



The Megnajet HV range of ink delivery systems have increased fluid capacity and enhanced maintenance features compared to our LC range of products; providing OEMs and integrators with stable, reliable and scalable industrialised fluid control functionality as print bar widths start to grow. Available in gravity, low flow, high flow and recirculation configurations, OEMs and integrators now have the ability to use all head types with a standard frame product. With individual maintenance possible on up to 5 heads (same colour), the HV's advanced levels of control and ease of set up and operation combine with a compact footprint to make the HV an ideal choice for production and rapid to market projects.

### The HV units features:

- Robust industrialised self monitoring design for long term field reliability, including configurable auto shutdown protection which monitors for unexpected conditions and intelligently protects the system.
- Uses media isolated high compatibility diaphragm pumps and valves for extended service life.
- Built in brushless air pump- no need for external air sources or vacuum pumps.
- Integrated independently controllable head shut off valves for head maintenance and instant isolation in power loss situations.
- Hard purge capability configurable up to 950 mbar as standard, making head maintenance simple and controllable.
- Integrated hydraulic meniscus measurement system automatically compensates the meniscus pressure as fluid levels inside the fluid reservoir change during usage.
- Options available to ensure fluid compatibility for all jettable fluid types including high viscosity fluids.
- Integrated failsafe chamber automatically shuts down the system on tank overflow due to setup or pipework failure.
- Integrated closed loop heater support for optional external inline heater up to  $65^{\circ}\text{C} \pm 1^{\circ}\text{C}$  on standard systems.
- Requires single low voltage 24V dc 6-9 amp input (dependent on number of heads).
- Industrial grade galvanically isolated RS422 communications interface allowing setup and monitoring from any RS422 enabled device capable of generating ASCII strings such as PC, PLC, HMI or other embedded systems.
- Fully opto-isolated PLC compatible I/O interfacing for traditional systems monitoring.
- All parameters are stored on the device allowing for hostless operation.
- Simple open source ASCII interface (for PLC and motion controller interfacing) and .NET DLLs (with example code) available to allow OEMs simple and seamless integration into their end user applications.
- Fluid manager software with a feature rich GUI, which can be self branded.

**Available in Standard and Customised versions**

## Technical specifications

Physical	
Weight	3.2kg
Tank volume	150ml
Physical dimensions	185mm x 200mm x 100mm
Fluid connections	8mm OD 6mm ID standard 6mm OD and 4mm ID option

Compliance	
CE compliant RoHS compliant WEEE compliant	

Electrical	
Supply voltage	24 V
Supply power Rating	6-8 A (dependent on options supplied)
Communication interface	4 wire RS 422 / 485 interface (supports multi dropping of devices; maximum of 15 nodes)
	Optional USB to RS 422 communication gateway adapter. Supplied with Megnajet communications pack.

Software integration interface	
Open source ASCII interface. Optional .NET DLL SDK available on request.	

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

Connectivity to print heads	
Head type	Pressure feed through flow & or low flow vacuum recirculation
Number of print heads supported	1 to 5 (dependent on jetting duty)
Maximum flow rate	950ml per minute
Maximum in feed pressure	200 mbar (1 bar version available)
Maximum return pressure	-200 mbar (-600 mbar version available)
Suggested distance from print head to unit	Greater than 200mm
Max purge pressure	950 mbar

Megnajet user interface	
Supported OS versions	Win XP, Win 7, Win 8, Win 10 (Requires .NET 4 or higher)

### Unit options

Options available for gravity feed print heads, high and low flow rate recirculation print heads and internal tank recirculation (ideal for heavily pigmented inks)

### Additional standard options

Degas vacuum source, external inline heater and remote sensor manifold units.  
Developer interface cable kits (including comms adapter and external medical grade power supply).

### 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.

For further details, please contact us via our website or the email address below.

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