

# Ansty Single Boiler Technical Data

## Performance and General Data Information

Boiler Model		AS75	AS90	AS120	AS160	AS220	AS270	AS320	
Energy	Heat output to water - Gross Non condensing 80/60°C	kW Btu/hr x 1000	67.7 231	81.2 277	108.2 369.2	144.3 492.3	198.5 677.3	243.6 831.2	280.1 989.8
	Heat output to water - Gross Condensing 50/30°C	kW Btu/hr x 1000	75 255.9	90 307.1	120 409.4	160 545.9	220 750.6	270 921.2	320 1091.8
	Heat input (net) - Gross	kW Btu/hr x 1000	78.5 267.8	94.3 321.7	126.3 430.9	168.3 574.2	230.4 786.1	282.7 964.6	336.7 1148.8
	Heat input (net) - Net	kW Btu/hr x 1000	69.8 238.2	83.7 285.6	112.2 382.8	149.5 510.1	204.7 698.4	251.2 856.8	299.1 1020.5
Water	Water content	l UK gal	97 21	97 21	97 21	112 25	147 33	230 51	230 51
	Design flow rate @ 11°C Δt	l/min UK gal/min	98 22.5	117 25.7	156 34.3	208 45.8	287 63.1	352 77.4	417 91.7
	Waterside pressure drop @ 11°C Δt	mbar in wg	0.8 0.3	1 0.4	1.2 0.5	1.3 0.5	1.5 0.6	1.6 0.6	1.8 0.7
	Design flow rate @ 20°C Δt	l/min UK gal/min	54 11.9	64 14.1	86 18.9	115 25.3	158 34.8	194 42.7	229 50.4
	Waterside pressure drop @ 20°C Δt	mbar. in wg	0.25 0.1	0.3 0.1	0.36 0.1	0.39 0.2	0.45 0.2	0.48 0.2	0.54 0.2
	Flow rate @ 40°C Δt	l/min UK gal/min	27 5.9	32 7.0	43 9.5	57 12.5	79 17.4	97 21.3	115 25.3
	Maximum water pressure	bar psig	5 72.5						
	Maximum water flow temperature	°C	100						
Gas	Combustion resistance	mbar in wg	0.7 1.75	0.9 2.25	1.5 3.75	2.5 6.25	2.8 7	3 7.5	3.8 9.5
	Input rate Natural Gas (G20)	m³/h ft³/h	7.38 260.61	8.86 312.9	11.87 419.2	15.82 558.7	21.66 764.9	26.58 938.7	31.65 1117.7
	Nominal inlet pressure required Natural gas - inlet to gas train	mbar in wg	20 8						
	Approx. flue gas volume at NTP natuarl gas	m³/h ft³/h	98 3461	118 4167	158 5580	210 7416	288 10170	352 12431	420 14832
	Approx. flue gas temp - nat. gas @ 30° return temp	°C °F	45 113						
Flue	Flue connection O/D	mm in	151 5.95	151 5.95	151 5.95	181 7.13	181 7.13	201 7.91	201 7.91
	Flue draught requirements	Balanced Condition at Boiler Outlet							
Electrical	Electrical supply - boiler / burner	230V 1PH 50hz							
	Start current	Amps	2.6	2.6	4.5	4.5	4.8	4.8	4.8
	Run current	Amps	0.7	0.7	1.4	1.4	1.3	1.3	1.3

# Ansty Dual Boiler Technical Data

## Performance and General Data Information

Boiler Model		AD150	AD180	AD240	AD320	AD440	AD540	AD640	
Energy	Heat output to water - Gross Non condensing 80/60°C	kW Btu/hr x 1000	136.00 464	163.20 556.8	218.5 745.5	294.1 1003.5	398.9 1361	489.5 1670.2	580.2 1979.6
	Heat output to water - Gross Condensing 50/30°C	kW Btu/hr x 1000	150 511.8	180 614.2	240 818.9	320 1091.8	440 1501.3	540 1842.5	640 2183.7
	Heat input (net) - Gross	kW Btu/hr x 1000	157.8 538.4	189.4 646.2	254.9 869.7	343.1 1170.7	462.9 1579.4	568.1 1938.1	673.3 2297.3
	Heat input (net) - Net	kW Btu/hr x 1000	140.2 478.4	168.2 573.9	226.4 772.5	304.8 1040	411.2 1403	504.7 1722	598.1 2040.7
Water	Water content	l UK gal	194 43	194 43	194 43	224 49	298 66	460 101	460 101
	Design flow rate @ 11°C Δt	l/min UK gal/min	196 43.1	234 51.5	312 68.6	416 91.5	574 126.3	704 154.9	834 183.5
	Waterside pressure drop @ 11°C Δt	mbar in wg	1.6 0.64	2 0.8	2.4 0.96	2.6 1.04	3.0 01.20	3.2 2.66	3.6 1.44
	Design flow rate @ 20°C Δt	l/min UK gal/min	108 23.8	128 28.2	172 37.8	230 50.6	316 69.5	388 85.4	458 100.7
	Waterside pressure drop @ 20°C Δt	mbar. in wg	0.5 0.2	0.6 0.24	0.72 0.29	0.78 0.31	0.90 0.36	0.98 0.39	1.08 0.43
	Flow rate @ 40°C Δt	l/min UK gal/min	54 11.9	64 14.1	86 18.9	114 25.1	158 34.8	194 42.7	230 50.6
	Maximum water pressure	bar psig	5 72.5						
	Maximum water flow temperature	°C	100	100	100	100	100	100	100
Gas	Combustion resistance	mbar in wg	0.7 1.75	0.9 2.25	1.5 3.75	2.5 6.25	2.8 7	3 7.5	3.8 9.5
	Input rate Natural Gas (G20)	m³/h ft³/h	14.83 253.7	17.80 628.6	23.96 846.1	32.25 1138.9	43.51 1536.6	53.40 1885.8	63.29 2235.1
	Nominal inlet pressure required Natural gas - inlet to gas train	mbar in wg	20 8						
	Approx. flue gas volume at NTP natural gas	m³/h ft³/h	196 6922	236 8334	316 11160	420 14832	576 20340	704 24862	840 29664
	Approx. flue gas temp - nat. gas @ 30° return temp	°C °F	45 113						
Flue	Flue connection O/D 2 Connections	mm in	151 11.9	151 11.9	151 11.9	181 14.26	181 14.26	201 15.82	201 15.82
	Flue draught requirements	Balanced Condition at Boiler Outlet							
Electrical	Electrical supply - boiler / burner	230V 1Ph 50Hz							
	Start current	Amps	2.6	2.6	4.5	4.5	4.8	4.8	4.8
	Run current	Amps	0.7	0.7	1.4	1.4	1.3	1.3	1.3