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# HPD Model 106

Mid-Sized, Cryogen-Free ADR Cryostat

### > Overview

The HPD Model 106 adiabatic demagnetization refrigerator (ADR) has been optimized for flexibility and versatility. This medium-size research cryostat features an experimental volume 34 cm in diameter and is offered in two sizes: a compact 21 cm tall and a larger version at 49 cm tall. HPD's quality engineering and attention to detail provide many unique features, such as cool down from 300 K to 3 K in 16.5 hours, a vibration minimizing design, and a wide range of port sizes to suit a variety of scientific applications. The Model 106 can also be reconfigured for your specific project.



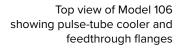


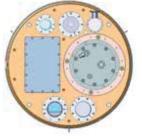
### > Features

- HPD adiabatic demagnetization refrigerator (ADR)
- Kevlar suspension
- 1 K & 50 mK stages
- Optimized for versatility and flexibility
- 3X NW ports on top flange
- 1X NW40 port on top flange
- 1X NW25 port on top flange
- Large line-of-sight set of 165 mm x 89 mm rectangular ports
- 1X Ø150 mm port on vacuum jacket bottom flange
- Nickel plated aluminum thermal shields (50 K, 4 K)
- Quick release vacuum jacket flanges
- · Captive screws on shield flanges
- · Electronically controlled motorized heat switch
- Vibration minimizing design
- Cryomech PT410 pulse-tube cryocooler
- Remote rotary valve motor
- Custom service stand (option)
- Allows for transport & servicing
- 76 cm of height adjustment

#### > Design Specifications

- Choose from two experimental volumes
- Compact: 34 cm diameter x 21 cm tall
- Large: 34 cm diameter x 49 cm tall
- Cool down from 300 K to 3 K in 16.5 hours
- Pulse-tube stage temperatures of 50 K and 2.7 K
- 0.9 W cooling power at 4.2 K
- ADR base temperature of 30 mK
- 200 hour no-load regulation at 100 mK (250 hours expected)





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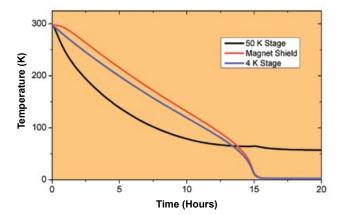
All information is subject to change without notice.

HPD MODEL 106-DS-0323



Close-up of HPD Model 106 ADR Cryostat

#### Typical Model 106 Cooldown Curve



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