

CENTRAL HEATING BOILERS



MF **METAL-FACH**
HEATING TECHNOLOGY

CATALOGUE

Company history

METAL-FACH Heating Technology is a dynamically developing Polish company and the manufacturer brand central heating boilers. The company was founded by Jacek Kucharewicz in 1989. The company's headquarters are found in the northeastern part of the country, in the Podlaskie voivodeship, in the town of Sokółka.

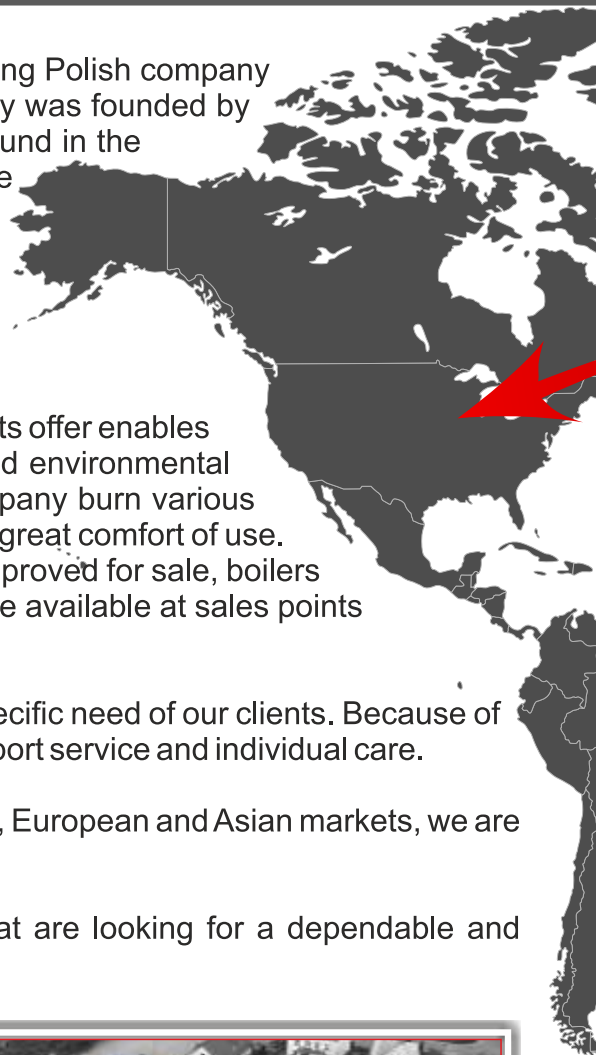
As a result of its many years of activity, **METAL-FACH Heating Technology** has created unique manufacturing and service conditions with the individual consumer in mind.

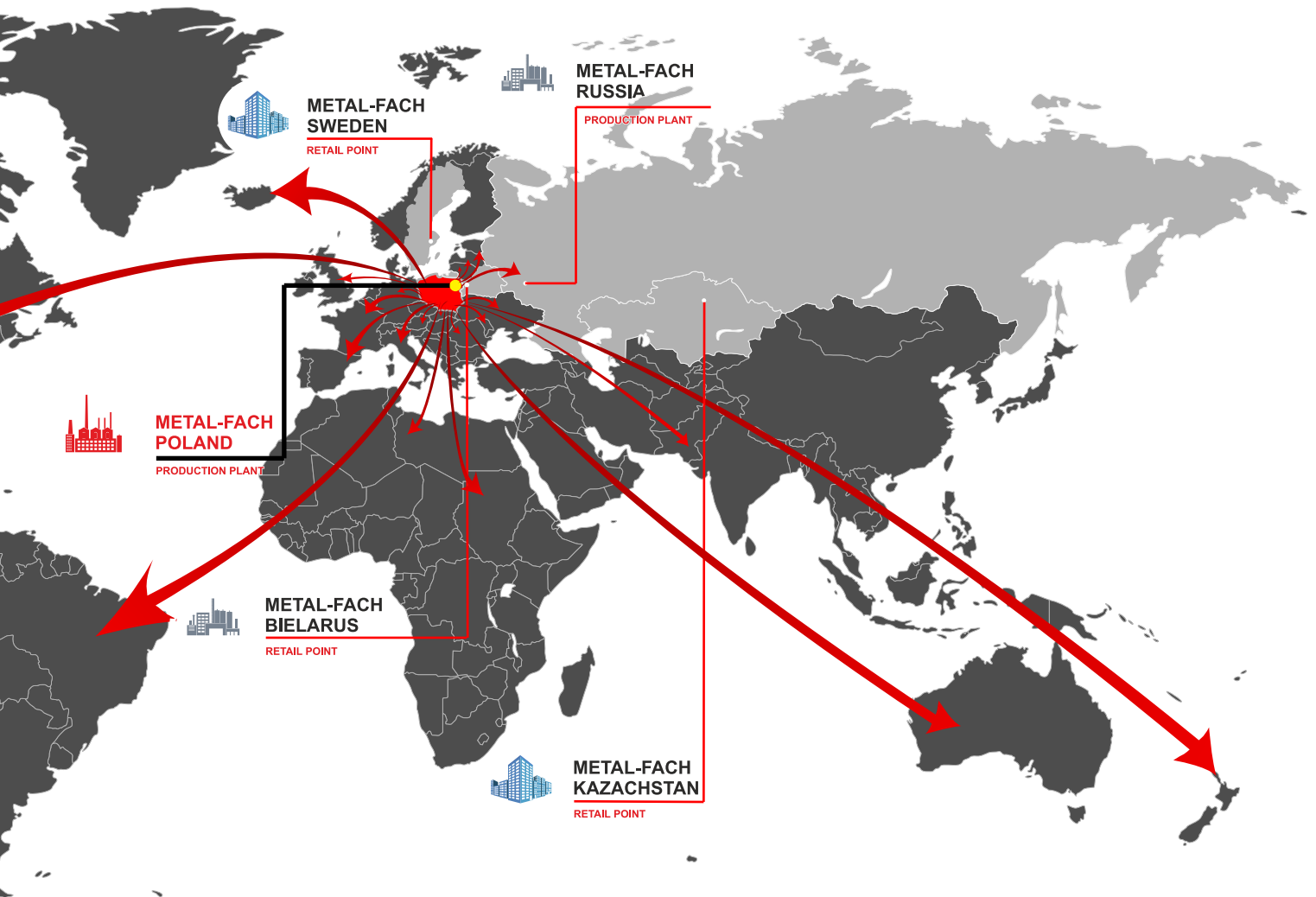
The company's continuous modernization and improvement of its offer enables it to manufacture boilers that fulfill all of the criteria of energy and environmental standards. The central heating boilers manufactured by the company burn various types of fuels, and the automation applied in their design provides great comfort of use. All boilers have declarations of conformity. Before products are approved for sale, boilers must undergo precise technical and quality testing. Our boilers are available at sales points located in Poland, Europe and Asia.

METAL-FACH Heating Technology adjusts its solutions to specific need of our clients. Because of the well trained staff the company provides excellent technical support service and individual care.

In order to make our products even more available on the Polish, European and Asian markets, we are constantly expanding our distributors network.

We are happy to start co-operation with trade companies that are looking for a dependable and responsible partner.





DISTRIBUTOR

Why **METAL-FACH?**

Economy

During the designing process, we used the user friendly and intuitive systems in combination with advanced microprocessor systems that allow to save fuel for the sake of environment and lowering the heating costs. The implemented technologies control the burning process so as to prevent excessive fuel consumption or unnecessary temperature rise in the heated rooms.



Comfort

The user is able to control the boiler operations from their mobile devices i.e. mobile, tablet or computer thanks to the wi-fi enabled controllers. The user can also set the days and times of boiler operation for longer periods of time. The automatic igniter significantly improves functionality and comfort of the boiler use. The user friendly operation of the boiler make the visits to the boiler room less frequent.

Saving environment

The state of art automated burners for BIO fuels (e.g. pellet) meet the highest eco burning and effectiveness requirements set out by the EU. The Metal-Fach Technika Grzewcza boilers hold the certificates of high efficiency and eco friendliness.



Highest quality

The highest quality of the boilers is ensured by a 5 year guarantee. During each stage of production, our products undergo detailed quality control with specialist equipment. To provide the highest possible quality, they are also tested in specialist Polish and European facilities. Each test is certified for meeting the Polish and EU norms requirements.

CONTROLLER FUNCTIONS	BRONZE	SILVER	GOLD	PLATINUM
Backdraft prevention system	V	V	V	V
Additional furnace service	V	V	V	V
RTC clock with week programmer	-	V	V	V
HTW disinfection	-	V	V	V
Water freezing prevention in the installation system	-	V	V	V
Scale in pumps prevention feature	-	V	V	V
Supplementary boiler service	-	V	V	V
Weather control	-	V	V	V
Igniter service	-	V	V	V
Lambda sensor service	-	V	V	V
Fuzzy Logic	-	V	V	V
PiD	-	V	V	V
Room thermostat 1	V	V	-	-
Room thermostat 2	-	-	V	V
Mixer actuator 1	-	V	-	-
Mixer actuator 2	-	-	V	V
4 pumps (CH , HTW, circulation pump, additional pump)	-	V	-	-
5 pumps (CH 1, CH 2, HTW, circulation pump, additional pump)	-	-	V	V
Platinum B- buffer module, upper and lower sensor (2x mixer pump, 2x mixing valve, 2x thermostat)	-	-	-	V
Platinum C- expanding module (2x mixer pump, 2x mixing valve, 1x thermostat)	-	-	-	V
Internet module	-	-	-	V
GSM module	-	-	V	-
Dedicated room thermostat	-	-	-	V
Fuel level indicator	-	-	-	V
Controller software update	-	-	-	V
Touch display panel	-	-	-	V
Analogue display	V	V	V	-



Real time RTC clock with week programmer

The controller feature allows for the user to programme the detailed boiler operation schedule for each weekday. The week programme enables setting the times for starting and switch off of the boiler (because of automatic igniter). It also allows to programme the operation time of the pumps (circulation and additional) and temporary lower temperature in the heating circuits and provides heating comfort in the buildings where the user can set the heating installation parametres to their liking.



LAMBDA SENSOR

The sensor, that is installed in the boiler flue, is responsible for reading the oxygen content in the fumes. It allows for precise feeding of the fuel- oxygen mixture. Once the system recognizes the burning efficiency, it can enhance it. If the oxygen level in the boiler fumes is too low, the boiler work power will increase by the value calculated by the Fuzzy Logic unit. It is due to the correction parameter feature. It presents the internal units of the blower power changes. The Lambda sensor enhances the boiler performance, lowers the eco-unfriendly substances and gases. It improves the fuel consumption thus lowers the cost of operation. The Lambda sensor is an additional accessory and is highly recommended. During the cleaning process of the boiler, it is essential to remove the sensor from the sleeve.



Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Swirl vanes included as standard



Pressure equalization system



Safeguards in the form of limiting switches on all doors and in the feeder



Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoin
- ceramic heat deflectors



Fuel sort burning: - eco-pea



5 Years of warranty



6MM Certified boiler steel



Ecoenergy burner



Cast iron helix



Controller Fuzzy Logic PID

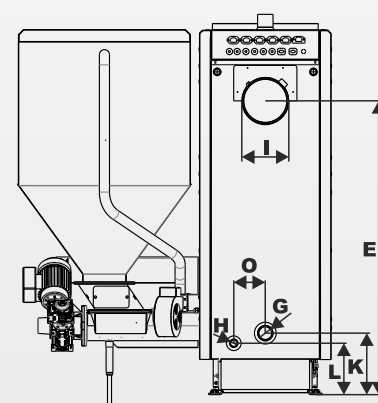
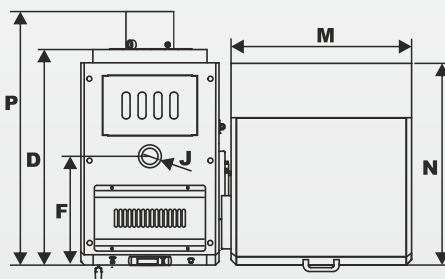
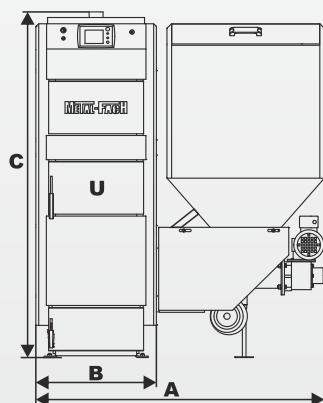


RTC clock with week programmer



Two mixing cycles CH 1 and CH 2 with room thermostat

Parameters	Unit	Type of boiler					
		SEG - 14	SEG - 17	SEG - 28	SEG - 38	SEG - 50	SEG - 75
Nominal thermal output (eco-pea coal)	[kW]	14	17	28	38	50	75
Boiler power range	[kW]	4,2-14	5,1-17	8,4-28	10,5-38	15-50	22,5-75
Heatable area	[m ²]	170	170-200	200-280	280-380	380-480	480-780
Heating surface	[m ²]	2,1	2,54	2,85	3,11	5,41	6,75
Boiler water capacity	[L]	60	68	73	95	120	173
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95	95	95
Test pressure	[Bar]	4	4	4	4	4	4
Boiler class	-	5	5	5	5	5	5
Boiler efficiency	[%]	≤90	≤90	≤90	≤90	≤90	≤90
Single fuel load	[L]	190	290	350	350	400	400
Fuel	-	eco-pea coal					
Power supply	-	~230V; 50Hz					
Power consumption at boiler nominal power	[W]	350	350	350	350	400	400
Power consumption at boiler start-up	[W]	-	-	-	-	-	-
Temperature controller setting range	[°C]	60 - 85 (1 at a time)					
Required chimney flue	[Pa]	20	23	23	35	38	40
Flow resistance ΔT	[mBar]	60 - 85 (1 at a time)					
	[10K]						
	[20K]	1,19	1,75	3,80	7,45	15,47	34,24
Boiler weight	[kg]	448	510	535	551	785	935



Type	SEG - 14	SEG - 17	SEG - 28	SEG - 38	SEG - 50	SEG - 75
A	1250	1250	1250	1305	1405	1505
B	520	520	520	570	681	793
C	1220	1415	1474	1474	1484	1455
D	758	793	845	845	1058	1175
E	908	1104	1165	1165	1110	1115
F	347	356	409	409	536	545
G	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
H	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾
I	180	180	180	180	220	220
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	213	247	247	247	337	350
L	213	207	207	207	190	175
M	680	680	680	680	680	680
N	693	716	760	760	850	850
O	125	125	125	125	175	220
P	865	905	954	954	1218	1413
R	-	-	-	-	-	-
S	-	-	-	-	-	-
T	-	-	-	-	-	-
U	338x198	338x198	338x198	388x198	588x198	600x264



Pump CH 1 and CH 2;
HTW; additional;
circulation



Weather
control



Lambda
sensor



Internet



Cooling coil
- closed circuit



LCD
touch panel



GSM control



Expanding
module

* ADDITIONAL EQUIPMENT

Series **SEG PLUS**

Steel central heating with automatic fuel feeding system



PLATINUM

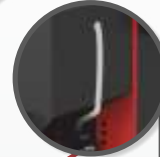
- Controllers:**
- Advanced microprocessor system
 - Provides boiler operation efficiency
 - Makes most of the boiler operations automatic
 - Promotes fuel saving

Swirl vanes included as standard



GOLD

Pressure equalization system



Fuel sort burning:
- eco-pea

Safeguards in the form of limiting switches on all doors and in the feeder



- Ekoenergia burner**
- 100% cast iron
 - corrosion resistant
 - fuel granulation 0-32 mm
 - cast iron snail screw has an anticoin
 - ceramic heat deflectors

Eco-pea automatic igniter



**PATENTED COAL FIRING SYSTEM
NO. 002846790-0001**



5

Years of warranty



Certified boiler steel



Ecoenergy burner



Automatic ignition



Cast iron helix



Controller Fuzzy Logic PID

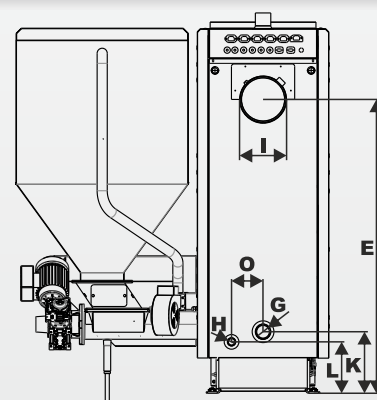
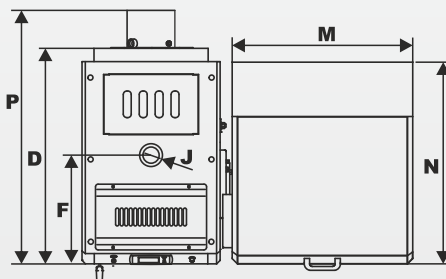
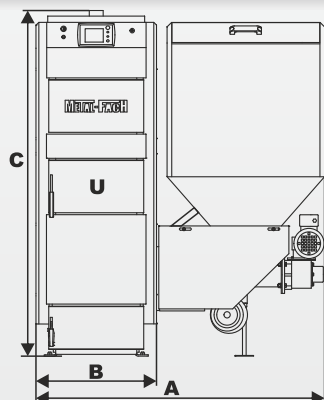


RTC lock with week programmer



Two mixing cycles CH 1 and CH 2 with room thermostat

Parameters	Unit	Type of boiler		
		SEG PLUS - 14	SEG PLUS - 17	SEG PLUS - 28
Nominal thermal output (eco-pea coal)	[kW]	14	17	28
Boiler power range	[kW]	4,2-14	5,1-17	8,4-28
Heatable area	[m ²]	170	170-200	200-280
Heating surface	[m ²]	2,1	2,54	2,85
Boiler water capacity	[L]	60	68	73
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	5	5	5
Boiler efficiency	[%]	≤90	≤90	≤90
Single fuel load	[L]	190	290	350
Fuel	-	eco-pea coal		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	350	350	350
Power consumption at boiler start-up	[W]	1050	1050	1050
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	23	23
Flow resistance ΔT	[mBar]	5,47	7,03	12,33
	[10K]	1,19	1,75	3,80
Boiler weight	[kg]	448	510	535



Type	SEG PLUS - 14	SEG PLUS - 17	SEG PLUS - 28
A	1250	1250	1250
B	520	520	520
C	1220	1415	1474
D	758	793	845
E	908	1104	1165
F	347	356	409
G	G 1 ½	G 1 ½	G 1 ½
H	G ¾	G ¾	G ¾
I	180	180	180
J	G 1 ½	G 1 ½	G 1 ½
K	213	247	247
L	213	207	207
M	680	680	680
N	693	716	760
O	125	125	125
P	865	905	954
R	-	-	-
S	-	-	-
T	-	-	-
U	338x198	338x198	338x198



Pump CH 1 and CH 2;
HTW; additional;
circulation



Weather
control



Lambda
sensor



Internet



Cooling coil
- closed circuit



LCD
touch panel



GSM control



Expanding
module

* ADDITIONAL EQUIPMENT

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Swirl vanes included as standard

„Fireman” backflash safeguard included as standard

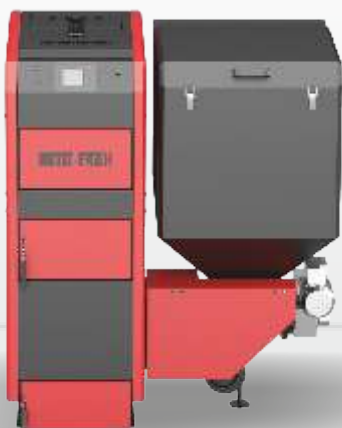
GOLD

Fuel sort burning: - pellet

Safeguards in the form of limiting switches on all doors and in the feeder

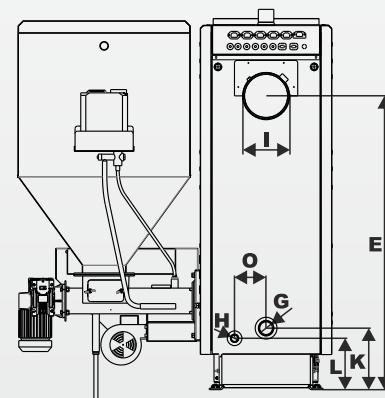
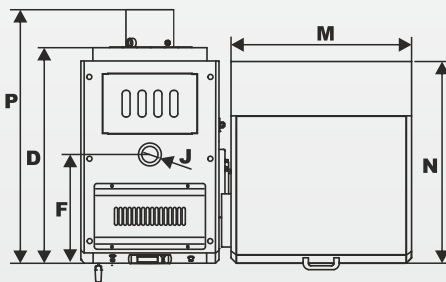
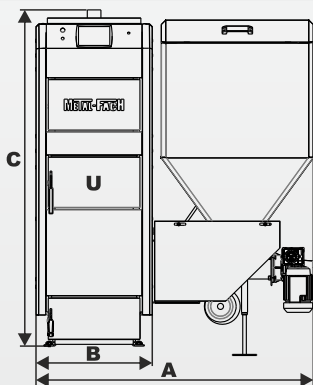
Pellet automatic igniter

BIO gutter burner
- ceramic cap
- wall-mounted ceramic insert



5 Years of warranty	6MM Certified boiler steel	BIO gutter burner	Automatic ignition	Fireman	Controller Fuzzy Logic PID	RTC clock with week programmer	Two mixing cycles CH 1 and CH 2 with room thermostat

Parameters	Unit	Type of boiler							
		SEG BIO - 14	SEG BIO - 19	SEG BIO - 25	SEG BIO - 38	SEG BIO - 50	SEG BIO - 75	SEG BIO - 100	
Nominal thermal output (pelletu)	[kW]	14	19	25	38	50	75	100	
Boiler power range	[kW]	4,2-14	5,7-19	7,5-25	10,5-38	15-50	22,5-75	30-100	
Heatable area	[m ²]	170	170-220	220-300	300-400	400-520	520-750	750-1000	
Heating surface	[m ²]	2,1	2,54	2,85	3,11	5,41	6,75	8,2	
Boiler water capacity	[L]	60	68	73	95	120	173	194	
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Maximum working temperature	[°C]	95	95	95	95	95	95	95	
Test pressure	[Bar]	4	4	4	4	4	4	4	
Boiler class	-	5	5	5	5	5	5	5	
Boiler efficiency	[%]	≤90	≤90	≤90	≤90	≤90	≤90	≤90	
Single fuel load	[L]	190	290	350	350	400	400	470	
Fuel	-	pellet fuel Ø6-8							
Power supply	-	~230V; 50Hz							
Power consumption at boiler nominal power	[W]	300	300	300	300	400	400	400	
Power consumption at boiler start-up	[W]	1000	1000	1000	1000	1100	1100	1100	
Temperature controller setting range	[°C]	60 - 85 (1 at a time)							
Required chimney flue	[Pa]	20	23	23	35	38	40	40	
Flow resistance ΔT	[mBar]	[10K]	5,47	8,79	12,33	35,16	60,88	136,98	243,52
		[20K]	1,19	2,19	3,80	8,79	15,47	34,24	60,88
Boiler weight	[kg]	415	475	510	530	745	855	995	



Type	SEG BIO-14	SEG BIO-19	SEG BIO-25	SEG BIO-38	SEG BIO-50	SEG BIO-75	SEG BIO-100
A	1250	1250	1250	1305	1410	1505	1505
B	520	520	520	570	686	793	793
C	1220	1415	1474	1474	1668	1440	1580
D	758	793	845	845	980	1175	1325
E	908	1104	1165	1165	1305	1420	1215
F	347	356	409	409	534	545	695
G	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
H	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾
I	180	180	180	180	220	220	220
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	213	247	247	247	324	350	300
L	213	207	207	207	178	175	175
M	680	680	680	680	680	680	700
N	693	716	760	760	850	850	850
O	125	125	125	125	175	220	220
P	865	905	954	954	1135	1413	1570
R	300	440	500	500	510	-	-
S	300	350	400	400	480	-	-
T	338	338	338	388	488	-	-
U	338x198	338x198	338x198	388x198	488x198	600x264	600x264



Pump CH 1 and CH 2;
HTW; additional;
circulation



Weather
control



Lambda
sensor



Internet



Cooling coil
- closed circuit



LCD
touch panel



GSM control



Expanding
module

* ADDITIONAL EQUIPMENT



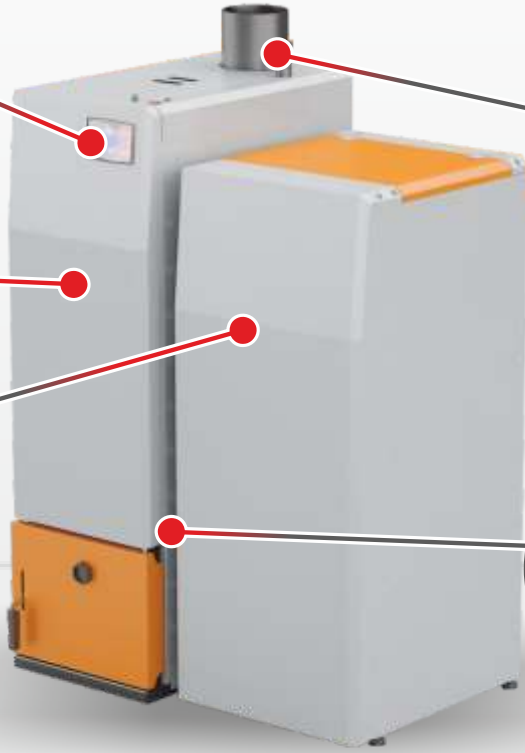
Bundesamt für Wirtschaft und Ausfuhrkontrolle

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving



SILVER FOTO



Lambda sensor

Automatic exchanger cleaning system



Fuel sort burning:
- pellet



Pellet automatic igniter



5

Years of warranty



Certified boiler steel



Chute burner



Automatic ignition



Automatic cleaning



Controller Fuzzy Logic PID

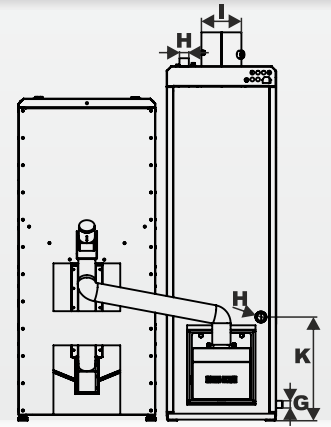
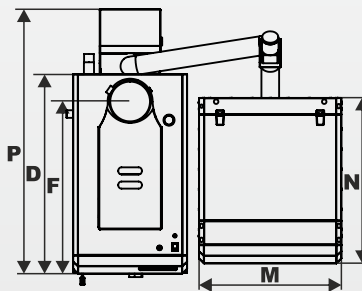
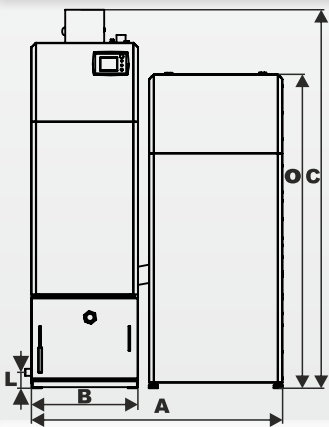


RTC clock with week programmer



Two mixing cycles CH 1 and CH 2 with room thermostat

Parameters	Unit	Type of boiler
		SEP
Nominal thermal output (pellet)	[kW]	16
Boiler power range	[kW]	4,8-16
Heatable area	[m ²]	170
Heating surface	[m ²]	2,05
Boiler water capacity	[L]	100
Maximum working pressure	[Bar]	1,5
Maximum working temperature	[°C]	95
Test pressure	[Bar]	4
Boiler class	-	5
Boiler efficiency	[%]	≤92
Single fuel load	[L]	400
Fuel	-	pellet fuel Φ6-8
Power supply	-	~230V; 50Hz
Power consumption at boiler nominal power	[W]	80
Power consumption at boiler start-up	[W]	380
Temperature controller setting range	[°C]	60 - 85 (1 at a time)
Required chimney flue	[Pa]	23
Flow resistance ΔT	[mBar]	0,36
	[10K]	0,09
Boiler weight	[kg]	335



Type	SEP
A	min ~ 1130
B	482
C	1710
D	840
E	-
F	728
G	G ¼
H	G 1 ¼
I	180
J	-
K	-
L	451
M	67
N	600
O	700
P	1418
R	1118
S	-
T	-
U	-



Pump CH 1 and CH 2;
HTW; additional;
circulation



Weather
control



Lambda
sensor



Internet



Cooling coil
- closed circuit



LCD
touch panel



GSM control



Expanding
module

* ADDITIONAL EQUIPMENT

Series SD DUO BIO

Steel central heating with automatic fuel feeding system

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving



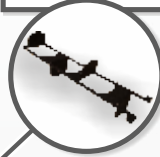
PLATINUM



GOLD



Swirl vanes included as standard



„Fireman” backflash safeguard included as standard



Fuel sort burning:
- pellet



Safeguards in the form of limiting switches on all doors and in the feeder

Pellet automatic igniter



BIO gutter burner
- ceramic cap
- wall-mounted ceramic insert



5

Years of warranty



Certified boiler steel



BIO gutter burner



Automatic ignition



Fireman



Controller Fuzzy Logic PID

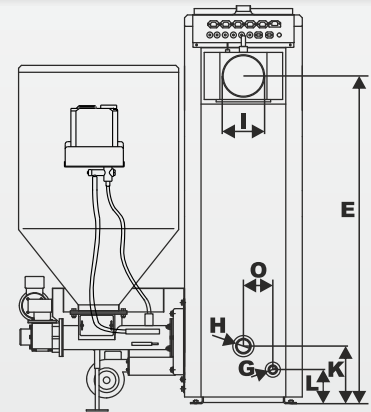
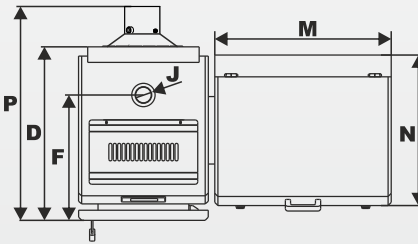
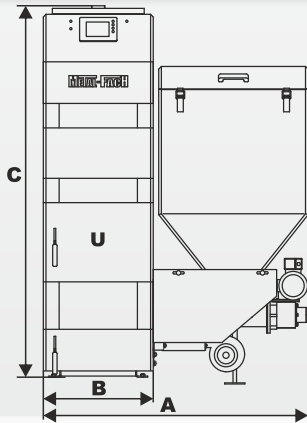


RTC clock with week programmer



Two mixing cycles CH 1 and CH 2 with room thermostat

Parameters	Unit	Type of boiler			
		SD DUO BIO - 16	SD DUO BIO - 20	SD DUO BIO - 28	SD DUO BIO - 34
Nominal thermal output (pellet)	[kW]	16	20	28	34
Boiler power range	[kW]	4,8-16	6-20	8,4-28	10,2-34
Heatable area	[m ²]	170	170-220	220-300	300-400
Heating surface	[m ²]	2,33	2,62	2,85	3,10
Boiler water capacity	[L]	78	84	90	100
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	5	5	5	5
Boiler efficiency	[%]	≤90	≤90	≤90	≤90
Single fuel load	[L]	300	300	300	300
Fuel	-	pellet fuel Φ6-8			
Power supply	-	~230V; 50Hz			
Power consumption at boiler nominal power	[W]	300	300	300	300
Power consumption at boiler start-up	[W]	1000	1000	1000	1000
Temperature controller setting range	[°C]	60 - 85 (1 at a time)			
Required chimney flue	[Pa]	20	23	23	35
Flow resistance ΔT	[mBar]	0,3	0,47	0,92	1,34
	[10K]				
	[20K]	0,15	0,235	0,46	0,67
Boiler weight	[kg]	460	475	495	520



Type	SD DUO BIO - 16	SD DUO BIO - 20	SD DUO BIO - 28	SD DUO BIO - 34
A	1245	1245	1245	1300
B	541	541	541	591
C	1665	1665	1665	1665
D	653	703	753	753
E	1400	1400	1400	1400
F	442	487	537	537
G	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	200
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	244	244	244	244
L	144	144	144	144
M	680	680	680	680
N	595	595	595	595
O	125	125	125	125
P	830	880	930	930
R	-	-	-	-
S	-	-	-	-
T	-	-	-	-
U	338x198	338x198	338x198	388x198



Pump CH 1 and CH 2;
HTW; additional;
circulation



Weather
control



Lambda
sensor



Internet



Cooling coil
- closed circuit



LCD
touch panel



GSM control




Expanding
module

* ADDITIONAL EQUIPMENT


Series SD DUO

Steel central heating with automatic fuel feeding system

PLATINUM






GOLD




Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving







Swirl vanes included as standard




Pressure equalization system




Fuel sort burning:

- eco-pea
- dust
- pellet

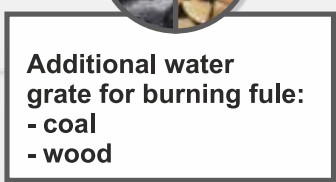


Large burning chamber




Additional water grate for burning fuel:

- coal
- wood



Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoin
- ceramic heat deflectors





5

Years of warranty



Certified boiler steel



Ecoenergy burner



Water trough



Large feeding chamber



Cast iron helix



Controller Fuzzy Logic PID

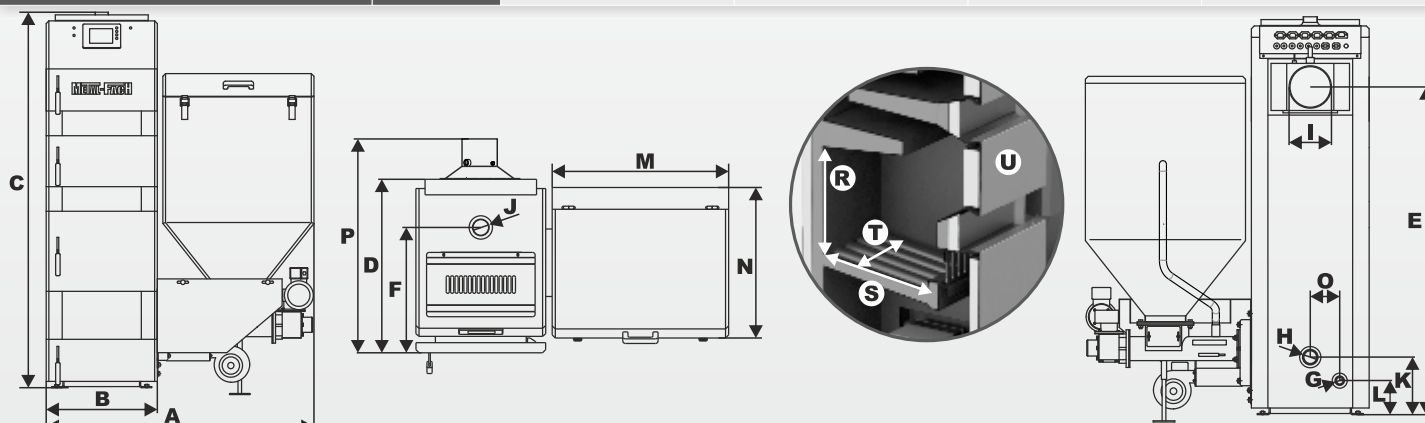


RTC clock with week programmer



One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler			
		SD DUO - 15	SD DUO - 20	SD DUO - 25	SD DUO - 35
Nominal thermal output (coal)	[kW]	15	20	25	35
Boiler power range	[kW]	4,2-15	5,1-20	7,5-25	10,5-35
Heatable area	[m ²]	170	170-200	200-280	280-380
Heating surface	[m ²]	2,33	2,62	2,85	3,10
Boiler water capacity	[L]	78	84	90	100
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	4	4	4	4
Boiler efficiency	[%]	≤90	≤90	≤90	≤90
Single fuel load	[L]	300	300	300	300
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood			
Power supply	-	~230V; 50Hz			
Power consumption at boiler nominal power	[W]	350	350	350	350
Power consumption at boiler start-up	[W]	-	-	-	-
Temperature controller setting range	[°C]	60 - 85 (1 at a time)			
Required chimney flue	[Pa]	20	23	23	35
Flow resistance ΔT	[mBar]				
	[10K]	0,23	0,34	0,72	1,42
	[20K]	0,115	0,17	0,36	0,71
Boiler weight	[kg]	485	505	525	547



Type	SD DUO - 15	SD DUO - 20	SD DUO - 25	SD DUO - 35
A	1235	1235	1235	1260
B	541	541	541	591
C	1665	1665	1665	1665
D	653	703	753	753
E	1400	1400	1400	1400
F	442	487	537	537
G	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	200
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	244	244	244	244
L	144	144	144	144
M	680	680	680	680
N	595	595	595	595
O	125	125	125	125
P	830	880	930	930
R	340	340	340	340
S	350	400	450	450
T	338	338	338	388
U	338x198	338x198	338x198	388x198



Weather control



Two mixing cycles CH 1 and CH 2 with room thermostat



Pump CH 1 and CH 2; HTW; additional; circulation



Lambda sensor



Internet



Cooling coil - closed circuit



LCD touch panel



GSM control



Expanding module

* ADDITIONAL EQUIPMENT

Series SD DUO PLUS

Steel central heating with automatic fuel feeding system

PLATINUM



Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

TÜVRheinland
CERTIFIED



GOLD



Swirl vanes included as standard



Pressure equalization system



Fuel sort burning:

- eco-pea
- dust
- pellet



Large burning chamber



Additional water grate for burning fuel:

- coal
- wood



Eco-pea automatic igniter













Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil
- ceramic heat deflectors

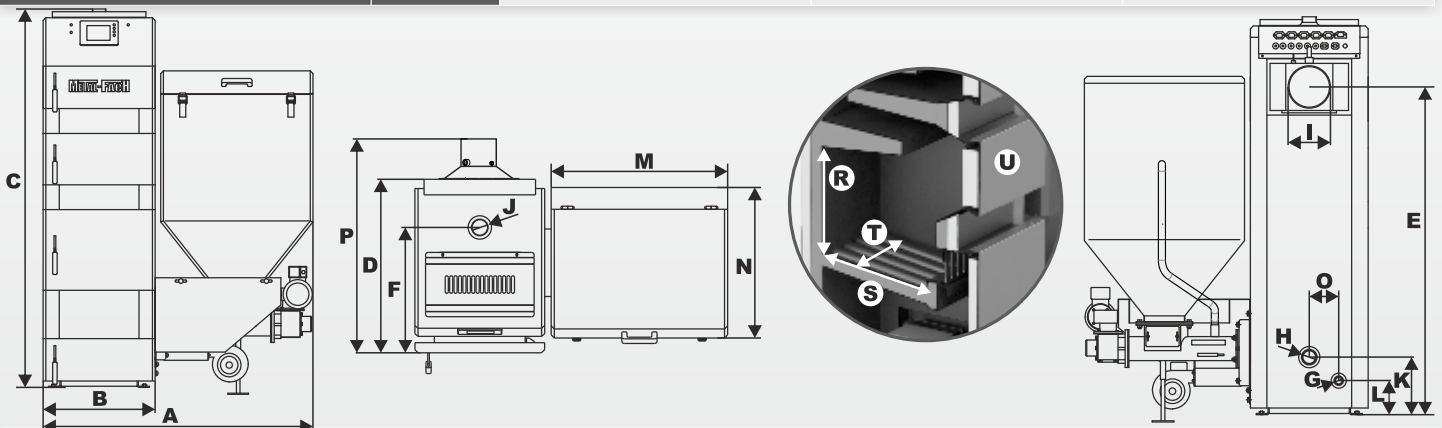


**PATENTED COAL-FIRING SYSTEM
NO. 002846790-0001**



- 
5
Years of warranty
- 
6MM
Certified boiler steel
- 
Ecoenergy burner
- 
Water trough
- 
Large feeding chamber
- 
Cast iron helix
- 
Automatic ignition
- 
Controller Fuzzy Logic PID
- 
RTC clock with week programmer
- 
One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler		
		SD DUO PLUS - 15	SD DUO PLUS - 20	SD DUO PLUS - 25
Nominal thermal output (coal)	[kW]	15	20	25
Boiler power range	[kW]	4,2-15	5,1-20	7,5-25
Heatable area	[m ²]	170	170-200	200-280
Heating surface	[m ²]	2,33	2,62	2,85
Boiler water capacity	[L]	78	84	90
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	4	4	4
Boiler efficiency	[%]	≤90	≤90	≤90
Single fuel load	[L]	300	300	300
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	350	350	350
Power consumption at boiler start-up	[W]	1050	1050	1050
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	23	23
Flow resistance ΔT	[mBar]	0,23	0,34	0,72
	[10K]	0,115	0,17	0,36
Boiler weight	[kg]	485	505	525



Type	SD DUO PLUS - 15	SD DUO PLUS - 20	SD DUO PLUS - 25
A	1235	1235	1235
B	541	541	541
C	1665	1665	1665
D	653	703	753
E	1400	1400	1400
F	442	487	537
G	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½
I	180	180	180
J	G 1 ½	G 1 ½	G 1 ½
K	244	244	244
L	144	144	144
M	680	680	680
N	595	595	595
O	125	125	125
P	830	880	930
R	340	340	340
S	350	400	450
T	338	338	338
U	338x198	338x198	338x198

Weather control	Two mixing cycles CH 1 and CH 2 with room thermostat	Pump CH 1 and CH 2; HTW; additional; circulation	Lambda sensor	Internet	Cooling coil - closed circuit	LCD touch panel	GSM control	Expanding module

* ADDITIONAL EQUIPMENT

Series CLASSIC SD DUO

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

Large burning chamber

Additional water grate for burning fuel:

- coal
- wood

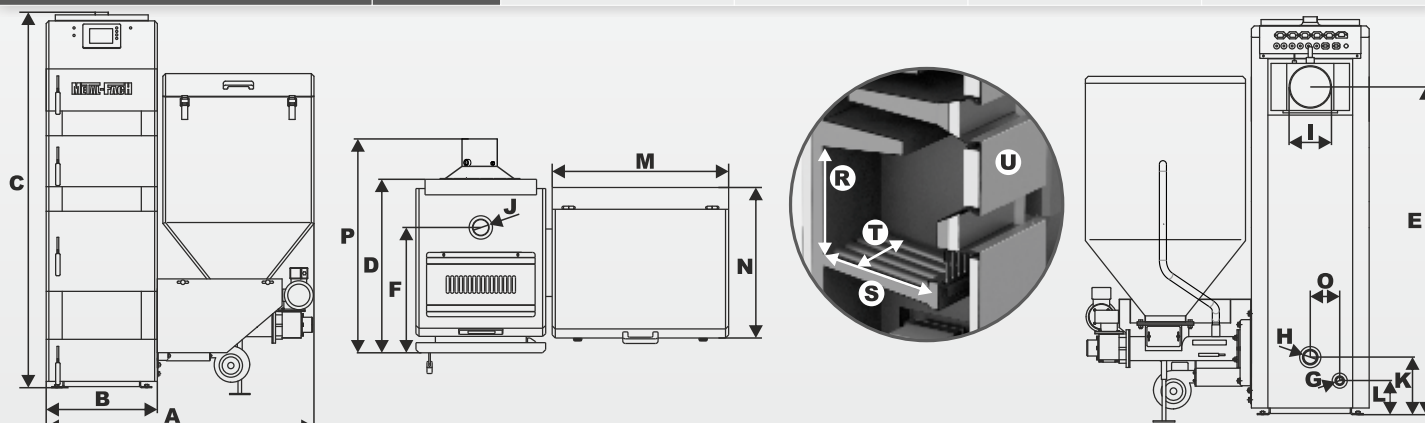
Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil



- 5** Years of warranty
- 6MM** Certified boiler steel
- Ecoenergy burner
- Water trough
- Large feeding chamber
- Cast iron helix
- Controller Fuzzy Logic PID
- RTC clock with week programmer
- One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler			
		CLASSIC SD - 15	CLASSIC SD - 20	CLASSIC SD - 25	CLASSIC SD - 35
Nominal thermal output (coal)	[kW]	15	20	25	35
Boiler power range	[kW]	4,2-15	5,1-20	7,5-25	10,5-35
Heatable area	[m ²]	170	170-200	200-280	280-380
Heating surface	[m ²]	2,33	2,62	2,85	3,10
Boiler water capacity	[L]	78	84	90	100
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	3	3	3	3
Boiler efficiency	[%]	≤90	≤90	≤90	≤90
Single fuel load	[L]	300	300	300	300
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood			
Power supply	-	~230V; 50Hz			
Power consumption at boiler nominal power	[W]	350	350	350	350
Power consumption at boiler start-up	[W]	-	-	-	-
Temperature controller setting range	[°C]	60 - 85 (1 at a time)			
Required chimney flue	[Pa]	20	23	23	35
Flow resistance ΔT	[mBar]				
	[10K]	0,23	0,34	0,72	1,42
	[20K]	0,115	0,17	0,36	0,71
Boiler weight	[kg]	485	505	525	547



Type	CLASSIC SD - 15	CLASSIC SD - 20	CLASSIC SD - 25	CLASSIC SD - 35
A	1235	1235	1235	1260
B	541	541	541	591
C	1665	1665	1665	1665
D	653	703	753	753
E	1400	1400	1400	1400
F	442	487	537	537
G	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	200
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	244	244	244	244
L	144	144	144	144
M	680	680	680	680
N	595	595	595	595
O	125	125	125	125
P	830	880	930	930
R	340	340	340	340
S	350	400	450	450
T	338	338	338	388
U	338x198	338x198	338x198	388x198



Weather control



Two mixing cycles CH 1 and CH 2 with room thermostat



Pump CH 1 and CH 2; HTW; additional; circulation



Lambda sensor



Internet



Cooling coil - closed circuit



LCD touch panel



GSM control



Expanding module

* ADDITIONAL EQUIPMENT

Series CLASSIC SD DUO PLUS

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

Large burning chamber

Additional water grate for burning fule:

- coal
- wood

Eco-pea automatic igniter

Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil

PATENTED COAL-FIRING SYSTEM NO. 002846790-0001



5

Years of warranty

6MM

Certified boiler steel



Ecoenergy burner



Water trough



Large feeding chamber



Cast iron helix



Automatic ignition



Controller Fuzzy Logic PID

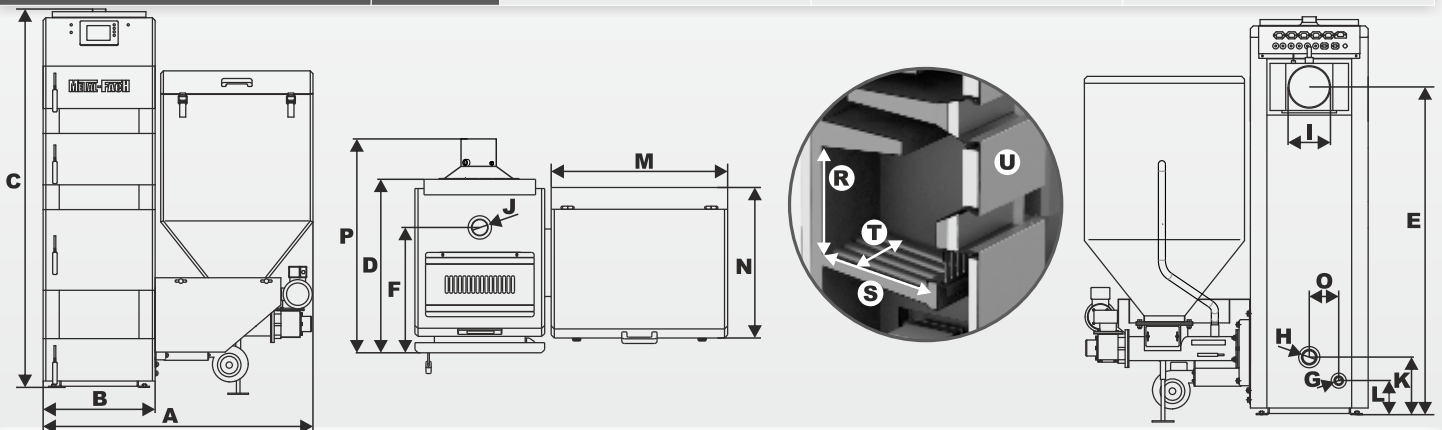


RTC clock with week programmer



One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler		
		CLASSIC SDP - 15	CLASSIC SDP - 20	CLASSIC SDP - 25
Nominal thermal output (coal)	[kW]	15	20	25
Boiler power range	[kW]	4,2-15	5,1-20	7,5-25
Heatable area	[m ²]	170	170-200	200-280
Heating surface	[m ²]	2,33	2,62	2,85
Boiler water capacity	[L]	78	84	90
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	3	3	3
Boiler efficiency	[%]	≤90	≤90	≤90
Single fuel load	[L]	300	300	300
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	350	350	350
Power consumption at boiler start-up	[W]	1050	1050	1050
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	23	23
Flow resistance ΔT	[mBar]	0,23	0,34	0,72
	[10K]	0,115	0,17	0,36
Boiler weight	[kg]	485	505	525



Type	CLASSIC SDP - 15	CLASSIC SDP - 20	CLASSIC SDP - 25
A	1235	1235	1235
B	541	541	541
C	1665	1665	1665
D	653	703	753
E	1400	1400	1400
F	442	487	537
G	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½
I	180	180	180
J	G 1 ½	G 1 ½	G 1 ½
K	244	244	244
L	144	144	144
M	680	680	680
N	595	595	595
O	125	125	125
P	830	880	930
R	340	340	340
S	350	400	450
T	338	338	338
U	338x198	338x198	338x198

 Weather control	 Two mixing cycles CH 1 and CH 2 with room thermostat	 Pump CH 1 and CH 2; HTW; additional; circulation	 Lambda sensor	 Internet	 Cooling coil - closed circuit	 LCD touch panel	 GSM control	 Expanding module
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* ADDITIONAL EQUIPMENT

Series CLASSIC SD DUO BIO

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Fuel sort burning:

- pellet
- grain waste

Large burning chamber

Additional water grate for burning fuel:

- coal
- wood

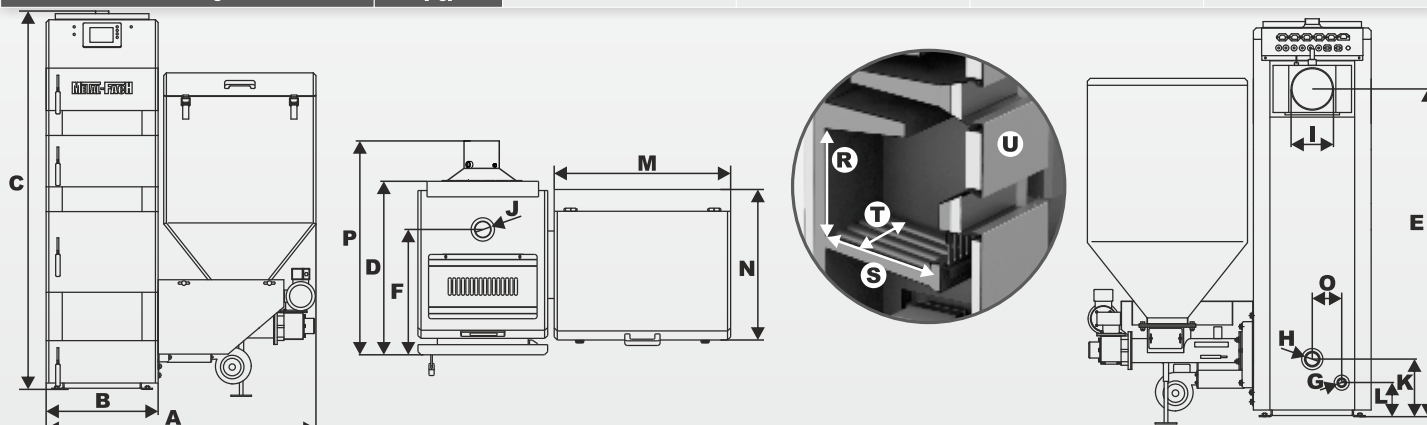
Pellet automatic igniter

BIO gutter burner

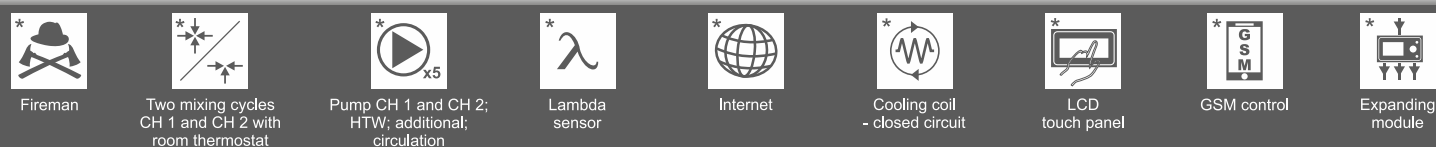


- 5** Years of warranty
- 6MM** Certified boiler steel
- BIO gutter burner**
- Water trough**
- Large feeding chamber**
- Automatic ignition**
- Controller Fuzzy Logic PiD**
- RTC clock with week programmer**
- One mixing cycle CH 1 with room thermostat**
- Weather control**

Parameters	Unit	Type of boiler			
		CLASSIC SDB - 16	CLASSIC SDB - 20	CLASSIC SDB - 28	CLASSIC SDB - 34
Nominal thermal output (coal)	[kW]	16	20	28	34
Boiler power range	[kW]	4,8-16	6-20	8,4-28	10,2-34
Heatable area	[m ²]	170	170-220	220-300	300-400
Heating surface	[m ²]	2,33	2,62	2,85	3,10
Boiler water capacity	[L]	78	84	90	100
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	3	3	3	3
Boiler efficiency	[%]	≤90	≤90	≤90	≤90
Single fuel load	[L]	300	300	300	300
Fuel	-	pellet fuel, grains, coal, wood			
Power supply	-	~230V; 50Hz			
Power consumption at boiler nominal power	[W]	300	300	300	300
Power consumption at boiler start-up	[W]	1000	1000	1000	1000
Temperature controller setting range	[°C]	60 - 85 (1 at a time)			
Required chimney flue	[Pa]	20	23	23	35
Flow resistance ΔT	[mBar]	0,3	0,47	0,92	1,34
	[10K]	0,15	0,235	0,46	0,67
Boiler weight	[kg]	460	475	495	520



Type	CLASSIC SDB - 16	CLASSIC SDB - 20	CLASSIC SDB - 28	CLASSIC SDB - 34
A	1245	1245	1245	1300
B	541	541	541	591
C	1665	1665	1665	1665
D	653	703	753	753
E	1400	1400	1400	1400
F	442	487	537	537
G	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	200
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	244	244	244	244
L	144	144	144	144
M	680	680	680	680
N	595	595	595	595
O	125	125	125	125
P	830	880	930	930
R	340	340	340	340
S	350	400	450	450
T	338	338	338	388
U	338x198	338x198	338x198	388x198



Series CLASSIC SEG

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

Retort burner (SEG 150-200)

- fuel granulation 5-25 mm

Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoin

Large burning chamber

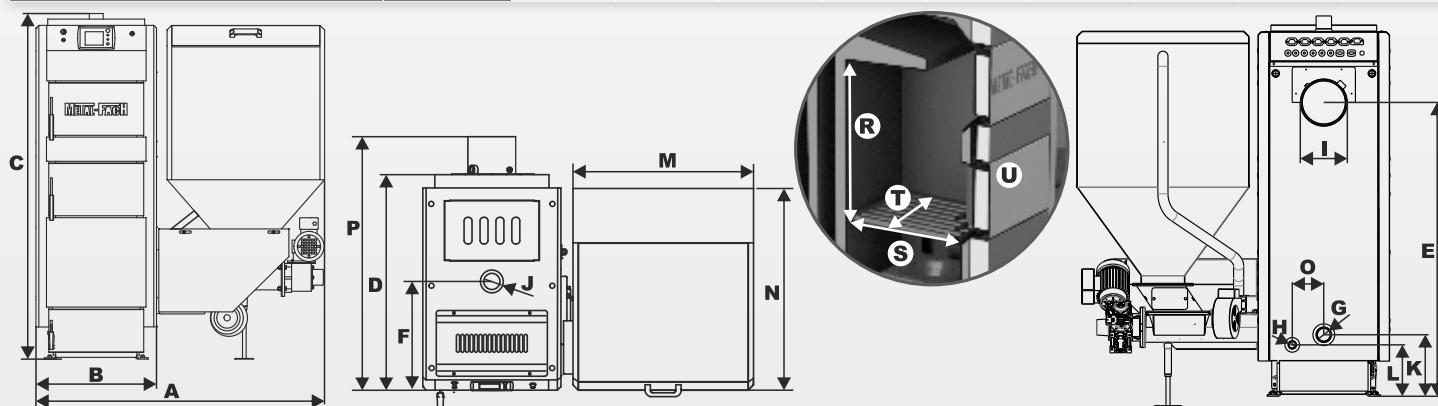
Additional water grate (SEG 14 kW- 50kW) for burning fuel:

- coal
- wood



- 5** Years of warranty
- 6MM** Certified boiler steel
- Ecoenergy burner
- Steel trough
- Large feeding chamber
- Cast iron helix
- Controller Fuzzy Logic PID
- RTC clock with week programmer
- One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler									
		CS - 14	CS - 17	CS - 28	CS - 38	CS - 50	CS - 75	CS - 100	CS - 150	CS - 200	
Nominal thermal output (coal)	[kW]	14	17	28	38	50	75	100	150	200	
Boiler power range	[kW]	4,2-14	5,1-17	8,4-28	10,5-38	15-50	22,5-75	30-100	45-150	60-200	
Heatable area	[m ²]	170	170-200	200-280	280-380	380-480	480-780	780-1000	1000-1500	1500-2000	
Heating surface	[m ²]	2,1	2,54	2,85	3,11	5,41	6,75	8,2	11,5	18	
Boiler water capacity	[L]	60	68	73	95	120	173	194	339	758	
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Maximum working temperature	[°C]	95	95	95	95	95	95	95	95	95	
Test pressure	[Bar]	4	4	4	4	4	4	4	4	4	
Boiler class	-	3	3	3	3	3	3	3	3	3	
Boiler efficiency	[%]	≤90	≤90	≤90	≤90	≤90	≤90	≤90	≤90	≤90	
Single fuel load	[L]	190	290	350	350	400	400	470	1000	1500	
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood					eco-pea coal, fine coal		eco-pea coal		
Power supply	-	~230V; 50Hz									
Power consumption at boiler nominal power	[W]	350	350	350	350	400	400	400	400	400	
Power consumption at boiler start-up	[W]	-	-	-	-	-	-	-	-	-	
Temperature controller setting range	[°C]	60 - 85 (1 at a time)									
Required chimney flue	[Pa]	20	23	23	35	38	40	40	45	50	
Flow resistance ΔT	[mBar]	[10K]	5,47	7,03	12,33	29,83	60,88	136,98	243,52	-	-
		[20K]	1,19	1,75	3,80	7,45	15,47	34,24	60,88	-	-
Boiler weight	[kg]	448	510	535	551	785	935	1065	1350	2100	



Type	CS - 14	CS - 17	CS - 28	CS - 38	CS - 50	CS - 75	CS - 100	CS - 150	CS - 200
A	1250	1250	1250	1305	1405	1505	1505	1980	2500
B	520	520	520	570	681	793	793	955	1240
C	1220	1415	1474	1474	1484	1455	1580	2200	2190
D	758	793	845	845	1058	1175	1325	1260	1690
E	908	1104	1165	1165	1110	1115	1215	2005	1722
F	347	356	409	409	536	545	695	515	892
G	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 2	101,6
H	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G 1
I	180	180	180	180	220	220	220	250	350
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 2	101,6
K	213	247	247	247	337	350	300	165	374
L	213	207	207	207	190	175	175	143	332
M	680	680	680	680	680	680	700	1015	1200
N	693	716	760	760	850	850	850	1105	1200
O	125	125	125	125	175	220	220	275	250
P	865	905	954	954	1218	1413	1570	1560	2200
R	300	440	500	500	510	-	-	-	-
S	300	350	400	400	480	-	-	-	-
T	338	338	338	388	488	-	-	-	-
U	338x198	338x198	338x198	388x198	488x198	600x264	600x264	-	-

Weather control	Two mixing cycles CH 1 and CH 2 with room thermostat	Pump CH 1 and CH 2; HTW; additional; circulation	Lambda sensor	Internet	Cooling coil - closed circuit	LCD touch panel	GSM control	Expanding module

* ADDITIONAL EQUIPMENT

Series CLASSIC SEG PLUS

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

Large burning chamber

Additional water grate (SEG 14 kW- 28kW) for burning fuel:

- coal
- wood

Eco- pea automatic igniter

Ekoenergia burner

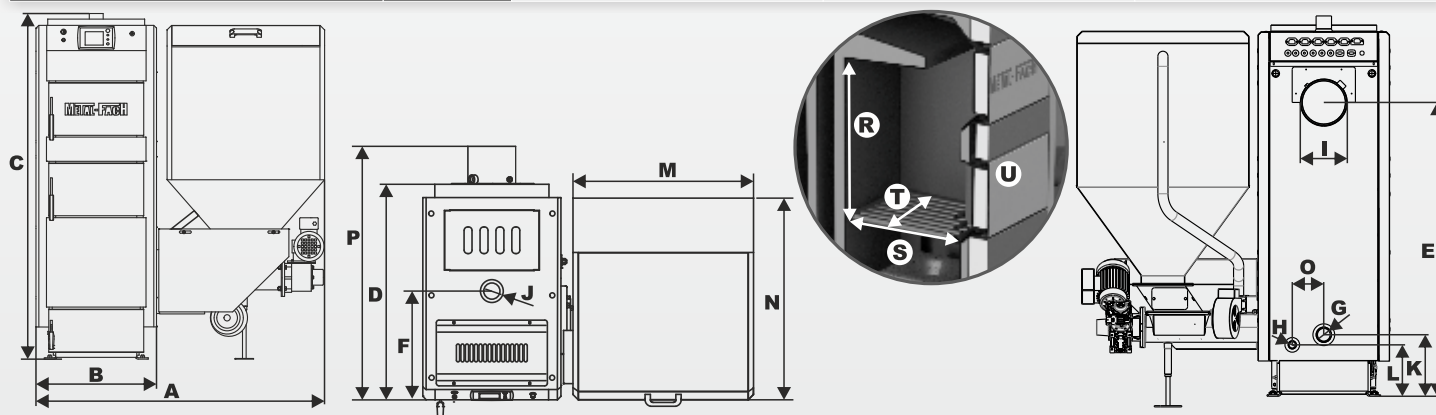
- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil

**PATENTED COAL-FIRING SYSTEM
NO. 002846790-0001**



- 5** Years of warranty
- 6MM** Certified boiler steel
- Ecoenergy burner
- Steel trough
- Large feeding chamber
- Cast iron helix
- Automatic ignition
- Controller Fuzzy Logic PiD
- RTC clock with week programmer
- One mixing cycle CH 1 with room thermostat

Parameters	Unit	Type of boiler		
		CSP - 14	CSP - 17	CSP - 28
Nominal thermal output (coal)	[kW]	14	17	28
Boiler power range	[kW]	4,2-14	5,1-17	8,4-28
Heatable area	[m ²]	170	170-200	200-280
Heating surface	[m ²]	2,1	2,54	2,85
Boiler water capacity	[L]	60	68	73
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	3	3	3
Boiler efficiency	[%]	≤90	≤90	≤90
Single fuel load	[L]	190	290	350
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	350	350	350
Power consumption at boiler start-up	[W]	1050	1050	1050
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	23	23
Flow resistance ΔT	[mBar]	5,47	7,03	12,33
	[10K]	1,19	1,75	3,80
Boiler weight	[kg]	448	510	535



Type	CSP - 14	CSP - 17	CSP - 28
A	1250	1250	1250
B	520	520	520
C	1220	1415	1474
D	758	793	845
E	908	1104	1165
F	347	356	409
G	G 1 ½	G 1 ½	G 1 ½
H	G ¾	G ¾	G ¾
I	180	180	180
J	G 1 ½	G 1 ½	G 1 ½
K	213	247	247
L	213	207	207
M	680	680	680
N	693	716	760
O	125	125	125
P	865	905	954
R	300	440	500
S	300	350	400
T	338	338	338
U	338x198	338x198	338x198



* ADDITIONAL EQUIPMENT

Series CLASSIC SEG BIO

Steel central heating with automatic fuel feeding system

GOLD

PLATINUM

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Fuel sort burning:

- pellet
- grain waste

Large burning chamber

Additional water grate (SEG BIO 14 kW- 50kW) for burning fuel:

- coal
- wood

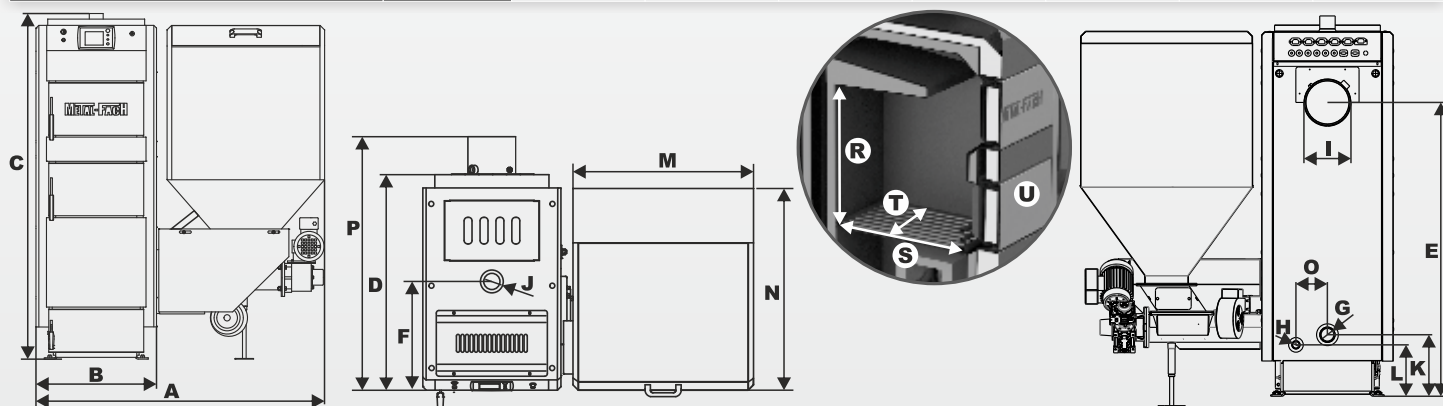
Eco- pea automatic igniter

BIO gutter burner



- 5** Years of warranty
- 6MM** Certified boiler steel
- BIO gutter burner**
- Steel trough**
- Large feeding chamber**
- Automatic ignition**
- Controller Fuzzy Logic PiD**
- RTC clock with week programmer**
- One mixing cycle CH 1 with room thermostat**
- Weather control**

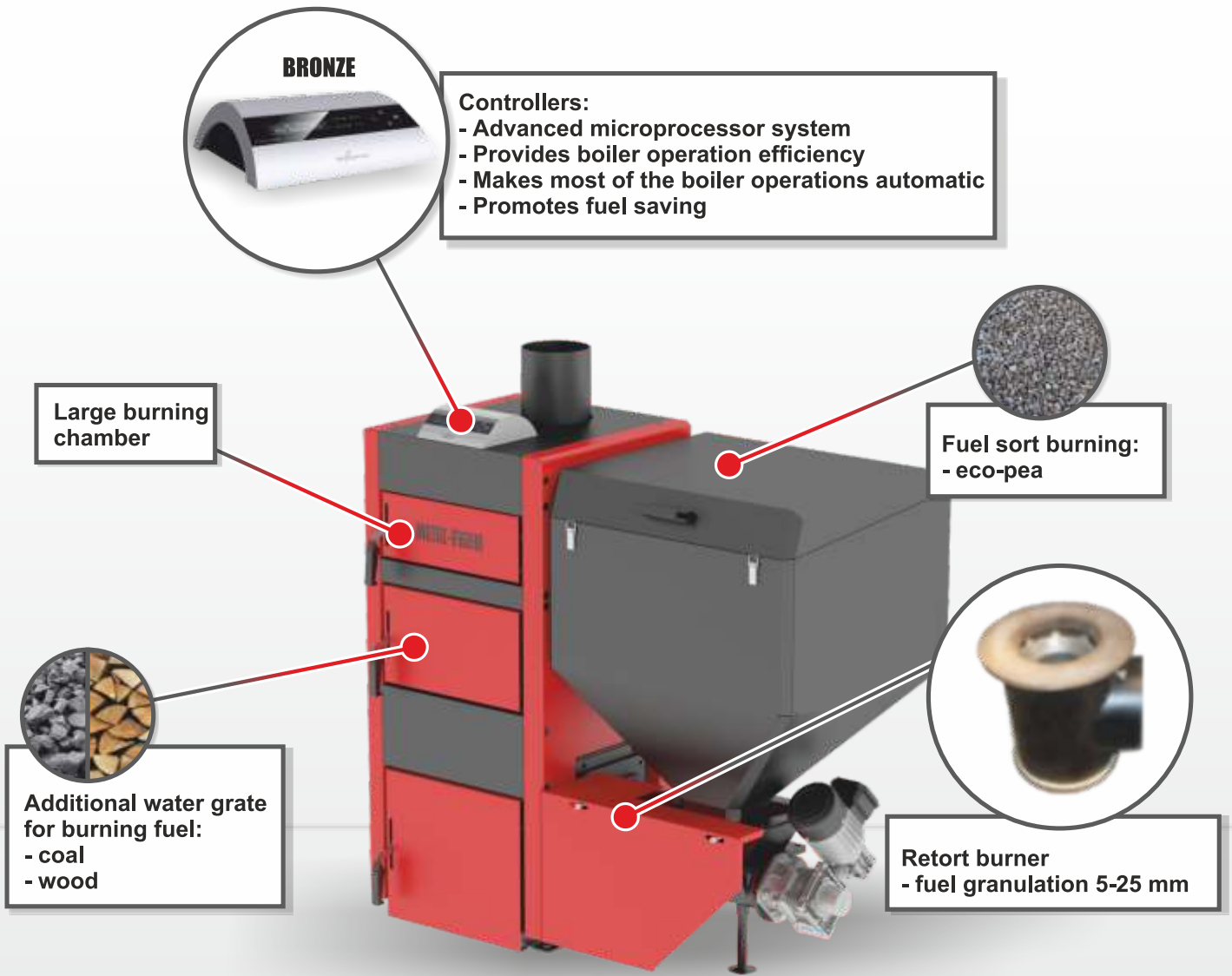
Parameters	Unit	Type of boiler							
		CSB - 14	CSB - 19	CSB - 25	CSB - 38	CSB - 50	CSB - 75	CSB - 100	
Nominal thermal output (coal)	[kW]	14	19	25	38	50	75	100	
Boiler power range	[kW]	4,2-14	5,7-19	7,5-25	10,5-38	15-50	22,5-75	30-100	
Heatable area	[m ²]	170	170-220	220-300	300-400	400-520	520-750	750-1000	
Heating surface	[m ²]	2,1	2,54	2,85	3,11	5,41	6,75	8,2	
Boiler water capacity	[L]	60	68	73	95	120	173	194	
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Maximum working temperature	[°C]	95	95	95	95	95	95	95	
Test pressure	[Bar]	4	4	4	4	4	4	4	
Boiler class	-	3	3	3	3	3	3	3	
Boiler efficiency	[%]	≤90	≤90	≤90	≤90	≤90	≤90	≤90	
Single fuel load	[L]	190	290	350	350	400	400	470	
Fuel	-	pellet fuel, grains, coal, wood					pellet fuel		
Power supply	-	~230V; 50Hz							
Power consumption at boiler nominal power	[W]	300	300	300	300	400	400	400	
Power consumption at boiler start-up	[W]	1000	1000	1000	1000	1100	1100	1100	
Temperature controller setting range	[°C]	60 - 85 (1 at a time)							
Required chimney flue	[Pa]	20	23	23	35	38	40	40	
Flow resistance ΔT	[mBar]	[10K]	5,47	8,79	12,33	35,16	60,88	136,98	243,52
		[20K]	1,19	2,19	3,80	8,79	15,47	34,24	60,88
Boiler weight	[kg]	415	475	510	530	745	855	995	



Type	CSB - 14	CSB - 19	CSB - 25	CSB - 38	CSB - 50	CSB - 75	CSB - 100
A	1250	1250	1250	1305	1405	1505	1505
B	520	520	520	570	681	793	793
C	1220	1415	1474	1474	1484	1440	1580
D	758	793	845	845	1058	1175	1325
E	908	1104	1165	1165	1110	1420	1215
F	347	356	409	409	536	545	695
G	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
H	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾
I	180	180	180	180	220	220	220
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	213	247	247	247	337	350	300
L	213	207	207	207	190	175	175
M	680	680	680	680	680	680	700
N	693	716	760	760	850	850	850
O	125	125	125	125	175	220	220
P	865	905	954	954	1218	1413	1570
R	300	440	500	500	510	-	-
S	300	350	400	400	480	-	-
T	338	338	338	388	488	-	-
U	338x198	338x198	338x198	388x198	488x198	600x264	600x264

Fireman	Two mixing cycles CH 1 and CH 2 with room thermostat	Pump CH 1 and CH 2; HTW; additional; circulation	Lambda sensor	Internet	Cooling coil - closed circuit	LCD touch panel	GSM control	Expanding module
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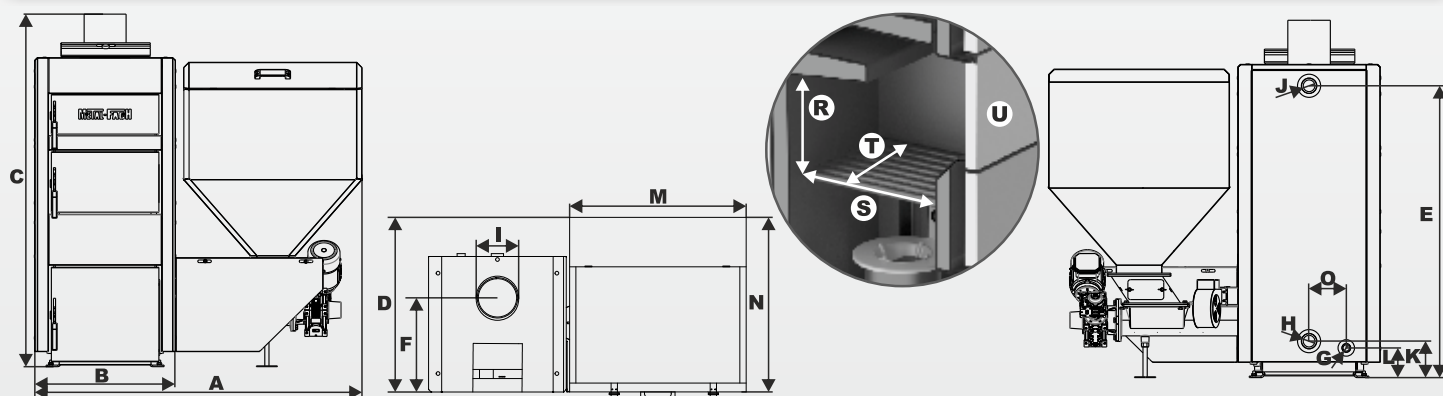
* ADDITIONAL EQUIPMENT



- 5** Years of warranty
- 6MM** Certified boiler steel
- Retort burner
- Steel trough
- Large feeding chamber
- Pump CH 1; HTW x2
- Controller

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler		
		SMART - 15	SMART - 20	SMART - 25
Nominal thermal output (coal)	[kW]	15	20	25
Boiler power range	[kW]	4,5-15	6-20	7,5-25
Heatable area	[m ²]	150	150-200	200-250
Heating surface	[m ²]	1,63	2,0	2,6
Boiler water capacity	[L]	48	60	71
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	3	3	3
Boiler efficiency	[%]	≤88	≤88	≤88
Single fuel load	[L]	200	200	200
Fuel	-	eco-pea coal, coal, wood		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	300	300	300
Power consumption at boiler start-up	[W]	-	-	-
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	20	23
Flow resistance ΔT	[mBar]			
	[10K]	5,47	9,74	12,33
	[20K]	1,36	2,43	3,80
Boiler weight	[kg]	360	410	460



Type	SMART - 15	SMART - 20	SMART - 25
A	1250	1250	1300
B	545	545	600
C	1345	1400	1400
D	540	605	700
E	1100	1160	1160
F	375	445	535
G	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½
I	160	160	160
J	G 1 ½	G 1 ½	G 1 ½
K	148	148	148
L	112	112	112
M	680	680	680
N	610	620	620
O	144	140	140
P	-	-	-
R	240	300	300
S	350	420	510
T	338	338	388
U	338x198	338x198	388x198

Series SMART EKO

Steel central heating with automatic fuel feeding system

BRONZE

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

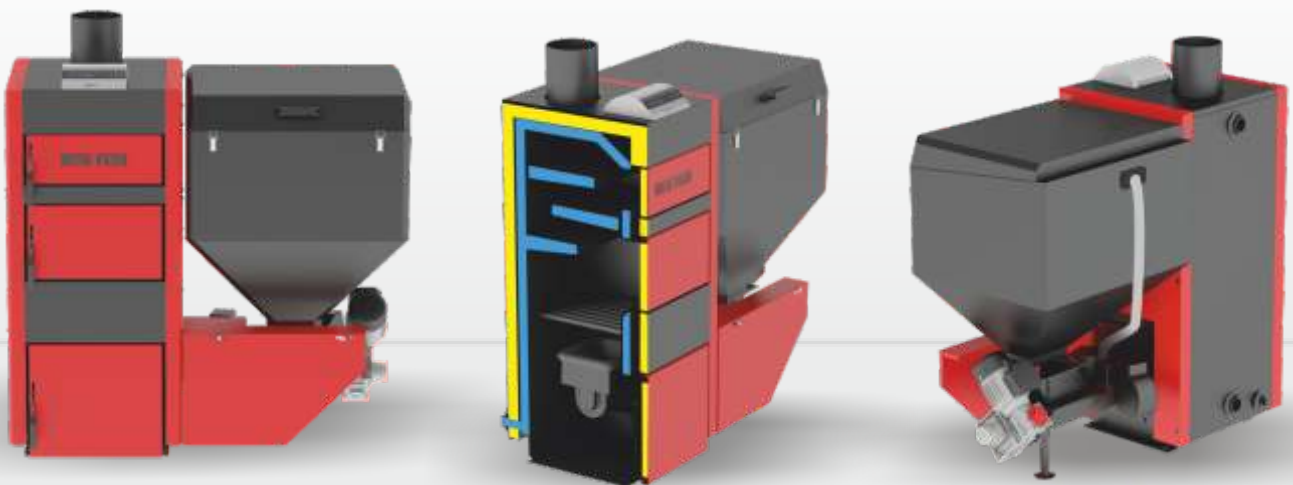
Large burning chamber

Additional water grate for burning fuel:

- coal
- wood

Ekoenergia burner

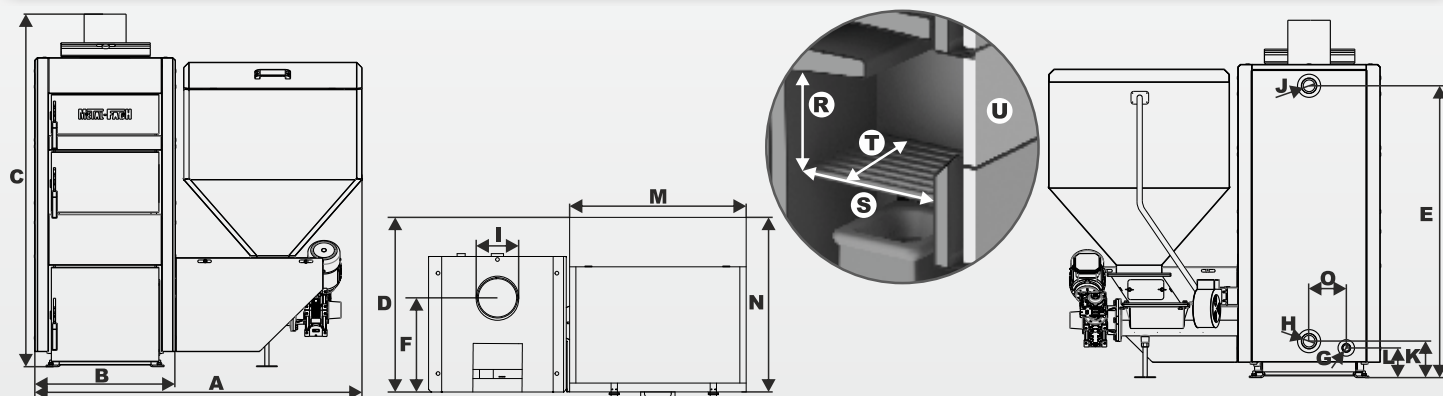
- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil



- 
 5
 Years of warranty
- 
 6MM
 Certified boiler steel
- 
 Ecoenergy burner
- 
 Steel trough
- 
 Large feeding chamber
- 
 Cast iron helix
- 
 Pump CH 1;
 HTW x2
- 
 Controller

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler			
		SMART EKO - 15	SMART EKO - 20	SMART EKO - 25	SMART EKO - 30
Nominal thermal output (coal)	[kW]	15	20	25	30
Boiler power range	[kW]	4,5-15	6-20	7,5-25	9-30
Heatable area	[m ²]	150	150-200	200-250	250-300
Heating surface	[m ²]	1,63	2,0	2,6	3,06
Boiler water capacity	[L]	48	60	71	80
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	3	3	3	3
Boiler efficiency	[%]	≤88	≤88	≤88	≤88
Single fuel load	[L]	200	200	200	200
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood			
Power supply	-	~230V; 50Hz			
Power consumption at boiler nominal power	[W]	300	300	300	300
Power consumption at boiler start-up	[W]	-	-	-	-
Temperature controller setting range	[°C]	60 - 85 (1 at a time)			
Required chimney flue	[Pa]	20	20	23	35
Flow resistance ΔT	[mBar]				
	[10K]	5,47	9,74	12,33	29,83
	[20K]	1,36	2,43	3,80	7,45
Boiler weight	[kg]	380	415	468	530



Type	SMART EKO - 15	SMART EKO - 20	SMART EKO - 25	SMART EKO - 30
A	1250	1250	1300	1300
B	545	545	600	580
C	1345	1400	1400	1500
D	540	605	700	824
E	1100	1160	1160	1252
F	375	445	535	628
G	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	160	160	160	180
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	148	148	148	142
L	112	112	112	117
M	680	680	680	680
N	610	620	620	620
O	144	140	140	140
P	-	-	-	-
R	240	300	300	300
S	350	420	510	510
T	338	338	388	388
U	338x198	338x198	388x198	388x198

Series SMART EKO PLUS

Steel central heating with automatic fuel feeding system

SILVER

Controllers:

- Advanced microprocessor system
- Provides boiler operation efficiency
- Makes most of the boiler operations automatic
- Promotes fuel saving

Pressure equalization system

Fuel sort burning:

- eco-pea
- dust
- pellet

Large burning chamber

Additional water grate for burning fuel:

- coal
- wood

Eco- pea automatic igniter

Ekoenergia burner

- 100% cast iron
- corrosion resistant
- fuel granulation 0-32 mm
- cast iron snail screw has an anticoil

PATENTED COAL FIRING SYSTEM
NO. 002846790-0001



5

Years of warranty



Certified boiler steel



Ecoenergy burner



Steel trough

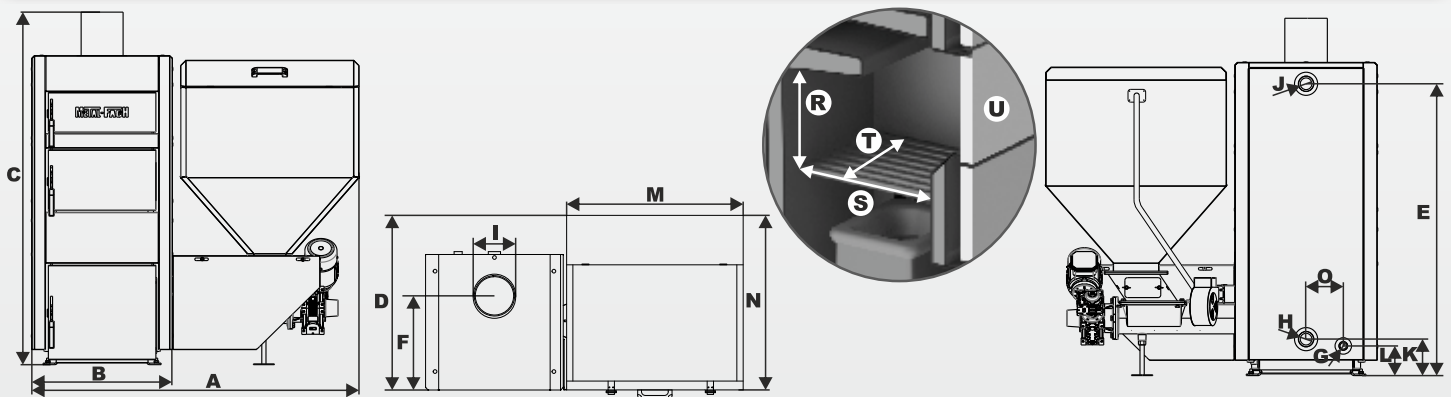


Large feeding chamber

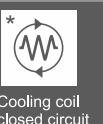


Cast iron helix

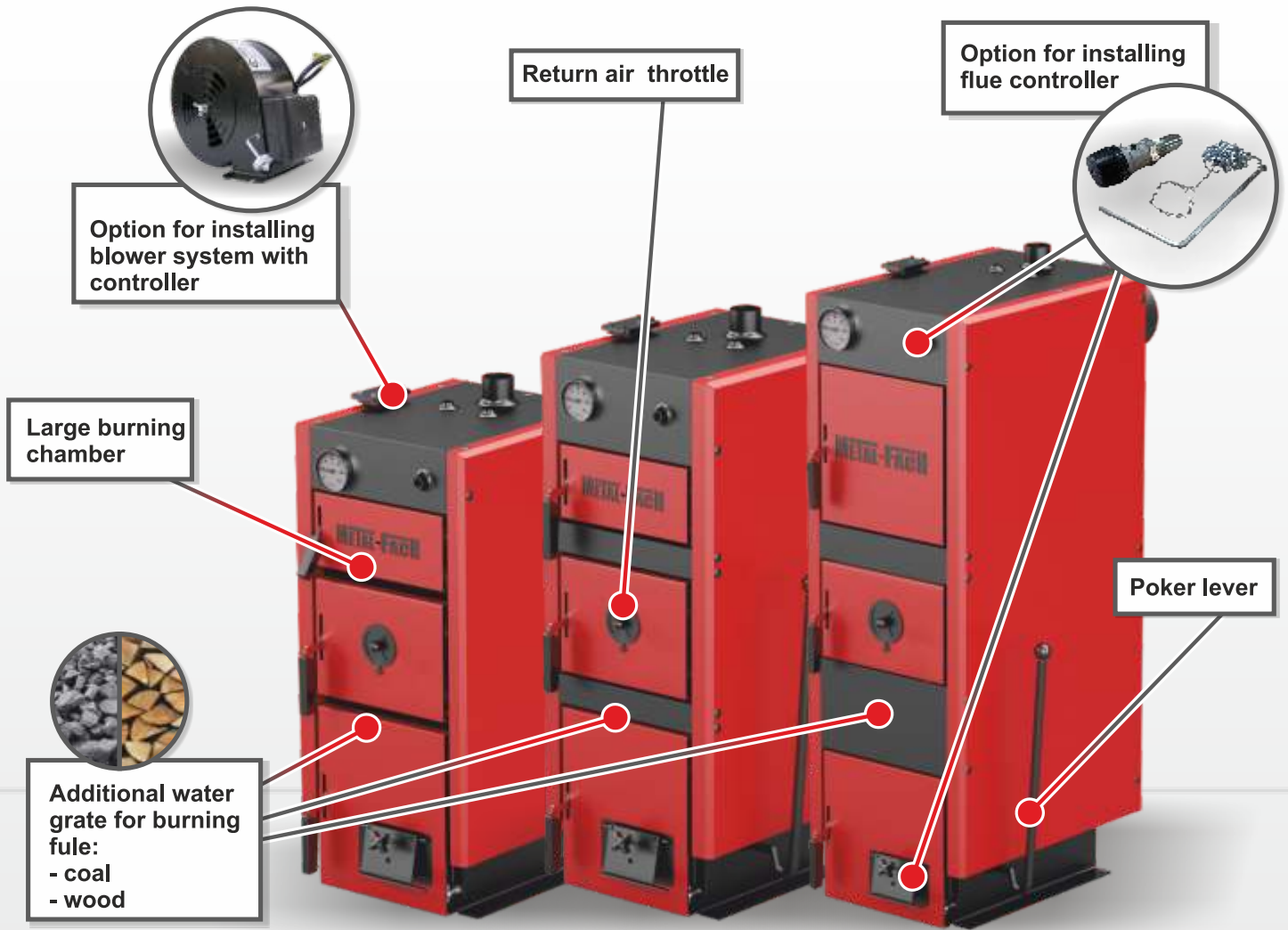
Parameters	Unit	Type of boiler		
		SMART EKO PLUS - 15	SMART EKO PLUS - 20	SMART EKO PLUS - 25
Nominal thermal output (coal)	[kW]	15	20	25
Boiler power range	[kW]	4,5-15	6-20	7,5-25
Heatable area	[m ²]	150	150-200	200-250
Heating surface	[m ²]	1,63	2,0	2,6
Boiler water capacity	[L]	48	60	71
Maximum working pressure	[Bar]	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95
Test pressure	[Bar]	4	4	4
Boiler class	-	3	3	3
Boiler efficiency	[%]	≤88	≤88	≤88
Single fuel load	[L]	200	200	200
Fuel	-	eco-pea coal, pellet fuel, fine coal, coal, wood		
Power supply	-	~230V; 50Hz		
Power consumption at boiler nominal power	[W]	300	300	300
Power consumption at boiler start-up	[W]	1000	1000	1000
Temperature controller setting range	[°C]	60 - 85 (1 at a time)		
Required chimney flue	[Pa]	20	20	23
Flow resistance ΔT	[mBar]	5,47	9,74	12,33
	[10K]			
Boiler weight	[kg]	380	415	468
	[20K]			



Type	SMART EKO PLUS - 15	SMART EKO PLUS - 20	SMART EKO PLUS - 25
A	1250	1250	1300
B	545	545	600
C	1295	1350	1350
D	540	605	700
E	1100	1160	1160
F	375	445	535
G	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½
I	160	160	160
J	G 1 ½	G 1 ½	G 1 ½
K	148	148	148
L	112	112	112
M	680	680	680
N	610	620	620
O	144	140	140
P	-	-	-
R	240	300	300
S	350	420	510
T	338	338	388
U	338x198	338x198	388x198



* ADDITIONAL EQUIPMENT



08

11-13

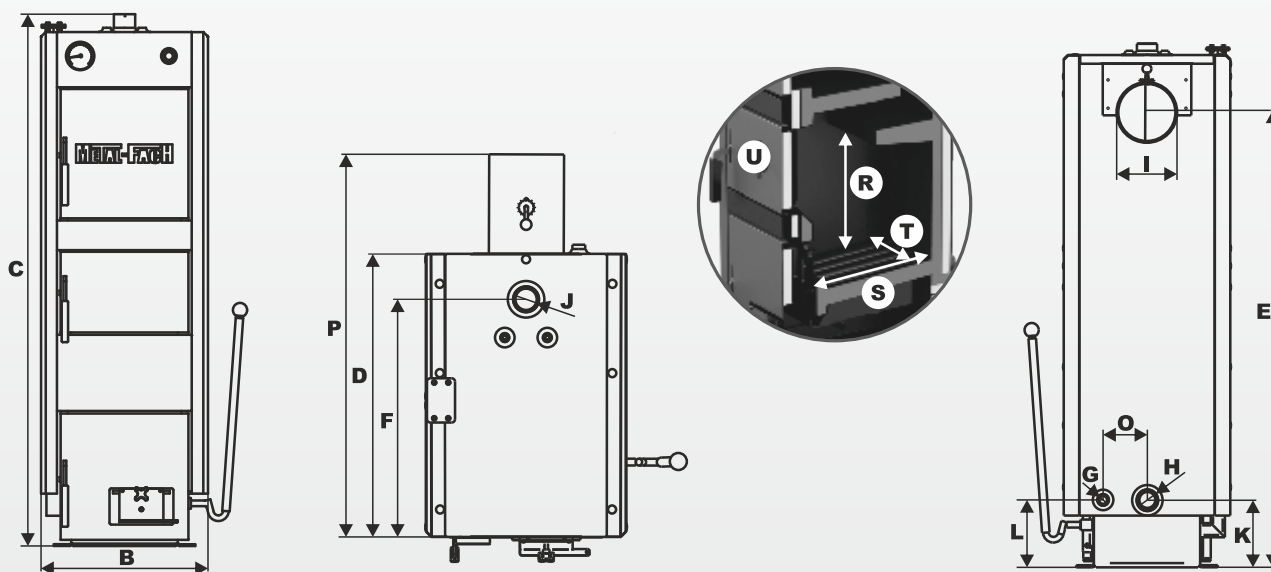
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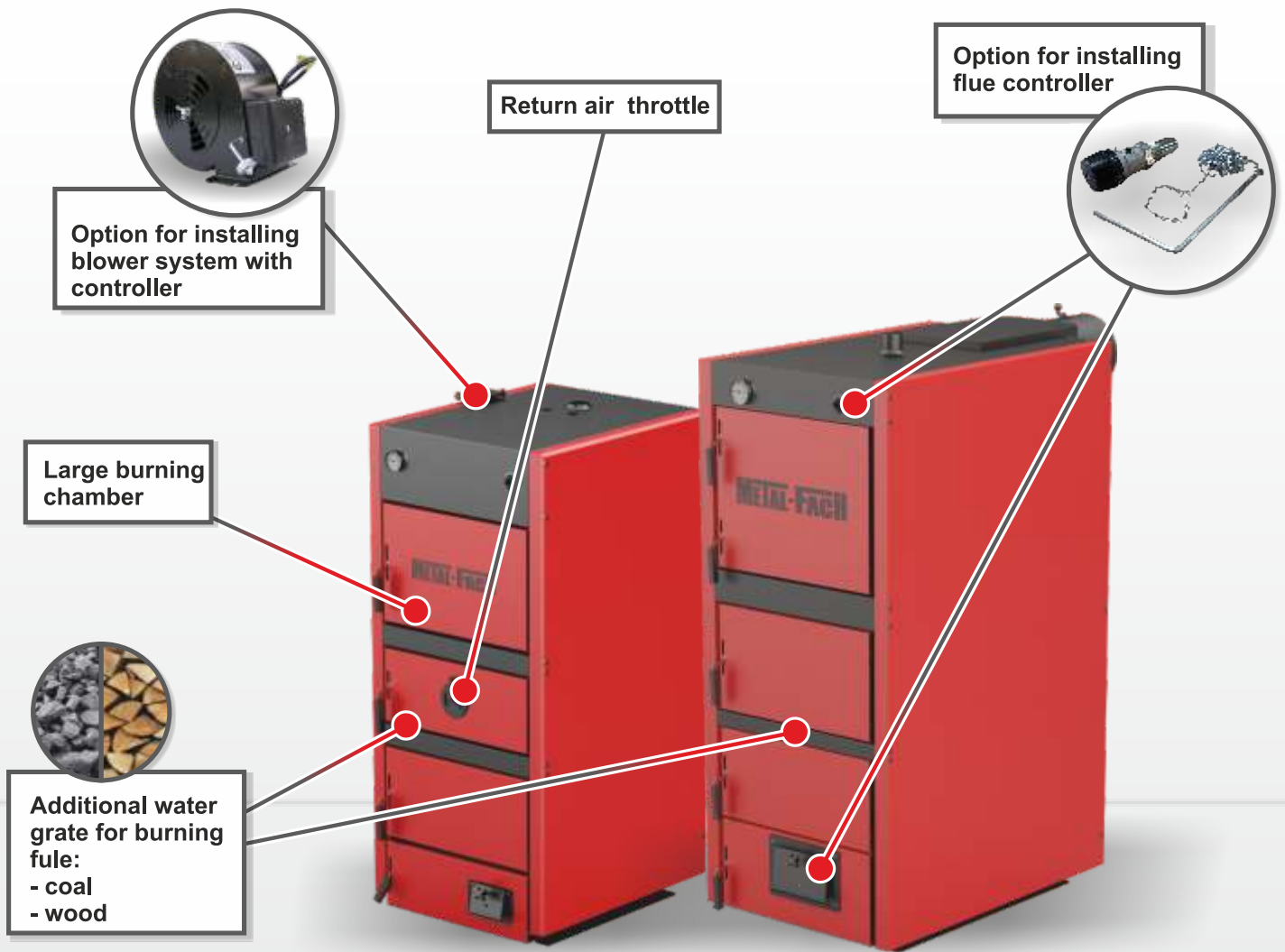
- 
 5
 Years of warranty
- 
 6MM
 Certified boiler steel
- 
 Large feeding chamber
- 
 Water trough
- 
 Chimney draught controller
- 
 Controller
- 
 Ventilator
- 
 Draught gauge
- 
 Movable trough

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler									
		SE - 08	SE - 11	SE - 13	SE - 16	SE - 19	SE - 25	SE - 32	SE - 38	SE - 45	
Nominal thermal output (coal)	[kW]	11	14	16	19	23	30	38	45	52	
Heating surface	[m ²]	0,85	1,15	1,45	2,1	2,3	2,6	2,9	3,4	3,8	
Heatable area	[m ²]	80	80-120	120-140	140-180	180-220	220-300	300-380	380-420	420-500	
Boiler water capacity	[L]	30	41	49	53	62	69	76	90	105	
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Maximum working temperature	[°C]	95	95	95	95	95	95	95	95	95	
Test pressure	[Bar]	4	4	4	4	4	4	4	4	4	
Boiler class	-	3	3	3	3	3	3	3	3	3	
Boiler efficiency	[%]	≤81	≤81	≤81	≤81	≤81	≤81	≤81	≤81	≤81	
Burn time at nominal power	[h]	-	-	-	-	-	-	-	-	-	
Fuel	-	coal, wood									
Required chimney flue	[Pa]	20	20	20	20	23	23	35	35	38	
Flow resistance ΔT	[mBar]	[10K]	0,14	0,23	0,30	0,42	0,61	1,05	1,7	2,36	3,14
	[20K]	0,07	0,115	0,15	0,21	0,30	0,55	0,85	1,18	1,57	
Boiler weight	[kg]	160	198	225	286	320	348	392	438	480	



Type	SE-08	SE-11	SE-13	SE-16	SE-19	SE-25	SE-32	SE-38	SE-45
A	-	-	-	-	-	-	-	-	-
B	430	430	430	430	480	480	530	530	580
C	960	1100	1200	1430	1430	1480	1530	1530	1530
D	490	540	590	640	640	690	700	800	800
E	770	915	1015	1240	1235	1285	1330	1330	1330
F	313	363	413	464	464	514	484	584	584
G	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	160	160	160	180	180	180	200	200	200
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	189	189	189	189	189	189	225	225	225
L	170	170	170	170	170	170	175	175	175
M	-	-	-	-	-	-	-	-	-
N	-	-	-	-	-	-	-	-	-
O	100	100	100	100	100	100	130	130	160
P	655	705	755	805	855	905	860	960	960
R	330	330	430	500	500	550	550	550	550
S	340	350	400	450	500	500	500	600	600
T	240	240	240	240	290	290	340	340	390
U	240x200	240x200	240x200	240x200	290x200	290x200	340x200	340x200	390x200



50



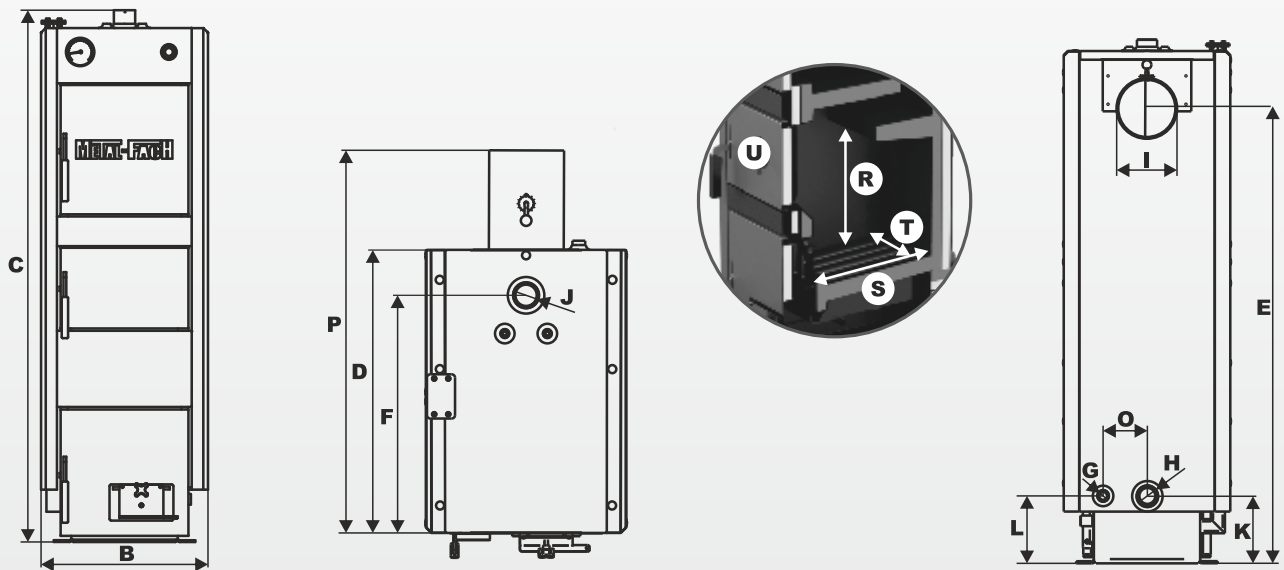
80-150



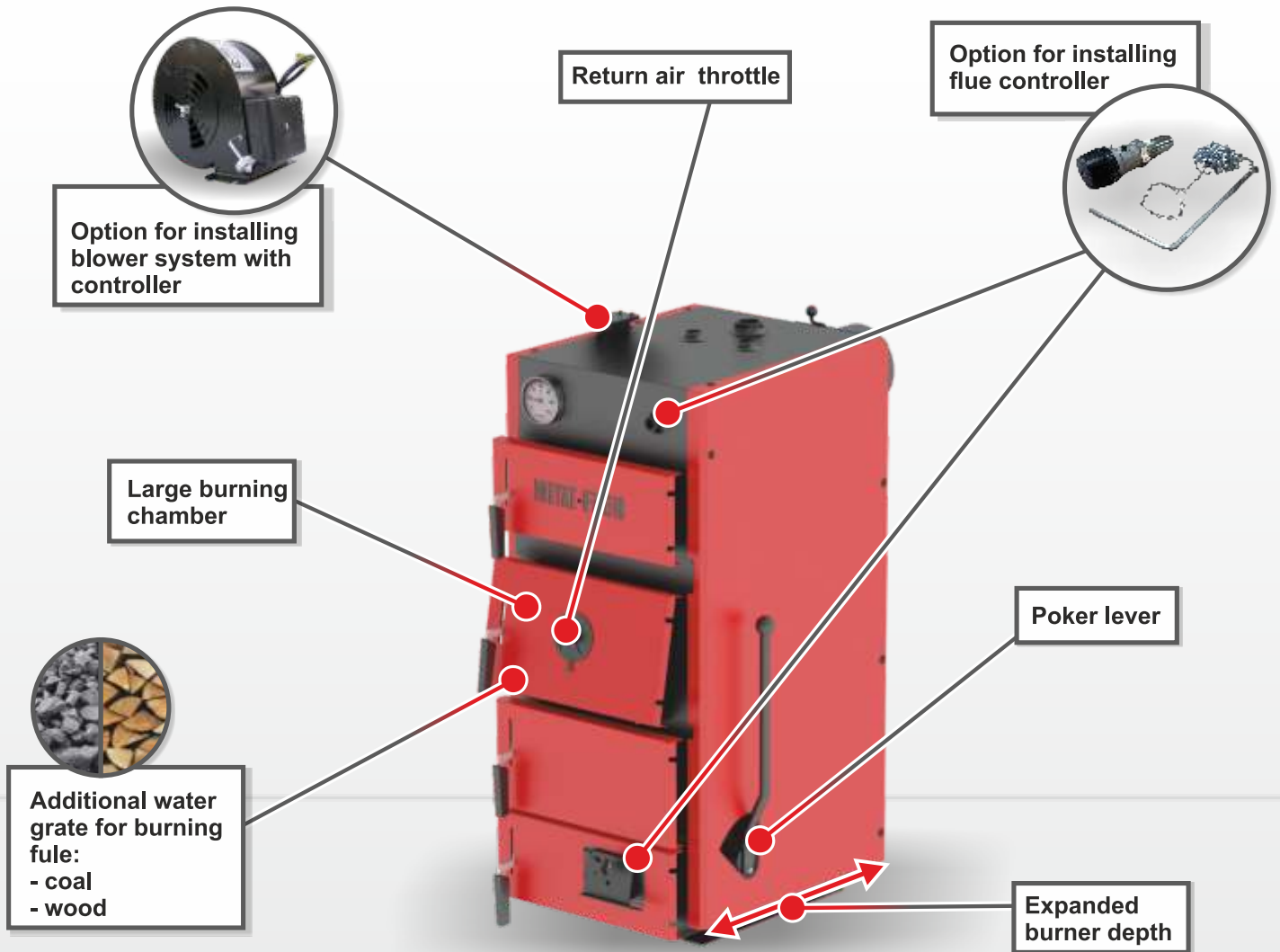
- 
 5
 Years of warranty
- 
 6-8mm
 Certified boiler steel
- 
 Large feeding chamber
- 
 Water trough
- 
 Chimney draught controller
- 
 Controller
- 
 Ventilator
- 
 Draught gauge

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler					
		SE - 50	SE - 80	SE - 100	SE - 120	SE - 150	SE - 200
Nominal thermal output (coal)	[kW]	60	80	100	120	150	200
Heating surface	[m ²]	4,5	6,9	8,0	9,2	10	18,32
Heatable area	[m ²]	500-600	600-800	800-1000	1000-1200	1200-1500	1500-2000
Boiler water capacity	[L]	115	260	290	316	330	713
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95	95	95
Test pressure	[Bar]	4	4	4	4	4	4
Boiler class	-	3	3	3	3	3	3
Boiler efficiency	[%]	≤81	≤81	≤81	≤81	≤81	≤76
Burn time at nominal power	[h]	-	-	-	-	-	-
Fuel	-	coal, wood					
Required chimney flue	[Pa]	38	40	40	45	45	50
Flow resistance ΔT	[mBar]						
	[10K]	4,20	7,45	11,65	16,76	26,20	-
	[20K]	2,10	3,73	5,825	8,38	13,10	-
Boiler weight	[kg]	521	800	1015	1090	1160	2050



Type	SE-50	SE-80	SE-100	SE-120	SE-150	SE-200
A	-	-	-	-	-	-
B	680	770	860	860	860	1204
C	1530	1830	1910	2110	2110	2030
D	800	1120	1170	1170	1270	1726
E	1330	1690	1780	1980	1980	1553
F	584	480	660	655	655	711
G	G ¾	G ¾	G ¾	G ¾	G ¾	101,6
H	G 1 ½	G 2	G 2	G 2	G 2	101,6
I	200	250	250	250	250	350
J	G 1 ½	G 2	G 2	G 2	G 2	101,6
K	225	195	180	180	180	382
L	185	100	155	155	155	382
M	-	-	-	-	-	-
N	-	-	-	-	-	-
O	210	185	234	234	234	356
P	960	1550	1580	1580	1580	2230
R	550	650	700	900	900	1045
S	600	900	950	950	1050	990
T	490	540	640	640	640	994
U	490x200	540x300	640x300	640x300	640x300	640x484



5

Years of warranty



Certified boiler steel



Large feeding chamber



Water trough



Chimney draught controller



Movable trough



Controller



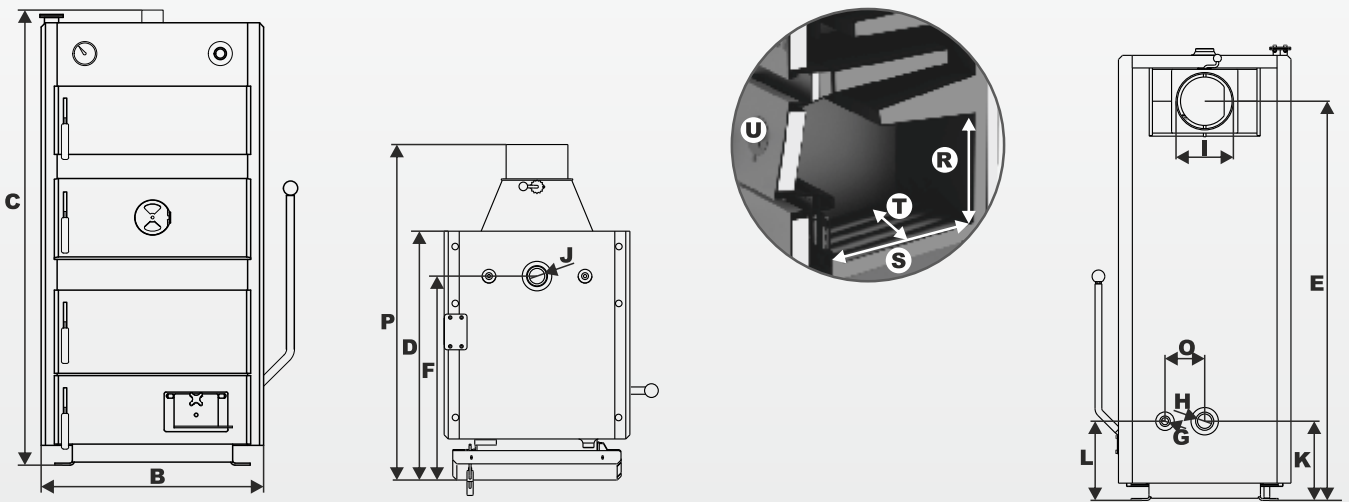
Ventilator



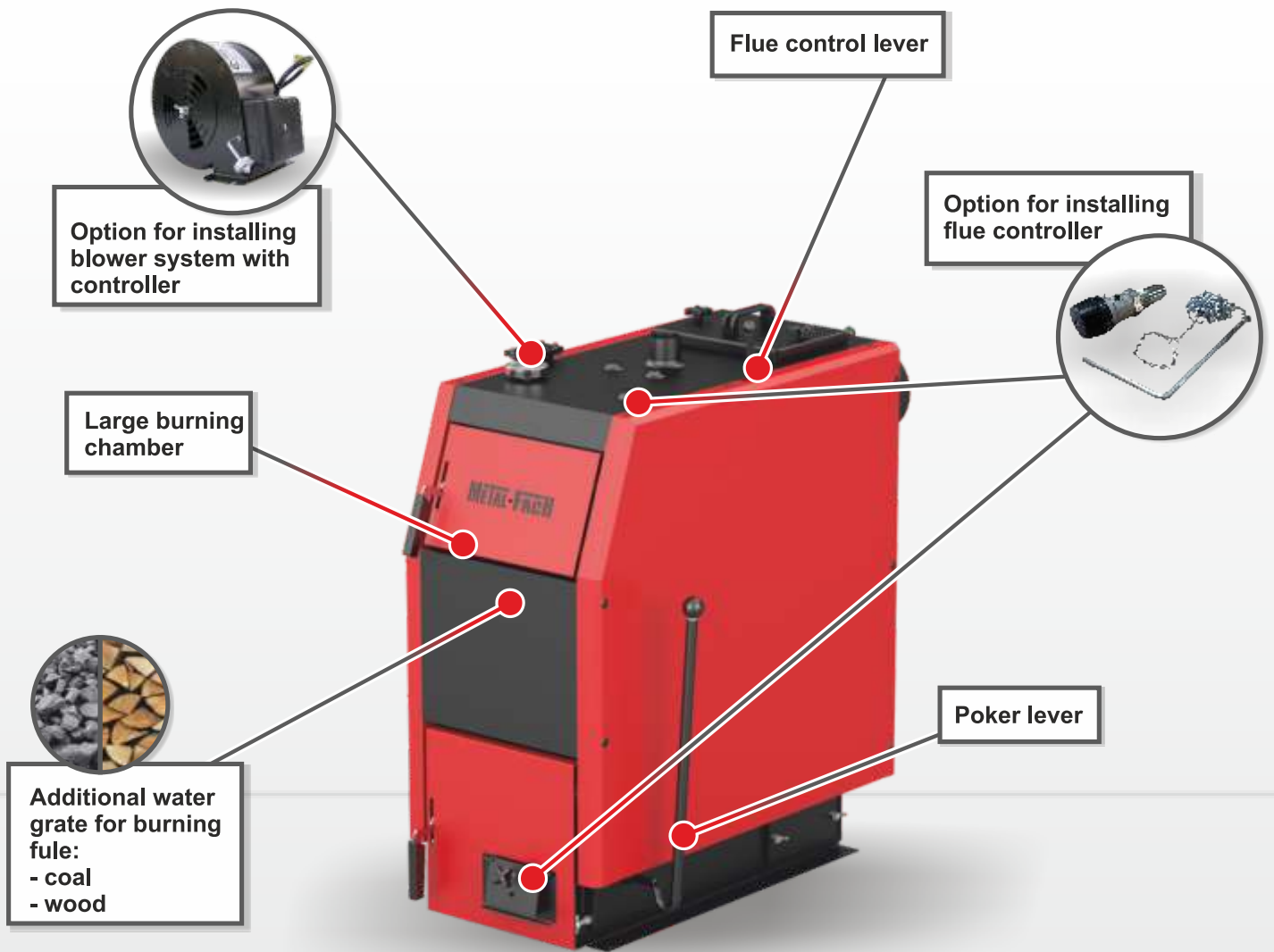
Draught gauge

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler				
		SE MAX II - 15	SE MAX II - 20	SE MAX II - 25	SE MAX II - 30	SE MAX II - 35
Nominal thermal output (coal)	[kW]	15	20	25	30	35
Heating surface	[m ²]	1,56	2,19	2,27	2,48	2,70
Heatable area	[m ²]	150	150-210	210-270	270-320	320-380
Boiler water capacity	[L]	56	71	87	93	111
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95	95
Test pressure	[Bar]	4	4	4	4	4
Boiler class	-	3	3	3	3	3
Boiler efficiency	[%]	≤81	≤81	≤81	≤81	≤81
Burn time at nominal power	[h]	-	-	-	-	-
Fuel	-	wood, coal				
Required chimney flue	[Pa]	20	23	23	23	25
Flow resistance ΔT	[mBar]					
	[10K]	2,77	8,79	12,88	17,75	26,51
	[20K]	1,19	2,19	3,22	4,43	6,62
Boiler weight	[kg]	260	330	350	370	395



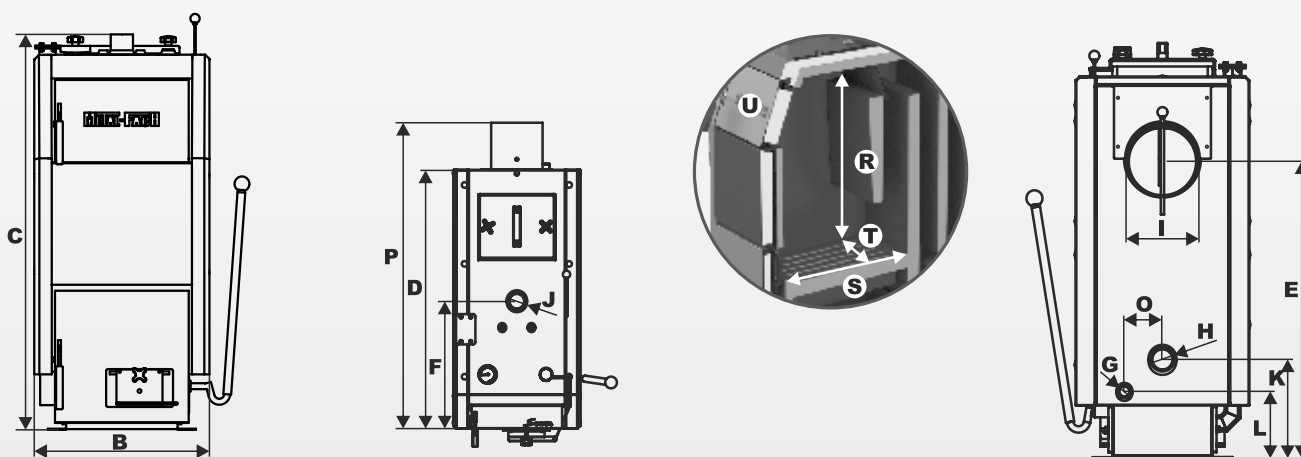
Type	SE MAX II - 15	SE MAX II - 20	SE MAX II - 25	SE MAX II - 30	SE MAX II - 35
A	-	-	-	-	-
B	450	510	530	580	630
C	1201	1256	1256	1256	1256
D	695	804	804	804	804
E	1035	1090	1090	1090	1090
F	547	671	671	671	671
G	G ¾	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	180	180
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	253	253	253	253	253
L	241	241	241	241	241
M	-	-	-	-	-
N	-	-	-	-	-
O	125	125	125	125	125
P	921	1029	1029	1029	1029
R	351	323	323	323	323
S	420	520	520	520	520
T	258	318	338	388	438
U	258x190	318x238	338x238	388x238	438x238



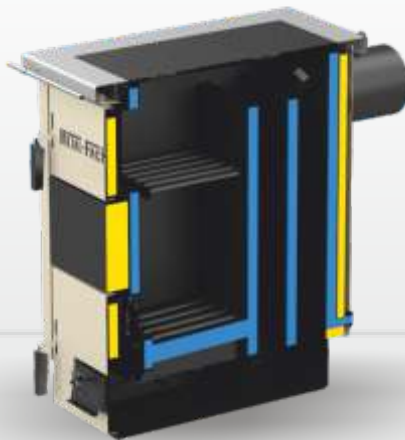
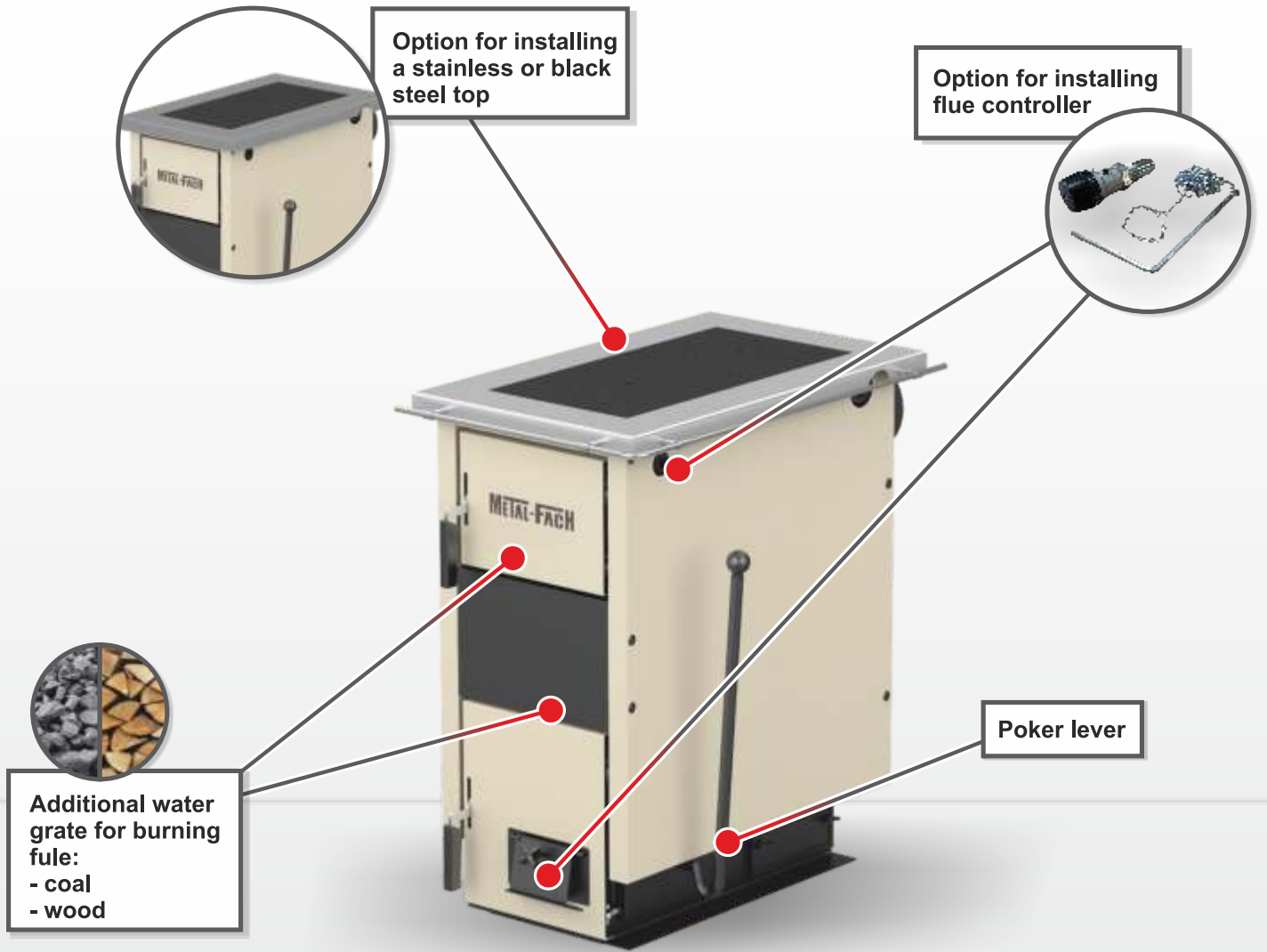
- 
 5
 Years of warranty
- 
 6MM
 Certified boiler steel
- 
 Large feeding chamber
- 
 Water trough
- 
 Chimney draught controller
- 
 Controller
- 
 Ventilator
- 
 Draught gauge
- 
 Movable trough

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler							
		SDG - 11	SDG - 13	SDG - 16	SDG - 19	SDG - 25	SDG - 32	SDG - 38	
Nominal thermal output (coal)	[kW]	14	16	19	23	30	40	45	
Heating surface	[m ²]	1,4	1,65	1,75	1,85	2,15	2,4	2,9	
Heatable area	[m ²]	120	120-140	140-180	180-220	220-300	300-380	380-420	
Boiler water capacity	[L]	41	49	53	62	69	76	90	
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5	1,5	1,5	1,5	
Maximum working temperature	[°C]	95	95	95	95	95	95	95	
Test pressure	[Bar]	4	4	4	4	4	4	4	
Boiler class	-	3	3	3	3	3	3	3	
Boiler efficiency	[%]	≤81	≤81	≤81	≤81	≤81	≤81	≤81	
Burn time at nominal power	[h]	-	-	-	-	-	-	-	
Fuel	-	coal, wood							
Required chimney flue	[Pa]	20	20	20	23	23	35	35	
Flow resistance ΔT	[mBar]	[10K]	0,23	0,30	0,42	0,61	1,05	1,86	2,36
	[20K]	0,115	0,15	0,21	0,30	0,55	0,93	1,18	
Boiler weight	[kg]	230	255	260	289	315	345	375	



Type	SDG-11	SDG-13	SDG-16	SDG-19	SDG-25	SDG-32	SDG-38
A	-	-	-	-	-	-	-
B	420	420	420	470	470	470	520
C	860	950	960	960	1060	1110	1160
D	840	840	900	900	900	960	1020
E	650	750	750	750	850	900	950
F	450	450	475	475	630	610	725
G	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾	G ¾
H	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
I	180	180	180	180	180	180	180
J	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½	G 1 ½
K	190	190	190	190	190	190	190
L	190	190	190	190	190	190	190
M	-	-	-	-	-	-	-
N	-	-	-	-	-	-	-
O	105	90	90	100	120	110	130
P	1040	1040	1100	1100	1100	1160	1220
R	450	550	550	550	650	700	750
S	305	305	355	355	355	405	455
T	240	240	240	290	290	290	340
U	240x200	240x200	240x200	290x200	290x200	290x225	340x250



5

Years of warranty



Certified boiler steel



Water trough



Summer grate



Chimney draught controller



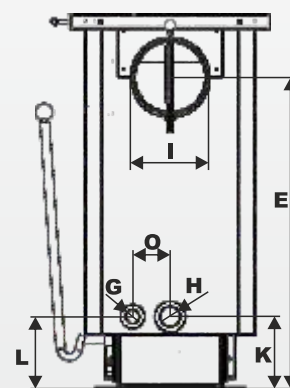
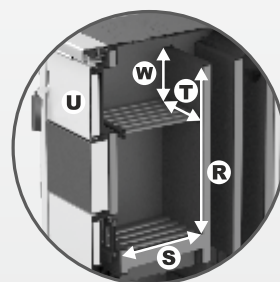
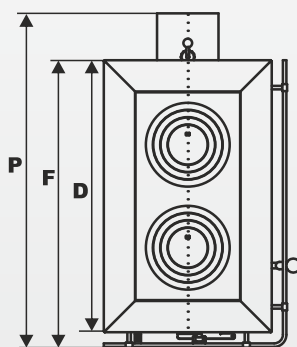
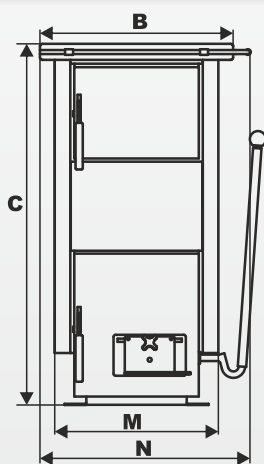
Draught gauge



Movable trough

* ADDITIONAL EQUIPMENT

Parameters	Unit	Type of boiler			
		SK - 11		SK - 14	
		Lower grate	Upper grate	Lower grate	Upper grate
Nominal thermal output (coal)	[kW]	12	6	15	9
Nominal thermal output (wood)	[kW]	11	5,5	14	8,5
Heatable area	[m ²]	110	110	110-140	110-140
Heating surface	[m ²]	-	-	-	-
Boiler water capacity	[L]	40	40	44	44
Maximum working pressure	[Bar]	1,5	1,5	1,5	1,5
Maximum working temperature	[°C]	95	95	95	95
Test pressure	[Bar]	4	4	4	4
Boiler class	-	3	3	3	3
Boiler efficiency	[%]	≤74	≤74	≤74	≤74
Burn time at nominal power	[h]	-	-	-	-
Fuel	-	coal, wood			
Required chimney flue	[Pa]	20	20	20	20
Flow resistance δT	[mBar]				
	[10K]	0,57	0,14	0,90	0,32
	[20K]	0,28	0,07	0,45	0,16
Boiler weight	[kg]	220	220	240	240



Type	SK - 11	SK - 14
A	-	-
B	480	530
C	900	900
D	780	780
E	745	745
F	823	823
G	G ¾	G ¾
H	G 1 ¼	G 1 ¼
I	180	180
J	-	-
K	172	172
L	172	172
M	410	460
N	525	575
O	90	110
P	960	960
R	580	580
S	300	300
T	240	290
U	240x200	290x200
W	200	200



METAL-FACH

HEATING TECHNOLOGY

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