# Fixed Exchangers
# Water Heaters
# SMART 1 INOX



# Stainless steel water heater with fixed heat exchanger - SMART INOX 1

The SMART INOX 1 range consists of water heaters for the production of sanitary hot water with a single fixed heat exchanger. They are available in several capacities, from 200 up to 3000 litres and have different insulation with respect to capacity (see chart below) and coated externally in PVC and equipped with a magnesium anode for the protection against galvanic currents, an inspection flange for the easy access during the inspection and maintenance phase.

**Material:** AISI 316 stainless steel

**Treatment for internal protection:** Pickling and passivation



| Capacity (l) | Type |
|---|---|
| from 200 to 3.000 | Polyester Fiber |

## Insulation

| Storage | | Primary circuit | |
|---|---|---|---|
| max. temperature | max. pressure | max. temperature | max. pressure |
| 95°C | 6 bar | 110°C | 12 bar |

## Operational limits

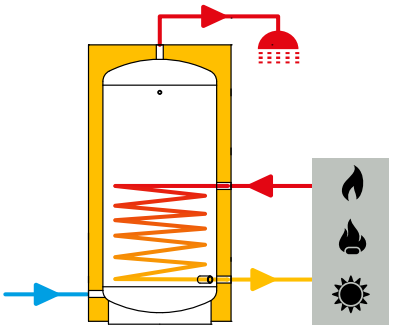
**Supplied accessories:** Magnesium sacrificial anode for all sizes.

**Standard accessories:** see pag 294

**Special versions:** see pag 296

| Capacity l | Code | Price | Energy label | Vertical Packaging Dimensions cm |
|---|---|---|---|---|
| 200 | 819040114X | | B | 70x70x165 |
| 300 | 819040115X | | B | 80x80x170 |
| 500 | 819040116X | | C | 90x90x190 |
| 750 | 819040117X | | C | 100x100x210 |
| 1000 | 819040118X | | C | 110x110x230 |
| 1500 | 819040119X | | C | 130x130x240 |
| 2000 | 819040120X | | C | 150x150x250 |
| 2500 | 819040121X | | | 150x150x275 |
| 3000 | 819040122X | | | 150x150x300 |

TESTED



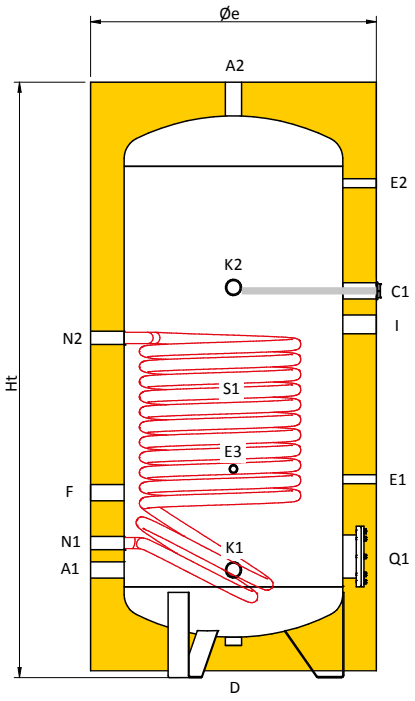


**Integration with AQUAFAST**

See page 212

# Stainless steel water heater with fixed heat exchanger - SMART INOX 1

**200 ≤ cap. ≤ 3.000**




**Couplings legend**

| | |
|---|---|
| **A1** | DHW inlet |
| **A2** | DHW outlet |
| **C1** | Anode |
| **D** | Drain |
| **E1** | Probe / Thermometer |
| **E2** | Probe / Thermometer |
| **E3** | Probe / Thermometer |
| **F** | Recirculation |
| **I** | Electrical resistor |
| **K1** | Auxiliary |
| **K2** | Auxiliary |
| **N1** | Exchanger outlet |
| **N2** | Exchanger inlet |
| **Q1** | Inspection hole |
| **S1** | Lower exchanger (see pag. 188) |

**Couplings chart**

| Cap. l | A1 inch | A2 inch | C1 inch | D inch | E1 inch | E2 inch | E3 inch | F inch | I inch | K1 inch | K2 inch | N1 inch | N2 inch | Q1 (Øext/Øint) mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 3/4" | 3/4" | Ø180/Ø120 |
| 300 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 3/4" | 3/4" | Ø180/Ø120 |
| 500 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1" | 1" | Ø180/Ø120 |
| 750 | 1"1/2 | 1"1/2 | 1"1/4 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø180/Ø120 |
| 1000 | 1"1/2 | 1"1/2 | 1"1/4 | 1"1/4 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø180/Ø120 |
| 1500 | 1"1/2 | 1"1/2 | 1"1/4 | 1"1/2 | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø300/Ø220 |
| 2000 | 1"1/2 | 1"1/2 | 1"1/4 | 2" | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø300/Ø220 |
| 2500 | 1"1/2 | 1"1/2 | 1"1/4 | 2" | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø300/Ø220 |
| 3000 | 1"1/2 | 1"1/2 | 1"1/4 | 2" | 1/2" | 1/2" | 1/2" | 1"1/4 | 1"1/2 | 1"1/4 | 1"1/4 | 1"1/4 | 1"1/4 | Ø300/Ø220 |

**Size chart**

| Cap. l | Øe mm | Ht mm | R* mm | A1 mm | C1 mm | D mm | E1 mm | E2 mm | E3 mm | F mm | I mm | N1 mm | N2 mm | K1 mm | K2 mm | Q1 mm |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | 650 | 1410 | 1535 | 265 | 880 | 120 | 535 | 1165 | 565 | 495 | 800 | 345 | 775 | 265 | 1105 | 305 |
| 300 | 750 | 1490 | 1650 | 305 | 920 | 120 | 575 | 1205 | 605 | 535 | 840 | 385 | 815 | 305 | 1145 | 345 |
| 500 | 850 | 1770 | 1945 | 320 | 1150 | 120 | 590 | 1470 | 620 | 550 | 1050 | 400 | 1010 | 320 | 1160 | 360 |
| 750 | 990 | 1810 | 2045 | 340 | 1090 | 120 | 610 | 1490 | 640 | 570 | 1010 | 420 | 970 | 340 | 1180 | 380 |
| 1000 | 1050 | 2100 | 2350 | 390 | 1320 | 120 | 630 | 1760 | 690 | 620 | 1220 | 470 | 1180 | 390 | 1230 | 400 |
| 1500 | 1250 | 2235 | 2560 | 480 | 1400 | 165 | 840 | 1850 | 780 | 710 | 1300 | 560 | 1210 | 480 | 1320 | 560 |
| 2000 | 1450 | 2315 | 2735 | 515 | 1455 | 155 | 875 | 1885 | 815 | 765 | 1355 | 615 | 1275 | 515 | 1355 | 595 |
| 2500 | 1400 | 2615 | 2970 | 515 | 1555 | 155 | 875 | 2155 | 815 | 765 | 1455 | 615 | 1385 | 515 | 1355 | 595 |
| 3000 | 1450 | 2850 | 3200 | 545 | 1715 | 180 | 905 | 2385 | 845 | 805 | 1615 | 655 | 1480 | 545 | 1385 | 625 |

R*: reversal quota

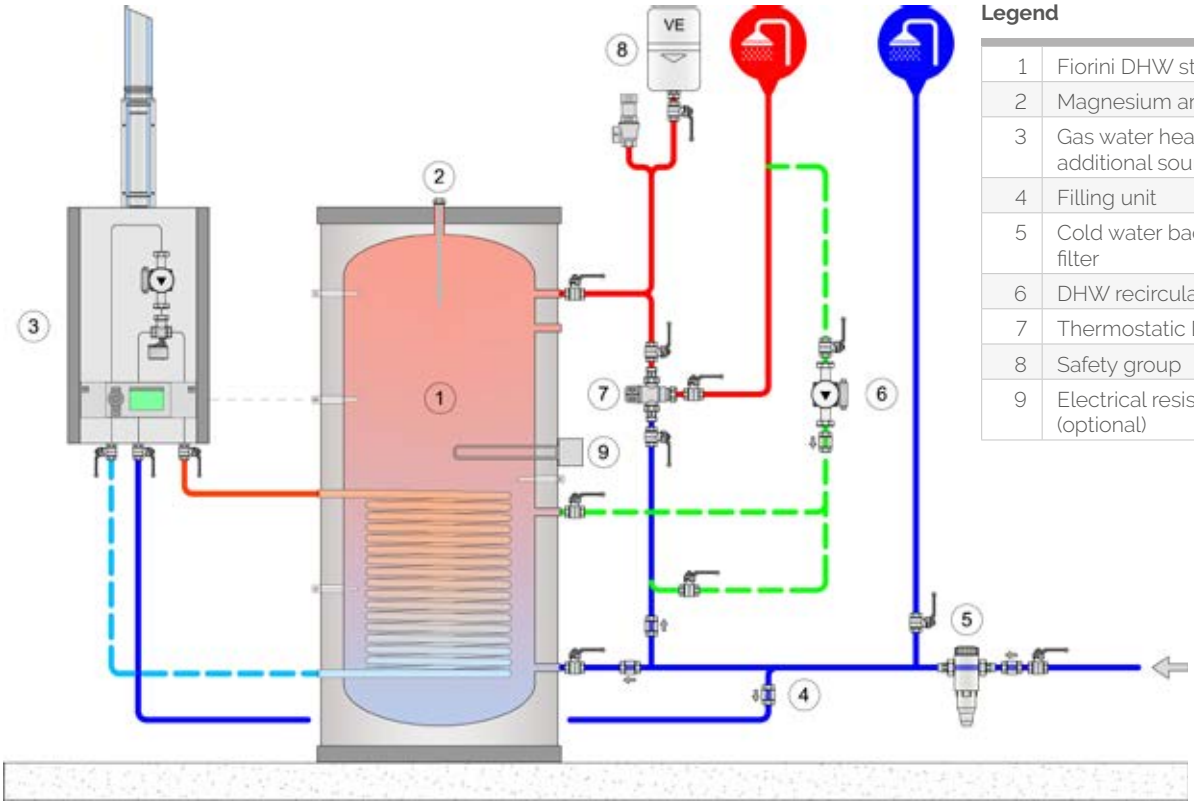
Q**: Height from inspection hole center to the ground

# Technical information for SMART INOX 1 series

| | | DHW production TiDHW = 10°C | | | | | | Exchanger | |
|---|---|---|---|---|---|---|---|---|---|
| Capacity | Ti | TuDHW= 45°C | | TuDHW = 60°C | | Ta = 50°C TuDHW = 45°C | Ta = 60°C TuDHW = 45°C | Surface area | Nominal flow |
| l | °C | l/h (a) | kW (b) | l/h (c) | kW (d) | l/10 min. (e) | l/10 min. (f) | m² | mc/h |
| 200 | 70 | 565 | 23 | 275 | 16 | 306 | 349 | 0,8 | 3,0 |
| | 80 | 761 | 31 | 430 | 25 | 339 | 382 | | |
| | 90 | 884 | 36 | 516 | 30 | 360 | 402 | | |
| 300 | 70 | 737 | 30 | 361 | 21 | 441 | 505 | 1,2 | 3,0 |
| | 80 | 982 | 40 | 550 | 32 | 482 | 546 | | |
| | 90 | 1154 | 47 | 670 | 39 | 511 | 575 | | |
| 500 | 70 | 1105 | 45 | 550 | 32 | 716 | 822 | 1,8 | 3,0 |
| | 80 | 1474 | 60 | 825 | 48 | 777 | 883 | | |
| | 90 | 1744 | 71 | 1014 | 59 | 822 | 928 | | |
| 800 | 70 | 1400 | 57 | 688 | 40 | 1084 | 1254 | 2,7 | 4,0 |
| | 80 | 1867 | 76 | 1032 | 60 | 1162 | 1332 | | |
| | 90 | 2186 | 89 | 1290 | 75 | 1215 | 1385 | | |
| 1000 | 70 | 1842 | 75 | 911 | 53 | 1370 | 1583 | 3,5 | 6,0 |
| | 80 | 2481 | 101 | 1376 | 80 | 1477 | 1690 | | |
| | 90 | 2924 | 119 | 1720 | 100 | 1551 | 1763 | | |
| 1500 | 70 | 2309 | 94 | 1135 | 66 | 1980 | 2299 | 4,0 | 6,0 |
| | 80 | 3120 | 127 | 1720 | 100 | 2115 | 2434 | | |
| | 90 | 3661 | 149 | 2150 | 125 | 2205 | 2525 | | |
| 2000 | 70 | 2801 | 114 | 1376 | 80 | 2594 | 3020 | 4,8 | 8,0 |
| | 80 | 3734 | 152 | 2064 | 120 | 2749 | 3175 | | |
| | 90 | 4373 | 178 | 2562 | 149 | 2856 | 3282 | | |
| 2500 | 70 | 3292 | 134 | 1634 | 95 | 3208 | 3740 | 5,6 | 8,0 |
| | 80 | 4398 | 179 | 2442 | 142 | 3392 | 3924 | | |
| | 90 | 5160 | 210 | 3027 | 176 | 3519 | 4051 | | |
| 3000 | 70 | 3734 | 152 | 1823 | 106 | 3813 | 4452 | 6,4 | 8,0 |
| | 80 | 4963 | 202 | 2752 | 160 | 4018 | 4656 | | |
| | 90 | 5823 | 237 | 3440 | 200 | 4161 | 4800 | | |

- a continuous DHW flow with TuDHW= 45°C
- b exchanger power with TuDHW=45°C
- c continuous DHW flow with TuDHW= 60°C
- d exchanger power with TuDHW=60°C
- e amount of DHW at 45°C in the first 10 min. with a storage temperature of 50°C
- f amount of DHW at 45°C in the first 10 min. with a storage temperature of 60°C
- Exchanger capacity: 6,40 L/m²

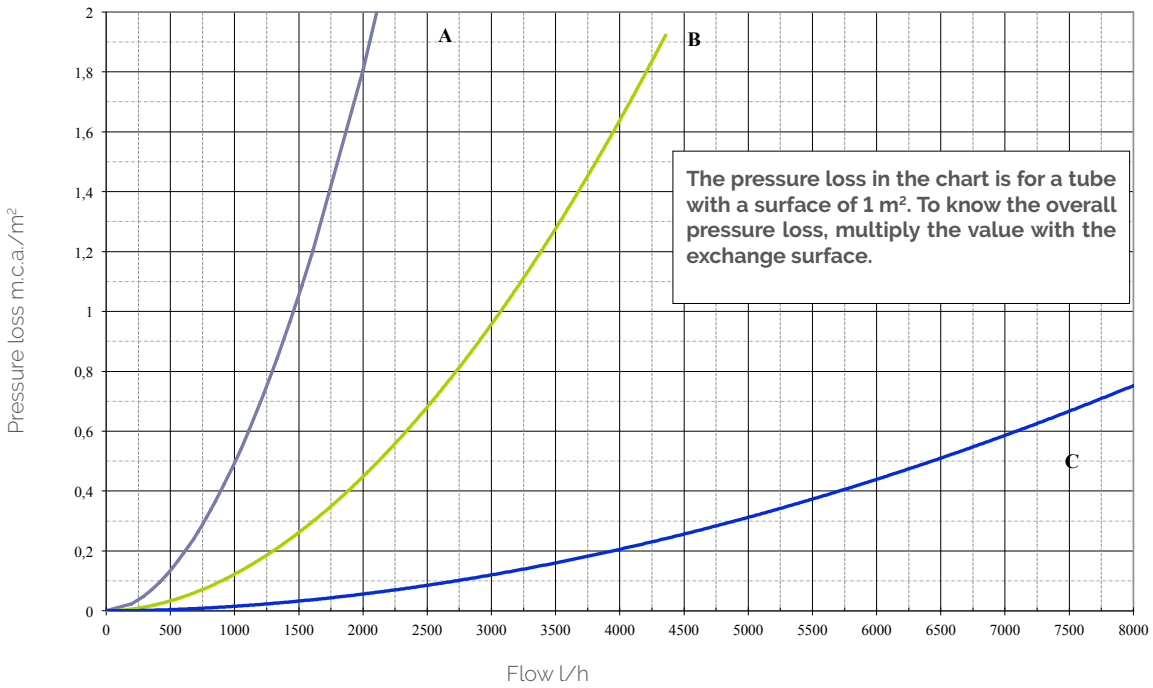
# Technical information for SMART INOX 1 series




**Legend**

| | |
|---|---|
| 1 | Fiorini DHW storage tank |
| 2 | Magnesium anode |
| 3 | Gas water heater / additional source |
| 4 | Filling unit |
| 5 | Cold water bacteriostatic filter |
| 6 | DHW recirculation pump |
| 7 | Thermostatic DHW mixer |
| 8 | Safety group |
| 9 | Electrical resistor (optional) |

## Pressure loss fixed heat exchanger




A) 200 l tank B) 300 - 500 l tank C) 800 - 3000 l tank



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