



## **Laser Chiller**



### **High-Precision Laser Chillers for Efficient Temperature Control**

At Ozone Air Solution Ltd, we offer high-performance laser chillers designed to provide precise temperature control for laser machining and laser processing systems. Since lasers are highly sensitive to heat, our industrial laser chillers ensure consistent cooling, preventing wavelength deviation and maintaining optimal performance.

#### **Key Features of Our Laser Chillers :**

- Precise temperature regulation using a hot gas bypass system that controls evaporating pressure for stable cooling
- Advanced refrigeration system designed for laser machines and laser processing applications
- Prevents overheating, ensuring longer laser lifespan and stable beam quality
- Continuous cooling support for uninterrupted laser cutting, engraving, and welding
- Energy-efficient cooling solution for fiber lasers, CO2 lasers, and industrial laser systems

Our laser chillers are essential for maintaining laser accuracy, preventing performance issues, and ensuring high-quality output in laser cutting, engraving, and marking applications. Whether you need precision cooling for laser machines, temperature control for industrial lasers, or energy-efficient refrigeration for laser processing, our laser chillers provide unmatched reliability and efficiency

## High-Performance Cooling Systems for Laser Machines – Cooling Capacity 1.7 KW to 42 KW

Discover our **precision-engineered cooling systems** designed for optimal performance in cooling **laser machines**. With **cooling capacity** ranging from **1.7 KW to 42 KW**, our systems ensure efficient heat management for high-performance applications.

### Key Features :

- **Temperature control** range from **20°C to 35°C**, offering precise and customizable cooling.
- **Top-branded, cooling-efficient scroll compressor** for enhanced durability and performance.
- **Deionized water** installation in refrigeration coils for improved efficiency and longevity.
- **Stainless steel water tank** and built-in water pump for superior durability and reliability.
- **Compact design** for easy installation and hassle-free maintenance.
- Perfectly **engineered for laser machine cooling**, ensuring optimal operation and longevity of your equipment.

Ensure the performance and lifespan of your **laser machines** with our state-of-the-art cooling systems that offer **precise temperature control** and **efficient heat dissipation**.

Laser Chiller Technical Specifications										
Description	Model	OAS6TRLAC	OAS12TRLAC	OAS18TRLAC	OAS24TRLAC	OAS36TSLAC	OAS60TSLAC	OAS96TSLAC	OAS120TSLAC	OAS144TSLAC
Cooling Capacity	kcal/h	1504	3009	4514	6018	9028	15047	24075	30094	36113
	KW	1.75	3.5	5.25	7	10.5	17.5	28	35	42
Input Power	KW		2.5	3	3.1	4	6.4	8.5	10.5	12.5
Max Current	A		10	13	6.6	8	15	18	23	25
Power Supply		220V-380V/1PH,50Hz			380-420V/3PH,50Hz					
Refrigerant	Type	R-22 / R-407C / R-410A / R134A								
Compressor	Type	Rotary / Reciprocating / Hermetic Scroll								
	Make	EMERSON / DANFOSS								
	Power(KW)		1.2	1.4	1.64	2.9	3.27	4.8	6.2	7.3
	AMP		4.7	6.8	3.1	4.11	6.54	9.7	12.5	13.38
	Capacity Control	100%	100%	100%	100%	100%	100%	100%	100%	100%
Condensor	Type	Air Cooled Condensor Externally Finned Copper								
	Tubes	3/8" OD Copper inner grooved for better heat transfer								
	Heating Capacity (KW)		3.61	5.42	8.8	11.5	20.4	31	41.8	48.8
	Condensing Temp.	50 C	50 C	50 C	50 C	50 C	50 C	50 C	50 C	50 C
Fan	Air Flow (CFM )		800	1000	1800	2400	4200	4400	8700	10500
	Air blower (KW)		0.085	0.085	0.18	0.18	0.25X2	0.25X2	0.50X2	0.50X2
Evaporator	Type	SS Tank coil / plate type heat exchanger								
	Cooling Capacity( KW)	1.75	3.5	5.25	7	10.5	17.5	28	35	42
	Temperature at outlet	20 C	20 C	20 C	20 C	20 C	20 C	20 C	20 C	20 C
	Temperature at Inlet	25 C	25 C	25 C	25 C	25 C	25 C	25 C	25 C	25 C
	inlet/outlet	1/2"	1/2"	1/2"	1"	1"	1"	1.5"	1.5"	2"
Pump	HP	0.5	0.5	0.5	0.5	0.75	1.33	1.5	2.5	3
	Flow m3/h	0.3	0.6	0.89	1.2	1.8	3.01	4.82	6.03	7.24
Tank	MOC	SS304	SS304	SS304	SS304	SS304	SS304	SS304	SS304	SS304
	LTR	10	30	30	60	80	120	150	150	150
	Insulation	13 MM	13 MM	13 MM	13 MM	13 MM	13 MM	13 MM	13 MM	13 MM
Control Panel	Fully Automatic Safety Control ,Digital Temperature Controller, MCB / Contactor / Relay/ SPGR , All Make Schneider and Sensor, RTD Type,Cables- Make Polycab									
Safety protection	Compressor inner protection,over current ,high/low pressure ,over temperature ,flowrate,phase sequence/phase missing ,low level coolant ,anti freezing,exhaust overheat,									
Dimension	Length	570	950	950	1100	1100	1550	1690	1800	1850
	Width	355	740	740	820	760	830	950	950	1100
	Height	425	1070	1070	1250	1250	1480	1800	1800	1950