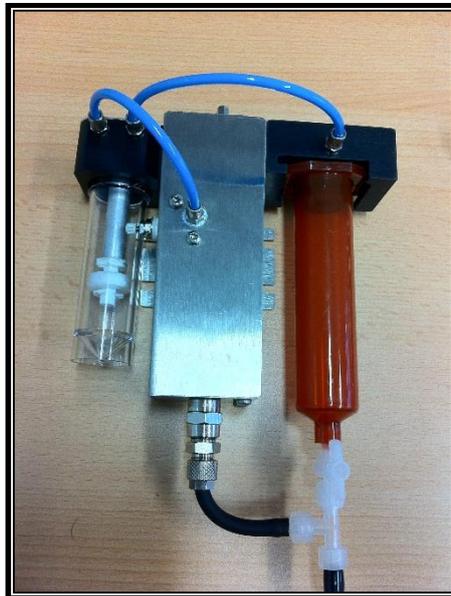


The Magnajet LabJet is a syringe based system developed from the core functionality of Magnajet's highly successful integrator series controller, the MISC. It is ideal for materials deposition, OEM integrators, and ink and fluid manufacturers who wish to use or test their inks and fluids in an industrialised system but without the overhead of a full tank based ink system. Customers are able to easily transfer their findings to a full tank based system as the same advanced technology is used throughout the Magnajet family of products.

LabJet differs from traditional syringe based systems due to its active hydraulic meniscus pressure control. This means no more adjusting pressures and moving syringes while printing to maintain the perfect meniscus as your fluid level changes. LabJet senses the fluid level and automatically adjusts itself meaning you can run full scale printing trials in a lab style setting. This self adjustment is especially important with high specific gravity fluids (for example nanoparticle based fluids) where very small level changes greatly affects the head meniscus and ultimately the end product quality.



The LabJet unit features:

- Extremely compact and ideal for integration into drop watcher rigs and other compact systems.
- Quick, hassle free syringe changing by a simple ½ turn quick release syringe mount. This allows the low cost UV compatible syringes to be quickly and easily refilled, swapped or discarded.
- Head maintenance is simple and controllable due to the system's ability to actively control meniscus pressure and also control adjustable timed ramping purges at pressures up to 950 mbar as part of its primary functionality.
- Built in brushless air pump- no need for external air sources or vacuum pumps.
- Integrated failsafe chamber with automatic shutdown and alarm to protect hardware from damage.
- Requires single low voltage 24vdc 1 amp input (supplied).
- Galvanically isolated communications interface and fully opto isolated PLC compatible I/O interfacing.
- 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.
- All parameters are stored on the device allowing for hostless operation,
- 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	700g
syringe volume	Max 30ml
Physical dimensions	140mm x 200mm x 65mm
Fluid connections (via Luer outlet)	8mm OD 6mm ID (supplied) 6mm OD and 4mm (supplier)

Compliance	
CE compliant	
RoHS compliant	
WEEE compliant	

Electrical	
Supply voltage	24 V
Supply power	1 A
Rating	(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.

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

Connectivity to print heads	
Head type	Gravity feed
Number of print heads supported	1
Maximum meniscus pressure	-200 mbar
Maximum purge pressure	950 mbar
Suggested distance from print head to unit	Greater than 200mm

Software integration interface	
Open source Ascii interface. Optional .Net DLL SDK available on request.	
Megnajet user interface	
Supported versions	OS Win XP, Win 7, Win 8, Win 10 (Requires .Net 4 or higher)

Standard kit



Additional standard options

Degas vacuum source, external heater unit.

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

We look forwards to hearing from you

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