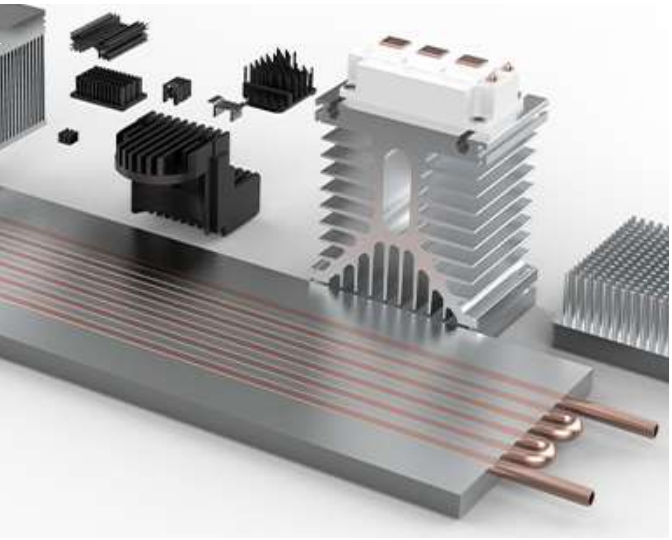
KIMSEN

ALUMINUM INDUSTRIAL
PRODUCT BROCHURE

4th Edition



www.kimsen.vn

CERTIFIED
ISO 9001
ISO 14001
ISO 45001
BUREAU VERITAS

ABOUT US

KIMSEN INDUSTRIAL CORPORATION

Established in 2013, KIMSEN INDUSTRIAL CORPORATION is an ISO 9001, ISO 14001 and ISO 45001 certified Full-Service Supplier of Aluminum Extrusion, Die Cast, Stamped, Forged, CNC Machined Parts & Components and Assemblies for Automotive/Machinery, Thermal solutions and New energy sectors.

Factory area: 35,000 m^2
Business category: Aluminum Extrusion, Die Cast, Stamped, Forged, CNC Machined Parts & Components and Assemblies
Technical standards: JIS H4100:2015, EN 755-9:2016, ASTM B221/B221M-14
Management systems: Quality Management System ISO 9001:2015, Environmental Management System ISO 14001:2015, Occupational Health and Safety Management System ISO 45001:2018, 5S - Kaizen Method

10 years of experience in aluminum industry
7.2 meters maximum stroke length
10,000 tons of aluminum per year
3 extrusion lines (10,000 tons/year)
10 Export to countries
30 million parts & components per year

1 EXTRUSION WORKSHOP

Aluminum alloy: 6063, 6005, 6061, 6082
Heat treatment: T4, T5, T6
Machines: 920 UST, 1100 UST & 1880 UST

2 DIE-CASTING WORKSHOP

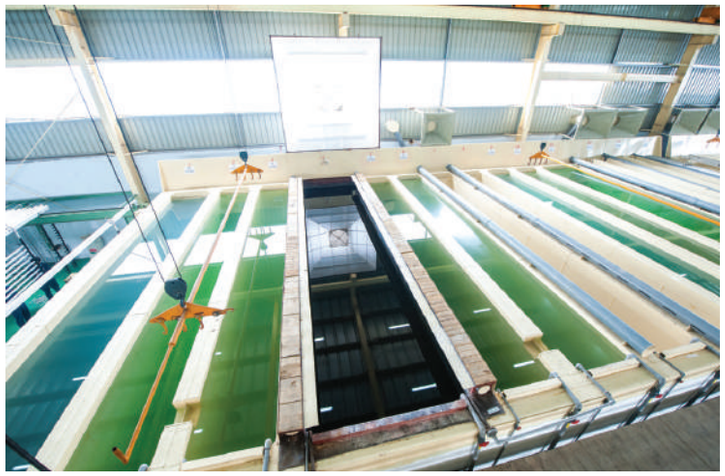
Aluminum alloy: ADC12, ADC6, A380, HD4 and equivalent
Machines: 350T, 650T, 800T

3 ANODIZING WORKSHOP

Color range: White, grey, black, etc.

Type: Natural, sand blasting, ED coating, hard anodizing, nickel plating, electric nickel plating, tin plating, liquid coating, E-coating

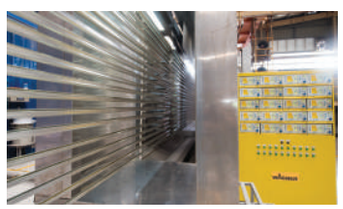
Product Standard: JIS H8602 & JIS H8601, AAMA611, MIL-A8625 & MIL-DTL-5541

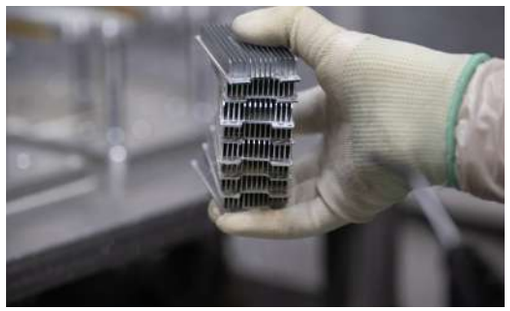


4 POWDER COATING WORKSHOP

Product Standard: AAMA 2603, 2604, 2605-13, QUALICOAT

Powder Coating from International brands: AkzoNobel, PPG Coating, Jotun, TIGER Drylac, others as per request





5 CNC MACHINING WORKSHOP

50 machines

Services: Milling, cutting, drilling, tapping, etc.

Machine brands: Makino, Fanuc, JIH, Doosan, etc.

Accuracy: 0.01 - 0.03 mm

6 STAMPING WORKSHOP

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

PUNCHING MACHINES
11 machines
Machines: 32, 45, 80, 150, 200 tons

DRILLING & TAPPING MACHINES
17 machines

7 TURNING WORKSHOP

118 machines
Machines: Ø1.0 - Ø30.0 mm
Materials: Aluminum, steel, copper, plastic, etc.

PRODUCTS

KIMSEN is manufacturing for following industries:

AUTOMOTIVE/ MACHINERY PARTS & COMPONENTS

THERMAL SOLUTIONS
(Consumer Electronics, Computer, Communication & Others)

NEW ENERGY

CUSTOM DESIGN
for unique shape and weight requirements

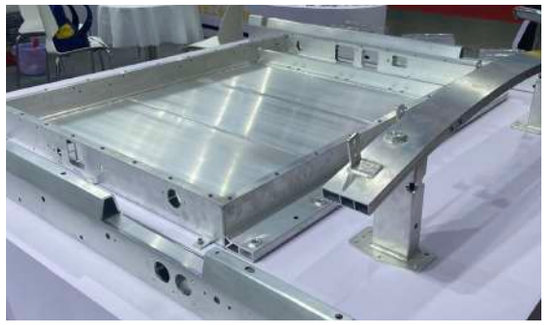
COST-EFFECTIVE
option for high volume applications

DESIGN FLEXIBILITY
produce complex shapes with a high degree of accuracy and repeatability

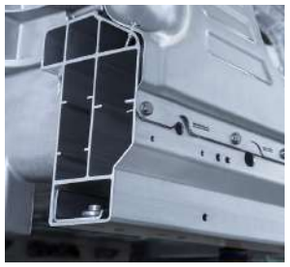
WE PROVIDE OEM/ODM, ENGINEERING & FABRICATION SERVICES

AUTOMOTIVE/MACHINERY PARTS & COMPONENTS

EV BATTERY TRAY/HOUSING

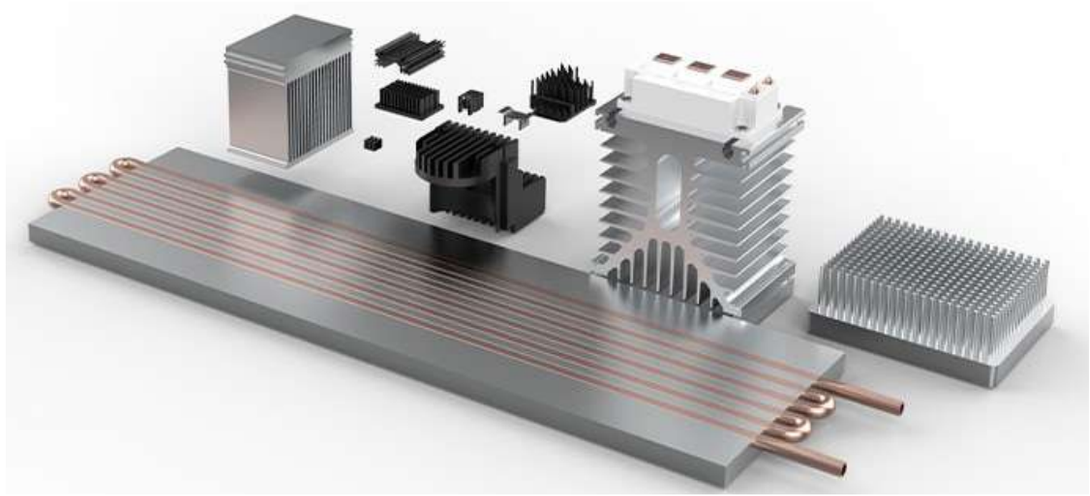


BODY FRAME

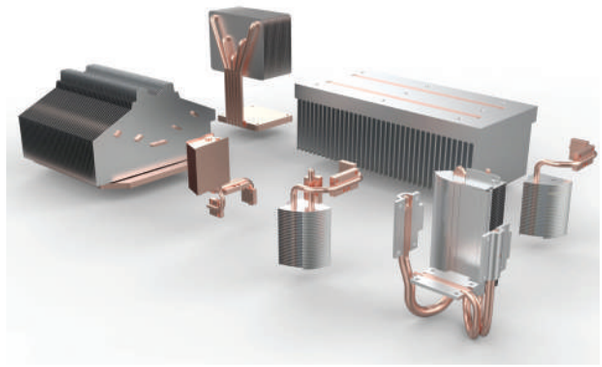


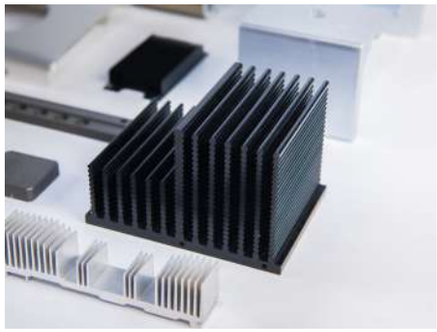
TRUCK BODIES

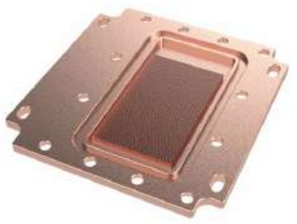
THERMAL SOLUTIONS



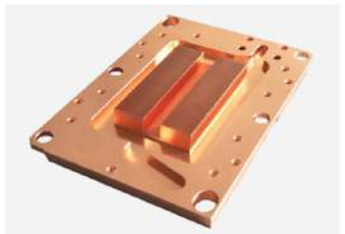
CONSUMER ELECTRONICS



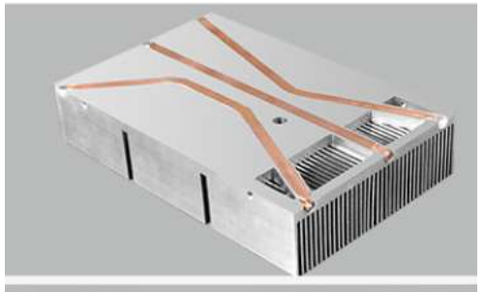


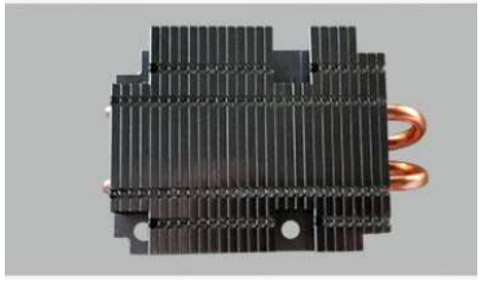


COMPUTER



COMMUNICATION

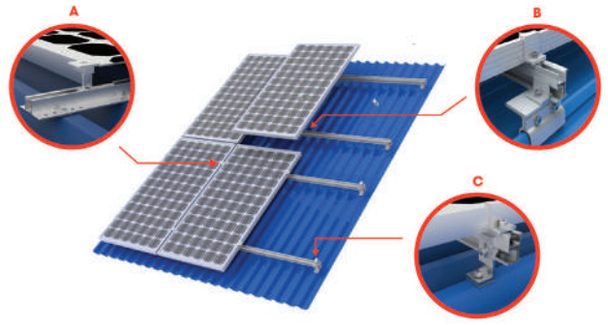


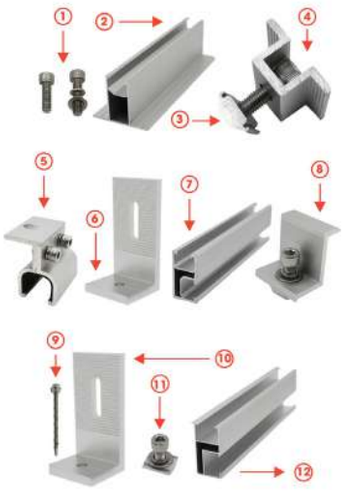


NEW ENERGY

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





A

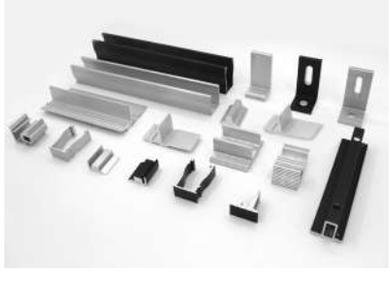
1. Bolt
2. Rail
3. Nut
4. Mid clamp kit

B

5. Klip-lok clamp kit
6. L foot mount
7. Rail
8. End clamp kit

C

9. Screw
10. L foot mount
11. Bolt & Nut
12. Rail



PRODUCT STANDARDS & SPECIFICATIONS

1 Product advantages

- Lightweight and durable
- High aesthetic
- Non-magnetic & non-toxic
- Easy to fabricate & elastic
- Multi forms & colors
- Recyclable

2 Surface treatment

Anode	8 - 12 μm
Anode ED	12 - 18 μm
Powder coating	≥ 60 μm
Type	Natural, Sand blasting, ED coating, Powder coating
Color range	White, gold, grey, brown, black, etc.

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

Typical Anodizing colors


KSA-C01B100


KSA-B100


KSA-E100


KSA-B400

Typical Powder coating colors

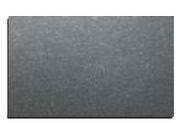

K22A9016-01


K24A7038-03


K24A7043-01


K24A7024-01


K24A7012-01


K24A8019-08


K24C7024-02


K24A8019-05

Actual anodizing and powder coating colors may differ from the images.

3 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
									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	Al
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

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

4 Dimension and tolerances

- Tolerances on sectional dimension
- Tolerances on camber
- Tolerances on contour
- Tolerances on length
- Tolerances on flatness
- Tolerances on corner radius
- Tolerances on angularity
- Tolerances on twist
- Tolerances on thickness

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

QUALITY MANAGEMENT

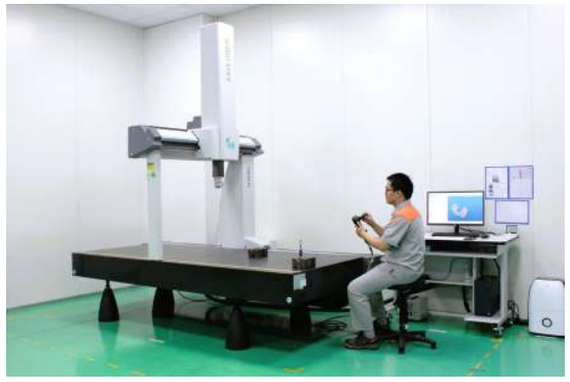
Our quality process includes:

- 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.

LABORATORY

Vision measurement

Hardness testing



CMM measurement

Tensile stress testing

MANAGEMENT SYSTEMS

ISO 9001:2015
Quality Management System

ISO 14001:2015
Environmental Management System

ISO 45001:2018
Occupational Health and Safety Management System

IATF 16949:2016
International Automotive Task Force

EN 755-9:2016
Tolerances for Aluminium Alloy-extruded Profiles

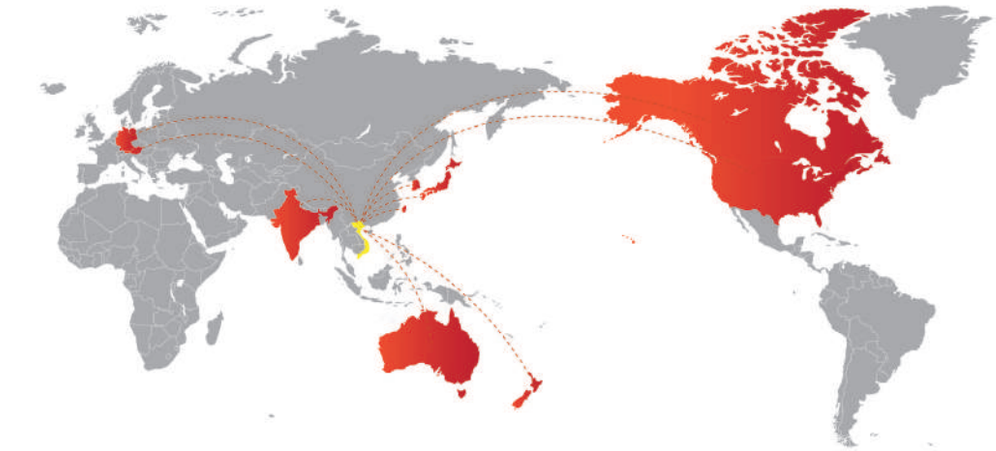
JIS H 4100: 2015
Specifies the standards of aluminum used for industrial activities in Japan

ROHS 2011/65 / EU (Test report)
Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

ASTM B221/B221M
Aluminium and Aluminum Alloy Extruded Bar, Rods, Wire, Profiles, and Tubes Test

OUR MARKET

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



PACKAGING

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

KIMSEN

CONTACT US

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Specifications are subject to change without notice.