

HPD

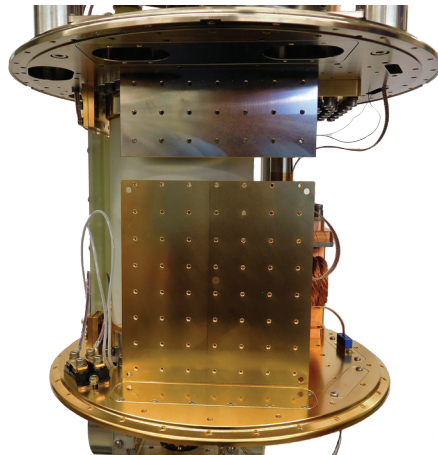
Rainier 103

Small, Cryogen-Free ADR Cryostat

000111100010

➤ Overview

The Rainier 103 adiabatic demagnetization refrigerator (ADR) is a compact cryostat that provides a surprisingly large experimental space: 26 cm diameter by 25 cm tall. HPD's attention to detail provides many high-quality cryogenic features, including cool down from 300 K to 3 K in just 15 hours, a vibration minimizing design, and 250 hour no-load regulation at 100 mK. The Rainier 103 can also be reconfigured for your specific project.

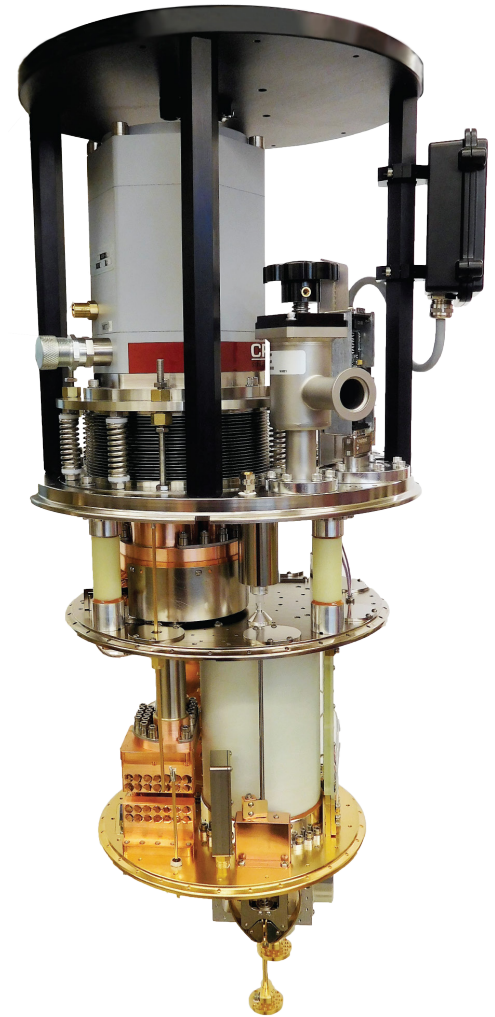


Features

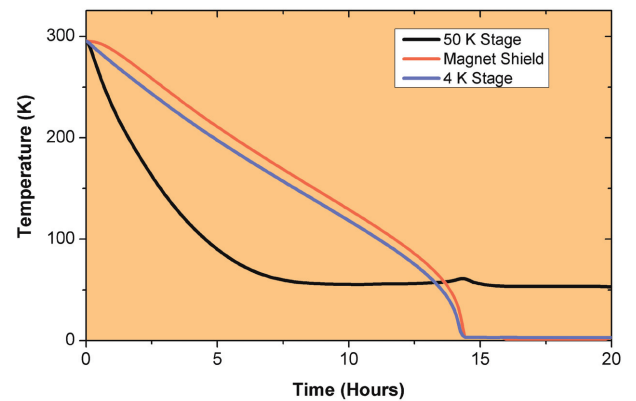
- HPD adiabatic demagnetization refrigerator (ADR)
 - Kevlar suspension
 - 1 K & 50 mK stages
- Optimized for versatility and flexibility
 - 3X NW50 user ports on top flange
 - 2X NW25 user ports on top flange
 - 1X NW63 user port on vacuum jacket side
 - 1X Ø150 mm user port on vacuum jacket bottom
- Nickel plated aluminum radiation shields (50 K, 4 K)
- Quick release flanges on vacuum jackets
- Electronically-controlled motorized heat switch
- Vibration minimizing bellows and jumper cables
- Cryomech PT407 pulse-tube cryocooler
- Remote rotary valve motor
- Robust internal construction
- Custom service stand (option)
 - Allows for transport & servicing
 - 30 inches of height adjustment

Design Specifications

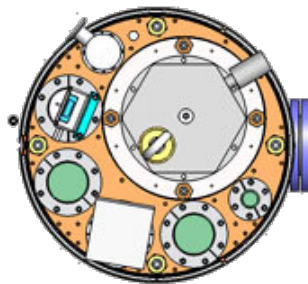
- Large experimental space: 26 cm diameter x 25 cm tall
- Cool down from 300 K to 3 K in 15 hours
- Pulse-tube stage temperatures of 50 K and 2.7 K
- 0.6 W cooling power at 4.2 K
- ADR base temperature of 30 mK
- 250 hour no-load regulation at 100 mK



Typical Rainier 103 Cryostat Cooldown



Top view of Rainier 103 cryostat showing pulse-tube cooler and feedthrough flanges.



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HPD RAINIER 103-DS-0121

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