

**MEHRASL**  
MANUFACTURING CORPORATION

**Variable Frequency  
Water Cooled Magnetic  
Bearing Centrifugal Chiller**



**Cooling Capacity  
120 ton to 1200 ton**

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# About MehrAsl Company

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In 1990, Mehr Asl manufacturing corporation has been established to provide new products with modern technology in the field of air-conditioning and industrial refrigeration relying on many years of experience. At the moment, this company is a leading innovator and provider of advanced in terms of size, production capacity, combination of a wide range of machines and experienced professionals in Iran. Also, a leader in ventilation, intelligent forward-looking planning.

## **Mehr Asl Manufacturing Corporation & Company Headquarter**

Located in Salimi.Ind.Zone, Km 35 Azarshahr Road, Tabriz, Iran, consists of three factories.

### **Electrical Chiller Factory**

Located in Salimi.Ind.Zone, Km 30, this factory produces all types of Chiller, Package Unit with Compression Cycle, AHU and Cooling Tower.

### **Aria Air Conditioning & Refrigeration (subsidiary company of Mehr Asl)**

Located in Salimi.Ind.Zone, Km 30, this factory produces different varieties of Industrial Refrigeration Equipment, Cryogenic Insulation (Vulcanized Rubber) and Fiberglass Cooling Tower.

### **Mehr Asl Main Complex**

Located in Salimi.Ind.Zone, Km 45, production factories of Copper Tube, Nitrogen Separation, Absorption Chillers, Brass and Copper Fittings, Coil, Industrial Radiator, Fan Coil and Air Conditioning Systems are founded in this complex.

### **Certificates, Standards & Laboratories**

All stages of production, sale and after-sale services are under ISO 9001 quality assurance standards and ISO 14000 for activities affect the environment. This company is dedicated to quality and has a variety of laboratories using developed methods to meet the quality standards of:

- ASTM B280 standard specification for copper tube is used in metallurgical laboratories
- ISRI 6016 (ISO 5151) and ISRI 3740 (ARI 440) standards specification for testing air conditioning system, fan coil and coil
- ARI 590 standard specification for electric chillers



# Variable Frequency Water Cooled Magnetic Bearing Centrifugal Chiller

## Features & Advantages:

### Energy Efficiency



Adopt natural cooling, no cooling water loss, save water. When running at low ambient temperature, switch to natural air cooling, run all year round, save 50% of costs.

### Intelligent Control



Microcomputer intelligent control, intelligent switching of natural cooling, pre-cooling and host cooling, no manual intervention; intelligent load adjustment, 20 seconds fast restart, guarantee the terminal process, 10% load can still operate normally.

### Safety, Reliable



Compressor convenient cabin protection design to ensure the rock-solid quality of the unit, corrosive environment, continuous operation environment, extreme environment 2500 application experience.

### Maintenance Easy



After-sales system is perfect, lifelong maintenance of the unit; remote monitoring, early warning monitoring, fault notification processing and other functions.



# Variable Frequency Water Cooled Magnetic Bearing Centrifugal Chiller

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## Cooling capacity

120 ton to 1200 ton

## High-Performance Cooling Solution for Modern Projects

The water-cooled chiller equipped with a Turbo core compressor, manufactured by MEHR ASL, is a state-of-the-art cooling solution engineered for industrial, commercial, and large-scale building applications. Designed with precision engineering principles, this system delivers exceptional energy efficiency, operational reliability, and optimized lifecycle costs.

## Ultra-Low Noise and Minimal Vibration

With ultra-low noise levels and minimal vibration, MEHR ASL Turbo core chillers are ideal for noise-sensitive environments such as hotels, hospitals, office buildings, and mission-critical facilities.

## Engineered for Reliability and Low Maintenance

High-efficiency heat exchangers combined with a reduced number of high-wear mechanical components reduce maintenance requirements and minimize downtime, enhancing overall system reliability throughout its operational life.

## Sustainable and Future-Ready

MEHR ASL Turbo core water-cooled chillers are fully compatible with environmental friendly refrigerants and designed in accordance with international energy standards.



## **Magnetic bearing compressor:**

Quiet operation with ultra-low noise.

Oil-free design to reduce costs.

Accurate temperature control to  $\pm 0.1^{\circ}\text{C}$ .

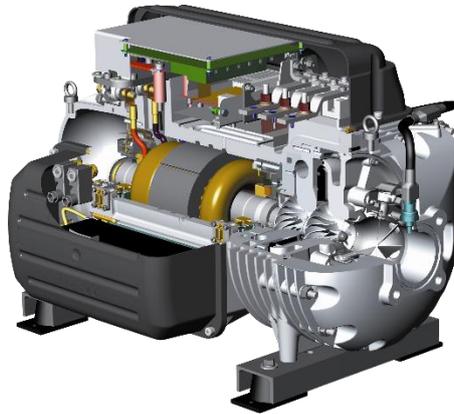
Frequency conversion start, current as low as 2 amp.

Main shafts of the compressors rotate at high speed 48000 rpm without any mechanical contact.

0-100% Inverter control.

Permanent magnet synchronous direct drive, efficiency up to 98%; the impeller is the only running part, stable and reliable.

Magnetic suspension technology, oil-free and friction-free, reduces maintenance work, and has no performance degradation throughout the life cycle;



## **Falling film Evaporator:**

Avoids energy efficiency loss caused by conventional full liquid, improves heat exchange efficiency by 15%;

Refrigerant filling is reduced by 40%;

Avoids suction with liquid, the compressor can reach the highest speed, and runs continuously and stably.

## **Control Technology:**

Powerful control function, optimizes the unit to operate at the best efficiency under different working conditions,

Operation data pre-analysis, avoids the operation surge zone, ensures the best compression operation state, and has a friendly human - computer interaction interface for convenient adjustment.

## **Condenser:**

High efficient external screwed shell and tube.

MODEL		SWLC1TD120	SWLC1TD150	SWLC1TD200
Cooling capacity		364 KW	530 KW	700 KW
Max. Input Power		76 KW	85 KW	125 KW
IPLV		10.7	10.7	10.7
Power Supply		3Phase 380V / 50HZ		
Refrigerant		R134a		
Compressor	Mode	Magnetic bearing centrifugal		
	Quantity	1	1	1
Load		0-100%		
Noise		75dB		
Condenser	Mode	High efficient external screwed shell and tube		
	Cooling water temperature	Inlet 30°C , Outlet 35°C		
	Cooling water flow rate	81 m3/h	114 m3/h	150 m3/h
Evaporator	Mode	High efficient falling film type		
	Cooling water flow rate	62.4 m3/h	90.9 m3/h	120 m3/h
	Chilled water temperature	Inlet 12°C , Outlet 7°C		
Control Method		PLC		
Refrigerant Control		Electronic expansion valve		
Safety Protection		Water pump interlocking protection, leakage protection, overload protection, overpressure, reverse phase protection, refrigerant abnormality protection, compressor over temperature protection, ultra-high pressure safety valve protection, water shortage protection, etc.		

MODEL		SWLC*TD240	SWLC*TD300	SWLC*TD400
Cooling capacity		809 KW	1060 KW	1400 KW
Max. Input Power		165 KW	200 KW	250 KW
IPLV		10.7	10.7	10.7
Power Supply		3Phase 380V / 50HZ		
Refrigerant		R134a		
Compressor		Magnetic bearing centrifugal		
Load		0-100%		
Noise		75dB		
Condenser	Mode	High efficient external screwed shell and tube		
	Cooling water temperature	Inlet 30°C , Outlet 35°C		
	Cooling water flow rate	173.9 m3/h	228 m3/h	301 m3/h
Evaporator	Mode	High efficient falling film type		
	Cooling water flow rate	139.1 m3/h	182.3 m3/h	240 m3/h
	Chilled water temperature	Inlet 12°C , Outlet 7°C		
Control Method		PLC		
Refrigerant Control		Electronic expansion valve		
Safety Protection		Water pump interlocking protection, leakage protection, overload protection, overpressure, reverse phase protection, refrigerant abnormality protection, compressor over temperature protection, ultra-high pressure safety valve protection, water shortage protection, etc.		

MODEL		SWLC*TD500	SWLC*TD600	SWLC*TD800
Cooling capacity		1732 KW	2120 KW	2800KW
Max. Input Power		288 KW	360 KW	500 KW
IPLV		10.7	11.7	10.7
Power Supply		3Phase 380V / 50HZ		
Refrigerant		R134a		
Compressor		Magnetic bearing centrifugal		
Load		0-100%		
Noise		75dB		
Condenser	Mode	High efficient external screwed shell and tube		
	Cooling water temperature	Inlet 30°C , Outlet 35°C		
	Cooling water flow rate	372.4 m3/h	455.8 m3/h	602 m3/h
Evaporator	Mode	High efficient falling film type		
	Cooling water flow rate	297.9m3/h	364.6 m3/h	481.6 m3/h
	Chilled water temperature	Inlet 12°C , Outlet 7°C		
Control Method		PLC		
Refrigerant Control		Electronic expansion valve		
Safety Protection		Water pump interlocking protection, leakage protection, overload protection, overpressure, reverse phase protection, refrigerant abnormality protection, compressor over temperature protection, ultra-high pressure safety valve protection, water shortage protection, etc.		

MODEL		SWLC*TD1000	SWLC*TD1200
Cooling capacity		3464 KW	4240KW
Max. Input Power		576 KW	720 KW
IPLV		11.7	11.7
Power Supply		3Phase 380V / 50HZ	
Refrigerant		R134a	
Compressor		Magnetic bearing centrifugal	
Load		0-100%	
Noise		75dB	
Condenser	Mode	High efficient external screwed shell and tube	
	Cooling water temperature	Inlet 30°C , Outlet 35°C	
	Cooling water flow rate	744.8 m3/h	911.6 m3/h
Evaporator	Mode	High efficient falling film type	
	Cooling water flow rate	595.8 m3/h	729.3 m3/h
	Chilled water temperature	Inlet 12°C , Outlet 7°C	
Control Method		PLC	
Refrigerant Control		Electronic expansion valve	
Safety Protection		Water pump interlocking protection, leakage protection, overload protection, overpressure, reverse phase protection, refrigerant abnormality protection, compressor over temperature protection, ultra-high pressure safety valve protection, water shortage protection, etc.	

**MEHRASL**  
MANUFACTURING CORPORATION

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