

# Integra AC

## IMPORTANT SAFETY INFORMATION SHEET

Version 1.0 – 05/08/08 F1217

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All users of the Integra AC must read the Oxford Instruments Integra AC system manual and the booklet Safety Matters that accompanies the system.



*The Integra AC cryostat is top heavy. It must either be moved by overhead crane or on the specially designed support pallets. If you do not make the system stable it is possible to cause serious damage.*



*The compressor, flexible lines and cold head are supplied already pressurised with pure helium gas at pressures around 15 bar (200 psig). Do not attempt to modify couplings.*



*The wiring for 3 phase compressors must be phased so that the compressor runs in the correct direction. When the compressor is turned on for the first time ensure that the High pressure gauge shows an increase and the Low pressure gauge shows a decrease. If not you must stop the compressor, swap two of the live power lines and re-start.*



*Asphyxiation hazard – always wear personal oxygen meters or have alarms installed.*



When switching to liquid cooling, it is important to keep a positive pressure of helium gas inside the Integra AC cryostat. Failure to do so may cause air to be condensed on the heat exchanger surface, impairing the performance of the system.



All the service ports should be sealed when the system is cold, to prevent air from entering the system



You must only use the Integra AC sliding seal when loading an insert in to a cold dewar.



Appropriate personal protective equipment should be used when handling cryogens, see Safety Matters.



Ensure that the pipe connected to the controller is never blocked or obstructed



***If your system contains a superconducting magnet:***

- ***Make sure that the liquid helium level does not drop below the minimum level shown on the drawing while it is energised.***
- ***Run down the magnet, if in doubt***
- ***Beware of the stray magnetic field while you are working close to the cryostat.***
- ***Do not push the transfer tube below the maximum helium level if you have a superconducting magnet in the system. You may quench the magnet.***



**Do not disconnect the pulse tube lines until the system has fully warmed up**



***Do not overheat the pulse tube beyond 315K***

### Further Assistance

First read the manuals supplied with the system. If you require extra assistance, to obtain technical support you will need to quote your Oxford Instruments order number. Please contact your nearest Customer Support centre as follows:

#### ***Europe, RoW, Main Office***

Tel: +44 (0)1865 393 311

E-mail: [helpdesk.nanoscience@oxinst.co.uk](mailto:helpdesk.nanoscience@oxinst.co.uk)

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#### ***Americas***

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