

# SYNTESI® DEPURATOR

The job of the filter purifier is to separate liquid and solid particles dispersed in the compressed air with a high degree of efficiency. This separation is achieved by means of a special filtering element called a "coalescence cartridge".

It is particularly indicated for eliminating traces of oil present in the compressed air. The air flow rate must remain below the maximum values to achieve the desired degree of purification. Beyond this value, there may be a decline in the quality of air from the purifier.

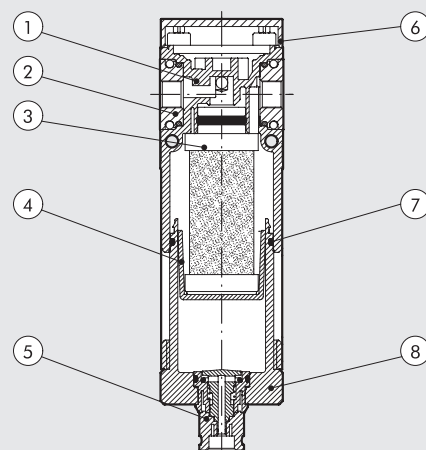
On the front and back there is a port (1/8" for size 1 and 1/4" for size 2) that can be used with pressure gauges, pressure switches or as an additional air intake. **The air taken from here is not purified.**



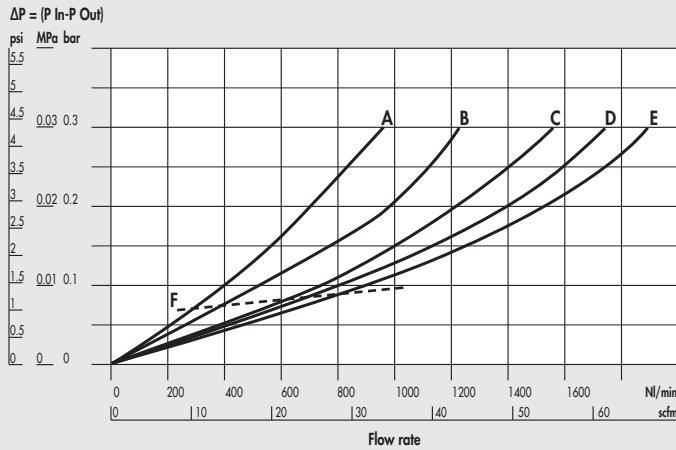
TECHNICAL DATA	DEP SY1				DEP SY2			
	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"	
Threaded port								
Degree of filtration	0.01 - output air purity class ISO8573-1: 1.7.2 1 - output air purity class ISO8573-1: 3.7.3							
Max. input pressure	bar				13			
	MPa				1.3			
Suggested flow rate at 6.3 bar (0.63 MPa; 91 psi)	psi				188			
	NL/min				620			
Maximun suggested flow rate	scfm				37			
	See graph on the next page							
Min/max temperature at 10 bar; 1 MPa; 145 psi	N.B.: flow rates higher than the recommended value reduces purification efficiency From -10 to +50							
Weight	194	189	180	483	456	452	440	
Condensate drain	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure SAC: automatic drain with condensate discharge. <b>Operates by depression – requires variable air take-offs.</b>							
Fluid	Compressed air or other inert gases							
Bowl capacity	cm <sup>3</sup>				40			
Mounting position	Vertical				Vertical			
Port for additional air take-off (not purified air)	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				1500			
	scfm				53			
Wall fixing screws	No. 2 M4 screws				No. 2 M5 screws			
Notes on use	It is advisable to mount a 5 µm filter upstream of the purifier to retain solid particles							

## COMPONENTS

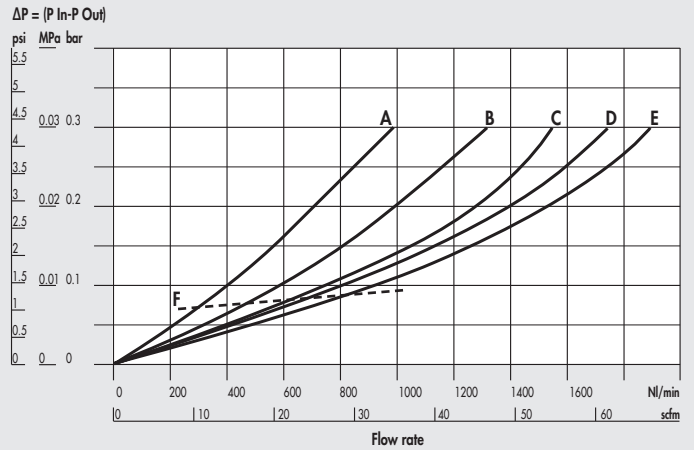
- ① Technopolymer depurator body
- ② IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
- ③ Coalescence cartridge
- ④ Technopolymer cartridge support
- ⑤ Drain (RMSA)
- ⑥ Technopolymer plate
- ⑦ NBR o-ring gaskets
- ⑧ Clear technopolymer bowl



DEP Syntesi® SY2 1/2"



DEP Syntesi® SY2 3/4" - 1"

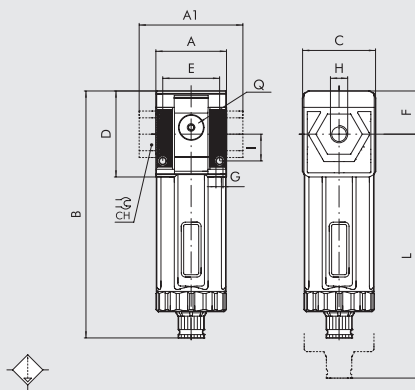


A = 2.5 bar - 0.25 MPa - 36 psi  
 B = 4 bar - 0.4 MPa - 58 psi

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

E = 10 bar - 1 MPa - 145 psi  
 F = max suggested flow

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 SAC 152			178 182			
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 SAC 206			245 249			
Q (no. 2 additional air takes-off)	1/8"			1/4"			

KEY TO CODES

56	1	1	D	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	TYPE	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	D Depurator	10 0.01 μm RMSA 11 0.01 μm SAC 30 1 μm RMSA 31 1 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.  
 SAC: automatic drain with condensate discharge.  
**Operates by depression - requires variable air take-offs.**

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 DEPURATOR		Syntesi® SY2 DEPURATOR	
5610D100	DEP SY1 RMSA without bushings	5620D100	DEP SY2 RMSA without bushings
5611D101	DEP SY1 1/8 RMSA	5623D103	DEP SY2 3/8 RMSA
5612D102	DEP SY1 1/4 RMSA	5624D104	DEP SY2 1/2 RMSA
5613D103	DEP SY1 3/8 RMSA	5625D105	DEP SY2 3/4 RMSA
		5626D106	DEP SY2 1 RMSA

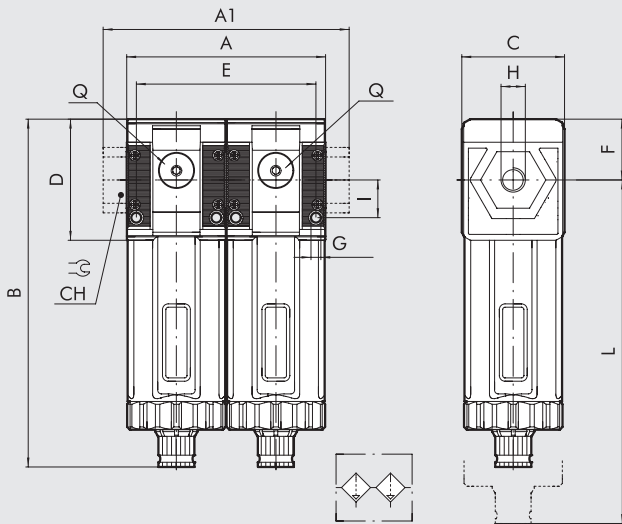
NOTE  
 Anti-corrosion version  
**5X** -----  
 Example  
**5X11D101** DEP SY1 1/8 RMSA anti-corrosion

For full details and list of components refer to the sections about filter and depurator.



TECHNICAL DATA	FIL + DEP SY1			FIL + DEP SY2			
	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Threaded port	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Purifier degree of filtration	0.01 - output air purity class ISO8573-1: 1.7.2						
	1 - output air purity class ISO8573-1: 3.7.3						
Filter degree of filtration	5 (yellow)						
Max. inlet pressure	15 bar			13 bar			
	1.5 MPa			1.3 MPa			
	217 psi			188 psi			
Suggested flow rate at 6.3 bar (0.63 MPa; 91 psi)	550 Nl/min			1050 Nl/min			
	9 scfm			37 scfm			
Maximum suggested flow rate	Look at the chart on the depurator page C1.12			Look at the chart on the depurator page C1.12 / C1.13			
	N.B.: flow rates higher than the recommended value reduces purification efficiency						
Min/max temperature at 10 bar; 1 MPa; 145 psi	From -10 to +50 °C			From -10 to +50 °C			
Weight	358 g	353 g	344 g	942 g	915 g	911 g	899 g
Purifier condensate drain	RMSA: drain with manual condensate discharge and automatic discharge at zero pressure						
Filter 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. <b>Operates by depression – requires variable air take-offs.</b>						
	Note: the maximum input pressure for the RA version must not exceed 10 bar						
Fluid	Compressed air or other inert gases						
Bowl capacity filter/depurator	30/15 cm <sup>3</sup>			70/40 cm <sup>3</sup>			
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 (not purified air)	500 Nl/min			1500 Nl/min			
at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	18 scfm			53 scfm			
Wall fixing screws	No. 2 M4 screws			No. 2 M5 screws			

**DIMENSIONS**



	SIZE 1			SIZE 2			
	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
H (threaded port)	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
A	84			121			
A1	-	-	86	-	-	217	217
B	RMSA RA/SAC			178 182			
C	44			61			
CH	-			-	-	32	36
D	51.5			70.5			
E	75.3			108			
F	25.8			38.2			
G	Hole for M4 screws			Hole for M5 screws			
I	16			22.5			
L	RMSA RA/SAC			202 245 249			
Q (no. 2 additional air takes-off)	1/8"			1/4"			

**KEY TO CODES**

56	1	1	F	10	D	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	DEGREE OF FILTRATION AND TYPE OF CONDENSATE DRAIN	ELEMENT	TYPE	THREADED OUTPUT CONNECTION
56 Syntesi 5X Syntesi anti-corrosion	1 Size 1 2 Size 2	1 1/8" port 2 1/4" port 3 3/8" port 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port	F Filter	10 5 µm, RMSA 40 5 µm, RA 11 5 µm, SAC	D Depurator	10 0.01 µm RMSA 11 0.01 µm SAC 30 1 µm RMSA 31 1 µm SAC	1 1/8" port 2 1/4" port 3 3/8" port 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. Version conveys the draining by inserting the pipe having internal diameter 6 mm in the lower port.

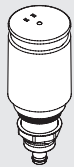
SAC: automatic drain with condensate discharge. Operates by depression – requires variable air take-offs.

**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	NOTE
FIL + DEP Syntesi® SY1		FIL + DEP Syntesi® SY2		Anti-corrosion version
5611F10D101	FIL+DEP SY1 1/8 05 RMSA	5623F10D103	FIL+DEP SY2 3/8 05 RMSA	5X-----
5611F40D101	FIL+DEP SY1 1/8 05 RA	5623F40D103	FIL+DEP SY2 3/8 05 RA	Example
5612F10D102	FIL+DEP SY1 1/4 05 RMSA	5624F10D104	FIL+DEP SY2 1/2 05 RMSA	5X11F40D101 FIL+DEP SY1 1/8 05 RA anti-corrosion
5612F40D102	FIL+DEP SY1 1/4 05 RA	5624F40D104	FIL+DEP SY2 1/2 05 RA	
5613F10D103	FIL+DEP SY1 3/8 05 RMSA	5625F10D105	FIL+DEP SY2 3/4 05 RMSA	
5613F40D103	FIL+DEP SY1 3/8 05 RA	5625F40D105	FIL+DEP SY2 3/4 05 RA	
		5626F10D106	FIL+DEP SY2 1 05 RMSA	
		5626F40D106	FIL+DEP SY2 1 05 RA	

## AUTOMATIC DRAIN (RA)



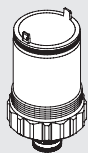
Code	Description
9000802	RA automatic drain spare part

## AUTOMATIC DRAIN (SAC)



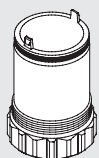
Code	Description
9000803	Spares SAC automatic drain

## BOWL RMSA/RA/SAC



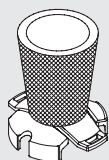
Code	Description
9210100	Bowl FIL FR DEP RMSA SY1
9210101	Bowl FIL FR RA SY1
9210102	Bowl FIL FR DEP SAC SY1
9210105	Bowl FIL FR DEP RMSA SY2
9210106	Bowl FIL FR RA SY2
9210107	Bowl FIL FR DEP SAC SY2

## LUBRICATOR BOWL



Code	Description
9210110	Bowl LUB SY1
9210115	Bowl LUB SY2

## FILTERING ELEMENT



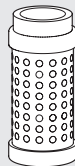
Code	Description
9210150	Filtering element 5µm (yellow) SY1
9210151	Filtering element 20µm (white) SY1
9210152	Filtering element 50µm (blue) SY1
9210155	Filtering element 5µm (yellow) SY2
9210156	Filtering element 20µm (white) SY2
9210157	Filtering element 50µm (blue) SY2

## PURIFIER FILTERING ELEMENT



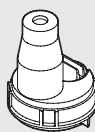
Code	Description
9210160	Cartridge 0.01µm DEP SY1
9210165	Cartridge 0.01µm DEP SY2
9210162	Cartridge 1µm DEP SY1
9210167	Cartridge 1µm DEP SY2

## AC FILTERING ELEMENT (ACTIVE CARBON)



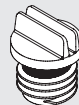
Code	Description
9210161	Cartridge AC SY1
9210166	Cartridge AC SY2

## TRANSPARENT LUBRICATOR COVER



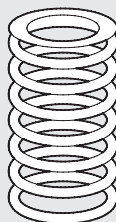
Code	Description
9210180	Transparent cover LUB SY1
9210185	Transparent cover LUB SY2

## LUBRICATOR OIL-FILLING CAP



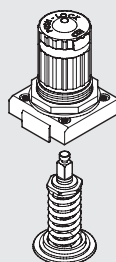
Code	Description
9210181	Oil-filling cap LUB SY1
9210186	Oil-filling cap LUB SY2

## SPRINGS FOR REGULATORS AND FR



Code	Description
9210190	Spares MO 02 SY1
9210191	Spares MO 04 SY1/SY1 anti-corrosion
9210192	Spares MO 08 SY1
9210193	Spares MO 012 SY1
9210195	Spares MO 02 SY2
9210196	Spares MO 04 SY2
9210197	Spares MO 08 SY2
9210198	Spares MO 012 SY2
9210192X	Spares 08 SY1 anti-corrosion
9210193X	Spares 012 SY1 anti-corrosion
9210197X	Spares 08 SY2 anti-corrosion
9210198X	Spares 012 SY2 anti-corrosion

## BELL FOR REG AND FR



Code	Description
9210200	Bell 02 SY1
9210201	Bell 04 SY1
9210202	Bell 08 SY1
9210203	Bell 012 SY1
9210220	Bell 02 SY2
9210221	Bell 04 SY2
9210222	Bell 08 SY2
9210223	Bell 012 SY2
9210202X	Bell 08 SY1 anti-corrosion
9210203X	Bell 012 SY1 anti-corrosion
9210222X	Bell 08 SY2 anti-corrosion
9210223X	Bell 012 SY2 anti-corrosion