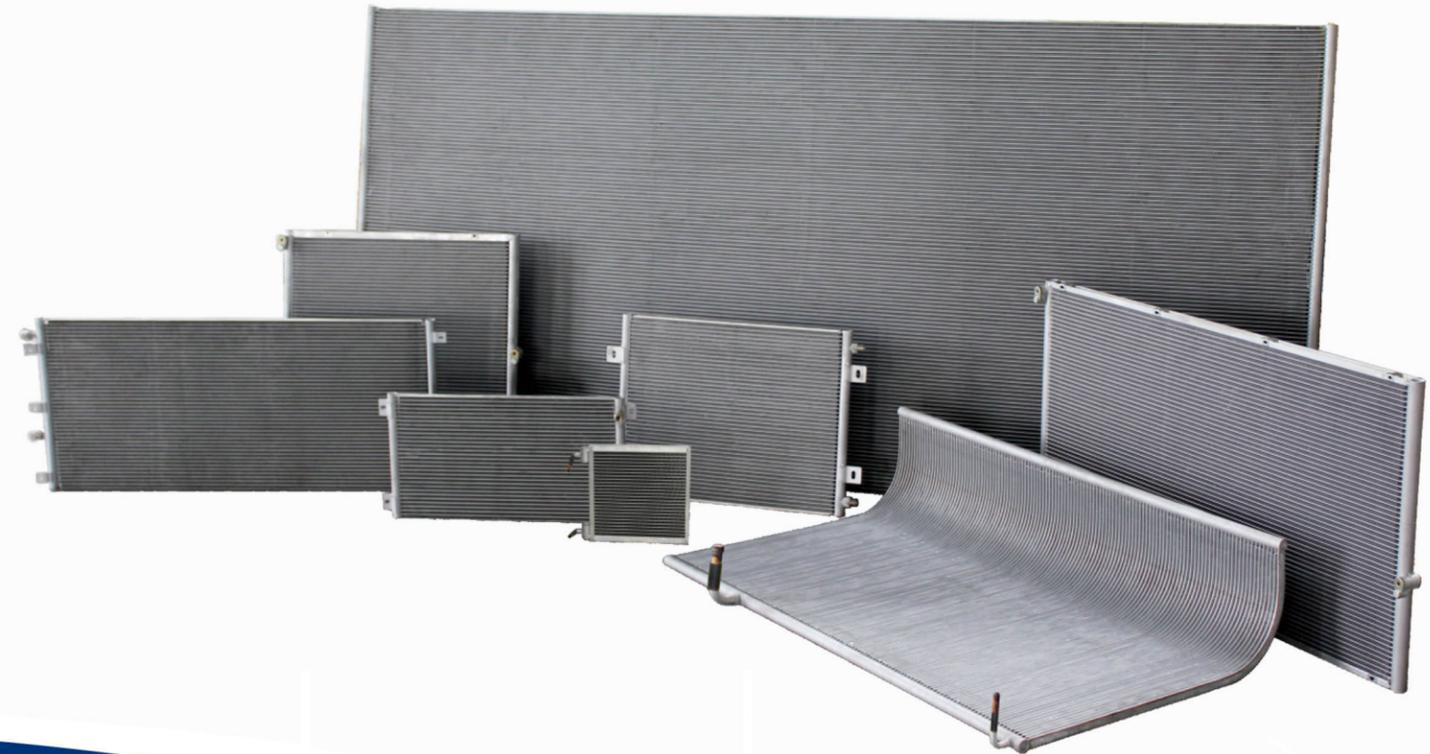


Venttk



Your Reliable Heat Exchange Partner

上海樊太制冷设备有限公司
Shanghai Venttech Refrigeration Equipment Co., Ltd

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**Standard
Products**

Micro Channel Heat Exchanger

Strive for perfection
Pursuit of excellence

Shanghai Venttech Refrigeration Equipment Co., Ltd located in Shanghai, China, is a professional Micro Channel Heat Exchanger Manufacturer.

- To create value for customers is our pursuit. Provide customer the most professional products and service.
- Based on professional technology and reliable products quality, Venttk has offered products to 270 customers in 30 countries and areas.

- We can offer standard range and customized products- micro channel condenser, evaporator, and serpentine coil.

CHILLING
IDEAS WORLDWIDE

Venttk

应用领域
APPLYING FIELD



——致力于推动热交换系统创新!
——Devoted To Promoting the Innovation of Heat Exchange System!

Venttk

步步为赢

Every step is a victory

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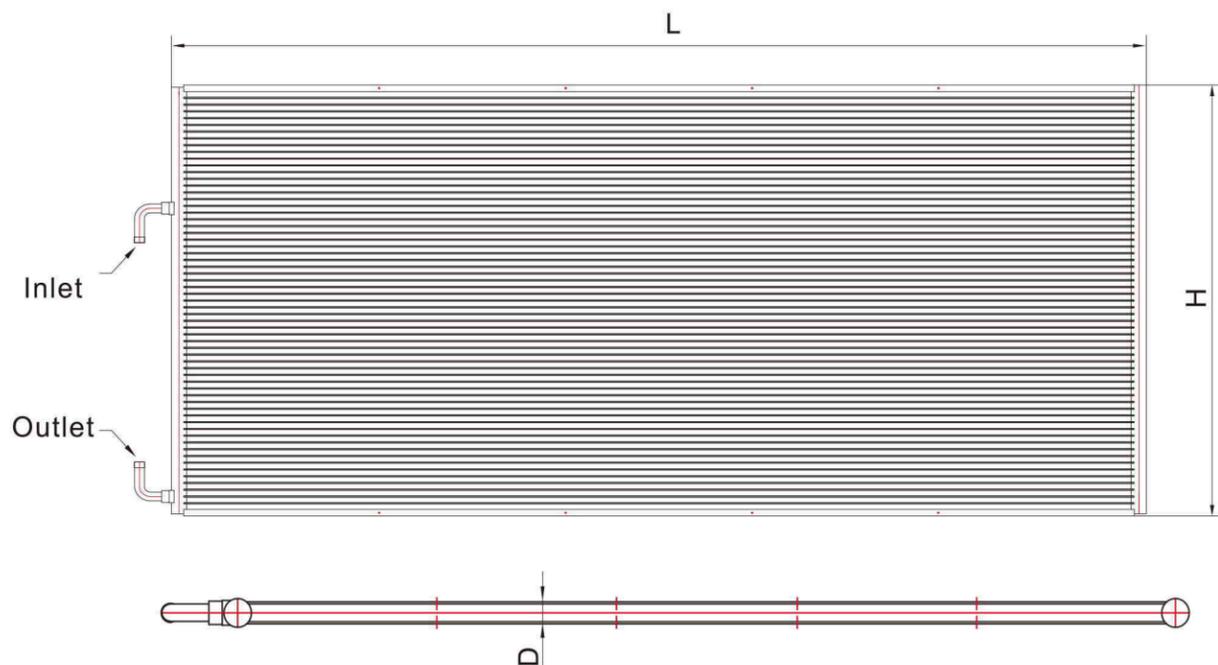
可靠的技术
Reliable technology

可靠的质量
Reliable quality

可靠的服务
Reliable service

Micro-Channel Heat Exchangers - Standard Range 微通道热交换器

Standard Specification 标准规格



Standard Type 标准型号	Total Length 总长		Total Height 总高		Tube Width 扁管宽度		Inlet ID 进口内径		Outlet ID 出口内径	
	[L]		[H]		[D]		[F]		[F]	
	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]	[mm]	[in]
SC-1000	333.2	13.12	299.7	11.80	16	0.63	6.35	1/4	6.35	1/4
SC-1100	388	15.28	346.7	13.65	16	0.63	6.35	1/4	6.35	1/4
SC-1200	460	18.11	431.3	16.98	16	0.63	7.94	5/16	6.35	1/4
SC-1300	550	21.65	515.9	20.31	16	0.63	9.52	3/8	7.94	5/16
SC-1400	780	30.70	769.7	30.30	16	0.63	9.52	3/8	9.52	3/8
SC-1500	1074	42.28	518	20.39	25.4	1	12.7	1/2	12.7	1/2
SC-1600	1280	50.39	618.5	25.37	16	0.63	12.7	1/2	12.7	1/2
SC-1700	1324	52.13	638	25.12	25.4	1	15.88	5/8	12.7	1/2
SC-1800	1074	42.28	1208	47.56	25.4	1	22.2	7/8	22.2	7/8
SC-1900	1274	50.16	1358	53.46	25.4	1	22.2	7/8	22.2	7/8
SC-2000	2000	78.74	1058	41.65	25.4	1	25.4	1	22.2	7/8

Micro-Channel Heat Exchangers - Standard Range 微通道热交换器

Common Nominal Working Conditions 标准工况

The Heat Rejection data valid for all the standard coils, present in the performance table in this catalogue has been calculated according to the following Nominal Working Conditions:

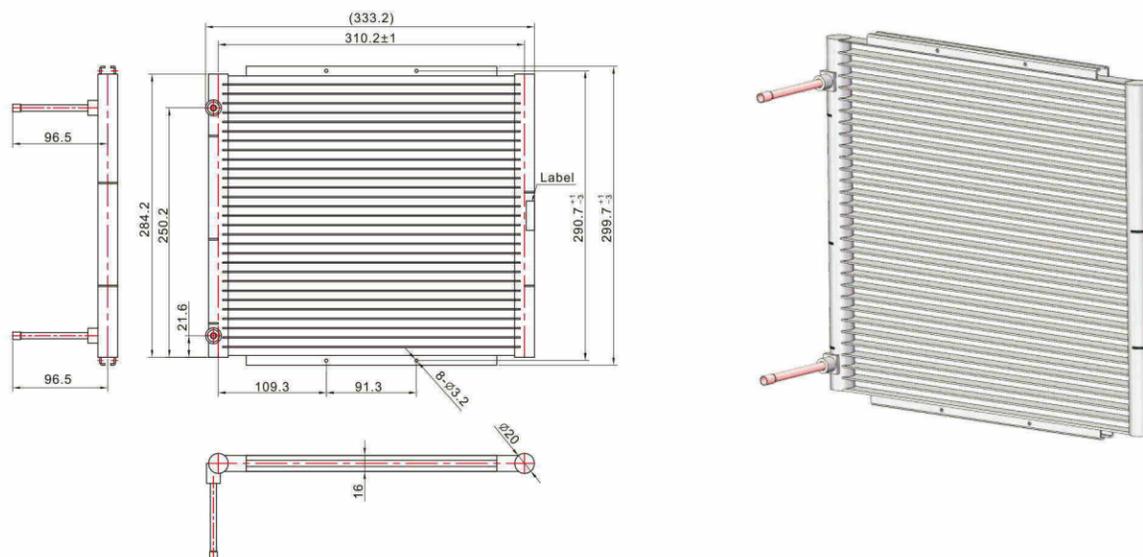
注：该目录中所提供的性能参数，是根据以下标准工况计算得出。

Nominal Working Conditions 标准工况	Metric units 公制单位	
Inlet Air Temperature 进气温度	°C	35
Inlet Relative Humidity 进口相对湿度	%	50
Sub-Cooling 过冷度	K	4
Input data: ($\Delta T=10$ K) 对应数据		
Condensing Temperature 冷凝温度	°C	45
Inlet refrigerant temperature 进口冷媒温度	°C	75
Input data: ($\Delta T=15$ K) 对应数据		
Condensing Temperature 冷凝温度	°C	50
Inlet refrigerant temperature 进口冷媒温度	°C	80
Input data: ($\Delta T=20$ K) 对应数据		
Condensing Temperature 冷凝温度	°C	55
Inlet refrigerant temperature 进口冷媒温度	°C	85
Input data: ($\Delta T=25$ K) 对应数据		
Condensing Temperature 冷凝温度	°C	60
Inlet refrigerant temperature 进口冷媒温度	°C	90

Nominal Working Conditions 标准工况	Imperial units 英制单位	
Inlet Air Temperature 进气温度	°F	95
Inlet Relative Humidity 进口相对湿度	%	50
Sub-Cooling 过冷度	K	4
Input data: ($\Delta T=18^{\circ}\text{F}$) 对应数据		
Condensing Temperature 冷凝温度	°F	113
Inlet refrigerant temperature 进口冷媒温度	°F	167
Input data: ($\Delta T=15^{\circ}\text{F}$) 对应数据		
Condensing Temperature 冷凝温度	°F	122
Inlet refrigerant temperature 进口冷媒温度	°F	176
Input data: ($\Delta T=20^{\circ}\text{F}$) 对应数据		
Condensing Temperature 冷凝温度	°F	131
Inlet refrigerant temperature 进口冷媒温度	°F	185
Input data: ($\Delta T=25^{\circ}\text{F}$) 对应数据		
Condensing Temperature 冷凝温度	°F	140
Inlet refrigerant temperature 进口冷媒温度	°F	194

SC-1000 Condenser Coil Micro-Channel Heat Exchanger SC-1000 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1000	333.2[mm]	299.7[mm]	16[mm]	1.1[mm]	8.1[mm]	20[mm]
	13.12[in]	11.8[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1000	1.3[mm]	29	6/6/5/5/4/3	≈0.16[L]	6.35[mm]	6.35[mm]
	0.05[in]			≈9.5[in ³]	1/4[in]	1/4[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHE to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象, 支架安装等必须允许一定的公差范围。



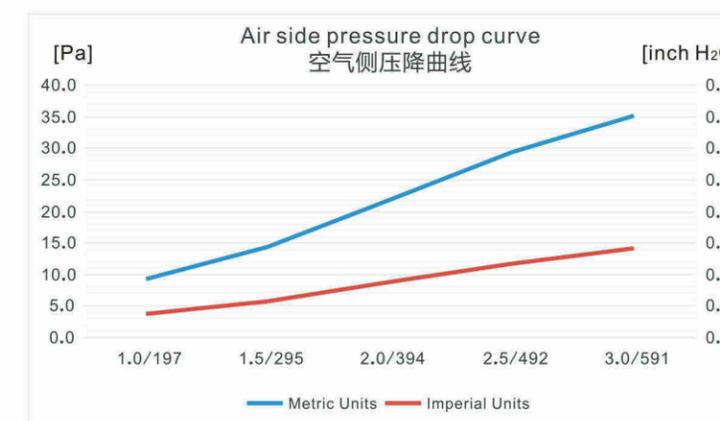
Performance Data 性能参数

Air Velocity		换热性能 Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	0.88/3.00	1.37/4.68	1.85/6.31	2.33/7.95	0.83/2.83	1.27/4.33	1.72/5.87	2.20/7.51
1.5	295	1.2/4.10	1.91/6.52	2.58/8.81	3.26/11.13	1.12/3.82	1.73/5.90	2.40/8.19	3.00/10.24
2.0	394	1.54/5.26	2.39/8.16	3.23/11.02	4.08/13.92	1.37/4.68	2.12/7.24	2.96/10.10	3.70/12.63
2.5	492	1.82/6.21	2.81/9.59	3.80/12.97	4.82/16.45	1.58/5.39	2.54/8.67	3.43/11.71	4.30/14.68
3.0	591	2.07/7.06	3.2/10.92	4.33/14.78	5.49/18.74	1.77/6.04	2.86/9.76	3.86/13.17	4.80/16.38

Air Velocity		换热性能 Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	0.86/2.94	1.37/4.68	1.85/6.31	2.33/7.95	0.57/1.95	1.08/3.69	1.55/5.29	2.06/7.03
1.5	295	1.18/4.03	1.9/6.48	2.56/8.74	3.23/11.02	0.76/2.59	1.47/5.02	2.19/7.47	2.87/9.80
2.0	394	1.52/5.19	2.35/8.02	3.18/10.85	4.02/13.72	0.93/3.17	1.81/6.18	2.73/9.32	3.56/12.15
2.5	492	1.78/6.08	2.75/9.39	3.72/12.70	4.71/16.08	1.07/3.65	2.2/7.51	3.2/10.92	4.17/14.23
3.0	591	2.01/6.86	3.11/10.6	4.2/14.33	5.33/18.19	1.19/4.06	2.5/8.53	3.6/12.29	4.72/16.11

Air-side Pressure Drop Data 空气侧压降数据

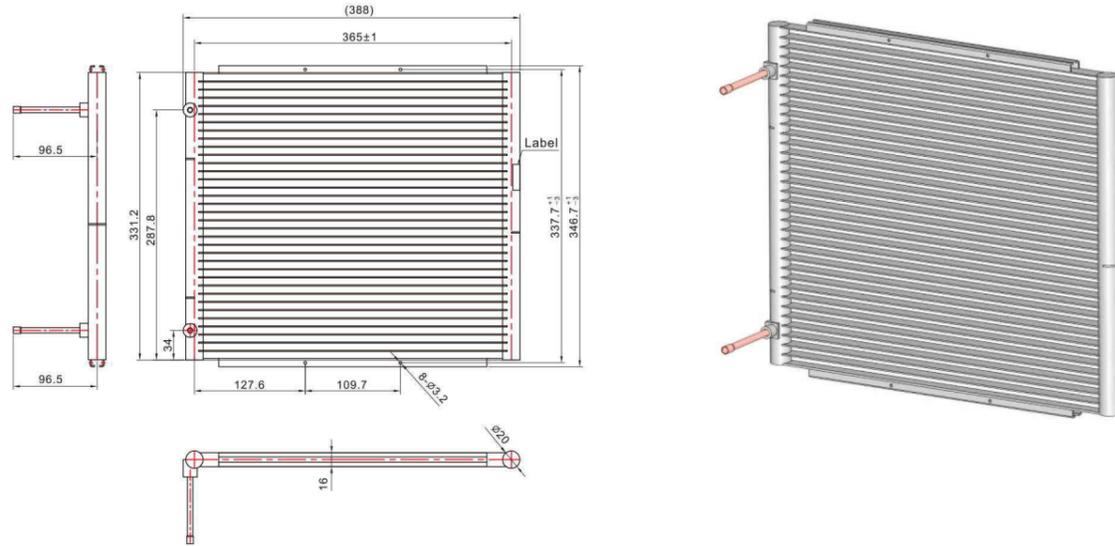
Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	9.12	0.04	313.30	184.3
1.5	295	14.35	0.06	470.00	276.5
2.0	394	21.82	0.09	626.52	368.5
2.5	492	29.20	0.12	783.15	460.7
3.0	591	34.95	0.14	939.78	552.8



SC-1100 Condenser Coil Micro-Channel Heat Exchanger

SC-1100 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

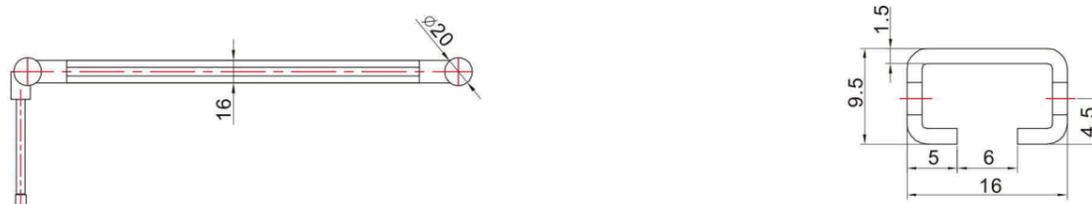
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1100	388[mm]	346.7[mm]	16[mm]	1.1[mm]	8.1[mm]	20[mm]
	15.28[in]	13.65[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1100	1.3[mm]	34	10/9/8/7	≈0.21[L]	6.35[mm]	6.35[mm]
	0.05[in]			≈12.79[in³]	1/4[in]	1/4[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



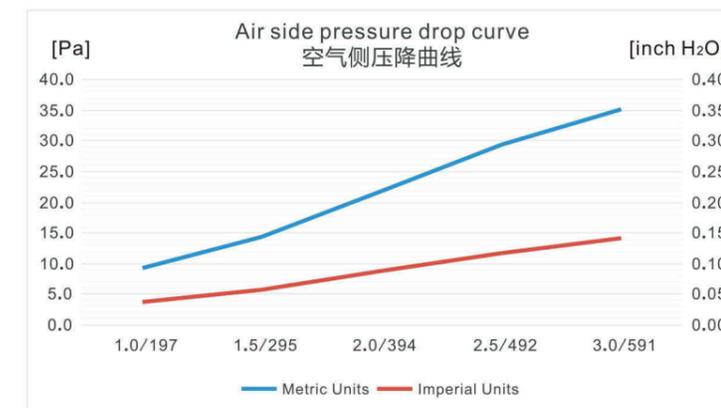
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	1.19/4.06	1.83/6.25	2.47/8.43	3.19/10.89	1.14/3.89	1.75/5.97	2.36/8.05	2.97/10.14
1.5	295	1.63/5.56	2.52/8.60	3.52/12.01	4.47/15.26	1.55/5.29	2.39/8.16	3.24/11.06	4.09/13.96
2.0	394	2.02/6.89	3.24/11.0	4.41/15.05	5.61/19.15	1.89/6.45	2.94/10.03	3.99/13.62	5.18/17.68
2.5	492	2.36/8.05	3.83/13.0	5.22/17.82	6.63/22.63	2.2/7.51	3.42/11.67	4.77/16.28	6.03/20.58
3.0	591	2.67/9.11	4.63/14.8	5.95/20.31	7.57/25.84	2.46/8.40	3.85/13.14	5.4/18.43	6.8/23.21

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	1.17/3.99	1.81/6.18	2.53/8.63	3.20/10.92	0.77/2.63	1.47/5.02	2.12/7.24	2.78/9.49
1.5	295	1.59/5.43	2.58/8.81	3.51/11.98	4.46/15.22	1.04/3.55	2.01/6.86	2.92/9.97	3.93/13.41
2.0	394	1.95/6.66	3.22/10.9	4.38/14.95	5.56/18.98	1.26/4.30	2.48/8.46	3.62/12.35	4.89/16.69
2.5	492	2.26/7.71	3.77/12.8	5.15/17.58	6.55/22.35	1.46/4.98	2.89/9.86	4.39/14.98	5.76/19.66
3.0	591	2.54/8.67	4.28/14.6	5.85/19.97	7.44/25.39	1.62/5.53	3.25/11.09	4.98/17.00	6.55/22.35

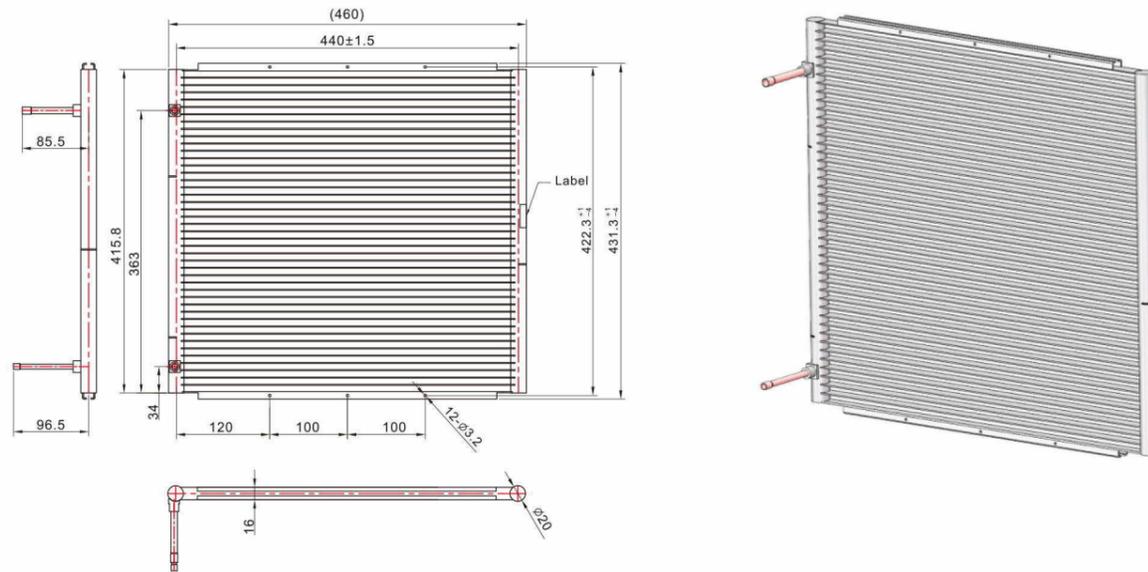
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	9.18	0.04	430.6	253.3
1.5	295	14.45	0.06	645.9	379.9
2.0	394	21.98	0.09	861.2	506.6
2.5	492	29.36	0.12	1076.49	633.2
3.0	591	34.20	0.14	1291.79	759.9



SC-1200 Condenser Coil Micro-Channel Heat Exchanger SC-1200 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1200	460[mm]	431.3[mm]	16[mm]	1.1[mm]	8.1[mm]	20[mm]
	18.11[in]	16.98[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1200	1.3[mm]	43	14/12/10/7	≈0.31[L]	7.94[mm]	6.35[mm]
	0.05[in]			≈19[in ³]	5/16[in]	1/4[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



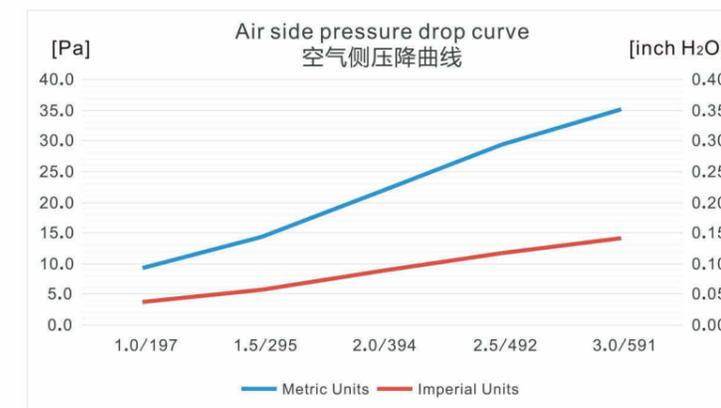
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	1.78/6.08	2.82/9.62	3.83/13.07	4.84/16.52	1.72/5.87	2.65/9.04	3.65/12.46	4.61/15.73
1.5	295	2.54/8.67	3.94/13.4	5.35/18.26	6.78/23.14	2.35/8.02	3.74/12.7	5.08/17.34	6.41/21.88
2.0	394	3.18/10.8	4.94/16.8	6.71/22.90	8.51/29.04	2.9/9.90	4.65/15.8	6.31/21.54	7.95/27.13
2.5	492	3.75/12.8	5.83/19.9	7.93/27.06	10.07/34.3	3.49/11.9	5.46/18.6	7.42/25.32	9.33/31.84
3.0	591	4.28/14.6	6.65/22.7	9.06/30.92	11.5/39.25	3.95/13.4	6.19/21.1	8.4/28.67	10.54/35.9

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	1.83/6.25	2.84/9.69	3.84/13.11	4.86/16.59	1.08/3.69	2.22/7.58	3.28/11.19	4.3/14.68
1.5	295	2.54/8.67	3.95/13.4	5.35/18.26	6.78/23.14	1.56/5.32	3.14/10.72	4.58/15.63	6.0/20.48
2.0	394	3.17/10.8	4.92/16.7	6.68/22.80	8.46/28.87	1.91/6.52	3.92/13.38	5.72/19.52	7.49/25.56
2.5	492	3.72/12.7	5.79/19.7	7.86/26.83	9.97/34.03	2.21/7.54	4.62/15.77	6.75/23.04	8.82/30.10
3.0	591	4.23/14.4	6.57/22.4	8.93/30.48	11.33/38.6	2.47/8.43	5.26/17.95	7.65/26.11	10.04/34.2

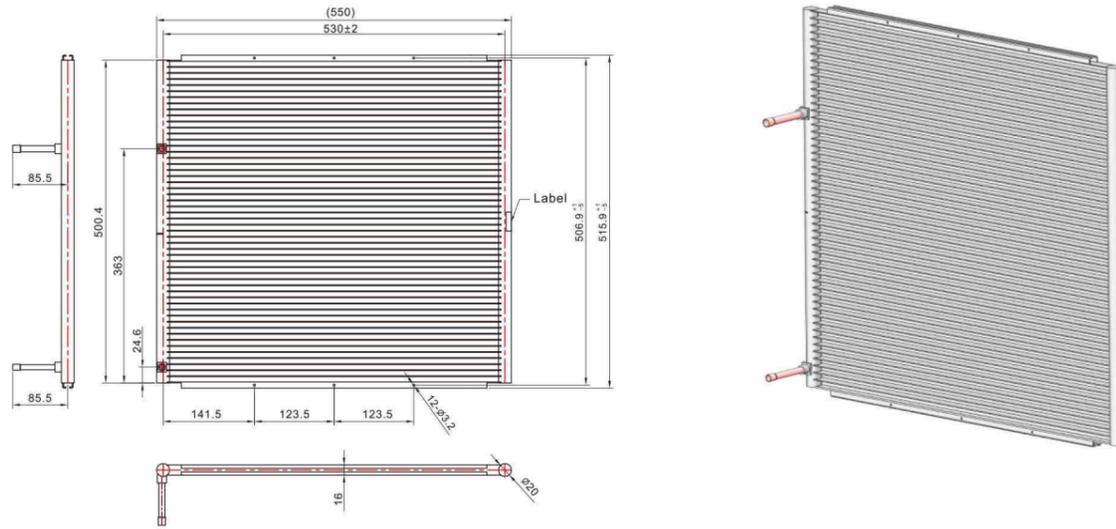
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	9.23	0.04	653.08	384.2
1.5	295	14.52	0.06	979.62	576.2
2.0	394	22.11	0.09	1306.16	768.3
2.5	492	29.50	0.12	1632.70	960.4
3.0	591	35.40	0.14	1959.24	1152.5



SC-1300 Condenser Coil Micro-Channel Heat Exchanger SC-1300 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1300	550[mm]	515.9[mm]	16[mm]	1.1[mm]	8.1[mm]	20[mm]
	21.65[in]	20.3[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1300	1.3[mm]	52	28/24	≈0.45[L]	9.52[mm]	7.94[mm]
	0.05[in]			≈27.17[in³]	3/8[in]	5/16[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



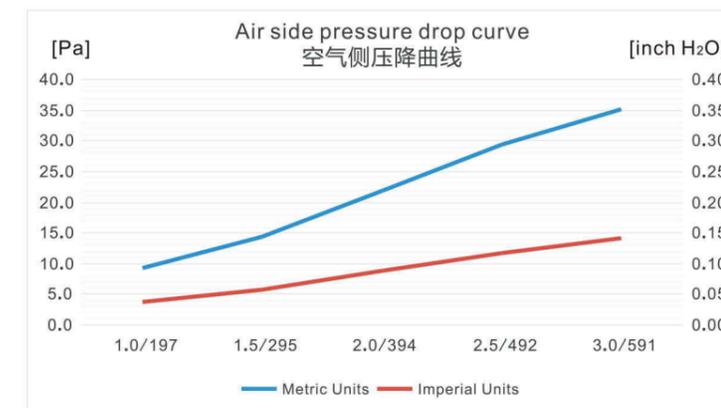
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	2.68/9.15	4.14/14.1	5.59/19.08	7.07/24.13	2.52/8.60	3.94/13.4	5.32/18.16	6.69/22.83
1.5	295	3.74/12.76	5.79/19.7	7.82/26.69	9.88/33.72	3.43/11.71	5.44/18.5	7.35/25.09	9.27/31.64
2.0	394	4.68/15.97	7.23/24.6	9.79/33.41	12.38/42.2	4.34/14.81	6.75/23.0	9.12/31.13	11.45/39.0
2.5	492	5.53/18.87	8.53/29.1	11.56/39.4	14.63/49.9	5.07/17.30	7.87/26.8	10.6/36.18	13.33/45.4
3.0	591	6.3/21.50	9.72/33.1	13.16/44.9	16.67/56.8	5.72/19.52	8.88/30.3	11.94/40.7	15.03/51.3

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	2.69/9.18	4.15/14.1	5.6/19.11	7.06/24.10	1.71/5.84	3.32/11.3	4.81/16.42	6.27/21.40
1.5	295	3.74/12.76	5.76/19.6	7.78/26.55	9.82/33.52	2.32/7.92	4.62/15.7	6.69/22.83	8.72/29.76
2.0	394	4.65/15.87	7.17/24.4	9.68/33.04	12.24/41.7	2.83/9.66	5.76/19.6	8.35/28.50	10.85/37.03
2.5	492	5.46/18.63	8.4/28.67	11.36/38.7	14.37/49.0	3.27/11.1	6.77/23.1	9.78/33.38	12.77/43.58
3.0	591	6.19/21.13	9.52/32.4	12.88/43.9	16.29/55.6	3.88/13.2	7.68/26.2	11.1/37.88	14.49/49.45

Air-side Pressure Drop Data 空气侧压降数据

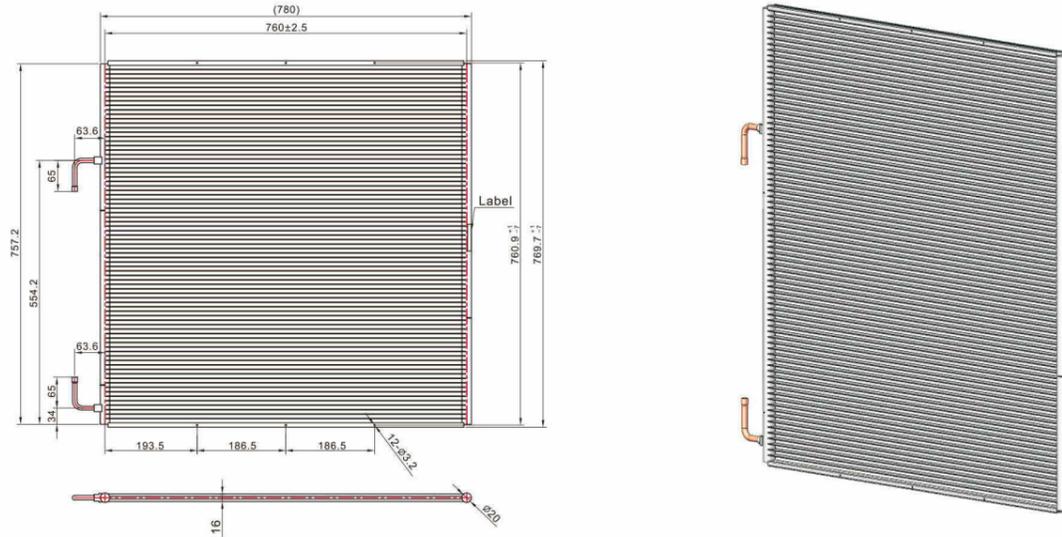
Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m³/h]	[cfm]
1.0	197	9.22	0.04	948.08	557.7
1.5	295	14.51	0.06	1422.10	836.5
2.0	394	22.09	0.09	1896.17	1115.4
2.5	492	29.50	0.12	2370.21	1394.2
3.0	591	35.37	0.14	2844.25	1673.1



SC-1400 Condenser Coil Micro-Channel Heat Exchanger

SC-1400 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

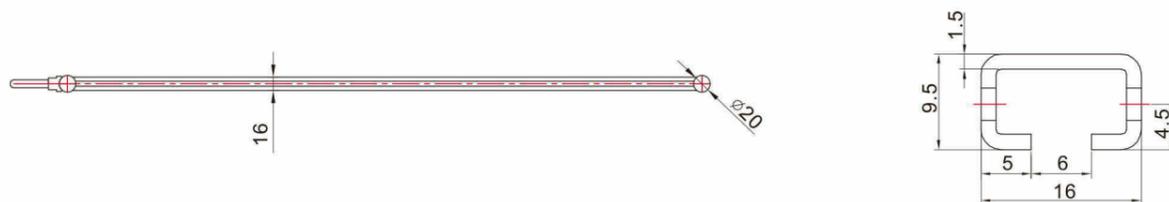
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1400	780[mm]	769.7[mm]	16[mm]	1.1[mm]	8.1[mm]	20[mm]
	30.7[in]	30.3[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1400	1.3[mm]	79	32/24/15/8	≈0.95[L]	9.52[mm]	9.52[mm]
	0.05[in]			≈58.09[in³]	3/8[in]	3/8[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



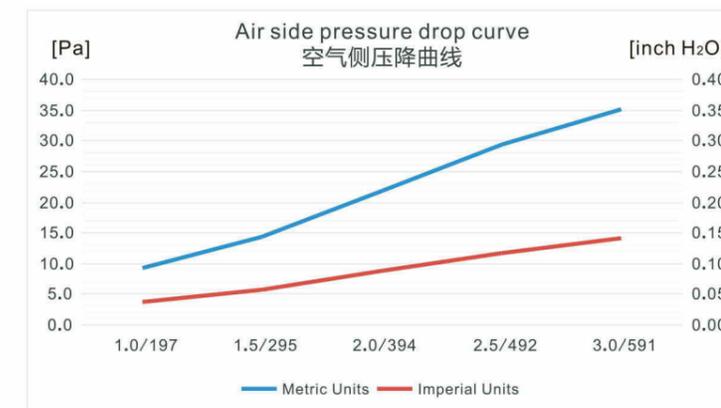
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	6.12/20.89	9.31/31.77	12.49/42.63	15.72/53.65	5.58/19.04	8.66/29.56	11.64/39.73	14.57/49.73
1.5	295	8.5/29.01	12.93/44.13	17.35/59.22	21.86/74.61	7.67/26.18	11.7/39.93	15.86/54.13	19.68/67.17
2.0	394	10.6/36.18	16.05/54.78	21.57/73.62	27.19/92.80	9.36/31.95	14.34/48.94	19.14/65.32	23.93/81.67
2.5	492	12.39/42.29	18.82/64.23	25.3/86.35	31.88/108.81	10.8/36.86	16.55/56.48	21.83/74.51	27.48/93.79
3.0	591	14.04/47.92	21.29/72.66	28.63/97.71	36.08/123.14	11.97/40.85	18.16/61.98	24.18/82.53	30.53/104.20

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	6.07/20.72	9.23/31.50	12.36/42.18	15.55/53.07	3.86/13.17	7.47/25.49	10.7/36.52	13.87/47.34
1.5	295	8.35/28.50	12.64/43.14	16.97/57.92	21.35/72.87	5.22/17.82	10.27/35.05	14.69/50.14	19.05/65.02
2.0	394	10.23/34.91	15.52/52.97	20.86/71.19	26.24/89.56	6.54/22.32	12.69/43.31	18.03/61.54	23.47/80.10
2.5	492	11.88/40.55	18.01/61.47	24.19/82.56	30.44/103.8	7.48/25.53	14.76/50.38	20.95/71.50	27.28/93.11
3.0	591	13.25/45.22	20.17/68.84	27.1/92.49	34.12/116.4	8.26/28.19	16.46/56.18	23.5/80.20	30.66/104.64

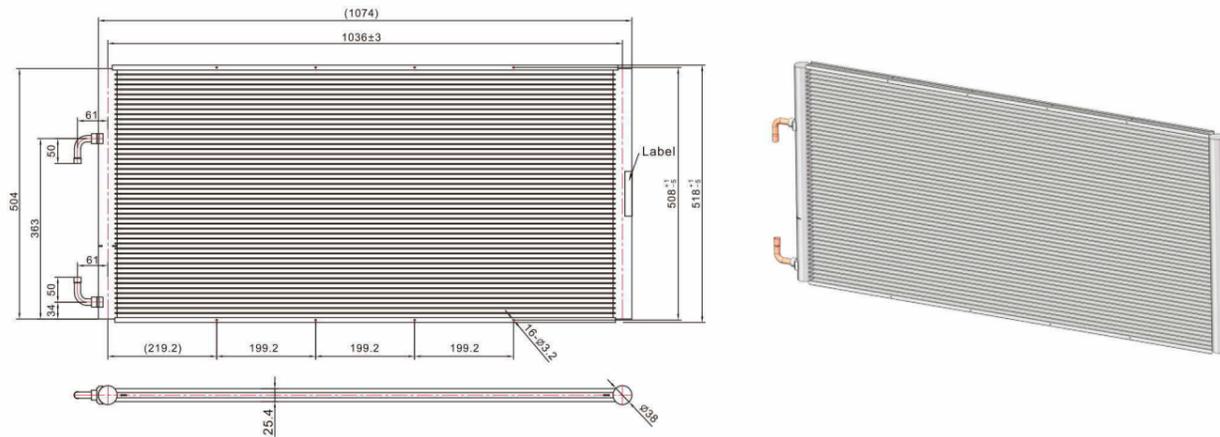
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m³/h]	[cfm]
1.0	197	9.31	0.04	2107.90	1239.9
1.5	295	14.66	0.06	3161.94	1860.0
2.0	394	22.32	0.09	4215.93	2480.0
2.5	492	29.79	0.12	5269.91	3099.9
3.0	591	35.73	0.14	6323.89	3719.9



SC-1500 Condenser Coil Micro-Channel Heat Exchanger SC-1500 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

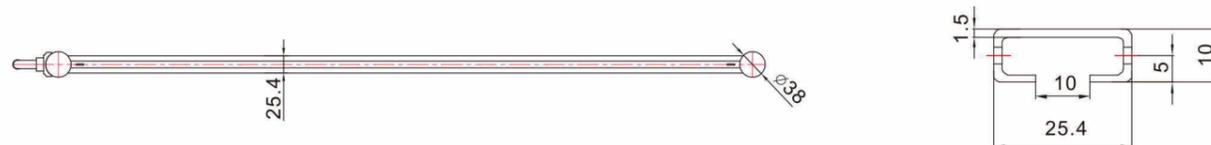
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1500	1074[mm]	518[mm]	25.4[mm]	1.1[mm]	8[mm]	38[mm]
	42.28[in]	20.39[in]	1[in]	23[FPI]	0.31[in]	1.5[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1500	2[mm]	49	35/14	≈2.98[L]	12.7[mm]	12.7[mm]
	0.08[in]			≈181.85[in ³]	1/2[in]	1/2[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



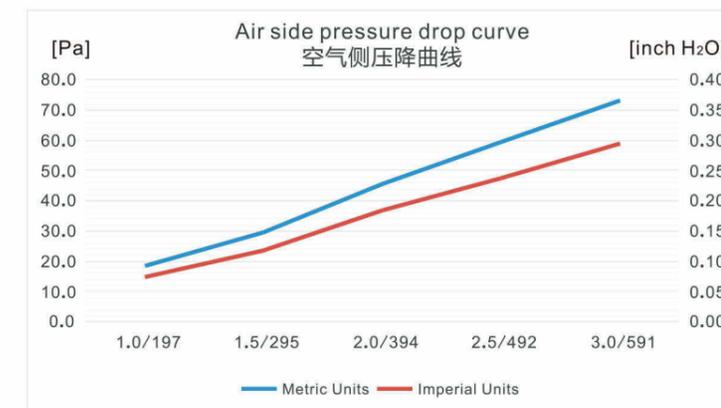
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	4.87/16.62	8.42/28.74	11.59/39.56	14.74/50.31	5.29/18.05	8.21/28.02	11.12/37.95	13.86/47.30
1.5	295	7.62/26.01	12.23/41.7	16.59/56.62	21.09/71.98	7.51/25.63	11.59/39.56	15.72/53.65	20.21/68.98
2.0	394	9.58/32.70	15.58/53.1	21.21/72.39	26.95/91.98	9.53/32.53	14.64/49.97	20.28/69.22	25.78/87.99
2.5	492	11.48/39.1	18.69/63.7	25.58/87.30	32.48/110.8	11.22/38.29	17.42/59.45	24.39/83.24	20.89/71.30
3.0	591	13.62/46.4	21.62/73.7	29.63/101.1	37.69/128.6	12.79/43.65	20.51/70.00	28.18/96.18	35.81/122.2

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	5.39/18.40	8.41/28.70	11.71/39.97	14.81/50.55	3.51/11.98	6.81/23.24	9.91/33.82	12.91/44.06
1.5	295	7.61/25.97	12.31/42.01	16.81/57.35	21.21/72.39	4.61/15.73	9.63/32.87	14.01/47.82	18.74/63.96
2.0	394	9.51/32.46	15.68/53.52	21.44/73.17	27.23/92.94	6.18/21.09	12.09/41.26	18.18/62.05	23.89/81.54
2.5	492	11.92/40.68	18.76/64.03	25.68/87.65	32.68/111.54	7.23/24.68	14.38/49.08	21.81/74.44	28.76/98.16
3.0	591	13.68/46.69	21.67/73.96	29.71/101.40	37.91/129.39	8.23/28.09	16.51/56.35	25.34/86.48	33.31/113.69

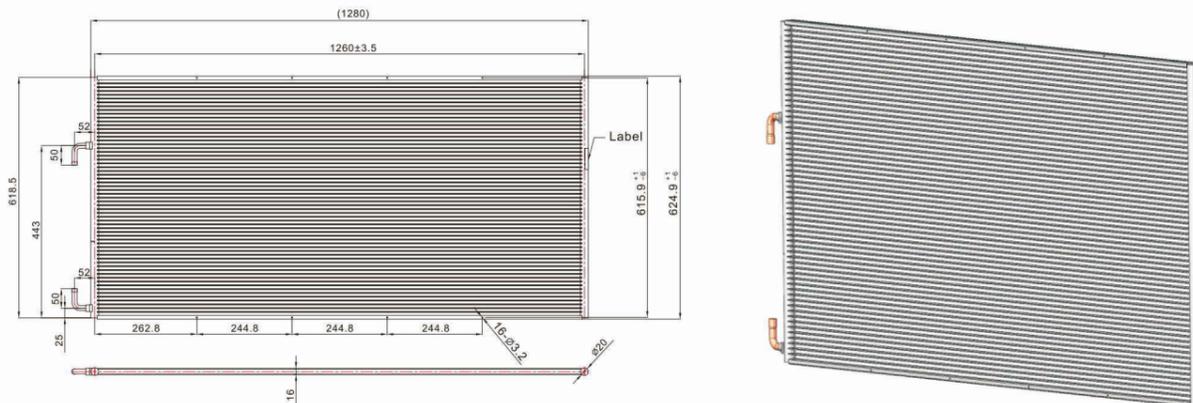
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	18.6	0.07	1855.0	1091.2
1.5	295	29.4	0.12	2780.0	1635.3
2.0	394	45.7	0.18	3705.0	2179.4
2.5	492	59.3	0.24	4635.0	2726.5
3.0	591	73.4	0.29	5560.0	3270.6



SC-1600 Condenser Coil Micro-Channel Heat Exchanger SC-1600 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

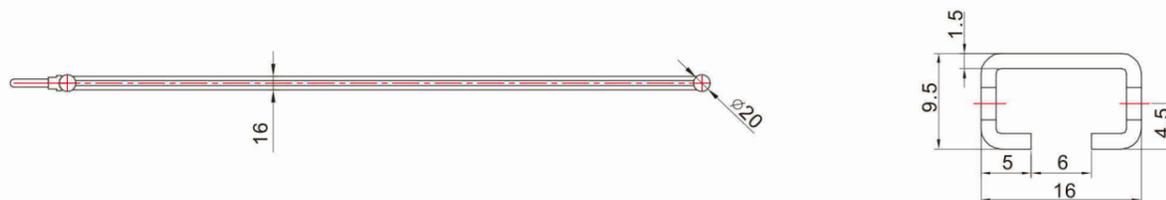
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1600	1280[mm]	618.5[mm]	16[mm]	1.1[mm]	8[mm]	20[mm]
	50.39[in]	24.35[in]	0.63[in]	23[FPI]	0.32[in]	0.79[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1600	1.7[mm]	61	42/19	≈1.24[L]	12.7[mm]	12.7[mm]
	0.066[in]			≈75.64[in ³]	1/2[in]	1/2[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHC to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



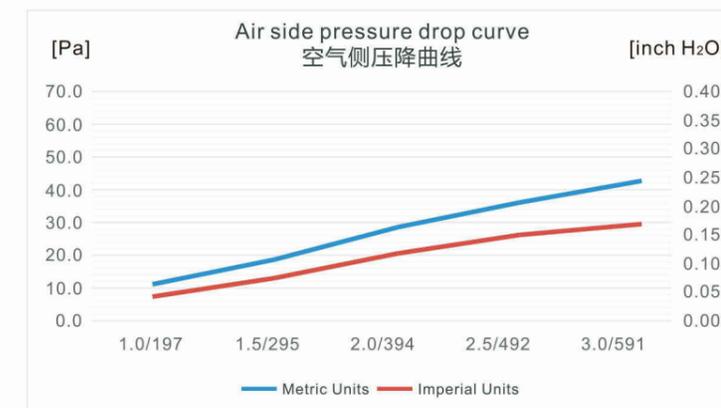
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	7.3/24.9	11.9/40.6	16.1/54.9	20.4/69.6	7.4/25.3	11.3/38.6	15.2/51.9	19.4/66.2
1.5	295	10.1/34.5	16.6/56.7	22.6/77.1	28.5/97.3	10.1/34.5	15.5/52.9	21.4/73.0	26.9/91.8
2.0	394	12.9/44.0	20.8/71.0	28.2/96.2	35.7/121.8	12.4/42.3	19.6/66.9	26.6/90.8	33.4/114.0
2.5	492	15.3/52.2	25.6/87.4	33.3/113.7	42.3/144.4	14.4/49.1	23.0/78.5	31.2/106.5	39.1/133.4
3.0	591	17.4/59.4	28.0/95.6	38.1/130.0	48.2/164.5	16.2/55.3	26.1/89.1	35.1/119.8	44.3/151.2

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	7.5/25.6	12.0/41.0	16.2/55.3	20.4/69.6	5.0/17.1	9.5/32.4	13.8/47.1	18.1/61.8
1.5	295	10.7/36.5	16.7/57.0	22.5/76.8	28.5/97.3	6.8/23.2	13.0/44.4	19.3/65.9	25.3/86.3
2.0	394	13.4/45.7	20.7/70.6	28.1/95.9	35.6/121.5	8.3/28.3	16.6/56.7	24.1/82.3	31.5/107.5
2.5	492	15.7/53.6	24.4/83.3	33.1/113.0	42.0/143.3	9.6/32.8	19.5/66.6	28.4/96.9	37.1/126.6
3.0	591	17.9/61.1	27.7/94.5	37.7/128.7	47.7/162.8	10.7/36.5	22.2/75.8	32.2/109.9	42.3/144.4

Air-side Pressure Drop Data 空气侧压降数据

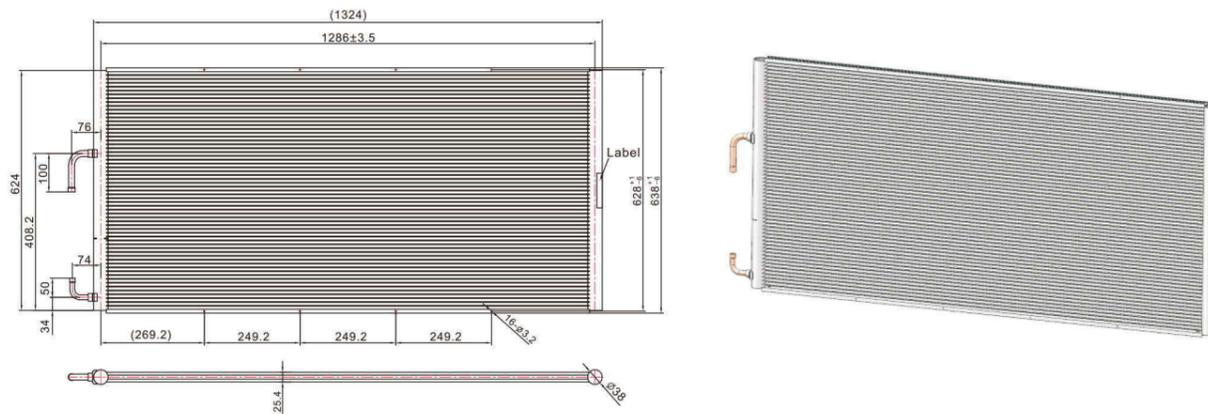
Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	11.7	0.05	2748.4	1617.7
1.5	295	18.4	0.07	4122.5	2426.4
2.0	394	27.8	0.11	5496.7	3235.3
2.5	492	35.1	0.14	6870.9	4044.1
3.0	591	41.3	0.17	8245.1	4852.9



SC-1700 Condenser Coil Micro-Channel Heat Exchanger

SC-1700 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

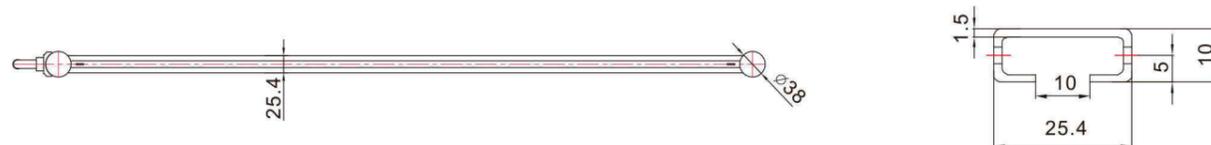
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1700	1324[mm]	638[mm]	25.4[mm]	1.1[mm]	8[mm]	38[mm]
	52.13[in]	25.12[in]	1[in]	23[FPI]	0.31[in]	1.5[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1700	2[mm]	61	43/18	≈4.35[L]	15.88[mm]	12.7[mm]
	0.08[in]			≈265.46[in ³]	5/8[in]	1/2[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



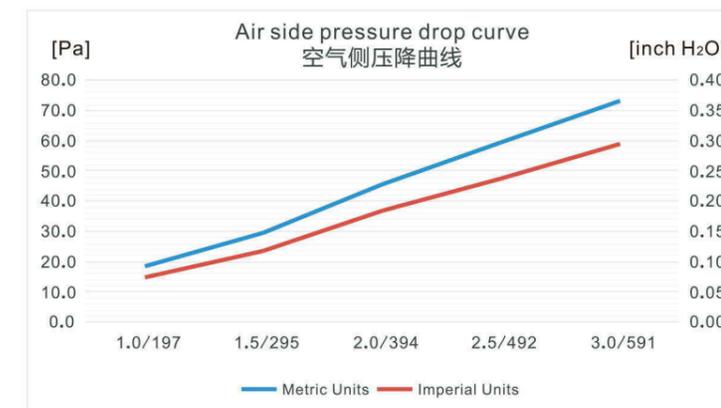
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	8.51/29.04	13.08/44.64	18.03/61.54	22.78/77.75	8.39/28.63	12.84/43.82	17.21/58.74	21.79/74.37
1.5	295	12.08/41.23	19.11/65.22	25.89/88.36	32.84/112.08	11.78/40.20	18.09/61.74	24.91/85.02	31.32/106.89
2.0	394	15.32/52.29	24.48/83.55	33.21/113.34	42.08/143.62	14.89/50.82	22.88/78.09	31.74/108.33	39.99/136.48
2.5	492	18.91/64.54	29.41/100.38	40.03/136.62	50.66/172.90	17.72/60.48	28.03/95.67	38.09/130.00	48.12/164.23
3.0	591	21.68/73.99	34.12/116.45	46.32/158.09	58.84/200.82	20.21/68.98	32.29/110.20	43.91/149.86	55.26/188.60

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	8.45/28.84	13.38/45.67	18.62/63.55	22.95/78.33	5.42/18.50	10.68/36.45	15.42/52.63	20.31/69.32
1.5	295	12.12/41.37	19.28/65.80	26.11/89.11	33.04/112.76	7.94/27.10	15.09/51.50	22.31/76.14	29.21/99.69
2.0	394	15.78/53.86	24.62/84.03	33.42/114.06	42.19/143.99	9.92/33.86	19.07/65.09	28.54/97.41	37.33/127.41
2.5	492	18.89/64.47	29.52/100.75	40.11/136.89	50.75/173.21	11.68/39.86	23.49/80.17	34.21/116.76	44.78/152.83
3.0	591	21.82/74.47	34.02/116.14	46.42/158.43	58.82/200.75	13.15/44.88	27.06/92.35	39.62/135.22	51.89/177.10

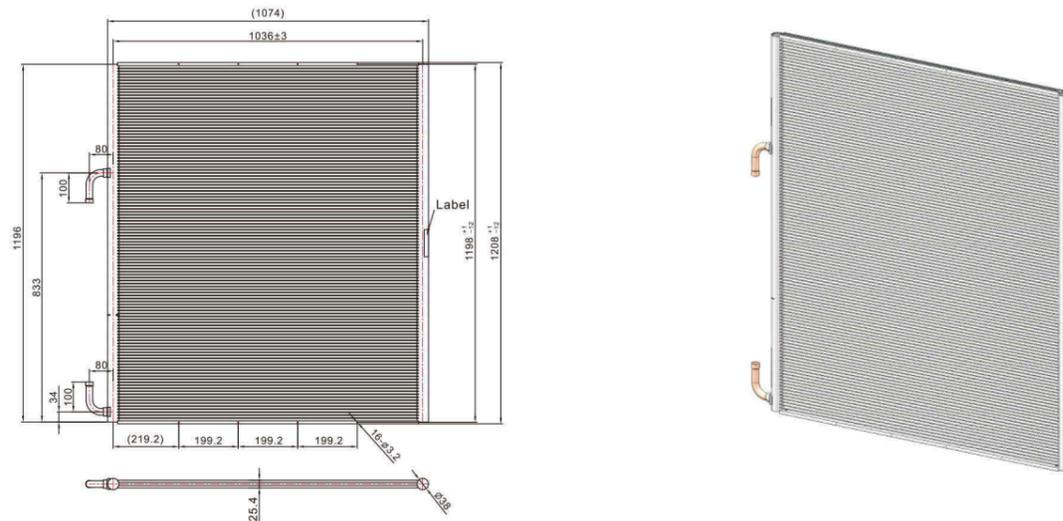
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	18.6	0.07	2860.0	1682.4
1.5	295	29.5	0.12	4285.0	2520.6
2.0	394	45.8	0.18	5715.0	3361.8
2.5	492	59.4	0.24	7145.0	4202.9
3.0	591	73.6	0.30	8570.0	5041.2



SC-1800 Condenser Coil Micro-Channel Heat Exchanger SC-1800 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

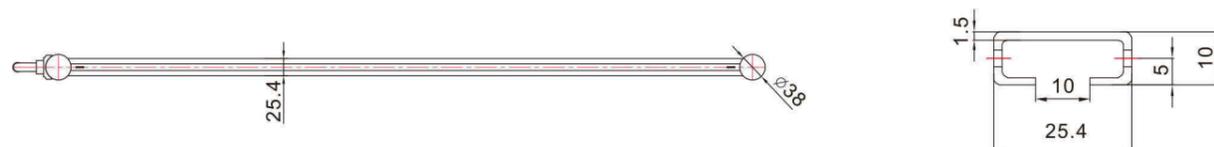
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1800	1074[mm]	1208[mm]	25.4[mm]	1.1[mm]	8[mm]	38[mm]
	42.28[in]	47.56[in]	1[in]	23[FPI]	0.31[in]	1.5[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1800	2[mm]	118	83/35	≈7.18[L]	22.2[mm]	22.2[mm]
	0.08[in]			≈438.16[in ³]	7/8[in]	7/8[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



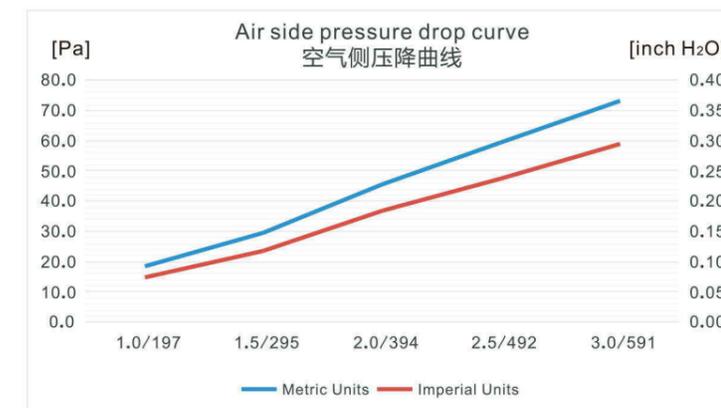
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	11.74/40.07	20.09/68.57	27.62/94.27	35.02/119.52	12.65/43.17	19.61/66.93	26.43/90.20	33.19/113.28
1.5	295	18.23/62.22	28.54/97.41	39.71/135.53	50.38/171.95	18.01/61.47	27.74/94.68	37.54/128.12	48.11/164.20
2.0	394	23.03/78.60	37.18/126.89	50.82/173.45	64.59/220.44	22.59/77.10	35.01/119.49	48.62/165.94	61.49/209.86
2.5	492	27.38/93.45	44.69/152.53	61.08/208.46	77.78/265.46	26.81/91.50	41.72/142.39	58.42/199.39	73.92/252.29
3.0	591	31.32/106.8	51.72/176.52	70.81/241.67	90.18/307.78	30.72/104.85	47.81/163.17	67.43/230.14	85.45/291.64

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	13.02/44.44	20.13/68.70	27.91/95.26	35.29/120.44	8.23/28.09	16.31/55.67	23.61/80.58	30.78/105.05
1.5	295	18.21/62.15	29.42/100.41	40.03/136.62	50.71/173.07	11.03/37.65	22.97/78.40	33.45/114.16	44.68/152.49
2.0	394	22.74/77.61	37.51/128.02	51.12/174.47	64.93/221.60	14.83/50.61	29.03/99.08	43.52/148.53	57.21/195.26
2.5	492	26.81/91.50	44.91/153.28	61.39/209.52	78.12/266.62	17.42/59.45	34.42/117.47	52.13/177.92	68.82/234.88
3.0	591	32.81/111.9	51.93/177.24	70.98/242.25	90.42/308.60	19.82/67.65	39.51/134.85	60.43/206.25	79.63/271.77

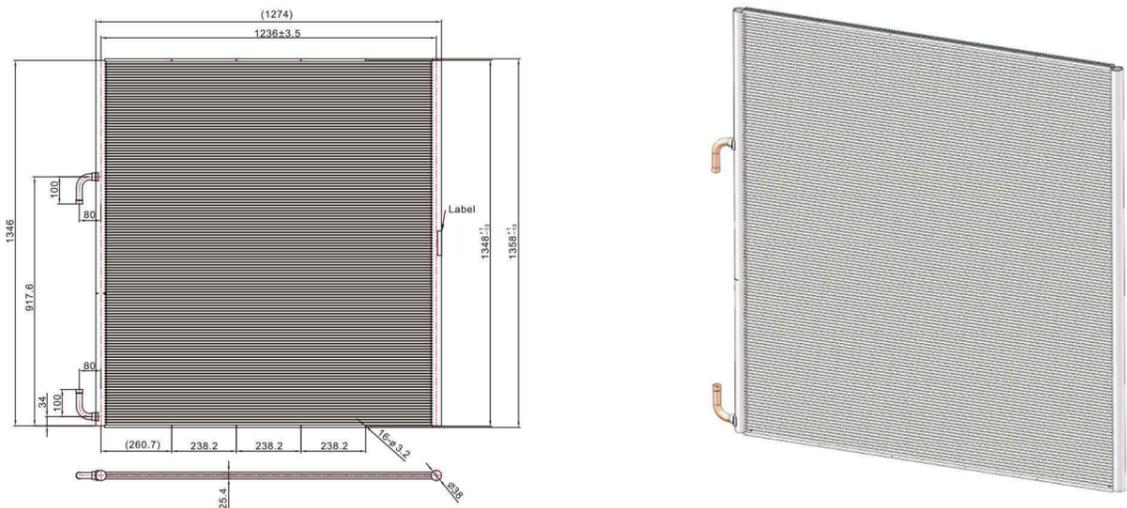
Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	18.7	0.08	4425.0	2602.9
1.5	295	29.7	0.12	6635.0	3902.9
2.0	394	46.1	0.19	8845.0	5202.9
2.5	492	59.7	0.24	11055.0	6502.9
3.0	591	74.1	0.30	13265	7802.9



SC-1900 Condenser Coil Micro-Channel Heat Exchanger SC-1900 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

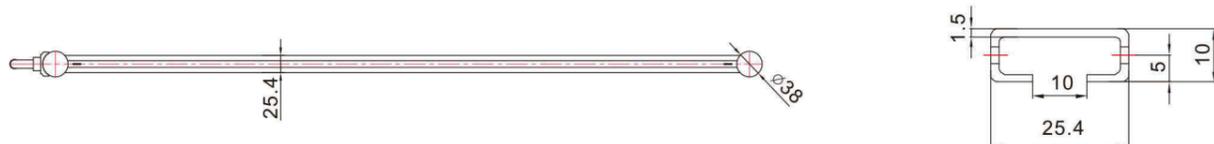
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-1900	1274[mm]	1358[mm]	25.4[mm]	1.1[mm]	8[mm]	38[mm]
	50.16[in]	53.46[in]	1[in]	23[FPI]	0.31[in]	1.5[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-1900	2[mm]	133	85/48	≈9.22[L]	22.2[mm]	22.2[mm]
	0.08[in]			≈562.6[in ³]	7/8[in]	7/8[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



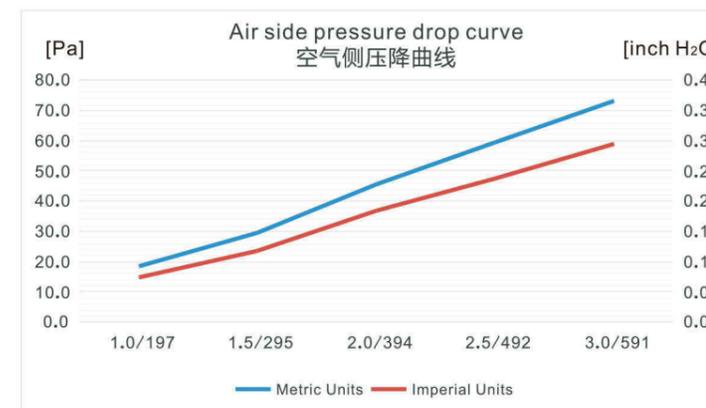
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	17.88/61.02	27.51/93.89	37.6/128.33	47.57/162.35	17.51/59.76	26.74/91.26	35.94/122.66	45.05/153.75
1.5	295	25.34/86.48	39.1/133.45	54.12/184.71	68.52/233.86	24.71/84.33	37.89/129.32	51.02/174.13	65.29/222.83
2.0	394	32.02/109.28	51/174.06	69.32/236.59	87.84/299.8	31.08/106.08	47.91/163.52	66.08/225.53	83.43/284.74
2.5	492	38.08/129.97	61.35/209.39	83.45/284.81	105.85/361.2	36.89/125.9	57/194.54	79.29/270.61	99.92/341.02
3.0	591	43.63/148.91	70.98/242.25	96.64/329.83	122.69/418.7	42.23/144.13	65.32/222.94	91.49/312.25	115.27/393.4

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	17.88/61.02	27.45/93.69	37.95/129.52	47.9/163.48	11.26/38.43	22.38/76.38	32.18/109.83	41.91/143.04
1.5	295	25.06/85.53	40.17/137.1	54.41/185.7	68.87/235.05	16.69/56.96	31.64/107.99	45.69/155.94	60.83/207.61
2.0	394	31.4/107.17	51.3/175.09	69.61/237.58	88.15/300.85	20.84/71.13	39.98/136.45	59.4/202.73	77.85/265.7
2.5	492	37.63/128.43	61.45/209.73	83.62/285.39	105.98/361.71	24.54/83.75	47.42/161.84	71.35/243.52	93.49/319.08
3.0	591	45.38/154.88	71.04/242.46	96.62/329.76	122.6/418.43	27.83/94.98	54.46/185.87	82.51/281.6	108.16/369.15

Air-side Pressure Drop Data 空气侧压降数据

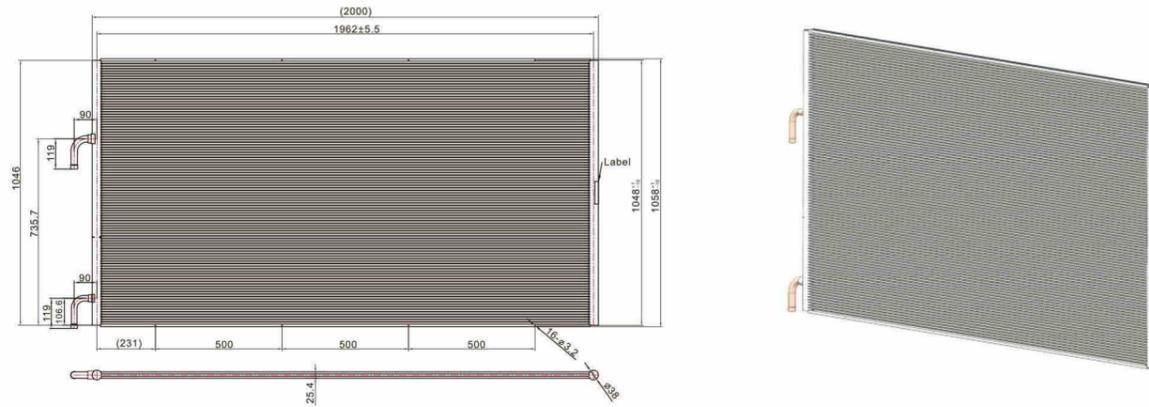
Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m ³ /h]	[cfm]
1.0	197	18.8	0.08	5955	3502.9
1.5	295	29.7	0.12	8932.5	5254.4
2.0	394	46.1	0.19	11910	7005.9
2.5	492	59.8	0.24	14885	8755.9
3.0	591	74.2	0.3	17860	10505.9



SC-2000 Condenser Coil Micro-Channel Heat Exchanger

SC-2000 冷凝器微通道换热器

Drawing of Overall Dimensions 产品图纸



Technical Data 技术参数

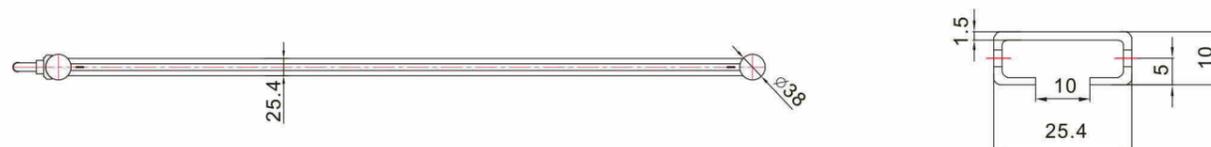
Model 型号	Coil length 芯体长度	Coil height 芯体高度	Coil depth 扁管厚度	Fin pitch 翅片片距	Fin height 翅片高度	Manifold diameter 集流管外径
SC-2000	2000[mm]	1058[mm]	25.4[mm]	1.1[mm]	8[mm]	38[mm]
	78.74[in]	41.65[in]	1[in]	23[FPI]	0.31[in]	1.5[in]

Model 型号	Tubes height 扁管高度	Number of tubes 扁管数量	Pass 回路	Internal volume 内部容积	Inlet ID diameter 进口内径	Outlet ID diameter 出口内径
SC-2000	2[mm]	103	69/34	≈10.3[L]	25.4[mm]	22.2[mm]
	0.08[in]			≈628.6[in³]	1[in]	7/8[in]

Mounting Bars 边板安装

Aluminum MCHEs expand and contract when exposed to big temperature changes. Installation supports/brackets must allow the MCHEx to move in two dimensions.

铝制微通道换热器在高温下存在热胀冷缩现象,支架安装等必须允许一定的公差范围。



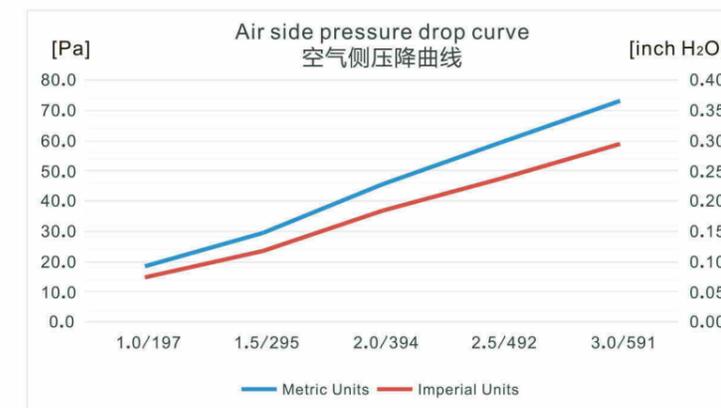
Performance Data 性能参数

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R410A				R134a			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	22.7/77.47	34.95/119.28	46.97/160.31	59.06/201.57	21.93/74.85	33.25/113.48	44.75/152.73	56.3/192.15
1.5	295	32.7/111.6	50.21/171.37	67.52/230.44	85/290.1	30.91/105.49	47.03/160.51	64.07/218.67	80.39/274.37
2.0	394	41.98/143.28	64.14/218.91	86.37/294.78	108.94/371.81	38.82/132.49	60.4/206.14	81.29/277.44	101.57/346.66
2.5	492	50.4/172.01	77.03/262.9	103.81/354.3	131.04/447.24	45.91/156.69	71.91/245.43	96.11/328.02	120.76/412.15
3.0	591	58.23/198.74	88.87/303.31	120.06/409.76	151.56/517.27	52.31/178.53	82.41/281.26	109.83/374.85	138.18/471.6

Air Velocity		换热性能Performance [KW/Btu/h×1000]							
[m/s]	[ft/min]	R404A				R407C			
		Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F	Δ=10K Δ=18°F	Δ=15K Δ=27°F	Δ=20K Δ=36°F	Δ=25K Δ=45°F
1.0	197	22.53/76.89	35.14/119.93	47.15/160.92	59.26/202.25	15.26/52.08	28.07/95.8	40.58/138.5	52.71/179.9
1.5	295	32.86/112.15	50.19/171.3	67.5/230.38	85/290.1	21.34/72.83	39.8/135.84	58.2/198.63	75.49/257.65
2.0	394	41.77/142.56	63.85/217.92	85.96/293.38	108.35/369.8	26.63/90.89	51.57/176.01	74.25/253.41	96.26/328.53
2.5	492	49.99/170.61	76.38/260.68	102.87/351.09	129.7/442.66	31.32/106.89	61.75/210.75	88.6/302.39	115.34/393.65
3.0	591	57.26/195.43	87.9/300	118.38/404.03	149.25/509.39	35.37/120.72	71.13/242.76	102/348.12	132.76/453.11

Air-side Pressure Drop Data 空气侧压降数据

Air Velocity 风速		Pressure drop 压降		Flow rate 风量	
[m/s]	[ft/min]	[Pa]	[inch H ₂ O]	[m³/h]	[cfm]
1.0	197	18.7	0.08	7330	4311.8
1.5	295	29.7	0.12	10995	6467.6
2.0	394	46	0.18	14660	8623.5
2.5	492	59.7	0.24	18330	10782.4
3.0	591	74	0.3	21995	12938.2



Micro-Channel Heat Exchangers - Coatings and applications

微通道换热器-涂层和应用

Coating description 涂层描述					
Coating type 涂层类型	3102+Zn	LLA3F03+Zn	LLA3F03+UV	LLA3F03+TCP	E-coating
Coating material 涂层材料	Zinc 镀锌	Zinc 镀锌	Epoxy resin 环氧树脂	Cr3+ 3价铬离子	Epoxy resin 环氧树脂
Coating thickness 涂层厚度	7±2 g/m ² On flat tube 扁管上	7±2 g/m ² On flat tube 扁管上	120~170µm On both sides 两侧	≤5µm All surfaces 所有表面	12.5~40µm All surfaces 所有表面
Processing methods 加工方式	Spraying molten zinc 喷锌	Spraying molten zinc 喷锌	Electrostatic Spraying 静电喷涂	Immersion 浸入	Immersion Power ups 浸入 通电
Impact on capacity 对性能的影响	No 无	No 无	Air resistance up 空气阻力增加	Ignore 忽略不计	Air resistance up 空气阻力增加
SWAAT life 盐雾试验	1000hr 1000小时	1500hr 1500小时	1600hr 1600小时	2500hr 2500小时	4000hr 4000小时

Using Zoon & Application 使用地域 & 条件						
Area 地区	Latitude 纬度	Offshore 靠海	0~20Km	20~50Km	50~100Km	> 100Km
Tropical zone 热带	S/N0~23.5°	E-coating 电泳	E-coating 电泳	E-coating 电泳	LLA3F03+TCP	LLA3F03+Zn 长寿命扁管
Temperate zone 温带	S/N 23.5°~66.5	E-coating 电泳	E-coating 电泳	LLA3F03+TCP	LLA3F03+Zn 长寿命扁管	3102+Zn
Frigid zone 寒带	S/N 66.5°~90°	E-coating 电泳	LLA3F03+TCP	LLA3F03+Zn 长寿命扁管	3102+Zn	3102+Zn

Standard Reference / 参考标准 : ISO 9223

Micro-Channel Heat Exchangers - Notice

微通道换热器-注意事项

1. Receiving inspection 收货检验

The receiving clerk needs to check the product package when received, in case of any damage, deformation, damp. If you encounter the above situation, please reject the goods and contact our sales team or QC personnel for assistance, we will give you feedback immediately .

当收到产品时，收货人员需要仔细检查产品包装箱是否存在破损、变形、淋雨等异常情况。如遇到上述情况请拒绝收货，并立即与本公司销售人员或品质人员联系反映情况，由我司人员决定如何处理。

2. Open-case inspection 开箱检验

Open the plywood case from the top side and check the product situation. If any damage occurs, take photos as a record and contact our sales team or QC personnel to seek for a solution.

从包装箱顶部掀开箱盖检查产品朝上面是否有损伤，如有损伤请拍照记录，并联系我司销售人员或品质人员反映情况。

100% of our products pass the helium inspection with the leakage standard of 2 grams per year. All non-air shipment products will be charged with 1-2 bar nitrogen gas. Rubber plug or needle valve needs to be removed before unpacking. Do observe if there is any gas leak with a hissing sound. If yes, it means the product can be normally used. Otherwise, please immediately contact our sales team or QC personnel for assistance.

我司出厂产品均经过100%氦气检漏，精度为2g/年泄漏量，非空运产品全部保压1~2 bar氮气。开箱使用前请卸掉橡胶塞或按压针阀阀芯，观测是否有压力气体排出的声音。有声音则表明产品可以正常使用；若没有声音则产品可能存在异常情况，请勿使用，并立即联系我司销售人员或品质人员反映情况。

All those products shipped by air freight or without special statement against nitrogen charge in advance are not applicable for this method.

空运的产品或提前申明没有保压的产品不能通过此操作复检气密性。

3. Product handling 产品搬运

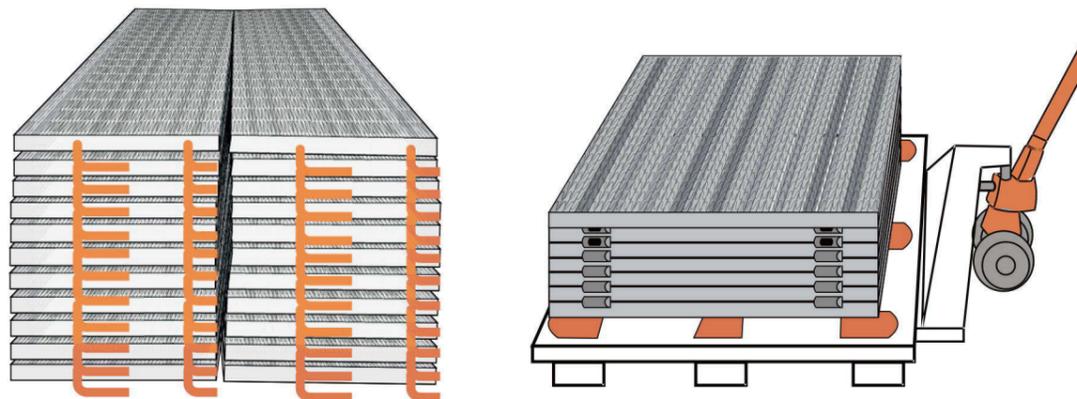
The product needs to be carefully handled to avoid collision due to the full aluminum structure of its main body. Products shall be placed on a fit-size tray for a long distance carrying, which shall be separated by the cardboard or cushion pad between every 2 items and the bottom of downmost product. And then carried by forklift(Figure 2). Header tube and side plate are the bearing position that can be applied for proper lifting and handling.

产品主体为全铝结构，在搬运过程中需要注意不能与其他物体磕碰，需要轻拿轻放。周转距离较长时，产品需要摆放在大小合适的托盘上，底部和两层产品之间需要垫纸板或软性衬垫隔开，再用液压小车运输（图2）。集流管和护板侧都是搬运时可以承重的位置，方便人工抬运或合理的吊装。

Micro-Channel Heat Exchangers

- Notice

微通道换热器-注意事项



(Figure 1) (图1)

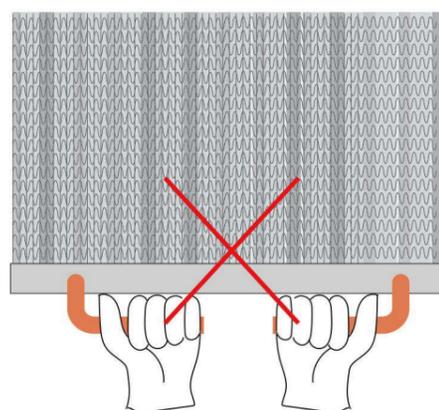
(Figure 2) (图2)

Product placement and handling(Figure 1,Figure 2)

产品摆放及搬运 (图1,图2)

Directly holding the inlet & outlet pipe for handling is strictly forbidden, which could be very likely to result in the severe damage of pipe welding spot(Figure 3)

严禁用手直接握住进出接管进行搬运(图3),这很有可能会导致接管焊点处严重损坏。



Incorrect handling way (Figure3)

错误的抬运方式(图3)

Micro-Channel Heat Exchangers

- Notice

微通道换热器-注意事项

4. Product assembly 产品装配

Since the damage of load bearing part may leads to the product malfunction, installation condition needs to be evaluated on spot to avoid any collision.

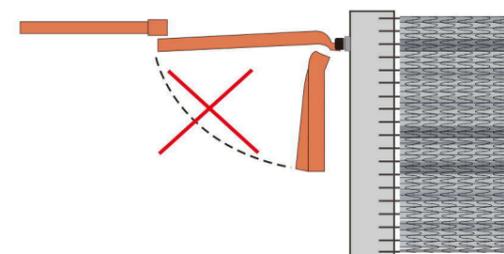
产品在工程安装现场需要做好安装条件评估, 谨防发生与周围物体磕碰, 一旦承压部件受损可能会导致产品失效。

Directly pulling back the connecting pipe(Figure 4) is strictly forbidden when any deviation appears. The deviation can be revised by adding a proper connecting pipe.(Figure 5).

当产品接管出现偏差时, 严禁直接通过扳动接管纠正(图4), 可以通过增加合适的连接配管(图5)来达到纠正偏差的目的。

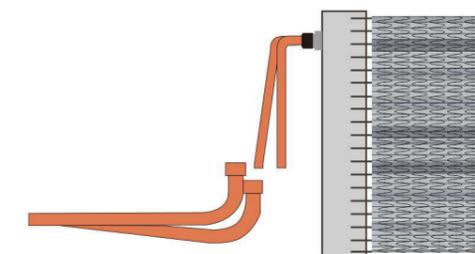
Checking the tightness of bolt, slot and buckle after the product is installed in the right position.

产品安装落到正确的安装位置后必须立即紧固, 并检查螺栓是否拧紧, 检查卡槽、卡扣是否卡紧。



Faulty operation(Figure 4)

错误操作 (图4)



Correct operation (Figure 5)

正确操作 (图5)

Micro-Channel Heat Exchangers - Notice

微通道换热器-注意事项

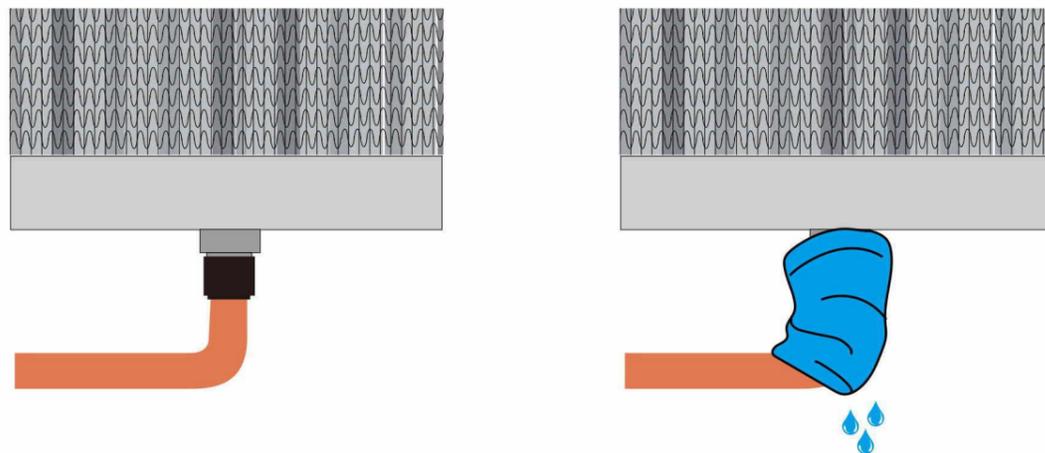
5. Product connection 产品连接

The connecting ways of product usually include copper pipe welding, flange joint connecting and thread joint connecting. welding protection(Figure 6)

产品的装配联接形式通常为铜管焊接、法兰接头对接、螺纹接头对接。(图6)

The safe welding temperature for our product is 400 degrees, welding point is likely to get failed if temperature exceeds the safe range. Please ensure that the distance from the welding point shall be more than 80mm when clients take welding by himself and the temperature is over 850 degrees. Meanwhile, please use wet cloth (With no drop of water appropriate) to provide protection for heat shrinkable tube and Copper-Aluminum welding point (Figure 6).

我司产品产品焊接点安全温度为400℃，当焊接点温度超过安全温度时，焊接点存在失效风险。客户在进行铜管焊接时温度大于850℃，需要注意与我司产品焊接点位置的距离不得小于80mm，同时用湿毛巾对热缩套和铜铝接点进行阻热保护(图6)，湿毛巾适度拧干无滴水为宜。



Heat-resistance welding protection(Figure 6)

焊接阻热保护(图6)



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