

Skillair® DEPURATOR



The role of the depurator is to separate the liquid and solid particles contained in the compressed air with a high degree of efficiency. This separation is carried out using a special filtering element called a "coalescence cartridge".

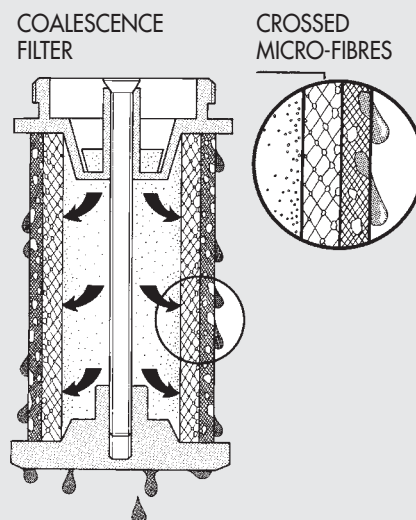


TECHNICAL DATA	DEP 100		DEP 200			DEP 300			DEP 400			
Threaded port	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Degree of purification	99.97% at 0.01 μm		99.97% at 0.01 μm			99.97% at 0.01 μm			99.97% at 0.01 μm			
Max. inlet pressure	MPa	1.5	1.3			1.3			1.3		1.3	
	bar	15	13			13			13		13	
	psi	217	188			188			188		188	
Suggested flow at 6 bar	Nl/min	230	360			500			2300		2250	
Maximum suggested flow rate	See next page											
Max temperature at: 1 MPa; 10 bar; 145 psi	°C	50	50			50			50		50	
	°F	122	122			122			122		122	
Weight	kg	0.4	0.9			1.4			4.2		5	
Wall fixing screws		M4 x 50	M5 x 60			M5 x 70			M6 x 110		M6 x 110	
Bowl capacity	cm³	22	45			75			270		270	
Mounting position		Vertical	Vertical			Vertical			Vertical		Vertical	
Drain		RMSA	RMSA			RMSA - RA			RMSA - RA		RMSA - RA	
RMSA: drain with manual condensate discharge and automatic discharge at zero pressure RA: automatic drain with condensate discharge, independent of pressure and flow rate 5 μm filtered air												
Fluid	It is advisable to mount a 5 μm pre-filter in order to separate the solid particles first.											
Notes on use	The maximum inlet pressure for the version with RA automatic condensate drainage must not exceed 10 bar.											

UNITS
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HOW THE COALESCENCE CARTRIDGE WORKS

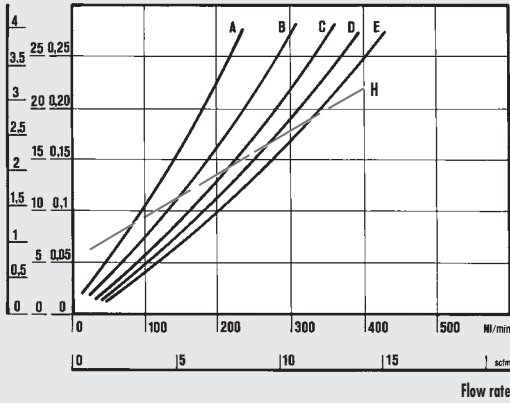
Air from the mains – full of impurities – flows into the coalescence cartridge and then passes through the crossed micro-fibres that make up the cartridge. During this movement the liquid particles come into contact with the crossed micro-fibres and adhere to them. Due to the air pressure and gravity they join up with other micro-drops at each cross-over point and gradually increase in volume, leading to the physical phenomenon called coalescence. When they stop moving, the drops deposit on the outside of the cartridge, from which they detach and drop to the bottom. Since the volume of liquid leaving the cartridge is exactly the same as the drops arriving, the coalescence cartridge ought to work indefinitely. Solid particles are caught with the same efficiency but, unlike drops, they are not drained out and clog the cartridge. To get round this problem, it is necessary to mount a 5 μm pre-filter before the fine oil filter to separate the solid particles first.



FLOW CHARTS

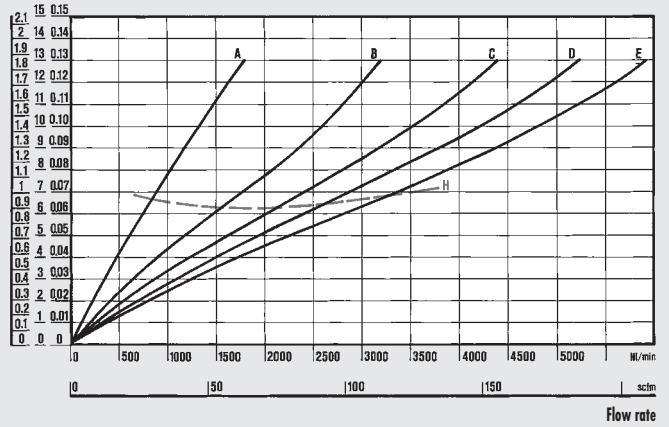
DEP 100 1/4 - 3/8

$\Delta P = (P_m - P_v)$
psi kPa bar



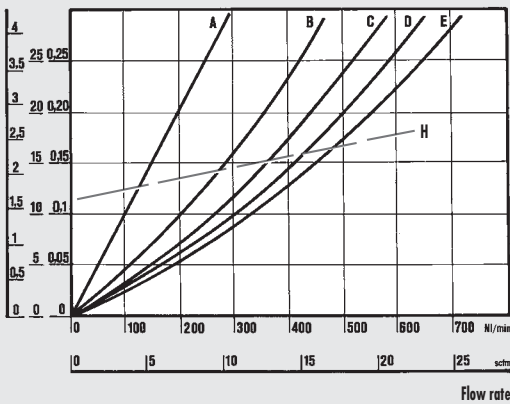
DEP 400 1"

$\Delta P = (P_m - P_v)$
psi kPa bar



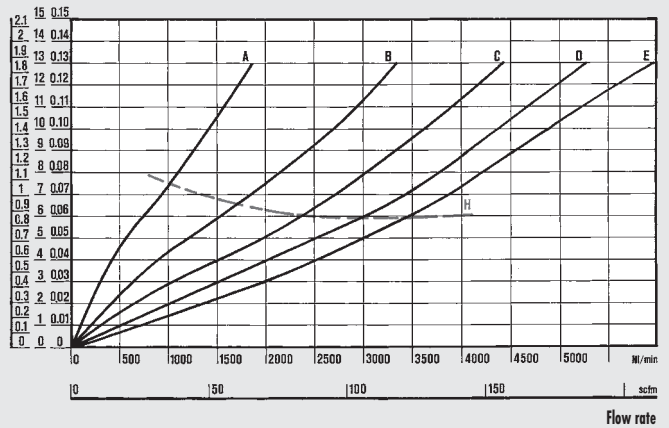
DEP 200 1/4 - 3/8 - 1/2

$\Delta P = (P_m - P_v)$
psi kPa bar



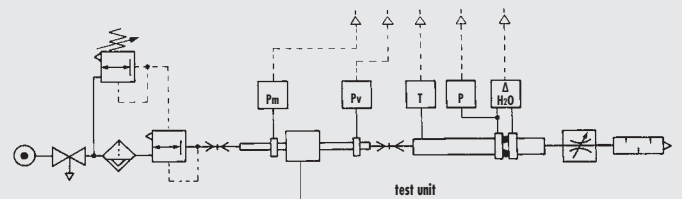
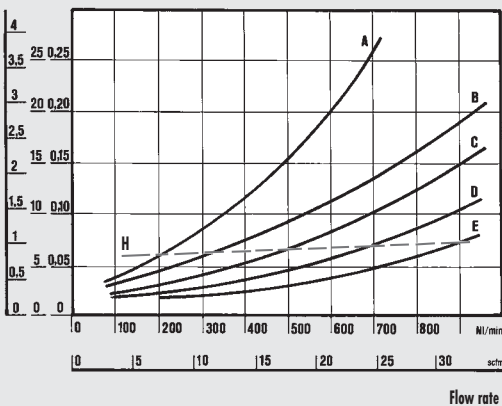
DEP 400 2"

$\Delta P = (P_m - P_v)$
psi kPa bar



DEP 300 1/2 - 3/4 - 1

$\Delta P = (P_m - P_v)$
psi kPa bar



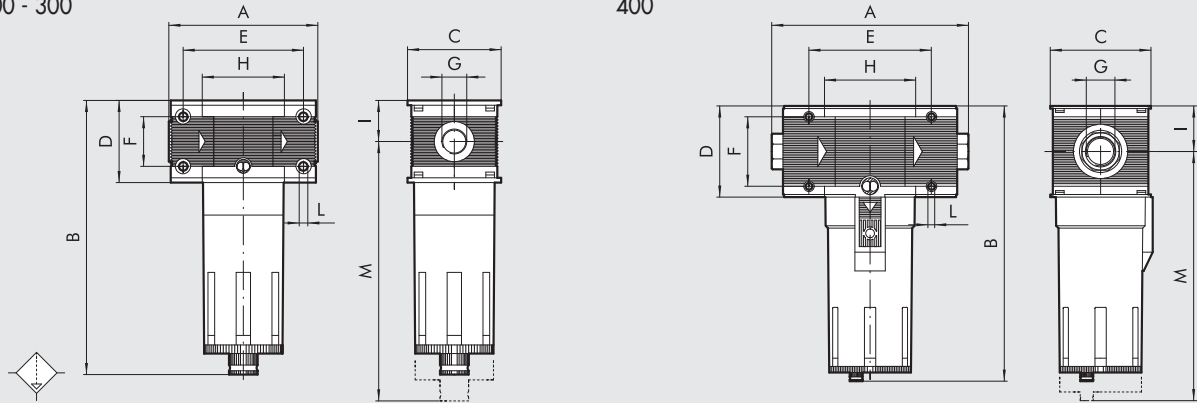
• Flow tests carried out at the Department of Mechanics, Turin Polytechnic, using the computerized test bench following CETOP RP50R recommendations (ISO DIS 6358-2-approved) with ISO 5167 diaphragm gauge.

- (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
- (H) = maximum flow rate recommended for optimal operation

DIMENSIONS

100 - 200 - 300

400



	DEP 100		DEP 200			DEP 300			DEP 400			
Threaded port G	1/4"	3/8"	1/4"	3/8"	1/2"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
A	78		93.5			110		112	225 to 255			283 to 313
B	RMSA RA	144 -	175 -			195 199			320 324			
C		50	63			72			116			
D		43	55			65			105			
E		63	78.5			92			141.4			
F		26	36			42			80			
H		43	55.5			65			105.4			
I		21.5	27.5			32.5			52.5			
L		M4 hole	M5 hole			M5 hole			M6 hole			
M	RMSA RA	137 -	196 -			215 219			378 382			

SYNOPTIC, SIZES AND VERSIONS

DEP ELEMENT	100 SIZE	1/4 THREADED PORT	RMSA TYPE OF 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. (for size 300 and 400)
DEP	100	1/4	RMSA	
	200	3/8		
	300	1/4		
	400	3/8	RMSA	
		1/2	RA	
		3/4		
		1		
		1		
		1 1/4		
		1 1/2		
		2		

ORDERING CODES

Code	Description	Code	Description	Code	Description
Skillair® 100 DEPURATOR		Skillair® 300 DEPURATOR		Skillair® 400 DEPURATOR	
3288001A	D 100 RMSA without end plates	4488001A	D 300 RMSA without end plates	6188001A	D 400 RMSA without end plates
3288001	D 100 1/4 RMSA	4488002A	D 300 RA without end plates	6188002A	D 400 RA without end plates
3388001	D 100 3/8 RMSA	4488001	D 300 1/2 RMSA	6188001	D 400 1 RMSA
		4488002	D 300 1/2 RA	6188002	D 400 1 RA
		4588001	D 300 3/4 RMSA	6288001	D 400 1 1/4 RMSA
		4588002	D 300 3/4 RA	6288002	D 400 1 1/4 RA
		4688001	D 300 1 RMSA	6388001	D 400 1 1/2 RMSA
		4688002	D 300 1 RA	6388002	D 400 1 1/2 RA
				6488001	D 400 2 RMSA
				6488002	D 400 2 RA

UNITS

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