



Technical & Dimensional Data

Shaftesbury HE Series

Performance and General Data Information

	Boiler Model	HE 110	HE 150	HE 190	HE 220	HE 250	HE 280	HE 310	HE 340	HE 370	HE 400	
Energy	No. of sections	5	6	7	8	9	10	11	12	13	14	
	Heat output to water	kW Btu/hr x 1000	110 375	150 511	190 648	220 750	250 852	280 955.4	310 1057.7	340 1160.0	370 1262.4	400 1364.8
	Heat input (Nett)	kW Btu/hr x 1000	122.4 417.6	168.5 574.9	211.8 722.7	246.6 841.4	281.2 959.5	309.9 1057.4	343.2 1171.1	377.9 1289.5	404.2 1379.1	430 1467.1
Water	Water content	l UK gal	78 17.2	92 20.3	106 23.3	120 26.4	134 29.5	148 32.7	162 35.7	176 38.8	190 41.8	204 44.9
	Design flow rate @ 11°C Δt	l/s UK gal/min	2.64 34.8	3.44 45.4	4.12 54.5	4.77 63.1	5.42 71.7	5.95 78.6	6.61 87.3	7.25 95.7	7.92 104.6	8.58 113.3
	Waterside pressure drop @ 11°C Δt	mbar in wg	3.5 1.4	6.5 2.6	8.5 3.3	11.5 4.5	13.0 5.1	16.5 6.6	18.5 7.4	21.0 8.4	23.5 9.5	26.0 10.5
	Minimum flow rate @ 20°C Δt	l/s UK gal/min	1.33 17.6	1.80 23.8	2.27 30.0	2.62 34.7	2.98 39.5	3.27 43.2	3.63 48.0	4.0 52.8	4.36 57.7	4.72 62.4
	Maximum water pressure	bar psig	5.0 73.0									
	Maximum water flow temperature	°C	100									
Combustion	Combustion resistance (Gas & Oil)	mbar in wg	2.8 1.1	5.0 1.96	4.4 1.73	5.9 2.32	5.9 2.32	3.9 1.53	4.6 1.81	5.5 2.16	6.5 2.56	7.4 2.91
	Input rate - oil (35 SR1)	l/h UK gal/h	12.7 2.8	17.4 3.8	21.9 4.8	25.4 5.6	28.9 6.4	31.4 6.9	34.8 7.7	38.4 8.5	41.0 9.0	43.6 9.6
	Approx. flue gas vol. at NTP oil	m³/h ft³/h	206 7295	252 8907	300 10995	347 12258	394 13937	412.2 14557	457.8 16167	502.8 17756	548.4 19367	594.0 20977
	Approx. flue gas temp - oil	°C	225									
	Input rate Natural Gas (G20)	m³/h ft³/h	12.9 456	17.8 628	22.4 791	26.1 92.1	29.8 1052	32.75 1156	36.27 1280	39.94 1410	42.7 1507	45.5 1604
	Nominal inlet pressure required* Natural gas - inlet to gas train	mbar in wg	20 8.0									
	Approx. flue gas volume at NTP (wet) natural gas	m³/h ft³/h	174 6144	236 8333	254 8938	294 10381	335 11828	372.0 13137	413.4 14599	454.2 16040	495.6 17502	536.4 18943
	Approx. flue gas temp - natural gas	°C	225									
Flue	Flue connection O/D	mm in	180 7									
	Flue draught required at boiler outlet	mbar	(-)0.1 to (-)0.3mbar / (-)0.04 to (-)0.12" wg									
Electrics	Electrical supply - boiler		230v 1PH 50Hz									
	Electrical supply - burner		230v 1PH 50Hz / 400v 3PH Supply dependant on burner selection									