

**ADVANTAGES:**

Emission class 3 per ČSN EN 303 – 5



Environmentally-friendly and comfortable heating



High efficiency of up to 87.4 %



High-quality cast iron heat exchanger



Heating savings of up to 30 %



The latest in boiler controls



Long boiler lifetime

**TIGER 20 – 55 kW**
AUTOMATIC CAST IRON BOILER

FUEL: SIZE 2 LUMP BROWN COAL, WOOD PELLETS

ECOLOGY AND COMFORT



THE CAST-IRON BOILERS OFFER
EFFICIENCY LEVELS OF **UP TO 87,4 %**

The Czech TIGER boiler for solid fuel with automatic controls and minimal operating requirements provides environmentally-friendly and cost-cutting heating for houses, business premises and medium-large buildings, and may also be used for heating water as well. The boilers burn size 2 lump brown coal.

ECOLOGY - Combustion is controlled by an electronic unit, making the automatic boiler very environmentally-friendly. The boilers meet emission class 3 under EN 303-5 - the strictest values for emissions released from a boiler into the atmosphere. The maximum economy mode of combustion offers savings of up to 30% compared to ordinary solid fuel boilers. The boiler achieves efficiency levels of up to 87.4%.

COMFORT - Thanks to their efficiency and the 250 litre storage container, the boilers are easy to feed. The capacity of the storage container will ensure about 3 to 4 days of normal output. In summer mode, the fuel can provide hot water for up to 10 days. The boilers can be controlled by a room thermostat which switches off the central heating pump. The boilers need cleaning once every 3 weeks on average.

BOILER REGULATION - The boilers are regulated by a PANDA control unit, which maintains the desired water temperature in boilers fitted with a screw feeder. Its advanced functionality ensures the economical and automatic operation of the entire central heating installation. The simple controls include regulation of the central heating pump, hot water, underfloor heating and circulation. The unit can be controlled by a wired or wireless room thermostat. Up to three remote panels are available for controlling a boiler from any room in the house. The control units work in five operating modes: normal, day/night, economy, calendar and thermostat mode. The units can also be controlled via a GSM interface.

BOILER DESIGN

BOILER DESIGN - The main part of the boiler consists of a cast-iron body made up of a number of cast iron components, which are pressed together using inserts and secured with anchoring screws. The element always consists of front, back and middle cells. The main heat energy transfer from combustion products to heating water takes place in the boiler element. The top cleaning door and middle door are located on the front cell. The smoke nozzle taking the flue gases to the chimney is located on the rear component.



The complete cast iron body is then placed on a base. The base is 5 mm thick welded steel. The ashtray door is located at the front.

The square universal burners consist of a cast-iron furnace, air mixing chamber and feeder for combustion. The feeder screw runs along the entire length of the feeder right up to the furnace and is fitted with an opposing thread where it meets the furnace, forcing the material upwards as required. This gets rid of any sinter, which is forced out through the sides into the ashtray. Thanks to its extended shaft, the feeder is firmly anchored and makes no squeaking noises during operation. Thanks to the square shape and drawing in of air from four sides to the centre to encourage combustion, the burners achieve high combustion temperatures and efficiency levels even without the use of deflectors. The top part of the burner consists of two cast iron rings. The burners are placed in the base, on the left or right side.

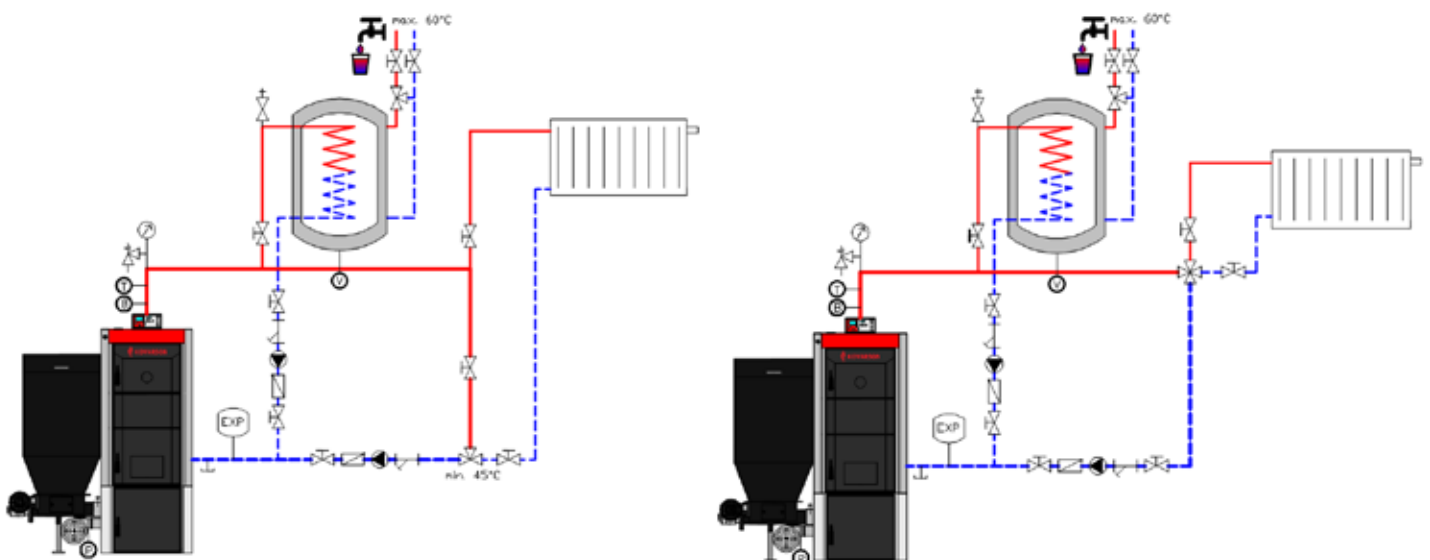


The upper feeding doors include a ceramic layer to encourage combustion.

The fan positioned on the burner flange beneath the fuel storage container blows primary air into the burner. The fan speed is set electronically.

The fuel storage container is located next to the boiler above the feeder screw. The feeder is fitted with a wax plug for securing the system against back-burn.

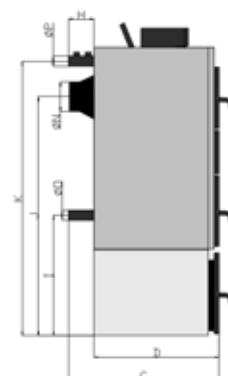
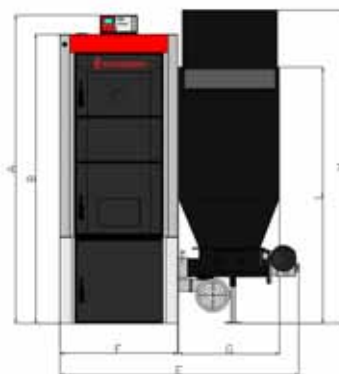
RECOMMENDED FOR INSTALLATION with a three-way thermostatic valve or a four-way mixing valve.





Boiler type		TIGER 20	TIGER 25	TIGER 30	TIGER 35	TIGER 40	TIGER 48	TIGER 55
Nominal power output	kW	20	25	30	35	40	48	55
Minimum power output	kW	7	8	10	12	13	16	18
Efficiency with coal	%	80	81	81,5	82	82,5	83	84
Efficiency with pellets	%	84,5	85	85	85	86	87	87,5
Weight	kg	384	438	547	594	634	713	778
Water volume capacity	l	33,3	35	44,7	50,4	56,1	61,8	67,5
Chimney draft	pa	20				23		
Heating areas of up to:	m ²	200	250	300	350	400	450	500
Dimensions of the tank filling hole	mm	440x300						
Boiler class per ČSN EN 303-5	-	3						
Boiler dimensions	A	mm	1530		I	mm	620	
	B	mm	1445		J	mm	1225	
	C	mm	493 - 1153		K	mm	1400	
	D	mm	640 - 1300		L	mm	1350	
	E	mm	1245		M	mm	1710	
	F	mm	600		N	mm	158	
	G	mm	500		O		2"	
	H	mm	147		P		2"	


The dimensions are given for a TIGER boiler of up to 35 kW, and the other output are for boilers of 40 kW upwards.



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