

LBT thermal store



- Capacities ranging from 300 to 10,000 litres
- Mild steel construction
- Ideal component for Heat pump / hybrid heating systems
- Provides thermal store for heating systems
- Low standing losses



Lochinvar[®]
HIGH EFFICIENCY BOILERS & WATER HEATERS

Lochinvar

LBT thermal store

The use of correctly matched thermal stores are an important aspect of the design in a range of commercial heating systems. The LBT range is available in 13 models with storage capacities ranging from 300 to 10,000 litres.

They are an ideal complement to our Amicus heat pump range and an essential component in a range of commercial, low carbon heating, cooling and/or hot water systems.



LBT thermal store
13 models

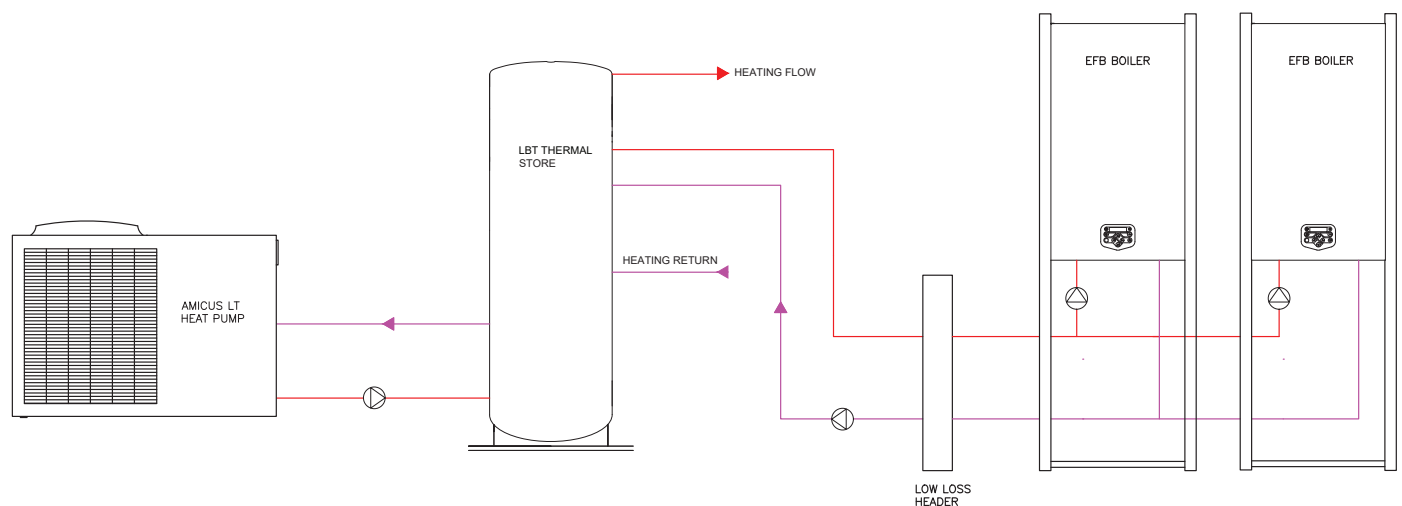
Multiple heat sources

LBT thermal stores have multiple connections enabling them to capture energy from multiple heat sources. They can also be an effective low loss header between the heat source(s) and LTHW system.

Low heat loss

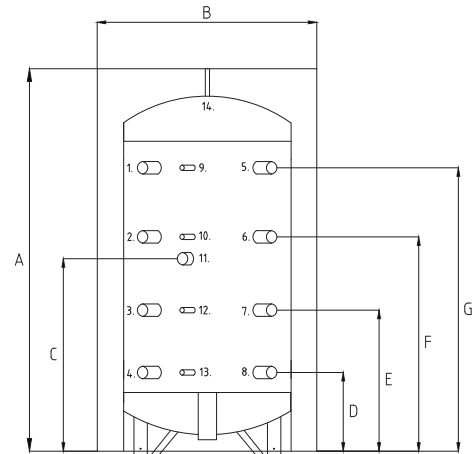
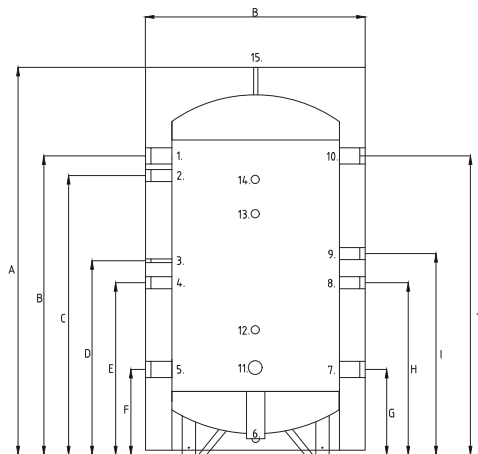
Each LBT thermal store is supplied with pre-fitted insulation with a thickness of up to 100mm, depending upon the model. This exceeds current Building Regulation requirements, and ensures that standing losses are minimal. The insulation is designed for easy removal if required, for example when access to existing plant rooms is difficult.

Typical schematic drawing



Hybrid heating system showing LBT thermal store with Amicus LT heat pumps and high efficiency EFB gas-fired boilers

Dimensional drawing & tables



No	Description	Unit	LBT300	LBT500	LBT800	LBT1000	LBT1500	LBT2000
A	Total height (with insulation)	mm	1680	1735	1765	2075	2245	2565
B	Diameter of water heater (with insulation)	mm	610	760	910	1010	1220	1320
C	Height of immersion heater connection	mm	355	380	395	415	500	505
D	Connection ASHP return	mm	355	380	395	415	500	505
E	Height of tank body connection	mm	645	690	685	955	1040	1345
F	Height of tank body connection	mm	355	380	395	415	500	505
G	Connection ASHP flow	mm	355	380	395	415	500	505
H	Height of tank body connection	mm	780	785	820	955	1020	1180
I	Height of tank body connection	mm	980	985	1020	1155	1220	1380
J	Height of tank body connection	mm	1405	1450	1445	1715	1800	2105
A	Height of AAV Connection	mm	1680	1735	1765	2075	2245	2565

1	Connection heating system flow	BSP	2"	3"	3"	3"	3"	3"
2	Connection tank body	BSP	1½"	2"	2"	2"	2"	2"
3	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"
4	Connection tank body	BSP	1½"	2"	2"	2"	2"	2"
5	Connection heating system return	BSP	2"	3"	3"	3"	3"	3"
6	Connection drain	BSP	1¼"	1¼"	1½"	1½"	2"	2"
7	Connection ashp return	BSP	2"	3"	3"	3"	3"	3"
8	Connection tank body	BSP	1½"	2"	2"	2"	2"	2"
9	Connection tank body	BSP	1½"	2"	2"	2"	2"	2"
10	Connection ASHP flow	BSP	2"	3"	3"	3"	3"	3"
11	Connection immersion heater	BSP	2"	2"	2"	2"	2"	2"
12	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"
13	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"
14	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"
15	Connection air vent	BSP	1¼"	1¼"	1½"	1½"	2"	2"

No	Description	Unit	LBT2500	LBT3000	LBT4000	LBT5000	LBT6000	LBT8000	LBT10000
A	Total height (with insulation)	mm	2360	2860	2930	2970	2790	3490	4240
B	Diameter of water heater (with insulation)	mm	1470	1470	1620	1820	2000	2000	2000
C	Height of immersion heater connection	mm	565	565	590	600	1415	1615	2365
D	Connection ASHP return	mm	565	565	590	600	635	625	625
E	Height of tank body connection	mm	1005	1505	1530	1540	1155	1385	1635
F	Height of tank body connection	mm	565	565	590	600	1675	2145	2645
G	Connection ASHP flow	mm	565	565	590	600	2195	2905	3655
H	Height of tank body connection	mm	1115	1365	1390	1400	n/a	n/a	n/a
I	Height of tank body connection	mm	1315	1565	1590	1600	n/a	n/a	n/a
J	Height of tank body connection	mm	1865	2365	2390	2400	n/a	n/a	n/a
A	Height of AAV Connection	mm	2360	2860	2930	2970	2790	3490	4240

1	Connection heating system flow	BSP	4"	4"	4"	4"	3"	3"	3"
2	Connection tank body	BSP	2"	2"	2"	2"	2"	2"	2"
3	Connection sensor point	BSP	½"	½"	½"	½"	3"	3"	3"
4	Connection tank body	BSP	2"	2"	2"	2"	3"	3"	3"
5	Connection heating system return	BSP	4"	4"	4"	4"	3"	3"	3"
6	Connection drain	BSP	2"	2"	2"	2"	2"	2"	2"
7	Connection ashp return	BSP	4"	4"	4"	4"	2"	2"	2"
8	Connection tank body	BSP	2"	2"	2"	2"	3"	3"	3"
9	Connection tank body	BSP	2"	2"	2"	2"	½"	½"	½"
10	Connection ASHP flow	BSP	4"	4"	4"	4"	½"	½"	½"
11	Connection immersion heater	BSP	2"	2"	2"	2"	1½"	1½"	1½"
12	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"	½"
13	Connection sensor point	BSP	½"	½"	½"	½"	½"	½"	½"
14	Connection sensor point	BSP	½"	½"	½"	½"	1"	1"	1"
15	Connection air vent	BSP	2"	2"	2"	2"	2"	2"	2"

Technical specification

Model		LBT300	LBT500	LBT800	LBT1000	LBT1500	LBT2000
Storage capacity	litres	300	500	800	1000	1500	2000
Efficiency data - Building regulations							
Heat loss	KWh/24 hr	1.6	2.7	3.2	3.0	3.5	4.5
Efficiency data - ErP and energy label							
Ecodesign energy label rating		B	C	C	C	C	C
Standing loss	W	68	114	133	125	147	190
General data							
Dimensions (height including insulation)	mm	1680	1735	1765	2075	2245	2565
Dimensions (width including insulation)	mm	610	760	910	1010	1220	1320
Drain connection	BSP	1½"	1½"	1½"	1½"	2"	2"
ASHP connection	BSP	2"	3"	3"	3"	3"	3"
Tank connection	BSP	1½"	2"	2"	2"	2"	2"
Sensor connection	BSP	½"	½"	½"	½"	½"	½"
Weight (empty)	kg	55	77	109	125	194	263
Weight (full)	kg	355	577	909	1125	1694	2263
Maximum working pressure vessel	bar	6	6	6	6	6	6

Model		LBT2500	LBT3000	LBT4000	LBT5000	LBT6000	LBT8000	LBT10000
Storage capacity	litres	2500	3000	4000	5000	6000	8000	10000
Efficiency data - Building regulations								
Insulation thickness	mm	100	100	100	100	100	100	100
Insulation material	-	Polyethylene				ECOZERO+ 1900		
Efficiency data - ErP and energy label								
Ecodesign energy label rating		n/a	n/a	n/a	n/a	n/a	n/a	n/a
Standing loss	W	n/a	n/a	n/a	n/a	n/a	n/a	n/a
General data								
Dimensions (height including insulation)	mm	2360	2860	2930	2970	2790	3490	4240
Dimensions (width including insulation)	mm	1470	1470	1620	1820	2000	2000	2000
Drain connection	BSP	2"	2"	2"	2"	2"	2"	2"
ASHP connection	BSP	4"	4"	4"	4"	2"	2"	2"
Tank connection	BSP	2"	2"	2"	2"	2"	2"	2"
Sensor connection	BSP	½"	½"	½"	½"	½"	½"	½"
Weight (empty)	kg	296	346	492	582	684	823	973
Weight (full)	kg	2796	3346	4492	5582	6684	8823	10973
Maximum working pressure vessel	bar	6	6	6	6	5	5	5

