

BTI

Light commercial atmospheric water heater

BTI - 65/85/100



Atmospheric water heater, primarily intended for light commercial/ industrial applications • Control, high limit and energy cut-off thermostats to ensure safe operation • Safety sensor to prevent flue spillage • Stainless-steel burner for natural or LP gas • Waterway access cover for comprehensive waterside tank maintenance • Replaceable magnesium anode • Fully automatic spark ignition to minimise standing losses • General fault indicator light • Optional ancillaries: Unvented kits • Destratification pump kit • Powered anode • Time clock kit • Flue fan kit • Time clock kit/7 day timer to minimise standing losses

Technical specifications

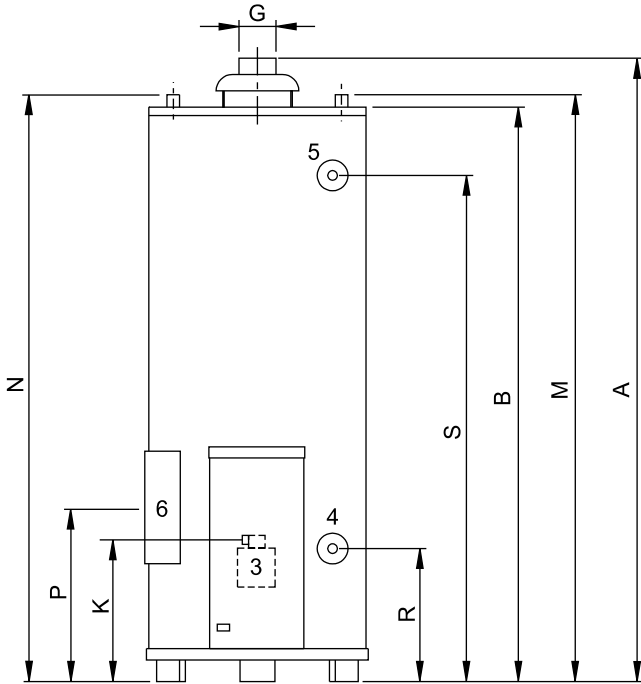
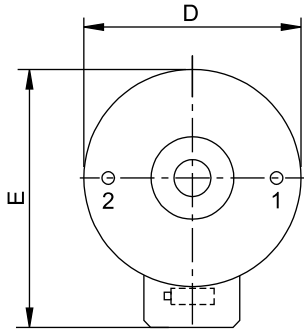
		BTI 65	BTI 85	BTI 100
Gas data natural gas 2H (G20)				
Input*	kW	18.1	25.1	26.7
Output	kW	12.7	19.2	20.4
Inlet pressure	mbar	20	20	20
Gas consumption**	m ³ /h	1.7	2.4	2.5
Flue gas discharge temperature	°C	265	275	275
Gas data butane 3+ (G30)				
Input*	kW	17.2	24.5	26.0
Output	kW	12.3	19.2	20.4
Inlet pressure	mbar	30	30	30
Gas consumption**	kg/h	1.3	1.8	1.9
Flue gas discharge temperature	°C	265	275	275
Gas data propane 3+ (G31)				
Input*	kW	16.4	22.9	24.9
Output	kW	11.7	17.9	19.5
Inlet pressure	mbar	37	37	37
Gas consumption**	kg/h	1.2	1.6	1.8
Flue gas discharge temperature	°C	265	275	275
General				
Efficiency (gross)	%	70	77	77
Weight empty	kg	93	122	149
Maximum weight	kg	271	387	504
Storage capacity	l	178	265	355
Max. temperature setting	°C	80	80	80
Maximum working pressure	kPa (bar)	800 (8)		
Draw-off capacity				
Tcold = 10°C / Tset = Tmax				
30 min. ΔT=44°C	l	310	464	575
60 min. ΔT=44°C	l	433	652	774
90 min. ΔT=44°C	l	557	840	974
120 min. ΔT=44°C	l	681	1027	1173
Continuous ΔT=44°C	l/h	247	375	399
Heating-up time ΔT=44°C	min.	43	42	53
30 min. ΔT=50°C	l	272	408	506
60 min. ΔT=50°C	l	381	574	681
90 min. ΔT=50°C	l	490	739	857
120 min. ΔT=50°C	l	599	904	1032
Continuous ΔT=50°C	l/h	218	330	351
Heating-up time ΔT=50°C	min.	49	48	61
30 min. ΔT=55°C	l	248	371	460
60 min. ΔT=55°C	l	347	521	619
90 min. ΔT=55°C	l	446	672	779
120 min. ΔT=55°C	l	545	822	938
Continuous ΔT=55°C	l/h	198	300	319
Heating-up time ΔT=55°C	min.	54	53	67
Electrical data				
Power consumption	W	30		
Power supply	VAC/Hz	230(-15%/+10%) / 50 (+/- 1Hz)		
Shipping data				
Weight incl. packaging	kg	105	140	167
Width packaging	mm	670	780	780
Height packaging	mm	1690	1640	1830
Depth packaging	mm	730	870	870

* Gas data on gross value

** Gas consumption at 15°C and 1013.25 mbar

*** Based on max. temperature setting and 10°C cold water

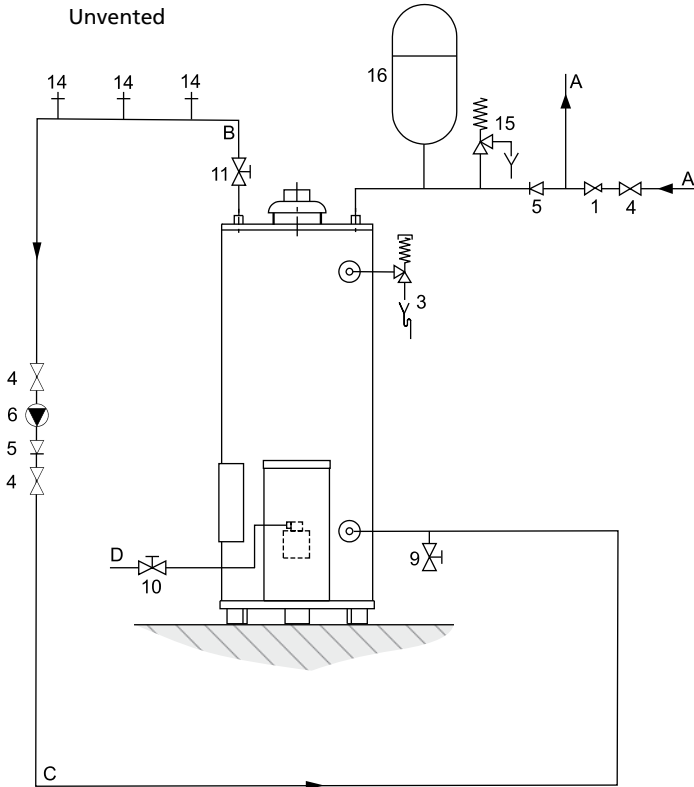
Dimensions



	BTI 65	BTI 85	BTI 100
A	1680	1585	1780
B	1510	1450	1640
D	520	645	675
E	655	770	775
G	100	130	130
K	340	340	340
M	1540	1505	1685
N	1540	1505	1685
R	295	285	285
S	1330	1280	1460
1 Cold water (external)	¾-14 NPT	1-11.5 NPT	1¼-11.5 NPT
2 Hot water (external)	¾-14 NPT	1-11.5 NPT	1¼-11.5 NPT
3 Gas control (internal)	Rp½	Rp½	Rp½
4 Tank drain valve (internal)	¾-14 NPT	¾-14 NPT	¾-14 NPT
5 T&P valve (internal)	¾-14 NPT	¾-14 NPT	¾-14 NPT
Dimensions in mm.			



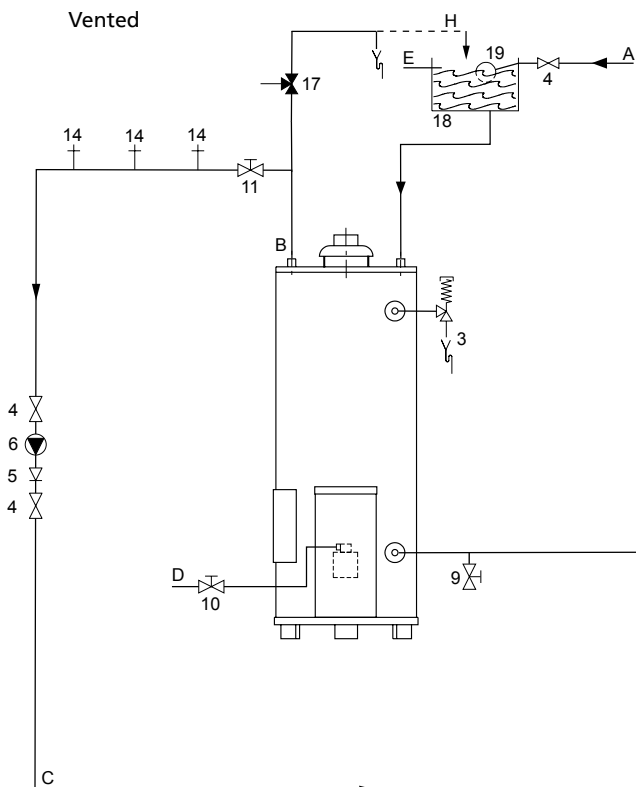
Installation diagrams



- 1 Pressure reducing valve
- 3 T&P valve
- 4 Stop valve
- 5 Non-return valve
- 6 Circulation pump
- 9 Drain valve
- 10 Gas valve
- 11 Service valve
- 14 Hot water tap
- 15 Expansion valve
- 16 Expansion vessel

- A Cold water supply
- B Hot water outlet
- C Circulation pipe
- D Gas supply

A.O. Smith unvented system kits utilise combination valves.



- 3 T&P valve
- 4 Stop valve
- 5 Non-return valve
- 6 Circulation pump
- 9 Drain valve
- 10 Gas valve
- 11 Service valve
- 14 Hot water tap
- 17 Three way valve
- 18 Water cistern
- 19 Float valve

- A Cold water supply
- B Hot water outlet
- C Circulation pipe
- D Gas supply
- E Overflow pipe
- H Overflow protection

A BTI water heater should be installed in accordance with local standards and ventilation requirements (category B11BS).

Further installation and connection details can be found in the Installation & Commissioning Manual.