

TECHNICAL DATA SHEET

PRODUCT: Buderus SB745 Boiler

SB745 Floor Standing Condensing Boiler:

SB745 – 800	243	–	800kW @50/30
SB745 – 1,000	303	–	1,000kW @50/30
SB745 – 1,200	364	–	1,200kW @50/30



- ▶ Condensing boiler for use with natural gas and LPG pressure jet burners
- ▶ Highest efficiency up to 109% (NCV)
- ▶ Stainless steel heat exchanger
- ▶ Output available between 800kW and 1,200kW
- ▶ High water capacity boiler with very low flow resistance
- ▶ No minimum flow rate
- ▶ High and low temperature return connections for more efficient condensing operation
- ▶ Flexible controls option using the Buderus 4000 controls system
- ▶ Can be used in conjunction with renewable technologies such as solar thermal, heat pumps and CHP

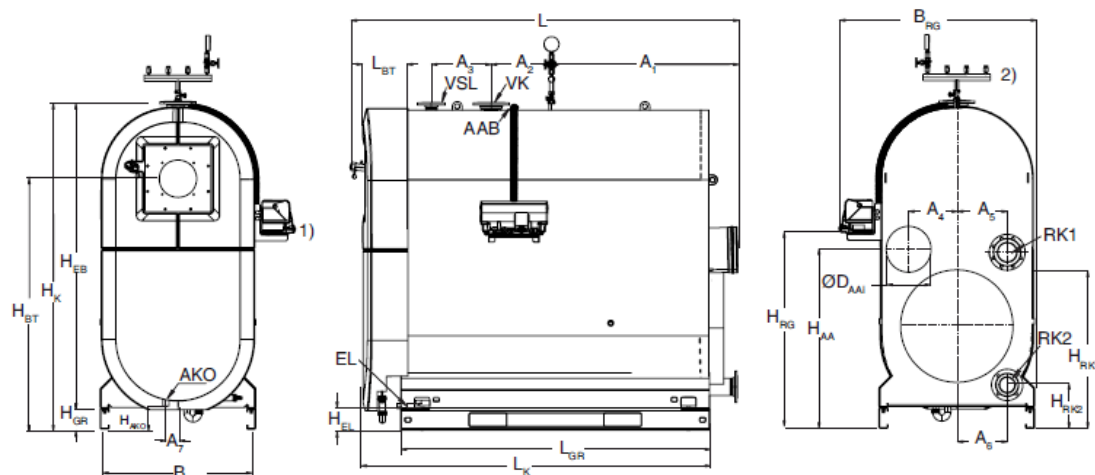
Whilst it is always our intention to fully assist, it is essential to recognise that all information given by the company in response to an enquiry of any nature is provided in good faith and based upon the information provided with the enquiry. We recommend that advice should always be checked with your installer or contract partner. Consequently, the company cannot be held responsible for any liability relating to the use or repetition of such information or part thereof. In addition, whilst making every reasonable effort to monitor the performance and quality of our supply, installation and service network, we do not accept responsibility for the workmanship or operation of any third party company that the company may have promoted either in conversation, e-mail or other communication.

Similarly, the views and opinions expressed in communication with individuals within the company may not reflect that of the business as a whole.

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SB745 Dimensions:



SB745		Unit	800	1,000	1,200
Height	H	mm			
	H _K	mm	2014	2192	
Length	L	mm	2545	2580	
	L _K	mm	2360	2395	
Width	B	mm	960	1040	
	B _{RG}	mm	1220	1330	
Net weight (dry)		kg	1510	1760	1790
Flue gas connection	Ø D _{AA}	mm	253	303	
	H _{AA}	mm	1064	1193	
	A ₄	mm	229	348	
Boiler flow connection	Ø VK	DN	100	125	
	A ₂	mm	403	405	
Boiler return connections	Ø RK1	DN	100	125	
	H _{RK1}	mm	1007	1148	
	A ₁	mm	320	380	
	Ø RK2	DN	80	100	
	H _{RK2}	mm	300	263	
	A ₂	mm	320	390	
Safety valve connection	VSL	DN	65		
	A ₃	mm	400		
Condensate drain	AKO	mm	40	40	
	H _{AKO}	mm	180	180	
	A ₇	mm	71	70	
Cold fill / drain	EL	Inch	R1	R1	
	H _{EL}	mm	161	164	
Transport / Handling	Length	mm	2545	2580	
	Width	mm	960	1040	
	Height*	mm	1874	2052	

*Transport height can be reduced up to 140mm by removing the base frame rails.

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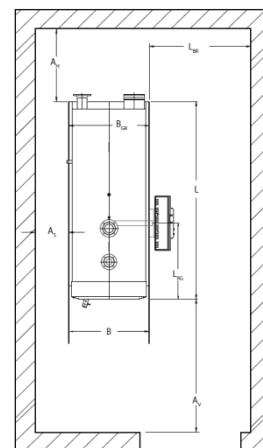
SB745 Service Clearances:

SB745	Unit	800	1,000	1,200
Front clearance*	A _V	mm	1800 (900)	1800 (1100)
Rear clearance	A _H	mm	1000 (800)	
Left clearance	A _S	mm	400 (50)	
Right clearance	L _{BR}	mm	LBR+200 (800)	

Recommended clearances around the boiler, values in brackets are the minimum required clearances.

*This dimension is dependent on length of burner overhang

Please note that if the burner door hinge is changed to the opposite side, the left and right clearances must be swapped



SB745 Technical Specification:

SB745		Unit	800	1,000	1,200
Rated heat output @ 50/30 °C	Full load	kW	800	1000	1200
	Part load	kW	243	303	364
Rated heat output @ 80/60 °C	Full load	kW	725	906	1090
Rated heat input	Full load	kW	742	928	1114
	Part load	kW	223	278	334
Net efficiency (NCV)		%	108.9	108.2	108.9
Seasonal efficiency****		%	95.8	95.5	95.8
Max safety temperature setting*		°C	110		
Max working pressure		bar	6		
Water content		l	930	1200	1190
Water flow resistance	ΔT 20k	mbar	16	7	9
	ΔT 11k	mbar	50	22	30
Flue gas temperature** @ 50/30 °C	Full load	°C	40		
	Part load	°C	30		
Flue gas temperature** @ 80/60 °C	Full load	°C	66		
	Part load	°C	36		
Flue gas mass flow rate @ 50/30 °C	Full load	kg/s	0.300	0.375	0.451
	Part load	kg/s	0.089	0.112	0.134
Flue gas mass flow rate @ 80/60 °C	Full load	kg/s	0.316	0.395	0.475
	Part load	kg/s	0.095	0.118	0.142
Flue gas resistance		mbar	6.4	6.5	7.5
CO ₂ content		%	10		
Available flue pressure***		Pa	Depends on burner (50)		
CE certification, product ID no.			CE-0085AU0452		

*The safety limit cut-out temperature can be adjusted within the 4000 series controls dependant on system requirements,

The maximum possible system flow temperature is the safety limit temperature minus 18k.

**Calculated flue gas temperatures used for cross-sectional calculation according to EN 13384 (average across series)

The actual flue gas temperature may differ from this, subject to burner setting and actual system temperature.

***Flue pressure is dependent on burner used, recommended value is 50Pa

****The seasonal efficiency has been calculated in accordance with the equation set out in the non-domestic building services compliance guide 2010.

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