



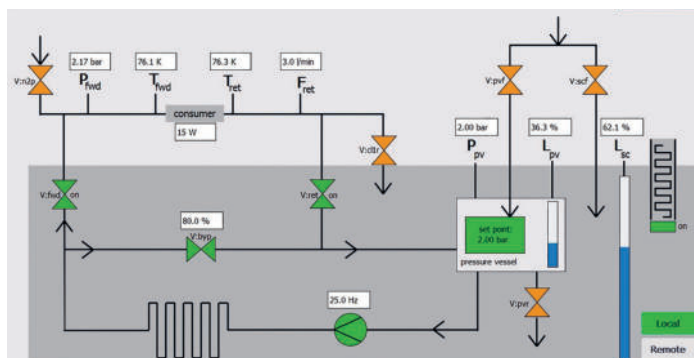
Data sheet **ChillAX**

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



Introducing...

AXILON's advanced ChillAX which enables improved performance of high heat load components through superior stability, cooling capacity and automated processes. This best-in-class LN₂ chiller provides ultra-low mechanical impact to the optical element, even during filling cycles. LN₂, 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 LN₂ and the integrated fast PID control facilitates ultra-high pressure stability. More than 25 systems in operation have proven continuous operation and long term reliability without the need for maintenance or regular interventions.



Controls

- Intuitive and user-friendly PLC based control system
- Fully automated procedures
- Control and monitoring of all functions
- Control via touch panel or remote software
- 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

- Engineering support for specific applications and adaptations
- Layout and provision of high pressure transfer lines and LN₂ infrastructure made-to-order
- Customised cryogenic interfaces
- Phase separators
- LN₂ 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
- Very fast stabilization after cool-down and change of operation parameters
- 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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