

## 1 Technical features

<b>Max working pressure PS:</b>	360 bar
<b>Test pressure PT:</b>	PS x 1,43 bar
<b>Temperature range min. and max TS:</b>	-40°C + 120°C (subject to restrictions due to bladder material)
<b>Nominal capacities:</b>	0,2 ÷ 55 litres

## 2 Construction features

### THE STANDARD VERSION (AS) INCLUDES:

- Shell in hardened and tempered carbon steel, sandblasted and painted outside with a coat of rust inhibitor.
- Valves in phosphated carbon steel.
- Female ISO 228 G threaded fluid port connection.
- Bladder and gaskets in standard nitrile rubber (P).
- Testing and certification according to directive 97/23/EC.
- Preloading with nitrogen at **30 bar** (other values available if specified in order).

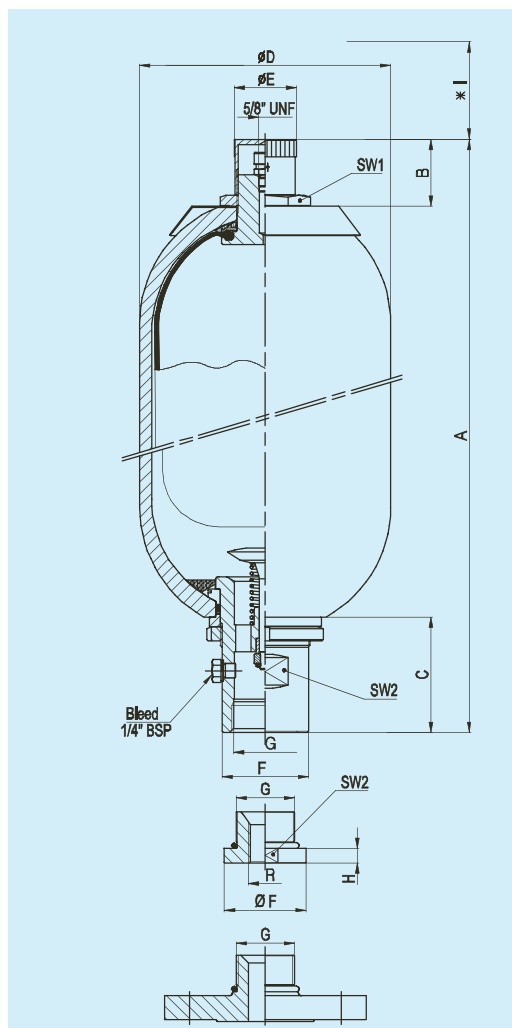
**N.B.** Technical features of **AS** standard version are also valid for **AST** and **ASL** versions except for the structure of gas side valve (see pages 36 and 37).

### ON REQUEST the accumulator can be supplied with the following features:

- **SHELL AND VALVES PROTECTED** with a chemical coating of nickel (25 microns thick. Specify other thickness if required).
- **SHELL AND VALVES IN STAINLESS STEEL**  
For other pressure values contact our Technical Department.
- **BLADDER IN BUTYL, NEOPRENE, ETHYLENE-PROPYLENE, HYDROGENATED NITRILE, NITRILE FOR LOW TEMPERATURES (-40°C), NITRILE FOR HYDROCARBONS, EPICHLOROHYDRIN FOR FOODSTUFFS.**
- **WORKING PRESSURE PS = 550 BAR** for capacities 0,2 and 0,7 litres in carbon steel.
- **SAE 3000 or SAE 6000 FLUID PORT CONNECTION** (see page 24).
- **NPT, SAE or METRIC THREADED FLUID PORT CONNECTION.**
- **ADAPTER R** with ISO 228 thread for the diameters indicated in the table, with other threads to be specified or blind.
- **FLUID PORT FLANGED CONNECTION** (specify PN and DN and flange standards. For order code see page 24)<sup>1)</sup>.
- **GAS SIDE FLANGED CONNECTION** for special applications<sup>1)</sup>.
- **SAFETY VALVE** gas side or liquid side or only with the adapter for this valve (see pages 26-27)<sup>1)</sup>.
- **SPECIAL ANTI-PULSATION CONNECTION** liquid side (see page 25)<sup>1)</sup>.
- **TESTINGS AND CERTIFICATIONS DIFFERENT FROM EC** (Ask for availability).

1) Specify features separately.

## 3 Dimensions 2)



Type	Max work. pressure (bar)	Gas volume (Litres)	Dry weight (kg)	Fluid port connection		A	B	C	øD	øE	øF	H	I*	SW 1	SW 2
				G BSP ISO228	R BSP ISO228										
AS 0,2	360-550	0,2	1,7	1/2"	—	250 ± 2	22	40	53 + <sup>1</sup> <sub>0</sub>	20	26	—		24	23
AS 0,7	360-550	0,65	4,2	3/4"	0=blind	280 ± 3	47	52	90 ± 1	25	36	11	140	32	32
AS 1	360	1	5,2		3/8"	295 ± 5			114 ± 1						
AS 1,5	360	1,5	6,3		1/2"	355 ± 5									
AS 3	360	2,95	11	1"1/4	0=blind	553 ± 8	65	65	168 ± 1,5	53	50	70	70	70	70
AS 5	360	5	15		3/8" - 1/2" - 3/4"	458 ± 10									
AS 10	360	9,1	33	2"	0=blind	568 ± 15	60	101	224 ± 2	55	77	11	140	70	70
AS 15	360	14,5	43		3/8"	718 ± 15									
AS 20	360	18,2	48		1/2"	873 ± 15									
AS 25	360	23,5	59		3/4"	1043 ± 15									
AS 35	360	33,5	78		1"	1392 ± 20									
AS 55	360	50	108		1"1/4	1910 ± 20									

\* I = Overall dimensions of pre-loading unit.

2) = Data related to standard version in carbon steel PS = 360 bar.

Subject to change

## 1 General

The EPE bladder is made by two different and separable parts. One is the rubber bladder of which the main feature lies in an original and well developed process that allows the construction in a **single piece**. The second part is the gas valve assembly that is seal connected on the bladder mechanically. This unique method allows to seal connect on the same bladder **different types**

of gas valve assembly (see pag. 37).

The two parts, bladder and gas valve assembly, can be ordered separately (for the assembling see pag. 41) so when is necessary the replacement of the bladder, it is possible to use again the gas valve assembly saving in this way money on the purchasing price of the spare bladder.

## 2 Technical and constructional features

● **THE BLADDER**, used in the standard version of the accumulators of all the series offered by EPE, is made in butadiene-acrylonitrile rubber (NBR) with medium-high ACN content which we have denoted "**standard nitrile**" and distinguished with the letter **P**. The "**P**" bladder is above all suitable for use with mineral oils but gives also excellent results with many other liquids (see ch. 3.15 page 16). The operating temperature range is between -20 and +85°C. For special requirements, temperatures exceeding the above limits, special liquids, etc. the bladder can be supplied in the following materials: Nitrile for low temperatures (**F**), Nitrile for hydrocarbons (**H**), Hydrogenated Nitrile (**K**), for foodstuffs (**A**), Butyl (**B**), Ethylene-propylene (**E**), Neoprene (**N**), Epichlorohydrin (**Y**).

**N.B.** Not all the bladders sizes are available in all the materials. Please consult our Technical Service Department before ordering.

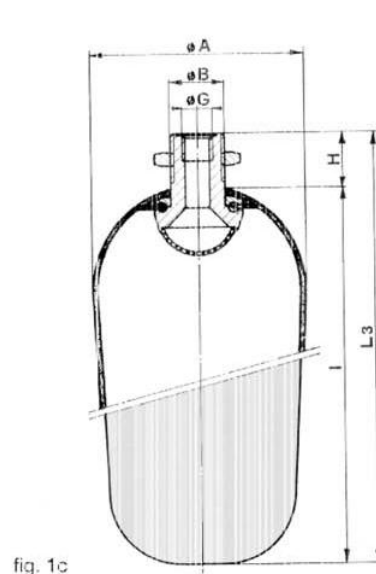
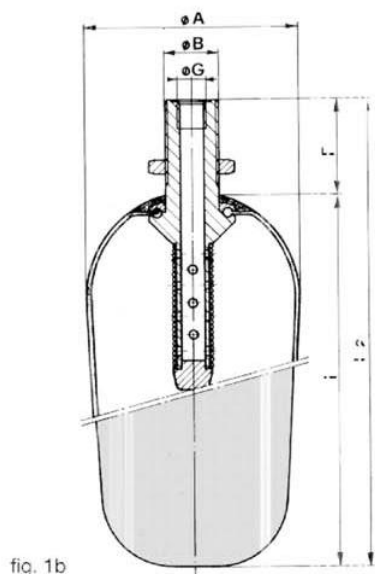
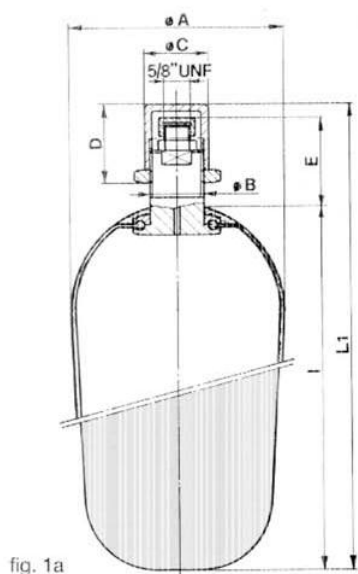
● **THE GAS VALVE** used in the EPE accumulators is made of phosphated carbon steel, in the following three versions:

**S = STANDARD**, (fig. 1a). For capacities from 0,2 to 55 litres with inflating valve 5/8" UNF. This valve can be supplied with Ø B and special inflation connections (see ch. 18.4).

**ST = TRANSFER** (fig. 1b). Suitable for use with the accumulator connected to one or more additional nitrogen bottles. For capacities from 5 to 55 litres.

**SL = LIQUID SEPARATOR** (fig. 1c). It is used when a liquid is also inside the bladder. For capacities from 0,2 to 55 litres.

● **UPON REQUEST**, all the valves can be supplied with chemical nickel coating 25 µm. (other thickness to be specified) or in stainless steel.



## 3 Bladder dimensions and spare codes for standard valves

Nominal capacities (Litres)	Bladder dimensions with valves fig. 1a - 1b - 1c												Bladd. weight kg	Gas valve assembly					
	Ø A	Ø B	Ø C	Ø G ISO 228	D	E	F	H	I	L1	L2	L3		fig. 1a code No.	fig. 1a weight kg	fig. 1b code No.	fig. 1b weight kg	fig. 1c code No.	fig. 1c weight kg
0,2	38	5/8" UNF	20	1/8" BSP	—	25	—	23	155	180	—	178	0,03	2002	0,1	—	—	2003	—
0,7	75								126	182	—	154	0,07	2021				2027-1	0,27
1									148	204	184	176	0,13						
1,5									198	254	234	226	0,17	2022	0,3	2026	0,55	2027	0,18
2,5	95	M22x1,5 (Spec. Ø B s. section 18.4)	25	1/4" BSP	47	51	36	28	325	381	361	353	0,30			2029	0,7		
3									374	430	410	402	0,36						
4									215	272	252	247	0,33						
5	146					52	37	32	284	341	321	316	0,43	2042	0,42	2043	1,1	2048	0,33
10									315	390	387	358	0,96						
12									400	475	472	443	1,08			2065	2,6		
15									450	525	522	493	1,29						
20	198	M50x1,5 (Spec. Ø B s. section 18.4)	55	1" BSP	60	63	72	43	583	658	655	626	1,79	2062	1,7	2066	3,1	2073	1,1
25									735	810	807	778	2,22						
35									1080	1155	1152	1123	3,28						
55									1535	1610	1607	1578	4,59			2067	3,6		

All dimensions in mm

Subject to change