Air Flow Rates
Disposable Type Filter Elements

Air flow rates in Nm^3/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 though 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
6	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
6	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
6	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
6	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
6	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
6	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
6	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 Nm^3/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 though 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	23.2	27.3	32.8	41.0	61.4	95.6	150.2	204.8	273.0
S20	9.9	16.6	25.5	33.2	39.8	49.7	74.6	116.0	182.3	248.6	331.5
S40	10.9	18.2	39.4	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 20ºC. 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 Nm^3/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 though 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
	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
	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
	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
	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
	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
	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
	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 20ºC. 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 Lts/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 ans oil at 20ºC. 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..