

## Installation and maintenance instructions

### Cetetherm Primary Tank 5 bar



GB

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# 1 General

## 1.1 General information

Cetetherm owns the copyright to these instructions. Details, pictures and drawings contained in these instructions may not be reproduced, distributed or sold for competition purposes or disclosed to others without permission.

Cetetherm reserves the right to make technical changes to the illustrations and information contained in these instructions without prior notification, should this be necessary for improving the tanks.

These instructions provide important information that is necessary to ensure that the storage vessel is both reliable and safe. The operating/installation personnel must have access to these instructions; please ensure a copy of these instructions is made available to them in plenty of time.

If the tank is sold to a third party or changes hands, please hand these instructions over to the new owner.

Please let us have the name and address of the new owner in the unlikely event that we need to contact them regarding the safety of the installation.

Read these instructions carefully before installing the equipment. Pay particular attention to the safety information.

## 1.2 Intended use

These tanks are intended to supply the hot water generally used for heating systems and can be connected to any heating or centralized hot water distribution system.

Proper use thereof includes following the instructions set out herein, including the design data and maintenance conditions.

## 1.3 Misuse

Any use not complying with the above will be deemed improper use. The manufacturer will not be liable for damage resulting from misuse. The operator bears the risk.

Please keep the order data or tank part number handy so that we can deal with your enquiries and spares orders promptly.

## 1.4 Safety information

The safety devices must be connected according to the common regulations and standards of your country. They are not included in the tank's scope of supply. At least must be installed a safety valve set at the maximum design pressure of the primary vessel (5 bar here). The safety valve design depends of local rules. The blow-off pipe should point away from the tank. It should be operated on a regular basis to ensure it is in good working order.

Safety valves, blow-off pipes and drip pipes should be arranged in such a way that no one is exposed to hot water if it escapes.

## 1.5 Safety instructions

The tanks are made according to good industry practice. However, they can represent a hazard if they are incorrectly serviced or maintained by unqualified personnel or not used for their intended purpose.

All servicing and maintenance personnel must have read and understood the work safety instructions before working on them.

The relevant regulations and also the other generally recognised rules must be observed.

Never work in a manner liable to compromise system safety!

In principle, no safety devices should be serviced, dismantled, taken out of service or adjusted without knowledge of the common regulations and standards and a qualified person in attendance.

If in doubt, contact the person in charge, the supplier or the manufacturer of the tank.

The safety devices are designed to safeguard you against serious injury (burns, electric shock, etc.). If the system is damaged or faulty, in particular the safety devices, expansion tanks, etc., or if defects are detected, and if unusual noises or smells develop, switch the system off and inform your supplier.

In principle any service and cleaning work on the tanks must only be done when it is off. The tanks must be protected against unauthorised operation.



Unwarranted conversion or alterations:

For safety reasons, do not convert or make alterations to the tank yourself, otherwise the warranty on the tank will inevitably lapse!

### **1.6 Water quality:**

The water quality must meet the requisite standard governing heating water in closed circuits. The tank must not be exposed to free oxygen or other corrosive substances.

### **1.7 Warranty**

In the absence of a warranty against defects, the terms of warranty shall be those of the ORGALIME S2000 (General conditions for the supply of mechanical, electrical and electronic products, Brussels, August 2000).

Wear parts such as seals fall outside the scope of defects liability.

Please contact your Cetetherm agency for further details.

## 2 Installation

### 2.1 Installation and connection

Note: before transferring the system to the place of installation, please check that all the tanks you ordered have been delivered and that they have not sustained any damage in transit.

**Note:** the tanks must be installed and started up exclusively by a specialist contractor, who shall thus be solely liable for assembling and connecting the equipment and for its compliance.

When unloading and transferring the tank, make sure it is secured so that it cannot topple over. Damage and knocks caused by handling equipment must be avoided at all costs.

Make allowance for the weight of the tanks and their centre of gravity and handle them carefully and only with the appropriate gear (e.g. forklift truck, crane, power lift truck).

### 2.2 Required space

Install the tanks in a room that is frost proof, protected against flooding and adequately ventilated. The maximum admissible temperature in the said room must not exceed 40°C. Make sure that there is an adequate gap between the tank, the wall and other system components to allow maintenance and inspection (minimum 600 mm).

### 2.3 Bearing surface/foundation/load-bearing capacity

The load-bearing capacity of the bearing surface must be adequate for the weight of the system (see delivery documents).

### 2.4 Alignment

Set up the system on the site and align horizontally. If the substrate is soft, place suitable shims under the foot ring/frame feet so that the system does not sink in.

### 2.5 Pipe work

The tank's pipes must be resistant to chemical attack and withstand mechanical, pressure and temperature stresses. In addition, they must not transfer any reaction forces and vibrations into the vessel. The materials in which the connected pipes are made must meet current standards.

### 2.6 Heating devices attached with screws or flanges

If electrical heating devices are installed, they must meet current standards.

The electrical installation must be carried out by a qualified person holding accredited by the relevant power distribution company and must comply with current regulations and directives.

### 2.7 Hot water connection

The primary end connection must be made by a qualified specialist, where relevant in consultation with the remote heating supply company.

The inlet and return lines must be connected at the indicated points. The primary inlet water must match the set-point values in the technical manual.

We recommend fitting filters to filter out any solid particles in the water supply.

Particular attention should be paid to the compatibility of the pipe work materials with those of the tank materials.

## 3 Operating the hot water tank

### 3.1 Filling

The tank should be filled by specialized personnel from the installing company.

When the tank is filled for the first time, make sure all screw-on couplings are tight, tighten any loose ones and check they are firmly seated and leak proof.

On tanks equipped with an inspection opening, pay particular attention to the inspection openings flange seal. Make sure no impurities enter the system and carry out a controlled purge.

Filling pressure should not exceed the opening pressure set on the safety valve.

If the opening pressure is exceeded, the room will be flooded.

When the tank has been adjusted to the right pressure and operating temperature de service, check again that all couplings are leak proof and tighten them if necessary.

Because of constantly fluctuating temperature loads, the elasticity of screw and flange connection seals deteriorates with time and leaks can ensue.

The operator of the installation should be duly forewarned thereof and taught how to inspect the seals. He should also be shown how to re-seal the connections if necessary.

**NOTE** :All defects must be reported in writing forthwith.

### 3.2 Maintenance/Serviceing

The water tightness of all flat screw and flange connection seals must be checked on a regular basis. Because of constantly fluctuating temperature loads, i.e. topping up with cold water when water is extracted and re-charging to tank temperature, the elasticity of the seal materials deteriorates over time. The tension of the screw connections can decline at the same time, resulting in leaks.

That is why we recommend that all screw and flange connections undergo visual and tactile inspection as often as the essential checks of the safety valve are carried out.

## 4 Design data

### 4.1 Manufacturer's ratings

Maximum admissible service overpressure	5 bar
Maximum admissible service temperature	99°C
Minimum admissible service temperature	20°C

### 4.2 Materials

The vessel and connecting pipes are made of carbon steel.

Heat insulation:

- 100 mm glass wool with PVC lining (Euro fire class B)

Outer insulation:

- 100mm rock wool cladded with aluminium plate (Euro fire class A).

### 4.3 Dimensions/Weight

These are given in the diagram accompanying the tank's documentation (inside the packaging).

### 4.4 Documentation

Cetetherm Primary Tank is pressure equipment in the sense of article 4.3 of the PED (Pressure Equipment Directive) PED 2014/68/EU. In accordance with said directive, the declaration of supplier is supplied with each delivered vessel (inside the packaging).

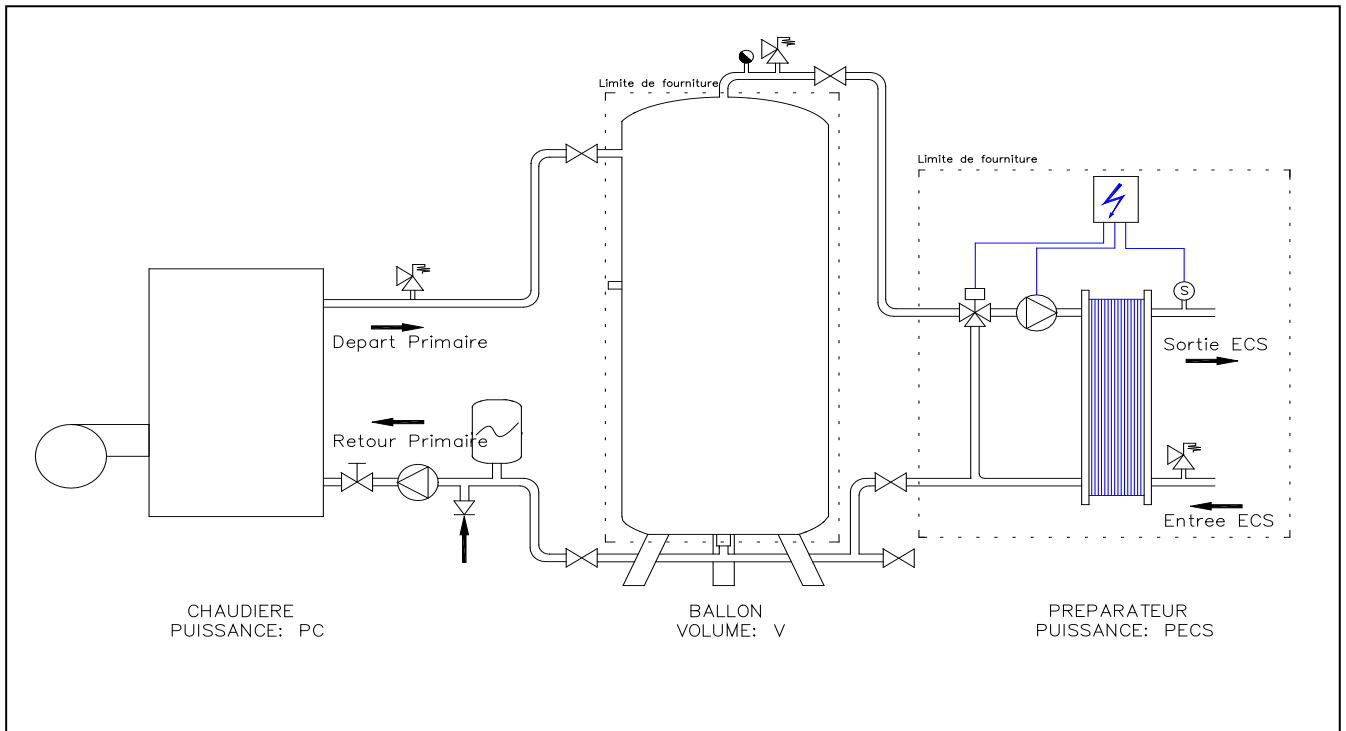
### 4.5 Extra data

Volume (L)	ErP class* standing losses (W)		Article No.	Unladed weight (Kg)	Article No.	Unladed weight (Kg)
	M1	M0				
300	B / 58,6	<del>C / 85,50</del>	AQTVP030M1	68	<del>AQTVP030M0</del>	<del>130</del>
500	C / 85	C / 85,50	AQTVP050M1	96	AQTVP050M0	130
750	C / 114	C / 114,2	AQTVP075M1	155	AQTVP075M0	190
1000	C / 118	C / 119,2	AQTVP100M1	175	AQTVP100M0	220
1500	C / 137,3	C / 138	AQTVP150M1	349	AQTVP150M0	433
2000	C / 145,3	C / 152,6	AQTVP200M1	407	AQTVP200M0	481
2500	E / 283,18	E / 288,8	AQTVP250M1	414	AQTVP250M0	501
3000	E / 308,21	E / 314,4	AQTVP300M1	516	AQTVP300M0	603

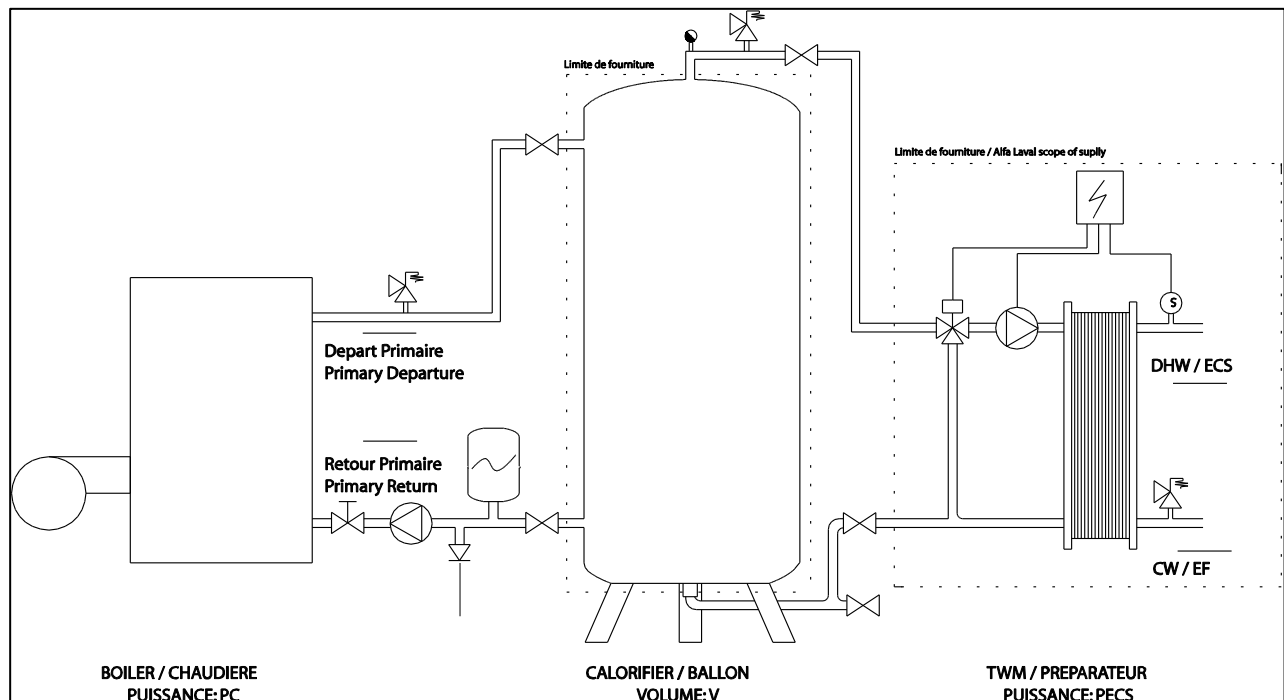
\* EN12897:2006



## 5 Examples of a hydraulic connection



### 5.1 Other hydraulic connection possible



## 6 Warranty

Our equipment comes with a 12-month warranty from the date of shipment. This may be extended to 6 months from the date of commissioning of the equipment, subject to commissioning report being mailed to Cetetherm. The warranty period is limited to 18 months from the actual date of shipment from the factory.

The manufacturer's liability is limited to the replacement of any defective part that cannot be repaired. No other financial compensation may be claimed in any case under the warranty.

The nature and probable cause of the defect must be reported to the manufacturer before any action is taken. The defective part should then be returned to our factory in France for assessment unless written agreement to proceed otherwise has been obtained from Cetetherm. The results of the assessment can only state whether or not the terms of the warranty apply.

### 6.1 Exclusion factors:

Non-compliance with the guidelines for installation, configuration and maintenance:  
Over pressures, water-hammer, scaling, noncompliant water quality

Also excluded from the warranty:

- Fitting costs, refitting costs, packaging, transport, and any accessories or equipment not manufactured by Cetetherm, which will only be covered by any warranties issued by said third-party manufacturers.
- Any damage caused by connection errors, insufficient protection, misapplication or faulty or careless operations.
- Equipment disassembled or repaired by any other party than Cetetherm.

Non-payment will lead to all operational warranties covering the delivered equipment being terminated.

### 6.2 Spare parts

Only replace any defective part with the original spare part. Please contact your local Cetetherm agency.

### 6.3 How to contact Cetetherm

Our contact details are updated on our website [www.cetetherm.com](http://www.cetetherm.com).



