

SISTEMA®



ISO
9001:2008

CE
2159

UA1 081





10 BAR FOOTLESS AND HORIZONTAL SERIES



TECHNICAL SPECIFICATION EXPANSION VESSELS

MODEL	VOLUME	PRE-CHARGED PRESSURE	CONNECTION	DIAMETER	HEIGHT
TV8LT	8 LT	2	1"	220	320
TV12LT	12 LT	2	1"	220	380
TV19LT	19 LT	2	1"	280	430
TV24LT	24 LT	2	1"	280	470
TV24LTOVAL	24LT	2	1"	360	325
TV35LT	35 LT	2	1"	380	470
TV50LT	50 LT	4	1"	380	560

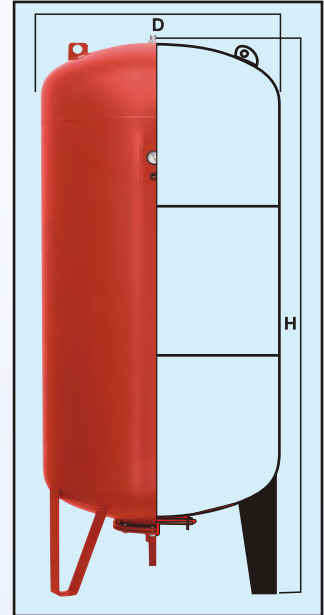
TECHNICAL SPECIFICATIONS OF HORIZONTAL EXPANSION VESSELS



MODEL	VOLUME	PRE-CHARGED PRESSURE	CONNECTION	DIAMETER	HEIGHT
TO24LT	24 LT	2	1"	280	470
TO50LT	50 LT	4	1"	380	620
TO60LT	60 LT	4	1"	380	670
TO80LT	80 LT	4	1"	430	720
TO100LT	100 LT	4	1"	460	800



10 BAR VERTICAL TANK SERIES

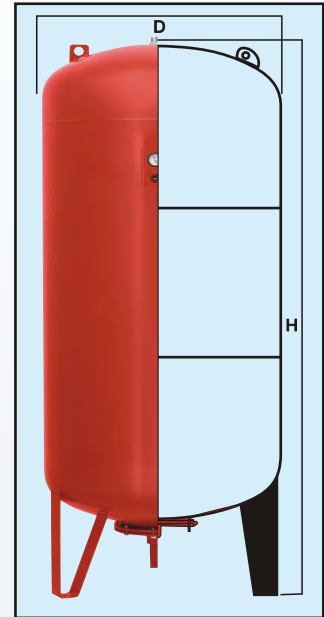


TECHNICAL SPECIFICATIONS OF VERTICAL CLOSED EXPANSION VESSELS

MODEL	VOLUME	PRE-CHARGED PRESSURE	CONNECTION	DIAMETER	HEIGHT
TV50LT	50 LT	4	1"	380	750
TV60LT	60 LT	4	1"	380	810
TV80LT	80 LT	4	1"	430	960
TV100LT	100 LT	4	1"	460	990
TV150LT	150 LT	4	1"	500	1100
TV200LT	200 LT	4	1-1/4"	590	1120
TV300LT	300 LT	4	1-1/4"	640	1230
TV500LT	500 LT	4	1-1/4"	750	1550
TV750LT	750 LT	4	2"	750	1950
TV800LT	800 LT	4	2"	800	1850
TV900LT	900 LT	4	2"	800	1950
TV1000LT	1000 LT	4	2"	800	2180
TV1500LT	1500 LT	4	2"	960	2380
TV2000LT	2000 LT	4	2"	1100	2520
TV3000LT	3000 LT	4	2-1/2"	1200	2800
TV4000LT	4000 LT	4	3"	1450	3100
TV5000LT	5000 LT	4	3"	1450	3720
TV10000LT	10000 LT	4	DN 100	1600	5750



16 BAR VERTICAL TANK SERIES

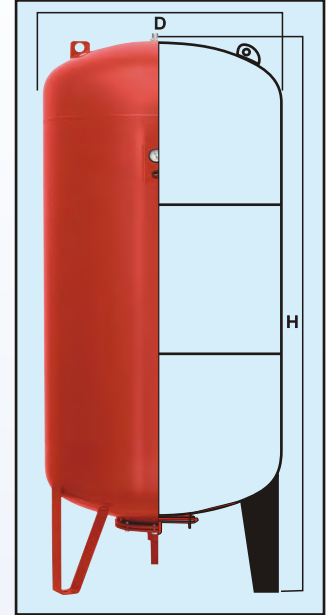


TECHNICAL SPECIFICATIONS OF VERTICAL CLOSED EXPANSION VESSELS

MODEL	VOLUME	PRE-CHARGED PRESSURE	CONNECTION	DIAMENTIONS	
				DIA	HEIGHT
TV16-50LT	50 LT	4	1"	380	750
TV16-60LT	60 LT	4	1"	380	810
TV16-80LT	80 LT	4	1"	430	960
TV16-1000LT	100 LT	4	1"	460	990
TV16-150LT	150 LT	4	1"	500	1100
TV16-200LT	200 LT	4	1-1/4"	590	1120
TV16-300LT	300 LT	4	1-1/4"	640	1230
TV16-500LT	500 LT	4	1-1/4"	750	1550
TV16-750LT	750 LT	4	2"	800	1850
TV16-900LT	900 LT	4	2"	800	1950
TV16-1000LT	1000 LT	4	2"	800	2180
TV16-1500LT	1500 LT	4	2"	960	2380
TV16-2000LT	2000 LT	4	2"	1100	2520
TV16-3000LT	3000 LT	4	2-1/2"	1200	2800
TV16-4000LT	4000 LT	4	3"	1450	3100
TV16-5000LT	5000 LT	4	3"	1450	3720
TV16-10000LT	10000 LT	4	DN 100	1600	5750



25 BAR VERTICAL TANK SERIES



TECHNICAL SPECIFICATIONS OF VERTICAL CLOSED EXPANSION VESSELS

MODEL	VOLUME	PRE-CHARGED PRESSURE	CONNECTION	DIA	HEIGHT
TV25-50LT	50 LT	4	1"	380	750
TV25-60LT	60 LT	4	1"	380	810
TV25-80LT	80 LT	4	1"	450	910
TV25-100LT	100 LT	4	1"	450	990
TV25-150LT	150 LT	4	1"	500	1100
TV25-200LT	200 LT	4	1-1/4"	600	1120
TV25-300LT	300 LT	4	1-1/4"	640	1230
TV25-500LT	500 LT	4	1-1/4"	750	1550
TV25-750LT	750 LT	4	2"	800	1850
TV25-900LT	900 LT	4	2"	800	1950
TV25-1000LT	1000 LT	4	2"	800	2180
TV25-1500LT	1500 LT	4	2"	960	2380
TV25-2000LT	2000 LT	4	2"	1100	2520
TV25-3000LT	3000 LT	4	2-1/2"	1200	2800
TV25-4000LT	4000 LT	4	3"	1450	3100
TV25-5000LT	5000 LT	4	3"	1450	3720
TV25-10000LT	10000 LT	4	DN 100	1600	5750



MEMBRANE SERIES

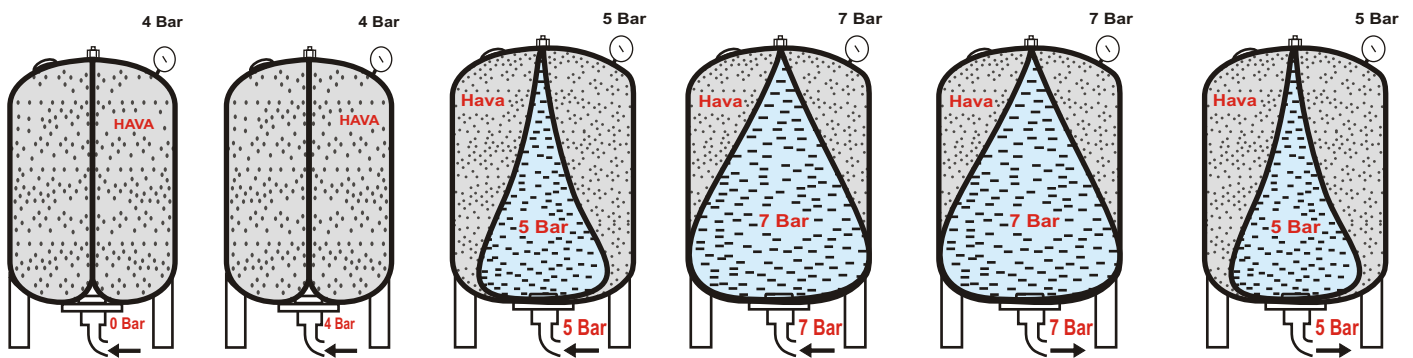
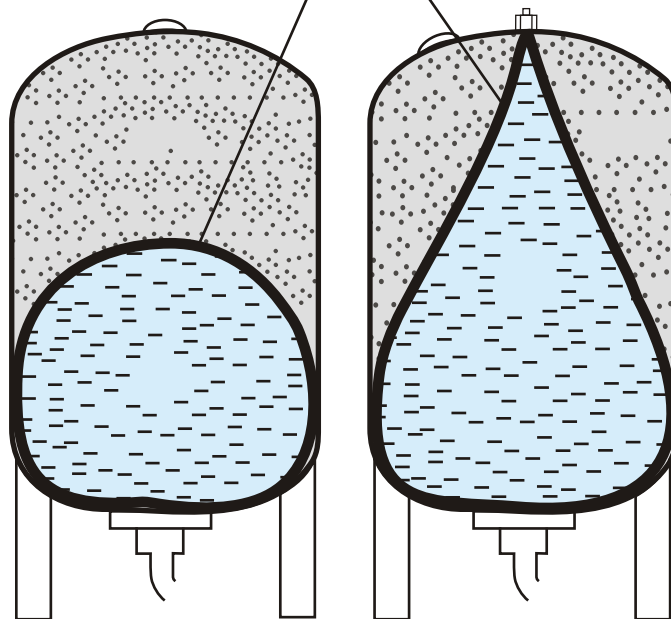


TECHNICAL SPECIFICATIONS OF MEMBRANES

Size and capacity	Rubber Material	Flange	Height
8-12 LT	EPDM	80 - 110 mm	195 mm
18-24 LT	EPDM	80 - 110 mm	248 mm
35-60 LT	EPDM	80 - 110 mm	315 mm
80-100 LT	EPDM	80 - 110 mm	700 mm
150 LT	EPDM	80 - 110 mm	750 mm
200 LT	EPDM	150 - 210 mm	800 mm
300 LT	EPDM	150 - 210 mm	1000 mm
500 LT	EPDM	150 - 210 mm	1400 mm
750 LT	EPDM	150 - 210 mm	1600 mm
1000 LT	EPDM	200 - 250 mm	2000 mm
1500 LT	EPDM	200 - 250 mm	2000 mm
2000 LT	EPDM	200 - 250 mm	2000 mm
8-12 LT	BUTYL	80 - 110 mm	195 mm
18-24 LT	BUTYL	80 - 110 mm	248 mm
35-60 LT	BUTYL	80 - 110 mm	315 mm
80-100 LT	BUTYL	80 - 110 mm	700 mm
150 LT	BUTYL	80 - 110 mm	750 mm
200 LT	BUTYL	150 - 210 mm	800 mm
300 LT	BUTYL	150 - 210 mm	1000 mm
500 LT	BUTYL	150 - 210 mm	1400 mm
750 LT	BUTYL	150 - 210 mm	1600 mm
1000 LT	BUTYL	200 - 250 mm	2000 mm
1500 LT	BUTYL	200 - 250 mm	2000 mm
2000 LT	BUTYL	200 - 250 mm	2000 mm
3000 LT	BUTYL	150 - 210 mm	2515 mm
4000 LT	BUTYL	250 - 300 mm	2680 mm
5000 LT	BUTYL	150-210 250 - 300 mm	3440 mm
10000 LT	BUTYL	150-210 250 - 300 mm	5655 mm



Membran



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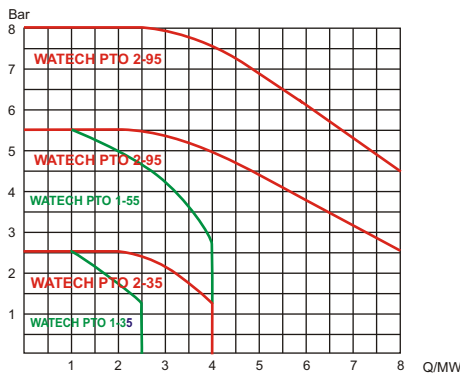




CRITERIA SELECTION

The choice of the watech model suitable to the application is applied based on the following project data:

Plant Water Container Building Static Height Or Hidrostatic Height Working Temperature



To each dispositive watech has to be matched one or more unpressured tank wates. The volume of this tank is shown by the following formula:

$$\text{Hacim / Volume} = 1,1 \times (V \times e + 0,005 \times V)$$

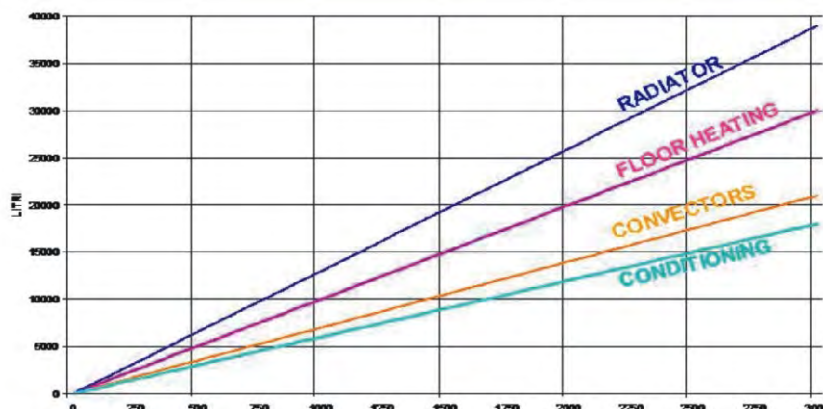
V = plant water quantity

e = expansion coefficient of the liquid

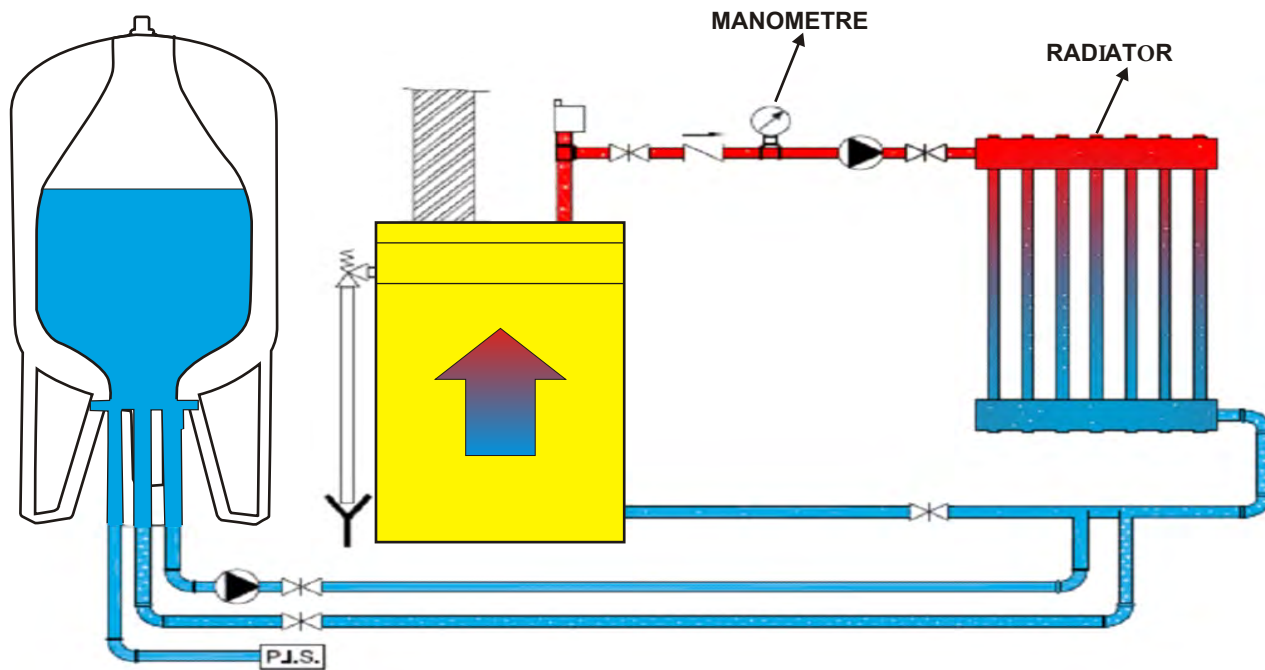
CALCULATION EXAMPLE

The tank volume is obtained from the above formula. From the example taking into consideration the value of expansion coefficient from 10°C to 90° equal to 0,0036, is obtained a volume of 902 liter fitted to a 1000 liter tank.

Usually the plant water quantity is not known , therefore it may be utilized the following table for evaluating the liquid quantity according to the dispositive type utilized.. The attached appendix contains the request and offer form to be sent to watech.



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P_s (bar) : SAFETY VALVE	
P_{max} (bar)	$> 0,5$ bar
OVERFLOW VALVE ON	$0,2 - 0,4$ bar
PUMP ON	$0,2 - 0,4$ bar
P_o (bar): $P_{st} + \text{evaporat press.} + 0,2$ bar	$> 0,3$ bar
P_{st} (bar) : HYDROSTATIC HEIGHT	$0 - 0,2$ bar

HEATING PHASE

When the pressure plant increase, for example is followed by the volume variation during the heating phase, the dispositive watech perceives an increasing through the pressure sensor and command the opening of the overflow valve. The resultant liquid is stored in the special Wates tank equipped by a membrane but non pressurized. Obviously the valve control occurs in step by step modality in order to maintain the pressure stability and to avoid any quick variation.

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