

HSV Thermal Store



- Capacities ranging from 600 to 2,000 litres
- Provides pre-heat for DHW applications
- Stainless steel DHW coil
- Optimum performance through improved stratification
- Limited legionellae risk
- Integration with up to 3 different heat inputs



Lochinvar[®]
HIGH EFFICIENCY BOILERS & WATER HEATERS

Lochinvar HSV Thermal store

The use of correctly matched thermal store units is an important aspect of design in a range of commercial hot water systems. The HSV range is available in ten models with storage capacities ranging from 600 to 2,000 litres and they are an ideal complement to our Amicus heat pump range. Particularly suitable for use in low carbon, hybrid systems, the HSV will provide pre-heated feed water for traditional methods of generating hot water eg direct gas or electric storage water heaters. Pre-heating the feed water saves on energy consumption and carbon emissions.



HSV Thermal Store
10 models

DHW pre-heat coil (01 models)

These models can accept multiple heat sources including heat pumps and high efficiency boilers, and can be an effective low loss header between the heat source(s) and LTHW system.

DHW pre-heat and solar coil (02 models)

An additional solar coil is provided in 02 models, allowing a system design that can utilise energy gained from heat pumps and solar thermal systems, in addition to high efficiency gas-fired boilers.

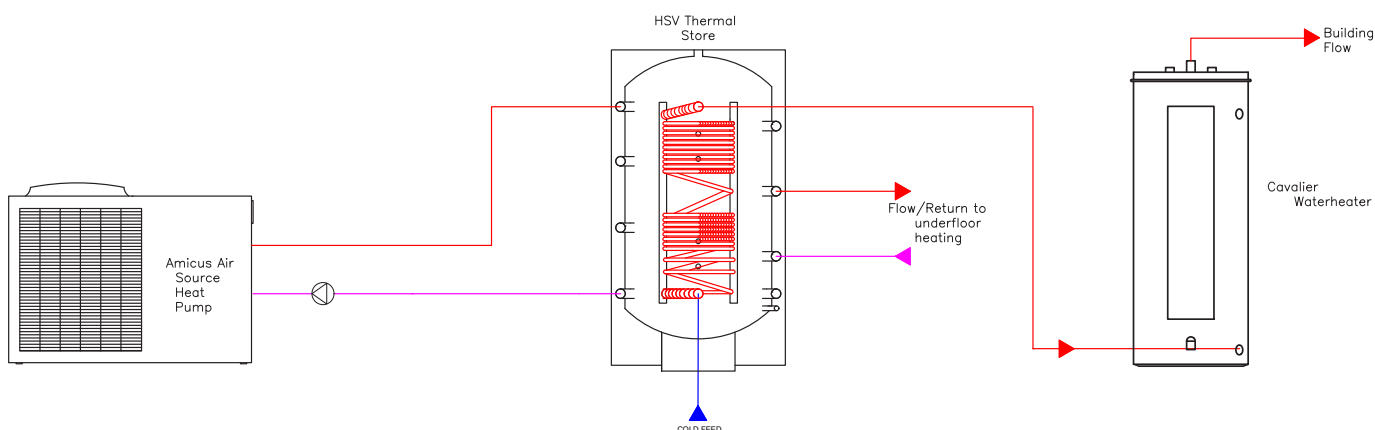
Limited legionellae risk

HSV provides pre-heated feed water via the low water content stainless steel DHW rather than bulk storage, and therefore helps to minimise the risk of legionellae bacteria.

Pre-fitted insulation

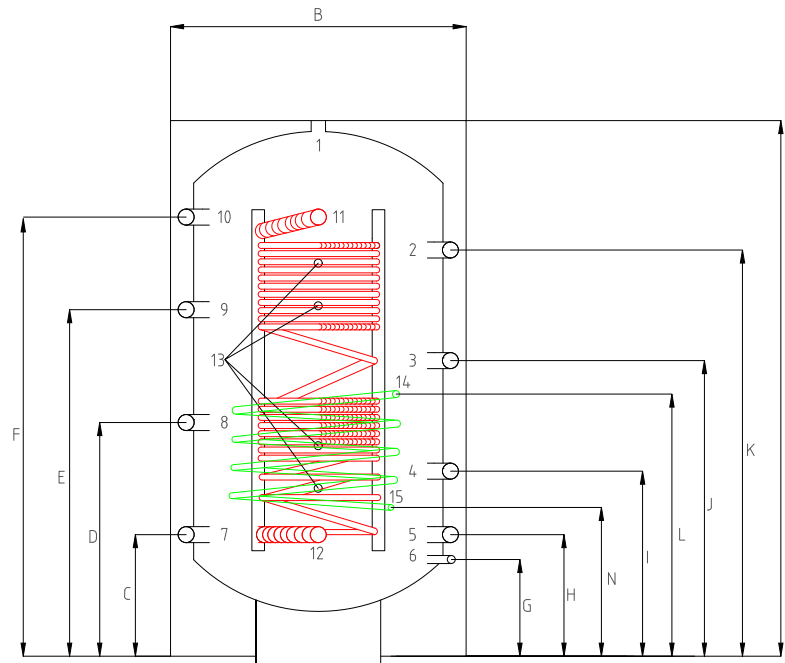
Each HSV model is supplied with pre-fitted insulation, which exceeds current Building Regulation requirements, and ensure that standing losses are minimal. The insulation is designed for easy removal if required, for example where access to existing plant rooms is difficult.

Typical schematic drawing



HSV application with Amicus heat pump and Cavalier electric water heater

Dimensional drawing & tables



Size	Description	Unit	HSV601/602	HSV801/802	HSV1001/1002	HSV1501/1502	HSV2001/2002
A	Total height (with insulation)	mm	1900	1880	2270	2665	2500
B	Diameter of water heater (with insulation)	mm	850	990	1050	1200	1300
	Diameter of water heater (without insulation)	mm	650	790	850	1000	1100
A	Height of AAV connection	mm	1900	1880	2270	2665	2500
C	Height of tank body connection	mm	285	270	270	400	380
	Height of DHW coil cold inlet connection	mm	285	270	270	400	380
D	Height of tank body connection	mm	715	685	815	1015	925
E	Height of tank body connection	mm	1145	1115	1380	1640	1475
F	Height of tank body connection	mm	1570	1550	1950	2260	2030
	Height of DHW coil hot outlet connection	mm	1570	1550	1950	2260	2030
H	Height of tank body connection	mm	290	250	250	380	380
I	Height of tank body connection	mm	505	455	530	705	655
J	Height of tank body connection	mm	930	900	1100	1325	1205
K	Height of tank body connection	mm	1355	1335	1665	1950	1750
L	Height of solar flow connection*	mm	760	750	750	1260	1250
M	Height of solar return connection*	mm	360	330	330	460	450

Size	Description	Unit	HSV601/602	HSV801/802	HSV1001/1002	HSV1501/1502	HSV2001/2002
1	Connection T&P-valve	BSP	1"	1"	1"	1"	1"
2	Connection tank body	BSP	1"	1"	1"	1"	1"
3	Connection tank body	BSP	1"	1"	1"	1"	1"
4	Connection tank body	BSP	1"	1"	1"	1"	1"
5	Connection ASHP return	BSP	1½"	1½"	1½"	1½"	1½"
6	Connection drain	BSP	1"	1"	1"	1"	1"
7	Connection tank body	BSP	1"	1"	1"	1"	1"
8	Connection tank body	BSP	1"	1"	1"	1"	1"
9	Connection tank body	BSP	1"	1"	1"	1"	1"
10	Connection ASHP flow	BSP	1½"	1½"	1½"	1½"	1½"
11	Connection hot water outlet	BSP	1¼"	1¼"	1¼"	1¼"	1¼"
12	Connection cold water inlet	BSP	1¼"	1¼"	1¼"	1¼"	1¼"
13	Connection sensor point	BSP	½"	½"	½"	½"	½"
14	Connection solar flow*	BSP	1"	1"	1"	1"	1"
15	Connection solar return*	BSP	1"	1"	1"	1"	1"

* Only present on version 02 models

Technical Specification

Model		HSV601	HSV801	HSV1001	HSV1501	HSV2001
Storage capacity	litres	600	800	1000	1500	2000
Efficiency data - Building regulations						
Heat loss	KWh/24 hr	2.5	2.8	3.1	3.7	4.5
Efficiency data - ErP and energy label						
Ecodesign energy label rating		C	C	C	n/a	n/a
Standing loss	W	103	117	131	155	186
General data						
Dimensions (height including insulation)	mm	1900	1880	2270	2665	2500
Dimensions (width including insulation)	mm	850	990	1050	1200	1300
Cold inlet connection	BSP	1¼"	1¼"	1¼"	1¼"	1¼"
Hot outlet connection	BSP	1¼"	1¼"	1¼"	1¼"	1¼"
Drain connection	BSP	½"	½"	½"	½"	½"
ASHP connection	BSP	1½"	1½"	1½"	1½"	1½"
Tank connection	BSP	1"	1"	1"	1"	1"
Sensor connection	BSP	½"	½"	½"	½"	½"
Solar connection	BSP	n/a	n/a	n/a	n/a	n/a
Weight (empty)	kg	205	210	238	330	378
Weight (full)	kg	805	1010	1238	1830	2378
Minimum working pressure vessel	bar	3	3	3	3	3
Maximum working pressure DHW coil	bar	6	6	6	6	6
Maximum working pressure solar coil	bar	n/a	n/a	n/a	n/a	n/a

Model		HSV602	HSV802	HSV1002	HSV1502	HSV2002
Storage capacity	litres	600	800	1000	1500	2000
Efficiency data - Building regulations						
Heat loss	KWh/24 hr	2.5	2.8	3.1	3.7	4.5
Efficiency data - ErP and energy label						
Ecodesign energy label rating		C	C	C	n/a	n/a
Standing loss	W	103	117	131	155	186
General data						
Dimensions (height including insulation)	mm	1900	1880	2270	2665	2500
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Drain connection	BSP	½"	½"	½"	½"	½"
ASHP connection	BSP	1½"	1½"	1½"	1½"	1½"
Tank connection	BSP	1"	1"	1"	1"	1"
Sensor connection	BSP	½"	½"	½"	½"	½"
Solar connection	BSP	1"	1"	1"	1"	1"
Weight (empty)	kg	205	210	238	330	378
Weight (full)	kg	805	1010	1238	1830	2378
Minimum working pressure vessel	bar	3	3	3	3	3
Maximum working pressure DHW coil	bar	6	6	6	6	6
Maximum working pressure solar coil	bar	16	16	16	16	16

