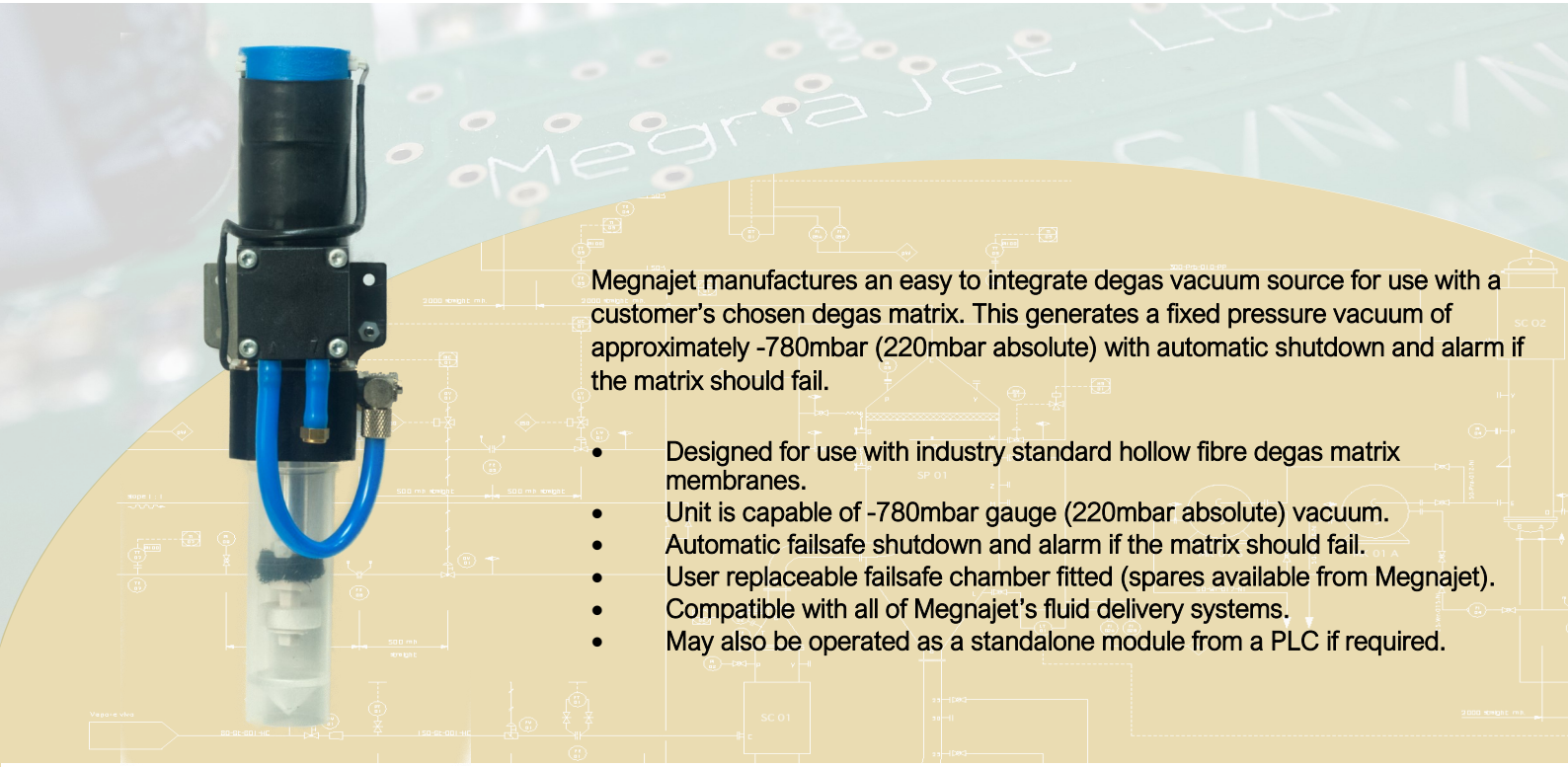
megnajet
Controlling fluids in a digital world

Degas Vacuum Generator

Product Datasheet



Megnajet manufactures an easy to integrate degas vacuum source for use with a customer's chosen degas matrix. This generates a fixed pressure vacuum of approximately -780mbar (220mbar absolute) with automatic shutdown and alarm if the matrix should fail.

- Designed for use with industry standard hollow fibre degas matrix membranes.
- Unit is capable of -780mbar gauge (220mbar absolute) vacuum.
- Automatic failsafe shutdown and alarm if the matrix should fail.
- User replaceable failsafe chamber fitted (spares available from Megnajet).
- Compatible with all of Megnajet's fluid delivery systems.
- May also be operated as a standalone module from a PLC if required.

Why might a degas unit be needed?

Dissolved gas and microbubbles in certain fluids and system set ups may significantly affect the speed and quality of printing. By interrupting droplet formation or pressurisation at the print head, dissolved gases can lead to improper jetting at the time of fluid ejection. This can lead to poor image quality and nozzle dropouts which can cause expensive shutdown of the equipment and the need for more frequent cleaning.

Degassing within recirculating systems can be desirable to counter the effects of any air that may have been absorbed by the fluid at start up or generated by the recirculation pump as the result of volatility of the solvent used in some fluids.

Note: It should be remembered that a certain amount of oxygen is necessary within a fluid. Too little, particularly with UV cured fluids, can result in premature curing within the system.

How does degassing work?

Degassing fluid with a membrane is a simple process. The fluid flows on one side of the membrane, while a vacuum is drawn on the other side. Gases dissolved in the fluid readily transfer through the membrane to the vacuum side, leaving the fluid degassed when it reaches the outlet.

Sourcing the degas matrix membrane

It is the customer's responsibility to supply their own degas matrix membrane and ensure its suitability with regards to flow and compatibility with their fluids. Caution should be taken to ensure a matrix which is capable of the required flow rate is used, or ineffective degassing may take place. Megnajet is unable to recommend any particular degas matrix product due to specific details relating to different setups and fluid types. The following companies will be able to advise customers further.

www.liquicel.com *Liquicel (membrana)*

www.permselect.com *MedArray*

www.dic-europe.de *DIC*

www.pall.com *UltiFuzor™ Degas Modules*

Available in Standard and Customised versions

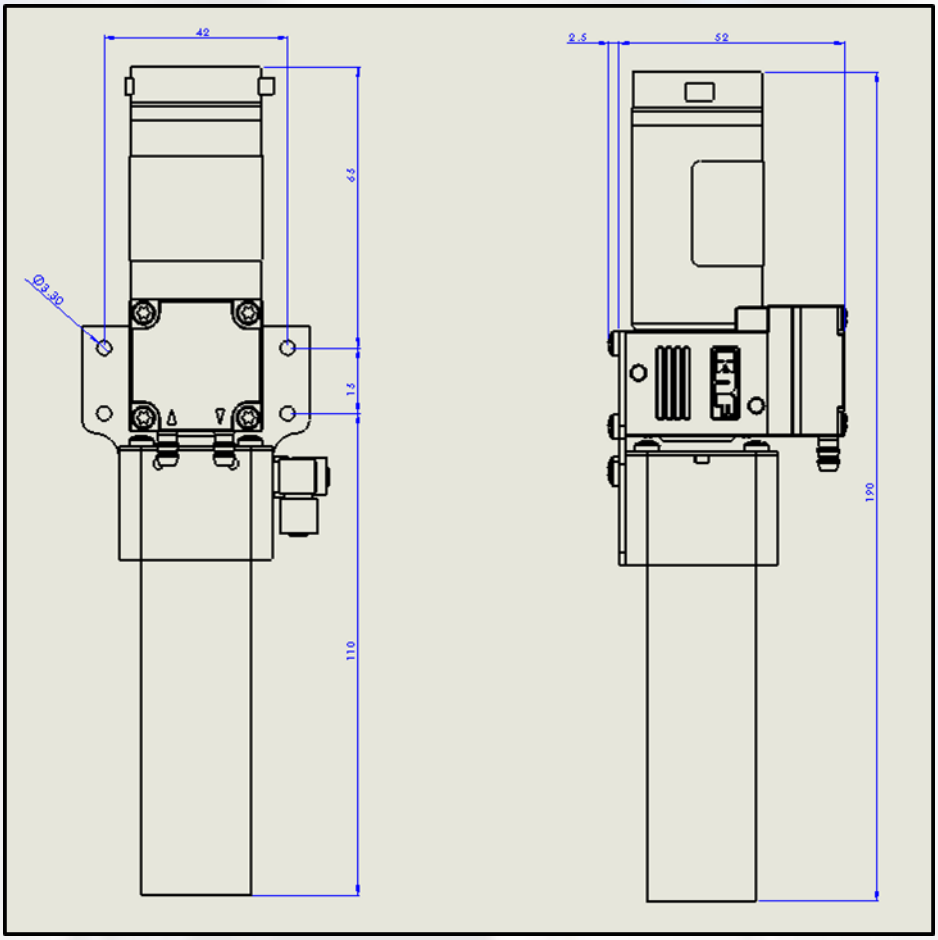
Technical Specification

Physical	
Weight	0.290kg
Failsafe chamber-maximum volume	30ml
Physical dimensions	190mm x 55mm x 55mm
Fluid connections	8mm OD 6mm ID standard

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

Compliance
CE compliant
RoHS compliant
WEEE compliant

Electrical and control	
Supply voltage	24 V
Supply power rating	0.3 A
Control signal	NPN (pull to ground to run)
Status	PNP (output when no fault)



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

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