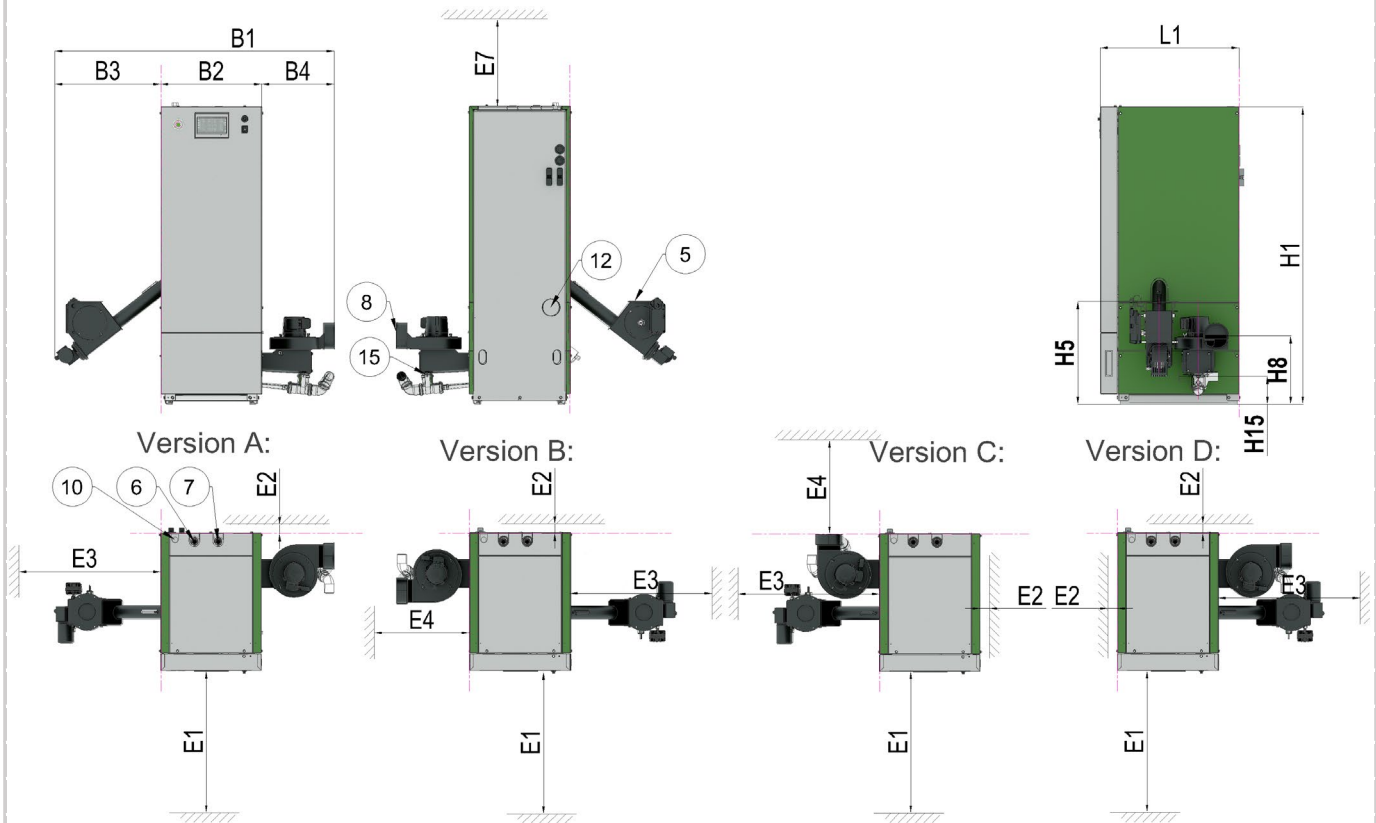


# HEIM-Energie HP-C 10 - 60 with Screw Discharge System



Dimensions		10-16	20-30	45-60
L1	Length	mm 730	730	980
B1	Width	mm 1470	1550	1780
B2	Width	mm 530	680	680
B3	Width	mm 560	485	715
B4	Width	mm	385	
H1	Height	mm 1580	1580	1805
Minimal gap		10-16	20-30	45-60
E1	[min]	mm	750	
E2	[min]	mm	50	
E3	[min]	mm	500	
E4	[min]	mm	500	
E7	[min]	mm	470	
Inserting Dimensions		10-16	20-30	45-60
	Length	mm 730	730	980
	Width	mm 530	680	680
	Height	mm 1580	1580	1810
Connections		10-16	20-30	45-60
5	Insert-Flange BFP	Ø 90 mm		
L5	RSE (Length)	mm 425	425	635
B5	RSE (Width)	mm 385	310	545
H5	RSE (Height)	mm 610	550	550

Connections		10-16	20-30	45-60
6	Flow	1" IG		
L6	Flow (length)	mm 45	45	60
B6	Flow (width)	mm 180	255	255
7	Backflow	1" IG		
L7	Backflow (length)	mm 45	45	60
B7	Backflow (width)	mm 3010	380	380
8/8'	Flue gas pipe connection	mm Ø 132		
L8	Flue gas pipe (length)	mm 155	155	225
B8/8'	Flue gas pipe (width)	mm 385	385	385
H8/8'	Flue gas pipe (height)	mm 365	365	510
Filling / Depletion (behind casing)		1/2" AG		
10	Safety heat exchanger	-		
L10	SHE (length)	mm -	-	35
B10	SHE (width)	mm -	-	110
12	RLU (optional)	Øa 75 mm		
B12	RLU (width)	mm 100	175	160
H12	RLU (height)	mm 515	510	700
15	condensate drain	DN 50		
B15	drain (width)	mm 385	385	385
H15	drain (height)	mm 80	80	170

Changes in the sense of the technical progress reserved

## HEIM-Energie HP-C 10 - 60 with Screw Discharge System

Power Data		10	16	20	30	45	60
		Pellets					
Power range - declaration at rating plate	kW	3,2-10	3,2-16	6,0-20,0	6,0-30,0	13,0-45,0	13,0-60,0
Fuel heat output	kW	9.5	15.2	19.1	28.4	42.6	56.6
Efficiency* Nominal Load [50/30]	%	105.8	105.5	105.0	105.7	105.6	106.1
Boiler class EN 303-5		5					
Energy efficiency class		A++					
Boiler Data		10	16	20	30	45	60
		Pellets					
Boiler weight	kg	385		470		601	
Operation temperature [max]	°C	90					
Setting Safety Temperature Limiter [max]- STL	°C	95					
Grate area	m <sup>2</sup>	0.0123		0.0123		0.0238	
Volume integrated suction hopper	l	-		-		-	
Volume integrated hand filling hopper	l	-		-		-	
Volume ash drawer combustion chamber	l	22		22		36	
Volume combustion chamber	m <sup>3</sup>	0.021		0.021		0.047	
Chimney draft (overpressure) [min-max]	Pa	10 / 10		10 / 10		8 / 8	
Operating pressure [min-max]	bar	1,5 - 3,0					
Thermal safety valve		-		-		1	
Opening temperatur Thermal safety valve	°C	-		-		95	
Heat exchanger [Nr. conduits / Nr. tubes]		2 x 6		2x10		1x15; 1x20	
Surface heat exchanger	m <sup>2</sup>	1.95		2.9		5.4	
Safety-Heat-Exchanger surface	m <sup>2</sup>	-		-		0.122	
Flow safety heat exchanger [min]	l/h	-		-		> 1200	
Pressure cold water [min]	bar	2					
Hydraulic Data		10	16	20	30	45	60
		Pellets					
Water capacity	l	57.5		77		135	
Water flow rate (ΔT=15K) [min]	l/h	186		349		756	
Water flow rate (ΔT=10K)	l/h	872	1395	1744	2616	3924	5233
Water flow rate (ΔT=20K)	l/h	436	698	872	1308	1962	2616
Flow resistance (ΔT=10K)	mBar	4.8	8.7	51	113	208	329
Flow resistance (ΔT=20K)	mBar	1.5	3.5	13	30	50	82
Electrical Data		10	16	20	30	45	60
		Pellets					
Power consumption	kW	2					
Electrical connection	V/Hz/A	~ 230 / 50 / 16					
Electrical power consumption (nominal)*	kW	0.080	0.124	0.090	0.140	0.100	0.150
Electrical power consumption (partial)*	kW	0.050		0.060		0.070	
Electrical power consumption (Stand By)*	kW	0.004					
Test Report Data		10	16	20	30	45	60
		Pellets					
Test report reference number		39-13883/1/T; 39-15350/1/T		31-10075/T; 39-15350/2/T		31-10075/T2; 39-15350/3/T	
Test institute		SZU					

Changes in the sense of the technical progress reserved

# HEIM-Energie HP-C 10 - 60

## with Screw Discharge System

Emission Data (Nominal Load) ( $\Delta T=20K$ )		10	16	20	30	45	60
		Pellets					
Flue gas temperature	°C	~ 30	~ 32	~ 32	~ 33	~ 30	~ 35
Flue gas mass flow**	kg/h	21.6	35.0	39.5	55.2	84.5	137.2
Flue gas flow rate**	Nm <sup>3</sup> /h	16.6	26.9	30.4	42.5	65.0	105.5
Flue gas flow rate**	Bm <sup>3</sup> /h	18.5	30.1	33.9	47.6	72.3	119.1
CO <sub>2</sub> -Content*	Vol. %	10.91	11.25	13.88	13.52	13.19	11.46
Efficiency*	%	105.8	105.5	105.0	105.7	105.6	106.1
Flue gas temperature	°C	~ 45	~ 50	~ 50	~ 55	~ 55	~ 55
Flue gas mass flow**	kg/h	22.7	34.0	40.5	61.0	108.4	131.0
Flue gas flow rate**	Nm <sup>3</sup> /h	17.4	26.1	31.2	46.9	83.4	100.8
Flue gas flow rate**	Bm <sup>3</sup> /h	20.4	30.9	37.0	56.2	100.0	121.6
CO <sub>2</sub> -Content*	Vol. %	12.32	12.6	12.69	13.06	10.83	11.98
Efficiency*	%	96.1	95.9	96.7	96.5	96.8	96.6
Emission Data (Partial Load) ( $\Delta T=20K$ )		10	16	20	30	45	60
		Pellets					
Flue gas temperature	°C	~ 28		~ 28		~ 30	
Flue gas mass flow**	kg/h	5.9	8	14.6		35.2	
Flue gas flow rate**	Nm <sup>3</sup> /h	4.5	6.2	11.2		27.1	
Flue gas flow rate**	Bm <sup>3</sup> /h	5.0	6.8	12.4		30.0	
CO <sub>2</sub> -Content*	Vol. %	10.40	10.43	10.60		10.05	
Efficiency*	%	105.8	103.9	105.4		105.2	
Flue gas temperature	°C	~ 40		~ 45		~ 45	
Flue gas mass flow**	kg/h	7.6		14.8		34.8	
Flue gas flow rate**	Nm <sup>3</sup> /h	5.9		11.4		26.8	
Flue gas flow rate**	Bm <sup>3</sup> /h	6.8		13.2		31.2	
CO <sub>2</sub> -Content*	Vol. %	10.93		12.25		10.04	
Efficiency*	%	94.0		96.8		96.4	

**Note:**

\* measured value according to test report \*\* calculated with fuel values from test report

Nm<sup>3</sup>/h = Standard cubic meters / hour Bm<sup>3</sup>/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, Swissspellet, 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/m<sup>3</sup>

.) 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