

# ABVE Bladder accumulators



## ► Technical description

The ABVE bottle type accumulators consist of:

- a forged steel body,
- a bladder,
- a charging valve,
- an oil side orifice fitted with a poppet valve which prevents extrusion of the bladder, and an air bleed screw used during system start-up.

## ► Advantages

Bladder accumulator component parts are interchangeable with those of major accumulators available.

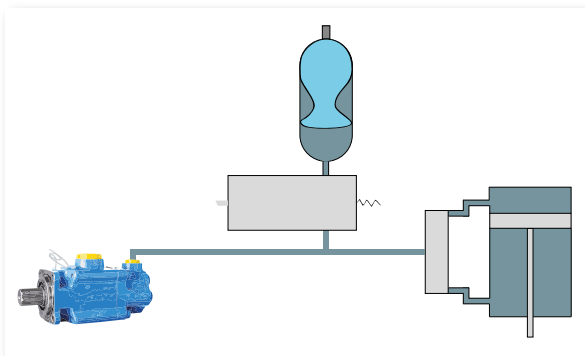
Dimensions allow for easy installation and also use in batteries.

## ► Operating fluids

- Mineral-based hydraulic fluids: standard bladder.
- Non-standard and/or corrosive fluids: please consult our Customer Service Department.

## ► Examples of applications

Energy storage



## ABVE 330 bar

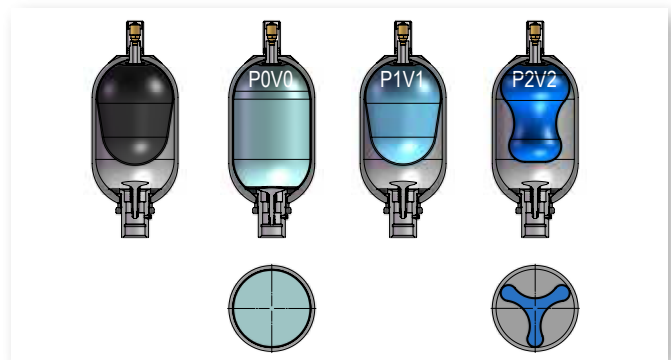
Maximum pressure: 330 bar

ABVE 4 maximum pressure: 350 bar

Extreme operating temperature:

- Standard version: -20°C to +80°C

## ► Deformation of the bladder



## ► Filling gas

Nitrogen only.

## ► Volumetric ratio (V0–V2)/V0

The volumetric ratio of this type of accumulator is 0.75.

For example, an ABVE 4 accumulator can take in a maximum volume of :  
 $0.75 V_0 = 0.75 \times 3.7 = 2.8$  Litres.

## ► Tests et certifications

Designed and certified according to the European Directive 2014/68/UE. Other certifications on request.

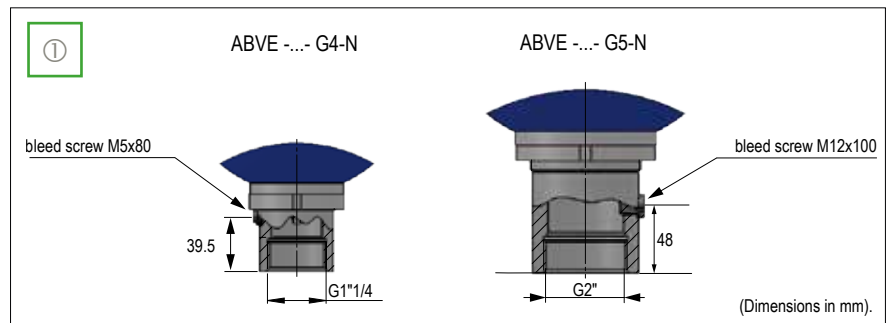
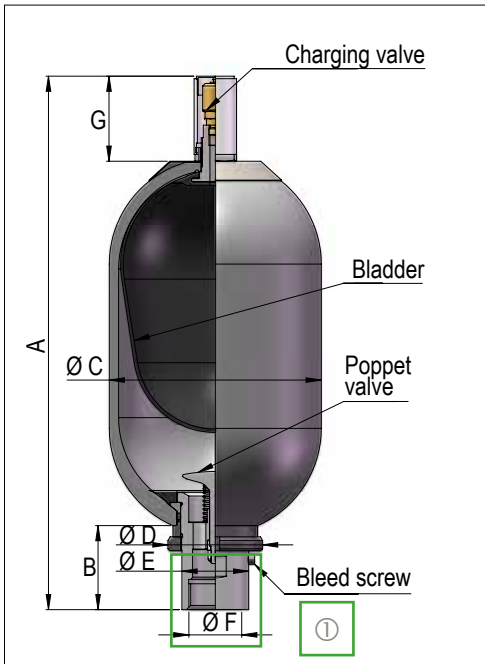
HYDRO LEDUC tests its ABVE accumulators for 2 000 000 cycles with a  $\Delta P = 300$  bar.

## ► After-sales service

HYDRO LEDUC provides after sales service, supplies spare parts and can requalify your accumulators (retesting) only for the accumulators operated in France.

# ABVE Characteristics, dimensions and accessories

## CHARACTERISTICS AND DIMENSIONS



ABVE	Nitrogen capacity Vo (litres)	Max. pressure (bar)	Weight (kg)	Dimensions (mm)						
				A	B	Ø C	Ø D	Ø E	Ø F	G
ABVE 4	3.7	350	13	417.4	64	168	68	53	G1 1/4"	65.4
ABVE 10	9.6	330	32.5	575.4	102	223	101	76	G2"	65.4
ABVE 20	17.6	330	45	878.4	102	223	101	76	G2"	65.4
ABVE 32	32.7	330	80	1403.4	102	223	101	76	G2"	65.4
ABVE 50	48.9	330	110	1926	102	223	101	76	G2"	73

Dimensions in mm.

# ABVE Bladder accumulators

ABVE						
01	02	03	04	05	06	07

To obtain the code of your welded cylindrical accumulator ABVE, complete the different parameters from 01 to 07 in the table on the left according to the options you require (see table below).

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							
01	ABVE						ABVE

Volume (L)							
02		04	10	20	32	50	

Gas side diameter							
	Ø 22 mm						S2
	Ø 50 mm						S1

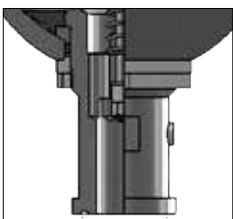
Oil side connections							
	G1 1/4"						G4
	G2"						G5

Gas side connections							
	P1620 valve (M16x200)						W
	V15 valve (5/8"UNF)						T

Oil side options							
	Without option						N
	G3/4"						A
	G2"→G1"						B
	G2"→full						C

Charging pressure							
07	Specify the charging pressure (in bar)						

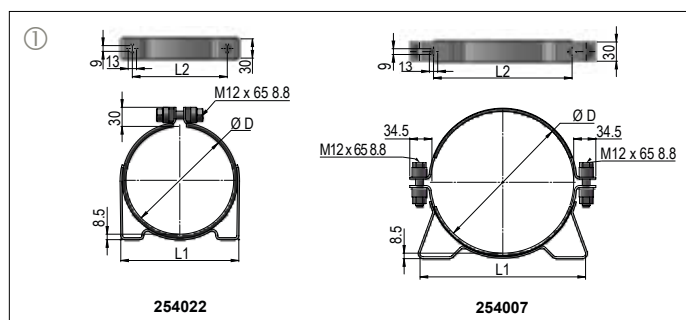
Flanged connection on request.



## ACCESSORIES

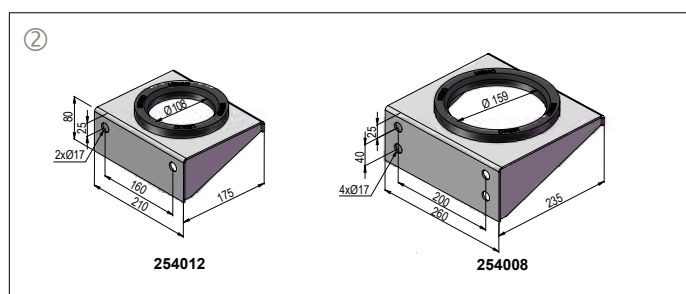
### ► Fixation clamps ①

Volume (L)	Dimensions (mm)			Characteristics	Code
	Ø D	L1	L2		
4	168	184	148	Zinc-plated steel	254022
10 - 20 32 - 50	221	258	216		254007



### ► Fixation seats ②

Volume (L)	Code LEDUC
4	254012
10 - 20 - 32 - 50	254008



### ► Adaptors ③

Volume (L)	Dimensions			Characteristics	Code LEDUC
	A	B	C (mm)		
4	G1 1/4"	G3/4"	16	Steel	066305
		Full	16		066307
10 - 20 - 32 - 50	G2"	G3/4"	13		066074
		G1"	19		066068
		Full	19		066069

