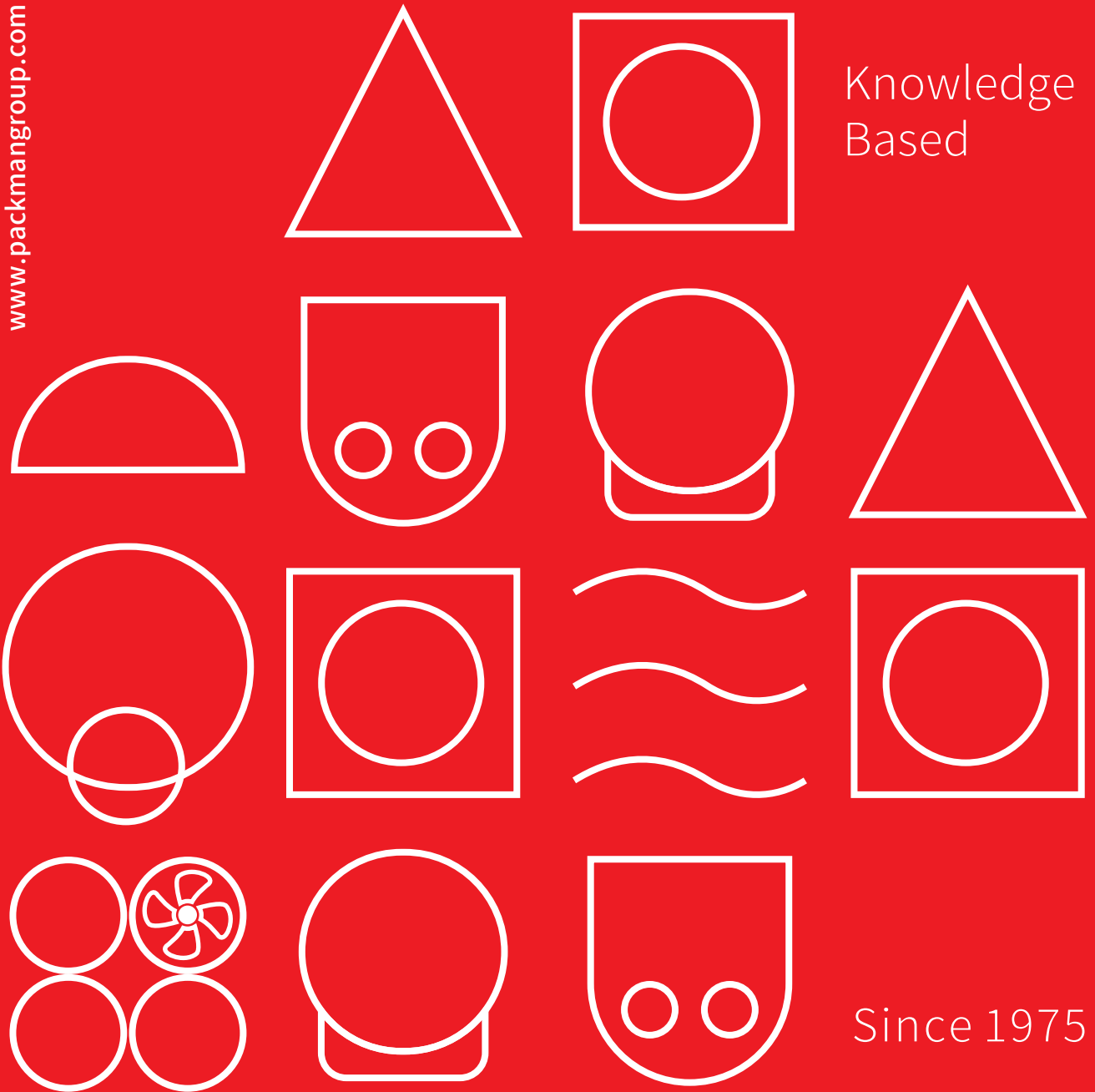


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Knowledge
Based

Since 1975



PACKMAN
Industrial Group

 Vertical Steam Boiler



Vertical Steam Boiler

www.packmangroup.com



Product Description

Packman vertical steam boiler PSB series are designed with simple mechanical structure via modern machinery and equipment to confirm to the latest regulations of EN and DIN standards. The PSB series are user friendly, and use the latest technology to meet every customer's needs.

The vertical steam boiler is robust and economical. The furnace is formed by the fire tube. The flue gases are directed through topped smoke tubes.

Constructional design boiler is especially suitable for the combustion of liquid or gaseous fuels. It can, however, as well be used for solid fuels. Coal or wood performances.

Fire Tube

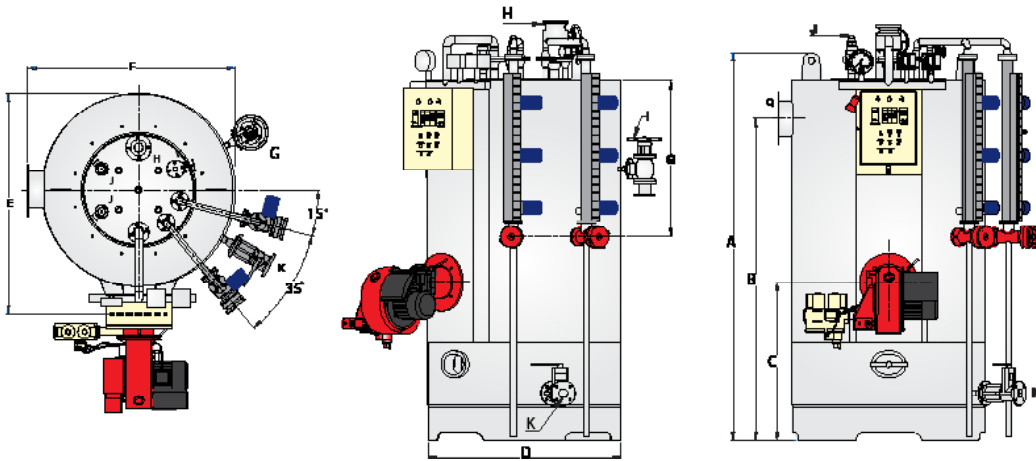
The chosen diameter makes sure that an unobjectionable flame can develop and a complete burnout is guaranteed. The decision whether plane or spiral fire tubes are to be used depends on the diameter and the working pressure. The arrangement in the inferior part of the water space has an especially favorable effect on the heat exchange and the water circulation, and allows a clear arrangement of the remaining flue gas passes. Boiler supports, skids: The boiler body is based on supports. Most of the unit are delivered on skids; by that special foundations for the installation are not required. In this case all accessories which are necessary for operation, such as oil or gas firing equipment, combustion air fan, oil preheater, control panel or switchboard and feeding device, can be mounted on the skid, too.

Product Capacity Calculation & Selection

The Steam boiler selected based on maximum required capacity and type of process. The better way to select the capacity and pressure of the boiler is following below steps:

- 1- Calculate the maximum heat load based on your process.
- 2- Adding 20% to maximum load for coefficient of confidence.
- 3- Consider the 80% average efficiency for vertical steam boiler.
- 4- Calculate pressure based on your project and distance between boiler and consumer.
- 5- Determined the number of boiler you have: it is better you choose number of boiler for 100% of full load

Finally you can select the model from the table in below.



Model	Unit	PSBV-150	PSBV-200	PSBV-300	PSBV-450	PSBV-600	PSBV-750
Technical Data							
Thermal Capacity	kw	100	150	200	300	400	500
Steam Output	kg/hr	150	220	300	450	600	750
Heating Surface	m ²	4	4.4	5	6.6	7.6	9.5
Working Pressure	bar	Up to 16 bar					
Pressure Drop in Combustion Chamber	mbar	1.6	1.8	2	2.2	3.3	3.5
Design Standard	-	BS/EN 12953					
Max Gas Consumption @Sea Level	m ³ /hr	10	15	20	30	40	50
Max Fuel Oil Consumption @Sea Level	liter/hr	8.33	12.50	16.67	25.00	33.33	41.67
Max Heavy Fuel Oil Consumption @Sea Level	liter/hr	7.14	10.71	14.29	21.43	28.57	35.71
Connection Size @ 10 bar Working Pressure							
Steam Outlet (H)	in	1	1	1	1	1	1
Safety Valve (J)	in	3/4	3/4	3/4	3/4	1	1
Feeding Valve (I)	in	1	1	1	1	1	1
Venting Valve (V)	in	3/4	3/4	3/4	3/4	1	1
Drain Valve (K)	in	1	1	1	1	1	1
Stack I.D. (Q)	in	6	6	6	8	8	8
Boiler Dimension							
Length (F)	mm	950	1035	1100	1210	1320	1420
Width (E)	mm	890	970	1030	1150	1260	1360
Height (A)	mm	2030	2030	2030	2365	2365	2365
Min Front Clearance	mm	500	500	500	500	500	500
Min Rear Clearance	mm	500	500	500	500	500	500
Min Side Clearance	mm	500	500	500	500	500	500
Min Boiler Room Length	mm	1950	2035	2100	2210	2320	2420
Weight							
Shipping Weight @ 10 bar Working Pressure	kg	660	760	860	1260	1480	1680

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, Water tube 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



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