

# Dorchester DR-FC Evo Range

## Condensing, Room Sealed Direct Gas Fired Water Heaters

NEW



There is comprehensive control functionality on the Dorchester DR-FC Evo with electronic temperature control to achieve accurate flow and storage temperatures. Sensors fitted towards the top and bottom of the cylinder monitor temperature and control burner modulation, ensuring optimum performance combined with high seasonal efficiencies.

Programming the settings is achieved via the neat easy to use control panel and features instant override for convenience, which resets automatically at the end of the next programmed period. The backlit display can show operating history, service diagnostics and alert to service due based on operating hours.

The control incorporates an important safety function to perform regular anti-legionella purge cycles, running for a period at a higher temperature to prevent the risk of legionella bacteria forming in the vessel. This can be programmed to run automatically during periods when hot water will not be used, to minimise the risk of scalding.

The water heaters are suitable for open vented or unvented systems using an optional unvented supply kit, and are complete with a frost protection thermostat supplied as standard.

For further details of flue systems for the Dorchester DR-FC Evo, please refer to pages 22 and 23.

The new Dorchester DR-FC Evo range of condensing water heaters from Hamworthy has increased outputs and seasonal efficiencies up to 107% nett. The DR-FC Evo is equipped with a modulating pre-mix burner and performance is achieved with overall noise levels below 45dBA, providing exceptionally quiet operation.

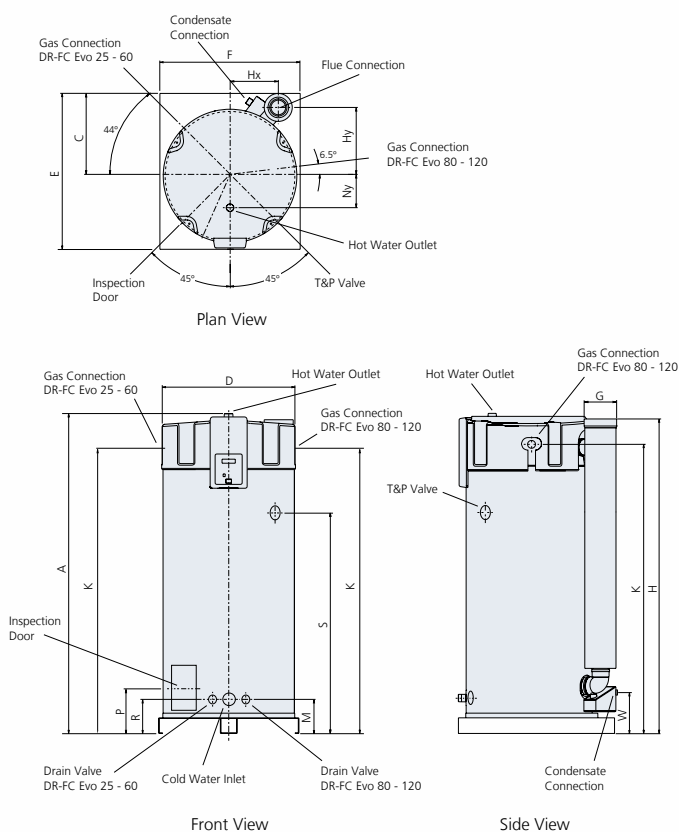
Designed to operate as open flue or room sealed, the Dorchester DR-FC Evo is particularly suited to installations where the heater needs to be located closer to point of use. Twin duct flue systems can extend to 100m overall length, whilst concentric flues can run up to an impressive 40m in length.

The DR-FC Evo range consists of 7 models with continuous outputs from 596 to 2333 litres/hour, based on a 44°C temperature rise. Storage capacities range from 227 to 504 litres. Two or more water heaters can be installed where there is demand for larger loads.

Fitted with a down firing pre-mix modulating burner, the hot gases are directed down into the spiralling heat exchanger coil, maintaining contact with the surface to effect maximum heat transfer. This design of the heat exchanger eliminates problems with scale as any build-up will fall away to the base of the unit and not affect heat transfer or create hot spots.

## Options

- Natural gas or LPG
- Unvented supply kit
- Horizontal or vertical flue terminal kit
- Top to bottom pump recirculation kit



**Clearances:** The DR-FC Evo heaters can be positioned very close to a wall or adjacent units, but access must be given to the flue area for checking the condensate trap, and to the inspection door for internal cleaning. The burner components are on top of the unit, where clearance must be provided for servicing.

Model		DR-FC EVO 25	DR-FC EVO 30	DR-FC EVO 45	DR-FC EVO 60	DR-FC EVO 80	DR-FC EVO 95	DR-FC EVO 120
Continuous output with 44°C Δt (80°F)	l/h	596	626	964	1158	1615	1929	2333
	UK gal/h	131	138	212	255	355	424	513
Storage capacity	litres	227	386	386	386	504	504	504
	UK gal	50	85	85	85	111	111	111
Time to recover storage 44°C Δt (80°F)	mins	23	37	24	20	19	16	13
Heater output	kW	30.5	32.0	49.3	59.3	82.6	98.7	119.4
Maximum water pressure	bar	8						
	psig	116						
Gas input rate natural gas (G20)	m³/h	3.1	3.2	5.0	6.0	8.3	10.1	12.3
	ft³/h	109.5	113	176.6	211.9	293.1	356.7	434.4
Propane input gas rate at 37m bar (14.85 In wg) standard inlet pressure	m³/h	1.08	1.15	1.86	2.20	3.15	3.83	4.39
	ft³/h	38.1	40.6	65.7	77.7	111.2	135.2	155.0
Water flow and inlet connection	in	1½" R						
Gas connections	in	¾" Rc						
Drain connection (hose connection)	in	¾" Rc						
T & P valve connection	in	1" NPT						
Electrical supply		230 V 50Hz 1Ph						
Absorbed power	Watts	45	45	75	115	95	145	240
Noise level	dBA	<45						

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Overall height	A	1485	2005	2005	2005	2060	2060	2060
Heater centre line to pallet edge	C	490	490	490	490	530	530	530
Cylinder diameter	D	705	705	705	705	850	850	850
Pallet depth	E	925	925	925	925	1000	1000	1000
Pallet width	F	850	850	850	850	900	900	900
Concentric flue diameter	G	100/150	100/150	100/150	100/150	130/200	130/200	130/200
Flue height	H	1460	2000	2000	2000	2015	2015	2015
Gas connection	K	1365	1895	1895	1895	1855	1855	1855
Cold water inlet	M	265	265	265	265	225	225	225
Hot water outlet	N	1485	2005	2005	2005	2060	2060	2060
Inspection door	P	265	270	270	270	290	290	290
Drain	R	180	170	170	170	225	225	225
T&P valve	S	995	1505	1505	1505	1425	1425	1425
Condensate height	W	220	240	240	240	240	240	240
Flue position	Hx	265	265	265	265	310	310	310
Flue position	Hy	375	375	375	375	440	440	440
Flow position	Ny	205	205	205	205	205	205	205

## Standard Features

- Modulating pre-mix burner
- Room sealed or open flue
- Fully automatic ignition
- Control thermostat range 40 to 80°C
- Electrical anode protection
- Volt free fault output for remote alarm indication
- 7 day time clock, up to 3 operating periods per day
- Independent temperature setting for each time period
- Frost protection thermostat
- Anti-legionella purge cycle
- Quiet operation, <45dBA

Flue Options  
Page 20 - 23