



## Boiler systems **Upsilon**

Efficiency 110.3% according EN 677 (50/30°C part load, Hi) • Fitted with 1 or 2 stainless steel exchangers • Fully modulating burner technology • Concentric and parallel flue options • Easy installation • Intelligent control system • Nox class 5 • 0 – 10 volt, Volt Free on/off or OpenTherm connection possible • Standard fitted with cascade manager • Up to 8 boilers applicable in cascade configuration

# Technical specifications

		UB 70	UB 110	UB 140
<b>Gas data natural gas G20</b>				
Input (gross value)	kW	68.5	107.9	136.4
Inlet pressure	mbar	20	20	20
Gas consumption	m <sup>3</sup> /h	6.54	10.3	13.02
Modulation range CH (capacity 80/60°C)	kW	8.8 - 60.01	14.8 - 95.0	17.6 - 120.0
Modulation range CH (capacity 50/30°C)	kW	9.9 - 65.0	16.8 - 102.3	19.8 - 130.0
<b>Gas data propane gas G31</b>				
Input (gross value)	kW	67.2	105.8	133.7
Inlet pressure	mbar	37	37	37
Gas consumption	kg/h	3.9	6.2	7.8
Modulation range CH (capacity 80/60°C)	kW	19.6 - 60.1	35.1 - 95.0	39.1 - 120.0
Modulation range CH (capacity 50/30°C)	kW	22.0 - 65.0	39.8 - 102.3	44.0 - 130.0
<b>General data</b>				
Nox class		5	5	5
Efficiency class according BED		****	****	****
Efficiency according to EN 677 (36/30°C part load, Hi)	%	109.8	109.2	108.9
Efficiency according to EN 677 (80/60°C full load, Hi)	%	97.3	97.6	97.6
Efficiency according to EN 677 (50/30°C, low load, Hi)	%	110.2	110.3	110.2
Efficiency according to EN 677 (36/30°C part load, Hs)	%	98.9	98.4	98.1
Efficiency according to EN 677 (80/60°C full load, Hs)	%	87.7	87.9	87.9
Efficiency according to EN 677 (50/30°C, low load, Hs)	%	99.3	99.4	99.3
Weight empty	kg	65	83	87
Maximum working pressure	kPa (bar)	400 (4)	400 (4)	400 (4)
Flue gas discharge temperature (50/30°C, part load, Hi)	°C	30	30	30
Flue gas discharge temperature (80/60°C, full load, Hi)	°C	76	73	77
<b>Electrical data</b>				
Power consumption maximum	W	161	250	322
Power consumption stand-by	W	2.5	3.7	3.7
Power supply	VAC/Hz	230 (-15% +10%)/50 (±1)		
Degree of protection acc. EN 60529		IPX4D		
<b>Shipping data</b>				
Weight (incl. packaging)	kg	90	108	112
Width packaging	mm	800	800	800
Height packaging	mm	670	670	670
Depth packaging	mm	1200	1200	1200

\* Gas data on gross value

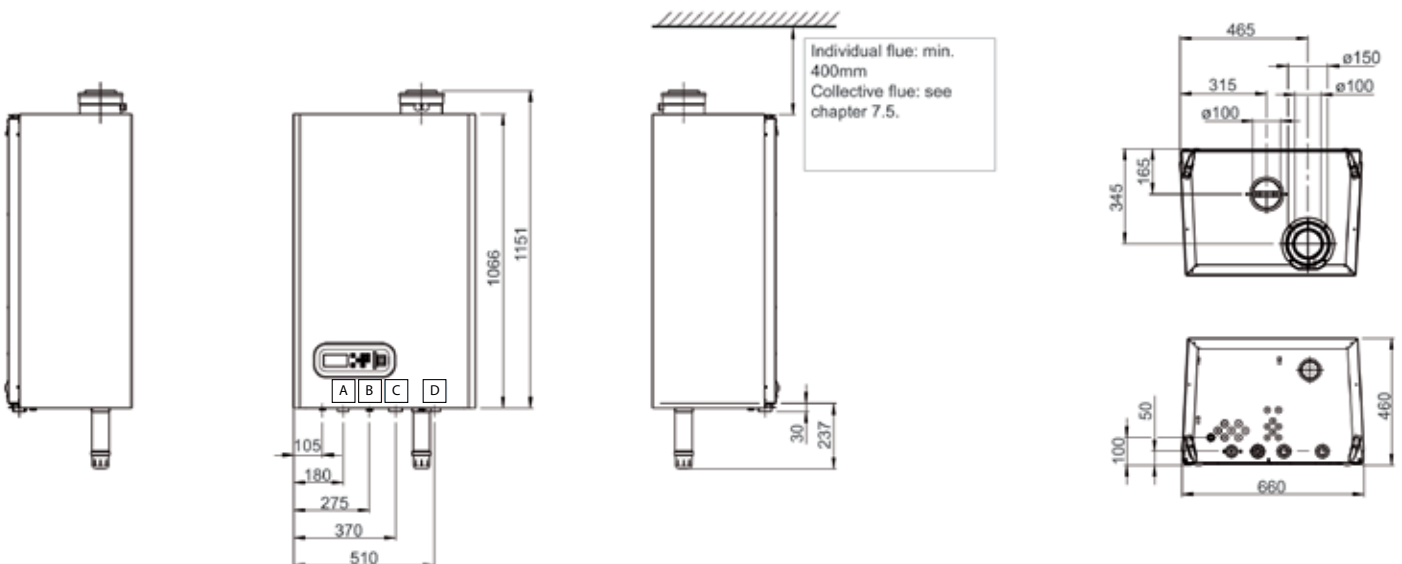
\*\* Gas consumption at 15°C and 1013.25 mbar

\*\*\* Based on natural gas

# Dimensions

		UB 70	UB 110	UB 140
Height	mm	1065	1065	1065
Width	mm	660	660	660
Depth	mm	460	460	460
Left side / flue gas connection	mm	465	465	465
Back / flue gas connection	mm	345	345	345
Left side / gas connection	mm	180	180	180
Left side / flow pipe	mm	275	275	275
Left side / return pipe	mm	510	510	510
Left side / condensate drain	mm	370	370	370
Back / centre of condensate drain	mm	50	50	50
Back / centre of gas connection	mm	50	50	50
Back / centre of flow pipe & return pipe	mm	50	50	50
<b>Standard UB connections</b>				
A Gas pipe		1¼"	1¼"	1¼"
B Flow pipe		1½"	1½"	1½"
C Return pipe		1½"	1½"	1½"
D Condensate drain pipe	mm	26	26	26
<b>Connections in solo configuration*</b>				
A Gas pipe	mm	22	22	22
B Flow pipe	mm	35	35	35
C Return pipe	mm	35	35	35
D Condensate drain pipe	mm	26	26	26

\* When UB boilers are used in a solo configuration, installation requires a boiler connection set. All connections are compression fittings. This set (art. nr. 0310286) is standard delivered.



# Flue gas discharge materials

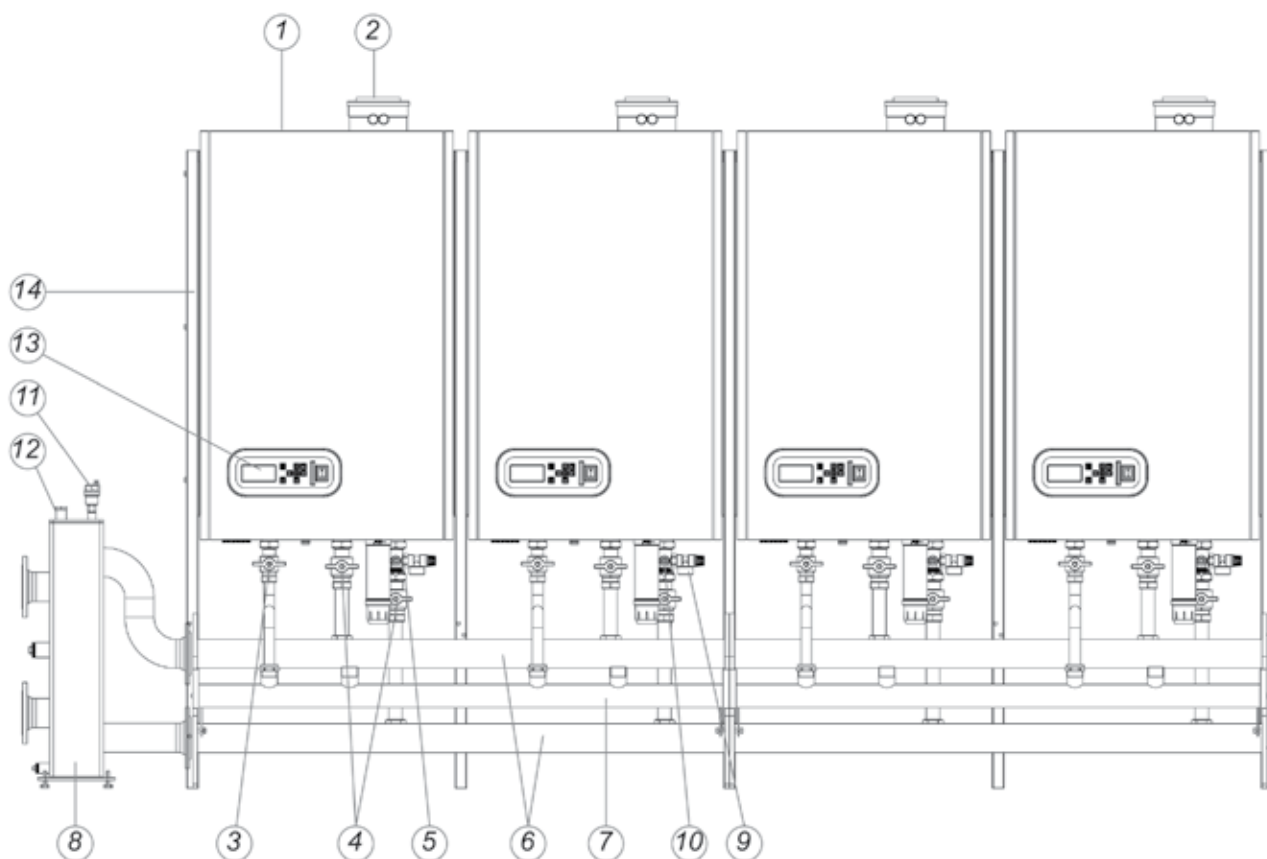
The UB boilers can be installed in 'open' or 'closed' configuration. The flue gas discharge categories for UB are; B23, B33, C13, C33, C43, C53, C63, C83 and C93. Three types of flue gas discharge configurations can be applied to the UB boiler:

- Individual flue gas outlet
- Collective flue gas outlet under-pressure
- Collective flue gas outlet over-pressure

	UB 70	UB 110	UB 140
<b>Concentric</b>			
Diameter (mm)	100/150	100/150	100/150
Max. length (m)	25	15	13
87° bend resistance length (m)	-2.6	-2.6	-2.6
45° bend resistance length (m)	-1.1	-1.1	-1.1
<b>Parallel</b>			
Diameter (mm)	100	100	100
Max. length (m)	42	26	8
87° bend resistance length (m)	-1.8	-1.8	-1.8
45° bend resistance length (m)	-0.9	-0.9	-0.9



# Installation diagrams



1	Air supply (for parallel flue connection)
2	Flue/air supply (concentric)
3	Gas isolation valve
4	Service valves flow and return
5	Non-return valve
6	Flow/return header
7	Gas line
8	Low loss header
9	Safety valve
10	Fill and drain valve
11	Automatic vent low loss header
12	Pocket for temperature sensor T10
13	Cascade manager
14	Frame

# Contact information

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## OFFERING & ADVICE

A.O. Smith Water Heaters can provide you with a tailor made offer for you application. This offer includes; the boiler(s), the cascade parts (if necessary), insulation and the flue gas discharge materials.

For more information, an advice or a detailed offer, please contact A.O. Smith Water Heaters at sales@aosmith.co.uk or 0870 2676484.



For a more detailed map, please refer to [www.aosmith.co.uk](http://www.aosmith.co.uk)

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