

HV HFR

Fluid Management System

The HV HFR is an ideal fluid management system for wider printing applications, capable of supplying fluid for up to five individual outlets.

The main tank is designed with a suitable capacity to provide a stable and reliable fluid supply. Each output can be individually isolated using the software for increased control and functionality.

The HV HFR can be scaled up to support wider printbars and is compatible with all industrial high flow and pressure-fed printhead types.

Highlights

Increased functionality and control

Ability to shut off individual printheads for maintenance.

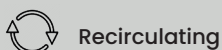
High volume output

Scalable supply to support printbar applications of up to five printheads per unit.

Ease of integration

Compact in size with the ability to supply numerous printheads for integration into larger machines.

Usage



Learn more at magnajet.com

Technical specifications

Physical

| | |
|----------------------------|--|
| Product dimensions (WxDxH) | • 235 x 110 x 215 mm |
| Tank volume | • 150 ml |
| Fluid connections | • 8 mm OD 6 mm ID standard • 6 mm OD and 4 mm ID option |
| Weight | • 5.74 kg |

Electrical

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|-------------------------|--|
| Supply voltage | • 24V |
| Supply power rating | • 6 - 10 A (dependent on options supplied) |
| Communication interface | • 4 wire RS422 / RS485 interface (supports multi dropping of devices; maximum of 15 nodes) • Optional USB to RS422 communication gateway adapter. Supplied with Megnajet communication kit. |

Operating conditions

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|-----------------------|--------------------------|
| Operating temperature | • 5 - 65°C (40 - 149°F) |
| Storage temperature | • 5 - 100°C (40 - 212°F) |
| IP rating | • IP50 |

Connectivity to printhead

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|-----------------------------|--|
| Printhead type | • Pressure fed through flow |
| Number of printhead outlets | • 1 to 5 (dependent on jetting duty) |
| Maximum flow rate | • 450 or 1500 ml per minute (dependent on pump selected) |
| Maximum in feed pressure | • 600 mbar |
| Maximum return pressure | • -200 mbar (-600 mbar version available) |
| Maximum purge pressure | • 950 mbar (standard 500 mbar) |

Software

| | |
|--------------|---|
| Integration | • Open source ASCII interface • Optional .NET DLL SDK available on request |
| Supported OS | • Win XP, Win 7, Win 8, Win 10 (Requires .NET 4 or higher) |

Product customisation

Units can be customised to suit fluid type and application, including (but not limited to) the use of alternate body materials (e.g. FDA approved food grade acetal and aluminium); choice of gasket material (e.g. FKM, peroxide cured EPDM and FFKM); and customisations to user software.

Compatible system components

- Degassing Pump Assembly
- Inline Heater Assembly
- Remote Manifold
- Remote Recirculation Pump
- Comms Kit.

Product information

- 950 mbar purge capability, allowing simple and controllable head maintenance
- Hydraulic meniscus measurement automatically adjusts meniscus pressure during use compensating for duty giving uniform delivery of fluid to the printhead
- System material options cater for more specialised fluids, such as food grade, aggressive solvents and high density particulates
- Integrated failsafe chamber automatically shuts down the system on tank overflow preventing wider system damage and also enables easy fault finding
- Internal closed loop heater for in-tank fluid temperature control plus support for external in-line heater up to 65°C ($\pm 1^\circ\text{C}$) allows tight control of viscosity to the printhead
- Single 24V system voltage makes for safer integration and usage plus low energy consumption
- Simple and robust communications interface (galvanically isolated RS422) allows monitoring by RS422 enabled devices with ASCII strings giving industrial, fast integration and machine development
- Opto-isolated PLC compatible I/O interfacing allowing traditional systems monitoring, giving flexibility in design
- System parameters are stored within the Fluid Management System allowing for standalone operation
- Open-source interface, libraries and example code allows simple integration into customer systems
- Fluid Management software supplied with the system allows a high level of control to meet application requirements
- Brand customisation for both the main body of the Fluid Management System and software enables a bespoke, more integrated feel to the product and bolsters customer servicing and spares channels.



Learn more at megnajet.com