

# Technical Data

## Ensbury LT Boilers Performance and General Data

	Boiler Model	ELT 70	ELT 90	ELT 120	ELT 145	ELT 165	ELT 190	ELT 225	
Energy	Building Regulations seasonal efficiency (%) gross	84.35	84.50	84.60	84.67	84.72	84.78	84.74	
	Boiler output at 80/60°C	kW 70	90	120	145	165	190	225	
		Btu/h x 1000 239	307	409	495	563	648	768	
	Boiler input (gross) - Maximum	kW 85	110	146	177	201	232	274	
		Btu/h x 1000 290	375	498	604	686	792	935	
	Boiler input (nett) - Maximum	kW 77	99	132	159	181	209	247	
	Btu/h x 1000 263	338	450	543	618	713	843		
	Boiler output at 80/60°C for natural gas - Minimum	kW 25	50	50	50	50	60	60	
		Btu/h x 1000 85	171	171	171	171	205	205	
	Boiler output at 80/60°C for oil - Minimum	kW 38	61	61	61	83	83	83	
		Btu/h x 1000 130	208	208	208	283	283	283	
Water	Water content litres	130		185		220		260	
	System design flow rate at 20°C ΔT rise	l/s	0.84	1.08	1.44	1.73	1.97	2.27	2.69
	Waterside pressure loss at 20°C ΔT rise	mbar	11	18	10	15	19	25	12
	System design flow rate at 10°C ΔT rise	l/s	1.67	1.96	2.87	3.47	3.94	4.55	5.38
	Waterside pressure loss at 10°C ΔT rise	mbar	43	71	40	58	76	100	48
	Water flow rate - Minimum	l/s	No minimum flow rate						
	Water pressure - Maximum	barg	4						
	Water pressure - Minimum	barg	0.5						
	Water flow temperature - Maximum	°C	90						
	Water flow temperature for gas - Minimum	°C	60						
	Water flow temperature for oil - Minimum	°C	50						
Water return temperature - Minimum	°C	15							
Fuel	Flow rate for natural gas - Maximum	m <sup>3</sup> /h	8.1	10.5	14.0	16.9	19.2	22.1	26.2
	Inlet pressure for natural gas - Nominal*	mbar	20						
	Inlet pressure for natural gas - Maximum	mbar	50						
	Input rate for oil (35Sec)	l/h	8.1	10.4	13.8	16.7	19.0	21.9	26.0
Flue	Flue gas volume at 15°C, 9%CO <sub>2</sub> , N.T.P - Approx	m <sup>3</sup> /h	92.2	123.0	153.7	215.2	241	271	301
	Flue gas temperature at 80/60°C	°C	177	188	176	188	184	193	189
	Combustion chamber resistance	mbar	0.45	0.84	1.00	1.64	1.81	2.69	2.21
Connections	Water flow connection		R1½"		PN6 - DN50			PN6-DN65	
	Water return connection		R1½"		PN6 - DN50			PN6-DN65	
	Gas inlet connection		Rc¾			Rc1¼"			
	Safety valve connection		Rc¾"		Rc1"			Rc1¼"	
	Drain connection		R1"						
	Flue diameter (O/D) - Nominal	mm	150						200
	Electrical supply for boiler		230V 1Ph 50Hz						
	Electrical supply for burner		230V 1Ph 50Hz / 400V 3Ph 50Hz depending on burner selection						
	Shipping weight (excluding burner) - Approx	kg	283	284	393	394	447	448	522

1. Data applies to gas and oil fired boilers, unless otherwise stated.
2. \*The nominal gas inlet pressure shown is for Riello burners. Alternative burners and dual fuel burner requirements may change. Nominal gas inlet pressure must be maintained under full gas flow operating conditions.
3. The performance specification for boilers with low NOx burners may be reduced.



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## Ensbury LT Boilers Performance and General Data

	Boiler Model	ELT 260	ELT 300	ELT 335	ELT 370	ELT 440	ELT 510	ELT 580
Energy	Building Regulations seasonal efficiency (%) gross	84.81	84.80	84.87	84.83	85.07	85.11	84.97
	Boiler output at 80/60°C kW	260	300	335	370	440	510	580
	Btu/h x 1000	887	1024	1143	1262	1501	1740	1979
	Boiler input (gross) - Maximum kW	317	366	409	451	537	622	707
	Btu/h x 1000	1082	1249	1396	1539	1832	2122	2412
	Boiler input (nett) - Maximum kW	286	330	368	407	483	560	637
Btu/h x 1000	976	1126	1256	1389	1649	1911	2173	
Energy	Boiler output at 80/60°C for natural gas - Minimum kW	60	87	87	87	100	100	165
	Btu/h x 1000	205	297	297	297	341	341	563
Energy	Boiler output at 80/60°C for oil - Minimum kW	83	133	133	133	127	127	219
	Btu/h x 1000	283	454	454	454	433	433	747
Water	Water content litres	315		360		540		
	System design flow rate at 20°C ΔT rise l/s	3.11	3.59	4.01	4.43	5.26	6.10	6.94
	Waterside pressure loss at 20°C ΔT rise mbar	17	22	27	33	20	27	35
	System design flow rate at 10°C ΔT rise l/s	6.22	7.18	8.01	8.85	10.53	12.2	13.88
	Waterside pressure loss at 10°C ΔT rise mbar	66	87	108	132	81	108	140
	Water flow rate - Minimum l/s	No minimum flow rate						
	Water pressure - Maximum barg	4						
	Water pressure - Minimum barg	0.5						
	Water flow temperature - Maximum °C	90						
	Water flow temperature for gas - Minimum °C	60						
	Water flow temperature for oil - Minimum °C	50						
Water return temperature - Minimum °C	15							
Fuel	Flow rate for natural gas - Maximum m <sup>3</sup> /h	30.2	34.9	39.0	43.0	51.2	59.3	67.4
	Inlet pressure for natural gas - Nominal* mbar	20						
	Inlet pressure for natural gas - Maximum mbar	50						
	Input rate for oil (35Sec) l/h	30.0	34.6	38.6	42.7	50.8	58.8	66.9
Flue	Flue gas volume at 15°C, 9%CO <sub>2</sub> , N.T.P - Approx m <sup>3</sup> /h	361	430.4	461.2	522.6	614.9	707.1	830.1
	Flue gas temperature at 80/60°C °C	191	202	192	198	182	192	197
	Combustion chamber resistance mbar	2.31	3.50	2.88	3.88	2.53	3.83	5.86
Connections	Water flow connection	PN6 - DN65				PN6 - DN80		
	Water return connection	PN6 - DN65				PN6 - DN80		
	Gas inlet connection	Rc1½"			Rc2"	Rc1½"	Rc2"	
	Safety valve connection	Rc1¼"				Rc1½"		
	Drain connection	R1"						
	Flue diameter (O/D) - Nominal mm	200				250		
Electrical	Electrical supply for boiler	230V 1Ph 50Hz						
	Electrical supply for burner	230V 1Ph 50Hz / 400V 3Ph 50Hz depending on burner selection						
	Shipping weight (excluding burner) - Approx kg	606	607	737	739	973	976	980

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3. The performance specification for boilers with low NOx burners may be reduced.  
For further details please contact our technical department: Tel: 01202 662500.