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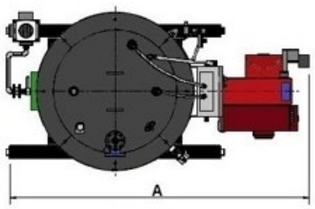
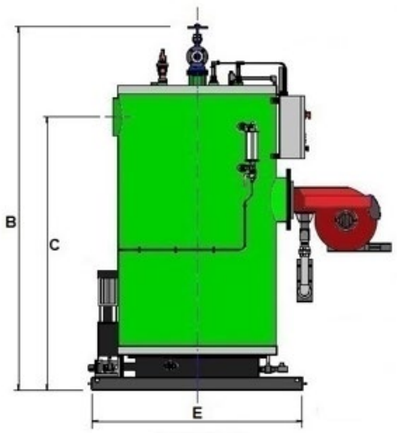
APRIL 2025

4VT Technical Chart

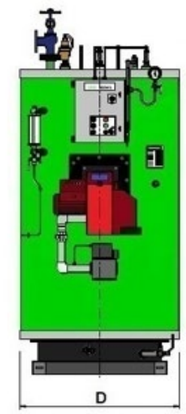
		Model (HP)	10SJ	15	20	25	30	40	50	60	80	100	130
Thermal Input ****		**kW**	125	187.5	250	312.5	375	500	625	750	1000	1250	1625
Evaporation		**kW**	100	150	200	250	300	400	500	600	800	1000	1300
F&A 100°C (212°F) ***		**kg/hr**	156	235	314	392	470	626	783	960	1270	1565	2000
		lbs/hr	345	518	690	863	1035	1380	1725	2116	2800	3450	4408
Overall Front to Back	**A**	**mm**	1325	1440	1510	1758	1760	2180	2325	2390	2665	2665	2790
Overall, Height	**B**	**mm**	2040	1900	2010	2050	2050	2755	2960	2960	3140	3140	3700
Height to Flue Outlet (Centre Line)	**C**	**mm**	1990	1850	2005	1618	1618	1976	2183	2183	2275	2275	2835
Outside Diameter (Cladding)	**D**	**mm**	735	850	850	1050	1050	1270	1270	1270	1850	1850	1850
Overall Width	**E**	**mm**	850	900	900	1160	1160	1680	1680	1680	1800	1800	1900
Minimum Ceiling Height		**mm**	2350	2150	2300	2300	2300	3000	3000	3000	3200	3200	3760
Recommended Flue Diameter		**mm**	125	150	150	255	255	300	300	300	355	355	405
Requirements at Flue Exit		**mbar**	**Minus 0.5 i.e. Negative Back Pressure, NOT Positive**										
Steam Stop Valve Diameter	**BSP**	**mm**	25	32	32	50	50	50	50	50	80	80	80
Blowdown Valve Diameter	**BSP**	**mm**	20	25	25	25	25	25	25	25	25	25	25
Feed Pump Inlet Diameter	**BSP**	**mm**	20	20	20	25	25	25	25	25	25	25	25
Gas Inlet	**BSP**	**mm**	20	25	25	32	32	40	50	50	50	50	50
Safety Valve Inlet/ Outlet Diameters	**BSP**	**mm**	20 / 25	20 / 25	20 / 25	25 / 32	25 / 32	25 / 32	25 / 32	25 / 32	32 / 40	32 / 40	40 / 50
Air Consumption		**m^3/hr**	139	208	278	356	417	582	697	836	1066	1428	1856
Minimum High Level Ventilation		**cm^2 Free Area**	425	570	714	877	1004	1346	1586	1876	2355	3107	3981
Minimum Low Level Ventilation		**cm^2 Free Area**	850	1140	1430	1754	2008	2694	3172	3752	4712	6214	7962
Fuel Consumption (Natural Gas) *		**m^3/hr**	11.6	17.4	23.2	29.7	34.8	48.5	58.1	69.7	88.9	119	154
Fuel Consumption (Light Fuel Oil) *		**Litres/hr**	11	16.6	22.1	28.3	33.1	46.2	55.3	66.4	84.7	113.3	147
Fuel Consumption (LPG - Propane) *		**m^3/hr**	4.83	7.24	9.66	12.07	14.48	19.31	24.14	28.97	38.63	48.28	62.77
Minimum/ Maximum Gas Pressure		**mbar**	20 / 200	20 / 200	20 / 200	20 / 200	20 / 200	20 / 200	20 / 200	30 / 200	30 / 200	40 / 200	70 / 200
Electrical Requirement		**Amps**	10	8	8	10	10	10	10	10	13	13	15
Water Capacity @ Normal Working Level		**Litres**	109	138	157	292	292	550	702	702	1018	1018	1195
Water Capacity @ Fully Flooded Level		**Litres**	148	196	214	445	444	840	990	990	1605	1605	1850
Boiler Weight @ Empty, Including Burner		**Kg**	1048	1257	1343	1869	1882	2823	3024	3064	5668	5678	6506
Water Flow Rate **		**Litres/hr**	82	124	165	205	248	330	412	495	658	822	1070



PLAN



SIDE ELEVATION



FRONT ELEVATION

NOTES:

*** Fuel Consumptions stated are to be used for the design of the supply pipework, they are not to be assumed as the hourly consumption.**

**** This figure will vary depending on process i.e. Process could provide different Condensate Return Rates etc. (These figures are based on a 50% Condensate Return and a 5% Blowdown Rate).**

***** The meaning of F&A 100°C is – The From & At rating of the boiler i.e. the amount of Steam Produced with a Feed Water Temperature of 100°C & the Boiler at Atmospheric Pressure.**

****** This figure will vary depending on external factors such as ambient air temperature, feedwater temperature etc. This figure is based on a 80% boiler efficiency.**