

# Keston

BY IDEAL HEATING

## KESTON COMBI

30kW & 35kW Output Combi Boiler



Twin Flue  
up to 27m\*



Compact  
cupboard fit



Weather  
compensator



Large backlit  
display with user  
friendly controls



Frost  
Protection



Easy to service



Easy to see  
pressure gauge



Low component  
count maximising  
reliability



# Features & specification

Offering first-class comfort in a compact, wall-hung appliance small enough to fit inside a standard kitchen cupboard\*, the Keston Combi range enables heating and hot water to be controlled independently, ensuring maximum comfort and efficiency.

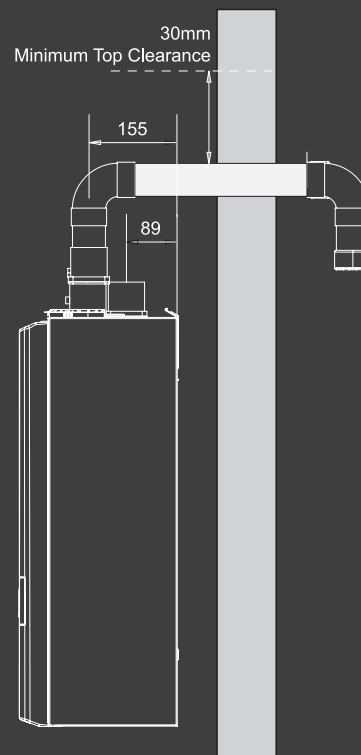
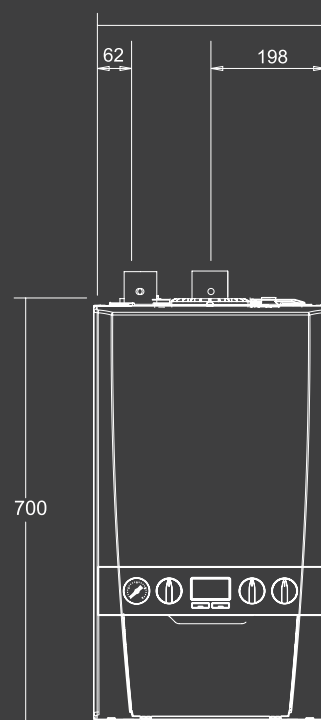
Keston Combi can be sited almost anywhere in the home, without the need for a separate tank. And because it connects to the unique Keston Twin Flue system, the boiler can be situated anywhere up to 27\*\* metres from the flue outlet, helping to provide further flexibility when required.

Fully modulating, and with weather compensation, Keston Combi provides excellent energy savings, making it the perfect choice for new or replacement installations alike.

## THE FACTS

- 7 year warranty†
- Easy to see pressure gauge
- Large backlit display with user friendly controls
- Low lift weight
- Low component count maximising reliability
- Compact dimensions
- Twin flue up to 27m\*\*
- 50mm muPVC (PVC-C) solvent weld flue allowing simple, cost effective installations\*\*\*
- Weather compensator supplied as standard making Keston Combi **Boiler Plus compliant out of the box**
- Pre-fitted filling loop
- Inbuilt frost protection
- Fully modulating
- LPG conversion kit available

## DIMENSION & CLEARANCES



† 7 year warranty when installed with a Keston 22mm System Filter and registered within 30 days of installation. 5 year parts & labour warranty as standard. Terms and conditions apply.\* Please check cupboard size prior to installation.\*\* For the maximum total equivalent flue length, please refer to the installation manual.\*\*\* The only systems approved for this application are: Marley muPVC (PVC-C) Solvent Weld Waste System (50mm), Polypipe System 2000 muPVC (PVC-C) Solvent Weld Waste System (50mm), Polypipe Terrain Solvent Weld System (50mm) and Wavin Osma PVC-C Solvent Weld System (50mm). Please use the recommended Solvent Weld Cement for each system.

# SPECIFICATION DATA

CENTRAL HEATING			C30	C35
CH Output @ 70°C	Max	kW	24.2	24.2
CH Output @ 40°C	Max	kW	25.6	25.6
	Min	kW	6.4	7.5
CH Input	Nett CV Max	kW	24.3	24.3
	Nett CV Min	kW	6.1	7.1
CH Input	Gross CV Max	kW	27.0	27.0
	Gross CV Min	kW	6.7	7.9
CH Gas Consumption	Max	m <sup>3</sup> /h	2.512	2.512
	Min	m <sup>3</sup> /h	0.623	0.734

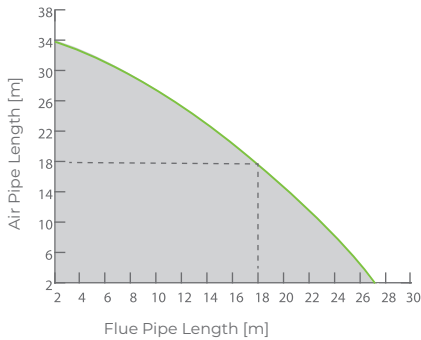
HOT WATER			C30	C35
DHW Output	Max	kW	30.3	35.3
DHW Input	Nett CV Max	kW	30.4	35.4
DHW Input	Gross CV Max	kW	33.7	39.3
DHW Gas Consumption		m <sup>3</sup> /h	3.135	3.658
DHW Flow Rate at 35°C Rise		l/min	12.4	14.5
DHW Specific Rate		l/min	14.5	16.9

OTHERS			C30	C35
Seasonal Efficiency	SEDBUK 2005	%	91.1	91.1
	SEDBUK 2009	%	89.6	89.6
Seasonal Space Heating Efficiency Class			A	A
NOx Classification			Class 5	Class 5

GENERAL DATA			C30	C35
Max Horizontal Flue Length		m	27 Flue / 2 Air	25 Flue / 2 Air
Max Horizontal Flue Length (Parallel)		m	18 Flue / 18 Air	15 Flue / 15 Air
Flue Terminal Diameter		mm	50	
Gas Supply			2H - G20 - 20mbar	
Gas Supply Connection			15mm copper compression	
Injector Size		mm	4.65	4.90
Flow Connection (CH)			22mm copper compression	
Return Connection (CH)			22mm copper compression	
Inlet Connection (DHW)			15mm copper compression	
Outlet Connection (DHW)			15mm copper compression	
Average Flue Temp - Mass Flow Rate (DHW)			68°C - 13g/s	73°C - 15g/s
CO <sub>2</sub> Content (±0.7) (Max CH)		%	8.8	8.9
CO <sub>2</sub> Content (±0.7) (Max DHW)		%	9.3	9.5
Max Working Pressure (Sealed Systems)		bar (psi)	2.5 (36.3)	
Max DHW Inlet Pressure		bar (psi) (kPa)	10.0 (145) (1000)	
Min DHW Inlet Pressure		bar (psi) (kPa)	1.3 (18.9) (130)	
Electrical Supply			230V - 50Hz	
Power Consumption		W	101	114
Fuse Rating			External 3A / Internal: T4A HRC L250V	
Water Content (CH)		l (gal)	1.2 (0.26)	
Water Content (DHW)		l (gal)	0.5 (0.11)	
Weight (Packed)		kg	34.4	34.5
Maximum Installation Weight		kg	31.4	31.5

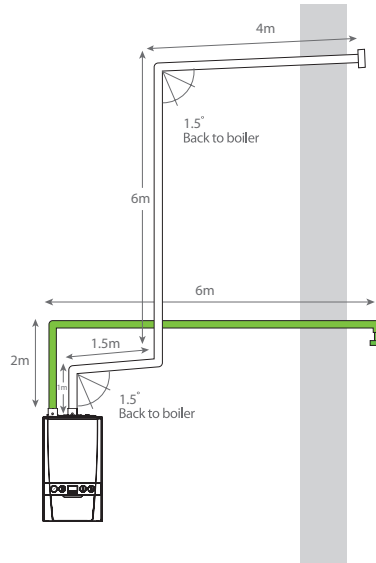
# EXAMPLE FLUE INSTALLATION

## Keston Combi C30 - Flue & Air Pipe Length



acceptable flue operating area

Graph indicates maximum flue run 27m with 2m air. Also, 18m flue with 18m air pipe for parallel twin flue run.



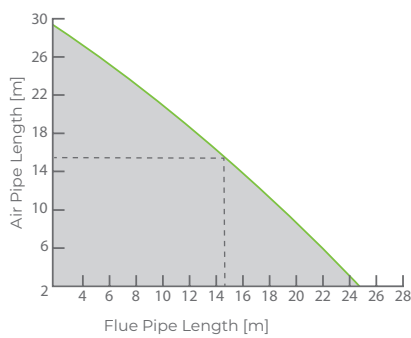
## C53 HORIZONTAL

Calculations

Flue  
Elbows 3 x 1m = 3m  
Straights 4+6+1.5+1 = 12.5m  
Total = 15.5m

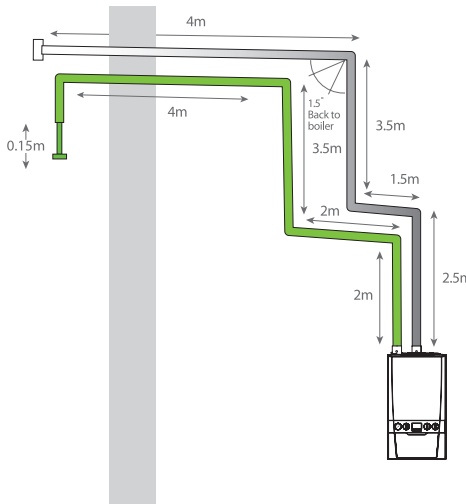
Air  
Elbows 2 x 1m = 2m  
Straights 6+2+0.1+1 = 8.1m  
Total = 10.1m

## Keston Combi C35 - Flue & Air Pipe Length



acceptable flue operating area

Graph indicates maximum flue run 25m with 2m air. Also, 15m flue with 15m air pipe for parallel twin flue run.



## C13 HORIZONTAL

Calculations

Flue  
Elbows 3 x 1m = 3m  
Straights 4+3.5+1.5+2.5 = 11.5m  
Total = 14.5m

Air  
Elbows 4 x 1m = 4m  
Straights 2+2+3.5+4+0.15 = 11.65m  
Total = 15.65m

# DIMENSIONS

## KESTON COMBI

Height	700mm
Width	395mm
Depth	278mm

The following minimum clearances must be maintained for operation and servicing.  
Front of boiler - 450mm<sup>†</sup>  
Sides of boiler - 2.5mm  
Above boiler - 350mm, with 30mm above the flue  
Below boiler - 100mm<sup>†</sup>

\* Or equivalent length.

† Can be reduced to 5mm for cupboard fit, 450mm required for servicing.