KIMSEN | THERMAL SOLUTIONS

# HIGH-PERFORMANCE HEATSINKS & OEM/ODM SOLUTIONS



*June 2026 Edition*

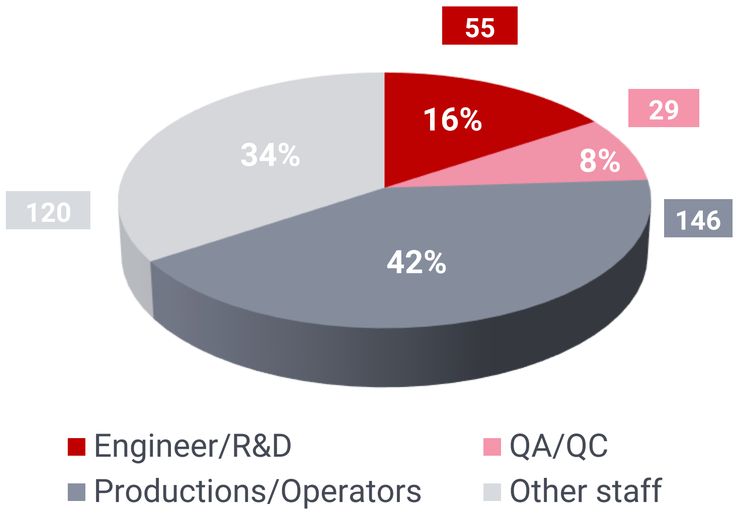
CERTIFIED ISO 9001 ISO 14001

# ABOUT US

Established in 2013 on an area of 35,000 $m^2$,
**KIMSEN INDUSTRIAL CORPORATION** is an ISO 9001, ISO 14001 and IATF 16949 certified Full-Service Supplier of **Thermal solutions.**
We serve the North American and global markets from our production facilities in Bac Ninh, Vietnam.

## Human Resources

*Employees:* ***350*** *(up to May 2026)*






**53+**
Engineers

**100+**
Parts developments

CERTIFIED ISO 9001 BUREAU VERITAS

CERTIFIED ISO 14001 BUREAU VERITAS

Quality Management IATF 16949

COMPLIANT · COMPLIANT ROHS

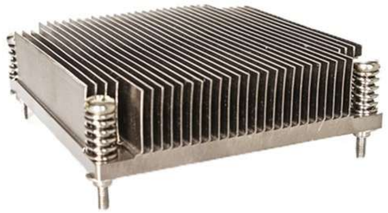
COMPLIANT · COMPLIANT REACH

# PRODUCTS



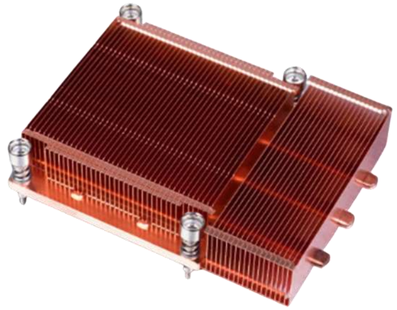
## Extrusion Heatsink

- High aspect ratio thin fin extrusions
- Available in both standard & custom



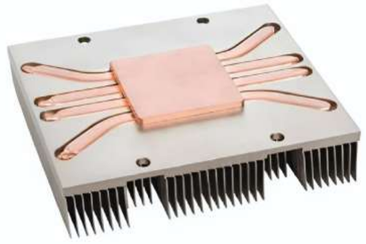
## Skived Fin Heatsink

- Available in both aluminum & copper
- No NRE required for most parts



## Zipper Fin Heatsink

- Available in both aluminum & copper
- Often comnined with heat pipes



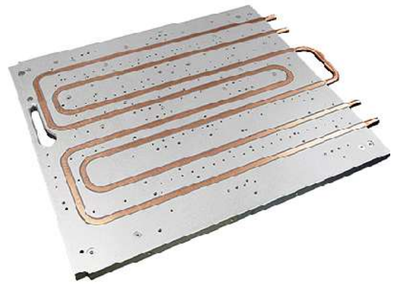
## Heatpipe Heatsink

- Base embedded heat pipes
- Compact and lightweight design



## Vapor Chamber

- Used in conjunction with zipper fin
- High efficiency wick structure design



## Cold Plate

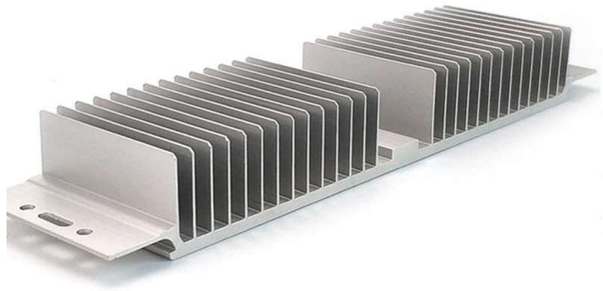
- High aspect ratio thin fin extrusions
- Available in both standard & custom

# EXTRUSION HEAT SINK

## APPLICATIONS

Industrial machinery and high-power electronics,

Embedded System



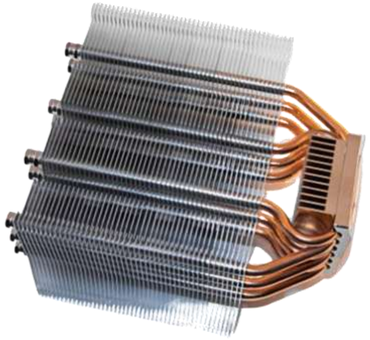


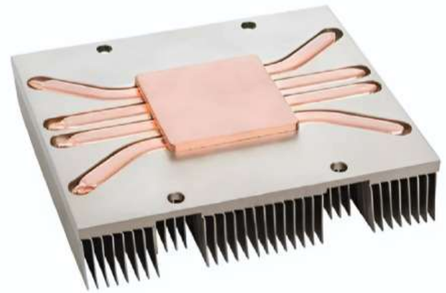
| Press Size | Typical Press Force | Max Profile Width | Max Fin Height (mm) | Min Fin Thickness (mm) | Min Fin Gap |
|---|---|---|---|---|---|
| 7 inch | ~1880T | 180 mm | 50–60 | 1.3 | 2.8 mm |
| 10 inch | ~1800–2200T | 230 mm | 60–70 | 1.5 | 3.0 mm |
| 12 inch | ~3000T+ | 250 mm | 70–80 | 1.6 | 3.2 mm |

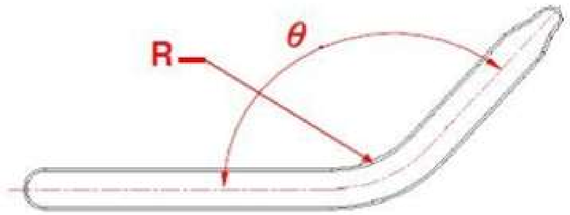
# HEATPIPE HEAT SINK

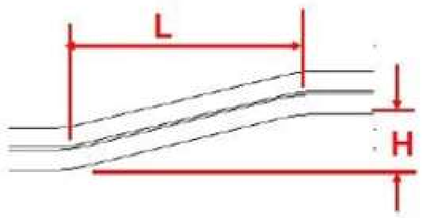
## APPLICATIONS

Industrial PC, IGBT Cooling



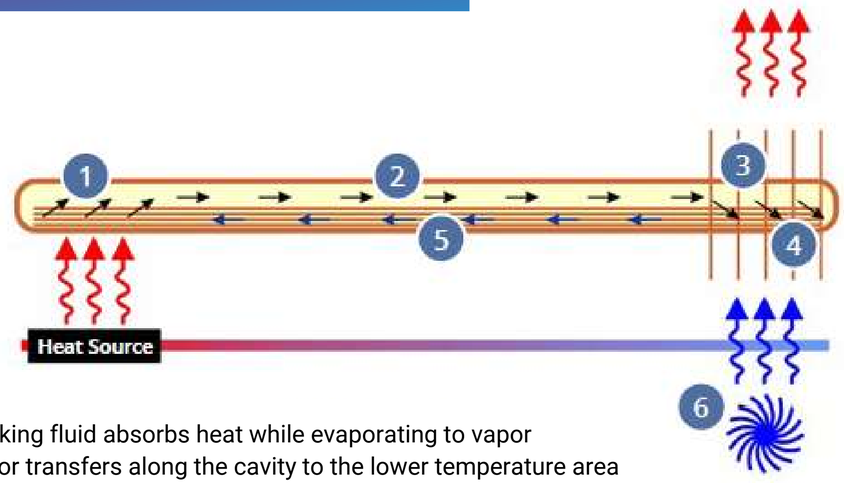





| Type | Bending Radius (R) | Bending Radius (R) | Bending Angle (θ) | Bending Angle (θ) | Height difference | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | Height (H) | | Length (L) | |
| | Minimum | Recommend | Minimum | Recommend | Max | Recommend | Minimum | Recommend |
| 1.5t | 3.5xD | 4.5xD | 90° | 135° | 2.5 mm | <0.8 mm | 25 mm | 40 mm |
| 1.2t | 3.5xD | 4.5xD | 90° | 135° | 2.2 mm | <0.5 mm | 30 mm | 40 mm |
| 1.0t | 4.0xD | 5.0xD | 110° | 150° | 1.0 mm | | 35 mm | 45 mm |

## HOW HEAT PIPES OPERATE




1. Working fluid absorbs heat while evaporating to vapor
2. Vapor transfers along the cavity to the lower temperature area
3. Vapor condenses back to fluid, discharging heat
4. Fluid is absorbed by the sintered/powdered wick structure
5. Fluid returns to high temperature end via capillary force in the wick structure
6. Natural or forced convection air flow dissipates excess heat to ambient

# ZIPPER FIN HEATSINK

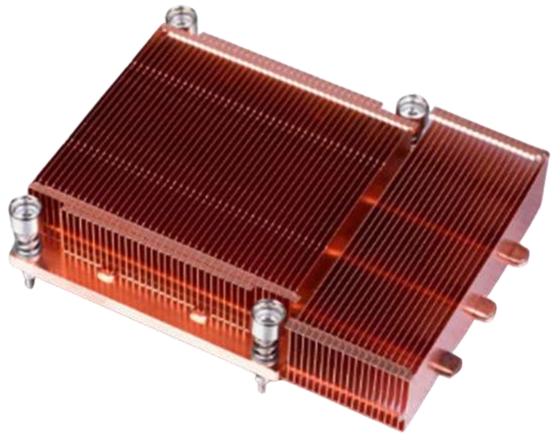
## APPLICATIONS

Consumer electronics and LED lighting

| | |
|---|---|
| *Material* | AL1100/CU1100/CU1020 |
| *Finish* | Nickel Plating |
| *Fin Length* | <450mm |
| *Thickness range* | 1.2 - 12mm |
| *Fin Stack Width* | <600mm |
| *Fin Height* | <150mm |







# SKIVED FIN HEAT SINK

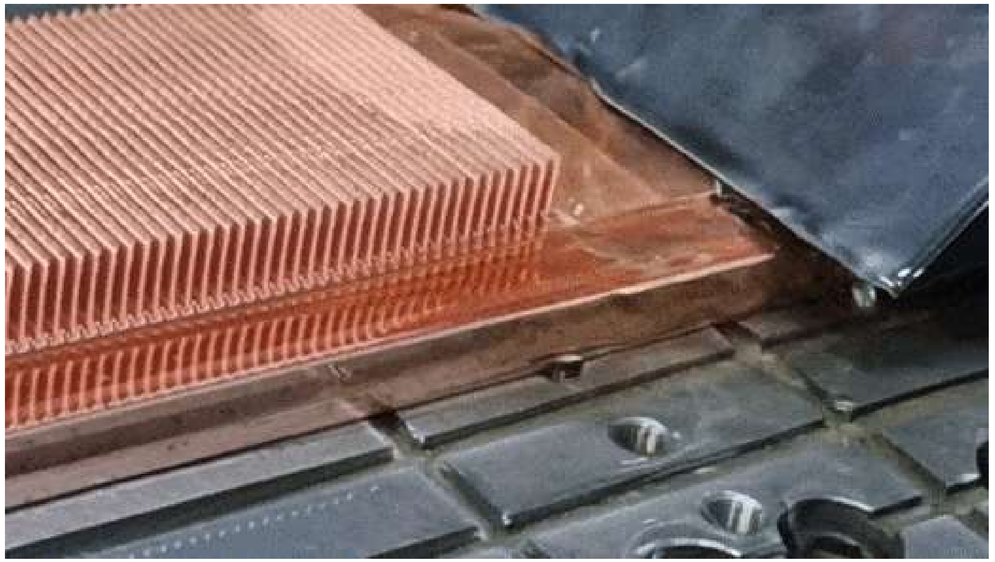
## APPLICATIONS

PC, server and industrial computer, electronic components, telecom & network, industrial machines





| Material | AL1060/AL6063 | CU1100 |
|---|---|---|
| Fin Length | <1100mm | <1100mm |
| Fin Height | <120mm | <60mm |
| Fin Thickness | <2mm | <1mm |
| Fin Pitch | 2 | 1 |
| Thickness/Pitch Ratio | 1:1 | |



# VAPOR CHAMBER

## APPLICATIONS

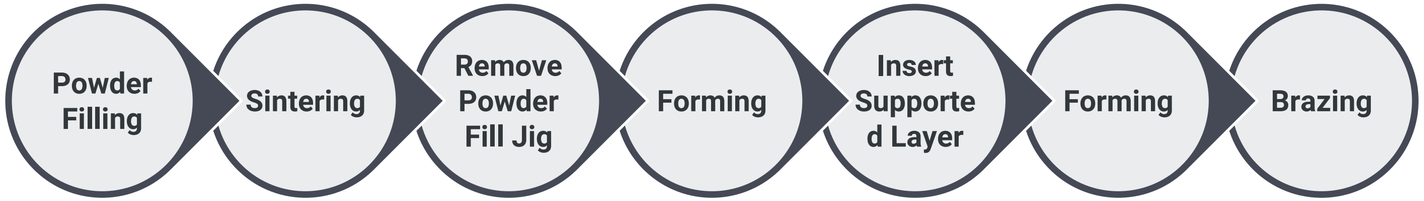
5G Base Station, Computers, HVAC, Energy

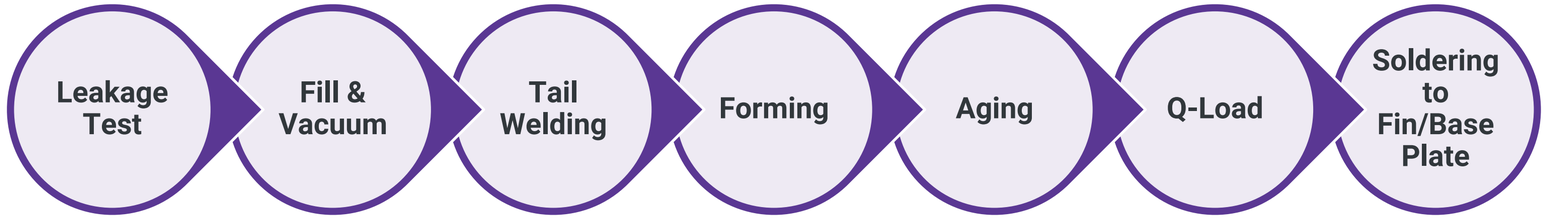




| | |
|---|---|
| Material | Copper Alloy |
| Capillary Structure | C1020 mesh structure |
| Coolant | Ultra-pure water |
| Thickness | 0.3 - 1.0mm |
| Length | 30 - 200mm |
| Width | 30 - 120mm |

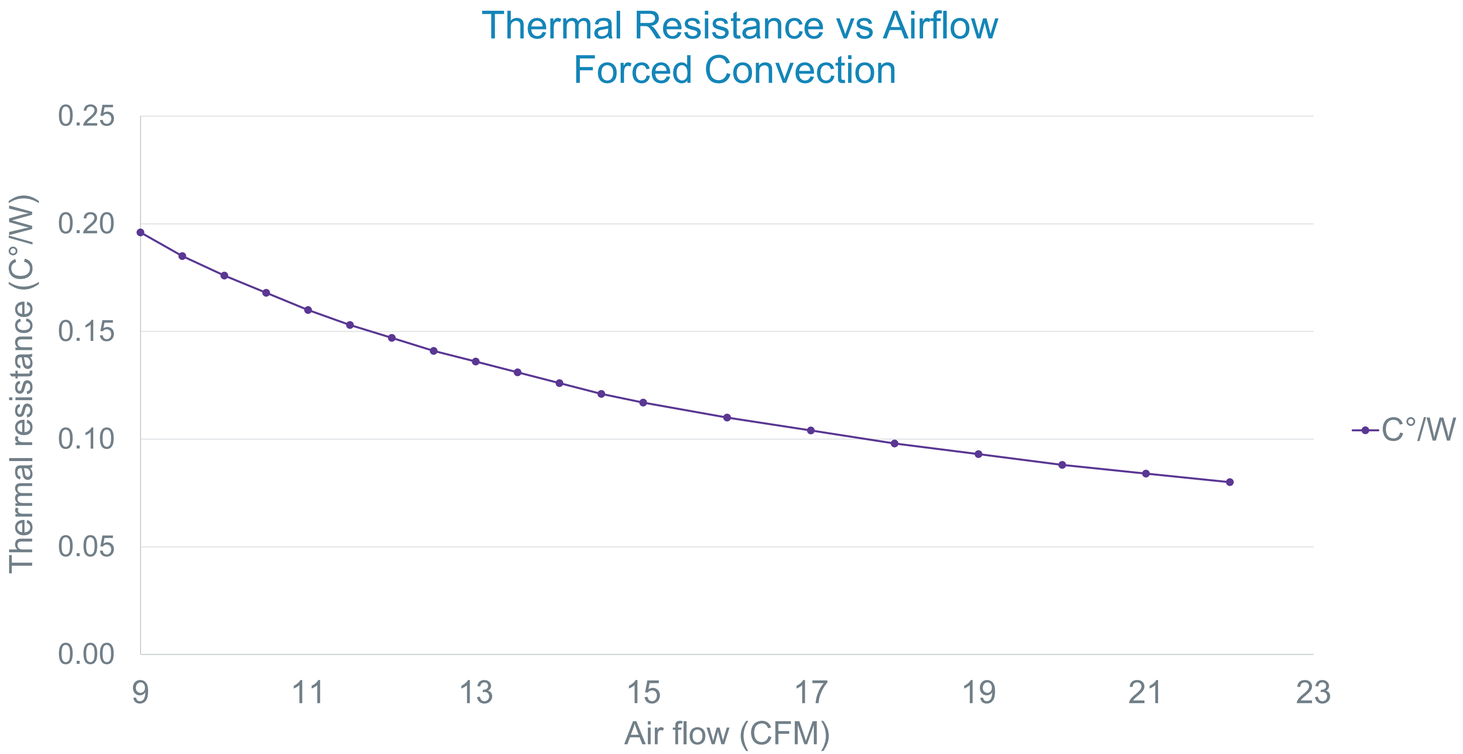
## VAPOR CHAMBER MANUFACTURING

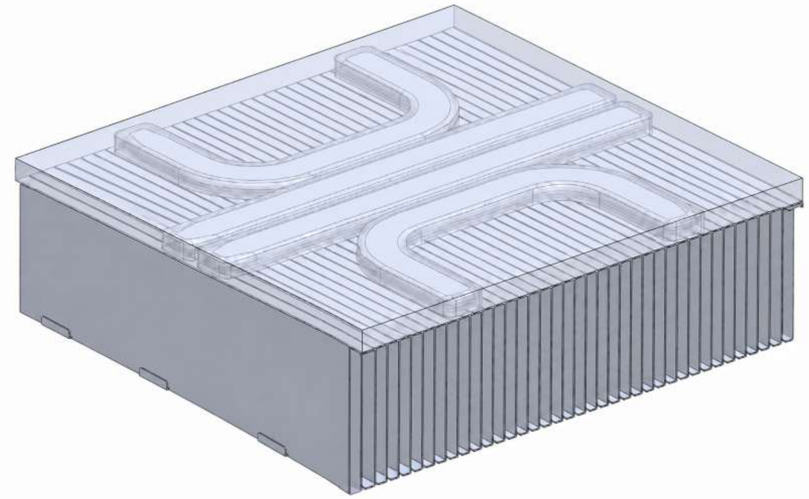


# Thermal Resistance Testing/ HEATPIPE HEATSINK

| Part number | Description | Length mm | Width mm | Heigth mm | Avg base think mm | Avg fin think mm | Weight per piece gram | Heat load W | Fan model | TIM Coverage |
|---|---|---|---|---|---|---|---|---|---|---|
| 420-xxxxxx-001-P | High-performance heatsink with aluminum base and heatpipe | 98 | 90 | 29 | 4 | 25 | 200 | 100 | PFB0412EHN-TP06 | 36 x 36 x 0.20 |

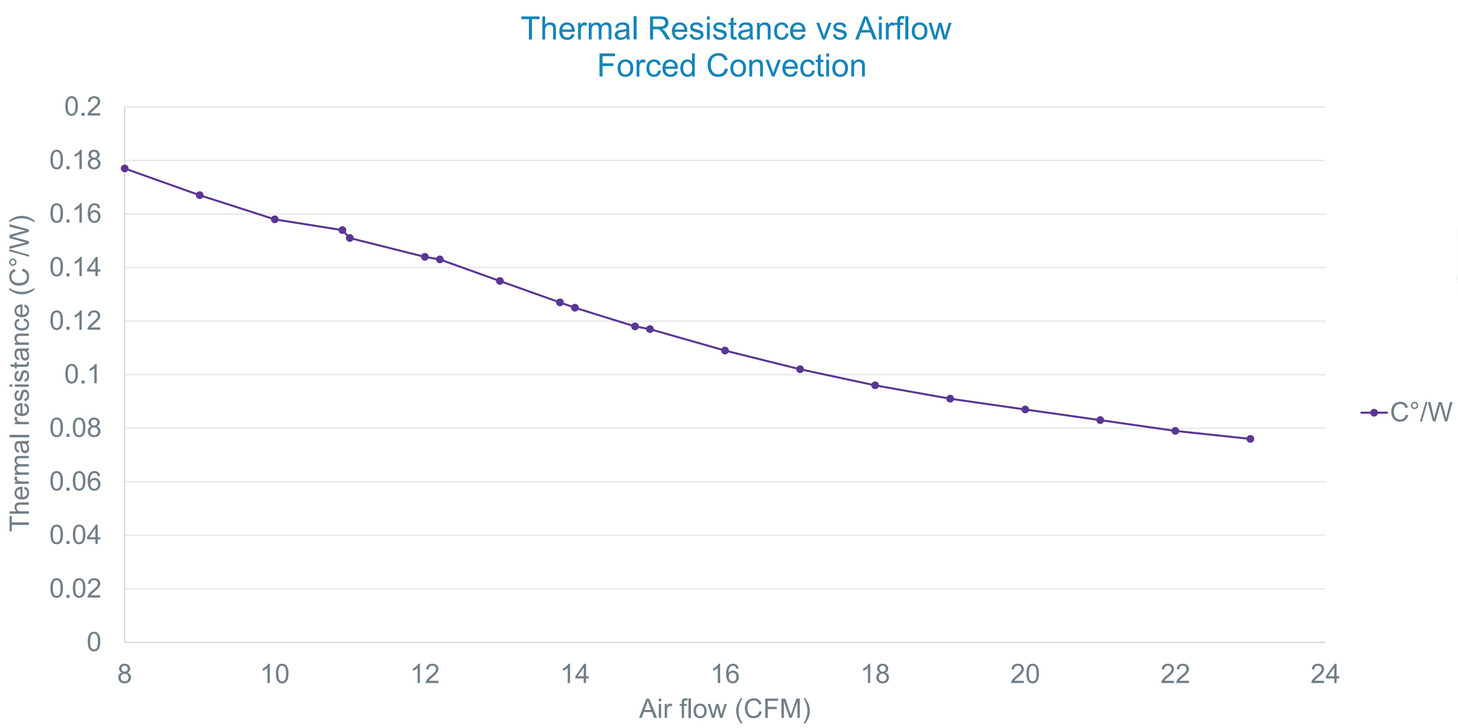


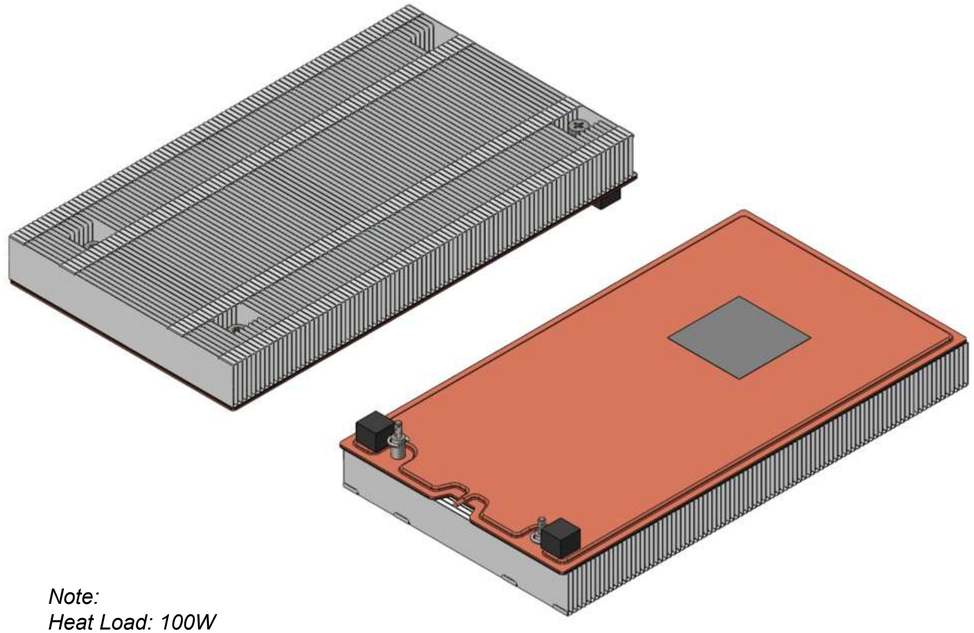



*Note:*
*Heat Load: 100W*
*Ambient Temperature: 25°C*
*Airflow: Actual flow through heatsink*
*Fan model: PFB0412EHN-TP06*

# Thermal Resistance Testing/ VAPOR CHAMBER

| Part number | Description | Length mm | Width mm | Heigth mm | Avg base think mm | Avg fin think mm | Weight per piece gram | Heat load W | Fan model | TIM Coverage |
|---|---|---|---|---|---|---|---|---|---|---|
| 420-xxxxxxx-001-P | High-performance heatsink with vapor chamber | 226 | 125 | 24 | 3 | 0.3 | 300 | 100 | PFB0412EHN-TP06 | 40 x 40 x 0.15 |



*Note:*
*Heat Load: 100W*
*Ambient Temperature: 25°C*
*Airflow: Actual flow through heatsink*
*Fan model: PFB0412EHN-TP06*

# INDUSTRIES WE SERVE

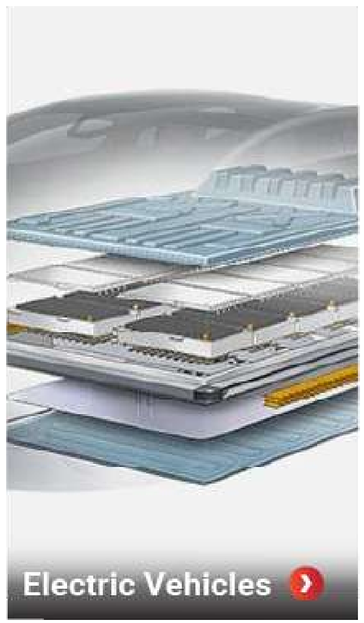
Thermal management has become a fundamental factor in modern industrial operations, directly influencing system reliability and durability. Each application sector presents unique cooling requirements, which call for tailored heat sink solutions—such as liquid cooling plates widely applied in new energy vehicles, or air-cooled modules commonly used in data center systems. Optimized heat dissipation not only safeguards operational reliability but also contributes to extended product lifespan.











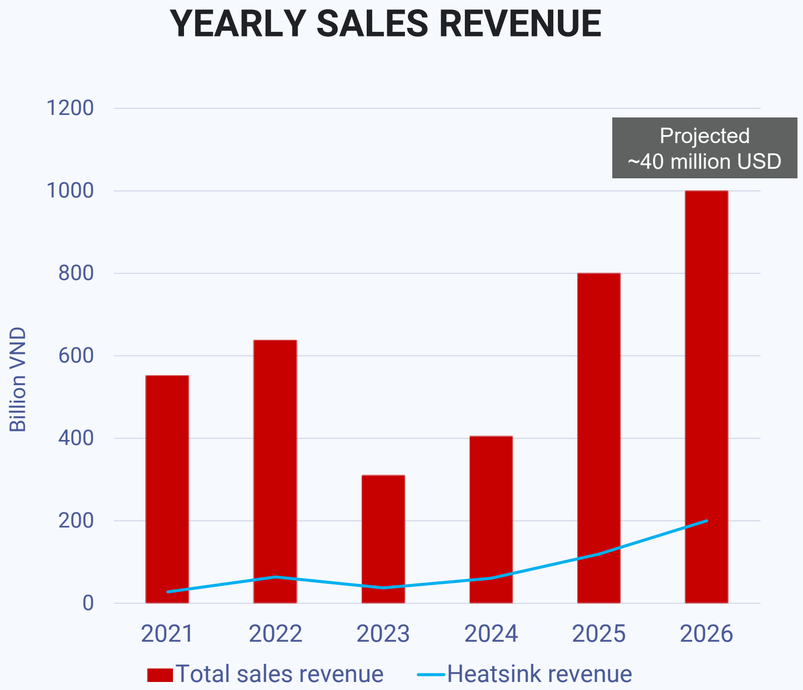




# OUR MARKETS

Besides being supplied to the domestic market, our aluminum products have been exported directly and indirectly to overseas markets.




# OUR CLIENTS

Panasonic DAIKIN viettel

SIEMENS NOKIA Google




# FACTORY

Yen Phong IP, Bac Ninh Pro, Vietnam

Factory area: **35,000 $m^2$** (377,000 sq.ft)

# CNC MACHINING WORKSHOP

100 machines
**Services:** Milling, cutting, drilling, tapping, turning, skiving, etc.
**Maximum machining length:** 4500 mm










# REFLOW SOLDERING WORKSHOP

Reflow Solder Ovens & Performance Test System











# TESTING & LABORATORY

Our in-house laboratory supports testing and assessment to verify the quality and performance of manufactured components.

- Mechanical testing (tension, compression, fatigue)
- Dimensional inspection and metrology (2D, 2.5D, CMM, optical, scanning)
- Environmental and durability testing
- Destructive and nondestructive evaluation

**OUTSOURCE TESTING** (if required)




*2D Manual Video Measurement*



*Heat Source Simulator*



*Heat Pipe Heat Transfer Performance Test*



*Vapor Chamber Thermal Performance Test*



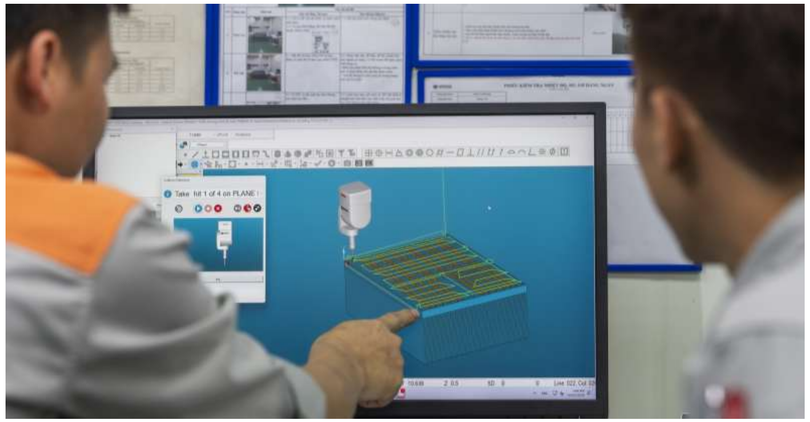
*Leak-tightness testing of heat pipes and VC*




*Ultrasonic thickness gauge for heat pipes*



*Tensile/Compression Test Machine*

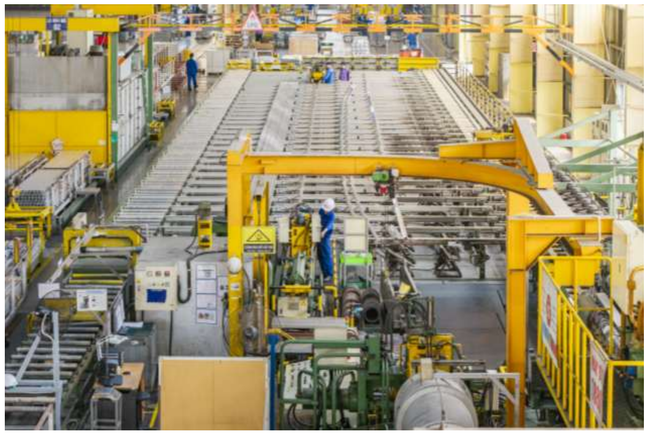




## ENGINEERING SUPPORT

From material to structural assembly and tooling/fixture design.

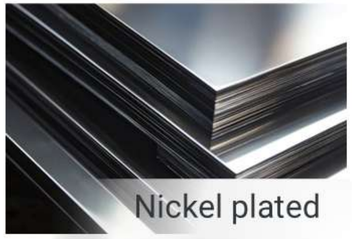


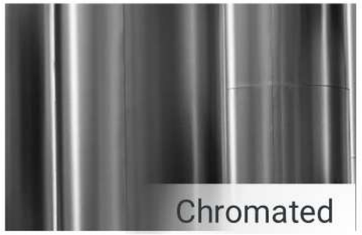



## EXTRUSION WORKSHOP

**Aluminum alloy:** 6063, 6005, 6061, 6082, 6N01
**Heat treatment:** T4, T5, T6
**Machines:** 1100 UST, 1880 UST & 5000 UST







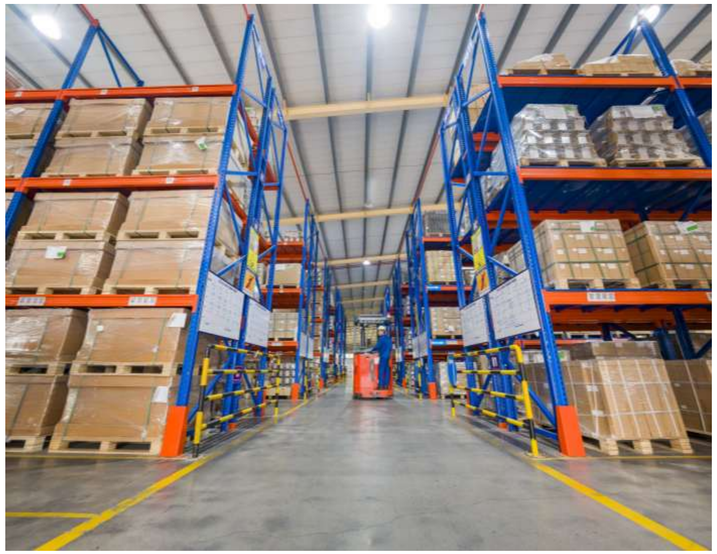
## SURFACE FINISHING SERVICE

Tailored to product function and customer requirements
Surface finishes per MIL-A-8625/MIL-DTL-5541 or as per requested

# PACKAGING







KIMSEN provides quality standard packaging services, which can be customized to customer’s specific packaging requirements.





# CORPORATE SOCIAL RESPONSIBILITY

Through dedicated product development for electric vehicle industry (including electric cars, buses, and trucks) and renewable energy sector (solar), KIMSEN has taken an active role in the global supply chain, furthering the aim of carbon emissions reduction and environmental sustainability.

### ENVIRONMENTAL RESPONSIBILITY

*As a manufacturer, KIMSEN always strives to build a green and clean working environment to minimize waste chemicals to the surrounding environment.*

### ALUMINUM RECYCLING

*After quality testing, aluminum scrap will be recycled to be used as raw materials for other production processes.*

### WASTEWATER TREATMENT SYSTEMS




### ROOFTOP SOLAR MOUNTING SYSTEMS



# CORPORATE SOCIAL RESPONSIBILITY

Sustainable development, not only paying attention to business benefits but also making positive contributions to the society and environment, is the long-term orientation of KIMSEN Industrial Corporation. KIMSEN is a gold sponsor for the “Mùa Gió Ấm” volunteer program of Foreign Trade University students.
The responsibility to minimize environmental and society impacts, save energy, maintain the landscape green – clean - beautiful, contribute to the development of the local economy are among important criterias besides production and business efficiency.




**SCHOLARSHIP AWARD FOR STUDENTS**

With the desire to support and encourage young students, KIMSEN awarded meaningful scholarships to students at Long Chau Secondary School, including those with outstanding academic achievements and those facing difficult circumstances, helping inspire them to keep learning and growing.




**PARTNERING FOR GREEN FUTURE**

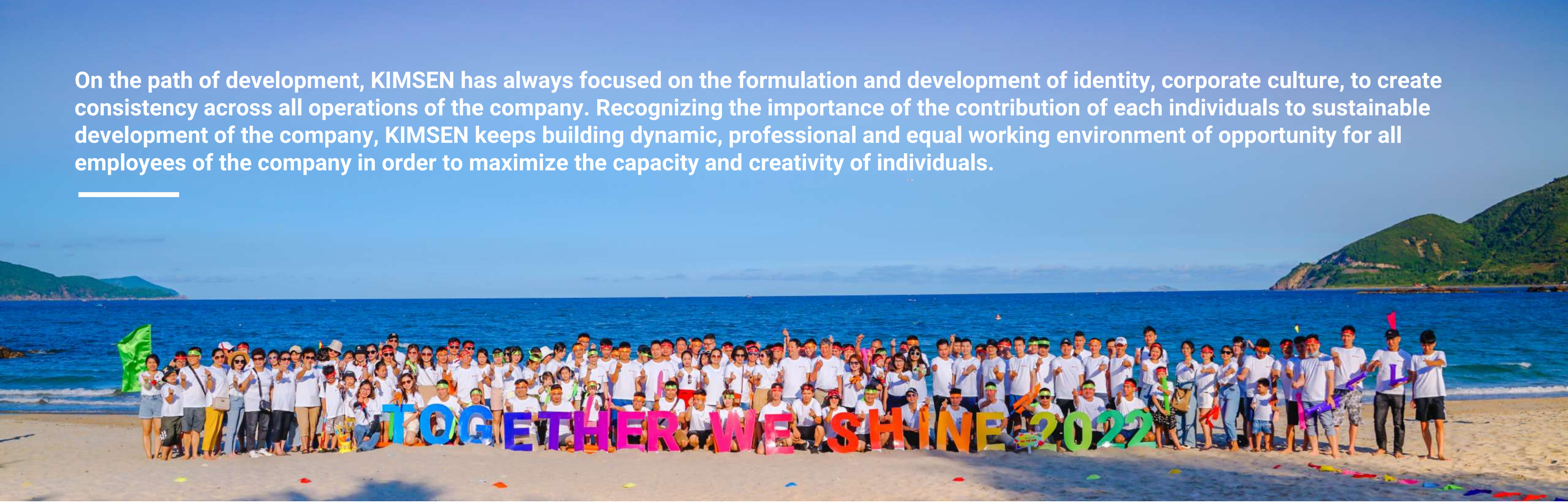
KIMSEN is proud to mark a meaningful milestone — signing a cooperation agreement with Hanoi University of Science and Technology (HUST) to strengthen cooperation in green-energy training and research.




**THE CONTEST "RUN WITH KIMSEN”**

The contest is a great chance for all KIMSENers to embrace the spirit of sports, stay active, and improve their health. It also offers a fun and engaging playground where everyone can connect, share experiences, strengthen teamwork, and spread positive energy together.

**On the path of development, KIMSEN has always focused on the formulation and development of identity, corporate culture, to create consistency across all operations of the company. Recognizing the importance of the contribution of each individuals to sustainable development of the company, KIMSEN keeps building dynamic, professional and equal working environment of opportunity for all employees of the company in order to maximize the capacity and creativity of individuals.**




## TRAVELLING & TEAMBUILDING



YEAR END PARTY




SPORTS ACTIVITIES



KNOWLEDGE SHARING



ANNUAL HEALTH CHECK



# THANK YOU

## CONTACT US

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