

VI Intermediate vessels



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1.-DESCRIPTION

Tanks manufactured in steel in accordance with European Directive 2014/68/EU, from two bottoms joined together by welding seams, made according to approved procedures and personnel, able to withstand the working pressure for which they have been designed.

The tank is fitted with a male threaded sleeve on each of the tank bottoms for connection to the process.

Fitted with R³/₄" G.M. threaded water connection.

Final application on phosphate-coated surface of epoxy paint, colour white.

Tanks are tested for tightness and strength at a pressure 1.5 times the maximum working pressure.

2.- COMPONENT IDENTIFICATION

- 1.- Steel vessel
- $\label{eq:2.-Water inlet/outlet connection male thread} 2.- Water inlet/outlet connection male thread$



3.- APPLICATION

Intermediate vessels intended for use in closed heating, cooling and solar energy circuits to prevent the rapid ageing of expansion vessel membranes as a result of very high or low temperatures.

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4.- MAIN CHARACTERISTICS

- Image: Name: VI
- (1) Use: Intermediate vessels without bladder for closed heating, cooling and solar energy systems
- **Volume:** 5 300 litres
- (1) Maximum Service Pressure: 10 Bar
- **Dimensions:** according to attached table
- (1) Threaded water connection: according to attached table
- (1) Finish (painting): External powder coating
- **(b)** Colour: White
- **Warranty:** 2 years

Designed and manufactured according to European Directive 2014/68/EU (Article 4.3)

Models without feet 10 Bar

Code	Model	Volume (Lts)	Weight (Kg)	Ø D (mm)	H (mm)	Water connection
02005103	5 VI	5	2	200	250	2 x ³ /4"
02008103	8 VI	8	2,5	200	340	2 x ³ /4"
02012103	12 VI	12	3,2	270	310	2 x ³ /4"
02018103	18 VI	18	4	270	415	$2 \times 3/4$ "
02025103	24 VI	24	4,5	320	430	2 x ³ /4"



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Models with feet 10 Bar

Code	Model	Volume (Lts)	Weight (Kg)	Ø D (mm)	H (mm)	Water connection
02035103	35 VI-P	35	7	360	615	2 x 1"
02050103	50 VI-P	50	12	360	750	2 x 1"
02100103	100 VI-P	100	18	450	850	2 x 1"
02200103	200 VI-P	200	39	550	1135	$2 \times 1 \frac{1}{2}$ "
02300103	300 VI-P	300	52	650	1180	$2 \times 1 \frac{1}{2}$

High temperature models 10 Bar

Code	Model	Volume (Lts)	Weight (Kg)	Ø D (mm)	H (mm)	R water connection	
02200105	200 VI	200	110	485	1.400	2 x 1 ¹ / ₂ "	
02300105	300 VI	300	130	485	1.965	2 x 1 ¹ / ₂ "	
02500105	500 VI	500	155	600	2.065	2 x 1 ¹ / ₂ "	
02700105	700 VI	700	215	700	2.145	2 x 1 ¹ / ₂ "	
02910105	1000 VI	1.000	360	850	2.225	2 x 1 ¹ / ₂ "	
02914105	1400 VI	1.400	450	1.000	2.210	2 x 1 1/2"	
02920105	2000 VI	2.000	600	1.200	2.225	2 x 1 ¹ / ₂ "	
02930105	3000 VI	3.000	750	1.200	3.045	2 x 1 1/2"	
02940105	4000 VI	4.000	950	1.400	3.110	2 x 1 1/2"	
02950105	5000 VI	5.000	1.350	1.500	3.700	2 x 1 1/2"	
Note: Models approved to withstand up to 200° C.							





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5.-<u>OPERATION</u>

The expansion vessels, in combination with the intermediate vessels, absorb the expansion of the water caused by the increase in temperature of the heat transfer fluid circulating through the heating / solar circuit, preventing the pressure in the circuit from exceeding the admissible limits. In addition, and due to the high temperatures reached in the circuits, the installation of an intermediate vessel in line with the expansion vessel extends the useful life of the membrane and, consequently, of the whole installation.

6.-<u>INSTALLATION</u>

A typical installation of the intermediate tank in line with the expansion vessel could be as follows (see manual for installation instructions for expansion vessels).

In heating systems where return temperatures above 70° C are expected, it is advisable to place an intermediate tank in line with the expansion vessel.



In refrigeration systems with temperatures below 0° C, it is recommended to place an intermediate vessel in line with the expansion vessel.



In solar systems it is recommended to place an intermediate vessel in line with the expansion vessel.





Not suitable for use in open circuits with potable water, hydrocarbons and fluids belonging to Group 1 according to Directive 2014/68/EU. The glycol content in water must not exceed 50%. The tanks listed in this document are not suitable for outdoor use.

For greater safety and, in any case, whenever it is foreseen that the installation fluid in the return pipe may exceed the aforementioned limits, it is recommended to install an intermediate vessel of the VI series that dissipates or attenuates the temperature, thus guaranteeing the protection of the membrane.

I. IBAIONDO shall not be liable for any damage caused by their installation in other types of circuits.

The most important technical characteristics of the intermediate vessels and other data relating to their manufacture are indicated on the label attached to the product. This label must not be removed or modified under any circumstances.



7.-<u>COMMISSIONING</u>

For commissioning, follow the instructions in the expansion vessel manuals.

8.- MAINTENANCE INSTRUCTIONS

Maintenance must only be carried out by authorised personnel. For correct maintenance, follow the instructions in the expansion vessel manuals.

9.-DISASSEMBLY

Never remove the intermediate and expansion vessel without first depressurising the system and the air chamber to safe values.

Before disassembling the vessels, make sure that all parts exposed to pressure are depressurised by isolating the vessels from the water circuit. In case the pressure measured through the inflation valve is higher than 4 bar in the expansion vessel, first reduce the pressure by venting through the valve (air chamber) to 4 bar. Drain both the intermediate and expansion vessel of water. Finally, bleed through the air inflation valve, reducing the air pressure until the expansion vessel is completely depressurised.

When replacing the vessels, under no circumstances should they be removed before the installation has been depressurised and the water temperature is below 35 °C.