

# Accumulators

Where cyclical motions take place, hydraulic accumulators are able to reduce the installed power and thus increase energy efficiency.

Our well-structured portfolio of bladder and diaphragm type accumulators meets the requirements of systems of all sizes and of all applications. They boast a high pressure fluctuation range and sophisticated details. The exchangeable gas valves in bladder-type accumulators, for example, increase their maintenance- and repair-friendliness. Thanks to the extreme resistance of the bladders in Rexroth accumulators, the exchange intervals can be extended as well. Our hydraulic accumulators provide a crucial back-up for safe shut-downs in case of a power failure in plant construction and wind energy plant applications.

## **Accumulator shut-off modules: Ready-to-install function – a complete system ensures that your design complies with all standards**

A hydraulic accumulator only meets all international regulations if it is used with an accumulator shut-off block.

We offer you assemblies that have been constructed and optimized by leading hydraulics specialists allowing you to meet the Pressure Equipment Directive 97/23/EC.

We deliver our accumulator shut-off block with integrated isolator valve, pressure valve and drain valve, completely mounted on a console ready for immediate installation.

Our accumulator shut-off modules consist of tried and tested standard components: CE tested cartridge, shut-off cock and safety valve, measuring and accumulator ports.

On request, our service team will connect the module to your system in your facilities.



# Diaphragm type accumulators

## HAD



- ▶ Nominal volume 0.075 ... 3.5 liters
- ▶ Component series 1X, 2X
- ▶ Maximum operating pressure 350 bar

### Features

- ▶ Hydraulic accumulator as per Pressure Equipment Directive 97/23/EC
- ▶ Diaphragm material for different applications
- ▶ Use e.g. as energy storage in intermittent operation systems, energy reserve for emergencies, compensation of leakage losses, shock and vibration absorption

### Product description

Diaphragm type accumulators are used for energy storage, shock and vibration absorption, and leakage oil compensation or volume compensation in hydraulic systems. They consist of a pressure-resistant vessel (high-tensile steel) the interior of which is split into a gas and a fluid side by an elastic diaphragm. When the operating pressure is increased, hydraulic fluid flows into the accumulator and compresses the gas until the gas pressure is identical to the fluid pressure. When the operating pressure is reduced, the gas expands again and feeds the hydraulic system with hydraulic fluid.

### More detailed information:

Data sheet 50150

### Technical data

Nominal volume		l	0.075	0.16	0.35	0.5	0.7	1
Effective gas volume		l	0.075	0.16	0.32	0.48	0.75	1
Flow	$q_v$	l/min	10	10	40	40	40	40
Operating pressure	$p_{max}$	bar	250	250	210	250	350	200
Nominal volume		l	1.4	2	2.8	3.5		
Effective gas volume		l	1.4	1.95	2.7	3.5		
Flow	$q_v$	l/min	40	60	60	60		
Operating pressure	$p_{max}$	bar	350	350	350	350		

For order details regarding the GoTo products, see page 150.

Bosch Rexroth AG, RE 01500, 2014-05



# Bladder-type accumulators

## HAB



- ▶ Nominal volume 1 ... 50 liters
- ▶ Component series 4X
- ▶ Maximum operating pressure 350 bar

### Features

- ▶ Hydraulic accumulator as per Pressure Equipment Directive 97/23/EC
- ▶ Bladder material for different applications
- ▶ Use e.g. as energy storage in intermittent operation systems, energy reserve for emergencies, compensation of leakage losses, shock and vibration absorption

### Product description

Bladder-type accumulators are used for energy storage, shock and vibration absorption, and leakage oil compensation or volume compensation in hydraulic systems. They consist of a seamless pressure vessel (high-tensile steel) the interior of which is split into a gas and a fluid side by an elastic bladder. When the operating pressure is increased, hydraulic fluid flows into the accumulator and compresses the gas in the bladder until the gas pressure is identical to the fluid pressure. When the operating pressure is reduced, the gas expands again and feeds the hydraulic system with hydraulic fluid.

**More detailed information:**  
Data sheet 50170

### Technical data

Nominal volume		l	1	2.5	4	6	10	20
Effective gas volume		l	1	2.4	3.7	5.9	9.2	18.1
Flow	$q_v$	l/min	240	600	600	600	900	900
Operating pressure	$p_{max}$	bar	350	350	350	350	330	330

  

Nominal volume		l	35	50
Effective gas volume		l	33.4	48.7
Flow	$q_v$	l/min	900	900
Operating pressure	$p_{max}$	bar	330	330

For order details regarding the GoTo products, see page 150.

RE 01500, 2014-05, Bosch Rexroth AG

# Accumulator stations

## ABSBG



- ▶ Nominal volume 0.7 ... 50 liters
- ▶ Maximum operating pressure 330 bar

### Features

- ▶ Accumulator station with bladder or diaphragm type accumulator
- ▶ Safety block with integrated shut-off valve, safety valve (type-examination tested) and drain valve
- ▶ Drain valve, optionally manually or electrically operated
- ▶ Glycerine-filled pressure gauge with relief pressure marked in red
- ▶ Console for weld or screw connection
- ▶ Assembly prepared for external equipotential bonding

### Product description

Accumulator stations are intended for use in hydraulic systems and consist of a diaphragm or bladder-type accumulator with shut-off block on mounting elements. These assemblies comply with the applicable national rules and regulations in Europe (Pressure Equipment Directive 97/23/EC), China (Selo) or Russia (Gost).

### More detailed information:

Data sheet 50135

### Technical data

Accumulator type			Bladder-type accumulator	Diaphragm type accumulator
Accumulator volume	DN	l	1 ... 50	0.7 ... 3.5
Response pressure of the safety valve	$p_{max}$	bar	100, 140, 210, 330	100, 140, 210, 330

For order details regarding the GoTo products, see page 150.

Bosch Rexroth AG, RE 01500, 2014-05