



EXPANSION TANKS FOR HEATING

EXPANSION TANKS ARE DEVICES DESIGNED TO ABSORB THE VOLUME CHANGE OF WATER OR SOME OTHER LIQUIDS, THUS ALLOWING THE CORRECT OPERATION OF A HEATING PLANT DURING ALL ITS OPERATING PHASES.

Elbi produces closed expansion tanks composed of a tank in sheet steel and a bladder in synthetic material which separates the heating circuit from a chamber previously charged with air.

Expansion tanks with bladder are made of quality sheet steel in compliance with EN standards and welded according to strict qualitative standards; they are produced on automated lines, welded with procedures and certified weld materials, equipped with bladders in rubber suitable to resist up to 110°C; they are pre-charged with pressure of 0.5 - 1.0 - 1.5 - 2 - 2.5 - 3 bar according to the static height of the water column.

All models are subject to a hydraulic test with a pressure of 1.5 times higher than the design pressure.

Versions manufactured according to the most important European standards in force are available and are supplied with a Declaration of Conformity pursuant to the essential safety requirements outlined by Directive 97/23/EC (PED).

ELBI BLADDERS

Designed by the Elbi technical office, bladders are tested by the quality control service once the manufacturing cycle is completed.



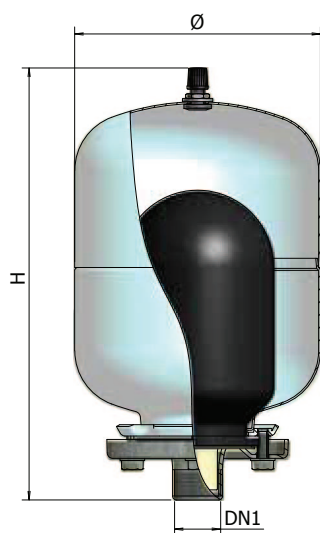
AC-2 / ER-CE

FIXED BLADDER EXPANSION TANKS FOR HEATING

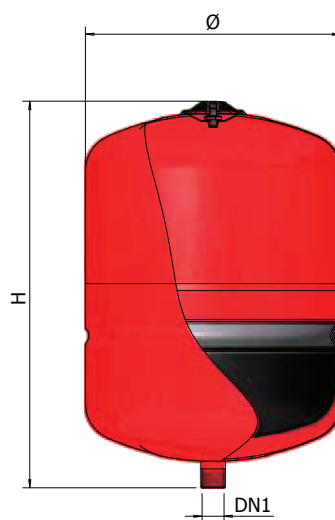
(2 - 24 LITRES)



AC - 2



ER 5 - 24



CE certified product



For non-drinking water



For heating systems



For air conditioning systems

Characteristics:




- Working temperature: -10° / +99°C
- Long lasting epoxy powder paint, red. (Model AC-2: white)
- Fixed bladder in SBR rubber
(Model AC-2: replaceable butyl bladder)
- Wall fixing bracket on request (see page 225)

Reference standard

- Declaration of conformity to essential safety requirements outlined by Directive 97/23/EC (PED).
Models AC-2/ER5 are without CE marking.

WARRANTY: 2 YEARS

DIMENSIONS

MODEL	CODE		Ppre	Pmax				DN1		NOTES
		LITRES	bar	bar	max	mm	mm			
AC-2 *	A012J07	2	1,5	8	+99°C	130	230	3/4"	150 x 150 x 240	
ER 5 *	A102L11	5	1,5	8	+99°C	205	225	3/4"	210 x 210 x 250	
ER 8 CE	A102L16	8	1,5	8	+99°C	205	300	3/4"	210 x 210 x 320	
ER 12 CE	A102L20	12	1,5	8	+99°C	270	300	3/4"	280 x 280 x 310	
ER 18 CE	A102L24	18	1,5	8	+99°C	270	410	3/4"	280 x 280 x 450	
ER 24 CE	A102L27	24	1,5	8	+99°C	320	355	3/4"	330 x 330 x 375	

* Without CE marking

CHOICE OF THE EXPANSION TANK

The table simplifies the choice of the ELBI expansion tank to be installed in hot water systems. The selection of the tank can be effectuated starting from the system's total capacity or from the plant's power, taking into consideration an average content of 12 litres per 1000 Kcal/h of power and a plant's maximum working pressure of 3 bars

MODEL	PRE-CHARGE PRESSURE [BAR]	PLANT HEIGHT [m]	TANK ACCEPTABLE VOLUME [litri]	TANK ABSORPTION CAPACITY [%]	$\Delta T = (90 - 14)^\circ\text{C}$ Δ expansion coefficient 0,035		
					TOTAL WATER CONTENT IN THE PLANT [litres]	HEAT GENERATOR POWER	
						kcal/h	kW
AC-2	0,5	5	1,3	62,5	36	3.000	3,49
	1	10	1	50	29	2.400	2,79
ER 5	0,5	5	3,1	62	89	7.400	8,6
	1	10	2,5	50	71	5.900	6,86
ER 8 CE	0,5	5	5	62	143	11.900	13,84
	1	10	4	50	114	9.500	11,4
ER 12 CE	0,5	5	7,5	63	214	17.800	20,7
	1	10	6	50	171	14.250	16,57
ER 18 CE	0,5	5	11,3	63	323	26.900	31,3
	1	10	9	50	257	24.100	28,2
	1,5	15	6,7	37	191	15.900	118,5
ER 24 CE	0,5	5	15,5	65	443	36.900	43
	1	10	12	50	343	28.600	33,26
	1,5	15	9,3	39	266	22.200	25,82