

BLADDER ACCUMULATORS



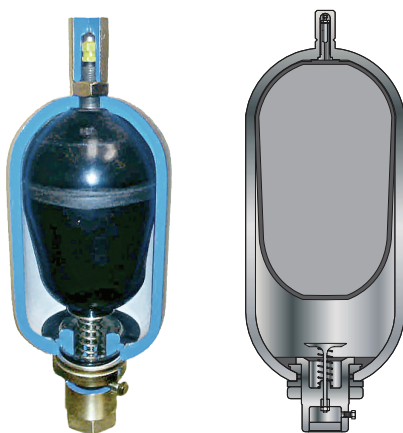
Freudenberg Sealing Technologies Bladder Accumulators are designed for industrial and commercial fluid power applications by making use of the relative compressibility of an inert gas versus a fluid, and are one of the most commonly used components in industrial and commercial fluid power systems worldwide. They are utilized for a wide variety of applications, including: energy storage, shock or pulsation dampening, leakage compensation, thermal expansion, energy conservation/supplement pump flows, noise reduction, and improved fluid system response times.

Our Bladder Accumulators are constructed of high strength seamless chrome moly carbon steel shells, with high grade elastomeric bladders, which are assembled in accordance with ASME pressure vessel standards. Available in a variety of industry standard capacities and pressures, the bladder type excels at absorbing system shocks and pulsations, especially those of high frequency/low modulation.

Widely used and accepted in global industry, the bladder type is available with a variety of optional port connections and anti-corrosive coatings, both externally and internally. Due to the internal membrane, the bladder-type accumulator is highly resistant to fluid contaminants, and can be assembled to function in lower temperature environments if necessary.

VALUES FOR THE CUSTOMER

- Widely accepted industry-standard design
- Quick response to fluid system demands
- Very contaminant tolerant
- Completely repairable
- A variety of models available, in stock and ready to ship

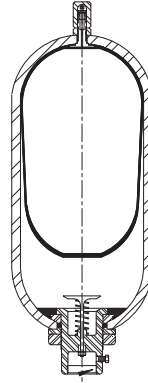


BLADDER ACCUMULATORS MODEL NUMBERS US STANDARD RANGE

Bottom Repairable TBR SERIES

Model Number	Gas Capacity		Fluid Capacity		Dry Weight	
	In. ³	Cm. ³	Gallon	Liters	Lbs.	Kg.
TBR30-2.5NMFA*	600	9,832	2.5	10	80	36
TBR30-5NMFA*	1,203	19,714	5	19	120	54
TBR30-10NMFA*	2,259	37,018	10	38	220	100
TBR30-11NMFA*	2,535	41,541	11	42	240	109
TBR30-15NMFA*	3,440	56,372	15	57	305	138

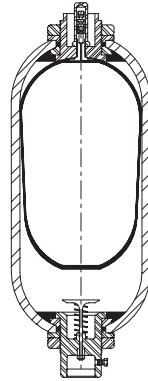
* = Bladder/Seal Material Codes—Buna-N is standard
N = Buna-N B = Butyl E = EPR V = FKM



Top Repairable TBRT SERIES

Model Number	Gas Capacity		Fluid Capacity		Dry Weight	
	In. ³	Cm. ³	Gallon	Liters	Lbs.	Kg.
TBRT30-2.5NMFA*	600	9,832	2.5	10	80	36
TBRT30-5NMFA*	1,203	19,714	5	19	120	54
TBRT30-10NMFA*	2,259	37,018	10	38	220	100
TBRT30-11NMFA*	2,535	41,541	11	42	240	109
TBRT30-15NMFA*	3,440	56,372	15	57	305	138

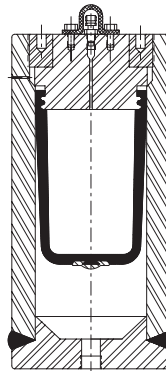
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Open Top Repairable EBR SERIES EconoLator II®

Model Number	Gas Capacity		Fluid Capacity		Dry Weight	
	In. ³	Cm. ³	Gallon	Liters	Lbs.	Kg.
EBR30-1NA9*	29	475	0.12	0.45	11	5
EBR30-2NAB*	58	950	0.25	1	28	13
EBR30-8NAD*	231	3,785	1	4	60	27

* = Bladder/Seal Material Codes—Buna-N is standard
N = Buna-N B = Butyl E = EPR V = FKM



The information contained herein is believed to be reliable, but no representation, guarantees or warranties of any kind are made to its accuracy or suitability for any purpose. The information presented herein is based on laboratory testing and does not necessarily indicate end product performance. Full scale testing and end product performance are the responsibility of the user.

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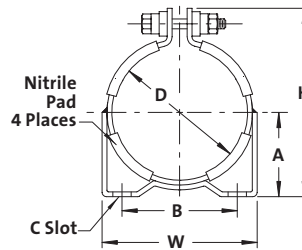
MOUNTING BRACKETS/SETS FOR BLADDER TYPE

Bracket Sets

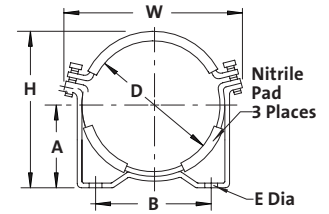
(Includes one upper and one Lower except where note)

Part Number	Used on Accumulator Series
TMB-TBR30-1	TBR30, 1 Gallon
TMB-TBR30	TBR30, 2.5 to 15 Gallon
TMB-TBR30-SD	3 Piece Severe Duty (2@ MB-TBR30-BU & 1@ MB-TBR30-BL)
TMB-TBR50	TBR50, 2.5 to 15 Gallon
TMB-TBR50-SD	3 Piece Severe Duty (2@ MB-TBR50-BU & 1@ MB-TBR50-BL)

Specifications subject to change without notice



Single Bolt - For use on one quart & one gallon units



Double Bolt - For use on larger 2.5, 5, 10, & 15 gallon units

Upper Mounting Brackets

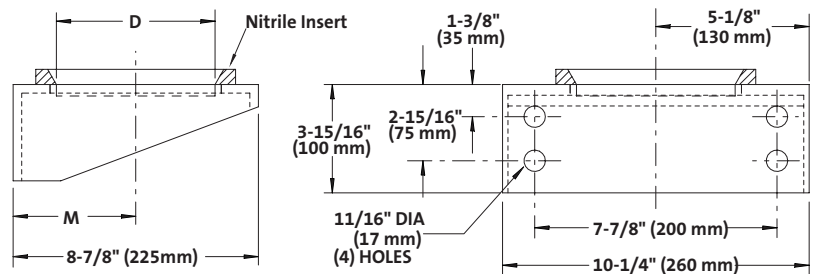
Part Number	Accumulator Series	Style	Dimensions															
			D		W		H		A		B		C-SLOT		E-DIA.		Strap/Bracket WIDTH	
			In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.
MB-TBR30-BU.2	TBR30, 1 Quart	Single Bolt	4.6	117	5.2	133	6.5	165	2.9	73	3.9	100	0.375 X 0.5	9 X 13	NA	NA	1.25	32
MB-TBR30-BU1	TBR30, 1 Gallon	Single Bolt	6.9	175	7.5	190	9	229	4.0	100	6.25	152	0.375 X 0.5	9 X 13	NA	NA	1.25	32
MB-TBR30-BU	TBR30, 2.5 to 15 Gallon	Double Bolt	9.1	231	13	330	10.2	259	4.9	124	8.5	216	NA	NA	0.59	15	1.58	40
MB-TBR50-BU	TBR50, 2.5 to 15 Gallon	Double Bolt	9.9	251	13	330	10.6	269	4.9	124	8.5	216	NA	NA	0.59	15	1.58	40

Specifications subject to change without notice

Lower Mounting Brackets

Part Number	Accumulator Series	Description	Dimensions				Nitrile Grommet Part Number
			D		M		
			In.	mm.	In.	mm.	
MB-TBR30-BL1	TBR30, 1 Gallon	Single Bolt	4.25	108	3.953	100	MB-TBR30-GR1
MB-TBR30-BL	TBR30, 2.5 to 15 Gallon	Double Bolt	6.3125	160	4.875	124	MB-TBR30-GR
MB-TBR50-BL	TBR50, 2.5 to 15 Gallon	Double Bolt	6.3125	160	4.875	124	MB-TBR30-GR

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