

The job of the filter is to retain liquid or solid impurities present in the compressed air. The incoming air is moved by the centrifuge unit, so that liquid particles, which are heavier, are projected against the walls of the container and force to adhere to it. As they accumulate, they create drops that deposit on the bottom by gravity.

The remaining solid particles are held back by the porous filtering element. The condensate is maintained in a quiet state to prevent the deposited impurities from re-entering the circulation. The condensate drains out through the drain cock provided.

The RMSA drain discharges when the pressure in the filter drops to zero. Alternatively the condensate can be drained by hand by pressing the button.

The RA drain discharges condensate from the container automatically whenever necessary, regardless of the pressure level.

The SAC tap drains the condensate only as the result of sudden changes in compressed air requests.

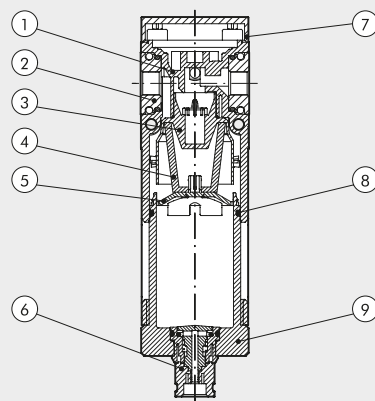
On the front and back there is a port (1/8" for size 1 and 1/4" for size 2) that can be used with pressure gauges, pressure switches or as an additional filtered air intake.



TECHNICAL DATA		FIL SY1			FIL SY2			
Threaded port		1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Degree of filtration	µm	5 (yellow) - output air purity class ISO8573-1: 3.7.4 20 (white) - output air purity class ISO8573-1: 4.7.4 50 (blue) - output air purity class ISO8573-1: 5.7.4						
Max. input pressure	bar	15			13			
	MPa	1.5			1.3			
	psi	217			188			
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 0.5 bar (0.05 MPa; 7 psi)	Nl/min	900	1200	1300	3400	3800	3800	
	scfm	32	42	46	120	135	135	
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	Nl/min	1300	1650	1750	4500	5200	5200	
	scfm	46	58	62	159	184	184	
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	From -10 to +50			From -10 to +50			
Weight	g	178	173	164	488	461	457	445
Condensate drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure RA: automatic drain with condensate discharge, independent of pressure and flow rate. Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port. SAC: automatic drain with condensate discharge. Operates by depression – requires variable air take-offs. Note: the maximum input pressure for the RA version must not exceed 10 bar						
Fluid		Compressed air or other inert gases						
Condensate bowl capacity	cm³	30			70			
Mounting position		Vertical			Vertical			
Port for additional air take-off		1/8", front and rear			1/4", front and rear			
Additional air take-off flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	Nl/min	500			1500			
	scfm	18			53			

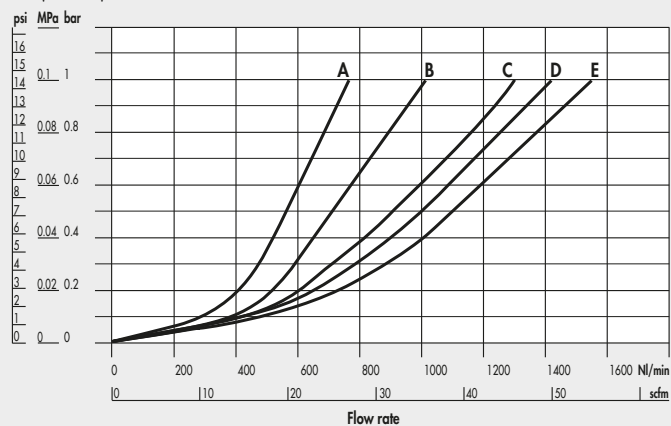
COMPONENTS

- ① Technopolymer filter body
- ② IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
- ③ Technopolymer centrifuge
- ④ Sintered HDPE filter cartridge
- ⑤ Technopolymer screen
- ⑥ Drain (RMSA)
- ⑦ Technopolymer plate
- ⑧ NBR o-ring gaskets
- ⑨ Clear technopolymer bowl

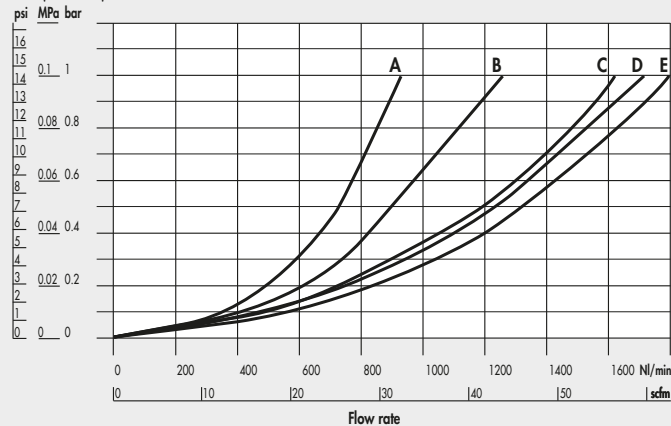


FLOW CHARTS

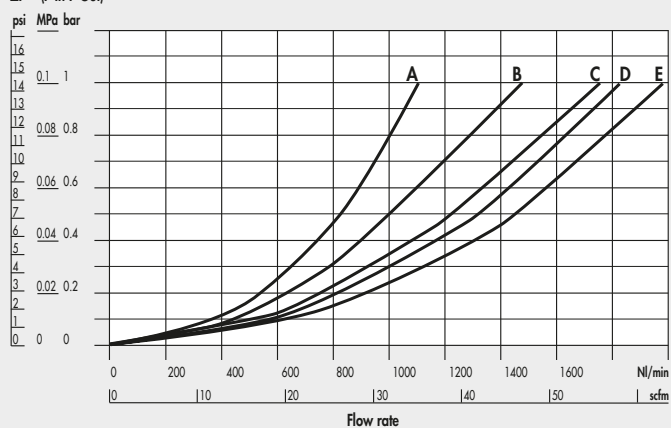
FIL Syntesi® SY1 1/8"

 $\Delta P = (P \text{ In-P Out})$ 

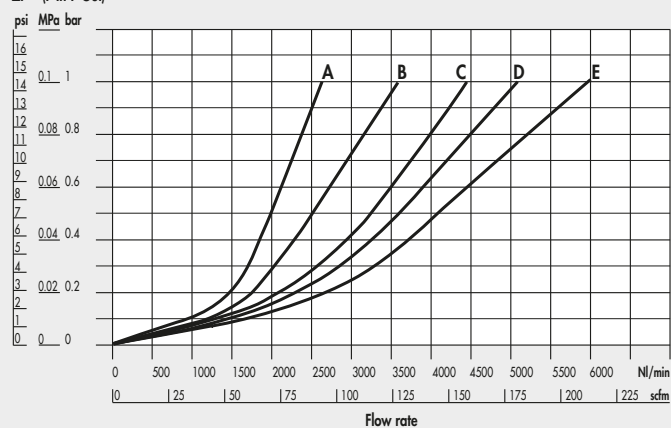
FIL Syntesi® SY1 1/4"

 $\Delta P = (P \text{ In-P Out})$ 

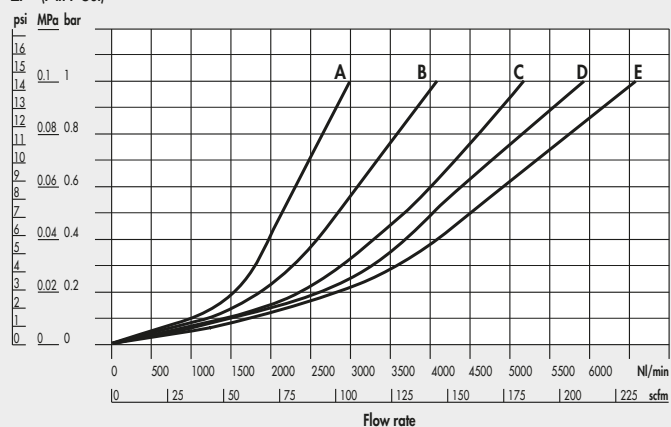
FIL Syntesi® SY1 3/8"

 $\Delta P = (P \text{ In-P Out})$ 

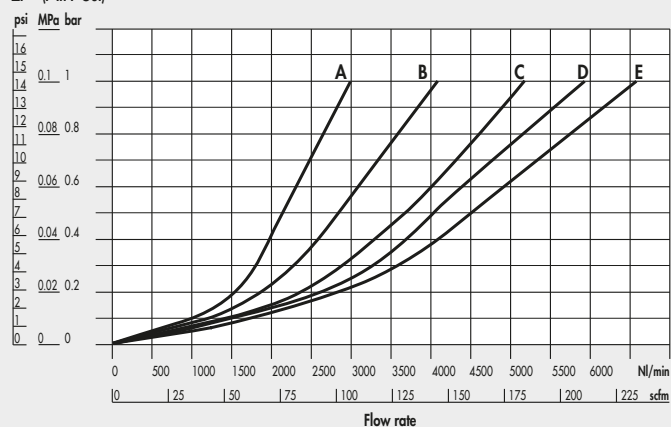
FIL Syntesi® SY2 3/8"

 $\Delta P = (P \text{ In-P Out})$ 

FIL Syntesi® SY2 1/2"

 $\Delta P = (P \text{ In-P Out})$ 

FIL Syntesi® SY2 3/4"-1"

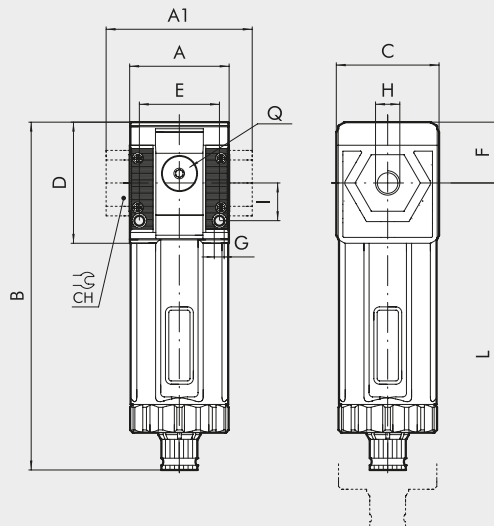
 $\Delta P = (P \text{ In-P Out})$ 

A = 2.5 bar - 0.25 MPa - 36 psi
 B = 4 bar - 0.4 MPa - 58 psi

C = 6.3 bar - 0.63 MPa - 91 psi
 D = 8 bar - 0.8 MPa - 116 psi

E = 10 bar - 1 MPa - 145 psi

DIMENSIONS



	SIZE 1			SIZE 2			
H (threaded port)	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
A	42			60.5			
A1	-	-	44	-	-	95	95
B	RMSA 148			178			
	RA/SAC 152			182			
C	44			61			
CH	-			-	-	32	36
D	51.5			70.5			
E	33.5			47.5			
F	25.8			38.2			
G	Hole for M4 screws			Hole for M5 screws			
I	16			22.5			
L	RMSA 202			245			
	RA/SAC 206			249			
Q (no. 2 additional air takes-off)	1/8"			1/4"			

KEY TO CODES

56	1	1	F	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	DEGREE OF FILTRATION AND TYPE OF CONDENSATE DRAIN	THREADED OUTPUT CONNECTION
56 Syntesi 5X Syntesi anti-corrosion	1 Size 1	0 Without bushing 1 1/8" port 2 1/4" port 3 3/8" port	F Filter	10 5 µm, RMSA 20 20 µm, RMSA 30 50 µm, RMSA 40 5 µm, RA 50 20 µm, RA 60 50 µm, RA 11 5 µm, SAC 21 20 µm, SAC 31 50 µm, SAC	0 Without bushing 1 1/8" port 2 1/4" port 3 3/8" port
	2 Size 2	0 Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port			0 Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port

RMSA: drain with manual condensate discharge and automatic discharge at zero pressure.

RA: automatic drain with condensate discharge, independent of pressure and flow rate.

SAC: Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port. automatic drain with condensate discharge.

Operates by depression – requires variable air take-offs.

UNITS

Syntesi® FILTER

PURCHASE ORDER CODES HAVING A MORE FREQUENT USE

N.B. Besides the below mentioned codes, you can order elements composed at your will according to the key to codes.

Code	Description	Code	Description	Code	Description
Syntesi® SY1 FILTER		Syntesi® SY2 FILTER		Syntesi® SY2 FILTER	
5610F100	FIL SY1 5 RMSA without bushings	5620F100	FIL SY2 5 RMSA without bushings	5626F106	FIL SY2 1 5 RMSA
5610F200	FIL SY1 20 RMSA without bushings	5620F200	FIL SY2 20 RMSA without bushings	5626F206	FIL SY2 1 20 RMSA
5610F400	FIL SY1 5 RA without bushings	5620F400	FIL SY2 5 RA without bushings	5626F406	FIL SY2 1 5 RA
5610F500	FIL SY1 20 RA without bushings	5620F500	FIL SY2 20 RA without bushings	5626F506	FIL SY2 1 20 RA
5611F101	FIL SY1 1/8 5 RMSA	5623F103	FIL SY2 3/8 5 RMSA		
5611F201	FIL SY1 1/8 20 RMSA	5623F203	FIL SY2 3/8 20 RMSA		
5611F401	FIL SY1 1/8 5 RA	5623F403	FIL SY2 3/8 5 RA		
5611F501	FIL SY1 1/8 20 RA	5623F503	FIL SY2 3/8 20 RA		
5612F102	FIL SY1 1/4 5 RMSA	5624F104	FIL SY2 1/2 5 RMSA		
5612F202	FIL SY1 1/4 20 RMSA	5624F204	FIL SY2 1/2 20 RMSA		
5612F402	FIL SY1 1/4 5 RA	5624F404	FIL SY2 1/2 5 RA		
5612F502	FIL SY1 1/4 20 RA	5624F504	FIL SY2 1/2 20 RA		
5613F103	FIL SY1 3/8 5 RMSA	5625F105	FIL SY2 3/4 5 RMSA		
5613F203	FIL SY1 3/8 20 RMSA	5625F205	FIL SY2 3/4 20 RMSA		
5613F403	FIL SY1 3/8 5 RA	5625F405	FIL SY2 3/4 5 RA		
5613F503	FIL SY1 3/8 20 RA	5625F505	FIL SY2 3/4 20 RA		

NOTE

Anti-corrosion version

5X-----

Example

5X11F101 FIL SY1 1/8 5 RMSA anti-corrosion