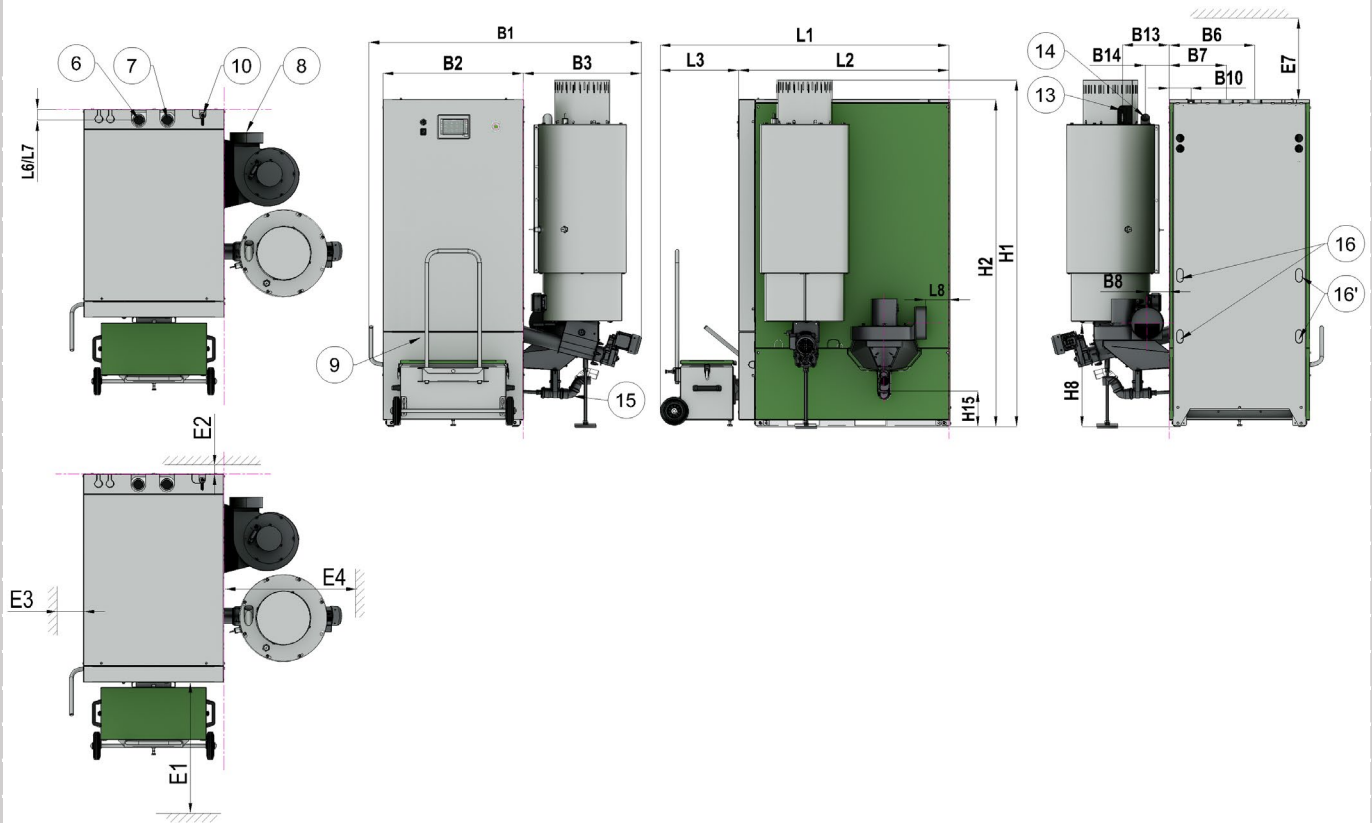


HEIM-Energie HP-C 80 - 100 with Suction Discharge System



Dimensions		80 - 100
L1 length	mm	1650
L2 length	mm	1210
B1 width	mm	1430
B2 width	mm	800
B3 width	mm	670
H1 height	mm	1990
H2 height	mm	1870
minimal gap		80 - 100
E1 minimal gap (front)	mm	750
E2 minimal gap (back)	mm	50
E3 minimal gap (left)	mm	500
E4 minimal gap (right)	mm	750
E7 minimal gap (over boiler)	mm	470
Inserting Dimensions		80 - 100
length	mm	1200
width	mm	800
height	mm	1900

Connections		80 - 100
6	Flow	2" IG
L6	Flow (width)	mm 60
B6	Flow (height)	mm 485
7	Backflow	2" IG
L7	Backflow (length)	mm 60
B7	Backflow (width)	mm 320
8	Flue gas pipe connection	Øi 182mm
L8	Flue gas pipe (length)	mm 135
B8	Flue gas pipe (width)	mm 130
H8	Flue gas pipe (height)	mm 595
9	Filling / Depletion	1/2" AG
10	Safety heat exchanger	1/2" IG
L10	SHE (length)	mm 60
B10	SHE (width)	mm 120
13	Pellet Suctiontube connection	Ø 50 mm
H13	Suctiontube connection	mm 1820
B13	Suctiontube connection	mm 275
14	Returnair connection	Ø 48,3 mm
H14	Returnair connection (length)	mm 1780
B14	Returnair connection (width)	mm 145
15	condensate drain	DN 50
B15	drain (width)	mm 370
H15	drain (height)	mm 200
16	Connection cold cleaning water	2x 3/4" IG

Changes in the sense of the technical progress reserved

HEIM-Energie HP-C 80 - 100 with Suction Discharge System

Power Data		80	100
		Pellets	
Power range - declaration at rating plate	kW	24 - 80	24-99
Fuel heat output	kW	77.5	96.6
Efficiency* Nominal Load [50/30]	%	103.2	102.5
Boiler class EN 303-5		5	
Energy efficiency class		A++	
Boiler Data		80	100
		Pellets	
Boiler weight	kg	901	
Operation temperature [max]	°C	90	
Setting Safety Temperature Limiter [max]- STL	°C	95	
Grate area	m ²	0.05	
Volume ash drawer combustion chamber	l	54	
Volume integrated suction hopper	l	125	
Volume combustion chamber	m ³	0.065	
Chimney draft (overpressure) [min-max]	Pa	5 - 8	
Operating pressure [min-max]	bar	1,5 - 3	
Thermal safety valve - BFP		1	
Opening temperatur Thermal safety valve	°C	95	
Heat exchanger [Nr. conduits / Nr. tubes]		2 / 1: 24, 2: 36	
Surface heat exchanger	m ²	8.5	
Safety-Heat-Exchanger surface	m ²	0.328	
Flow safety heat exchanger [min]	l/h	> 1200	
Pressure cold water [min]	bar	2	
Hydraulic Data		80	100
		Pellets	
Water capacity	l	195	
Water flow rate (ΔT=15K) [min]	l/h	1.376	
Water flow rate (ΔT=10K)	l/h	6880	8600
Water flow rate (ΔT=20K)	l/h	3440	4300
Flow resistance (ΔT=10K)	mBar	184	292
Flow resistance (ΔT=20K)	mBar	46	73
Electrical Data		80	100
		Pellets	
Power consumption	kW	3	
Electrical connection	V/Hz/A	~ 230 / 50 / 16	
Electrical power consumption (nominal)*	kW	0.162	0.230
Electrical power consumption (partial)*	kW	0.063	
Electrical power consumption (Stand By)*	kW	0.004	
Test Report Data		80	100
		Pellets	
Test report reference number		31-10418/1/T	31-10418/2/T
Test institute		SZU	

Changes in the sense of the technical progress reserved

HEIM-Energie HP-C 80 - 100

with Suction Discharge System

Emission Data (Nominal Load) ($\Delta T=20K$)		80	100
		Pellets	
Flue gas temperature	°C	~ 35	~ 35
Flue gas mass flow**	kg/h	172.0	211.0
Flue gas flow rate**	Nm ³ /h	132.0	162.0
Flue gas flow rate**	Bm ³ /h	148.1	183.2
CO ₂ -Content*	Vol. %	12.1	11.9
Efficiency*	%	103.2	102.5
(50°C / 30°C)			
Flue gas temperature	°C	~ 60	~ 60
Flue gas mass flow**	kg/h	192.0	224.0
Flue gas flow rate**	Nm ³ /h	148.0	172.0
Flue gas flow rate**	Bm ³ /h	180.9	207.8
CO ₂ -Content*	Vol. %	11.5	11.9
Efficiency*	%	97.0	96.7
(80°C / 60°C)			
Emission Data (Partial Load) ($\Delta T=20K$)		80	100
		Pellets	
Flue gas temperature	°C	~ 30	
Flue gas mass flow**	kg/h	55.0	
Flue gas flow rate**	Nm ³ /h	42.0	
Flue gas flow rate**	Bm ³ /h	46.4	
CO ₂ -Content*	Vol. %	10.90	
Efficiency*	%	104.3	
(50°C / 30°C)			
Flue gas temperature	°C	~ 52	
Flue gas mass flow**	kg/h	61	
Flue gas flow rate**	Nm ³ /h	47	
Flue gas flow rate**	Bm ³ /h	55.2	
CO ₂ -Content*	Vol. %	11	
Efficiency*	%	96.4	
(80°C / 60°C)			

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
 Door hinge on the right of the boiler standard --> door hinge on the left optionally possible

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 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: <150µS
- .)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.

Water for heat exchanger cleaning:

Total hardness: < 20°dH / 3.57 mmol/l / pH: 6.5 ≤ pH ≤ 9.5 / Conductivity: < 2500 µS/cm at 20 °C / Minimum pre-pressure: 3 bar (max. 6 bar) / Chloride : <200 mg/l

The water used for rinsing must meet the requirements of the drinking water regulations of the country in which the boiler is installed.

The water used for rinsing must not be corrosive and must be clear, tasteless, odorless and free of visible particles.

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. 1 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.

Changes in the sense of the technical progress reserved