

# COMPANY PROFILE

#### ALUMINUM PARTS & COMPONENTS FOR GENERAL & INDUSTRIAL APPLICATIONS







#### Established in 2013, KIMSEN INDUSTRIAL CORPORATION

is an ISO 9001, ISO 14001 and IATF 16949:2016 certified Full-Service Supplier of Aluminum Extrusion, Stamped, CNC Machined Parts & Components

#### and Assemblies for Thermal solutions, Automotive/Machinery and Solar energy sectors.

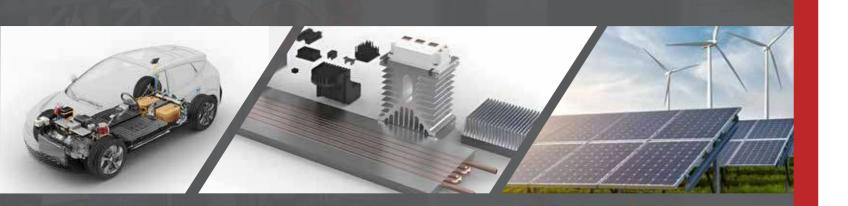
We serve the North American and global markets from our production facilities in **Bac Ninh, Vietnam.** 

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### **ABOUT US**

Built on an area of **35,000m<sup>2</sup>** in Yen Phong Industrial Park, Bac Ninh, KIMSEN factory is equipped with modern machinery and equipment. Along with strict quality control process and a team of experienced engineers, we are proud to bring high quality Aluminum Extrusion, Die Cast, Stamped, CNC Machined Parts & Components and Assemblies which meet international standards such as JIS H 4100:2015 and EN 755-9:2016, to our customers.

With a sustainable development orientation, KIMSEN has invested in ancillary facilities, with modern wastewater treatment systems, water supply system, gas station, electricity station and more to ensure efficient, safe and sustainable factory operation according to state laws. Along with the investment in modern production lines, KIMSEN has applied the Quality Management System according to ISO 9001:2015, Environmental Management System according to ISO 14001:2015, Automotive Quality Management System according to IATF 16949:2016 and 5S -Kaizen methods.

KIMSEN factory is capable of supplying 10,000 tons of aluminum and 30,000,000 parts & components per year. KIMSEN has a diversified range of products which are being used in a broad range of fields and applications such as Thermal Solutions, Automotive/Machinery Parts & Components, Solar Energy and other parts & components tailored as per customer request.

With the principle of providing customers with international standard products and best quality service, KIMSEN always strives tirelessly to become a professional aluminum manufacturer and a trusting partner in Vietnam and abroad.







03 extrusion lines (800 tons/ month)





**CNC** machines (milling, cutting, drilling, tapping, etc.)

Export to countries

### VISION

KIMSEN aims to become a leading manufacturer and supplier of parts & components and industrial solutions for thermal solutions, automotive/machinery and new energy sectors.

KIMSEN - Moving Forward in the Manufacturing World

Manufacturing and supplying high quality industrial products, bringing more values to customers

Making and increasing real benefits & welfare to employees over time

Creating sustainable growth value for shareholders

> Developing sustainably by minimizing our impact on the environment and contributing to social values

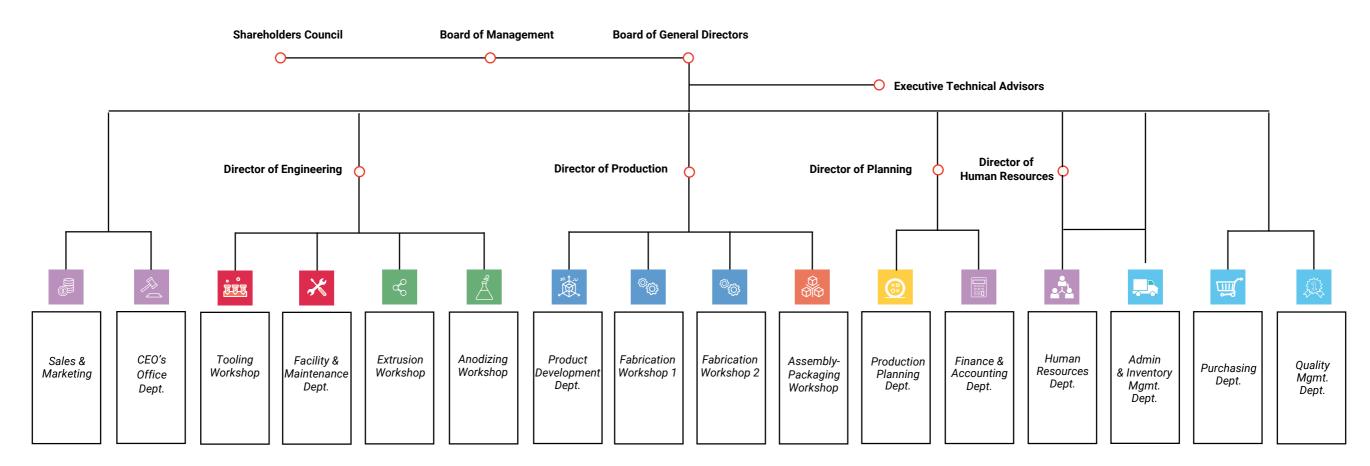
### **CORE VALUES**

DEVOTION

CREATIVITY



## **ORGANIZATION CHART**



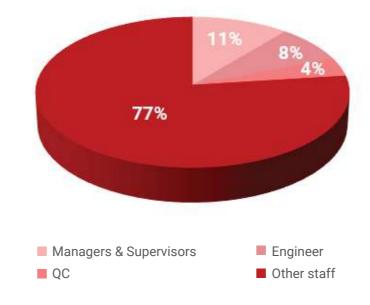
### **HUMAN RESOURCES**

Here at KIMSEN, we consider human resources the most important factor contributing to the development of the Company. Therefore, KIMSEN focuses on building a professional, dynamic and empathetic working environment which offers equal opportunity for each member. We are proud to have a team of well-trained personnel who are passionate and devoted to the development of the Company.



Employees: 290 (up to October 2024)





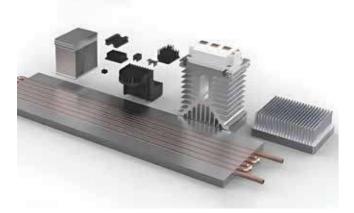
Dated: 22/04/2024





## **INDUSTRIES WE SERVE**

KIMSEN produces diversified range of aluminum products which are being used in a broad range of fields and applications such as Automotive/Machinery Parts & Components, Thermal Solutions & New Energy. We provide OEM/ODM service, custom design for unique shape and weight requirements at a competitive cost on high volume orders.













#### THERMAL SOLUTIONS

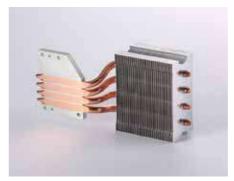
Aluminum has gained prominence in heat sink applications due to its excellent thermal conductivity, lightweight nature, and ease of manufacturing. The versatility and effectiveness of aluminum extrusions as heat sinks have led to their widespread adoption across numerous electronic devices:

- Consumer Electronics
- Computer
- Communication

#### **EXTRUSION HEAT SINK**

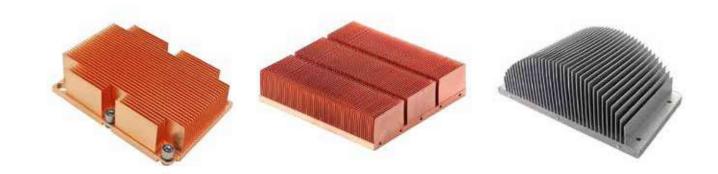


#### **HEATPIPE HEAT SINK**





### **SKIVED FIN HEAT SINK**





#### PARTS & COMPONENTS FOR AUTOMOTIVE/MACHINERY

#### **AUTOMOTIVE**

Extrusions deliver an efficient geometry offering multiple functions:

- Crash energy absorption
- Torsional stiffness
- · Considerable strength with minimal weight
- Leak-free fluid transfer through structural members



EV Battery Tray/Housing



Truck Body Frame

#### **MACHINERY PARTS & COMPONENTS**



Packaging Picking Application

Multi-purpose Pillar



Automatic CNC Router

Motor Housing



Shaft-Sliding Linear



**Custom Machined Parts** 

### SOLAR ENERGY

With its lightweight strength and unmatched corrosion-resistance and durability, aluminum is widely used to build renewable energy platforms like solar panels. Aluminum components with anodized coating help the solar panels for strong weather adaptability, easy operation and maintenance.



### **SOLAR MOUNTING & RACKING SYSTEMS**



B	
1. Bolt	5. Klip-lok clamp kit
2. Rail	6. L foot mount
3. Nut	7. Rail





## **PRODUCT STANDARDS & SPECIFICATIONS**

CHEMICAL COMPOSITION (Alloy No.: 6005, 6061, 6063, 6082, ADC12, ADC6, A380)

Chemical Composition % (mass fraction)											
Alloy No.	Si	Fe	Cu	Mn	Mg Cr	Zn	Ti	Other		Al	
					Ĩ				Each	Total	
6005	0.4 - 0.9	0.35 max	0.35 max	0.5 max	0.4 - 0.8	0.3 max	0.25 max	0.1 max	0.05 max	0.15 max	Remainder
6061	0.4 - 0.8	0.7 max	0.15 - 0.4	0.15 max	0.8 - 1.2	0.04 - 0.35	0.25 max	0.15 max	0.05 max	0.15 max	Remainder
6063	0.2 - 0.6	0.35 max	0.1 max	0.1 max	0.45 - 0.9	0.1 max	0.1 max	0.1 max	0.05 max	0.15 max	Remainder
6082	0.7 - 1.3	0.50 max	0.1 max	0.4 - 1.0	0.60 - 1.2	0.2 max	0.2 max	0.1 max	0.05 max	0.15 max	Remainder

	Chemical Composition % (mass fraction)										
Alloy No.	Cu	Si	Mg	Zn	Fe	Mn	Ni	Sn	Pb	Ti	AI
ADC12	1.5 - 3.5	9.6 - 12.0	0.3 max	1.0 max	1.3 max	0.5 max	0.5 max	0.2 max	0.2 max	0.3 max	Remainder
ADC6	0.1 max	1.0 max	2.5 - 4.0	0.4 max	0.8 max	0.4 - 0.6	0.1 max	0.1 max	0.1 max	0.2 max	Remainder
A380	3.0 - 4.0	7.5 - 9.5	0.1 max	3.0 max	1.3 max	0.5 max	0.5 max	0.35 max	-	-	Remainder

#### MECHANICAL PROPERTIES (Alloy No.: 6005, 6061, 6063, 6082)

		Mechanical properties									
Alloy No.	Temper Grade	Wall			Elong	ation %	Hardness test				
		Thickness at specified measuring point (mm)	Tensile stress (N/mm <sup>2</sup> )	Proof stress (N/mm²)	A 50 (mm)	A	Wall Thickness at specified measuring point (mm)	HV5	Hw Typical value		
		6 max	245 min	205 min	8 min	-	-	-	13 min		
6005	6005 T5	Over 6 up to and incl. 12	225 min	175 min	8 min	-	-	-	13 min		
	Т6	6 max	265 min	235 min	8 min	-	-	-	14 min		
6061	T6	6 max	265 min	245 min	8 min	7 min	-	-	14 min		
0001	10	Over 6	260 min	240 min	10 min	-	-	-	14 min		
6063	Т5	12 max	150 min	110 min	8 min	7 min	0.8 min	58 min	8 min		
0003	T6	3 max	205 min	170 min	8 min	-	-	-	11 min		
	T5	5 max	270 min	230 min	6 min	8 min	-	-	-		
6082	T6	5 max	290 min	250 min	6 min	8 min	-	-	-		
		Over 5 up to and incl. 25	310 min	260 min	8 min	10 min	-	-	-		

### SURFACE TREATMENT

Anode	8 - 12 µm
Powder coating	≥ 60 µm
Туре	Natural, sand blasting, hard anodiz
Color range	Clear, black

In case you have other requirements, please contact us for further information.

#### **DIMENSION AND TOLERANCES**

- ► Tolerances on sectional dimension
- ▶ Tolerances on length
- ► Tolerances on angularity

\*According to standards & specifications as JIS H 4100:2015, EN 755-9:2016, ASTM B221/B221M-14.

### PACKAGING







#### zing, nickel plating, tin plating, powder coating

- ▶ Tolerances on camber
- Tolerances on contour
- Tolerances on flatness
- Tolerances on twist
- Tolerances on corner radius
- Tolerances on thickness

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



### **MANUFACTURING CAPABILITIES**









#### **EXTRUSION** WORKSHOP

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





#### **CNC MACHINING WORKSHOP**

44 machines

Services: Milling, cutting, drilling, tapping, turning, etc. Machine brands: Makino, Fanuc, JIH, Doosan, etc. Accuracy: 0.01 - 0.03 mm

#### **STAMPING WORKSHOP**

28 machines Services: Cutting, punching, laser engraving, screen-printing, etc. Accuracy: 0.05 - 0.2 mm

#### **PUNCHING MACHINES**

10 machines **Machines:** 32, 45, 80, 150, 200 tons

#### **DRILLING & TAPPING MACHINES**

18 machines









#### ASSEMBLY WORKSHOP Sub-assembly for components





#### **ANODIZING WORKSHOP**

Color range: Clear, black Type: Natural, sand blasting, hard anodizing, nickel plating, tin plating Product Standard: JIS H8602 &

JIS H8601, AAMA611, MIL-A8625 & MIL-DTL-5541







#### **POWDER COATING WORKSHOP**

Product Standard: AAMA 2603, 2604, 2605-13, QUALICOAT Powder Coating from International brands: AkzoNobel, PPG Coating, Jotun, Tiger Drylac, others as per request











### **QUALITY CONTROL PROCESS**

#### Our quality process includes:

- The 5 Core Quality Tools APQP, PFMEA (DFMEA & PFMEA), SPC, MSA, PPAP
- The 7 Basic Quality Tools for Process Improvement
- Quality Improvement Methods Six sigma, Kaizen, Lean Manufacturing, Toyota Way, Pull System, Pokayoke, Kanban, etc.
- Advanced Metrology Capability (CMM, 2D Scanners) Measure what we manufacture with precision.

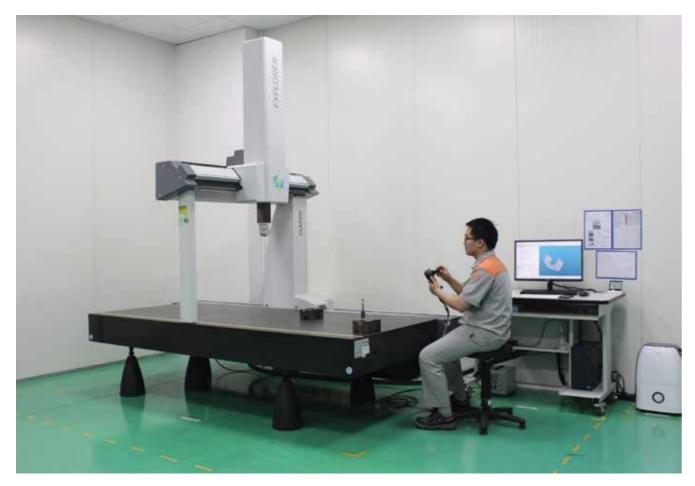


Tensile Stress Testing

Hardness testing



Vision Measurement



CMM Measurement

### **MANAGEMENT SYSTEMS**

KIMSEN has been recognized as an ISO 9001 and ISO 14001 compliant system since 2016. Along with international standards for management system, we apply Japanese 5S - Kaizen and Lean manufacturing methods to maintain stringent quality standards in manufacturing processes, ensuring rigorous quality checks at every stage of production.





ISO 9001:2015 **Quality Management** System





## **PRODUCT CERTIFICATIONS**





EN 7-559:2016

Tolerances for Aluminium Alloy-extruded Profiles





#### RoHS 2011/65/EU (Test report)

Restriction of the Use of Certain Hazardous Substances in **Electrical and Electronic Equipment** 



Registration, Evaluation, Authorisation and Restriction of Chemicals



ISO 14001:2015 **Environmental Management** System



IATF 16949:2016 International Automotive Task Force



JIS H 4100:2015

Specifies the standards of aluminum used for industrial activities in Japan



#### ASTM B221/B221M

Aluminium and Aluminum Alloy Extruded Bar, Rods, Wire, Profiles and Tubes Test



**PFAS FREE** 

Restriction of Per- and Polyfluoroalkyl Substances

## SUSTAINABLE GROWTH WITH SOCIETY

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.

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.

#### FUNDRAISING ACTIVITIES TO BUILD PRESCHOOLS

With the desire to help underprivileged children living in mountainous areas, over the years, KIMSENers have joined hands with other benefactors to build many new schools, helping students have a spacious school to learn and develop.





#### VOLUNTEER PROGRAM "MÙA GIÓ ẤM"

KIMSEN is a gold sponsor for the "Mùa Gió Ấm" volunteer program of Foreign Trade University students.



#### THE CONTEST "KIMSEN GO GREEN"

"KIMSEN Go Green" is a contest organized to encourage and promote environmentally friendly actions of all KIMSENers. The contest spread the spirit of living close to nature, limiting the amount of waste, and enhancing the sense of responsibility of each individual to the community.



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



**ANNUAL HEALTH CHECK** 



**KNOWLEDGE SHARING** 



#### **SPORTS ACTIVITIES**

## SUSTAINABLE GROWTH WITH SOCIETY

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, non-standard aluminum products will be recycled to be used as raw materials for other production processes.



#### WASTEWATER TREATMENT SYSTEMS

Aware of corporate responsibility in protecting the environment, KIMSEN has focused on installation of modern wastewater treatment system, and application of Environmental Management Procedures ISO 14001:2015 at the same time to ensure wastewater output quality full compliance with the law. The application of environmental management system according to international standards is KIMSEN's commitment to contribute positively to environmental protection.

#### ANCILLARY SYSTEM

In order to ensure efficient, safe and sustainable factory operation, KIMSEN has invested in modern ancillary systems such as water supply system, power station system, gas station, rooftop solar mounting system, etc. This contributes significantly to the sustainable development of our Company.

### **OUR CLIENTS**

**Panasonic** 





VINFAST



### **OUR MARKETS**

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







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> \*Revised publication effective November 2024. Specifications are subject to change without notice.