

Our **Impetus™** continuous flow water heaters



LIWH HD50i



LIWH HD70i



LIWH HD70e

Continuous flow water heaters

Small commercial and domestic applications can have a heavy demand for hot water during peak times of the day. Lochinvar **Impetus™** continuous flow water heaters are able to satisfy this type of hot water usage with economy and efficiency in mind. All models are wall mounted freeing up plant room space and in the case of the externally sited models negates the need for flue runs. Frost protection is a standard feature on all models. All units are available for use with Natural Gas and LPG.

Modulating burner

Lochinvar **Impetus™** continuous flow water heaters incorporate microprocessor technology to measure incoming water temperature and flow. The burner then modulates to the required level to satisfy hot water demand, with a temperature accuracy of +/-1°C.

High efficiency

The innovative design of the heat exchanger ensures consistent continuous flow of hot water, with efficiencies up to 98% net. And with a low water content heat exchanger standing losses are virtually eliminated.

Manifolding configurations

Up to 5 Lochinvar **Impetus™** continuous flow water heaters can be manifolded together and at a temperature rise of 44°C up to 1.5 l/sec (89 l/min) can be supplied continuously. When combined with the optional electronic sequencer control all units are linked and will operate as and when the hot water demand requires. This helps even out the load across each unit and ensures maximum operating lifecycle.

Storage configurations

Impetus™ continuous flow water heaters can be used in conjunction with Lochinvar's LST range of storage tanks to supply large volumes of hot water for peak demand periods. This is particularly appropriate where the hot water requirement exceeds the flow capacity of the water heaters, or where there is an intermittent large demand.

Flueing options

Impetus™ has a fan assisted flue and horizontal or vertical balanced flue configurations up to 15m (maximum equivalent length) are possible with the LIWH HD50i and LIWH HD70i internal wall mounted models. No flue is required for the externally mounted LIWH HD70e model.

Ancillary options

- Concentric balanced flue kits
- Electronic sequencing control for multiple heaters (Master)
- Electronic sequencing control for multiple heaters (Slave)
- Pressure activated manifold for multiple heaters
- Unvented systems kit
- Glass-lined steel & stainless steel storage tanks
- Pumps for storage configurations
- Pipe cover (LIWH HD70e model)
- Security cage
- LPG conversion kits

Lochinvar Ltd
7 Lombard Way | The MXL Centre
Banbury | Oxon | OX16 4TJ

Tel: 01295 269981
Fax: 01295 271640
Email: info@lochinvar.ltd.uk

www.lochinvar.ltd.uk

Registered office | Acre House, 11-15 William Road,
London NW1 3ER

Registered number | 3453820

Impetus™ continuous flow water heaters

	Model LIWH HD50i	Model LIWH HD70i	Model LIWH HD70e
Nominal Input (net) – kW	48.7	62.3	62.3
Nominal Input (gross) – kW	54.1	69.2	69.2
Gas Flow Rate (natural gas) – m ³ /hr	5.05	6.5	6.5
Nominal Output – kW	44	55.4	55
Efficiency (gross CV) – %	83	80	80
NO _x Emissions (corrected to 0% O ₂) – ppm	40	18	18
Storage losses – kWh/l/day not applicable	not applicable	not applicable	not applicable
Recovery Rate @ 44°C Δt – l/min	14.29	17.86	17.86
Recovery Rate @ 50°C Δt – l/min	12.57	15.71	15.71
Recovery Rate @ 56°C Δt – l/min	11.22	14.03	14.03
Dimensions (height) – mm	600	600	600
Dimensions (width) – mm	350	470	470
Dimensions (depth) – mm	224	220	220
Weight (empty) – kgs	22	29	29
Flow Connection (inches) – BSP	¾	¾	¾
Return Connection (inches) – BSP	¾	¾	¾
Gas Connection (inches) – BSP	¾	¾	¾
Flue Diameter (concentric) – mm	80/125	100/150*	not applicable
Electrical Requirements	230V 1ph 50Hz	230V 1ph 50Hz	230V 1ph 50Hz
Power Consumption – W	80	83	83
CO ₂ Flue Gas - %	8.23	7.45	7.45
Max Outlet Temperature - °C	37 – 85	37 – 85	37 – 85
Working Pressure Min/Max – bar	1.4/8.3	1.4/8.3	1.4/8.3

Lochinvar **Impetus™** continuous flow water heaters are high efficiency non-storage instantaneous water heaters suitable for use on Natural Gas or LPG. The heat exchanger is constructed from finned copper tube.

All models are wall mounted and suitable for either internal installation (models **Impetus™ LIWH HD50i** and **Impetus™ LIWH HD70i**) or external installation (model **Impetus™ LIWH HD70e**). In-built frost protection is standard on all units.

Impetus™ is equipped with electronic ignition, ionisation control and a fully modulating burner all controlled by a microprocessor, ensuring continuous modulation of the burner.

Impetus™ continuous flow water heaters are suitable for use with additional storage tanks but will require a suitably sized pump. Both of these items are available from Lochinvar as ancillary options (refer to separate ancillary option list for details).

Note: If installing **Impetus™** units in a hard water area a suitable water conditioning device should be installed. Failure of the heat exchanger due to limescale will invalidate the warranty.

* **Note:** Where flue installations are able to terminate horizontally, directly back through the wall the unit is mounted on, a 80/125mm flue assembly is available. However no extension pieces can be used. For all other applications a 100/150mm concentric flue system is required.

*Lochinvar Ltd reserves the right to change specifications without prior notice.
Issue 3 March 2010*

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