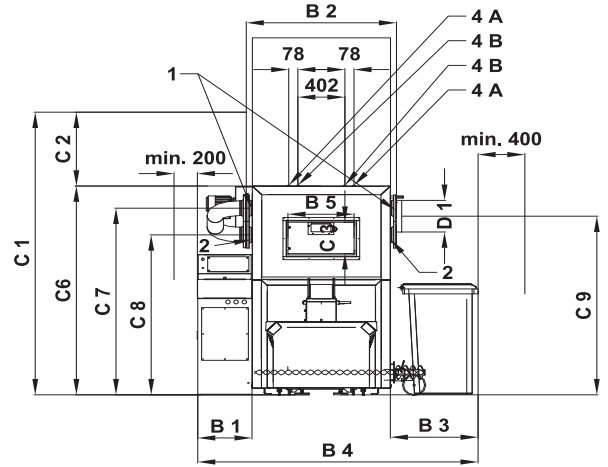
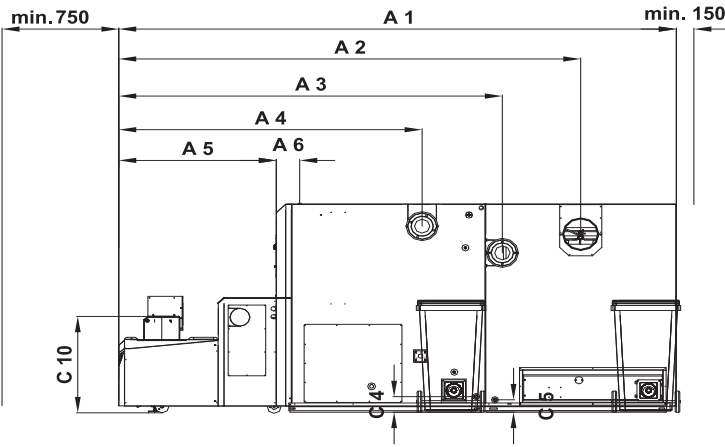


HERZ BioFire 500-1000

Data sheet

V 2.1



	BioFire BioControl	500	600	800	1.000
	Power range [kW]	150-500	180-600	240-800	300-1000
	Power range - Declaration at nameplate [kW]	150-500	180-600	240-800	300-1000
	Continuance of combustion max. [h]	-	-	-	-
A1	Length	4.245	4.735	4.735	5.260
A2	Length	3.590	3.950	3.950	4.444
A3	Length	3.050	3.250	3.250	3.774
A4	Length	2.365	2.595	2.595	3.116
A5	Length	1.350	1.350	1.350	1.367
A6	Length	200	200	200	200
B1	Width	470	470	470	483
B2	Width without flange	1.270	1.270	1.270	1.270
	Width with flange	1.375	1.375	1.375	1.379
B3	Width	750	750	750	750
B4	Width	2.485	2.485	2.485	2.485
B5	Width	500	500	500	500
C1	Height	2.650	2.650	2.650	2.865
C2	Height	700	700	700	700
C3	Height	300	300	300	300
C4	Height ["] / [mm]	3/4" / 148	3/4" / 148	3/4" / 148	3/4" / 148
C5	Height ["] / [mm]	3/4" / 118	3/4" / 118	3/4" / 118	3/4" / 118
C6	Height	1.977	1.977	1.977	2.173
C7	Height [DN] / [mm]	1.765	1.765	1.765	1.965
C8	Height [DN] / [mm]	1.515	1.515	1.515	1.515
	Dimension Flow / Return	DN 100	DN 125	DN 125	DN 125
	Pressure step flange flow - return	-	-	-	-
C9	Height	1.686	1.686	1.686	1.886
C10	Height	945	945	945	945
D1	Diameter flue pipe	300	300	300	300
Inserting dimension Heat exchanger module [mm]					
	Length	1.400	1.600	1.600	1.600
	Width	1.400	1.400	1.400	1.400
	Height	2.100	2.100	2.100	2.400
Inserting dimension Combustion chamber module [mm]					
	Length	2.200	2.400	2.400	2.400
	Width	1.400	1.400	1.400	1.400
	Height	2.100	2.100	2.100	2.400

Mounting dimensions in [mm]



Acceptable fuel:

wood chips P16B, P 31,5, P45A according to EN 14961-1/4 bzw. G50 W 15-40 according to ÖNORM M 7133 nominal power at max. W25 or heating value > 3.5 kWh/kg.
wood pellets quality level A1 according to EN 14961-2, ENplus, ÖNORM M 7135, DIN plus, Swiss Pellets.

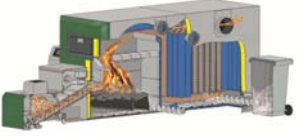
Changes in the sense of the technical progress reserved

1...Flow , 2...Backflow , 3... Filling/depletion (IG 1"), 4 a...Safety heat exchanger - Input (1" IG), 4 b...Safety heat exchanger - Output (1" IG)

HERZ BioFire 500-1000

Data sheet

V 2.1

BioFire BioControl	500	600	800	1.000		Technical data	
Weight of boiler [kg]	4.716	5.895	5.895	7.075			
Volume of combustion chamber [litr.]	-	-	-	-			
min./max. delivery pressure [mbar]	0,05/0,10	0,05/0,10	0,05/0,10	0,05/0,10			
operating overpressure Min/Max [bar]	1,5 / 5	1,5 / 5	1,5 / 5	1,5 / 5			
max. operating temperature [°C]	102	102	102	102			
Max. setting Safetytemperaturelimiter - STL (°C)	110	110	110	110			
Water capacity [litr.]	1.146	1.660	1.660	1.950			
Electrical conntention [V;Hz;A] / delivery rate [kW]			3x400 ; 50 ; 16 / -				
Resistance of boiler at dt=35K [mbar]	36	28	31	-			
Resistance of boiler at dt=20K [mbar]	47	37	41	-			
Resistance of boiler at dt=10K [mbar]	88	61	-	185			
Minimal Flow rate dt=18K [kg/h]	23.946	28.736	38.314	47.893			
Flow rate dt=15K [kg/h]	28.736	34.483	45.977	57.471			
Electric power consumption, nominal load [kW]	~1,8	2	3	3			
Electric power consumption, part load [kW]	1	1	1	1			
Size of heat exchanger [m2]	24	29	29	29			
Size of grate surface [m2]	1	1	1	1			
Volume of combustion chamber [m3]	1	1	1	2			
Necessary quantity of water for safety heat exchanger [litr./h]	> 850	> 850	> 850	> 850			
Opening temperature thermal safety valve (°C)	95-108	95-108	95-108	95-108			
Number of thermal safety valve	2	2	2	2			
Heat exchanger - Number of tube rows / conduits [qty.]	1 / 63	1 / 77	1 / 77	1 / 77			
Emission - Nominal load wood chips W25 (Wood pellets)							
Exhaust gas temperature [°C]	~120 (-120)	~120 (-120)	~130 (-130)	~150 (-150)			
Mass flow flue gas [kg/s]	0,381 (0,348)	0,428 (0,39)	0,57 (0,519)	0,713 (0,697)			
Volume flow flue gas [Nm³/h]	1060 (965)	1184 (1079)	1579 (1438)	1974 (1930)			
Volume flow flue gas** [Bm³/h] *	1520 (1389)	1704 (1553)	2272 (2070)	2841 (2778)			
CO2 content [Vol. %]	11,9 (11,9)	13,7 (13,7)	13,8 (13,8)	14,0 (14,0)			
Efficiency ηf [%] max.	93,1	94,5	95,5	94,7			
Emission - Part load load wood chips W25 (Wood pellets)							
Exhaust gas temperature [°C]	~80 (-80)	~80 (-80)	~80 (-80)	~80 (-80)			
Mass flow flue gas [kg/s]	0,146 (0,136)	0,176 (0,163)	0,237 (0,217)	0,293 (0,271)			
Volume flow flue gas [Nm³/h]	405 (375)	486 (450)	649 (601)	811 (751)			
Volume flow flue gas** [Bm³/h] *	583 (485)	700 (582)	934 (777)	1167 (971)			
CO2 content [Vol. %]	10,8 (10,8)	9,0 (9,0)	9,0 (9,0)	9,0 (9,0)			
Efficiency ηf [%] max.	94,4	93,6	96,3	96,5			
Weight [kg]							
Combustion chamber modul	1.575	1.800	1.800	2.550			
Burner (trough, grate elements, etc.)	675	750	750	825			
Feed-in	180	180	180	180			
Casing, control	75	85	85	105			
Heat exchanger	2.000	2.430	2.430	2.650			
Accessories, ash removal,....	200	200	200	250			
Combustion chamber stones	~ 400	~450	~450	~625			
Buffer							
Minimal volume of buffer tank [Liter]	5.000	5.000	10.000	10.000			
<i>[Bm³] - cubic metres at operating pressure</i>							
Electric power input							
Induced-draught fan-flue gas f. [kW]; (motor nominal torque[Nm])	3 (-)	6 (-)	6 (-)	6 (-)			
Ind. draught f.-cross sect. of electric cable[mm²]amount of wires	2,5\5	2,5\5	2,5\5	2,5\5			
Primary air fan [kW]; (motor nominal torque[Nm])	0,09 (-)	0,09 (-)	0,09 (-)	0,09 (-)			
Primary air fan-cross sect. of electric cable[mm²]amount of wir.	1\3	1\3	1\3	1\3			
Secondary 1 air fan [kW];(motor nominal torque[Nm])	0,4 (-)	0,4 (-)	0,4 (-)	0,4 (-)			
Secondary 1 air fan-cross sect. of elec. cable[mm²]amount of w.	1\3	1\3	1\3	1\3			
Secondary 2 air fan [kW];(motor nominal torque[Nm])	0,4 (-)	0,4 (-)	0,4 (-)	0,4 (-)			
Secondary 2 air fan-cross sect. of elec. cable[mm²]amount of w.	1\3	1\3	1\3	1\3			
Ht-air blower; ignition fan [kW];(motor nominal torque[Nm])	1,6 (-)	1,6 (-)	1,6 (-)	1,6 (-)			
Ht-air blower; ign. fan [kW]-cr. sect. of elec. cab.[mm²]am. of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Stoker screw [kW];(motor nominal torque[Nm])	0,55 (328)	0,55 (328)	0,55 (328)	0,55 (328)			
Stoker screw-cross sect. of electric cable[mm²]amount of wires	1,5\4	1,5\4	1,5\4	1,5\4			
Ash screw - auto de ash drive [kW]; (motor nominal torque[Nm])	0,25 (31)	0,25 (31)	0,25 (31)	0,25 (31)			
Ash screw-cross sect. of electric cable[mm²]amount of wires	1\4	1\4	1\4	1\4			
Scraper floor combustion ash [kW];(motor nominal torque[Nm])	0,37(-)	0,37(-)	0,37(-)	0,37(-)			
Flue ash screw - auto de ash drive [kW]; (motor nominal tor.[Nm])	0,25 (31)	0,25 (31)	0,25 (31)	0,25 (31)			
Flue ash screw - cross section of electric c.[mm²]amount of wir.	1\4	1\4	1\4	1\4			
Ash screw cyclone [kW]; (motor nominal torque[Nm])	0,12 ()	0,12 ()	0,12 ()	0,12 ()			
Heat exchanger [kW]; (motor nominal torque [Nm])	0,55 (-)	0,55 (-)	0,55 (-)	0,55 (-)			
Heat exchanger-cross section of electric cable [mm²]	1\4	1\4	1\4	1\4			
Feed motor 1 [kW]; (motor nominal torque[Nm])	0,37 (-)	0,37 (-)	0,37 (-)	0,37 (-)			
Feed motor 1-cross section of electric cable [mm²]amount of w.	1\3	1\3	1\3	1\3			
Feed motor 2 [kW]; (motor nominal torque[Nm])	0,37 ()	0,37 ()	0,37 ()	0,37 ()			
Burn back system drive [kW]; (motor nominal torque[Nm])	0,0065 (-)	0,0065 (-)	0,0065 (-)	0,0065 (-)			
Burn back syst. drive-cross s. of electric c.[mm²] amount of w.	1 \ 2+4	1 \ 2+4	1 \ 2+4	1 \ 2+4			
Total sum boiler without auger system [kW]	8,45	11,45	11,45	11,45			
Electrical connection [V, A, Hz]	3x400,20,50	3x400,20,50	3x400,20,50	3x400,20,50			
Conveyer screw [kW]; (motor nominal torque[Nm])	1,5 (419)	1,5 (419)	1,5 (419)	1,5 (419)			
Conveyer screw-cross s. of electric c.[mm²] amount of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Wood chips auger system[kW]; (motor nominal torque [Nm])	1,5 (419)	1,5 (419)	1,5 (419)	1,5 (419)			
Wood chips auger s.-cross s. of ele. cable [mm²] amount of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Wood pellets auger system [kW]; (motor nominal torque [Nm])	1,1 ()	1,1 ()	1,1 ()	1,1 ()			
Wood pellets auger s.-cross s. of el. cable [mm²] amount of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Transport system with separate gear [kW];(motor n. torq. [Nm])	0,55 (328)	0,55 (328)	0,55 (328)	0,55-1,5 (328)			
Tran. s. with s. g.-cross section of el. cable [mm²] amount of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Conveyer screw, depending on constr. [kW];(motor n. tor. [Nm])	0,75-1,5 (419)	0,75-1,5 (419)	0,75-1,5 (419)	0,75-1,5 (419)			
Conveyer screw-cross s. of electric c.[mm²] amount of w.	1,5\4	1,5\4	1,5\4	1,5\4			
Hydraulik aggregate for scraper floor [kW]; (motor n. torq. [Nm])	1,0-7,5 (-)	1,0-7,5 (-)	1,0-7,5 (-)	1,0-7,5 (-)			
Hydraulik aggregate f. scr. fl.-cross s. of el. cable amount of w.	2,5\5	2,5\5	2,5\5	2,5\5			
Changes in the sense of the technical progress reserved!							

A buffer is not required if guaranteed:

permanent minimum heat decline:
100% of the nominal power for min. 2 hours or
50% of the nominal power for min. 3 hours

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

