Taida Plastic Technologies (Zhongshan) Co., Ltd.

A professional manufacturer for plastic auxiliary equipments, for more than 15 years

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About Us

TAIDA Plastic Technologies Zhongshan(headquarters)

TAIDA Plastic Technologies Anhui(branch company)

Located in Guangdong province, Taida Plastics Technologies (Zhongshan) Co., Ltd, was established in 2008. With the rapid development of the plastics industry, we've established a branch company-Anhui Taida Plastics Technologies Co., Ltd in 2011 in Wuhu City, Anhui Province.

Our products consist of six series and three systems: Drying and Dehumidifying, Feeding and Conveying, Dosing and Mixing, Heating and Cooling, Granulating and Recycling, Intelligent Robot, Central Feeding System, Central Cooling System, PET System, design & production of non-standard automation.

We've not only gained more than 100 design patents for invention and new technology patents but also has passed the IS09001; 2008 international quality management system certification as well as the European Union mandatory CE certification. In addition, we were honored as "GUANGDONG Well-Known Brand" in 2009 and won the honor title of "China Famous Brand" "New High-tech Enterprise" in 2012 and "China Credit Enterprise" in 2010, etc.

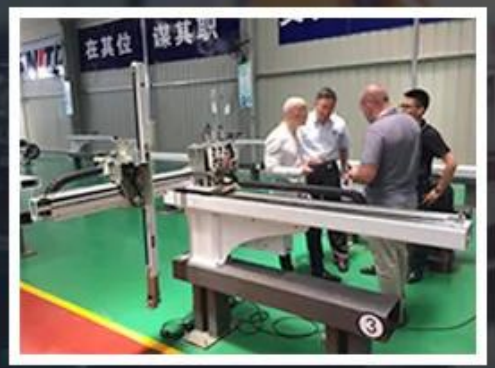
Sticking to our management principle and advanced technology, we've won our customers' support and trust, and our products are popularly exporting to more than 30 countries and regions such as Europe, American as well as Asia.

Factory Views

Standardized production management system









Heating And Cooling

Water Heaters

Introduction:

The TM-W series of water heaters are used to heat up the mould and maintain this temperature.Besides, they can also be used in other similar applications,high temperature water from the mould is cooled by direct cooling and then sent to the pipe heaters via high-pressue pump for heating to a constant temperature.With our optimised design,water can reach a maximum of 120 degree,equipped and the accurate PID multi-stage temperature control system can maintain an accuracy of +1 degree

Features:

- PID multi-stage temperature control system can maintain a mould temperature with accuracy +1 degree:
- Multipe satefy devices can automatically detect abnormal performance and indicate this via visible alarm;
- Accurate temperature control achieved by direct cooling and quick heat transfer by automatic water supply facility;
- Inner parts made from stainless steel to ensure corrosion-free operation;
- Attractive appearance,easy to access and maintain;

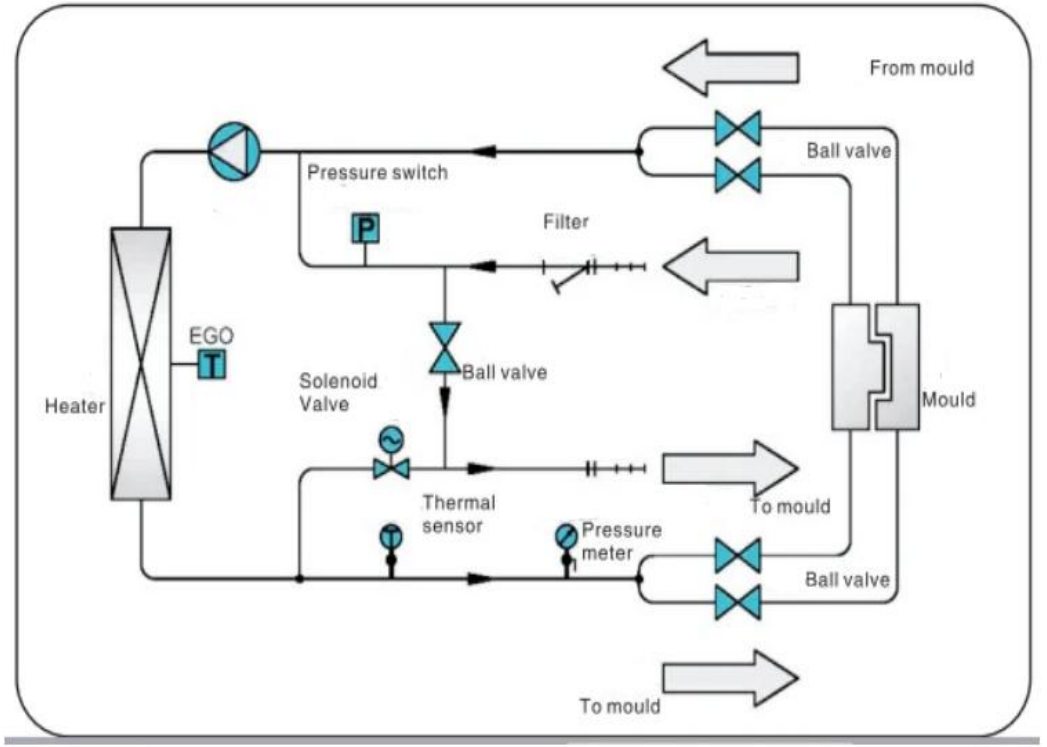
Water Heaters

Applicable scope:

Heaters are used to heat up the mould and maintain this temperature,Beside,they can also be used in other similar applications;

System flowfor TM-W(indirect cooling)

High temperature water water retures to the machine and then be pressured by pump to the heaters, after being heated,water will be forced to mould and continue the circle,in the process, if the temperature is too high,the system will activate the solenoid valve to let cooling water cool down the temperature directly until the water is down to the system requirement.If the temperature keep increasing and reach to the set point of EGO,system will alarm and stop operation.The system will have low pressure alarm and stop working if cooling water pressure doesn't reach set point.



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Water Heaters

Specification：

Model	Max.Temp	Heater(kw)	Pump(kw)	Max.pump flow(L/min)	Max.pump pressure(bar)	Heating chamber number	Heating chamber capacity(L)	Cooling Method	Mold Couping(inch)	Dimensions(HxWxD)	Net Weight (kg)
TM-600W	120℃	6	0.37	42	2.8	1	3.0	Direct	3/8"(2×2)	640×320×820	60
TM-600W-D		6*2	0.37*2	42×2	2.8	2	3.0*2		3/8"(4×2)	750×340×810	100
TM-900W		9	0.75	56	3.8	1	3.0		3/8"(2×2)	650×240×330	72
TM-900W-D		9*2	0.75*2	56×2	3.8	2	3.0*2		3/8"(4×2)	655×510×740	105
TM-1200W		12	1.5	110	4	2	6.0		3/8"(4×2)	640×320×870	120
TM-1800W		18	2.2	315	2.6	2	7.4		3/8"(4*2)	650×310×850	140
TM-2400W		24	2.2	315	2.6	2	7.4			650×310×850	140
TM-3600W		36	4.0	367	4	4	17.4			980×415×930	165

Note:

1) In order to maintain stable tempof heat transfer media,cooling water pressure should be no less than 2kq.cm3,but also no more than 5kg/cm

2) Automatic drain facility can be added for all models as optional feature. (Model denotes “R”)

3) “D” stands for double stage.

4)Pump testing standard:Power of 50Hz,purified water at 20

Water Heaters

TM-PW series high temperature type specification form:

Model	Max Temp	Heater (KW)	Pump (KW)	Max pupm flow(L/min)	Heating chamber number	Heating tank capacity(U)	Cooling method	Mould co (inch)
TM-600-PW	180℃	6	0.37	42	1	3.4	Indirect	3/8"(2*2)
TM-900-PW	180℃	9	0.75	56	1	3.4	Indirect	3/8"(2*
TM-1200-PW	180℃	12	1.5	110	1	3.4	Indirect	3/8"(4*
TM-1800-PW	180℃	18	2.2	315	2	7.4	Indirect	3/8"(4*

Note:

1:"PW" stands for high temp.water heaters;

2:To ensure stable water temperature, cooling water pressure should not be less than 2kg/cm³,but also not more than 5kg/cm³;

3:Pump testing standard:power of 50/60Hz,purified water at 20(there is 10% tolerance for either max,flowrate or max pressure);

4:Power supply:3Φ,380V,50Hz.

Model selection guide for TM-W:

Mould clamping force(T)	Moulding capacity(kg/hr)	Pump flow(U/min)
Less than 25	Less than 3	10
25-50	3-6	25/27
50-100	6-12	
100-200	12-25	
200-300	25-40	40/38
300-650	40-80	60/58
More than 650	More than 80	120/100

Oil Heaters

Introduction:

The TM-O series of oil heaters are used to heat up the mould and maintain this temperature, although they can be used in other
similar applications. High indirect cooling. lt is then pressurised by the high-pressure pump, sent to the heating tank and
finally to the mould with a constant temperature and accurate PID multi-stage temperature control system.

Features:

- PID multi-stage temperature control system can maintain a mould temperature with accuary of +1C
- Multiple safety devices can automatically detect abnormal performance and indicate this via visible alarm.
- Reliable mains isolator to cut power supply in case of emergency.
- High temperature heat transfer oil is stable up to 200°C, suitable for long and continuous oeration.
- Attractive appearance,easy to access and maintain.

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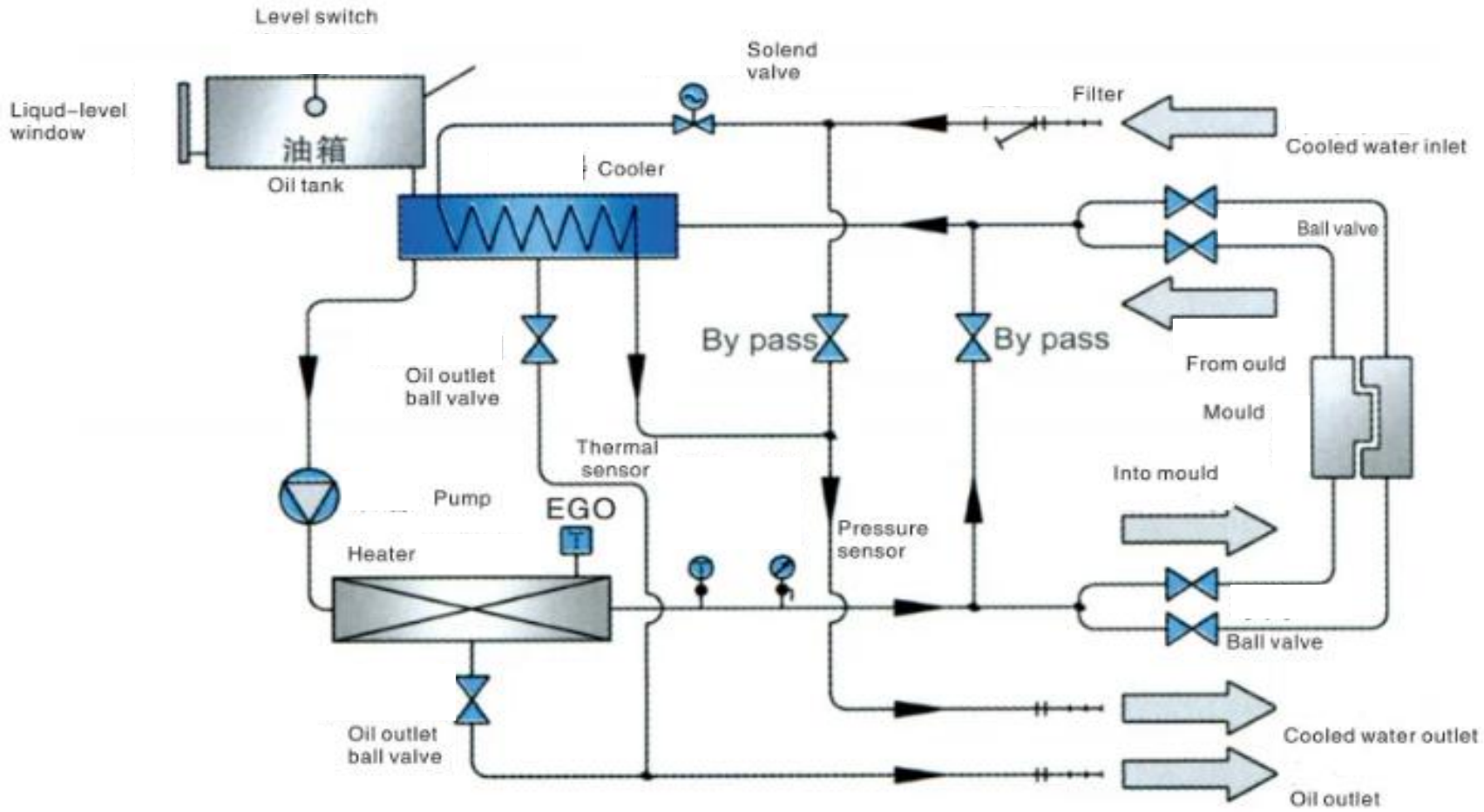
Oil Heaters


Level switch
Solend valve
Filter
Liqud-level window
油箱
Oil tank
Cooler
Cooled water inlet
Ball valve
By pass
By pass
From ould
Mould
Oil outlet ball valve
Thermal sensor
Into mould
Pump
EGO
Pressure sensor
Heater
Ball valve
Oil outlet ball valve
Cooled water outlet
Oil outlet

Oil Heaters

Model	Max.Temp	Heater (kw)	Pump(kw)	Max.pump flow(L/mim)	Max.pump pressure(bar)	Heating Chamber Number	Main/Sub. Oil Tank(L)	Cooling Method	Mould Coupling(inch)	Dimension(HxW xD)	New Weight(kg)
TM-600-O	200°c	6	0.37	42	2.8	1	6/3.2	Direct	3/8”(2*2)	640*310*560	65
TM-600-O-D		6*2	0.37*2	42*2	2.8	2	6*2/3.2*2		3/8”(4*2)	750*560*820	130
TM-900-O		9	0.75	56	3.8	1	6/3.2		3/8”(2*2)	640*310*800	70
TM-900-O-D		9*2	0.75*2	56*2	3.8	2	6*2/3.2*2		3/8”(4*2)	655*560*740	140
TM-1200-O		12	1.5	110	4	1	6.8/11.8		3/8”(4*2)	795*340*845	100
TM-1800-D		9*2	2.2	315	2.6	2	6.8/11.8		3/8”(4*2)	950*420*1000	145
TM-2400-O		12*2	2.2	315	2.6	2	11/16		3/8”(4*2)	950*420*1000	145
TM-3600-O-D		12*3	3.7	367	4	3	14/16		1¼”(1*2)	900*385*980	155

Note:1) “D”stands for dual-heating zones. “HT” stands for high temperature;
2) Pump testing standard: Power of 50 Hz, purified water at 20

Oil Heaters

TM-HT Series High Temperature Type Specification Form

Mode	Max.temp.	Heater(kw)	Pump(kw)	Max.pump flow(L/mim)	Max.pump pressure(bar)	Heating Chamber Number	Tank(L)		Cooling Method	Mould Coupling (inch)	Dimensions	Weight (kg)
							Heating	cooling				
TM-600-HT	300°C	6	0.75	33	2	1	6	3.2	Indirect	3/8” (2*2)	635*280*740	65
TM-900-HT		9	1.1	50	2	1	6	3.2			635*280*740	70
TM-1200-HT		10	1.1	50	2.2	1	6.8	11.8		3/8” (4*2)	795*340*845	100

Note:

1) "PW" stands for high temp.water heaters.

2) To ensure stable water temperature, cooling water pressure should not be less than 2kg/cm³,but also no more than 5kg/cm³.

3) Pump testing standard:Power of50/60Hz, purified water at 20 (There is 10% tolerance for either max.flowerate or max.pressure).

4) Power supply:3Φ,400V,50Hz

Oil Heaters

Mould Clamping Force(t)	Moulding capacity(kg/hr)	Pump Flow(L/mim)
< 25	< 3	10
25-50	3-6	25
50-100	6-12	
100-200	12-25	
200-300	25-40	40
300-650	40-80	60
> 650	> 80	120

Dual-purpose Water/Oil Heaters

Introduction

The TM-O series of oil heaters are used to heat up the mould and maintain this temperature, although they can be used in other similar applications. High temperature oil from the mould is returned to the cooling tank and cooled by indirect cooling. It's then pressurised by the high-pressure pump, sent to the heating tank and finally to the mould with a constant temperature and accurate PID multi-stage temperature control system.

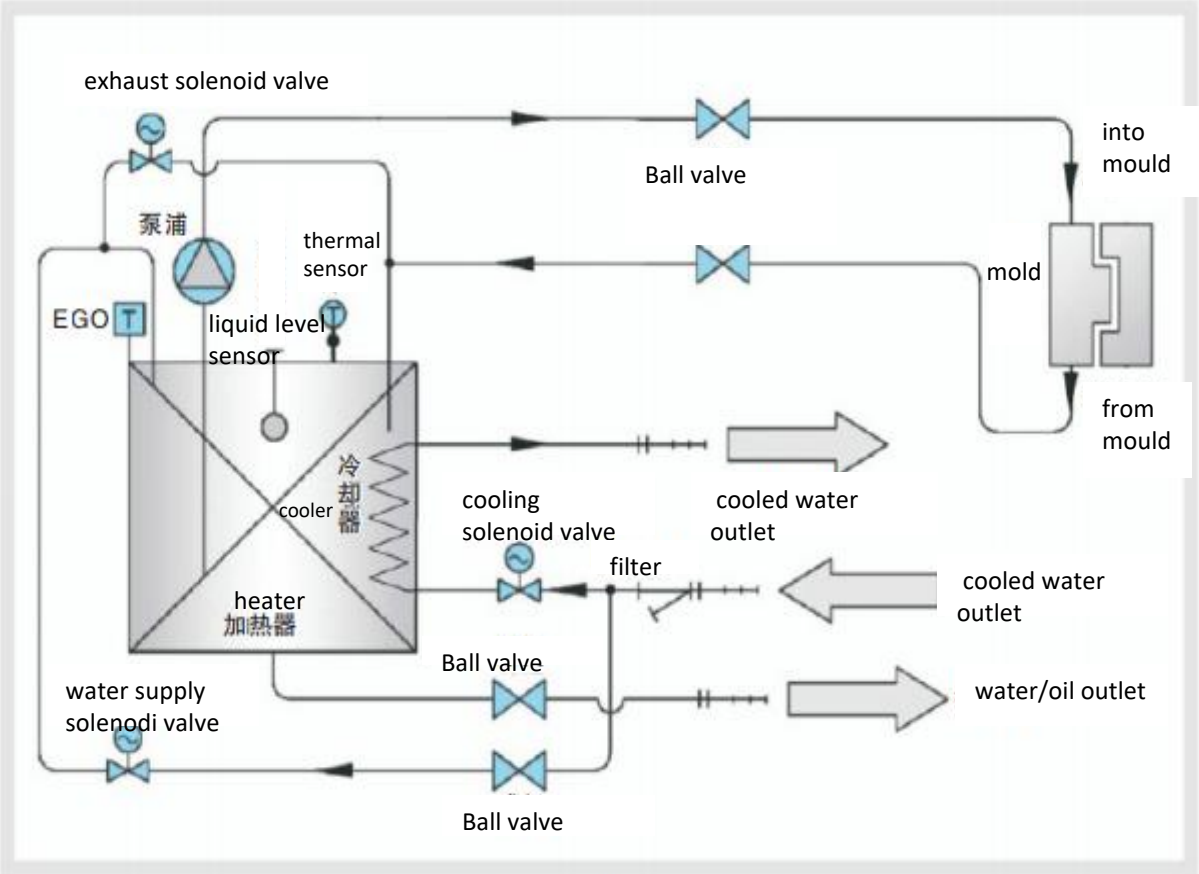
Main Features:

1) PID multi-stage temperature control system can maintain a mould temperature with accuary of+1°C.
2) Multiple safety devices can automatically detect abnormal performance and indicate this via visible alarm.
3) Reliable mains isolator to cut power supply in case of emergency.
4) High temperature heat transfer oil is stable up to 200°C, suitable for long and continuous operation.
5) Attractive apperance, easy to access and maintain.

Dual-purpose Water/Oil Heaters

System Flowfor TM-W(indirect cooling)

High temperature oil returns to the machine and then be pressured by pump to the heaters. After being heated, oil will be forced to mould and continue the circle. In the process, if the temperature is too high, the system will activate the solenoid vave to let return oil cool down the temp.directly till the oil temperature is down to the system requirement. lf the temperature keep rising and reach to the set point of EGO, the system will alarm and stop working.



系统流程示意图（间接冷却）

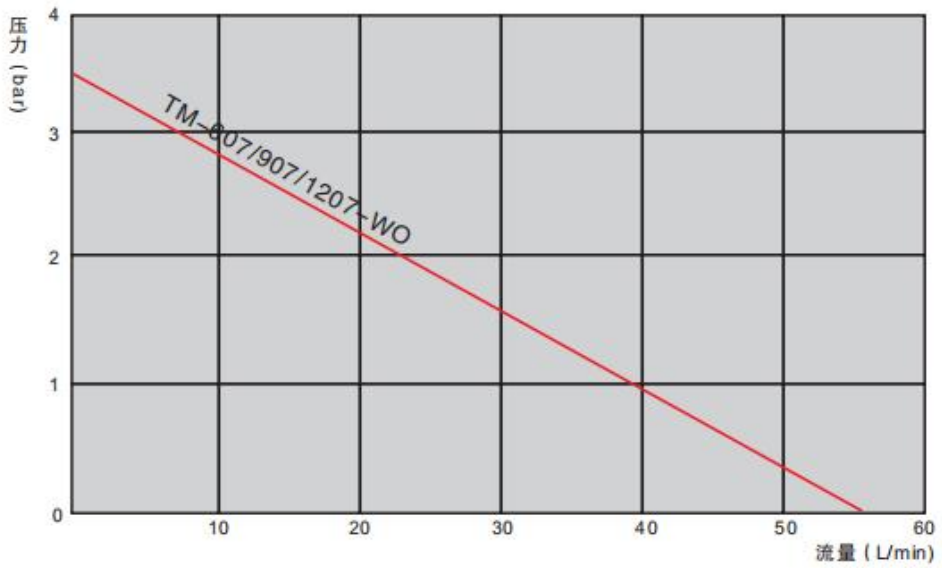
Dual-purpose Water/Oil Heaters

Specification:

Model	Max.Temp	Pipe Heater (KW)	Pump Power (kw)	Max.Pump Flow (L/min)	Max.Pump Pressure (bar)	Heating Tank Number	Heating Tank capacity (L)	Cooling Method	Mould Coupling (inch)	in/outlet size (inch)	Dimensions (H*W*D)	Weight (kg)
TM-607-W/O	W:95℃ O:160℃	6	0.55	55	3.4	1	12	indirect	3/8(2*2)	¾/¾	820*312*725	75
TM-907-W/O		W:9 O:6	0.55	55	3.4	1	16		3/8(2*2)	¾/¾	815*360*860	84
TM-1207-W/O		W:9 O:6	0.55	55	3.4	1	16		3/8(2*2)	¾/¾	815*360*860	85

Note:

1) Pump parameters test conditions: 50Hz power supply, 20℃ purified water.(Max flow and max pressure are allowed to be ±10% deviation)
2) "*" stands for optional.
3) The machine voltage specification is 3 phase, 400V, 50Hz.



Selection of mold temperature: Reference Formula

Electric heat(KW)= mould weight(kg) * mould heat capacity(kcal/kg℃) * difference in temperature of model loop(℃) * coefficient of safety/heating time/860
Note: The coefficient of safety can be choosed in 1.3 ~1.5

Flow(L/min)= Electric heat power(KW) *860/specific Heat of thermal media(kcal/kg℃) * heat medium density(kg/L) * in/out temperature(℃) * time(60)

Note: Specific Heat of water= 1kcal/kg℃
Specific Heat of heat transfer oils = 0.49kcal/kg℃
Water density = 1kg/L
Density of heat transfer oils = 0.842kg/L

Water-cooled Water Chillers

Introduction:

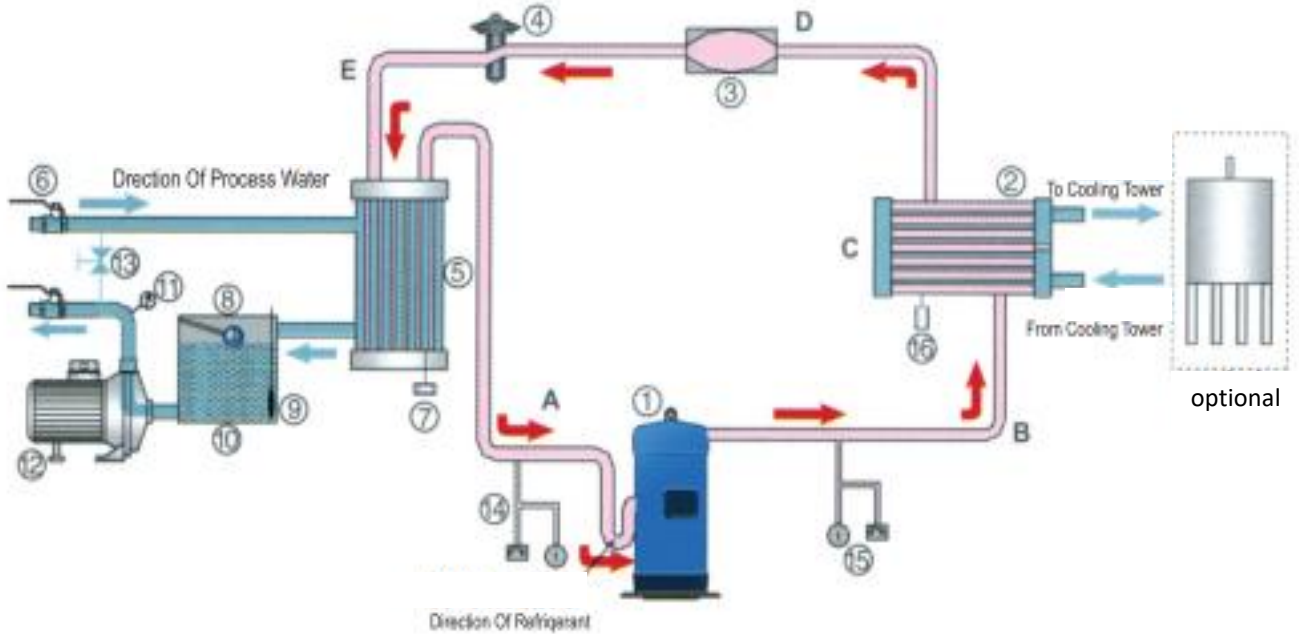
TIC-W series of water-cooled chillers use a single closed-loop design for pressurised refrigerant. All models are equipped with compressor and motor overload protection, phase shortage and reversal alarms, anti-freeze thermostat, pressure gauges. etc. They feature excellent performance and a long lifespan. The series of working flow is based on the basic principle of heat exchange.lt is applicable to the industry that requires flow of precisely controlled chilled water, and considered as indispensable equipment for modern industry.

Features:

1) Cooling temperature from 7°C to 35°C
2) Stainless insulated water tank and anti-freeze thermostat.
3) R407 refrigerant used as standard for efficient cooling
4) Refrigeration loop controlled by high and low pressure switches.
5) Compressor and pump overload relays.
6) Tube-in-shell condenser design for quick heat transfer and excellent heat radiation.
7) Tube-in-shell evaporator for excellent cooling

TIC-5W风冷式冷水机结构图

System flow for TIC-W:



①Compressor
②Condensor
③Drying filter
④Expansion valve
⑤Evaporator
⑥Ball valve
⑦Anti-freezing switch
⑧Level sensor
⑨ Temp.sensor
⑩Water tank
⑪Pump pressure meter
⑫Pump
⑬By-pass valve
⑭Low-pressure switch
⑮High-pressure switch
⑯Pressure release valve

item / Parameter / Model			TIC-3W	TIC-4W	TIC-5W	TIC8W	TIC-10W	TIC-12.5W	TIC-15W	TIC-20W	TIC-25W	TIC-30W	TIC-40W	TIC-45W	TIC-50W
Refrigeration Capacity	kw		8	10.8	13.5	21.6	27	33.75	40.5	54	67.5	81	110.4	124.2	138
	kcal/hr		6880	9288	11607	18576	23220	29025	34830	46440	58050	69660	94944	106812	118680
Compressor	type		旋涡式												
	Power	kw	2.2	3	3.7	6	7.5	9.4	11	15	18.7	22	30	34	37.5
		hp	3	4	5	8	10	12.5	15	20	25	30	40	45	50
Refrigerant	Weight(kg)		1.5	1.8	2.5	3.8	5	7	8.5	10	14	17	20	25	34
	Control Model		Heating power expansion valve												
	Type		R22												
Evaporator	Type		Shell and Tube												
Condensor	Type		Shell and Tube												
	In/Out Pipe		1″		1½×1	2″			2½″			3″			
	Cooling water Flow(L/min)		56		65	90	100	130	160	220	270	330	480	500	600
Water Tank			50			85		150		180	200	270	400		
Pump	Power(kw)		0.55			1.1		2.2				4	4		
	Pump Flow(L/min)		80			200		300		450		833	1100		
	Working Pressure		2.0							2.5					
Total Power(kw)			2.8	3.5	4.3	7.1	8.6	11.5	13.5	17.2	21	26.5	34.0	38.0	41.5
Pipe Inch	Cooling Water Outlet		1/2″ ×4			1½×1			2″ ×1			2½″ ×1	2½″ ×1		
	Inlet		1/2″ ×4			1½×1		2″ ×1				2½×1	2½×1		
	Water tank drain		1/2″										1″		
	Water tank overflow		1/2″										1″		

item / Parameter \ Model	TIC-3W	TIC-4W	TIC-5W	TIC-8W	TIC-10W	TIC-12.5W	TIC-15W	TIC-20W	TIC-25W	TIC-30W	TIC-40W	TIC-45W	TIC-50W
Protection sets	compressor	Overload relay											
	pump	Overload relay											
	Refrigerant Circuit	High and low pressure switch/Anti-freezing switch											
	Cooling water Circuit	By-pass valve/Water level switch(Option)											
Power		3Φ,400V,50Hz											
unit conversion		1kw=860kcal/hr 1RT=3024/hr 10000Btu/hr=2520 Kca/hr											
H(mm)		960	960	960	1100	1050	1240	1240	1450	1450	1450	1860	1860	1860
D(mm)		1100	1100	1100	1285	1200	1380	1380	2000	2000	2000	2850	2850	2850
W(mm)		600	600	600	830	830	870	870	1000	1000	1000	1050	1050	1050
kg		230	260	290	410	410	610	640	750	760	800	1200	1450	1750

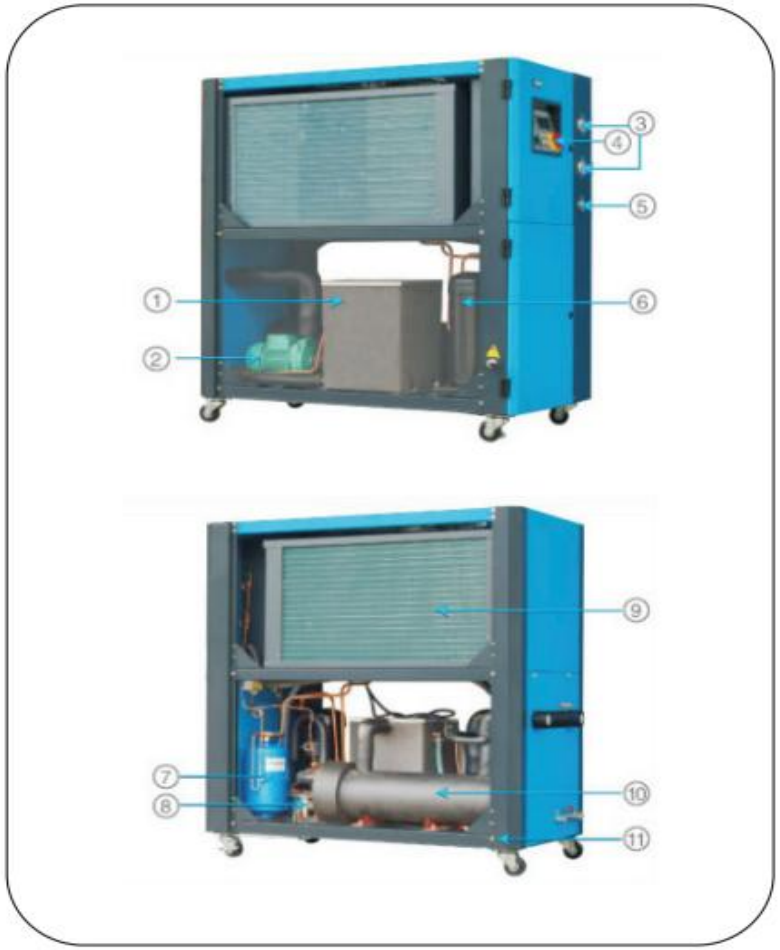
Air-cooled Water Chillers

Introduction

The TIC-W series of Air-cooled water chillers use a single closed-loop design for pressurised refrigerant. All models are equipped with compressor and motor overload protection, phase shortage and reversal alarms, anti-freeze thermostat, pressure gauges, etc. They feature excellent performance and a long lifespan. The series of working flow is based on the basic principle of heat exchange. It is applicable to the industry that requires flow of precisely controlled chilled water, and considered as indispensable equipment for modern industry.

Features:

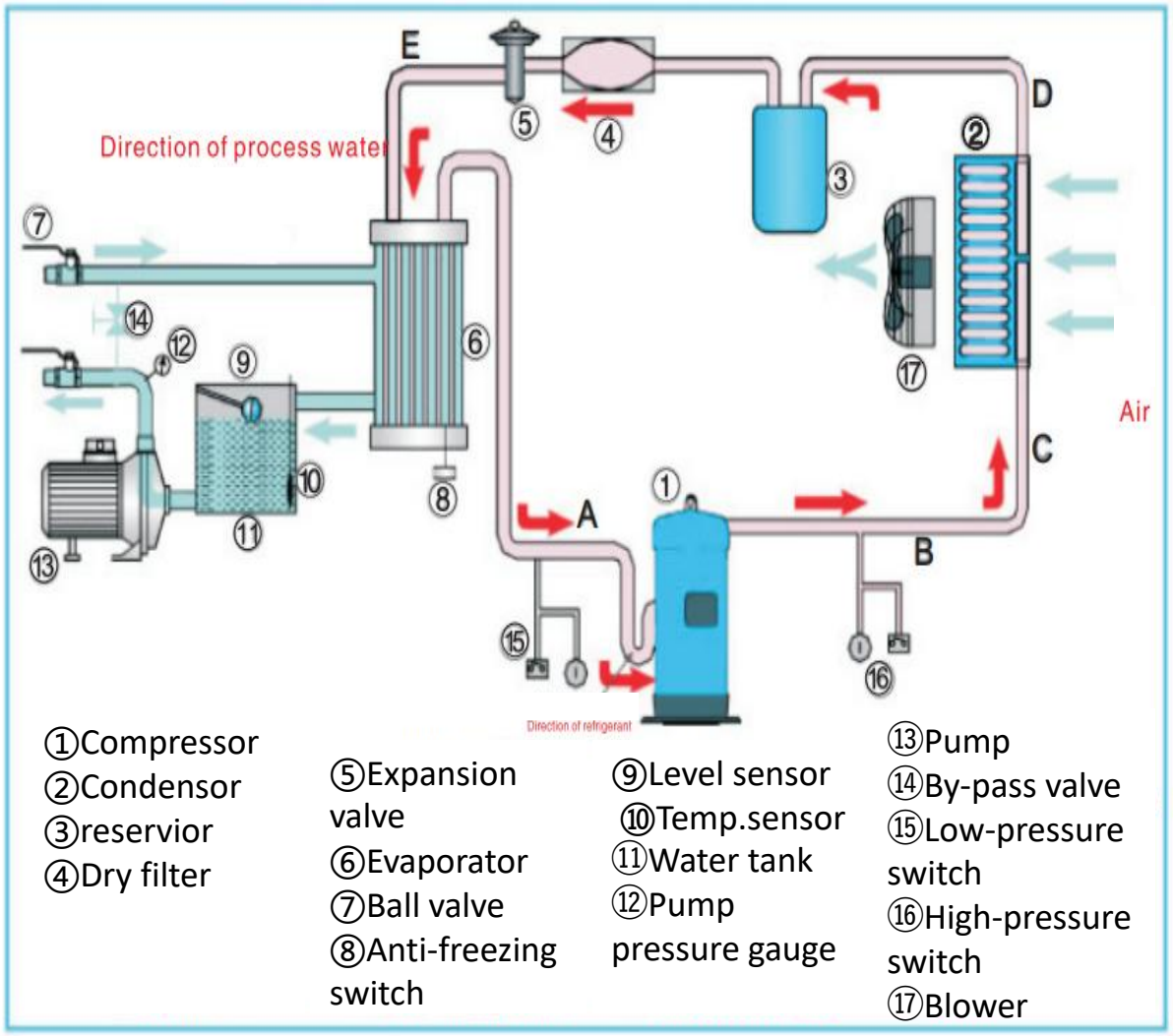
- Cooling capacity from 7'C to 35'C
- Stainless insulated water tank and anti-freeze thermostat.
- R22 refrigerant used as standard for efficient cooling.
- Refrigeration loop controlled by high and low pressure switches.
- Compressor and pump overload relays.
- Italian made temperature controller maintains an accuracy of + 1C.
- Compact design,easy to operate and maintain.
- Low pressure pumps are standard configurations,while middleor high
- presure pumps are optionally availaple.
- Level meter of water tank is available as an option.
- All adopt Copeland compressors.
- TIC-A adopts tube-fin condenser design without any need of cooling water for excellent heat transfer and rapid cooling.
- Upon request,it can be built to comply with worldwide electrical safety standards(For example:CEUL,CSAJIS etc.).



TIC-A Air-cooled Chiller Structure Chart

Air-cooled Water Chillers

Working Principe of Air-cooled Models

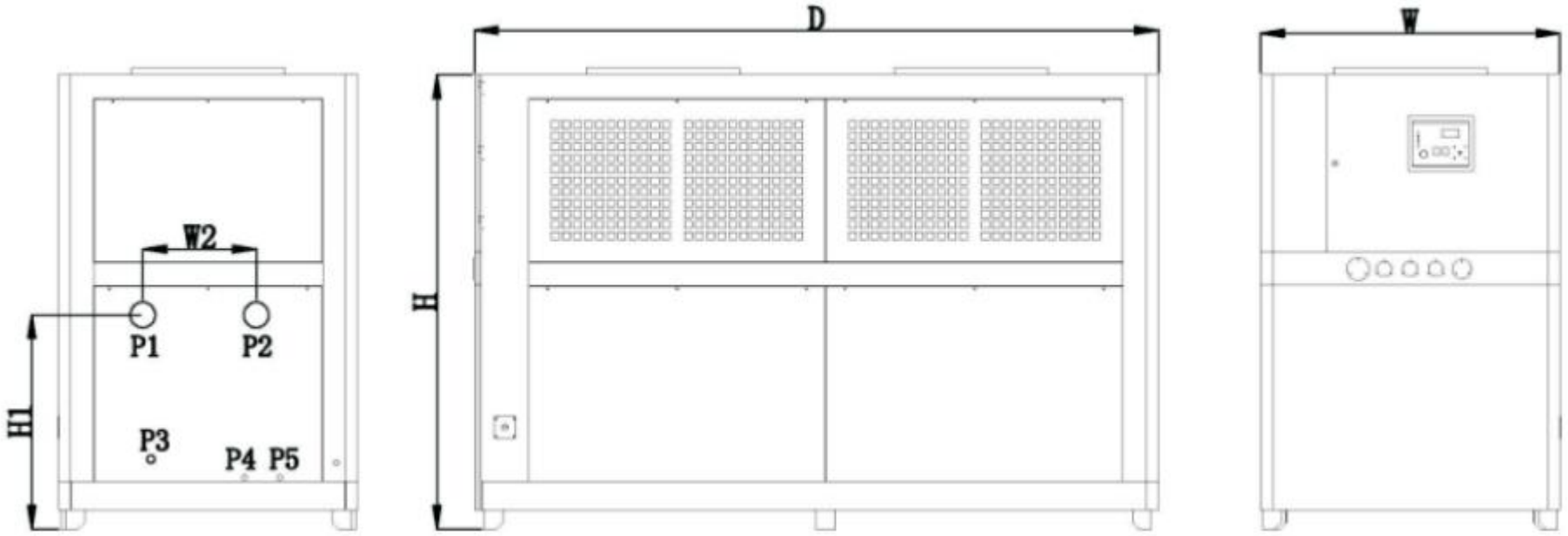


TIC-A air-cooled water chillers include four main components, such as compressor, condenser, thermostatic expansion valve and evaporator The system adopts a single closed-loop design for refrigeration system. Refrigerant is alternatively changed from gaseous to liquid state to absorb or release heat thus a cooling effect is achieved. When the machine is started, compressor starts working. Refrigerant is compressed into high pressure and high temperature gas in the process from A to B. In the process Frin B to C and D, this high pressure and high temperature gas is cooled when it is passing through the condenser and changed into liguid. Heat is taken away by the cooling air. In the process from D to E, the pressure of liquld refrigerant is reduced by expansion valve and a part of the refrigerant is changed from liquid to gaseous state. In the process from E to A, refrigerant absorbs the heat of process water in the evaporator and returns back to the compressor. This heat exchange process repeats until process water is cooled down to required temperature.

- Stainless iron water tank for storage of circulation water.
- Heavy duty 3-phase pump ensures no blockages and high torque.
- High/low system pressure gauges
- Main power switch
- Pump pressure gauge.
- Scroll/piston type compressor(s)for super high efficiency and low noise.
- Refrigerant tank is fixed to make full use of the condenser cooling fin.
- Expansion valve for accurate adjustment of R22 refrigerant.
- Tube-fin condenser features quick heat transfer and heat radiation.
- Tube-in-shell evaporator ensures efficient cooling
- Powder coated frame.

Air-cooled Water Chillers

Outline Drawings of Air-cooled Models



Air-cooled Water Chillers

机型 Model	H (mm)	H1 (mm)	W (mm)	W1 (mm)	W2 (mm)	D (mm)	P1(inch) 冷冻水入口	P2(inch) 冷冻水入口	P3(inch) 水箱排水口	P4(inch) 水箱溢流口	P5(inch) 水箱補水口	净重 (kg)
TIC-3A	1400	640	735	360	174	1320	1″	1″	1/2″	1/2″	1/2″	305
TIC-5A	1400	640	735	360	174	1320	1″	1″	1/2″	1/2″	1/2″	315
TIC-8A	1350	640	735	300	204	1610	1½″	1½″	1/2″	1/2″	1/2″	400
TIC-10A	1350	640	735	300	204	1610	1½″	1½″	1/2″	1/2″	1/2″	420
TIC-12.5A	1520	648	905	457	189	1780	2″	2″	1/2″	1/2″	1/2″	520
TIC-15A	1520	648	905	457	189	1780	2″	2″	1/2″	1/2″	1/2″	560
TIC-20A	1950	700	1200	450	150	2920	2″	2″	1″	1/2″	1/2″	775
TIC-25A	1950	700	1200	450	150	2920	2″	2″	1″	1/2″	1/2″	800
TIC-30A	1950	760	1200	430	160	2920	2½″	2½″	1″	1/2″	1/2″	840
TIC-40A	1970	780	1300	450	200	3390	2½″	2½″	1″	1″	1″	1400
TIC-45A	1970	780	1300	450	200	3800	2½″	2½″	1″	1″	1″	1800
TIC-50A	1970	823	1420	700	360	4000	2½″	2½″	1″	1″	1″	2000

Model Selection Reference

成型机锁模力（T）	成型能力 (kg/hr)型号	型 号	
≤250	≤25	TIC-3W	TIC-3A
≤350	≤35	TIC-5W	TIC-5A
≤450	≤45		
≤550	≤55	TIC-8W	TIC-8A
≤650	≤65		
≤850	≤85	TIC-10W	TIC-10A
≤1000	≤100	TIC-12.5W	TIC-12.5A
≤1300	≤130		

成型机锁模力（T）	成型能力 (kg/hr)型号	型 号	
≤1500	≤150	TIC-15W	TIC-15A
≤1800	≤180		
≤2200	≤220	TIC-20W	TIC-20A
≤2500	≤250		
≤3000	≤300	TIC-25W	TIC-25A
≤4000	≤400	TIC-30W	TIC-30A
≤5000	≤500	TIC-40W	TIC-40A
≤6000	≤600	TIC-45W	TIC-45A
≤7000	≤700	TIC-50W	TIC-50A

item \ Model / Parameter			TIC-3A	TIC-5A	TIC8A	TIC-10A	TIC-12.5A	TIC-15A	TIC-20A	TIC-25A	TIC-30A	TIC-40A	TIC-45A	TIC-50A
Refrigeration Capacity	kw		7.69	13.5	19.08	25.56	31.41	38.79	51.12	62.82	77.58	102.24	113.94	125.64
	kcal/hr		6612	11607	16405	21976	27006	33352	43943	54013	66703	87906	97956	108026
Compressor	Type		scroll											
	Power	kw	2.77	4.65	7	9.35	12	14.2	18.7	24	28.4	37.75	42.6	48
		hp	3	5	8	10	12.5	15	20	25	30	40	45	50
Refrigerant	Weight(kg)		2.7	4.3	7	8	11	13	18	22	26	34	42	48
	Control Model		R22											
	Type		Shell and Tube											
Evaporator	Type		Shell and Tube											
Condensor	Type		multipass crossfinned tube											
	Power		0.25	0.25	0.25×2		0.47×2		0.82×2	1*2	1×2	0.75×3	0.75×3	0.75×4
Water Tank			50		85		150		180	200	270	400		650
Pump	Power(kw)		0.55		1.1		2.2				4		4	
	Pump Flow(L/min)		80		200		300		450		833		1100	
	Working Pressure		2.0/2.6/3.8		2.0/2.6/3.5		2.0/3/4.2		2.5/3/4.2				2.7/3.4/4.3	
Total Power(kw)			3	4.55	7.5	9	12.1	13.7	18.3	22	27.5	36.2	40.25	44.5

Item \ Model / Parameter		TIC-3A	TIC-5A	TIC-8A	TIC-10A	TIC-12.5A	TIC-15A	TIC-20A	TIC-25A	TIC-30A	TIC-40A	TIC-45A	TIC-50A
Pipe Inch	Cooling Water Outlet	1/2”4		1½”×1		2”×1				2½”×1		2½”×1	
	Cooling port of Water tank	1/2”4		1½”×1		2”×1				2½”×1		2½”×1	
	Drainage Port of Water tank	1/2”								1”			
	Overflow port of Water tank	1/2”										1”	
Protection sets	Compressor	Overload relay											
	Pump	Overload relay											
	Refrigerant Circuit	High and low pressure swithc/Anti-freezing switch											
	Cooling water Circuit	By-pass valve/Water level switch(Option)											
Power		3Φ,400V,50Hz											
unit conversion		1KW=860Kcal/hr 1RT=3024 kcal/hr 10000Btu/hr=2520 Kca/hr											

Note:
1) Refrigeration capacity is tested under the condition that cold water outlet temperature is at 12'C and ambient
2) A piston type compressor is used when power supply is 3,230V.(TIC-3A~TIC-5A).
3) Environment-friendly R407 C refrigerant is optional.(Model denotes"U"such as TIC-5A-U)
4) This pump is used as standard either for domestic or Southeast Asia:medium(Model denotes"p" such as TIC-5A-P)or high pressure pump (Modle denotes "HP",such as TIC-5A-HP)are optional for installation on customer's demands.
5) Air-cooled chillers are best to be used in the environment with ambient temperature under 35C
6) Demands on special voltage of power supply could be satisfied.

Water-cooled Central Water Chillers

Introduction

TICC-W series central water-coled chillers adopt Germanmade BITZER with twin screw compressors,models with one or two compressors suitable for using R22R407 and R134a rerigerants.High efficiency condenser and evaporator have manufactured under national"BR1" standard. Featuring stable heat exchange and ease of maintenanceadvanced contrller with built-in microprocessor which gives beter pertormance than single chip based unit.

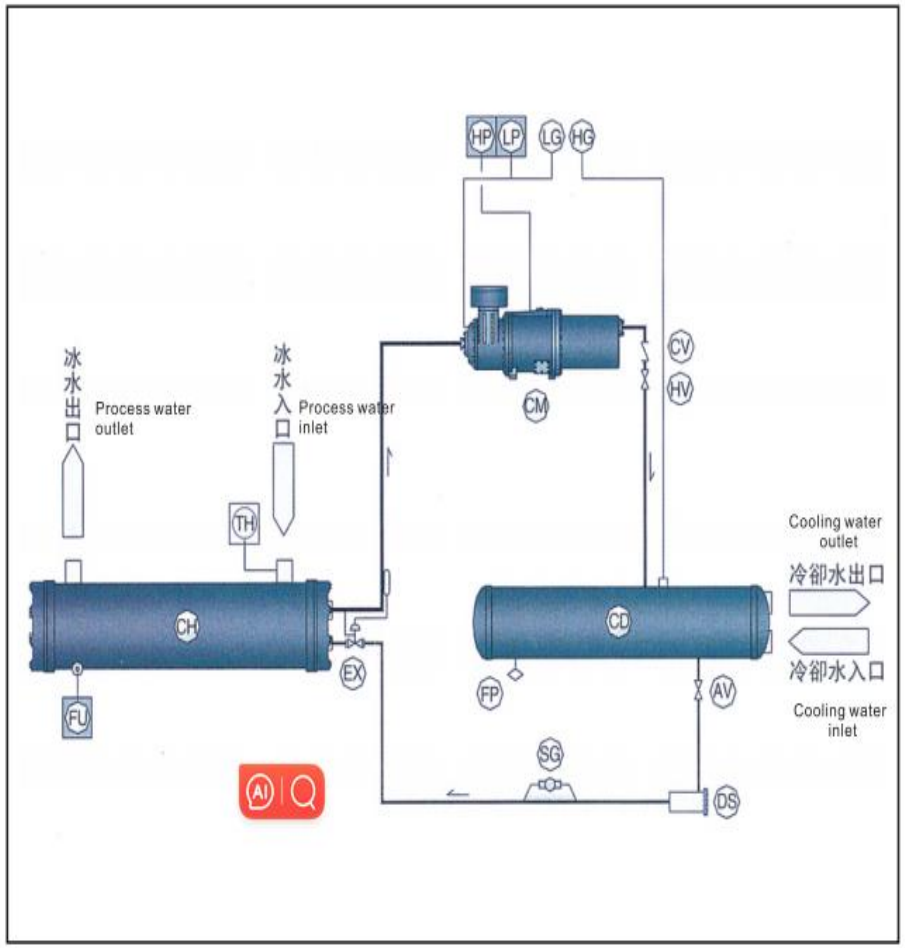
Touch Screen

Features:

- German-made twin screw compressor,long service life to ensure can make sure continuous operation
- Two energy saving modes are designed to meet customers requirements.
- Evaporator and condenser built strictly according to national standards.
- Extendability of the controller makes upgrade of both hardware and software more easier.
- Watchdog"technology makes microprocessor able to automatically diagnose and solve the problems.
- 512K memory for programs and 128K off-power data storage.
- Touch screen panel.
- System alarm text.
- Able to monitor the setting of actual temp and display temp trend in hours or in daily
- Remote control function turns on/off the machine according to preset timer.
- Support multi-language switch.

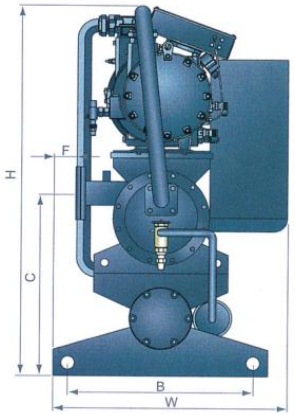
Water-cooled Central Water Chillers

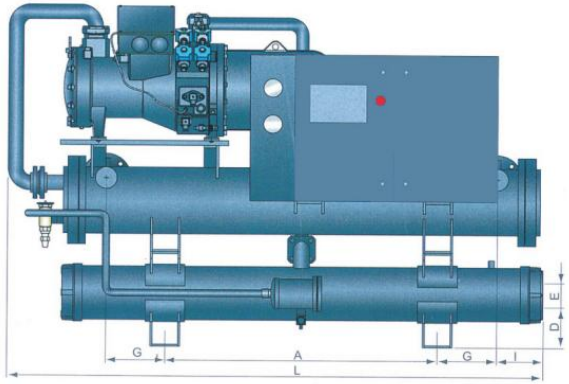
Working Principle (One Compressor)



符号 Sign	品名 Name	数量 Amount	备注
CM	压缩机 Compressor	1	
CD	冷凝器 Condenser	1	
CH	蒸发器 Evaporator	1	
EX	膨胀器 Expansion valve	1	
FP	可熔栓 Solute chock	1	
AV	出液角阀 Angle valve	1	
DS	干燥过滤器 Drying filter	1	
SG	视液镜 Sight glass	1	
CV	逆止阀 Contrary value	1	
HV	高压止阀 High pressure valve	1	
HG	高压表 High pressure gauge	1	
LG	低压表 Low pressure gauge	1	
HP	高压开关 High pressure switch	1	
LP	低压开关 Low pressure switch	1	
TH	温度开关 Thermo switch	1	
FU	防冻开关 Anti-freezing switch	1	

Dimensions (One Compressor)





One Compressor(R22)

Item / Model			TICC-132WS	TICC-165WS	TICC-193WS	TICC-223WS	TICC-256WS	TICC-317WS	TICC-363WS	TICC-419WS	TICC-547WS	TICC-630WS	TICC-723WS
Refrigeration Capacity		Kcal/hr	113,500	141,900	166,000	191,800	220,200	272,600	312,200	360,300	470,400	541,800	621,800
		KW	132	165	193	223	256	317	363	419	547	630	723
Power Source		-	3Φ 400V 50Hz										
Power Consumption		KW	31	38	43	51	58	76	80	90	121	136	154
Operation Current		A	54	66	75	87	96	123	136	151	199	221	246
Start-up Type		A	218D/411DD	269D/508DD	290D/485DD	350D/585DD	423D/686DD	520D/801DD	612D/943DD	665D/1023DD	465D/1442DD	586Y/1853D	650YT/2029D
Compressor	Manner	_	Half-closed twin screw										
	Quality	%	100-75-50-25-0										
	Start-up Type	-	Distrbution winding								Y-△		
	Oil Heater	KW	0.2					0.3					
Refrigeration Oil	Type	-	B320SH										
	Fulling Quality	L	9		15			22			28		
Refrigerant coal	Type	-	R22										
	Fulling Quality	Kg	21	26	30	35	40	50	57	66	86	99	113
Process Flow	Manner	-	Thermostatic pressure-equalized expansion valve										
	Process Flow	m³/h	23	28	33	38	44	55	63	72	94	109	125
	Pressure	kPa	54	54	57	57	59	59	62	62	65	67	67
	Pipe Outlet	inch	3"	3"	3"	4"	4"	4"	4"	4"	5"	6"	6"
Cooling Flow	Manner	-	谐 Tube-in-shell high efficient heat exchanger										
	Cooling Flow	m³/h	30	37	43	50	57	71	81	94	122	141	162
	Pressure	kPa	51	51	54	54	57	57	59	59	62	65	65
	Pipe Outlet	inch	2-1/2"	3"	3"	3"	3"	4"	4"	5"	5"	5"	5"

Item / Model			TICC-132WS	TICC-165WS	TICC-193WS	TICC-223WS	TICC-256WS	TICC-317WS	TICC-363WS	TICC-419WS	TICC-547WS	TICC-630WS	TICC-723WS
Protective Safety Devices		-	High or low pressure switch.Anti-freezing switch,Solube chock,Compressor overheat protection,Motor overheat protection,Exhaust air overheat protection,Pump overcurre,Oli overheat protection,Phase reverse protection,High and low pressure protection,cooling water overheat protection,Process water shortage protection,Cooling water shortage protection,Cooling tower overcurrent potection,etc.										
Dimension	L	Mm	2175	2195	2245	2860	2860	2975	2985	3010	3510	3590	3595
	W	mm	935	935	935	1015	1015	1015	1025	1055	1105	1150	1175
	H	mm	1430	1500	1655	1710	1710	1965	1975	1990	2140	2155	2195
	A	mm	1100	1100	1100	1200	1200	1300	1300	1300	1600	1600	1600
	B	mm	690	690	690	790	790	790	790	790	900	900	980
	C	mm	690	760	820	860	860	1000	1010	1010	1120	1120	1160
	D	mm	170	190	240	240	240	270	270	245	275	240	240
	E	mm	100	100	120	120	120	160	160	175	175	240	240
	F	mm	75	80	80	125	105	100	100	100	125	130	175
	G	mm	240	240	230	475	470	400	405	405	550	540	540
	I	mm	75	145	170	200	200	315	310	245	250	340	340
Net Weight		kg	1020	1060	1270	1370	1400	1870	1870	2070	2790	2910	3240
Weight When Operation		kg	1120	1180	1420	1550	1580	2100	2220	2340	3120	3240	3760
Noise When Operation		dB(A)	74	74	76	76	78	78	80	80	82	82	82

Note:
1)The refrigerant capacity is tested under conditions that process water inlet temp.is at 12'C,process water outlet temp.is ai 7C.
cooling water inlet temp.is at 30C and cooling water outlet tempis at 35'C.The contamination status is on 0.0001M20C/W.
2)The noise level is tested on one meter in front of the machine and 1.5 meter in height.
3)The function of un-adjustable refrigerant flow can be selected.
4)Please inform the special requirements to us before giving and order.

One Compressors(R134a)

Item \ Model			TICC-132WS	TICC-165WS	TICC-193WS	TICC-223WS	TICC-256WS	TICC-317WS	TICC-363WS	TICC-419WS	TICC-547WS	TICC-630WS	TICC-723WS
Refrigeration Capacity		Kcal/hr	105	124	147	163	194	215	233	272	352	404	469
		KW	90.300	106.600	126.400	140.200	166.800	184.900	200.400	233.900	302.700	347.400	403.300
Power Source		-	3Φ 400V 50Hz										
Power Consumption		KW	24	30	32	37	43	48	51	59	75	86	99
Operation Current		A	43	52	59	65	76	81	84	103	131	145	162
Start-up Type		A	169D/338DD	206D/355DD	267D/449DD	290D/485DD	350D/585DD	520D/801DD	439D/675DD	520D/801DD	665D/1023DD	436Y/1364D	465YT/1442D
Compressor	Manner	_	Half-closed twin screw										
	Quality	%	100-75-50-25-0										
	Start-up Type	-	Distrbution winding								Y-△		
	Oil Heater	KW	0.2					0.3					
Refrigeration Oil	Type	-	BSE170										
	Fulling Quality	L	9.5		15			22		29	35		
Refrigerant coal	Type	-	R134a										
	Fulling Quality	Kg	17	20	23	26	31	34	37	43	56	64	75
Process Flow	Manner	-	Thermostatic pressure-equalized expansion valve										
	Process Flow	m³/h	18	21	21	28	33	37	40	47	61	70	81
	Pressure	kPa	49	51	51	54	54	57	57	59	62	62	65
	Pipe Outlet	inch	2-1/2"	3"	3"	3"	3"	3"	4"	4"	4"	5"	5"
Cooling Flow	Manner	-	Tube-in-shell high efficient heat exchanger										
	Cooling Flow	m³/h	24	28	33	36	43	48	52	61	79	90	105
	Pressure	kPa	47	49	49	51	51	54	54	57	59	59	62
	Pipe Outlet	inch	2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	3"	4"	4"	5"

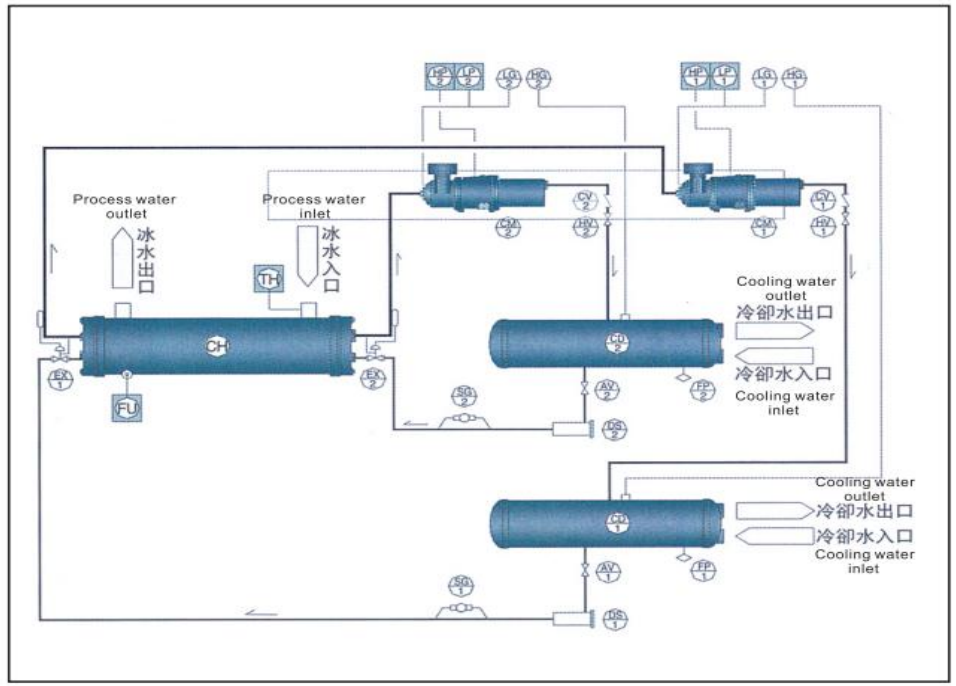
Item / Model			TICC-132WS	TICC-165WS	TICC-193WS	TICC-223WS	TICC-256WS	TICC-317WS	TICC-363WS	TICC-419WS	TICC-547WS	TICC-630WS	TICC-723WS
Protective Safety Devices		–	High or low pressure switch.Anti-freezing switch,Solube chock,Compressor overheat protection,Motor overheat protection,Exhaust air overheat protection,Pump overcurre,Oli overheat protection,Phase reverse protection,High and low pressure protection,cooling water overheat protection,Process water shortage protection,Cooling water shortage protection,Cooling tower overcurrent potection,etc.										
Dimension	L	Mm	2195	2245	2245	2245	2860	2900	2985	2985	3010	3510	3590
	W	mm	935	935	935	935	1015	1015	1025	1025	1055	1105	1105
	H	mm	1500	1655	1655	1655	1710	1710	1975	1975	1990	2140	2155
	A	mm	1100	1100	1100	1100	1200	1200	1300	1300	1300	1600	1600
	B	mm	690	690	690	690	790	790	790	790	790	900	900
	C	mm	760	820	820	820	860	860	1010	1010	1010	1120	1120
	D	mm	190	240	240	240	240	240	270	270	245	275	240
	E	mm	100	120	120	120	120	120	160	160	175	175	240
	F	mm	80	80	80	80	125	125	100	100	100	125	130
	G	mm	240	230	230	230	470	475	405	405	405	550	540
	I	mm	145	170	170	170	200	200	310	310	245	250	340
Net Weight		kg	1060	1270	1320	1370	1400	1440	1940	1870	2070	2430	2790
Weight When Operation		kg	1180	1420	1485	1550	1580	1630	2220	2100	2340	2730	3120
Noise When Operation		dB(A)	72	74	74	74	76	76	78	78	80	82	82

Note:

- The refrigerant capacity is tested under conditions that process water inlet temp.is at 12C， process water outlet temp.is ai 7C cooling water inlet temp.is at 30'C and cooling water outlet temp.is at 35'C.The contamination status is on 0.0001M20C/W.
- The noise level is tested on one meter in front of the machine and 1.5 meter in height.
- The function ofun-adjustable refrigerant flow can be selected.
- Please inform the special requirements to us before giving and order.

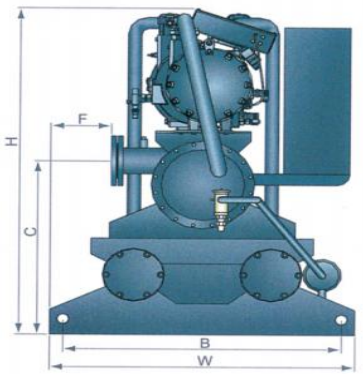
Water-cooled Central Water Chillers

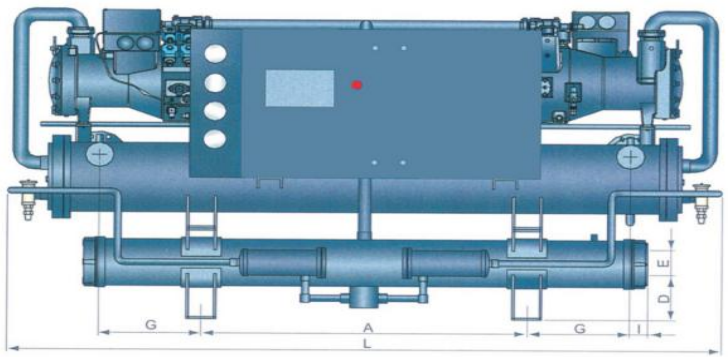
Working Principie(Two Compressor)



符号 Sign	品名 Name	数量 Amount	备注
CM1–2	压缩机 Compressor	2	
CD1–2	冷凝器 Condenser	2	
CH	蒸发器 Evaporator	1	
EX1–2	膨胀器 Expansion valve	2	
FP1–2	可熔栓 Solute chock	2	
AV1–2	出液角阀 Angle valve	2	
DS1–2	干燥过滤器 Drying filter	2	
SG1–2	视液镜 Sight glass	2	
CV1–2	逆止阀 Contrary value	2	
HV1–2	高压止阀 High pressure valve	2	
HG1–2	高压表 High pressure gauge	2	
LG1–2	低压表 Low pressure gauge	2	
HP1–2	高压开关 High pressure switch	2	
LP1–2	低压开关 Low pressure switch	2	
TH	温度开关 Thermo switch	1	
FU	防冻开关 Anti-freezing switch	1	

Dimensions (Two Compressors)





Two Compressors (R22)

Item \ Model			TICC–263WD	TICC–330WD	TICC–385WD	TICC–446WD	TICC–512WD	TICC–637WD	TICC–725WD	TICC–839WDH	TICC–1093WDH	TICC–1260WDH	TICC–1446WDH
Refrigeration Capacity		Kcal/hr	263	330	385	446	512	637	725	839	1093	1260	1446
		KW	226.200	283.800	331.100	383.600	440.300	547.800	623.500	721.500	940.000	1.083.600	1.243.600
Power Source		-	3Φ 400V 50Hz										
Power Consumption		KW	62	76	87	102	117	153	160	180	230	272	305
Operation Current		A	108	132	149	175	192	246	273	305	373	452	504
Start-up Type		A	218D/411DD	269D/508DD	290D/485DD	350D/585DD	423D/686DD	520D/801DD	612D/943DD	665D/1023DD	465D/1442DD	586Y/1853D	650YT/2029D
Compressor	Manner	_	[redacted] Half-closed twin screw										
	Quality	%	100-75-50-25-0										
	Start-up Type	-	分繞組 Distrbution winding								Y-△		
	Oil Heater	KW	0.2x2						0.3x2				
Refrigeration Oil	Type	-	B320SH										
	Fulling Quality	L	9x2		15x2			22x2	29	28x2			
Refrigerant coal	Type	-	R22										
	Fulling Quality	Kg	21x2	26x2	30x2	35x2	40x2	50x2	57x2	61x2	78x2	92x2	104x2
Process Flow	Manner	-	[redacted] Thermostatic pressure-equalized expansion valve										
	Process Flow	m³/h	45	57	66	77	88	110	125	144	188	217	249
	Pressure	kPa	57	57	59	59	62	62	65	65	67	67	69
	Pipe Outlet	inch	4"	4"	4"	5"	5"	5"	6"	6"	6"	6"	8"
Cooling Flow	Manner	-	[redacted] ube-in-shell high efficient heat exchanger										
	Cooling Flow	m³/h	59	74	86	100	115	143	162	188	244	282	323
	Pressure	kPa	51	51	54	54	57	57	62	62	65	65	67
	Pipe Outlet	inch	2–1/2"x2	2–1/2"x2	2–1/2"x2	2–1/2"x2	3"x2	3"x2	4"x2	4"x2	5"x2	5"x2	6"x2

Item \ Model	TICC-263WD	TICC-330WD	TICC-385WD	TICC-446WD	TICC-512WD	TICC-637WD	TICC-725WD	TICC-839WD	TICC-1093WD	TICC-1260WD	TICC-1446WD
Protective Safety Devices	_	High or low pressure switch.Anti-freezing switch,Solube chock,Compressor overheat protection,Motor overheat protection,Exhaust air overheat protection,Pump overcurre,Oli overheat protection,Phase reverse protection,High and low pressure protection,cooling water overheat protection,Process water shortage protection,Cooling water shortage protection,Cooling tower overcurrent potection,etc.									
Dimension L	Mm	3060	3060	3175	3180	3180	3820	3760	3760	4100	4100	4250
Dimension W	mm	1150	1150	1250	1250	1250	1400	1400	1400	1600	1750	1750
Dimension H	mm	1525	1525	1805	1830	1830	2080	2040	2080	2260	2290	2360
Dimension A	mm	1300	1300	1300	1600	1600	1600	1600	1600	1600	1600	1600
Dimension B	mm	1040	1040	1140	1140	1140	1290	1290	1290	1480	1630	1630
Dimension C	mm	770	770	955	970	975	1085	1130	1135	1240	1270	1305
Dimension D	mm	216	215	275	270	270	285	265	265	290	290	290
Dimension E	mm	100	100	120	120	120	160	175	175	240	240	250
Dimension F	mm	230	230	275	300	275	330	375	375	450	450	430
Dimension G	mm	410	410	400	245	250	540	545	545	500	500	775
Dimension I	mm	70	70	90	95	225	25	265	265	100	100	90
Net Weight	kg	1760	1780	2340	2420	2500	3580	3750	3380	5050	5340	5600
Weight When Operation	kg	1920	1970	2520	2620	2710	3920	4110	4250	5490	5830	6260
Noise When Operation	dB(A)	76	76	76	78	80	80	80	80	84	84	84

Note:

- The refrigerant capacity is tested under conditions that process water inlet temp.is at 12', process water outlet temp.is ai 7C.
- cooling water inlet temp.is at 30C and coolin water outlet temp.is at 35The contamination status is on 0.0001M20C/W.
- The noise level is tested on one meter in front of the machine and 1.5 meter in height.
- The function of un-adjustable refrigerant flow can be selected.
- Please inform the special requirements to us before giving and order.

Two-Compressors(R134a)

Item \ Model			TICC-248WDH	TICC-293WDH	TICC-326WDH	TICC-388WDH	TICC-430WDH	TICC-467WDH	TICC-613WDH	TICC-704WDH	TICC-809WDH	TICC-938WDH	TICC-1051WDH
Refrigeration Capacity		Kcal/hr	248	293	326	388	430	467	613	704	809	938	1051
		KW	213.300	252.000	280.400	333.700	369.800	401.600	527.200	605.400	695.700	806.700	903.900
Power Source		-	3Φ 400V 50Hz										
Power Consumption		KW	59	65	73	86	96	101	132	150	172	197	228
Operation Current		A	105	117	131	151	162	168	232	262	290	323	389
Start-up Type		A	206D/355DD	267D/449DD	290D/485DD	350D/585DD	423D/686DD	439D/675DD	612D/943DD	665D/1023DD	436D/1364DD	465Y/1422D	586YT/1853D
Compressor	Manner	_	Half-closed twin screw										
	Quality	%	100-75-50-25-0										
	Start-up Type	-	Distrbution winding								Y-△		
	Oil Heater	KW	0.2x2						0.3x2				
Refrigeration Oil	Type	-	BSE170										
	Fulling Quality	L	15x2					22x2	29x2		35x2		
Refrigerant coal	Type	-	R134a										
	Fulling Quality	Kg	20x2	23x2	26x2	31x2	34x2	37x2	49x2	59x2	64x2	75x2	84x2
Process Flow	Manner	-	Thermostatic pressure-equalized expansion valve										
	Process Flow	m³/h	143	50	56	67	74	80	106	121	139	162	181
	Pressure	kPa	54	54	57	57	59	59	62	65	65	67	67
	Pipe Outlet	inch	4"	4"	4"	4"	5"	5"	6"	6"	6"	6"	8"
Cooling Flow	Manner	-	Tube-in-shell high efficient heat exchanger										
	Cooling Flow	m³/h	56	66	3	87	96	105	137	158	181	210	235
	Pressure	kPa	49	49	51	51	54	54	57	59	59	62	62
	Pipe Outlet	inch	2-1/2"x2	2-1/2"x2	2-1/2"x2	2-1/2"x2	3"x2	3"x2	4"x2	4"x2	5"x2	5"x2	5"x2

Item \ Model			TICC-248WD	TICC-293WD	TICC-326WD	TICC-388WD	TICC-430WD	TICC-467WD	TICC-613WD	TICC-704WD	TICC-809WD	TICC-938WD	TICC-1051WD
Protective Safety Devices		–	High or low pressure switch.Anti-freezing switch,Solube chock,Compressor overheat protection,Motor overheat protection,Exhaust air overheat protection,Pump overcurre,Oli overheat protection,Phase reverse protection,High and low pressure protection,cooling water overheat protection,Process water shortage protection,Cooling water shortage protection,Cooling tower overcurrent potection,etc.										
Dimension	L	Mm	3175	3175	3175	3180	3200	3200	3830	3830	4330	4330	4400
	W	mm	1250	1250	1250	1250	1250	1250	1400	1400	1600	1600	1750
	H	mm	1805	1805	1805	1830	1850	1850	2125	2125	2300	2300	2365
	A	mm	1300	1300	1300	1600	1600	1600	1600	1600	1600	1600	1600
	B	mm	1140	1140	1140	1140	1140	1140	1290	1290	1480	1480	1630
	C	mm	955	955	955	975	975	975	1130	1130	1240	1240	1270
	D	mm	275	275	275	270	270	270	285	285	300	300	290
	E	mm	120	120	120	120	120	120	160	160	175	175	240
	F	mm	275	275	275	275	275	275	325	325	406	406	450
	G	mm	400	400	400	250	250	250	540	540	750	750	750
	I	mm	90	90	90	225	225	225	25	25	50	50	130
Net Weight		kg	2340	2420	2500	2580	2660	3750	4020	4170	5050	5340	5600
Weight When Operation		kg	2520	2620	2710	2800	2890	4110	4400	4560	5490	5830	6260
Noise When Operation		dB(A)	76	76	76	78	78	78	82	82	84	84	84

Note:

1)the refrigerant capacityis tested under conditions that process water inlet tempis at 12C， process water outlet temp.is ai 7C cooling water inlet temp.is at 30'C and cooling water outlet temp.is at 35'C. The contamination status is on 0.0001M20C/W.

2)The noise level is tested on one meter in front of the machine and 1.5 meter in height.

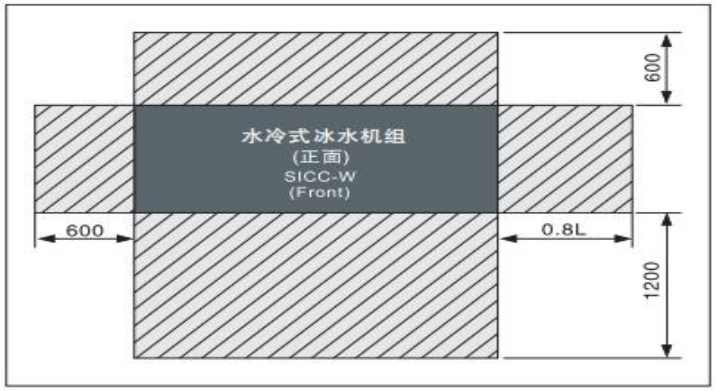
3)The function of un-adjustable refrigerant flow can be selected.

4)Please inform the special requirements to us before giving and order.

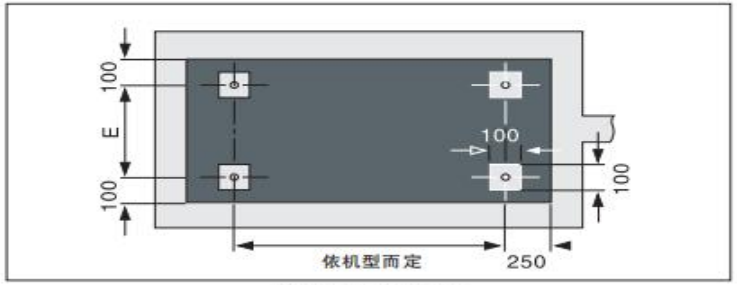
Foundation and Installtion

Selection of Installation Environment:

1) Please select a firm and solid ground which can fully support machine when running.The ground selection has also to avoid any happens ofvibration and loudly environment.
2)The machine should be installed on a place without any exposures from wind,rain,sunlight,or any heat source occurrence
3)Ambient temperature is from 0? to 40?.Relative Humidity(RH) is within 75%.
4)The installation environment should be well ventilated and less dust.
5)When install,please preserve a maintenance space,as shown blow.For the cleaning of the condenser,please reserve space of 0.8L on the left or rightside of the machine.

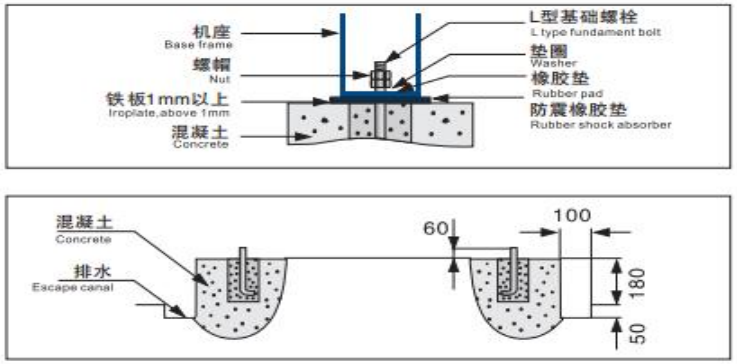


图（Figure)7-1 单位（Unit):mm



Foundation Base:

1)The foundation of the concrete base, according to the operation weight of the machines,will put on steel bars,diameter above 9.5 mm,and are clustered together on the upper and lower layer of the base,interspaced about 100mm
2)When making concrete floor to be foundation,it is necessary to rough the surface.Clean the floor before the installation
3)The concrete base has to be rigid;the mixing proportion of concrete is 1:2:4.Put required anchor bolts into base,according to the request.Polishing and flat the surface of the base when finished.
4)Put the machine on the base when it is fully dried out and rigid.
5)It has to be a well drainage works around the base to prevent water remaining



图（Figure)7-2 单位（Unit):mm

Energy-saving Control Cabinet for Constant Pressure Water Supply with Fully Automatic Frequency Conversion

1.Adopting PLC as central control unit, the inverter integrated with PID according to the state of the system, can quickly adjust the working pressure of water supply system, and achieve the goal of constant pressure water supply.

2. The pump adopts soft start way to avoid current shock on power grid voltage when motor starting up , and also to avoid surge of pump system caused by the sudden acceleration of the motor.

3. Due to the variable pump working in variable frequency state, its speed in operation process is determined by the externa water supply, so the system in the running process can save considerable energy (on average more than 25%)

显示屏
Display Screen

Engineering Map