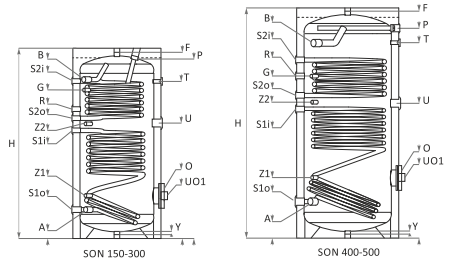
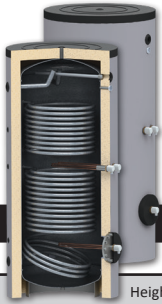


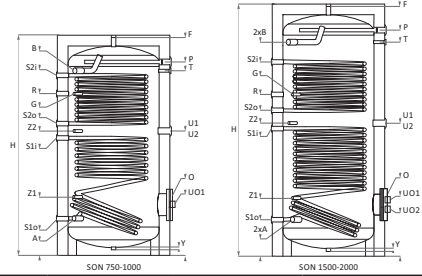
5.3. SON - with two coils.



| | | SON 150 | SON 200 | SON 300 | SON 400 | SON 500 |
|---|-----------------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|
| Capacity | L | 150 | 200 | 300 | 400 | 500 |
| Height / Min. vertical clearance | H, mm | 1070/1210 | 1340/1460 | 1420/1580 | 1470/1670 | 1720/1890 |
| Diameter | D, mm | Ø 560 | Ø 560 | Ø 660 | Ø 750 | Ø 750 |
| Insulation | 50 mm rigid PPU | | | | | |
| Oper. pressure / max. temperature | bar/°C | 8/95 | 8/95 | 8/95 | 8/95 | 8/95 |
| Test pressure of tank | bar | 13 | 13 | 13 | 13 | 13 |
| 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) |
| Weight | kg | 65 | 82 | 118 | 160 | 185 |
| Cold water inlet | A, mm | Rp1"/202 | Rp1"/202 | Rp1"/215 | Rp1 ^{1/4} "/270 | Rp1 ^{1/2} "/270 |
| Hot water outlet | B, mm | Rp1"/1070 | Rp1"/1168 | Rp1"/1182 | Rp1 ^{1/4} "/1240 | Rp1 ^{1/2} "/1453 |
| Recirculation | R, mm | Rp ^{3/4} "/788 | Rp ^{3/4} "/987 | Rp ^{3/4} "/957 | Rp1"/1105 | Rp1"/1206 |
| Operating pressure / Max.Coils temp. S1/S2 | bar/°C | 16/110 | 16/110 | 16/110 | 16/110 | 16/110 |
| Test pressure S1/S2 | bar | 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 |
| Heat exchange surface S1/S2 | m ² | 0.74/0.4 | 0.9/0.6 | 1.2/0.9 | 1.5/1 | 1.8/1.2 |
| Lower coil inlet S1 | S1i, mm, Rp1" | 592 | 692 | 805 | 850 | 960 |
| Lower coil outlet S1 | S1o, mm, Rp1" | 202 | 202 | 215 | 270 | 270 |
| Upper coil inlet S2 | S2i, mm, Rp1" | 874 | 1112 | 1170 | 1210 | 1350 |
| Upper coil outlet S2 | S2o, mm, Rp1" | 674 | 812 | 894 | 952 | 1062 |
| 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) |
| 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) |
| NL – power coefficient at 60°C, S1/S2 | NL 60°C | 2.5/1 | 4.5/1.5 | 11/2 | 13/2.2 | 18/2.8 |
| Pressure drop Δp, S1/S2 | Δp, mbar | 65/48 | 75/55 | 120/70 | 180/80 | 210/90 |
| Sensor sleeve for thermostat | G, mm, Rp1 ^{1/2} " | 788 | 1037 | 1104 | 1054 | 1206 |
| Air vent sleeve | F, mm, Rp1" | 1070 | 1340 | 1410 | 1480 | 1710 |
| 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 |
| Drain sleeve | Y, mm, Rp1" | 30 | 30 | 30 | 30 | 30 |
| Thermometer | T, mm, Rp1 ^{1/2} " | 892 | 1138 | 1170 | 1152 | 1453 |
| Anode | P, mm, Rp1 ^{1/4} " | 1070 | 1340 | 1410 | 1337 | 1568 |
| Sleeve for El. element on water tank body | U, mm, | Rp1 ^{1/2} "/752 | Rp1 ^{1/2} "/645 | Rp1 ^{1/2} "/852 | Rp1 ^{1/2} "/901 | Rp1 ^{1/2} "/1111 |
| Sleeve for El. element on inspection opening flange | Uo, mm, | Rp1 ^{1/2} "/309 | Rp1 ^{1/2} "/309 | Rp1 ^{1/2} "/320 | Rp1 ^{1/2} "/450 | Rp1 ^{1/2} "/450 |
| Additional sensor sleeve | Z, mm, Rp1 ^{1/2} " | 352/631 | 302/752 | 320/852 | 450/901 | 450/1011 |

*optional positioning of an electric heater

INSTALLATION and OPERATION MANUAL



| | | SON 750 | SON 1000 | SON 1500 | SON 2000 |
|--|-------------------------------|---------------------------|---------------------------|-------------------------------|-------------------------------|
| Capacity | L | 750 | 1000 | 1500 | 2000 |
| Height / Min. vertical clearance | H, mm | 2000/2030 | 2050/2080 | 2310/2370 | 2310/2370 |
| Diameter | D, mm | Ø 950 | Ø 1050 | Ø 1050 | Ø 1350 |
| Insulation | 100 mm soft PPU, removable | | | | |
| Oper. pressure / max. temperature | bar/°C | 8/95 | 8/95 | 8/95 | 8/95 |
| Test pressure of tank | bar | 13 | 13 | 13 | 13 |
| Electric heating element (optional) | kW | 2 x (3÷7.5) | 2 x (3÷7.5) | 3 x (3÷7.5) | 4 x (3÷7.5) |
| Weight | kg | 263 | 315 | 423 | 761 |
| Cold water inlet | A, mm | Rp1 ^{1/2} "/300 | Rp1 ^{1/2} "/320 | 2x Rp1 ^{1/2} "/320 | 2x Rp1 ^{1/2} "/385 |
| Hot water outlet | B, mm | Rp1 ^{1/2} "/1630 | Rp1 ^{1/2} "/1700 | 2xRp1 ^{1/2} "/1975 | 2x Rp1 ^{1/2} "/1885 |
| Recirculation | R, mm | Rp1 ^{1/2} "/1405 | Rp1 ^{1/2} "/1487 | Rp1 ^{1/2} "/1487 | Rp1 ^{1/2} "/1265 |
| Operating pressure / Max.Coils temp. S1/S2 | bar/°C | 16/110 | 16/110 | 16/110 | 16/110 |
| Test pressure S1/S2 | bar | 25 | 25 | 25 | 25 |
| Coil capacity S1/S2 | L | 12.95/8.63 | 16.65/11.72 | 18.50/15.42 | 25.28/18.50 |
| THeat exchange surface S1/S2 | m ² | 2.1/1.4 | 2.7/1.9 | 3/2.5 | 4.1/3 |
| Lower coil inlet S1 | S1i, mm, Rp1 ^{1/2} " | 970 | 1080 | 1180 | 1635 |
| Lower coil outlet S1 | S1o, mm, Rp1 ^{1/2} " | 300 | 320 | 320 | 385 |
| Upper coil inlet S2 | S2i, mm, Rp1 ^{1/2} " | 1560 | 1660 | 1790 | 1885 |
| Upper coil outlet S2 | S2o, mm, Rp1 ^{1/2} " | 1160 | 1220 | 1350 | 1420 |
| Prolonged power acc. to DIN 4708; 80°C/60°C/45°C, S1 | kW (m3/h) | 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) | 50(1.23) | 62(1.52) | 74(1.82) | 110(2.70) |
| NL – power coefficient at 60°C, S1/S2 | NL 60°C | 32/10 | 42/28 | 64/34 | 80/55 |
| Pressure drop Δp, S1/S2 | Δp, mbar | 210/150 | 260/110 | 310/260 | 420/300 |
| Sensor sleeve for thermostat | G, mm, Rp1 ^{1/2} " | 1435 | 1487 | 1487 | 1685 |
| Air vent sleeve | F, mm, Rp1 ^{1/2} " | 1950 | 2020 | 2320 | 2311 |
| Inspection opening/Flange | O, mm, Ø, mm | 280/450 Ø 200 | 280/460 Ø 200 | 280/460 Ø 200 | 560/484 Ø 400 |
| Drain sleeve | Y, mm, Rp1 ^{1/2} " | 30 | 30 | 30 | 30 |
| Thermometer | T, mm, Rp1 ^{1/2} " | 1630 | 1700 | 2089 | 1835 |
| Anode | P, mm, Rp1 ^{1/4} " | 1728 | 1798 | 2 x 2090 | 2 x 2003 |
| Sleeve for El. element on water tank body | U, mm, | Rp1 ^{1/2} "/1040 | Rp1 ^{1/2} "/1140 | 2 x Rp1 ^{1/2} "/1220 | 2 x Rp1 ^{1/2} "/1340 |
| Sleeve for El. element on inspection opening flange | Uo, mm, | Rp1 ^{1/2} "/450 | Rp1 ^{1/2} "/460 | Rp1 ^{1/2} "/460 | 2 x Rp1 ^{1/2} "/484 |
| Additional sensor sleeve | Z, mm, Rp1 ^{1/2} " | 535/1040 | 520/1140 | 520/1220 | 745/1340 |

* optional positioning of an electric heater