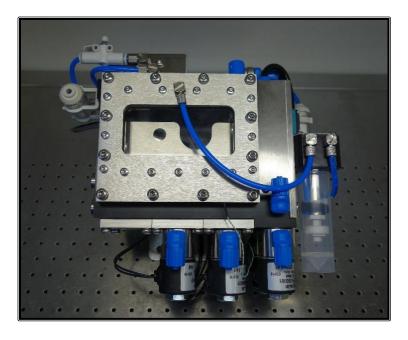


# **HV DATA SHEET**

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 and high flow 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 unit features:

- Built in brushless air pump- no need for external air sources or vacuum pumps.
- Up to 5 integrated individually controlled head shut off valves for head maintenance and instant isolation in power loss situations.
- Integrated head lock off valves give customers the ability to hard purge heads up to 1000mbar as standard; making head maintenance even on the largest of heads and print bars simple and controllable.
- The integrated hydraulic meniscus measurement system automatically compensates the meniscus pressure within the head as fluid levels inside the integrated fluid reservoir change during usage.
- Options available to ensure fluid compatibility for all jetable fluid types including high viscosity fluids.
- Integrated failsafe chamber with automatic shutdown and alarm to protect hardware from damage.
- Integrated closed loop internal heater control, up to 65°c ±1°C on standard systems (other options available).
- Requires single low voltage 24vdc 6-8 amp input (dependent on number of heads).
- Galvanically isolated communications interface and fully opto isolated PLC compatible I/O interfacing.
- The units are networkable up to 32 devices (4 wire RS485); with on board control and all parameters stored on the unit, allowing the units to operate in a host less environment.
- Setup is possible from any RS422 enabled device capable of generating ascii strings such as PC, PLC, HMI or other embedded system via the integrated galvanic isolated RS422 communications adapter.
- Simple open source ASCII interface (for PLC and motion controller interfacing) and .Net client/server DLLs (with example code) available to allow OEMs simple and seamless integration into their end user applications.

### **Technical specification**

Physical	
Weight	3.2kg
Tank volume	150ml
Physical dimensions	185mm x 200mm x 100mm
	(basic format)
Fluid connections	8mm OD 6mm ID standard
	6mm OD and 4mm ID options

Compliance
CE compliant
RoHS compliant
WEEE compliant

Electrical	
Supply voltage	24 V
Supply power	6-8 A
Rating	(dependent on options supplied)
Communication	4 wire RS 422 / 485 interface
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	5-65°C (40-149°F)	
Temperature		
Storage	5-100°C	
temperature		
IP rating	IP50	

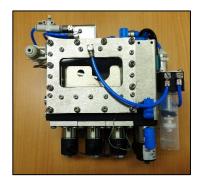
Connectivity to print heads		
Head type	Options available for all head types	
Number of print	1 to 5	
heads supported		
Maximum flow	950ml per minute	
rate in HFR config		
Maximum in feed	200 mbar	
pressure in HFR	1 bar version available	
Maximum return	-200 mbar	
Pressure	-600 mbar version available	
Suggested distance	Greater than 200mm	
print head to HV		
unit		
Suggested distance	Up to 2m for integrated fill pump.	
from bulk fluid tank	No limit if optional remote fill pump is	
to unit	fitted.	

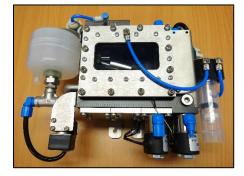
Megnajet user interface	
Supported OS	Win XP, Win 7, Win 8, Win 10
Versions	(Requires .Net 4 or higher)

#### **Unit options**

Units can be customised to suit fluid type and application, including (but not limited to) the use of alternate body materials (eg FDA approved food grade acetal, aluminium, 316 stainless and PEEK); choice of gasket material (eg FKM, EPDM, Nitrile and FFKM); and customisations to user software.

Options available for: gravity feed print heads; high and low flow rate recirculation print heads; internal tank recirculation (ideal for heavily pigmented inks); remote and localised fill pumps.







Standard HV 4/4 setup

HV LFR system 2/2 valve setup

950ml through flow option manifold

## Additional standard options

Degas vacuum source, head flush modules, external heater and manifold units.

Developer interface cable kits (including comms adapter and external medical grade power supply).

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

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