



**PROFESSIONAL WATER CHILLER  
SOLUTION PROVIDER**



**Aquatech Plus Private Limited**

## **Aquatech Plus Private Limited**

Aquatech Plus Private Limited established in 2007 India. Aquatech Plus established in 2010 with 2 factories in India. India is one of the most professional industrial chiller manufacturers, with cooling capacity range from 0.8KW (0.2Ton) to 1750KW (550Ton) including: air cooled chiller, water cooled chiller, glycol chiller (0°C to-35°C), portable chiller, screw chiller, oil cooling chiller, industrial air cooler, Mold temperature controller unit, cooling tower, cold room / cold storage projects, Water Treatment System Like All Types RO system (250 LPH to 100000 LPH), EDI system, CSD Filling Machine And Project, Packaged Drink water machine and Project.

With the faith of "Fidem Chiller, Fidem Water Treatment system, Fidem Soft drink Project ---A PROFESSIONAL WATER CHILLER, Water And Soft Drink SOLUTION PROVIDER", FIDEM is devoted all energy to producing the best quality water chiller, water treatment system, soft drink project, Packaged drinking water Project products with most reasonable price.

To make sure each air chiller or water chiller unit is good quality and long service life, we develop and maintain strategic partnerships with world renowned manufacturers and suppliers who can guarantee world-class product quality and service. Like For scroll compressor, we are using Danfoss, Hitachi, Panasonic, Copeland, For screw compressor, we are using Bitzer, Hnabell, For water pump, we are using Grundfos, CNP and Minamotor. This will help Fidem Chiller products are much more advanced than similar products on chiller capacity, lifetime and quality stability.

To assure products quality, all Fidem Chiller products are design and made in dust-free workshop under ISO9001 quality system by our R&D department and passed CE & RoHS, test allowing to export European countries and USA, Canada market. All technical staff are more than 10 years working experience in Chiller design, assembling and making. Each chiller unit under strictly quality control has to be checked carefully after production before delivery and well packaged with wooden box

Fidem chiller products win its high reputation in the market for steady quality and full time after sales service.

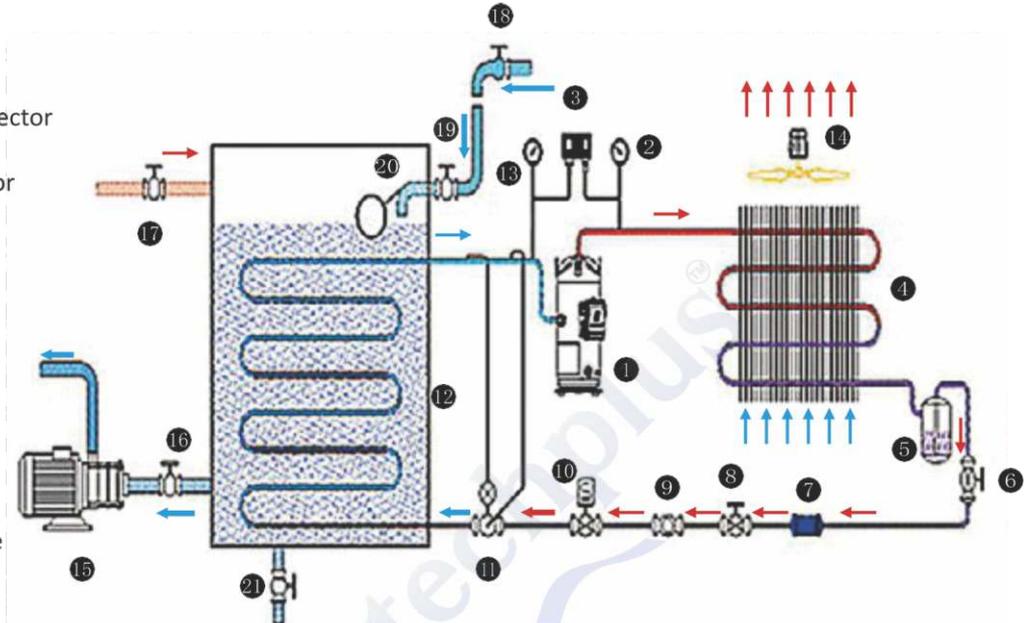
We are providing 12 months warranty time for all products and extend warranty up to 5 years. Within warranty time, any problem caused by the defects of the chiller itself, Fidem Chiller will offer its service until the problem solved. To save customers purchasing problems caused by too many different suppliers, like quality control and shipping concerns, FidemChiller supplies not only various Water chiller and Refrigeration unit, but also chiller spare parts for whole accessories, like compressor, water pump, expansion valve, heat exchanger, cooling tower etc. All parts are made in high quality and sold at reasonable price.



# Chiller Working Diagram

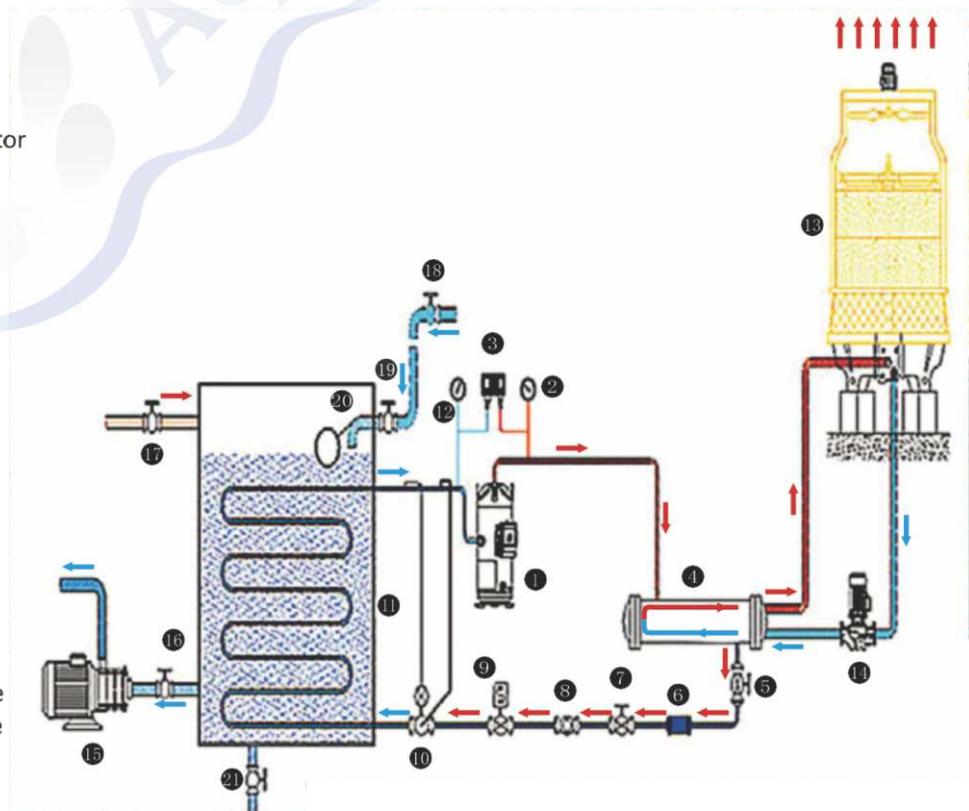
## Air Cooled Chiller

- 1 Compressor
- 2 High pressure gauge
- 3 High and low pressure protector
- 4 Condenser
- 5 High pressure accumulator
- 6 Angled shut-off valve
- 7 Filter dryer
- 8 Manual Shut-off valve
- 9 Liquid minor
- 10 Solenoid valve
- 11 Expansion valve
- 12 Evaporator
- 13 Low pressure gauge
- 14 exhaust fan
- 15 water pump
- 16 outlet water shut-off valve
- 17 inlet water shut-off valve
- 18 tap water valve
- 19 water supply valve
- 20 tank water floating ball valve
- 21 Water tank drainage water valve



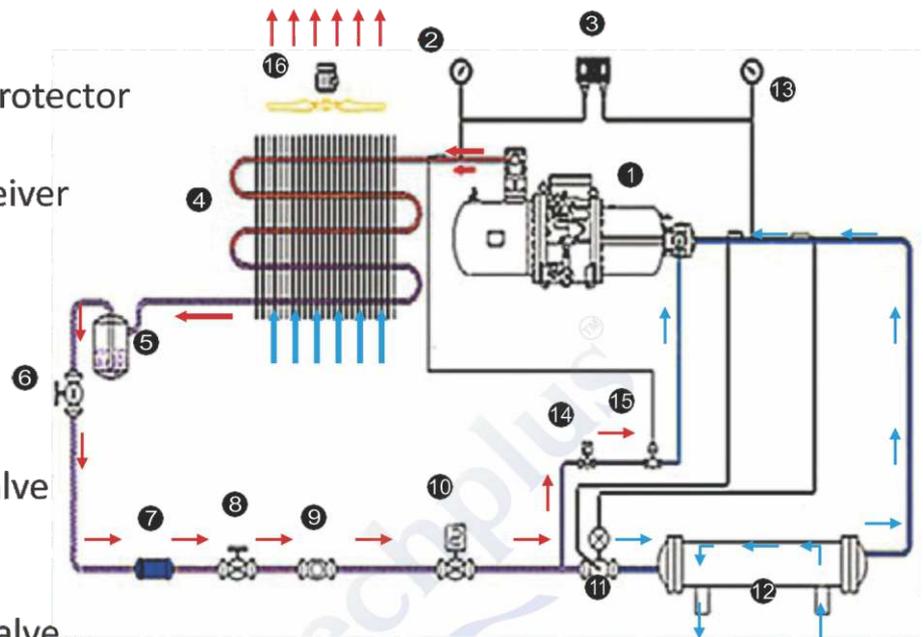
## Water Cooled Chiller

- 1 Scroll compressor
- 2 High pressure gauge
- 3 High and low pressure protector
- 4 Condenser
- 5 Angled shut-off valve
- 6 Filter dryer
- 7 Manual shut-off valve
- 8 Liquid minor
- 9 Solenoid valve
- 10 Expansion valve
- 11 Evaporator
- 12 Low pressure gauge
- 13 Cooling tower
- 14 Water pump
- 15 Chilled water pump
- 16 Outlet water shut-off valve
- 17 Inlet water shut-off valve
- 18 Tap water valve
- 19 Water supply valve
- 20 Tank water floating ball valve
- 21 Water tank drain water valve



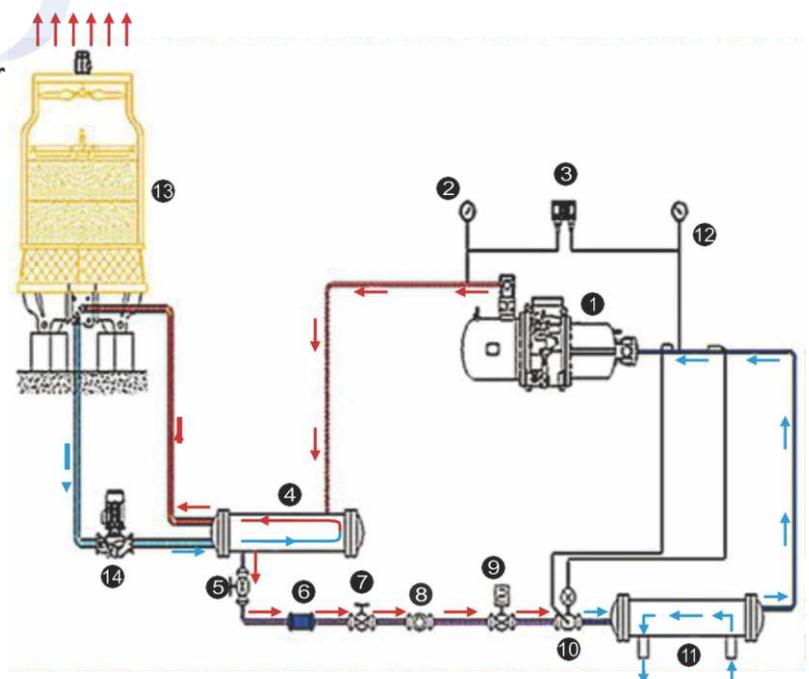
# Air Cooled Screw Chiller

- 1 Screw compressor
- 2 High pressure gauge
- 3 High and low pressure protector
- 4 Condenser
- 5 High pressure liquid receiver
- 6 Angled shut-off valve
- 7 Filter dryer
- 8 Manual shut-off valve
- 9 Liquid minor
- 10 Solenoid valve
- 11 Thermost expansion valve
- 12 Evaporator
- 13 Low pressure gauge
- 14 Liquid spray solenoid valve
- 15 Liquid spray expansion valve
- 16 Air blower



# Water Cooled Screw Chiller

- 1 Screw compressor
- 2 High pressure gauge
- 3 High and low pressure protector
- 4 Condenser
- 5 Angled shut off valve
- 6 Filter dryer
- 7 Manual shut off valve
- 8 Liquid minor
- 9 Solenoid valve
- 10 Thermal expansion valve
- 11 Evaporator
- 12 Low pressure gauge
- 13 Cooling tower
- 14 Water pump



# Air Cooled Water Chiller



## Advantages:

Air cooled water chiller is also called air chiller or air cooled chiller with cooling capacity from 1.65KW to 202KW and adjustable temperature control range 5°C to 30°C. This kind of air chiller equips with branded Copeland, Danfoss, Sanyo or Panasonic Hermetic scroll compressors depend on detailed requirements. We have 3 or 4 refrigerant circuits for chiller models from AC-25AD to AC-60AF according to chiller refrigeration capacity. Each circuit can work or stop independently for chiller safety and energy saving considering.

Each air cooled chiller having stainless steel buffer tank and built-in water pump allows easy installation and high flexibility. All the water piping system are stainless steel material can make sure the circulation water clean without rust.

For air chiller evaporator, we have some options for different processing requirements, Built-in water tank as the open loop system and Shell & Tube type heat exchanger or Stainless Steel Plate heat exchanger as the closed loop system.

For this air cooled chiller condenser, we are using Aluminum fin with cooper tube with big volume air blowers.

For refrigerant, there are R22, R407c, R134a, R410a, R404a for option. For refrigerant R134a charged chiller, can be installed and working under 55°C to 60°C high ambient temperature without any high pressure alarm.

Each air cooled chiller from Fidem Chiller has to be checked carefully after production and refrigerant charged before delivery. This is more convenient for all air chiller end users installation and operation when they received Fidem Chiller products. Each air chiller unit is with portable wheels doesn't require cooling tower, which is easy install and remove.



### Air Cooled Water Chiller Technical Specifications

Item		Model	AC-0.5A	AC-1A	AC-1.5A	AC-2A	AC-2.5A	AC-3A	AC-4A	AC-5A	AC-6A	AC-8AD	AC-10AD	AC-12AD	AC-15AD
Cooling Capacity	Kcal/h 50HZ/60HZ		1419	2451	3182	4833	5848	7181	9288	11988	14534	18576	23994	29068	38270
			1703	2941	3784	5800	7018	8617	11146	14386	17441	22291	88793	34882	45924
	KW 50HZ/60HZ		1.65	2.85	3.7	5.62	6.8	8.35	10.8	13.94	16.9	21.6	27.9	33.8	44.5
			1.98	3.42	4.4	6.74	8.2	10.02	12.96	16.73	20.28	25.92	33.48	40.56	53.4
Input Power	KW		0.88	1.35	2	2.25	2.66	3.27	4.07	5.75	6.45	8.25	11.5	12.9	17.45
Max Current	A		5.4	8.2	12	13.6	6.6	8.2	10.1	13.8	15.5	20	27.9	31.3	42.4
Power Source			1PH~220V/3PH~220V/380V 50HZ/60HZ					3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)							
Refrigerant	Type		R22/R407C/134a/404A/410A												
	Control		Thermostatic Expansion Valve												
Compressor	Type		Hermetic Rotary						Hermetic Scroll (piston)						
	Power(KW)		0.45	0.89	1.3	1.73	2.1	2.7	3.5	4.55	5.25	3.5x2	4.55x2	5.25x2	7x2
Condenser	Type		Efficient Finned Copper Tube With Aluminum+Low Noise External Rotor Fan												
	Air flow (m <sup>3</sup> /h)		750	1000	1500	2000	2500	3000	4000	5000	6000	8000	10,000	12,000	15,000
	Air blower (KW)		0.06	0.09	0.15	0.15	0.19	0.14x2	0.19x2	0.19x2	0.25x2	0.45x2	0.45x2	0.45x2	0.6x2
Evaporator	Type		SS Tank coil/ Shell And Tube Type/ Plate Type Heat Exchanger												
	Chilled water (m <sup>3</sup> /h)		0.28	0.49	0.64	0.97	1.12	1.44	1.86	2.4	2.91	3.71	4.8	5.81	7.65
			0.34	0.59	0.76	1.16	1.4	1.72	2.23	2.88	3.49	4.46	5.76	7	9.18
	Water tank(L)		0.6	18.3	27	27	50	50	60	60	110	120	200	200	270
Inlet/outlet pipe		1/2"	1/2"	1/2"	1/2"	1"	1"	1"	1"	1"	1-1/2"	2"	2"	2"	
Water pump	Power(kw)		0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.75	0.75	0.75	1.5	1.5	2.2
	Max lift(m)		22	22	22	22	22	22	22	30	30	25	25	25	28
	Max flow (m <sup>3</sup> )		5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	8.1	13.5	13.5	25.2
Safety protection			Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.												
Dimension	l(mm)		500	560	600	600	720	850	980	1100	1180	1450	1530	1530	1650
	W(mm)		350	420	420	480	550	580	520	580	620	750	750	750	910
	H(mm)		600	720	770	910	1350	1030	1170	1350	1350	1500	1630	1630	1740
Net Weight (KG)			45	70	85	95	125	150	175	195	220	285	350	370	510

**Note:**

1. The above specifications are according to the following design conditions
2. 12°C/7°C.Chilled water inlet/outlet temperature 12°C/7°C.
3. 33°C/38°C.Cooling air inlet/outlet temperature 33°C/38°C.
4. We reserve the right to modify the specification without further notice.



### Air Cooled Water Chiller Technical Specifications

Item \ Model		AC-15AT	AC-20AD	AC-20AF	AC-25AD	AC-25AF	AC-30AD	AC-30AT	AC-40AD	AC-40AF	AC-50AD	AC-50AF	AC-60AF
Cooling Capacity	Kcal/h 50HZ/60HZ	36120	49966	47988	58480	58136	74734	74922	98040	99766	119024	116960	144996
		43344	59959	57586	70176	69763	89681	89990	117648	119712	142829	140352	173995
	KW 50HZ/60HZ	42	98.1	55.8	68	67.6	86.9	87.2	144	116	138.4	136	168.6
		50.4	69.72	66.96	81.6	81.12	104.28	104.64	136.8	139.2	166.08	163.2	202.3
Input Power	KW	17.1	21.73	22	25	24.8	33.39	33.1	44.91	43.3	57.3	54	65
Max Current	A	43.2	52.7	53.3	63.7	61.3	81	80.2	109	106	135.5	128.5	135
Power Source		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)											
Refrigerant	Type	R22/R407C/134a/404A/410A											
	Control	Capillary Thermostatic Expansion Valve											
Compressor	Type	Hermetic Scroll (Piston)											
	Power(KW)	4.55x3	8.96x2	4.55x4	10.8x2	5.25x4	13.62x2	8.96x3	18.78x2	8.96x4	23.6x2	10.8x4	13.62x4
Condenser	Type	Efficient Finned Copper Tube With Aluminum+Low Noise External Rotor Fan											
	Air flow (m <sup>3</sup> /h)	15000	20000	20000	25000	25000	30000	30000	40000	40000	50000	50000	60000
	Air blower (KW)	0.6x2	0.78x2	0.78x2	0.78x2	0.78x2	0.42x6	0.42x6	0.6x6	0.6x6	0.78x6	0.78x6	0.78x6
Evaporator	Type	SS Tank coil/ Shell And Tube Type/ Plate Type Heat Exchanger											
	Chilled water (m <sup>3</sup> /h)	7.22	10	9.6	11.69	11.62	14.94	15	19.6	19.95	23.8	23.4	29
		8.67	11.99	11.51	14.03	13.95	17.93	18	23.52	23.94	28.6	28.1	34.8
	Water tank(L)	270	350	350	350	350	420	420	580	580	580	580	580
Inlet/outlet pipe	2"	2"	2"	2-1/2"	2-1/2"	2-1/2"	2-1/2"	3"	3"	3"	3"	3"	
Water pump	Power(kw)	2.2	2.2	2.2	2.2	2.2	4	4	4	4	5.5	5.5	5.5
	Max lift(m)	28	28	28	28	28	30	30	30	30	32	32	32
	Max flow (m <sup>3</sup> )	25.2	25.2	25.2	25.2	25.2	36	36	36	36	40	40	40
Safety protection		Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.											
Dimension	l(mm)	1650	1850	1850	1900	1900	2250	2250	2200	2200	2200	2200	2870
	W(mm)	910	1000	1000	1050	1050	1400	1400	1600	1600	1700	1700	1550
	H(mm)	1740	1850	1850	1970	1970	1950	1950	2050	2050	2050	2050	2000
Net Weight (KG)		510	630	630	820	820	950	950	1150	1150	1230	1230	1450

**Note:**

1. The above specifications are according to the following design conditions
2. 12°C/7°C.Chilled water inlet/outlet temperature 12°C/7°C.
3. 33°C/38°C.Cooling air inlet/outlet temperature 33°C/38°C.
4. We reserve the right to modify the specification without further notice.



# Water Cooled Water Chiller



## Advantages:

Water cooled water chiller is also named water cooled chiller and water to water chiller with cooling capacity from 9.5KW to 236KW and adjustable temperature control range 5°C to 30°C Compared with Air cooled chiller, Water cooled chiller is higher cooling efficiency. This kind water chiller equips with branded Copeland, Danfoss, Sanyo or Panasonic Hermetic scroll compressors depend on detailed requirements. We have 3 or 4 refrigerant circuits for water chiller models from AW-15WT to AW-60WF according to chiller refrigeration capacity. Each circuit can work or stop independently for chiller safety and energy saving considering.

Each water cooled chiller having stainless steel buffer tank and built-in water pump allows easy installation and high flexibility. All the water piping systems are stainless steel material can make sure the circulation water clean without rust.

For water cooled chiller evaporator, we have some options for different processing requirements, Built-in water tank as open loop system and Shell & Tube type heat exchanger or Stainless Steel Plate heat exchanger as closed loop system.

For water chiller condenser, we are using water cooled shell and tube heat exchanger working together with external water cooling tower.

Each water cooled chiller unit from Fidem Chiller has to be checked carefully after production and refrigerant charged before delivery. This is more convenient for all water chiller end users installation and operation when they received Fidem Chiller products. This kind water chiller unit is with portable wheels, requiring connect with external water cooling tower and circulation water pump for normal working.



### Water Cooled Water Chiller Technical Specifications

Item		Model	AW-3W	AW-4W	AW-5W	AW-6W	AW-8WD	AW-10WD	AW-12WD	AW-15WD	AW-15WT	AW-20WD
Cooling Capacity	Kcal/h 50HZ/60HZ		8170	11266	14018	16340	22532	28036	32680	43172	42140	56760
			9604	13519	16822	19608	27038	33643	39216	51806	50568	68112
	KW 50HZ/60HZ		9.5	13.1	16.3	19	26.2	32.6	38	50.2	49	66
			11.4	15.72	19.56	22.8	31.44	39.12	45.6	60.24	58.8	79.2
Input Power	KW		3.07	3.87	5.3	5.95	7.75	10.6	11.9	16.25	15.85	19.71
Max Current	A		7.5	9.4	12.9	14.4	18.8	25.7	28.9	39.4	38.2	47.8
Power Source		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)										
Refrigerant	Type	R22/R407C/134a/404A/410A										
	Control	Capillary Thermostatic Expansion Valve										
Compressor	Type	Hermetic Scroll (Piston)										
	Power(KW)		2.7	3.5	4.55	5.2	3.5X2	4.55X2	5.2X2	7X2	4.55X3	8.96X2
Condenser	Type	Shell and tube / SS plate type heat exchanger										
	(m <sup>3</sup> /h) Colling Water		2.1	2.9	3.6	4.2	5.7	7.1	8.3	11	10.8	14.4
			2.4	3.3	4.1	4.8	6.6	8.3	9.6	12.8	12.5	16.7
Inlet/Outlet pipe		11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	11/2"	2"	2"	2"	
Evaporator	Type	SS Tank with cooper coil/ Shell And Tube Type/ Plate Type Heat Exchanger										
	Chilled water (m <sup>3</sup> /h)		1.63	2.25	2.8	3.27	4.5	5.6	6.53	8.63	8.43	11.35
			1.96	2.7	3.36	3.92	5.4	6.73	7.84	10.36	10.1	13.62
	Water tank(L)		60	60	60	90	150	200	200	330	330	330
Inlet/outlet pipe		1"	1"	1"	1"	1-1/2"	2"	2"	2"	2"	2"	
Water pump	Power(kw)		0.37	0.37	0.75	0.75	0.75	1.5	1.5	2.2	2.2	2.2
	Max lift(m)		22	22	30	30	25	25	25	28	28	28
	Max flow (m <sup>3</sup> )		5.4	5.4	8.1	8.1	8.1	13.5	13.5	25.2	25.2	25.2
Safety protection		Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.										
Dimension	L (mm)		830	910	830	830	1170	1170	1170	1700	1700	1700
	W (mm)		530	480	530	530	710	710	710	800	800	800
	H (mm)		910	1000	910	910	1300	1300	1300	1600	1600	1600
Net Weight (KG)			135	135	150	165	230	255	265	430	430	510

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 5°C/35°C.
4. We reserve the right to modify the specification without further notice.



### Water Cooled Water Chiller Technical Specifications

Item		Model	AW-20WF	AW-25WD	AW-25WF	AW-30WD	AW-30WT	AW-40WD	AW-40WF	AW-50WD	AW-50WF	AW-60WF
Cooling Capacity	Kcal/h 50HZ/60HZ		56072	66048	65360	83420	85140	114036	113520	134504	132096	169764
			67286	79258	78432	100104	102168	136843	136224	161405	158515	203717
	KW 50HZ/60HZ		65.2	76.8	76	97	99	132.6	132	156.4	153.6	197.4
			76.56	92.16	91.2	116.4	118.8	159.12	158.4	187.68	184.32	197.4
Input Power	KW		20.4	23.8	23	30.99	30.63	41.31	39.59	52.7	48.7	236.88
Max Current	A		48.5	61.7	60	75.2	74.8	100.3	96.6	127.9	119.7	143.9
Power Source		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)										
Refrigerant	Type	R22/R407C/134a/404A/410A										
	Control	Capillary Thermostatic Expansion Valve										
Compressor	Type	Hermetic Scroll (Piston)										
	Power(KW)		4.55X4	10.8X2	5.2X4	13.62X2	8.96X3	18.78X2	8.96X4	23.6X2	10.8X4	13.62X4
Condenser	Type	Shell and tube / SS plate type heat exchanger										
	(m <sup>3</sup> /h) Colling Water		14.4	17	16.7	21.4	21.7	29.3	28.9	35	33.9	43.2
			16.6	19.6	19.3	24.7	25.1	33.8	34.4	40.4	16.6	50
Inlet/Outlet pipe		2"	2"	2 1/2"	2 1/2"	2 1/2"	3"	3"	3"	3"	4"	
Evaporator	Type	SS Tank with cooper coil/ Shell And Tube Type/ Plate Type Heat Exchanger										
	Chilled water (m <sup>3</sup> /h)		11.21	13.21	13.1	16.68	17.02	22.8	22.7	26.9	26.41	33.95
			13.45	15.85	15.68	20.02	20.43	27.36	27.24	32.27	31.7	40.73
	Water tank(L)		330	350	350	450	450	580	580	620	620	620
Inlet/outlet pipe		2"	2"	2"	2-1/2"	2-1/2"	3"	3"	3"	3"	4"	
Water pump	Power(kw)		2.2	2.2	2.2	4	4	4	4	5.5	5.5	5.5
	Max lift(m)		28	28	28	30	30	30	30	32	32	32
	Max flow (m <sup>3</sup> )		25.2	25.2	25.2	36	36	36	36	40	40	40
Safety protection		Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.										
Dimension	L (mm)		1700	1700	1700	1880	1880	2050	2050	2050	2050	2200
	W (mm)		800	800	800	910	910	1050	1050	1050	1050	1100
	H (mm)		1600	1600	1600	1830	1830	1880	1880	1880	1880	1850
Net Weight (KG)			510	630	630	780	780	950	950	1050	1050	1120

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 5°C/35°C.
4. We reserve the right to modify the specification without further notice.



# Air Cooled Screw Chiller



Air cooled screw chiller adopts branded screw type compressor, high efficient copper condenser, evaporator and famous control components, which features compact size, low noise & vibration, high cooling capacity, easy operation.

This kind of air cooled screw chillers are used widely in plastic industry, electronics, plating, chemical industry, ultrasonic wave cooling, printing and others. Fidem Chiller supplies air cooled screw chillers in various standard specifications, and customer screw chillers are also welcomed to match your special needs.

Advantages:

New screw type compressor with 20%-30% higher in cooling efficiency.

Cooling capacity control available at four steps (100%-75%-50%-25%), three steps (100%-66%-33%). High efficiency, low noise and vibration, easy installation.

Environmental protection refrigerant R134a, R407c available.

SIEMENS PLC program control system, human-computer interface with big LED touch panel, running state displaying in multi-language, and self-diagnosis for easy operation and supervision.

Extended industrial interface, convenient for being computer monitor via network to realize remote control.

Multi-safety protection by high and low pressure, compressor overheating, overloading, over temperature, flow switch, phase sequence, phase-missing, exhaust overheating and anti-freezing.



### Air Cooled Screw Water Chiller Technical Specifications

Item	Model	FCAS-80ASH	FCAS-110ASH	FCAS-140ASH	FCAS-160ASH	FCAS-190ASH	FCAS-210ASH	FCAS-250ASH	FCAS-290ASH	FCAS-310ASH	FCAS-340ASH	FCAS-400ASH	FCAS-430ASH	
Cooling Capacity	Kcal/h	68800	94600	122980	135020	164260	180600	212420	245100	266600	292400	348300	369800	
	KW	80	110	143	157	191	210	247	285	310	340	405	430	
Input Power	KW	32.5	43.6	54.7	59.7	73.6	79.6	88.2	101.2	112.8	123.8	145	155	
Max Current	A	57	75	95	103	125	135	151	173	191	211	246	263	
Power Source	3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)													
Refrigerant	Type	R22(R134a/R407c/R404A)												
	Charge	Kg	21	28	35	42	49	56	63	70	77	84	98	112
	Control	Thermostatic Expansion Valve												
Compressor	Type	Semi-hermetic screw												
	Power	(KW)	30	40	50	55	67	73	82	95	104	115	134	142
	Start Mode	Y-Δ												
	Capacity Control	%	0-33-66-100			0-25-50-75-100								
Evaporator	Type	Shell and tube (SS plate heat exchanger)												
	Chilled Water	m <sup>3</sup> /h	13.8	18.9	24.6	27.0	32.8	36.1	42.5	49.0	53.3	58.4	70.0	74
	Water Pressure	KPa	32	32	35	38	42	42	45	43	43	43	41	43
	Pipe Connection	Inch	3"	3"	3"	4"	4"	4"	4"	4"	5"	5"	6"	6"
Condenser	Type	Air cooled type high efficiency finned cooper tube												
Fan	Type	m <sup>3</sup> /h	Big volume & low noise axil fan											
	Power	KW	0.42x6	0.6x6	0.78x6	0.78x6	1.1x6	1.1x6	0.78x8	0.78x8	1.1x8	1.1x8	1.1x10	1.1x12
	Air Volume	m <sup>3</sup> /h	30000	40000	50000	60000	70000	80000	90000	100000	110000	116000	145000	165000
Safety Protection Devices	Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch													
Dimension	Length	mm	2200	2350	2600	2600	2650	2650	3400	3400	3800	3800	4800	5800
	Width	mm	1150	1350	1500	1500	1900	1900	1700	1700	1900	1900	1900	1900
	Height	mm	1980	2000	2100	2100	2200	2200	2200	2200	2200	2200	2200	2200
Net Weight	Kg	1100	1300	1600	1900	2200	2350	2550	2800	2850	2950	3200	3550	
Running Weight	Kg	1300	1500	1840	2200	2530	2700	2950	3250	3350	3560	3650	3950	

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 30°C/38°C.
4. We reserve the right to modify the specification without further notice.



Air Cooled Screw Chiller Technical Specifications														
Item	Model	FCAS-160ADH	FCAS-220ADH	FCAS-285ADH	FCAS-315ADH	FCAS-380ADH	FCAS-420ADH	FCAS-495ADH	FCAS-570ADH	FCAS-620ADH	FCAS-680ADH	FCAS-810ADH	FCAS-860ADH	
Cooling Capacity	Kcal/h	137600	189200	245960	270040	328520	361200	424840	490200	533200	584800	696600	739600	
	KW	160	220	286	314	382	420	494	570	620	680	810	860	
Input Power	KW	64.7	86.6	106.2	118.8	145	159.2	177.2	207.6	225.6	247.6	290	310.4	
Max Current	A	114	149	185	205	250	275	308	358	388	428	500	533	
Power Source	3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)													
Refrigerant	Type	R22(R134a/R407c/R404A)												
	Charge	Kg	21x2	28x2	35x2	42x2	49x2	56x2	63x2	70x2	77x2	84x2	98x2	112x2
	Control	Thermostatic Expansion Valve												
Compressor	Type	Semi-Hermetic Screw												
	Power	(KW)	30x2	40x2	50x2	55x2	67x2	73x2	82x2	95x2	104x2	115x2	134x2	142x2
	Start Mode	Y-Δ												
	Capacity Control	%	0-33-66-100			0-25-50-75-100								
Evaporator	Type	Shell and tube (SS plate heat exchanger)												
	Chilled Water	m <sup>3</sup> /h	27.5	37.8	49.1	54	65.7	72.2	85	98	106.6	117	139.3	147.9
	Water Pressure	KPa	32	32	35	38	42	42	45	43	43	43	41	43
	Pipe Connection	Inch	4"	4"	4"	5"	6"	6"	6"	6"	8"	8"	8"	10"
Condenser	Type	Air cooled type high efficiency finned cooper tube												
Fan	Type	m <sup>3</sup> /h	Big volume & low noise axil fan											
	Power	KW	0.78x6	1.16	0.78x8	1.1x8	1.1x10	1.1x12	1.1x12	1.1x16	1.1x16	1.1x16	1.1x20	1.1x24
	Air Volume	m <sup>3</sup> /h	60000	80000	100000	116000	145000	165000	180000	205000	225000	242000	285000	325000
Safety Protection Devices	Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection													
Dimension	Length	mm	2600	2650	3400	3800	4800	5800	5800	7800	7800	8000	9800	11600
	Width	mm	1500	1900	1700	1900	1900	1900	2200	2000	2200	2200	2200	2200
	Height	mm	2100	2200	2200	2200	2200	2200	2300	2250	2250	2300	2350	2350
Net Weight	Kg	2050	2520	2980	3180	3420	3730	3950	4330	4650	4930	5450	58520	
Running Weight	Kg	2360	2870	3420	3690	3780	4180	4380	4650	4920	5360	5830	6530	

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 30°C/38°C.
4. We reserve the right to modify the specification without further notice.



# Water Cooled Screw Chiller



Fidem Chiller water cooled screw chiller adopts BITZER, HANBELL screw type compressor, high efficient copper condenser, evaporator and famous control components, which features compact size, low noise & vibration, high cooling capacity, easy operation and durability.

Water cooled screw chiller has single head series, double heads series and four heads series depend on cooling capacity. All this kind of water cooled screw chillers are used widely in plastic industry, electronics, plating, chemical industry, ultrasonic wave cooling, printing and others. Fidem Chiller supplies water cooled screw chillers in various standard specifications, and customer screw chillers are also welcomed to match your special needs.

#### Advantages:

New screw type compressor with 20%-30% higher in efficiency. low noise and vibration, easy to install. Cooling capacity control available at four steps (100%-75%-50%-25%), three steps (100%-66%-33%). High efficiency, Environmental protection refrigerant R134a, R407c available for different ambient temperature.

SIEMENS PLC program control system, human-computer interface with big LED touch panel, running state displaying in multi-language, and self-diagnosis for easy operation and supervision.

Extended industrial interface, convenient for being computer monitor via network to realize remote control.

Multi-safety protection by high and low pressure, compressor overheating, overloading, over temperature, flow switch, phase sequence, phase-missing, exhaust overheating and anti-freezing.



### Water Cooled Screw Chiller Technical Specifications

Item		Model	FCW-100WSH	FCW-135WSH	FCW-175WSH	FCW-190WSH	FCW-230WSH	FCW-255WSH	FCW-300WSH	FCW-350WSH	FCW-375WSH	FCW-415WSH
Cooling Capacity	Kcal/h		86000	116100	1550500	163400	197800	219300	258000	301000	322500	356900
	KW		100	135	175	190	230	255	300	350	375	415
Input Power	KW		22	30	37	42	51	56	65	75	80	90
Max Current	A		40	53	67	73	89	97	109	126	137	153
Power Source			3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)									
Refrigerant	Type		R22(R134a/R407c/R404A)									
	Charge	Kg	17	22	27	33	38	43	50	55	60	66
Control			Thermostatic Expansion Valve									
Compressor	Type		Semi-Hermetic Screw									
	Power	KW	22	30	37	42	51	56	65	75	80	90
	Start Mode		Y-Δ									
Capacity Control	%		0-33-66-100			0-25-50-75-100						
Evaporator	Type		Shell and tube (SS plate heat exchanger)									
	Chilled Water	m <sup>3</sup> /h	17.2	23.2	30	32.7	40	43.9	51.6	60.2	64.5	71.4
	Water Pressure	KPa	35	35	35	38	40	42	42	45	45	43
Pipe Connection	Inch	3"	3"	3"	3"	4"	4"	4"	4"	4"	4"	4"
Condenser	Type		Water Cooled Type Shell And Tube									
	Cooling Water	m <sup>3</sup> /h	21	28.4	36.6	40	48.3	53.5	62.8	73	78.2	86.8
	Water Pressure	KPa	42	42	42	43	42	43	43	45	45	45
Pipe Connection	Inch	3"	3"	3"	4"	4"	4"	4"	4"	4"	5"	5"
Safety Protection			Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch.									
Dimension	Length	mm	2150	2350	2450	2600	2750	2800	2800	2900	2900	3000
	Width	mm	560	620	650	680	780	950	950	950	950	1200
	Height	mm	1550	1650	1650	1650	1650	1800	1950	1950	1950	1580
Net Weight	Kg	650	900	1050	1200	1550	1800	1950	2050	2050	2350	
Running Weight	Kg	820	1050	1200	1400	1800	2100	2200	2350	2380	2530	

Item		Model	FCW-470WSH	FCW-500WSH	FCW-560WSH	FCW-590WSH	FCW-610WSH	FCW-720WSH	FCW-790WSH	FCW-840WSH	FCW-940WSH	
Cooling Capacity	Kcal/h		425700	447200	490200	533200	550400	645000	705200	756800	851400	
	KW		495	520	570	620	640	750	820	880	990	
Input Power	KW		103	109	118	127	131	151	167	177	199	
Max Current	A		177	187	203	218	225	260	288	306	345	
Power Source			3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)									
Refrigerant	Type		R22(R134a/R407c/R404A)									
	Charge	Kg	82	88	94	100	110	121	132	141	165	
Control			Thermostatic Expansion Valve									
Compressor	Type		Semi-Hermetic Screw									
	Power	KW	103	109	118	127	131	151	167	177	199	
	Start Mode		Y-Δ									
Capacity Control	%		0-25-50-75-100									
Evaporator	Type		Shell and tube (SS plate heat exchanger)									
	Chilled Water	m <sup>3</sup> /h	85.1	89.4	98	106.6	110	129	141	151.3	170.4	
	Water Pressure	KPa	40	41	43	45	45	45	45	43	45	
Pipe Connection	Inch	5"	5"	6"	6"	6"	8"	8"	10"	10"		
Condenser	Type		Water Cooled Type Shell And Tube									
	Cooling Water	m <sup>3</sup> /h	102.8	108.2	118.3	128.5	132.6	155	169.7	181.8	20.4	
	Water Pressure	KPa	48	45	46	48	46	48	48	45	47	
Pipe Connection	Inch	5"	5"	6"	6"	6"	8"	8"	10"	10"		
Safety Protection			Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch.									
Dimension	Length	mm	3000	3100	3300	3500	3800	3900	4100	4300	4500	
	Width	mm	1200	1250	1380	1380	1380	1380	1450	1480	1480	
	Height	mm	1580	1630	1630	1750	1750	1750	1780	1780	1780	
Net Weight	Kg	2500	2500	2650	2850	3150	3350	3620	3850	4160		
Running Weight	Kg	2700	3000	3100	3350	3750	4000	4300	4600	5000		

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 25°C/30°C.
4. We reserve the right to modify the specification without further notice.



### Water Cooled Screw Chiller Technical Specifications

Item		Model	FCW-200WDH	FCW-270WDH	FCW-350WDH	FCW-380WDH	FCW-460WDH	FCW-510WDH	FCW-600WDH	FCW-700WDH	FCW-750WDH	FCW-830WDH	
Cooling Capacity	Kcal/h		172000	232200	301000	326800	395600	438600	516000	602000	645000	713800	
	KW		200	270	350	380	460	460	600	700	750	830	
Input Power	KW		44	60	74	84	102	102	130	150	160	180	
Max Current	A		40	53	67	73	89	89	109	126	137	153	
Power Source		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)											
Refrigerant	Type	R22(R134a/R407c/R404A)											
	Charge	Kg	17X2	22X2	27X2	33X2	38X2	43X2	50X2	55X2	60X2	66X2	
Control		Thermostatic Expansion Valve											
Compressor	Type	Semi-Hermetic Screw											
	Power	KW	22X2	30X2	37X2	42X2	51X2	56X2	65X2	75X2	80X2	90X2	
	Start Mode		Y-Δ										
Capacity Control	%	0-33-66-100				0-25-50-75-100							
Evaporator	Type	Shell and tube (SS plate heat exchanger)											
	Chilled Water	m <sup>3</sup> /h	34	46	60	65	79	88	103	120	120	143	
	Water Pressure	KPa	35	35	35	38	40	42	42	45	45	43	
Pipe Connection	Inch	4"	4"	4"	5"	5"	6"	6"	6"	8"	8"		
Condenser	Type	Water Cooled Type Shell And Tube											
	Cooling Water	m <sup>3</sup> /h	42	57	73	80	97	107	126	146	156	174	
	Water Pressure	KPa	42	42	42	43	42	43	43	45	45	45	
Pipe Connection	Inch	4"	4"	4"	5"	6"	4"x2	4"x2	4"x2	5"x2	5"x2		
Safety Protection		Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch.											
Dimension	Length	mm	2750	2800	2800	2950	2950	3150	3480	3480	3480	3650	
	Width	mm	750	780	780	810	810	850	875	875	895	1120	
	Height	mm	1650	1650	1650	1650	1750	1750	1850	1850	1850	1950	
Net Weight	Kg	1650	1800	1850	2200	2450	2650	2800	2800	3450	3750		

Item		Model	FCW-990WDH	FCW-1040WDH	FCW-1140WDH	FCW-1240WDH	FCW-1280WDH	FCW-1500WDH	FCW-1640WDH	FCW-1760WDH	FCW-1980WDH	
Cooling Capacity	Kcal/h		851400	894400	980400	1066400	1100800	1290000	1410400	1513600	1702800	
	KW		990	1040	1140	1240	1280	1500	1640	1760	1980	
Input Power	KW		206	218	236	254	262	302	334	354	398	
Max Current	A		354	374	406	436	450	520	576	612	490	
Power Source		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)										
Refrigerant	Type	R22(R134a/R407c/R404A)										
	Charge	Kg	82X2	88X2	94X2	100X2	110X2	121X2	132X2	143X2	165X2	
Control		Thermostatic Expansion Valve										
Compressor	Type	Semi-Hermetic Screw										
	Power	KW	103X2	109X2	118X2	127X2	131X2	151X2	167X2	177X2	199X2	
	Start Mode		Y-Δ									
Capacity Control	%	0-25-50-75-100										
Evaporator	Type	Shell and tube (SS plate heat exchanger)										
	Chilled Water	m <sup>3</sup> /h	170	179	196	231	220	258	282	303	340	
	Water Pressure	KPa	40	41	43	45	45	45	45	43	45	
Pipe Connection	Inch	8"	8"	8"	8"	10"	10"	10"	10"x2	12"		
Condenser	Type	Water Cooled Type Shell And Tube										
	Cooling Water	m <sup>3</sup> /h	206	216	237	257	265	310	339	364	409	
	Water Pressure	KPa	48	45	46	48	46	45	48	45	47	
Pipe Connection	Inch	5"x2	5"x2	6"x2	6"x2	6"x2	10"	8"x2	10"x2	10"x2		
Safety Protection		Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch.										
Dimension	Length	mm	3650	3650	3750	3750	4230	4230	4350	4350	4420	
	Width	mm	1120	1220	1300	1450	1380	1480	1450	1560	1650	
	Height	mm	1950	1950	2100	2150	2150	2250	2250	2300	2450	
Net Weight	Kg	3950	4100	4450	4700	5000	5250	5500	5750	6000		
Running Weight	Kg	4760	4770	5270	5460	5800	6100	6400	6680	6970		

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 25°C/30°C.
4. We reserve the right to modify the specification without further notice.



# Air Cooled Glycol Chiller



## Advantages:

Air cooled glycol chiller is also called Air cooled low temperature chiller with temperature controlling range from 0°C to -30°C is widely used in plastic industry, electronics, plating, chemical industry, ultrasonic wave cooling, printing and others. This kind of air cooled industrial chiller can precisely control the temperature requested by the modernized machinery production, and it greatly improved the production efficiency and quality. Fidem Chiller air cooled industrial chiller doesn't require cooling tower, which is easy to install and remove. This air cooled glycol chiller having built-in water tank and glycol water pump but shell and tube or SS plate heat exchanger are also available depend on client requirements.

Fidem Chiller low temperature chiller is the best choice for the modernized industry and it features easy operation, reasonable design, high quality and various models.

Also we offer a wide range of standard air cooled low temperature chillers, which can be found in following specification tables, but standard chillers may not always fit your unique requirements. Our application specialists can suggest units that are customized to meet your unique needs.



### Air Cooled Glycol Chiller Technical Specifications

Item		Model	Temp	FCL-3AL	FCL-5AL	FCL-6AL	FCL-8AL	FCL-10AL	FCL-12AL	FCL-15AL	FCL-20AL	FCL-25AL	FCL-30AL	FCL-40AL
Cooling Capacity	KW	50HZ/60HZ	-10°C	3.80 4.60	6.30 7.60	7.50 9.00	9.10 10.90	13.20 15.80	16.10 19.30	19.50 23.40	26.40 31.70	32.20 38.60	39.00 46.80	52.00 62.40
			-20°C	1.90 2.30	3.00 3.60	4.00 4.80	6.00 7.20	7.10 8.50	8.00 9.60	13.90 16.70	16.90 20.30	20.80 25.00	24.40 29.30	30.80 37.00
			-30°C	1.00 1.20	1.60 1.90	1.90 2.30	2.70 3.20	3.20 3.80	3.80 3.60	6.10 7.30	9.50 11.4	12.10 14.50	14.30 17.10	19.00 22.80
			-35°C	0.67 0.80	1.04 1.25	1.50 1.80	2.30 2.80	2.80 3.40	2.80 3.30	4.30 5.20	6.35 7.62	8.30 10.00	10.10 12.10	13.35 16.00
Evaporator	Water(m <sup>3</sup> /h)		-10°C	0.65 0.79	1.10 1.30	1.30 1.50	1.60 1.90	2.30 2.70	1.38 1.65	3.40 4.10	4.50 5.40	5.60 6.70	6.70 8.10	9.00 10.80
			-20°C	0.33 0.40	0.52 0.62	0.69 0.83	1.10 1.30	1.23 1.47	0.65 0.80	2.39 2.87	2.85 3.45	3.57 4.30	4.20 5.04	5.30 6.36
			-30°C	0.17 0.21	0.28 0.33	0.33 0.40	0.47 0.55	0.55 0.65	0.52 0.62	1.10 1.30	1.60 2.00	2.10 2.50	2.46 2.90	3.30 3.90
			-35°C	0.12 0.14	0.18 0.22	0.26 0.31	0.40 0.48	0.48 0.58	0.12 0.14	0.72 0.89	1.10 1.31	1.43 1.72	1.74 2.90	2.30 2.76
	Type	Shell And Tube Type/Plate Type Heat Exchanger												
Intet/Outlet Pipe	Inch	1"	1"	1"	1"	1-1/2"	1-1/2"	2"	2"	2"	2-12"	2-1/2"		
Input Power	KW	3.18	4.86	5.61	7.25	9.4	10.9	13.5	18.8	22.55	28.5	37.5		
Max Current	A	7.8	12	13.7	18	23	26.5	33	46	55	69	91		
Power Source	3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)													
Refrigerate	Type	R22(R404A/R507))												
	Control	Thermostatic Expansion Valve												
Compressor	Type	Hemetic Scroll (Piston)												
	Power	KW	2.25	3.75	4.5	6	7.5	9	11.3	7.5*2	9.37*2	11.3*2	30	
Condenser	Type	Efficient finned copper tube with aluminum+Low noise external rotor fan												
Water Pump	Power	KW	0.75	0.75	0.75	0.75	1.1	1.1	1.5	2.2	2.2	4	5.5	
	Max Lift	m	20	20	20	20	20	20	20	20	20	25	20	
Protection	Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection.													
Dimension	Length	mm	980	1150	1150	1350	1500	1500	1860	2020	2020	2200	2350	
	Width	mm	520	560	560	680	760	760	850	950	950	1150	1350	
	Height	mm	1170	1215	1215	1530	1660	1660	1900	2000	2000	1980	2000	
Net Weight (KG)	Kg	135	165	210	310	450	530	750	835	920	1080	1125		

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 3°C/8°C.
3. Cooling air inlet/outlet temperature 30°C/38°C.
4. We reserve the right to modify the specification without further notice.



# Water Cooled Glycol Chiller



## Advantages:

Danfoss/Copeland hermetic scroll compressor.

For temperature below  $-15^{\circ}\text{C}$ , semi-hermetic piston type compressor also available.

Shell and tube evaporator, plate type heat exchanger for option. Water cold shell and tube condenser, connect with cooling tower.

Multi-protection devices to make sure the chiller and the equipment running safely. Large flow volume centrifugal pump, higher pressure available on request.

Schneider electrical components. Danfoss/Emerson thermal components.

Compressor inner protection, Over current protection, High/low pressure protection, Over temperature protection, Flow switch, Phase sequence/phase missing protection, Low coolant level protection, Anti freezing protection, Exhaust overheat protection



Water Cooled Glycol Chiller Technical Specifications													
Item	Model	Temp	FCL-3 WL	FCL-5 WL	FCL-6 WL	FCL-8 WL	FCL-10 WL	FCL-12 WL	FCL-15 WL	FCL-20 WL	FCL-25 WL	FCL-30 WL	FCL-40WL
Cooling Capacity	KW 50HZ/60HZ	-10°C	4.50 5.40	7.70 9.30	9.10 11.00	11.70 14.10	16.10 19.30	19.10 22.90	23.30 28.00	32.20 38.60	38.20 45.80	46.60 56.00	62.50 75.00
		-20°C	2.70 3.24	4.10 4.92	5.30 6.24	8.10 9.72	9.80 11.76	10.60 12.72	13.60 16.32	20.40 24.48	25.00 28.80	29.4 35.28	38.50 46.20
		-30°C	1.31 1.57	2.10 2.52	2.80 3.36	4.30 5.36	4.90 5.88	5.60 6.72	7.90 9.48	11.20 13.44	13.70 16.44	16.1 19.32	21.20 25.44
		-35°C	0.85 1.20	1.30 1.56	1.90 2.28	2.80 3.36	3.30 3.96	380 4.56	5.30 6.38	7.80 9.36	9.40 11.28	13.8 16.56	17.80 21.36
Condenser	Type	Shell and tube type											
	Cooling Water (m³/h)	-10°C	1.00 1.21	1.70 2.06	2.03 2.44	2.62 3.14	3.60 4.32	4.27 5.12	5.20 6.24	7.23 8.67	8.54 10.25	10.40 12.50	14.00 16.80
		-20°C	0.61 0.74	0.92 1.11	1.09 1.31	1.82 2.18	2.03 2.43	2.37 2.84	3.04 3.65	4.56 5.48	5.60 6.17	6.58 7.90	8.51 10.33
		-30°C	0.31 0.37	0.49 0.58	0.65 0.78	1.00 1.20	1.14 1.36	1.30 1.56	1.84 2.20	2.61 3.13	3.19 3.82	3.74 4.49	4.93 6.00
		-35°C	0.20 0.24	0.31 0.36	0.44 0.52	0.65 0.78	0.77 0.92	0.89 1.06	1.23 1.48	1.81 2.17	2.18 2.62	3.20 3.84	4.13 4.96
Outlet Pipe	Inch	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"	2"	2-1/2"	3"	3"	
Evaporator	Type	Shell and tube type/Plate type heat exchanger											
	Chilled Water (m³/h)	-10°C	0.77 0.93	1.33 1.59	1.56 1.88	2.01 1.73	2.77 3.32	3.28 3.94	4.00 4.8	5.56 6.65	6.57 7.89	8.10 9.62	10.75 12.30
		-20°C	0.47 0.56	0.71 0.85	0.91 1.10	1.40 1.67	1.69 2.02	1.82 2.19	2.34 2.81	3.51 4.21	4.30 5.16	5.06 6.07	6.62 7.94
		-30°C	0.23 0.27	0.36 0.44	0.48 0.58	0.74 0.89	0.84 1.01	0.96 1.16	1.36 1.63	1.93 2.31	2.36 2.83	2.77 3.32	3.65 4.48
		-35°C	0.15 0.18	0.22 0.27	0.33 0.39	0.48 0.58	0.57 0.68	0.65 0.78	0.92 1.10	1.34 1.61	1.62 1.94	2.37 2.85	3.06 3.67
Inlet/Outlet Pipe	Inch	1"	1"	1"	1"	1-1/2"	1-1/2"	2"	2"	2-1/2"	2-1/2"	3"	
Input Power	KW	3	45	5.25	6.75	8.6	10.1	12.8	4.56	21	26.5	34	
Max Current	A	7.5	11	13	16.5	21	25	31	42	51	64	83	
Power Source	3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)												
Refrigerant	Type	R22(R404A/R507)											
	Control	Thermostatic expansion valve											
Compressor	Type	Hermetic scroll ( Piston )											
	Power(KW)	KW	2.25	3.75	4.5	6	7.5	9	11.3	7.5*2	9.4*2	11.3*2	30
Water Pump	Power	(KW)	0.75	0.75	0.75	0.75	1.1	1.1	1.5	2.2	2.2	4	4
	Max Lift	m	18	18	18	18	20	20	20	20	20	25	20
Safety Protection	Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection												
Dimension	Length	mm	910	910	910	1250	1250	1250	1600	1600	1950	1950	2000
	Width	mm	480	480	480	680	680	680	750	750	850	850	980
	Height	mm	1000	1000	1000	1380	1380	1380	1600	1600	1700	1700	1700
Net Weight (KG)	kg	130	150	180	230	260	330	420	460	680	720	870	

Note:

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 3°C/8°C.
3. Cooling air inlet/outlet temperature 40°C
4. We reserve the right to modify the specification without further notice.



# Air Cooled Glycol Screw Chiller



## Advantages:

Air cooled glycol screw chiller is widely adopted in manufacturing process for industries such as non-ferrous smelting, chemical and pharmaceutical, food and beverage, etc.

Water temperature range  $-30^{\circ}\text{C}$  to  $0^{\circ}\text{C}$ .

Semi-hermetic screw compressor. 4 grade capacity control, 25%-50%-75%-100%.

Shell and tube evaporator, high efficiency and cleanable (plate type heat exchanger available on request). Aluminum fin type condenser with adequate heat exchanging surface.

Refrigeration solenoid valve to protect compressor when stop.

Refrigerant sight glass to further monitor the refrigerant status in the system, so to check the unit running status. Siemens PLC control, overall monitoring of unit running status.

Axial fan motor with independent motor support bracket.

Schneider electrical components. Danfoss/Emerson thermal components.

## Unit Safety Protection:

Compressor internal protection, Over current protection, High/low pressure protection, High discharge temperature alarm, Over temperature protection, Flow switch, Phase sequence/phase missing protection, Anti freezing protection.



### Air Cooled Glycol Screw Chiller Specifications

Item			Model	FCAS-40ASL	FCAS-50ASL	FCAS-60ASL	FCAS-70ASL	FCAS-80ASL	FCAS-90ASL	FCAS-100ASL	FCAS-120ASL	FCAS-140ASL
Cooling Capacity	Temp	-10°C	KW	64	85	92	112	123	146	168	201	239
		-20°C		43	56	61	75	82	97	112	133	159
		-30°C		32	42	45	56	61	72	83	100	118
Input Power			KW	43.6	53.2	59.8	71.8	77.8	89.2	101.4	121.4	142.6
Max Current			A	75	95	103	125	135	151	173	211	246
Power Source			3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)									
Refrigerant	Type		R22/R404A									
	Charge	kg	31	39	47	54	62	70	77	93	109	
	Control		Thermostatic expansion valve									
Compressor	Type		Semi-hermetic screw									
	Power	KW	40	50	55	67	73	82	95	115	133	
	Start Mode		Y-Δ									
	Capacity Control	%	0-25-50-75-100									
Evaporator	Type	Temp	Shell and tube (SS plate heat exchanger)									
	Chilled Water	-10°C	m <sup>3</sup> /h	11	14.6	15.8	19.3	21.2	25.1	28.9	34.6	41.4
		-20°C		7.4	9.6	10.5	12.9	14.1	16.7	19.3	22.9	27.3
		-30°C		5.5	7.2	7.7	9.6	10.5	12.4	14.3	17.2	20.3
	Water Pressure	KPa	32	35	38	42	42	45	43	43	41	
	Pipe Connection	Inch	3"	3"	4"	4"	4"	4"	4"	4"	5"	5"
Condenser	Type		Air cooled type high efficiency finned cooper tube									
Fan	Type	m <sup>3</sup> /h	Big volume & low noise axil fan									
	Power	KW	1.1X6	0.78X8	1.1X8	1.1X10	1.1X12	1.1X12	1.1X16	1.1X16	1.1X20	
	Air Volume	m <sup>3</sup> /h	80000	100000	116000	145000	165000	80000	205000	242000	285000	
Safety Protection Devices			Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.									
Dimension	Length	mm	2350	2600	2600	2650	2650	3400	3400	3800	4800	
	Width	mm	1350	1500	1500	1900	1900	1700	1700	1900	1900	
	Height	mm	2000	2100	2100	2200	2200	2200	2200	2200	2200	
Net Weight (KG)			kg	1350	1650	1950	2250	2400	2600	2860	3000	3250
Running Weight			kg	1550	1890	2250	2580	2750	3000	3300	3450	3700

**Note:**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 3°C/8°C.
3. Cooling air inlet/outlet temperature 30°C/38°C.
4. We reserve the right to modify the specification without further notice.



# Water Cooled Glycol Screw Chiller



## Advantages:

Water cooled screw glycol chillers features top brand semi-hermetic screw compressor such as Germany Bitzer & Taiwan Hanbell brand. Same as other water chillers with screw compressor, water cooled screw glycol chillers are also equipped with Siemens PLC and 10-inch touch screen, 4-grade capacity control for minimizing compact to electricity grid. Minimum cooling water temperature  $-30^{\circ}\text{C}$ .

Bitzer/Hanbell semi-hermetic screw compressor, 4 grade capacity control to minimize the impact to power network Danfoss/Alco thermal components.

Schneider electricity parts, Siemens programable logic controller. 10 inch touch screen user-friendly interface. Uniquely designed shell and tube condensers.

Rationally structured shell and tube evaporator, avoid blockage to the maximum. Reserved port for chilled water pump control.

## Optional Features:

Complete corrosion resistance water loop for bine coolant application. Remote control for distance operation.

Central integrated control for multi-units.

Plate type evaporator and condenser to get more compact unit size(only recommend for high water quality application) Flooded shell and tube evaporator



### Water Cooled Glycol Screw Chiller Specifications

Item			Model	FCWS-40WSL	FCWS-50WSL	FCWS-60WSL	FCWS-70WSL	FCWS-80WSL	FCWS-90WSL	FCWS-100WSL	FCWS-120WSL
Cooling Capacity	Temp	-10°C	KW	72	93.8	102	124	136	161	186	222
		-20°C		48	63	69	84	92	108	125	149
		-30°C		29.5	41.3	49	60	66	78	90	107
Input Power			KW	30	38	42	51	56	63	73	88
Max Current			A	91	121	128	153	171	193	220	268
Power Source			3PH380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)								
Refrigerant	Type		R22/R404A								
	Charge	kg	28	36	43	50	58	65	72	86	
	Control										
Compressor	Type										
	Power	KW	30	38	42	51	56	63	73	88	
	Start Mode		Y-Δ								
	Capacity Control	%	0-25-50-75-100								
Evaporator	Type	Temp	Shell and tube (SS plate heat exchanger)								
	Chilled Water	-10°C	m³/h	12.4	16.1	17.5	21.3	23.4	27.7	32	38.2
		-20°C		8.3	10.8	11.9	14.4	15.8	18.6	21.5	25.6
		-30°C		5.1	7.1	8.4	10.3	11.3	13.4	15.5	18.4
	Water Pressure	KPa	32	35	38	42	42	45	40	43	
	Pipe Connection	Inch	3"	3"	3"	3"	4"	4"	4"	4"	5"
Condenser	Type		Shell and tube								
Fan	Type	m³/h	25	32.3	35.5	43.3	47.5	60	65	77	
	Power	KPa	42	42	45	43	43	45	48	46	
	Air Volume	Inch	3"	3"	3"	3"	4"	4"	4"	4"	5"
Safety Protection Devices			Inner thermostat for compressor motor, unit overload relay, high and low pressure switch, freeze protection thermostat, reverse phase protection relay, discharge gas thermostat, flow switch.								
Dimension	Length	mm	2500	2550	2600	2750	2800	2800	2900	3000	
	Width	mm	780	780	780	780	950	950	950	1200	
	Height	mm	1650	1650	1650	1650	1800	1950	1950	1580	
Net Weight (KG)			kg	920	1100	1250	1600	1850	1900	2100	2550
Running Weight			kg	1050	1260	1430	1850	2150	2200	2400	2750

**Note :**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 3°C/8°C.
3. We reserve the right to modify the specification without further notice.



# Welding / Laser / Lab / MRI Chiller



Welding / Laser / Lab / MRI chiller is mainly applied for laser process machine, welding machine, LED industry, lab testing, medical CT and MRI system etc., for maintaining required temperature of processing equipment, so to ensure normal running.

**Advantages:**

Large volume 316# SS water storage tank and SS coil evaporator.

Built-in high pressure stainless steel chilled water pump, ensuring water quality and pressure. Well-known brand exhaust fan with large volume, excellent heat dissipation and low noise.

Precision filtering device can be offered upon request, including particulate matter filtration and deionizer, ensuring high cooling water quality, extending chiller's service life.

Multi-protection devices: Flow switch, water pressure switch, acoustic and optical alarm system with remote control

Protection signal ouFCut: Water flow alarm signal ouFCut, water level alarm signal ouFCut, temperature protection alarm signal ouFCut, ensuring chiller running safely.



### Welding / Laser / Lab / MRI Chiller Technical Specifications

Item		Model	AC-0.5AS	AC-1AS	AC-1.5AS	AC-2AS	AC-2.5AS	AC-3AS	AC-4AS	AC-5AS	AC-6AS	AC-8AS	AC-10AS	AC-12AS	AC-15AS
Cooling Capacity	Kcal/h 50HZ/60HZ		1419	2451	3182	4833	5848	7181	9288	11988	14534	18576	23994	29068	38270
			1703	2941	3784	5800	7018	8617	11146	14386	17441	3784	28793	34882	45924
	Kcal/h 50HZ/60HZ		1.65	2.85	3.7	5.62	6.8	8.35	10.8	13.94	16.9	3.7	27.9	33.8	44.5
			1.98	3.42	4.4	6.74	8.2	10.02	12.96	16.73	20.28	4.4	33.48	40.56	53.4
Input Power	KW		0.88	1.35	2	2.25	2.66	3.27	4.07	5.75	6.45	8.25	11.5	12.9	17.45
Max Current	A		5.4	8.2	12	13.6	6.6	8.2	10.1	13.8	15.5	20	27.9	31.3	42.4
Power Source			1PH~220V/3PH~220V/380V 50HZ/60HZ					3PH~380V/415V/480V 50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)							
Refrigerant	Type	R22/R407C/134a/404A/410A													
	Control	Thermostatic expansion valve													
Compressor	Type	Hermetic Rotary						Hermetic scroll ( Piston )							
	Power(KW)		0.45	0.89	1.3	1.73	2.1	2.7	3.5	4.55	5.25	3.5x2	4.55x2	5.25x2	7x2
Condenser	Type	Efficient finned copper tube with aluminum+Low noise external rotor fan													
	Air Flow (m <sup>3</sup> /h)		750	1000	1500	2000	2500	3000	4000	5000	6000	8000	10000	12000	15000
	Air Blower		0.06	0.09	0.15	0.15	0.19	0.14x2	0.14x2	0.19x2	0.19x2	0.25x2	0.45x2	0.45x2	0.6x2
Evaporator	Type	SS Tank coil/ Shell and tube type/Plate type heat exchanger													
	(m <sup>3</sup> /h) Chilled Water		0.28	0.49	0.64	0.97	1.12	1.44	1.86	2.4	2.91	3.71	4.8	5.81	7.65
			0.34	0.59	0.76	1.16	1.4	1.72	2.23	2.88	3.49	4.46	5.76	7	9.18
	Chilled Water		10.6	18.3	27	27	50	50	60	60	110	120	200	200	270
Inlet/Outlet Pipe		1/2"	1/2"	1/2"	1/2"	1"	1"	1"	1"	1"	1-1/2"	2"	2"	2"	
Water Pump	Power(kw)		0.37	0.37	0.37	0.37	0.37	0.37	0.37	0.75	0.75	0.75	1.5	1.5	2.2
	Max Lift(m)		22	22	22	22	22	22	22	30	30	25	25	25	28
	Max Flow(m <sup>3</sup> /h)		5.4	5.4	5.4	5.4	5.4	5.4	5.4	8.1	8.1	8.1	13.5	13.5	25.2
Safety Protection			Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.												
Dimension	Length (mm)		550	550	600	600	720	980	980	1150	1150	1350	1500	1500	1860
	Width (mm)		350	450	500	500	550	520	520	560	560	680	760	760	850
	Height (mm)		695	845	985	985	1350	1170	1170	1215	1215	1530	1660	1660	1900
Net Weight (KG)			45	62	85	95	125	152	175	185	215	283	345	382	580

**Note :**

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 33°C/38°C.
4. We reserve the right to modify the specification without further notice.



# Industrial Oil Cooling Chiller



Oil Cooling Chillers designed to provide precise and accurate temperature control of industrial lubrication oils and hydraulic cutting fluids for a wide variety of industrial applications, with cooling capacities from 0.98kW to 21kW.

Extremely compact and easy to use, Fidem Chiller is designed for safe and reliable operation in the most varied working conditions, providing precise and accurate control of hydraulic oil/cutting fluid temperature.

This Oil Chiller can be widely used for some typical industrial applications like Machine tools, Cutting machines, Plastic injection moulding machines, Other processes with hydraulic oil circuits

#### Advantages:

Hydraulic circuit composed of stainless steel components and stainless steel plate evaporator to prevent oil contamination.

Completely configurable with many options and kits to fit the needs of a wide variety of industrial applications Maximum ambient

temperature up to 48° C on standard units, tropicalization up to 53° C

Compact design provides a space saving and easy to install solution

High reliability and low energy consumption



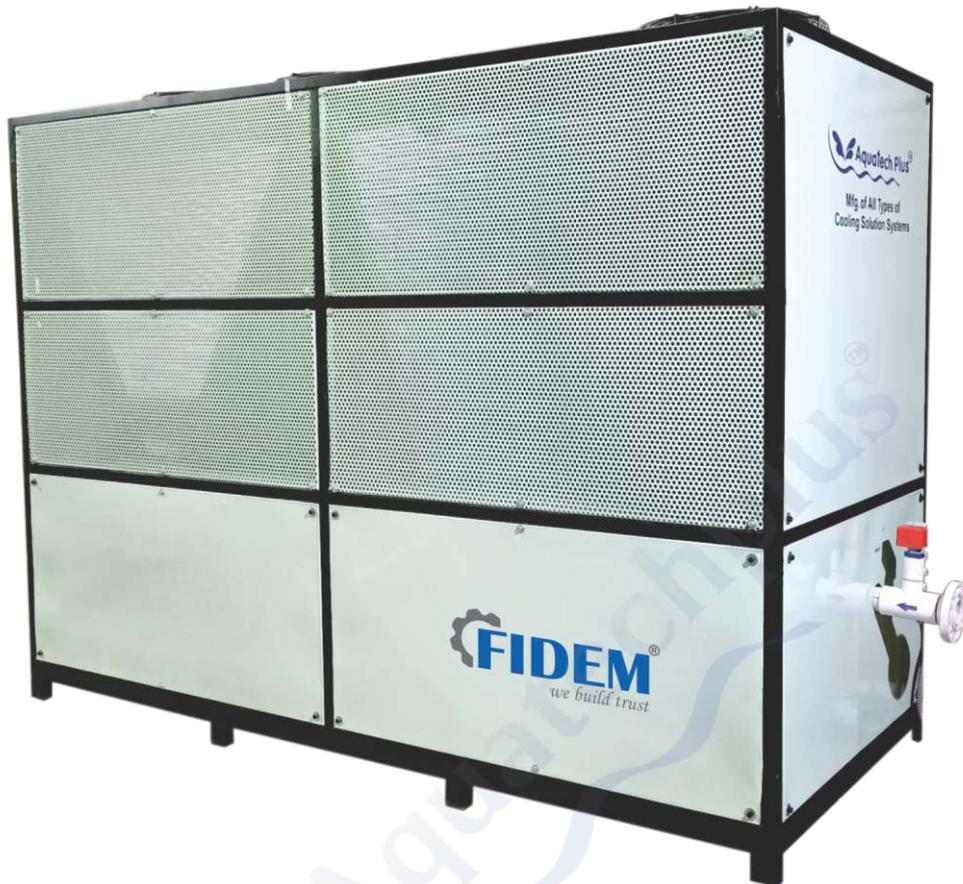
Industrial Oil Chiller Technical Specifications												
Item	Model	FC-0.2AO	FC-0.5AO	FC-0.8AO	FC-1AO	FC-1.5AO	FC-2AO	FC-3AO	FC-4AO	FC-5AO	FC-6AO	
Cooling Capacity	Kcal/h 50HZ/60HZ	843	1419	1703	2451	3139	4859	7568	9890	12470	14448	
		1011	1703	2043	2941	3767	5831	9082	11868	14964	17338	
	Kcal/h 50HZ/60HZ	0.98	1.65	1.98	2.85	3.65	5.65	8.2	11.5	14.5	16.8	
		1.2	2	2.4	3.4	4.4	6.8	10.6	13.8	17.4	20.2	
Input Power	KW	0.64	0.84	1	1.39	1.72	2.65	3.68	5.93	7.2	9.4	
Power Source		3PH~220V/380V/415V/480V~50HZ/60HZ										
Refrigerant	Type	R22/R407C/R134a/R404A/R410A										
	Control	Thermostatic expansion valve										
Compressor	Type	Hermetic scroll ( Piston )										
	Power(KW)	0.4	0.55	0.68	0.89	1.2	1.75	2.7	3.5	4.55	5.25	
Condenser	Type	Efficient finned copper tube with aluminum+Low noise air blower										
	Air Blower (KW)	0.05	0.1	0.13	0.13	0.15	0.15	0.23	0.23	0.42	0.42	
Evaporator	Type	SS Tank coil/ Shell and tube type/Plate type heat exchanger										
	Pipe Connection	1/4"	1/2"	1/2"	3/4"	3/4"	3/4"	1"	1"	1-1/4"	1-1/4"	
Oil Pump	Power(KW)	0.19	0.19	0.19	0.37	0.37	0.75	0.75	2.2	2.2	3.75	
	Flow (m <sup>3</sup> /h)	0.24	0.33	0.33	1.5	1.5	2.4	2.4	3.9	4.5	5.4	
Pressure	Kgf/cm <sup>2</sup> ,max	3										
Oil Viscosity Range		0.5-300 CST Hydraulic oil, lubricating oil 0.5-300 CST										
Oil Tank	L	8	18	18	22	22	33	38	95	95	95	
Safety Devices		Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, phase sequence/phase missing protection, anti freezing protection, exhaust overheat protection.										
Dimension	With Tank	L(mm)	460	460	460	570	570	620	620	850	850	950
		W(mm)	325	325	325	430	430	600	635	800	800	800
		H(mm)	680	920	1050	1200	1200	1280	1420	1450	1450	1620
	Without Tank	L(mm)	460	460	460	570	570	620	620	850	850	950
		W(mm)	325	325	325	430	430	600	635	800	800	800
		H(mm)	680	720	850	1010	1010	1090	1230	1250	1250	1450
Weight(KG)	With Tank	38	55	75	92	950	145	165	235	243	276	
	Without Tank	36	51	68	76	79	132	153	210	223	245	

Note :

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 20°C/45°C.
3. Cooling air inlet/outlet temperature 30°C/40°C.
4. We reserve the right to modify the specification without further notice.



# Cooling and Heating Chiller



Fidem Chiller FC-CH series cooling and heating chiller, with dual function for offering hot and cold water, is widely used in Plastic products cooling, injection molding machine, extrusion, Foam equipment, Pharmaceutical and chemical industries.

This unit can rush to the cold water temperature to make sure the high production efficiency.

#### Advantages:

Compact design, light weight and easy for operation.

Offering hot water to increase the temperature or cold water to decrease the temperature according to the production demand and temperature can be kept at the set point with variation  $\pm 1^\circ\text{C}$ , easy to operate, fast to increase and decrease temperature.

Original America and Japan brand compressor, featuring built-in safety protection, low noise and long service life. Original SCHNEIDER brand electric components.

Open type storage tank equipped, easy for cleaning and maintenance. Complete protection measures, intelligent fault indicator and alarm.

Elegant design, with rubber caster, easy for operation and maintenance.

R22 charged, CFC free R407C, R410A, R404A, R134A for option.



### FC-CH Cooling And Heating Chiller

Item		Model	FC-3CH	FC-4CH	FC-5CH	FC-6CH	FC-8CH	FC-10CH	FC-12CH	FC-15CH	FC-15CH	FC-20CH
Cooling Capacity	Kcal/h 50HZ/60HZ		7181	9288	11988	14534	18576	23994	29068	38270	36120	49966
			8617	11146	14386	17441	22291	28793	34882	45924	43344	59959
	Kcal/h 50HZ/60HZ		8.35	10.8	13.96	16.9	21.6	27.9	33.8	44.5	42	58.1
			10.02	12.96	16.73	20.28	25.92	33.48	40.56	53.4	50.4	69.72
Input Power	KW		12.27	13.07	17.75	18.48	23.25	29.5	30.9	41.45	41.1	51.73
Max Current	A		21.2	23.1	33.8	35.5	47	61	64	86	87	107
Power Supply		3PH~380V/415V/480V~50HZ/60HZ(3PH~200V/220V 50HZ/60HZ)										
Refrigerant	Type	R22/R407C/134a/404A/410A										
	Control	Capillary/Thermostatic expansion valve										
Compressor	Type	Hermetic scroll										
	Power (KW)		2.7	3.5	4.55	5.25	3.5x2	4.55x2	5.25x2	7x2	4.55x3	8.96x2
Condenser	Type	Finned coil + Low noise axil fan										
	Air Volume(m <sup>3</sup> /h)		3000	4000	5000	6000	8000	10000	12000	15000	15000	20000
	Fan Power(KW)		0.14x2	0.14x2	0.19x2	0.19x2	0.25x2	0.45x2	0.45x2	0.6x2	0.6x2	0.78x2
Evaporator	Type	Tank with cooper coil / Shell and tube										
	Chilled Water (m <sup>3</sup> /h)		1.44	1.86	2.4	2.91	3.71	4.8	5.81	7.65	7.22	10
			1.72	2.23	2.88	3.49	4.46	5.76	7	9.18	8.67	11.99
	Tank(L)		50	60	60	110	120	200	200	270	270	350
Pipe Diameter(Inch)		1"	1"	1"	1"	1-1/2"	2"	2"	2"	2"	2"	
Water Pump	Power(kw)		0.37	0.37	0.75	0.75	0.75	1.5	1.5	2.2	2.2	2.2
	Lift(m)		22	22	30	30	25	25	25	28	28	28
	Flow (m <sup>3</sup> /h)		5.4	5.4	8.1	8.1	8.1	13.5	13.5	25.2	25.2	25.2
Heating	KW		9	9	12	12	15	18	18	24	24	30
Protection		Compressor inner protection, over current protection, high/low pressure protection, over temperature protection, flow rate protection, phase sequence/phase missing protection, low level coolant protection, anti freezing protection, exhaust overheat protection.										
Dimension	L (mm)		980	980	1150	1150	1350	1500	1500	1860	1860	2020
	W (mm)		520	520	560	560	680	760	760	850	850	950
	H (mm)		1170	1170	1215	1215	1530	1660	1660	1900	1900	2000
Weight	Kg		152	175	185	215	283	345	382	580	580	650

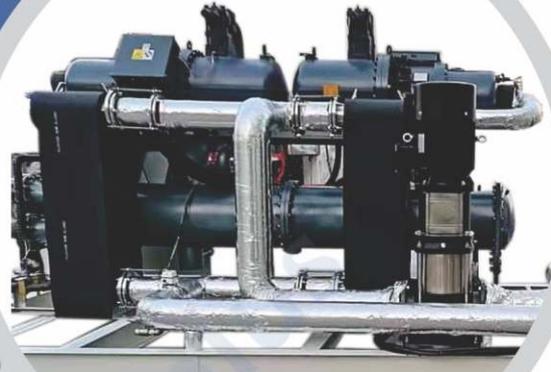
Note :

1. The above specifications are according to the following design conditions
2. Chilled water inlet/outlet temperature 12°C/7°C.
3. Cooling air inlet/outlet temperature 30°C/38°C.
4. We reserve the right to modify the specification without further notice.





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