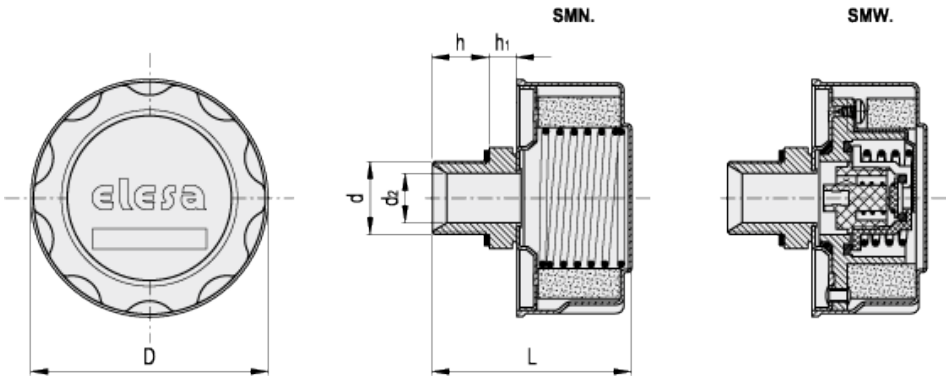
SMN. SMW.

Breather caps and double-valve breather caps

+210°F -20°F

BSP NPT



american unit
metric unit

Elesa Standards		Main dimensions						Weight
Code	Description	d	h	D	L	d_2	h_1	lbs g
156833	SMN.46-1/4-F40	- G 1/4	0.39 10	1.85 47	2.01 51	0.28 7	0.2 5	0.126 57
156883	SMN.80-3/4-F40	- G 3/4	0.63 16	3.19 81	2.76 70	0.67 17	0.47 12	0.526 239

american unit
metric unit

Elesa Standards		Main dimensions						Weight
Code	Description	d	h	D	L	d_2	h_1	lbs g
156983	SMW.80-3/4-F40-350mb	- G 3/4	0.63 16	3.19 81	2.76 70	0.67 17	0.47 12	0.678 308

american unit
metric unit

Elesa Standards		Main dimensions						Weight
Code	Description	d	h	D	L	d_2	h_1	lbs g
956833	SMN.46-1/4 NPT-F40	1/4 NPT -	0.39 10	1.85 47	2.01 51	0.28 7	0.2 5	0.126 57
956883	SMN.80-3/4 NPT-F40	3/4 NPT -	0.63 16	3.19 81	2.76 70	0.67 17	0.47 12	0.526 239

american unit
metric unit

Elesa Standards		Main dimensions						Weight
Code	Description	d	h	D	L	d_2	h_1	lbs g
956983	SMW.80-3/4 NPT-F40-350mb	3/4 NPT -	0.63 16	3.19 81	2.76 70	0.67 17	0.47 12	0.678 308

Material
- Cover: steel sheet, with chrome plating superficial treatment.
- Flange: zinc-plated steel sheet.
- Threaded connector: zinc-plated steel.

Flat packing ring
NBR synthetic rubber (only GAS execution)

Overpressure valve (only for SMW.)
Technopolymer with NBR synthetic rubber O-ring and stainless steel spring.
Set at around 0.350 bar (0.700 bar on request).

Suction valve (only for SMW.)
Technopolymer sealing disk with NBR synthetic rubber O-ring and stainless steel spring.
Set at around 0.030 bar.

Ring shape air filter
Tech-foam 40 µ.

Filter setting spring (only for SMN.)
Zinc-plated steel.

Standard executions
- SMN.: breather cap.
- SMW.: double-valve breather cap.

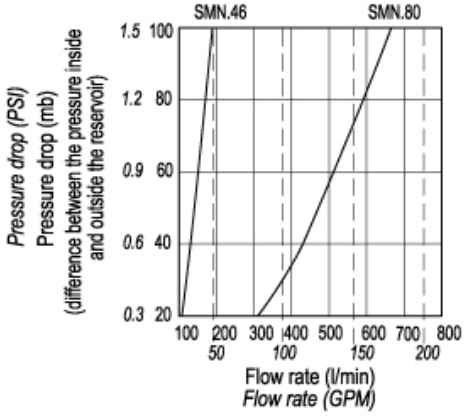
Maximum continuous working temperature
212°F (100°C).

Special executions on request
With dipstick for fluid level indication (only for SMW.).

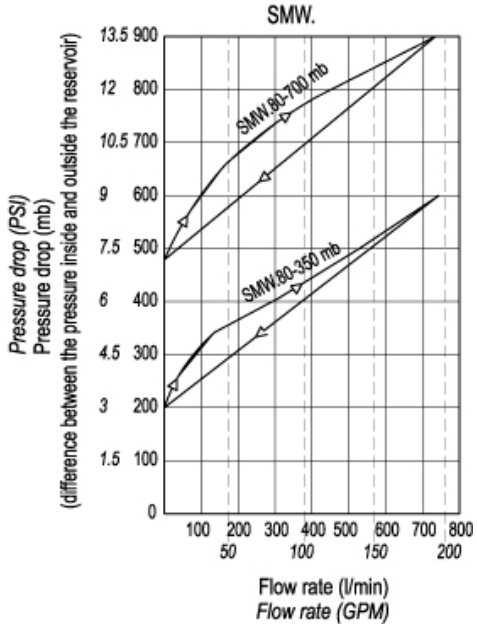
Features and applications
Double-valve breather cap SMW. creates a pressure plenum chamber right above the oil level within given limit conditions in order to avoid any reservoir deformation.
Advantages:
- it reduces reservoir air volume intake keeping clean fluid and filter;
- it improves suction pump action under working conditions reducing cavitation phenomenon;
- it prevents fluid leakage when the system is part of a mobile unit;
- it reduces foam in fluid.

Technical data
Air flow rate for the different executions of breather caps can be obtained from the diagram on the basis of the difference of air pressure inside and outside the reservoir.

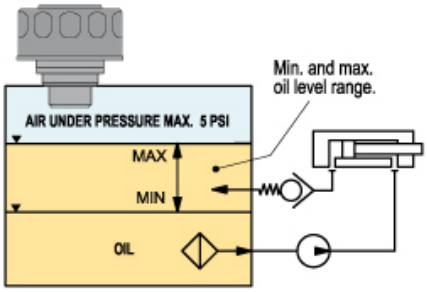
SMN.


SMN.46
SMN.80
Pressure drop (PSI)
Pressure drop (mb)
(difference between the pressure inside and outside the reservoir)
1.5 100
1.2 80
0.9 60
0.6 40
0.3 20
100 200 300 400 500 600 700 800
50 100 150 200
Flow rate (l/min)
Flow rate (GPM)

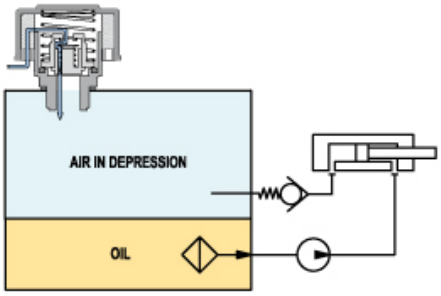
SMW.


SMW.80-700 mb
SMW.80-350 mb
Pressure drop (PSI)
Pressure drop (mb)
(difference between the pressure inside and outside the reservoir)
13.5 900
12 800
10.5 700
9 600
7.5 500
6 400
4.5 300
3 200
1.5 100
0
100 200 300 400 500 600 700 800
50 100 150 200
Flow rate (l/min)
Flow rate (GPM)

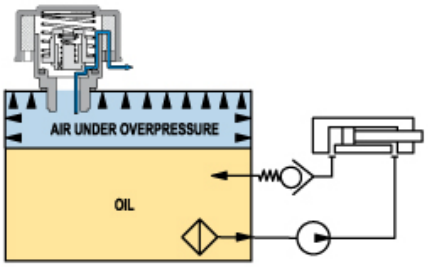
SMW. pressurised breather cap functioning in a hydraulic circuit



Normal working conditions



When in the reservoir a depression under 0.45 PSI is produced, a flux of air entering the reservoir through the suction valve takes place.



When in the reservoir an over pressure exceeding 5 (or 10) PSI is produced, a flux of air is discharged through the safety valve.