

COORDINATION OF CHILLER OPERATION WITH COOLING/COOLING-HEATING SYSTEMS



TECHNICAL DESCRIPTION

Chilled water tanks are designed to:
 Provide hydraulic separation between primary and secondary cooling system circuits, ensuring proper operation of the chiller or heat pump;
 Increase the cooling system's volume, reducing compressor cycling (on/off) to extend the service life of the chiller;
 Store chilled water to meet peak load demands. These functions are also applicable in reversible systems (cooling-heating).



MATERIALS

- CWT CS - Tank constructed from S235JR (DIN 1.0038) carbon structural steel.
- CWT ZN - Tank constructed from S235JR (DIN 1.0038) carbon structural steel with internal and external zinc coating applied via hot-dip galvanizing at 440-460°C.



WARRANTY

5 years

THERMAL INSULATION

- RS - Anti-condensation insulation, 12 or 24 mm thick, made of synthetic foamed rubber with a metallized external coating; suitable for tanks operating solely in cooling systems.
- RS/ABS - Anti-condensation insulation, 12 or 24 mm thick, made of synthetic foamed rubber with a metallized external coating, encased in ABS plastic with snap-lock fasteners; suitable for tanks operating solely in cooling systems.
- RS+PL/ABS - Anti-condensation insulation, 12 or 24 mm thick, made of synthetic foamed rubber with a metallized external coating, combined with an additional 50 mm polyester layer, encased in ABS plastic with snap-lock fasteners; suitable for tanks operating in reversible cooling-heating systems.

CUSTOM DRAW

Water heaters can be designed and manufactured according to customer requirements, allowing for modifications in dimensions and connection configurations.

Tank	
P	T
8 bar	-10/95 °C

Volumes, l	
CWT CS	200-10000
CWT ZN	200-3000

COORDINATION OF CHILLER OPERATION WITH COOLING/COOLING-HEATING SYSTEMS AND PROVISION OF COLD WATER RESERVE FOR WATER SUPPLY



TECHNICAL DESCRIPTION

Chilled water tanks are designed to: provide hydraulic separation between primary and secondary cooling system circuits, ensuring proper operation of the chiller or heat pump; increase the cooling system's volume, reducing compressor cycling (on/off) to extend the service life of the chiller; store chilled water to meet peak load demands. These functions are also applicable in reversible systems (cooling-heating). Thanks to carefully selected materials, the tanks can be used for storing cold sanitary water. In the **CWT PC** series, corrosion protection is provided by one or more magnesium anodes.

MATERIALS

CWT PC - Tank constructed from S235JR (DIN 1.0038) carbon structural steel with an internal polycaramic coating.

CWT SS - Tank constructed from AISI 316L (DIN 1.4404) stainless steel, meeting the highest hygienic requirements.

WARRANTY

5 years

THERMAL INSULATION

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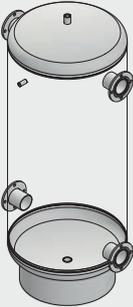
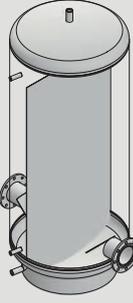
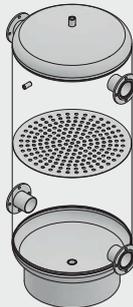
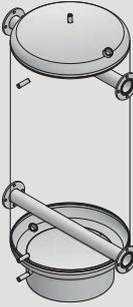
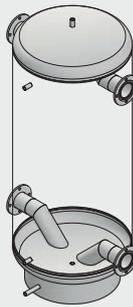
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Volumes, l	
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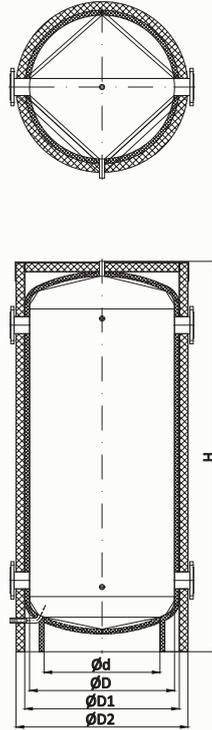
CUSTOM DRAW

Water heaters can be designed and manufactured according to customer requirements, allowing for modifications in dimensions and connection configurations.

CONFIGURATION TABLE

Version	Description	Schematic illustration
1. Without internal components	Typically used for hydraulic separation of primary and secondary circuits. It can also be utilized as a pass-through tank to increase system volume.	
2. With vertical partition	Pass-through tank that is installed on the return pipeline to increase the cooling system volume. This ensures the proper operation of the refrigeration unit (chiller, heat pump).	
3. With horizontal partition	Designed for hydraulic separation of primary and secondary circuits with clear delineation of temperature zones.	
4. With through connections	Used in systems with unbalanced generation and cold (cold-heat) consumption. Excess cold accumulates in the tank to compensate for increased load on the refrigeration unit.	
5. With guiding connections	Applied for the accumulation of chilled water (technical cold) to cover peak loads. Guide connections ensure full utilization of the tank volume.	

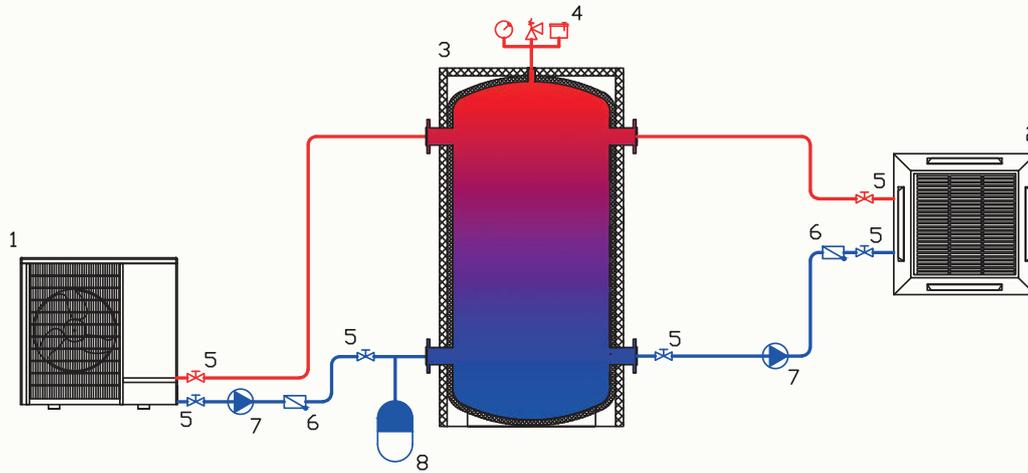
DIMENSIONS AND CONNECTION



Model	V tank, l	Dimensions, mm						
		H, maximum	Ød	ØD	ØD 1		ØD 2	
					Insulation RS12	Insulation RS24	Insulation RS24/ABS	Insulation RS24+PL/ABS
100	108	1100	300	400	424	448	500	560
200	214	1350	400	480	504	528	580	640
300	305	1940	400	480	504	528	580	640
400	413	1770	450	600	624	648	700	760
500	483	2020	450	600	624	648	700	760
750	773	2090	600	750	774	798	850	910
1000	1008	2130	700	850	874	898	950	1010
1500	1449	2200	850	1000	1024	1048	1100	1160
2000	2158	2340	1000	1200	1224	1248	1300	1360
3000	3050	2440	1150	1400	1424	1448	1500	1560
4000	4051	2450	1300	1600	1624	1648	1700	1760
5000	5055	2950	1300	1600	1624	1648	1700	1760
6300	6241	2850	-	1900	1924	1948	2000	2060
8000	8366	3600	-	1900	1924	1948	2000	2060
10000	10492	4350	-	1900	1924	1948	2000	2060

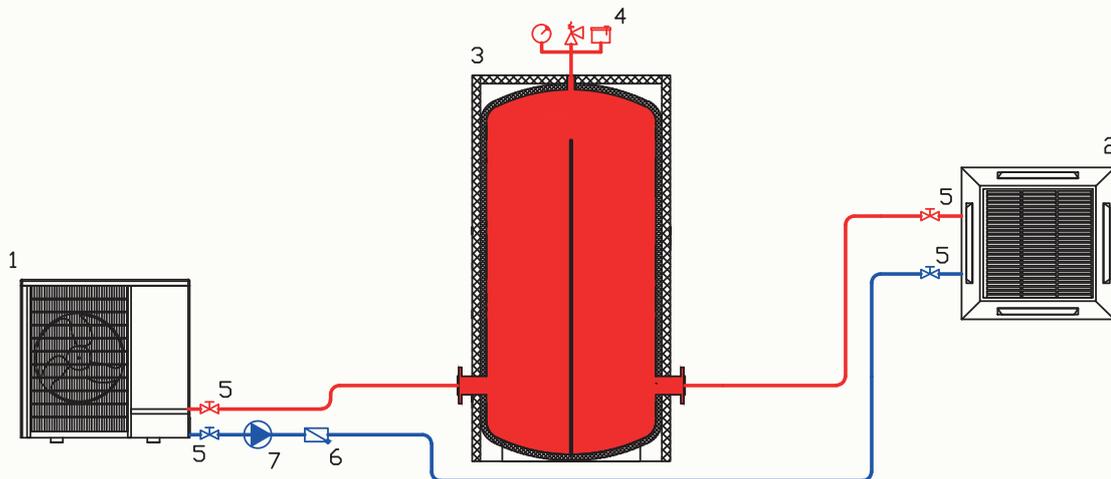
EXAMPLE OF A SCHEMATIC DIAGRAM

The schematic diagram does not replace qualified installation:
during design, relevant standards and regulations must be followed.



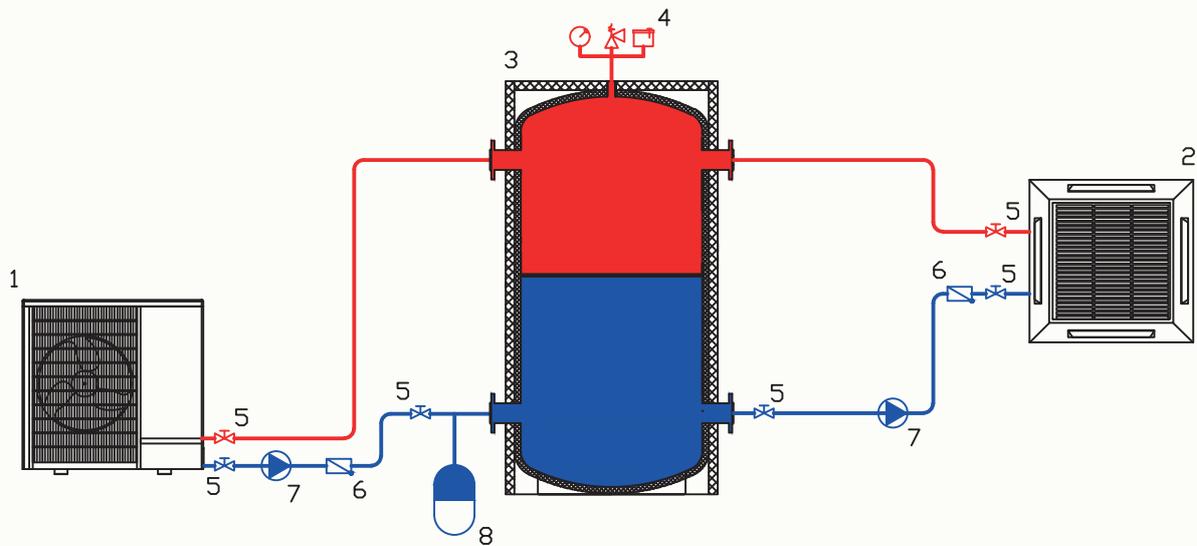
DESIGNATION

- | | | |
|------------------------------|----------------|--------------------|
| 1 Heat pump | 4 Safety group | 7 Circulation pump |
| 2 Fan coil | 5 Ball valve | 8 Expansion tank |
| 3 CWT 1 thermal storage tank | 6 Check valve | |



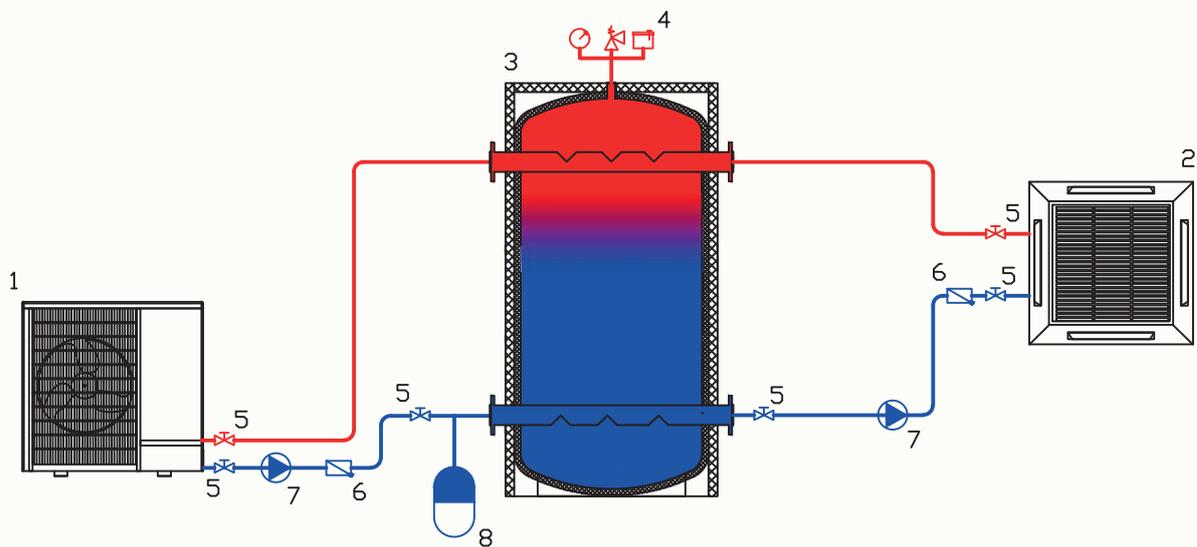
DESIGNATION

- | | | |
|------------------------------|----------------|--------------------|
| 1 Heat pump | 4 Safety group | 7 Circulation pump |
| 2 Fan coil | 5 Ball valve | |
| 3 CWT 2 thermal storage tank | 6 Check valve | |



DESIGNATION

- | | | | | | |
|---|----------------------------|---|--------------|---|------------------|
| 1 | Heat pump | 4 | Safety group | 7 | Circulation pump |
| 2 | Fan coil | 5 | Ball valve | 8 | Expansion tank |
| 3 | CWT 3 thermal storage tank | 6 | Check valve | | |



DESIGNATION

- | | | | | | |
|---|----------------------------|---|--------------|---|------------------|
| 1 | Heat pump | 4 | Safety group | 7 | Circulation pump |
| 2 | Fan coil | 5 | Ball valve | 8 | Expansion tank |
| 3 | CWT 4 thermal storage tank | 6 | Check valve | | |