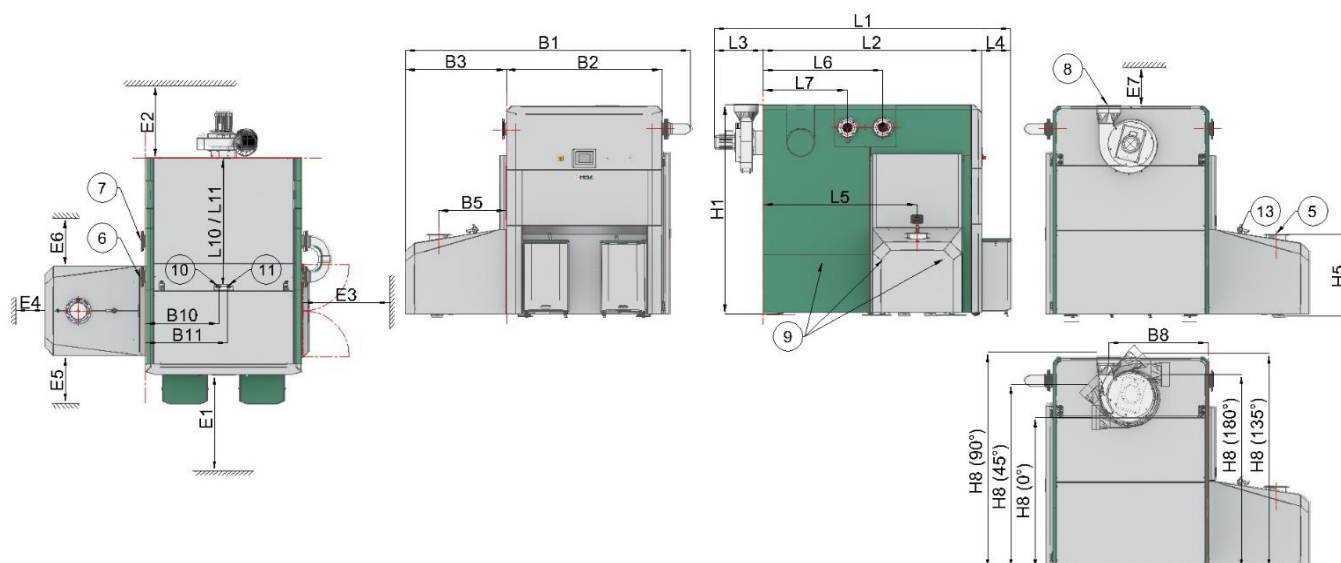


Created: Mpö

Responsible: RST / SSZ (Construction)

Created: 13.03.2024

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Dimensions		349 - 501
L1 length	mm	3070
L2 length	mm	2260
L3 length	mm	505
L4 length	mm	305
B1 width	mm	2955
B2 width	mm	1610
B3 width	mm	1050
H1 height	mm	2180

minimal gap		349 - 501
E1 minimal gap (front)	mm	1000
E2 minimal gap (back)	mm	750
E3 minimal gap (left)	mm	1000
E4 minimal gap (right)	mm	500
E5 minimal gap	mm	500
E6 minimal gap	mm	500
E7 minimal gap (over boiler)	mm	415

Inserting Dimensions		349 - 501
length	mm	1700
width	mm	1190
height	mm	2190

Connections		349 - 501
5	Insert-Flange - BFP	Øi 182,5 mm
L5	BFP (length)	mm 980
B5	BFP (width)	mm 700
H5	BFP (height)	mm 860
6	Flow	DN100 / PN6
L6	Flow (width)	mm 1240
H6	Flow (height)	mm 1960
7	Backflow	DN100 / PN6
L7	Backflow (length)	mm 870
H7	Backflow (height)	mm 1960
8	Flue gas pipe connection	Øa 250mm
B8	Flue gas pipe (90°)	mm 1030
H8	Flue gas pipe (90°)	mm 2200
H8	Flue gas pipe (0°)	mm 1570
H8	Flue gas pipe (45°)	mm 1920
H8	Flue gas pipe (135°)	mm 2240
H8	Flue gas pipe (180°)	mm 2030
9	Filling / Depletion	3/4" IG
	behind casing	
10	Input Safety heat exchanger	1" IG
L10	SHE (length)	mm 1350
B10	SHE (width)	mm 760
11	Output Safety heat exchanger	1" IG
L11	SHE (length)	mm 1350
B11	SHE (width)	mm 850
13	Self-triggering extinguishing system	

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Power Data (woodchips/pellets)		349/351		399/401		449/451		499		501		
Power range - declaration at rating plate	kW	103,9 - (349) 351		103,9 - (399) 401		103,9 - (449) 451		103,9 - 499		103,9 - 501		
Fuel heat output	kW	369 / 371		422 / 423		480 / 480		525 / 527		537 / 535		
Efficiency - Nominal Load*	%	95,1 / 94,7		94,5 / 94,4		93,9 / 94,0		93,3 / 93,7				
Boiler class EN 303-5		5										
Energy efficiency class		A+										
Boiler Data (woodchips/pellets)		349/351		399/401		449/451		499		501		
Boiler weight	kg	4393										
Weight of burner module	kg	2010										
Weight of heat exchanger module	kg	1960										
Operation temperature [max]	°C	90										
Setting Safety Temperature Limiter [max] - STL	°C	95										
Grate area	m²	0,58										
Thermal safety valve - BFP		1										
Opening temperatur Thermal safety valve	°C	95										
Volume ash drawer heat exchanger	l	85										
Volume ash drawer combustion chamber	l	85										
Volume combustion chamber	m³	1,39										
Chimney draft (underpressure) [min-max]	Pa	5 - 10										
Operating overpressure [min - max]	bar	1,5 - 6										
Heat Exchanger (woodchips/pellets)		349/351		399/401		449/451		499		501		
Heat exchanger [Nr. conduits / Nr. tubes]		2 / 1:6x16, 2: 5x16										
Heat exchanger surface	m²	25,58										
Safety-Heat-Exchanger surface	m²	1,68										
Flow safety heat exchanger [min]	l/h	>1200										
Pressure cold water [min]	bar	2										
Hydraulic Data (woodchips/pellets)		349/351		399/401		449/451		499		501		
Water capacity	l	1130										
Water flow rate (ΔT=15K) [min]	l/h	6041 / 6047										
Flow resistance (ΔT=10K)	mBar	51		68		90		108				
Flow resistance (ΔT=20K)	mBar	12		12		19		26				
Recommended buffer volume [min]	l	5000										
Electrical Data (woodchips/pellets)		349/351		399/401		449/451		499		501		
Power consumption	kW	3										
Electrical connection	V/Hz/A	~ 400 / 50 / 16										
Electrical power consumption (nominal)*	kW	0,352 / 0,483		0,352 / 0,483		0,352 / 0,483		0,953 / 0,725		0,953 / 0,725		
Electrical power consumption (partial)*	kW	0,123 / 0,145										
Electrical power consumption (Stand By)*	kW	0,017										
Test Report Data		349/351		399/401		449/451		499		501		
Test report reference number		39-16286/T									39-16286/T	
Test institute		SZU										
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Emmission Data (Nominal Load) ($\Delta T=20K$) (woodchips/pellets)		349/351	399/401	449/451	499	501
Flue gas temperature	°C	~ 130	~ 140	~ 145	~ 150	
Flue gas mass flow**	kg/h	821,0 / 760,2	937,9 / 864,2	1049,3 / 915,1	1182,0 / 1031,5	
Flue gas flow rate**	Nm³/h	631,6 / 584,8	721,5 / 664,7	807,2 / 731,6	909,2 / 793,4	
Flue gas flow rate**	Bm³/h	932,1 / 820,3	1091,3 / 956,8	1235,6 / 1120,0	1408,5 / 1316,3	
CO ₂ -Content*	Vol. %	13,54 / 13,69			13,61 / 14,09	
Efficiency*	%	95,1 / 94,7	94,5 / 94,4	93,9 / 94,0	93,3 / 93,7	

Emmission Data (Partial Load) ($\Delta T=20K$) (woodchips/pellets)		349/351	399/401	449/451	499	501
Flue gas temperature	°C	~ 80 / ~ 80				
Flue gas mass flow**	kg/h	289,8 / 252				
Flue gas flow rate**	Nm³/h	222,9 / 194,9				
Flue gas flow rate**	Bm³/h	296,4 / 259,1				
CO ₂ -Gehalt*	Vol. %	11,78 / 11,85				
Efficiency*	%	94,9 / 95,3				

Note:

* measured value according to test report

** calculated with fuel values from test report

Nm³/h = Standard cubic meters / hour

Bm³/h = Operating cubic meters / hour

Permissible fuel:
Woodchips for non-industrial use with low fines content according to EN ISO 17225-4 in accordance with the following specification:

.) Property class: A1, A2, B1

.) Particle size: P16S, P31S

.) Water content: min. 15 m-%, max. 40 m-% (M40)

.) Calorific value as delivered: ≥ 3.1 kWh/kg

.) Bulk density as delivered: ≥ 150 kg/m³

Wood pellets for non-industrial use according to Enplus, Swisspellet, DINplus or pellets according to EN 17225-2 according to the following specification:

.) property class A1, A2

.) the maximum permissible fines content in the fuel store must not exceed 8% of the stored fuel volume (determined with perforated screen hole diameter 5mm)!

.) fine fraction at the time of loading: < 1.0 m-%

.) heating value in delivery condition > 4.6 kWh/kg

.) bulk density BD in delivery condition > 600 kg/m³

.) mechanical strength DU, EN 15210-1 in delivery condition, m-%: DU97.5 ≥ 97.5

.) diameter 6mm

Heating water:

Please observe ÖNORM H 5195 (current edition), EN 12828 Part 1 with regard to the condition of the heating water and VDI 2035 for Germany.

Irrespective of the respective standards or directives, the following values apply as minimum requirements for filling and supplementary water:

.) pH: 8,2 - 10

.) conductivity: $< 150 \mu S$

.) total hardness: $< 0,1$ mmol/l

If a standard or guideline requires a lower value, this must be used. The heating water must be checked at regular intervals in accordance with the applicable regulations. The results must be documented and stored.

Chimney:

The chimney system must be moisture-resistant and approved for solid fuels. The diameter of the chimney system must be calculated according to EN 13384-1, but the diameter must be at least equal to the diameter of the flue pipe connection (connection 8). The chimney system must achieve tightness class N1 or P1 according to the calculation. The connecting pipe must be installed so that it rises steadily (min. 5%). In addition, all regional regulations must be observed.

Buffer tank:

A buffer tank is not required if guaranteed:

permanent minimum heat decline: 100% of the nominal power for min. 0,75 hours or 30% of the nominal power for mind. hour.

The size of the buffer depends on the system. This must be calculated by a planner in accordance with the present heating system!

Maintenance/service:

The specified free areas must be strictly adhered to when carrying out maintenance and service work.