Data sheet

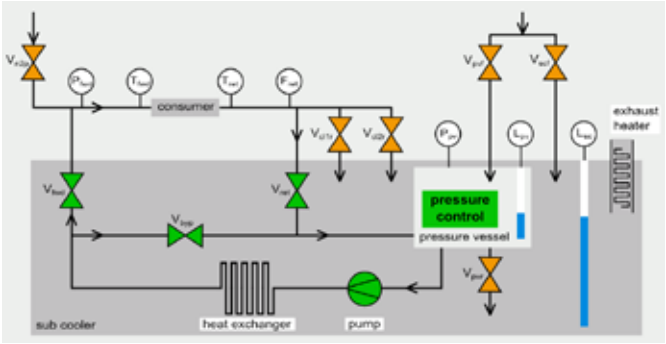
ChillAX

Liquid nitrogen chiller for your cryogenically cooled optics with superior stability in pressure and temperature.

XILON

Introducing...

AXILON's advanced ChillAX which enables improved performance of high heat load components through superior stability, cooling capacity and automated processes. This new best-in-class LN_2 chiller provides ultra-low mechanical impact to the optical element, even during filling cycles. LN_2, at a temperature of 77K, is circulated through the high-heat-load component in an isolated closed loop circuit. Boil-off inside the closed loop is eliminated by pressurizing the subcooled LN_2 and the integrated fast PID control facilitates ultra-high pressure stability. Continuous operation and long-term reliability is guaranteed by maintenance-free sub-components without the need for regular intervention.



Controls

A PLC based control system allows an intuitive and user-friendly operation of the LN_2 chiller.

- Fully automated procedures
- Control and monitoring of all functions
- Remote control via the touch panel
- Safety interlocks through an EPS signal interface
- TCP/IP connection for remote access and integration to superordinated controls
- Device drivers and GUIs for EPICS, TANGO, LabView, Spec, etc.

Services

With our extensive experience in cryogenics we can support you with your specific application and tailor ancillary equipment to your needs.

- Layout and provision of high pressure transfer lines and LN_2 infrastructure made-to-order
- Customised cryogenic interfaces
- Phase separators
- LN_2 forward loop heaters

Key features

- Ultimate stability in pressure and temperature
- ChillAX performance independent of refills
- Widest range of cooling power from 0 to 3 kW
- Intuitive and user friendly with full automation
- Maintenance-free operation and long-term reliability
- Extendable automated procedures

parameter	value
cooling power	0 – 3000 Watts
flow rate	0 – 20 l / min (0 – 90 Hz)
cooling loop pressure	2 – 10 bar
pressure stability	< 1 mbar (rms) / < 5 mbar (p–v)
cooling loop temperature	77 – 100 K

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