

Pelletboiler

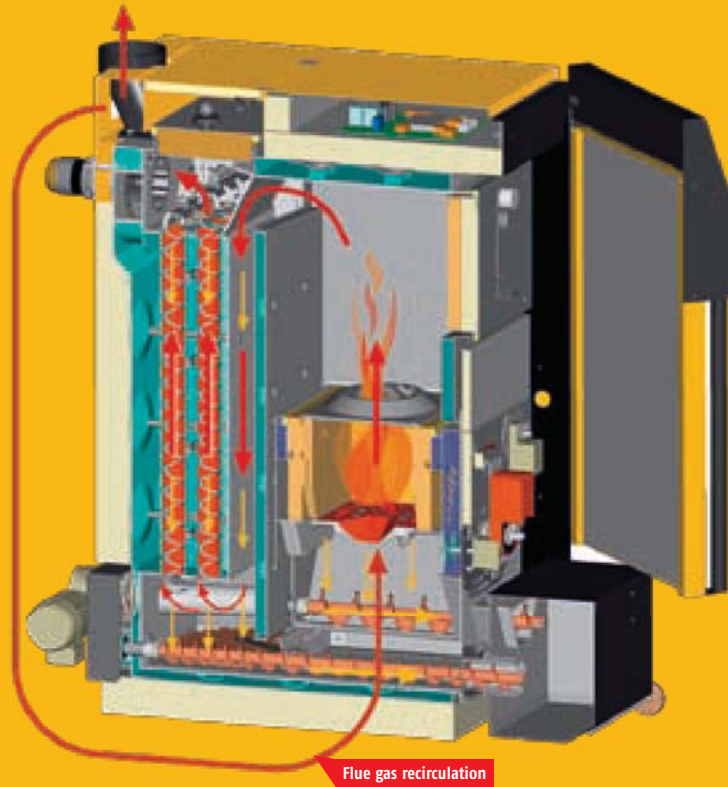
ETA PE-K 35 to 90 kW

Solid technologies for higher heating loads

The standard 15-25 kW pellet boiler technology can not be used in larger output systems. Therefore ETA has adapted its proven ETA-Wood chip boiler with a pneumatic conveying system for pellets where heating loads are over 25 kW.

Using this system you have a well known boiler with lambda probe control, a tilting grate for automatic ash disposal, hot refractory-lined furnace and an automatic heat exchanger cleaning system. This high technical standard ensures lowest emissions, highest degree of efficiency, lowest power consumption, maximum reliability, simple operation and a minimum amount of maintenance. Due to the pneumatic conveyor system the storage of the pellets is independent of the boiler location.

Distances up to 20m and also difference in elevation are no problem for this system. Existing oil storage rooms can be upgraded to an adequate pellet store using a screw conveyor. In special cases an underground store or bag silos can also be used. The intermediate hopper on the boiler reduces pellet filling time 10 minutes twice a day for the 35 kW model and 10 minutes four times a day for the 90 kW model.



ETA PE-K highlights:

tilting grate, refractory-lined combustion chamber, draught fan, lambda probe control, automatic ignition, automatic ash disposal system.

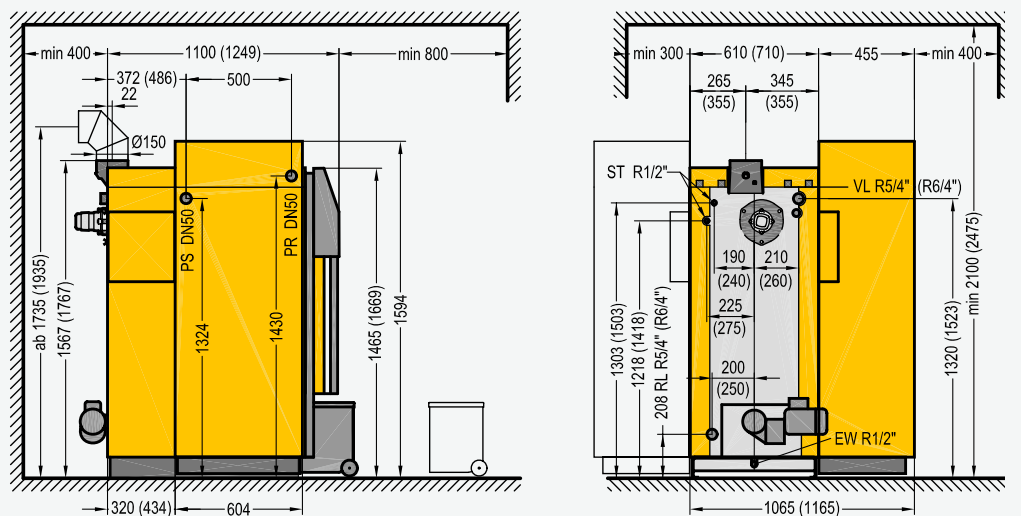
Complete control including hot water tank and heating boost controlled by outside temperature integrated in the boiler.



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Measurements Measurements in brackets to 70 and 90kW

The pellet bin and stoker can be supplied for attach on either right or left hand side



VL = Flow R 5/4" (6/4") female
 RL = Return R 1/2" female
 EW = Water drain R 1/2" female
 ST = Safety heat exchanger R 1/2" male
 PS = Pellet suction line DN 50 Hose connection
 PR = Pellet back air DN 50 Hose connection

Technical Specification

ETA PE-K		35	50	70	90
Rated capacity	kW	9,4-35,0	14,1-49,0	21,0-70,0	28,4-95,0
Efficiency wood pellets partial/full load *	%	90,8 / 94,1	93,1 / 93,5	93,5 / 93,4	93,8 / 93,2
Dimensions w x d x h	mm	610 x 1.100 x 1.557		710 x 1.249 x 1.758	
Weight with stoker / without stoker	kg	705 / 601	706 / 602	968 / 864	970 / 866
Water content	litre	117		196	
Pressure drop ($\Delta T=20^\circ$)	Pa / m	280 / 0,028	550 / 0,055	1.250 / 0,125	2.300 / 0,23
Pellet intermediate hopper on the boiler (net)	kg	60 kg (295 kWh)			
Max. Distance boiler – pellet store	m	20			
Ash container volume	litre	35		44	
Flue gas mass flow rate partial/full load	g/s	8,3 / 21,3	11,5 / 30,0	16,3 / 41,5	20,1 / 54,6
CO ₂ -content in dry exhaust gas	%	9,0 / 13,0	9,5 / 13,0	10,0 / 13,5	11,0 / 14,0
Flue gas temperature partial/full load *	°C	80 / 115	80 / 140	85 / 145	90 / 150
Required chimney draught		2 Pa at partial load / 5 Pa at full load required above 15 Pa a draught limiter is necessary			
Carbon monoxide emissions (CO) partial/full load*	mg/MJ	55 / 16	50 / 13	47 / 9	44 / 5
	mg/m ³ 13%O ₂	84 / 24	76 / 20	71 / 15	66 / 8
Power consumption partial/full load *	W	69 / 159	78 / 153	120 / 180	133 / 312
Max. permissible operating pressure	3 bar	Boiler classification		3 according to EN 303-5	
Temperature controller setting range	70 – 85°C	Tested fuels		Wood pellets ÖNORM M 7135, DIN 51731	
Max. permissible operating temperature	95°C	Power Supply		1 x 230 V / 50 Hz / 13 A	
Minimum return temperature	60°C				

* Values based on test reports from BLT Wieselburg, nos. 049/03 and 005/04. BLT Wieselburg test reports are available on the Internet: www.blb.mlfuw.gv.at (English > Biomass > Heating Systems > Chipped wood furnaces)

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