

ICE

DRY ICE 300mK Series

280mK to 425K

The DRY ICE 300mK Series is a range of closed cycle cryostats that work at He³ temperatures both continuously and in single shot mode.

These systems are designed to deliver high cooling powers between 300mK and 400mK. The single shot systems offer extended hold times and rapid condense times to ensure as little time as possible is spent away from experiments.



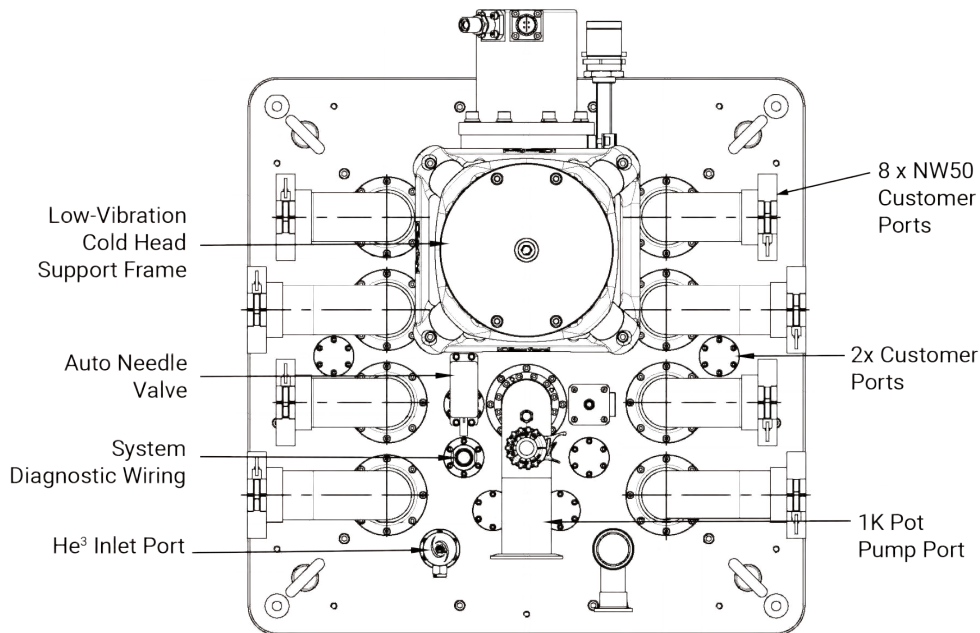
ICE

DRY ICE 300mK TERTIA

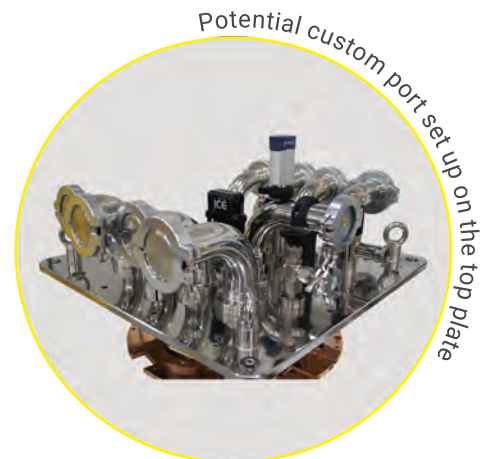
The DRY ICE 300mK TERTIA is a single shot cryostat capable of holding 280mK for 100 hours. The system can be run at 1K or He3 temperatures with cooling powers of 50 μ W at 285mK and 100 μ W at 295mK. The large top plate enables the addition of many DC, RF, Fibre Optic and Coax wiring ports.

KEY FEATURES

- Base temperature: 280mK
- 100 hour hold time with 7 litres of He³
- Continuous operation above 1.7K
- 100 μ W of cooling power at 295mK
- Up to 10 ports for customer wiring



Potential top plate optical and wiring port set up



DRY ICE 300mK Continuous

The DRY ICE 300mK Continuous Cryostat is designed to run continuously at He³ temperatures (below 500mK). The system offers some of the highest cooling powers on the market, achieving up to 500µW at 400mK, making it highly suitable for large heat load experiments.

KEY FEATURES

- Base temperature: 300mK
- 100µW of cooling power @ 320mK
- 500µW of cooling power @ 400mK
- Continuous operation
- Ø 300mm sample space



DRY ICE 300mK Benchtop

The DRY ICE 300mK Benchtop Cryostat is a single shot system with a bottom loading sample space. This compact system allows for a fast sample turnaround and is perfect for detector work at temperatures less than 290mK.

KEY FEATURES

- Base temperature: 290mK
- 50 hour hold time with 5 litres of He³
- Continuous operation above 1.5K
- Compact benchtop design
- Less than 10 hour cool down time to 300mK

	DRY ICE 300mK TERTIA	DRY ICE 300mK Benchtop	DRY ICE 300mK Continuous
BASE TEMPERATURE	280mK	290mK	300mK
COOLING POWER	50µW @ 285mK 100µW @ 295mK	50µW @ 324mK	50µW @ 315mK 100µW @ 320mK
SYSTEM COOLDOWN	22.5 hours	< 10 hours	14 hours to 500mK
TIME TO CONDENSE	1 hour	45 minutes	N/A
SAMPLE SPACE	Ø 300mm	Ø 200mm	Ø 300mm
RUNNING MODE	Single shot: 280mK Continuous above 1.7K	Single Shot: 290mK Continuous above 1.5K	Continuous
HOLD TIME	100 hours*	50 hours†	N/A
DIAGNOSTIC WIRING	24-way Fischer		
CUSTOMER DC WIRING	Constantan, Manganin or Copper looms fitted on request.		
COAX	SS, SC, C, BeCu and NbTi available. Other COAX available on request.		
OPTICAL FIBRES	Available with FC-APC feedthroughs		
ACCESS TO SAMPLE SPACE	Bottom Loading		
OPTICAL ACCESS	Sapphire, Quartz and Spectrosil windows. Other materials available on request.		
INTEGRATED SUPER-CONDUCTING MAGNETS	Split-pair, 2D and 3D vector rotate and solenoid magnet options available		
TEMPERATURE STABILITY	±1 mK at 300mK and above	± 10mK between 400mK and 4K, ± 50mK above 4K	± 1 mK at 300mK and above
SAMPLE ENVIRONMENT	Vacuum	Vacuum	Vacuum

*with 7 litres of He³

†with 5 litres of He³