

MRI Service Tools

Designed for the
Solution



Automated Helium Fill Tool

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One of a kind, highly efficient and useful
service tool from ECHO Magnet Services!

EC  **HO**[®]

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This wonderful autopilot kind of helium refill tool can even be called as “quench defeater”. Anyone who has an experience in liquid helium refill, especially to a magnet at field would agree about the high stress of a possible quench. On top of this high stress on the service engineer, there comes dewar and magnet manometer problems, frozen pressure sensors, helium regulators not being able to regulate the push gas pressure and many more possible technical problems... The engineer may not spend a moment without checking the magnet manometer or the dewar pressure by ticking on the manometer to make sure that it’s not stucked at some point or adjusting the regulator knob to compensate for the changing gas volume inside the dewar in order to stabilize the dewar pressure. All these checks and adjustments require a skilled helium refill personnel who also needs to be athletic as well in case of a refill operation on a mobile MRI to jump on the trailer to check the magnet pressure and then jump down to check and adjust the dewar pressure. Furthermore, there is the added pressure of not missing the end of transfer as missing this end is the end of the magnet!

This automated helium fill tool is fully micro processor controlled and highly reliable considering the precise measurement and adjustment of all pressure values. It eliminates ALL OF THE ABOVE MENTIONED helium refill problems. Furthermore, there are many more added values coming with the usage of this tool:

With its’ logging feature, the Automated helium fill tool will supply you with the second by second data of all values measured. This data is very precious in case of a magnet quench. Logged data can easily be analyzed to see the possible reason of a quench occurred during or shortly after the refill operation.

As a result of the constant dewar pressure throughout the whole transfer, the refill efficiency is also increased. Built-in timer will remind the refill tech to record the helium level at every 5 minutes, regularly.

Precise measurement of the magnet pressure will tell the end of refill before the transfer line would whistle.

Technical Specifications

Weight	10 kg
Dimensions (W, L, D)	50×37×27 cm
Supply Voltage	110/220VAC
Max Allowable Magnet Pressure	36 psi
Max Allowable Dewar Pressure	36 psi
Max Allowable Cylinder Low Side Pressure	140 psi
Magnet Pressure Sensor Precision	0.01 psi
Dewar Pressure Sensor Precision	0.01 psi

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