

ACS(L) Welded cylindrical accumulators

► Technical description

The ACS(L) type welded accumulators are made up of a shell in high resistance steel containing a fluid-gas bladder-diaphragm. This bladder-diaphragm is made of nitrile for the standard ACS range, and of hydrogenated nitrile for low temperature applications. The bladder-diaphragm is fitted with an anti-extrusion stud, thus allowing rapid and total discharge of the accumulator.

► Advantages

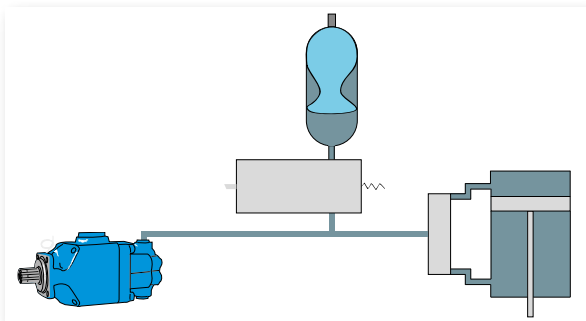
- Low temperature versions suitable for operation at temperatures down to -40°C .
- Completely modular from 0.7 to 4 litres. This design concept means easy addition of intermediate models if required.
- The bladder-diaphragm offers exceptionally good resistance to fatigue.
- Rapid and total discharge possible due to the anti-extrusion stud actually fitted onto the bladder-diaphragm.

► Operating fluids

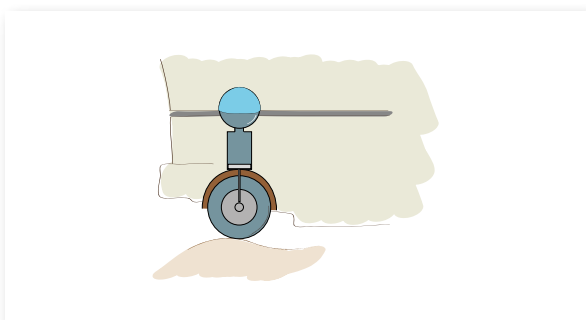
- Mineral-based hydraulic fluids.
- Other fluids: please ask.

► Examples of applications

Energy storage



Suspension



ACS 330 bar

Maximum pressure: 330 bar

Extreme operating temperature:

- Standard version: -20°C to $+100^{\circ}\text{C}$
- Low temperature version: -40°C to $+100^{\circ}\text{C}$



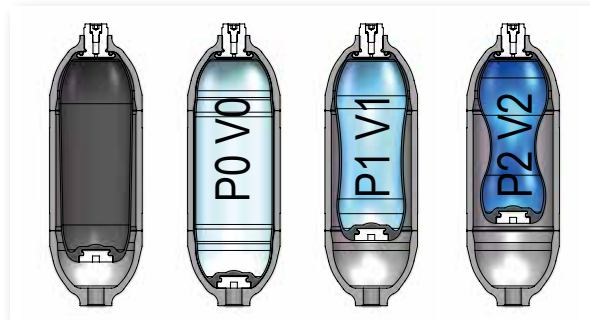
ACSL 210 or 250 bar

Maximum pressure: 210 or 250 bar depending on the version.

Extreme operating temperature:

- Standard version: -20°C to $+100^{\circ}\text{C}$ (250 bar)
- Low temperature version: -40°C to $+100^{\circ}\text{C}$ (210 bar)

► Deformation of the bladder-diaphragm



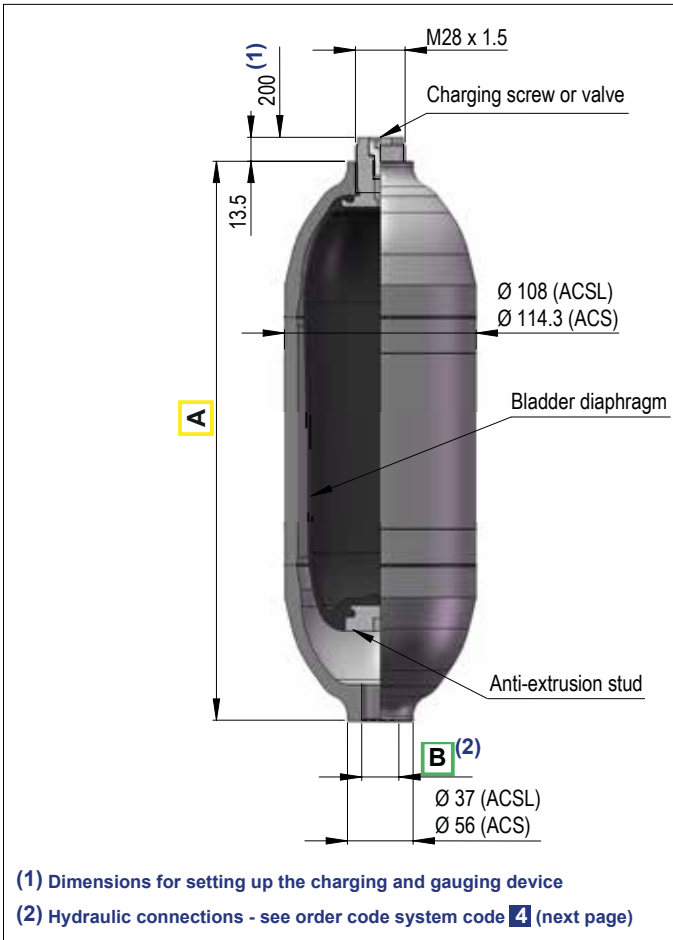
► Filling gas

Nitrogen only.

► Volumetric ratio $(V0-V2)/V0$

The recommended volumetric ratio of this type of accumulator is 0.75. For example: an ACS 4 accumulator can take in a maximum volume of $0.75 V0 = 0.75 \times 4 = 3$ litres.

ACS(L) Characteristics and dimensions



CHARACTERISTICS AND DIMENSIONS

	Volume (L)	Max. pressure (bar)	Weight (kg)	Length A (mm)
ACS	0.7	330	4	175
	1		5.9	236
	1.5		7.8	315
	2		9.9	392
	2.5		11.5	463
	4		17.5	695
	Volume (L)	Max. pressure (bar)	Masse (kg)	Length A mm
ACSL	0.7	250	3	175
	1		4.5	241
	1.5		5.9	315
	2		7.6	392
	2.5		8.9	463
	4		13.9	696

ACS(L) Order code system

ACS(L)	...	S
01	02	03	04	05	06	07	08

To obtain the code of your welded cylindrical accumulator ACS(L), complete the different parameters from 01 to 08 in the table on the left according to the options you require (see table below).

For ACS 0.7 L, or ACS(L) low temperature version (-40°C), please refer to the tables on page 10. For other accumulators, make your choice as a function of the possible combinations, using the columns below, and use the code in the far right-hand column.

Accumulator type													
		ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
01	ACS 330 bar		•		•		•		•		•		•
	ACSL 250 bar	•		•		•		•		•		•	

Volume (L)													
02		0.7	1	1.5	2	2.5	4						

Operating temperature													
03	-20 +100°C	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
													S

Hydraulic connections													
		ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
04	G3/8"												
	G1/2"	•	•	•	•	•	•	•	•	•	•	•	•
	G3/4"	•	•	•	•	•	•	•	•	•	•	•	•
	M16 x 1.5												
	M18 x 1.5	•	•	•	•	•	•	•	•	•	•	•	•
	3/4 - 16 UNF	•	•	•	•	•	•	•	•	•	•	•	•
	1 1/16" - 12 UN	•	•	•	•	•	•	•	•	•	•	•	•

Gas side connections													
		ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
05	Charging screw M28 x 1.5	•	•	•	•	•	•	•	•	•	•	•	•
	P1620 valve		•	•	•	•	•	•	•	•	•	•	•
	SCHRADER valve			•	•	•	•	•	•	•	•	•	•

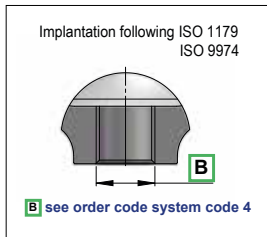
Gas side connections protection													
		ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
06	Without protection (P1620, SCHRADER) Plastic plug (Screw M28 x1.5)	•	•	•	•	•	•	•	•	•	•	•	•
	With metallic plug	•	•	•	•	•	•	•	•	•	•	•	•

Hydraulic options													
		ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS	ACSL	ACS
07	Without connection	•	•	•	•	•	•	•	•	•	•	•	•
	Male connection M33 x 1.5 - G1/2"	•		•		•		•		•		•	
	Male connection M18 x 1.5	•		•		•		•		•		•	
	Male connection M27 x 2	•		•		•		•		•		•	
	Male connection G3/8"	•		•		•		•		•		•	

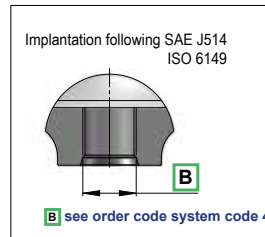
Charging pressure													
08	Specify the charging pressure (in bar)												

ACS(L) Fluid and gas connections

► Hydraulic connections - Code 04

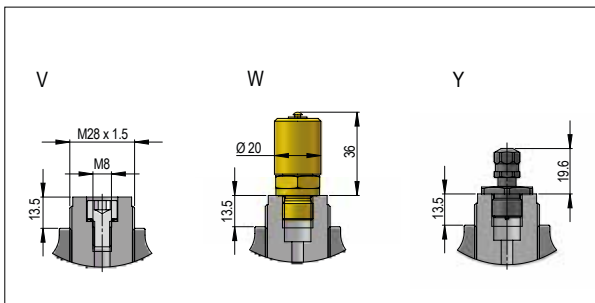


Code	$\varnothing B$
04	
G1	G3/8"
G2	G1/2"
G3	G3/4"
M2	M 18 x 1.5

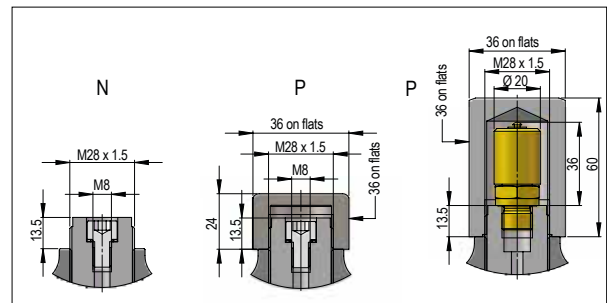


Code	$\varnothing B$
04	
M1	M16 x 1,5
U1	3/4-16UNF - 2B
U2	1 1/16" - 12UNF - 2B

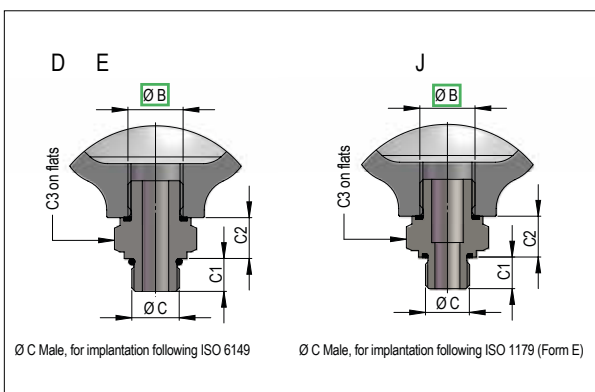
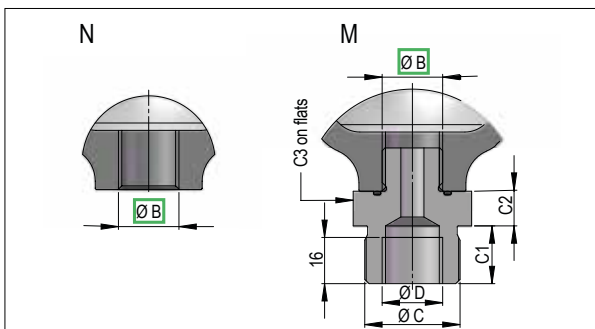
► Gas side connections - Code 05



► Gas side protections - Code 06



► Hydraulic options - Code 07



Code	$\varnothing B$	$\varnothing C$	C1	C2	C3	D
07						
N	Code 04	-	-	-	-	-
M	G1/2"	M33 x 1.5	20	12	41	G1/2"
D	G1/2"	M18 x 1.5	12.5	15.5	27	-
E	G1/2"	M27 x 2	14	16	32	-
J	G1/2"	G3/8"	12	15.5	27	-

► ACS low temperature version models

	LEDUC code	Nitrogen capacity V0 (litres)	Max. pressure (bar)	Weight (kg)	Length A (mm)	Hydraulic connection Ø B	Gas side
ACS 0.7	066130	0.7	330	4	175	G1/2"	screw
ACS 1	065960	1	330	5.9	241	G3/4"	screw
ACS 1.5	065940	1.5	330	7.8	315	G3/4"	screw
ACS 2	066705	2	330	9.9	392	G3/4"	screw
ACS 2.5	065910	2.5	330	11.5	463	G3/4"	screw
ACS 4	065920	4	330	17.5	695	G3/4"	screw

► ACSL low temperature version models

	LEDUC code	Nitrogen capacity V0 (litres)	Max. pressure (bar)	Weight (kg)	Length A (mm)	Hydraulic connection Ø B	Gas side
ACSL 0.7	068360	0.7	210	3	175	G1/2"	screw
ACSL 1	0610210	0.99	210	4.5	241	G1/2"	screw
	0610335	0.99	210	4.5	241	G1/2" / M33 x 1.5 MALE	screw
	068355	0.99	210	4.5	241	G3/4"	screw
ACSL 1.5	068350	1.5	210	5.9	315	G3/4"	screw
ACSL 2	068345	2	210	7.6	392	G3/4"	screw
ACSL 2.5	068265	2.5	210	8.9	463	G3/4"	screw

The ACS(L) low temperature models accumulators are equipped with a hydrogenated nitrile diaphragm (ref. E/7).

ACS 0.7 L model, not in the code system

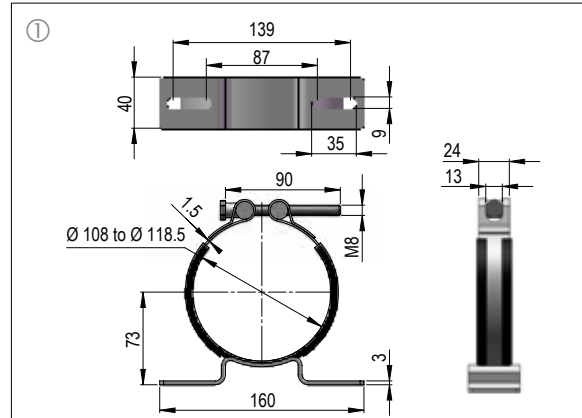
► ACS 0.7

LEDUC code	Nitrogen capacity V0 (litres)	Max. pressure (bar)	Weight (kg)	Length A (mm)	Hydraulic connection Ø B	Gas side
065947	0.7	330	4	175	3/4-16UNF-2B	SCHRADER valve
065950	0.7	330	4	175	M16 x 1.5	screw
065952	0.7	330	4	175	M18 x 1.5	screw
065975	0.7	330	4	175	G3/8"	P1620 valve
066035	0.7	330	4	175	G3/4"	screw
066130	0.7	330	4	175	G1/2"	screw
066255	0.7	330	4	175	G1/2"	P1620 valve
066445	0.7	330	4	175	G3/8"	screw
066845	0.7	330	4	175	3/4-16UNF-2B	screw
066695	0.7	330	4	175	G1/2" / M33 x 1.5 MALE	screw

ACCESSORIES

► **ACS(L) adjustable clamps** ①

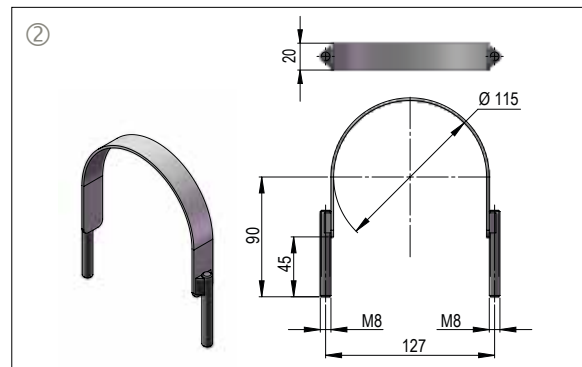
Volume (L)	Characteristics	Code LEDUC
0.7 - 1 - 1.5 2 - 2.5 - 4	Zinc-plated steel	254021
	Zinc-plated steel quick-tightening	254031
	Stainless steel	254032



► **ACS(L) fixed clamps** ②

Volume (L)	Characteristics	Code LEDUC
0.7 - 1 - 1.5 2 - 2.5 - 4	Zinc-plated steel	C001028
	Stainless steel	C001437

Tightening torque of the fixation screws: 20 Nm.



► **ACS(L) clamps** ③

Volume (L)	Characteristics	Code LEDUC
0.7 - 1 - 1.5 2 - 2.5 - 4	Zinc-plated steel	C001031
	Stainless steel	C001032

Tightening torque of the fixation screws: 20 Nm.

