RP-222B3S 4K PULSE TUBE CRYOCOOLER SERIES



The RP-222B3S is SHI's highest-capacity 4K Pulse Tube Cryocooler, delivering up to 2.0 W of cooling power at 4.2 K. Designed for dilution refrigeration, quantum technologies and other demanding low-temperature applications, it combines enhanced cooling performance with excellent efficiency, low vibration and long-term reliability.

The RP-222B3S marks a significant advancement in SHI pulse tube technology. Its double-inlet design simplifies the connection between the cold head and valve unit while improving overall system efficiency, while the new drive unit uses inverter control technology to maintain optimal valve timing regardless of local power frequency. With a base temperature below 2.8 K, a 20,000-hour maintenance interval and compatibility with industry-standard 2.0 W pulse tube interfaces, the RP-222B3S offers a powerful, easy-to-integrate solution for researchers, OEMs and system integrators. Like all SHI cryocooler systems, the RP-222B3S offers exceptional quality along with a global sales, service and support network.

Features

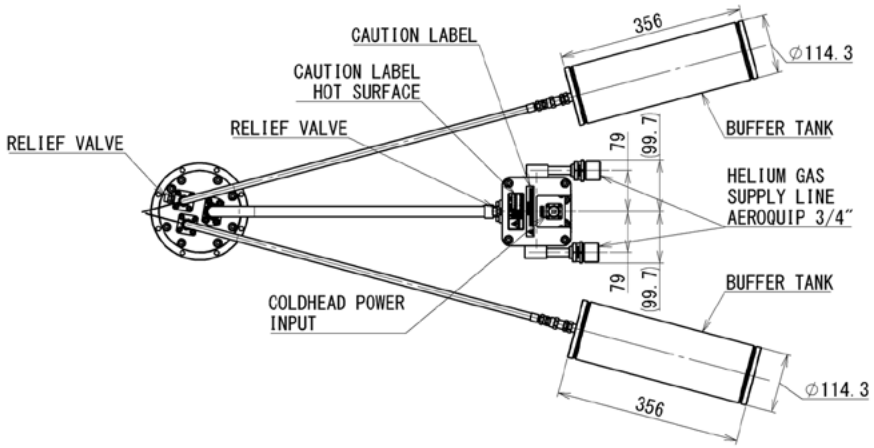
- Powered by the robust F-100 compressor platform, the largest model in SHI's Freedom® series
- Simplified single-line double inlet connection between the cold head and valve unit
- Newly-designed drive unit enables consistent global performance
- Industry-compatible cold head interface for simplified system integration and retrofit opportunities
- Vertical orientation
- Long-life design with no moving parts inside the cold head

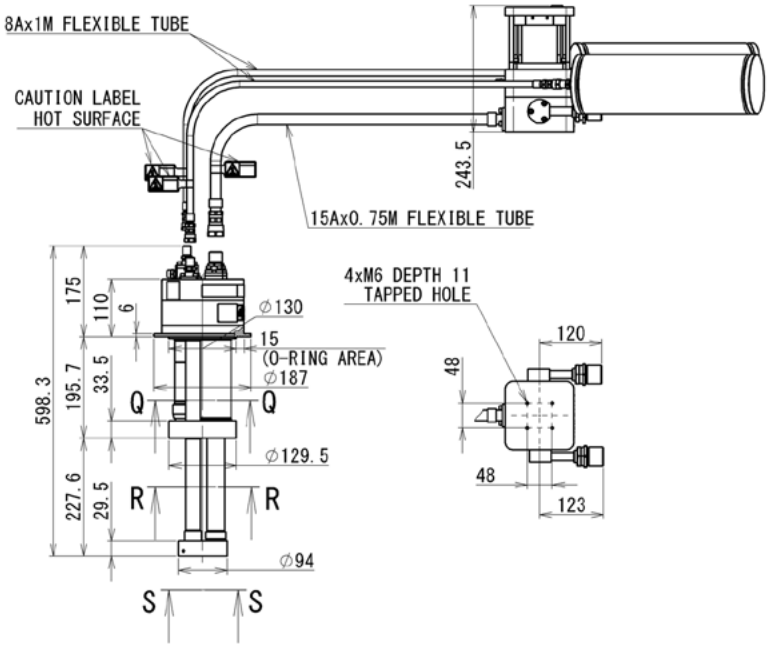
* Due to the Japanese Foreign Exchange and Foreign Trade Act, this product requires an export license. Please contact your local office for more information.

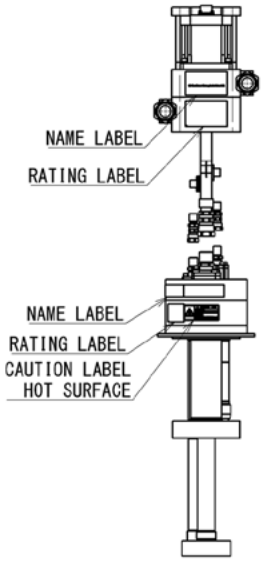
Performance Specifications

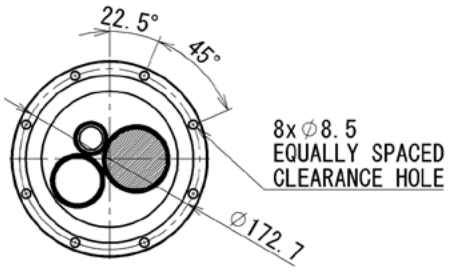
Power Supply	50 Hz	60 Hz
2nd Stage Capacity	1.9 W @ 4.2 K	2.0 W @ 4.2 K
1st Stage Capacity	50 W @ 45 K	55 W @ 45 K
Minimum Temperature[1]	<2.8 K	
Cooldown Time to 4.2 K[1]	<60 Minutes	
Weight	30 kg (66.1 lbs.)	
Dimensions (HxD)	598 x ø187 mm (23.5 x ø7.4 in.)	
Maintenance	20,000 Hours	

1 Lowest temperature and cooldown time are for reference only.
IMPORTANT: Please contact SHI before purchasing the SRP-222B3S-F100L/H for installation in Japan. Procedures relating to Japanese high-pressure gas safety laws must be followed.
Specifications subject to change without notice.

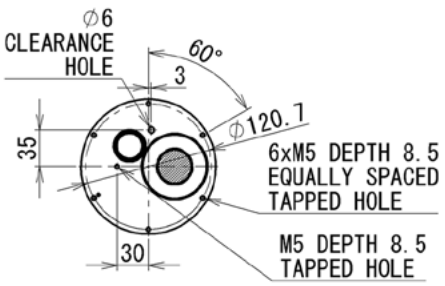




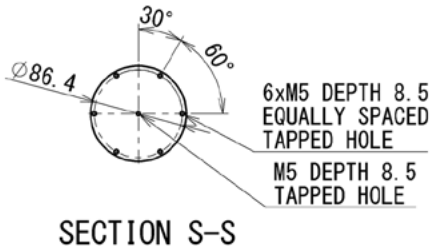




SECTION Q-Q



SECTION R-R



SECTION S-S

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