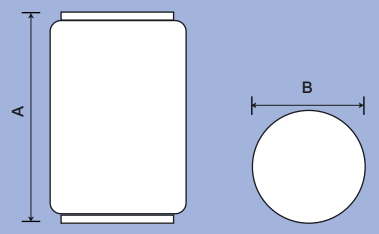
# Aqualoy LWSS Range

## 90-300 litre Stainless Steel Unvented Water Storage Heaters

Water heating cylinders that provide effective and fast, mains fed, hot water for use with direct and indirect heating applications. Employing the best in tig welding technology, the range features high flow rates and energy efficient insulation.

| | |
|---|---|
| **Application** | Hot water storage. |
| **Key Features** | Long life, incoloy, low noise immersion heaters I High flow rate, up to 55l/min - ideal to supply power showers without the need for a separate pump I Includes expansion vessel. |
| **Safety Features** | Pressure tested to 15bar I Expansion relief valve set at 5bar I Temperature and relief valve set at 7bar at 90°C. |
| **Capacities** | 90, 125, 150, 170, 200, 250 and 300 litres. |
| **Rating** | Immersion heaters 3kW @ 240V. |
| **Outer Casing** | Steel, wipe clean, white plastic coated finish and corrosion resistant base and lid. |
| **Insulation** | Energy efficient rigid polyurethane foam insulation. |
| **Water Container** | Duplex welded stainless shell with pressured domes. |
| **Heat Unit** | Long-life Incoloy sheathed element. |
| **Primary Coil** | Coil flow and return - 22mm (Indirect only). |
| **Anode** | No sacrificial anode required. |
| **Pressure** | Operating pressure 1.5bar - 3.5bar. |
| **Approvals** | WRAS Approved Product I BEAB Approved I CE. |
| **Guarantee** | 25 year cylinder and 2 year parts guarantee (UK). |

### Dimensions




Dimensions (mm)*

| | Min | Max |
|---|---|---|
| A | 750 | 1470 |
| B | 510 | 545 |

**Technical Specification**

Mains water supply essential I Min 1.5bar and a flow rate of 25 litres per minute I Operating pressure - 3bar I Pressure tested to 15bar I Expansion relief valve set at 5bar I Temperature and relief valve set at 7bar at 90°C I Recommended cable size for all cylinders - 1.5mm² I Electrical connections are located on the front of the unit I Cold water inlet and hot water draw-off - 22mm I Coil flow and return - 22mm I Temperature and pressure relief - 1/2" I Inlet group - 22mm I Tundish inlet - 15mm, outlet - 22mm (both compression) I 200 litre capacities and above are supplied with a secondary return connection I All ancillary components are supplied, allowing for easy, quick and hassle-free installation.

### Product Range

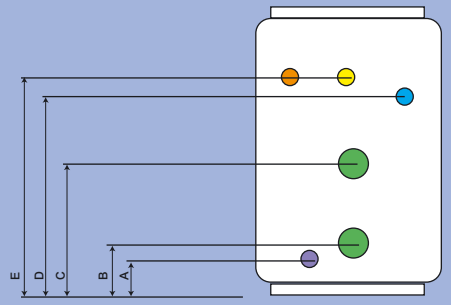
| Product Reference | Cat. No | Capacity (l) | kW loading |
|---|---|---|---|
| LWSS90D | 47788101 | 90 | 2 x 3 |
| LWSS125D | 47788201 | 125 | 2 x 3 |
| LWSS150D | 47788301 | 150 | 2 x 3 |
| LWSS170D | 47788401 | 170 | 2 x 3 |
| LWSS200D | 47788501 | 200 | 2 x 3 |
| LWSS250D | 47788601 | 250 | 2 x 3 |
| LWSS300D | 47788701 | 300 | 2 x 3 |
| LWSS150i | 47788801 | 150 | 1 x 3 |
| LWSS200i | 47788901 | 200 | 1 x 3 |

| Min. | Max. | Cylinder | Parts |
|---|---|---|---|
| 3 kW | 6 kW | 25 yr GUARANTEE | 2 yr GUARANTEE |

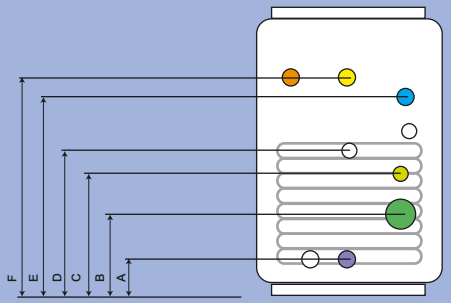
WRAS APPROVED PRODUCT CE

## Dimensions (cont.d)

### Aqualoy LWSS Direct




### Aqualoy LWSS Indirect




**Key**

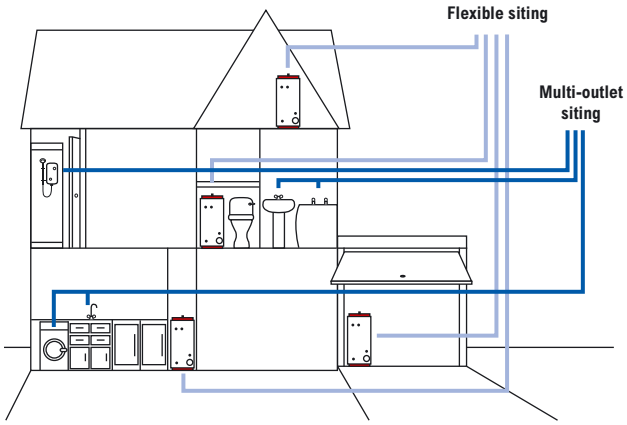
- ½" TPR valve
- 22mm hot water draw-off
- Secondary return
- 1¾" IH boss
- 22mm stat pocket
- 22mm cold feed

| Cylinder variant* | Dimensions (mm) Height | Diameter | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|
| LWSS90D | 750 | 510 | 150 | 180 | 400 | - | 555 | - |
| LWSS125D | 935 | 510 | 150 | 180 | 400 | - | 760 | - |
| LWSS150D | 1060 | 510 | 150 | 180 | 400 | - | 885 | - |
| LWSS170D | 1200 | 510 | 150 | 180 | 400 | - | 1030 | - |
| LWSS200D | 1120 | 545 | 150 | 180 | 400 | 820 | 995 | - |
| LWSS250D | 1330 | 545 | 150 | 180 | 400 | 980 | 1155 | - |
| LWSS300D | 1470 | 545 | 150 | 180 | 400 | 1100 | 1305 | - |
| LWSS150i | 1060 | 510 | 150 | 180 | 380 | 480 | - | 885 |
| LWSS200i | 1120 | 545 | 150 | 180 | 330 | 480 | 820 | 995 |

| Cylinder variant* | Capacity (litres) | kW loading @ 240V | Expansion vessel capacity | size (h x d) |
|---|---|---|---|---|
| LWSS90D | 90 | 2 x 3 | 8 litres | 300 x 200mm |
| LWSS125D | 125 | 2 x 3 | 12 litres | 255 x 265mm |
| LWSS150D | 150 | 2 x 3 | 12 litres | 255 x 265mm |
| LWSS170D | 170 | 2 x 3 | 18 litres | 380 x 265mm |
| LWSS200D | 200 | 2 x 3 | 18 litres | 380 x 265mm |
| LWSS250D | 250 | 2 x 3 | 24 litres | 430 x 285mm |
| LWSS300D | 300 | 2 x 3 | 24 litres | 430 x 285mm |
| LWSS150i | 150 | 1 x 3 | 12 litres | 255 x 265mm |
| LWSS200i | 200 | 1 x 3 | 18 litres | 380 x 265mm |

*D - Direct, I - Indirect

## Domestic Selection Guide




| Bedrooms | Hot water demand | Direct | Indirect |
|---|---|---|---|
| 2 beds | 1 shower | 125 | n/a |
| | 1 bath, 1 shower | 155 | n/a |
| 3 beds | 1 bath, 1 shower | 170 | 150i |
| 4 beds | 1 bath, 1 shower | 200 | n/a |
| | 2 baths, 1 shower | 250 | 200i |
| | 2 baths, 1 shower | 300 | n/a |
| 6 beds | 2 baths, 2 showers | 300 | n/a |
| | 3 baths | 300 | n/a |

**Siting Options** The structure supporting the heater must be capable of holding the weight of a cylinder when full with water.

**Aqualoy LWSS Direct:** Duplex welded Stainless shell with pressured domes I For use with one or two electric immersion heaters (both included with the unit) for direct heating of the stored water I Can be used with peak rate and / or off peak tariff electricity supplies.

**Aqualoy LWSS Indirect:** Duplex welded Stainless shell with pressured domes I For use in systems incorporating an indirect heater such as a gas fired boiler or electric flow boiler I Unit also includes one electric immersion heater for direct heating of the stored water.

## Re-heat Performance

| Requirement | Direct 90 | 125 | 150 | 170 | 200 | 250 | 300 | Indirect 150 | 200 |
|---|---|---|---|---|---|---|---|---|---|
| Time to re-heat after 70% draw-off | 27 | 37 | 45 | 51 | 63 | 75 | 136 | 26 | 34 |
| Time to re-heat from cold to 65°C | 52 | 72 | 86 | 98 | 108 | 144 | 202 | 37 | 33 |
| Weight when full (kg) | 125 | 165 | 195 | 220 | 250 | 310 | 360 | 195 | 250 |
| 24hr heat loss (kWh) | 1.1 | 1.6 | 1.9 | 2.1 | 2.3 | 2.5 | 3.1 | 1.9 | 2.3 |