

HYBRID SERIES

STEAM BOILERS

SOLID FUEL-FIRED FIVE-PASS WATER-TUBE, SPECIAL DESIGN HIGH-PRESSURE BOILER



HIGH CAPACITY
**NON-STOP
EFFICIENCY**



Steam Production Capacity

1000 Kg/h - 25.000 Kg/h



Operating Pressure

6-50 Bar



Thermal Capacity

698 kW - 17.442 kW



Design Type

Fire-Tube, Water-Tube
Specially Designed, 5 Pass



Fuel Type

Lignite, Bituminous Coal, Pulverized Coal, Pellets,
Olive Pomace, Olive Stones, Wood, Wood Chips,
Wood Dust, Sawdust, Plywood Waste,
Chipboard Scrap, Hazelnut Shells, Cherry Stones,
Walnut Shells, Straw, Sunflower Husks, Compressed
Bio-Pellets, Pellets, Peanut Shells, Almond Shells,
Fruit Pulp, Poultry Manure, Rice Husks

Capacity Table

Model	Steam Capacity (kg/h)	Thermal Capacity (kcal/h)	Thermal Capacity (kW)	Thermal Capacity (MW)
HYBRID 50*	1.000	600.000	698	0,7
HYBRID 60*	1.200	720.000	837	0,84
HYBRID 80*	1.600	960.000	1.116	1,12
HYBRID 100*	2.000	1.200.000	1.395	1,4
HYBRID 125*	2.500	1.500.000	1.744	1,74
HYBRID 150*	3.000	1.800.000	2.093	2,09
HYBRID 200*	4.000	2.400.000	2.791	2,79
HYBRID 250*	5.000	3.000.000	3.488	3,49
HYBRID 300**	6.000	3.600.000	4.186	4,19
HYBRID 350**	7.000	4.200.000	4.884	4,88
HYBRID 400**	8.000	4.800.000	5.581	5,58
HYBRID 500**	10.000	6.000.000	6.977	6,98
HYBRID 600**	12.000	7.200.000	8.372	8,37
HYBRID 750**	15.000	9.000.000	10.465	10,47
HYBRID 900**	18.000	10.800.000	12.558	12,56
HYBRID 1000**	20.000	12.000.000	13.953	13,95
HYBRID 1250**	25.000	15.000.000	17.442	17,44

* Please contact us for higher capacity.

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Hybrid Series - Solid Fuel Steam Boiler

<https://www.ekotekkazan.com/product/hybrid-series-solid-fuel-steam-boiler>

About the Product

The Hybrid Series solid fuel steam boiler combines fire-tube and water-tube boiler types within the same body, creating the HYBRID boiler. It efficiently burns lignite coal, olive pomace, pellet, sawdust, sunflower husk, hazelnut shell, and similar granular fuels.

Description

The primary furnace, which is mounted on a rotating grate or stoker, is manufactured with precise and detailed calculations to create a large-volume combustion chamber above the rotating grate. The fire-tube Scotch type boiler is connected to the radiation heat recovery boiler with water collector tubes.

Detailed Description

The secondary (secondary) module fire-tube boiler is two-pass and designed to achieve maximum efficiency for the required capacity. The reduced smoke volume as heat decreases is designed to pass through the boiler at the most suitable speeds. The long flame pathways within the boiler ensure that a significant portion of the heat energy generated by combustion remains within the boiler and is used for steam production.

With its larger steam volume, the Hybrid Series solid fuel steam boiler can immediately respond to peak steam demands, while the water-tube primary furnace enables flash steam production. The fire-tube boiler's tubes can be easily replaced by opening the front and rear covers. The Hybrid steam boiler fully transfers all the calorific value of the burning fuel into the steam production process, ensuring maximum heat conversion.

You can use the Hybrid Steam Boiler with approximately 82% efficiency. Blowoff and flanged cleaning are available in the lower collectors. The boiler heat load is optimally calculated according to the heating surface area. The solid fuel combustion efficiency is much higher in Hybrid Boilers than in 3-Pass Scotch Type Boilers.

Thanks to its large water and steam volume, it ensures high performance under intense and continuous working conditions and during sudden steam draws. The surface area of the water and fire-tube system allows for drier and higher energy steam. If requested, our solid fuel boilers can be equipped with automatic ash discharge, automatic lignite loading, and transfer systems.

Our boilers are designed for fuel with a minimum of 4,500 kcal/h (flame temperature of 1200°C). Please contact our company for lower calorific fuel.

Our products operate quietly, preventing noise pollution. Assisted by a fan and primary air, combustion is controlled, clean, and smokeless. Thanks to the combination of other boiler designs and Ekotek Quality, they are much more efficient and durable. They are produced in accordance with the 12952-3 12953-2 Standards, and the 2014/68/EU Pressure Vessels directive, and they have CE certification. The smoke tubes are welded to the mirror, providing safer and longer-lasting operation. Heat loss is reduced by strong insulation with glass wool or stone wool. Their elegant appearance makes them stand out and harmonize with their environment. They are easy to install and maintain.

If requested, our steam boilers can be delivered as a package with all accessories included. For different fuel types, such as pellet, powdered fuel, wood chips, etc., please contact us!