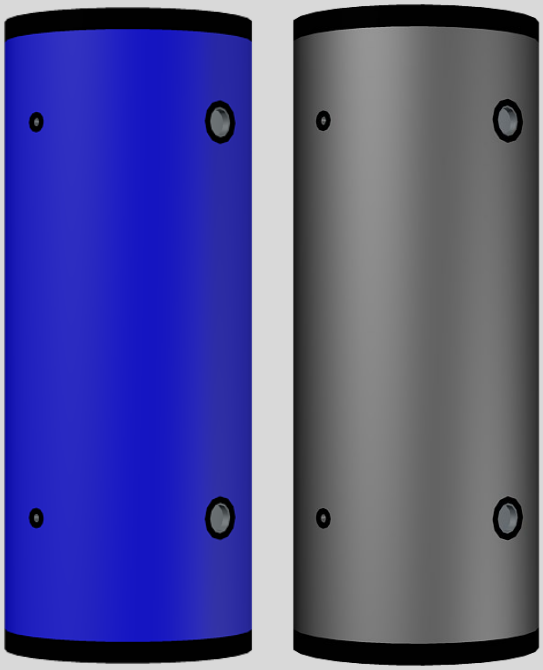
dal 1968

Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI

VTS - VTP - VTF



CARBON STEEL BUFFER VESSEL
FOR CHILLED WATER STORAGE

Chilled water storage tanks designed to increase thermal inertia in air conditioning systems.

VTS is equipped with a perforated central baffle plate designed to homogenise the internal flow, achieving maximum thermal stability in single or double loop systems.

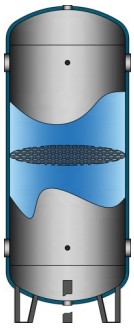
VTP is equipped with 3 baffle plates designed to optimise internal temperature distribution, avoiding preferential flows. Particularly suitable for double loop systems.

VTF is equipped with 2 perforated pipes that pass through opposite connections, designed to balance the flow.

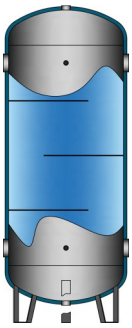
The closed-cell elastomer foam anti-condensation insulation ensures minimal thermal loss enabling the temperature of the stored water to be kept constant. This results in reduced starts of the connected energy sources and consequent operating costs save.

These buffer vessels are made of carbon steel, uncoated on the inside and painted with antirust painted on the outside. The external cladding is available in PVC, suitable only for indoor installation, or embossed Aluminium, suitable for both indoor and outdoor installation.

CONSTRUCTION



VTS



VTP

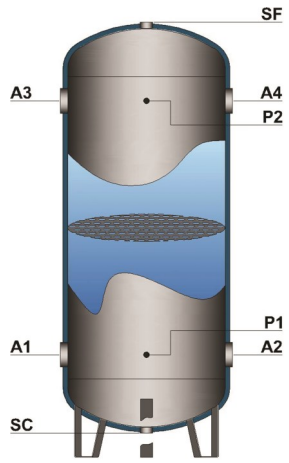
	VTS	VTP	
TANK MATERIAL	Carbon steel	Carbon steel	Carbon steel
STEEL TREATMENT INSIDE	—	—	—
STEEL TREATMENT OUTSIDE	Anti-rust primer	Anti-rust primer	Anti-rust primer
INTERNAL EQUIPMENT	Perforated central baffle plate	3 nos. baffle plates	2 nos. spage pipes
CAPACITY	300÷5000 L	300÷5000 L	300÷5000 L
VERSION	Vertical	Vertical	Vertical
CONNECTION TYPE	Thereaded	Thereaded	Thereaded
INSULATION	Closed cell **Elastomer foam** 20 mm	Closed cell **Elastomer foam** 20 mm	Closed cell **Elastomer foam** 20 mm
CLADDING	• PVC Blue RAL5015 • Aluminium	• PVC Blue RAL5015 • Aluminium	• PVC Blue RAL5015 • Aluminium

WORKING CONDITIONS

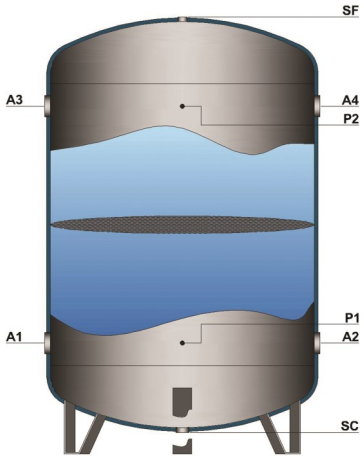
Capacity - Litre		300	500	800	1000	1500	2000	2500	3000	4000	5000
Working pressure (min-max)	bar	ATM÷8	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6
Working temperature (min-max)	°C	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65	-10÷65

REGULATORY COMPLIANCE

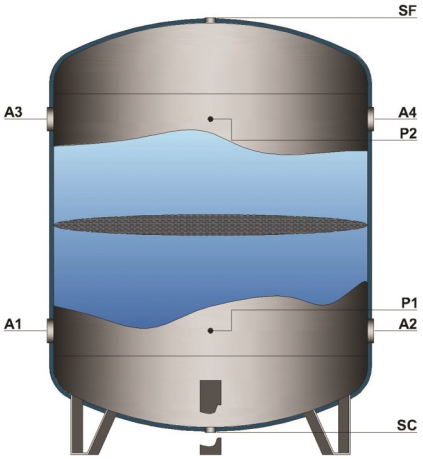
European Pressure Equipment Directive PED 2014/68/UE | Art, 4.3 | Sound Engineering Practice - excluded from CE marking



VTS-G
Vertical standard height



VTS-R
Vertical Low-height



VTS-X
Vertical extra-low height

GENERAL CHARACTERISTICS VTS -G | PERFORATED CENTRAL BAFFLE PLATE | Vertical Standard height

			Capacity - Litre	300	500	800	1000	1500	2000	2500	3000	4000	5000
DIMENSIONS													
Diameter w/o insulation		mm		550	650	800	800	950	1100	1200	1250	1400	1600
Diameter w/insulation		mm		590	690	840	840	990	1140	1240	1290	1440	1640
Overall height		mm		1508	1799	1875	2125	2415	2470	2545	2750	2825	2915
Overturning height		mm		1519	1811	1893	2141	2435	2494	2571	2777	2855	2953
CONNECTIONS													
A1-A2	Inlet / Outlet	mm | Ø		408 | 2"½	424 | 3"	460 | 3"	460 | 3"	475 | 3"	495 | 3"	540 | 3"	560 | 4"	590 | 4"	650 | 4"
A3-A4	Inlet / Outlet	mm | Ø		1208 | 2"½	1474 | 3"	1510 | 3"	1760 | 3"	2075 | 3"	2095 | 3"	2140 | 3"	2320 | 4"	2350 | 4"	2410 | 4"
P1	Sensor	mm | Ø		408 | ½"	424 | ½"	460 | ½"	460 | ½"	475 | ½"	495 | ½"	540 | ½"	560 | ½"	590 | ½"	650 | ½"
P2	Sensor	mm | Ø		1208 | ½"	1474 | ½"	1510 | ½"	1760 | ½"	2075 | ½"	2095 | ½"	2140 | ½"	2320 | ½"	2350 | ½"	2410 | ½"
SF	Air vent	mm | Ø		1508 | 1"¼	1799 | 1"¼	1875 | 1"¼	2125 | 1"¼	2415 | 1"¼	2470 | 1"¼	2545 | 1"¼	2750 | 1"¼	2825 | 1"¼	2915 | 1"¼
SC	Drain	mm | Ø		108 | 1"¼	99 | 1"¼	95 | 1"¼	95 | 1"¼	135 | 1"¼	125 | 1"¼	138 | 1"¼	130 | 2"	115 | 2"	145 | 2"
WEIGHTS													
Empty weight		kg		72	98	128	145	235	295	320	385	470	630

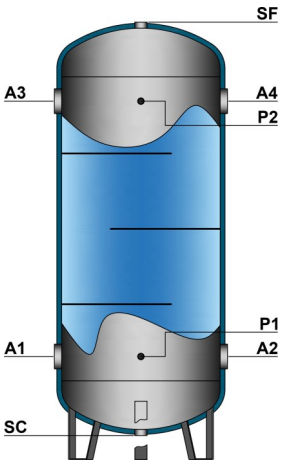
GENERAL CHARACTERISTICS VTS-R | PERFORATED CENTRAL BAFFLE PLATE | Vertical Low-height

			Capacity - Litre	1500	2000	2500	3000	4000	5000
DIMENSIONS									
Diameter w/o insulation		mm		1100	1250	1400	1400	1600	1800
Diameter w/insulation		mm		1140	1290	1440	1440	1640	1840
Overall height		mm		1920	1977	2074	2324	2415	2457
Overturning height		mm		1973	2051	2176	2399	2527	2607
CONNECTIONS									
A1-A2	Inlet / Outlet	mm | Ø		495 | 3"	512 | 3"	569 | 3"	589 | 4"	650 | 4"	661 | 4"
A3-A4	Inlet / Outlet	mm | Ø		1545 | 3"	1562 | 3"	1619 | 3"	1849 | 4"	1910 | 4"	1921 | 4"
P1	Sensor	mm | Ø		495 | ½"	512 | ½"	569 | ½"	589 | ½"	650 | ½"	661 | ½"
P2	Sensor	mm | Ø		1545 | ½"	5162 | ½"	1619 | ½"	1849 | ½"	1910 | ½"	1921 | ½"
SF	Air vent	mm | Ø		1920 | 1"¼	1977 | 1"¼	2074 | 1"¼	2324 | 1"¼	2415 | 1"¼	2457 | 1"¼
SC	Drain	mm | Ø		123 | 1"¼	102 | 1"¼	114 | 1"¼	114 | 2"	145 | 2"	125 | 2"
WEIGHTS									
Empty weight		kg		240	305	380	420	490	650

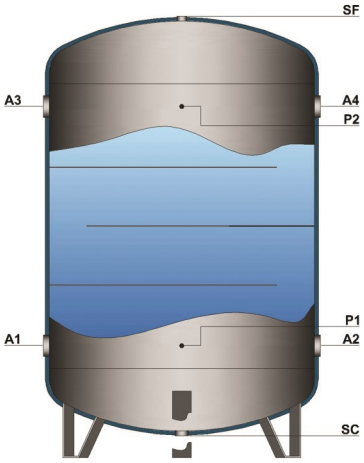
GENERAL CHARACTERISTICS VTS-X | PERFORATED CENTRAL BAFFLE PLATE | Vertical Extra-Low height

			Capacity - Litre	3000	4000	5000
DIMENSIONS						
Diameter w/o insulation		mm		1500	1700	2000
Diameter w/insulation		mm		1540	1740	2040
Overall height		mm		2085	2175	2047
Overturning height		mm		2210	2338	2332
CONNECTIONS						
A1-A2	Inlet / Outlet	mm | Ø		590 | 4"	650 | 4"	696 | 4"
A3-A4	Inlet / Outlet	mm | Ø		1600 | 4"	1666 | 4"	1456 | 4"
P1	Sensor	mm | Ø		590 | ½"	650 | ½"	696 | ½"
P2	Sensor	mm | Ø		1600 | ½"	1666 | ½"	1456 | ½"
SF	Air vent	mm | Ø		2085 | 1"¼	2175 | 1"¼	2047 | 1"¼
SC	Drain	mm | Ø		105 | 2"	135 | 2"	105 | 2"
WEIGHTS						
Empty weight		kg		425	560	650

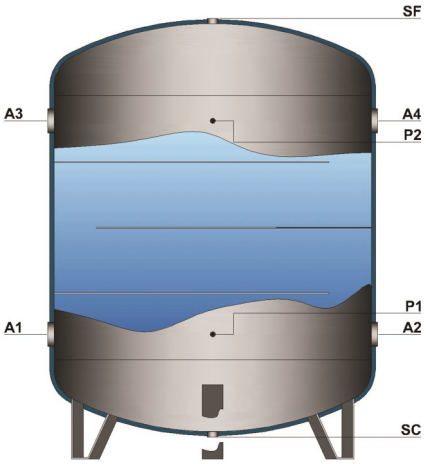
Note: All the measurements of the connections are considered "from ground" - The threads are female GAS type (unless otherwise specified) - The vessels higher than 2200mm will be packaged horizontally; in this case, should the cladding be Aluminium type, it will come disassembled to avoid transportation damages.



VTP-G
Vertical standard height version



VTP-R
Vertical low-height version



VTP-X
Vertical extra-low height version

GENERAL CHARACTERISTICS VTP | BAFFLE PLATES | Vertical standard height

Capacity - Litre			300	500	800	1000	1500	2000	2500	3000	4000	5000
DIMENSIONS												
Diameter w/o insulation		mm	550	650	800	800	950	1100	1200	1250	1400	1600
Diameter w/insulation		mm	590	690	840	840	990	1140	1240	1290	1440	1640
Overall height		mm	1508	1799	1875	2125	2415	2470	2545	2750	2825	2915
Overturning height		mm	1519	1811	1893	2141	2435	2494	2571	2777	2855	2953
CONNECTIONS												
A1-A2	Inlet / Outlet	mm | Ø	408 | 2"½	424 | 3"	460 | 3"	460 | 3"	475 | 3"	495 | 3"	540 | 3"	560 | 4"	590 | 4"	650 | 4"
A3-A4	Inlet / Outlet	mm | Ø	1208 | 2"½	1474 | 3"	1510 | 3"	1760 | 3"	2075 | 3"	2095 | 3"	2140 | 3"	2320 | 4"	2350 | 4"	2410 | 4"
P1	Sensor	mm | Ø	408 | ½"	424 | ½"	460 | ½"	460 | ½"	475 | ½"	495 | ½"	540 | ½"	560 | ½"	590 | ½"	650 | ½"
P2	Sensor	mm | Ø	1208 | ½"	1474 | ½"	1510 | ½"	1760 | ½"	2075 | ½"	2095 | ½"	2140 | ½"	2320 | ½"	2350 | ½"	2410 | ½"
SF	Air vent	mm | Ø	1508 | 1"¼	1799 | 1"¼	1875 | 1"¼	2125 | 1"¼	2415 | 1"¼	2470 | 1"¼	2545 | 1"¼	2750 | 1"¼	2825 | 1"¼	2915 | 1"¼
SC	Drain	mm | Ø	108 | 1"¼	99 | 1"¼	95 | 1"¼	95 | 1"¼	135 | 1"¼	125 | 1"¼	138 | 1"¼	130 | 2"	115 | 2"	145 | 2"
WEIGHTS												
Empty weight		kg	80	105	140	160	260	330	375	440	540	730

GENERAL CHARACTERISTICS VTP-R | BAFFLE PLATES | Vertical Low-height

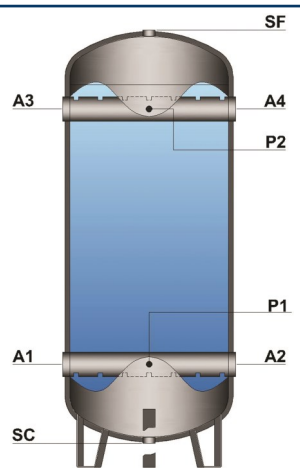
Capacity - Litre			1500	2000	2500	3000	4000	5000
DIMENSIONS								
Diameter w/o insulation		mm	1100	1250	1400	1400	1600	1800
Diameter w/insulation		mm	1140	1290	1440	1440	1640	1840
Overall height		mm	1920	1977	2074	2324	2415	2457
Overturning height		mm	1973	2051	2176	2399	2527	2607
CONNECTIONS								
A1-A2	Inlet / Outlet	mm | Ø	495 | 3"	512 | 3"	569 | 3"	589 | 4"	650 | 4"	661 | 4"
A3-A4	Inlet / Outlet	mm | Ø	1545 | 3"	1562 | 3"	1619 | 3"	1849 | 4"	1910 | 4"	1921 | 4"
P1	Sensor	mm | Ø	495 | ½"	512 | ½"	569 | ½"	589 | ½"	650 | ½"	661 | ½"
P2	Sensor	mm | Ø	1545 | ½"	5162 | ½"	1619 | ½"	1849 | ½"	1910 | ½"	1921 | ½"
SF	Air vent	mm | Ø	1920 | 1"¼	1977 | 1"¼	2074 | 1"¼	2324 | 1"¼	2415 | 1"¼	2457 | 1"¼
SC	Drain	mm | Ø	123 | 1"¼	102 | 1"¼	114 | 1"¼	114 | 2"	145 | 2"	125 | 2"
WEIGHTS								
Empty weight		kg	275	360	450	490	590	760

GENERAL CHARACTERISTICS VTP-X | BAFFLE PLATES | Vertical Extra-low height

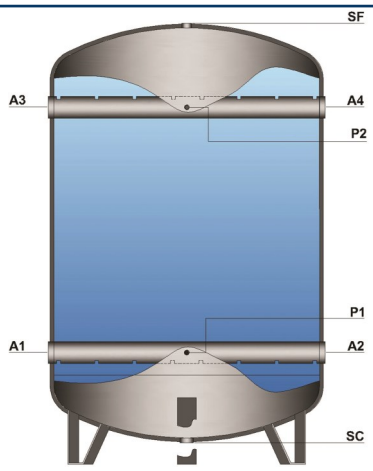
Capacity - Litre			3000	4000	5000
DIMENSIONS					
Diameter w/o insulation		mm	1500	1700	2000
Diameter w/insulation		mm	1540	1740	2040
Overall height		mm	2085	2175	2047
Overturning height		mm	2210	2338	2332
CONNECTIONS					
A1-A2	Inlet / Outlet	mm | Ø	590 | 4"	650 | 4"	696 | 4"
A3-A4	Inlet / Outlet	mm | Ø	1600 | 4"	1666 | 4"	1456 | 4"
P1	Sensor	mm | Ø	590 | ½"	650 | ½"	696 | ½"
P2	Sensor	mm | Ø	1600 | ½"	1666 | ½"	1456 | ½"
SF	Air vent	mm | Ø	2085 | 1"¼	2175 | 1"¼	2047 | 1"¼
SC	Drain	mm | Ø	105 | 2"	135 | 2"	105 | 2"
WEIGHTS					
Empty weight		kg	520	660	770

Note: All the measurements of the connections are considered "from ground" - The threads are female GAS type (unless otherwise specified) - The vessels higher than 2200mm will be packaged horizontally; in this case, should the cladding be Aluminium type, it will come disassembled to avoid transportation damages.

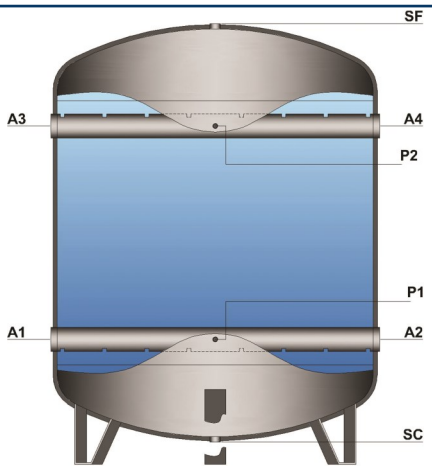
CARBON STEEL BUFFER VESSELS FOR CHILLED WATER STORAGE



VTF-G
Vertical standard height version



VTF-R
Vertical low-height version



VTF-X
Vertical extra-low height version

GENERAL CHARACTERISTICS VTF | SPARGE PIPES | Vertical Standard height

Capacity - Litre			300	500	800	1000	1500	2000	2500	3000	4000	5000
DIMENSIONS												
Diameter w/o insulation		mm	550	650	800	800	950	1100	1200	1250	1400	1600
Diameter w/insulation		mm	590	690	840	840	990	1140	1240	1290	1440	1640
Overall height		mm	1508	1799	1875	2125	2415	2470	2545	2750	2825	2915
Overturning height		mm	1519	1811	1893	2141	2435	2494	2571	2777	2855	2953
CONNECTIONS												
A1-A2	Inlet / Outlet	mm | Ø	408 | 2"½	424 | 3"	460 | 3"	460 | 3"	475 | 3"	495 | 3"	540 | 3"	560 | 4"	590 | 4"	650 | 4"
A3-A4	Inlet / Outlet	mm | Ø	1208 | 2"½	1474 | 3"	1510 | 3"	1760 | 3"	2075 | 3"	2095 | 3"	2140 | 3"	2320 | 4"	2350 | 4"	2410 | 4"
P1	Sensor	mm | Ø	408 | ½"	424 | ½"	460 | ½"	460 | ½"	475 | ½"	495 | ½"	540 | ½"	560 | ½"	590 | ½"	650 | ½"
P2	Sensor	mm | Ø	1208 | ½"	1474 | ½"	1510 | ½"	1760 | ½"	2075 | ½"	2095 | ½"	2140 | ½"	2320 | ½"	2350 | ½"	2410 | ½"
SF	Air vent	mm | Ø	1508 | 1"¼	1799 | 1"¼	1875 | 1"¼	2125 | 1"¼	2415 | 1"¼	2470 | 1"¼	2545 | 1"¼	2750 | 1"¼	2825 | 1"¼	2915 | 1"¼
SC	Drain	mm | Ø	108 | 1"¼	99 | 1"¼	95 | 1"¼	95 | 1"¼	135 | 1"¼	125 | 1"¼	138 | 1"¼	130 | 2"	115 | 2"	145 | 2"
WEIGHTS												
Empty weight		kg	72	98	128	145	235	295	320	385	470	630

GENERAL CHARACTERISTICS VTF-R | SPARGE PIPES | Vertical Low-height

Capacity - Litre			1500	2000	2500	3000	4000	5000
DIMENSIONS								
Diameter w/o insulation		mm	1100	1250	1400	1400	1600	1800
Diameter w/insulation		mm	1140	1290	1440	1440	1640	1840
Overall height		mm	1920	1977	2074	2324	2415	2457
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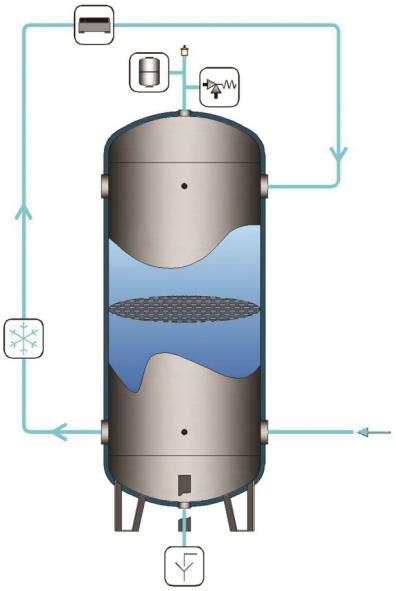
P1	Sensor	mm | Ø	495 | ½"	512 | ½"	569 | ½"	589 | ½"	650 | ½"	661 | ½"
P2	Sensor	mm | Ø	1545 | ½"	5162 | ½"	1619 | ½"	1849 | ½"	1910 | ½"	1921 | ½"
SF	Air vent	mm | Ø	1920 | 1"¼	1977 | 1"¼	2074 | 1"¼	2324 | 1"¼	2415 | 1"¼	2457 | 1"¼
SC	Drain	mm | Ø	123 | 1"¼	102 | 1"¼	114 | 1"¼	114 | 2"	145 | 2"	125 | 2"
WEIGHTS								
Empty weight		kg	240	305	380	420	490	650

GENERAL CHARACTERISTICS VTF-X | SPARGE PIPES | Vertical Extra-low height

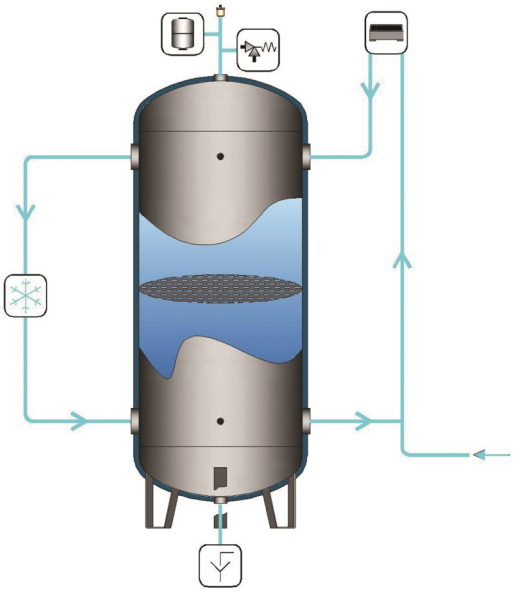
Capacity - Litre			3000	4000	5000
DIMENSIONS					
Diameter w/o insulation		mm	1500	1700	2000
Diameter w/insulation		mm	1540	1740	2040
Overall height		mm	2085	2175	2047
Overturning height		mm	2210	2338	2332
CONNECTIONS					
A1-A2	Inlet / Outlet	mm | Ø	590 | 4"	650 | 4"	696 | 4"
A3-A4	Inlet / Outlet	mm | Ø	1600 | 4"	1666 | 4"	1456 | 4"
P1	Sensor	mm | Ø	590 | ½"	650 | ½"	696 | ½"
P2	Sensor	mm | Ø	1600 | ½"	1666 | ½"	1456 | ½"
SF	Air vent	mm | Ø	2085 | 1"¼	2175 | 1"¼	2047 | 1"¼
SC	Drain	mm | Ø	105 | 2"	135 | 2"	105 | 2"
WEIGHTS					
Empty weight		kg	425	560	650

Note: All the measurements of the connections are considered "from ground" - The threads are female GAS type (unless otherwise specified) - The vessels higher than 2200mm will be packaged horizontally; in this case, should the cladding be Aluminium type, it will come disassembled to avoid transportation damages.

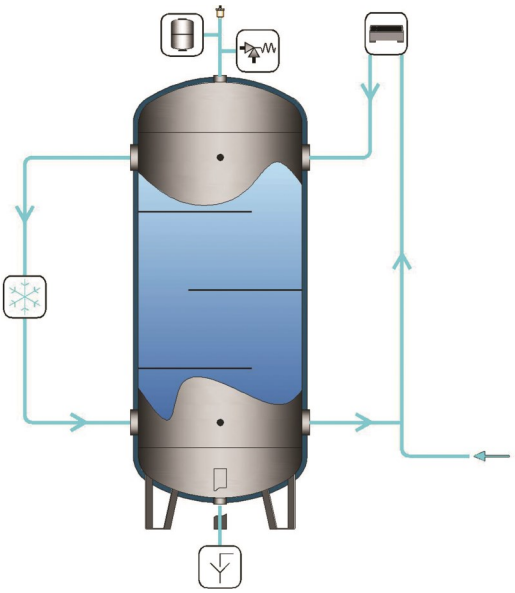
INSTALLATION DIAGRAMS



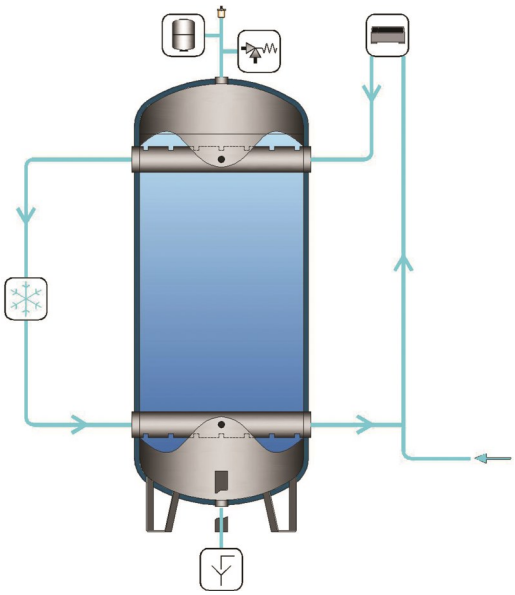
VTS
Single loop



VTS
Double loop



VTP
Double loop



VTF
Double loop

HOW TO ORDER

S → Central baffle plate
P → Baffle plates

V → Vertical std height
R → Vertical low height
X → Vertical extra-low height

6 → 6 bar
8 → 8 bar
0 → 10 bar

A → Aluminium clad
B → PVC clad

Capacity - Litre

VT	S	-	V	8	G	E	B	/	0300

ACCESSORIES & SPARE PARTS

ITEM	PART NO.	
PROBE SOCKET Ø½" | L=50 mm | $Ø_{int}$10 mm	*POZZETTO_S*	 SHORT PROBE SOCKET
PROBE SOCKET Ø½" | L=150 mm | $Ø_{int}$10 mm	*POZZETTO_L*	 LONG PROBE SOCKET

INSULATIONS

Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
Closed cell elastomer foam	✗	20 mm	30 kg/m^3	λ = 0,032 W/mK	-10°C / +90°C	C-s3, d0

Closed cell elastomer foam

Insulation with high anti-condensation properties made of closed cell elastomer, CFC-free, asbestos free, odourless.

It is resistant to the diffusion of water vapour, chemical agents, mould, parasites, ozone, adverse weather conditions and UV rays.

CLADDINGS

PVC

External cladding made of coloured PVC with hinge closing, suitable for installations in locations protected against adverse weather conditions. The standard colours of each product are indicated in their construction characteristics, but different colours can be requested for each model as shown in the following table.

ITEM	*PART NO.*
PVC CLADDING YERLLOW RAL1023	*COVER-RAL1023*
PVC CLADDING OREANGE RAL2004	*COVER-RAL2004*
PVC CLADDING RED RAL3000	*COVER-RAL3000*
PVC CLADDING BLUE RAL5015	*COVER-RAL5015*
PVC CLADDING WHITE RAL9016	*COVER-RAL9016*
PVC CLADDING LIGHT GREY RAL7035	*COVER-RAL7035*
PVC CLADDING DARK GREY RAL7024	*COVER-RAL7024*
PVC CLADDING BLACK RAL9004	*COVER-RAL9004*

ALUMINIUM

External cladding made of embossed aluminium sheeting suitable also for outdoor installations. The insulations made with this type of cladding consist of panels joined together by means of rivets and extruded aluminium slats with an exclusive design, specifically designed to facilitate assembly even directly at the installation site.
The coverings and flange covers made of same material securely anchored to the insulation guarantee the same levels of quality in terms of duration and outside appearance and do not risk being damaged by the wind and adverse weather conditions.

www.pacetti.it

MADE IN ITALY

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