



## "Budget" Water-cooled Water Chiller

SIC-8W-EB

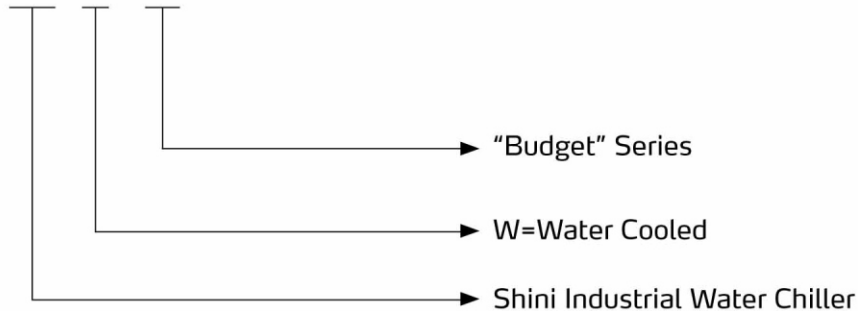


Refer carefully to this manual before operation.

# SIC-W-EB Series

## ■ Coding Principle

SIC - W - EB



## ■ Features

- Cooling range 7~25℃.
- Stainless steel insulated water tank, with prolonged service life and free of contamination.
- Adopt R410 A refrigerant with good refrigeration effect.
- Refrigeration loop controlled by high and low pressure switches for accurate detection of system pressure.
- Compressor and pump overload protection.
- Shell and tube condenser with quick heat conduction and good dissipation effect.
- Adopt tube and shell evaporator. The copper pipe is directly mounted on water tank that is economical and practical.
- Adopt renowned brand of original precision temperature-controlled meter with an accuracy of  $\pm 0.1^{\circ}\text{C}$ .



Control Panel

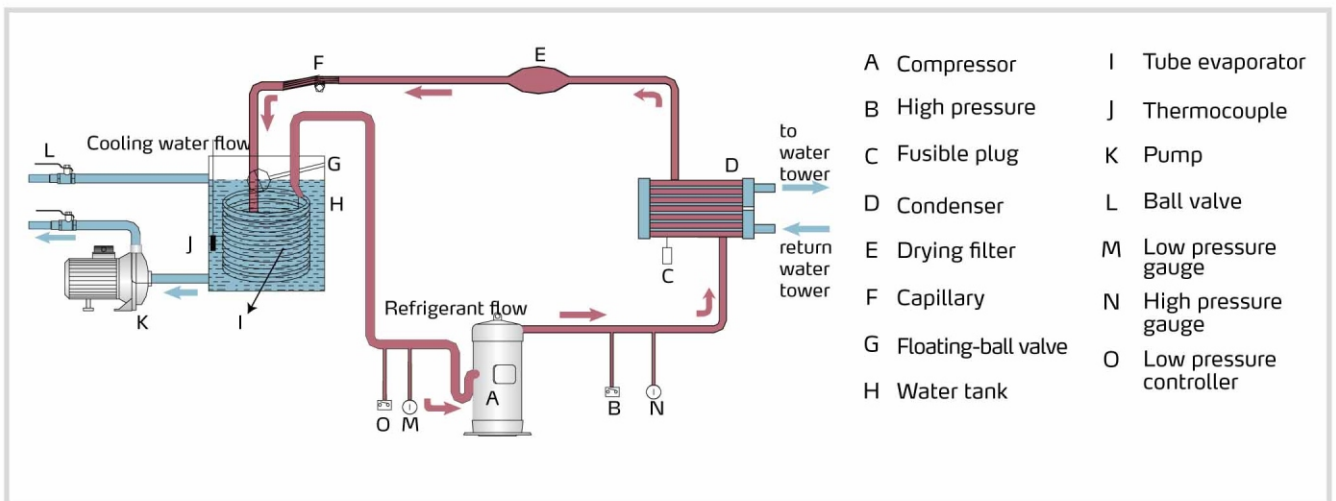
## ■ Application

SIC-W-EB series are applicable for cooling moulds to reduce products molding cycle time; also they are available in the cooling of equipments in order to maintain a normal temperature. Besides, they are suitable for other industries with the need of cooling.

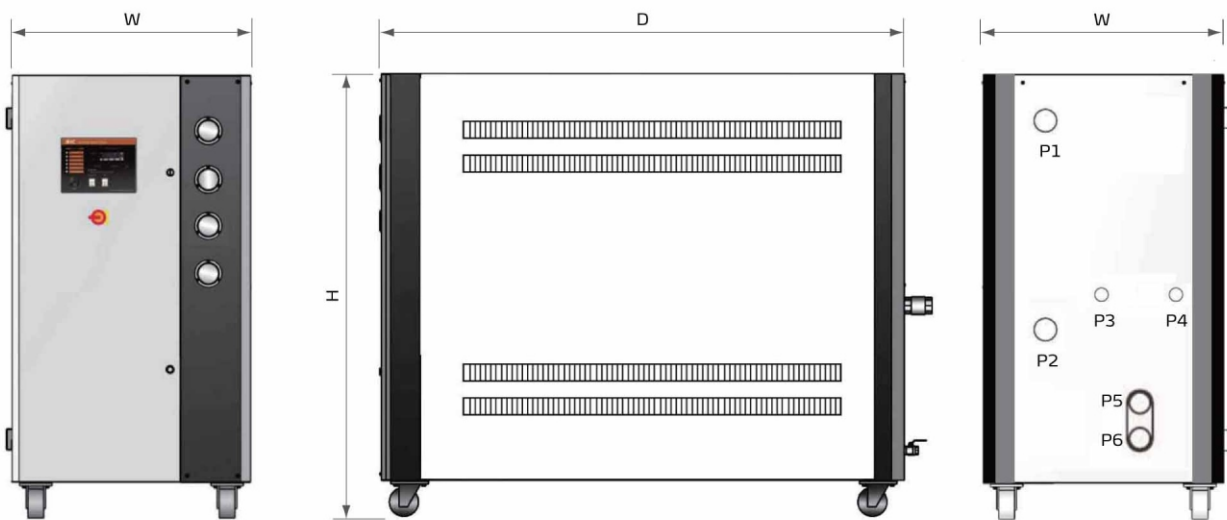
## Working Principle

SIC-W-EB water-cooled water chiller mainly consists of compressor, condenser, capillary and tube evaporator. Adopting single-stage vapor compression refrigerating system, gas-liquid conversion of refrigerant, and the principle of heat adsorption and release, it achieves the cooling effect.

When SIC-W-EB water-cooled water chiller starting up, compressor (A) starts working. Refrigerant is compressed into high temperature high pressure gas, and then be cooled when passing through condenser (D) and changed into liquid. Heat is taken away by the cooling water. The liquid high pressure refrigerant passes through the capillary (F), and partial refrigerant is changed into gas under reduced pressure. At this time, the refrigerant is mixed with gas and liquid, which cools down the chilled water into required temperature after passing through the tube evaporator (I). By heat adsorption, the liquid refrigerant changes to gas and returns the compressor for this circulation.



## Outline Drawings



SIC-W-EB

# SIC-W-EB Series

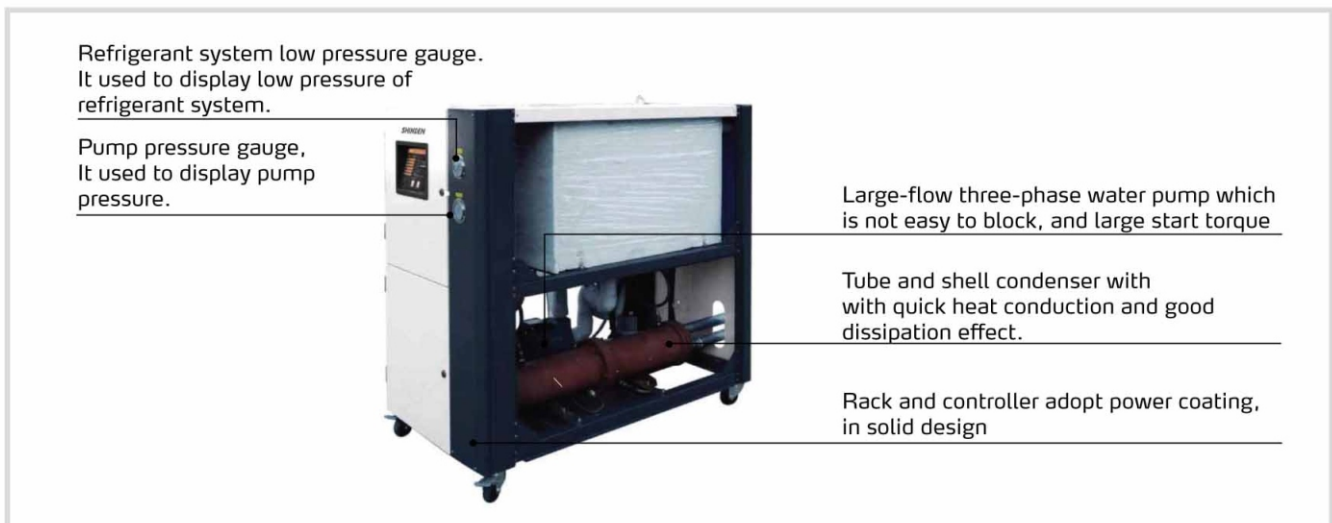
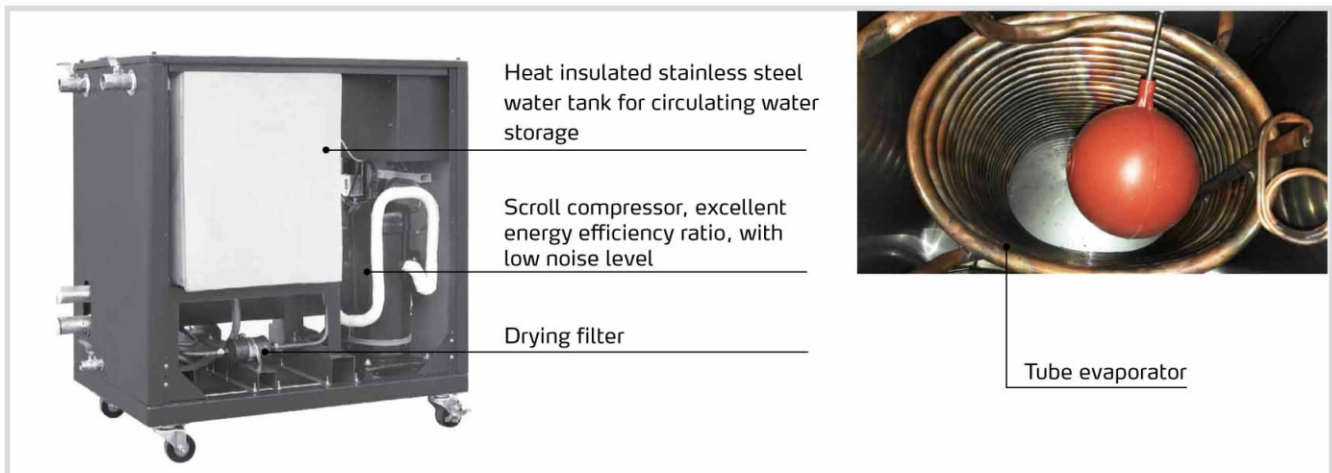
## Outline Drawings

Model	H (mm)	W (mm)	D (mm)	P1 (inch) Chilled Water Inlet	P2 (inch) Chilled Water Outlet	P3 (inch) Water Tank Outlet Port	P4 (inch) Water Tank Overflow Port	P5 (inch) Cooling Water Outlet	P6 (inch) Cooling Water Inlet	Weight (kg)
SIC-5W-EB	1017	490	850	1	1	1/2	1 1/2	1/2	1 1/2	240
SIC-10W-EB	1385	660	1220	1	1	1/2	1 1/2	1/2	1 1/2	310

## Model Selection References

Model	SIC-5W-EB			SIC-10W-EB	
Mould Clamping Force (T)	≤300	≤350	≤450	≤550	≤650
Molding Capacity (kg/hr)	≤30	≤35	≤45	≤55	≤65

## Structure of Water-cooled Models





## ■ Specifications

Model		SIC-5W-EB	SIC-10W-EB
Refrigerant <sup>(1)</sup> Capacity	kW	10	20
	kcal/hr	8,609	17,217
Compressor	Type	Scroll	
	Output Power	kW	4.8
		HP	8
Refrigerant	Filling Volume (kg)	3.1	6.2
	Control Mode	Capillary	
	Type	R410A	
Evaporator	Type	Tube style	
Condenser	Type	Tube-in-shell style	
	Inlet/outlet pipe (inch)	1.5	1.5
	Cooling water flow(L/min)	65	90
Water Tank Capacity (L)		55	145
Water pump (50Hz)	Power (kW)	0.37	0.75
	Pump flow (L/min)	60	
	Working pressure (Bar)	2.0	
Total power (kW)		2.77	5.55
Pipe Coupling (inch)	Chilled Water Outlet	1	
	Chilled Water Inlet	1	
	Water Tank Drainage Port	1/2	
	Water Tank Overflow Port	1/2	
Protective Devices	Compressor	Built-in protective switch/Overload relay	
	Pump	Overload relay	
	Refrigerant loop	High/low pressure controller	
Power <sup>(2)</sup>		3Φ, 400VAC, 50Hz	
Measures Exchange		1 kW = 860 Kcal/hr	1 RT = 3,024 Kcal/hr 10,000 Btu/hr = 2,520 Kcal/hr

Note: 1) The refrigeration capacity is measured based on the outlet temperature (20°C) of chilled water under the environment temperature of 30°C.

2) Special orders of machine voltage can be acceptable according to customers's request.

We reserve the right to change specifications without prior notice.

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