

# DIAPHRAGM ACCUMULATOR

THE NEW VERSATILITY WITH OPERATING PRESSURES UP TO 350 BAR

**Our new generation of Diaphragm Accumulators offer exceptional functional reliability and durability and open up versatile application areas with operating pressures up to 350 bar.**

In modern accumulators the hydraulic fluid is separated from the gas by a membrane, a rubber bladder or a piston. Today, machines with hydraulic drives would be unthinkable without these hydraulic accumulators. The hydraulic accumulator supports the oil-hydraulics within an exceptionally wide spectrum of applications: From presses to construction and agricultural machinery to modern wind turbines. It is particularly important to ensure that the correct configuration of hydraulic accumulator is specified according to different design requirements. With the introduction of the new Diaphragm Accumulator range with operating pressures of up to 350 bar, Freudenberg Sealing Technologies offers onestop- solutions with a comprehensive range of first-class quality services.

## **Innovative solutions in material, design and functionality**

Freudenberg Sealing Technologies, as the leading technology specialist have applied their innovative power to advance their Hydraulic Accumulators focusing on application specific developments. The outcome: excellent features for the application areas you require. For example, our hydraulic accumulators for electro-hydraulic controlled brake systems fundamentally differ from conventional membrane and piston accumulators. Based on the requirements of an electro-hydraulic brake, a metal bellow accumulator was developed, which distinguishes itself by absolute gas leak-tightness and durability. This innovative accumulator principle is the first time that a flexible metal bellow has been successfully implemented as a separating element.

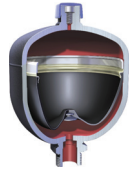
## **Convincing performance:**

- Optimised design
- High performance
- A comprehensive range of oil and gas connections
- A comprehensive range of membranes and housing materials
- Alternative materials: acrylonitrile butadiene rubber (NBR), ethylenoxide epichlorhydrin rubber (ECO), butyl rubber (IIR), fluororubber (FKM)
- High tensile strength and high permissible dynamic load of the accumulator housing

## **YOUR BENEFITS AT A GLANCE**

- Higher performance spectrum
- Complete 350 bar product portfolio from one source
- Coverage of a wide temperature range using different membrane materials
- Wide range of applications
- Customer-specific solutions

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## TECHNICAL DATA

A COMPREHENSIVE RANGE OF DIAPHRAGM ACCUMULATORS:

type	article no.*	nominal volume [l]	permissible operating pressure [bar]	oil-port			gas-port	Ø [mm]	height [mm]	weight ca. [kg]	P0 : P2** max. permissible pressure ratio
				SW	IG	AG					
MBSP 0,07-250	007-1315-013-6X1	0.07	250	6kt32	G1/2"	-	M28x1.5	64	118	0.7	1:8
MBSP 0,07-250	007-1315-074-6X1	0.07	250	6kt19	-	M14x1.5	M28x1.5	64	119	0.7	1:8
MBSP 0,16-250	016-1315-024-6X1	0.16	250	6kt32	G1/2"	-	M28x1.5	75	126	1.0	1:6
MBSP 0,32-210	032-1315-044-6X1	0.32	210	6kt32	G1/2"	-	M28x1.5	92	141	1.5	1:8
MBSP 0,50-210	050-1315-013-6X1	0.5	210	6kt41	G1/2"	-	M28x1.5	107	159	2.0	1:8
MBSP 0,50-210	050-1315-023-6X1	0.5	210	6kt41	G1/2"	M33x1.5	M28x1.5	107	170	2.0	1:8
MBSP 0,50-330	050-1315-033-7X1	0.5	330	6kt41	G1/2"	-	M28x1.5	110	169	2.7	1:8
MBSP 0,50-330	050-1315-013-7X1	0.5	330	6kt41	G1/2"	M33x1.5	M28x1.5	110	180	2.7	1:8
MBSP 0,60-330	060-1315-013-7X1	0.6	330	6kt41	G1/2"	-	M28x1.5	110	178	3.0	1:4
MBSP 0,60-330	060-1315-023-7X1	0.6	330	6kt41	G1/2"	M33x1.5	M28x1.5	110	189	3.0	1:4
MBSP 0,75-210	075-1315-043-6X1	0.75	210	6kt41	G1/2"	-	M28x1.5	122	173	2.6	1:8
MBSP 0,75-210	075-1315-053-6X1	0.75	210	6kt41	G1/2"	M33x1.5	M28x1.5	122	184	2.6	1:8
MBSP 0,75-250	075-1315-063-6X1	0.75	250	6kt41	G1/2"	-	M28x1.5	124	176	3.2	1:8
MBSP 0,75-250	075-1315-073-6X1	0.75	250	6kt41	G1/2"	M33x1.5	M28x1.5	124	187	3.2	1:8
MBSP 0,75-350	075-1315-012-7X1	0.75	350	6kt41	G1/2"	-	M28x1.5	129	180	4.0	1:8
MBSP 0,75-350	075-1315-022-7X1	0.75	350	6kt41	G1/2"	M33x1.5	M28x1.5	129	191	4.0	1:8
MBSP 1,0-210	100-1315-083-6X1	1.0	210	6kt41	G1/2"	-	M28x1.5	136	187	3.7	1:8
MBSP 1,0-210	100-1315-113-6X1	1.0	210	6kt41	G1/2"	M33x1.5	M28x1.5	136	198	3.7	1:8
MBSP 1,0-350	100-1315-043-7X1	1.0	350	6kt41	G1/2"	-	M28x1.5	129	205	5.0	1:4
MBSP 1,0-350	100-1315-053-7X1	1.0	350	6kt41	G1/2"	M33x1.5	M28x1.5	129	217	5.0	1:4
MBSP 1,4-140	140-1315-033-5X1	1.4	140	6kt41	G1/2"	-	M28x1.5	147	198	4.5	1:8
MBSP 1,4-140	140-1315-043-5X1	1.4	140	6kt41	G1/2"	M33x1.5	M28x1.5	147	209	4.5	1:8
MBSP 1,4-210	140-1315-143-6X1	1.4	210	6kt41	G1/2"	-	M28x1.5	147	198	4.5	1:8
MBSP 1,4-210	140-1315-153-6X1	1.4	210	6kt41	G1/2"	M33x1.5	M28x1.5	147	209	4.5	1:8
MBSP 1,4-250	140-1315-112-6X1	1.4	250	6kt41	G1/2"	-	M28x1.5	152	202	5.5	1:8
MBSP 1,4-250	140-1315-122-6X1	1.4	250	6kt41	G1/2"	M33x1.5	M28x1.5	152	213	5.5	1:8
MBSP 1,4-350	140-1315-012-7X1	1.4	350	6kt41	G1/2"	-	M28x1.5	156	201	7.0	1:8
MBSP 1,4-350	140-1315-022-7X1	1.4	350	6kt41	G1/2"	M33x1.5	M28x1.5	156	212	7.0	1:8
MBSP 2,0-250	200-1315-142-6X1	2.0	250	6kt41	G3/4"	-	M28x1.5	156	255	9.5	1:6
MBSP 2,0-350	200-1315-042-7X1	2.0	350	6kt41	G3/4"	-	M28x1.5	156	255	9.5	1:6
MBSP 2,8-250	280-1315-032-6X1	2.8	250	6kt41	G3/4"	-	M28x1.5	169	270	8.5	1:6
MBSP 3,5-250	350-1315-072-6X1	3.5	250	6kt41	G3/4"	-	M28x1.5	169	304	10.2	1:4

\* X equates to identification figure at current diaphragm material:  
standard material NBR = 1; material IIR = 2; material FKM = 3;  
material ECO = 4; other materials on enquiry

\*\* permissible pressure ratio for diaphragm = P0 (gas filling pressure) / P2 (working pressure)