

LASER TEMPERATURES

Laser Systems for Fiber, CO₂, YAG, Disc and Diode



Increase Laser Precision and Beam Quality

Industrial chillers are essential for managing laser temperatures. The required cooling depends on factors like laser wattage, efficiency, and ambient temperature. Vapor compression (VC) water chillers are commonly used to maintain resonator and optics temperatures at or below ambient, ensuring high performance and longevity. With proper controls, these chillers can maintain temperature within $\pm 0.5^{\circ}\text{F}$.

DESIGN FEATURES

- Air-Cooled Condenser, Closed Loop
- High-Flow Process Feed Pumps
- Auto Make-Up/Reservoir Refill Kits
- External Fluid Filters
- Designed for Water or Water/Glycol fluids (70/30)
- Fluid Setpoint 65–80°F
- Ambient Temperature Range 50–95°F
- Temperature Stability $\pm 3^{\circ}\text{F}$ (1.5°C)
- Digital Controller
- Hermetic Compressor
- Brazed Plate Evaporator
- Manual Fluid Bypass Valve
- Hot Gas Regulator
- Discharge Fluid Pressure Gauge
- Seamless, Non-Pressurized, Poly Tank
- Refrigerant and Tank Sight Glasses
- Flush-Mounted Fill Port
- Air Filter
- High-Flow Process Feed Pump
- Auto Water Fill to Maintain Water Level

CHILLER OPTIONS

- Pressure Relief Bypass Valve (PRBV)
- Flow Switch for Flow Monitoring
- Anti-Backflow Kit
- Motorized Hot Gas Bypass Valve
- Float Switch to Detect Low Tank Fluids
- Insulation for Above 28°F Setpoint
- cUL Certification

THE DTS DIFFERENCE

- Built to UL 1995 standards
- Industry leading 18-Months Parts and Labor Warranty
- 24/7 Global Technical Service and Support
- Next Day Parts Available on Most Models

(Fluid temperatures and ambients can vary. Consult factory for the effect on capacity. Stated capacity based on 65°F fluid setpoint and 95°F ambient.)

MODEL	CAPACITY	ELECTRICAL	FLA ^a	INLET/OUTLET PORT SIZE	TANK CAPACITY	UNIT DIMENSIONS (LxWxH)	CRATED WEIGHT	PUMP STANDARD		PUMP FLOW UPGRADE ¹	
INDOOR	BTU/HR	VOLTS	AMPS	INCH	GAL	INCH	LBS	GPM	PSI	GPM	PSI
JHI-180-M	2,100	115/1/60	10.6	1/2	5	21.125x22x28.625	290	2	50	n/a	n/a
JHI-500-M	4,500	115/1/60	15.5	1/2	5	21.125x22x28.625	345	4	50	n/a	n/a
		230/1/60	8.0								
JHI-1000-M	11,725	230/1/60	17.7	1/2	10	25.125x31.125x33.375	530	4	50	10	35
	11,300	230/3/60	13.6								
	11,300	460/3/60	6.1								
JHI-1500-M	18,000	230/1/60	24.0	1/2	10	25.125x31.125x33.375	570	4	50	10	35
		230/3/60	16.8								
		460/3/60	7.5								
JHI-2000-M	24,000	230/1/60	34.0	1/2	10	31.625x33.5x35.675	645	10	35	10	80
		230/3/60	22.0								
		460/3/60	10.0								
SVI-5000-M	60,000	460/3/60	16.0	1 1/2	36	34.5x37x65	1,100	n/a	n/a	40	45
		230/3/60	29.0								

a) Does not include pump upgrade.

¹) Pump Pressure PSI Upgrade – in higher pressure applications this option is selected to allow pressure up to 75 PSI. Pressure relief bypass must be added with this option.

GDTS chillers can be configured to cool multiple welding applications. Contact GDTS to learn more about a central chiller.