

The Job of the filter is to remove any solid or liquid impurities from the air generated by the compressor.

Incoming air is rotated by the centrifuge unit. The heaviest liquid and solid particles are projected against the walls of the container and forced to adhere to it. As they accumulate they form drops that deposit on the bottom by gravity. The remaining solid particles are held back by the porous element depending on the filtering threshold. The condensate accumulation area is kept still to prevent previously deposited impurities from being re-circulated.

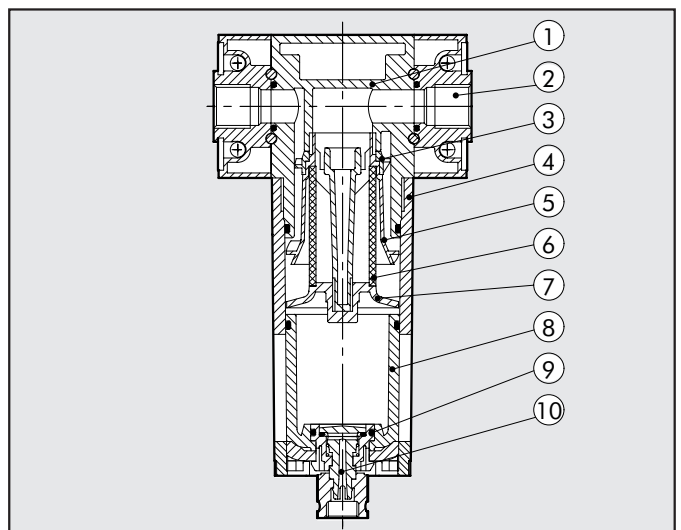
The accumulated condensate is drained out through the drain – automatically when there is no pressure in the filter, or by hand pressing the button. An automatic drain is available. It automatically eliminates condensate from the container whenever necessary, whatever the pressure.

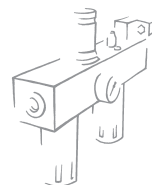


TECHNICAL DATA	FIL 100	FIL 100	FIL 200	FIL 200	FIL 200	FIL 300	FIL 300	FIL 300
Threaded port	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"
Degree of filtration	5µm 20µm 50µm		5µm 20µm 50µm			5µm 20µm 50µm		
Max. input pressure	MPa		MPa			MPa		
	bar		bar			bar		
	psi		psi			psi		
Flow rate at 6.3 bar (0.63 MPa-91 psi)	NI/min		NI/min			NI/min		
ΔP 0.5 bar (0.05 MPa – 7 psi)	scfm		scfm			scfm		
Flow rate at 6.3 bar (0.63 MPa-91 psi)	NI/min		NI/min			NI/min		
ΔP 1 bar (0.1 MPa – 14 psi)	scfm		scfm			scfm		
Fluid	Compressed air		Compressed air			Compressed air		
Max temperature at 1 MPa; 10 bar; 145 psi	°C		°C			°C		
	°F		°F			°F		
Weight	Kg		Kg			Kg		
Wall fixing screws	M4x50		M5x60			M5x70		
Mounting position	Vertical		Vertical			Vertical		
Drain	Manual		Manual			Manual		
	Manual/semi-auto (RMSA)		Manual/semi-auto (RMSA)			Manual/semi-auto (RMSA)		
	Automatic (SAC)		Automatic (SAC) - Automatic (RA)			Automatic (RA)		
Bowl capacity	cm <sup>3</sup>		cm <sup>3</sup>			cm <sup>3</sup>		
	22		45			75		
NOTE ON USE	The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.							

## COMPONENTS

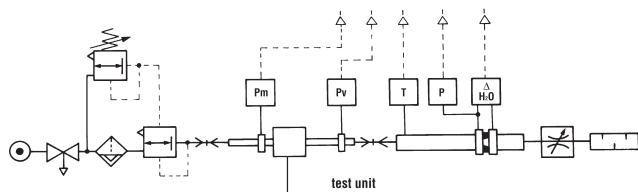
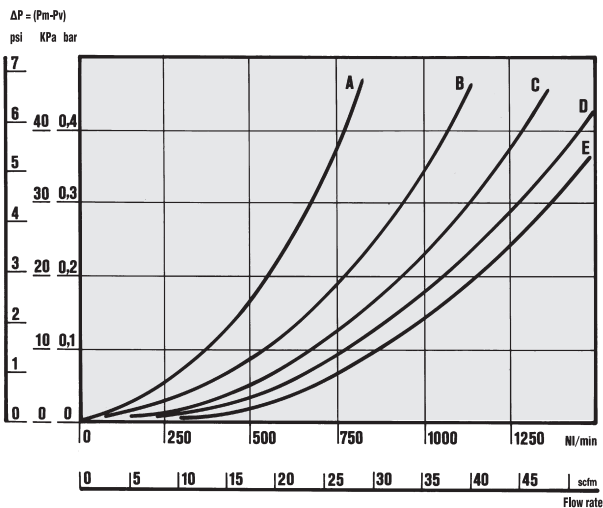
- ① Technopolymer body
- ② Zamak end plate
- ③ Technopolymer centrifuge
- ④ Bowl: technopolymer for FIL 100 and FIL 200, metal for FIL 300
- ⑤ Technopolymer baffle
- ⑥ Sintered HDPE filter cartridge
- ⑦ Technopolymer screen
- ⑧ Clear technopolymer glass
- ⑨ NBR gaskets
- ⑩ Drain (RMSA)





## FLOW CHARTS

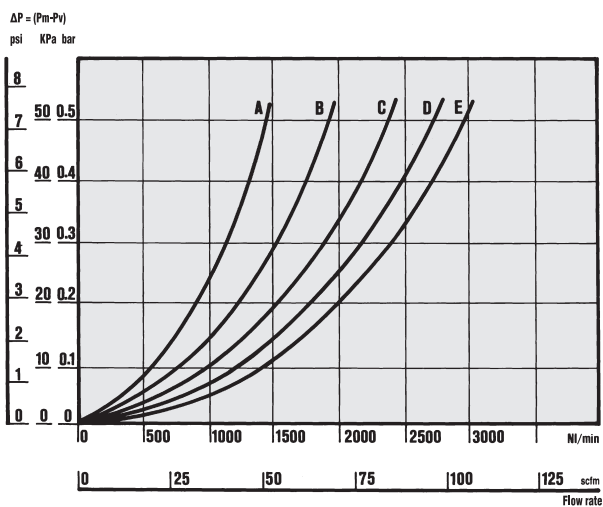
### FIL 100 1/4 - 3/8



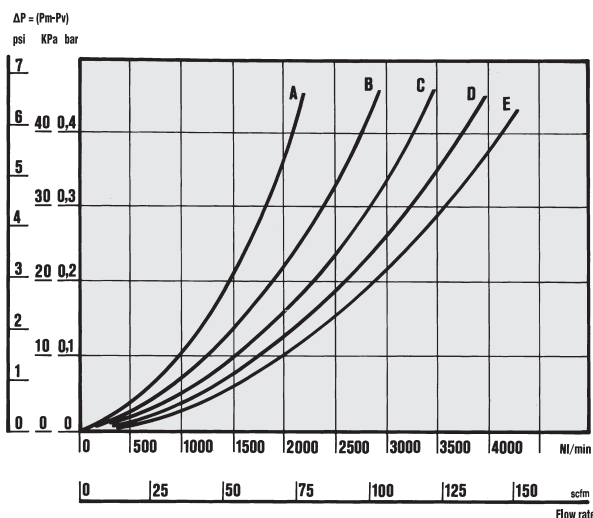
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (A) = 2 bar - 0,2 MPa - 29 psi
- (B) = 4 bar - 0,4 MPa - 58 psi
- (C) = 6 bar - 0,6 MPa - 87 psi
- (D) = 8 bar - 0,8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

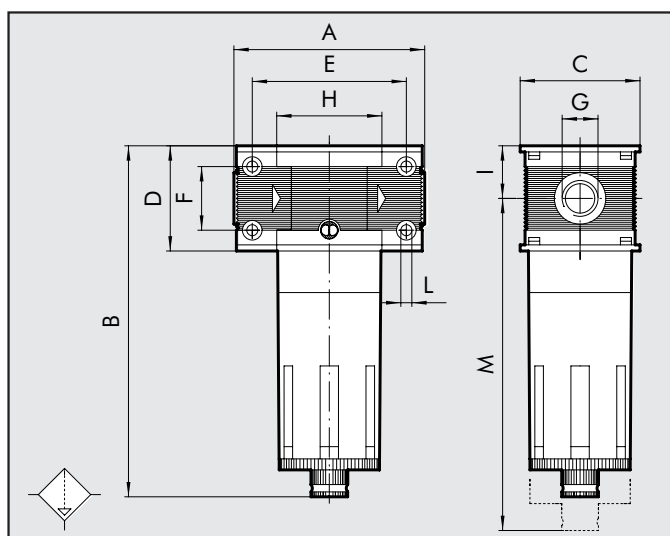
### FIL 200 1/4 - 3/8 - 1/2



### FIL 300 1/2 - 3/4 - 1



## DIMENSIONS



	FIL 100	FIL 100	FIL 200	FIL 200	FIL 200	FIL 300	FIL 300	FIL 300
	G 1/4	G 3/8	G 1/4	G 3/8	G 1/2	G 1/2	G 3/4	G 1"
A	78			93.5		110		112
B	144			175			195	
C	50			63			72	
D	43			55			65	
E	63			78.5			92	
F	26			36			42	
G	G 1/4	G 3/8	G 1/4	G 3/8	G 1/2	G 1/2	G 3/4	G 1"
H	43			55.5			65	
I	21.5			27.5			32.5	
L	M4 hole			M5 hole			M5 hole	
M	137			196			215	

# Skillair® 400 FILTER

Filter with different degrees of impurity treatment and high performance:

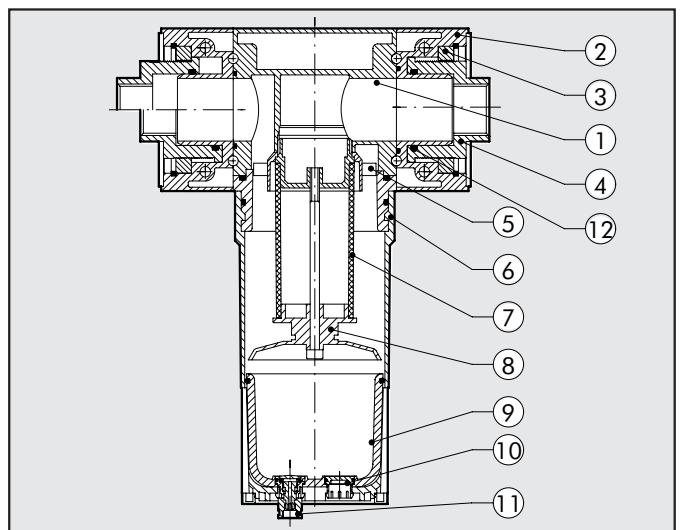
- minimum load loss with changes in flow rate
- maximum degree of condensate separation
- 360° condensate level display
- semi-auto or auto condensate drain

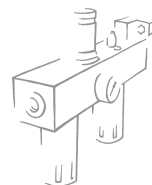


TECHNICAL DATA	FIL 400			
	G1"	G1"1/4"	G1"1/2	G2"
Threaded port				
Degree of filtration		5µm 20µm 50µm		5µm 20µm 50µm
Max. input pressure		1.3		1.3
		13		13
		188		188
Flow rate at 6 bar (0.6 MPa-87 psi)		16500		20000
ΔP 0.5 bar (0.05 MPa – 7 psi)		590		710
Fluid		Compressed air		Compressed air
Max temperature at 1 MPa; 10 bar; 145 psi		50		50
		122		122
Weight		5.2		6
Wall fixing screws		M6x110		M6x110
Mounting position		Vertical		Vertical
Drain		Manual/semi-auto (RMSA) Automatic (RA)		Manual/semi-auto (RMSA) Automatic (RA)
Bowl capacity		270		270
Notes on use	Series 400 end plates come with a patented system with a rotary sliding end joint to allow the unit to be adapted to the pipe cutting distance (see page 3.1/03). The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.			

## COMPONENTS

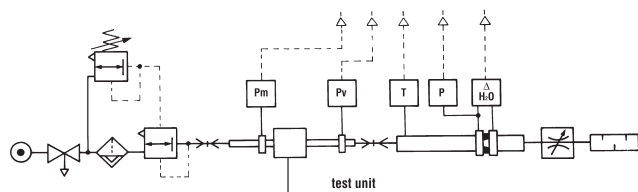
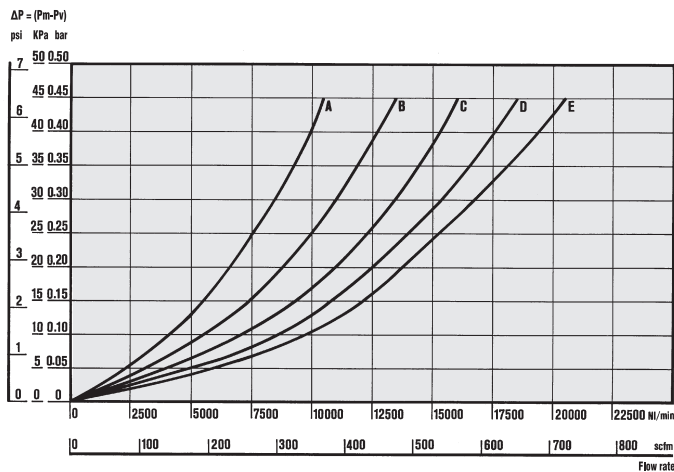
- ① Aluminium body
- ② Aluminium end plate
- ③ OT58 brass retaining ring
- ④ OT58 threaded bush, axial adjustment
- ⑤ Technopolymer centrifuge
- ⑥ Aluminium bowl
- ⑦ Sintered bronze filter cartridge
- ⑧ Aluminium screen
- ⑨ Clear technopolymer glass
- ⑩ Technopolymer plug
- ⑪ Drain (RMSA)
- ⑫ NBR gaskets





## FLOW CHARTS

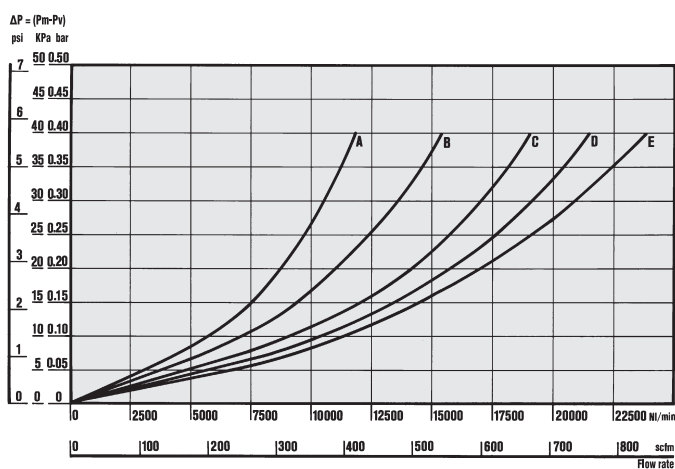
### FIL 400 1''



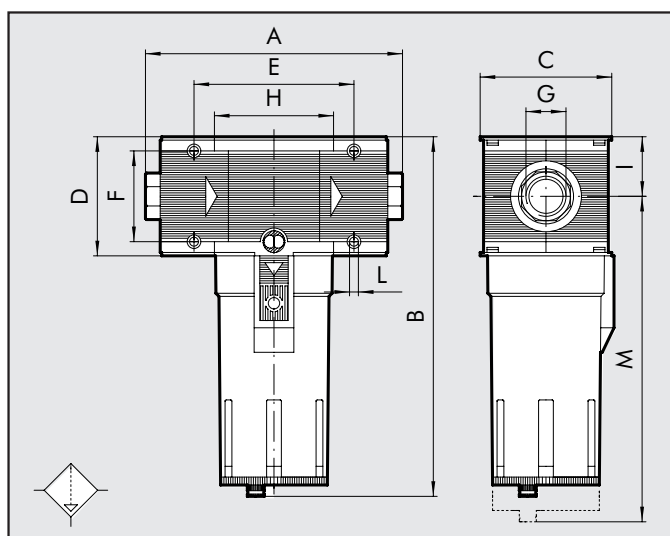
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- (B) = 4 bar - 0,4 MPa - 58 psi
- (C) = 6 bar - 0,6 MPa - 87 psi
- (D) = 8 bar - 0,8 MPa - 116 psi
- (E) = 10 bar - 1 MPa - 145 psi

### FIL 400 2''



## DIMENSIONS



	FIL 400	FIL 400	FIL 400	FIL 400
Threaded port	G 1''	G 1''/4	G 1''/2	G 2''
A		225÷255		283÷313
B			320	
C			116	
D			105	
E			141.4	
F			80	
G	G 1''	G 1''/4	G 1''/2	G 2''
H			105.4	
I			52.5	
L			M6 hole	
M			378	

### KEY TO CODES

FIL FILTER ELEMENT	100 SIZE	1/4 THREADED PORT	20µm DEGREE OF FILTRATION	RMSA TYPE OF DRAIN
FIL.	100	1/4 3/8	5 µm 20 µm 50 µm	RMSA SAC
	200	1/4 3/8 1/2		RMSA SAC RA*
	300	1/2 3/4 1		RMSA RA
	400	1 1 1/4 1 1/2 2		

**RMSA:** Manual/semi-auto drain  
**SAC:** Automatic drain for sizes 100 and 200. Operates by depression – requires variable air take-offs.  
**RA:** Drain for size 300 and 400. Float-type operation irrespective of the pressure and flow rate.

\* For SK200 with RA, please contact our sales assistance department

### ORDERING CODES

Code	Description	Code	Description	Code	Description
<b>SKILLAIR 100 FILTER</b>		<b>SKILLAIR 300 FILTER</b>		<b>SKILLAIR 400 FILTER</b>	
3280001A	FIL 100 5 RMSA WITHOUT END PLATES	4480001A	FIL 300 5 RMSA WITHOUT END PLATES	6180001A	FIL 400 5 RMSA WITHOUT END PLATES
3280007A	FIL 100 5 SAC WITHOUT END PLATES	4480002A	FIL 300 20 RMSA WITHOUT END PLATES	6180002A	FIL 400 20 RMSA WITHOUT END PLATES
3280002A	FIL 100 20 RMSA WITHOUT END PLATES	4480003A	FIL 300 50 RMSA WITHOUT END PLATES	6180003A	FIL 400 50 RMSA WITHOUT END PLATES
3280008A	FIL 100 20 SAC WITHOUT END PLATES	4480004A	FIL 300 5 RA WITHOUT END PLATES	6180004A	FIL 400 5 RA WITHOUT END PLATES
3280003A	FIL 100 50 RMSA WITHOUT END PLATES	4480005A	FIL 300 20 RA WITHOUT END PLATES	6180005A	FIL 400 20 RA WITHOUT END PLATES
3280009A	FIL 100 50 SAC WITHOUT END PLATES	4480006A	FIL 300 50 RA WITHOUT END PLATES	6180006A	FIL 400 50 RA WITHOUT END PLATES
3280001	FIL 100 1/4 5 RMSA	4480001	FIL 300 1/2 5 RMSA	6180001	FIL 400 1 5 RMSA
3280007	FIL 100 1/4 5 SAC	4480002	FIL 300 1/2 20 RMSA	6180002	FIL 400 1 20 RMSA
3280002	FIL 100 1/4 20 RMSA	4480003	FIL 300 1/2 50 RMSA	6180003	FIL 400 1 50 RMSA
3280008	FIL 100 1/4 20 SAC	4480004	FIL 300 1/2 5 RA	6180004	FIL 400 1 5 RA
3280003	FIL 100 1/4 50 RMSA	4480005	FIL 300 1/2 20 RA	6180005	FIL 400 1 20 RA
3280009	FIL 100 1/4 50 SAC	4480006	FIL 300 1/2 50 RA	6180006	FIL 400 1 50 RA
3380001	FIL 100 3/8 5 RMSA	4580001	FIL 300 3/4 5 RMSA	6280001	FIL 400 1 1/4 5 RMSA
3380007	FIL 100 3/8 5 SAC	4580002	FIL 300 3/4 20 RMSA	6280002	FIL 400 1 1/4 20 RMSA
3380002	FIL 100 3/8 20 RMSA	4580003	FIL 300 3/4 50 RMSA	6280003	FIL 400 1 1/4 50 RMSA
3380008	FIL 100 3/8 20 SAC	4580004	FIL 300 3/4 5 RA	6280004	FIL 400 1 1/4 5 RA
3380003	FIL 100 3/8 50 RMSA	4580005	FIL 300 3/4 20 RA	6280005	FIL 400 1 1/4 20 RA
3380009	FIL 100 3/8 50 SAC	4580006	FIL 300 3/4 50 RA	6280006	FIL 400 1 1/4 50 RA
<b>SKILLAIR 200 FILTER</b>		4680001	FIL 300 1 5 RMSA	6380001	FIL 400 1 1/2 5 RMSA
3480001A	FIL 200 5 RMSA WITHOUT END PLATES	4680002	FIL 300 1 20 RMSA	6380002	FIL 400 1 1/2 20 RMSA
3480007A	FIL 200 5 SAC WITHOUT END PLATES	4680003	FIL 300 1 50 RMSA	6380003	FIL 400 1 1/2 50 RMSA
3480002A	FIL 200 20 RMSA WITHOUT END PLATES	4680004	FIL 300 1 5 RA	6380004	FIL 400 1 1/2 5 RA
3480008A	FIL 200 20 SAC WITHOUT END PLATES	4680005	FIL 300 1 20 RA	6380005	FIL 400 1 1/2 20 RA
3480003A	FIL 200 50 RMSA WITHOUT END PLATES	4680006	FIL 300 1 50 RA	6380006	FIL 400 1 1/2 50 RA
3480009A	FIL 200 50 SAC WITHOUT END PLATES			6480001	FIL 400 2 5 RMSA
3480001	FIL 200 1/4 5 RMSA			6480002	FIL 400 2 20 RMSA
3480007	FIL 200 1/4 5 SAC			6480003	FIL 400 2 50 RMSA
3480002	FIL 200 1/4 20 RMSA			6480004	FIL 400 2 5 RA
3480008	FIL 200 1/4 20 SAC			6480005	FIL 400 2 20 RA
3480003	FIL 200 1/4 50 RMSA			6480006	FIL 400 2 50 RA
3480009	FIL 200 1/4 50 SAC				
3580001	FIL 200 3/8 5 RMSA				
3580007	FIL 200 3/8 5 SAC				
3580002	FIL 200 3/8 20 RMSA				
3580008	FIL 200 3/8 20 SAC				
3580003	FIL 200 3/8 50 RMSA				
3580009	FIL 200 3/8 50 SAC				
3680001	FIL 200 1/2 5 RMSA				
3680007	FIL 200 1/2 5 SAC				
3680002	FIL 200 1/2 20 RMSA				
3680008	FIL 200 1/2 20 SAC				
3680003	FIL 200 1/2 50 RMSA				
3680009	FIL 200 1/2 50 SAC				