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AHRI

2019-2020

About Us

Hangzhou Shenshi Energy Conservation Technology Co., Ltd.(HZSS) was set up in the year of 2005 (Original name of Hangzhou Shenshi Heat Exchanger Co., Ltd.), Is one of the largest manufacturers of Coaxial coil heat exchanger, Coil in shell heatexchanger, Shell & pipe heat exchanger and Shell & tube heat exchanger, and owner of the global-leading technology of integrated micro-channel heat exchanger and complete set of micro chemical reactors. HZSS focus on production and marketing and innovation of high efficiency and energy saving heat exchangers.



容慧博微、建功立德
Smart solution for you



我们的部分客户 Some of our customers



NEW ENERGY



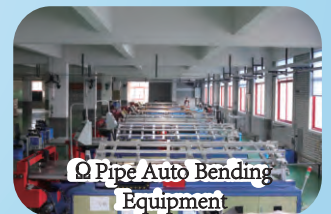
全自动弯管机



全自动氦检漏系统



阴极电泳涂装线



Q管全自动弯管机



焊接机器人



15-70kW换热器测试台



试验台 Test Lab



试验台 Test Lab



清洁度检测



盐雾试验



脉冲试验



暴力试验

Application

Our products have been successfully used into applications like: heat pump, ice machine, water purifier, pool heat pump, marine AC, water chiller, CO2 heat pump, medical facility, micro chemical, aerospace, military, top universities' labs etc.



R & D

Laying on constant innovation and invention, and outstanding flexible customization ability, perfecting products and solutions, improvement, We gets to win the trust and cooperation of global customers. In the field of energy saving, We can provide the service including of designing, manufacturing, testing and other one-stop service for customers.



Production

Our factory has highly efficient management and good quality assurance system, with a varieties of modern automated production and testing equipment, scale and production capacity in the lead of the filed, precision and quality in the industry has been in the position of the way ahead.

Quality

Top-ranking inspection devices, strict material quality control method, and perfect process control system make excellent quality in HZSS.



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About HZSS

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Shell Pipe HX

- Shell & Tube HE
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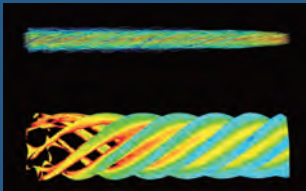
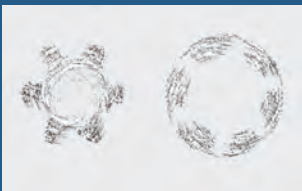




Supercritical CO₂ HE

Product Profile

HZSS's self developed supercritical co₂ HX is applied in transcritical carbon dioxide heat pump water heater system.



Product Features

1. Water in the inner coil and gas in between the inner and outer coil to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated tubes increase heat transfer area to create higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self cleaning.
5. Cupronickel inner tube gives better compression performance, and corrosion resistance.

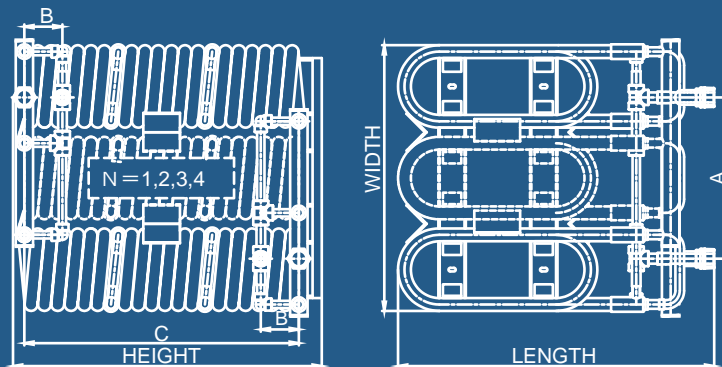
Product Technical Parameters

Model	Refrigerant	Water flow		Capacity	
		GPM	m ³ /h	Btu/h	kW
SS-0060GN-U-S	R744	0.43	0.10	15400	4.5
SS-0100GN-U-S	R744	0.57	0.13	20500	6.0
SS-0125GN-U-S	R744	0.76	0.17	27300	8.0
SS-0150GN-U-3	R744	1.14	0.26	40900	12
SS-0250GN-F-3	R744	1.51	0.34	54600	16
SS-0300GN-F-3	R744	2.60	0.59	93800	28
SS-0360GN-F-3	R744	3.31	0.75	119400	35
SS-0300GN-U-6	R744	5.21	1.18	187600	55
SS-0300GN-U-9	R744	6.63	1.51	238800	70
SS-0300GN-U-12	R744	9.47	2.15	341200	100
SS-0420GN-U-12	R744	12.78	2.90	460600	135

Note: SS-0XXXGN G=Carbon Steel, N= Cupronickel, U=Trombone

Test Condition: Air side temp dry/wet ball 68/59°F, Water Inlet Temp 59°F, Water Outlet Temp 131°F.
Air side temp dry/wet bulb 20/15°C, Water Inlet Temp 15°C, Water Outlet Temp 55°C.

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection	Length mm	Width mm	Height mm	A mm	B mm	C mm	N pcs
SS-0060GN-U-S	9.52	9.52	R 1/2"	420	145	272	122	45	231	1
SS-0100GN-U-S	9.52	9.52	R 1/2"	430	147	354	122	45	312	1
SS-0125GN-U-S	9.52	9.52	R 1/2"	480	152	394	122	45	352	1
SS-0150GN-U-3	12.7	12.7	R 1/2"	610	230	463	127	50	410	1
SS-0250GN-F-3	16	16	R 3/4"	580	325	430	290	60	385	1
SS-0300GN-F-3	16	16	R 3/4"	680	328	475	290	60	422	1
SS-0360GN-F-3	16	16	R 1"	675	340	516	300	60	456	1
SS-0300GN-U-6	22	22	R 1"	665	400	669	152	83	599	2
SS-0300GN-U-9	22	22	R 1-1/4"	690	600	674	352	83	599	3
SS-0300GN-U-12	22	22	R 1-1/4"	690	800	674	152	83	599	4
SS-0420GN-U-12	22	22	R 1-1/4"	725	900	684	170	83	599	4

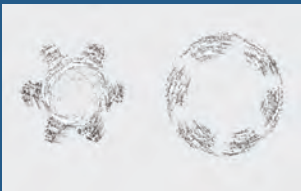




Water source Heat pump HE

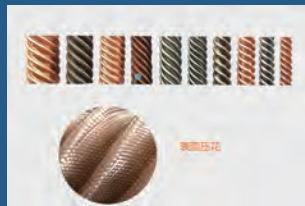
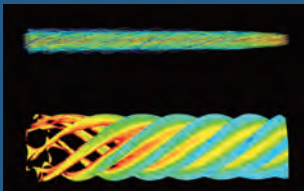
Product Profile

HZSS's WSHP coils are specially made for water source heat pump as evaporator and condenser, with flexible shape, compact and high efficiency.



Product Features

1. Water in the inner coil and gas in between the inner and outer coil to enhance turbulence intensity and heat transfer coefficient.
2. Different inner tube materials available: copper, coppernikle, Stainless Steel, Titanium.
3. Reliable with higher pressure stand and less welding points.
4. Anti-frezing and self cleaning.



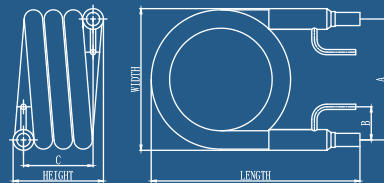
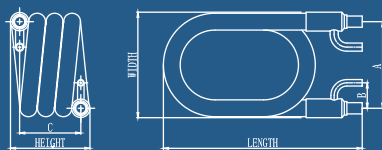
Product Technical Parameters

Models		Capacity Ton	Round	Trombone	Double wound helix	Spiral	Water flow		Evaporator		Condenser	
							GPM	m ³ /h	Btu/h	Kw	Btu/h	Kw
SS-0050GT	R410A	0.50	●	●			1.33	0.30	6000	1.8	7800	2.3
SS-0075GT	R410A	0.75	●	●		●	1.99	0.45	9000	2.6	11600	3.4
SS-0100GT	R410A	1.00	●	●		●	2.65	0.60	11900	3.5	15500	4.6
SS-0150GT	R410A	1.50	●	●		●	3.98	0.90	17900	5.3	23300	6.8
SS-0200GT	R410A	2.00		●	●	●	5.30	1.20	23900	7.0	31000	9.1
SS-0250GT	R410A	2.50		●	●	●	6.63	1.51	29900	8.8	38800	11.4
SS-0300GT	R410A	3.00		●	●	●	7.95	1.81	35800	10.5	46600	13.7
SS-0350GT	R410A	3.50		●	●	●	9.28	2.11	41800	12.3	54300	15.9
SS-0400GT	R410A	4.00		●	●	●	10.60	2.41	47800	14.0	62100	18.2
SS-0500GT	R410A	5.00		●	●	●	13.25	3.01	59700	17.5	77600	22.8
SS-0600GT	R410A	6.00		●	●	●	15.90	3.61	71600	21.0	93100	27.3
SS-0750GT	R410A	7.50		●	●	●	19.88	4.52	89600	26.3	116400	34.1

Note: Model SS-0XXXGT, G means Carbon Steel, T means Copper

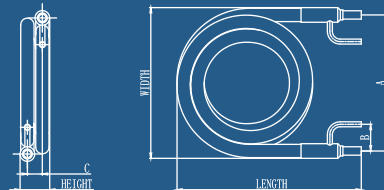
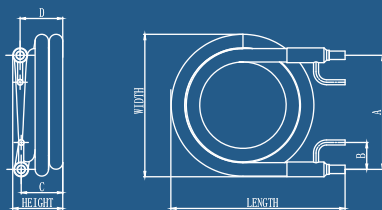
Test Condition: As Evaporator, water inlet temp 68°F, Evaporating Temp 50°F; as Condenser, water inlet temp 85°F, Condensing Temp 104°F

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm	Water Pressure drop PSI	Water Pressure drop KPa
SS-0050GT-U	9.52	9.52	12.7	350	152	60	127	40	35	< 2.9	< 20
SS-0075GT-U	9.52	9.52	12.7	310	152	83	127	40	58	< 2.9	< 20
SS-0100GT-U	9.52	9.52	12.7	380	152	83	127	40	58	< 4.4	< 30
SS-0150GT-U	9.52	9.52	16	360	168	121	140	50	93	< 4.4	< 30
SS-0200GT-U	9.52	9.52	16	430	168	121	140	50	93	< 5.8	< 40
SS-0250GT-U	12.7	12.7	19	470	184	134	152	50	102	< 5.8	< 40
SS-0300GT-U	16	16	22	475	207	156	170	50	119	< 5.8	< 40
SS-0350GT-U	16	16	22	460	207	190	170	50	153	< 7.3	< 50
SS-0400GT-U	19	19	22	495	270	201	220	60	151	< 7.3	< 50
SS-0500GT-U	19	19	28	590	290	201	240	60	151	< 8.7	< 60
SS-0600GT-U	19	19	28	560	290	244	240	60	194	< 8.7	< 60
SS-0750GT-U	19	19	28	665	295	257	245	60	207	< 8.7	< 60

Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm	Water Pressure drop PSI	Water Pressure drop KPa
SS-0050	9.52	9.52	16	252	171	109	146	41	60	< 2.9	< 20
SS-0075	9.52	9.52	16	252	171	109	146	41	84	< 2.9	< 20
SS-0100	9.52	9.52	16	252	171	133	146	41	108	< 4.4	< 30
SS-0150	9.52	9.52	16	338	258	123	230	51	95	< 4.4	< 30



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm	D mm	Water Pressure drop PSI	Water Pressure drop KPa
SS-0200GT-P	9.52	9.52	16	329	270	93	216	51	79	81	< 5.8	< 40
SS-0250GT-P	9.52	9.52	16	316	264	126	205	48	83	110	< 5.8	< 40
SS-0300GT-P	16	16	22	352	317	124	248	56	90	106	< 5.8	< 40
SS-0350GT-P	16	16	22	362	317	151	248	54	95	133	< 7.3	< 50
SS-0400GT-P	19	19	22	479	409	131	327	57	75	106	< 7.3	< 50
SS-0500GT-P	19	19	28	432	404	150	305	59	117	125	< 8.7	< 60
SS-0600GT-P	19	19	28	451	394	182	305	59	127	157	< 8.7	< 60
SS-0750GT-P	19	19	28	456	448	185	356	60	128	185	< 8.7	< 60

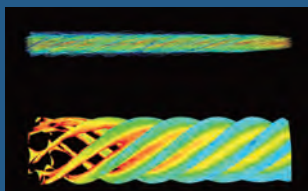
Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm	Water Pressure drop PSI	Water Pressure drop KPa
SS-0075GT-W	9.52	9.52	12.7	267	201	55	176	41	26	< 2.9	< 20
SS-0100GT-W	9.52	9.52	12.7	295	238	51	213	41	26	< 4.4	< 30
SS-0150GT-W	9.52	9.52	16	352	288	57	260	51	29	< 4.4	< 30
SS-0200GT-W	9.52	9.52	16	378	331	57	303	51	29	< 5.8	< 40
SS-0250GT-W	12.7	12.7	19	418	335	64	303	48	32	< 5.8	< 40
SS-0300GT-W	16	16	22	397	343	72	306	54	35	< 5.8	< 40
SS-0350GT-W	16	16	22	438	389	72	352	54	35	< 7.3	< 50
SS-0400GT-W	19	19	22	476	440	95	390	59	45	< 7.3	< 50
SS-0500GT-W	19	19	28	499	438	95	388	59	45	< 8.7	< 60
SS-0600GT-W	19	19	28	517	472	95	422	59	45	< 8.7	< 60
SS-0750GT-W	19	19	28	572	539	98	488	60	48	< 8.7	< 60



Marine Condensing Coils

Product Profile

HZSS Marine condensing coils are made of titanium with enhanced groove line technology to achieve high efficient and high corrosion resistance.



Product Features

1. Water in the inner coil and gas in between the inner and outer coil to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated tubes increase heat transfer area to create higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self cleaning.
5. Titanium inner tube with high corrosion resistance.
6. Enhanced groove line inner tube surface increase heat transfer efficiency by 30%.

Product Technical Parameters

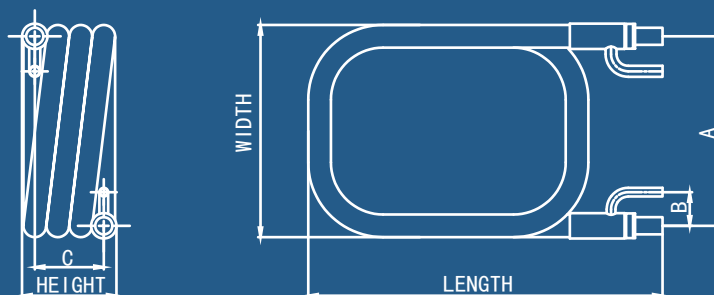
Model	Refrigerant	Water flow		Capacity	
		GPM	m ³ /h	Btu/h	kW
SS-H100GTi-F	R410A	2	0.45	10000	2.9
SS-H125GTi-F	R410A	3	0.68	15000	4.4
SS-H150GTi-F	R410A	4	0.91	20000	5.9
SS-H200GTi-F	R410A	5	1.14	25000	7.3
SS-H250GTi-F	R410A	6	1.36	30000	8.8
SS-H500GTi-F	R410A	12	2.73	60000	17.6
SS-H600GTi-F	R410A	15	3.41	75000	22.0
SS-H750GTi-F	R410A	18	4.09	90000	26.4

Note:SS-HXXXGTi, H=Enhanced, G=Carbon Steel, Ti=Titanium

Test condition:As Condenser, water inlet temp 29.4℃, water outlet temp 35℃, condensing Temp 40℃.

As Evaporator, water inlet temp 85°F, water outlet temp 95°F, condensing Temp 104°F.

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-H100GTi-F	12.7	9.52	14	320	205	63	182	50	40
SS-H125GTi-F	12.7	9.52	18	340	262	73	237	50	48
SS-H150GTi-F	12.7	9.52	19	345	270	82	242	50	54
SS-H200GTi-F	12.7	9.52	22	390	245	92	213	50	60
SS-H250GTi-F	12.7	9.52	22	390	283	92	251	50	60
SS-H500GTi-F	16	12.7	25	500	313	138	276	50	101
SS-H600GTi-F	19	12.7	30	615	326	169	283	60	126
SS-H750GTi-F	19	12.7	35	625	410	179	360	60	129





Water Purifier/Evaporator

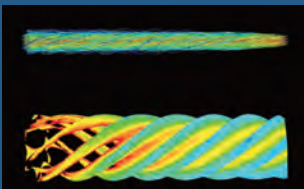
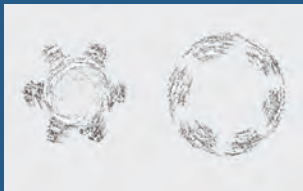
Product Profile

HZSS's Water purifier coils have both internal and external pipes made of food-grade stainless steel and provide users of water purifiers with safe ice water or hot water through refrigeration or heat pump systems.



Product Features

1. Water flow in the inner tube and refrigerant flow in gap between the inner and outer coil, to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated inner tube increase heat transfer surface to create higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self-cleaning.
5. Inner tube is food grade stainless steel, to ensure safety and reliability



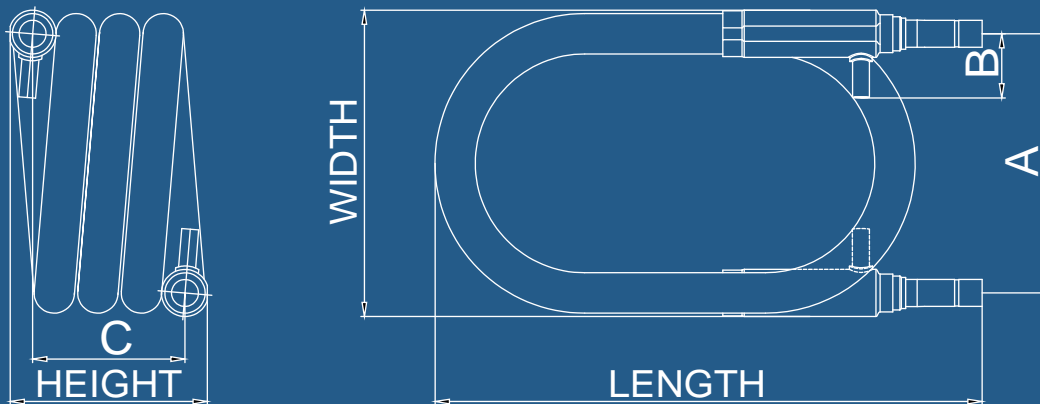
Product Technical Parameters

Model	Refrigerant	Water Flow		Capacity	
		GPM	L/min	Btu/h	kW
SS-0100GB-U	R134a	0.32	1.2	5100	1.50
SS-0100BB-U	R134a	0.32	1.2	5100	1.50

Test Condition: Air side temp dry/wet ball 35/24 °C , water Inlet Temp 25 °C , water Outlet Temp 7 °C , evaporating temp 2 °C .

Air side temp dry/wet ball 95/75.2°F, water Inlet Temp 77°F, water Outlet Temp 44.6°F, evaporating temp 32°F.

Product Dimensions



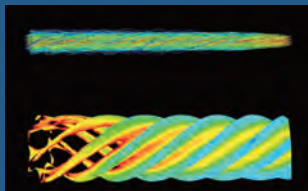
Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0100GB	8	8	12.7	258	145	175	122	30	154
SS-0100BB	8	8	12.7	258	141	174	122	30	154



Dishwasher/Washing machine /Battery cooling

Product Profile

HZSS's coils are also applicable to dishwashing machine, provide hot water for washing machine, better temperature environment for battery system in order to extend battery life duration.



Product Features

1. Water flow in the inner tube and refrigerant flow in gap between the inner and outer coil, to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated inner tube increase heat transfer surface to creat higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self-cleaning.

Product Technical Parameters

Dishwasher

Model	Refrigerant	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW
SS-0050GB-F	R134a	6.60	1.5	3800	1.10

Washing machine

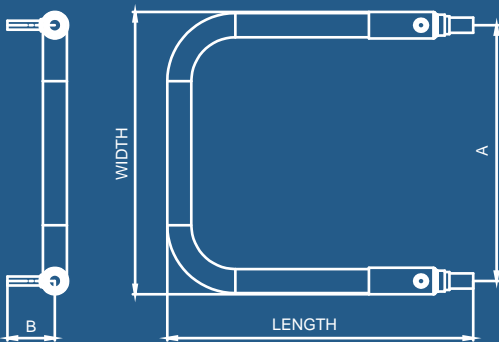
Model	Refrigerant	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW
SS-0060GB-F	R134a	4.84	1.1	6800	2.00

Test Condition: Water inlet temp 25 °C, water outlet temp 55 °C, circulation heating.
Water inlet temp 45.9 °F, water outlet temp 62.6 °F, circulation heating.

Battery cooling system

Model	Refrigerant	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW
SS-0060GT-F	R407C	0.27	1.032	20500	6

Product Dimensions

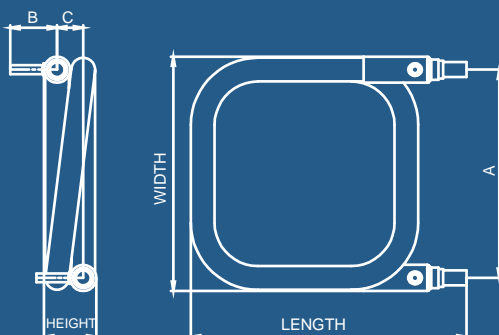
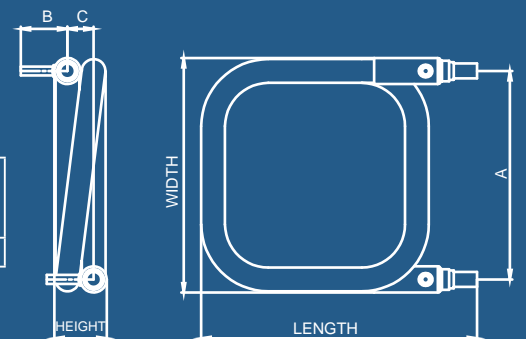


Dishwasher

Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	A mm	B mm
SS-0050GB-F	9.52	9.52	16	315	298	270	50

Washing machine

Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0060GB-F	9.52	9.52	16	295	251	56	223	50	28



Battery cooling system

Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0060GT-F	12.7	12.7	22	315	322	72	285	50	35

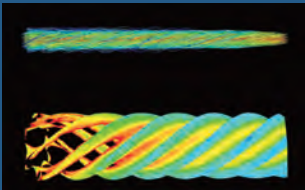
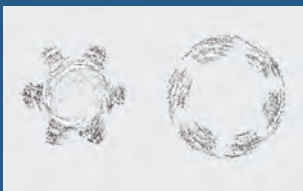




Ice Machine Coils

Product Profile

Water cooled Condensing Coils are optimal solution for Ice Machine to achieve higher efficiency.



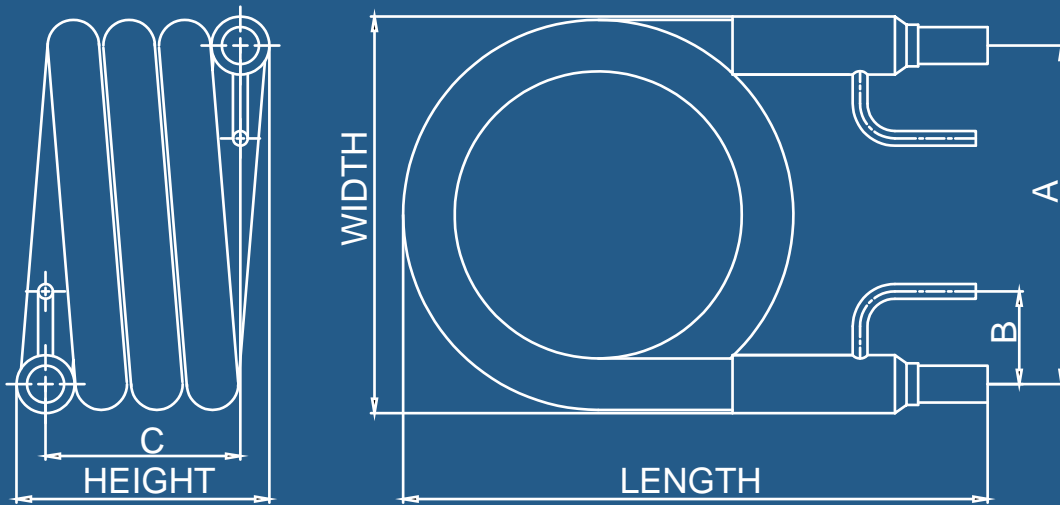
Product Features

1. Water in the inner coil and gas in between the inner and outer coil to enhance turbulence intensity and heat transfer coefficient.
2. spirally corrugated tubes increase heat transfer area to creat higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-frezzing and self cleaning.

Product Technical Parameters

Model	Refrigerant	Capacity	
		lb-ice/day	kg/day
SS-0050GT	R404A	150	68
SS-0055GT	R404A	320	145
SS-0060GT	R404A	450	204
SS-0075GT	R404A	600	272
SS-0125GT	R404A	800	363

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0050GT	9.52	6.35	16	252	171	109	146	40	84
SS-0055GT	9.52	6.35	16	252	171	133	146	40	108
SS-0060GT	9.52	6.35	16	252	171	157	146	40	132
SS-0075GT	9.52	6.35	16	300	220	123	192	40	95
SS-0125GT	9.52	6.35	19	311	232	166	200	40	135





Gas air source absorption heat pump

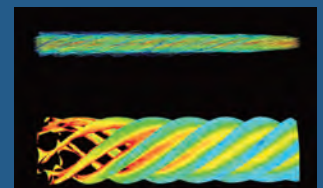
Product Profile

HZSS's gas air source absorption heat pump coils are applicable to ammonia absorption type air conditioners or heat pumps. The inner tube is made of stainless steel and is resistant to ammonia solution corrosion. The coolers, condensers and regenerators. Cooling system.



Product Features

1. Water flow in the inner tube and refrigerant flow in gap between the inner and outer coil, to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated inner tube increase heat transfer surface to create higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self-cleaning.
5. In gas air source absorption heat pump, the cooler is an important component, while the ammonia gas is mixing with ammonia liquid, the heat is absorbing and releasing by gas and liquid.
6. HZSS coaxial coil heat exchanger is designed with spirally corrugated inner tube, to let the ammonia gas and liquid to mix completely.
7. This heat exchanger with long passage is suitable for heat gradual absorption and release process.



Product Technical Parameters

Model	Refrigerant	Function	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW
SS-0525GB-U	R717	Cooler	22.0	5	119400	35
SS-0360GB-U	R717	Cooler	6.6	1.5	39200	11.5
SS-0525GB-U	R717	Condenser	22.0	5	85300	25
SS-0150GB-U	R717	Condenser	6.6	1.5	23900	7
SS-0270GB-U	R717	Regenerator	—	—	5100	1.5
SS-0050GB-U	R717	Regenerator	—	—	1700	0.5

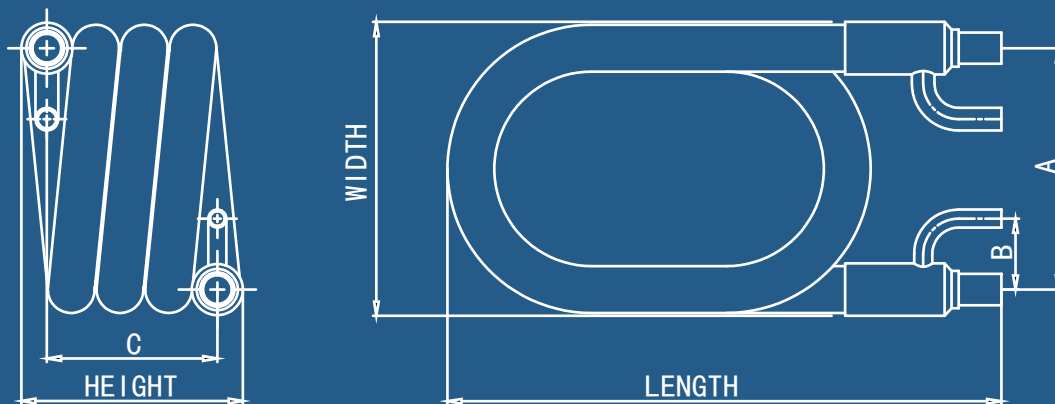
Test condition: Cooler: water inlet temp 45 °C , water outlet temp 51 °C , ammonia inlet temp 85 °C , ammonia outlet temp 46 °C .

Condenser: water inlet temp 51 °C , water outlet temp 55 °C , condensing temp 60 °C .

Test condition: Cooler: water inlet temp 113 °F , water outlet temp 123.8 °F , ammonia inlet temp 185 °F , ammonia outlet temp 114.8 °F .

Condenser: water inlet temp 123.8 °F , water outlet temp 131 °F , condensing temp 140 °F .

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0525GB-U	22	18	37	624	346	297	296	65	207
SS-0360GB-U	22	22	28	560	231	263	188	65	176
SS-0525GB-U	22	18	37	624	346	297	296	65	207
SS-0150GB-U	18	18	25	560	207	169	170	65	86
SS-0270GB-U	18	18	28	450	231	223	188	65	136
SS-0050GB-U	18	18	22	392	172	154	140	65	73

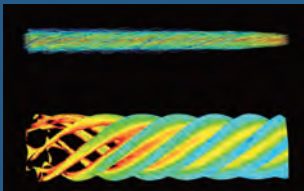




Economizer/Subcooler
/Superheater

Product Profile

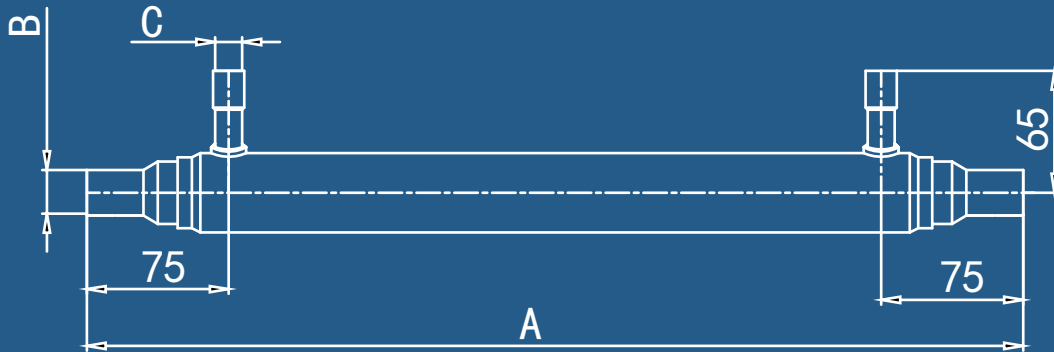
HZSS Subcooler is applied on refrigeration systems to transfer heat between liquid on the high pressure side of the system and refrigerant on the low pressure side of the system.



Product Features

- 1.Low pressure refrigerant flow in the inner tube and High-pressure refrigerant flows in between inner and outer tube.
- 2.Spirally corrugated tubes increase heat transfer area to creat higher efficiency.
- 3.Reliable with higher pressure stand and less welding points.
- 4.Flexible design and less space needed.

Product Dimensions



Model	Capacity kW	A mm	B OD mm	C ID mm
SS-9005TT-Z	0.5	160	12.7	9.52
SS-9010TT-Z	1	260	12.7	9.52
SS-9015TT-Z	1.5	330	12.7	9.52
SS-9020TT-Z	2	415	12.7	9.52
SS-9025GT-Z	2.5	500	12.7	9.52
SS-9030GT-Z	3	560	12.7	9.52
SS-9035GT-Z	3.5	490	16	12.7

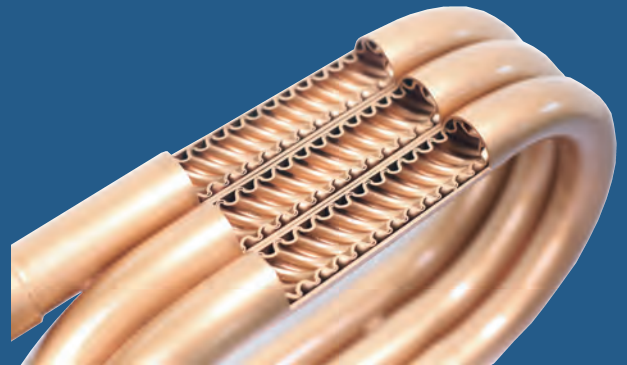




Other type of coils

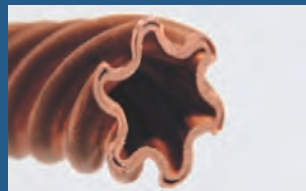
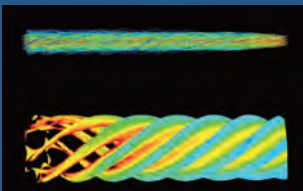
Product Profile

HZSS's other type of coils are strong safety, if leakage occurs in the inner layer of the inner tube, water will flow out of the inner tube and play an early warning role. If leakage occurs in the inner layer, the refrigerant leaks from the interlayer and will not enter the water.



Product Features

1. Water flow in the inner tube and refrigerant flow in gap between the inner and outer coil, to enhance turbulence intensity and heat transfer coefficient.
2. Spirally corrugated inner tube increase heat transfer surface to creat higher efficiency.
3. Reliable with higher pressure stand and less welding points.
4. Anti-freezing and self-cleaning.
5. Double wall inner tube more relibality and safety.

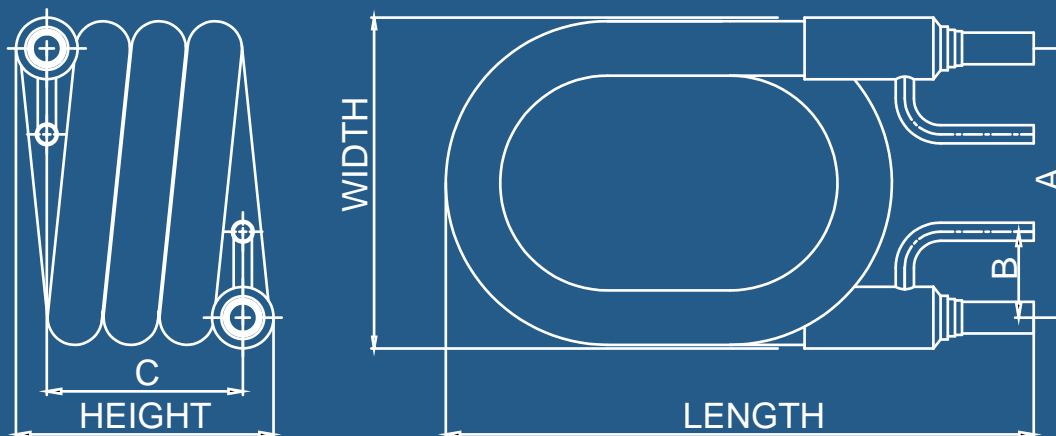


Product Technical Parameters

Model	Refrigerant	Capacity	Water flow capacity		Heat Transfer Capacity	
		Ton	GPM	m ³ /h	Btu/h	kW
SS-0100GTT-U	R410A	1	2.65	0.60	11900	3.5
SS-0200GTT-U	R410A	2	5.30	1.20	23900	7.0

Test condition:As Condenser, water inlet temp 68°F, water outlet Temp 95°, Condensing Temp 104°F.

Product Dimensions



Model	Refrigerant Inlet OD mm	Refrigerant Outlet OD mm	Water Connection OD mm	Length mm	Width mm	Height mm	A mm	B mm	C mm
SS-0100GTT-U	9.52	9.52	22	440	207	122	170	50	86
SS-0300GTT-U	12.7	12.7	22	465	231	219	188	60	176





Shell & tube heat exchanger

Product Profile

HZSS Shell & tube heat exchanger has the advantages of high heat transfer performance, safe to use, compact size, high cost performance. It is widely used into applications like cold and hot water modular units.



Product Features



High Efficiency

High efficiency HX with enhanced tubing design

HZSS's patented design of distributor adopts better cooling distribution

Spiral baffles is superior to traditional baffles



Cost Performance

High cost performance

Effectively Cost controlled



Safety

Designed and manufactured according to pressure vessel standards

No solder joints in contact with water

Extremely resistant to freezing



Compact

Compact Design

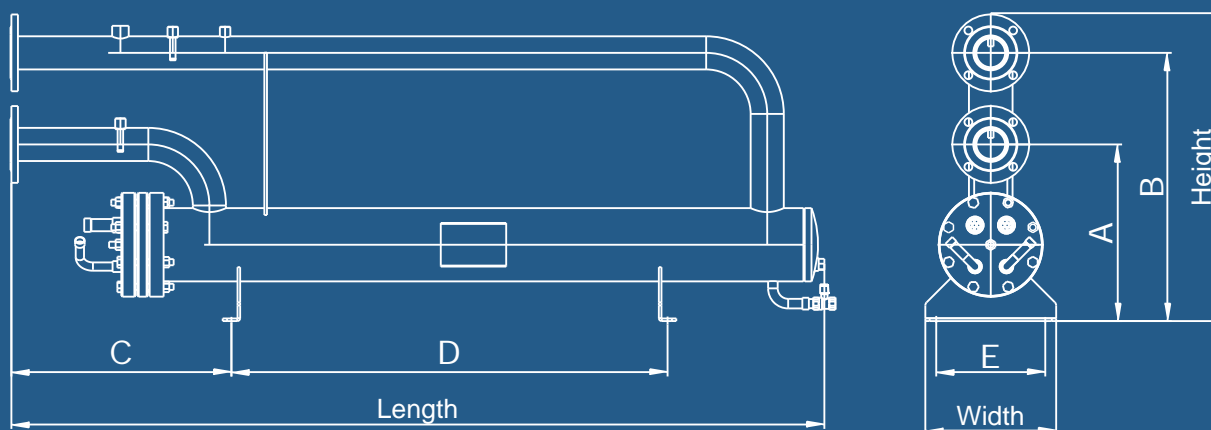
Optimal interface arrangement

Product Technical Parameters

Model	Evaporator					Condenser					Units
	Cooling Capacity (kW)	Evaporating temp (°C)	Water Inlet (°C)	Water Outlet (°C)	Temp before Valve (°C)	Heating Capacity (kW)	Condensing Temp (°C)	Water Inlet (°C)	Water Outlet (°C)	Subcooling Temp (°C)	
SS-KG055GT	50	3.5-5 ¹	12	7	43	56-70 ²	49	40	45	3	1,2
SS-KG065GT	65	3.5-5 ¹	12	7	43	73-90 ²	49	40	45	3	1,2
SS-KG110GT	100	3.5-5 ¹	12	7	43	112-140 ²	49	40	45	3	1,2,4
SS-KG130GT	130	3.5-5 ¹	12	7	43	146-180 ²	49	40	45	3	1,2,4
SS-KG160GT	160	3.5-5 ¹	12	7	43	180-220 ²	49	40	45	3	1,2,4

Note^{1,2}: HZSS shell and tube HX could provide enhanced performance on evaporating and condensing based on customization

Product Dimensions



Models	Refrigerant Inlet ID mm	Refrigerant Outlet ID mm	Water Connet	Length mm	Width mm	Height mm	A mm	B mm	C mm	D mm	E mm
SS-KG065GT-E-2	28	19	DN65	1864	300	706	405	615	505	1000	250
SS-KG130GT-E-4	28	19	DN65	1936	400	768	470	680	492	1000	350

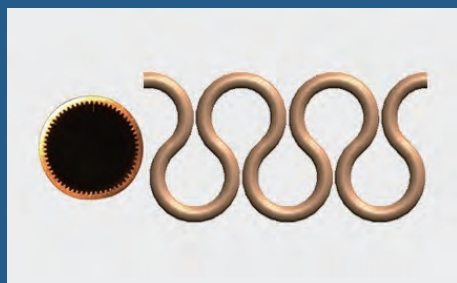


Plastic steel shell and pipe heat exchanger



Product Profile

This product is a kind of high efficiency heat exchanger which is composed of high efficient Ω style inner pipes and plastic shell. It has the advantages of both shell & tube heat exchanger and plate heat exchanger. The shell is made up of plastic inner tank, and foam insulation layer and steel shell. The inner tubes arrangement method has been certificated as our technology invention patent.



Product Features

1. Anti-Freezing

Both Heat exchanging inner core with structure of Ω and plastic baffle plate possess the ability of elasticity to obtain the function of anti-freezing.

2. Anti-Corrosion, Long serve life

HZSS patented structure of plastic baffle plate and titanium inner core has long serve life and high corrosion resistance.

3. High Efficiency

Our heat exchanging inner core are internal threaded to obtain more heat transfer area and turbulence flow in order to achieve higher efficiency.

4. Special Refrigerant connection sealing to avoid leakage

Sealing components are special material to resist temperature

from 200°C to -20°C, and sealing covers are screw threaded to ensure reliability.

5. Easy maintenance and cleaning

The shell is designed to be dismountable to make maintenance and cleaning much easier.

Product Technical Parameters

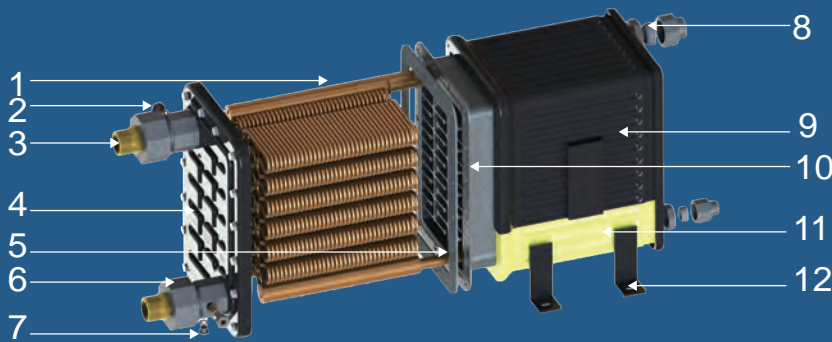
Model	Refrigerant	Evaporator				Condenser			
		Water flow GPM	Water flow m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW	Water flow GPM	Water flow m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kW
Plastic stell shell and pipe heat exchanger-copper inner core									
SS-0120GST-F	R410A	9.92	2.25	44700	13.1	13.10	2.98	59000	17.3
SS-0150GST-F	R410A	12.87	2.92	58000	17	16.28	3.70	73400	21.5
SS-0180GST-F	R410A	14.69	3.34	66200	19.4	19.24	4.37	86700	25.4
SS-0220GST-F	R410A	17.87	4.06	80500	23.6	25.45	5.78	114600	33.6
SS-0250GST-F	R410A	20.30	4.61	91400	26.8	26.58	6.04	119800	35.1
SS-0300GST-F2	R410A	22.87	5.19	103000	30.2	32.11	7.29	144700	42.4
SS-0360GST-F	R410A	25.82	5.87	116300	34.1	35.67	8.10	160700	47.1
SS-0360GST-F2	R410A	26.58	6.04	119800	35.1	36.73	8.34	165500	48.5
SS-0480GST-F2	R410A	36.58	8.31	164800	48.3	50.59	11.49	227900	66.8
SS-0650GST-F2	R410A	49.07	11.15	221100	64.8	70.81	16.08	319000	93.5
Plastic stell shell and pipe heat exchanger-cupronickel inner core									
SS-0120GSN-F	R410A	9.09	2.06	40900	12	11.13	2.53	50200	14.7
SS-0150GSN-F	R410A	11.81	2.68	53200	15.6	13.86	3.15	62400	18.3
SS-0180GSN-F	R410A	13.48	3.06	60700	17.8	16.36	3.72	73700	21.6
SS-0220GSN-F	R410A	16.36	3.72	73700	21.6	21.58	4.90	97200	28.5
SS-0250GSN-F	R410A	18.63	4.23	83900	24.6	22.64	5.14	102000	29.9
SS-0300GSN-F2	R410A	20.98	4.76	94500	27.7	27.34	6.21	123200	36.1
SS-0360GSN-F	R410A	23.70	5.38	106800	31.3	30.29	6.88	136500	40
SS-0360GSN-F2	R410A	24.38	5.54	109900	32.2	31.20	7.09	140600	41.2
SS-0480GSN-F2	R410A	33.62	7.64	151500	44.4	43.01	9.77	193800	56.8
SS-0650GSN-F2	R410A	44.98	10.22	202700	59.4	60.20	13.67	271200	79.5
Plastic stell shell and pipe heat exchanger-titanium inner core									
SS-0120GSTi-F	R410A	6.89	1.57	31000	9.1	7.12	1.62	32100	9.4
SS-0150GSTi-F	R410A	8.03	1.82	36200	10.6	8.25	1.87	37200	10.9
SS-0180GSTi-F	R410A	9.77	2.22	44000	12.9	10.07	2.29	45400	13.3
SS-0220GSTi-F	R410A	12.04	2.73	54200	15.9	12.42	2.82	56000	16.4
SS-0250GSTi-F	R410A	14.16	3.22	63800	18.7	14.84	3.37	66900	19.6
SS-0300GSTi-F2	R410A	17.11	3.89	77100	22.6	17.64	4.01	79500	23.3
SS-0360GSTi-F	R410A	18.33	4.16	82600	24.2	18.93	4.30	85300	25
SS-0360GSTi-F2	R410A	19.54	4.44	88000	25.8	20.14	4.58	90800	26.6
SS-0480GSTi-F2	R410A	25.67	5.83	115700	33.9	26.43	6.00	119100	34.9
SS-0650GSTi-F2	R410A	34.38	7.81	154900	45.4	35.44	8.05	159700	46.8

Test condition: As condenser, water inlet temp 30 °C , water outlet temp 35 °C , condensing Temp 40 °C ; as evaporator, water inlet temp 12 °C , water outlet temp 7 °C , evaporating Temp 2 °C .

As condenser, water inlet temp 86°F, water outlet temp 95°F, condensing Temp 104°F; As evaporator, water inlet temp 53.6°F, water outlet temp 44.6°F, evaporating Temp 35.6°F.

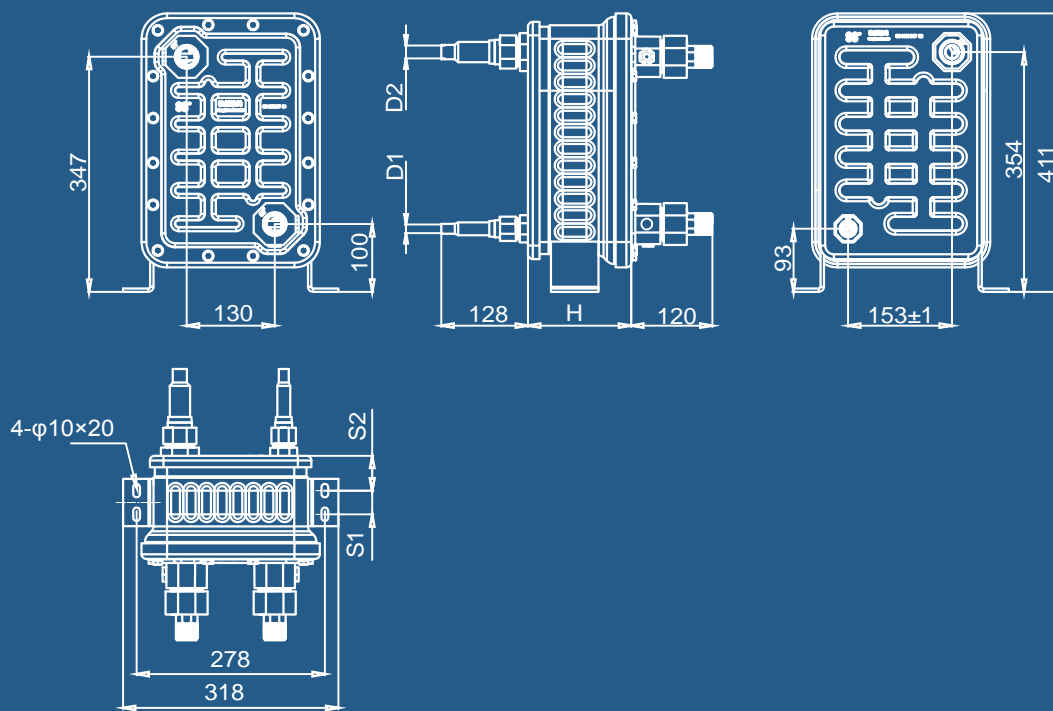


Plastic steel shell and pipe heat exchanger explosion view



- 1.heat transfer inner core
- 2.temperature sensor point
- 3.metal joint
- 4.steel cover
- 5.water loop seal plate
- 6.plastic cover
- 7.water outfall
- 8.seal ring of refrigerant loop
- 9.steel shell
- 10.plastic shell
- 11.foam material
- 12.bracket

Product Dimensions



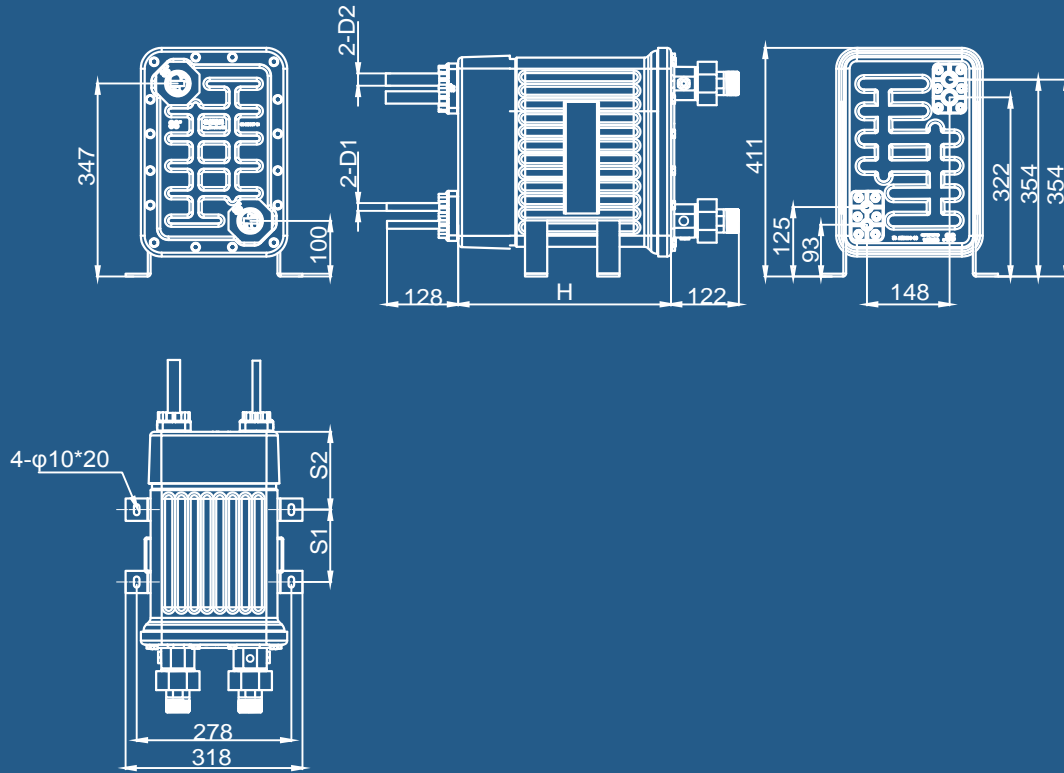
Model	Water connection	D1	D2	H	S1	S2	Ref side volume L	Water side volume L
		mm	mm	mm	mm	mm		
SS-0120GST-F	G1"/R1"OR1-1/2"Hoop Joint	ID12.7	ID19	152	35	52	1.13	4.7
SS-0150GST-F	G1"/R1"OR1-1/2"Hoop Joint	ID12.8	ID20	152	35	52	1.30	4.51
SS-0180GST-F	G1"/R1"OR1-1/2"Hoop Joint	19	ID22.2	217	90	52	1.63	7.33
SS-0220GST-F	G1"/R1"OR1-1/2"Hoop Joint	19	ID22.2	217	90	52	1.95	6.95
SS-0250GST-F	G1"/R1"OR1-1/2"Hoop Joint	19	ID22.2	217	90	52	2.03	6.85
SS-0360GST-F	G1-1/4"/R1-1/4"OR1-1/2"Hoop Joint	16	ID25.4	310	120	82	2.96	10.29

Dimension D1 and D2 can be adjusted based on requirement.

Dimension S1 and S2 can be adjusted based on requirement.



Product Dimensions



Model	Water connection	D1	D2	H	S1	S2	Ref side volume	Water side volume
		mm	mm	mm	mm	mm	L	L
SS-0300GST-F2	G1-1/4"/R1-1/4"/G2"OR1-1/2"Hoop Joint	14	22.2	310	120	82	1.44*2	10.39
SS-0360GST-F2	G1-1/4"/R1-1/4"/G2"OR1-1/2"Hoop Joint	14	22.2	310	120	82	1.60*2	10.00
SS-0480GST-F2	G1-1/4"/R1-1/4"/G2"OR1-1/2"Hoop Joint	14	22.2	380	130	140	2.00*2	12.54
SS-0650GST-F2	2"Hoop Joint	19	30	586	290	139	2.96*2	10.29*2

Dimension D1 and D2 can be adjusted based on requirement
 Dimension S1 and S2 can be adjusted based on requirement



Swimming pool plastic shell pipe
Titanium HE

Product Profile

Shell and pipe heat exchanger is a kind of high efficiency heat exchanger which is composed of high efficiency Ω style inner pipes and shell of baffle plastic plate(-PA6). It has the advantages of shell & tube heat exchanger and plate heat exchanger.



Product Features

1. Anti-Freezing

Both Heat exchanging inner core with structure of Ω and plastic baffle plate possess the ability of elasticity to obtain the function of anti-freezing .

2. Anti-Corrosion, Long serve life

HZSS patented structure of plastic baffle plate and titanium inner core has long serve life and high corrosion resistance.

3. High Efficiency

Heat exchanging inner core are internal threaded to obtain more heat transfer area and turbulence flow in order to achieve higher efficiency;

4. Special Refrigerant connection sealing to avoid leakage.

5. Easy maintenance and cleaning

The shell is designed to be dismountable to make maintenance and cleaning much easier.



Product Technical Parameters

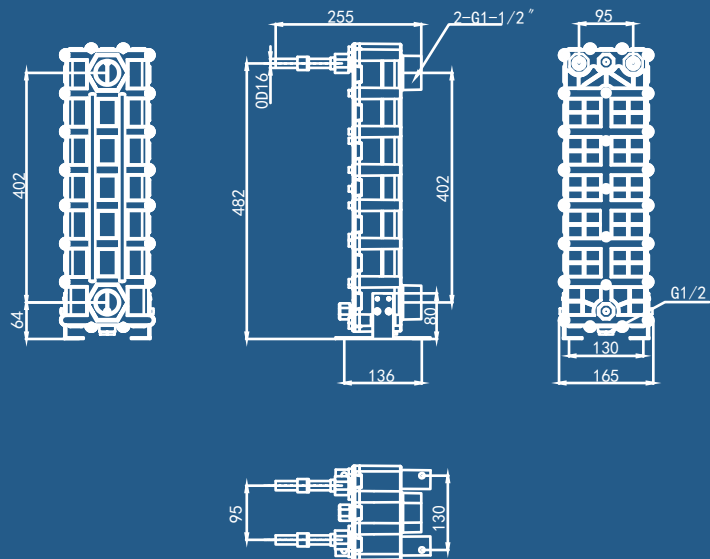
Model	Refrigerant	Water flow		Water Pressure drop		Capacity	
		GPM	m ³ /h	PSI	KPa	Btu/h	kW
SS-0030STI-Y	R410A	24.66	5.6	2.63	18.1	55600	16.3
SS-0050STI-Y	R410A	29.50	6.7	3.60	24.8	66200	19.4
SS-0070STI-Y	R410A	34.34	7.8	4.74	32.7	77100	22.6
SS-0090STI-Y	R410A	38.75	8.8	5.89	40.6	87000	25.5

Note: All models have titanium Inner tube

Test Condition: Water inlet temp 78.8°F, water outlet temp 83.3°F, Condensing temp 104°F.

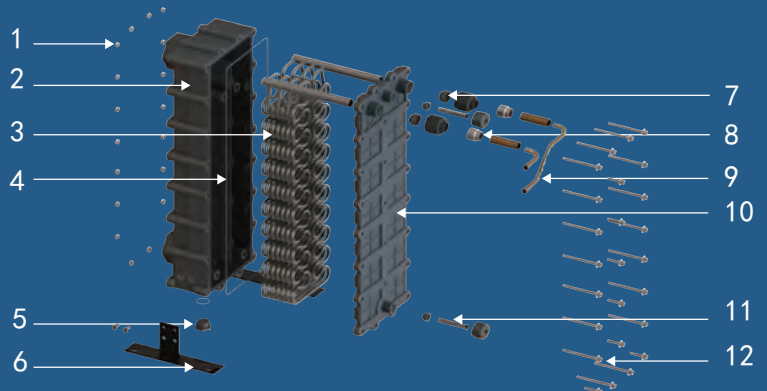
Water inlet temp 26°C, water outlet temp 28.5°C, Condensing temp 40°C.

Product Dimensions



Plastic shell pipe Titanium heat exchanger explosive view

1. fixing nut
2. plastic shell(PA6)
3. heat transfer inner core
4. water loop seal
5. water outfall
6. bracket
7. seal ring of refrigerant loop
8. lock ring
9. connect pipe
10. plastic cover
11. temperature sensor point
12. fixing bolt





Coil-in-shell heat exchanger

Product Profile

HZSS's tubular heat exchanger is suitable for refrigeration (heat pump) system, which pipe runs water and shell runs refrigerant.



Product Features

Precision

Full process automation, efficient welding robots ensure the accuracy of welding and the quality of the weld .



Reliable

Six sigma design, strict quality assurance.



Performance

Excellent condensation and evaporation performance, reliable and efficient refrigeration and oil return.



Price

Compared with competitive products, the price is right, cost-effective.



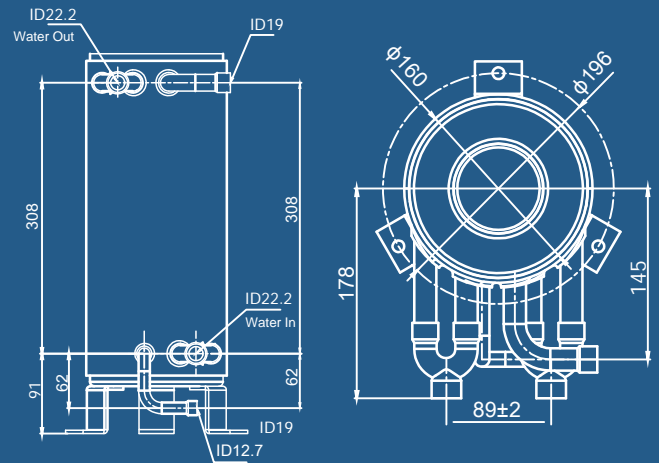
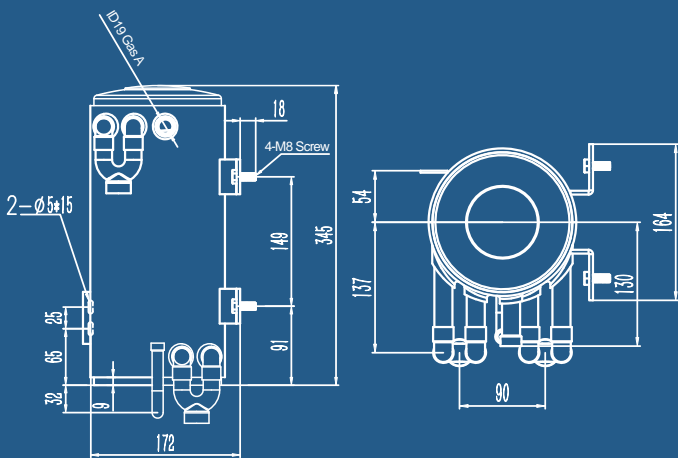
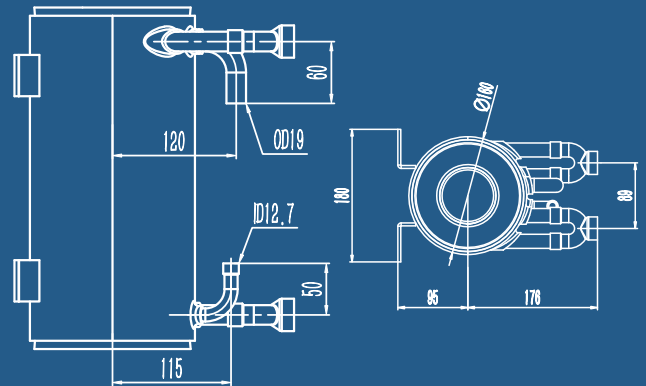
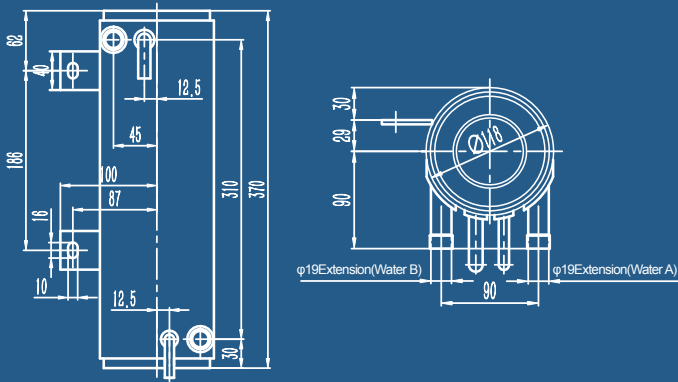
Product Technical Parameters

Model	Refrigerant	Evaporator						Condenser1						Condenser2					
		Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kw	Water Pressure drop PSI	Water Pressure drop KPa	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kw	Water Pressure drop PSI	Water Pressure drop KPa	Flow rate GPM	Flow rate m ³ /h	Heat Transfer Capacity Btu/h	Heat Transfer Capacity kw	Water Pressure drop PSI	Water Pressure drop KPa
CSSG0300001	R410a	0.27	1.20	24200	7	6.0	41.4	0.27	1.21	24200	7	5.4	37.4	0.39	1.72	34500	10	11.2	77.4
CSSG0500001	R410a	0.39	1.72	34500	10	2.9	19.9	0.39	1.72	34500	10	2.5	17.3	0.55	2.41	48300	14	5.5	37.7
CSSG0600001	R410a	0.64	2.41	47800	14	8.4	58	0.50	1.90	37500	11	5.6	38.7	0.73	2.75	54600	16	9.8	67.5
CSSG0600005	R410a	/	/	/	/	/	/	0.47	2.06	41400	12	3.9	27	0.62	2.75	55200	16	7.5	51.5

Annotation 1 : Evaporator: Air side temp dry/wet ball 35/24°C, water inlet temp 12°C, water outlet temp 7°C.
 Condenser1: Air side temp dry/wet ball -12/-14°C, water inlet temp 36°C, water outlet temp 41°C.
 Condenser2: Air side temp dry/wet ball 7/6°C, water inlet temp 40°C, water outlet temp 45°C.

Annotation 2 : Evaporator: Air side temp dry/wet ball 95/75.2°F, water inlet temp 53.6°F, water outlet temp 44.6°F.
 Condenser1: Air side temp dry/wet ball 10.4/6.8°F, water inlet temp 96.8°F, water outlet temp 105.8°F.
 Condenser2: Air side temp dry/wet ball 44.6/42.8°F, water inlet temp 86°F, water outlet temp 95°F.

Product Dimensions





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