

Professional Diverse Heat Exchanger Solutions

High Efficiency Micro Channel
Heat Exchanger

CONTENTS

CoolingMall

01	About CoolingMall	02
02	Production Line	03
03	R&D Center	04
04	Selection Software	06

05	Micro Channel Heat Exchanger Series	08
	1.1 Micro Channel Heat Exchanger Introduction	12
	1.2 Micro Channel Heat Exchanger with Different Structure	16
	1.3 Micro Channel Heat Exchanger with Different Bending	18
	1.4 Micro Channel Heat Exchanger with Different Coating	20
	1.5 Micro Channel Heat Exchanger with Housing	22
	1.6 Micro Channel Heat Exchanger for Liquid Cooling	24
06	Stainless Steel Dispenser	26
07	Water (Oil) Tank	28

About CoolingMall ➤

CoolingMall Company - Intergrating research, production and sales, is a leading manufacture of high efficiency Mirco Channel Heat Exchanger in China.

CoolingMall Company is a key investment promotion project in Zhejiang Province. After implementation, CoolingMall innovation attracted the attention of government leaders and been provided with policy support and bonuses.

CoolingMall Company owns 2 productions bases and 1 R&D center in Zhejiang Province, with annual production capacity over 5 million pieces. In addition, a new production base in Canton is under construction, with annual production capacity around half million pieces of heat exchanger.



ISO90001:2015 Certified



IATF16949:2016 Certified



Third Place in
"Innovation Cup"



Second Place in "Elite Plan"

Production Line

• Sample NB Furnace



• Laser Welding Robot



• Laser Cutting Machine



• NB Furnace

• Sheet Metal Bending



• Drying Furnace

• Rapid Fin Shaping Machine



• Automatic Pipe Bending Machine

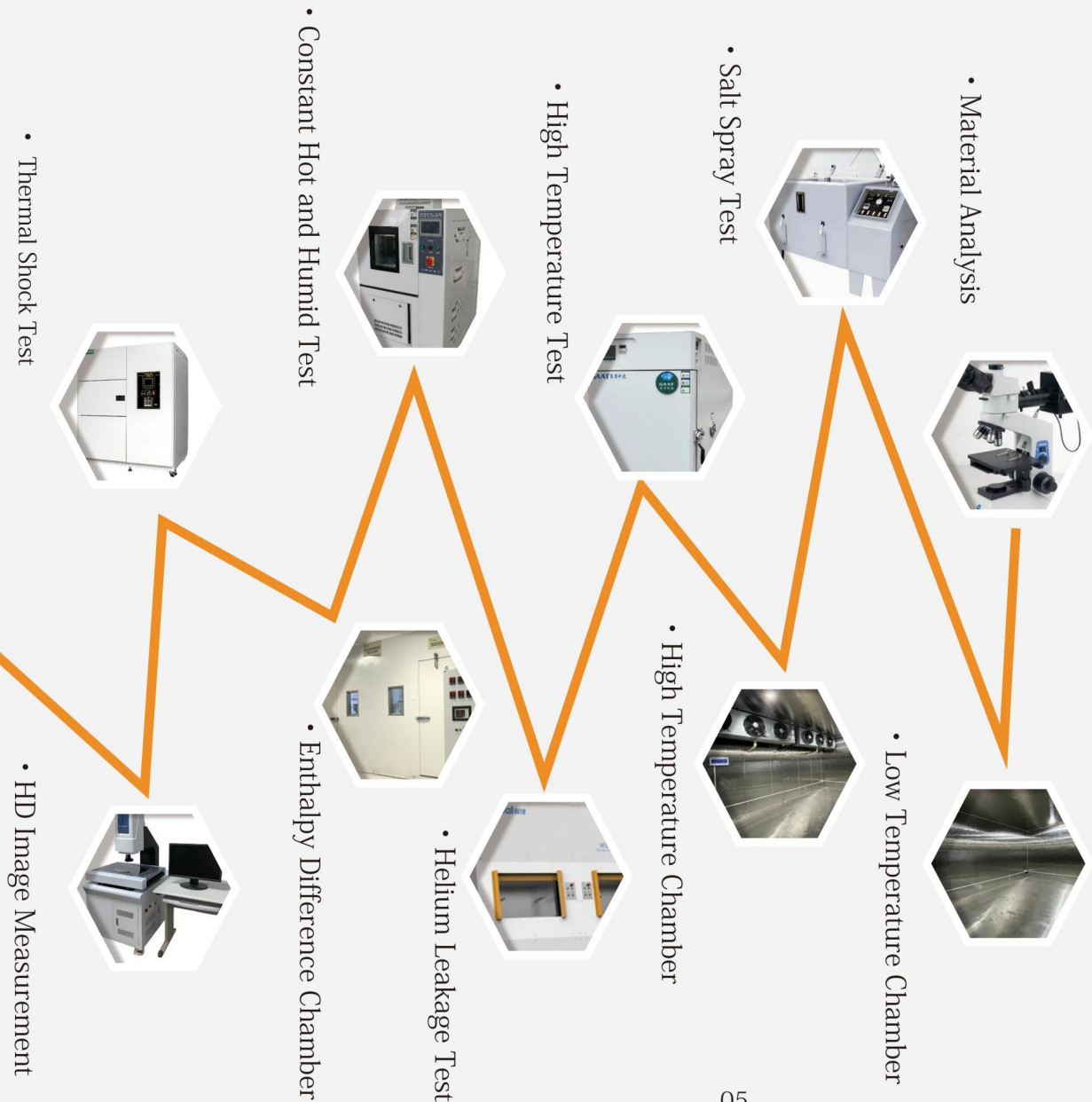
R & D Center ➤

CoolingMall Company R & D center located in Hangzhou, consisting of 3 PhD engineers and some master degree engineers, all of them are top professional engineers in heat exchanger industry and have rich application experience.

CoolingMall Company have an average of more than 30 invention patents per year

The high-level technical team is committed to the research of high-efficient cooling technology, in order to provide our customers with the best solutions.

CoolingMall Company has a well-functioning micro channel heat exchanger related laboratory that can test the performance, reliability, and manufacturing process quality, to ensure that we provide our customers with accurate and reliable solutions.



Selection Software >



Based on years of experience, CoolingMall Company developed a series of selection software. For standard micro channel heat exchanger design, you can finish selection on line within 5mins. CoolingMall believe you will feel highly satisfied with the efficiency and convenience.

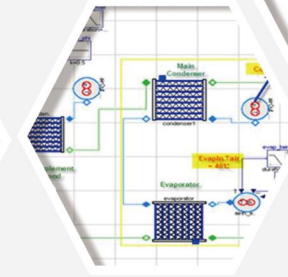
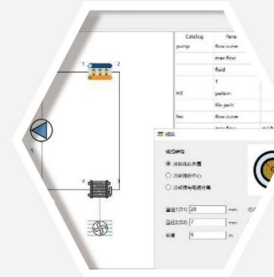
• Cost Calculation Software



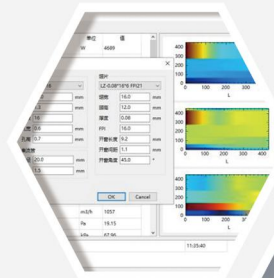
• Online Design and Trading Platform



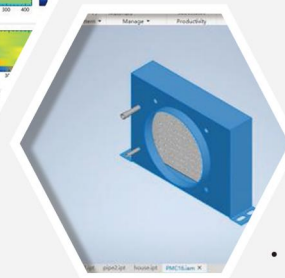
• Liquid System Selection ZLcycle



• Two-Phase Transition Performance Simulation Software



• Micro Channel Selection MCHXsim

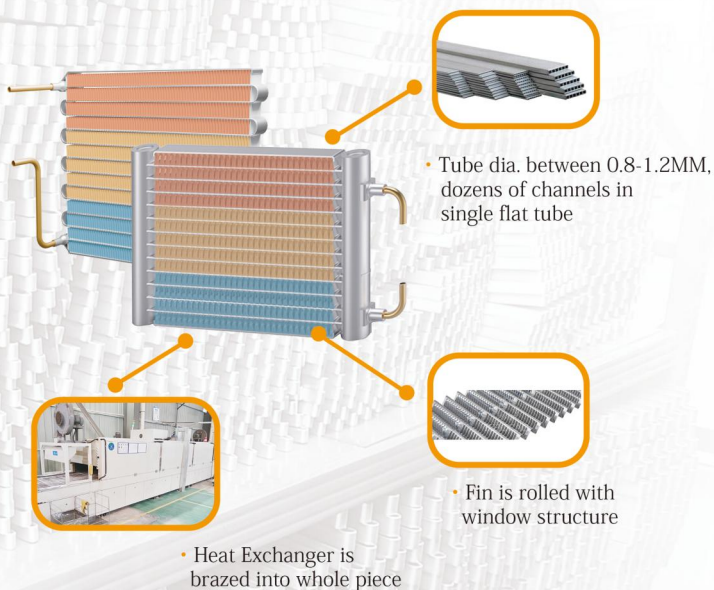


• 3D Parametric Modeling Software



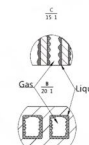
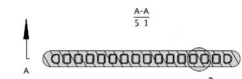
MCHE DESCRIPTION

Micro Channel Heat Exchanger, a new heat exchnage technology that started in the 1980s, has high heat exchange efficiency, small size, light weight, less charging and great cost advantages. When used together with environment friendly refrigerants, it is very suitable for efficient and compact heat exchange scenarios. Now it has been widely applied in various refrigeration and heat dissipation industries.



MCHE ADVANTAGES

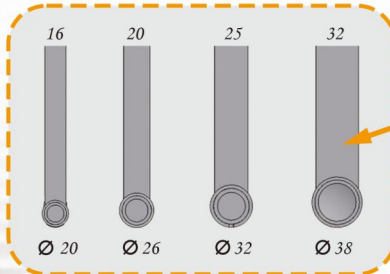
- Heat exchange performance can **increase 40%**(compared as same size as T&F).
- Refrigerant **reduction max can reach 50%** suitable for flammable refrigerant such as R290,R600a.
- **Burst pressure of parallel MCHE is 13.5MPa**, suitable for all kinds of refrigerant except CO₂.
- Less coil thickness,less air resistance, not easy to accumulate dust.
- Strong corrosion resistance, life span exceeds 10 years in normal environment.
- All aluminum material, easy to recycle, environmentl friendly.
- Various brackets design, small size, less weight, easy to assemble.



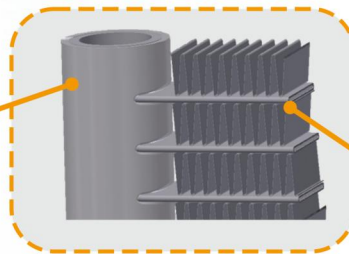


Micro Channel Heat Exchanger Component

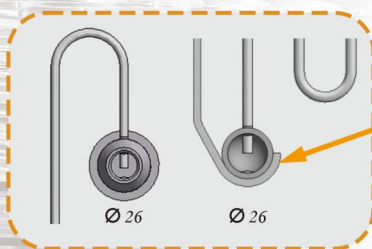
Parallel MCHE Manifold :



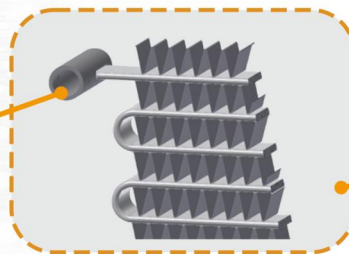
Parallel MCHE :



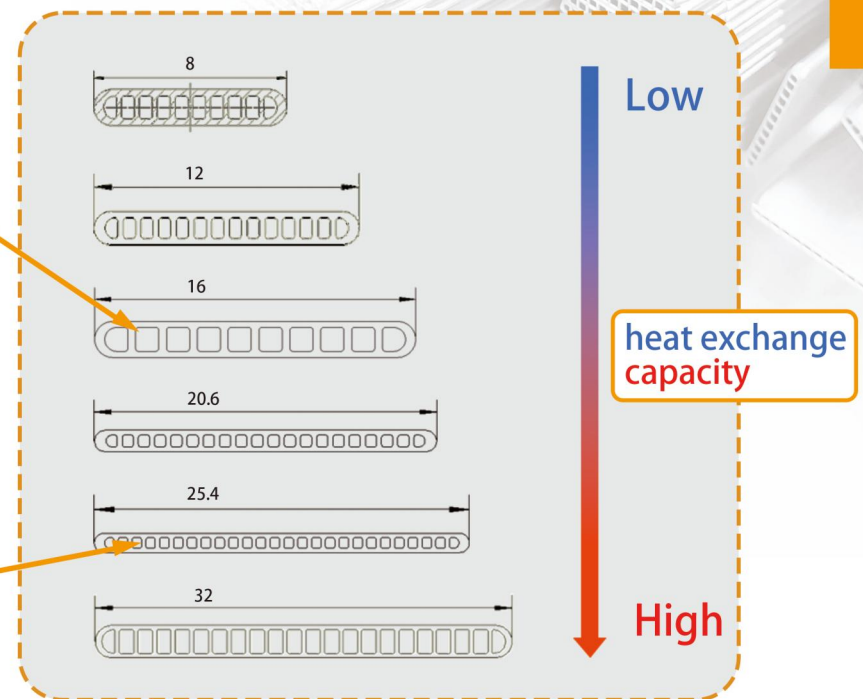
Serpentine MCHE Manifold :



Serpentine MCHE :

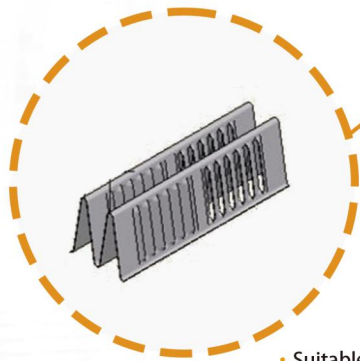


Flat Tube Types :





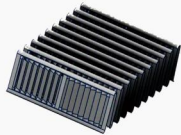
Micro Channel Heat Exchanger Component



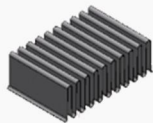
Fin with Window

- Suitable for condensers Windows can create turbulent flow at low speeds Thus the convective heat transfer capacity increase greatly

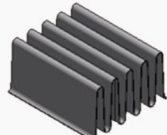
Fin with Different FPI :



FPI=23(FP=1.1)

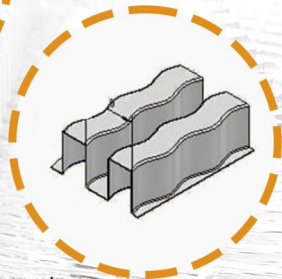
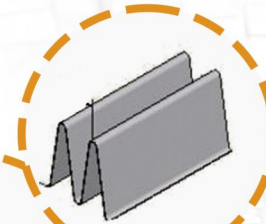
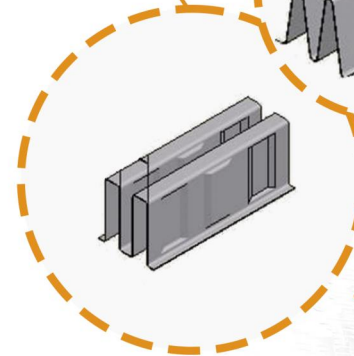


FPI=21(FP=1.2)

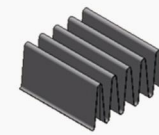


FPI=18(FP=1.4)

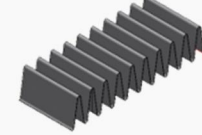
Fin without Window



- Suitable for evaporators without window, not easy to frost, easy for water drainage, resistant to dust accumulation



FPI=16(FP=1.6)



FPI=12.7(FP=2)



Micro Channel Heat Exchanger with Different Structure



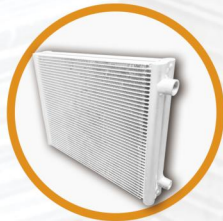
• V Shape



• Parallel MCHE Single Layer



• Serpentine MCHE Single Layer



• Parallel MCHE Double Layer



MCHE DETAILS

MCHE Types	Parallel MCHE Single Layer、Parallel MCHE Double Layer、Serpentine MCHE Single Layer、V Shape
Ambient Temp	-40℃ ~ 72℃ (-40°F to 161.6°F)
Refrigerant Temp	-40℃ to 150℃ (-40°F to 302°F)
Burst Pressure	Parallel MCHE ≥ 13.5MPa Serpentine MCHE ≥ 10MPa
Working Medium	R410A,R134a,R22,R290,R407C,R404A,R454B, etc common refrigerant, antifreeze (glycol aqueous solution), fluorinated liquid, si-oil, hydraulic oil, etc. different insulating medium



MCHE ADVANTAGES

- Multi choices for different applications;
- Multi layers with built-in connectors, safe and high reliability;
- A variety of brackets are available for easy installation.



Micro Channel Heat Exchanger with Different Bending



• Fan-Shaped Bending



• L-Shaped Bending



• U-Shaped Bending



• C-Shaped Bending



MCHE DETAILS

MCHE Types	C-Shaped Bending, L-Shaped Bending, U-Shaped Bending, O-Shaped Bending
Ambient Temp	-40℃ ~ 72℃ (-40°F to 161.6°F)
Refrigerant Temp	-40℃ to 150℃ (-40°F to 302°F)
Burst Pressure	Parallel MCHE ≥ 13.5MPa Serpentine MCHE ≥ 10MPa
Working Medium	R410A, R134a, R22, R290, R407C, R404A, R454B, etc. common refrigerant, antifreeze (glycol aqueous solution), fluorinated liquid, si-oil, hydraulic oil, etc. different insulating medium



MCHE ADVANTAGES

- Bending increases the heat exchange area, thus improves heat exchange efficiency;
- Bending reduces size, ideal for compact spaces;
- Compared with Multi-layer design, bending is more cost competitive;
- CoolingMall Company is fully equipped with bending tools, and our bending process has no damage on fin or flat tube.



Micro Channel Heat Exchanger with Different Coating

• Powder Coating



• Powder Coating



• TCP Coating



• Electrophoresis Coating



• Electrophoresis Coating



MCHE DETAILS

MCHE Types	TCP Coating, Powder Coating(Black, gray or customerized colors), Electrophoresis Coating(Black)
Ambient Temp	-40°C ~ 72°C (-40°F t 1.6°F)
Refrigerant Temp	-40°C to 150°C (-40°F to 302°F)
Burst Pressure	Parallel MCHE ≥ 13.5MPa Serpentine MCHE ≥ 10MPa
Working Medium	R410A,R134a,R22,R290,R407C,R404A, R454B,etcommon refrigerant,antifreeze (glycol aqueoussolution),fluorinated liquid,si-oil,hydraulic oil,etc.different insulating medium



MCHE ADVANTAGES

- Multi choices of coating for different applications;
- Color of powder coating can be customerized according to customers' requirements;
- Powder coating improves coil appearance;
- Electrophoresis Coating can reach C5 protection level. salt spray test over 3000hours no leakage.

Micro Channel Heat Exchanger with Housing



MCHE DETAILS

MCHE Types	Housing can be customized according to customers' requirement, single fan or multi fan, with different color etc.
Ambient Temp	-40℃ ~ 72℃ (-40°F to 161.6°F)
Refrigerant Temp	-40℃ to 150℃ (-40°F to 302°F)
Burst Pressure	Parallel MCHE ≥ 13.5MPa Serpentine MCHE ≥ 10MPa
Working Medium	R410A, R134a, R22, R290, R407C, R404A, R454B, etc. common refrigerant, antifreeze (glycol aqueous solution), fluorinated liquid, si-oil, hydraulic oil, etc. different insulating medium

MCHE ADVANTAGES

- With housing, the fan can be installed directly, easy to install;
- CoolingMall has full series of collar tooling 170/200/230/250/300/350/400MM;
- CoolingMall has metal sheeting cutting, bending machine, easy for customized design.

Micro Channel Heat Exchanger for Liquid Cooling



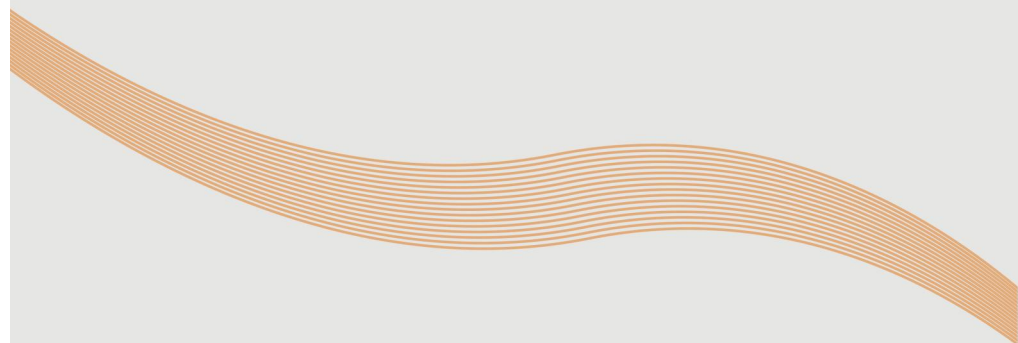
• Screwed Joint
Pagoda Joint
 • Ring Flange
 • Ferrule Connector

MCHE DETAILS

MCHE Types	Can match special screwed joint, Pagoda joint, Ferrule fitting connection, Ring flange
Ambient Temp	-40°C ~ 72°C (-40°F to 161.6°F)
Refrigerant Temp	-40°C to 150°C (-40°F to 302°F)
Burst Pressure	Parallel MCHE ≥ 13.5MPa Serpentine MCHE ≥ 10MPa
Working Medium	antifreeze (glycol aqueoussolution), fluorinated liquid, si-oil, Various types of thermal oil

MCHE ADVANTAGES

- High efficiency, low consumption, compact;
- Big dia. channel, low resistance, good performance;
- Special connector, easy to install, high reliability.




Zhejiang Cooling Info. & Tech. Co., Ltd.



Hotline : 4008-058-338



E-mail : QL@coolingmall.com

 website

