

Activated-carbon filtering systems achieve the highest standard of purification possible in industrial applications. They eliminate all traces of oils, solvents and hydrocarbons, and remove unpleasant odours. The operating principle uses activated carbon, which absorbs most of the polluting particles in the air thanks to minute holes in the granules of carbon.

There are two 1/8" BSPP ports, one on the front and one on the back, for use with pressure gauges or pressure switches or, considering the high flow rate, as additional air take-off. **The air taken from here is not filtered by the activated-carbon cartridge.**

Cartridge life and efficiency can be increased by using pre-filtered ($5\mu\text{m} = 200$ microinch) and purified ($0.01\mu\text{m} = 0.4$ microinch) air. The cartridge must be replaced at set intervals as there is no difference in load loss between an efficient cartridge and a saturated one.

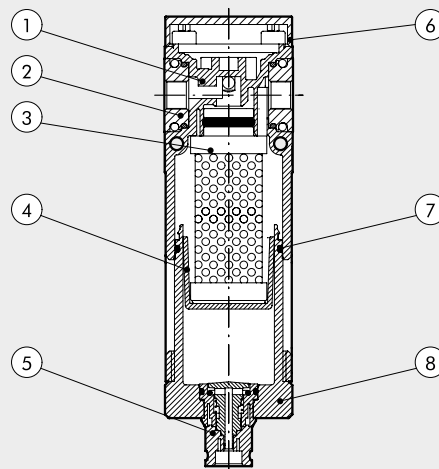
N.B.: to ensure the performance and duration stated on the data sheet, the load loss (ΔP) must not exceed 1 psi.



TECHNICAL DATA	FIL CA SY1			FIL CA SY2				
	1/8" NPT	1/4" NPT	3/8" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	
Threaded port								
Residual oil at 20°C *	mg/m ³	0.003 - output air purity class ISO8573-1: 1.7.1						
Duration of cartridge *	hours	4000			4000			
Max. inlet pressure	bar	15			13			
	MPa	1.5			1.3			
Suggested flow rate at 6.3 bar (0.63 MPa; 91 psi)	psi	217			188			
	Nl/min	350			800			
	scfm	12			28			
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	From -10 to +50			From -10 to +50			
	°F	From 14 to +122			From 14 to +122			
Weight	pounds	0.43	0.42	0.40	1.06	1	0.99	0.97
Condensate drain		RMSA: drain with manual condensate discharge and automatic discharge at zero pressure						
Fluid		0.01 μm filtered and dehydrated air						
Mounting position		In any position			In any position			
Additional air take-off port (unfiltered air from cartridge CA)		1/8" BSPP, front and rear			1/4" BSPP, front and rear			
Additional air take-off flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14.5 psi)	Nl/min	500			1500			
	scfm	18			53			
Wall fixing screws		N. 8-32 unc x 2			N. 10-24 unc x 2			
Notes on use		Upstream it's necessary to mount a coalescence filter dehydrator of 0.01 μm (0.4 microinch)						
* if the load loss of 1 psi is not exceeded								

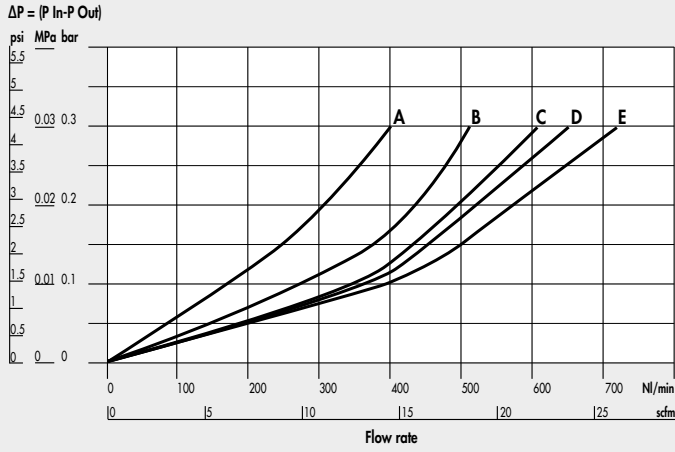
COMPONENTS

- ① Technopolymer dehydrator body
- ② IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium
- ③ Active carbon cartridge
- ④ Technopolymer cartridge support
- ⑤ Drain (RMSA)
- ⑥ Technopolymer plate
- ⑦ NBR o-ring gasket
- ⑧ Clear technopolymer bowl

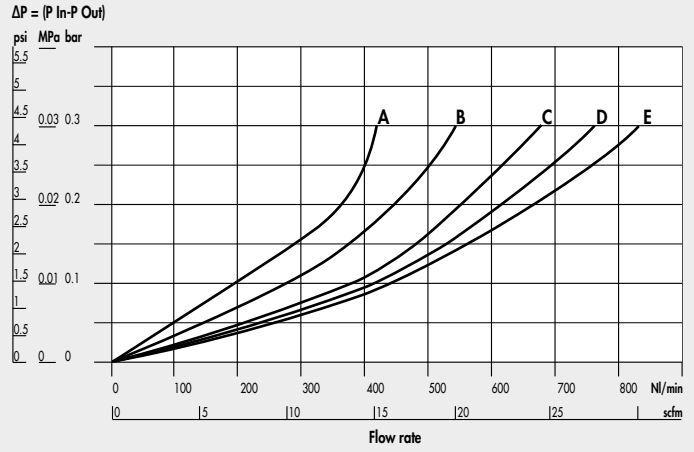


FLOW CHARTS

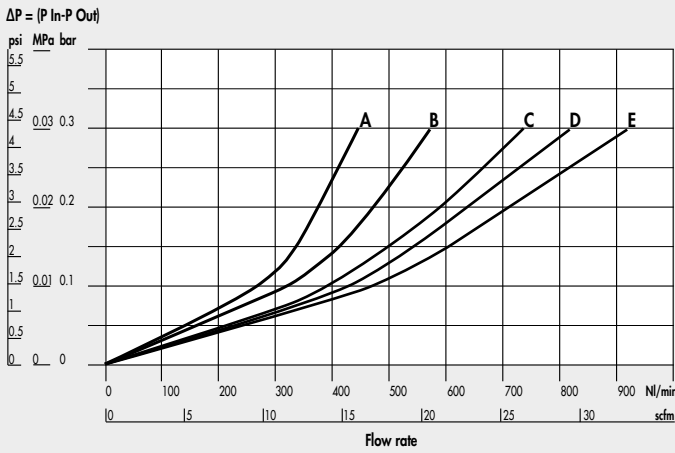
FIL CA Syntesi® SY1 1/8"



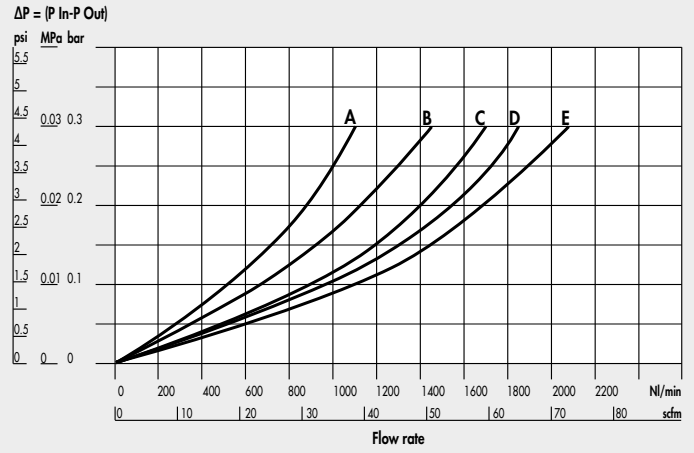
FIL CA Syntesi® SY1 1/4"



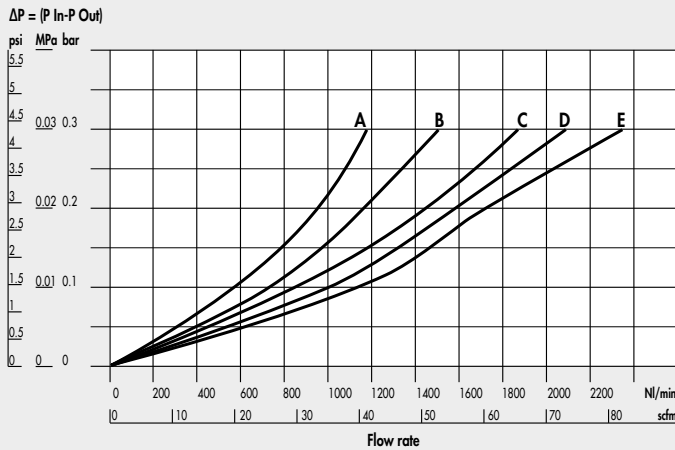
FIL CA Syntesi® SY1 3/8"



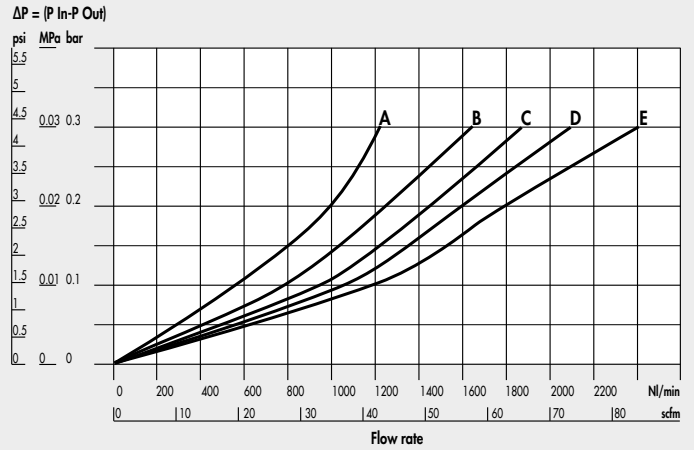
FIL CA Syntesi® SY2 3/8"



FIL CA Syntesi® SY2 1/2"



FIL CA Syntesi® SY2 3/4" - 1"

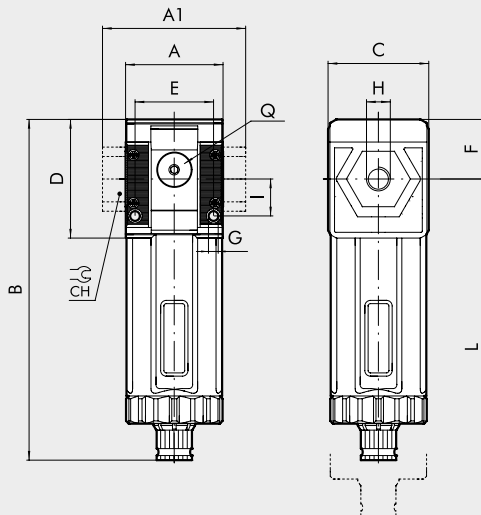


A = 2.5 bar - 0.25 MPa - 36 psi
 B = 4 bar - 0.4 MPa - 58 psi

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			
		1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
H (threaded port)	NPT	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
A			1.65				2.38	
A1		-	-	1.73	-	-	3.74	3.74
B	RMSA		5.83				7	
C			1.73				2.4	
CH			-		-	-	1.26	1.41
D			2.03				2.77	
E			1.32				1.87	
F			1.02				1.5	
G			0.165				0.21	
I			0.63				0.89	
L	RMSA		7.95				9.65	
Q (no. 2 additional air takes-off)			1/8" BSPP				1/4" BSPP	

KEY TO CODES

5U	1	1	C	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	TYPE	THREADED OUTPUT CONNECTION
5U Syntesi NPT	1 Size 1	0 Without bushing 1 1/8" NPT port 2 1/4" NPT port 3 3/8" NPT port	C Active carbon filter	10 RMSA	0 Without bushing 1 1/8" NPT port 2 1/4" NPT port 3 3/8" NPT port
5Z Syntesi anti-corrosion NPT	2 Size 2	0 Without bushing 3 3/8" NPT port 4 1/2" NPT port 5 3/4" NPT port 6 1" NPT port			0 Without bushing 3 3/8" NPT port 4 1/2" NPT port 5 3/4" NPT port 6 1" NPT port

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

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
Syntesi® SY1 ACTIVE CARBON FILTER		Syntesi® SY2 ACTIVE CARBON FILTER	
5U10C100	AC SY1 RMSA NPT without bushings	5U20C100	AC SY2 RMSA NPT without bushings
5U11C101	AC SY1 1/8 RMSA NPT	5U23C103	AC SY2 3/8 RMSA NPT
5U12C102	AC SY1 1/4 RMSA NPT	5U24C104	AC SY2 1/2 RMSA NPT
5U13C103	AC SY1 3/8 RMSA NPT	5U25C105	AC SY2 3/4 RMSA NPT
		5U26C106	AC SY2 1 RMSA NPT

NOTE
Anti-corrosion version
5Z _____
Example
5Z11C101 AC SY1 1/8 RMSA NPT anti-corrosion