SMART **HEATING** TECHNOLOGY

Purity to Nature
Savings to Clients
Comfort to Users

Automatic Biomass Boilers

SMART 60–100 kW

Fully automatic, ecologic boilers with excellent features ▪ Technical solution flexibility ▪ Multiple fuel possibility ▪ Economical and ecological operation ▪ 3 boilers in range ▪ Efficiency 90 % ▪ Output modulation 30–100 % ▪ Lambda sensor ▪ Stainless Steel Burner with Cleaning Mechanism ▪ Low Maintenance & Service requirements ▪ Heating circuits regulation ▪ Cascade installation solutions ▪ Mobile phone control ▪ Internet control ▪ Mobile container solutions ▪ Special boiler accessories

AUTOMATIC BIOMASS BOILERS

SMART 60–100 kW

Boiler Design Features ➔

SMART Boilers Application Options ➔

- Extensive Houses

And Smaller-Scale:

- Apartment Buildings
- Multifunctional Buildings
- Production Plants & Industrial Premises & Storage Premises
- Agriculture & Aquaculture & Horticulture Farms
- Hotels/Motels/Wellness Centres/Pools/
- Sport Complexes
- Municipality Buildings
- Schools, Hospitals, Police & Army Complexes

In association with:

SIEMENS

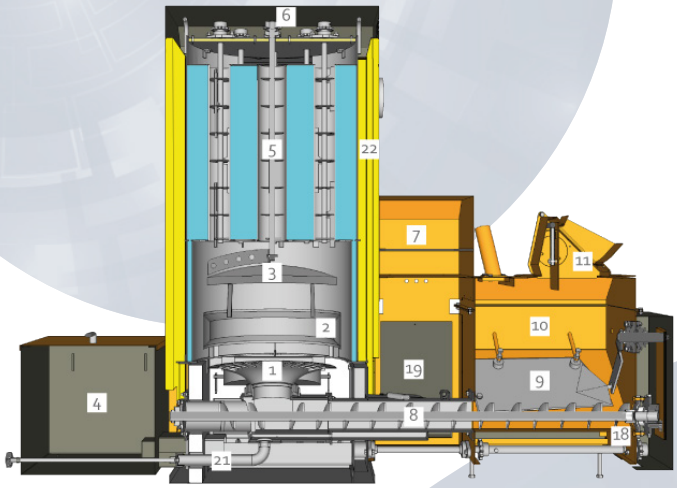
CE

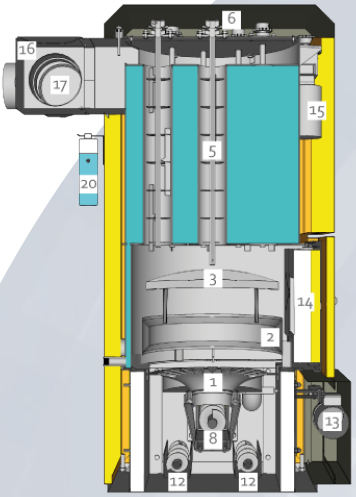
TÜV SÜD

ČSN-EN 303.5/2013

ISO 9001:2009

SMART 60–100 kW – Front & Side View





Description:

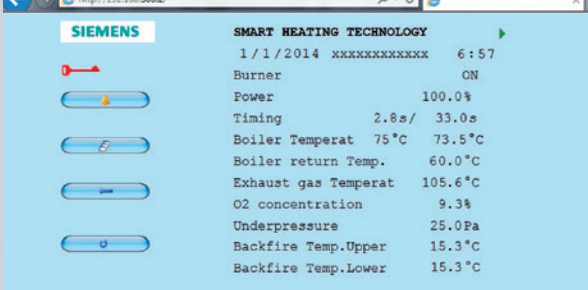
1. Primary burner with moving grate
2. Secondary crown of additional combustion
3. Deflector
4. Ash Bin
5. Heat exchanger with turbulators
6. Turbulator drive
7. Control Unit Siemens with Display
8. Feed screw
9. Disrupting mechanism
10. Operational Fuel Bin
11. Flap separating intermediate container and fuel conveyor
12. Ash screws
13. Grating motor
14. Service boiler door
15. Turbulator drive motor
16. Chimney extension
17. Exhaust fan
18. Feed and ash screw motor
19. Accessories
    - Primary and secondary fan
    - Igniting fan
    - Emergency extinguishing device
20. Extinguishing canister with a level sensor
21. Air duct cleaning
22. Dual boiler insulation

Mobile phone control
Internet control
Mobile container solutions

UNIT CONVERTER	
1 GJ = 1000 MJ	
1 GJ = 277, 778 kWh	1 GJ = 0,278 MWh
1 GJ = 238 846 kcal	

1 kg – Wood pellets = 16,5–18,5 MJ = 4,6–5,1 kWh
1 kg – Lignite = 10,5–17,2 MJ = 2,9–4,8 kWh
1 kg – Wood chips with moisture 10 % = 16,4 MJ = 4,6 kWh
1 kg – Wood chips with moisture 20 % = 14,3 MJ = 4,0 kWh
1 kg – Wood chips with moisture 30 % = 12,2 MJ = 3,4 kWh
1 kg – Wood chips with moisture 40 % = 10,1 MJ = 2,8 kWh
1 m^3 – Natural gas = 37,82 MJ = 10,5 kWh

Designation		60	80	100
Nominal power Pn	kW	60	80	100
Partial load Pmin	kW	17	23	29
Boiler efficiency at Pn	%	90	89,4	88,2
Boiler efficiency at Pmin	%	89,1	88,5	87,7
Boiler class		5	5	5
Noise level	dB	< 65	< 65	< 65
Weight	kg	783	997	1042
Water				
Volume of water	l	129	105	105
Water connection diameter	"	2	2	2
Water connection diameter	DN	50	50	50
Hydraulic boiler loss attemperature gradient of 10°	mbar	17	29,9	47
Hydraulic boiler loss attemperature gradient of 20°	mbar	4,3	7,5	11,9
Boiler temperature	°C	65-90	65-90	65-90
Min. temperature of return water	°C	55	55	55
Max. operating pressure	bar	3,5	3,5	3,5
Test pressure	bar	6	6	6
Hearth temperature	°C			
Hearth pressure	mbar	-0,01	-0,01	-0,01
Required chimney draught	mbar	0,2	0,2	0,2
Need for artificial draught		yes	yes	yes
Flue gas temperature at Pn	°C	185	195	205
Mass flow rate of flue gas at Pn	°C	90	95	105
Flue gas temperature at Pmin	kg/h	180	240	300
Mass flow rate of flue gas at Pmin	kg/h	60	81	99
Volume of flue gas at Pn	m3/h	141	188	235
Volume of flue gas at Pmin	m3/h	47	63,5	77,6
Smoke pipe diameter	mm	200	200	200
Chimney diameter	mm	200	200	200
Type of chimney		Moisture – resistant		
Fuel				
Maximum size	cm	3	3	3
Maximum moisture content	%	30	30	30
Electric equipment				
Connection				
Total	W	3131	3131	3131
Ingress Protection Rating (IP)		41	41	41



SMART **HEATING**
TECHNOLOGY

HOW WE WORK WITH OUR CUSTOMERS

Smart Heating Technology s.r.o.

1. Evaluating current situation/state
2. Processing technical solutions
3. Calculating expenses and returnability

We analyze properly

4. Producing precisely
5. Delivering and installing

We manufacture made-to-measure

6. Monitoring installation 24/7
7. Servicing and maintaining periodically
8. Supplying fuel

We look after our clients

SMART HEATING TECHNOLOGY s.r.o.
U Statku 653/24, 717 00 Ostrava-Bartovice
Czech Republic
www.SmartHeating.cz

For more technical information and prices,
please contact our Sales Department:
Phone: +420 777 960 560
+420 734 751 655
+420 777 258 481
Email: Sales@SmartHeating.cz
Info@SmartHeating.cz

Partner: