



DS-CE

FIXED BLADDER EXPANSION TANKS FOR SOLAR SYSTEMS

(8 - 300 LITRI)

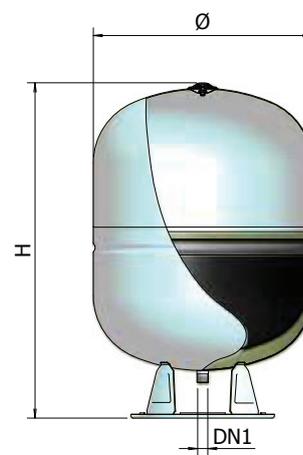
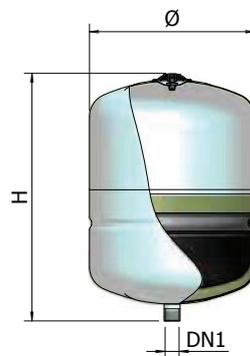
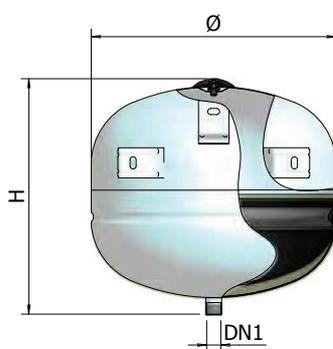
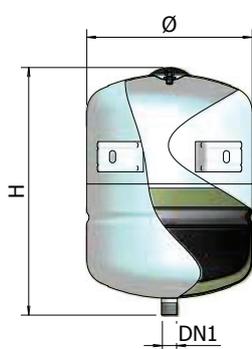


DS 18/P-24/P

DS 35/P-50/P

DS 8/35

DSV 50/300



CE certified product

For heating systems

For air conditioning systems

For pressurisation systems

Water hammer arrestor

Inner protection TOP-PRO®

For solar systems

For non-drinking water

Characteristics:

• Lower shell (water side) with internal, anti-corrosive TOP-PRO® treatment.

• Water inlet attachment turned downwards.

• Long-lasting epoxy powder paint, white.

• SBR rubber bladder.

• Min./max. operating temperature: -10°/ +110°C, with a peak temperature: +130°C (max. 2 hours).

• Pre-charge pressure: 3 bar.

The expansion tanks of the DS series can be used both in heating systems and solar systems thanks to their internal, anti-corrosive TOP-PRO® treatment.

WARRANTY: 2 YEARS

Reference standard:

• Declaration of conformity to essential safety requirements specified in 2014/68/UE Directive.

DIMENSIONS

MODEL	CODE		Ppre	Pmax				DN1		NOTES
		LITRES	bar	bar	max	mm	mm		mm	
DS-8 CE	A222L16	8	3	8	110°C	205	280	3/4"	210 x 210 x 320	
DS-18 CE	A222L24	18	3	8	110°C	270	410	3/4"	280 x 280 x 310	
DS 18/p CE*	A232L24	18	3	8	110°C	270	410	3/4"	280 x 280 x 310	
DS-24 CE	A222L27	24	3	8	110°C	320	330	3/4"	330 x 330 x 375	
DS 24/p CE*	A232L27	24	3	8	110°C	320	330	3/4"	330 x 330 x 375	
DS-35 CE	A222L31	35	3	10	110°C	400	395	3/4"	410 x 410 x 410	
DS 35/p CE*	A232L31	35	3	10	110°C	400	395	3/4"	410 x 410 x 410	
DS 50/p CE*	A232L34	50	3	10	110°C	400	500	3/4"	410 x 410 x 535	
DSV-50 CE	A242L34	50	3	10	110°C	400	585	3/4"	410 x 410 x 535	
DSV-80 CE	A242L37	80	3	10	110°C	400	820	3/4"	410 x 410 x 860	
DSV-100 CE	A242L38	100	3	10	110°C	500	735	3/4"	510 x 510 x 830	
DSV-150 CE	A242L43	150	3	10	110°C	500	935	3/4"	510 x 510 x 1040	
DSV-200 CE	A242L47	200	3	10	110°C	600	1020	1"	610 x 610 x 1110	
DSV-300 CE	A242L51	300	3	10	110°C	650	1210	1"	660 x 660 x 1290	

*Version with wall fastening feet

HOW TO SELECT THE RIGHT EXPANSION TANK FOR SOLAR SYSTEMS

The expansion tank for solar systems must be sized correctly.

First of all, you must determine the expansion volume (the quantity of liquid that the expansion tank must absorb during the maximum expansion of the plant):

$$Ve = (VC * e + VP) * k$$

where:

Ve = expansion volume of the solar tank [litres]
 VC = solar circuit capacity [litres]
 e = dilation coefficient of the fluid

Example of values taken on by e:
 e = 0.045 (fluid: water)
 e = 0.070 (fluid: mix of water/glycol)

VP = capacity of solar panels [litres]
 K = 1.1 safety coefficient

Then you calculate the nominal volume of the solar tank:

$$VS = Ve * \frac{(P_F + 1)}{(P_F - P_I)}$$

VS = nominal volume of the solar tank [litres]
 Ve = expansion volume of the solar tank [litres]
 PI = Pre-charge pressure = system filling pressure [bar]
 PF = Calibration pressure of the safety valve [bar]

Having correctly sized the solar expansion tank, the best choice would be the **DS** series. Thanks to the special bladder and the internal, anti-corrosive TOP-PRO® treatment that guarantees greater resistance to high temperatures and protection against aggressive anti-freeze liquid, the expansion tanks of the **DS** series guarantee long duration of installation for solar thermal systems.