

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).

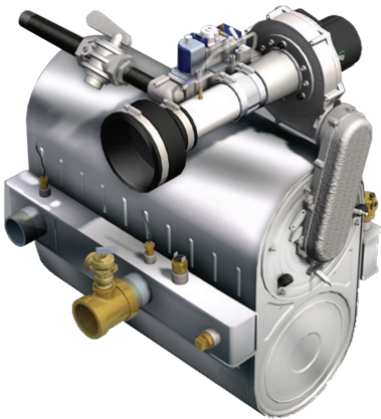
Herald is particularly suitable as a replacement product for old atmospheric boilers, and can offer significant savings on energy usage and carbon emissions.



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

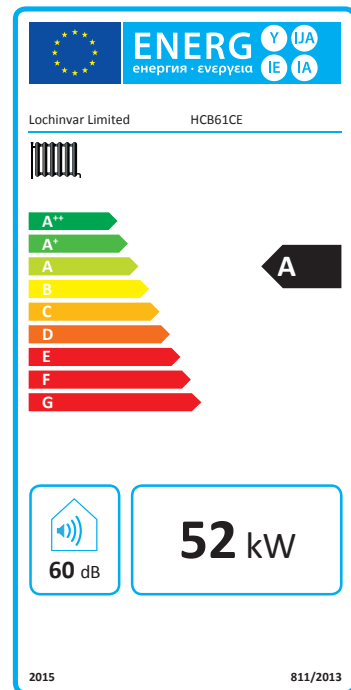
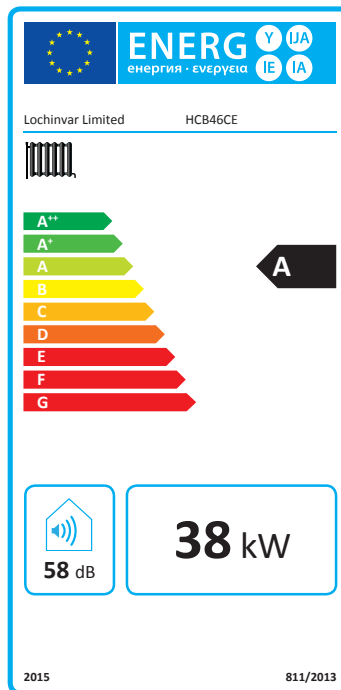
Herald Boilers have Low NO_x emissions, ranging from 32 to 40mg/kWh depending upon model, and therefore comply with the latest ErP Regulations dated September 2018.

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.

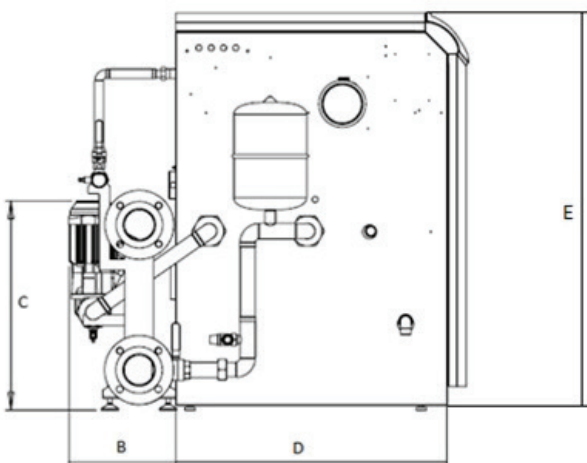
Pipework header assemblies' are currently available for Herald boiler models HCB86, 116 and 146 and for any combination from 1 to 4 boilers. They can also be provided for installations of greater than 4 boilers. For example, two 3-boiler assemblies can be provided for a 6-boiler installation.

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

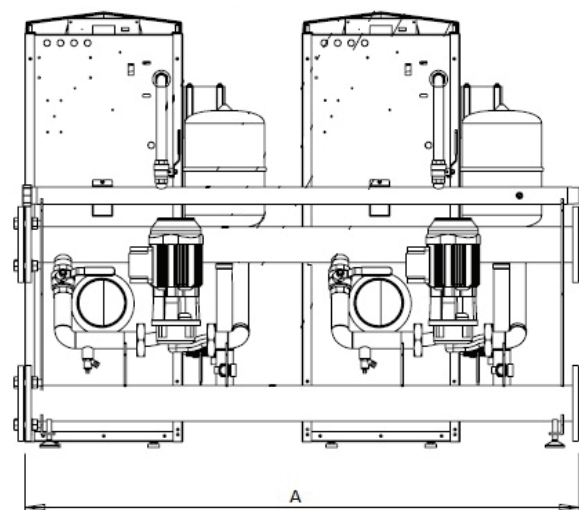
- Flow and return pipework headers
- Boiler inlet and outlet pipework
- Gas manifold
- Bolt sets
- Gaskets
- Gas pipe cap end
- Flange blanking plates

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

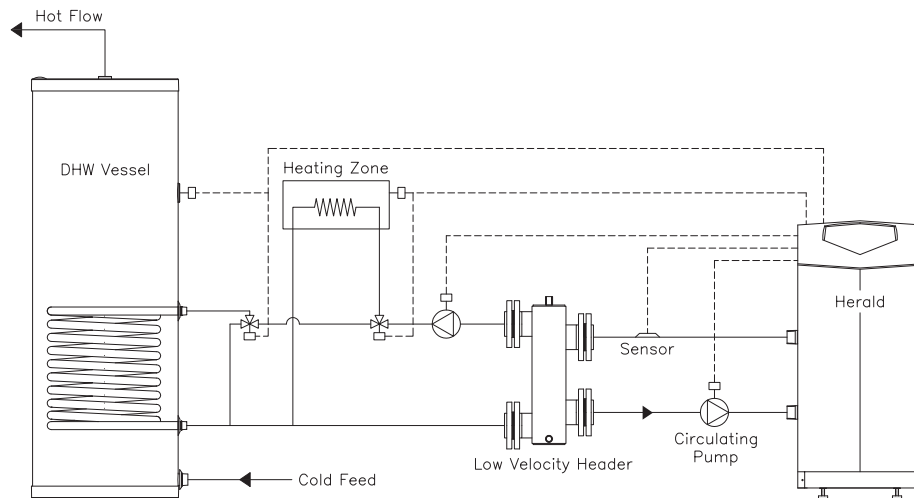


1 x Herald Header side view

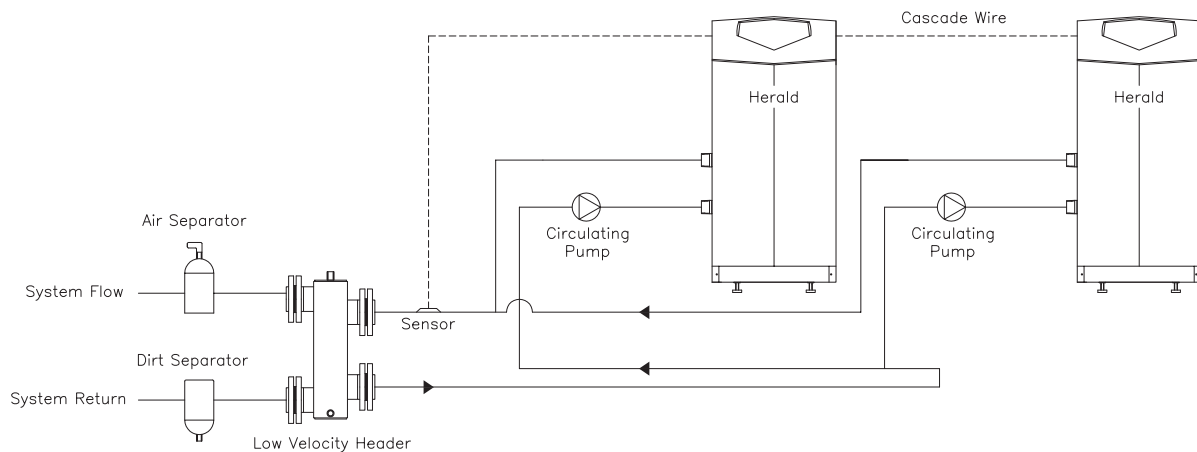


2 x Herald Header rear view

Typical schematic drawings



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



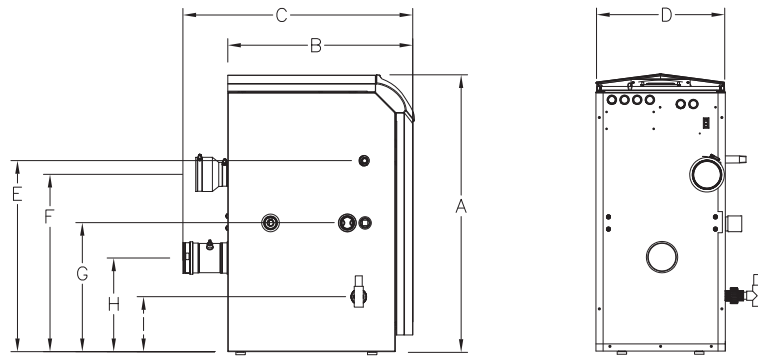
Two-boiler Herald installation with low velocity header on Cascade Management system, providing system turndown ratio of 10:1

Indirect water heaters/calorifiers

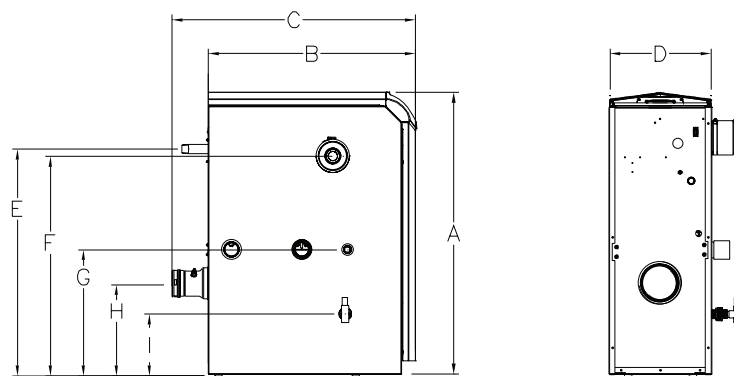
We can provide a range of stainless steel and lined steel indirect water heaters / calorifiers with storage capacities ranging from 300 to 2850 litres.



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)	m ³ /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 emissions									
NO _x emissions (according to EN15502) @0% O ₂	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	1½"	1½"	2"	2"	2"	2"	2"	2"
Return connection (inches)	BSP	1½"	1½"	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

