

Herald floor standing condensing boilers



- Outputs from 41 to 228kW at 50/30°C system design
- Stainless steel heat exchanger
- High working pressure – up to 11 bar
- Low NO_x emissions ≤40mg/kWh
- Integral SMART system controls compatible with MODBUS or BACNET

Herald gas fired condensing boilers

The Herald range of floor standing Condensing Boilers comprises 8 models with heat outputs ranging from 41 to 228kW at a system design of 50/30°C. All models have low NO_x emissions and seasonal efficiencies of up to 96.7% (Part L, Gross CV).

Herald is particularly suitable as a replacement product for old atmospheric boilers, and can offer significant savings on energy usage and carbon emissions.



Herald boilers
8 models available

Stainless steel heat exchanger

At the heart of the Herald Boiler is a robust, grade 316l stainless steel heat exchanger which provides superior resistance to corrosion and is supported by a 10-year warranty.



Low NO_x emissions

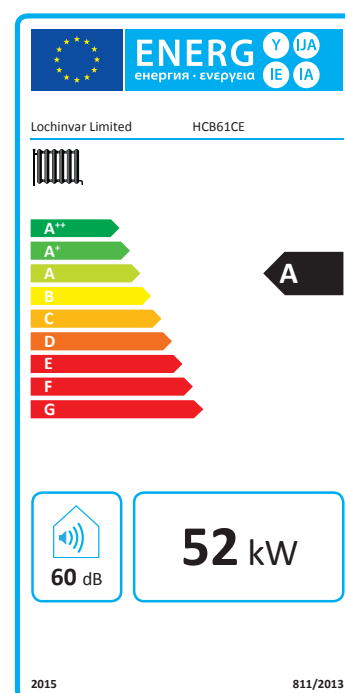
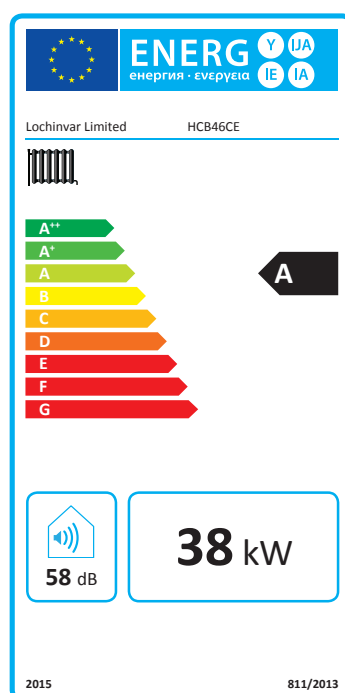
Herald Boilers have Low NO_x emissions, ranging from 32 to 40mg/kWh depending upon model, and therefore comply with the latest ErP Regulations dated September 2018.

Fully modulating pre-mix burner with 5:1 turndown

All 8 Herald condensing boilers feature advanced gas/air ratio controlled combustion technology. This technology automatically adjusts fan speed according to heat demand and providing the optimum proportions of gas and air to enter the burner. The 5:1 turndown feature ensures that fuel consumption is matched to heat load from 20% to full load. Herald boilers can therefore achieve the following efficiency levels :

- Net Efficiency (full load) – up to 97.1%
- Net Efficiency (part load) – up to 110.0%
- Seasonal Efficiency (Part L2 Gross CV) – up to 96.6%
- Seasonal Efficiency (ErP / Ecodesign) – up to 95.0%

Models HCB46CE and HCB61CE have outputs of 41 and 59kW respectively and under the ErP Directive require Energy labels. Both models have Energy label A, and when installed with class VI or VIII controls package, will qualify for Energy label A+.



SMART system controls

Most condensing boilers on the market operate at similar levels of efficiency, with good system design and control being crucially important factors in ensuring that boiler operating efficiency matches expectations. A key feature of the Herald range is its integral Smart system controls, which include:

- Multi-coloured graphic display
- Modulating pump control
- Cascade management for up to 8 Herald boilers
- Fault signal output to BMS with open protocol
- Ability to programme Service company details into display – this information is displayed when a service becomes due
- Indirect Hot Water Pasteurisation programme



Herald SMART system control

Flue options

A range of flue options are available including traditional conventional flue or room sealed concentric or twin pipe and with flue runs of up to 60m.

Maximum flue lengths

| Model | Concentric | | Twin-Pipe* | | Conventional | |
|----------|-------------|--------------------------|-------------|--------------------------|--------------|--------------------------|
| | Flue Dia mm | Max. equivalent flue run | Flue Dia mm | Max. equivalent flue run | Flue Dia mm | Max. equivalent flue run |
| HCB46CE | 80/125 | 30m | 80-80 | 60m** | 80 | 60m |
| HCB61CE | 80/125 | 30m | 80-80 | 60m** | 80 | 60m |
| HCB86CE | 100/150 | 30m | 100-100 | 60m** | 100 | 60m |
| HCB116CE | 100/150 | 30m | 100-100 | 60m** | 100 | 60m |
| HCB146CE | N/A | N/A | 150-150 | 60m** | 150 | 60m |
| HCB176CE | N/A | N/A | 150-150 | 60m** | 150 | 60m |
| HCB206CE | N/A | N/A | 150-150 | 60m** | 150 | 60m |
| HCB236CE | N/A | N/A | 150-150 | 60m** | 150 | 60m |

* Twin pipe flue assemblies can be supplied with single or separate terminals

** Combined length of air inlet and exhaust outlet

New build or replacement projects

- High Temperature Operation- Herald Boilers can operate at temperatures of up to 88°C which makes them suitable for installation as replacements for traditional atmospheric boilers – consideration should be given to hydraulic separation where water quality cannot be guaranteed – we can provide Hydraulic Plate Separators as Ancillary items
- High Working Pressure – suitable for systems with up to 11 bar working pressure
- Compact Design / Small footprint – at just 394mm wide, Herald boilers will fit through a standard doorway and the low height (845 or 1080mm depending on model), provides installation flexibility where plant room height is restricted



Pipework header assemblies for Herald boilers

Multiple Boiler installations have become popular in recent years with cascade control enabling the Boiler installation to maintain high efficiency levels across a wide range of heat demand periods. Built-in redundancy is also a further benefit, and ensures that heat and hot water is still provided in the event of component failure on a single boiler.

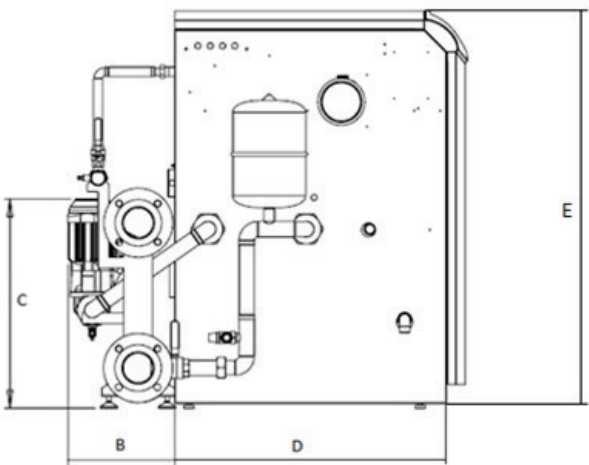
Pipework header assemblies’ are currently available for Herald boiler models HCB86, 116 and 146 and for any combination from 1 to 4 boilers. They can also be provided for installations of greater than 4 boilers. For example, two 3-boiler assemblies can be provided for a 6-boiler installation.

Herald Boiler Pipework Header Assemblies are supplied in ‘kit form’ for final onsite installation and include the following components:

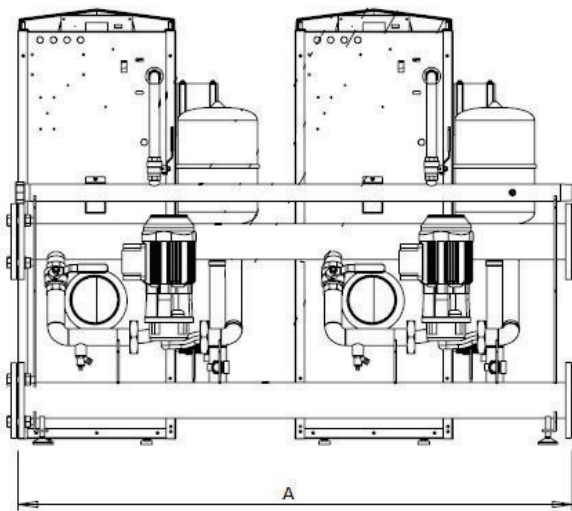
- Flow and return pipework headers
- Boiler inlet and outlet pipework
- Gas manifold
- Bolt sets
- Gaskets
- Gas pipe cap end
- Flange blanking plates

Matched primary circulation pumps and Boiler expansion kits are also available as optional ancillaries

| | | | 1 Boiler | 2 Boilers | 3 Boilers | 4 Boilers |
|----------|---|----|----------|-----------|-----------|-----------|
| HCB86CE | A | mm | 695.5 | 1391 | 2086.5 | 2782 |
| | B | mm | 309.2 | 309.2 | 618.4 | 927.6 |
| | C | mm | 578.2 | 578.2 | 1156.4 | 1734.6 |
| | D | mm | 502 | 502 | 502 | 502 |
| | E | mm | 1080 | 1080 | 1080 | 1080 |
| HCB116CE | A | mm | 695.5 | 1391 | 2086.5 | 2782 |
| | B | mm | 292.7 | 292.7 | 585.4 | 878.1 |
| | C | mm | 571.5 | 571.5 | 1143 | 1714.5 |
| | D | mm | 686 | 686 | 686 | 686 |
| | E | mm | 1080 | 1080 | 1080 | 1080 |
| HCB146CE | A | mm | 695.5 | 1391 | 2086.5 | 2782 |
| | B | mm | 292.5 | 292.5 | 585 | 877.5 |
| | C | mm | 576 | 576 | 1152 | 1728 |
| | D | mm | 800 | 800 | 800 | 800 |
| | E | mm | 1080 | 1080 | 1080 | 1080 |

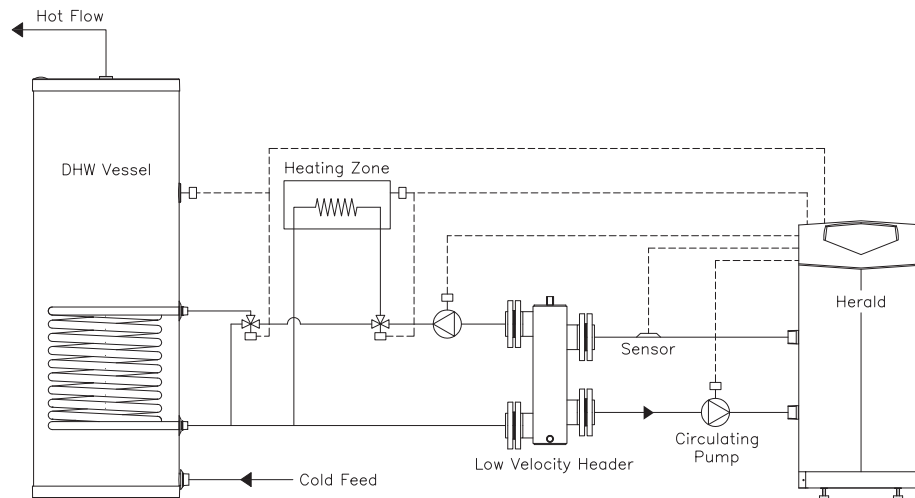


1 x Herald Header side view

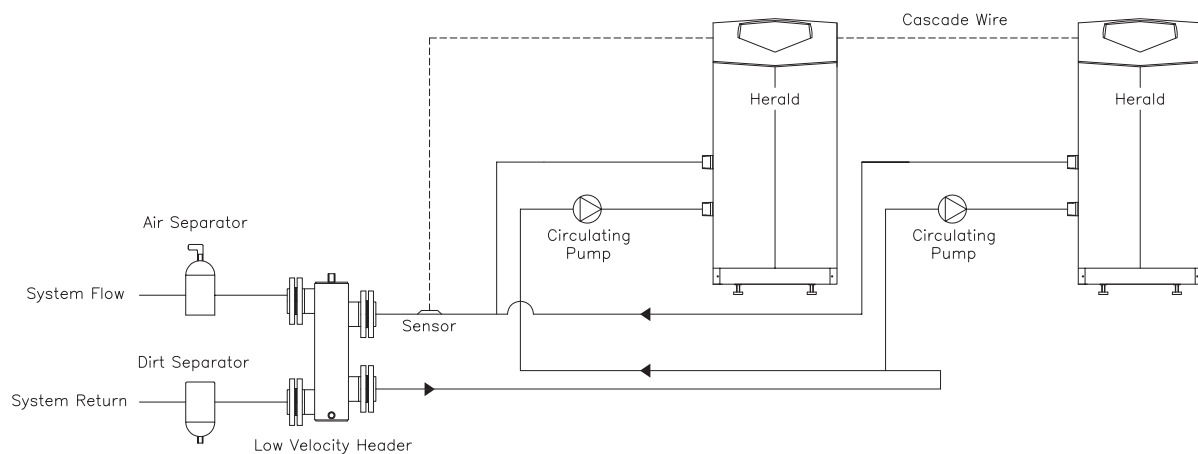


2 x Herald Header rear view

Typical schematic drawings



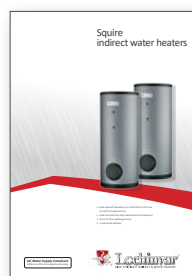
Herald boiler installation providing heating zone and also domestic hot water via an Indirect Hot Water vessel



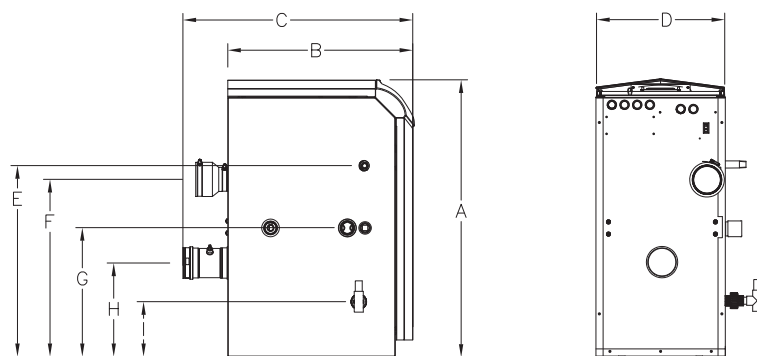
Two-boiler Herald installation with low velocity header on Cascade Management system, providing system turndown ratio of 10:1

Indirect water heaters/calorifiers

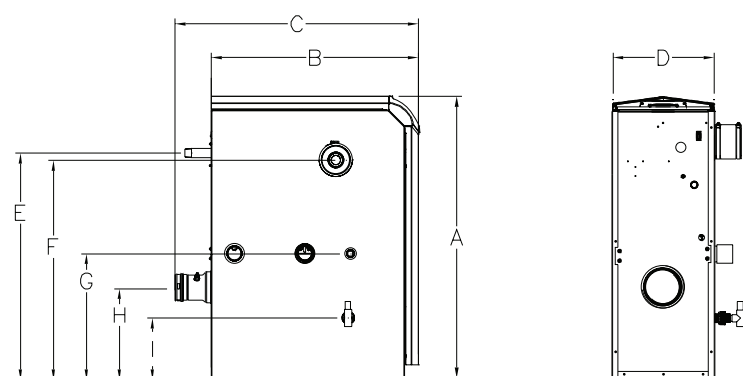
We can provide a range of stainless steel and lined steel indirect water heaters / calorifiers with storage capacities ranging from 300 to 2850 litres.



Herald boilers – dimensions



For models HCB46CE and HCB61CE



For models HCB86CE, HCB116CE, HCB146CE, HCB176CE, HCB206CE and HCB236CE

| Description | | | Model | | | | | | | |
|-------------|-----------------------|----|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| | | | HCB 46CE | HCB 61CE | HCB 86CE | HCB 116CE | HCB 146CE | HCB 176CE | HCB 206CE | HCB 236CE |
| A | Height | mm | 840 | 840 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 |
| B | Depth | mm | 459 | 567 | 503 | 688 | 798 | 925 | 1024 | 1153 |
| C | Depth inc flue outlet | mm | 599 | 707 | 715 | 828 | 938 | 1065 | 1164 | 1293 |
| D | Width | mm | 395 | 395 | 395 | 395 | 395 | 395 | 395 | 395 |
| E | Gas connection | mm | 582 | 582 | 788 | 860 | 887 | 833 | 833 | 834 |
| F | Air inlet | mm | 540 | 540 | 860 | 860 | 887 | 915 | 915 | 915 |
| G | Water connections | mm | 390 | 390 | 477 | 477 | 477 | 477 | 477 | 477 |
| H | Flue outlet | mm | 286 | 286 | 350 | 350 | 350 | 350 | 350 | 350 |
| I | Condense outlet | mm | 167 | 167 | 230 | 230 | 230 | 230 | 230 | 230 |

Technical specification

| Boiler model | | HC B 46CE | HC B 61CE | HC B 86CE | HC B 116CE | HC B 146CE | HC B 176CE | HC B 206CE | HC B 236CE |
|---|---------|---------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|
| Nominal input (nett) | kW | 44.0 | 61.5 | 83.5 | 116.9 | 146.5 | 175.8 | 205.2 | 244.2 |
| Nominal input (gross) | kW | 39.6 | 55.4 | 75.2 | 105.3 | 132.0 | 158.4 | 184.9 | 220.0 |
| Gas flow rate (natural gas) | m³/hr | 4.2 | 5.9 | 8.0 | 11.1 | 14.0 | 16.8 | 19.6 | 22.3 |
| Output @50/30°C | kW | 41.2 | 58.7 | 79.7 | 110.6 | 141.2 | 162.1 | 187.4 | 227.2 |
| Output @80/60°C | kW | 38.5 | 52.0 | 74.0 | 105.0 | 131.3 | 154.0 | 180.0 | 205.0 |
| Efficiency data - Building regulations | | | | | | | | | |
| Seasonal efficiency (Gross CV) | % | 95 | 94 | 94 | 93 | 94 | 95 | 95 | 95 |
| Efficiency data - ErP and energy label | | | | | | | | | |
| Ecodesign energy label rating | | A | A | n/a | n/a | n/a | n/a | n/a | n/a |
| Seasonal space heating energy efficiency | % | 95 | 94 | 94 | 93 | 94 | 95 | 95 | 95 |
| NO _x emmissions | | | | | | | | | |
| NO _x emissions (according to EN15502) @0% O2 | mg/kWh | 38.1 | 32.0 | 34.4 | 40.0 | 40.0 | 36.0 | 36.2 | 35.0 |
| NO _x class according to EN15502 | | 6 | | | | | | | |
| General data | | | | | | | | | |
| Dimensions (height) | mm | 840 | 840 | 1080 | 1080 | 1080 | 1080 | 1080 | 1080 |
| Dimensions (width) | mm | 395 | 395 | 395 | 395 | 395 | 395 | 395 | 395 |
| Dimensions (depth) | mm | 459 | 567 | 503 | 688 | 798 | 925 | 1024 | 1153 |
| Water content | litres | 4.9 | 6.4 | 9.1 | 12.9 | 15.9 | 15.9 | 18.9 | 21.6 |
| Weight (empty) | kg | 75 | 79 | 102 | 129 | 138 | 154 | 168 | 184 |
| Weight (full) | kg | 80 | 85 | 111 | 142 | 154 | 170 | 187 | 206 |
| Flow connection (inches) | BSP | 1¼" | 1¼" | 2" | 2" | 2" | 2" | 2" | 2" |
| Return connection (inches) | BSP | 1¼" | 1¼" | 2" | 2" | 2" | 2" | 2" | 2" |
| Gas connection (inches) | BSP | ½" | ½" | ¾" | 1" | 1" | 1" | 1" | 1" |
| Flue connection (concentric) | mm | 80/125 | 80/125 | 100/150 | 100/150 | N/A | N/A | N/A | N/A |
| Flue connection (twin-pipe) | mm | 80/80 | 80/80 | 100/100 | 100/100 | 150/150 | 150/150 | 150/150 | 150/150 |
| Electrical requirements | | 230V/1ph/50Hz | | | | | | | |
| Maximum power consumption | W | 120 | 144 | 180 | 180 | 204 | 322 | 322 | 322 |
| Sound power level | LWA(db) | 58 | 60 | 62 | 64 | 66 | 69 | 69 | 69 |
| Maximum flue gas temperature | °C | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Max flow temperature | °C | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| Working pressure minimum | bar | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Working pressure maximum | bar | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

Energy label, product fiche and erp data table are available at www.lochinvar.ltd.uk

Ancillary options

- Matched primary circulation pump
- Low velocity headers
- Hydraulic plate separators
- Boiler expansion kits
- Condensate neutralisation kit
- Pressurisation units
- Range of flue options (see page 3)

Ancillary control options

- BACnet interface module
- MODBUS interface module
- Outside air sensor for weather compensation control
- DHW vessel sensor

Complementary products for the Generation of domestic hot water

- Indirect water heaters / calorifiers
- Packaged plate heat exchangers
- Direct gas-fired water heaters

For further information on the Herald floor standing condensing boilers, including ICM & user instructions and our full warranty terms and conditions, please visit our website: www.lochinvar.ltd.uk

