

Penmetsa

BLADDER ACCUMULATORS



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Bladder Accumulators Introduction

- Bottom Repairable
- Top Repairable
- Medium Flow
- High Flow
- Transfer Barrier
- Gas Bottle

FEATURES

- Operating Pressures to 5000 PSI.
- Capacities - from 10Cu.in. to 40 gallons.
- Highest Quality Imported Bladders.
- ASME Certified Standard Shells, also available with CE marking.
- Water/Chemical Service Available, with Stainless Steel Shell & Ports.
- Different Bladder Compounds to Suit a Variety of Fluids & Temperatures.

APPLICATIONS

- Energy Storage
- Pulsation Damper
- Volume Compensator
- Pressure Compensator
- Emergency Energy Reserve
- Counter Balance
- Hydraulic Line Shock Damper
- Shock Absorber
- Hydraulic Spring
- Fluid Separator

MODEL CODE FOR ACCUMULATORS

BA 37 P 207 C G 2 -

Accumulator Type	Capacity Litres	Bladder Material	Max. Operating Pr.(bar)	Shell Material	Fluid Port Connection	Testing	Special
BA : Bladder Accumulator Bottom Repairable (Standard)	0.17 0.6	P : Buna Nitrile (Standard)	207	C : Alloyed Carbon Steel	G : Female BSP Thread	0 : Factory Testing	- = N/A
GB : Gas Bottle	1.0	B : Butyl			R : With Adaptor (Specify the thread)	1 : ASME Standard	SP: Special (To specify)
BAT : Bladder Accumulator (Transfer Type)	4	N : Neoprene	345	N : Nickel Coated Carbon Steel	F : With Flange (Specify Type)	2 : TUV	
BAM : Bladder Accumulator (Medium Flow)	10	E : Ethylene- Propylene		X : Stainless Steel	S : Special (on Request)	3 : Lloyds	
BAH : Bladder Accumulator (High Flow)	20	H : Nitrile For Hydro - Carbons				4 : Special	
BTA : Bladder Accumulator (Top Repairable)	37 57	V : Viton					



Bladder Accumulators- Bottom Repairable

Introduction

TECHNICAL

- Maximum Working Pressure : 345 bar (5000 PSI)
- Test Pressure : Maximum Working Pressure * 1.5
- Temperature Range : -10 to + 80° C
- Nominal Capacities : 0.17 - 150 ltrs.
(10 cu.in.- 40 Gallons)

• SHELL

Bladder Accumulator shells are manufactured in accordance with ASME code rules, Section VIII, Division 1(SA372) with forged ends for maximum strength providing a minimum of 4:1 design factor at normal operating pressures. One gallon & larger sizes supplied with ASME certification as standard.

• BLADDER

Bladder is a important component of the Accumulator, normally manufactured from Nitrile. But Bladders are also manufactured in different standard compounds to suit a wide variety of fluids and operating temperatures.

• BLADDER STEM

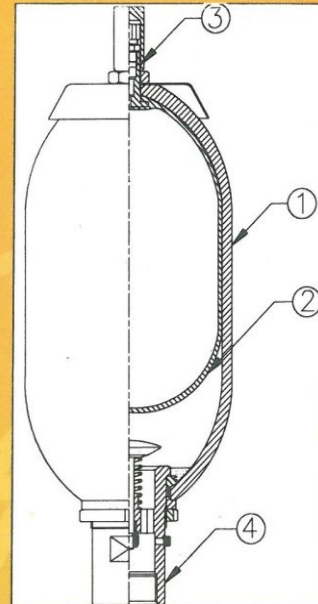
All Bladder Accumulators, sizes 1 gallon and larger, are fitted as standard with two-piece bladder stems with replaceable gas valve for ease of serviceability. Also, the two-piece stem will accept high pressure military gas valves and permanent mount gauge adaptors.

• FLUID PORT ASSEMBLY

Standard oil service ports are made from high strength alloy steel for maximum durability. Chemical and water service port assemblies are made from stainless steel for maximum corrosion resistance.

• INSPECTION

Shells are inspected as per ASME Code Rules, Section VIII, Division and witness testing by Independent Authorities.



1. Shell
2. Bladder
3. Gas Valve
4. Fluid Port Assembly

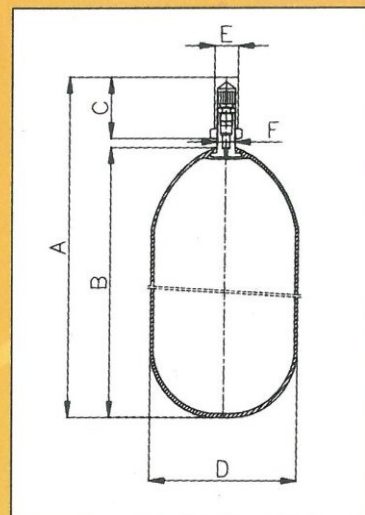
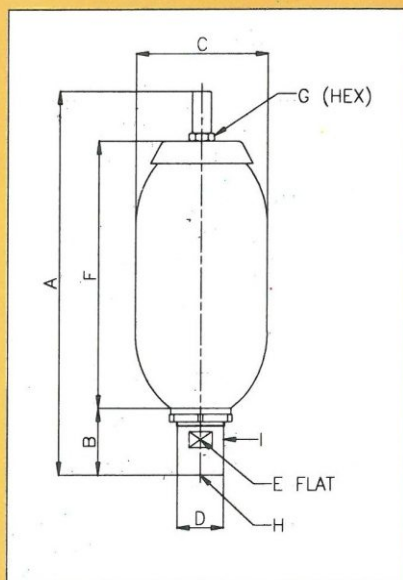
• FINISH

One coat of epoxy based primer. Special paints are available on request.

- Accumulator parts are interchangeable with Accumulators produced by other manufacturers.
- Accumulator can not be disassembled under pressure.
- Meets ASME Specifications with 4:1 factor of safety.
- Specially formulated bladder compounds provide very low permeability for longer intervals between charging.



Bladder Accumulator - Bottom Repairable Models, Capacities and Dimensions



ACCUMULATOR DIMENSIONS

Models Oil Service Water Service	Nominal Size (Liters)	Gas Volume (Liters)	Dimensions. (mm)							Hydraulic Ports		Weight (Kgs)
			A	B	C	D	E	F	G	H	I	
BA 0.17	0.16	0.16	265	40	57	26	24	197	24	1/2" BSP	N/A	1.6
BA 0.6	0.6	0.6	275	50	90	35	33	174	32	3/4" BSP	N/A	3.6
BA 1.0	1.0	1.0	285	50	114	41	38	195	32	3/4" BSP	N/A	4.5
BA 4	4	3.8	435	65	168	60	54	290	32	1 1/4" BSP	1/4" BSP	15
BA 10	10	9.5	555	100	229	76	70	395	32	2" BSP	1/4" BSP	36
BA 20	20	18.5	860	100	229	76	70	700	32	2" BSP	1/4" BSP	55
BA 37	37	34.5	1385	100	229	76	70	1225	32	2" BSP	1/4" BSP	100
BA 57	57	53.5	1915	100	229	76	70	1755	32	2" BSP	1/4" BSP	139

BLADDER MODEL CODE AND DIMENSIONS

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Bladder Type	Capacity Liters	Bladder Material	Gas valve	Gas valve Material					
B : Standard Bladder	0.16 0.6 1.0 1.5	P : Buna Nitrile (Standard) B : Butyl N : Neoprene	1 : M 50	C : Alloyed Carbon Steel					
BT : Transfer Type	2.5 3 4 5	E : Ethylene-Propylene H : Nitrile For Hydro-Carbons	2 : 7/8" UNF	N : Nickel Coated Carbon Steel					
BL : Liquid Separator	10 20 37 57	V : Viton	3 : 5/8 UNF	X : Stainless Steel					

Models	Dimensions. (mm)					
	A	B	C	D	E	F
B .17	234	155	47	41	21	5/8" UNF
B 0.6	210	132	74	73	26	7/8" UNF
B 1	230	143	74	95	26	7/8" UNF
B 4	322	205	74	142	26	7/8" UNF
B 10	380	300	74	198	26	7/8" UNF
B 20	670	590	74	198	26	7/8" UNF
B 37	1200	1120	74	198	26	7/8" UNF
B 57	1705	1610	74	198	60	M50

* **CAUTION:** Standard manufacturing tolerances should be taken into account when designing systems