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Since 1975



**PACKMAN**  
Industrial Group

 Waste Heat Steam Boiler  
powered by PACKMAN industrial group



# Waste Heat Steam Boiler

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## Product Description

Waste Heat Steam Boilers (WHSB) use the wasted energy from any process plant like exhaust gases from engine-operated CHP units, gas turbines, industrial processes with waste heat exhaust gas to generate steam. As steam generator systems, they are energy efficient in operation and can be put to many applications. The range for saturated or superheated steam extends from 1 to 25 bar gauge, while the capacity is between 100 and 25,000 kg of generated steam per hour. Control with the automatic Controlling System.

## Packman Waste Heat Boiler Advantages

- Efficient steam generation in combined heat and power plants
- Cost-saving and reliable operation of the systems
- Maximum functionality, safety and service
- Performance areas: 1 to 25 barg, 100 to 25,000 kg/h
- Certifications: BS/EN-12953 European
- Can be used in all plants with exhaust gases from hydrogen, natural gas, biogas, sewage gas and special gases, plus diesel and other liquid fuels
- Single, double version for operation with one or two engines with completely separate exhaust gas sections
- The Controlling System is individually adapted to each project and is delivered in the required specifications.

steam generator systems are ready for connection and complement one another within precisely matched components. The main boiler body with prescribed safety technology forms the foundation. Economizers, bypass solutions and a pump unit are added, as is modern and convenient control and regulation technology. This wide-ranging scope of delivery guarantees custom-made applications and offers safe, fault-free and low-maintenance plant operation.

## Applications

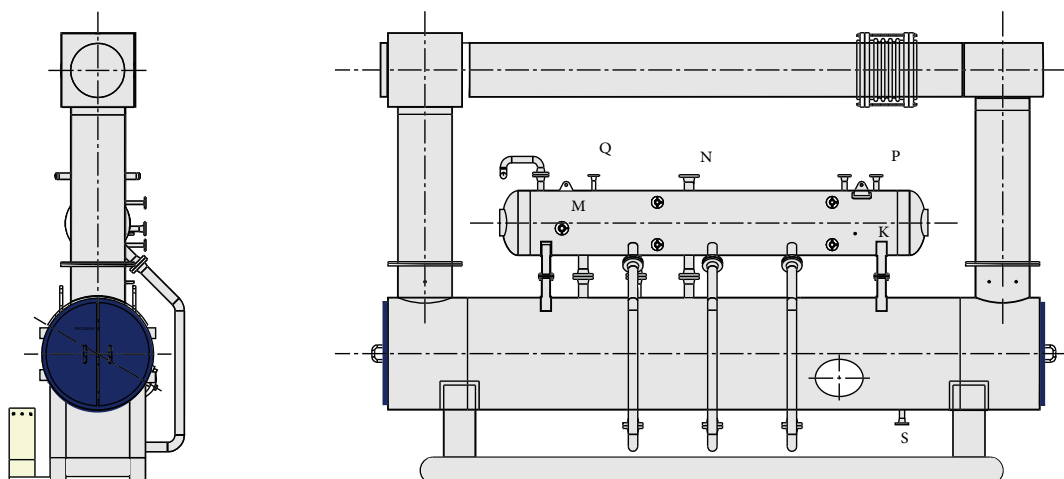
steam boilers are used in the following industries:

Food processing, textile industry, pharmaceuticals, paper production, chemical industry

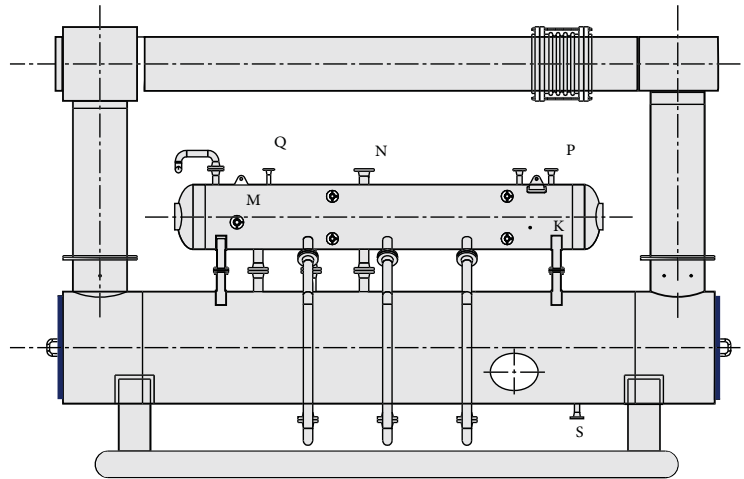
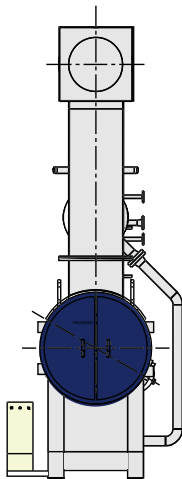


The economizer preheats the feed water and cools the exhaust gas below the saturated steam temperature. This enables better use of the energy in the exhaust gas, which considerably improves the energy balance and significantly increases the amount of steam. The remaining residual energy in the exhaust gas can additionally be used in an exhaust gas heat exchanger. The superheater raises the temperature above the saturated steam temperature for steam transport or in applications where superheated steam is required, such as in steam turbines.





Model	Unit	PSB-WH-500	PSB-WH-700	PSB-WH-1000	PSB-WH-1250	PSB-WH-1500
<b>Technical Data</b>						
Thermal Capacity	kW	500	700	1000	1250	1500
Steam Output	Kg/h	750	1000	1500	2000	2500
Working Pressure	bar	Up to 20				Up to 20
Pressure Drop in Combustion Chamber	mbar	3.5				3.2
Inlet Exhaust Temperature	°C	400-500	400-500	400-500	400-500	400-500
Outlet Exhaust Temperature	°C	220				220
Economizer Outlet Exhaust Temperature	°C	120	120	120	120	120
Water Inlet Temperature	°C	105	105	105	105	105
<b>Connection Size</b>						
Steam Outlet @10barg (N)	in	2	3	3	3	3
Safety Valve @10barg (P)	in	1	1	1	1	1 1/2
Sampling (K)	in	1/2	1/2	1/2	1/2	1/2
Feeding Valve (M)	in	1	1	1	1	1 1/2
Vent Valve (Q)	in	3/4	3/4	1	1	1
Drainage Valve (S)	in	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2
<b>Boiler Dimension</b>						
Boiler Dimension	mm	Call Packman Technical Office				

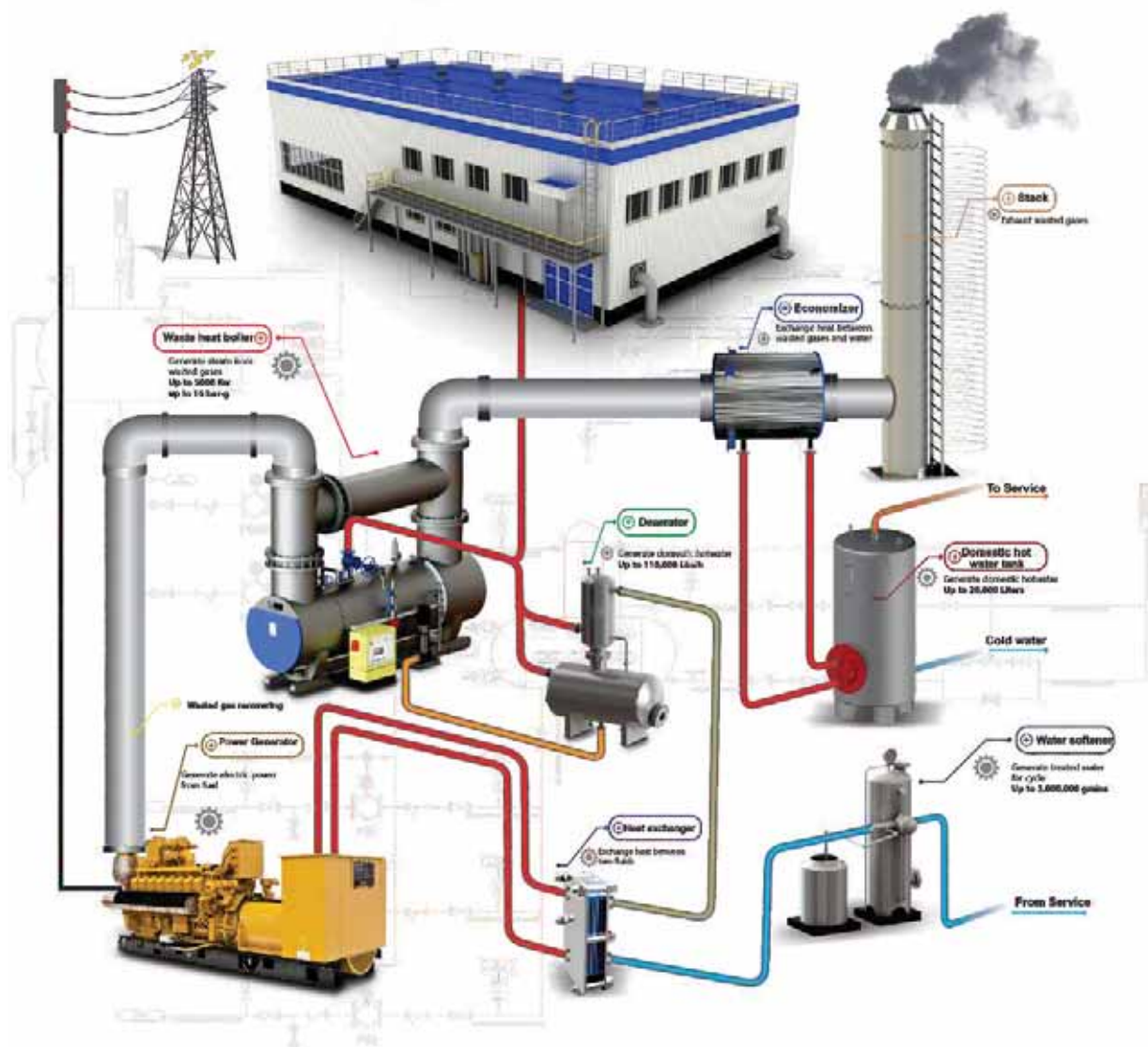


Model	Unit	PSB-WH-1750	PSB-WH-2000	PSB-WH-2500	PSB-WH-3000	PSB-WH-3500
<b>Thermal Capacity</b>	kW	1750	2000	2500	3000	3500
<b>Steam Output</b>	Kg/h	3000	3500	4000	4500	5000
<b>Working Pressure</b>	bar	Up to 20	Up to 20	Up to 20	Up to 20	Up to 20
<b>Pressure Drop in Combustion Chamber</b>	mbar	3.5	3.5	3	3.5	4
<b>Inlet Exhaust Temperature</b>	°C	400-500	400-500	400-500	400-500	400-500
<b>Outlet Exhaust Temperature</b>	°C	220	220	220	220	220
<b>Economizer Outlet Exhaust Temperature</b>	°C	120	120	120	120	120
<b>Water Inlet Temperature</b>	°C	105	105	105	105	105
<b>Connection Size</b>						
<b>Steam Outlet @10barg (N)</b>	in	3	4	5	6	6
<b>Safety Valve @10barg (P)</b>	in	1 1/2	1 1/2	1 1/2	2	2
<b>Sampling (K)</b>	in	1/2	1/2	1/2	1/2	1/2
<b>Feeding Valve (M)</b>	in	1 1/2	2	2	2	2
<b>Vent Valve (Q)</b>	in	1	1	1	1	1
<b>Drainage Valve (S)</b>	in	1 1/2	1 1/2	1 1/2	1 1/2	2
<b>Boiler Dimension</b>						
<b>Boiler Dimension</b>	mm	Call Packman Technical Office				



**PACKMAN**  
Industrial Group

## Combined Heat & Power (CHP) Power Plant Cycle Packman Waste Heat Boiler



021-42362

Designing&ManufacturerofCondensingHotWater,Steam,HotOil&Waste  
HeatBoiler,HeatExchangers,AutoclavePressure&StorageVessels,...



# PACKMAN GROUP

## History

The Packman Company was founded in February 1975, and was soon afterwards registered in companies Registration Office. In early years the Packman construction and service branch focused on building installations. Different mega power plants were built by cooperating with Brown Boveri and Asseck companies in 1976.

The company started its official activities in construction of High-Pressure Vessels such as Hot-Water Boilers, Steam Boilers , Storage Tanks, Softeners and Heat Exchangers from 1984.

Packman Company is one of the first companies which supplied the high quality and standard hot water boilers to the customers.

Packman has exported its products to countries such as Uzbekistan, United Arab Emirates and other countries in the Middle East. It is one of the largest producers of hot-water and steam boilers in the Middle East.

Now we are proud to announce that the Packman industrial group has five major sub-brands that have product titles in all field of HVAC equipment and engineering services, and we do not know this success except with the help and support of our customers.

1. Construction Services Industry Association
2. Industry Association
3. Construction Companies' Syndicate
4. Technical Department Association
5. Mechanical Engineering Association
6. Engineering Standard Association

### Departements:

#### Sales Deps:

- ∩ Power Plant & Petrochemical
- ∩ Industrial
- ∩ Hospitally Service
- ∩ Commercial & Residential
- ∩ Sport Complex & Pool

#### Technical Deps:

- ≡ Manufacturing R&D
- ≡ Innovation Center
- ≡ EPC Execute Unit
- ≡ Product Develop Unit
- ≡ Sales Engineering Dep.

#### Others:

- ≈ After Sales Service
- ≈ Project Control
- ≈ Financial Office
- ≈ Commercial Office
- ≈ Marketing Department





# PACKMAN GROUP Brands



**PACKMAN**  
Industrial Group

Designer & manufacturer of Condensing, Hot Water, Steam, Hot Oil & Waste Heat Boilers, Heat Exchangers, Autoclave Pressure & Storage Vessels & etc



**GREENMAN**  
Green mindset, green future

Engineering & Designing Commercial Greenhouse Plant, CO2 Dosing System, Flue gas Condenser & Special HVAC Systems, Sustainable Agriculture & etc



**ROMAN**  
Water solution

Designer & manufacturer Reverse Osmosis Plant & Package, Water Treatment, Softener & Filters and Chemical Dosing Systems & etc



**RAADMAN**  
a look to the future

Designer & manufacturer of Industrial Mono & Dual Block Gas, LPG, Light & Heavy Oil Burners, Premixed & Postmixed Burners, Watertube burners, Process burners, Special application burners & Combustion Solutions & etc



**CHILLMAN**  
Coolest hvac around

Designer & manufacturer of Air & Water Cooled Chillers, Air Handling Units, Fancoil, HVAC Equipment, Cold Storage Room & etc



1. Isfahan Factory



2. Vilashahr Factory



3. Parand Factory



4. Parand (2) Factory



5. Bonyad Factory

# SOME OF Certificates are



# Knowledge Based



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