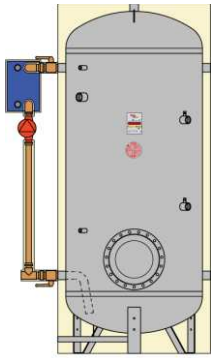
USER MANUAL
BOILER PIASTRATERM



CONDITIONS OF LIMIT

HEAT EXCHANGER

Pmax = 12 Bar
Tmax= 99°C

STORAGE

≤1000 lt Pmax = 8 Bar
>1000 lt Pmax = 6 Bar
Tmax= 90°C

D.H.W. HARDNESS MAX = 30°F

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UNI EN ISO 9001:2008 - UNI EN ISO 14001:2004 • www.cordivari.it - info@cordivari.it

1. General

This document is intended for the installer and final user. Therefore, after plant installation and start-up, ensure that this document has been delivered to the final user or managing supervisor of the plant.
Cordivari boilers Piastraterm have been designed and constructed for the production and storage of sanitary hot water by means of a external heat exchanger on the boiler, powered by sources of thermal energy of various types (Heat generator, Heat Pump, Solar panel) which use water as a thermal carrier liquid.
Boilers Piastraterm are indicated for installations where there is a high demand for sanity hot water and that needs a tank with a high exchangeable power/volume storage ratio, due to its peculiarities.
Basically, boilers Piastraterm are composed of:

- One accumulation tank which has an accumulation function
- One plate heat exchanger
- One circulation group for sanitary hot water
- All related joints and connections

Any use of this product which is not in accordance with information indicated in this document shall release the manufacturer from all liability and will void all aspects of the guarantee.

2. Condizioni di esercizio

For **maximum operating temperatures and pression** please refer to the data plate installed on the equipment.
The maximum operating temperatures reported in this document and on the equipment data plate are to be understood as maximum resistance temperatures in the internal covering of the boilers. The maximum temperature of use must respect national norms regarding energy consumption.
Water features
Piastraterm boilers are subjected to problems in presence of water with high tendency to create calcareous deposits. In this regards, it is reminded that such a tendency to create calcareous deposits depends on the hartness of water (normally indicated in French degrees). However, this is not the only parameter to be considered since PH and temperature also play an important role.

In general with sanitary hot water production plants, follow norms and local regulations regarding water treatment in accordance with characteristics. The guarantee does not cover any damages derived from failure to comply with the aforementioned prescriptions.

3. D.H.W. Accumulation Tank

The Accumulation Tank described in this document have been constructed in compliance with directive 97/23/CE (PED) relative to pressure equipment with contained liquid and according to operating conditions provided for use.Vaso Inerziale

3.1 Category identification (Directive 97/23/CE)

The entire range of Cordivari boilers have lower levels than the threshold values described as follows:

• Receptacle for water containment (group 2) with a vapour pressure at maximum permitted temperature less than 0.5 bar over normal atmospheric pressure (1033 mbar), maximum operating pressure PS > 10 bar, product PSxV > 10,000 [bar x L], PS > 1000 bar;

•Piping for water containment (group 2) with vapour pressure at maximum permitted temperature less 0.5 bar over normal atmospheric pressure (1033 mbar), maximum operating pressure PS > 10 bar, diameter DN > 200 and product PS x DN < 5000 [bar xmm].

Therefore, all Cordivari boilers, in accordance with Art.3.3. and as shown in attached tables 4 and 5, must not be CE marked. However, Cordivari S.r.l. guarantees standard manufacturing procedure as established by the directive (according to Quality management and quality assurance standards UNI EN ISO 9001:2000 – UNI EN 14001:2004) which ensures user safety and manufacturer identification.

4. Plate heat exchanger and circulation group

For a correct use and maintenance of these components please refer to the related booklet provided with the equipment.

5. Installation and maintenance

• Boilers Piastraterm must always be installed sheltered from atmospheric agents, on adequately solid bases and, before any connections are made, making sure that there is sufficient space for exchanger, magnesium anode and resistance extraction.

• Verify the presence of magnesium anodes upon installation

• **For a correct use of Piastraterm boilers it is necessary to connect the equipment to the electricity supply network of the circulation group supplied with the product. Normally, it is recommended to connect the circulation group to the electricity supply network through a switch and keep it on all the time (without the use of any thermostat) in order to avoid**

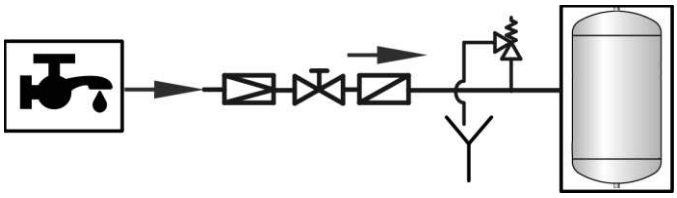
calcareous drops into the plate heat exchanger. It is mandatory to avoid to run dry the circulation group. The primary circuit must be connected to a boiler temperature check (thermostat). All electricity connections have to be executed by qualified personnel only.

• Verify that the position where Boilers are to open are large enough to allow for free passage toward the outside without any need for demolition. The guarantee does not cover any costs derived from a failure to observe this point.

• Handling phases require movement of equipment with weight exceeding 30 kg and require the use of proper hoisting and transport means. For this purpose, receptacles are to be moved only when empty by means of special platforms or hoisting eyebolts.

• In general with sanitary hot water production plants, follow norms and local regulations regarding water treatment in accordance with characteristics. The guarantee does not cover any damages derived from failure to comply with the aforementioned prescriptions.

• Equipment installation and operation in respect of these instructions must always respect norms of national and local laws in the place of installation. In particular, the inlet connection for cold sanitary water supply to the water system must take place by means of a hydraulic safety group in accordance with norm EN 1487:2002, including at least one shut-off valve, a relief valve, a relief valve control device, a safety valve, a hydraulic load shut-off device, all accessories necessary for working in safety with boilers.



• This plant shall also have an adequate expansion system both on the heating side and on the sanitary side. Even when laws permit that said expansion system can be made up only of one properly sized safety valve, it is best to install a membrane closed non-toxic expansion tank also to prevent continuous opening of the safety valve and to prevent needlessly overloading the boiler.

• If the sanitary water system exceeds admissible boiler pressure levels, install a pressure regulator at an adequate distance from the boiler to prevent overheating of the pressure regulator itself.

• The Anoden Tester device allows a periodic control of the efficiency of the magnesium-anode and cathode protection and in case replace the magnesium-anode at a later stage. After a first replacement, it is recommended to arrange periodical maintenance and replacement of the anodes without waiting for their complete degradation. This is due to the fact that only an updated and efficient protection system will ensure a long duration of the equipment. In the case in which the operating conditions (temperature and water features) lead to a high deterioration of the magnesium anodes, it is possible to install anodes with impressed electricity that are available on request.

• It is reminded that all the electronically equipment are to be always connected to the ground. Upon start-up and after some days of operation, check bolt tightening on the flange, easily accessible thanks to the removable flange covering.

6. Connections

6.1 Hydraulic connections

The plant connection diagram shown here within is intended solely as a guideline and is not binding in as much as it is the job of the designer of the plant onto which the boiler will be installed to evaluate, in accordance with current installation norms, the best plant diagram for use in compliance with limits set by data stated by the manufacturer.

• DO NOT START THE CIRCULATION GROUP BEFORE THE BOILER IS FILLED UP WITH WATER

6.2 Electric connections

At installation of the Piastraterm boiler, connect the electricity supply of the sanitary circulation group provided with the product. Usually, it is recommended to connect the circulation group to the electricity supply network through an independent switch and keep such circulation group always in use (without the use of any thermostat) in order to avoid calcareous deposit phenomenon into the plate to plate heat exchanger. **Do not start the circulation group before the boiler is filled up with water**.

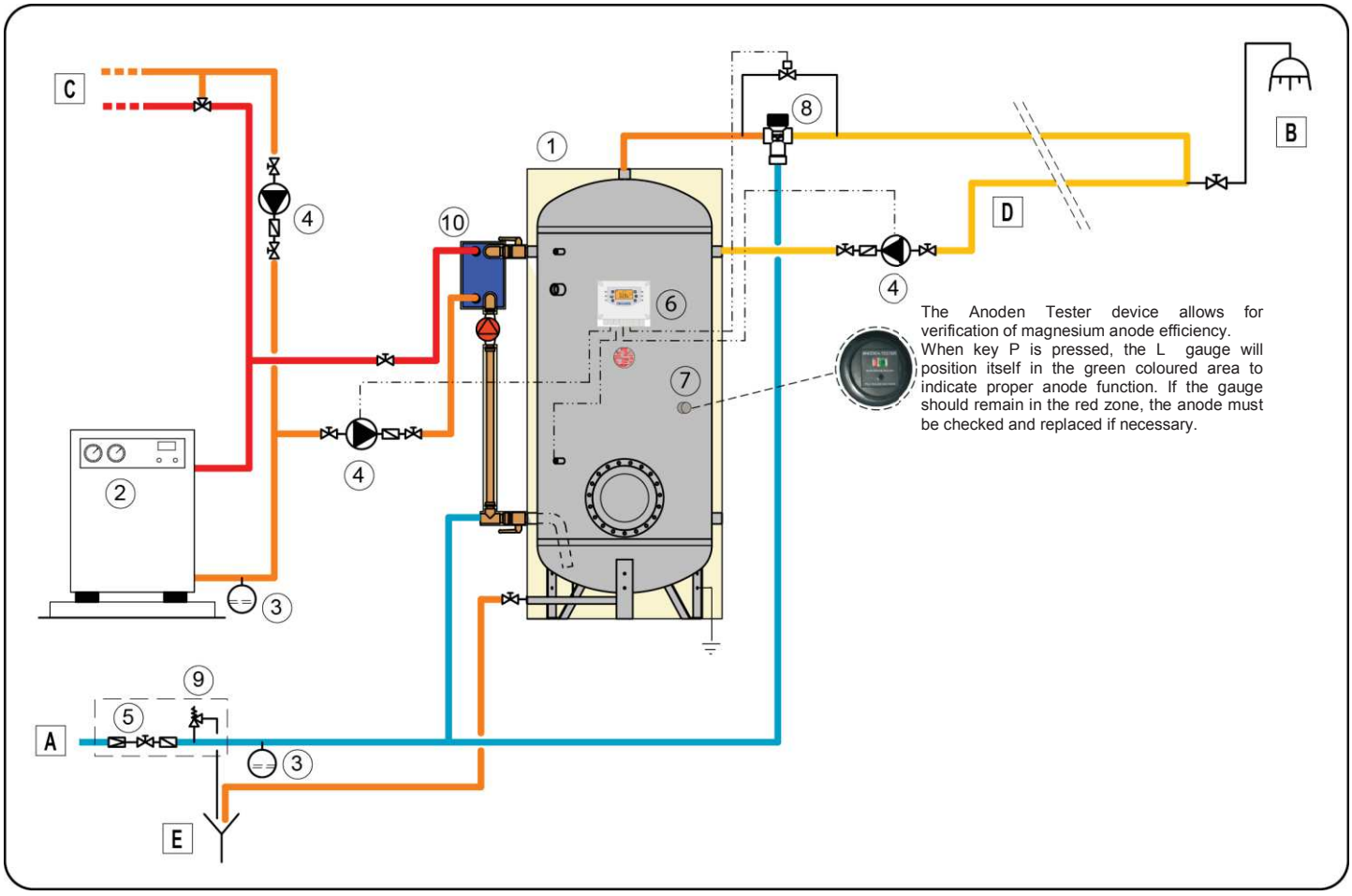
Boiler Piastraterm can be supplied with the electronic display for calorifiers Easy Conctrol mounted on the tank and not wired **(only for models that are compatible for it).** In this case connections related to the electricity supply box have to be executed.

ATTENTION!! Carefully read the usage instructions of the electronic supply box Easy Control for all information related to connections, use, programming, functionality features, safety and product recommendations!

7. Disposal

At the end of the working life cycle of this product, its metal components must be given to operators authorised in the collection of metal materials for recycling, while all non-metal components must be given to operators authorised for their separate disposal. Products must be managed, if disposed of by the final client, as similar urban waste and therefore respecting town laws in the town where they are located. They must never however be managed as household waste.

Hydraulic scheme



KEY			
A	Sanitary water inlet	4	Circulator group (pump, shut-off valves, non-return valve)
B	Sanitary hot water fixtures	5	Hydraulic safety group
C	Heating system	6	Electronic display Easy Conctrol (OPTIONAL)
D	Recirculation	7	Magnesium anode
E	Outlet	8	Thermostatic mixer valve (With Easy Control, although normally closed bypass valve with a 220 volt coil)
1	D.H.W. Accumulation Tank		
2	Heat generator	9	Safety valve
3	Expansion tank	10	Plate heat exchangert

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- **UNI EN 1717:2002**
- **97/23/CE**
- **2006/42/CE**

Ed inoltre alle norme /Et également aux normes: /and also with the standards:/ Sowie mit den Normen:/ Y además a las normativas:/ A dále norem/ Şi deasemenea cu normele/А также со стандартам/ a także ze standardami/ Καθώς και προς τα πρότυπα/ valamint a következő normáknak/ bei standartus/ a tiež s normami/ ter z normativi

- **CEI 61-150 / EN 60335-1**

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- **2006/95 CE**

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- **2004/108 CE**
- **2002/95/CE**
- **2002/96/CE**

Morro D'Oro lì 30/06/2014

CORDIVARI S.r.l.
(L'Amministratore Unico)
Ercole Cordivari