KOVARSON | CZECH PRODUCER OF BOILERS

THINK ECOLOGICALLY

ADVANTAGES:

- Cast iron furnace burner
- Metal feeder and screw
- Screw housing on both sides
- Reverse screw on the end of the furnace
- High combustion efficiency
- Reverse operation of the screw
- Combustion fan
- Savings of up to 30% on heating

UNIVERSAL BURNERS
27 – 90 kW

FUEL: BROWN COAL, WOOD PELLETS, PLANT PELLETS, SMALL CHIPS, WOOD WASTE AND PLANT MATERIAL

ECOLOGY AND COMFORT

Universal burners are intended for installation in existing cast iron and sheet metal solid fuel boilers. This modification will give you a boiler with the option of automatic combustion using burners or manual feeding. Automatic operation guarantees ease of use for boilers of up to 90 kW.
The robust design of the cast iron burners includes top quality materials that guarantee a long lifetime, minimal maintenance and above all the complete combustion of size 2 lump brown coal and wood pellets. They can also burn alternative materials such as agro-pellets, wood chips, plant materials and light materials (sawdust, wood shavings), although bridging in the hopper must be avoided. The fuel material fraction is 3 cm.

ECOLOGY

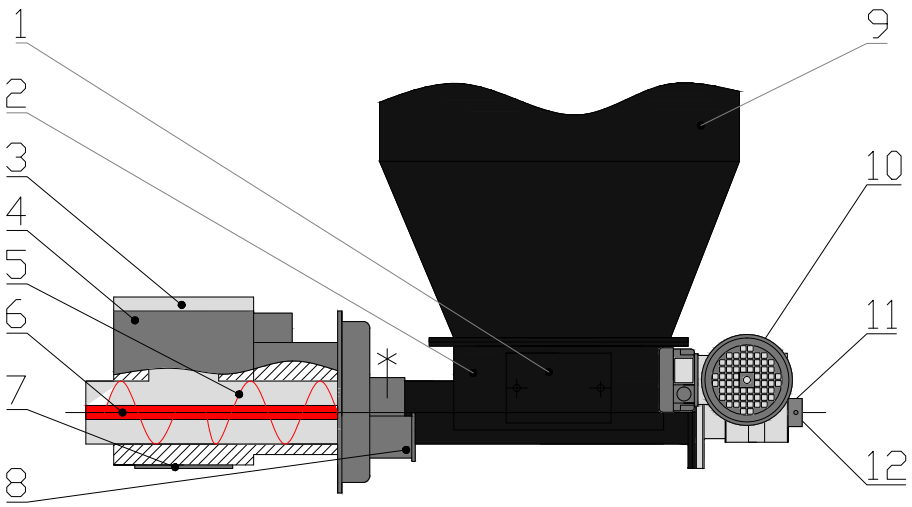
Universal burners are designed to be as environmentally-friendly as possible with all kinds of burnt material. Existing boilers will be more efficient once a universal burner is installed! No smoke comes from the chimney when heating in automatic mode! Some types of boiler achieve a higher emission class after reconstruction with the help of a reconstruction package.

COMFORT

The system is regulated by the screw feeder control unit, which monitors the entire heating system and can be operated through a room thermostat. Above the feeder is the fuel storage container, which is supplied in various sizes depending on the burner and the space. For standard boilers of around 25 kW, the storage container will handle 3-4 days of medium output or up to 10 days in energy-saving mode. The ash falls into the base, which is always designed to match the size of the storage container. The boiler must therefore be attended to every 3-4 days.

	27 kW	35 kW	60 kW	90 kW
Output [kW]	5 - 27	6 - 35	8 - 60	10 - 90
Weight [kg]	60	68	80	110
Input voltage	230 V / 50Hz			
Average power consumption	60 W	70 W	100 W	125 W
Motor	90 W		180 W	
Fan	75 W			160 W
Storage container	250 l			
Chimney draft	20 Pa			25 Pa

PARTS AND TREATMENT BURNERS



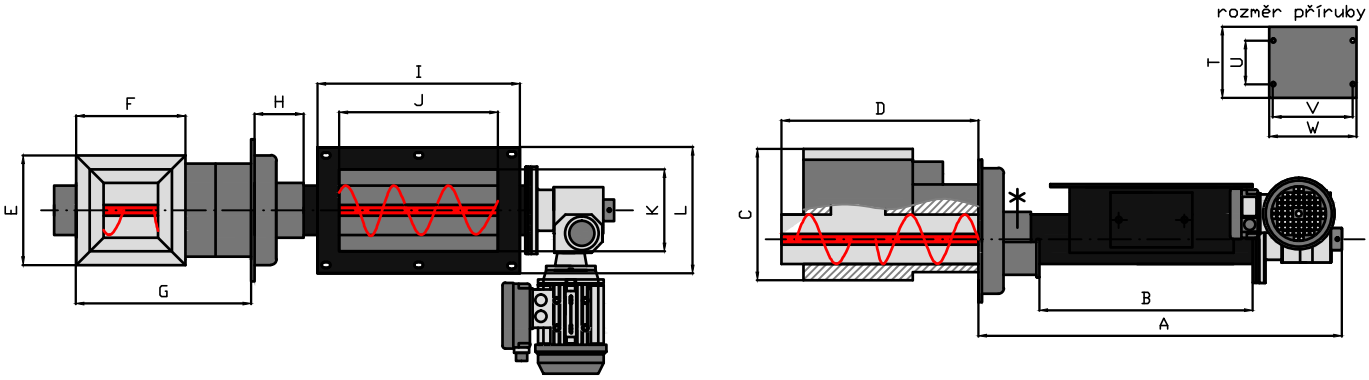
1 - storage container cleaning lid
2 - screw tube
3 - cast iron combustion grate
4 - air mixing chamber
5 - feeder screw
6 - reverse screw
7 - air chamber cleaning lid
8 - fan flange
9 - storage container
10 - motor
11 - transmission
12 - cotter pin

The burners have a cast iron combustion grate attached to an air mixing chamber, thereby creating a complete combustion furnace. Every furnace is fitted with an opening beneath the burner for removing the ash that falls through the air opening into the mixer. The furnace is connected to the feeder by two screws. The tube is fitted with a massive metal screw made from 6mm steel. On the transmission side, a brass washer is inserted between the screw and the defining flange between the tube and the transmission. The tube is secured to the transmission by four bolts. The torque is transferred from the transmission to the screw using a 6 mm diameter bolt.

The burner is powered by a high-quality, silent electric motor with a transmission that includes reverse mode. The fuel is fed by the screw conveyor into the combustion chamber, where air from the fan ensures complete combustion. The fuel is delivered to the combustion chamber in cycles which can be set in the control unit according to the combustion material, and the volume of combustion air can also be set at any time. Everything runs fully automatically thanks to the control unit. The set boiler temperature or set room temperature influences the entire system, and the unit goes into monitoring mode after the required temperature is reached, shutting down the entire system and retaining only the incandescent material in the furnace.

The advanced technology of the square universal burners includes an extended feeder screw shaft running the full length of the burner. The screw conveyor ends under the combustion chamber with an opposing thread. In this way the material is mechanically forced to the top, where the combustion occurs. The advantage of this kind of furnace is the addition of air during combustion. The air is fed in from all sides, as a result of which the material is thoroughly burned. The ash falls through the edge of the burner into the ashtray. Thanks to the design of the opposed screw, it is also easy to remove the sinter that often forms when using coke materials.

These types are used for boiler outputs of up to 90 kW and are usually fitted to the base below the boiler.



		27 kW	35 kW	60 kW	90 kW
A	mm		700		840
B	mm		400		540
C	mm	240		270	290
D	mm	360		440	540
E	mm	200	220	260	290
F	mm	200	220	260	290
G	mm	320	330	400	500
H	mm		100		
I	mm		370		
J	mm		300		
K	mm		160		
L	mm		230		
T	mm	280		320	350
U	mm	160		225	250
V	mm	290		365	460
W	mm	320		400	500

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