



**PACKMAN**

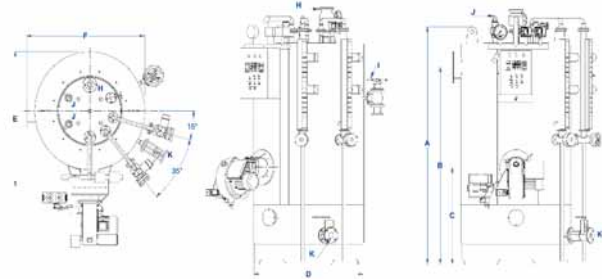
Packman **Industrial Group**

## ■ VERTICAL CLEAN STEAM BOILERS

Manufacturer of Boilers, Thermal Oil Heaters, Heat Exchangers  
Pressure Vessels, Storage Tanks & Industrial Water Treatment Equipment, ...



## VERTICAL CLEAN STEAM BOILERS



CAPACITY (KW)		100	200	300	400	500	600	700
Heating Surface (SQ.-m)	-	3.45	4.3	5.5	7.65	8.9	10.4	11.8
Steam Volume (CU.-m)	-	0.02	0.08	0.1	0.11	0.14	0.22	0.25
Steam Output (ton/h @ 100 °C)	-	0.15	0.3	0.45	0.6	0.75	0.9	1.05
Output (Kcal/h) x 1000000	-	0.09	0.17	0.25	0.34	0.43	0.51	0.6
pressure drop in boiler (mbar)		2	2	2.4	2.6	2.8	3	3
APPROXIMATE FUEL CONSUMPTION AT RATED CAPACITY BASED ON NOMINAL 82% EFFICINCY								
Firing Rate Gas (m3/h)	-	10	20	30	40	50	60	70
Firing Rate oil (litter/h)	-	9.3	18.6	20.8	37.3	46.6	56	65.3
Firing Rate fuel oil (litter/h)	-	8.8	17.6	26.4	35.2	44	52.7	61.5
HEIGHTS								
Overall	<b>A</b>	1960	1960	2090	2240	2240	2340	2340
Stack to Ground	<b>B</b>	1620	1620	1740	1870	1870	1920	1920
Burner to Ground	<b>C</b>	770	770	810	920	920	920	920
Boiler O.D.	<b>D</b>	840	930	1020	1030	1080	1220	1260
Boiler Head to LCB	<b>E</b>	990	1080	1170	1180	1230	1370	1410
WIDTHT								
Overall	<b>F</b>	990	1080	1170	1180	1230	1370	1410
CONNECTIONS								
Steam Outlet (@10 bar)	<b>H</b>	1"	1 1/2"	2"	2"	2"	2 1/2"	3"
Feed Water Inlet	<b>I</b>	1"	1"	1"	1"	1"	1"	1"
Safety Valve	<b>J</b>	3/4"	3/4"	1"	1"	1"	1"	1"
Drain	<b>K</b>	1"	1"	1"	1"	1"	1"	1"
Stack I.D.	<b>M</b>	6"	8"	8"	8"	8"	10"	10"
BOILER WEIGHT								
Shipping Weight (@10 bar)	-	730	850	1030	1290	1430	1850	1960

NOTE: All Dimensions are in "mm" and subject to change without



## ABOUT PRODUCT

Vertical clean steam boilers are used to produce pure and clean steam, free of any harmful substances and impurities. Applications for pure and clean steam are found in the food, cosmetic, biochemical, and pharmaceutical industries, as well as for sterilization and any direct steam heating processes where the demands on steam quality are very high.

Our clean steam boilers has been designed to provide sterilizer grade clean steam from suitably treated water using oil or gas burners as the heating medium and can be supplied with or without an integral feed water pre-heating.

Our clean steam boiler covers steam outputs from 100 kW up to 700kW and other capacity units can be designed to order. The boiler is manufactured from AISI 304L stainless steel and all internal surfaces are passivated to provide a corrosion resistance surface and developed with high efficiencies, in rigid and reliable designs, ensuring low operation and maintenance cost.

### Benefits:

1. Short delivery times for standard Pure Steam Generators
2. High energy efficiency by ideal design and energy retrieval measures
3. Vertical design with minimal area demand
4. All clean steam and feed water wetted parts in AISI 304L stainless steel
5. Using PLC controlled to regulate generator clean steam outlet pressure, generator water level

### QUALITY CONTROL:

1. Strength calculation report with applied materials information.
2. 100% NDT (non-destructive inspection) report of steel plate tube and welding rod including RT and UT examination reports.
3. Hydraulic test report: ensure the standard working pressure and safety.





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