

Technical submittal



Products: **Dorchester DR-FC Evo 45**

Project:

Customer:

Date:

- ⊗ Full automatic condensing direct fired water heater
- ⊗ Down firing, modulating burner
- ⊗ Multiple temperature settings to enhance condensing performance
- ⊗ Whisper quiet at <45dB(A) @2m from flue terminal
- ⊗ Inspection and clean out door for easy maintenance
- ⊗ Suitable for LPG or natural gas
- ⊗ Glass lined
- ⊗ Electronic anode protection
- ⊗ 36mg/KWh NOx emission, dry air free, European Class 5. Maximum (at part load)
- ⊗ 96% Building Regulations thermal efficiency gross
- ⊗ XXL ErP load profile
- ⊗ A ErP efficiency rating
- ⊗ 386 litres storage capacity
- ⊗ 850l/h continuous output ($\Delta T = 50^{\circ}\text{C}$)
- ⊗ 27 minute heat up time ($\Delta T = 50^{\circ}\text{C}$)



	Dorchester DR-FC Evo model	Units	DR-FC Evo 45
Energy	Building Regulations thermal efficiency gross	%	96
	ErP efficiency rating (modules $\leq 70\text{kW}$ only)	-	A
	Heating-up time, $\Delta T = 44^{\circ}\text{C}$	min.	24
	Heating-up time, $\Delta T = 50^{\circ}\text{C}$	min.	27
	Heating-up time, $\Delta T = 55^{\circ}\text{C}$	min.	30
	Standby losses	kW/24h	4.7
Water	Continuous output with $44^{\circ}\text{C } \Delta T$	l/h	790
	1st hour output with $44^{\circ}\text{C } \Delta T$	l	1300
	Continuous output with $50^{\circ}\text{C } \Delta T$	l/h	850
	1st hour output with $50^{\circ}\text{C } \Delta T$	l	1100
	Continuous output with $55^{\circ}\text{C } \Delta T$	l/h	780
	1st hour output with $55^{\circ}\text{C } \Delta T$	l	930
	Storage capacity	litres	386
	Maximum operating water pressure (open vented)	bar	8
	Maximum operating water pressure (unvented)	bar	5.3
	Expansion relief valve setting (unvented kit)	bar	6
	ErP load profile	-	XXL
Nat Gas	Input, gross – maximum	kW	51.2
	Output – maximum	kW	49.3
	Gas inlet pressure – nominal	mbar	20
	Gas flow rate – maximum @1013.25 mbar and 15°C	m^3/h	5
LPG	Input, gross – maximum	kW	50.1
	Output – maximum	kW	49.3
	Gas inlet pressure – nominal	mbar	37
	Gas flow rate – maximum @1013.25 mbar and 15°C	kg/h	3.7
Flue	Approximate flue gas volume @ 15°C , 9.8% CO_2 , N.T.P. (Nat. Gas - G20)	kg/h	84.6
	Flue gas temperature – maximum	$^{\circ}\text{C}$	60
	NOx emission, dry air free, European Class 5. Maximum (at part load)	mg/kWh	36
	Pressure at the flue outlet only (B23) with zero pressure at air inlet	Pa	133
Electrical	Start current–maximum (maximum power)	A (W)	0.59 (135)
	Run current–maximum (maximum power)	A (W)	0.32 (75)
	Electrical supply	Vac	230V 1PH 50Hz
	Voltage tolerance	% of Vac	-15% +10%
Misc.	Noise level @2m from flue terminal	dB(A)	<45
	Number of (power) anodes	-	2
	Weight when empty	kg	239
	Approximate shipping weight	kg	260
	Maximum floor load/ weight filled with water	kg	625

Every effort has been taken to ensure the details are accurate. Hamworthy Heating does not, however, guarantee the accuracy or completeness of any information nor does it accept liability for any errors or omissions in the information. Hamworthy Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.

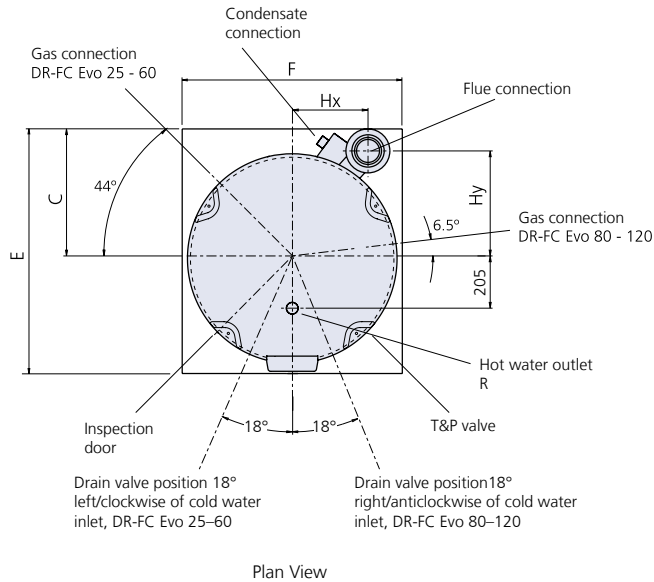
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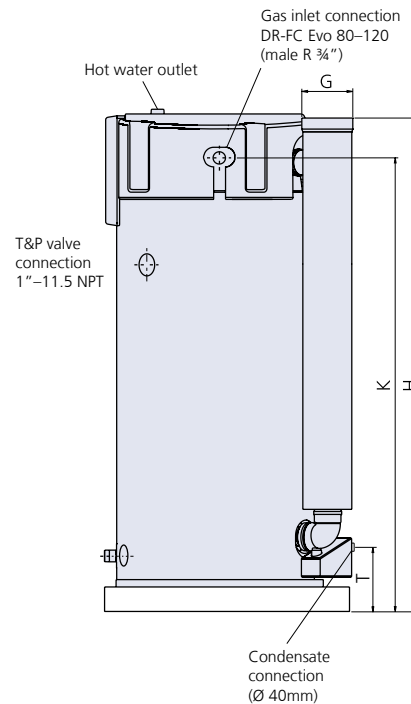
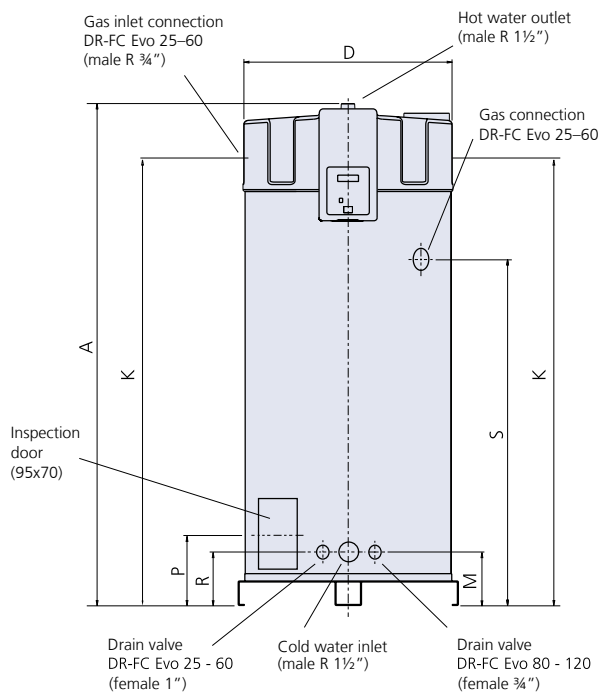
Clearances

100cm above top of water heater,
100cm around controls and inspection doors.
50cm around all other sides of water heater.

Note: Flue gas sampling point access must be restricted if the water heater is to be fitted in the corner of the room. If so, a loose sampling point adapter is available as an option, which can be fitting during installation at a more accessible position in the flue, as required.

Ring Base Option

Models DR-FC Evo 25 to DR-FC Evo 60 inclusive are also available (as a special order) supplied fitted with a narrow galvanised steel ring base instead of a pallet base. In this configuration all height dimensions will be reduced by 95 mm for each applicable model.



	A	C	D	E	F	G	H	Hx	Hy	K	M	N	P	R	S	T
	Total height	Position on base	Water heater diameter	Depth	Width	Diameter for flue gas discharge	Height of flue gas outlet/air supply	x position flue gas outlet	y position flue gas outlet	Height of gas connection	Height of cold water inlet	Height of hot water outlet	Height of cleaning opening	Height of drain valve connection	Height of T&P valve connection	Height of condensation drain
DR-FC 45	2015	490	705	925	850	100/150	1980	265	375	1910	255	2015	270	170	1505	245

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