# ECODENSE BOILER INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS




**ECODENSE BOILER 100L**
**ECODENSE BOILER 160L**
**ECODENSE BOILER 200L**
**ECODENSE BOILER 300L**
**ECODENSE BOILER 500L**
**ECODENSE BOILER 800L**
**ECODENSE BOILER 1000L**
**ECODENSE BOILER 1500L**
**ECODENSE BOILER 2000L**
**ECODENSE BOILER 2500L**
**ECODENSE BOILER 3000L**

**13.11.2026**

**www.ecodense.com**

**DEAR CUSTOMER,**

**ECODENSE BOILER 100L, ECODENSE BOILER 160L, ECODENSE BOILER 200L, ECODENSE BOILER 300L, ECODENSE BOILER 500L, ECODENSE BOILER 800L, ECODENSE BOILER 1000L, ECODENSE BOILER 1500L, ECODENSE BOILER 2000L, ECODENSE BOILER 2500L and ECODENSE BOILER 3000L** products are designed and manufactured in accordance with the latest technological innovations and safety standards. In this context, ease of use has also been carefully considered.

In order to ensure the device is used with maximum safety, efficiency, and environmental awareness, we strongly recommend that you follow the safety instructions and the user manual.

If you encounter any issue that is not explained in this manual or is unclear, please contact our after-sales service department.

Thank you for choosing the **ECODENSE** brand.

This user manual is an integral part of the device. It should be kept in a plastic folder and hung in a visible location near the device.

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# 1. WARNINGS

## 1.1. Warning Symbols and Descriptions

| Symbols | Symbol Meanings |
|---|---|
|  | Important information or useful tips related to use |
|  | Warning against hazardous situations that may pose a risk to life and property |
|  | Warning against electrical voltage |
|   | Product handling information |
|  | Keep upright. Fragile. Protect from water. |

## 1.2. General Safety Rules

- Installation, disassembly, commissioning, operation, inspection, maintenance, and repair must only be carried out by trained and authorized personnel who have read and fully understood this manual.
- No modifications that may compromise the safety of the device shall be made by individuals and/or organizations.
- All maintenance, commissioning, and installation work must be performed with the device turned off and the power supply disconnected. Failure to comply with these rules may result in electric shock, accidents caused by hot water, and consequently severe injuries or even death.
- Repairs related to safety components must only be performed by the manufacturer.
- The device must never be used by persons with mental disabilities, children, or individuals lacking experience and knowledge.
- Children must be supervised to ensure they do not play with the device.
- Flammable and explosive materials must not be kept near the device.

## 2. WARRANTY CONDITIONS

ECODENSE BOILER 100L, ECODENSE BOILER 160L, ECODENSE BOILER 200L, ECODENSE BOILER 300L, ECODENSE BOILER 500L, ECODENSE BOILER 800L, ECODENSE BOILER 1000L, ECODENSE BOILER 1500L, ECODENSE BOILER 2000L, ECODENSE BOILER 2500L, ECODENSE BOILER 3000L, and single and double coil boiler products, including the main and auxiliary materials used, are under the warranty of **TERMO ISI SİSTEMLERİ A.Ş.** for a period of **2 (two) years** from the date of commissioning, under the maintenance, adjustment, and operating conditions specified by us, and under the relevant mechanical, chemical, and thermal effects.



This warranty condition is valid only if the device(s) are commissioned and maintained by our authorized service centers.



Our company reserves the right to make changes to the product and all related instructions for the purpose of improvement.

### 2.1. Conditions Excluded from the Scope of Warranty

- Malfunctions arising from failure to fulfill the customer responsibilities specified in the installation, commissioning, operation, and maintenance instructions,
- Malfunctions occurring if commissioning, repair, or maintenance is carried out by unauthorized service personnel,
- Damage to the product during transportation and storage,
- Failure to keep the product in its original packaging until the installation stage,
- Errors arising from incorrect equipment selection,
- Devices damaged due to natural disasters,
- Devices for which the warranty certificate is not presented,
- Devices whose warranty certificate does not bear the stamp and signature of an authorized dealer or service company,
- Devices with tampered warranty certificates or without an original serial number on the product are not covered by the warranty.
- The risks during transportation of the device under the customer’s responsibility belong to the customer.
- In case of malfunctions, whether there is user error is determined by a report issued by authorized service stations; if no authorized service station is available, by our authorized dealer, distributor, representative office, or factory.
- Consumers may apply to the relevant Consumer Arbitration Committee with a request for expert examination regarding this report.

## 3. GENERAL FEATURES OF BOILER PRODUCTS

- High efficiency with 80 mm insulation thickness made of soft polyurethane (foam) with a density of 18 kg/m³,
- Titanium-enhanced enamel with WRAS (drinking water approved) certification,
- Fast and high performance thanks to increased coil surface area in the boiler tank,
- Easy and hygienic maintenance advantage with a cleaning flange integrated into the tank
- Integrated design with thermometer,
- Continuous hot water supply with optional electric heater,
- Cathodic protection with magnesium anode rod,
- 11 different large capacity options: 100, 160, 200, 300, 500, 800, 1000, 1500, 2000, 2500, and 3000 liters,
- Suitable for use with heating systems such as condensing boilers, conventional burners, and heat pumps,
- Suitable for use in any environment thanks to its compact design,
- Operating temperature up to a maximum of 95°C,
- 10 bar operating pressure / 13 bar test pressure.

ECODENSE boiler products are available in single-coil models with capacities of 100 / 160 / 200 / 300 / 500 / 800 / 1000 / 1500 / 2000 / 2500 / 3000 liters, and double-coil models with capacities of 100 / 160 / 200 / 300 / 500 / 800 / 1000 / 1500 / 2000 / 2500 / 3000 liters. The device is manufactured in compliance with TS EN 12897 and TS 736 standards.

The inner surface of the device is enamel-coated in accordance with TS EN 12499 standards, and full protection against corrosion is ensured by means of the anode installed in the device. Since enamel coating means that the internal surfaces are lined with glass, it also provides a high level of hygiene. Depending on the model of the device, there are two thermowells available to which a thermostat sensing element can be connected in order to control the temperature of the water inside the boiler.

The thermal insulation of the boiler's outer shell is provided by 80 mm thick high-density polyurethane. This environmentally friendly polyurethane offers excellent insulation, does not contain HCFC, and does not harm the ozone layer.

In addition, the outer surface of the boiler, as well as its top and bottom covers, are made of ABS (Acrylonitrile Butadiene Styrene) material. Besides providing an aesthetic appearance, ABS material eliminates corrosion and rust issues in humid environments.

Thanks to the thermometer located on the control panel of the boiler, the temperature of the water inside the tank can be easily monitored by the user.

In models equipped with an electric heater, the system is designed to maintain a constant water temperature inside the tank with a thermostat adjustable between 30°C and 65°C, and safety against overheating is ensured by a 95°C safety thermostat.

The outer surface of the boiler is covered with polyurethane insulation with a density of 42 ± 2 kg/m³ to minimize heat losses.

For single and double coil models ranging from 800 liters to 3000 liters, removable foam insulation is used. As the capacity increases, the dimensions of the boiler products also increase; therefore, removable foam insulation is the most ideal solution to prevent difficulties during transportation and when passing through narrow doorways at the installation site. The insulation complies with the EN 15332 Energy Efficiency Standard;

100 - 300 L: 44 kg/m³ water-based rigid PU (HCFC-free) foam (Standard)

500 L - 3000 L: 18 kg/m³ soft PU (Standard)

Outer casing coating:

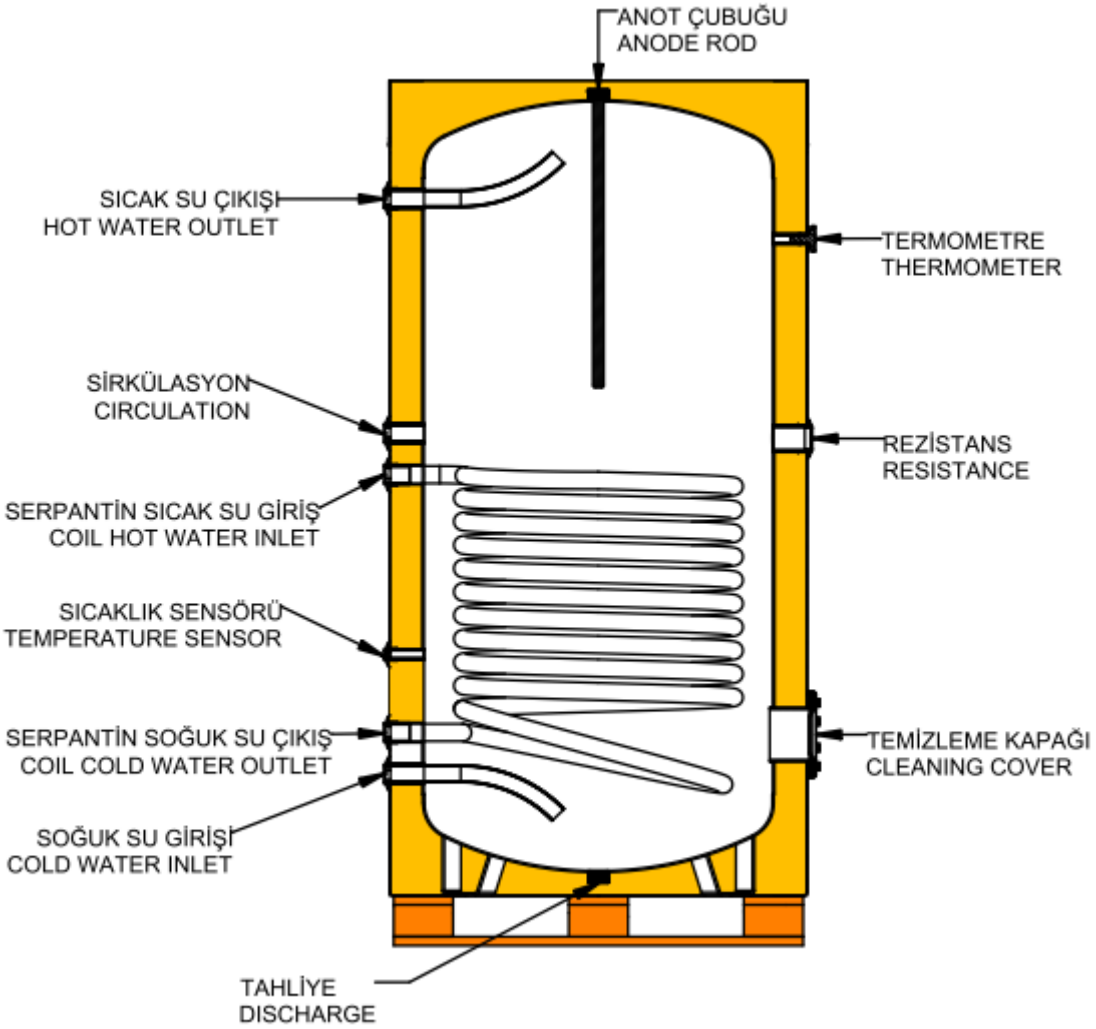
100 - 300 L: Electrostatic powder-coated steel sheet (Standard)

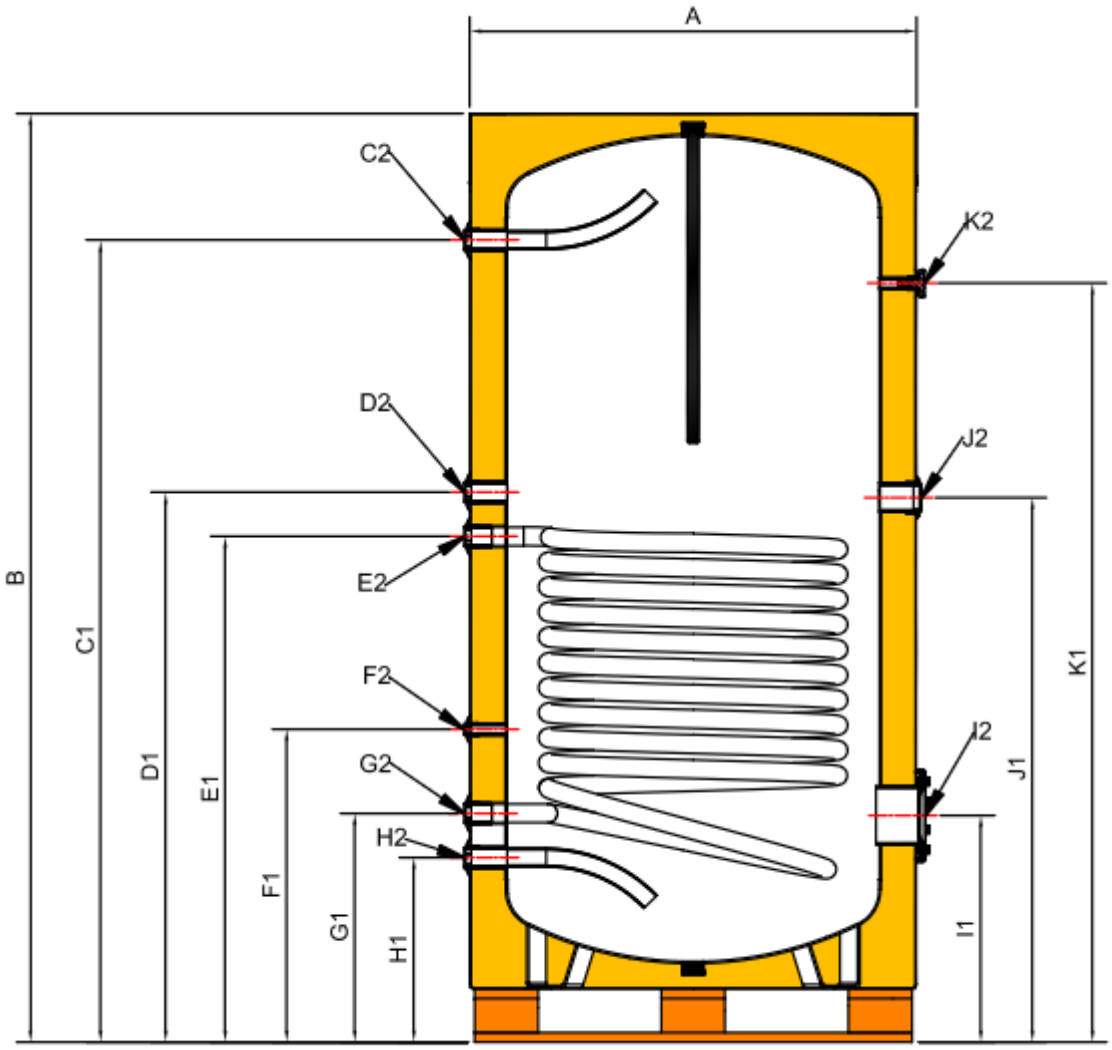
500 L – 3000 L: Vinlex synthetic leather

Cathodic Protection Element: Magnesium anode in accordance with DIN 4753-3 standard values (Standard)

## 4. DIMENSION TABLE

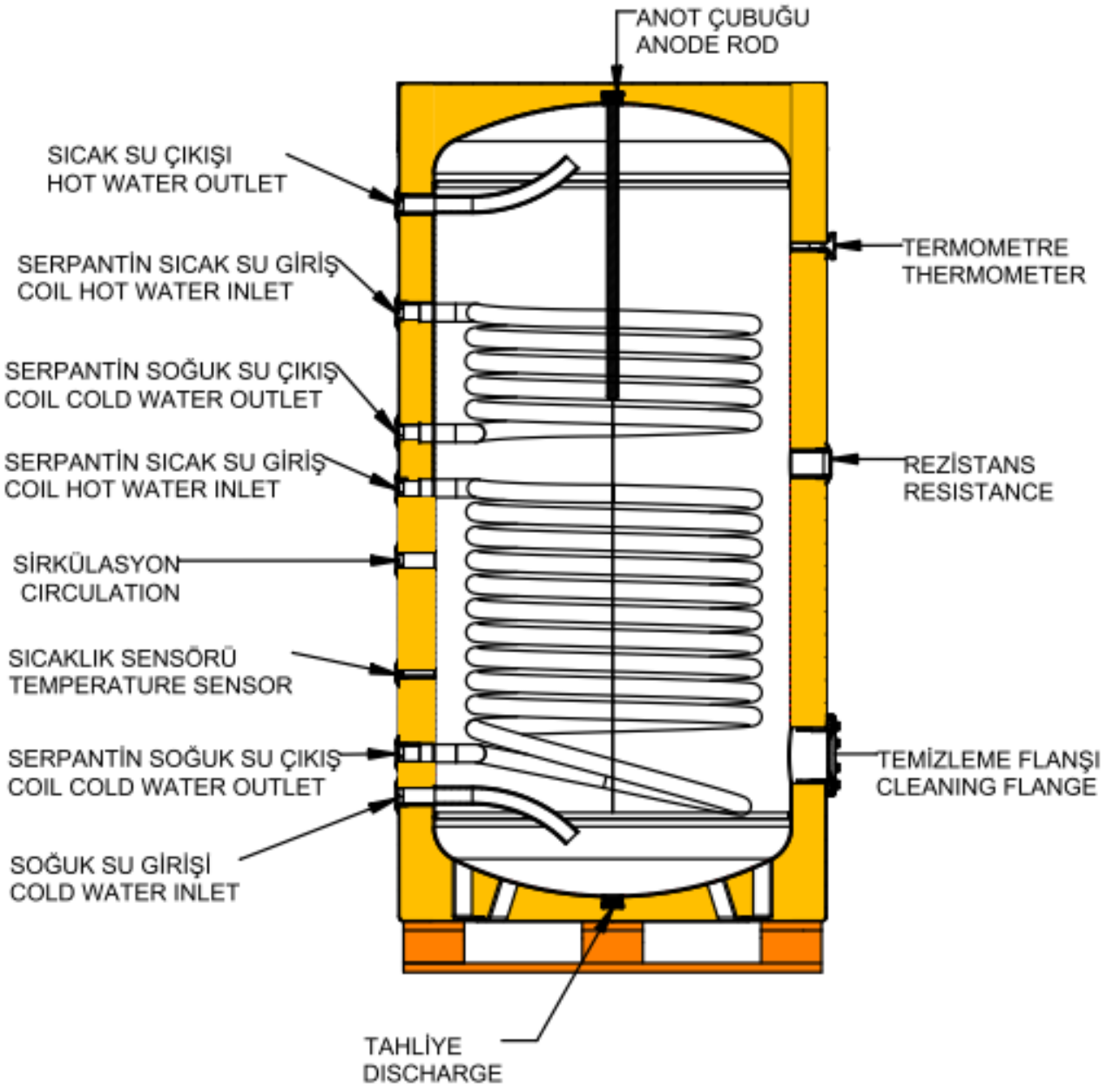
### a. Single Coil Boiler Dimension Table

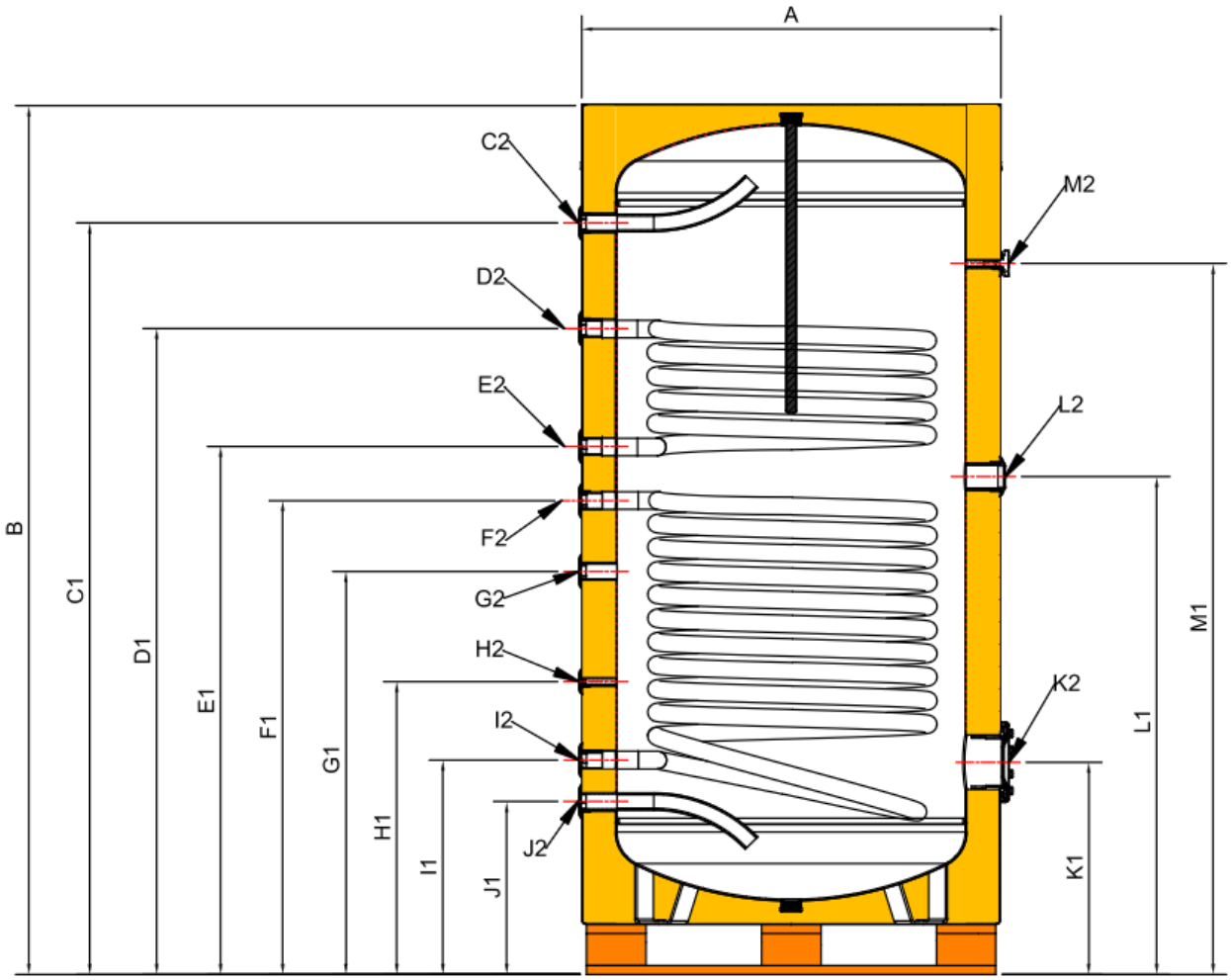





| SINGLE COIL BOILER SIZE TABLE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSION | DESCRIPTION | | CAPACITY | | | | | | | | | |
| | | | 100LT | 160LT | 200LT | 300LT | 500LT | 800LT | 1000LT | 1500LT | 2000LT | 2500LT | 3000LT |
| A | BOILER DIAMETER (INCLUDING INSULATION) | mm | 490 | 590 | 590 | 690 | 800 | 1010 | 1010 | 1120 | 1260 | 1360 | 1440 |
| B | HEIGHT | mm | 1110 | 1160 | 1330 | 1385 | 1750 | 1810 | 2120 | 2532 | 2542 | 2666 | 2781 |
| C1 | HOT WATER OUTLET HEIGHT | mm | 943 | 978 | 1150 | 1180 | 1490 | 1522 | 1835 | 2208 | 2210 | 2315 | 2415 |
| C2 | HOT WATER OUTLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| D1 | CIRCULATION HEIGHT | mm | 515 | 606 | 677 | 710 | 845 | 1093 | 1264 | 1414 | 1364 | 1555 | 1570 |
| D2 | CIRCULATION DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| E1 | COIL HOT WATER INLET HEIGHT | mm | 678 | 690 | 833 | 840 | 1018 | 993 | 1164 | 1314 | 1264 | 1455 | 1470 |
| E2 | COIL HOT WATER INLET DIAMETER | inc | 1" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| F1 | TEMPERATURE SENSOR HEIGHT | mm | 515 | 526 | 527 | 585 | 695 | 727 | 727 | 763 | 770 | 790 | 805 |
| F2 | TEMPERATURE SENSOR DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| G1 | COIL COLD WATER OUTLET HEIGHT | mm | 397 | 410 | 410 | 440 | 505 | 537 | 537 | 573 | 580 | 600 | 615 |
| G2 | COIL COLD WATER OUTLET DIAMETER | inc | 1" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| H1 | COIL COLD WATER INLET HEIGHT | mm | 307 | 323 | 323 | 350 | 405 | 437 | 437 | 473 | 480 | 500 | 515 |
| H2 | COIL COLD WATER INLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| I1 | CLEANING COVER | mm | 420 | 385 | 385 | 460 | 505 | 533 | 532 | 568 | 575 | 595 | 610 |
| I2 | CLEANING COVER DIAMETER | | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 |
| J1 | HEATING ELEMENT HEIGHT | mm | 740 | 725 | 875 | 880 | 1100 | 1093 | 1252 | 1414 | 1365 | 1555 | 1570 |
| J2 | HEATING ELEMENT DIAMETER | inc | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 2" | 2" | 2" | 2" | 2" | 2" |
| K1 | THERMOMETER HEIGHT | mm | 890 | 925 | 1095 | 1130 | 1390 | 1367 | 1737 | 2026 | 2023 | 2100 | 2158 |
| K2 | THERMOMETER DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |

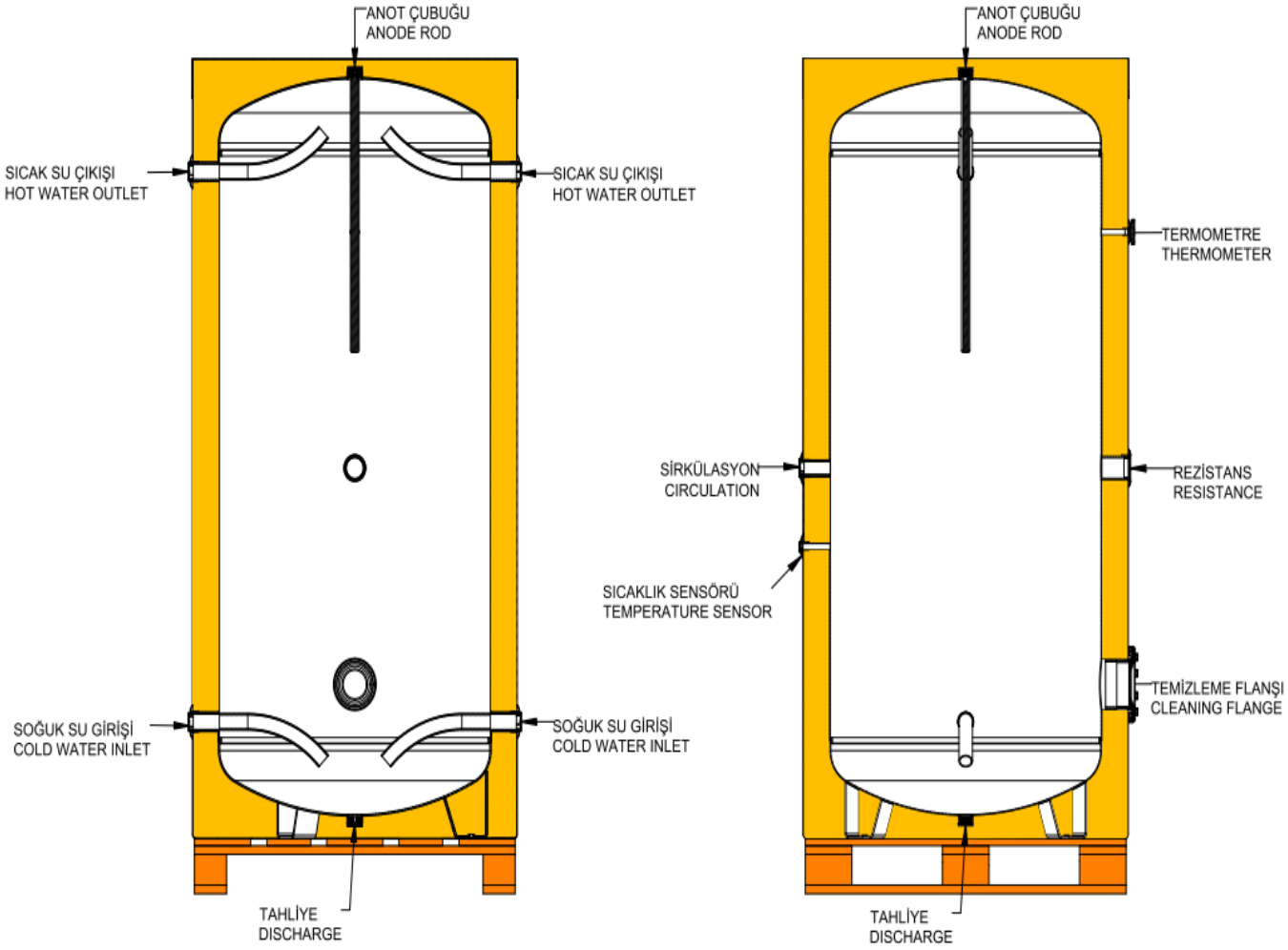
**b. Double Coil Boiler Dimension Table**

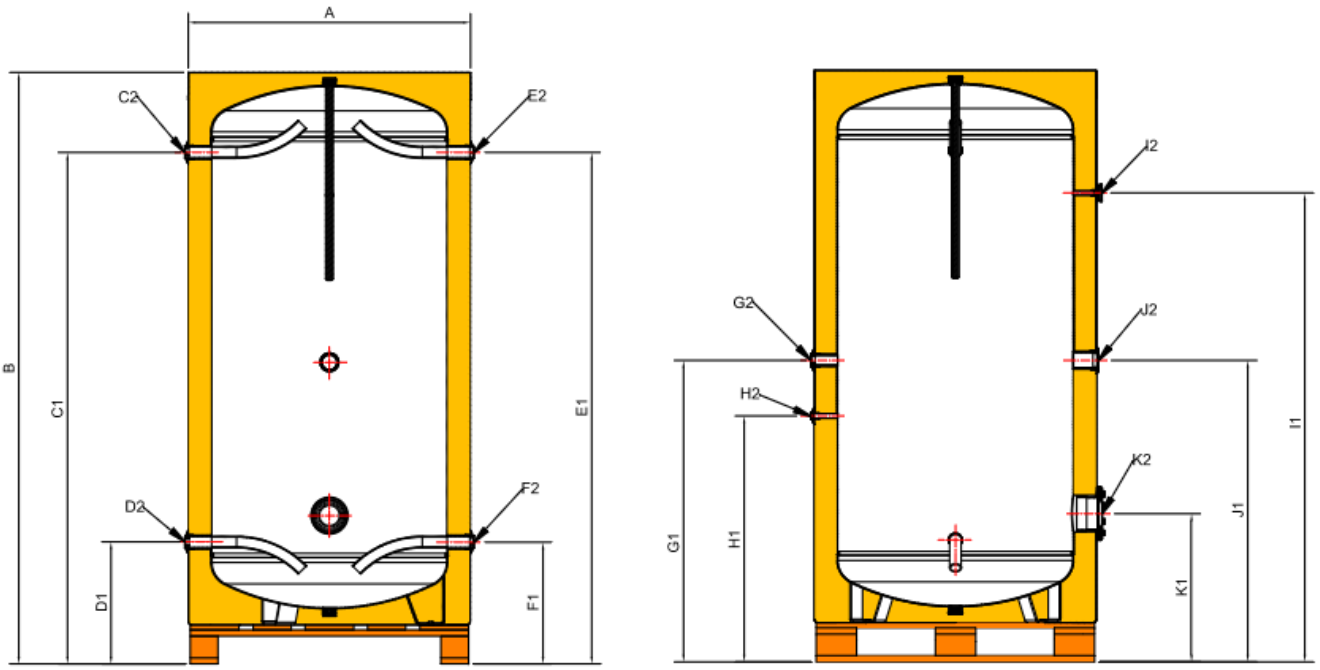





| DOUBLE COIL BOILER DIMENSION TABLE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSION | DESCRIPTION | | 160LT | 200LT | 300LT | 500LT | 800LT | 1000LT | 1500LT | 2000LT | 2500LT | 3000LT |
| A | BOILER DIAMETER (INCLUDING INSULATION) | mm | 590 | 590 | 690 | 800 | 1010 | 1010 | 1120 | 1260 | 1360 | 1440 |
| B | HEIGHT | mm | 1160 | 1330 | 1385 | 1750 | 1810 | 2120 | 2532 | 2542 | 2666 | 2781 |
| C1 | HOT WATER OUTLET HEIGHT | mm | 978 | 1150 | 1180 | 1490 | 1522 | 1835 | 2208 | 2210 | 2315 | 2415 |
| C2 | HOT WATER OUTLET DIAMETER | inc | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| D1 | COIL HOT WATER INLET HEIGHT | mm | 900 | 1060 | 1095 | 1398 | 1377 | 1580 | 1855 | 1806 | 2054 | 2175 |
| D2 | COIL HOT WATER INLET DIAMETER | inc | 1" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| E1 | COIL HOT WATER OUTLET HEIGHT | mm | 760 | 920 | 925 | 1113 | 1092 | 1295 | 1514 | 1464 | 1655 | 1720 |
| E2 | COIL HOT WATER OUTLET DIAMETER | inc | 1" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| F1 | COIL COLD WATER INLET HEIGHT | mm | 690 | 833 | 840 | 1112 | 992 | 1164 | 1314 | 1264 | 1455 | 1470 |
| F2 | COIL COLD WATER INLET DIAMETER | inc | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| G1 | CIRCULATION HEIGHT | mm | 606 | 677 | 710 | 846 | 862 | 993 | 963 | 960 | 1090 | 1105 |
| G2 | CIRCULATION DIAMETER | inc | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| H1 | TEMPERATURE SENSOR HEIGHT | mm | 526 | 527 | 585 | 696 | 727 | 727 | 763 | 770 | 790 | 805 |
| H2 | TEMPERATURE SENSOR DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| I1 | COIL COLD WATER OUTLET HEIGHT | mm | 410 | 410 | 440 | 505 | 536 | 536 | 573 | 580 | 600 | 615 |
| I2 | COIL COLD WATER OUTLET DIAMETER | inc | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| J1 | COLD WATER INLET HEIGHT | mm | 323 | 323 | 350 | 406 | 437 | 437 | 473 | 480 | 500 | 515 |
| J2 | COLD WATER INLET DIAMETER | inc | 3/4" | 3/4" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| K1 | CLEANING COVER HEIGHT | mm | 385 | 385 | 460 | 505 | 533 | 533 | 568 | 575 | 595 | 610 |
| K2 | CLEANING COVER DIAMETER | | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 |
| L1 | HEATING ELEMENT HEIGHT | mm | 725 | 875 | 880 | 1100 | 1042 | 1222 | 1414 | 1365 | 1555 | 1570 |
| L2 | HEATING ELEMENT DIAMETER | inc | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 2" | 2" | 2" | 2" | 2" | 2" |
| M1 | THERMOMETER HEIGHT | mm | 925 | 1095 | 1130 | 1390 | 1366 | 1737 | 2026 | 2023 | 2100 | 2160 |
| M2 | THERMOMETER DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |

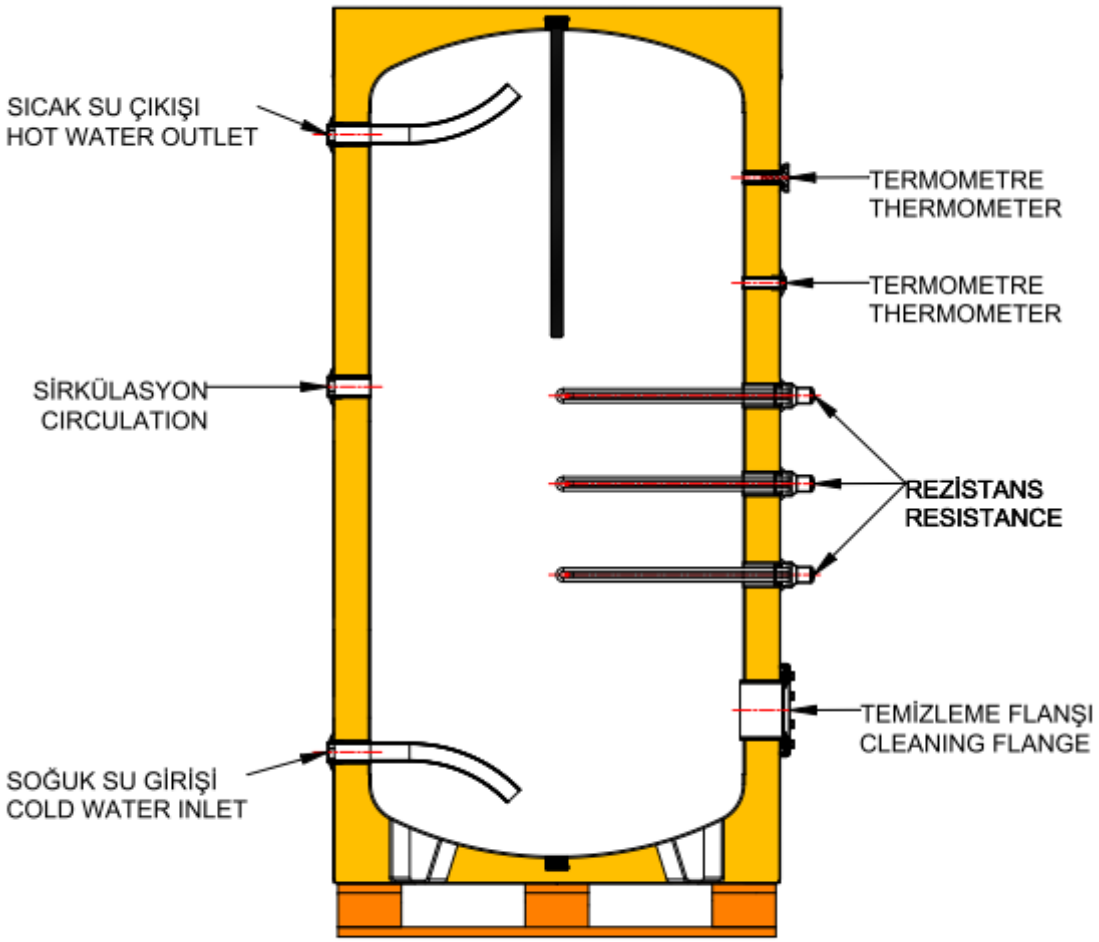
## c. Accumulation Tank Dimension Table

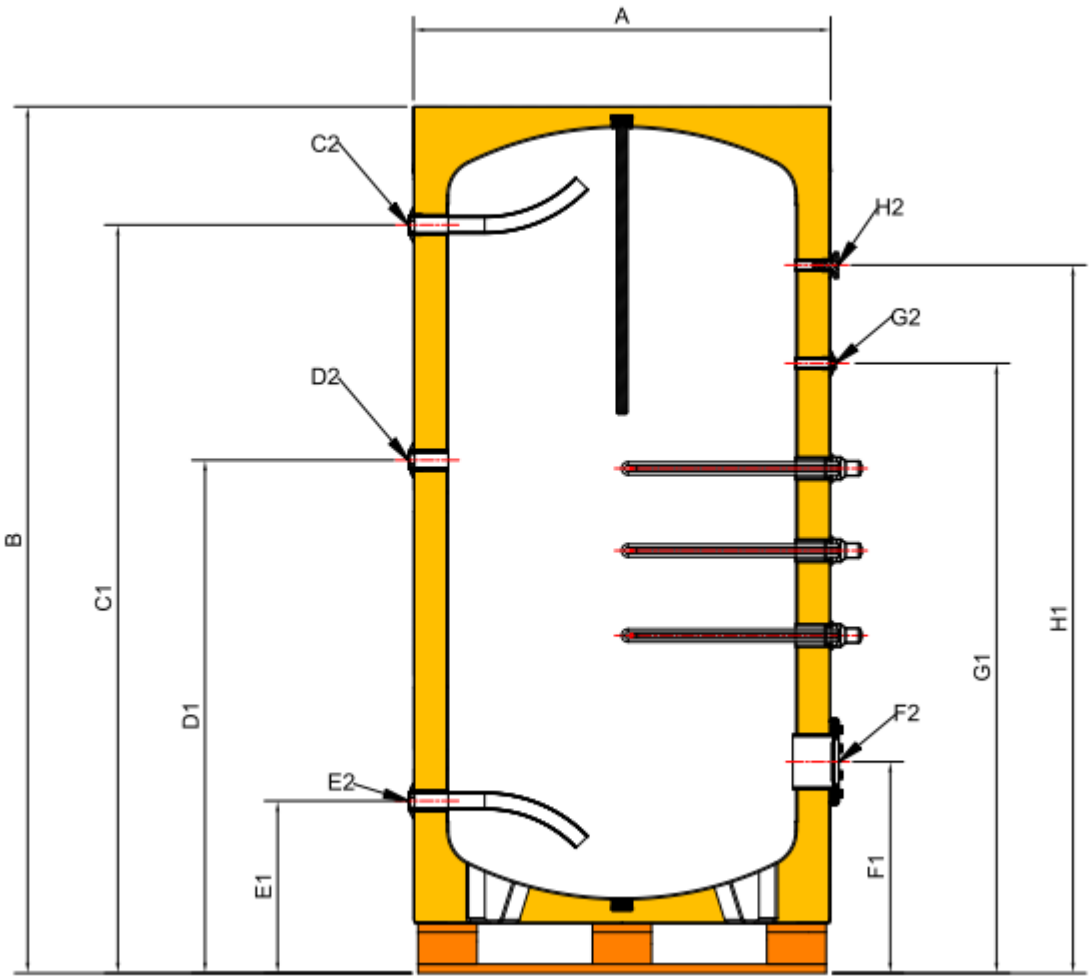





| ACCUMULATION TANK DIMENSION TABLE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSION | DESCRIPTION | | CAPACITY | | | | | | | | | |
| | | | 100LT | 160LT | 200LT | 300LT | 500LT | 800LT | 1000LT | 1500LT | 2000 | 2500 | 3000 |
| A | BOILER DIAMETER (INCLUDING INSULATION) | mm | 490 | 590 | 590 | 690 | 800 | 1010 | 1010 | 1120 | 1260 | 1360 | 1440 |
| B | HEIGHT | mm | 1110 | 1160 | 1330 | 1385 | 1750 | 1810 | 2120 | 2532 | 2542 | 2666 | 2781 |
| C1 | HOT WATER OUTLET HEIGHT | mm | 943 | 978 | 1150 | 1180 | 1470 | 1522 | 1835 | 2208 | 2210 | 2315 | 2415 |
| C2 | HOT WATER OUTLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| D1 | COLD WATER INLET HEIGHT | mm | 307 | 323 | 323 | 350 | 387 | 437 | 437 | 473 | 480 | 500 | 515 |
| D2 | COLD WATER INLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| E1 | HOT WATER OUTLET HEIGHT | mm | 943 | 978 | 1150 | 1180 | 1470 | 1522 | 1835 | 2208 | 2210 | 2315 | 2415 |
| E2 | HOT WATER OUTLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| F1 | COLD WATER INLET HEIGHT | mm | 307 | 323 | 323 | 350 | 387 | 437 | 437 | 473 | 480 | 500 | 515 |
| F2 | COLD WATER INLET DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| G1 | CIRCULATION HEIGHT | mm | 515 | 606 | 677 | 710 | 837 | 915 | 1082 | 1300 | 1250 | 1500 | 1460 |
| G2 | CIRCULATION DIAMETER | inc | 3/4" | 3/4" | 3/4" | 1" | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| H1 | TEMPERATURE SENSOR HEIGHT | mm | 515 | 526 | 527 | 585 | 587 | 765 | 882 | 1100 | 1050 | 1250 | 1210 |
| H2 | TEMPERATURE SENSOR DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| I1 | THERMOMETER HEIGHT | mm | 890 | 925 | 1095 | 1130 | 1370 | 1366 | 1682 | 2026 | 2023 | 2043 | 2058 |
| I2 | THERMOMETER DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| J1 | HEATING ELEMENT HEIGHT | mm | 740 | 725 | 875 | 880 | 984 | 915 | 1082 | 1300 | 1250 | 1500 | 1460 |
| J2 | HEATING ELEMENT DIAMETER | inc | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 2" | 2" | 2" | 2" | 2" | 2" |
| K1 | CLEANING COVER HEIGHT | mm | 420 | 385 | 385 | 460 | 484 | 534 | 534 | 568 | 575 | 595 | 610 |
| K2 | CLEANING COVER DIAMETER | | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 |

## d. Electric Boiler Dimension Table






| ELECTRIC BOILER DIMENSION TABLE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| DIMENSION | DESCRIPTION | | CAPACITY | | | | | |
| | | | 500LT | 800LT | 1000LT | 1500LT | 2000LT | 2500LT | 3000LT |
| A | BOILER DIAMETER (INCLUDING INSULATION) | mm | 800 | 1010 | 1010 | 1120 | 1260 | 1360 | 1440 |
| B | HEIGHT | mm | 1750 | 1810 | 2120 | 2532 | 2542 | 2666 | 2781 |
| C1 | HOT WATER OUTLET HEIGHT | mm | 1470 | 1522 | 1835 | 2208 | 2210 | 2315 | 2415 |
| C2 | HOT WATER OUTLET DIAMETER | inc | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| D1 | CIRCULATION HEIGHT | mm | 837 | 915 | 1082 | 1300 | 1250 | 1500 | 1460 |
| D2 | CIRCULATION DIAMETER | inc | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| E1 | COLD WATER INLET HEIGHT | mm | 387 | 437 | 437 | 473 | 480 | 500 | 515 |
| E2 | COLD WATER INLET DIAMETER | inc | 1" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| F1 | CLEANING COVER HEIGHT | mm | 484 | 534 | 534 | 568 | 575 | 595 | 610 |
| F2 | CLEANING COVER DIAMETER | | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 | DN125 |
| G1 | TEMPERATURE SENSOR HEIGHT | mm | 1284 | 1280 | 1600 | 1940 | 1940 | 1960 | 1970 |
| G2 | TEMPERATURE SENSOR DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |
| H1 | THERMOMETER HEIGHT | mm | 1370 | 1366 | 1682 | 2026 | 2023 | 2043 | 2058 |
| H2 | THERMOMETER DIAMETER | inc | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" | 1/2" |

# 5. TECHNICAL DATA

## a. Single Coil

| TECHNICAL SPECIFICATIONS | 100 | 160 | 200 | 300 | 500 |
|---|---|---|---|---|---|
| **Body Sheet Material** | ST37 | ST37 | ST37 | ST37 | ST37 |
| **Operating Pressure** | Maks. 10bar | Maks. 10bar | Maks. 10bar | Maks. 10bar | Max 10bar |
| **Test Pressure** | Maks. 13bar | Maks. 13bar | Maks. 13bar | Maks. 13bar | Max 13bar |
| **Water Temperature** | Maks. 95°C | Maks. 95°C | Maks. 95°C | Maks. 95°C | Max 95°C |
| **Internal Coating** | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| **Enamel Coating Thickness** | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| **Cathodic Protection Element** | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| **Thermal Insulation Thickness** | 45mm | 45mm | 45mm | 45mm | 50mm |
| **Thermal Insulation Density** | 44 kg/m3 | 44 kg/m3 | 44 kg/m3 | 44 kg/m3 | 18 kg/m3 |
| **K-Value** | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,040 W/(m·K) |
| **Insulation Material** | HCFC Polyurethane | HCFC Polyurethane | HCFC Polyurethane | HCFC Polyurethane | Soft Polyurethane |
| **Anode Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Coil Inlet-Outlet Connection** | 1 inch | 1 inch | 1 inch | 1 inch | 1 1/4 inch |
| **Thermometer Connection** | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| **Inspection Flange** | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| **Recirculation Connection** | 3/4 inch | 3/4 inch | 3/4 inch | 1 inch | 1 inch |
| **Electric Heater Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Cold - Hot Water Connection** | 3/4 inch | 3/4 inch | 3/4 inch | 1 inch | 1 inch |
| **Exchange Surface Area** | 0,65m² | 0,95m² | 1,27m² | 1,6m² | 2m² |
| **Coil Pipe Diameter** | 33,7mm | 33,7mm | 33,7mm | 33,7mm | 42,4mm |
| **Coil Length** | 6 m | 9 m | 12 m | 12 m | 15m |
| **Product Dimensions** | Ø490x1110mm | Ø590x1160mm | Ø590x1330mm | Ø690x1385mm | Ø800x1750mm |

| TECHNICAL SPECIFICATIONS | 800 | 1000 | 1500 | 2000 | 2500 | 3000 |
|---|---|---|---|---|---|---|
| **Body Sheet Material** | ST37 | ST37 | ST37 | ST37 | ST37 | ST37 |
| **Operating Pressure** | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar |
| **Test Pressure** | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar |
| **Water Temperature** | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C |
| **Internal Coating** | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| **Enamel Coating Thickness** | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| **Cathodic Protection Element** | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| **Thermal Insulation Thickness** | 80mm | 80mm | 80mm | 80mm | 80mm | 80mm |
| **Thermal Insulation Density** | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | kg/m3 | kg/m3 |
| **K-Value** | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) |
| **Insulation Material** | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane |
| **Anode Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Coil Inlet-Outlet Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Thermometer Connection** | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| **Inspection Flange** | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| **Recirculation Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Electric Heater Connection** | 2 inch | 2 inch | 2 inch | 2 inch | 2 inch | 2 inch |
| **Cold - Hot Water Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Exchange Surface Area** | 2,9m² | 3,2m² | 4,4m² | 5,1m² | 6,4 m² | 6,8m² |
| **Coil Pipe Diameter** | 42,4mm | 42,4 mm | 42,4mm | 42,4 mm | 42,4 mm | 42,4 mm |
| **Coil Length** | 22m | 24m | 33m | 38m | 48m | 51m |
| **Product Dimensions** | Ø1010x1810mm | Ø1010x2120mm | Ø1120x2530mm | Ø1260x2540mm | Ø1360x2665mm | Ø1440x2780mm |

## b. Double Coil

| TECHNICAL SPECIFICATIONS | 160 | 200 | 300 | 500 | 800 |
|---|---|---|---|---|---|
| **Body Sheet Material** | ST37 | ST37 | ST37 | ST37 | ST37 |
| **Operating Pressure** | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar |
| **Test Pressure** | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar |
| **Water Temperature** | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C |
| **Internal Coating** | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| **Enamel Coating Thickness** | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| **Cathodic Protection Element** | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| **Thermal Insulation Thickness** | 45mm | 45mm | 45mm | 50mm | 80mm |
| **Thermal Insulation Density** | 44 kg/m3 | 44 kg/m3 | 44 kg/m3 | 18kg/m3 | 18kg/m3 |
| **K-Value** | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) |
| **Insulation Material** | HCFC Polyurethane | HCFC Polyurethane | HCFC Polyurethane | Soft Polyurethane | Soft Polyurethane |
| **Anode Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Coil Inlet-Outlet Connection (Top)** | 1 inch | 1 inch | 1 inch | 1 1/4 inch | 1 1/4 inch |
| **Thermometer Connection** | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| **Inspection Flange** | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| **Recirculation Connection** | 3/4 inch | 3/4 inch | 1 inch | 1 inch | 1 1/4 inch |
| **Electric Heater Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 2 inch |
| **Cold - Hot Water Connection** | 3/4 inch | 3/4 inch | 1 inch | 1 inch | 1 1/4 inch |
| **Exchange Surface Area (Top)** | 0,36m² | 1,34m² | 0,6m² | 1,7m² | 1,3 m² |
| **Coil Pipe Diameter (Top)** | 33,7mm | 33,7mm | 33,7mm | 42,4 mm | 42,4mm |
| **Coil Length (Top)** | 4 Metre | 4 Metre | 5 Metre | 9 Metre | 10 Metre |
| **Exchange Surface Area (Bottom)** | 0,95m² | 1,27m² | 1,6m² | 2m² | 2,9m² |
| **Coil Pipe Diameter (Bottom)** | 33,7mm | 33,7mm | 33,7mm | 42,4 mm | 42,4mm |
| **Coil Length (Bottom)** | 9 Metre | 12 Metre | 12 Metre | 15 m | 22 m |
| **Coil Inlet-Outlet Connection (Bottom)** | 1 inch | 1 inch | 1 inch | 1 1/4 inch | 1 1/4 inch |
| **Product Dimensions** | Ø590x1160mm | Ø590x1330mm | Ø690x1385mm | Ø800x1750mm | Ø1010x1810mm |

| TECHNICAL SPECIFICATIONS | 1000 | 1500 | 2000 | 2500 | 3000 |
|---|---|---|---|---|---|
| **Body Sheet Material** | ST37 | ST37 | ST37 | ST37 | ST37 |
| **Operating Pressure** | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar |
| **Test Pressure** | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar |
| **Water Temperature** | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C |
| **Internal Coating** | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| **Enamel Coating Thickness** | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| **Cathodic Protection Element** | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| **Thermal Insulation Thickness** | 80mm | 80mm | 80mm | 80mm | 80mm |
| **Thermal Insulation Density** | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 |
| **K-Value** | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) |
| **Insulation Material** | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane |
| **Anode Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Coil Inlet-Outlet Connection (Top)** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Thermometer Connection** | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| **Inspection Flange** | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| **Recirculation Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Electric Heater Connection** | 2 inch | 2 inch | 2 inch | 2 inch | 2 inch |
| **Cold - Hot Water Connection** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Exchange Surface Area (Top)** | 1,4m² | 1,55m² | 2,2 m² | 2,8 m² | 3,1m² |
| **Coil Pipe Diameter (Top)** | 42,4 mm | 42,4mm | 42,4mm | 42,4 mm | 42,4 mm |
| **Coil Length (Top)** | 11 Metre | 12 Metre | 16,3 Metre | 21,3 Metre | 24 Metre |
| **Exchange Surface Area (Bottom)** | 3,2m² | 4,4m² | 5,1 m² | 6,4 m² | 6,8m² |
| **Coil Pipe Diameter (Bottom)** | 42,4 mm | 42,4mm | 42,4mm | 42,4 mm | 42,4 mm |
| **Coil Length (Bottom)** | 24 m | 33 m | 38 m | 48 m | 51 m |
| **Coil Inlet-Outlet Connection (Bottom)** | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| **Product Dimensions** | Ø1010x2120mm | Ø1120x2530mm | Ø1260x2540mm | Ø1360x2665mm | Ø1440x2780mm |

## c. Accumulation Tank

| TECHNICAL SPECIFICATIONS | 100 | 160 | 200 | 300 | 500 |
|---|---|---|---|---|---|
| Body Sheet Material | ST37 | ST37 | ST37 | ST37 | ST37 |
| Operating Pressure | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar |
| Test Pressure | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar |
| Water Temperature | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C |
| Internal Coating | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| Enamel Coating Thickness | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| Cathodic Protection Element | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| Thermal Insulation Thickness | 45mm | 45mm | 45mm | 45mm | 50mm |
| Thermal Insulation Density | 44 kg/m3 | 44 kg/m3 | 44 kg/m3 | 44 kg/m3 | 18kg/m3 |
| K-Value | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,0287 W/(m·K) | 0,040 W/(m·K) |
| Insulation Material | HCFC Polyurethane | HCFC Polyurethane | HCFC Polyurethane | HCFC Polyurethane | Soft Polyurethane |
| Anode Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Thermometer Connection | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| Inspection Flange | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| Recirculation Connection | 3/4 inch | 3/4 inch | 3/4 inch | 1 inch | 1 inch |
| Cold - Hot Water Connection | 3/4 inch | 3/4 inch | 3/4 inch | 1 inch | 1 inch |
| Electric Heater Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Product Dimensions | Ø490x1110mm | Ø590x1160mm | Ø590x1330mm | Ø690x1385mm | Ø800x1750mm |

| TECHNICAL SPECIFICATIONS | 800 | 1000 | 1500 | 2000 | 2500 | 3000 |
|---|---|---|---|---|---|---|
| Body Sheet Material | ST37 | ST37 | ST37 | ST37 | ST37 | ST37 |
| Operating Pressure | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar | Max 10bar |
| Test Pressure | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar | Max 13bar |
| Water Temperature | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C | Max 95°C |
| Internal Coating | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) | Titanium Enamel (TS EN 12499 compliant) |
| Enamel Coating Thickness | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm | 250-450 µm |
| Cathodic Protection Element | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) | Standard Magnesium Anode (TS EN 12499) |
| Thermal Insulation Thickness | 80mm | 80mm | 80mm | 80mm | 80mm | 80mm |
| Thermal Insulation Density | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 |
| K-Value | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) |
| Insulation Material | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane |
| Anode Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Thermometer Connection | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| Inspection Flange | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| Recirculation Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Cold - Hot Water Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Electric Heater Connection | 2 inch | 2 inch | 2 inch | 2 inch | 2 inch | 2 inch |
| Product Dimensions | Ø1010x1810mm | Ø1010x2120mm | Ø1120x2530mm | Ø1260x2540mm | Ø1360x2665mm | Ø1440x2780mm |

## d. Electric Boiler

| TECHNICAL SPECIFICATIONS | 500 | 800 | 1000 | 1500 | 2000 | 2500 | 3000 |
|---|---|---|---|---|---|---|---|
| Product Inner Diameter | 700mm | 850mm | 850mm | 960mm | 1100mm | 1200mm | 1280mm |
| Product Outer Diameter | 800mm | 1010mm | 1010mm | 1120mm | 1260mm | 1360mm | 1440mm |
| Height | 1750mm | 1810mm | 2120mm | 2530mm | 2540mm | 2665mm | 2780mm |
| Body Sheet Type | ST37 | ST37 | ST37 | ST37 | ST37 | ST37 | ST37 |
| Body Sheet Thickness | 4mm | 4mm | 4mm | 5mm | 5mm | 6mm | 6mm |
| Dished End Plate Thickness | 4mm | 4mm | 4mm | 5mm | 5mm | 6mm | 6mm |
| Operating Pressure | Max. 10bar | Max. 10bar | Max. 10bar | Max. 10bar | Max. 10bar | Max. 10bar | Max. 10bar |
| Test Pressure | Max. 13bar | Max. 13bar | Max. 13bar | Max. 13bar | Max. 13bar | Max. 13bar | Max. 13bar |
| Water Temperature | Max. 95°C | Max. 95°C | Max. 95°C | Max. 95°C | Max. 95°C | Max. 95°C | Max. 95°C |
| Internal Surface Coating | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel | TS EN 12499 Titanium Enamel |
| Enamel Coating Thickness | 250-450 Microns | 250-450 Microns | 250-450 Microns | 250-450 Microns | 250-450 Microns | 250-450 Microns | 250-450 Microns |
| Cathodic Protection Element | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode | TS EN 12499 Standard Magnesium Anode |
| Insulation Thickness | 50mm | 80mm | 80mm | 80mm | 80mm | 80mm | 80mm |
| Insulation Density | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 | 18kg/m3 |
| Thermal Conductivity Coefficient of Insulation | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) | 0,040 W/(m·K) |
| Type of Insulation | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane | Soft Polyurethane |
| Anode Connection | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Thermometer Connection | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch | 1/2 inch |
| Cleaning Flange | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch | 5 inch |
| Recirculation Connection | 1 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Heating Element Connection | 1 1/2 inch | 1 1/2 inch | 1 1/2 inch | 1 1/2 inch | 1 1/2 inch | 1 1/2 inch | 1 1/2 inch |
| Cold and Hot Water Connection | 1 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch | 1 1/4 inch |
| Product Dimensions | Ø800x1750 mm | Ø1010x1810 mm | Ø1010x2120 mm | Ø1120x2530 mm | Ø1260x2540 mm | Ø1360x2665 mm | Ø1440x2780 mm |
| Heating Power | 2x10 kW | 2x15 kW | 3x15 kW | 4x15 kW | 5x15 kW | 7x 15 kW | 7x15kW |
| Hot Water Capacity (L/H) at 10°C – 45°C | 489 | 730 | 1050 | 1472 | 1850 | 2100 | 2100 |

# 6. CLOSED SYSTEM CIRCUIT COMPONENTS

## 6.1. Expansion Tank

The expansion tank pre-charge pressures must be adjusted in accordance with the system requirements. The expansion tank should be installed in parallel with the system return line.

## 6.2. Pressure Gauge

It is used to indicate the pressure value within the system.

## 6.3. Dirt Separator

Impurities such as dirt, sludge, and sediment contained in the system water may cause malfunctions in the boiler and installation components, increased stress on heat transfer surfaces, and reduced efficiency. To prevent this, a dirt separator is added to the system.

## 6.4. Air Separator

Air contained within the system piping dissolves and circulates in the system in gaseous form as the temperature increases. This air in the installation may cause cavitation, reduced efficiency, and noise. By using an air separator, the air present in the system is removed from the installation.

## 6.5. Check Valve

It allows the fluid flowing within the system to move in the desired direction and prevents reverse flow of the fluid.

## 6.6. Pump

It is used to ensure the circulation of the fluid used in the system within the installation.

## 6.7. Thermometer

It is used to monitor the temperature of the fluid within the system.

## 6.8. Pressure Reducing Valve

If the water pressure in the line exceeds the device’s permitted optimal pressure, a pressure reducing valve must be installed on the connection line.



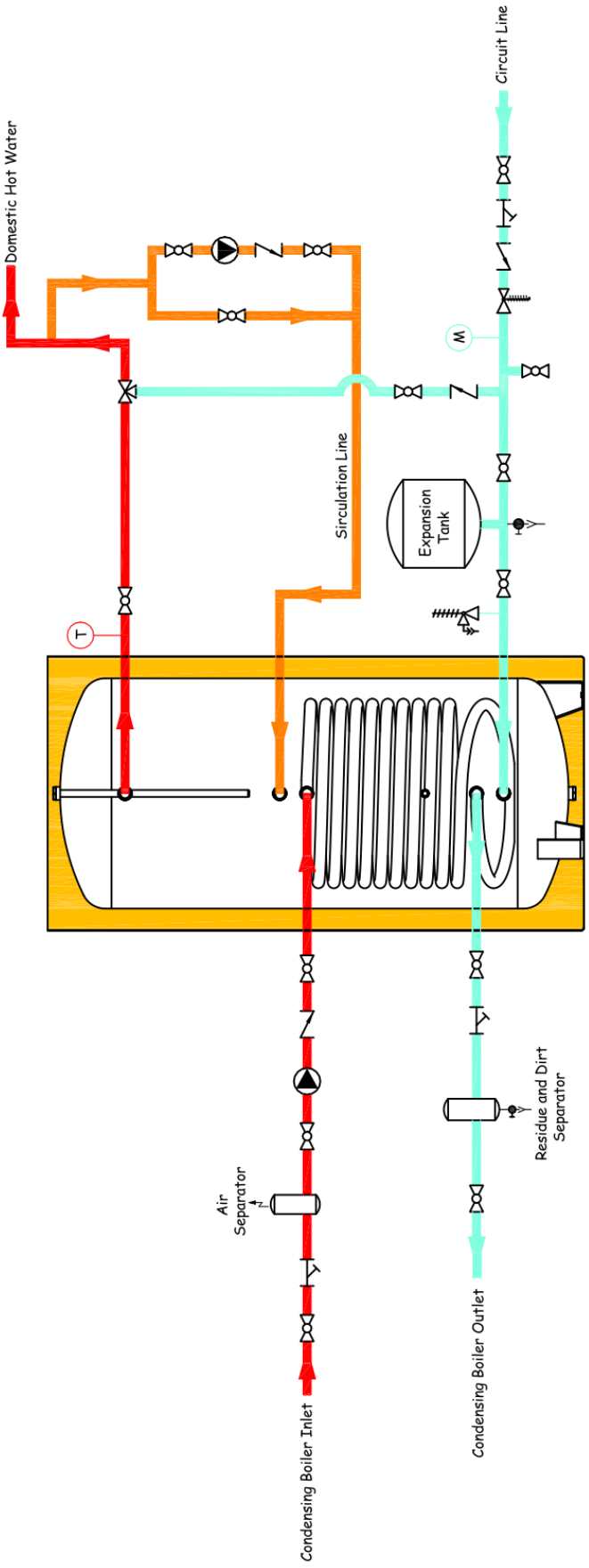
To ensure the system operates smoothly and that deficiencies in the installation do not cause efficiency losses, the hydraulic piping design must comply with the circuit diagrams specified in the hydraulic system design manual. The hydraulic system must be equipped with a buffer tank, sludge separator, air separator, and expansion tank appropriate to the system’s capacity and characteristics.



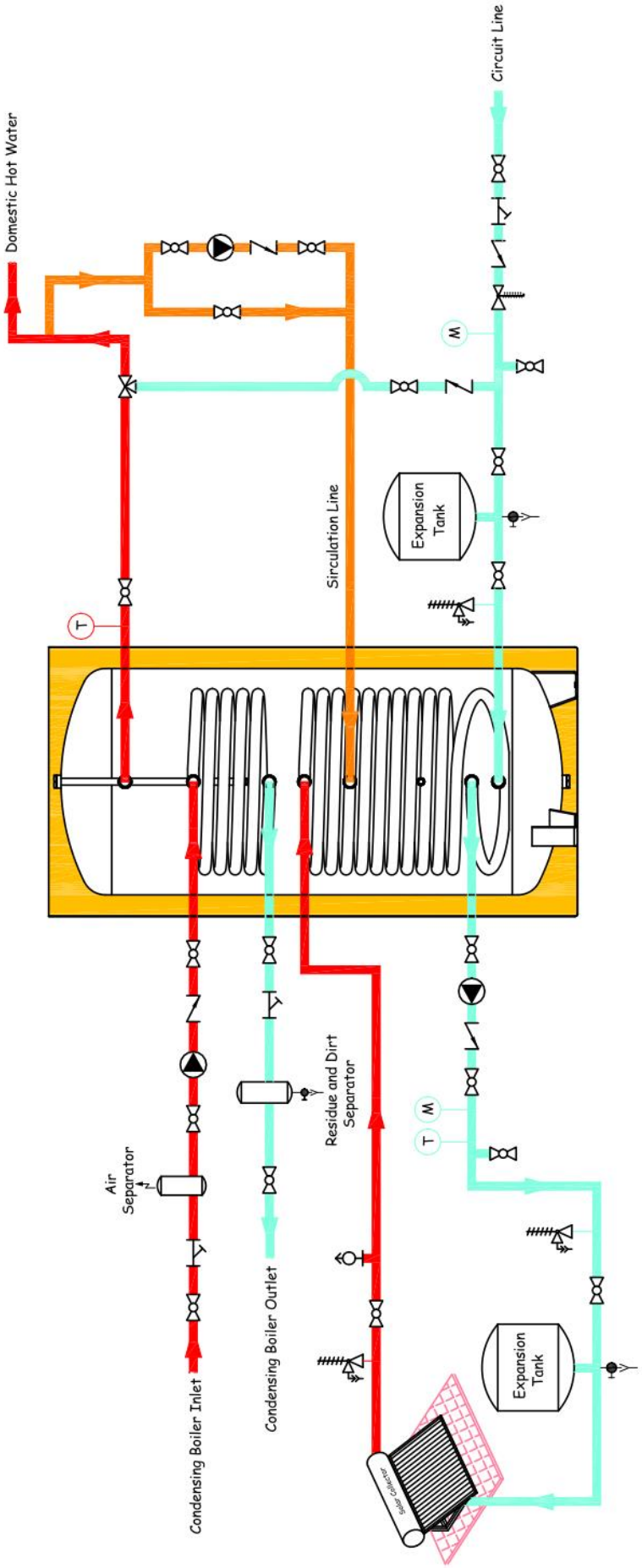
It is beneficial to integrate a water softening system into the installation to balance the pH level.

## 7. CIRCUIT DIAGRAMS

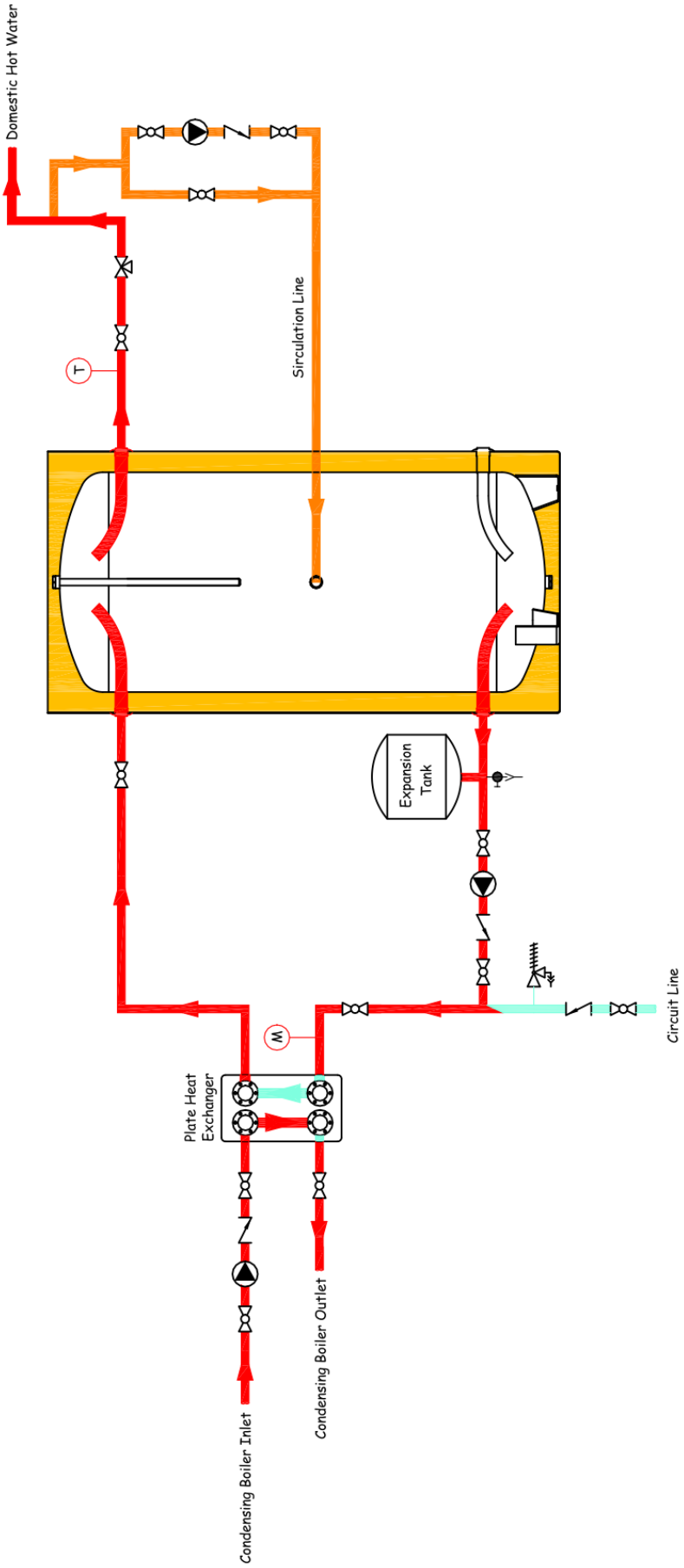
### a. Single Coil Boiler Circuit Diagram



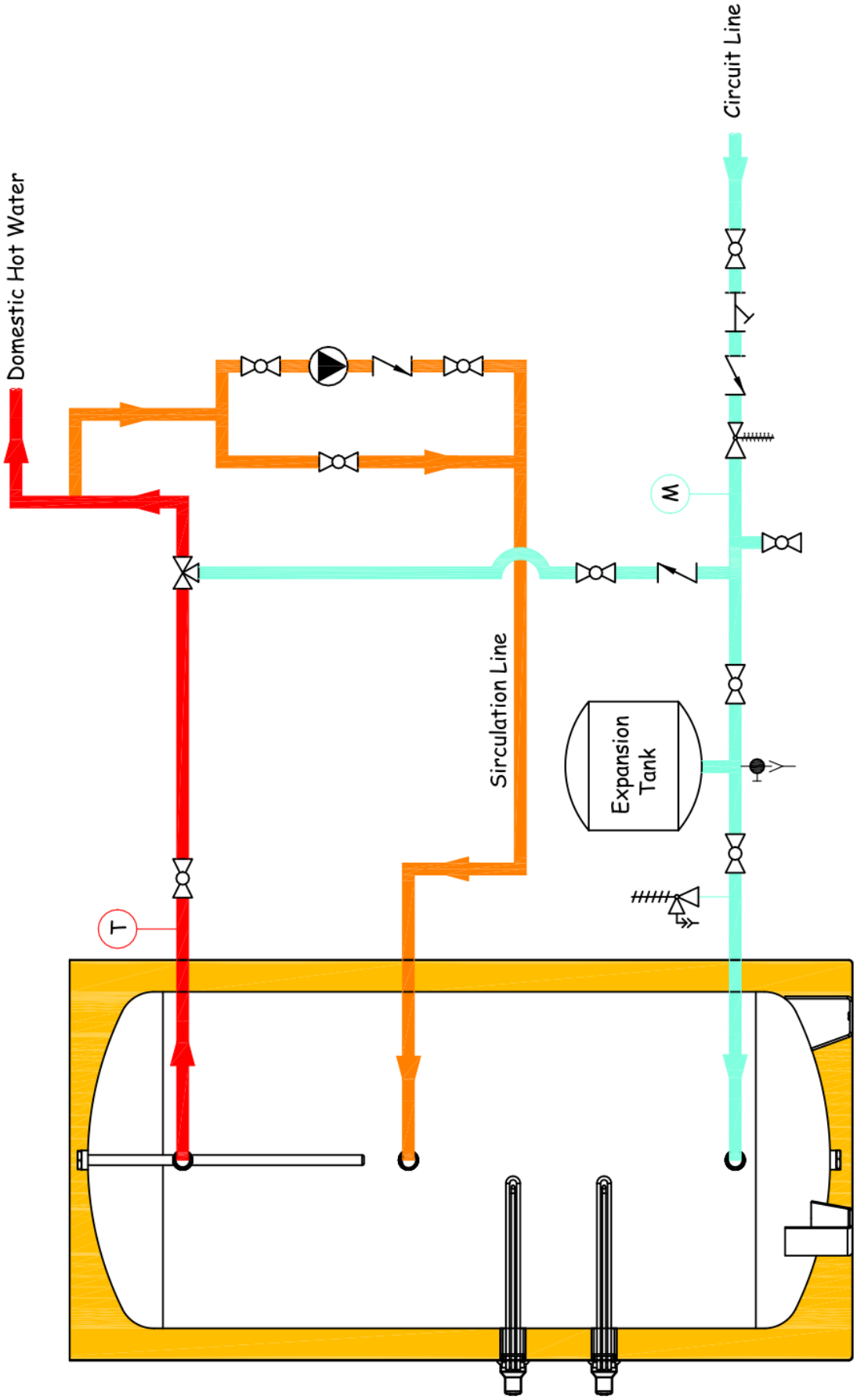
b. **Double Coil Boiler Circuit Diagram**



## c. Accumulation Tank Circuit Diagram



d. **Electric Boiler Circuit Diagram**



## 8. EQUIPMENT PLACEMENT AND INSTALLATION REQUIREMENTS

- The products are shipped on wooden pallets for transportation purposes. The pallet must be removed before installation.
- Install your device according to the connection diagram appropriate for the product model.
- For placing the device, a base must be constructed on a solid and level surface capable of supporting the weight of the boiler.
- The installation location must be determined by leaving sufficient space for maintenance, repair, or replacement operations in case of malfunction.
- Your device must be installed in an enclosed area or a place where there is no risk of freezing.
- For your device to operate efficiently, the installation system must be completed exactly as shown in the diagram, and the capacity of the heat sources must be selected according to the hot water demand.
- The product is not covered by warranty in case of inefficient operation or physical damage caused by installation errors.
- The device will not be covered by warranty if an automatic safety valve is not installed, is defective, or is not connected properly.
- Precautions against fire and flooding must be taken in the area where the device is installed. Our company is not responsible for any situations or expenses arising from equipment failure or other adverse conditions.



Failures caused by not using the installation components (such as safety valve, check valve, valve, etc.) specified in the installation connection diagram and/or by not installing them in the correct sequence as shown in the diagram are **NOT COVERED BY THE WARRANTY.**



The device must be transported in its original packaging!



THE MOST IMPORTANT POINT TO CONSIDER DURING BOILER INSTALLATION IS CONNECTING A SAFETY VALVE TO THE SYSTEM.

Water expands as it is heated. For example, with a temperature increase of 50 °C, the volume of water increases by 1.19%. This excess water must be discharged.

Water is not like air; it is incompressible. If the expanding water is not discharged from the boiler, it exerts pressure on the body and may cause the boiler to rupture at its weakest point.

## 9. COMMISSIONING

The water to be used in your device must be conditioned in accordance with Drinking and Domestic Water Standards.

If the water used in the device does not comply with these standards, the product will be excluded from the warranty.

Check the mechanical and electrical connections of the product.

Check all connections and pipes for leaks.

Optionally, boilers with electric heating elements must be grounded. When working on the device's connection systems, the power supply circuits must be disconnected. If PPRC pipes are used, the boiler must also be grounded.

## 10. EXPANSION TANK APPLICATION

The volume of the closed expansion tank to be installed on the cold-water inlet side of the device must be selected to be at least 10% of the device volume. The expansion tank can operate at a maximum pressure of 10 bar, and its pre-charge pressure must be set to 10% below the operating pressure.

The most important point to consider regarding the device equipment is the connection of an automatic safety valve and an expansion tank to the system. Always install the expansion tank and safety valve between the device and the valve.

The pre-charge pressure of the expansion tank must be checked at least twice a year.

## 11. ECODENSE BOILER PRE-COMMISSIONING CHECK INSTRUCTIONS

Do not operate your device without ensuring that it is completely filled with water and that the cold-water inlet is open.

After completely filling your device with water, open the hot water tap to remove the air inside the product.

When starting to use the boiler, first activate the cold-water side and then the hot water side. When draining, start with the hot water side and then proceed with the cold-water side.

During first use, leave the hot water tap open for a while to clean the hot water circuit, allowing any possible deposits in the coils to be flushed out and trapped air to be discharged. Then start filling the boiler tank from the cold-water inlet. While filling continues, use the air release valves (bleeders), which are mandatory in the system, to remove any air remaining in the installation.

Have the electrical connections of electric products carried out by a qualified electrician.

For electric products, check the required cable cross-section, voltage, and grounding line, and adjust the safety thermostat inside the panel.

Do not operate the heating element (resistance) in electric products before the unit is filled with water.

After final checks, your device is ready to produce hot water. The water temperature inside the boiler tank can be monitored via the thermometer on the control panel.



Pay attention to ensuring that all air in the system is completely removed via air vents (bleeders) during filling of the boiler, and that the discharge water from the safety valve installed on the inlet water line is properly connected to a drain.

## 12. MAINTENANCE

- To ensure that your device always performs at the desired level, it is recommended that limescale, dirt, and sediment that may form inside the heating element and boiler due to mains water hardness be periodically cleaned by opening the cleaning flange and cleaning the interior of the product.
- If your device operates with an electric heater, disconnect the electrical supply to the device.
- The gaskets on the product are single-use. If any components containing gaskets are disassembled for any reason, do not reuse the gasket. Contact the supplier.
- Ensure that system components such as valves, check valves, strainers, safety valves, expansion tanks, and thermometers are in good working condition.
- Clean the strainer filter by removing it at regular intervals.
- The magnesium anode inside the device must be checked annually, and after the first inspection, the frequency of checks should be determined according to the level of wear.
- If the diameter of the magnesium anode drops below 12 mm, it must be replaced. (The original thickness of the magnesium anode in the product is 26 mm.)
- The magnesium anode is not covered under warranty.
- When the device is taken out of operation, precautions must be taken to prevent freezing, and the boiler must be drained.
- When cleaning the interior of the product, do not damage the enamel under any circumstances.
- After cleaning the product, ensure the watertight sealing of the cleaning flange and thermowell thermostat connection points.
- If depleted magnesium anodes and/or anodes thinner than 12 mm are not replaced, the product will be excluded from warranty coverage.

## 13. THINGS TO DO BEFORE CALLING THE AUTHORIZED SERVICE

**A. If the unit's heating element (optional) is not working;**

There may be a power outage,

The circuit breaker may be switched off,

The main building fuse may have tripped.

**B. If hot water is not coming from the tap;**

The water supply may be cut off,

The unit's hot/cold water valve may be closed,

The strainer (filter) may be clogged .

**C. If water is flowing from the tap but not hot:**

The heating system or solar collector may not be operating,

The heating system may be running but the circulation pump may not be working.

**D. If sufficient hot water cannot be obtained from the boiler;**

The unit capacity may not have been selected according to demand,

Hot water may be flowing back into the supply line due to the absence of a check valve on the cold-water inlet,

There may be a problem in the automation/control system.

**E. If the safety valve on the unit is discharging water;**

The supply pressure may be equal to or higher than 7 bar,

Debris may have entered the sealing surface of the safety valve.

## 14. AFTER-SALES SERVICES

Dear Customer,

We believe that providing good service is just as important as providing good products. For this reason, we continue to offer our informed consumers a wide range of services.

For your suggestions, complaints and service requests
**Atakent Mah. Mithatpaşa Cad. No:116/45**
**Çağla Plaza**
**ÜMRANİYE/İSTANBUL/TÜRKİYE**
**Tel: 444 8 326**
**Fax: +90 216 370 45 03**

Factory Contact Information:
**Türkgücü OSB**
**Bülent Ecevit Bulvarı No:11**
**ÇORLU/TEKİRDAĞ/TÜRKİYE**
**Tel: +90 282 685 44 80-81**
**Fax: +90 282 685 42 09**

You can also reach us via **www.ecodense.com** by filling out the service request form, or by sending an e-mail to **servis@ecodense.com**



We kindly request that you follow the recommendations below.

- Use your product in accordance with the instructions in the manual.
- If you have a service request regarding your product, you may contact our Service Center using the phone numbers above.
- When you purchase the product, ensure that the Warranty Certificate is approved during installation.


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Scan the QR Code
to Reach Our
Authorized Services
For detailed information, please contact our call center
at 444 8 326

## 15. NOTES

**Please record your measurements and observations and send them to us.**
**www.ecodense.com**