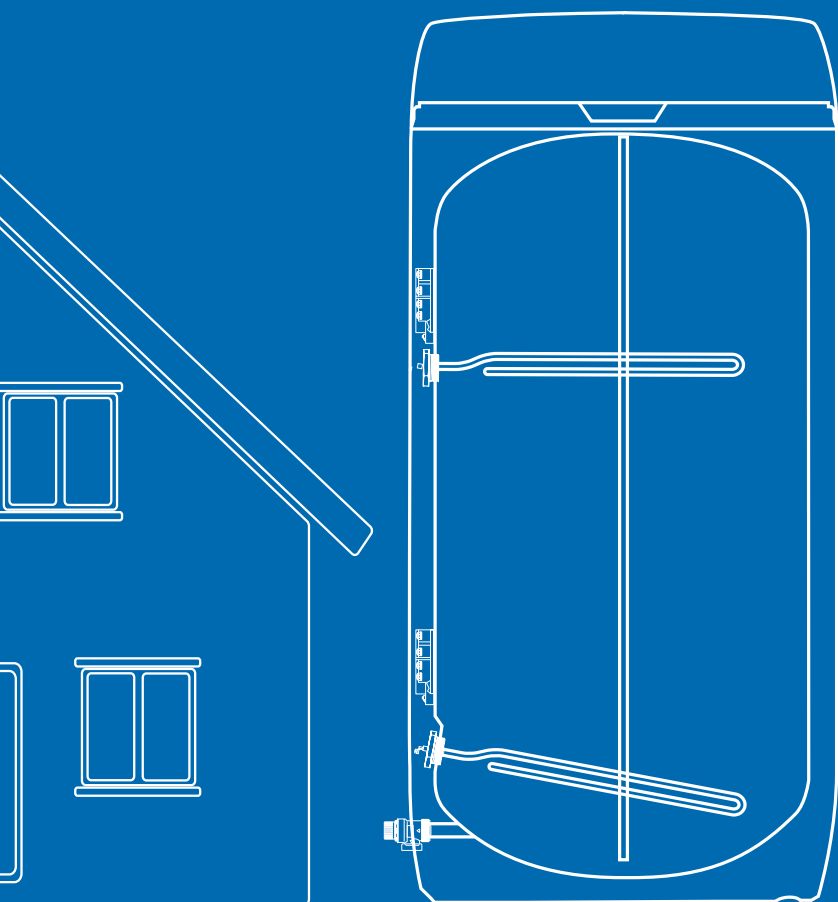


OSO

HOTWATER

WATER HEATING GUIDE



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OSO

HOT WATER

MANUFACTURERS OF THE WORLD'S MOST EFFICIENT WATER HEATERS

Independent and family owned
Innovators, specialists and experts in water heater design and technology
Driven by ecological and energy efficiency concerns
Fully robotised manufacturing plant, with robots that are designed and built in-house.
Multi award winning

Founded in 1932
Made the world's first mass produced stainless steel unvented cylinder in 1968
First to use internal expansion 1989
First mass produced stainless cylinder in UK 1989
First to use vacuum insulation in 2015

OSO stainless steel thickness is a minimum of 1.3mm

| SIZE RANGE | OSO UNIT(S) | TYPE | PAGE |
|--------------------|--|------------------------------|-------|
| 0-5 Litres | Nano | Direct | 20 |
| 30-100 Litres | Multipoint | Direct | 21 |
| 120-380 Litres | Super Xpress ,Supercoil, Delta, Delta Geo, Delta Twincoil, Delta Powercyl, Slimline, Ecoline | Direct, Indirect, Renewables | 4-15 |
| 400-1000 Litres | Maxi Standard, Maxi Xpress, Maxi Coil, Maxi Geocoil, Maxi Accu | Direct, Indirect, Renewables | 26-28 |
| 1000-10,000 Litres | Maxi Bespoke | Direct, Indirect, Renewables | 29 |



SUPER COIL INDIRECT SYSTEM FRIENDLY



OVERVIEW

OSO EASY.

- Massively time and labour saving.
- Simplifies installation, demystifies unvented cylinders.
- A perfect partner for a system boiler with pre-plumbed motorised valve, cylinder valves and vessels.
- External vessels sited internally under a lid* which also covers up all connections and reduces heat loss.
- Template first fix – All pipes in the same area – makes for a really neat job.
- Ground-breaking design – Best looking unit on the market.
- External expansion with all the benefits of internal expansion but none of the drawbacks.

FEATURES

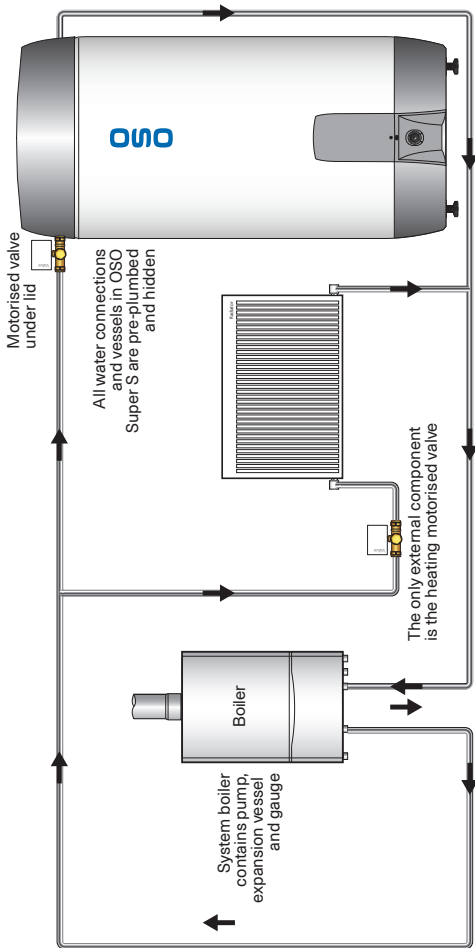
- Much quicker installation – it's all done – just connect to the pipework.
- Pre-plumbed but without the pre-plumbed price tag.
- Vessels within the cylinder mean no worries about finding a secure wall fixing.
- Secondary return tapping included.
- Shorter – more space for customer's own use.
- A smaller unit will do the job - Heats a standard bathful every 12 minutes.
- Quicker servicing – 10 minutes max.
- 5 bar hot water upgrade option.
- 4.5kw immersion heater upgrade option.
- Fully emptying drain cock.
- Immersion heater at bottom makes it ideal for linking to Photo Voltaic panels (100% of water heated) see p9.

*300 has a wall mounted vessel

TABLE

| Size | V40* | 580 W x H | Recovery | Heat loss Kwh/24hr | Heat loss watts |
|------|------|-----------|----------|--------------------|-----------------|
| 120 | 148 | 870 | 16 | 1.06 | 44 |
| 150 | 198 | 1050 | 21 | 1.25 | 52 |
| 180 | 248 | 1160 | 17 | 1.46 | 61 |
| 210 | 281 | 1300 | 20 | 1.61 | 67 |
| 250 | 355 | 1550 | 25 | 1.92 | 80 |
| 300 | 376 | 1750 | 22 | 2.02 | 84 |

The v40 is the amount of 40 degree water a unit can create



DELTA COIL INDIRECT A-RATED



Perfect partner for an A - Rated Boiler

OVERVIEW

OSO EFFICIENT.

- The most efficient range of cylinders in the world.
- Lowest heat losses currently available on any unit.
- On average 37% less heat loss compared to a similar unit without vacuum insulation.
- ErP A-Rated range of Indirect cylinders 150-300.
- Helps to achieve a SAP assessment or Part-L building regs pass.
- The only full range of A-Rated cylinders currently available. Saves money, energy and reduces carbon footprint.

FEATURES

- Keeps the water warm far longer than any other unit.
- Vacuum insulation makes the unit like a thermos flask.
- On average loses 1 thermal unit per day (4p at 2021 gas prices)
- Standard or pre-plumbed models available.
- External expansion vessel.
- 5 bar hot water upgrade option.

TABLE

| Size | ERP | 595W x H | Recovery | Heat loss Kwh/24hr | Heat loss watts |
|------|-----|----------|----------|--------------------|-----------------|
| 150 | A | 1005 | 17 | 0.94 | 39 |
| 180 | A | 1170 | 19 | 0.98 | 41 |
| 210 | A | 1270 | 21 | 1.03 | 43 |
| 250 | A | 1540 | 26 | 1.1 | 46 |
| 300 | A | 1750 | 23 | 1.18 | 49 |

DELTA POWERCYL

INDIRECT

HIGH FLOW/HIGH PRESSURE



OVERVIEW

OSO POWERFUL.

- Ideal for luxury projects or light commercial applications.
- Unbeatable performance high flow rate and high pressure.
- 28mm connections operating up to 5 bar.
- Delivers in excess of 100 litres per minute of mixed water.
- Fast recovery.
- Super fast recovery coils available mid 2022.

FEATURES

- Vacuum insulation makes the unit like a flask.
- Keeps the water warm far longer than any other unit.
- ErP A-Rated up to 300 litres.
- External expansion vessel.
- Can be linked together to feed 35mm pipework or larger.
- A perfect partner for the OSO Superstream Accumulator units.

TABLE

| Size | ERP | 595 W x H | Recovery | Heat loss Kwh/24hr | Heat loss watts |
|------|-----|-----------|----------|-----------------------|--------------------|
| 250 | A | 1540 | 15 | 1.1 | 46 |
| 300 | A | 1750 | 18 | 1.18 | 49 |
| 380 | B | 2225 | 24 | 1.68 | 70 |

DELTA GEO INDIRECT HEAT PUMP



OVERVIEW

OSO GREEN. If you're going to the expense of collecting renewable energy **Don't let it escape!**

- Lowest heat losses on any unit currently available.
- The only ErP A-Rated range of Heat-Pump cylinders 200-300.
- Large surface area coil.
- Smooth coils offering optimum performance which don't encourage limescale build up like corrugated or finned ones.
- Helps to achieve a SAP assessment or Part-L building regs pass.

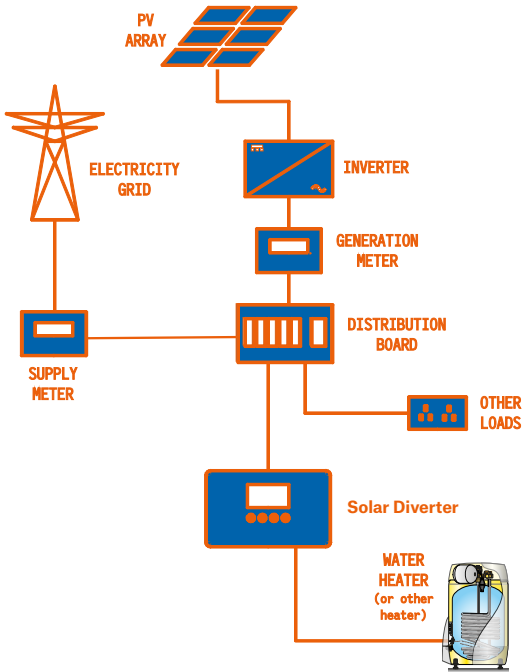
FEATURES

- The most efficient range of cylinders in Europe.
- Saves money, energy and reduces carbon footprint.
- Keeps the water warm far longer than any other unit.
- Vacuum insulation makes the unit like a flask.
- Smooth coils enable HP to work better in high limescale area
- External expansion vessels enable more thermal energy collection.
- 5 bar hot water upgrade option.

TABLE

| Geo Heat-pump | ERP | 595 W x H | Coil Area M ² | Max heat pump size | Heat loss Kwh/24hr | Heat loss watts |
|---------------|-----|-----------|--------------------------|--------------------|--------------------|-----------------|
| 200 | A | 1270 | 2.6 | 10kW | 1.03 | 43 |
| 250 | A | 1540 | 3.05 | 15kW | 1.1 | 47 |
| 300 | A | 1750 | 3.05 | 15Kw | 1.18 | 49 |

SOLAR VOLTAIC INDIRECT RENEWABLES



A solar diverter unit works by allowing the electricity created by photo voltaic solar panels to be utilised by the immersion heater in an OSO cylinder. When the amount of PV generated electricity is greater than the demand in the home (ie when the house is empty), the excess electricity is usually exported into the grid. The Solar Diverter stops this occurring and diverts it to the immersion heater effectively heating the hot water free of charge.

The diverter can be fitted to a standard OSO immersion heater because diverters restrict the input to the PV generated electricity only, taking no power from the grid.

The OSO Supercoil unit (page 4) is the perfect partner for such a system as the immersion is sited at the bottom of the cylinder. This means that all the water in the cylinder can be heated (or pre-heated) by the free electricity. Most units on the market have their immersion sited halfway up the cylinder. Because heat rises it means such tanks can only be 50% heated/pre-heated as the immersion can only effectively heat where it is sited and the water above it.

ECOLINE INDIRECT ENTRY LEVEL



OVERVIEW

OSO COMPETITIVE.

- Premium quality entry level OSO.
- Quality you expect at a price you don't.
- Stylish modern design.
- Fast recovery coils.

FEATURES

- Coil heats whole cylinder – most budget units don't.
- Coil connections on top.
- External expansion vessel.
- Honeywell Motorised valve.
- Fully drainable.
- 4.5kw immersion upgrade option.
- 5 bar hot water upgrade option.
- Cosmetic lid available to cover pipework.

TABLE

| Size | ERP | 580 W x H | Recovery | Heat loss Kwh/24hr | Heat loss watts |
|------|-----|-----------|----------|--------------------|-----------------|
| 120 | B | 815 | 19 | 1.06 | 44 |
| 150 | B | 991 | 21 | 1.25 | 52 |
| 180 | C | 1101 | 24 | 1.46 | 61 |
| 210 | C | 1241 | 27 | 1.61 | 67 |
| 250 | C | 1491 | 34 | 1.92 | 80 |
| 300 | C | 1691 | 38 | 2.02 | 84 |

SLIMLINE INDIRECT SPACE EFFICIENT



OVERVIEW

OSO SKINNY.

- The narrowest unvented cylinder on the market.
- Just 435 mm wide!

FEATURES

- Vacuum insulated for minimal heat losses.
- Can be easily linked together to double the volume.
- External expansion vessel.
- 3kw Immersion heater.
- Secondary return connection.

TABLE

| Size | ERP | 435 W x H | Recovery | Heat loss Kwh/24hr | Heat loss watts |
|------|-----|--------------|----------|-----------------------|--------------------|
| 150 | C | 1651 | 17 | 1.82 | 76 |

SIZING CHART

| NO OF BEDS | NO OF BATH OR SHOWER ROOMS | OSO CYLINDER VOLUME | V40 | RECOVERY TIME (SC) |
|------------|----------------------------|---------------------|-----|--------------------|
| 1 | 1 | 120 | 148 | 16 |
| 2 | 1 | 120 | 148 | 16 |
| | 2 | 150 | 198 | 21 |
| 3 | 1 | 150 | 198 | 21 |
| | 2 | 180 | 248 | 17 |
| | 3 | 210 | 281 | 20 |
| 4 | 2 | 180 | 248 | 17 |
| | 3 | 210 | 281 | 20 |
| | 4 | 250 | 355 | 25 |
| 5 | 2 | 180 | 248 | 17 |
| | 3 | 210 | 281 | 20 |
| | 4 | 250 | 355 | 25 |
| | 5 | 380 | 513 | 24* |
| 6 | 2 | 180 | 248 | 17 |
| | 3 | 210 | 281 | 20 |
| | 4 | 250 | 355 | 25 |
| | 5 | 380 | 513 | 24* |
| | 6 | 380 | 513 | 24* |

Large bath volumes or very high shower flow rates may increase estimated cylinder sizes.

The V40 is the amount of 40 degrees hot water a unit can create. This effectively the bath volume/showering water.

We would assume a standard bath would use 120-140l and an average shower about 50-70 l.

Consult OSO directly for a free bespoke calculation.

OSO intelligent cylinder and water booster calculator available @

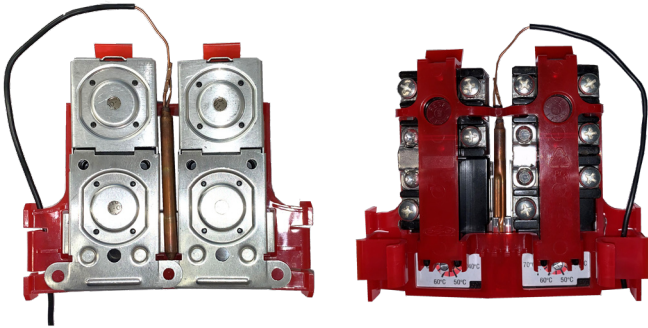


* recovery times for 380 powercyl

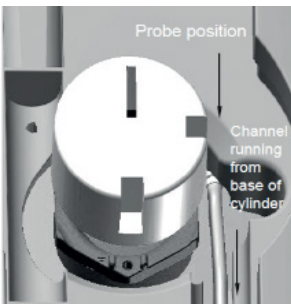
PROBE/THERMISTOR CONTROLLED BOILERS

Many boiler manufacturers now offer the option of controlling the cylinder water temperature via a thermistor probe. ALL OSO units have positions for the boiler probe to be sited. (also referred to as 4 pipe boilers).

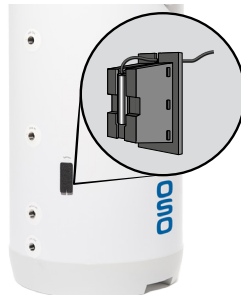
The probe fits neatly between the cylinder and thermostats on the Ecoline and Super Coil.



The Delta range has a dedicated pocket situated in the thermostat box and its situated just above the immersion heater.



Up to mid 2022



Available from mid 2022

SUPER XPRESS DIRECT PRE-PLUMBED



OVERVIEW

OSO QUICK

- Completely pre-plumbed and pre-wired. Saves hours.
- Produces in excess of 20% more hot water than any other cylinder of the same size.
- 20% more hot water means the unit can be downsized by at least one size.
- Downsizing saves space, reduces the cost and heat-loss figure.
- Washing machine can be sited in cylinder cupboard: reduces noise in apartments with OSO washer frame see page 18.
- Ground-breaking pre-plumbed design – Best looking unit on the market.
- Template first fix: Means cylinder not required until later, prevents theft and damage.
- Integral expansion vessel with all the benefits of internal expansion but none of the drawbacks.

FEATURES

- Much quicker installation – its all done – just connect to the pipework.
- External vessels sited internally under a lid which also covers up all connections.
- Vessels within the cylinder mean no worries about finding a secure wall fixing.
- Up to an OSO SX210 can be sited on a washer frame under a 2.3M ceiling.
- Shorter and down-sizable.
- Can free up cylinder cupboard space for customer's own use or a washing machine.
- Washer under cylinder means less noise in the living area and more kitchen space available.
- Extra water created by blending high temp water to 60 degrees on delivery.
- Tamperproof, factory fitted blending valve installed on the SX as standard.
- Secondary return connection on larger units.
- Quicker servicing – 10 minutes max makes for simple and efficient servicing.
- 5 bar hot water upgrade option.
- 4.5kw immersion heater upgrade option.
- Fully emptying drain cock.

TABLE

| Size | V40* @70 | 580 W x H | No of 6 minute 9 LPM showers | Heat loss Kwh/24hr | Heat loss watts |
|-------|-------------|-----------|---------------------------------------|-----------------------|--------------------|
| 120 | 192 | 870 | 3.6 | 0.96 | 40 |
| 150 | 254 | 1050 | 4.7 | 1.13 | 47 |
| 180 | 304 | 1160 | 5.6 | 1.22 | 51 |
| 210 | 323 | 1300 | 6 | 1.34 | 56 |
| 250 | 386 | 1550 | 7.1 | 1.39 | 62 |
| 300** | 463 | 1750 | 8.6 | 1.63 | 68 |

* The v40 is the amount of 40 degree water created by each unit

**300 has a wall mounted vessel

SIZING CHART FOR ELECTRICALLY HEATED CYLINDERS IN APARTMENTS

| DEMAND AND SIZING | | | HOT WATER PRODUCTION | | | | Heat Loss | | Control Method | HEIGHT | |
|-------------------|------------|--------------|----------------------|---|---|---|---|-----------|----------------|--|-----------|
| No of Beds | Bath Rooms | Shower rooms | OSO SX VIP | Amount of 40 °C water created by OSO @ 70 (v40) | Number of 6 minute showers @ 9 LPM (54L) from the OSO | Amount of 40 degree water created by competitor unit @ 60 (v40) | OSO performance increase (via extra 10 deg) | kWh 24hrs | Watts | Total cyl height plus washer frame (930 frame & top) | |
| 1 | 0 | 1 | 120 | 192 | 3.6 | 148 | 30% | 0.96 | 40 | Single Breaker and feed from consumer unit | 870/1800 |
| 1 | 1 | 0 | 120 | 192 | 3.6 | 148 | 30% | 0.96 | 40 | OSO PSS Timer | 870/1800 |
| 2 | 0 | 1 | 120 | 192 | 3.6 | 148 | 30% | 0.96 | 40 | OSO PSS Timer | 870/1800 |
| 2 | 1 | 0 | 120 | 192 | 3.6 | 148 | 30% | 0.96 | 40 | OSO PSS Timer | 870/1800 |
| 2 | 1 | 1 | 150 | 254 | 4.7 | 198 | 28% | 1.13 | 47 | OSO PSD Timer | 1050/1980 |
| 3 | 1 | 0 | 150 | 254 | 4.7 | 198 | 28% | 1.13 | 47 | OSO PSD Timer | 1050/1980 |
| 3 | 1 | 1 | 180 | 304 | 5.6 | 248 | 23% | 1.22 | 51 | OSO PSD Timer | 1160/2090 |
| 3 | 1 | 2 | 180 | 304 | 5.6 | 248 | 23% | 1.22 | 51 | OSO PSD Timer | 1160/2090 |
| 3 | 2 | 1 | 210 | 323 | 6.0 | 281 | 15% | 1.34 | 56 | OSO PSD Timer | 1300/2230 |

Please note the results are particular to Oso. A competitors unit must be larger to match the performance

V40 FIGURES

You may see on the Super Xpress, Super Coil and Multipoint units we quote a v40 figure. This is the amount of 40° water that a particular unit can create.

Its often referred to as 'mixed water' because its effectively the quantity of hot water with cold added to cool it to a usable temperature.

Its important to note that not all cylinders of the same size have the same v40. That's because a unit that is heated to 70° such as the Super Xpress will need a lot more cold water adding to cool it to 40° than one like the Super Coil which only heats to 60°.

The end result of having a hotter storage temperature means a unit can create in excess of 20% more mixed water than one with a lower storage temperature.

It is vital that when sizing a unit that the v40 figure is what you would use to determine the correct size of cylinder and NOT the cylinder volume.

The v40, or mixed water volume is the amount that will fill the baths and deliver showering water – NOT the hot water volume alone. Cold water is added. The greater the cold water volume required – the higher the v40.

Because of this you will find that you can often use a much smaller OSO unit than you previously thought.

**THE OSO SUPER XPRESS IS THE ONLY MASS
PRODUCED UNIT TO USE THIS FEATURE.**

**AS WELL AS PRODUCING MORE WATER
IT SAVES MONEY, SPACE AND REDUCES HEAT-LOSS**

OSO intelligent cylinder and water booster calculator available @



OSO WASHING MACHINE FRAME



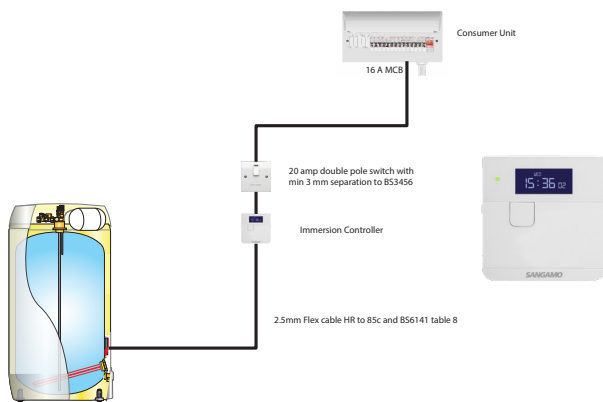
- Enables the siting of a washer in the cylinder cupboard.
- Supports up to a 210 litre OSO unit.
- Reduces noise from washers in open plan dwellings (apartments).
- No extra building footprint sacrificed – wasted space used.
- Ex-stock for speedy despatch.
- Frees up a base unit in the kitchen for something else (ie dishwasher).
- Makes plumbing a little easier as washer is close to services.
- OSO frame is flat packed meaning storage and transport much easier.
- Attractive powder coat finish.
- Fully finished worktop for cylinder.
- Levelling adjustment.

OSO Also can provide a wall hanging bracket for units up to 180 litres.

TIMERS

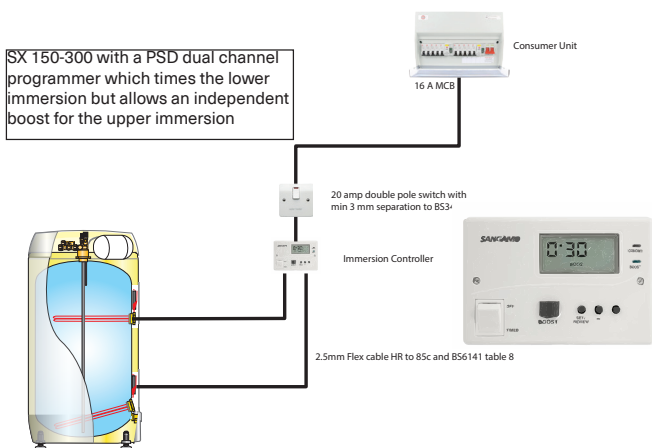
PSS POWERSAVER SELECT

- This is a single channel timer for controlling a single immersion heater.
- We suggest this timer for use with the SX120.
- The timer is rated up to 16 amps and also has a boost function, as well as 3 programmable on and off times.



PSD – POWERSAVER DUAL

- This is a dual channel timer for controlling a cylinder with two immersion heaters.
- We suggest this timer for use with the SX150-300 models.
- The timer is rated up to 13 amps and also has a boost function.
- As well as 3 programmable on and off times.



NANO DIRECT UNDERSINK



OVERVIEW

- 5 Litre point-of-use undersink water heater.
- Stainless steel construction.
- 10 year guarantee.

FEATURES

- 7 litres of mixed water every 8 minutes.
- ErP A-Rated.
- 3 kw Immersion heater.

TABLE

| Size litre | ERP | Dimensions mm | V40 litres | Recovery | Heat loss watts |
|------------|-----|-----------------|------------|----------|-----------------|
| 5 | A | 250 x 234 x 500 | 7 | 8 | 13 |

MULTIPOINT - W

DIRECT

MULTI-OUTLET WATER HEATER



OVERVIEW

OSO COMPACT

- Direct electric water heaters for lighter demands.
- Stainless steel construction with 10 year guarantee.
- Universal siting options - wall or floor mounting.
- 70° storage produces 20% more hot water at 60°
- Downsizable, so takes up less space.
- Suitable for domestic or commercial applications.
- 4 sizes 30/50/80/100 litres.

FEATURES

- Extra performance due to storage temp being 70 degrees delivered through a tamperproof blender.
- The 20% extra water means the unit can be downsized saving space.
- 30 and 50 L fit inside a standard kitchen base unit.
- 50 and 80L suitable for single shower demand.
- 3kW for speedier recovery.
- Simple plumbing connection - flexi hoses included.
- Simple wiring connection factory fitted cable.
- Wall bracket included for wall mounting.

TABLE

| Size | 435 W x H | V40 @70 | no of 6min 9 l/m showers | no of 5l basins | Recovery time to 65°C | Heat loss W |
|------|-----------------|------------|--------------------------------|-----------------------|-----------------------------|----------------|
| 30 | 622 | 52 | 1 | 10 | 29 | 22 |
| 50 | 785 | 84 | 1.5 | 16 | 46 | 29 |
| 80 | 1105 | 132 | 2.4 | 26 | 80 | 36 |
| 100 | 1325 | 168 | 3.1 | 33 | 92 | 45 |

SUPERSTREAM ACCUMULATORS

FLOW BOOST



OVERVIEW

- A power free silent boosting system that delivers in excess of 80 lpm **per accumulator**.
- Perfect for poor mains or supplies that have small pipe sizes.
- Enables multiple outlets to run without any pressure drops.
- Boosts hot and cold water services.

FEATURES

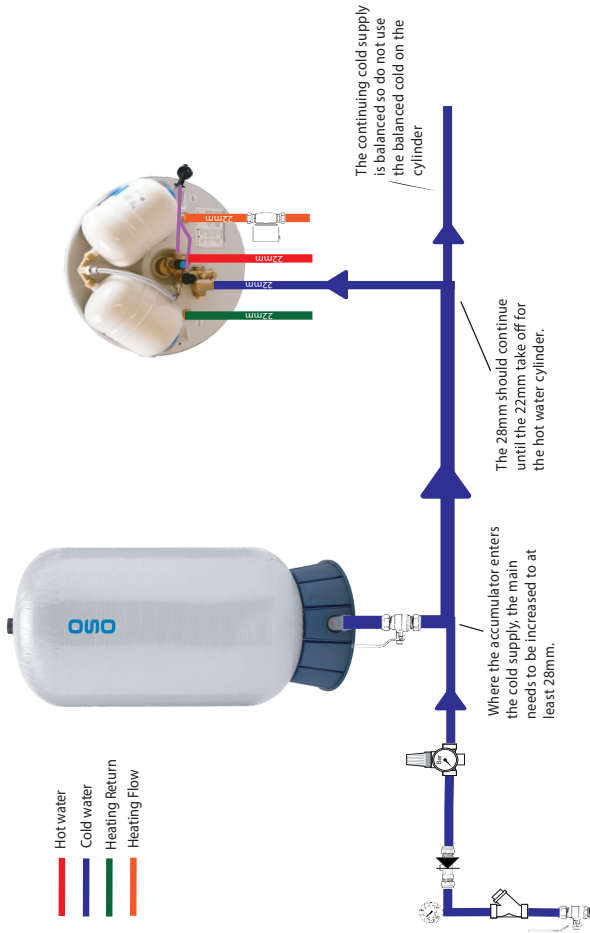
- No Noise.
- No power required.
- No working parts.
- No running costs.
- No servicing required.
- No pumps.
- 100% green.
- All drinkable water – no chlorination required.
- Works even in a power cut.
- 5 Year warranty.
- Can be retro fitted to an existing system.

TABLE

| Prod no | Weight kg | Diameter x H | Water capacity L* | Water connection |
|---------|-----------|--------------|-------------------|------------------|
| OSI130 | 16 | 418 x 1227 | 65 | 1" BSP male |
| OSI200 | 22 | 542 x 1098 | 100 | 1¼" BSP male |
| OSI250 | 27 | 542 x 1303 | 125 | 1¼" BSP male |
| OSI350 | 35 | 614 x 1448 | 175 | 1¼" BSP male |
| OSI450 | 46 | 614 x 1831 | 225 | 1¼" BSP male |

*Water volume with a 1.5 bar pressure differential (50% of total capacity)

SUPERSTREAM INSTALLATION



Ideal pressure differential is 1.5 bar.

The pressure differential is the difference between the incoming mains pressure and the air pressure in the accumulator (1.4 bar factory set). The maximum pressure differential is 1.9 bar. If the incoming pressure is low you can lower the pressure in the accumulator to increase the pressure differential and therefore water volume. The minimum pressure allowed in the accumulator is 0.5 bar. Any air reduction must be done when isolated from the main. If the incoming pressure is 2 bar or below we would suggest using a Charger pump – see P25.

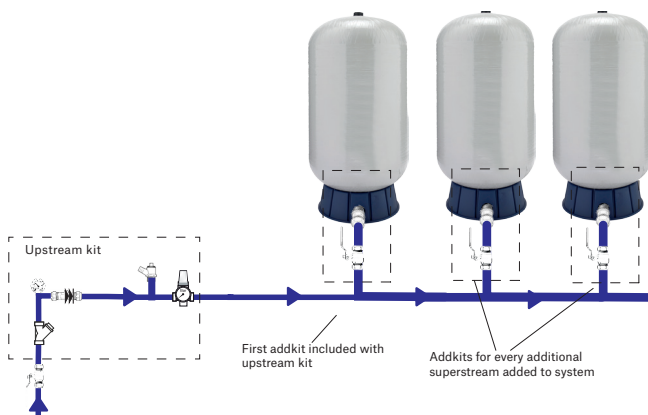
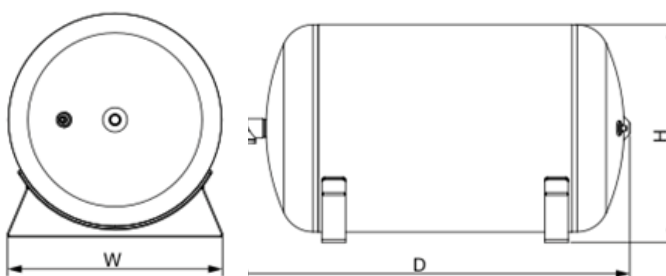
ACCUMULATOR OPTIONS HORIZONTAL AND MULTIPLE UNITS

The Superstream system can boost anything that has a mains connection. So not only unvented cylinders but also combis, electric showers or dedicated cold supplies.

=

200 and 250 can be fitted horizontally

| Model description | H | W | D |
|-------------------|-------|-------|--------|
| MB 200SH | 558mm | 540mm | 1026mm |
| MB 250SH | 558mm | 540mm | 1026mm |



If the installation requires more than one accumulator, only one upstream kit is required per install. However an Add kit is required for each additional accumulator

Contact OSO for sizing advice or a free site visit

OSO CHARGER PUMP PRESSURE BOOSTER

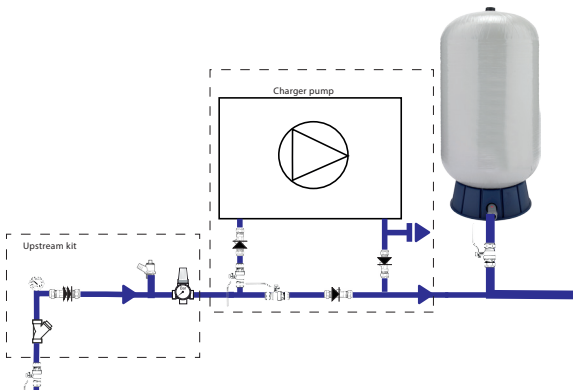


OVERVIEW

- The OSO Charger pump enables the installation of an accumulator system where the incoming main is less than 2 bar.
- It is also advisable to consider one where the incoming main at ground level is slightly above 2 bar but the accumulator is on an upper floor (head loss is 0.1 bar per metre).
- Can also be used where there is sufficient pressure for an accumulator system without a charger but the client requires a higher pressure than is currently supplied by the main.

FEATURES

- The Charger can achieve up to 3.5 bar.
- Must be used in conjunction with an OSO Superstream accumulator.
- Can be retro fitted.
- Minimal noise 38dBA.
- Drinkable water.
- Only a proportion of the water is pumped unlike a break tank.
- Will not run until around 1 bar has been taken from the system (Silent for early morning starts).
- Wall mounted.
- Accumulator system still works if the pump is off ie power-cut.



STAINLESS STEEL MAXI COMMERCIAL RANGE - EX STOCK

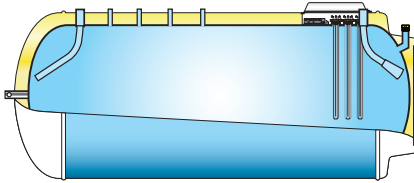
MAXI STANDARD-

MAXI XPRESS

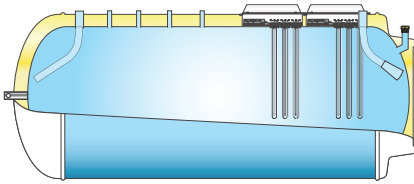
MAXI COIL

MAXI GEOCOIL

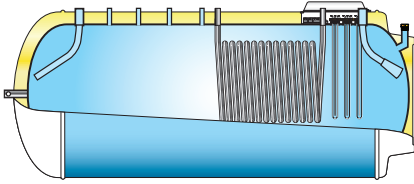
MAXI ACCU



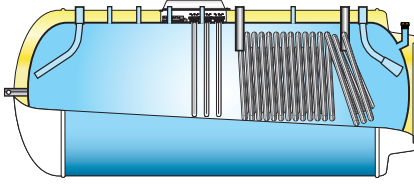
Electric heating of DHW in larger systems. 15 kW immersion. 300 -1000 litre



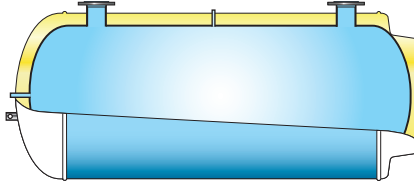
Electric heating of DHW in larger systems. 30kW immersion 400 - 1000 litre



Cylinder with 1,00m² stainless steel coil for indirect heating from external heat source. Electric backup available 15kW. 400 - 1000 litre



Designed especially for indirect heating with geothermal heat pump. 2.6 - 4.6m² coils. Electric backup 15 kW. 400 - 1000 litre



Cylinder for cold or hot water, mainly used for accumulation and water storage in cooling systems. 400 - 1000 litre

Electrics to be specified with order.

Either: 415 v 3 phase

Or 230 v single phase 3 x 5 kw

3 x 3.3 kw configurable on single phase

28mm or 1½" fittings kits to be specified with order

| Code | Coil size kW | Recovery time 82° - 71° | Coil size m2 | Recovery time coil Heat pump | Immersion power | Recovery time | Heat Loss W | ErP | G3 kit and vessel included? | Vessel Size Litres | Tapping sizes H&C | Tapping sizes F&R | Hydraulic Conns H&C | Secondary Return | Usually Ex Stock? | Dia and height | Dry Weight kg |
|------------|---|----------------------------|--------------|---------------------------------|-----------------|---------------|-------------|-----|--------------------------------|--------------------|-------------------|-------------------|------------------------|------------------|-------------------|----------------|---------------|
| MS | DIRECT/BUFFER VESSEL WITH ELECTRIC BACK-UP | | | | | | | | | | | | | | | | |
| 10241551 | OSO MAXI STANDARD COMMERCIAL MS300 BUFFER/DIRECT 15kw | n/a | n/a | n/a | 15kw | 46 | 83 | C | Y | 35 | 1.5" | n/a | n/a | Y | 3/4" | 595 x 1685 | 57 |
| 10241552 | OSO MAXI STANDARD COMMERCIAL MS400 BUFFER/DIRECT 15kw | n/a | n/a | n/a | 15kw | 61 | 90 | C | Y | 35 | 1.5" | n/a | n/a | Y | 3/4" | 595 x 2175 | 77 |
| 10241553 | OSO MAXI STANDARD COMMERCIAL MS600 BUFFER/DIRECT 15kw | n/a | n/a | n/a | 15kw | 95 | 119 | C | Y | 60 | 1.5" | n/a | n/a | Y | 3/4" | 780 x 2000 | 131 |
| 10241554 | OSO MAXI STANDARD COMMERCIAL MS1000 BUFFER/DIRECT 15kw | n/a | n/a | n/a | 15kw | 144 | 140 | C | Y | 100 | 1.5" | n/a | n/a | Y | 3/4" | 1000 x 2100 | 236 |
| MX | DIRECT/BUFFER VESSEL WITH FAST RECOVERY ELECTRIC BACK-UP | | | | | | | | | | | | | | | | |
| 10241652 | OSO MAXI X-PRESS COMMERCIAL MX400 BUFFER/DIRECT 15+15kw | n/a | n/a | n/a | 30kw | 30 | 103 | C | Y | 35 | 1.5" | n/a | n/a | Y | 3/4" | 595 x 2175 | 85 |
| 10241653 | OSO MAXI X-PRESS COMMERCIAL MX600 BUFFER/DIRECT 15+15kw | n/a | n/a | n/a | 30kw | 47 | 120 | C | Y | 60 | 1.5" | n/a | n/a | Y | 3/4" | 780 x 2000 | 139 |
| 10241654 | OSO MAXI X-PRESS COMMERCIAL MX1000 BUFFER/DIRECT 15+15kw | n/a | n/a | n/a | 30kw | 72 | 142 | C | Y | 100 | 1.5" | n/a | n/a | Y | 3/4" | 1000 x 2100 | 244 |
| MC | INDIRECT UNITS | | | | | | | | | | | | | | | | |
| 10241752 | OSO MAXI COIL COMMERCIAL INDIRECT MC400 CYLINDER 15kw | 30 | 0.8 | n/a | 15kw | 59 | 94 | C | Y | 35 | 1.5" | 3/4" | n/a | Y | 3/4" | 595 x 2175 | 85 |
| 10241753 | OSO MAXI COIL COMMERCIAL INDIRECT MC600 CYLINDER 15kw | 30 | 4.6 | 1.0 | 15kw | 92 | 119 | C | Y | 60 | 1.5" | 1" | n/a | Y | 3/4" | 780 x 2000 | 139 |
| 10241754 | OSO MAXI COIL COMMERCIAL INDIRECT MC1000 CYLINDER 15kw | 30 | 7.2 | 1.0 | 15kw | 143 | 142 | C | Y | 100 | 1.5" | 1" | n/a | Y | 3/4" | 1000 x 2100 | 244 |
| MGC | UNITS SUITABLE FOR HEAT-PUMPS OR FASTER RECOVERY INDIRECTS | | | | | | | | | | | | | | | | |
| 10241852 | OSO MAXI GEOCOIL COMMERCIAL MGC400 CYLINDER 15 kw | 75 | 2.6 | 70* | 15kw | n/a | 96 | C | Y | 35 | 1.5" | 3/4" | n/a | Y | 3/4" | 595 x 2175 | 95 |
| 10241853 | OSO MAXI GEOCOIL COMMERCIAL MGC600 CYLINDER 15kw | 135 | 10 | 4.6 | 105* | 15kw | 118 | C | Y | 60 | 1.5" | 1.5" | n/a | Y | 3/4" | 780 x 2000 | 160 |
| 10241854 | OSO MAXI GEOCOIL COMMERCIAL MGC1000 CYLINDER 15 kw | 135 | 16 | 4.6 | 175* | 15kw | 141 | C | Y | 100 | 1.5" | 1.5" | n/a | Y | 3/4" | 1000 x 2100 | 265 |
| MA | ACCUMULATOR/BUFFER VESSEL | | | | | | | | | | | | | | | | |
| 8001352 | OSO MAXI ACCU COMMERCIAL ACCUMULATOR MA400 SS/PLUS 6 bar | n/a | n/a | n/a | n/a | n/a | 96 | C | N | 35 | 1.5" | n/a | 2" | Y | n/a | 595 x 2175 | 77 |
| 8001353 | OSO MAXI ACCU COMMERCIAL ACCUMULATOR MA600 SS/PLUS 6 bar | n/a | n/a | n/a | n/a | n/a | 119 | C | N | 60 | 1.5" | n/a | DN80 PN10 | Y | n/a | 780 x 2000 | 148 |
| 8001354 | OSO MAXI ACCU COMMERCIAL ACCUMULATOR MA1000 SS/PLUS 6 bar | n/a | n/a | n/a | n/a | n/a | 140 | C | N | 100 | 1.5" | n/a | DN100 PN10 | Y | n/a | 1000 x 2100 | 238 |

*Recovery rates based on 55 - 45 flow and return

OSO MAXI COMMERCIAL EX- STOCK



OVERVIEW

- A comprehensive range of competitively priced commercial units.
- Demystifying commercial hotwater.
- 16 models in 5 types available from 300 up to 1000 litres.
- All in Stainless steel.
- Buffer with electric backup, buffer with fast electric recovery backup, indirect, heat pump and buffer.
- Prefabricated link pipes available for connecting units in series

FEATURES

- The units are held in UK stock for speedy despatch.
- Cylinder price includes full G3 fittings kit and potable vessel.
- Units all have 1.5" hot and cold tapplings as standard.
- Fittings kit comes as standard in 1½" but 28mm can be supplied on request.
- Immersion heaters can be ordered as single or three phase.
- Can be partnered with OSO Superstream Accumulators.
- 10 year warranty.

OSO MAXI COMMERCIAL BESPOKE



OVERVIEW

OSO Have the capability to manufacture bespoke units up to 10,000 litres. Vacuum insulation available on all bespoke cylinders if required.

These are available in the following types:

- Direct.
- Fast recovery direct.
- Indirect.
- Heat-pump indirect.
- Twin coil solar thermal.
- Buffer tank.
- Marine/offshore grade model.

You are also able to specify the tapping sizes, coil input, number of immersion heaters as well as adding extra connections etc.

Please contact OSO directly for price and availability.

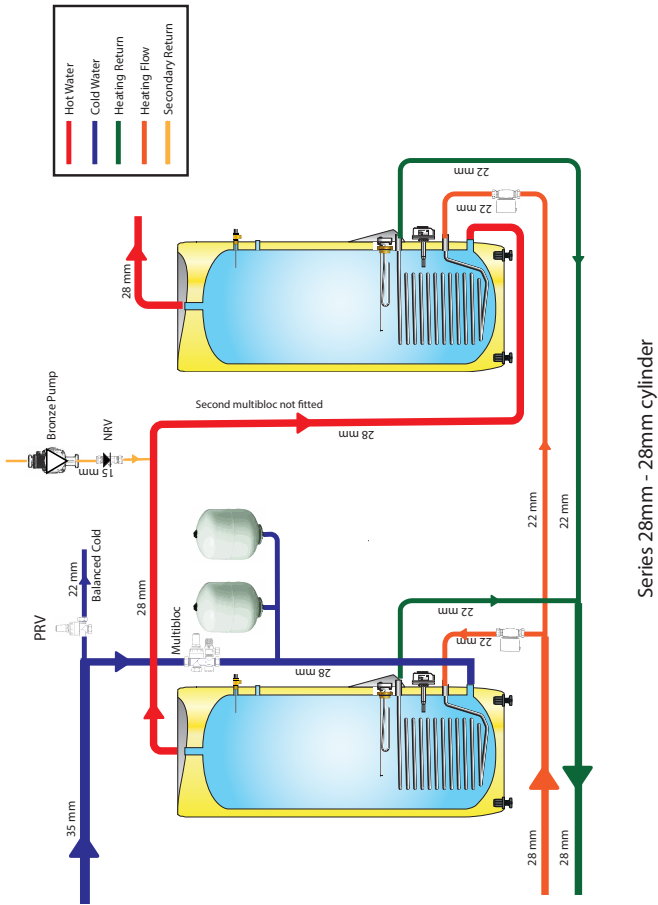
LINKING CYLINDERS TOGETHER

| Page No | Method | Cyl options | Hot water outlet size | Advantages | Disadvantages |
|---------|----------------|--|------------------------------|--|--|
| 31 | 22 in series | Ecoline 22 Delta Coil Slimline | 22 | Easy installation and cheap to do. 100% of the stored water always delivered. Less power required from the boiler. Can easily turn first cyl off and reduce capacity by 50% if there are low demand periods. | Limited to a 22mm outlet which we wouldn't advise if the pipe it is feeding is larger than that |
| 32 | 28 in series | 28 Delta powercyl | 28 | Easy installation and cheap to do. 100% of the stored water always delivered. Less power required from the boiler. Can easily turn first cyl off and reduce capacity by 50% if there are low demand periods. Can run cys at 5 bar as standard | 28 cys are dearer than 22 but to be honest if its feeding a 28mm pipe its got to be. Unless you use the next option below. |
| 33, 35 | 22 in parallel | Super coil Ecoline 22 Delta coil Slimline | 28 | Cheaper than 28 in series | Harder install, cant easily reduce storage by 50%, both cylinders will call for the boiler simultaneously |
| 33 | 28 in parallel | 28 Delta powercyl | 35 | Usually cheaper than a commercial better heat losses than commercial unit | Harder install, cant easily reduce storage by 50%, both cylinders will call for the boiler simultaneously |
| 34 | Reverse Return | Anything but cylinders must be same size | Same as incoming cold supply | Allows installation of multiple cylinders on a single system. Ideal for odd-numbers where parallel is difficult | Must size pipes correctly to balance the cylinders equally. Cylinders must be same volume and tapping size |

SERIES CONNECTION 28MM

Compatible Cylinder:

Delta Powercyl (28mm and 5 Bar)

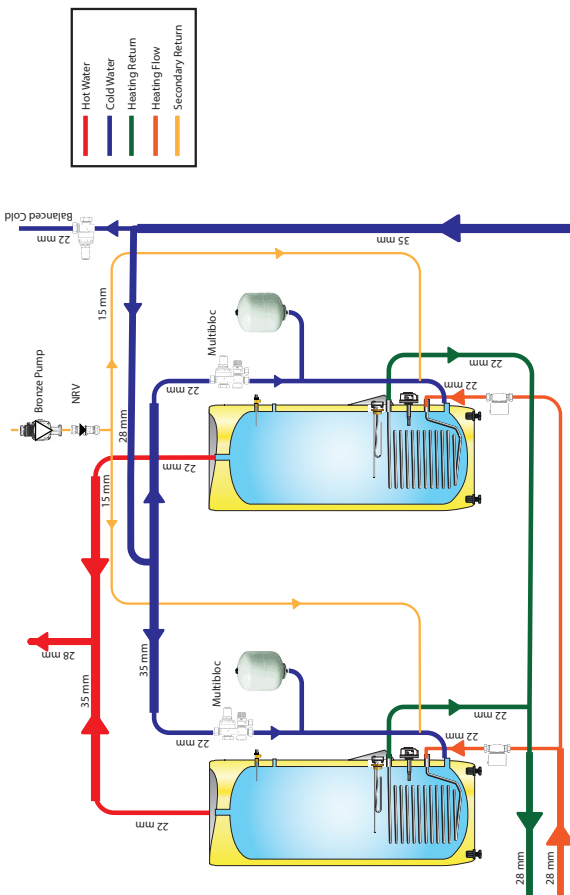


Two different sized cylinders can be used.

PARALLEL CONNECTION 22MM OR 28MM*

Compatible Cylinders:

- Supercoil/Super Xpress (see page 35)
- Delta Range
- Ecoline
- Slimline
- Delta Powercyl*

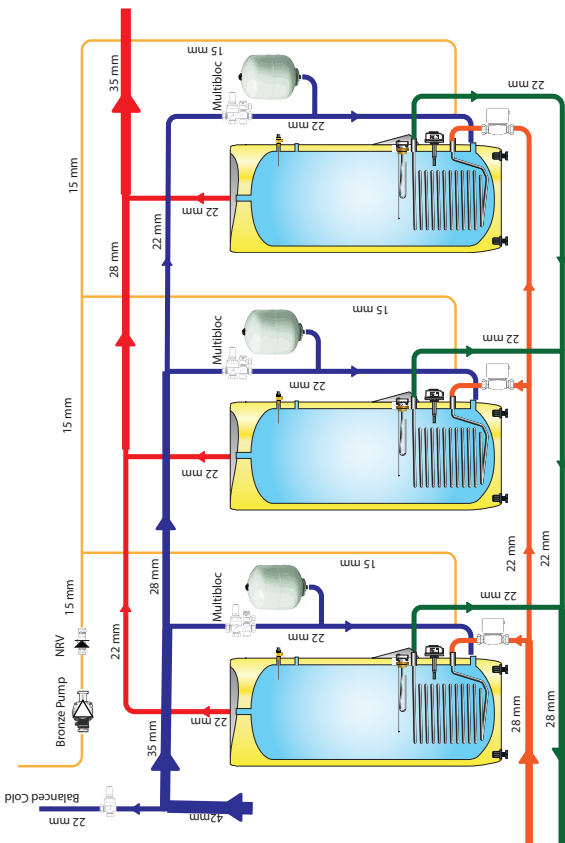
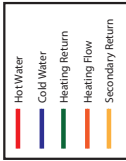


Parallel 28 mm hot outlet x 2 Delta Coil 22mm cylinders

(*For 28mm cylinders increase H&C pipe sizes by one size)
Same sized units must be used.

REVERSE RETURN CONNECTION

Compatible with ALL OSO cylinders.
Same size cylinders must be used.

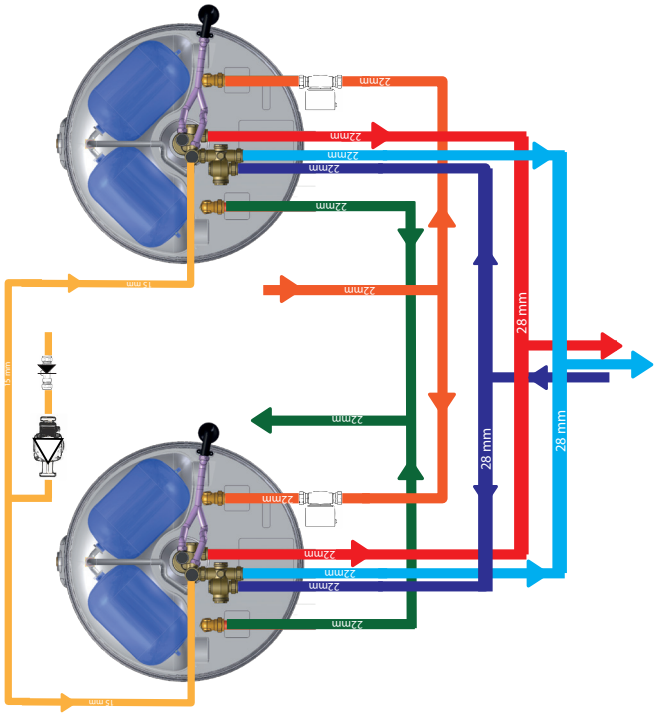
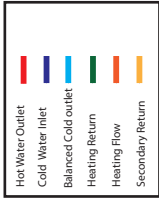


For specific pipe sizing assistance contact OSO.

SUPERCویل/SUPERXPRESS PARALLEL CONNECTION

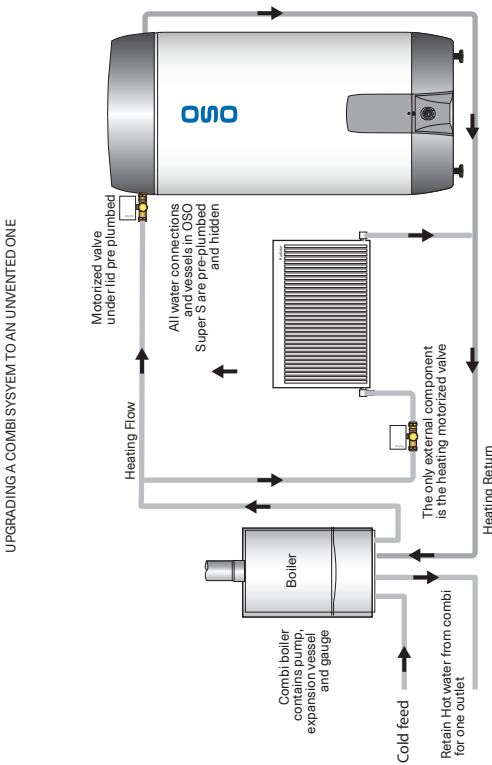
The Supercoil and Super Xpress units can be linked together, but only in parallel.

This means you get the benefit of not only doubling your volume but also your flow rate by increasing the delivery pipework to 28mm. (Same size units must be used).



UPGRADING A COMBI SYSTEM TO AN UNVENTED ONE WITH AN OSO SUPERCOIL SYSTEM

It is very simple to upgrade a combi system to an OSO unvented system if a customer is dissatisfied with the performance of their combi boiler or they are adding bathrooms. The Combi can be retained as the system boiler and the heating system just needs to be converted to an S-Plan. Depending on the Combi Boiler, some still need to run hot water to a single outlet but this can be achieved very simply by utilising the nearest hot tap to the boiler. This is a very simple and competitive solution that the super coil solves easily because of the factory fitted nature of the unit.



Flow rate comparison - Unvented and Combi boilers

| Type | OSO 22mm | OSO 28mm | 24kw combi | 28kw combi | 32kw combi | 35kw combi | 38kw combi | 43kw combi |
|--------------------|----------|----------|------------|------------|------------|------------|------------|------------|
| Approx mixed water | 57 lpm | 115 lpm | 9.5 lpm | 11 lpm | 13 lpm | 14.5 lpm | 16 lpm | 17.8 lpm |

SECONDARY RETURNS

As you'll probably know a secondary return is a pipe loop from the cylinder which enables the instant delivery of hot water at the tap.

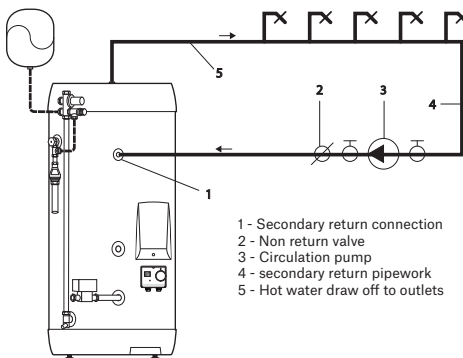
It eliminates dead legs and the wasteful run-off of cold or tepid water plus its more convenient for the end user.

All OSO cylinders can accommodate a secondary return either from a dedicated connection or from a tee which would be inserted into the cold feed after the multibloc.

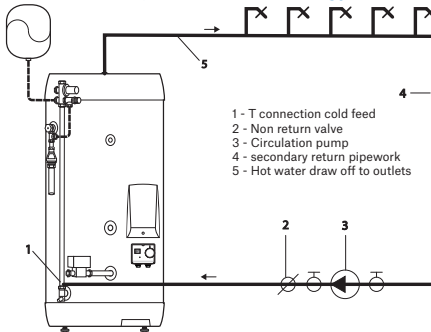
The Supercoil and Super Xpress cylinders can accommodate a secondary return by inserting a tee into the expansion vessel connection. Current Supercoil and larger Super Xpress models now also have a dedicated secondary port.



Several OSO units have a dedicated secondary return port in the upper part of the cylinder. This tends to be the text-book method of connecting a secondary return, however be aware that uninsulated hot water pipework will start to cool the upper part of the cylinder. Because the thermostat is below the return port, the boiler will not automatically fire to replace any lost energy.



All OSO units can have a secondary return connected into the cold feed after the mulibloc. This would be the suggested method if the hot water pipework is unlagged or if the insulation condition is unknown. If the return water is cooler than the cylinder stat setting the boiler can fire to replace the lost energy.



Further things to consider are:

1. Where the secondary return is very long or the pipe size large, the water volume is greater. This water is effectively extra stored water on top of what the cylinder is holding. In certain circumstances this may have an effect on the size of the expansion vessel. If the extra loop volume increases the hot water volume beyond what the vessel can accommodate the expansion relief valve may emit water during the heat up cycle. The solution would be to add another small expansion vessel to accommodate the extra volume.
2. It is advisable to fit some kind of timing device to control the bronze pump to ensure it isn't running constantly.
3. When plastic pipe is used please ensure that the loop is always timed and not running constantly. If in doubt consult the pipe manufacturer.
4. Make sure a non-return valve is always fitted between the bronze pump and cylinder and that it is pointing the correct way ie allowing water to return to the cylinder.
5. If fitting a secondary return on a Direct OSO Super Express please ensure that the cylinder thermostat is reduced from its factory setting of 70 to 60 degrees to avoid mixing at the blending valve (SX units only).
6. If installing a secondary return on a heat pump cylinder please use the tapping provided.

The UK Water Regulations say that hot water must reach the outlet within 30 seconds, and at a temperature of 50°C or above. The maximum length recommended is 12 metres for 15mm pipe. Therefore care needs to be taken when planning the location of the hot water source and manifolds. When the distances involved are greater, consider installing a ring circuit as a secondary circulating system, with a bronze circulating pump.

WATER RELATED INFO

The following tables and information are used by OSO Hotwater for the purpose of calculating cylinder and accumulator volumes as well as tapping and pipe sizes. They are approximate figures and not absolutely exact as other factors can affect supply. However they are suitable as a sizing guide.

Pressure

1 bar = 10M head.

In other words, if water rises 10M it will lose 1 bar pressure.

Elbows and valves add to the resistance and reduce the pressure further.

But for a basic example, if you have 3 bar at ground level and you rise 10M you will have approx 2 bar at the top.

Weight

1 Litre weighs 1 KG.

1000 Litres is a metric tonne (1000 KG) and is 1 M³ (1M x 1M x 1M).

In a bath, the body "displaces" its submerged weight in litres

Expansion

Water expands at just under 5% when heated.

Typically a vessel would be sized at around 10%.

It also needs to be 'potable' which means suitable for drinkable water.

Water mix calculator

| Heat Source | Storage Temp | Storage Vol eg | Hot % | Cold % | V40 |
|------------------|--------------|----------------|-------|--------|------|
| OSO Immersion | 70 | 100L | 60 | 40 | 166L |
| Boiler (@72°) | 60 | 100L | 70 | 30 | 143L |
| Heat Pump (@55°) | 50 | 100L | 80 | 20 | 125L |
| Partial Reheat | 40 | 100L | 40 | 0 | 100L |

Approximate V40 = storage vol ÷ (hot % ÷ 100)
(more V40 info on P17)

It is vital that the heat source is considered when sizing a cylinder because heat pumps cannot achieve the storage temperatures that boilers can without assistance from immersion heaters. This also means that less cold is added to cool the stored water on delivery. Heat pump cylinders therefore need to be larger than a boiler heated alternative to satisfy the same requirement.

*The OSO Super Xpress uniquely stores at 70 and so has the opposite effect meaning it can be decreased in size to provide the same output as a boiler heated cylinder.

Approximate Demands (Boiler or immersion heated)

| Item | Mixed flow LPM | Hot LPM (70%) | Cold LPM (30%) | Approx volume L |
|-----------------------|----------------|---------------|----------------|-----------------|
| Basin | 6 | 4.2 | 1.8 | 5 |
| Sink | 10 | 7 | 3 | 10 |
| Shower (standard) | 14 | 9.8 | 4.2 | 84* |
| Shower (water saving) | 9 | 6.3 | 2.7 | 54* |
| Bath | 18 | 12.6 | 5.4 | 120-140* |
| Power shower | 22 | 15.4 | 6.6 | 132* |

*Assuming a 6min shower and standard size bath

Building regs section G2 suggests a max shower flow rate should be 10 lpm and a persons daily consumption should not exceed 125 litres 'but check with your customer about their individual requirements'

Effectively all taps in the table above could theoretically be fed by 15mm pipe (because they need less than 20 l/m) – this helps reduce dead leg delays, but must be from a suitable sized header that can carry the total hot water requirement.

Flow

Approximate pipe flow rates – rounded down a bit

(plastic plumbing systems reduce the flow further due to pipe inserts).

| Copper | MDPE | LPM | Volume per M (Litres) |
|--------|------|-----|-----------------------|
| 15mm | 20mm | 20 | 0.14 |
| 22mm | 25mm | 40 | 0.32 |
| 28mm | 32mm | 80 | 0.54 |
| 35mm | | 120 | 0.83 |
| 42mm | | 180 | 1.23 |
| 54mm | | 300 | 2.09 |

eg 50M of 22mm would hold 16 litres (50 x 0.32).

28mm pipe could supply two 22mm pipes without a pressure drop.

Dead leg Calculator

| | Delay at outlet at particular flow rates with a 10 M dead leg | | |
|------------------|---|--------|--------|
| Copper tube size | 20 LPM | 40 LPM | 80 LPM |
| 15 | 4 secs | | |
| 22 | 10 secs | 5 secs | |
| 28 | 16 secs | 8 secs | 4 secs |

CONVERSION TABLES

Imperial to metric conversion table

| Imperial | Metric | |
|-------------|----------|---|
| Length | | |
| 1 Inch | 25.4mm | 2.5cm |
| 1 Foot | 30cm | 0.3m |
| 1 Yard | 91cm | 0.9m |
| 1 Mile | 1609m | 1.6km |
| Volume | | |
| 1 Fluid oz | 28.4ml | 2.8cl |
| 1 Pint | 57cl | 0.57L |
| 1 Gallon | 4.5L | |
| Weight | | |
| 1 oz | 28.3g | |
| 1 Pound | 454g | 0.45kg |
| 1 Stone | 6.35kg | |
| 1 Ton | 1016kg | 1.02 tonnes |
| Temperature | | |
| 1°F | -17.22°C | $(^{\circ}\text{F} - 32) \times 5/9 = ^{\circ}\text{C}$ |
| Pressure | | |
| 1 psi | 0.07 bar | |
| Heat | | |
| 1 BTU | 0.293w | 0.000293kw |

Converting heat loss

KW to kwh/24 = kw x 24 ÷ 1000

Kwh/24 to KW = kw/24hr x 1000 ÷ 24

Metric to imperial conversion table

| Metric | Imperial | |
|-------------|-------------|---|
| Length | | |
| 1 mm | 0.04 in | |
| 1 cm | 0.4 in | |
| 1 m | 3.28 ft | 1.09 yds |
| 1 km | 0.6 miles | |
| Volume | | |
| 1 ml | 0.035 fl/oz | |
| 1 cl | 0.35 fl/oz | 0.017 pt |
| 1 litre | 1.76 pt | 0.22 gall |
| Weight | | |
| 1 g | 0.035 oz | |
| 1 kg | 2.2 lb | 0.16 st |
| 1 Tonne | 157.5 st | 0.98 ton |
| Temperature | | |
| 0°C | 32°F | $^{\circ}\text{C} \times 1.8 + 32 = ^{\circ}\text{F}$ |
| Pressure | | |
| 1 bar | 14.5 psi | |
| Heat | | |
| 1 kw | 3412.14 BTU | |

DISCHARGE PIPE CALCULATION

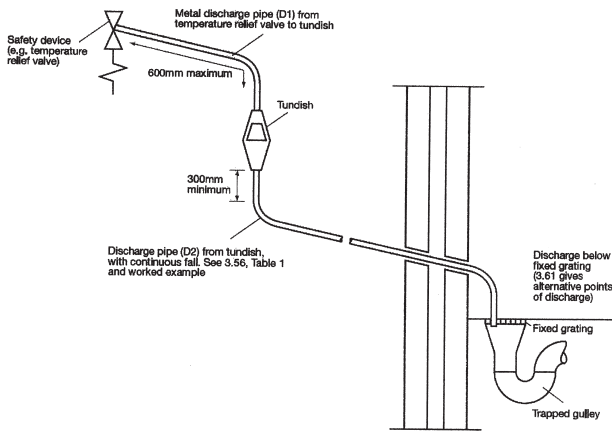
'The D2 discharge pipe must be made of metal or other material that has been demonstrated to be capable of safely withstanding temperatures of the water discharged'

Building regs G3 – 2015

Use the table to calculate the discharge pipe D2 pipe size.

Domestic OSO cylinders have a safety valve outlet of ½”.

OSO Maxi Commercial cylinders have a safety valve outlet of ¾”.



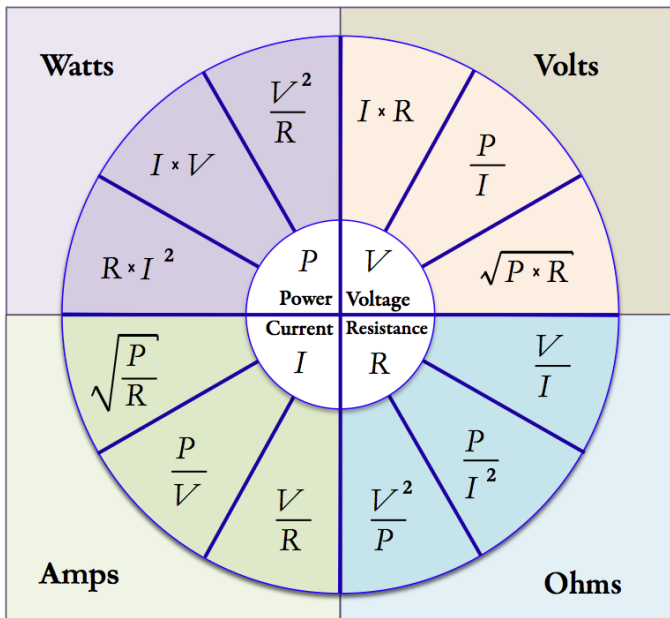
Taken from Building regs G3 – 2015

| Valve Outlet size | Minimum size of discharge pipe D1 | Minimum size of discharge pipe D2 from tundish | Maximum resistance allowed expressed as a length of straight pipe (i.e. no elbow or bends) | Resistance created by each elbow or bend |
|-------------------|-----------------------------------|--|--|--|
| G 1/2 | 15 mm | 22 mm | up to 9 m | 0.8 m |
| | | 28 mm | up to 18 m | 1.0 m |
| | | 35 mm | up to 27 m | 1.4 m |
| G 3/4 | 22 mm | 28 mm | up to 9 m | 1.0 m |
| | | 35 mm | up to 18 m | 1.4 m |
| | | 42 mm | up to 27 m | 1.7 m |
| G 1 | 28 mm | 35 mm | up to 9 m | 1.4 m |
| | | 42 mm | up to 18 m | 1.7 m |
| | | 54 mm | up to 27 m | 2.3 m |

'Recent modifications to the G3 section of Building Regs suggest that discharge into a soil stack is permissible in certain circumstances. However please check www.gov.uk/government/collections/approved-documents for current regulations or alternatively contact OSO directly for guidance with our cylinders.

OHMS LAW

Ohm's law states that the current through a conductor between two points is directly proportional to the voltage across the two points. Use these equations to calculate your power or current.



E.G. Watts \div Volts = Amps

LEGIONELLA

Hot water storage must be at least 60°C to eliminate legionella. (Health & Safety Executive)

Legionella is a naturally occurring bacteria that commonly exists in water. It is dormant and harmless in cold water at temperatures below 20°C

Legionella will multiply at temperatures between 20 & 45°C.

Storage at 60°C or above ensures rapid elimination.

All above information is from the HSE Health & Safety Executive and can be accessed using link below:

<https://www.hse.gov.uk/healthservices/legionella.htm>

SPARES

| PART NUMBER | DESCRIPTION |
|----------------------------|--|
| 20 SERIES 2000-2012 | |
| UK214009 | Exp Relief Cartridge 8 Bar b/s |
| UK250006 | Tee 15mm x 1/2" F x 15mm |
| UK250006 | Tee 15mm x 1/2" F x 15mm |
| UK250440 | Commissioning Valve ZMTC250440 |
| UK250445-ELB | Elbow / Drain Cock ZELB 250 445 |
| UK355045 | Multibloc (Replaces 355013) |
| UK550853 | ½" Pressure & Temperature Relief Valve |
| UKPREL355045 | 8 Bar Expansion Relief Valve |
| UKREDC312015 | Adj Reducer Cartridge 1.5-5.5 Bar Adj suits 355045 |
| UKREDC355045 | 2.1 Bar Replacement Cartridge |
| 90812 | Commissioning Boss Stainless |
| 90816 | Commissioning Boss & Collar |
| 92000 | Motorised Honeywell Valve |
| 71261 | 1.1/4" 3kw x 240 V Copper Immersion Heater |
| 72063 | ELEMENT,5/4RG,2.8kW,230V,1RØR,L420, Stainless |
| 8015189 | 71269 - 4.5Kw Immersion with 2 x 4mm cables - |
| 8015192 | 3Kw 1 1/4" 240v Immersion Heater replaces 71259 |
| 80030 | Y Plan Thermostat SPDT (4114) |
| 8015825 | TS2 40-70 Thermostat 80020 |
| UKAX12 | Expansion Vessel 12 ltr with Wall Bracket |
| UKAX18 | Expansion Vessel 18 Ltr with Wall Bracket |
| UKAX24 | Expansion Vessel 24 ltr with Wall Bracket |
| UKAX25 | Expansion Vessel 25 Ltr with Wall Bracket |
| UKAX35 | Expansion Vessel 35 Ltr with Wall Bracket |
| 81024 | Sensor Pockets (Replaces 81019) |
| UK219005 | Tundish 15mm x 22mm |
| D6052 | Box spanner 1 1/4" - 1" |
| DELTA 2016- | |
| UK214005 | Expansion Relief Valve Cartridge 6 Bar |
| UK250445-ELB | Elbow / Drain Cock ZELB 250 445 |
| UK355030 | Multibloc (Ecoline) CWIC 355 030 |
| UK550853 | ½" Pressure & Temperature Relief Valve |
| UKPREL355030 | 6.0 BAR PRESSURE RELIEF VALVE for multibloc 355030 |
| UKREDC312015 | Adj Reducer Cartridge 1.5-5.5 Bar Adj suits 355045 |
| UKREDC355030 | 3 BAR PRV CARTRIDGE for 355030 |
| 92000 | Motorised Honeywell Valve |
| 92300 | P & T Valve - 1 W 40 XL - 8 405 036in |

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|--|--|
| 71242 | Electric Immersion Heater 3Kw Delta |
| 80314 | Thermostat for Immersion heater Delta |
| 80345 | Thermostat for Boiler Delta |
| UKAX12 | Expansion Vessel 12 ltr with Wall Bracket |
| UKAX18 | Expansion Vessel 18 Ltr with Wall Bracket |
| UKAX24 | Expansion Vessel 24 ltr with Wall Bracket |
| UKAX25 | Expansion Vessel 25 Ltr with Wall Bracket |
| UKAX35 | Expansion Vessel 35 Ltr with Wall Bracket |
| 75086 | Electric Cover Delta |
| UK219005 | Tundish 15mm x 22mm |
| D6052 | Box spanner 1 1/4" - 1" |
| ECOLINE 2014 - | |
| UK214005 | Expansion Relief Valve Cartridge 6 Bar |
| UK250445-ELB | Elbow / Drain Cock ZELB 250 445 |
| UK355030 | Multibloc (Ecoline) CWIC 355 030 |
| UK550853 | ½" Pressure & Temperature Relief Valve |
| UKPREL355030 | 6.0 BAR PRESSURE RELIEF VALVE for multibloc 355030 |
| UKREDC312015 | Adj Reducer Cartridge 1.5-5.5 Bar Adj suits 355045 |
| UKREDC355030 | 3 BAR PRV CARTRIDGE for 355030 |
| 92000 | Motorised Honeywell Valve |
| 92300 | P & T Valve - 1 W 40 XL - 8 405 036in |
| UKAX12 | Expansion Vessel 12 ltr with Wall Bracket |
| UKAX18 | Expansion Vessel 18 Ltr with Wall Bracket |
| UKAX24 | Expansion Vessel 24 ltr with Wall Bracket |
| UKAX25 | Expansion Vessel 25 Ltr with Wall Bracket |
| UKAX35 | Expansion Vessel 35 Ltr with Wall Bracket |
| UK219005 | Tundish 15mm x 22mm |
| 8015189 | 71269 - 4.5Kw Immersion with 2 x 4mm cables - |
| 8015192 | 3Kw 1 1/4" 240v Immersion Heater replaces 71259 |
| 71261 | 1.1/4" 3kw x 240 V Copper Immersion Heater |
| 80030 | Y Plan Thermostat SPDT (4114) |
| D6052 | Box spanner 1 1/4" - 1" |
| POWERCYL DELTA /20 SERIES 1 INCH FITTINGS | |
| UK214009 | Exp Relief Cartridge 8 Bar b/s |
| UK250446-ELB | 1" Elbow / Drain Cock 1in MI x 28mm |
| UK255003 | 1" Check / Expansion Valve |
| UK315110 | 1in Pressure Reduction Valve (Replaces Part 30012 |
| UK350002 | 1" Adjustable PRV 0.5 - 5 bar Cartridge |
| UKC350231 | 1" Fittings Pack |
| UKC352306 | 1" multibloc adjustable |
| UK219001 | Tundish 22mm x 28mm |

SUPER S OLD 2008 - 2021

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|---------------------------|--|
| UK550853 | ½" Pressure & Temperature Relief Valve |
| 90231 | Pressure Reduction Valve Sole 604 |
| 90232 | Mixing/Blending Valve Sole 109 |
| 90234 | Super S 5 bar PRV Spring |
| 90235 | Stop-mix assembly |
| 90412 | Drain Cock Sole 350 |
| 90415 | Drain valve super S new connection |
| 90423 | Expansion Valve Sole 381 |
| 92000 | Motorised Honeywell Valve |
| 71252 | 3kw 1 1/4" 240v Immersion (to use with smart stat) |
| 71261 | 1.1/4" 3kw x 240 V Copper Immersion Heater |
| 8015189 | 71269 - 4.5Kw Immersion with 2 x 4mm cables - |
| 8015192 | 3Kw 1 1/4" 240v Immersion Heater replaces 71259 |
| 80030 | Y Plan Thermostat SPDT (4114) |
| 80317 | Standard Rod Thermostat for IQ cylinder |
| 8015825 | TS2 40-70 Thermostat 80020 |
| UKAX24 | Expansion Vessel 24 ltr with Wall Bracket |
| UKAX25 | Expansion Vessel 25 Ltr with Wall Bracket |
| 115800 | 115800 Expansion Vessel 5.5ltr |
| 52431 | Dip Pipes SX/SC 120 |
| 52432 | Dip Pipes SX/SC 150 |
| 52433 | Dip Pipes SX/SC 180 |
| 52434 | Dip Pipes SX/SC 210 |
| 52435 | Dip Pipes SX/SC 250 |
| 52436 | Dip Pipes SX/SC 300 |
| 91995 | Tundish |
| 91900 | Flexi Y hose super s |
| 157600 | Accessory Kit SX Direct |
| 157601 | Accessory Kit Super SC Indirect |
| 80720 | Thermostat Clip Single |
| 8015893 | 80725 - Thermostat Clip Double - |
| 91800 | Flexi Hose |
| 115716 | 115716 T-Piece |
| D6052 | Box spanner 1 1/4" - 1" |
| SUPER S NEW 2021 - | |
| UK550853 | ½" Pressure & Temperature Relief Valve |
| 90225 | Valve super S with Sec return complete |
| 90226 | Valve Super S without Sec return complete |
| 115716 | 115716 T-Piece |

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|---------------------|---|
| 90235 | Stop-mix assembly |
| 90415 | Drain valve super S new connection |
| 90423 | Expansion Valve Sole 381 |
| 92000 | Motorised Honeywell Valve |
| 71261 | 1.1/4" 3kw x 240 V Copper Immersion Heater |
| 8015189 | 71269 - 4.5Kw Immersion with 2 x 4mm cables - |
| 8015192 | 3Kw 1 1/4" 240v Immersion Heater replaces 71259 |
| 80030 | Y Plan Thermostat SPDT (4114) |
| 8015825 | TS2 40-70 Thermostat 80020 |
| UKAX24 | Expansion Vessel 24 ltr with Wall Bracket |
| UKAX25 | Expansion Vessel 25 Ltr with Wall Bracket |
| 115800 | 115800 Expansion Vessel 5.5ltr |
| 91995 | Tundish |
| 91900 | Flexi Y hose super s |
| 157600 | Accessory Kit SX Direct |
| 157601 | Accessory Kit Super SC Indirect |
| 80720 | Thermostat Clip Single |
| 8015893 | 80725 - Thermostat Clip Double - |
| 52451 | Dip tube new valve ,SuperS 120 Eng,304,ø15,s0.5,L585 |
| 52452 | Dip tube new valve ,SuperS 150 Eng,304,ø15,s0.5,L760 |
| 52453 | Dip tube new valve ,SuperS 180 Eng,304,ø15,s0.5,L870 |
| 52454 | Dip tube new valve ,SuperS 210 Eng,304,ø15,s0.5,L1010 |
| 52455 | Dip tube new valve ,SuperS 250 Eng,304,ø15,s0.5,L1260 |
| 52456 | Dip tube new valve ,SuperS 300 Eng,304,ø15,s0.5,L1450 |
| 90243 | Service kit,Super S UK , Pressure reducing valve m |
| 90244 | Service kit,Super S UK ,mixing valve mechanism |
| 91802 | 91802 FLEX hose super s ,BEND G1/2FxG1/2F RE |
| 92023 | VALVE ,P&T,G1/2M,Caleffi m/adapter |
| 92115 | VALVE SV-383,8BAR,sec.ret,G1/2"M,4MS,EN1489 |
| D6052 | Box spanner 1 1/4" - 1" |
| MISC | |
| IMMPROGBOOST | Boost switch |
| UKIMMPROG PSDF2 | OSO Imm Controller Powersaver Dual Flexi (PSDF2) |
| UKIMMPROG PSS2 120L | OSO Imm Controller Powersaver Select (PSS2) 120L |
| WMF-HV | Washing Machine Frame |
| 8015434 | wall bracket new replaces 21380 |

Plenty of other spare parts are available plus ones from older or less popular units.

Most can be found at www.oso-spares.co.uk

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