

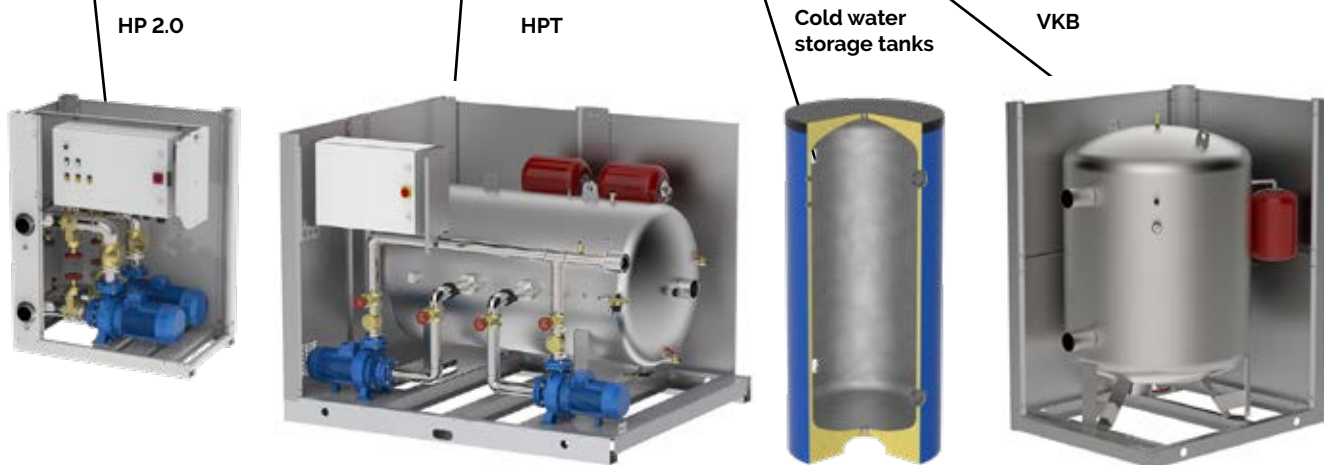
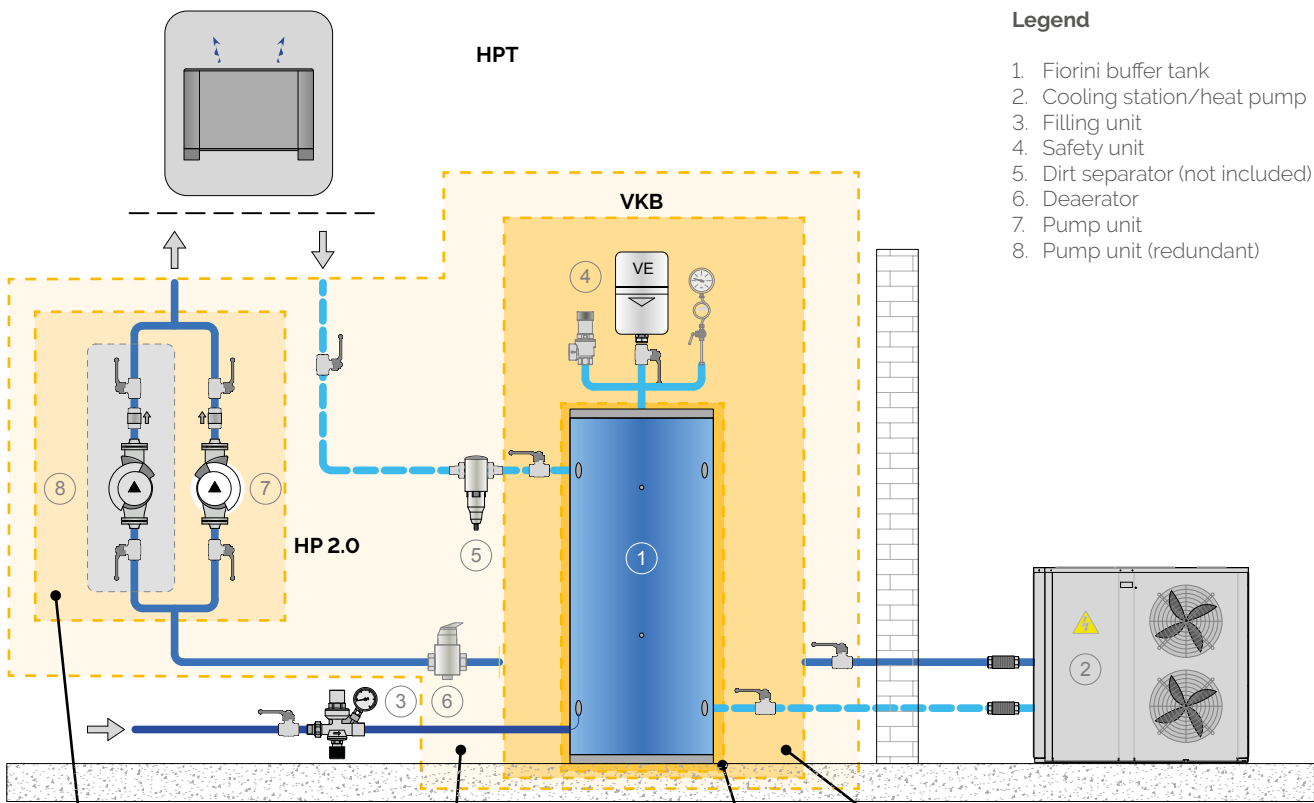


# Refrigeration and Heat Pumps Integrated Solutions

## Efficiency and High-Performance: our goal

Our line of refrigeration systems contains buffer tanks and hydronic kits, which are designed to improve the functioning and performance of even the most evolutionary air-conditioning systems. We have a broad range of buffer tanks, both horizontal and vertical, and hydraulic stations which can be combined with many pumps and storage tanks. All our products are manufactured, on request, with special and customized details.

Below represented our solutions and a common installation plant. Fiorini can provide either the buffer tank or a complex hydronic kit, which contains a tank, pumps, electric board and accessories.



# Cold Water Storage Tanks

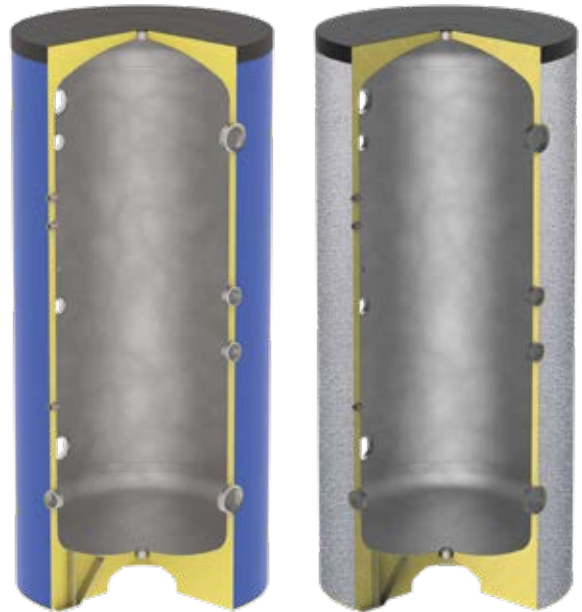
Because of our broad range of buffer tanks, we can offer the best solution for every possible installation. We offer the following products:



**MINI40 - MINI80**  
Carbon steel

**External anti-rust painting**  
**Anti-condensate insulation**

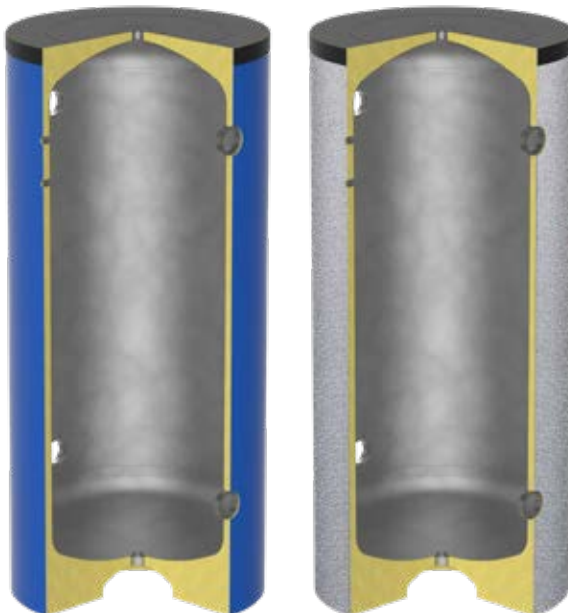
Can contain hot and chilled water as well in heating or cooling devices equipped with a heat pump.



**VKG-HC (coloured PVC) - VKGE-HC (embossed aluminium sheet)**  
Carbon steel

**External anti-rust painting**  
**Anti-condensate insulation**

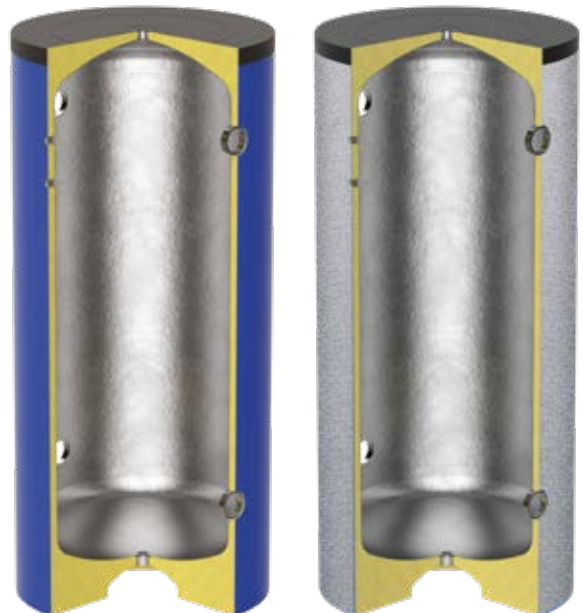
Can contain hot and chilled water as well in heating or cooling devices equipped with a heat pump. To be used in Layout 1 or Layout 2 (single and double loop) installations. Embossed aluminium sheet for outdoor installations.



**VKG (coloured PVC) - VKGE (embossed aluminium sheet)**  
Carbon steel

**External anti-rust painting**  
**Anti-condensate insulation**

For devices which do not need internal protection against corrosion. Single or double loop installations. To be used in Layout 1 or Layout 2 (single and double loop) installations. Embossed aluminium sheet for outdoor installations.



**VK (coloured PVC) - VKE (embossed aluminium sheet)**  
Carbon steel

**Hot-dip galvanizing**  
**Anti-condensate insulation**

For devices which need protection against corrosion. To be used in Layout 1 or Layout 2 (single and double loop) installations. Embossed aluminium sheet for external installations.

# Cold Water Storage Tanks



**VKT**  
Carbon steel  
Internal enamelling  
Anti-condensate insulation

For devices which need anti-corrosive protection and which are also compatible with most antifreeze liquids. To be used in Layout 1 or Layout 2 (single and double loop) installations.



**VKX**  
Stainless steel  
Anti-condensate insulation

For devices which need stainless steel in case of contact with the fluid. To be used in Layout 1 or Layout 2 (single and double loop) installations.



**VKS**  
Carbon steel  
External anti-rust painting  
Anti-condensate insulation

With internal baffles which prevent preferential flow. To be used with Layout 2 (double loop) installations, also with a high flow and multi-circuited.



**VKR**  
Carbon steel  
External anti-rust painting  
Anti-condensate insulation

Suitable for installation in Layout 2 (double loop). Conveyor pipes favor the flow of chilled water from primary to secondary circuit, recommended for medium / high flow rates.



**VKD**  
Carbon steel  
External anti-rust painting  
Anti-condensate insulation

Suitable for installation in Layout 2 (double loop). The diffuser tubes evens the temperature inside the tank.

# Cold Water Storage Tanks

## MINI-HC Serie (Hot & Cold wall-mounted)

The MINI-HC series includes heat sink tanks for "Hot & Cold" plants suitable for use with heat pumps, perform hydraulic circuit breaker functions (making the flows of the two circuits independent) and the thermal fly-wheel (to minimize the heat pump starts). The MINI-HC has two additional connections dedicated to a supplementary source.

**Material:** carbon steel

**External covering:** painted galvanized metal sheet

### Insulation

Capacity (l)	Type
40, 80	High density rigid polyurethane foam

### Operational limits

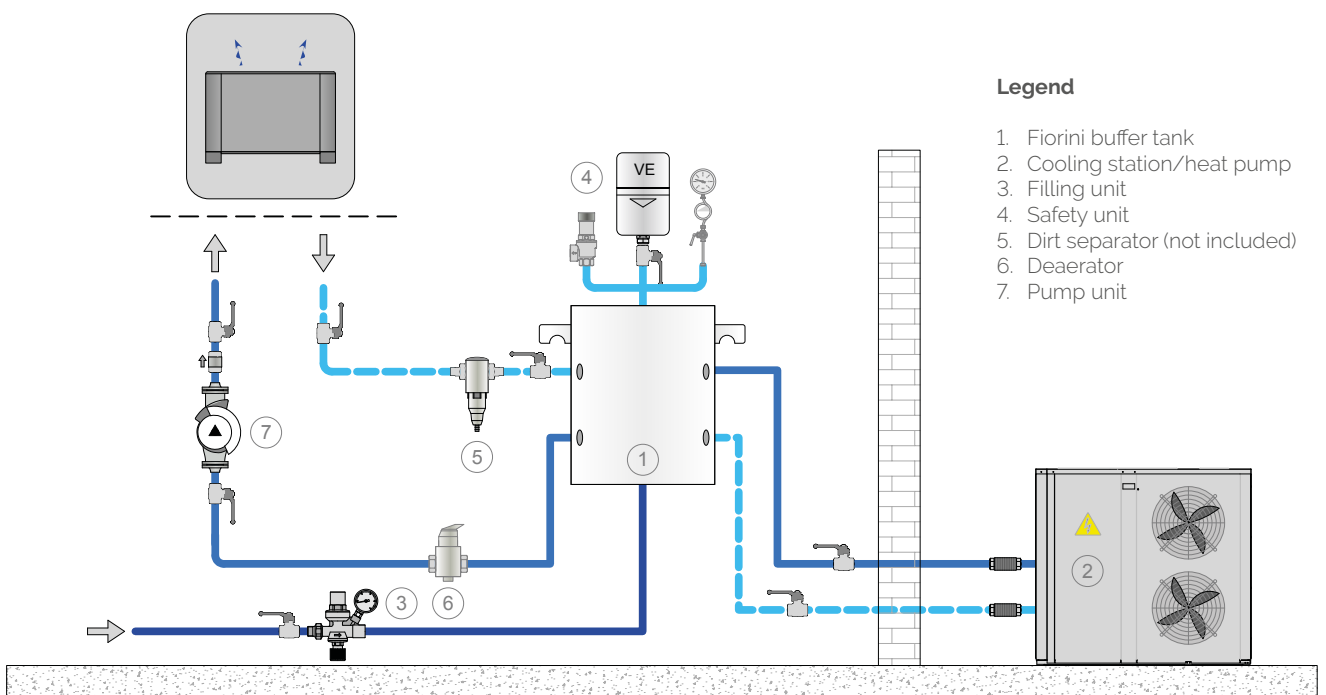
Min. temperature	Max. temperature	Max. pressure
-10 °C	90 °C	6 bar

Capacity l	MINI wall-mounted		Energy label	Vertical packaging	
	Code	Price		Dimensions cm	Weight kg
40	817010175X		B	50x50x50	25
80	817010176X		B	50x50x100	35

 **Standard Accessories:** see pag. 128 resistor see pag. 276



TESTED



### Legend

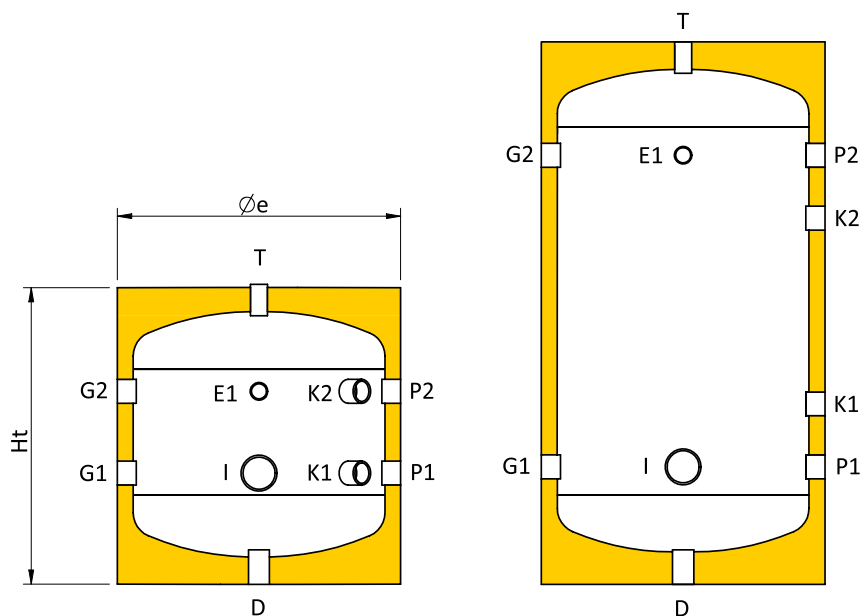
1. Fiorini buffer tank
2. Cooling station/heat pump
3. Filling unit
4. Safety unit
5. Dirt separator (not included)
6. Deaerator
7. Pump unit

# Cold Water Storage Tanks: Dimensions

## MINI-HC series

cap. = 40

cap. = 80



### Couplings legend

D	Drain
E1	Probe / Thermometer
G1	From plant
G2	To plant
I	Electrical resistor
K1	Auxiliary
K2	Auxiliary
P1	To energy source
P2	From energy source
T	Vent

### Couplings chart

Capacity l	D inch	E inch	G1 inch	G2 inch	I inch	K1 inch	K2 inch	P1 inch	P2 inch	T inch
40	3/4"	1/2"	1"	1"	1 1/2"	1"	1"	1"	1"	1/2"
80	3/4"	1/2"	1"	1"	1 1/2"	1"	1"	1"	1"	1/2"

### Size chart

Capacity l	Øe mm	Ht mm	R* mm	E mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	P1 mm	P2 mm
40	460	477	663	307	177	307	177	177	307	177	307
80	460	862	978	682	187	682	187	287	582	187	682

R\*: Reversal quota

# Cold Water Storage Tanks

## VKG-HC, VKGE-HC series (Hot & Cold)

The VKG-HC series contains insulated tanks for "HOT & COLD" applications, which are usually used to increase thermal inertia of the device. Suitable for heat pumps to avoid compressor/generator restarts. VKG-HC have two additional couplings dedicated for an optional additional source.

**Material:** carbon steel

### External covering

Model	Type	Usage	
VKG-HC	coloured PVC	indoor	1
VKGE-HC	embossed aluminium sheet	outdoor	2

### Insulation

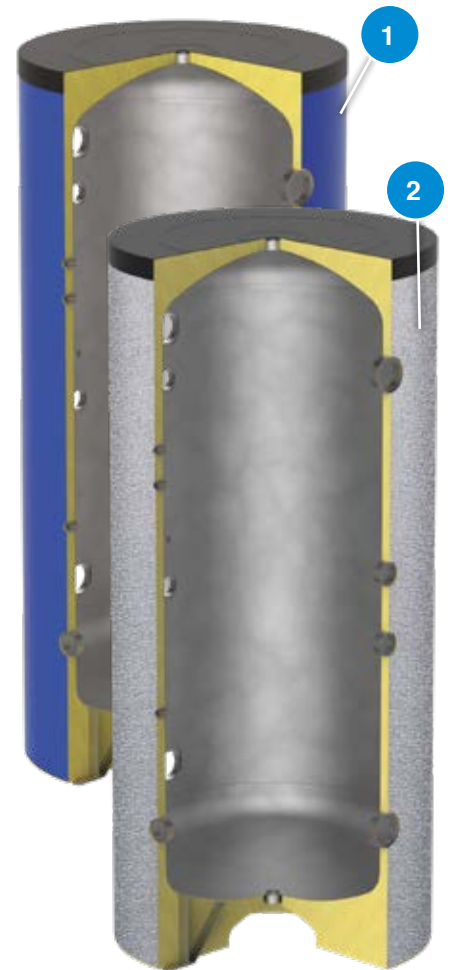
Capacity (l)	Type
from 100 to 1000	High density rigid polyurethane foam
from 1500	Closed cell polyethylene foam + Polyester Fiber

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	90 °C	6 bar

 **Standard Accessories:** see pag. 128

 **Special versions:** see pag. 129



**TESTED**

Capacity l	VKG-HC vertical, coloured PVC		VKGE-HC vertical, embossed al. sheet		Energy label	With packaging, vertical	
	Code	Price	Code	Price		Dimensions cm	Weight kg
100	817010084X		817010168H8X		<b>B</b>	49x49x107	25
200	817010085X		817010169H8X		<b>C</b>	54x54x146,1	36
300	817010086X		817010170H8X		<b>B</b>	64x64x180	48
500	817010087X		817010171H8X		<b>C</b>	74x74x184,1	80
750	817010214X		817010214H8X		<b>C</b>	95x95x178	106
1000	817010089X		817010173H8X		<b>C</b>	105x105x209	130
1500	817010090X				<b>C</b>	130x130x238	218
2000	817010091X				<b>C</b>	140x140x270	260
2500	817010177X					150x150x249	293
3000	817010178X					150x150x299	340
4000	817010179X					170x170x306	490
5000	817010180X					190x190x310	580

# Cold Water Storage Tanks: Dimensions

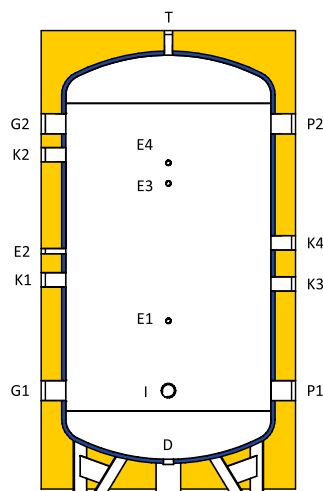
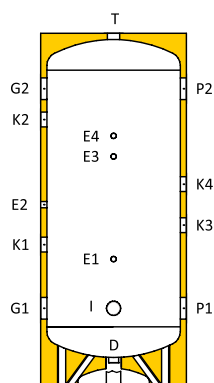
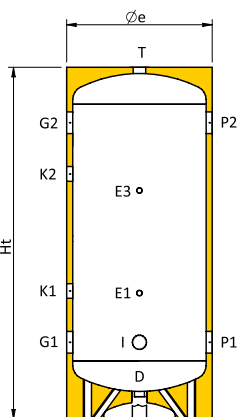
## VKG-HC, VKGE-HC series

100 ≤ cap. ≤ 200

300 ≤ cap. ≤ 1.000

1.500 ≤ cap. ≤ 5.000

### Couplings legend



- D** Drain
- E1** Probe / Thermometer
- E2** Probe / Thermometer
- E3** Probe / Thermometer
- E4** Probe / Thermometer
- G1** From plant
- G2** To plant
- I** Electrical resistor
- K1** Auxiliary
- K2** Auxiliary
- K3** Auxiliary
- K4** Auxiliary
- P1** To energy source
- P2** From energy source
- T** Vent

### Couplings chart

Cap. l	D inch	E1 inch	E2 inch	E3 inch	E4 inch	G1 inch	G2 inch	I inch	K1 inch	K2 inch	K3 inch	K4 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2"	-	1/2"	-	1 1/2	1 1/2	2'	1 1/2	1 1/2	-	-	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	-	1/2"	-	1 1/2	1 1/2	2'	1 1/2	1 1/2	-	-	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	1/2"	1/2"	2'	2'	2'	1 1/2	1 1/2	1 1/2	1 1/2	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/4
750	1 1/2	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/2
1500	2'	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	2'
2000	2'	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	2'
2500	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
3000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
4000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
5000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'

### Size chart

Cap. l	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	P1 mm	P2 mm
100	460	950	1060	125	395	-	655	-	285	765	285	445	605	-	-	285	765
200	510	1335	1430	125	520	-	920	-	320	1120	320	580	850	-	-	320	1120
300	610	1680	1790	130	555	895	1055	1155	355	1405	355	645	1255	780	980	355	1405
500	760	1735	1895	140	620	885	1120	1220	380	1450	380	690	1300	785	985	380	1450
750	910	1765	1990	125	685	885	1145	1245	395	1445	395	685	1295	820	1020	395	1445
1000	1010	2075	2310	125	755	1095	1405	1505	415	1715	415	955	1565	955	1155	415	1715
1500	1220	2245	2560	165	840	1180	1510	1610	500	1800	500	1040	1650	1020	1220	500	1800
2000	1320	2565	2885	155	885	1450	1815	1915	505	2105	505	1345	1955	1180	1380	505	2105
2500	1470	2360	2785	180	1015	1255	1515	1665	565	1865	565	1005	1615	1115	1315	565	1865
3000	1470	2860	3220	180	1315	1755	1815	1965	565	2365	565	1505	2115	1365	1565	565	2365
4000	1620	2930	3350	160	1340	1780	1840	1990	590	2390	590	1530	2140	1390	1590	590	2390
5000	1820	2970	3485	140	1350	1790	1850	2000	600	2400	600	1540	2150	1400	1600	600	2400

R\*: Reversal quota



# Cold Water Storage Tanks

## VKG, VKGE series (carbon steel)

The VKG series includes insulated tanks for chilled water, normally used to increase the thermal inertia of the conditioning system.

**Material:** carbon steel

### External covering

Model	Type	Usage
VKG	coloured PVC	indoor
VKGE	embossed aluminium sheet	outdoor

1  
2

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500 + horizontal versions	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar



**Standard Accessories:** see pag. 128

**Special versions:** see pag. 129

Capacity l	VKG vertical, PVC coloured		VKGE vertical, embossed al. sheet		With vertical packaging		VKG horizontal, PVC coloured	
	Code	Price	Code	Price	Dimensions cm	Weight kg	Code	Price
100	816010130		816011275H8X		49x49x107	24	816010142	
200	816010131		816011276H8X		54x54x145,5	36	816010143	
300	816010132		816011277H8X		64x64x154,5	46	816010144	
500	816010133		816011278H8X		74x74x183,5	78	816010145	
800	816010134		816011279H8X		88x88x186	105	816010146	
1000	816010135		816011280H8X		94x94x214,6	129	816010147	
1500	816010136				107x107x228	182	816010148	
2000	816010137				117x117x260	250	816010149	
2500	816010138				132x132x239,5	267	816010150	
3000	816010139				132x132x289,5	314	816010151	
4000	816010140				147x147x296,5	470	816010152	
5000	816010141				167x167x300,5	557	816010153	
6000	816011186X				282x203x204	647		
8000	816011187X				352x203x204	782		
10000	816011188X				427x203x204	927		

# Cold Water Storage Tanks: Dimensions VKG VKGE

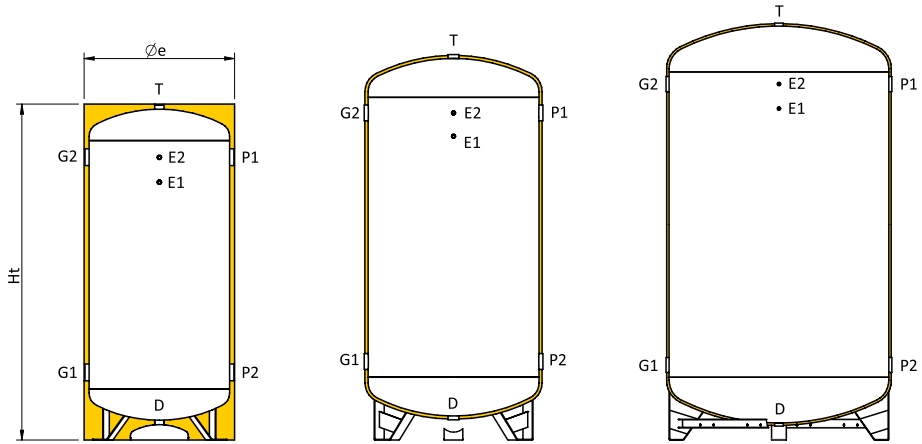
100 ≤ cap. ≤ 1000

1500 ≤ cap. ≤ 5.000

6000 ≤ cap. ≤ 10.000

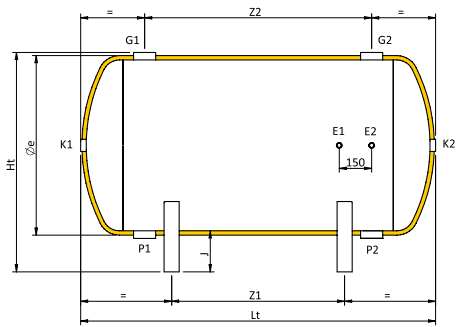
## Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent



## Size and couplings chart for vertical version

Cap. l	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	460	950	1060	125	610	760	290	760	760	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
200	510	1335	1430	120	990	1140	290	1140	1140	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
300	610	1425	1550	130	1015	1165	365	1165	1165	365	1'1/4	1/2'	1/2'	2'	2'	2'	2'	1'1/4
500	710	1710	1855	135	1285	1435	385	1435	1435	385	1'1/4	1/2'	1/2'	3'	3'	3'	3'	1'1/4
800	850	1740	1940	125	1295	1445	395	1445	1445	395	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1000	910	2025	2220	120	1560	1710	410	1710	1710	410	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590	2'	1/2'	1/2'	4'	4'	4'	4'	2'
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600	2'	1/2'	1/2'	4'	4'	4'	4'	2'
6000	1840	2715	3280	140	2015	2215	615	2215	2215	615	2'	1/2'	1/2'	4'	4'	4'	4'	2'
8000	1840	3415	3880	140	2715	2915	615	2915	2915	615	2'	1/2'	1/2'	4'	4'	4'	4'	2'
10000	1840	4165	4555	140	3465	3665	615	3665	3665	615	2'	1/2'	1/2'	4'	4'	4'	4'	2'



## Couplings legend

<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>K1</b>	Auxiliary
<b>K2</b>	Auxiliary
<b>P1</b>	To energy source
<b>P2</b>	From energy source

## Size and couplings chart for horizontal version

Cap. l	Øe mm	Lt mm	Ht mm	J mm	Z1 mm	Z2 mm	E1 inch	E2 inch	G1 inch	G2 inch	K1 inch	K2 inch	P1 inch	P2 inch
100	440	850	545	120	310	470	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
200	490	1240	595	120	700	850	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
300	590	1320	715	140	600	800	1/2'	1/2'	2'	2'	1'1/4	1'1/4	2'	2'
500	690	1600	865	190	900	1050	1/2'	1/2'	3'	3'	1'1/4	1'1/4	3'	3'
800	830	1640	1005	190	900	1050	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1000	890	1930	1065	190	1130	1300	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1500	1040	2020	1215	190	950	1300	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2000	1140	2350	1325	200	1320	1600	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2500	1290	2120	1500	225	1020	1300	1/2'	1/2'	4'	4'	2'	2'	4'	4'
3000	1290	2620	1500	225	1390	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
4000	1440	2710	1650	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
5000	1640	2770	1850	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'

R': Reversal quota

# Cold Water Storage Tanks

## VK, VKE series (galvanized)

The VK, VKE series has galvanized and insulated tanks for chilled water, which are usually used to increase the thermal inertia of the conditioning device. The galvanization offers protection against corrosion..

**Material:** carbon steel

**Treatment:** internal and external hot-dip galvanization

### External covering

Model	Type	Usage
VK	coloured PVC	indoor
VKE	embossed aluminium sheet	outdoor

1

2

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500 + horizontal versions	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar

 **Standard Accessories:** see pag. 128

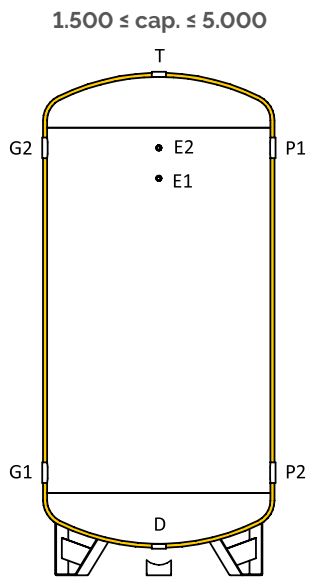
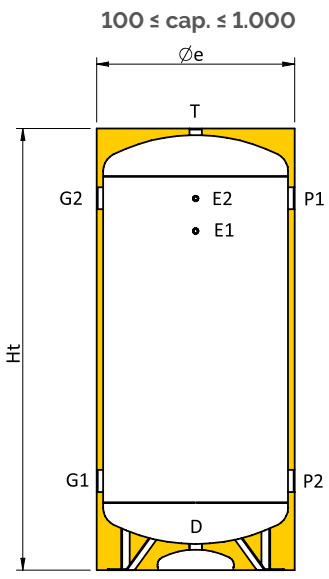
 **Special versions:** see pag. 129



**TESTED**

Capacity l	VK vertical, PVC coloured		VKE vertical, embossed al. sheet		With vertical packaging		VK horizontal, PVC coloured	
	Code	Price	Code	Price	Dimensions cm	Weight kg	Code	Price
100	816020064		816020040H8X		49x49x107	25	816020076	
200	816020065		816020041H8X		54x54x145,5	37	816020077	
300	816020066		816020042H8X		64x64x154,5	48	816020078	
500	816020067		816020043H8X		74x74x183,5	81	816020079	
800	816020068		816020044H8X		88x88x186	110	816020080	
1000	816020069		816020045H8X		94x94x214,6	135	816020081	
1500	816020070				107x107x228	192	816020082	
2000	816020071				117x117x260	264	816020083	
2500	816020072				132x132x239,5	281	816020084	
3000	816020073				132x132x289,5	331	816020085	
4000	816020074				147x147x296,5	496	816020086	
5000	816020075				167x167x300,5	587	816020087	

# Cold Water Storage Tanks: Dimensions VK VKE

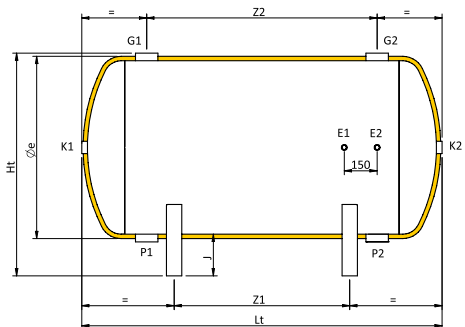


### Couplings legend

D	Drain
E1	Probe / Thermometer
E2	Probe / Thermometer
G1	From plant
G2	To plant
P1	To energy source
P2	From energy source
T	Vent

### Size and couplings chart for vertical version

Cap. l	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	460	950	1060	125	610	760	290	760	760	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
200	510	1335	1430	120	990	1140	290	1140	1140	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
300	610	1425	1555	130	1015	1165	365	1165	1165	365	1'1/4	1/2'	1/2'	2'	2'	2'	2'	1'1/4
500	710	1710	1855	135	1285	1435	385	1435	1435	385	1'1/4	1/2'	1/2'	3'	3'	3'	3'	1'1/4
800	850	1740	1940	125	1295	1445	395	1445	1445	395	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1000	910	2025	2225	120	1560	1710	410	1710	1710	410	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590	2'	1/2'	1/2'	4'	4'	4'	4'	2'
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600	2'	1/2'	1/2'	4'	4'	4'	4'	2'



### Couplings legend

E1	Probe / Thermometer
E2	Probe / Thermometer
G1	From plant
G2	To plant
K1	Auxiliary
K2	Auxiliary
P1	To energy source
P2	From energy source

### Size and couplings chart for horizontal version

Cap. l	Øe mm	Lt mm	Ht mm	J mm	Z1 mm	Z2 mm	E1 inch	E2 inch	G1 inch	G2 inch	K1 inch	K2 inch	P1 inch	P2 inch
100	440	850	545	120	310	470	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
200	490	1240	595	120	700	850	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
300	590	1320	715	140	600	800	1/2'	1/2'	2'	2'	1'1/4	1'1/4	2'	2'
500	690	1600	865	190	900	1050	1/2'	1/2'	3'	3'	1'1/4	1'1/4	3'	3'
800	830	1640	1005	190	900	1050	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1000	890	1930	1065	190	1130	1300	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1500	1040	2020	1215	190	950	1300	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2000	1140	2350	1325	200	13320	1600	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2500	1290	2120	1500	225	1020	1300	1/2'	1/2'	4'	4'	2'	2'	4'	4'
3000	1290	2620	1500	225	1390	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
4000	1440	2710	1650	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
5000	1640	2770	1850	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'

R': Reversal quota

# Cold Water Storage Tanks

## VKT series (enamelled)

The tanks in the VKT series, which are internally enamelled and insulated for use with chilled water, are usually used to increase thermal inertia in Layout 2 plants. The internal enamelling ensures protection against corrosion.

**Material:** carbon steel

**Treatment:** Bluetech internal enamelling with thermosetting resins

### External covering

Model	Type	Usage
VKT	coloured PVC	indoor

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar



**Standard Accessories:** see pag. 128



**Special versions:** see pag. 129

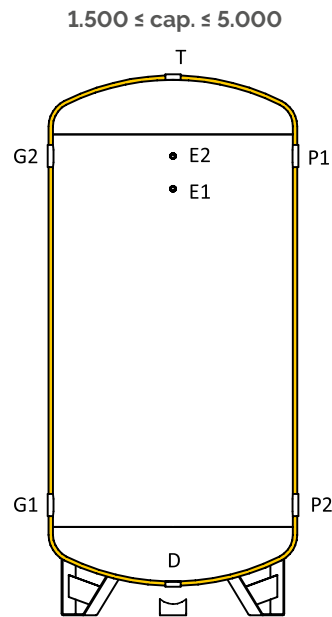
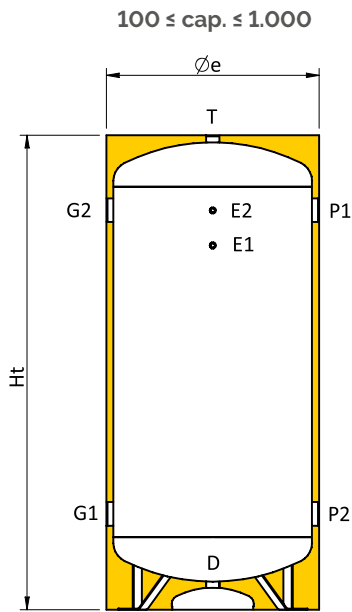


TESTED

Capacity l	VKT		With packaging vertical	
	Code	Price	Dimensions cm	Weight kg
100	816080001X		49x49x107	24
200	816080002X		54x54x145,5	36
300	816080003X		64x64x154,5	46
500	816080004X		74x74x183,5	78
800	816080005X		88x88x186	105
1000	816080006X		94x94x214,6	129
1500	816080007X		107x107x228	182
2000	816080008X		117x117x260	250
2500	816080009X		132x132x239,5	267
3000	816080010X		132x132x289,5	314
4000	816080011X		147x147x296,5	470
5000	816080012X		167x167x300,5	557

# Cold Water Storage Tanks: Dimensions

## VKT series



### Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent

### Couplings chart

Capacity l	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2'	1/2'	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2'	1/2'	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2'	1/2'	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2'	1/2'	3'	3'	3'	3'	1 1/2
1500	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2000	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2500	2'	1/2'	1/2'	4'	4'	4'	4'	2'
3000	2'	1/2'	1/2'	4'	4'	4'	4'	2'
4000	2'	1/2'	1/2'	4'	4'	4'	4'	2'
5000	2'	1/2'	1/2'	4'	4'	4'	4'	2'

### Size chart

Capacity l	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	290	760	760	290
200	510	1335	1430	120	990	1140	290	1140	1140	290
300	610	1425	1555	130	1015	1165	365	1165	1165	365
500	710	1710	1855	135	1285	1435	385	1435	1435	385
800	850	1740	1940	125	1295	1445	395	1445	1445	395
1000	910	2025	2225	120	1560	1710	410	1710	1710	410
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600

R\*: Reversal quota

# Cold Water Storage Tanks VKX series (stainless steel)

The VKX series includes insulated stainless steel tanks for chilled water, which are usually used to increase thermal inertia in single or double loop plants. The stainless steel protects the device against corrosion and makes it possible to use the tank in aggressive environments and in industrial settings.

**Material:** stainless steel AISI 316

**Treatment for internal protection:** Pickling and passivation

## External covering

Model	Type	Usage
VKX	coloured PVC	indoor

## Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 5000	Closed cell polyethylene foam	20

## Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar

 **Standard Accessories:** see pag. 128

 **Special versions:** see pag. 129

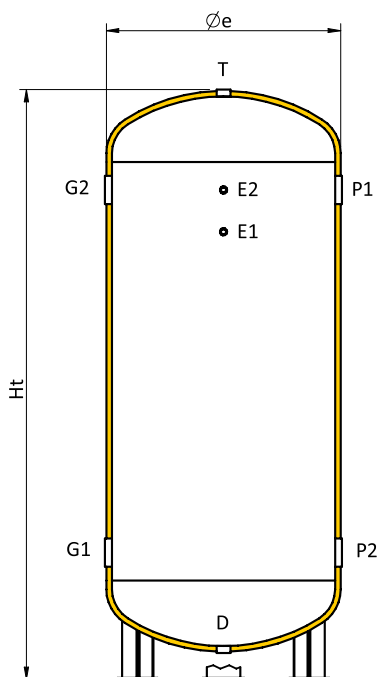


**TESTED**

Capacity l	VKX AISI 316		With packaging
	Code	Price	Dimensions cm
100	816040141X		47x47x105
200	816040142X		52x52x152
300	816040143X		62x62x154,5
500	816040144X		67x67x200
800	816040145X		86x86x197
1000	816040146X		87x87x224
1500	816040147X		107x107x225
2000	816040148X		127x127x233
2500	816040149X		127x127x258
3000	816040150X		132x132x285
4000	816040151X		147x147x293
5000	816040152X		167x167x296

# Cold Water Storage Tanks: Dimensions

## VKX series



### Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent

### Couplings chart

Capacity l	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
200	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	2 1/2	2 1/2	2 1/2	2 1/2	1 1/4
800	1 1/4	1/2"	1/2"	2 1/2	2 1/2	2 1/2	2 1/2	1 1/4
1000	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
1500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
2000	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
2500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
3000	1 1/4	1/2"	1/2"	4'	4'	4'	4'	1 1/4
4000	1 1/4	1/2"	1/2"	4'	4'	4'	4'	1 1/4
5000	1 1/4	1/2"	1/2"	4'	4'	4'	4'	1 1/4

### Size chart

Capacity l	Øe mm	Ht mm	R' mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	440	930	1030	585	735	265	735	735	265
200	490	1400	1485	1000	1150	300	1150	1150	300
300	590	1425	1545	1020	1170	320	1170	1170	320
500	640	1880	2005	1470	1620	320	1620	1620	320
800	830	1850	2030	1345	1495	445	1495	1495	445
1000	840	2120	2300	1605	1755	455	1755	1755	455
1500	1040	2130	2370	1615	1765	465	1765	1765	465
2000	1240	2210	2490	1650	1800	500	1800	1800	500
2500	1240	2460	2780	1900	2050	500	2050	2050	500
3000	1290	2730	3020	2165	2315	515	2315	2315	515
4000	1440	2810	3160	2200	2350	550	2350	2350	550
5000	1640	2840	3280	2200	2350	550	2350	2350	550

R\*: Reversal quota



# Cold Water Storage Tanks

## VKS series (internal baffles)

The VKS series includes insulated tanks for chilled water, which are usually used to increase thermal inertia in Layout 2 cooling devices. They are equipped with internal baffles which prevent preferential flow in the tank by creating perfect conditions for temperature distribution. They are especially used with medium and high flows and with special versions in which the tank is to be connected with more than two circuits.

**Material:** carbon steel

### External covering

Model	Type	Usage
VKS	coloured PVC	indoor

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar

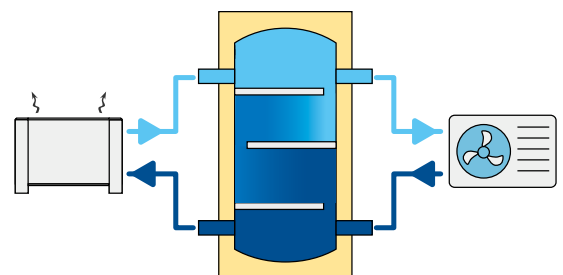


**TESTED**

 **Standard Accessories:** see pag. 128

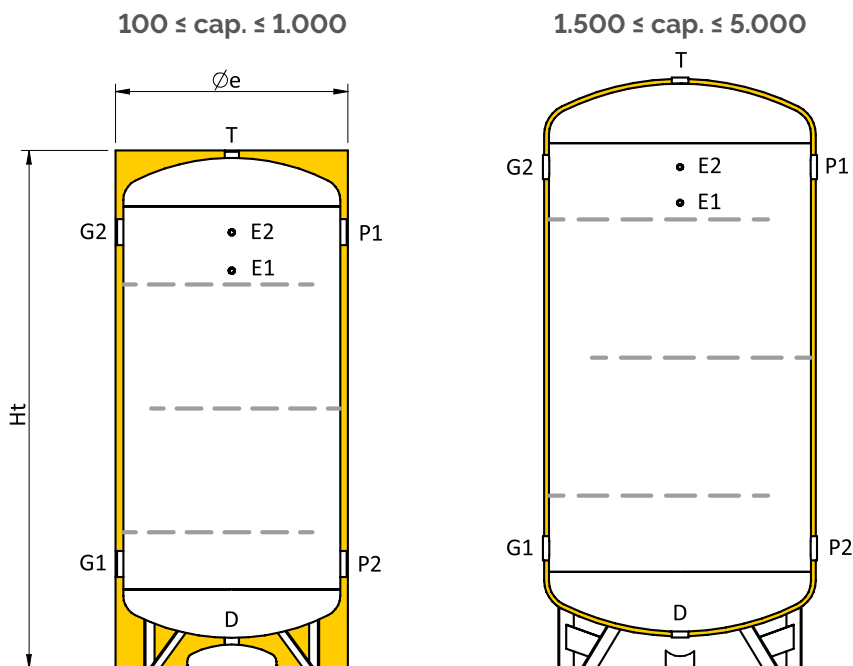
 **Special versions:** see pag. 129

Capacity l	VKS		With vertical packaging	
	Code	Price	Dimensions cm	Weight kg
100	816010166		49x49x107	29
200	816010167		54x54x145,5	41
300	816010168		64x64x154,5	55
500	816010169		74x74x183,5	91
800	816010170		88x88x186	122
1000	816010171		94x94x214,6	149
1500	816010172		107x107x228	208
2000	816010173		117x117x260	282
2500	816010174		132x132x239,5	307
3000	816010175		132x132x289,5	356
4000	816010176		147x147x296,5	519
5000	816010177		167x167x300,5	621



# Cold Water Storage Tanks: Dimensions

## VKS series



### Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent

### Couplings chart

Capacity l	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2000	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2500	2"	1/2"	1/2"	4'	4'	4'	4'	2"
3000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
4000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
5000	2"	1/2"	1/2"	4'	4'	4'	4'	2"

### Size chart

Capacity l	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	290	760	760	290
200	510	1335	1430	120	990	1140	290	1140	1140	290
300	610	1425	1555	130	1015	1165	365	1165	1165	365
500	710	1710	1855	135	1285	1435	385	1435	1435	385
800	850	1740	1940	125	1295	1445	395	1445	1445	395
1000	910	2025	2225	120	1560	1710	410	1710	1710	410
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600

R\*: Reversal quota

# Cold Water Storage Tanks

## VKR series (conveyor pipes)

The insulated VKR tanks for chilled water are usually used to increase the thermal inertia of the Layout 2 conditioning device with a medium or high flow. They are equipped with the double loop cooling device which create a preferential circuit inside the tank.

**Material:** carbon steel

### External covering

Model	Type	Usage
VKR	coloured PVC	indoor

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar

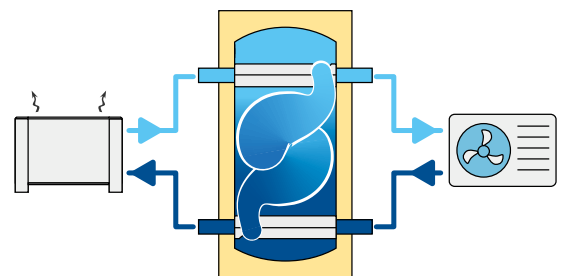
 **Standard Accessories:** see pag. 128

 **Special versions:** see pag. 129



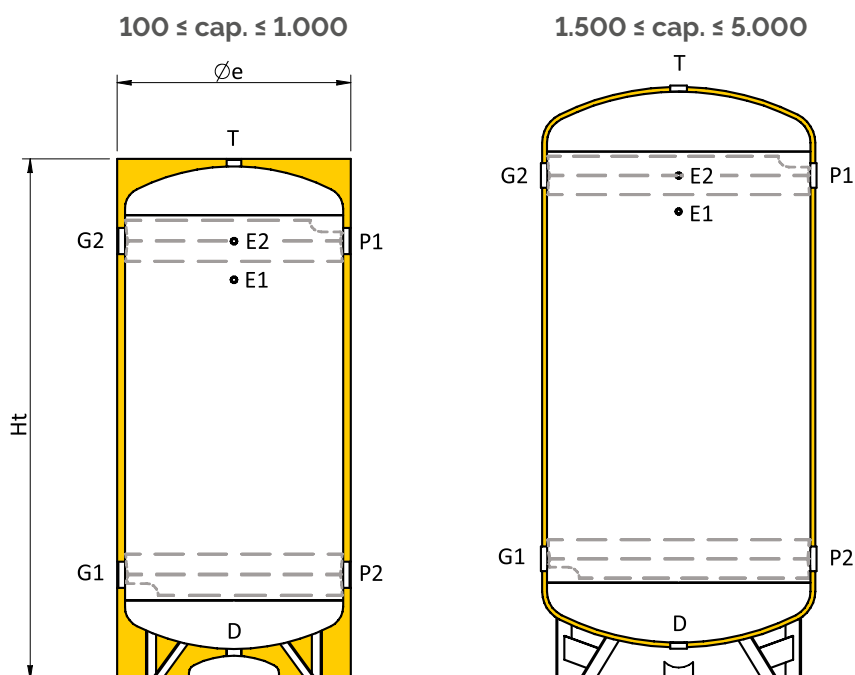
**TESTED**

Capacity l	VKR		With packaging vertical	
	Code	Price	Dimensions cm	Weight kg
100	816010154		49x49x107	26
200	816010155		54x54x145,5	37
300	816010156		64x64x154,5	50
500	816010157		74x74x183,5	85
800	816010158		88x88x186	113
1000	816010159		94x94x214,6	137
1500	816010160		107x107x228	193
2000	816010161		117x117x260	262
2500	816010162		132x132x239,5	283
3000	816010163		132x132x289,5	330
4000	816010164		147x147x296,5	487
5000	816010165		167x167x300,5	577



# Cold Water Storage Tanks: Dimensions

## VKR series



### Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent

### Couplings chart

Capacity l	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2000	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2500	2"	1/2"	1/2"	4'	4'	4'	4'	2"
3000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
4000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
5000	2"	1/2"	1/2"	4'	4'	4'	4'	2"

### Size chart

Capacity l	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	290	760	760	290
200	510	1335	1430	120	990	1140	290	1140	1140	290
300	610	1425	1555	130	1015	1165	365	1165	1165	365
500	710	1710	1855	135	1285	1435	385	1435	1435	385
800	850	1740	1940	125	1295	1445	395	1445	1445	395
1000	910	2025	2225	120	1560	1710	410	1710	1710	410
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600

R\*: Reversal quota

# Cold Water Storage Tanks

## VKD series (diffusing pipes)

The insulated VKD tanks for chilled water are usually used to increase thermal inertia of the Layout 2 conditioning device. They are equipped with diffuser pipes which connect the two circuits linked to the tank. Energy is supplied or subtracted through the diffuser's circumferential probes. In this way the mixing of fluids is significantly reduced.

**Material:** carbon steel

### External covering

Model	Type	Usage
VKD	coloured PVC	indoor

### Insulation

Capacity (l)	Type	Thick. (mm)
from 100 to 1000	High density rigid polyurethane foam	30
from 1500	Closed cell polyethylene foam	20

### Operational limits

Min temperature	Max temperature	Max pressure
-10 °C	60 °C	6 bar

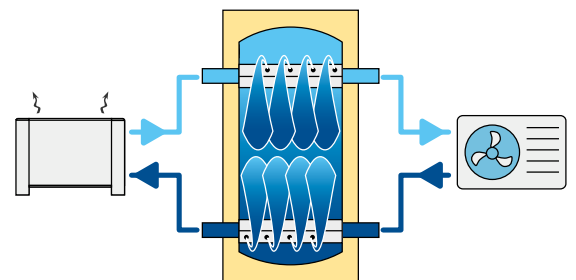
 **Standard Accessories:** see pag. 128

 **Special versions:** see pag. 129



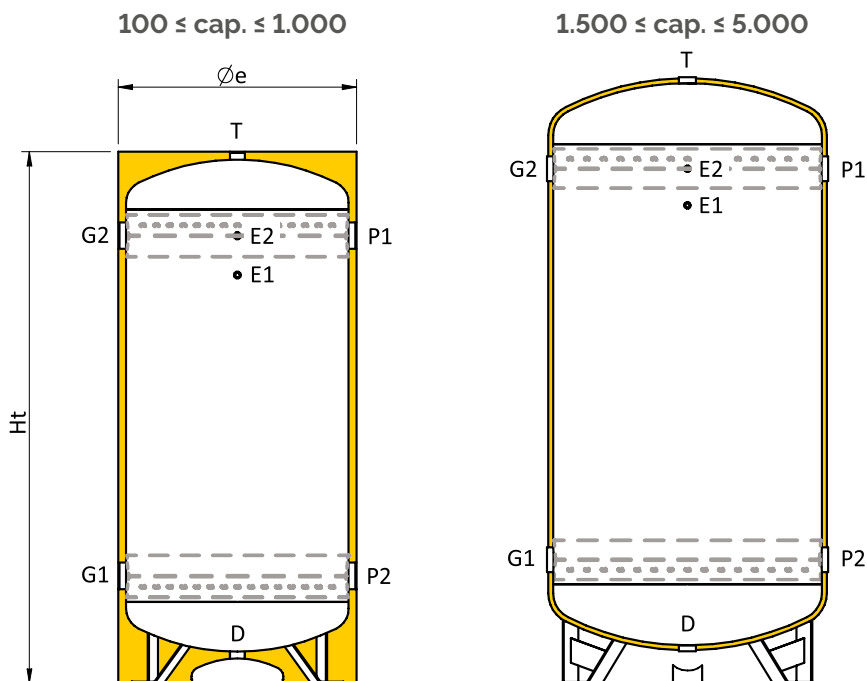
**TESTED**

Capacity l	VKD		With packaging vertical	
	Code	Price	Dimensions cm	Weight kg
100	816010417		49x49x107	26
200	816010418		54x54x145,5	37
300	816010419		64x64x154,5	50
500	816010420		74x74x183,5	85
800	816010421		88x88x186	113
1000	816010422		94x94x214,6	138
1500	816010423		107x107x228	193
2000	816010424		117x117x260	262
2500	816010425		132x132x239,5	283
3000	816010426		132x132x289,5	330
4000	816010427		147x147x296,5	487
5000	816010428		167x167x300,5	577



# Cold Water Storage Tanks: Dimensions

## VKD series



### Couplings legend

<b>D</b>	Drain
<b>E1</b>	Probe / Thermometer
<b>E2</b>	Probe / Thermometer
<b>G1</b>	From plant
<b>G2</b>	To plant
<b>P1</b>	To energy source
<b>P2</b>	From energy source
<b>T</b>	Vent

### Couplings chart

Capacity l	D inch	E1 inch	E2 inch	G1 inch	G2 inch	P1 inch	P2 inch	T inch
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2000	2"	1/2"	1/2"	3'	3'	3'	3'	2"
2500	2"	1/2"	1/2"	4'	4'	4'	4'	2"
3000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
4000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
5000	2"	1/2"	1/2"	4'	4'	4'	4'	2"

### Size chart

Capacity l	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	290	760	760	290
200	510	1335	1430	120	990	1140	290	1140	1140	290
300	610	1425	1555	130	1015	1165	365	1165	1165	365
500	710	1710	1855	135	1285	1435	385	1435	1435	385
800	850	1740	1940	125	1295	1445	395	1445	1445	395
1000	910	2025	2225	120	1560	1710	410	1710	1710	410
1500	1040	2160	2400	165	1650	1800	500	1800	1800	500
2000	1140	2480	2730	155	1955	2105	505	2105	2105	505
2500	1290	2275	2620	180	1715	1865	565	1865	1865	565
3000	1290	2775	3060	180	2215	2365	565	2365	2365	565
4000	1440	2845	3190	160	2240	2390	590	2390	2390	590
5000	1640	2885	3320	140	2250	2400	600	2400	2400	600

R\*: Reversal quota