

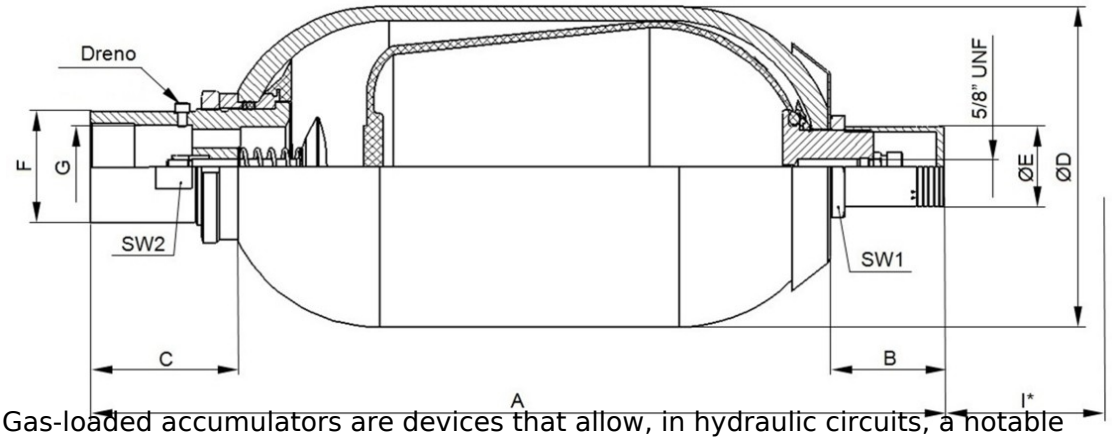
HBAC - 360

BLADDER ACCUMULATOR

Max working pressure PS: 360 bar

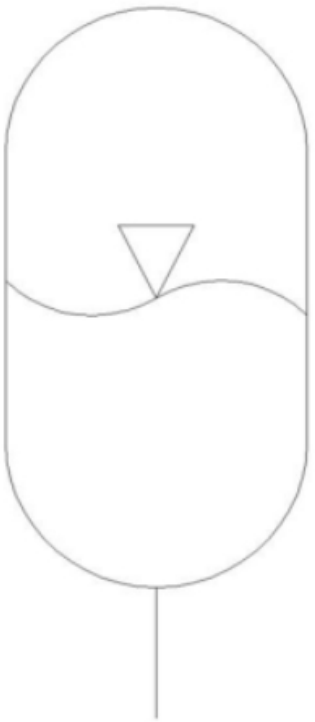
Nominal capacity: 1 to 50 litres

1 – OPERATING PRINCIPLE



- Gas-loaded accumulators are devices that allow, in hydraulic circuits, a notable energy concentration in limited spaces. Since liquids are practically incompressible and, because of that, are not allowed for energy concentration, the aim is achieved using the gases high compressibility. A potential energy accumulation which could be used in several cases as defined in catalog 092-100.

HYDRAULIC SYMBOL

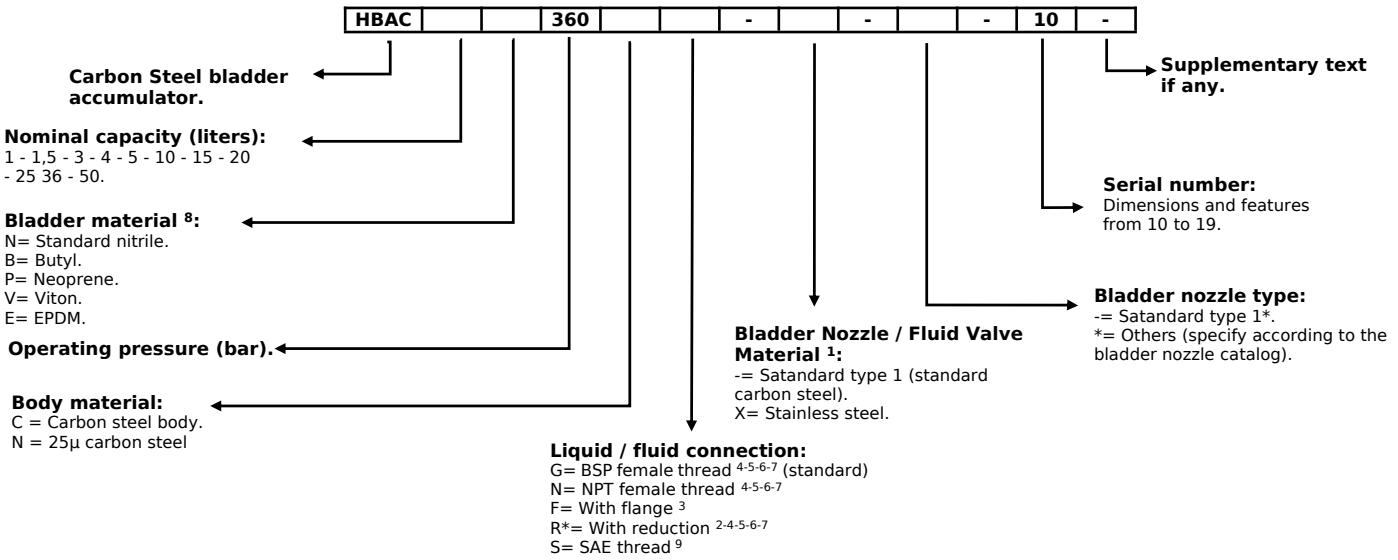


2 – DIMENSIONS

Model	Max. working pressure (bar)	Gas volume (litres)	Net weight (kg)	Fluid port G/P	A	B	C	ØD	ØE	ØF	H	l*	SW 1	SW 2
HBAC 1	360	1	5,2	3/4'' (1/2")*	295 +-5	47	52	114 +-1	25	36	11	140	32	32
HBAC 1,5		1,5	6,3		355 +-5									
HBAC 3		2,95	11	1.1/4'' (1")*	553 +-8		65			53				50
HBAC 4		4	13		410 +-10			168 +-1,5						
HBAC 5		5	15		458 +-10									
HBAC 10		9,1	33	2'' (1.1/2")*	590 +-15	82	101	224 +-2	55	77			70	70
HBAC 15		14,5	43		740 +-15									
HBAC 20		18,2	48		895 +-15			220 +-2						
HBAC 25		23,5	59		1065 +-15									
HBAC 36		33,5	78		1412 +-20									
HBAC 50		50	108		1932 +-20									

* Highlighted values () are referring to the reduction applied to the fluid valve when manufactured in stainless steel.

3 – IDENTIFICATION



1- Complete only if the gas valve / fluid valve material is different from the shell material.
2- See item 7 for the code equivalent to the requested thread (EX: R1, R2...).
3- Inform the flange reference in the supplementary text.
4- For stainless steel valves for 1 to 1.5 liter accumulators, the available threads are: G = 1/2" BSP female thread; N = 1/2" NPT and R female thread (Except R2 and R4*). *Check Table 7 - Adapters.
5- For stainless steel valves for 3 to 5 liter accumulators, the available threads are: G = 1" BSP female thread; N = 1" NPT and R female thread. *Check Table 7 - Adapters.
6- For stainless steel valves on 10- to 50-liter accumulators, the available threads are: G = 1.1/2" BSP female thread; N = 1.1/2" NPT and R female thread (except R5 and R10*). *Check Table 7 - Adapters.
7- See table item 2 for connection dimensions according to accumulator volume.
8- See catalog 092-100 item 3-14 for information on bladder material.
9- Inform thread in supplementary text.

4 – PERFORMANCE

Maximum working pressure PS	360 bar
Test pressure PT	PS x 1,43 bar
Temperature range min. and max. TS	-40°C a +120°C (it may suffer restrictions depending on the bladder material)
Nominal capacity	1 a 50 litres

5 – CONSTRUCTION FEATURES

The standard version includes:

- Hardened and tempered carbon steel shell, sandblasted and painted outside with anti-rust coating.
- Bi-chromatized carbon steel valves.
- Fluid port G with female thread ISO 228.
- Bladder and gaskets in standard nitrile rubber P.
- Testing and construction according to 97/23/CE standards.
- Precharged with nitrogen at +/- 15 bar (other values available if specified in order).
- Standard gas valve n° 1 with male thread 5/8'' – UNF.

On request, the accumulator can be supplied with:

- Shell protected with a chemical nickel plating (thickness of 25 micron. Specify other thickness if required).
- Shell protected with a Rilsan® coating.
- Stainless steel valves.
- Fluid port connection with special thread[1].
- Adapter R with ISO 228 (BSP) thread for the diameters indicated on the table, with other threads to be specified or blind.
- Fluid port flanged connections (specify)[1].
- Gas port flanged connection for special applications[1].
- Safety valve in gas side, or fluid side, or only with this valve adapter[1].
- Fluid side special anti-pulsation connection[1].
- NR13 record.
- Special gas valve according to bladder catalog 098-190 or 098-220.

1 – Specify the feature on the accumulator identification code and order to our Technical Department the table of the available models.

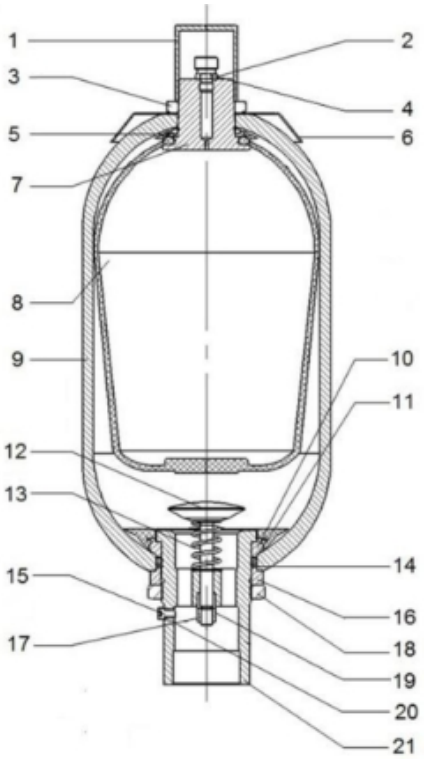
6 – COMPONENTS AND SPARE PARTS

The following table provides a list of accumulator components and, for each model, the part number to be used when ordering spare parts. **THIS NUMBER IS VALID FOR STANDARD VERSIONS ONLY.**

For all the other versions, it is necessary to give the manufacturer's serial number and the material.

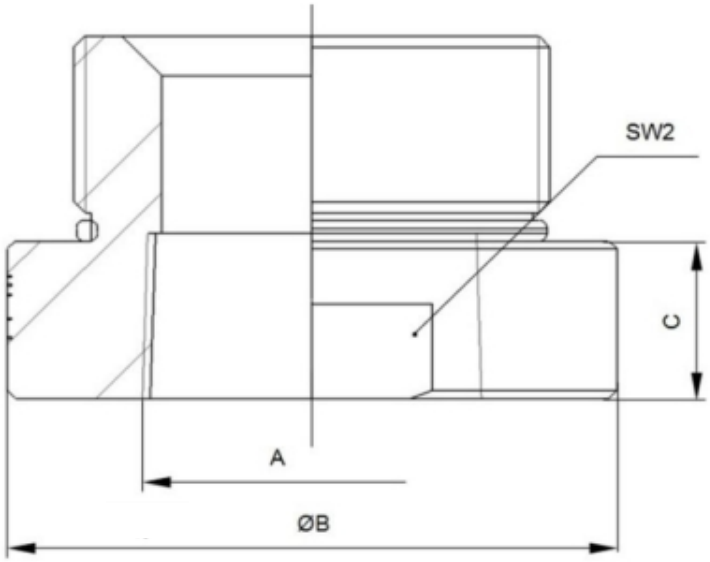
The bladder must be ordered according to the instructions provided in catalog 098-190 or 098-220, or giving the accumulator identification code or the manufacturer's serial number.





Item	Description	Parts	Models			
			HBAC 1-1,5	HBAC 3	HBAC 4-5	HBAC 10-15-20-25-36-50
1	Protection cap	1	H090101			H120101
2	Gas-fill valve	1	H090201			
3	Gas valve locknut	1	H090301			H120301
4	Gas valve seal	1	H090401			
5	Rubber-coated washer	1	H090501		H110501	H120501
6	Name plate	1	H090601		H110601	H120601
7	Gas valve body	1	H090701		H110701	H120701
8	Bladder	1	See detailed designation in catalog 098-190			
9	Accumulator shell	1	Contact commercial departament of HT			
10	Retaining ring	1	H091001	H101001	H111001	H121001
11	O'ring	1	H091101	H101101	H111101	H121101
12	Poppet	1	H091201	H101201		H121201
13	Spring	1	H091301	H101301		H121301
14	Supporting ring	1	H091401	H101401	H111401	H121401
15	Bleed screw	1	H091501			H121501
16	Space ring	1	H091601	H101601	H111601	H121601
17	Selflocking nut	1	H091701	H101701		H121701
18	Fluid port ring nut	1	H091801	H101801		H121801
19	Brake bushing	1	H091901			H121901
20	Seal ring	1	H092001			H122001
21	Fluid port body	1	H092101	H102101		H122101
Complete bladder valve assembly (itens 1,3, 5, 7)		1	H092201		H112201	H122201
Complete fluid port assembly (itens 10 to 21)		1	H092301	H102301	H112301	H122301
Gasket sets		1	H092401	H102401	H112401	H122401
			H090401	H090401	H090401	H090401
			H091101	H101101	H111101	H121101
			H091401	H101401	H111401	H121401
Repair sets		1	H092501	H102501	H112501	H122501
			H090401	H090401	H090401	H090401
			H091101	H101101	H111101	H121101
			H091401	H101401	H111401	H121401
			H091001	H101001	H111001	H121001
			H092001	H092001	H092001	H122001

7 – ADAPTERS



Volume	Reference	A	ØB	C	SW2
1 – 1,5 (litres)	R1 R2 R3 R4 RE[1]	3/8'' BSP 1/2'' BSP 3/8'' NPT 1/2'' NPT Special	36	11	32
3 (litres)	R1 R2 R3	3/8'' BSP 1/2'' BSP 3/4'' BSP	53		50
4 - 5 (litres)	R4 R5 R6 RE[1]	3/8'' NPT 1/2'' NPT 3/4'' NPT Special			
10 a 50 (litres)	R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 RE[1]	1/2'' BSP 3/4'' BSP 1'' BSP 1.1/4'' BSP 1.1/2'' BSP 1/2'' NPT 3/4'' NPT 1'' NPT 1.1/4'' NPT 1.1/2'' NPT Special	77		70

1 – If the desired thread is not on the list, please indicate RE in Identification and inform the thread in supplementary text.

1 – For general information, accumulator selection and usual applications, consult 092-100.
2 – HT reserves the right to change information of this catalog without previous warning
3 – Copy is forbidden.
4 – If not indicated, dimensions in milimetres.