Research cryostat
Model 103 Rainier

The model 103 Rainier 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 4 K in just 15 hours, a vibration minimizing design, and >250 hour no-load regulation at 100 mK. The 103 Rainier can also be reconfigured for your specific project. Call us to discuss your needs.
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

Specifications:
- Large experimental space: 26 cm diameter x 25 cm tall
- Cool down from 300 K to 4 K in 15 hours
- Pulse-tube stage temperatures of 50 K and 2.7 K
- 630 mW cooling power at 4.2 K
- ADR base temperature of 30 mK
- >250 hour no-load regulation at 100 mK