

# imera®



Organizzazione con Sistema  
di Gestione certificato  
Company with Management  
System certified

ISO 9001:2000

**Catalogo Generale**  
General Catalogue - Catalogue Général

Azienda	4
Company profile - Profil de l'usine	

<b>Acqua calda</b>	<b>5</b>	
Hot water - Eau Chaude		
Scelta e dimensionamento dei vasi d'espansione	6-7	
How to choose an expansion tank		
Comme choisir les vases d'expansion		
R	Vasi espansione a membrana intercambiabile	8-10
RV	Expansion vessels with interchangeable bladder	
	Vases d'expansion à vassie interchangeable	
S	Vasi espansione a membrana intercambiabile solari	11
SV	Expansion vessels with interchangeable bladder for solar system	
	Vases d'expansion gamme solaire	

<b>Acqua fredda</b>	<b>13</b>	
Cold Water - Eau Froide		
Scelta e dimensionamento dei vasi d'espansione	14-15	
How to choose a pressure tank		
Comme choisir les réservoirs		
A	Autoclavi verticali con membrana intercambiabile	16-18
AV	Vertical pressure tanks with interchangeable bladder	
	Réservoirs verticaux à vassie interchangeable	
AO	Autoclavi orizzontali con membrana intercambiabile	19
	Horizontal pressure tanks with interchangeable bladder	
	Réservoirs horizontaux à vassie interchangeable	
B/VBV	Autoclavi alta pressione con membrana intercambiabile(16 bar)	20-21
	Vertical high pressure tanks with interchangeable bladder	
	Réservoirs verticaux haute pression à vassie interchangeable	
KV	Autoclavi alta pressione con membrana intercambiabile( 25-40bar )	22
	Vertical high pressure tanks with interchangeable bladder	
	Réservoirs verticaux haute pression à vassie interchangeable	
X/VX/HX	Autoclavi inox con membrana intercambiabile	23
	Stainless steel tanks with interchangeable bladder	
	Réservoirs inox à vassie interchangeable	
Z/VZ	Autoclavi zincate con membrana intercambiabile	24
	Galvanized tanks with interchangeable bladder	
	Rédervoirs zingués à vassie interchangeable	
R	Vasi multifunzione con membrana intercambiabile	25
	Multifunction tanks with interchangeable bladder	
	Réservoirs multifunction à vassie interchangeable	

<b>Accessori e ricambi</b>	<b>27-32</b>
Accessories and spare part	
Accessories et pièces de rechange	

Condizioni di vendita	35
Terms of sale - Conditions de vente	

**acqua calda**  
hot water - eau chaude



**R** (2-50)



**S - SV** (12 - 80)



**RV** (35 - 500)

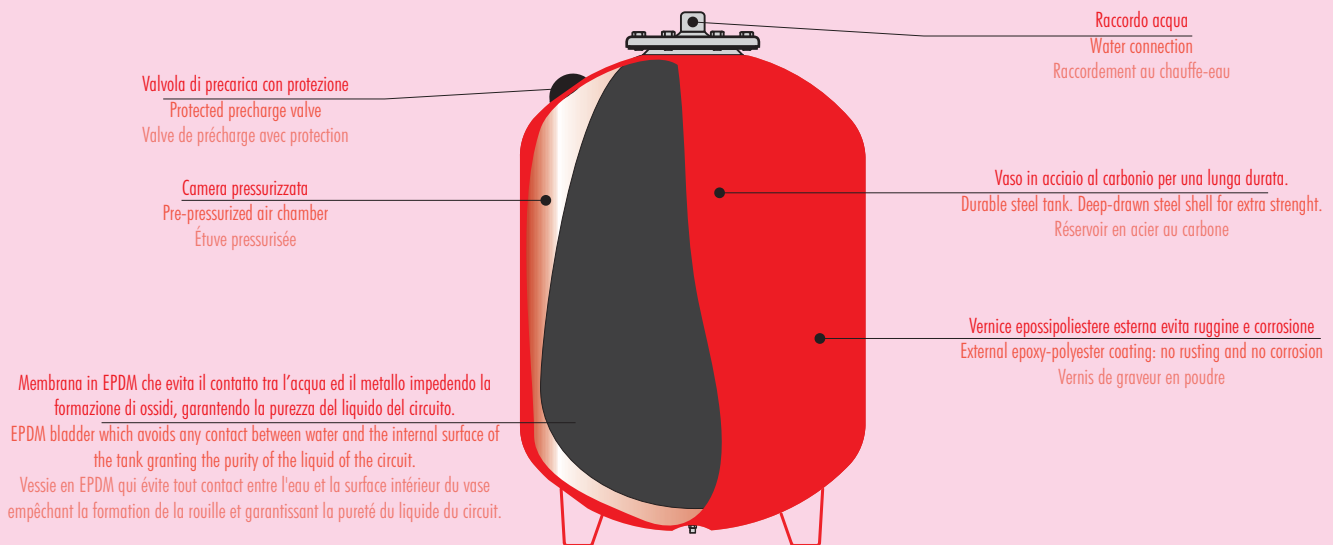


**RV** (750 - 3000)

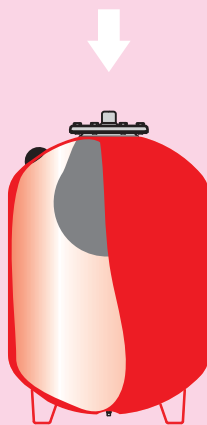
# Vaso di espansione per riscaldamento

## Expansion tanks

### Vases d'expansion a vassie interchangeable



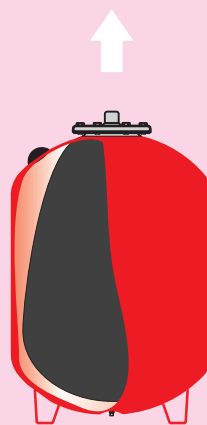
Membrana in EPDM che evita il contatto tra l'acqua ed il metallo impedendo la formazione di ossidi, garantendo la purezza del liquido del circuito.  
 EPDM bladder which avoids any contact between water and the internal surface of the tank granting the purity of the liquid of the circuit.  
 Vessie en EPDM qui évite tout contact entre l'eau et la surface intérieur du vase empêchant la formation de la rouille et garantissant la pureté du liquide du circuit.



Tutti i vasi della serie R (RV, S e SV) escono dalla fabbrica controllati, verificati e certificati.  
 Una volta connesso al circuito a cui è destinato, all'aumentare della temperatura, aumenta il volume dell'acqua che espandendosi comincia a riempire la membrana.

All the tanks of our R RV S and SV range are manufactured, tested, checked and certified by our company. Once the tank is connected to the system, the temperature increases, and with it also increases the water volume which starts to fill the membrane.

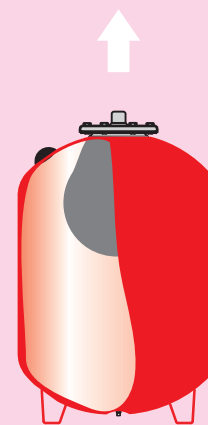
Toute les vases d'expansion de série R (RV, S et SV) sortent de notre usine contrôlé, vérifié et certifié.  
 Lorsque le vase est raccordé à l'installation l'eau va chauffer, son volume augmente et commence ainsi à remplir la vessie.



Il volume dell'acqua continua ad aumentare sino a quando, raggiunta la temperatura massima, la membrana occupa la quasi totalità del volume del vaso. La presenza della membrana evita qualsiasi contatto tra l'acqua e la superficie interna del vaso.

The water volume keeps expanding until the maximum working temperature is reached. At this stage the membrane occupies almost all the space inside the tank. The pressurized air cushion avoids any contact between water and the internal surface of the tank.

Le volume de l'eau continue à augmenter jusqu'à l'eau atteigne sa température maximum et la vessie occupe presque complètement le vase. La vessie évite tout contact entre l'eau et la surface intérieur du vase.



Gradualmente la temperatura dell'impianto inizia a scendere e con essa il volume dell'acqua, il vaso cede ora l'acqua all'impianto grazie alla pressione dell'aria della camera pressurizzata sino al raggiungimento del volume iniziale ed il ciclo si riavvia.

Gradually the temperature goes down and so does the water volume. Because of the pressure of the air cushion the water starts to come out of the tank until the membrane reaches its initial volume. At this point a new cycle begins.

Lorsque la température du système se refroidisse, le volume de l'eau descend et le vase délivre eau à l'installation grâce à la pression de l'air qu'il y a dans l'étuve pressurisée. À la fin, quand le système retourne à sa position initial, un nouveau cycle commence.

Lo scopo principale di utilizzo del vaso di espansione a membrana è la compensazione dell'aumento del volume d'acqua dovuto alla variazione della temperatura negli impianti di riscaldamento.

A titolo esplicativo si può dire che l'acqua, passando da una temperatura di 0°C ad una di 100°C, produce un aumento di volume pari circa al 4,5%: ciò significa che dev'essere presente uno "spazio" interno al circuito in cui l'acqua possa essere contenuta. Tale "spazio" è costituito dal vaso di espansione.

### Scelta e dimensionamento

L'aumento del volume d'acqua dell'impianto viene assorbito dal vaso, ciò significa che il volume utile del vaso dev'essere maggiore del volume di espansione dell'impianto. Il volume utile, si ottiene come segue:

#### Volume utile $\eta = e \times C$

In cui:

$e$  = Coefficiente di espansione dell'acqua; dato dalla differenza tra il coefficiente di dilatazione dell'acqua alla massima temperatura di esercizio ed il coefficiente di dilatazione dell'acqua alla temperatura con impianto spento (generalmente vengono considerate  $T_{max} = 90^\circ\text{C}$  e  $T_{min} = 10^\circ\text{C}$ , per cui  $e = 0,0359$ ; vedere la tabella riportata in calce alla pagina).

$C$  = Capacità complessiva, in litri, dell'impianto (in linea di massima, compreso tra i 10 e i 20 litri ogni 1000 Kcal/h di potenzialità della caldaia)

Per il calcolo esatto del vaso di espansione da installare, utilizzare la seguente formula:

$$V_{\text{vaso}} = \frac{\eta}{1 - \frac{(P_i+1)}{(P_f+1)}}$$

in cui:

$\eta$  = Volume utile del vaso da installare

$P_i$  = Pressione assoluta di precarica del vaso (in bar)

$P_f$  = Pressione massima assoluta di esercizio a cui è stata tarata la valvola di sicurezza (espressa in bar), tenendo conto del dislivello di quota esistente tra valvola e vaso

#### Esempio di calcolo

Dati dell'impianto:	per cui si ottiene
$e = 0,0359$	it follows that
$C = 400$ litri	en conséquence on obtient
$P_i = 1,5$ bar	
$P_f = 3$ bar	

$$V_{\text{vaso}} = \frac{0,0359 \times 400}{1 - \frac{(1,5+1)}{(3+1)}} = 38,3 \text{ litri}^*$$

\*In ogni caso adotteremo la misura commerciale che più si avvicina, per eccesso, al valore calcolato

The main purpose of an expansion tank is to compensate the variation of the volume of water due to the variation of the temperature in heating systems.

For example, the water heating up from 0°C to 100°C increases its volume of about 4,5%. This means that there should be a space inside the system that can keep the exceeding volume of water. This space is the expansion tank.

### How to choose the expansion tank

The increase of water volume is absorbed by the tank. This means that the volume of the tank must be higher than the total possible expansion of the heating system. The volume can be calculated using the following formula:

#### Useful volume $\eta = e \times C$

$e$  = expansion coefficient of the water; this is the difference between the expansion of the water at its maximum temperature and the expansion of the water at its minimum temperature when the system is not working (usually  $T_{max} = 90^\circ\text{C}$  and  $T_{min} = 10^\circ$  therefore  $e = 0,0359$ ; see table below)

$C$  = total capacity of the system (usually between 10 and 20 litres for each 1000Kcal/h of boiler power).

To calculate the exact size of the tank to be installed use the following formula:

$$V_{\text{tank}} = \frac{\eta}{1 - \frac{(P_i+1)}{(P_f+1)}}$$

where:

$\eta$  = internal volume of the tank

$P_i$  = pre-charge pressure of the tank (bar)

$P_f$  = maximum pressure set on the safety valve considering the difference in height between the valve and the tank(bar)

#### Example

System data:	
$e = 0,0359$	$C = 400$ litri
$P_i = 1,5$ bar	$P_f = 3$ bar

Temperatura dell'acqua (°C)	Coefficiente di dilatazione	Temperatura dell'acqua (°C)	Coefficiente di dilatazione
0	0.00013	65	0.01980
10	0.00025	70	0.02269
20	0.00174	75	0.02580
30	0.00426	80	0.02899
40	0.00782	85	0.03240
50	0.01207	90	0.03590
55	0.01450	95	0.03960
60	0.01704	100	0.04343

\*In any case we will adopt the closest measure to the calculated value

Le vase d'expansion sert à compenser l'augment de volume de l'eau dû à la variation de la température dans le système de chauffage.

Uniquement à titre explicatif on peut dire que l'eau augmente son volume de presque 4,5% la température passant de 0°C à 100° : ça signifie qu'il faut avoir un espace à l'intérieur du circuit qui contient l'eau.

### Quelle taille le vase d'expansion devrait-il être ?

L'installation amortise l'augmentation de volume de l'eau. Pour cette raison, la taille du vase d'expansion doit être plus grand du volume d'expansion de l'installation.

Le calcul du volume peut être effectué en appliquant la formule suivante :

#### Volume utile $\eta = e \times C$

Où:

$e$  = coefficient d'expansion de l'eau; il peut être calculé en soustrayant le coefficient d'expansion de l'eau à la température maximum de fonctionnement de l'installation au coefficient d'expansion de l'eau à la température de remplissage (en général  $T_{max} = 90^\circ\text{C}$  et  $T_{min} = 10^\circ\text{C}$ , donc  $e = 0,0359$ ; voir le tableau au bas de la page) ;

$C$  = capacité total de l'installation en litres (en général, entre 10 et 20 litres chaque 1000 Kcal/h de potence de la chaudière).

On peut calculer quelle taille le vase d'expansion devrait être en appliquant le formule suivante :

$$V_{\text{vase}} = \frac{\eta}{1 - \frac{(P_i+1)}{(P_f+1)}}$$

Où:

$\eta$  = volume utile du vase qu'on veut installer

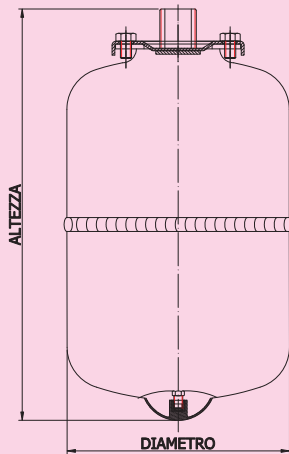
$P_i$  = pression de tarage (en bar)

$P_f$  = pression maximum de fonctionnement comme la valve à été chargée en considérant la dénivellation entre la valve et le vase d'expansion.

#### Exemple de calcul :

Données de l'installation :	
$e = 0,0359$	$C = 400$ litri
$P_i = 1,5$ bar	$P_f = 3$ bar

\* En tout cas, nous adapterons la taille commercial que plus s'approche, pour excès, à la valeur calculée.



**Vasi d'espansione** con membrana intercambiabile  
**Expansion vessels** with interchangeable bladder  
**Vases d'expansion** à vessie interchangeable

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximum working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>5 bar</b>	<b>1,5 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish colour Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Rosso/Red/Rouge RAL 3000</b>	<b>EPDM</b>	

#### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, vase de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IICRE00R01BE1	<b>R2</b>	189	160	(Pz12) 329X329X609	3/4"
IIDRE00R01BD1	<b>R5</b>	296	160	(Pz8) 329X329X609	3/4"
IIERE00R01BD1	<b>R8</b>	310	200	(Pz8) 419X419X638	3/4"
IIFRE00R01BD1	<b>R12</b>	295	280	(Pz8) 564X564X626	3/4"
IIGRE00R01DC1	<b>R18</b>	465	280	(Pz4) 551X551X430	3/4"
IIIRE00R01DC1	<b>R24</b>	492	280	(Pz4) 551X551X488	3/4"
IIJRE00R01DA1	<b>R35</b>	415	365	(Pz1) 451X366X382	3/4"
IIKRE00R01DA1	<b>R50</b>	545	365	(Pz1) 565X365X384	3/4"

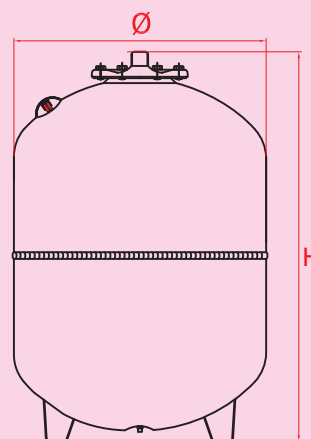
**Vasi d'espansione** con membrana intercambiabile  
**Expansion vessels** with interchangeable bladder  
**Vases d'expansion** à vessie interchangeable

**Marchi CE secondo la Direttiva PED 97/23/CE**  
**CE marked according to Directive**  
**Avec le marque CE selon la Directive**

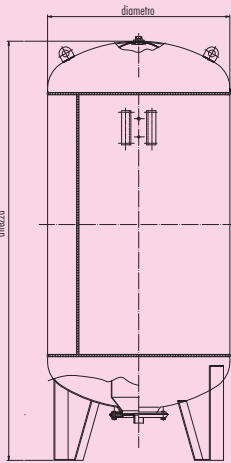
Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>5 bar</b>	<b>1,5 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish color Couleur de finition externe	Membrana in gomma Rubber membrane Vessie en caoutchouc	
<b>Rosso/Red/Rouge RAL 3000</b>	<b>EPDM</b>	

#### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, vase de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IJRE01R01DA1	<b>RV35</b>	450	365	(Pz1) 451X366X382	3/4"
IIKRE01R01DA1	<b>RV50</b>	564	365	(Pz1) 565X365X384	3/4"
IILRE01R01DA1	<b>RV60</b>	668	365	(Pz1) 695X369X378	3/4"
IIMRE01R01EA1	<b>RV80</b>	687	410	(Pz1) 691X416X432	1"
IINRE01R01EA1	<b>RV100</b>	663	495	(Pz1) 690X495X517	1"
IIORE01R01EA1	<b>RV120</b>	733	495	(Pz1) 806X501X502	1"
IIPRE01R01EA1	<b>RV150</b>	795	550	(Pz1) 835X555X590	1"
IIQRE01R11EA1	<b>RV200</b>	1020	600	(Pz1) 1020X600X597	1"
IIRRE01R21EA1	<b>RV250</b>	986	650	(Pz1) 1270X650X650	1"
IISRE01R11EA1	<b>RV300</b>	1168	650	(Pz1) 1270X650X650	1"
IITRE01R21FA1	<b>RV400</b>	1093	750	(Pz1) 1500X732X745	1 1/4"
IIORE01R21FA1	<b>RV500</b>	1347	750	(Pz1) 1500X732X745	1 1/4"
IIVRE01R11FA1	<b>RV600</b>	1470	750	(Pz1) 800X800X1610	1 1/4"



**Vasi d'espansione** con membrana intercambiabile  
**Expansion vessels** with interchangeable bladder  
**Vases d'expansion** à vessie interchangeable

**Marcati CE secondo la Direttiva PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b>	<b>4 bar</b>	VRV200~VRV1500 -10°C/+100°C VRV2000~VRV5000 -10°C/+70°C
Finitura esterna colore External finish coulor Couleur de finition externe		Membrana in gomma Rubber membrane Vassie en caoutchouc
<b>Rosso/Red/Rouge RAL 3000</b>		<b>EPDM VRV500~1500 BUTYL VRV2000~5000</b>

### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuities eau chaude, vase de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIXRG01R31GP1	<b>RV750</b>	1820	800	(Pz1) 800X800X1920	2"
IYYRG01R31HP1	<b>RV1000</b>	2250	800	(Pz1) 800X800X2400	2"
IIZRG01R31HP1	<b>RV1500</b>	2400	960	(Pz1) 960X2400X1110	2"
IARG01R31NP1	<b>RV2000</b>	2500	1100	(Pz1) 1100X2500X1250	2"
IIBRG01R31OP1	<b>RV3000</b>	2750	1200	(Pz1) 1200X2750X1350	Dn65
I4RG02R31OP1	<b>RV4000</b>	3220	1450	(Pz1)1450X2750X1600	Dn80
I5RG02R31OP1	<b>RV5000</b>	3620	1450	(Pz1) 1500X3250X1650	Dn80





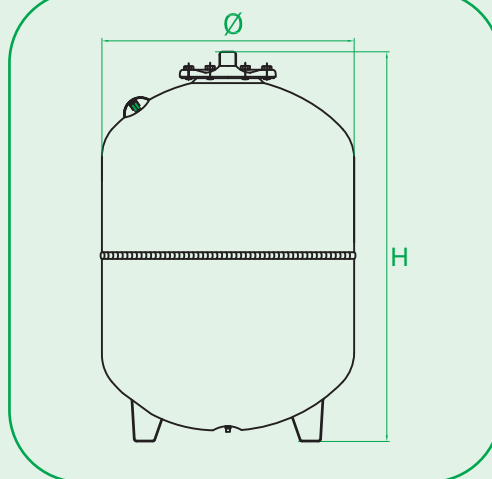
**Vasi d'espansione** per impianti solari  
**Expansion vessels** for solar system  
**Vases d'expansion** gamme solaire

Marchi CE secondo la Direttiva **PED 97/23/CE**  
CE marked according to Directive  
Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>5 bar</b>	<b>2,5 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish color Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Bianco/White/Blanc RAL 9010</b>	<b>EPDM</b>	

**Utilizzo - Use - Utilisation**

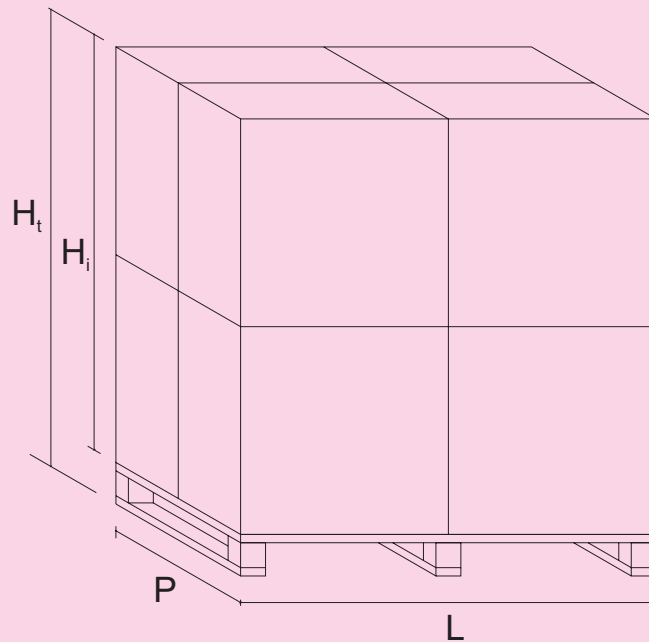
Circuiti acqua calda per sistemi solari,  
autoclave di pressurizzazione di acqua calda per impianti solari  
Solar system hot water circuits, solar system pressurizing surge tanks  
Circuites eau chaude gamme solaire,  
vase de pressurisation eau chaude gamme solaire



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIFPLOW01BD1	<b>S12</b>	295	280	(Pz8) 564X564X626	3/4"
IIGPLOW01DC1	<b>S18</b>	465	280	(Pz4) 551X551X430	3/4"
IIIPLOW01DC1	<b>S24</b>	492	280	(Pz4) 551X551X488	3/4"
IJJPL01W01DA1	<b>SV35</b>	450	365	(Pz1) 451X366X382	3/4"
IIKPL01W01DA1	<b>SV50</b>	564	365	(Pz1) 565X365X384	3/4"
IIMPL01W01EA1	<b>SV80</b>	687	410	(Pz1) 691X416X432	1"

Modello Model Modèle	N° x scatola x box x boîte	Dimensioni pallet Dimension pallet Dimensions palette P x L x H <sub>i</sub>	N° totale total total
R2	12	1200X800X2000	216
R5	8	1200X800X2000	144
R8	8	1300X900X2100	144
R12	8	1200X1200X2100	96
R18	4	1200X1150X2200	64
R24	4	1200X1150X2200	64
R35	1	940X1200X2100	30
R50	1	1200X1200X2100	30
RV35	1	940X1200X2100	30
RV50	1	1200X1200X2100	30
RV60	1	1200X1200X2150	20
RV80	1	1200X1200X2400	20
RV100	1	1200X1200X2250	16
RV120	1	1350X1350X2200	16
RV150	1	840X1200X2000	6
RV200	1	1230X1030X1950	6

Modello Model Modèle	N° x scatola x box x boîte	Dimensioni pallet Dimension pallet Dimensions palette P x L x H <sub>i</sub>	N° totale total total
RV250	1	1330X1280X2160	6
RV300	1	1330X1280X2160	6
RV400	1	1500X1500X2450	6
RV500	1	1500X1500X2450	6
RV600	1	800X800X1610	1
RV750	1	800X800X1920	1
RV1000	1	800X800X2400	1
RV1500	1	960X2400X1110	1
RV2000	1	1100X2500X1250	1
RV3000	1	1200X2750X1350	1
RV4000	1	1450X2950X1600	1
RV5000	1	1500X3250X1650	1
S12	8	1200X1200X2100	96
S18	4	1200X1200X2200	64
S24	4	1200X1200X2200	64
SV35	1	940x1200x2100	30
SV50	1	1200x1200x2100	30
SV80	1	1200x1200x2400	20



## acqua fredda cold water - eau froide



AS-A-AV



X-VX-HX



VZ-Z



A0

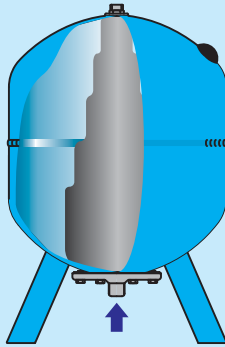
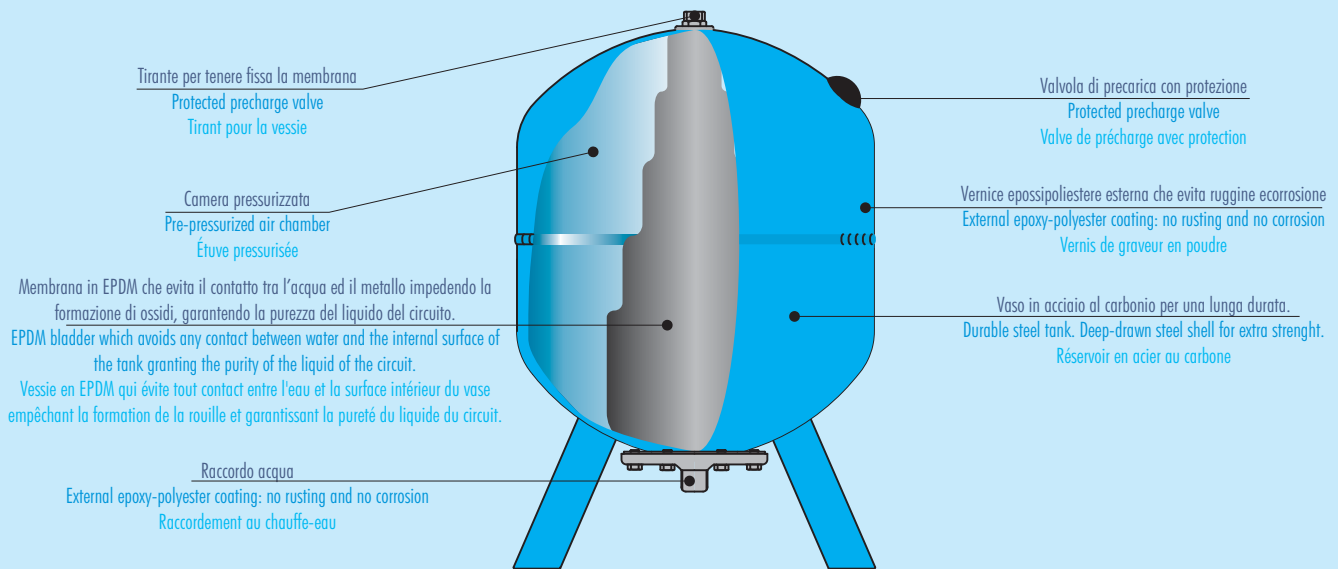


R



AV -BV

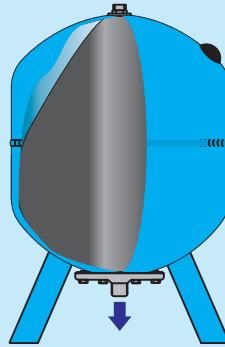
## Vaso autoclave - Pressure tank -Reservoir à vassie



Tutti i vasi "acqua fredda" escono dalla fabbrica controllati, verificati e certificati. La membrana intercambiabile evita qualunque contatto tra aria ed acqua impedendo ogni possibile perdita di pressione, contaminazione e corrosione. Una volta connesso al circuito a cui è destinato, la pompa parte facendo aumentare la pressione dell'impianto, facendo entrare l'acqua nella membrana.

All our tanks for cold water are manufactured, tested, checked and certified by our company. The interchangeable membrane keeps water and air separated and avoids any contamination, corrosion and pressure loss. Once connected to the water system, the pump starts to raise the pressure letting the water filling in the bladder.

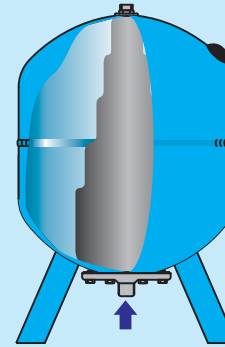
Toutes les réservoirs à vessie sortent de notre usine contrôlé, vérifié et certifié. La vessie interchangeable évite tout contact entre l'eau et la surface intérieure du vase empêchant toutes pertes de pression et tout contamination et corrosion. Dès qu'il est joint au circuit dont il est destiné, la pompe se met en marche, en augmentant la pression de l'installation et en introduisant de l'eau dans la vessie.



Quando la pressione dell'impianto raggiunge il valore di soglia massima impostata la pompa si arresta. Nel vaso vi è la quantità massima d'acqua accumulabile. Naturalmente la membrana si è dilatata ed occupa la quasi totalità del volume interno del vaso. Se richiamata dall'impianto l'acqua comincia ad uscire senza l'ausilio della pompa sfruttando la pressione dell'aria della camera pressurizzata.

When the pressure reaches its maximum threshold value, the pump stops. Inside the tank there is the greatest quantity of water possible. Obviously the membrane is dilated and it occupies almost all the volume of the tank. If water is required by the system, it starts flowing out of the tank without using the pump but just exploiting the pressure of the air cushion.

Quand la pression de l'installation atteint le niveau maximum de tarage la pompe s'arrête. Le réservoir à vessie contient la quantité maxime d'eau accumulable. Naturellement la vessie est dilatée et occupe presque tout le volume interne du réservoir. Si l'installation le demande, l'eau commence à sortir de l'installation sans l'utilisation de la pompe exploitant la pression de l'air qu'il y a dans l'étve pressurisé.



Si prosegue con l'erogazione di acqua all'impianto, la membrana si sgonfia, sino al raggiungimento della pressione di soglia minima dell'impianto. A questo punto, la membrana è ritornata alle dimensioni iniziali, la pompa si riavvia ed il ciclo si ripete. Poiché la gamma "acqua fredda" garantiscono in ogni istante la massima quantità di acqua possibile, le partenze della pompa sono ridotte al minimo.

The process goes on and the membrane deflates until the pressure reaches its minimal threshold value. At this stage the membrane is back to its initial dimensions, the pump starts again and a new cycle begins. Since the tank always grants the maximum water flow, pump insertions are reduced to the minimum.

L'eau continue à augmenter, la vessie se dégonfle jusqu'à on arrive au niveau minimum de pression de l'installation. En ce moment la vessie est retourné à sa dimension initial, la pompe se met en marche de nouveau et le cycle reprend. Puisque la gamme de réservoirs garantit en chaque moment la maximum quantité d'eau possible, la mis en marche au moyen de la pompe se réduit au minimum possible.

Lo scopo principale di utilizzo del vaso autoclave è di fornire acqua ad una pressione prescelta, indipendentemente dalla pressione di alimentazione, limitando il numero di inserzioni della pompa. L'agente motore che rende possibile questo è costituito da una riserva d'aria (o azoto) sotto pressione immagazzinata tra la membrana e la parete metallica del vaso. Tale cuscino si comprime all'aumentare della pressione, lasciando entrare nel serbatoio l'acqua e quindi immagazzinandola in pressione.

### Scelta e dimensionamento

Per il dimensionamento del vaso autoclave utilizzare la seguente formula:

$$V_{\text{vaso}} = K \times A_{\text{max}} \times \frac{(P_{\text{max}} + 1) \times (P_{\text{min}} + 1)}{(P_{\text{max}} - P_{\text{min}}) \times (P_{\text{prec}} + 1)}$$

In cui dovremo tener conto:

- K=Coefficiente in funzione della pompa (vedi tabella)
- A<sub>max</sub>=Portata media della pompa (espressa in litri/minuto)
- P<sub>max</sub>=Pressione massima di taratura della pompa (bar)
- P<sub>min</sub>=Pressione minima di taratura della pompa (bar)
- P<sub>prec</sub>=Pressione di precarica del vaso (bar)

**Attenzione!:** Si ricorda di regolare la precarica del vaso 0.2 bar in meno rispetto alla pressione di potenza della pompa

### Esempio di calcolo

Con un impianto di caratteristiche:

- Potenza pompa 4 HP
- K= 0,375
- A<sub>max</sub>= 120 litri/minuto
- P<sub>max</sub>= 7 bar
- P<sub>min</sub>= 2,2 bar
- P<sub>prec</sub>= 2 bar

The main purpose of the pressure tank is to give water at a predefined pressure, regardless of boost pressure, in order to limit the pump insertions. This is due to the pressurised air that is between the membrane and the internal surface of the tank. When the pressure increases, the air cushion compresses letting the water filling in the tank. The water is kept inside the water tank under pressure.

### How to choose the tank

The sizing of the tank can be calculated using the following formula:

Where:

- K=working coefficient of the pump (see table)
- A<sub>max</sub>=average flow (litres/minute)
- P<sub>max</sub>=maximum working pressure of the pump (bar)
- P<sub>min</sub>=minimum working pressure of the pump (bar)
- P<sub>prec</sub>=pre-charge pressure of the tank (bar)

**Warning! :** Always set the pre-charge of the tank 0,2BAR less than the pump power pressure

### Example

System data:

- Pump power 4 HP
- K= 0,375
- A<sub>max</sub>= 120 litri/minuto
- P<sub>max</sub>= 7 bar
- P<sub>min</sub>= 2,2 bar
- P<sub>prec</sub>= 2 bar

$$V_{\text{vaso}} = 0,375 \times 120 \times \frac{(7+1) \times (2,2+1)}{(7-2,2) \times (2+1)} = 80 \text{ litri}^*$$

\* In ogni caso, adottare la misura che più si avvicina, per eccesso, al valore calcolato

\* In any case we will adopt the closest measure to the calculated value

Potenza della pompa Pump Power Potence de la pompe (HP)	Coefficiente Coefficient Coefficient (K)
1-2	0,25
2,5-4	0,375
5-8	0,625
9-12	0,875

La fonction principal du réservoir à vessie est de fournir de l'eau à la pression désiré, indépendamment de la pression d'alimentation, en limitant le numéro de connexions de la pompe. La réserve d'air (ou azote) sous pression qu'il y a entre la vessie et la surface intérieur du réservoir fait ça possible. La pression d'air augmentant, ce coussin d'air se comprime et il laisse entrer l'eau qu'il accumulera sous pression.

### Quelle taille le réservoir devrait-il être ?

Le calcul pour savoir quelle taille le réservoir devrait être peut être effectué en appliquant la formule suivante :

Où :

- K=Coefficient de fonctionnement de la pompe (voir table ci-dessous)
- A<sub>max</sub>=Capacité moyenne de la pompe
- P<sub>max</sub>=Pression maximale de tarage de la pompe(bar)
- P<sub>min</sub>=Pression minimale de tarage de la pompe (bar)
- P<sub>prec</sub>=Pression de précharge du reservoir (bar)

**Attention!** Réglez la pression de précharge du réservoir 0.2 bar moins de la pression de puissance de la pompe.

### Exemple de calcul :

Données de l'installation :

- Potence de la pompe 4 HP
- K= 0,375
- A<sub>max</sub>= 120 litri/minuto
- P<sub>max</sub>= 7 bar
- P<sub>min</sub>= 2,2 bar
- P<sub>prec</sub>= 2 bar

\* En tout cas, nous adapterons la taille commercial que plus s'approche, pour excès, à la valeur calculée.



**Autoclavi verticali** con membrana intercambiabile  
**Vertical pressure tanks** with interchangeable bladder  
**Réservoirs verticaux** à vessie interchangeable

Marcati CE secondo la Direttiva **PED 97/23/CE**  
CE marked according to Directive  
Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b> (8bar 18-24)	<b>1,5 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish coulor Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu</b> RAL 5015	<b>EPDM</b>	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
Hot water circuits, pressurizing surge tanks  
Circuites eau chaude, réservoir de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIICVE00B01BE1	<b>A2</b>	189	160	(Pz12) 329X329X609	3/4"
IIDVE00B01BD1	<b>A5</b>	304	160	(Pz8) 329X329X609	3/4"
IIIVE00B01BD1	<b>A8</b>	316	200	(Pz8) 419X419X638	3/4"
IIFVE00B01BD1	<b>A12</b>	295	280	(Pz8) 564X564X626	3/4"
IIGVE00B01DC1	<b>A18</b>	428	280	(Pz4) 551X551X430	3/4"
IIIVE00B01EC1	<b>A24</b>	489	280	(Pz4) 551X551X488	1"
IIJVE00B01EA1	<b>A35</b>	450	365	(Pz1) 451X366X382	1"
IIISE00B01EBO	<b>AS24</b>	335	350	(Pz2) 697X352X335	1"

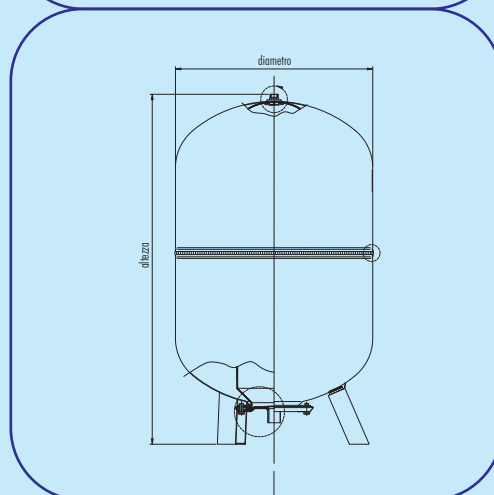
**Autoclavi verticali** con membrana intercambiabile  
**Vertical pressure tanks** with interchangeable bladder  
**Réservoirs verticaux** à vessie interchangeable

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

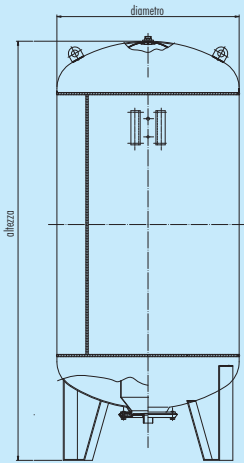
Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b>	<b>1,5 bar</b> mod. 50-150 <b>2 bar</b> mod.200-500	<b>-10°C/+100°C</b>
Finitura esterna colore External finish color Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu</b> <b>RAL 5015</b>	<b>EPDM</b>	

### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIKVE01B01EA1	<b>AV50</b>	656	365	(Pz1) 695X360X365	1"
IIIVE01B01EA1	<b>AV60</b>	761	365	(Pz1) 809X369X358	1"
IIMVE01B01EA1	<b>AV80</b>	790	410	(Pz1) 814X404X408	1"
IINVE01B11EA1	<b>AV100</b>	774	495	(Pz1) 806X501X502	1"
IIPVE01B11EA1	<b>AV150</b>	927	550	(Pz1) 930X550X550	1"
IIQVG01B11FA1	<b>AV200</b>	1020	600	(Pz1) 1020X600X597	1 ¼"
IISVG02B11FA1	<b>AV300</b>	1243	650	(Pz1) 1270X650X650	1 ¼"
IIUVG02B11FA1	<b>AV500</b>	1493	750	(Pz1) 1487X732X745	1 ¼"



**Autoclavi verticali con membrana intercambiabile**  
**Vertical pressure tanks with interchangeable bladder**  
**Réservoirs verticaux à vassie interchangeable**

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b>	<b>4 bar</b>	VAV200~VAV1500 -10°C/+100°C VAV2000~VAV5000 -10°C/+70°C
Finitura esterna colore External finish coulor Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Rosso/Red/Rouge RAL 3000</b>	<b>EPDM VAV500~1500 BUTYL VAV2000~5000</b>	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIXVG01R31GP1	<b>AV750</b>	1820	800	(Pz1) 800X800X1920	2"
IIYVG01R31HP1	<b>AV1000</b>	2250	800	(Pz1) 800X800X2400	2"
IIZVG01R31HP1	<b>AV1500</b>	2400	960	(Pz1) 960X2400X1110	2"
IIAVG01R31NP1	<b>AV2000</b>	2500	1100	(Pz1) 1100X2500X1250	2"
II BVG01R31OP1	<b>AV3000</b>	2750	1200	(Pz1) 1200X2750X1350	Dn65
II4VG02R31OP1	<b>AV4000</b>	3220	1450	(Pz1)1450X2950X1600	Dn80
II5VG02R31OP1	<b>AV5000</b>	3620	1450	(Pz1) 1500X3250X1650	Dn80



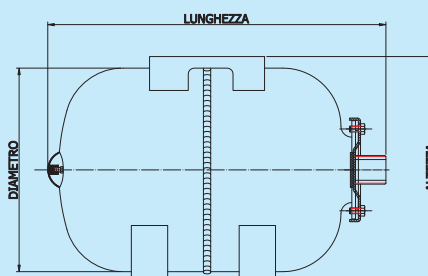
**Autoclavi orizzontali** con membrana intercambiabile  
**Horizontal pressure tank** with interchangeable bladder  
**Réservoirs horizontaux** à vassie interchangeable

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b>	<b>1,5 bar</b> mod. 18-150 <b>2 bar</b> mod.150-500	<b>-10°C/+100°C</b>
Finitura esterna colore External finish color Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu</b> <b>RAL 5015</b>	<b>EPDM</b>	

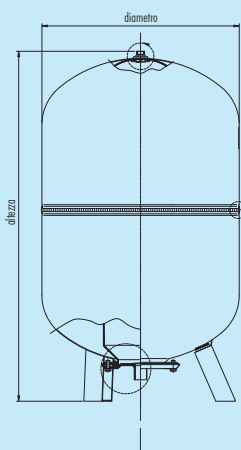
#### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Lunghezza Length Longueur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
------------------------	----------------------------	--------------------------------------	---	--	---	---------------------------------------

IIGOE11B01EC1	<b>A018</b>	305	465	280	(Pz 4) 600X565X495	1"
IIIOE11B01EC1	<b>A024</b>	300	492	280	(Pz 4) 600X565X495	1"
IIJOE11B01EA1	<b>A035</b>	376	450	365	(Pz 1) 451X366X382	1"
IIKOE11B01EA1	<b>A050</b>	380	570	365	(Pz 1) 565X365X384	1"
IILOE11B01EA1	<b>A060</b>	385	675	365	(Pz 1) 695X369X378	1"
IIMOE11B01EA1	<b>A080</b>	430	677	410	(Pz 1) 691X416X432	1"
II NOE11B11EA1	<b>A0100</b>	520	685	495	(Pz 1) 690X495X517	1"
IIPOE11B11EA1	<b>A0150</b>	578	820	550	(Pz 1) 835X555X590	1"
IIQOG21B11FA1	<b>A0200</b>	628	915	600	(Pz 1) 915X600X615	1 1/4"
IISOG21B11FA1	<b>A0300</b>	680	1082	650	(Pz 1) 1270X650X650	1 1/4"

**B****BV**

**Autoclavi per circuiti ad alta pressione**  
**Vertical high pressure tanks**  
**Réservoirs à vassie haute pression**

Marcati CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>16 bar</b>	<b>2 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish coulor Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu RAL 5015</b>	<b>EPDM</b>	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuities eau chaude, réservoir de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIEBG00B01DD1	<b>B8</b>	316	200	(Pz8) 419X419X638	3/4"
IIFBG00B01DD1	<b>B12</b>	295	280	(Pz8) 564X564X626	3/4"
IIGBG00B01DC1	<b>B18</b>	428	280	(Pz4) 551X551X488	3/4"
IIIBG00B01EC1	<b>B24</b>	489	280	(Pz4) 551X551X488	1"
IJBG00B01EA1	<b>B35</b>	450	365	(Pz1) 451X366X382	1"
IIKBG01B01EA1	<b>BV50</b>	656	365	(Pz1) 695X360X365	1"
IILBG01B01EA1	<b>BV60</b>	761	365	(Pz1) 809X369X358	1"
IIMBG01B01EA1	<b>BV80</b>	790	410	(Pz1) 814X404X408	1"
IINBG01B11EA1	<b>BV100</b>	774	495	(Pz1) 806X501X502	1"
IIPBG01B11EA1	<b>BV150</b>	927	550	(Pz1) 930X550X550	1"

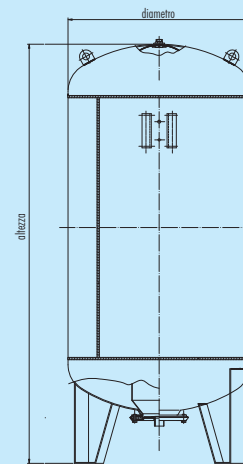
**Autoclavi per circuiti ad alta pressione**  
**Vertical high pressure tanks**  
**Réservoirs à vassie haute pression**

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximum working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>16 bar</b>	<b>2 bar</b> (200-500) <b>4 bar</b> (750-5000)	VBV200~VBV1500 -10°C/+100°C VBV2000~VBV5000 -10°C/+70°C
Finitura esterna colore External finish color Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu</b> <b>RAL 5015</b>	EPDM VBV500~1500 BUTYL VBV2000~5000	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIQBG01B11FA1	<b>BV200</b>	1020	600	(Pz1) 1020X600X597	1¼"
IISBG02B11FA1	<b>BV300</b>	1243	650	(Pz1) 1270X650X650	1¼"
IIUBG02B11FA1	<b>BV500</b>	1493	750	(Pz1) 1487X732X745	1¼"
IIXBG01R31GP1	<b>BV750</b>	1820	800	(Pz1) 800X800X1920	2"
IIBYG01R31HP1	<b>BV1000</b>	2250	800	(Pz1) 800X800X2400	2"
IIZBG01R31HP1	<b>BV1500</b>	2400	960	(Pz1) 960X2400X1110	2"
IIABG01R31NP1	<b>BV2000</b>	2500	1100	(Pz1) 1100X2500X1250	2"
IIBBG01R31OP1	<b>BV3000</b>	2750	1200	(Pz1) 1200X2750X1350	DN 65
II4BG02R31OP1	<b>BV4000</b>	3220	1450	(Pz1) 1450X2750X1600	DN 80
IISBG02R31OP1	<b>BV5000</b>	3620	1450	(Pz1) 1500X3250X1700	DN 80

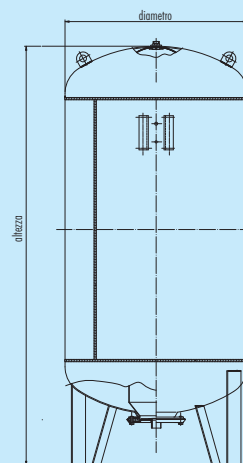
**Autoclavi per circuiti ad alta pressione**  
**Vertical high pressure tanks**  
**Réserveirs haute pression à vassie**

Marcati CE secondo la Direttiva **PED 97/23/CE**  
CE marked according to Directive  
Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximum working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>25 bar</b>	<b>4 bar</b>	VKV750~VKV1500 -10°C/+100°C VKV2000~VKV5000 -10°C/+70°C
Finitura esterna colore External finish color Couleur de finissage extérieur	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Blu/Blue/Bleu</b> RAL 5015	EPDM VKV750~1500 BUTYL VKV2000~5000	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
Hot water circuits, pressurizing surge tanks  
Circuits eau chaude, réservoir de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIXKG01R31GP1	<b>KV750</b>	1770	800	(Pz1) 800X800X1920	2"
IYYKG01R31HP1	<b>KV1000</b>	2250	800	(Pz1) 800X800X2400	2"
IIZKG01R31HP1	<b>KV1500</b>	2400	960	(Pz1) 960X2400X1110	2"
IIAKG01R31NP1	<b>KV2000</b>	2500	1100	(Pz1) 1100X2500X1250	2"
IIBKG01R31OP1	<b>KV3000</b>	2750	1200	(Pz1) 1200X2750X1350	Dn65
I14KG02R31OP1	<b>KV4000</b>	2950	1450	(Pz1) 1450X2950X1600	Dn80
I15KG02R31OP1	<b>KV5000</b>	3250	1500	(Pz1) 1500X3250X1650	Dn80

**Autoclavi di altre capacità per la gamma 25/40 bar disponibili su richiesta**  
**Tanks of different capacity and maximum working pressure 25/40 bar are available on request**  
**Réserveirs de différentes capacités pour la gamme 25/40 bar sont disponibles sur requête**



**Autoclavi inox con membrana intercambiabile**  
**Stainless steel tanks with interchangeable bladder**  
**Réservoirs inox à vassie interchangeable**

Marchi CE secondo la Direttiva PED 97/23/CE  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b> (8bar 18-24)	<b>1,5 bar</b> <b>2 bar</b> (AVX-AHX200)	-10°C/+100°C
Finitura esterna colore External finish coulor Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Inox/Stainless steel</b>	<b>EPDM</b>	

**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Lunghezza Length Longueur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IIGXE00T01LA1	<b>X18</b>	380	-	280	(Pz1) 280X280X430	1"
IIIXE00T01LA1	<b>X24</b>	460	-	280	(Pz1) 280X280X495	1"
IIKXE01T01LA1	<b>VX50</b>	700	-	370	(Pz1) 695X360X365	1"
IIMXE01T01LA1	<b>VX80</b>	810	-	410	(Pz1) 814X404X408	1"
IINXE01T41LA1	<b>VX100</b>	795	-	495	(Pz1) 806X501X502	1"
IIQXG01T41LA1	<b>VX200</b>	1000	-	600	(Pz1) 1020X600X597	1"
IIGYE11T01LA1	<b>HX18</b>	310	360	280	(Pz1) 306X286X482	1"
IIIEY11T01LA1	<b>HX24</b>	310	470	280	(Pz1) 306X286X482	1"
IIKYE11T01LA1	<b>HX50</b>	575	390	370	(Pz1) 565X365X384	1"
IIMYE11T01LA1	<b>HX80</b>	460	640	420	(Pz1) 691X416X432	1"
IINYE11T41LA1	<b>HX100</b>	530	680	500	(Pz1) 690X495X517	1"
IIQYG11T41LA1	<b>HX200</b>	628	895	620	(Pz1) 915X600X615	1"

**Z****VZ**

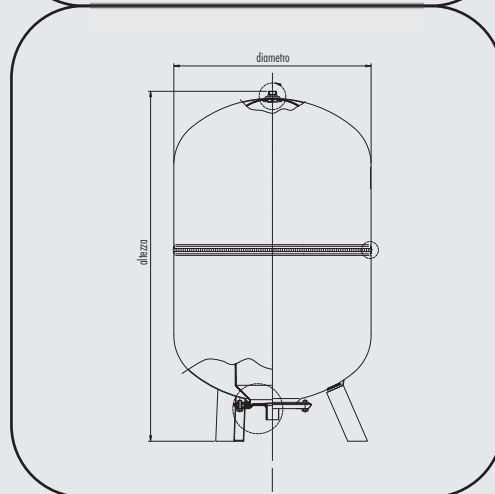
**Autoclavi zincati** con membrana intercambiabile  
**Galvanized pressure tanks** with interchangeable bladder  
**Reservoirs zingué** à vessie interchangeable

Marcati CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

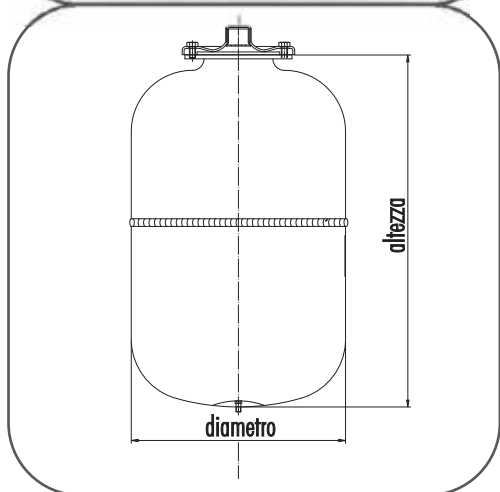
Pressione massima d'esercizio Maximun working pressure Pression maximale d'exercice	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
<b>10 bar</b>	<b>2 bar</b>	<b>-10°C/+100°C</b>
Finitura esterna colore External finish coulor Couleur de finition externe	Membrana in gomma Rubber membrane Vassie en caoutchouc	
<b>Zincato/Galvanized Zingué</b>	<b>EPDM</b>	

#### Utilizzo - Use - Utilisation

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuites eau chaude, réservoir de pressurisation eau chaude



Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IHKZG01T21EA1	<b>VZ50</b>	700	365	(Pz1) 695X360X365	1"
IILZG01T21EA1	<b>VZ60</b>	810	365	(Pz1) 809X369X358	1"
IIMZG01T21EA1	<b>VZ80</b>	810	410	(Pz1) 814X404X408	1"
IINZG01T11EA1	<b>VZ100</b>	795	495	(Pz1) 806X501X502	1"
IIPZG01T11EA1	<b>VZ150</b>	933	550	(Pz1) 930X550X550	1"
IHQZG01T11FA1	<b>VZ200</b>	1020	600	(Pz1) 1020X600X597	1 1/4"
IISZG01T11FA1	<b>VZ300</b>	1153	650	(Pz1) 1270X650X650	1 1/4"
IIUZG01T11FA1	<b>VZ500</b>	1470	750	(Pz1) 1487X732X745	1 1/4"



**Vasi Multifunzione** con membrana intercambiabile  
**Multifunction tanks** with interchangeable bladder  
**Reservoirs multifonction** à vassie interchangeable

Marchi CE secondo la Direttiva **PED 97/23/CE**  
 CE marked according to Directive  
 Avec le marque CE selon la Directive

Pressione massima d'esercizio Maximum working pressure Pression maximale d'exercicee	Pressione di precarica standard Standard pre-loading pressure Pression de precharge standard	Temperatura d'esercizio Working temperature Température d'exercice
--	--	--

**10 bar**  
(8bar 18-24)

**1,5 bar**

**-10°C/+100°C**

Finitura esterna colore  
External finish coulor  
Couleur de finition externe

Membrana in gomma  
Rubber membrane  
Vassie en caoutchouc

**Bianco/White/Blanc**  
**RAL 9010**

**EPDM**

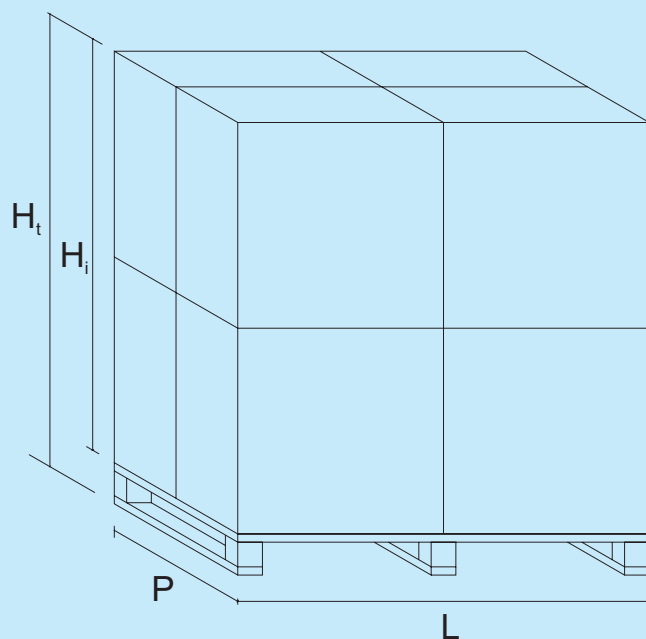
**Utilizzo - Use - Utilisation**

Circuiti acqua calda, autoclave di pressurizzazione acqua calda  
 Hot water circuits, pressurizing surge tanks  
 Circuits eau chaude, réservoir de pressurisation eau chaude

Codice Code Code	Modello Model Modèle	Altezza Height Hauteur (mm)	Diametro Diameter Diamètre (mm)	Imballo Packing Emballage (mm)	Attacco Connection Raccordement
IICME00W01BD1	<b>R2</b>	265	110	(Pz8) 329X329X609	3/4"
IIDME00W01BD1	<b>R5</b>	296	160	(Pz8) 329X329X609	3/4"
IIEME00W01BD1	<b>R8</b>	310	200	(Pz8) 419X419X638	3/4"
IIFME00W01BD1	<b>R12</b>	295	280	(Pz8) 564X564X626	3/4"
IIGME00W01DC1	<b>R18</b>	465	280	(Pz4) 551X551X430	3/4"
IIIME00W01EC1	<b>R24</b>	492	280	(Pz4) 551X551X448	1"
IJJME00W01EA1	<b>R35</b>	440	365	(Pz1) 451X366X382	1"

Modello Model Modèle	N° x scatola x box x boîte	Dimensioni pallet Dimension pallet Dimensions palette P x L x H <sub>t</sub>	N° totale total total
A2	12	1200x800x2000	216
A5	8	1200x800x2000	144
A8	8	1300x900x2100	144
A12	8	1200x1200x2100	96
A18	4	1200x1200x2200	64
A24	4	1200x1200x2200	64
A35	1	940x1200x2100	30
AS24	2	800x1200x2300	36
AV50	1	1200x1200x2050	20
AV60	1	1200x1200x2000	20
AV80	1	1250x1250x2300	20
AV100	1	1350x1350x2200	16
AV150	1	1200x950x1900	6
AV200	1	1230x1030x1950	6
AV300	1	1330x1280x2160	6
AV500	1	1500x1500x2450	6

Modello Model Modèle	N° x scatola x box x boîte	Dimensioni pallet Dimension pallet Dimensions palette P x L x H <sub>t</sub>	N° totale total total
AV750	1	800x800x1920	1
AV1000	1	800x800x2400	1
AV1500	1	960x2400x1110	1
AV2000	1	1100x2500x1250	1
AV3000	1	1200x2750x1350	1
AV4000	1	1450x2950x1600	1
AV5000	1	1500x3250x1650	1
A018	4	1200x1200x2200	64
A024	4	1200x1200x2200	64
A035	1	940x1200x2100	30
A050	1	1200x1200x2100	30
A060	1	1200x1200x2150	20
A080	1	1200x1200x2400	20
A0100	1	1200x1200x225	16
A0150	1	1200x840x2000	6
A0200	1	1230x930x2050	6
A0300	1	1380x1280x2160	6





**accessori e ricambi**  
**accessories and spare parts**  
**accessoires**  
**et pièces de rechange**

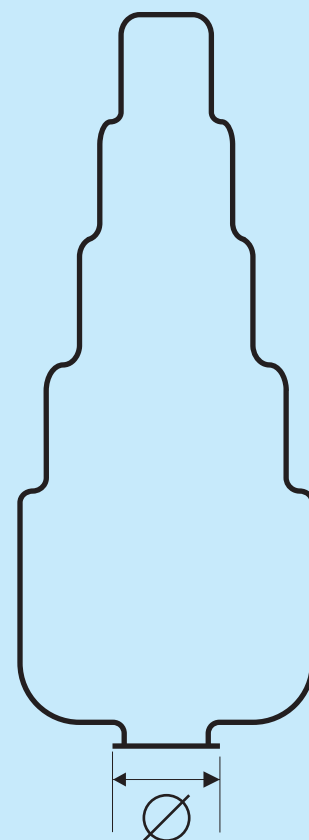
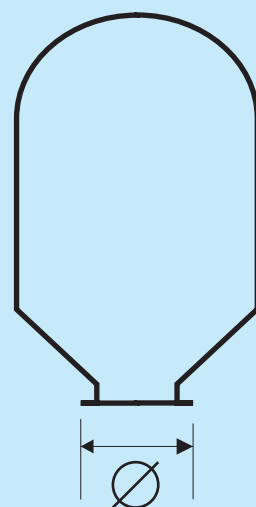


# Membrane intercambiabili

Interchangeable bladders - Vassies interchangeable

Codice Code Code	Modello Model Modèle	∅ mm	Utilizzabile per i modelli Usable for models Utilisable pour modèles	Con foro per tirante With hole for tie beam avec trou pour entrain
ME012A	EPDM	45	A2 A5 A8 A12 R2 R5 R8 R12	
ME024A	EPDM	80	AO18 A24 AO24 AS24 R18 R24	
ME050A	EPDM	80	A35 AO35 AV50 AO50 R35	
ME080A	EPDM	80	AV60 AO60 AV80 AV80	
ME100A	EPDM	80	AV100 AO100	X
ME150A	EPDM	80	AV150 AO150	X
ME200A	EPDM	200	AV200 AO200	X
ME300A	EPDM	200	AV300 AO300	X
ME500A	EPDM	200	AV500	X
MEN10A	EPDM	200	AV750 AV1000	X
MEN20A	EPDM	220	AV1500 AV2000	X
MEN30A	EPDM	250	AV3000	X

ME012R	EPDM	45	R2 R5 R8 R12 S12	
ME024R	EPDM	80	R18 R24 S18 S24	
ME050R	EPDM	80	R35 RV35 R50 RV50 S35 SV50	
ME080R	EPDM	80	RV80 RV80 SV80	
ME150R	EPDM	80	RV100 RV120 RV150	
ME300R	EPDM	80	RV200 RV250 RV300	X
ME500R	EPDM	200	RV400 RV500	X
ME600R	EPDM	200	RV600	X
MEN10R	EPDM	200	RV750 RV1000	X
MEN20R	EPDM	220	RV1500 RV2000	X
MEN30R	EPDM	250	RV3000	X



## Staffa per fissaggio a muro - Wall bracket - Support pour fixation murale

Codice Code Code	raccordo da connection raccordement
SUP001	3/4"
SUP002	1"



## Controflangia - Counter flange - Contre-bride

Codice Code Code	∅ mm	Attacco Connection Raccordement	Finitura Finish Finissage
CFF095TRF008Z	95	3/4"	Zincato/Galvanized/Zingué
CFF095TRF007Z	95	1"	Zincato/Galvanized/Zingué
CFX095TRX004B	95	1"	Inox/Inox/Inox
CFF145TRF008Z	145	3/4"	Zincato/Galvanized/Zingué
CFX145TRX008B	145	3/4"	Inox/Inox/Inox
CFF145TRF007Z	145	1"	Zincato/Galvanized/Zingué
CFX145TRX004B	145	1"	Inox/Inox/Inox
CFF260TRF001Z	260	1 1/4"	Zincato/Galvanized/Zingué
CFX260TRX001B	260	1 1/4"	Inox/Inox/Inox



## Interruttore galleggiante - Float switch - Interrupteur à flotteur

Codice Code Code	Cavo Cable Câble
IGLCN005	0,5 m
IGLCN050	5 m
IGLCN100	10 m



## Pressostato -Pressostat - Pressostat

Codice Code Code	bar	Modello Model Modèle
PM5	1 ÷ 5	PRITCPM5
PM12	3 ÷ 12	PRITCPM12



### Flessibile MF - Flexible piping - Tube flexible

Codice Code Code	L (mm)	Attacco Connection Raccordement
FMFG0150	500	1"
FMFG0160	600	1"
FMFG0180	800	1"
FMFG01N1	1000	1"



### Manometro - Manometer - Manometre

Codice Code Code	∅ mm	Modello Model Modèle	Pressione Pressure Pression
MANAR5206	50	Radiale	0 ÷ 6
MANAR5212	50	Radiale	0 ÷ 12
MANAP5206	50	Assiale	0 ÷ 6
MANAP5212	50	Assiale	0 ÷ 12



### Raccordo - Water connection - Raccordement au chauffe-eau

Codice Code Code	∅ (inch)	Modello Model Modèle	L (mm)
RAC3V172	1"	3 vie	72
RAC5V172	1"	5 vie	71,5
RAC5V182	1"	5 vie	82
RAC5V192	1"	5 vie	91



### Tirante per fissaggio a membrana - Tie rod - Entrait

Codice Code Code	∅ (mm)	Modello Model Modèle
TIR001Z	60	100~500
TIR003Z	90	750~5000



### Valvola di precarica - Precharge valve - Valve de précharge

Codice / Code / Code VAL003