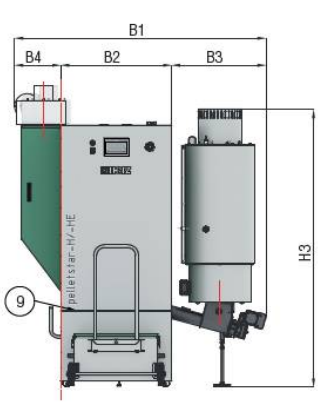
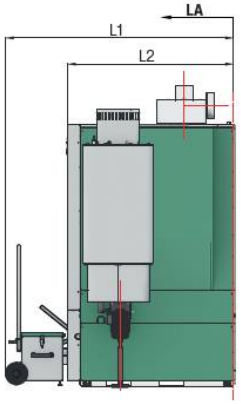
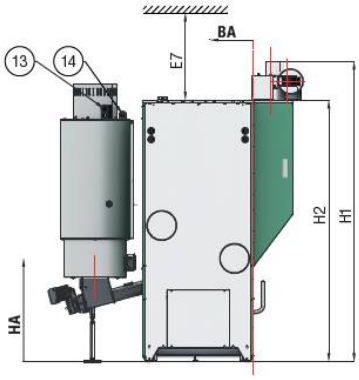
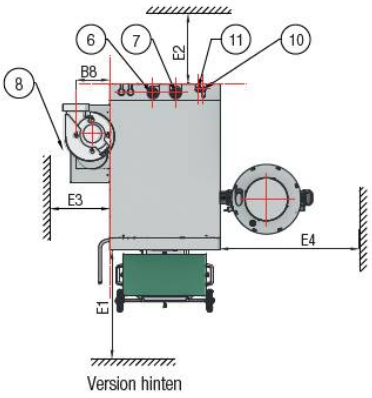
HEIM-Energie HP-H/E 70/80/105

with Suction Discharge System

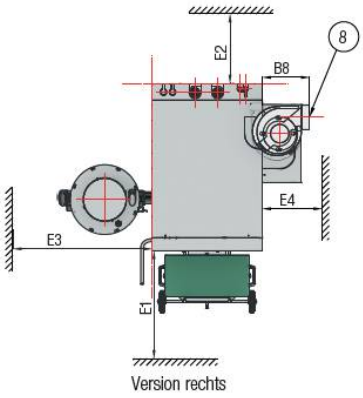








Version hinten



Version rechts

Dimensions			70 - 105
L1	length	mm	1640
L2	length	mm	1195
L4	length	mm	1810
B1	width	mm	800
B2	width	mm	680
B3	width	mm	330
H1	height	mm	2155
H2	height	mm	1875
H3	height	mm	1990

Minimal gap			70 - 105
E1	minimal gap front	mm	800
E2	minimal gap back	mm	500
E3	minimal gap left (Version L/R)	mm	500 / 750
E4	minimal gap right (Version L/R)	mm	750 / 500
E7	minimal gap (over boiler)	mm	500

Inserting Dimensions			70 - 105
	length	mm	1460
	width	mm	880 (800***)
	height	mm	1890

***by dismounting locking lever

Connections			70 - 105
6	Flow		2" IG
BA6	Flow (length)	mm	310
LA6	Flow (width)	mm	60
7	Backflow		2" IG
BA7	Backflow (length)	mm	470
LA7	Backflow (width)	mm	60
8	Flue gas pipe connection		Ø 180 mm
B8	Flue gas pipe connection	mm	340
HA8	Flue gas pipe connection	mm	2010
9	Filling / Depletion (behind casing)		1/2" IG (3/4" AG)
10	Input Safety heat exchanger		1/2" IG
BA10	SHE (width)	mm	675
LA10	SHE (Länge)	mm	35
11	Output Safety heat exchanger		1/2" IG
BA11	SHE (width)	mm	635
LA11	SHE (Länge)	mm	35
13	Pellet Suctiontube connection		Ø 50 mm
HA13	Suctiontube connection	mm	1815
BA13	Suctiontube connection	mm	1070
14	Returnair connection		Ø 48,3 mm
H14	Returnair connection (length)	mm	1780
BA14	Returnair connection (width)	mm	145

Changes in the sense of the technical progress reserved

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with Suction Discharge System

Power Data		**70**	**80**	**105**
		Pellets		
Power range - declaration at rating plate	kW	20,7 - 70	20,7 - 80	20,7 - 105
Fuel heat output	kW	73	84	112
Efficiency*	%	95.4	94.9	93.5
Boiler class EN 303-5		5		
Energy efficiency class		A+		
Boiler Data		**70**	**80**	**105**
Boiler weight	kg	~ 1125		
Operation temperature [max]	°C	90		
Setting Safety Temperature Limiter [max]	°C	95		
Grate area	m²	0.047		
Volume ash drawer combustion chamber	ltr.	25		
Volume ash drawer heat exchanger	ltr.	25		
Volume suction hopper	ltr.	125		
Volume combustion chamber	m³	0.065		
Chimney draft (underpressure) [min-max]	Pa	05. Okt		
Operating pressure [min-max]	bar	1,5 / 6		
Number of Thermal safety valves - BFP		1		
Opening temperature Thermal safety valves - BFP	°C	95		
Heat Exchanger		**70**	**80**	**105**
Heat exchanger [Nr. conduits / Nr. tubes]		2 / Zug 1: 2x3; Zug 2: 6x6		
Surface heat exchanger	m²	2.35		
Surface safety heat exchanger - SHE	m²	2 x 0,21		
Water flow rate - SHE [min]	ltr./h	> 1200		
Pressure cold water [min]	bar	2		
Hydraulic Data		**70**	**80**	**105**
Water capacity	ltr.	241		
Water flow rate (ΔT=15K) [min]	ltr./h	1163		
Water flow rate (ΔT=10K)	ltr./h	6020	6880	9030
Water flow rate (ΔT=20K)	ltr./h	3010	3440	4515
Flow resistance (ΔT=10K)	mBar	154.3	205.1	366.3
Flow resistance (ΔT=20K)	mBar	35.2	46.8	83.6
Recommended buffer volume [min]	ltr.	1000		
Electrical Data		**70**	**80**	**105**
Power consumption	kW	2.4		
Electrical connection	V/Hz/A	~230 / 50 / 16		
Electrical power consumption (nominal)*	kW	0.125		0.162
Electrical power consumption (partial)*	kW	0.067		
Electrical power consumption (Stand By)*	kW	0.007		
Test Report Data		**70**	**80**	**105**
Test report reference number		32-10976/1/T		
Test institute		SZU		

Changes in the sense of the technical progress reserved

HEIM-Energie HP-H/E 70/80/105

with Suction Discharge System

Emmission Data (Nominal Load) (ΔT=20K)		70	80	105
		Pellets		
Flue gas temperature	°C	~ 110	~ 120	~ 140
Flue gas mass flow**	kg/h	150.1	165.6	209.4
Flue gas flow rate**	Sm³/h	115.5	127.4	161
Flue gas flow rate**	Bm³/h	152.5	168.3	232.7
CO_2-Content*	Vol. %	13.94		13.88
Efficiency*	%	95.4		

Emmission Data (Partial Load) (ΔT=20K)		70	80	105
Flue gas temperature	°C	~ 70		
Flue gas mass flow**	kg/h	50.2		
Flue gas flow rate**	Nm³/h	38.6		
Flue gas flow rate**	Bm³/h	47.6		
CO_2-Content*	Vol. %	12.01		
CO2-Content*	%	95.3		

Note:
* measured value according to test report
** calculated with fuel values from test report
*** The specified volume flows are not suitable for design for an electrostatic filter or downstream flue gas cleaning.
They are used exclusively for chimney
calculation according to EN 13384.
Sm³/h = Standard cubic meters / hour
Om³/h = Operating cubic meters / hour
Door hinge on the right of the boiler standard --> door hinge on the left optionally possible

Fuel:
permissible fuel:
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
.) 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 für germany.
Irrespective of the respective standards or directives, the following values apply as minimum requirements for filling and supplementary water:
conductivity:
.)<150µS
.)pH: 8,2 - 10
.)total hardness: <0,1mmol/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.