

Shown: ACL-201A, WA-502, ACL-21A

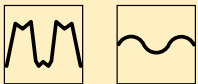


► Enerpac accumulators supply auxiliary pressure to dampen shock loads or to compensate pressure drop in applications where system pressure needs to be maintained.

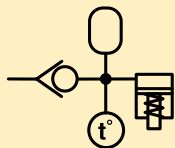
#### Accumulator applications:

- Energy storage
- Circuit pulsation dampening
- Thermal expansion compensation

#### Pulse dampening



#### Thermal expansion



■ ACBS-202 Accumulator package used to maintain pressure on a machine tool fixture.



## Accumulators

...maintain circuit pressure

- Ideal for high frequency and rapid discharge applications
- ACL series are pre-charged to 100 bar
- Corrosion resistant bodies on ACL series
- Spring actuated accumulator for ACM-1
- High energy storage capacity in a compact package
- WA accumulators are piston type
- ACL accumulators are diaphragm type
- ACM accumulators use internal spring.

## Product selection

Operating pressure bar	Model number	Max. rated oil volume cm <sup>3</sup>	Gas volume cm <sup>3</sup>	Pre-charged nitrogen pressure bar	Usable oil capacity cm <sup>3</sup> at 350 bar
<b>▼ Pre-charged accumulators</b>					
0-210	<b>ACM-1</b>	1,6	–	–	–
100-350	<b>ACL-22A</b>	14,7	20,0	100	8,7
100-350	<b>ACL-202A</b>	126,2	169,9	100	73,9
100-350	<b>ACL-502A</b>	337,6	450,0	100	196,6
<b>▼ Uncharged accumulators</b>					
0-350 <sup>1)</sup>	<b>WA-502</b>	41,0	41,0	–	41,0
0-350 <sup>1)</sup>	<b>WA-5010</b>	163,9	163,9	–	122,9

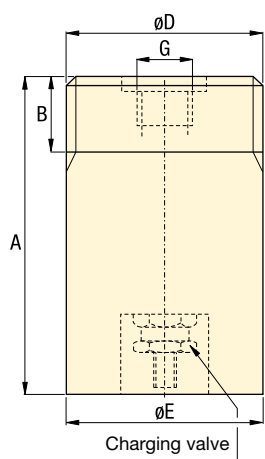
<sup>1)</sup> See pre-charge chart on page 163 for hydraulic operating pressures.

**Recommended pre-charge**

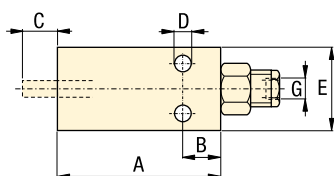
Operating pressure bar	Model number	Nitrogen pressure bar	Usable oil capacity <sup>1)</sup> cm <sup>3</sup>
0 - 70	<b>WA-502</b>	35	24,6
70 - 210	<b>WA-502</b>	70	32,8
210 - 350	<b>WA-502</b>	80	41,0
0 - 70	<b>WA-5010</b>	35	90,1
70 - 210	<b>WA-5010</b>	70	106,5
210 - 350	<b>WA-5010</b>	80	190,5

<sup>1)</sup> At maximum operating pressure.

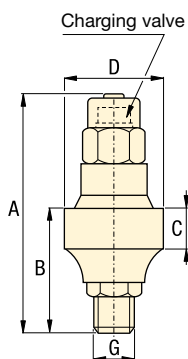
**WA-502, WA-5010**



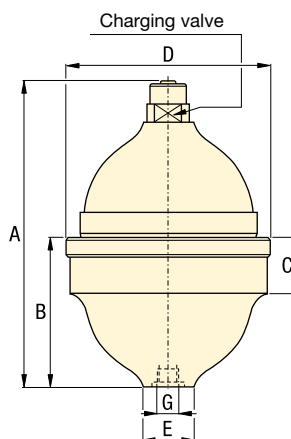
**ACM-1**



**ACL-22A**



**ACL-202A, 502A**



**Product dimensions in mm [ ]**

Model number	A	B	C	D	E	F	G	Recommended charging tool	kg
<b>▼ Pre-charged accumulators</b>									
<b>ACM-1</b>	133	19	13	6,7	45	-	1/4"-27 NPTF	-	1,0
<b>ACL-22A</b>	91	37	18	42,9	23	-	G1/4"	WAT-2	0,5
<b>ACL-202A</b>	137	69	29	84,5	29	-	G1/4"	WAT-2	1,2
<b>ACL-502A</b>	171	89	35	114,0	40	-	G3/8"	WAT-2	2,8
<b>▼ Uncharged accumulators</b>									
<b>WA-502</b>	119	30	-	2 3/4" -16 UN	70	-	SAE #8	WAT-1	3,2
<b>WA-5010</b>	181	30	-	2 3/4" -16 UN	70	-	SAE #8	WAT-1	5,2

Pressure: 0 - 350 bar

Oil volume: 1,6 - 337,6 cm<sup>3</sup>

Gas volume: 20 - 450 cm<sup>3</sup>

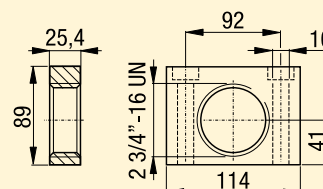
- E** Acumuladores
- F** Accumulateurs
- D** Druckspeicher



**Options**

**AW-50 Mounting block**

For WA-series accumulators.



**Hydraulic oil**

193 ▶



**Fittings**

194 ▶



Shown: AP-500, MHV-1, ACBS-22A



▶ Accumulator packages will help maintain system pressure to your fixture when separated from the hydraulic source. The gauge will display system pressure after the circuit is disconnected.

## Coupler packages

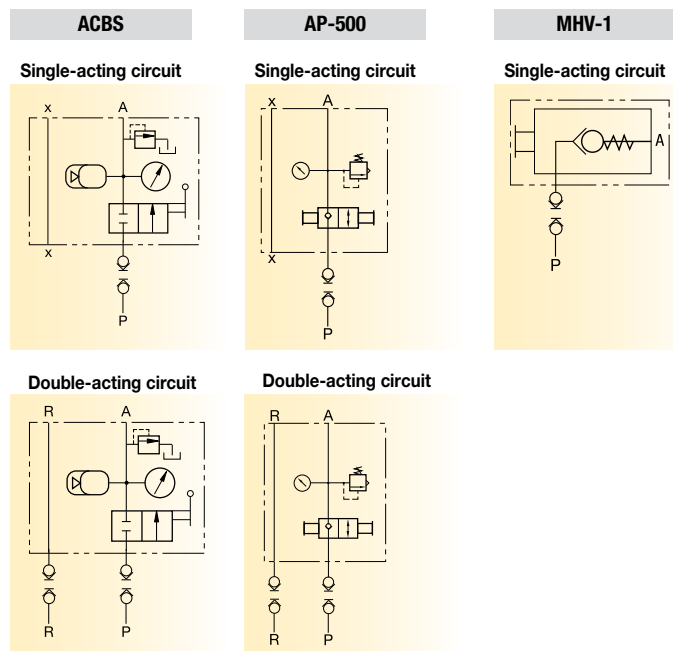
...compact design for easy use of accumulators

- Single design accommodates both single-acting or double-acting circuit
- Relief valve fitted and ball check shut-off
- Glycerin-filled gauge included
- Supplied standard with one male coupler (AH-652)
- Optional manifold mounting. O-ring seals located on bottom of block only for single-acting circuit.

### MHV-1 Modular holding valve

- Allows separate operation of clamping fixtures with a single power source
- Ideal for applications when fluid feed lines are impractical. If system pressure is interrupted, the MHV-1 will hold the pressure beyond the valve
- Max. oil flow 5 l/min
- To release system pressure, rotate valve handle in either direction 90° to release and retract system pressure.

## **i** Coupler package circuits



■ ACBS-202A Accumulator package used to maintain pressure on a machine tool fixture.



## **i** Product selection

Operating pressure	Model number	Max. rated oil volume	Gas volume	Pre-charged nitrogen pressure	Usable oil capacity
bar		cm <sup>3</sup>	cm <sup>3</sup>	bar	cm <sup>3</sup> at 350 bar
100 - 350	<b>ACBS-22A</b>	16,4	20,0	100	8,7
100 - 350	<b>ACBS-202A</b>	163,9	169,9	100	73,9
0 - 350	<b>AP-500</b>	<b>AP-500 uses WA-502 or WA-5010 <sup>1)</sup></b>			
0 - 207	<b>MHV-1</b>	-	-	-	-

### ▼ Accumulator coupler packages

100 - 350	<b>ACBS-22A</b>	16,4	20,0	100	8,7
100 - 350	<b>ACBS-202A</b>	163,9	169,9	100	73,9
0 - 350	<b>AP-500</b>	<b>AP-500 uses WA-502 or WA-5010 <sup>1)</sup></b>			
0 - 207	<b>MHV-1</b>	-	-	-	-

<sup>1)</sup> See pre-charge chart on page 163 for hydraulic operating pressures.

Pressure: 0 - 350 bar

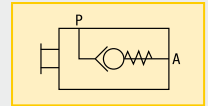
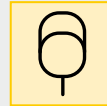
Oil volume: 16,4 - 163,9 cm<sup>3</sup>

Gas volume: 20 - 169,9 cm<sup>3</sup>

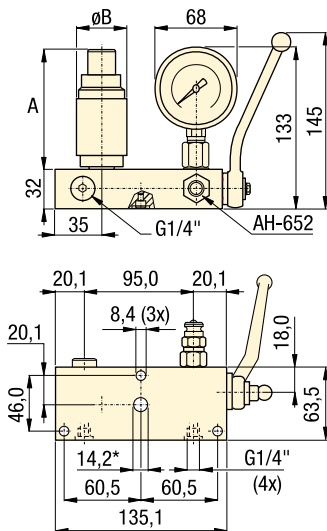
**E** Acopladores manuales

**F** Manuel coupleur

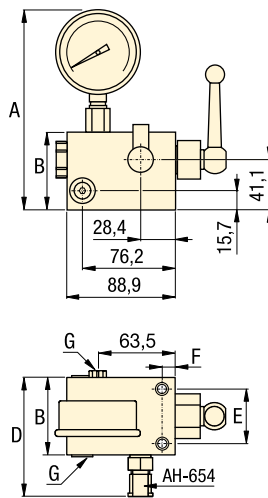
**D** Manuelle kupplung



**ACBS**

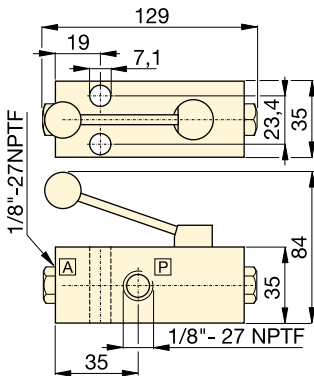


**AP-500**



<sup>1)</sup> Manifold hole should not exceed  $\varnothing$  7,6 mm when port is utilized.

**MHV-1**



**Product dimensions** in mm [ ]

Model number	A	B	C	D	E	F	G	Recommended charging tool	kg
<b>▼ Pre-charged accumulator coupler packages</b>									
<b>ACBS-22A</b>	68	42	-	-	-	-	G1/4"	WAT-2	4,6
<b>ACBS-202A</b>	106	85	-	-	-	-	G1/4"	WAT-2	5,4
<b>AP-500</b>	163,6	63,5	89,0	97,5	44,5	9,7	SAE #4	-	3,9
<b>MHV-1</b>	-	-	-	-	-	-	1/8" NPTF	-	-

**Options**

**Couplers**

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**High pressure filters**

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**Hydraulic oil**

193 ▶



**Fittings**

194 ▶



**Important**

**Enerpac high pressure in-line filters are required for use with these control units to prevent damage that can be caused by contaminants that have penetrated your hydraulic fluid system.**

**Order an additional male coupler for use in double-acting hydraulic circuits.**  
**ACBS-Series: AH-652**  
**AP-500: AH-654**