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# DUAL-COIL FLOOR STANDING WATER HEATERS SUNSYSTEM SON

Floor standing. For indirect heating; Suitable for solar and space-heating systems

## FEATURES

Energy Efficiency

Aesthetic PVC jacket

Easy installation

Convenient inspection opening

Optional kit for electric heating

## PRODUCT FEATURES:

- High efficiency insulation and outer casing of PVC with RAL 9006 color.
- Multi-position mounting of temperature sensor.
- Complex corrosion protection realized by means of titanium enamel and anode protection.
- All threads are internal.
- Easy installation.
- Convenient inspection opening.
- Available modifications with vertical and horizontal orientation.
- Two heat exchangers enables the tank to utilize an external sources of renewable energy, such as a solar system and a biomass boiler.
- Optional kit for electric heating with nominal power 3kW, 4.5kW, 6kW or 7.5kW.

## MODIFICATIONS AND SIZES, LITERS:

- Vertical models:

  150, 200, 300, 400, 500, 750, 1000, 1500, 2000.
- Horizontal models:

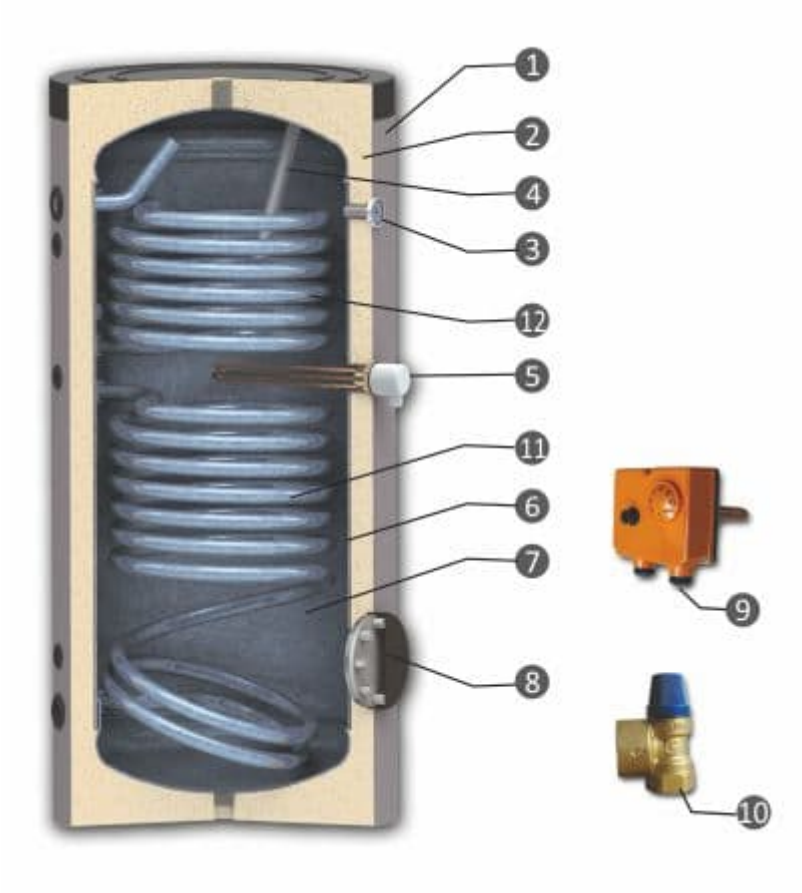
  300, 500, 1000, 1500.

## ENERGY EFFICIENCY

- Directive 2010/30 /EU, Regulation 812/2013:
- Class C for 150 to 500 liters capacity
- Class E for 750 to 1000 liters capacity.

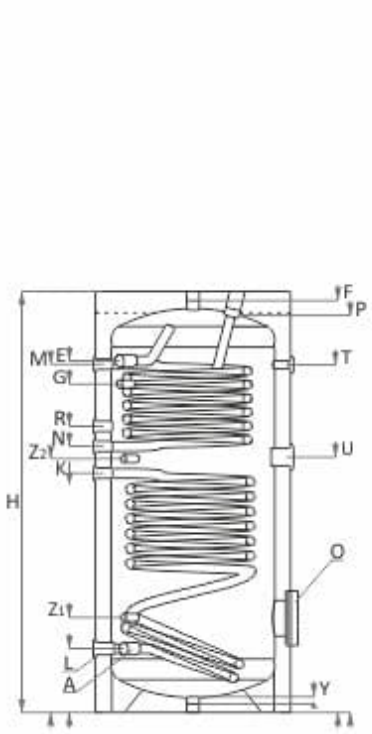

## ELEMENTS:

**1** – Aesthetic PVC jacket with color RAL 9006
**2** – Highly efficient thermal insulation
**3** – Thermometer
**4** – Anode protector (DIN 4753-6)
**5** – Electric heating element
**6** – Water tank of low-carbon steel
**7** – Titanium enamel (DIN 4753-3)
**8** – Inspection opening with flange cover
**9** – Thermostat with integrated thermal protection
**10** – Safety valve, 8 bar
**11** – Lower coil S1
**12** – Upper coil S2

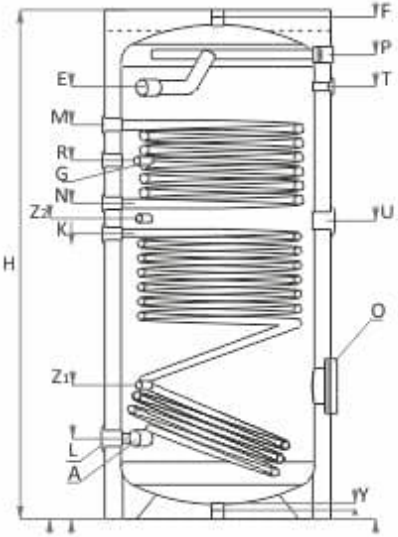



## TECHNICAL CHARACTERISTICS

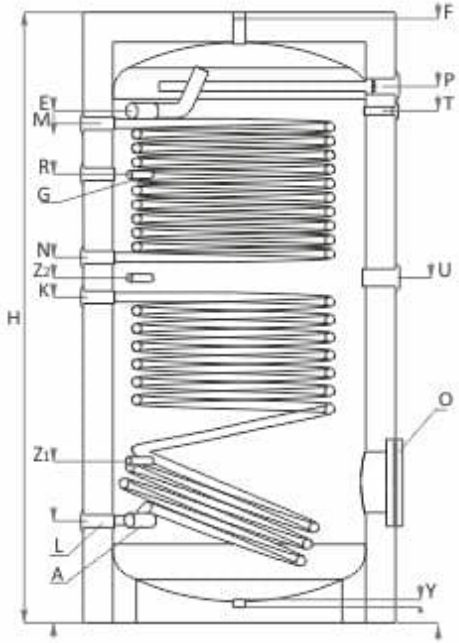
**Vertical models**



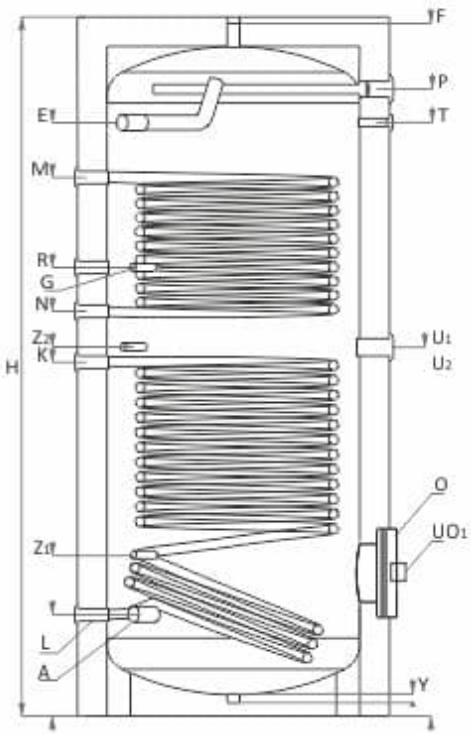

SON 300




SON 500




SON 1000




SON 1500

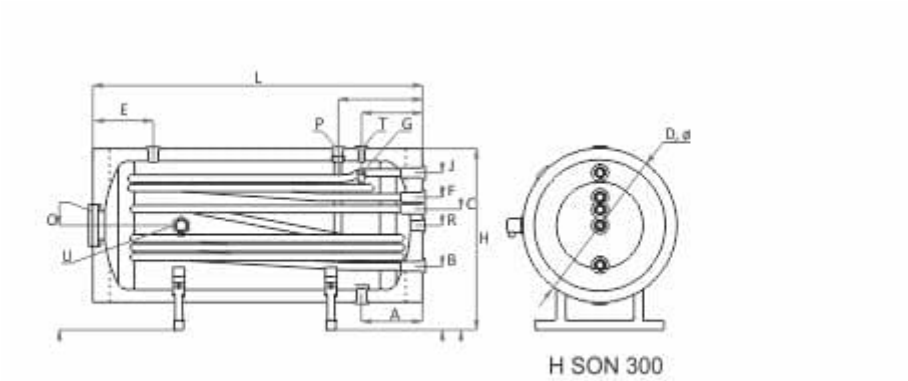
| | | SON 150 | SON 200 | SON 300 | SON 400 | SON 500 | SON 750 | SON 1000 | SON 1500 | SON 2000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity | L | 150 | 200 | 300 | 400 | 500 | 750 | 1000 | 1500 | 2000 |

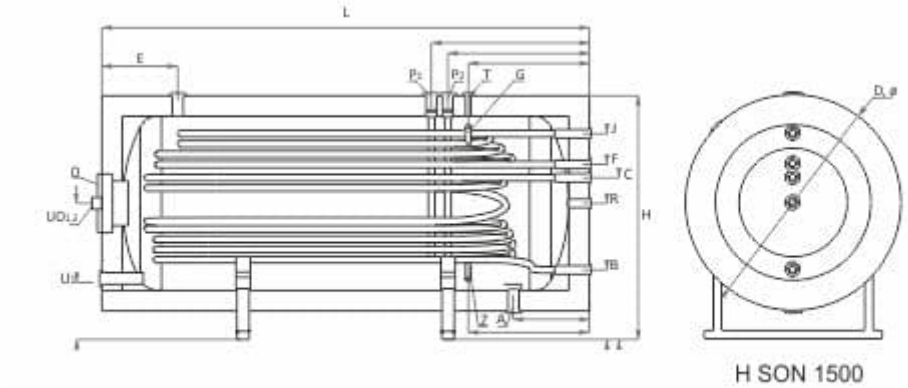
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Height / Min. vertical clearance | H, mm | 1070/1210 | 1340/1460 | 1420/1580 | 1470/1670 | 1720/1890 | 2000/2030 | 2050/2080 | 2310/2370 | 2310/2370 |
| Diameter | D, mm | Ø 560 | Ø 560 | Ø 660 | Ø 750 | Ø 750 | Ø 950 | Ø 1050 | Ø 1050 | Ø 1350 |
| Insulation | | 50 mm rigid PPU | | | | | 100 mm soft PPU, removable | | | |
| Oper. pressure / max. temperature | bar/0C | 10/95 | 10/95 | 10/95 | 10/95 | 10/95 | 10/95 | 10/95 | 10/95 | 10/95 |
| Test pressure of tank | bar | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Electric heating element (optional) | kW | 2 x (3÷6) | 2x (3÷6) | 2 x (3÷6) | 2 x (3÷7.5) | 2 x (3÷7.5) | 2 x (3÷7.5) | 2 x (3÷7.5) | 3 x (3÷7.5) | 4 x (3÷7.5) |
| Weight | kg | 65 | 82 | 118 | 160 | 185 | 263 | 315 | 423 | 761 |
| Cold water inlet | A, mm | Rp1”/202 | Rp1”/202 | Rp1”/215 | Rp1¼”/270 | Rp1½”/270 | Rp1”/300 | Rp1”/320 | Rp1”/320 | Rp1¼”/385 |
| Hot water outlet | B, mm | Rp1”/1070 | Rp1”/1168 | Rp1”/1182 | Rp1¼”/1240 | Rp1½”/1453 | Rp1”/1630 | Rp1”/1700 | Rp1”/1975 | Rp1¼”/1885 |
| Recirculation | R, mm | Rp¾”/788 | Rp¾”/987 | Rp¾”/957 | Rp1”/1105 | Rp1”/1206 | Rp1”/1405 | Rp1”/1487 | Rp1”/1487 | Rp1”/1265 |
| Operating pressure / Max.Coils temp. S1/S2 | bar/0C | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 |
| Test pressure S1/S2 | bar | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| Coil capacity S1/S2 | L | 4.56/2.47 | 5.55/3.70 | 7.40/5.55 | 9.25/6.17 | 11.10/7.40 | 12.95/8.63 | 16.65/11.72 | 18.50/15.42 | 25.28/18.50 |
| THeat exchange surface S1/S2 | m2 | 0.74/0.4 | 0.9/0.6 | 1.2/0.9 | 1.5/1 | 1.8/1.2 | 2.1/1.4 | 2.7/1.9 | 3/2.5 | 4.1/3 |
| Lower coil inlet S1 | S1i, mm, Rp1” | 592 | 692 | 805 | 850 | 960 | 970 | 1080 | 1180 | 1635 |
| Lower coil outlet S1 | S1o, mm, | 202 | 202 | 215 | 270 | 270 | 300 | 320 | 320 | 385 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Rp1” | | | | | | | | | |
| Upper coil inlet S2 | S2i, mm, Rp1” | 874 | 1112 | 1170 | 1210 | 1350 | 1560 | 1660 | 1790 | 1885 |
| Upper coil outlet S2 | S2o, mm, Rp1” | 674 | 812 | 894 | 952 | 1062 | 1160 | 1220 | 1350 | 1420 |
| Prolonged power acc. to DIN 4708; 80°C/60°C/45°C S1 | kW (m3/h) | 25(0.61) | 29(0.71) | 53(1.30) | 62(1.52) | 72(1.77) | 80(1.97) | 105(2.58) | 131(3.22) | 180(4.42) |
| Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S2 | kW (m3/h) | 15(0.37) | 18(0.44) | 21(0.52) | 27(0.66) | 34(0.84) | 50(1.23) | 62(1.52) | 74(1.82) | 110(2.70) |
| NL – power coefficient at 60°C, S1/S2 | NL 60°C | 2.5/1 | 4.5/1.5 | 1½ | 13/2.2 | 18/2.8 | 32/10 | 42/28 | 64/34 | 80/55 |
| Pressure drop Δp, S1/S2 | Δp, mbar | 65/48 | 75/55 | 120/70 | 180/80 | 210/90 | 210/150 | 260/110 | 310/260 | 420/300 |
| Sensor sleeve for thermostat | G, mm, Rp½” | 788 | 1037 | 1104 | 1054 | 1206 | 1435 | 1487 | 1487 | 1685 |
| Air vent sleeve | F, mm, Rp1” | 1070 | 1340 | 1410 | 1480 | 1710 | 1950 | 2020 | 2320 | 2311 |
| Inspection opening/Flange | O, mm, Ø, mm | 180/309 Ø 110 | 180/309 Ø 110 | 180/320 Ø 110 | 180/450 Ø 110 | 180/450 Ø 110 | 280/450 Ø 200 | 280/460 Ø 200 | 280/460 Ø 200 | 560/484 Ø 400 |
| Drain sleeve | Y, mm, Rp1” | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Thermometer | T, mm, Rp½” | 892 | 1138 | 1170 | 1152 | 1453 | 1630 | 1700 | 2089 | 1835 |
| Anode | P, mm, Rp1¼” | 1070 | 1340 | 1410 | 1337 | 1568 | 1728 | 1798 | 2 x 2090 | 2 x 2003 |
| Sleeve for Electric element | U, mm, | Rp1½” /752 | Rp1½” /645 | Rp1½” /852 | Rp1½” /901 | Rp1½” /1111 | Rp1½” /1040 | Rp1½” /1140 | 2 x Rp1½” /1220 | 2 x Rp1½” /1340 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| on water tank body | | | | | | | | | | |
| Sleeve for Electric element on inspection opening flange | Uo, mm, | Rp1½" /309 | Rp1½" /309 | Rp1½" /320 | Rp1½"/ 450 | Rp1½" /450 | Rp1½" /450 | Rp1½" /460 | Rp1½" /460 | 2 x Rp1½"/ 484 |
| Additional sensor sleeve | Z, mm, Rp½" | 352/631 | 302/752 | 320/852 | 450/901 | 450/1011 | 535/1040 | 520/1140 | 520/1220 | 745/1340 |

**Horizontal models:**



| | | HSON 300 | HSON 500 | HSON 1000 | HSON 1500 |
|---|---|---|---|---|---|
| Capacity | (L) | 300 | 500 | 1000 | 1500 |
| Height / Length | H, L, mm | 790/1410 | 890/1710 | 1190/2080 | 1190/2380 |
| Diameter | D, mm | Ø 660 | Ø 750 | Ø 1050 | Ø 1050 |
| Insulation | | 50 mm rigid PPU | | 100 mm soft PPU, removable | |
| Oper. pressure / max. temperature | bar/0C | 10/95 | 10/95 | 10/95 | 10/95 |
| Test pressure of tank | bar | 15 | 15 | 15 | 15 |
| Electric heating element (optional) | kW | 1 x (3÷7.5) | 1 x (3÷7.5) | 2 x 7.5 | 3 x 7.5 |
| Weight | kg | 118 | 185 | 315 | 423 |
| Cold water inlet | A, mm | Rp1”/260 | Rp1½”/270 | Rp1½”/360 | Rp1½”/360 |
| Hot water outlet | B, mm | Rp1”/260 | Rp1½”/270 | Rp1½”/320 | Rp1½”/320 |
| Recirculation | R, mm | Rp1”/465 | Rp1”/515 | Rp1”/665 | Rp1”/665 |
| Operating pressure / Max.Coils temp. S1/S2 | bar/0C | 16/110 | 16/110 | 16/110 | 16/110 |
| Test pressure S1/S2 | bar | 25 | 25 | 25 | 25 |
| Coil capacity S1/S2 | L | 7.40/5.55 | 11.10/7.40 | 16.65/11.72 | 18.50/15.42 |
| THeat exchange surface S1/S2 | m2 | 1.2/0.9 | 1.8/1.2 | 2.7/1.9 | 3/2.5 |
| Lower coil inlet/outlet S1 | S1i, S1o, mm, Rp1” | 535/290 | 585/325 | 790/340 | 790/340 |
| Upper coil inlet/outlet S2 | S2i, S2o, mm, Rp1” | 697/610 | 785/655 | 1005/855 | 1005/855 |
| Prolonged powe acc. to DIN 4708; 80°C/60°C/45°C S1/S2 | S1/S2, kW (m3/h) | 53(1.30)/ 21(0.52) | 72(1.77)/ 34(0.84) | 105(2.58)/ 62(1.52) | 131(3.22)/ 74(1.82) |
| NL – power coefficient at 60°C, S1/S2 | S1/S2, NL 60°C | 1½ | 18/2.8 | 42/28 | 64/34 |
| Pressure drop Δp, S1/S2 | S1/S2, Δp, mbar | 120/70 | 210/90 | 260/210 | 310/260 |

| | | | | | |
|---|---|---|---|---|---|
| Sensor sleeve for thermostat | G, mm, Rp½” | 260 | 270 | 360 | 360 |
| Inspection opening/Flange | O, mm, Ø, mm | 180/465<br>Ø 110 | 180/515<br>Ø 110 | 280/665<br>Ø 200 | 280/665<br>Ø 200 |
| Thermometer | T, mm, Rp½” | 260 | 270 | 360 | 580 |
| Anode | P, mm, Rp1¼” | 360 | 370 | 460 | 2 x 690/770 |
| Sleeve for Electric element on water tank body | U, mm, Rp1½” | – | – | – | Rp1½” /280 |
| Sleeve for Electric element on inspection opening flange | Uo, mm,Rp1½” | Rp1½” /465 | Rp1½” /515 | 2 x Rp1½” /665 | 2 x Rp1½” /665 |
| Additional sensor sleeve | Z, mm, Rp1½” | – | – | 360 | 580 |

PRODUCTS

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