modutherm

Genesis DHW

Floor standing gas fired water heater/boiler

MODELS

6

OUTPUT (kW)

37 - 124

Genesis DHW

The Genesis DHW is a commercial, condensing, floor standing, combined gas fired water heater and boiler and is available in a range of 6 models from 37 - 124kW.

With a highly durable stainless steel heat exchanger, designed for optimum efficiency (up to 108% net) and performance, the unit offers immediate response to hot water and heating demands. The Genesis DHW has a modulation range up to 10:1 and with a small footprint makes it suitable for installation in areas with space constraints. It can be installed directly to the incoming MCW supply using matched un-vented kits, delivering mains pressure hot water continuously as required. The water heater has an advanced management controller, ensuring easy maintenance and flexibility.

5 5 Year Heat Exchanger Warranty*

2 2 Year Parts Warranty*

- Stainless steel heat exchanger
- Water heating efficiency class A
- Water heating load profile XXL
- Class 6 NOx emissions
- High modulation ratio up to 10:1
- 0-10V Control
- Compact dimensions
- Stainless steel internal pipework
- Efficiency of up to 108% net
- Suitable for natural gas & LPG
- Low domestic hot water storage capacity with instantaneous demand
- First hour & continuous at 60°C up to 1830 l/hr

Always condensing – heating and DHW

Modern buildings with improved insulation often place greater demand on hot water than space heating. The Genesis DHW condenses in both modes, extracting maximum efficiency from every unit of gas – regardless of whether it is producing heat or hot water at any given moment.

High-volume instantaneous output – no additional storage

The Genesis DHW delivers up to 1830 litres per hour of DHW at 60°C from a single floor-standing unit, without supplementary cylinder storage. Where plant room space is at a premium, this significantly reduces installation complexity and the associated capital cost.

Legionella risk eliminated

The indirect stainless steel DHW coil operates at high temperatures within the primary circuit. The high operating temperatures of both the primary and domestic circuits allow for rapid, high-volume hot water production while negating the threat of legionella.

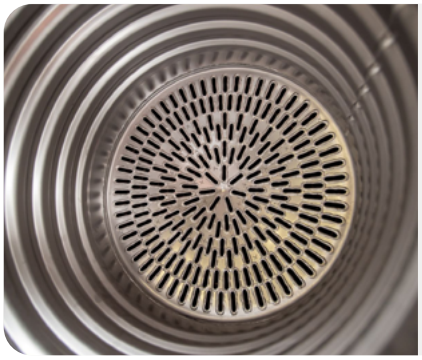
Stainless steel throughout

Internal pipework and the Coil Fire Tube heat exchanger are both constructed from ferritic stainless steel, offering strong resistance to corrosion and thermal expansion. Self-cleaning flue ways simplify servicing and help maintain peak efficiency across the appliance's full working life.

**Subject to Terms & Conditions*

Components

Features in Detail



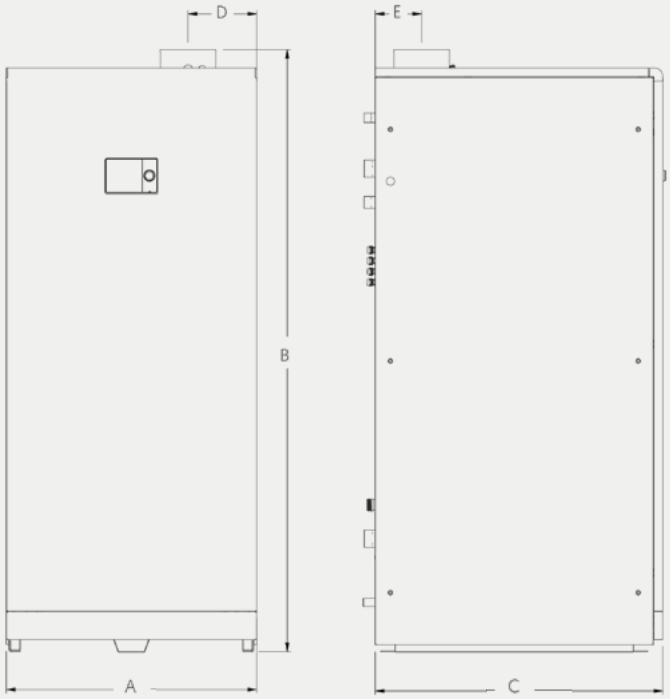
Coil Fire Tube Heat Exchanger

At the heart of the Genesis DHW is a Coil Fire Tube heat exchanger manufactured from ferritic stainless steel containing 18% chromium. This composition provides strong resistance to the corrosion and thermal expansion that can affect gas-fired heat exchangers over time. The self-cleaning flue ways within the heat exchanger reduce maintenance requirements and sustain efficiency across the appliance's full working life — making stainless steel the material increasingly specified by engineers and designers for commercial gas-fired applications.

Condensing in DHW mode

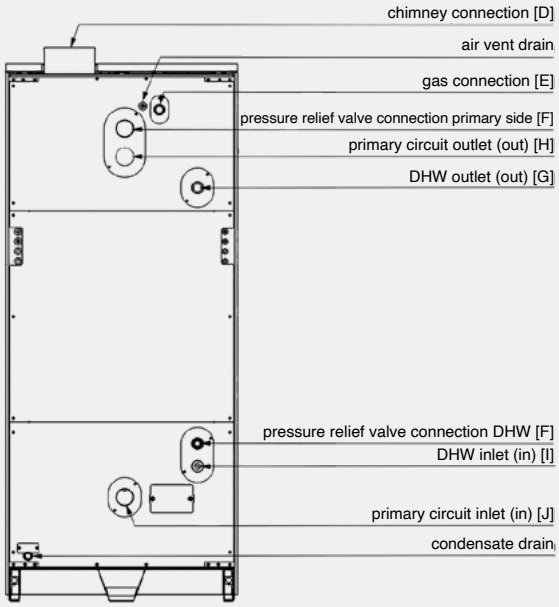
The stainless steel DHW coil is fully immersed in the primary circuit, ensuring the Genesis DHW condenses consistently during hot water production. The low temperatures of incoming cold water ensure effective condensation, and the large heat exchange surface area supports high continuous output. The indirect arrangement also protects the coil from limescale deposits, which would otherwise reduce performance and increase costs over time.

Dimensions



FRONT VIEW SIDE VIEW

	35/45	60/80	100/120
A	602	632	698
B	1604	1446	1650
C	641	774	801
D	139	141	191
E	94	125	129



	35/45	60/80	100/120
Chimney connection [D]	80/125	100/150	
Gas connection [E]	½"	¾"	
Pressure relief valve connection primary side [F]	1"	1¼"	
Pressure relief valve connection DHW side [F]	¾"	1"	
DHW outlet [G]	1"		
Primary circuit outlet [H]	1½"		
DHW inlet [1]	1"		
Primary circuit inlet [J]	1½"		

Performance data

		35	45	60	80	100	120
Power							
Energy efficiency class		A				-	
Maximum boiler output (80-60°C) - NG/LPG (G20/G31)	kW	34.0	43.9	55.9	77.8	97.2	112.9
Maximum boiler output (50-30°C) - NG/LPG (G20/G31)	kW	37.6	48.4	61.6	85.9	106.9	124.2
Minimum boiler output (80-60°C) - NG/LPG (G20/G31)	kW	4.9		9.2		12.1	
Minimum boiler output (50-30°C) - NG/LPG (G20/G31)	kW	5.4		10.3		13.4	
Maximum boiler input	kW	34.9	45.0	57.5	80.0	99.0	115.0
Heat efficiency (50-30°C) - maximum output	%	107.8	107.6		108.0		
Standby losses	kW		0.20			0.30	
Modulation		7.0:1	9.0:1	6.1:1	8.4:1	7.9:1	9.2:1
Building regs Part L seasonal efficiency (Non-dom. bldng)	%	95.7		95.5		95.8	95.9
Seasonal efficiency	%		92.0			93.0	
Hydraulic							
Water content - total	litres	54.2		81.0		108.0	
Water content - primary	litres	43.6		63.0		83.0	
Water content - secondary	litres	10.6		18.0		25.0	
System design flow rate (20°C ΔT)	m³/h	1.51	1.93	2.46	3.42	4.14	4.86
Water side pressure loss (20°C ΔT)	kPa	14.5	16.0	5.5	10.4	5.3	7.1
Minimum water pressure	bar	0.8			0.6		
Maximum water pressure	bar			3.0			
Maximum flow temperature	°C			95.0			
DHW Performance							
40°C (ΔT = 30K)	l/min	17.8	22.0	27.2	37.2	47.5	54.5
60°C (ΔT = 50K)	l/min	10.0	12.5	16.3	22.3	26.0	30.5
DHW Efficiency @ ΔT = 30K	%			104			
Gas							
Gas flow rate, NG (G20) - maximum	m³/h	3.70	4.80	5.99	8.44	10.47	12.16
Gas flow rate, LPG (G31-37mbar) - maximum	m³/h	1.43	1.81	2.34	3.25	4.05	4.56
Maximum gas inlet pressure - NG (G20)	mbar			25			
Nominal gas inlet pressure - NG (G20)	mbar			20			
Minimum gas inlet pressure - NG (G20)	mbar			17			
Maximum gas inlet pressure - LPG (G31-37mbar)	mbar			45			
Nominal gas inlet pressure - LPG (G31-37 mbar)	mbar			37			
Minimum gas inlet pressure - LPG (G31-37 mbar)	mbar			25			
Flue							
Flue gas temperature at 80/60°C	°C	49.0	57.5	53.8	55.1	62.3	63.2
Flue gas temperature at 50/30°C	°C	27.3	28.9	28.3	28.8	31.6	32.4
Maximum flue gas pressure	Pa	180		190		300	
Mass flow rate of flue gasses	g/s	15.1	19.6	26.0	36.7	45.5	52.8
Maximum condensate volume	kg/h	4.9	7.8	7.1	10.0	12.4	14.4
Dry NOx emission (0% excess O_2)	mg/kWh	24.3		30.3		39.7	
Electric							
Electrical supply voltage/frequency/current	V/Hz/A			230/50/6			
Power consumption (max)	kW	0.045	0.086	0.070	0.150	0.257	0.300
Power consumption (min)	kW	0.016	0.014	0.028	0.040	0.052	0.060
Run current (max)	A	0.2	0.4	0.3	0.7	1.1	1.3
Other							
Dry weight	kg	180		200		285	

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