁽⁵⁾

38.152.□	Flow Rates in Ltrs/hr for 3/4" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	53	107	267	534	1067	1601	2135	4269
Oil (32 cSt)	1.9	3.8	9.6	16.1	38.2	57.4	76.5	153.0

51.230.□	Flow Rates in Ltrs/hr for 1" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	109	218	546	1091	2182	3273	4364	6840 ⁽⁵⁾
Oil (32 cSt)	3.9	7.8	19.6	39.1	78.2	117.3	156.4	245.1 ⁽⁵⁾

51.476.□	Flow Rates in Ltrs/hr for 2" Port Sizes							
	S1	S2	S5	S10	S20	S40	S100	S200
Water	227	455	1137	2274	4547	6821	9094	18188
Oil (32 cSt)	8.1	16.3	40.7	81.5	163.0	224.4	325.9	651.8

- Notes**
- (1) The above flow rates are for water and oil at 20°C. Flow rates for other liquids can be derived from relative viscosity data.
 - (2) Flow rates are generally proportional to pressure drop. If an initial drop of 0.2 bar can be tolerated flow rates can be doubled.
 - (3) Flow rates are generally inversely proportional to liquid viscosity.
 - (4) Water = 1 centipoise, for higher viscosity liquids divide the flow rates by the actual viscosity in centipoise.
 - (5) Flow rate limited by the port dimensions. Please contact us to discuss larger port options.