



- builds water heaters for the future



25 year guarantee

STAINLESS STEEL MAINS PRESSURE UNVENTED CYLINDERS



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Oso mains pressure unvented hot water cylinders have for ten years been at the forefront of quality and technological innovation in the unvented cylinder industry. Oso is firmly established as a key supplier in this rapidly expanding sector. Based in Norway, Oso is a global leader in the production of stainless steel unvented cylinders having supplied over 2 million cylinders world wide since 1970.

The company has won numerous international awards for stainless steel welding technology and for environmentally friendly production methods.

- Oso mains pressure unvented water heaters produce high pressure “power” showers and give superb flow rates to baths and basins.
- Peace of mind is guaranteed by a 25 year warranty on the super-molybdenum stainless steel inner vessel.
- High performance is assured by some of the largest heating coils available, giving rapid re-heat time.
- Energy efficiency is optimised with full CFC free insulation. All products exceed CheSS best practice and Part L Building Regulations.
- Oso cylinders take up significantly less airing cupboard space because expansion is accommodated internally, thus removing the need for an external expansion vessel which means reduced installation time.
- All necessary valves and controls are supplied.



- Being fed directly from the mains supply means there is no requirement for cold-water storage and expansion tank, which means, dry roof area, more space, quieter operation.
- Oso cylinders are British Gas council listed and can be included in their 3-star maintenance schemes. The products are BBA and WRAS approved and are CE listed. Performance data assessed by BBA.

The Oso group has worldwide quality and environmental accreditation
ISO 9001: 2000 & ISO 14001

Use this guide to assist in choosing your OSO cylinder.

Direct and indirect unvented calorifiers with capacities from 505 litres to 8846 litres are also available for use in industrial and commercial applications.

For larger properties please consult OSO (UK) Limited.

| Application | Indirect | Direct |
|-----------------------------------|------------------|------------------|
| Bedsit | R1 100 | RD 100 |
| 1 Bedroom 1 Bathroom and shower | R1 125 | RD 125 or RD 170 |
| 2 Bedroom 1 Bathroom and shower | R1 125 or R1 170 | RD 170 or RD 210 |
| 3 Bedroom 1 Bathroom and shower | R1 170 or R1 210 | RD 210 |
| 4 Bedroom 1 Bathroom and shower | R1 170 or R1 210 | RD 210 or RD 250 |
| 2/3 Bedroom 2 Bathroom and shower | R1 170 or R1 210 | RD 210 or RD 250 |
| 3/4 Bedroom 2 Bathroom and shower | R1 210 or R1 250 | RD 250 or RD 330 |
| 4/6 Bedroom 3 Bathroom and shower | R1 250 or R1 330 | RD 330 |



OSO TECHNICAL SPECIFICATIONS

CYLINDER SPECIFICATION

- Cylinder material - stainless steel F18MT 1.35mm thick
- Hot water connection - 22mm compression fitting (removable dip tube)
- OSO cylinders are designed to be installer friendly "Multibloc" valve supplies loose for on-site installation. Comprises line strainer, 2.1 bar pressure reducing valve, balanced cold water port, non-return valve, 8 bar expansion relief valve.
- Internal secondary water expansion against air pocket.
- Temperature & pressure relief valve - factory fitted, set to 90°C & 10 bar.
- Every cylinder is pressure tested to 16 bar and has a safe maximum working pressure of 8 bar.
- Flexible hose supplied to carry expansion relief discharge to tundish.
- Tee-piece and tundish (22mm outlet) supplied.
- Casing - White epoxy coated steel.
- Insulation - CFC free fire retardant, 40-50mm. 330 litre unit CFC glass wool 40mm.
- Heating coil (indirect only) - 26.5kW on 170-330 litre, 12kW for 100 & 125 litre.

ELECTRICAL SPECIFICATION

- Thermostat - factory fitted, adjustable between 45°C & 75°C.
- Thermal cut-out - operates at 85°C +/- 3°C.
- Immersion heater - 3kW single phase 240V.
- All indirect units have one 3kW element fitted at low level.
- All direct units excepting the RD 100 have 2 x 3kW elements.

SYSTEM REQUIREMENTS

- All wiring must comply with the current edition of the IEE Wiring Regulations.
- Boiler format - either open vented or sealed system primaries.
- Mains water supply - 20 litres per minute with dynamic pressure of 1 bar. The unit will operate at values less than this but water supply at outlet may be unacceptable - please contact Oso for more information on Oso Dualstream.
- Flow rates of up to 55 litres per minute are available given adequate supply.
- Boiler type - Thermostatically controlled gas, oil or electric boilers and system boilers.
- Installation must follow G3 building regulations and all other relevant codes of practice.

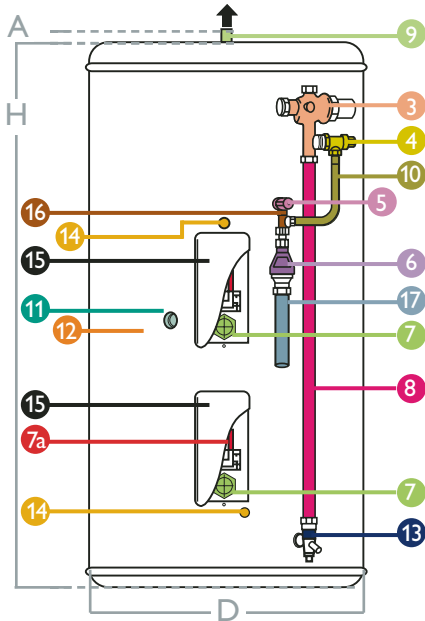
| Product Ref | Performance Specifications | | | | | | Standing Energy Losses | | |
|-------------|----------------------------|---------------------|-----------------------|-----------------------------|---------------------------|---------------------|------------------------|----------------------|------|
| | Coil rating (kw) | Pressure drop (bar) | Coil content (litres) | Coil area (m ²) | Max coil working pressure | Re-heat time (Mins) | Heat loss (W) | Energy loss (Kw/24h) | |
| | | | | | | Direct (3Kw) | Indirect | | |
| 100 | 12 | 0.10 | 2.5 | 0.47 | 8 bar | 81 | 21 | 55 | 1.32 |
| 125 | 12 | 0.10 | 2.5 | 0.47 | 8 bar | 102 | 25 | 65 | 1.55 |
| 170 | 26.5 | 0.30 | 5.0 | 0.94 | 8 bar | 148 | 20 | 74 | 1.77 |
| 210 | 26.5 | 0.30 | 5.0 | 0.94 | 8 bar | 175 | 23 | 81 | 1.95 |
| 250 | 26.5 | 0.30 | 5.0 | 0.94 | 8 bar | 202 | 28 | 91 | 2.19 |
| 330 | 26.5 | 0.30 | 5.0 | 0.94 | 8 bar | 263 | 36 | 106 | 2.55 |

MODEL DIMENSIONS AND KEY

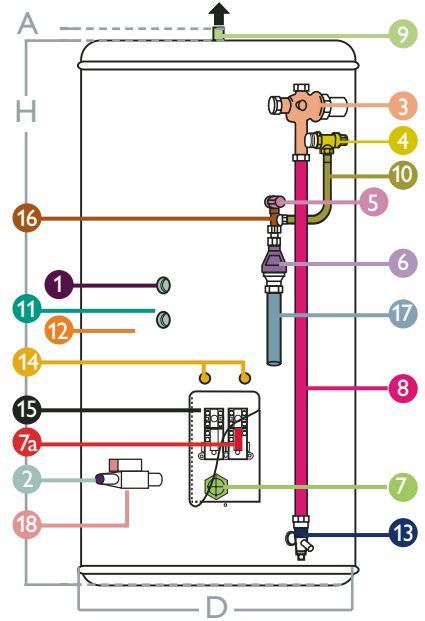
DIRECT

KEY

INDIRECT



- 1 Return (Indirect only)
- 2 Flow (Indirect only)
- 3 Pressure reducing valve
- 4 Check and expansion valve
- 5 Temperature and pressure relief valve
- 6 Tundish
- 7 Immersion heater
- 7a Thermostat
- 8 Cold feed tube (not supplied)
- 9 Hot water outlet
- 10 Flexible hose
- 11 Secondary return 1/2" BSPF
- 12 Conex 645 tee piece (not supplied)
- 13 Commissioning valve
- 14 Combined cold feed elbow and drain cock
- 15 Cable entry
- 16 Electrical boxes
- 17 Tee piece
- 18 Discharge pipe (not supplied)
- 19 Motorised valve (not factory fitted)



| Product order code | Capacity litres | Dimensions mm | | | Approx weight full kg | 3kw Elements factory fitted | Floor standing | Wall fixing bracket†† | Connection dimensions from base unit in mm | | | | | | |
|--------------------|-----------------|---------------|-----|----|-----------------------|-----------------------------|----------------|-----------------------|--|-----|------|------|-----|--|--|
| | | H | D | A | | | | | 1 | 2 | 5 | 12 | 13 | | |
| Direct | | | | | | | | | | | | | | | |
| 20 RD 100 | 100 | 720 | 580 | 40 | 127 | 1 | Yes | Yes†† | - | - | 465 | 345 | 110 | | |
| 20 RD 125 | 125 | 900 | 580 | 40 | 159 | 2 | Yes | Yes†† | - | - | 610 | 435 | 110 | | |
| 20 RD 170 | 170 | 1150 | 580 | 40 | 209 | 2 | Yes | Yes†† | - | - | 787 | 560 | 110 | | |
| 20 RD 210 | 210 | 1400 | 580 | 40 | 255 | 2 | Yes | Yes†† | - | - | 982 | 755 | 110 | | |
| 20 RD 250 | 250 | 1600 | 580 | 40 | 297 | 2 | Yes | No | - | - | 1222 | 995 | 110 | | |
| 20 RD 330 | 330 | 2090 | 580 | 40 | 391 | 2 | Yes | No | - | - | 1697 | 1470 | 110 | | |
| Indirect | | | | | | | | | | | | | | | |
| 20 RI 100 | 100 | 720 | 580 | 40 | 132 | 1 | Yes | Yes†† | 480 | 225 | 465 | 345 | 110 | | |
| 20 RI 125 | 125 | 900 | 580 | 40 | 163 | 1 | Yes | Yes†† | 480 | 225 | 610 | 435 | 110 | | |
| 20 RI 170 | 170 | 1150 | 580 | 40 | 215 | 1 | Yes | Yes†† | 720 | 225 | 787 | 560 | 110 | | |
| 20 RI 210 | 210 | 1400 | 580 | 40 | 261 | 1 | Yes | Yes†† | 720 | 225 | 982 | 755 | 110 | | |
| 20 RI 250 | 250 | 1600 | 580 | 40 | 303 | 1 | Yes | No | 720 | 225 | 1222 | 995 | 110 | | |
| 20 RI 330 | 330 | 2090 | 580 | 40 | 397 | 1 | Yes | No | 720 | 225 | 1697 | 1470 | 110 | | |

GUARANTEE - OSO UNVENTED HOTWATER CYLINDER

THE OSO STAINLESS STEEL INNER VESSEL IS GUARANTEED AGAINST MATERIAL DEFECT OR MANUFACTURING FAULTS FOR A PERIOD OF 25 YEARS FROM DATE OF PURCHASE. ALL OTHER PARTS INCLUDING, BUT NOT LIMITED TO FACTORY FITTED ELECTRICAL ELEMENTS (DAMAGE CAUSED BY LIMESCALE EXCLUDED), THERMOSTATS AND VALVES ARE GUARANTEED AGAINST MATERIAL DEFECTS FOR 2 YEARS FROM THE DATE OF PURCHASE. IN THE EVENT OF A REPLACEMENT COMPONENT BEING REQUIRED, OSO HOTWATER WILL SUPPLY SUCH PARTS FREE OF CHARGE AND FREIGHT PAID, ON CONDITION THAT THE DEFECTIVE COMPONENT IS DELIVERED, FREIGHT PAID TO OSO HOTWATER WITHIN 2 WEEKS OF WRITTEN NOTICE BEING GIVEN TO OSO HOTWATER OF THE DEFECT. SUCH REPLACEMENT PARTS SHALL BE GUARANTEED UNDER THE TERMS OF THIS GUARANTEE TO THE UNEXPIRED PERIOD OF THE AFOREMENTIONED 2 YEAR PERIOD.

THIS WARRANTY IS CONDITIONAL UPON THE OSO CYLINDER BEING INSTALLED IN COMPLIANCE WITH THE OSO INSTALLATION INSTRUCTIONS, ALL CURRENT LEGISLATION, CODES OF PRACTICE AND REGULATIONS GOVERNING THE INSTALLATION OF UNVENTED HOT WATER CYLINDERS IN FORCE AT THE DATE OF INSTALLATION AND PROVIDED THAT:

1. THE BENCHMARK CERTIFICATE IS COMPLETED AT THE TIME OF INSTALLATION.
2. THE OSO CYLINDER IS SERVICED AND MAINTAINED EVERY 12 MONTHS AND IS MARKED AS SUCH IN THE BENCHMARK LOGBOOK PROVIDED WITH THE CYLINDER. INVOICES FOR THE MAINTENANCE WORK SHOULD BE KEPT AS PROOF OF REGULAR MAINTENANCE. CARE SHOULD BE TAKEN OF THE LOGBOOK AND INVOICES AS THEY SERVE AS THE GUARANTEE CERTIFICATE FOR THE CYLINDER.

3. THE OSO CYLINDER IS FILLED WITH WATER BEFORE TURNING THE ELECTRICITY SUPPLY ON TO THE HEATER ELEMENTS.

4. IF THE NEWLY FITTED HEATER IS NOT IN USE IT MUST BE FLUSHED THROUGH WITH FRESH WATER FOR AT LEAST 15 MINUTES ONCE PER WEEK.

5. THE MAINS WATER SUPPLY COMPLIES WITH EU STANDARDS CURRENT AT THE DATE OF INSTALLATION AND IS NOT FED WITH WATER FROM A PRIVATE SUPPLY.

6. THE OSO UNVENTED CYLINDER HAS NOT BEEN MODIFIED IN ANY WAY OTHER THAN BY OSO HOTWATER AND IS ONLY USED FOR THE STORAGE OF POTABLE WATER.

7. NO FACTORY FITTED PARTS HAVE BEEN REMOVED FOR UNAUTHORISED REPAIR OR REPLACEMENT.

8. DEFECTS CAUSED BY FROST, EXCESS PRESSURE, SALT DEHARDNER PROCESS, TRANSIENT VOLTAGES, LIGHTNING STRIKES OR INCORRECT INSTALLATION, REPAIR OR USE ARE NOT COVERED BY THIS WARRANTY. A LABORATORY EVALUATION OF POSSIBLE DEFECTS CAN BE ORDERED BY THE USER, HOWEVER THE USER MUST PAY FOR THIS WHERE THE ABOVE MENTIONED CONDITIONS HAVE NOT BEEN FULFILLED. EVIDENCE OF PURCHASE DATE AND THE DATE OF SUPPLY/INSTALLATION MUST BE SUBMITTED WITH YOUR CLAIM.

9. THIS GUARANTEE DOES NOT CONFER ANY RIGHTS OTHER THAN THOSE EXPRESSLY SET OUT ABOVE AND DOES NOT COVER ANY CLAIMS FOR CONSEQUENTIAL LOSS OR DAMAGE. THIS GUARANTEE IS OFFERED AS AN EXTRA BENEFIT AND DOES NOT AFFECT YOUR STATUTORY RIGHTS AS A CONSUMER.

OSO Hotwater (UK) Limited

E15 Marquis Court, Team Valley Trading Estate
Gateshead, Tyne & Wear NE11 0RU • Tel. (0191) 482 0800 • Fax. (0191) 491 3655

Email. technical.uk@oso-hotwater.com • sales.uk@oso-hotwater.com
spareparts.uk@oso-hotwater.com • Web www.oso-hotwater.com

