



ADVANTAGES:

Emission class 4 per ČSN EN 303 – 5



Environmentally-friendly and comfortable heating



High efficiency of up to 85.5%



High-quality cast iron heat exchanger



Heating savings of up to 30%



The latest in boiler controls



Long boiler lifetime



PANTHER 20 – 35 kW
AUTOMATIC CAST IRON BOILER

FUEL: SIZE 2 LUMP BROWN COAL

ECOLOGY AND COMFORT



The Czech PANTHER 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 is often used for heating water as well. The boilers burn size 2 lump brown coal.

ECOLOGY - Combustion is regulated by an electronic unit, making the automatic boiler very environmentally-friendly. The boilers meet emission class 4 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 boilers achieve an efficiency level of up to 85.5 %.

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 and opens or closes the mixing valve. The boilers need cleaning once every 3 weeks on average.

THE CAST-IRON BOILERS OFFER
EFFICIENCY LEVELS OF **UP TO 85,5 %**

BOILER REGULATION



BOILER REGULATION - Kotel je ovládán nejmodernější řídicí jednotkou SPARK. Jednotka disponuje programem Fuzzy Logic - pracuje v režimu práce s modulací výkonu kotle tak, aby dosáhl konstantní zadané teploty kotle. Jednotka umožňuje ovládání 4 čerpadel a směšovacího ventilu. Možné rozšíření až na 5 směšovacích ventilů a 8 čerpadel. Každý směšovací ventil může být řízen venkovním čidlem a pokojovým termostatem. Pokojový termostat ovládá kotel plnohodnotně. Na displeji řídicí jednotky je zobrazeno množství paliva v zásobníku. V daném ročním období je možné provozovat režim LÉTO / ZIMA. Pro uživatele nebo servis je k dispozici samostatné menu. Kotel je možné ovládat i přes internet za pomoci sparkNET modulu.

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 components. 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 a 5mm thick welded steel sheet metal. The ashtray door is on 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.

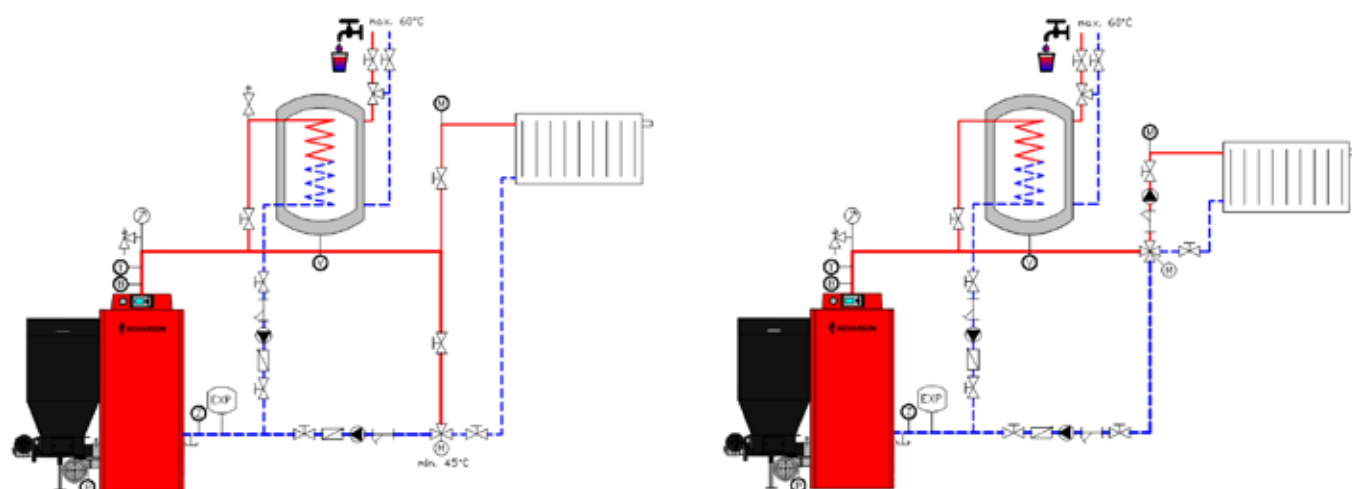


The upper feeding doors include a ceramic layer to encourage combustion. So-called turbulators are fitted to the boiler vents to improve the transfer of heat to the heat exchanger.

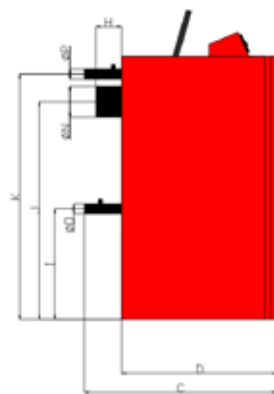
The fan positioned on the burner flange beneath the fuel storage container blows primary air into the burner. The fan speed is set electronically. The fuel storage container is located next to the boiler above the feeder screw.

The feeder is fitted with a wax plug for securing the system against back-burn.

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




Boiler type		PANTHER 20	PANTHER 25	PANTHER 30	PANTHER 35	
Nominal power output	kW	20	25	30	35	
Minimum power output	kW	7	8	10	12	
Efficiency	%	84	85	85,2	85,5	
Weight	kg	358	399	442	485	
Water volume capacity	l	36,2	40,9	45,6	50,3	
Chimney draft	Pa	20				
Dimensions of the tank filling hole	mm	440x300				
Boiler class per ČSN EN 303-5	-	4				
Heating areas of up to	m ²	200	250	300	350	
Boiler dimensions	A	mm	1480	I	mm	580
	B	mm	1370	J	mm	1080
	C	mm	850-1090	K	mm	1250
	D	mm	720-960	L	mm	1350
	E	mm	1245	M	mm	1710
	F	mm	600	N	mm	158
	G	mm	500	O		2"
	H	mm	125	P		2"



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