

Avoid unplanned down time of INFINITY SPM: Preventive Maintenance

We at Scienta Omicron support the research community's endeavour to increase productivity. Caring for the instruments' sanity at customer's laboratories is part of our offering. With virtually unlimited cryogenic operating time our INFINITY SPM is among the leading solutions for high productivity SPMs. Nevertheless, the INFINITY's cooling system requires special care and maintenance at larger intervals in order to minimize wear and avoid unplanned down time of the system.

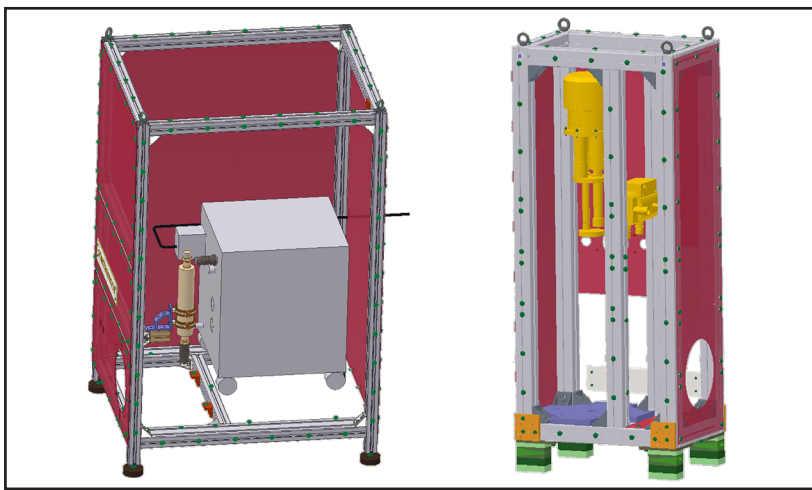
The INFINITY SPM's excellent low noise performance poses extreme requirements for noise reduction in the SPM environment. Both the Compressor and Pulse Tube cooler are diligently enclosed in vibration and noise cancelling cabinets. We thus recommend that only trained engineers from Scienta Omicron execute all maintenance procedures as required.

Compressor adsorbers, filters, and the cooler valve unit degrade over time. Accumulating contaminants or abraded particles may cause damage to the delicate internal components of the cooler.

Standard maintenance procedures are typically combined with recharging helium in the system.

We recommend exchanging these parts in two intervals:

Operating hours	Package	Part number
15 000	Minor Maintenance Spares Package Filter Unit replacement Valve Unit replacement	PN07562
30 000	Major Maintenance Spares Package Filter Unit replacement Valve Unit replacement Compressor Adsorber Replacement	PN07563



Summary

The Maintenance package comprises a visit by one of our trained service engineers from Scienta Omicron and the replacement parts according to the service interval. The procedure takes roughly 1,5 days for an experienced engineer with the appropriate tool set. Labour will be charged per hour. The SPM cannot be cooled during the maintenance.

Our service engineer will bring equipment for recharging the helium filling of cooler and compressor. Customers need to provide high purity helium (He 5.0, 50 MPa). The standard charging fittings require a helium bottle connection according to DIN 477 part 1 Nr. 6 (He up to 200 bar). For optional pump and flush procedures a pump and connecting hoses will be needed – ideally a dry scroll pump. The system roughing pump can be used.

Prerequisites:

The Compressor Tower must be accessed from front and right-hand side with appropriate space for an engineer to be able to work.

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