

# CRYOCOOLERS

## OIL-FREE, LOW VIBRATION, NO MAINTENANCE



**RIX Industries** manufactures high reliability, low vibration, oil-free, maintenance-free, acoustic Stirling (pulse tube) cryocoolers for applications in the 50K to 150K range, with watts to kilowatts of cooling.

### ADVANTAGES INCLUDE:

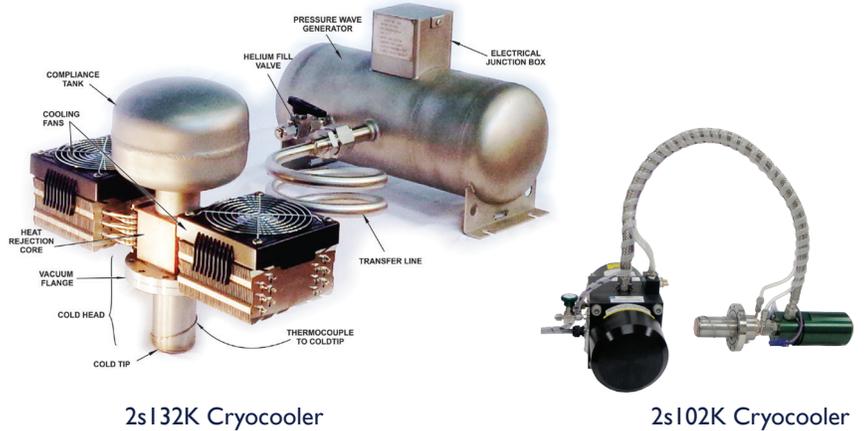
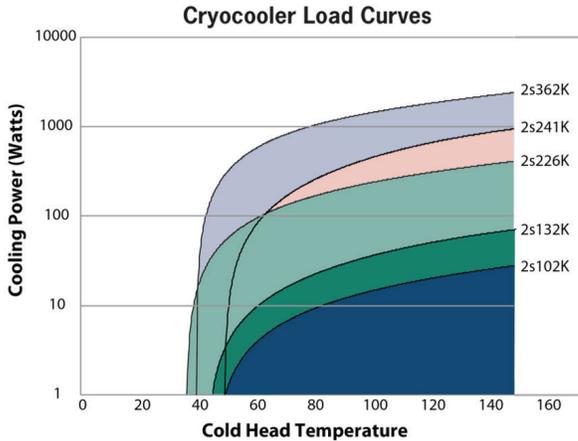
- High MTBF - greater than 125,000 hours of operation
- Oil-Free - Driven by two renowned linear reciprocating motors with clearance seal pistons, providing wear-free operation with no lubrication required
- Low Vibration & Low Noise - Naturally balanced dual opposed motor/piston mechanical design within the Pressure Wave Generator (PWG)
- Flexibility – Close coupled and remote mounted coldheads for ease of installation and vibration reduction
- Static Coldheads - No moving parts, offering virtually unlimited life
- Environmentally Safe - Inert helium gas working fluid

### APPLICATIONS:

- Gas Liquefaction
- Vacuum Pumping
- Instrument Cooling
- High Temperature Superconductors
- Medical/Biological Storage
- Freeze Point Analyzers
- Ultra-low Refrigeration
- Material Research



RIX's unique thermoacoustic-Stirling (pulse tube) cryocoolers combine mechanical simplicity, high performance, and efficiency while using an environmentally friendly refrigerant. Driven by two robust linear reciprocating motors with clearance seal pistons, each unit provides wear free operation with no required lubrication. The dual opposed motor/piston design within the Pressure Wave Generator (PWG) is naturally balanced, reducing vibration and noise.



RIX Industries also offers Pressure Wave Generators (PWGs) and fully integrated Cryocooler systems. Engineers, researchers, and OEM customers have developed systems using our Linear Reciprocating Motors and Pressure Wave Generators because of their performance, unique wear-free design, and virtually **unlimited life**.

## PRODUCT SPECIFICATIONS

Cooler Model	2s102K	2s132K	2s226K	2s241K	2s362K
Capacity @ 77K (W)	6-8	28	140	175	800
Capacity @ 150K (W)	27	80	390	600	2,800
No Load Temperature (K)	50	45	37	50	40
Power Consumption (W)	275	600	2,750	4,500	22,000
Electrical Requirements	110Vac max.,1Φ, 60Hz	110Vac max.,1Φ, 60Hz	208Vac max.,1Φ, 60Hz	208Vac max.,1Φ, 60Hz	380Vac max.,1Φ, 60Hz
Max Operating Current (amps)	4.25	9	30	40	80
Ambient Operating Temp.	32° - 90°F (0° - 32°C)	32° - 90°F (0° - 32°C)	32° - 90°F (0° - 32°C)	32° - 90°F (0° - 32°C)	32° - 90°F (0° - 32°C)
Maintenance Interval	None	None	None	None	None
Rejection Method	H <sub>2</sub> O or Air	H <sub>2</sub> O or Air	H <sub>2</sub> O	H <sub>2</sub> O	H <sub>2</sub> O
Cooling Flow Rate	1 L/min	2 L/min	10 L/min	12 L/min	50 L/min

