



Hamworthy Halstock

Stainless steel calorifiers

Single coil

Capacities

305l, 400l, 500l, 810l and 965l



Hamworthy

Heating *at work.*

Halstock

Unvented calorifiers
305l to 965l

Hamworthy introduces the new Halstock range of premium stainless steel calorifiers to complement its existing Powerstock range of calorifiers and hot water storage tanks.

Halstock calorifiers are highly durable and deliver very efficient, inherently safe and hygienic DHW (Domestic Hot Water) for commercial applications.

Designed in the Hamworthy tradition for quality, reliability and low maintenance, the Halstock is an excellent choice for long term value and customer satisfaction, backed by our 5-year commercial cylinder guarantee.

The Halstock features a robust and durable, corrosion-resistant, Acerinox duplex stainless steel tank and coil, for long term peace of mind. With stainless steel tanks, there are no electrical corrosion protection systems or sacrificial anodes to maintain.

High efficiency is guaranteed by a corrugated coil design for maximum heat transfer, and a generous layer of CFC-free polyurethane tank insulation under protective plastisol cladding ensures minimal standing losses.

The Halstock is designed for use with natural gas, LPG or oil-fired boilers for indirect heating, and/or direct heating via optional Incoloy 800 electrical immersion heaters (included as standard in HS305 UV model).

Twin thermostats: high limit 82°C ± 5°C and control 30–70°C, provide simple temperature control and overheat protection via their volt-free contacts when wired to external controls.

Unvented models include necessary safety equipment: SRV/PRV (Safety relief & pressure reducing valve including check valve), external expansion vessel, tundish and a factory-fitted T&P (Temperature and Pressure) relief valve.

For a long life, trouble-free, indirect-heating solution for your commercial DHW application, choose Hamworthy Halstock.

Options

- **Open-vented* or unvented variants**
- **Immersion heaters**

*Note: HS305UV model is available as unvented only, and is supplied with a 3kW immersion heater, and motorised, manual reset, shut-off valve (isolates coil in event of abnormal rise in temperature).

- **5-year cylinder guarantee**
- **Corrosion-resistant stainless steel**
- **High quality finish**
- **Low heat loss for maximum economy**
- **No sacrificial anode - low maintenance**
- **Site wherever convenient**
- **Fire-retardant CFC/HCFC-free insulation**
- **Manufactured in UK**

BENEFITS

Unvented models include:

- SRV/PRV (Safety relief & pressure reducing valves inc. check valve)
- Tundish 22mm x 28mm
- Factory fitted T&P valve, ¾" BSP, 7 bar, 90°C
- Expansion vessel, sized for tank and for max 65°C

Technical data

| Parameter | Units | Halstock model (Open-vented/Unvented) | | | | |
|--|-----------------|---------------------------------------|---------------|---------------|---------------|---------------|
| | | HS305UV | HS400/HS400UV | HS500/HS500UV | HS810/HS810UV | HS965/HS965UV |
| Capacity, nominal/ capacity with coil | litres | 305/ 298 | 400/ 396 | 500/ 496 | 810/ 803 | 965/ 958 |
| Continuous output ¹ @44°C ΔT/ @50°C ΔT | litres/ hour | 390/ 344 | 527/ 464 | 527/ 464 | 1055/ 929 | 1055/ 929 |
| Coil output | kW | 20 | 27 | 27 | 54 | 54 |
| Heat up time ² , coil only | min | 54 | 52 | 66 | 54 | 60 |
| Recovery time ³ , coil only | min | 38 | 36 | 46 | 37 | 44 |
| 10 min peak output ⁴ | litres | 361 | 481 | 582 | 974 | 1131 |
| Coil max operating temperature/pressure | °C/ bar | 100/ 3 | 100/ 3 | 100/ 3 | 100/ 3 | 100/ 3 |
| Coil tube diameter | DN | DN20 | DN25 | DN25 | DN25 | DN25 |
| Coil surface area | m ² | 0.75 | 1 | 1 | 2 | 2 |
| Standby losses @65°C | kW/24hr | 2.5 | 2.9 | 3.3 | 4.0 | 4.3 |
| ErP efficiency rating | - | C | D | D | D | D |
| Maximum working pressure, tank | bar | 6 | 6 | 6 | 6 | 6 |
| Hydraulic test pressure | bar | 9 | 9 | 9 | 9 | 9 |
| Immersion heater option, power/phase | kW/ ph | 3 1ph | 6 3ph/1ph | 6 3ph/1ph | 9 3ph | 12 3ph |
| Heat up time, Immersion only | hour | 5.8 | 3.9 | 4.9 | 5.3 | 4.7 |
| Recovery time, Immersion only | hour | 4.1 | 2.7 | 3.4 | 3.7 | 3.3 |
| Expansion vessel size | litres | 24 | 35 | 35 | 50 | 80 |
| Weight empty | kg | 60 | 95 | 105 | 155 | 170 |
| Weight full | kg | 354 | 495 | 605 | 965 | 1135 |

1. Estimated coil output based on 80/60°C primary flow and return @ 20 litres/min flow rate.
2. Estimated heat up time based on continuous maximum coil output and water ΔT of 50°C.
3. Estimated recovery time based on heating 70% nominal water volume.
4. Estimated 10 min peak output calculated based on 10°C supply 60°C output.



Specification

Halstock calorifiers
305l to 965l

Clearances

The unit can be enclosed and the enclosure **MUST** provide 100mm clearance all around the tank plus 500mm clearance in front of the tank to allow removal of the immersion heater and 200mm above the tank to allow removal of the T&P valve. Note T&P valve is supplied fitted (not shown), so extending overall height B by a nominal 100mm for all models except HS305UV.

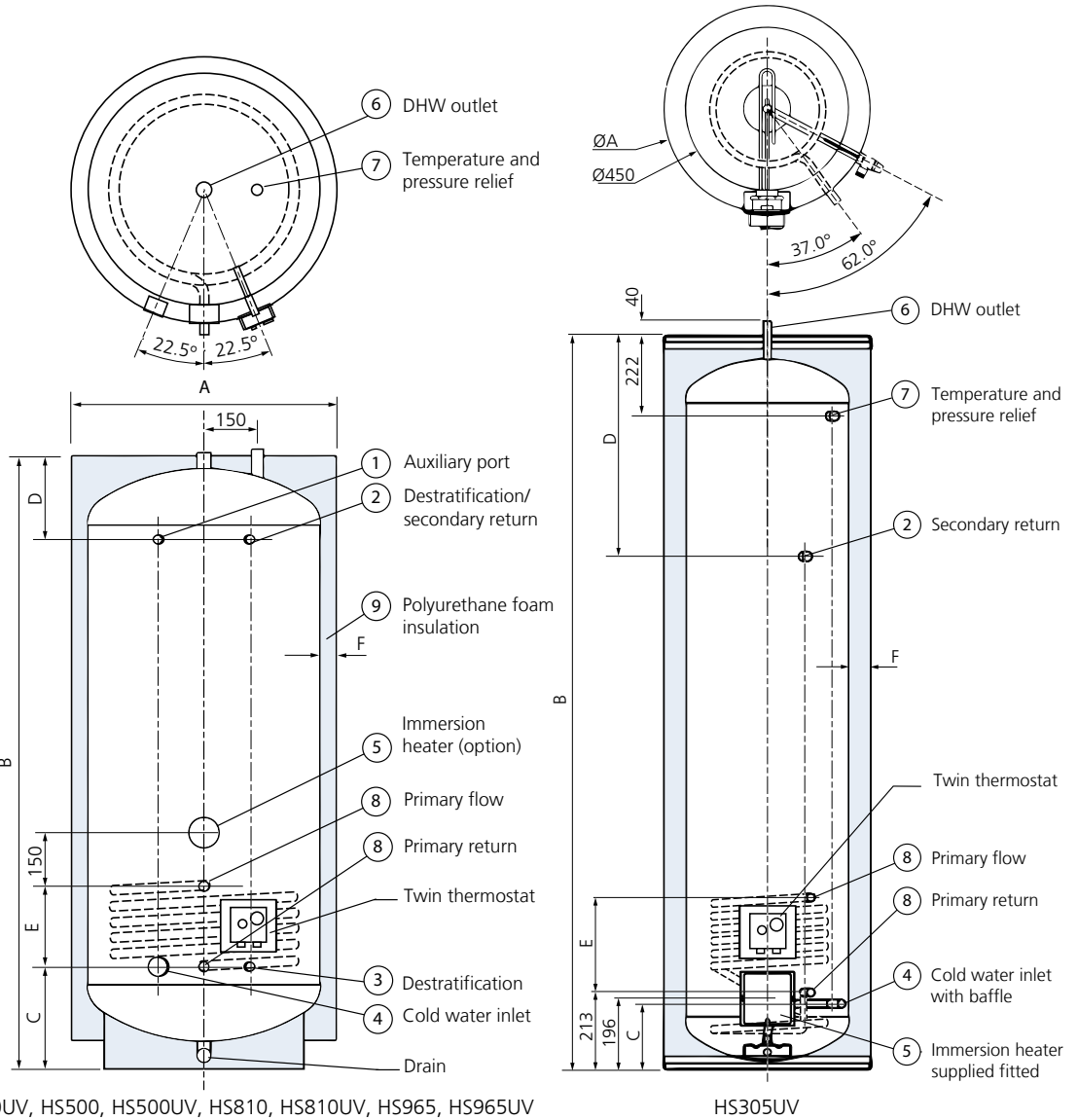
Additional allowances **MUST** be provided if the expansion vessel is to be located within the enclosure - refer to expansion vessel sizes table below.

Mounting

All models except HS305UV have a stainless steel ring base (HS400/HS500 Ø=570mm, HS810/HS965 Ø=800mm). All models should be mounted on a level concrete base or plinth.

Expansion vessel sizes

| Expansion vessel capacity (l) | Dims.(mm) | |
|-------------------------------|-----------|--------|
| | Diameter | Height |
| 24 | 280 | 492 |
| 35 | 365 | 440 |
| 50 | 365 | 656 |
| 80 | 410 | 790 |



HS400, HS400UV, HS500, HS500UV, HS810, HS810UV, HS965, HS965UV

HS305UV

Dimensions and connections

| Halstock model | Dimensions (mm) | | | | | | Connections (F=Female BSP Thread/Inches, otherwise plain/mm) | | | | | | | |
|-------------------|-----------------|---------------|--------------------|-----------------|-----------------------|--------------|--|-----------------|-----------|---------|----------|--------------|-------|---------------------|
| | A Tank dia. | B Tank height | C Cold water inlet | D Second return | E Coil in/out centres | F Foam depth | 1 Aux input | 2 Second return | 3 Destrat | 4 Inlet | 5 Heater | 6 DHW outlet | 7 T&P | 8 Coil inlet outlet |
| HS305UV | 570 | 2028 | 182 | 610 | 262.5 | 60 | - | ½" F | - | 22mm | 1¾" F | 22mm | ½" F | Ø22 mm stub |
| HS400/ HS400UV | 750 | 1435 | 286 | 234 | 225 | 45 | ½" F | ½" F | ½" F | 1" F | 2¼" F | 1" F | ¾" F | Ø28 mm stub |
| HS500/ HS500UV | 750 | 1720 | 286 | 234 | 225 | 45 | ½" F | ½" F | ½" F | 1" F | 2¼" F | 1" F | ¾" F | Ø28 mm stub |
| HS810/ HS810UV | 1080 | 1600 | 347 | 333 | 270 | 90 | ½" F | ½" F | ½" F | 1½" F | 2¼" F | 1½" F | ¾" F | Ø28 mm stub |
| HS965/ HS965UV | 1080 | 1850 | 347 | 333 | 270 | 90 | ½" F | ½" F | ½" F | 1½" F | 2¼" F | 1½" F | ¾" F | Ø28 mm stub |

Your local contact is:

Placeholder for local contact information, consisting of four corner brackets forming a square.

**British engineering excellence from Hamworthy Heating;
the commercial heating and hot water specialists.**



Hamworthy Heating Limited
Wessex House,
New Fields Business Park,
Stinsford Road,
Poole, Dorset BH17 0NF

Tel: **01202 662500**
Email: sales@hamworthy-heating.com
www.hamworthy-heating.com



Hamworthy Heating Accreditations
ISO 9001 Quality Management System
OSO 14001 Environmental Management System
OHSAS 18001 Health & Safety Management System



The printed version of this brochure is produced using environmentally friendly print solutions in partnership with our suppliers.

Every effort has been taken to ensure the details in this guide are accurate. Hamworthy Heating does not, however, guarantee the accuracy or completeness of any information nor does it accept liability for any errors or omissions in the information.

Hamworthy Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.