

Microchannel Heat Exchanger Market by Material Type (Metal Based, Ceramic Based), Components (Condenser, Evaporator, Water Coil), Fluid-Mechanism (Single Coil, Dual Coil, Multi Coil), Type, End- Use Industry, and Region - Global Forecast to 2028

<https://marketpublishers.com/r/M047329CD58EN.html>

Date: December 2023

Pages: 286

Price: US\$ 4,950.00 (Single User License)

ID: M047329CD58EN

Abstracts

The global microchannel heat exchanger market size is estimated to be USD 16.1 billion in 2023 and projected to reach USD 26.3 billion by 2028, at a CAGR of 10.4%. The energy efficient regulations and stringent emission standards, and high demand for microchannel heat exchangers in growing HVACR industry are driving factors in this market. Restraints include the expensive manufacturing of microchannel heat exchangers, and concerns related to durability and reliability. Opportunities stem from usage of microchannel heat exchangers in automotive industry, as well as integrating microchannel heat exchangers in renewable energy systems.

“North America accounted for the second largest market share amongst other regions in microchannel heat exchanger market.”

North America accounted for the second-largest market share in the microchannel heat exchanger market due to a robust industrial base, technological advancements, and a significant focus on energy efficiency. The region's thriving HVAC and automotive industries drive the demand for compact and high-performance heat exchange solutions. Stringent environmental regulations and a growing emphasis on sustainable practices further contribute to the adoption of microchannel heat exchangers.

“Ceramic based material type has the second largest market share in the microchannel heat exchanger market.”

The ceramic based segment is the second-largest material type in the microchannel heat exchanger market due to the unique properties of ceramics, such as high thermal resistance and corrosion resistance. These characteristics make ceramic microchannel heat exchangers suitable for demanding applications where conventional materials may struggle. Industries such as electronics, chemical processing, and aerospace benefit from ceramics' ability to withstand extreme conditions. Additionally, the increasing focus on lightweight and durable materials contributes to the growth of ceramic-based microchannel heat exchangers, securing their significant market share in this segment.

“Evaporators accounted for the second largest market share amongst other components in the microchannel heat exchanger market.”

Evaporators segment is the second largest segment in the microchannel heat exchanger market because its pivotal role in refrigeration and air conditioning systems. Evaporators facilitate the phase change of refrigerants, absorbing heat and providing efficient cooling. Microchannel evaporators offer advantages such as compact design, increased surface area, and enhanced heat transfer efficiency. The demand for energy-efficient and space-saving cooling solutions, particularly in HVAC and refrigeration applications, propels the growth of the evaporators segment.

“Dual coil segment accounted for the second largest market share amongst other fluid-mechanism types in the microchannel heat exchanger market”

Dual coil segment is the second largest type in the microchannel heat exchanger market due to its versatility and efficiency. Dual coils enable the independent flow of two different fluids, allowing precise control over heat exchange processes. This flexibility makes them ideal for diverse applications, including HVAC, chemical processing, and industrial systems. The ability to handle multiple fluid types simultaneously caters to specific industry requirements, driving the adoption of dual coil fluid-mechanisms.

“HVAC industry accounted for the second largest market share amongst other end-use industries in the microchannel heat exchanger market”

HVAC industry is the second largest type in the microchannel heat exchanger market due to the widespread adoption of microchannel technology in heating, ventilation, and air conditioning systems. Microchannel heat exchangers offer enhanced efficiency, compact design, and improved heat transfer capabilities, aligning with the HVAC industry's need for energy-efficient solutions. As the demand for sustainable and space-

saving thermal management systems rises, microchannel heat exchangers become integral to HVAC applications.

Breakdown of primaries

The study contains insights from various industry experts, ranging from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: Tier 1 – 40%, Tier 2 – 30%, and Tier 3 – 30%

By Designation: C Level– 20%, D-level – 10%, And Other Level – 70%

By Region: North America – 20%, Europe – 30%, APAC – 30%, Middle East & Africa – 10%, South America-10%.

The microchannel heat exchanger market is dominated by a few globally established players such as Sanhua (Spain), Modine Manufacturing Company (U.S.), Danfoss (Denmark), Hydro (Norway), and Kaltra (Germany).

Research Coverage:

The microchannel heat exchanger market has been segmented based on material type, components, fluid-mechanism, type, end-use industry, and region. The report also provides detailed information on company profiles and competitive strategies adopted by the key players to strengthen their positions in the market. The report also provides insights into the driving and restraining factors in the microchannel heat exchanger market, along with opportunities and challenges in the market. It also includes profiles for top manufacturers in the market.

Key Benefits of Buying the Report:

The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the microchannel heat exchanger market and provides them with information on key market drivers, restraints, challenges, and opportunities.

Key benefits of buying this report

This research report is focused on various levels of analysis — industry analysis (industry trends), market ranking analysis of top players, and company profiles, which together provide an overall view on the competitive landscape; emerging and high-growth segments of the microchannel heat exchanger market; high-growth regions; and market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of drivers (energy efficient regulations and stringent emission standards, high demand for microchannel heat exchangers in growing HVACR industry, and expansion of data centers driving the need for effective thermal management solutions), restraints (expensive manufacturing of microchannel heat exchangers, and concerns related to durability and reliability of microchannel heat exchangers), opportunities (usage of microchannel heat exchangers in automotive industry, and integrating microchannel heat exchangers in renewable energy systems) and challenges (high pressure drops due to smaller flow passages in microchannel heat exchangers) influencing the growth of microchannel heat exchanger

Market Penetration: Comprehensive information on microchannel heat exchanger market offered by top players in the global market.

Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and mergers & acquisitions in the microchannel heat exchanger market.

Market Development: Comprehensive information about lucrative emerging markets — the report analyzes the markets for microchannel heat exchanger market across regions.

Competitive Assessment: In-depth assessment of market shares, strategies, products, and manufacturing capabilities of leading players in the microchannel heat exchanger market.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.3 STUDY SCOPE

1.3.1 MARKET SEGMENTATION

1.3.2 REGIONS COVERED

1.3.3 YEARS CONSIDERED

1.4 CURRENCY

1.5 UNITS CONSIDERED

1.6 STAKEHOLDERS

1.7 SUMMARY OF CHANGES

1.8 INCLUSIONS & EXCLUSIONS

TABLE 1 MICROCHANNEL HEAT EXCHANGER MARKET: INCLUSIONS & EXCLUSIONS

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 1 MICROCHANNEL HEAT EXCHANGER MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 Key data from secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Key data from primary sources

2.1.2.2 Breakdown of primary interviews

2.1.2.3 Key industry insights

2.2 MARKET SIZE ESTIMATION

FIGURE 2 MICROCHANNEL HEAT EXCHANGER MARKET: MARKET SIZE ESTIMATION

2.2.1 TOP-DOWN APPROACH

FIGURE 3 MICROCHANNEL HEAT EXCHANGER MARKET: TOP-DOWN APPROACH

2.2.2 BOTTOM-UP APPROACH

FIGURE 4 MICROCHANNEL HEAT EXCHANGER MARKET: BOTTOM-UP APPROACH

2.3 DATA TRIANGULATION

FIGURE 5 MICROCHANNEL HEAT EXCHANGER MARKET: DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

2.5 LIMITATIONS

2.6 FORECAST ESTIMATION

2.6.1 SUPPLY-SIDE APPROACH

2.6.2 DEMAND-SIDE APPROACH

2.7 RECESSION IMPACT

3 EXECUTIVE SUMMARY

FIGURE 6 METAL-BASED SEGMENT TO BE LARGER MATERIAL TYPE BETWEEN 2023 AND 2028

FIGURE 7 CONDENSER TO LEAD MICROCHANNEL HEAT EXCHANGER MARKET BETWEEN 2023 AND 2028

FIGURE 8 ASIA PACIFIC TO LEAD MICROCHANNEL HEAT EXCHANGER MARKET DURING FORECAST PERIOD

FIGURE 9 HVAC END-USE INDUSTRY TO BE FASTEST-GROWING SEGMENT DURING FORECAST PERIOD

4 PREMIUM INSIGHTS

4.1 EMERGING ECONOMIES TO WITNESS HIGHER DEMAND FOR MICROCHANNEL HEAT EXCHANGERS

FIGURE 10 EMERGING ECONOMIES TO OFFER ATTRACTIVE OPPORTUNITIES IN MICROCHANNEL HEAT EXCHANGER MARKET DURING FORECAST PERIOD

4.2 MICROCHANNEL HEAT EXCHANGER MARKET, BY MATERIAL TYPE

FIGURE 11 METAL-BASED SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.3 MICROCHANNEL HEAT EXCHANGER MARKET, BY COMPONENT

FIGURE 12 WATER COIL SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

4.4 MICROCHANNEL HEAT EXCHANGER MARKET, BY END-USE INDUSTRY

FIGURE 13 HVAC SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.5 MICROCHANNEL HEAT EXCHANGER MARKET, BY TYPE

FIGURE 14 MCHX TO ACCOUNT FOR DOMINANT SHARE DURING FORECAST PERIOD

4.6 MICROCHANNEL HEAT EXCHANGER MARKET, BY COUNTRY

FIGURE 15 INDIA TO REGISTER HIGHEST CAGR FROM 2023 TO 2028

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 16 DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES IN MICROCHANNEL HEAT EXCHANGER MARKET

5.2.1 DRIVERS

5.2.1.1 Energy efficiency regulations and stringent emission standards

5.2.1.2 High demand for MCHEs in growing HVACR industry

5.2.1.3 Need for effective thermal management solutions in expanding data centers

5.2.2 RESTRAINTS

5.2.2.1 High cost of manufacturing

5.2.2.2 Concerns related to durability and reliability of microchannel heat exchangers

5.2.3 OPPORTUNITIES

5.2.3.1 Increasing usage of microchannel heat exchangers in automotive industry

5.2.3.2 Integration of microchannel heat exchangers in renewable energy systems

5.2.4 CHALLENGES

5.2.4.1 High pressure drop due to smaller flow passages in microchannel heat exchangers

6 INDUSTRY TRENDS

6.1 INTRODUCTION

6.2 PORTER'S FIVE FORCES ANALYSIS

FIGURE 17 MICROCHANNEL HEAT EXCHANGER MARKET: PORTER'S FIVE FORCES ANALYSIS

6.2.1 THREAT OF NEW ENTRANTS

6.2.2 THREATS OF SUBSTITUTES

6.2.3 BARGAINING POWER OF SUPPLIERS

6.2.4 BARGAINING POWER OF BUYERS

6.2.5 INTENSITY OF COMPETITIVE RIVALRY

TABLE 2 MICROCHANNEL HEAT EXCHANGER MARKET: PORTER'S FIVE FORCES ANALYSIS

6.3 VALUE CHAIN ANALYSIS

FIGURE 18 VALUE CHAIN ANALYSIS: MICROCHANNEL HEAT EXCHANGER MARKET

6.3.1 RAW MATERIAL SUPPLIERS

6.3.2 MANUFACTURERS

6.3.3 DISTRIBUTORS

6.3.4 OEMS/END-USE INDUSTRIES

6.3.5 MAINTENANCE AND SERVICE PROVIDERS

6.4 PRICING ANALYSIS

6.4.1 AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY APPLICATION

FIGURE 19 AVERAGE SELLING PRICE OF KEY PLAYERS, BY APPLICATION (USD/UNIT)

6.4.2 AVERAGE SELLING PRICE TREND, BY REGION

FIGURE 20 AVERAGE SELLING PRICE TREND, BY REGION (USD/UNIT)

6.4.3 AVERAGE SELLING PRICE TREND, BY COMPONENT

FIGURE 21 AVERAGE SELLING PRICE TREND, BY COMPONENT (USD/UNIT)

6.5 RAW MATERIAL ANALYSIS

6.5.1 METAL-BASED

6.5.1.1 Aluminum

6.5.1.2 Steel

6.5.1.3 Others

6.5.2 CERAMIC-BASED

6.5.2.1 Silicon carbide

6.5.2.2 Alumina

6.5.2.3 Others

6.6 TARIFF AND REGULATORY LANDSCAPE

6.6.1 REGULATIONS

6.6.1.1 North America

6.6.1.2 Europe

6.6.1.3 Asia Pacific

6.6.2 STANDARDS

6.6.2.1 IS 4503

6.6.2.2 PD 5500:2021

6.6.2.3 EN 13445

6.6.2.4 CODAP

6.6.3 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 3 LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

6.7 TRADE ANALYSIS

6.7.1 IMPORT TRADE ANALYSIS

FIGURE 22 HEAT EXCHANGER IMPORTS, BY KEY COUNTRIES, 2018–2022 (USD MILLION)

6.7.2 EXPORT TRADE ANALYSIS

FIGURE 23 HEAT EXCHANGER EXPORTS, BY KEY COUNTRIES, 2018–2022 (USD MILLION)

6.8 MACROECONOMIC INDICATORS

6.8.1 GDP TRENDS AND FORECASTS

TABLE 4 PROJECTED REAL GDP GROWTH (ANNUAL PERCENT CHANGE) OF KEY COUNTRIES, 2018–2025

6.9 ECOSYSTEM/MARKET MAP

FIGURE 24 MICROCHANNEL HEAT EXCHANGER MARKET: ECOSYSTEM MAPPING

TABLE 5 MICROCHANNEL HEAT EXCHANGER MARKET: ROLE IN ECOSYSTEM

6.10 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES

FIGURE 25 REVENUE SHIFT AND NEW REVENUE POCKETS IN MICROCHANNEL HEAT EXCHANGER MARKET

6.11 TECHNOLOGY ANALYSIS

6.11.1 ADDITIVE MANUFACTURING

6.11.2 ADVANCED MATERIALS AND COATINGS

6.11.3 MICROSCALE MANUFACTURING TECHNOLOGIES

6.12 CASE STUDY ANALYSIS

6.12.1 API HEAT TRANSFER

6.12.2 KALTRA

6.13 KEY CONFERENCES & EVENTS (2023–2024)

TABLE 6 MICROCHANNEL HEAT EXCHANGER MARKET: LIST OF CONFERENCES & EVENTS

6.14 PATENT ANALYSIS

6.14.1 METHODOLOGY

6.14.2 DOCUMENT TYPE

FIGURE 26 GRANTED PATENTS

6.14.3 PUBLICATION TRENDS

FIGURE 27 NUMBER OF PATENTS PUBLISHED YEAR-WISE (2012–2022)

6.14.4 INSIGHT

6.14.5 LEGAL STATUS OF PATENTS

FIGURE 28 PATENT ANALYSIS, BY LEGAL STATUS

6.14.6 JURISDICTION ANALYSIS

FIGURE 29 TOP JURISDICTIONS, BY DOCUMENT

6.14.7 TOP COMPANIES/APPLICANTS

FIGURE 30 TOP 10 PATENT APPLICANTS

TABLE 7 LIST OF PATENTS BY CARRIER CORPORATION

TABLE 8 LIST OF PATENTS BY VELOCYS INC.

TABLE 9 LIST OF PATENTS BY GREE ELECTRIC APPLIANCES INC. OF ZHUHAI

TABLE 10 TOP 20 PATENT OWNERS (2012–2022)

6.15 KEY STAKEHOLDERS AND BUYING CRITERIA

6.15.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 31 INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP 3 END-USE INDUSTRIES

TABLE 11 INFLUENCE OF STAKEHOLDERS IN BUYING PROCESS FOR TOP 3 END-USE INDUSTRIES (%)

6.15.2 BUYING CRITERIA

FIGURE 32 KEY BUYING CRITERIA FOR TOP 3 END-USE INDUSTRIES

TABLE 12 KEY BUYING CRITERIA FOR TOP 3 END-USE INDUSTRIES

7 MICROCHANNEL HEAT EXCHANGER MARKET, BY MATERIAL TYPE

7.1 INTRODUCTION

FIGURE 33 METAL-BASED TO BE FASTER-GROWING MATERIAL TYPE DURING FORECAST PERIOD

TABLE 13 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (USD MILLION)

TABLE 14 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)

TABLE 15 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (MILLION UNITS)

TABLE 16 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (MILLION UNITS)

7.2 METAL-BASED

7.2.1 OFFERS EXCELLENT THERMAL CONDUCTIVITY AND DURABILITY

7.2.2 STAINLESS STEEL

7.2.3 ALUMINUM

7.2.4 OTHERS

7.3 CERAMIC-BASED

7.3.1 INHERENT CORROSION RESISTANCE OF CERAMICS ENSURES LONGEVITY AND RELIABILITY

7.3.2 SILICON CARBIDE

7.3.3 ALUMINA

7.3.4 OTHERS

8 MICROCHANNEL HEAT EXCHANGER MARKET, BY END-USE INDUSTRY

8.1 INTRODUCTION

FIGURE 34 HVAC END-USE INDUSTRY TO DRIVE MICROCHANNEL HEAT EXCHANGER MARKET

TABLE 17 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 18 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 19 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 20 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

8.2 HVAC

8.2.1 INCREASING NEED FOR ENERGY EFFICIENCY DRIVING DEMAND IN HVAC SEGMENT

8.2.2 COMMERCIAL

8.2.3 ENERGY STORAGE

8.2.4 RESIDENTIAL

8.2.5 PRECISION COOLING

8.3 COMMERCIAL REFRIGERATION

8.3.1 MICROCHANNEL HEAT EXCHANGERS ADOPTED TO MINIMIZE REFRIGERANT USAGE IN COMMERCIAL REFRIGERATION

8.3.2 STATIONARY REFRIGERATION

8.3.3 TRANSPORT REFRIGERATION

8.3.4 COLD STORAGE

8.4 OTHERS

9 MICROCHANNEL HEAT EXCHANGER MARKET, BY COMPONENT

9.1 INTRODUCTION

FIGURE 35 CONDENSER SEGMENT TO DRIVE MICROCHANNEL HEAT EXCHANGER MARKET

TABLE 21 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)

TABLE 22 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)

TABLE 23 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)

TABLE 24 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)

9.2 CONDENSER

9.2.1 DOMINANT COMPONENT TYPE IN OVERALL MICROCHANNEL HEAT EXCHANGER MARKET

9.3 EVAPORATOR

9.3.1 DEMAND IN AC SYSTEMS TO DRIVE MARKET FOR EVAPORATORS

9.4 WATER COIL

9.4.1 OFFERS EFFICIENCY AND VERSATILITY IN VARIOUS END-USE INDUSTRIES

9.5 OTHERS

10 MICROCHANNEL HEAT EXCHANGER MARKET, BY FLUID MECHANISM

10.1 INTRODUCTION

FIGURE 36 DUAL-COIL SEGMENT TO BE FASTEST-GROWING SEGMENT DURING FORECAST PERIOD

TABLE 25 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)

TABLE 26 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)

TABLE 27 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)

TABLE 28 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)

10.2 SINGLE-COIL

10.2.1 ENHANCED RELIABILITY, REDUCED MATERIALS, AND IMPROVED EFFICIENCY TO PROPEL DEMAND

10.3 DUAL-COIL

10.3.1 DUAL-COIL SEGMENT TO BE FASTEST-GROWING SEGMENT DURING FORECAST PERIOD

10.4 MULTI-COIL

10.4.1 DEMAND FOR ADVANCED THERMAL MANAGEMENT SOLUTIONS TO DRIVE MARKET

11 MICROCHANNEL HEAT EXCHANGER MARKET, BY TYPE

11.1 INTRODUCTION

FIGURE 37 MCHX TO ACCOUNT FOR LARGER MARKET SHARE DURING FORECAST PERIOD

TABLE 29 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)

TABLE 30 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 31 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 32 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)

11.2 MCHX

11.2.1 ENHANCED HEAT TRANSFER CAPABILITIES OF MCHX CONTRIBUTE TO IMPROVED ENERGY EFFICIENCY

11.3 ROUND TUBE PLATE FIN

11.3.1 OFFERS HIGH DURABILITY AND ADAPTABILITY IN HVAC SYSTEMS

12 MICROCHANNEL HEAT EXCHANGER MARKET, BY REGION

12.1 INTRODUCTION

FIGURE 38 ASIA PACIFIC TO BE FASTEST-GROWING MARKET DURING FORECAST PERIOD

TABLE 33 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY REGION, 2020–2022 (USD MILLION)

TABLE 34 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY REGION, 2023–2028 (USD MILLION)

TABLE 35 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY REGION, 2020–2022 (THOUSAND UNITS)

TABLE 36 MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY REGION, 2023–2028 (THOUSAND UNITS)

12.2 NORTH AMERICA

12.2.1 IMPACT OF RECESSION

FIGURE 39 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SNAPSHOT

TABLE 37 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (USD MILLION)

TABLE 38 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 39 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (THOUSAND UNITS)

TABLE 40 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (THOUSAND UNITS)

TABLE 41 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (USD MILLION)

TABLE 42 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)

TABLE 43 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 44 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 45 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)

TABLE 46 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)

TABLE 47 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)

TABLE 48 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)

TABLE 49 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)

TABLE 50 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)

TABLE 51 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)

TABLE 52 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)

TABLE 53 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)

TABLE 54 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 55 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 56 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 57 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 58 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 59 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 60 NORTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.2.2 US

12.2.2.1 Automotive industry to drive demand for microchannel heat exchangers

TABLE 61 US: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE

INDUSTRY, 2020–2022 (USD MILLION)

TABLE 62 US: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 63 US: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 64 US: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.2.3 CANADA

12.2.3.1 Growing HVAC industry to boost demand

TABLE 65 CANADA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 66 CANADA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 67 CANADA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 68 CANADA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.2.4 MEXICO

12.2.4.1 Demand from automotive sector to drive market for microchannel heat exchangers

TABLE 69 MEXICO: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 70 MEXICO: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 71 MEXICO: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 72 MEXICO: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3 EUROPE

12.3.1 IMPACT OF RECESSION

TABLE 73 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (USD MILLION)

TABLE 74 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 75 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (THOUSAND UNITS)

TABLE 76 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (THOUSAND UNITS)

TABLE 77 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY

MATERIAL TYPE, 2020–2022 (USD MILLION)

TABLE 78 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)

TABLE 79 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 80 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 81 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)

TABLE 82 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)

TABLE 83 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)

TABLE 84 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)

TABLE 85 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)

TABLE 86 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)

TABLE 87 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)

TABLE 88 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)

TABLE 89 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)

TABLE 90 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 91 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 92 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 93 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 94 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 95 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 96 EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.2 GERMANY

12.3.2.1 HVAC to be largest consumer of microchannel heat exchangers

TABLE 97 GERMANY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 98 GERMANY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 99 GERMANY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 100 GERMANY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.3 FRANCE

12.3.3.1 Significant presence of HVACR, construction, and automotive industries to fuel demand

TABLE 101 FRANCE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 102 FRANCE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 103 FRANCE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 104 FRANCE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.4 SPAIN

12.3.4.1 Rapidly increasing renewable energy sector to drive market for microchannel heat exchangers

TABLE 105 SPAIN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 106 SPAIN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 107 SPAIN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 108 SPAIN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.5 UK

12.3.5.1 Growing demand from commercial construction and automotive industries to boost market

TABLE 109 UK: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 110 UK: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 111 UK: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 112 UK: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.6 RUSSIA

12.3.6.1 Growing construction industry to support market growth

TABLE 113 RUSSIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 114 RUSSIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 115 RUSSIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 116 RUSSIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.7 ITALY

12.3.7.1 Rising demand from automotive and manufacturing sectors to lead to market growth

TABLE 117 ITALY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 118 ITALY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 119 ITALY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 120 ITALY: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.3.8 REST OF EUROPE

TABLE 121 REST OF EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 122 REST OF EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 123 REST OF EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 124 REST OF EUROPE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4 ASIA PACIFIC

12.4.1 IMPACT OF RECESSION

FIGURE 40 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SNAPSHOT

TABLE 125 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY

COUNTRY, 2020–2022 (USD MILLION)

TABLE 126 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 127 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (THOUSAND UNITS)

TABLE 128 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (THOUSAND UNITS)

TABLE 129 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (USD MILLION)

TABLE 130 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)

TABLE 131 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 132 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 133 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)

TABLE 134 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)

TABLE 135 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)

TABLE 136 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)

TABLE 137 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)

TABLE 138 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)

TABLE 139 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)

TABLE 140 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)

TABLE 141 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)

TABLE 142 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 143 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 144 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 145 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 146 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 147 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 148 ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.2 CHINA

12.4.2.1 China to lead microchannel heat exchanger market in Asia Pacific

TABLE 149 CHINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 150 CHINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 151 CHINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 152 CHINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.3 INDIA

12.4.3.1 Fastest-growing market for microchannel heat exchangers in Asia Pacific

TABLE 153 INDIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 154 INDIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 155 INDIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 156 INDIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.4 JAPAN

12.4.4.1 Strong emphasis on advancing thermal management technologies to drive market

TABLE 157 JAPAN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 158 JAPAN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 159 JAPAN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 160 JAPAN: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.5 SOUTH KOREA

12.4.5.1 Rising commercial construction to boost market

TABLE 161 SOUTH KOREA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 162 SOUTH KOREA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 163 SOUTH KOREA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 164 SOUTH KOREA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.6 INDONESIA

12.4.6.1 Demand for air conditioning systems to drive market

TABLE 165 INDONESIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 166 INDONESIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 167 INDONESIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 168 INDONESIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.4.7 REST OF ASIA PACIFIC

TABLE 169 REST OF ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 170 REST OF ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 171 REST OF ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 172 REST OF ASIA PACIFIC: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5 MIDDLE EAST & AFRICA 179 "12.5.1 IMPACT OF RECESSIONTABLE 173

MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (USD MILLION)

TABLE 174 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 175 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (THOUSAND UNITS)

TABLE 176 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (THOUSAND UNITS)

TABLE 177 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER

MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (USD MILLION)
TABLE 178 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)
TABLE 179 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (THOUSAND UNITS)
TABLE 180 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (THOUSAND UNITS)
TABLE 181 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)
TABLE 182 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)
TABLE 183 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)
TABLE 184 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)
TABLE 185 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)
TABLE 186 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)
TABLE 187 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)
TABLE 188 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)
TABLE 189 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)
TABLE 190 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)
TABLE 191 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)
TABLE 192 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)
TABLE 193 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)
TABLE 194 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)
TABLE 195 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)
TABLE 196 MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER
MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.2 GCC COUNTRIES

TABLE 197 GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 198 GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 199 GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 200 GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.2.1 SAUDI ARABIA

12.5.2.1.1 Rising commercial construction and HVAC industry to drive market

TABLE 201 SAUDI ARABIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 202 SAUDI ARABIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 203 SAUDI ARABIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 204 SAUDI ARABIA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.2.2 UAE

12.5.2.2.1 Expanding industrial sector to drive market

TABLE 205 UAE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 206 UAE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 207 UAE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 208 UAE: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.2.3 Rest of GCC

TABLE 209 REST OF GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 210 REST OF GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 211 REST OF GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 212 REST OF GCC COUNTRIES: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.3 SOUTH AFRICA

12.5.3.1 Focus on sustainable and energy-efficient solutions in various industries to drive demand

TABLE 213 SOUTH AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 214 SOUTH AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 215 SOUTH AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 216 SOUTH AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.5.4 REST OF MIDDLE EAST & AFRICA

TABLE 217 REST OF MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 218 REST OF MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 219 REST OF MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 220 REST OF MIDDLE EAST & AFRICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.6 SOUTH AMERICA

12.6.1 IMPACT OF RECESSION

TABLE 221 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (USD MILLION)

TABLE 222 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 223 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2020–2022 (THOUSAND UNITS)

TABLE 224 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COUNTRY, 2023–2028 (THOUSAND UNITS)

TABLE 225 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (USD MILLION)

TABLE 226 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (USD MILLION)

TABLE 227 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 228 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY MATERIAL TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 229 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (USD MILLION)

TABLE 230 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (USD MILLION)

TABLE 231 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2020–2022 (THOUSAND UNITS)

TABLE 232 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY COMPONENT, 2023–2028 (THOUSAND UNITS)

TABLE 233 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (USD MILLION)

TABLE 234 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (USD MILLION)

TABLE 235 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2020–2022 (THOUSAND UNITS)

TABLE 236 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY FLUID MECHANISM, 2023–2028 (THOUSAND UNITS)

TABLE 237 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (USD MILLION)

TABLE 238 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (USD MILLION)

TABLE 239 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2020–2022 (THOUSAND UNITS)

TABLE 240 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY TYPE, 2023–2028 (THOUSAND UNITS)

TABLE 241 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 242 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 243 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 244 SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.6.2 BRAZIL

12.6.2.1 Brazil to lead microchannel heat exchanger market in South America

TABLE 245 BRAZIL: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 246 BRAZIL: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 247 BRAZIL: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-

USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 248 BRAZIL: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.6.3 ARGENTINA

12.6.3.1 Growing HVAC industry to fuel demand for microchannel heat exchangers

TABLE 249 ARGENTINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 250 ARGENTINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 251 ARGENTINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 252 ARGENTINA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

12.6.4 REST OF SOUTH AMERICA

TABLE 253 REST OF SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (USD MILLION)

TABLE 254 REST OF SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (USD MILLION)

TABLE 255 REST OF SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2020–2022 (THOUSAND UNITS)

TABLE 256 REST OF SOUTH AMERICA: MICROCHANNEL HEAT EXCHANGER MARKET SIZE, BY END-USE INDUSTRY, 2023–2028 (THOUSAND UNITS)

13 COMPETITIVE LANDSCAPE

13.1 INTRODUCTION

13.2 KEY PLAYER STRATEGIES/RIGHT TO WIN

FIGURE 41 OVERVIEW OF STRATEGIES ADOPTED BY MICROCHANNEL HEAT EXCHANGER MANUFACTURERS

13.3 REVENUE ANALYSIS

FIGURE 42 REVENUE ANALYSIS OF KEY COMPANIES (2020–2022)

13.4 MARKET SHARE ANALYSIS

FIGURE 43 SHARES OF LEADING COMPANIES IN MICROCHANNEL HEAT EXCHANGER MARKET (2022)

TABLE 257 MICROCHANNEL HEAT EXCHANGER MARKET: DEGREE OF COMPETITIVE

13.4.1 SANHUA

13.4.2 MODINE MANUFACTURING COMPANY

13.4.3 DANFOSS

13.4.4 HYDRO

13.4.5 KALTRA

13.4.6 MARKET SHARE OF KEY PLAYERS, 2022

13.5 COMPANY EVALUATION MATRIX

13.5.1 STARS

13.5.2 EMERGING LEADERS

13.5.3 PERVASIVE PLAYERS

13.5.4 PARTICIPANTS

FIGURE 44 MICROCHANNEL HEAT EXCHANGER MARKET: COMPANY EVALUATION MATRIX, 2022

13.5.5 COMPANY FOOTPRINT

FIGURE 45 PRODUCT FOOTPRINT (26 COMPANIES)

TABLE 258 COMPONENT FOOTPRINT (26 COMPANIES)

TABLE 259 END-USE INDUSTRY FOOTPRINT (26 COMPANIES)

TABLE 260 REGION FOOTPRINT (26 COMPANIES)

TABLE 261 OVERALL COMPANY FOOTPRINT (25 COMPANIES)

13.6 STARTUPS/SMES EVALUATION MATRIX

13.6.1 PROGRESSIVE COMPANIES

13.6.2 RESPONSIVE COMPANIES

13.6.3 DYNAMIC COMPANIES

13.6.4 STARTING BLOCKS

FIGURE 46 MICROCHANNEL HEAT EXCHANGER MARKET: STARTUPS/SMES EVALUATION MATRIX, 2022

13.6.5 COMPETITIVE BENCHMARKING

TABLE 262 MICROCHANNEL HEAT EXCHANGER MARKET: DETAILED LIST OF KEY STARTUPS/SMES

TABLE 263 MICROCHANNEL HEAT EXCHANGER MARKET: COMPETITIVE BENCHMARKING OF KEY PLAYERS [STARTUPS/SMES]

13.7 COMPETITIVE SITUATION & TRENDS

13.7.1 PRODUCT LAUNCHES

TABLE 264 MICROCHANNEL HEAT EXCHANGER MARKET: PRODUCT LAUNCHES, 2019–2023

13.7.2 DEALS

TABLE 265 MICROCHANNEL HEAT EXCHANGER MARKET: DEALS, 2019–2023

13.7.3 OTHERS

TABLE 266 MICROCHANNEL HEAT EXCHANGER MARKET: OTHERS, 2019–2023

14 COMPANY PROFILES

14.1 KEY PLAYERS

(Business Overview, Products/Solutions/Services offered, Recent Developments, MnM View)*

14.1.1 SANHUA

TABLE 267 SANHUA: COMPANY OVERVIEW

TABLE 268 SANHUA: PRODUCT OFFERINGS

TABLE 269 SANHUA: PRODUCT LAUNCHES

14.1.2 MODINE MANUFACTURING COMPANY

TABLE 270 MODINE MANUFACTURING COMPANY: COMPANY OVERVIEW

FIGURE 47 MODINE MANUFACTURING COMPANY: COMPANY SNAPSHOT

TABLE 271 MODINE MANUFACTURING COMPANY: PRODUCT OFFERINGS

TABLE 272 MODINE MANUFACTURING COMPANY: DEALS

14.1.3 DANFOSS

TABLE 273 DANFOSS: COMPANY OVERVIEW

FIGURE 48 DANFOSS: COMPANY SNAPSHOT

TABLE 274 DANFOSS: PRODUCT OFFERINGS

TABLE 275 DANFOSS: PRODUCT LAUNCHES

TABLE 276 DANFOSS: OTHER DEVELOPMENTS

14.1.4 HYDRO

TABLE 277 HYDRO: COMPANY OVERVIEW

FIGURE 49 HYDRO: COMPANY SNAPSHOT

TABLE 278 HYDRO: PRODUCT OFFERINGS

14.1.5 KALTRA

TABLE 279 KALTRA: COMPANY OVERVIEW

TABLE 280 KALTRA: PRODUCT OFFERINGS

TABLE 281 KALTRA: PRODUCT LAUNCHES

TABLE 282 KALTRA: OTHER DEVELOPMENTS

14.1.6 MAHLE

TABLE 283 MAHLE: COMPANY OVERVIEW

FIGURE 50 MAHLE: COMPANY SNAPSHOT

TABLE 284 MAHLE: PRODUCT OFFERINGS

TABLE 285 MAHLE: DEALS

TABLE 286 MAHLE: OTHER DEVELOPMENTS

14.1.7 HANON SYSTEMS

TABLE 287 HANON SYSTEMS: COMPANY OVERVIEW

FIGURE 51 HANON SYSTEMS: COMPANY SNAPSHOT

TABLE 288 HANON SYSTEMS: PRODUCT OFFERINGS

TABLE 289 HANON SYSTEMS: DEALS

TABLE 290 HANON SYSTEMS: OTHER DEVELOPMENTS

14.1.8 DENSO CORPORATION

TABLE 291 DENSO CORPORATION: COMPANY OVERVIEW

FIGURE 52 DENSO CORPORATION: COMPANY SNAPSHOT

TABLE 292 DENSO CORPORATION: PRODUCT OFFERINGS

14.1.9 DUNHAM BUSH

TABLE 293 DUNHAM BUSH: COMPANY OVERVIEW

TABLE 294 DUNHAM BUSH: PRODUCT OFFERINGS

TABLE 295 DUNHAM BUSH: PRODUCT LAUNCHES

14.1.10 CLIMETAL S.L.

TABLE 296 CLIMETAL S.L.: COMPANY OVERVIEW

TABLE 297 CLIMETAL S.L.: PRODUCT OFFERINGS

14.1.11 API HEAT TRANSFER

TABLE 298 API HEAT TRANSFER: COMPANY OVERVIEW

TABLE 299 API HEAT TRANSFER: PRODUCT OFFERINGS

*Details on Business Overview, Products/Solutions/Services offered, Recent Developments, MnM View might not be captured in case of unlisted companies.

14.2 OTHER PLAYERS

14.2.1 EVAPCO ALCOIL

TABLE 300 EVAPCO ALCOIL: COMPANY OVERVIEW

14.2.2 KASUN

TABLE 301 KASUN: COMPANY OVERVIEW

14.2.3 GOLDSTONE HVACR INC.

TABLE 302 GOLDSTONE HVACR INC.: COMPANY OVERVIEW

14.2.4 THERMOKEY

TABLE 303 THERMOKEY: COMPANY OVERVIEW

14.2.5 HEATCRAFT WORLDWIDE REFRIGERATION

TABLE 304 HEATCRAFT WORLDWIDE REFRIGERATION: COMPANY OVERVIEW

14.2.6 WELCON INC.

TABLE 305 WELCON INC.: COMPANY OVERVIEW

14.2.7 SHANGHAI SHENGLIN M&E TECHNOLOGY CO., LTD.

TABLE 306 SHANGHAI SHENGLIN M&E TECHNOLOGY CO., LTD.: COMPANY OVERVIEW

14.2.8 VACUUM PROCESS ENGINEERING

TABLE 307 VACUUM PROCESS ENGINEERING: COMPANY OVERVIEW

14.2.9 SUMITOMO PRECISION PRODUCTS CO., LTD.

TABLE 308 SUMITOMO PRECISION PRODUCTS CO., LTD.: COMPANY OVERVIEW

14.2.10 TATA TOYO RADIATOR

TABLE 309 TATA TOYO RADIATOR: COMPANY OVERVIEW

14.2.11 NORTEK GLOBAL HVAC

TABLE 310 NORTEK GLOBAL HVAC: COMPANY OVERVIEW

14.2.12 KAORI HEAT TREATMENT CO., LTD.

TABLE 311 KAORI HEAT TREATMENT CO., LTD.: COMPANY OVERVIEW

14.2.13 AMBER ENTERPRISES INDIA LIMITED

TABLE 312 AMBER ENTERPRISES INDIA LIMITED: COMPANY OVERVIEW

14.2.14 TIPO HEAT EXCHANGERS

TABLE 313 TIPO HEAT EXCHANGERS: COMPANY OVERVIEW

14.2.15 YOUNG IN TECH

TABLE 314 YOUNG IN TECH: COMPANY OVERVIEW

15 APPENDIX

15.1 DISCUSSION GUIDE

15.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

15.3 CUSTOMIZATION OPTIONS

15.4 RELATED REPORTS

15.5 AUTHOR DETAILS

I would like to order

Product name: Microchannel Heat Exchanger Market by Material Type (Metal Based, Ceramic Based), Components (Condenser, Evaporator, Water Coil), Fluid-Mechanism (Single Coil, Dual Coil, Multi Coil), Type, End- Use Industry, and Region - Global Forecast to 2028

Product link: <https://marketpublishers.com/r/M047329CD58EN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/M047329CD58EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below

and fax the completed form to +44 20 7900 3970