UNLEASHING THE POWER OF
METALLURGICAL MATERIALS

ALLINX®

ALLINX®
METALLURGICAL MATERIALS

SUPPLIES FOR THE METALLURGICAL INDUSTRY

EXECUTIVE SUMMARY

al-linx.com

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UNLEASHING THE POWER OF METALLURGICAL MATERIALS

Over 18 years leading the industry with tailor-made solutions.

We are experts in metallurgical materials. Thanks to our network of factories in China and an international team, we offer customized products, without intermediaries and with 360° control of the entire operation.

At Allinx, we work without intermediaries, connecting you directly with our factories. This allows us to eliminate uncertainties, reduce lead times, and avoid unnecessary costs, ensuring efficiency from the very first contact.

We offer fully customized solutions, adapting to your requirements in quality, purity, and price. We control every stage of the process — from the briefing to final delivery — with rigorous quality testing and constant communication in your language. This way, we ensure a reliable, transparent result that meets your expectations.

ALUMINUM FOIL

ALUMINUM ROLLED PRODUCTS

USE

Aluminum foil is a thin and flexible sheet made from pure aluminum. Its thickness usually ranges between 0.006 mm and 0.2 mm, allowing it to easily adapt to different shapes and uses.

APPEARANCE

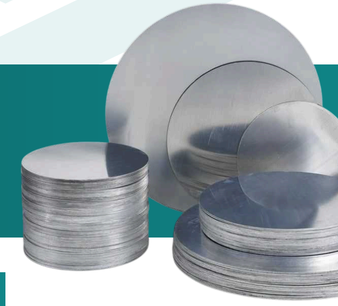
- Color: Bright silver / Matte
- Presentation: Rolls or custom pre-cut sheets.
- Thickness: From 6 microns to 200 microns (depending on application).

ADVANTAGES

- Total barrier against light, oxygen, grease, and bacteria.
- Lightweight and durable, 100% recyclable.
- Non-toxic and non-reactive with food.
- Improves shelf life and the image of the final product.

ALUMINUM DISCS

ALUMINUM ROLLED PRODUCTS



ADVANTAGES

- High mechanical and thermal resistance.
- Excellent thermal and electrical conductivity.
- Suitable for deep drawing and demanding processes.
- Corrosion-resistant and recyclable material.
- Surface ready for anodizing or coating.

USE

Precision-cut circular aluminum parts from sheets, designed for deep drawing, punching, or stamping processes. They are the ideal base for manufacturing cookware, lids, and industrial components.

DIMENSIONS

Alloy	Temper	Thickness (mm)	Width (mm)
1050, 1060, 1070, 1100	O, H12, H14, H16, H18, H19, H22, H24, H26, H32, H34, H36, H38	0.2 - 0.6	50 - 1600
3003, 3004, 3105			
5052			
8011			

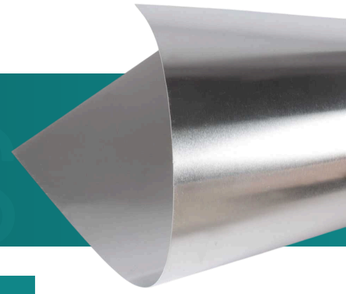
CHEMICAL COMPOSITION

The chemical composition complies with Chinese, American, and European standard specifications.

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others: Each	Others: Total
1050	0.25	0.40	0.05	0.05	0.05	-	0.05	0.03	0.03	-
1060	0.25	0.35	0.05	0.03	0.03	-	0.05	0.03	0.03	-
1070	0.20	0.25	0.04	0.03	0.03	-	0.04	0.03	0.03	-
1100	0.95 Si+Fe	0.95 Si+Fe	0.05~0.20	0.05	-	-	0.10	-	0.05	0.15
3003	0.60	0.70	0.05~0.20	1.0 ~ 1.5	-	-	0.10	-	0.05	0.15
3004	0.30	0.70	0.25	1.0 - 1.5	0.8 - 1.3	-	0.25	-	0.05	0.15
3105	0.60	0.70	0.30	0.3 - 0.8	0.2 - 0.8	0.20	0.40	0.10	0.05	0.15
5052	0.25	0.40	0.10	0.10	2.2 - 2.8	0.15 - 0.35	0.10	-	0.05	0.15
8011	0.5 - 0.9	0.6 - 1.0	0.10	0.20	0.05	0.05	0.10	0.08	0.05	0.15

ALUMINUM SHEETS

ALUMINUM ROLLED PRODUCTS



USE

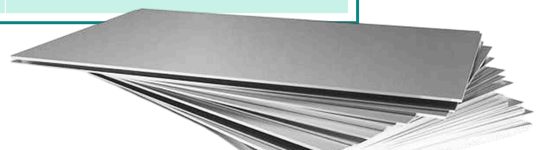
Transportation: Manufacturing of vehicle bodies, aircraft parts and naval components due to its lightweight nature.
Construction: Façade cladding, false ceilings and insulating panels.
Consumer goods: Casings for electronic devices and home appliances.
Signage: Base for traffic signs and billboards.

CHARACTERISTICS

Lightness: Approximately one-third the weight of steel.
Corrosion resistance: Naturally forms its own protective oxide layer.
High conductivity: Excellent conductor of heat and electricity.
Ductile and malleable: Easy to bend, cut and shape without breaking.
Recyclable: Can be recycled indefinitely without losing quality.

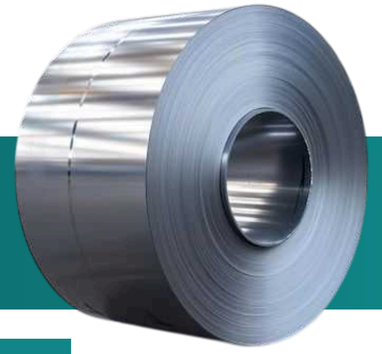
PARAMETERS

Category	Specification / Range	Notes
Common alloyst	1100, 3003, 5052	1100 = high purity / 3003 = better corrosion resistance / 5052 = higher hardness
Typical temper	H14, H24, H32, O	H14 = half hard / H24 = half-hard annealed / H32 = resistant / O = annealed
Tensile strength (UTS)	90 – 275 MPa	Depends on alloy and temper
Yield strength	35 – 230 MPa	5052 H32 has higher resistance
Elongation (%)	10 – 35 %	Soft alloys = higher elongation
Density	2.70 g/cm^3	1/3 the weight of steel
Commercial thicknesses	0.2 – 6.0 mm (lámina) / > 6.0 mm (placa)	Según norma ASTM
Standard widths	914, 1000, 1219, 1500 mm	Also cut to size
Standard lengths	2000, 2440, 3000 mm	Or continuous coil
Common finishes	Smooth, anti-slip (diamond plate), anodized, painted.	Depending on application
Thermal conductivity	~ 235 W/m·K	High, ideal for heat dissipation
Electrical conductivity	~ 61% IACS	Good for conductors



ALUMINUM COILS

ALUMINUM ROLLED PRODUCTS



USE

Packaging: Mass production of cans, lids and aluminum foil.

Construction: Production of gutters, downpipes and roof profiles.

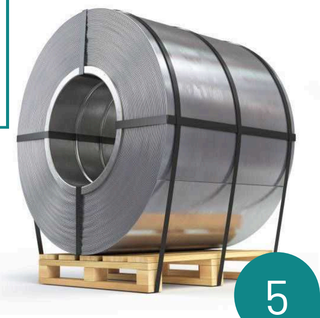
Industry: Fins for car radiators and air conditioning systems.

CHARACTERISTICS

Has the same properties as sheets (lightness, corrosion resistance, etc.). Its main advantage is the coil format, which enables fast processing and reduces material waste.

PARAMETERS

Category	Specification / Range	Notes
Common alloys	1100, 3003, 3105, 5052, 5754	3003 & 3105 widely used in roofing and facades 5052 & 5754 for marine & transportation applications.
Typical temper	H14, H24, H32, O	Defines hardness and formability
Commercial thicknesses	0.20 – 6.0 mm	Thin sheet to light plate
Standard widths	914, 1000, 1219, 1500 mm	Longitudinal cut per client spec
Inner coil diameter	150, 305, 405, 508 mm	Depends on client decoiler
Max outer diameter	1200 – 1600 mm	Per transport capacity
Weight per coil	1 – 6 toneladas	Customizable
Tensile strength (UTS)	90 – 275 MPa	Depends on alloy and temper
Yield strength	35 – 230 MPa	5052 and 5754 more resistant
Elongation (%)	10 – 35 %	High malleability in soft temper
Common finishes	Smooth, pre-painted (PE, PVDF), anodized, embossed	For architecture, transport, industry
Standards	ASTM B209, EN 485, JIS H4000	International standards



INGOTS 99.7%

RAW MATERIAL

USE

Base for casting and alloying processes. Widely used in the automotive, construction, electrical cable and packaging industries. Used as raw material to produce profiles, sheets, plates and other aluminum products.

TYPICAL PARAMETERS

- **Weight per unit:** 6–25 kg approx. (depending on manufacturer).
- **Purity:** ≥ 99.70% Al.
- **Common standards:** LME (London Metal Exchange) specifications.

APPEARANCE

Metallic silver/light gray blocks with a smooth surface and some solidification marks.

COMPOSITION

Primary aluminum with a minimum purity of 99.7%; the remainder consists of controlled impurities (Si, Fe, Cu, Mn, Mg, Zn, Ti in very low proportions).

PACKAGING

Generally stacked in bundles of ~20–25 ingots, strapped with metal bands.
Typical bundle weight: 800–1,000 kg.

ALUMINUM BILLETS

RAW MATERIAL

USE

Raw material for **extrusion** of profiles (windows, doors, frames, industrial profiles, auto parts).

APPEARANCE

Long cylindrical aluminum bars, silver-colored, with smooth surfaces. Cut to different lengths depending on use.

PACKAGING

Stacked in horizontal layers, secured with metal or plastic straps. Shipped on pallets or in containers with separators.

TYPICAL PARAMETERS

- **Diameter**: 4–16 inches (100–400 mm).
- **Length**: 3–6 m.
- **Unit weight**: 300–1,000 kg approx.

Homogenized to ensure mechanical properties and uniformity in extrusion.

COMPOSITION

Can be pure aluminum (1XXX series) or alloys (6XXX series very common: Al-Mg-Si). Composition depends on final use (e.g., 6063, 6061, 6082). Long cylindrical aluminum bars, silver-colored, with smooth surfaces. Cut to different lengths depending on use.

T INGOTS (T-Bar Ingots)

RAW MATERIAL

USE

Used in remelting to manufacture secondary alloys or high volume products. They are common in the automotive, construction and rolling mill industries.

APPEARANCE

Large metallic blocks with "T" or trapezoidal shape. Gray/silver surface, with a rougher texture than the small ingot.

PACKAGING

They are transported in individual pieces, usually by crane. They can weigh up to several tons, so they are not stacked like small ingots.

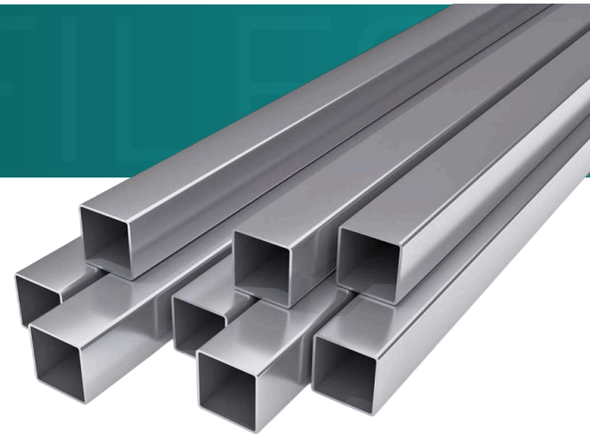
TYPICAL PARAMETERS

- **Unit weight: 500–1,500 kg.**
- **Length: 0.5–1.5 m approx.**
- **Purity: similar to primary ingots, ≥ 99.7%.**
- **International smelting standards (e.g. LME, ASTM).**

COMPOSITION

Primary aluminum, with variable purity (99.7% or to specification). Sometimes used for more efficient transport of solidified liquid aluminum in foundries.

ALUMINUM PROFILES



USE

Extruded components in various shapes, manufactured with aluminum alloys, designed for structures, assemblies and modular systems in multiple industries.

ADVANTAGES

- High structural strength and low weight.
- Minimal corrosion even outdoors.
- Easy to cut, weld and assemble.
- Compatible with modular systems.
- Aesthetically versatile and 100% recyclable.

APPEARANCE

- Shape: "U", "T", "L", square, round, custom-made profiles.
- Finish: Natural, anodized, painted (white, black, RAL colors).
- Sizes: Customizable in length, thickness and cross section.
- Presentation: In bars, ready for cutting or machining.

MAIN USES

Construction and architecture:
Window frames, doors, window and door frames, light facades.Electrical industry:
Trunking, supports, racks.Furniture and interior design:
Structures for kitchens, closets, displays.
Automotive and aerospace:
Lightweight and strong structural supports.

SILICON METAL RAW MATERIALS

USE

It is a semiconductor that offers outstanding mechanical properties, hardness and a high capacity to produce complete castings without defects. It is used in the electronics, metallurgical and chemical industries.High heat resistance and excellent oxidation resistance.It is an essential basic raw material for the high-tech industry.

APPEARANCE

Silver-gray or dark gray appearance with metallic luster.

PACKAGING

Silicon metal size: 10-100 mm
Standard packing: 1 ton/bag

COMPOSITION

Grade	Yes	Impurities (%)		
		Faith	To	Ca
		≤		
1101	99.79	0.1	0.1	0.01
1501	99.69	0.15	0.15	0.01
2202	99.58	0.2	0.2	0.02
2502	99.48	0.25	0.25	0.02
3303	99.37	0.3	0.3	0.03
411	99.4	0.4	0.1	0.1
421	99.3	0.4	0.2	0.1
441	99.1	0.4	0.4	0.1
553	98.7	0.5	0.5	0.3

PARAMETERS

NAME	SILICON METAL POWDER
DIMENSIONS	553#, 441#, 3303#, 2202#
APPLICATION	NON-FERROUS METAL ALLOY ADDITIVE
FORM	POWDER OR GRANULES
MATERIAL	METAL SILICON
CHEMICAL COMPOSITION	SILICON (SI)
CONTENTS Yes	> 98%

CRIOLITA RAW MATERIALS

USE

Cryolite (Na_3AlF_6) is mainly used in: Aluminum production: as a flux in the electrolysis process (lowers the melting point of alumina).
Silicon metallurgy:
In some cases, it acts as a melting agent to improve efficiency in obtaining silicon metal or alloys.Chemical industry:
As a catalyst or in the manufacture of abrasives.

PACKAGING

Cryolite size:
Fine powder (e.g. 200-325 mesh, < 0.1 mm) for chemical/ electrolysis uses.
chemical/electrolysis applications.
Granular (1-10 mm) in metallurgical applications.
Standard packaging: 1 ton/bag.

COMPOSITION

Ingredient	Super	First Grade	Second Grade
Purity	99.79	99.79	99.79
F% Min	99.69	99.69	99.69
Na% Min	99.58	99.58	99.58
Al Min	99.48	99.48	99.48
H20% Max	99.37	99.37	99.37
SiO2 Max	99.4	99.4	99.4
Fe2O3% Max	99.3	99.3	99.3
SO4% Max	99.1	99.1	99.1
P2O5% Max	98.7	98.7	98.7
Ignition at 550ºC Max	98.7	98.7	98.7
CaO% Max	98.7	98.7	98.7

MAGNESIUM REMOVER

RAW MATERIALS

USE

It is used in the production of silicon metal (Si ≥ 98%) and aluminum-silicon alloys to reduce the magnesium (Mg) content during the smelting or refining process. Magnesium can be detrimental in certain applications (e.g. corrosion in alloys or defects in semiconductors), so this compound aids in its controlled removal.

COMPOSITION

Active components:
Sulfur (S) or chlorine (Cl) oxides or salts: react with Mg to form volatile compounds (e.g., MgS, $MgCl_2$) that separate from the molten silicon.
Cryolite (Na_3AlF_6): In some cases, acts as a flux to facilitate removal.

Additives:
Refractory abrasives (e.g., silica or alumina) to improve thermal stability.
Foaming agents to help carry away impurities.

PACKAGING

Commercial presentation
Form: Powder, granules or tablets (depending on the method of application).
Packaging: 25-50 kg bags or big bags.

MAGNESIUM RAW MATERIALS

USE

Light alloys:
For cars, aircraft and electronics (reduces weight and increases strength).

Nodular iron:
Converts graphite into spheres, improving ductility and strength.

Desulfurization:
Removes sulfur in steel/iron, preventing embrittlement.

Reducing agent:
In production of titanium and other metals.

PACKAGING / FORMAT

5-25 kg ingots (99.8% purity)

CHEMICAL COMPOSITION (%)

Grade	Mg	Faith	Yes	Ni	Cu	To	Cl	Mn	Ti
Mg 99.96	99.96	0.004	0.004	0.0002	0.002	0.006	0.003	0.003	-
Mg 99.95	99.95	0.004	0.005	0.0007	0.003	0.006	0.003	0.01	0.014
Mg 99.90	99.9	0.04	0.01	0.001	0.004	0.02	0.005	0.03	-
Mg 99.80	99.8	0.05	0.03	0.002	0.02	0.05	0.005	0.06	-

CERAMIC RUG

OUR BEST SELLERS

USE

Ceramic fiber blanket is white, regular sized, with built-in thermal insulation and conservation functions, and no additives. It is made of needle-punched spun ceramic fibers to provide excellent handling strength in high temperature insulation applications. It maintains good tensile strength and toughness in neutral and oxidizing atmospheres. It has excellent chemical properties and is widely used in thermal insulation and insulation.

PACKAGING / FORMAT

- Personalized polyester bag
- Personalized polyester bag + personalized cardboard box + pallets
- Personalized polyester bag + personalized cardboard box + pallets

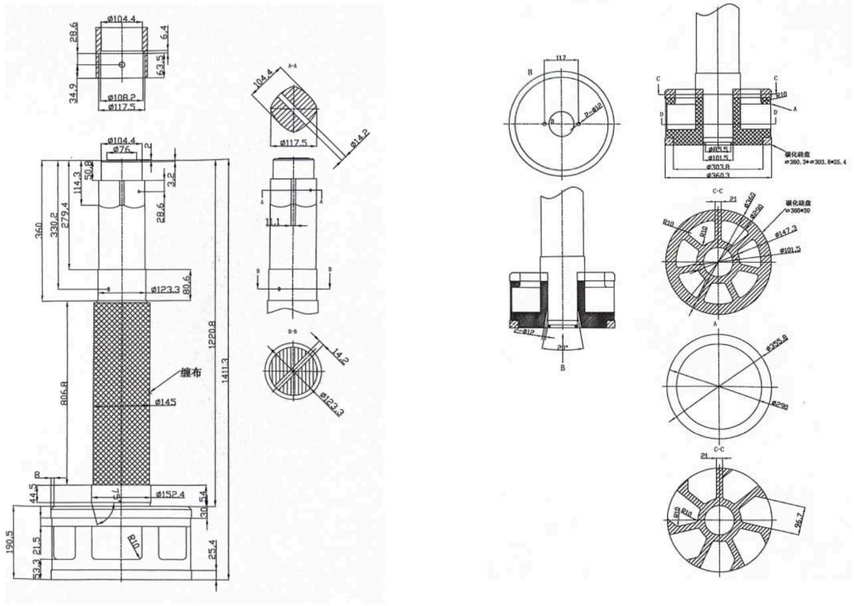
COMPOSITION

Item / Grade		STD Blanket			HP Blanket		HA Blanket		HZ Blanket	
Classification Temperature / °C		1260			1260		1350		1430	
Chemical Composition	ω (Al_2O_3) ≥ / %.	43			44		52		35	
	ω (SiO_2) ≥ / %.	54			55		47		49	
	ω (ZrO_2) ≥ / %.	-			-		-		15	
Color		White			White		White		White	
Particle Content (Shot) ≤ / %.		15			15		15		12	
Bulk density (kg/m^3)		64	96	128	96	128	96	128	96	128
Tensile Strength / kPa		30	50	70	50	70	50	70	50	70
Permanent Linear Change ≤ / %.		1000°C × 24h ≤ 2.5			1100°C × 24h ≤ 2.5		1200°C × 24h ≤ 3.0		1350°C × 24h ≤ 3.0	
Coefficient of Thermal Conductivity / [W/(m-K)].	200°C	0.07			0.06		0.06		0.06	
	400°C	0.12			0.11		0.11		0.10	
	600°C	0.20			0.19		0.17		0.15	
	800°C	0.30			0.23		0.22		0.19	
	1000°C	0.40			0.32		0.30		0.26	

MODELS

-Ordinary ceramic fiber blankets
- Operating Temperature Range
- Standard ceramic fiber blankets
- High-purity ceramic fiber blankets
- High-alumina ceramic fiber blankets
- Zirconium-containing ceramic fiber blankets

ROTORS AND SHAFTS OUR BEST SELLERS



CUSTOM-DESIGNED ROTORS

MATERIAL

High purity graphite

Purity: ≥ 99.9% carbon (low ash and heavy metal content).

Density: 1.7–1.9 g/cm³ (depending on controlled porosity).

Thermal Resistance: Stable up to 3000°C in inert atmospheres.

Mechanical Properties: High resistance to abrasion and low coefficient of thermal expansion.

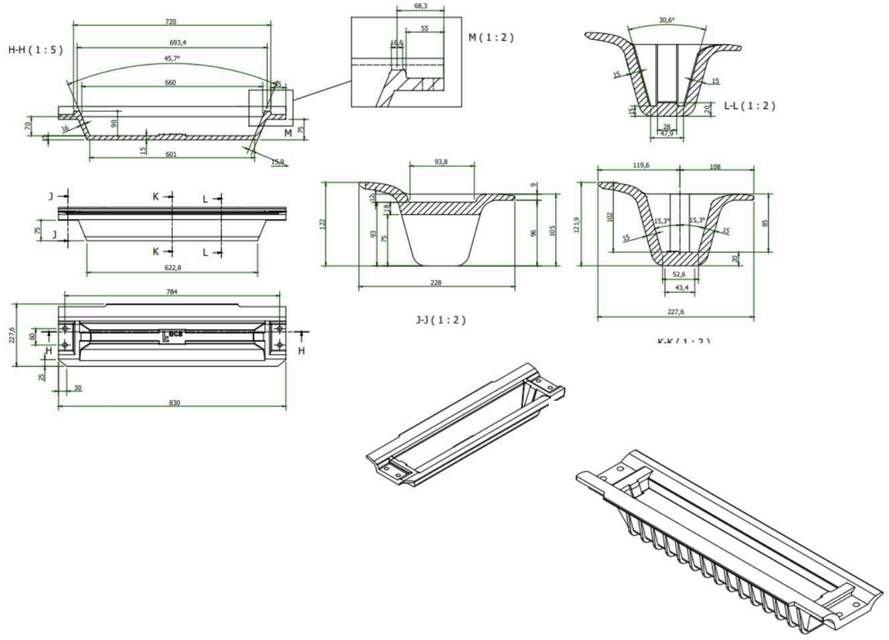
CHARACTERISTICS

Physical and chemical indexes of medium crude graphite GSK

Item	Unit	Technical value	Technical value
Bulk density	g/cm3	1.72	1.75
Maximum granularity	mm	0.8	0.8
Resistivity	μ Ωm	8.5	8.0
Bending strength	Mpa	<10	17.5
Compressive strength	Mpa	>24	38.0
Coefficient of thermal expansion	10/℃	<2.4	2.4
Thermal conductivity	W/m-K	120	140

INGOT MOLDS

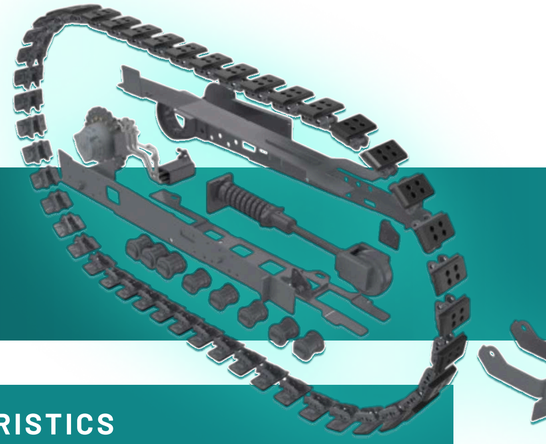
OUR BEST SELLERS



CUSTOM-DESIGNED

CHARACTERISTICS

Mold Material	Thermal Resistance	Useful Life	Ingot Release	Cost
Iron / Steel	High (up to 800°C)	Long	Regular (needs release agent)	Under
Graphite	Very high (no deformation)	Medium - High	Excellent (does not stick)	Medium - High
Stainless Steel	High (corrosion resistant)	Very Long	Good (with release agent)	High
Ceramics / Clay	Tall (but fragile)	Single use	Good (but slow cooling)	Under



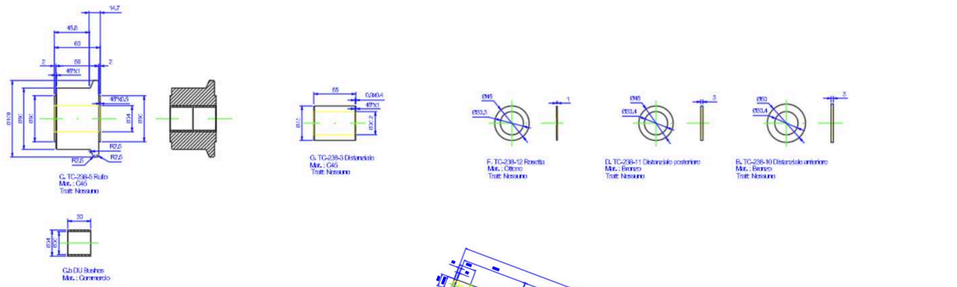
CHAIN FOR INGOT TRAIN

OUR BEST SELLERS

PRACTICAL EXAMPLES

Chains on continuous casting outfeed tables:
They transport the freshly solidified ingots or slabs to the cutting and cooling.

Chains on ingot mold tilting systems:
They help tilt the ingot molds to extract the ingots.



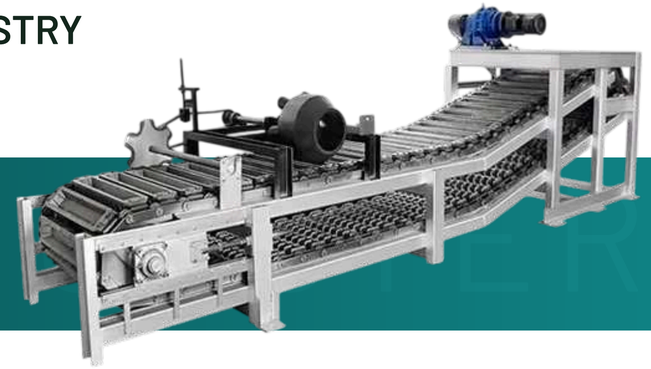
CUSTOM-DESIGNED

CHARACTERISTICS

Material:
Heat and wear resistant alloy steel (e.g. manganese steel).

Design:
Roller chain: To support heavy loads (as in cranes or conveyors).
Reinforced link chain: Similar to heavy industrial machinery.

Lubrication:
Automatic systems to prevent wear due to high temperatures.

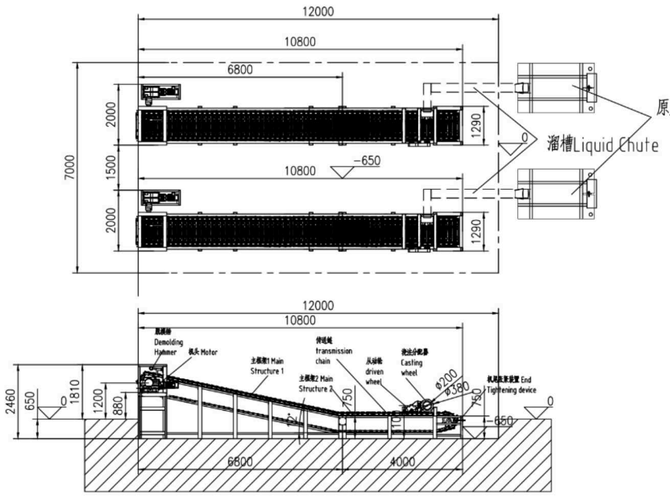


ALUMINIUM INGOT CASTER

OUR BEST SELLERS

DESCRIPTION AND SPECIFICATIONS:

Main structure: 1 set.
Molds: 132 units installed + 3 spare units.
Pouring system with liquid distributor: 1 set.
Frequency inverter motor: 1 set
Control box: 1 set
Liquid hopper: 1 set
Demolding hammer: 2 units.



MAIN FUNCTIONS:

Molding of molten aluminum: It takes the aluminum in its liquid state and pours it into molds (fixed or mobile) to form ingots of standardized size.

Controlled cooling: The molten aluminum is cooled and solidified through a cooling system (water, air or a combination), ensuring the correct crystallization of the metal.

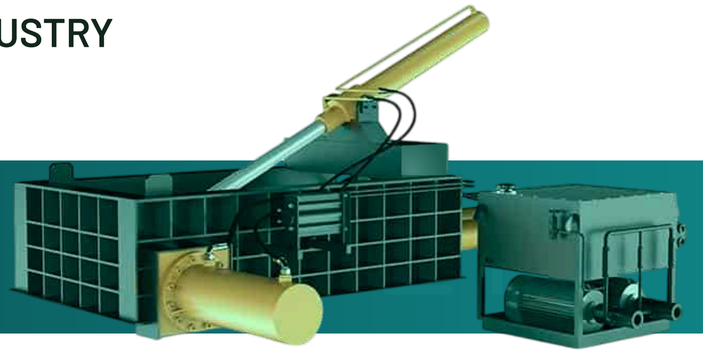
Ingot extraction: Once solidified, the ingots are extracted from the mold, either automatically or manually, depending on the machine design.

Conveying or stacking: Many modern systems include conveyors, robotic arms or stackers to move ingots to storage areas or downstream processes.

Quality control and safety: Equipped with sensors for temperature, speed and other variables to guarantee a uniform and safe product during the process.

HYDAULIC METAL BALER

OUR BEST SELLERS



USE

Industrial machine designed to compact scrap metal into dense blocks called bales.
It uses hydraulic force to compress light or heavy metals, reducing their volume to facilitate handling, transport or recycling.

MAIN FUNCTIONS

Compacting metal scrap: Reduces the volume of metal materials (steel, aluminum, copper, cans, profiles, etc.) into compact blocks.

Ease of transport and storage: Bales take up much less space and are easier to stack, store and transport.

Prepare material for recycling: The blocks generated have a uniform density and are ideal for melting or reprocessing in the recycling or foundry industries.

SPECIFICATIONS

Nominal pressure:	2500KN
System pressure:	25Mpa
Drive type:	Hydraulic drive
Bale size:	500*500*500-1000 mm
Camera size:	2000*1400*900 mm
Oil pump:	160ycy * 2 sets
Motor power:	22kw*2 sets (380V, 50hz, three-phase) **
Mode of operation:	Manual / automatic control
Capacity:	5.0-6.5 MT/hour
Single cycle time:	≤130s
Machine weight:	≈ 20,000 Kg
Application:	Aluminum, copper, stainless steel scrap
Delivery time:	45 working days
Shipping container:	1x 40-foot container

** Can be customized.

ALUMINIUM SLAG RECYCLING MACHINE

OUR BEST SELLERS

USE

Industrial equipment designed to recover the metallic aluminum that is trapped in the dross generated during the smelting process.Dross is the residue that floats on top of the molten aluminum and includes oxides, impurities and some unseparated metallic aluminum.

This machine makes it possible to take advantage of this residual aluminum and reduce losses, increasing the efficiency of the recycling or smelting process.

OPERATION

Hot slag charging: Freshly generated slag is introduced from the furnace or crucible.

Physical and/or mechanical separation: Methods are used such as...
Screening or sieving.
Controlled crushing.
Gravity or vibration separators.

Recovery of metallic aluminum: Aluminum is collected in trays, tanks or conveyors, separated from non-metallic material (oxides).

Re-ship the recovered aluminum: The recovered metal can be;
Directly re-melt.
Store for further processing.

Remaining dross management: Aluminum free dross can be;
Cooled and disposed of.
Used in other industries (as road base, cement, etc).

** Can be customized.

DIE CASTING SERVO TRIMMING HYDRAULIC PRESS

OUR BEST SELLERS

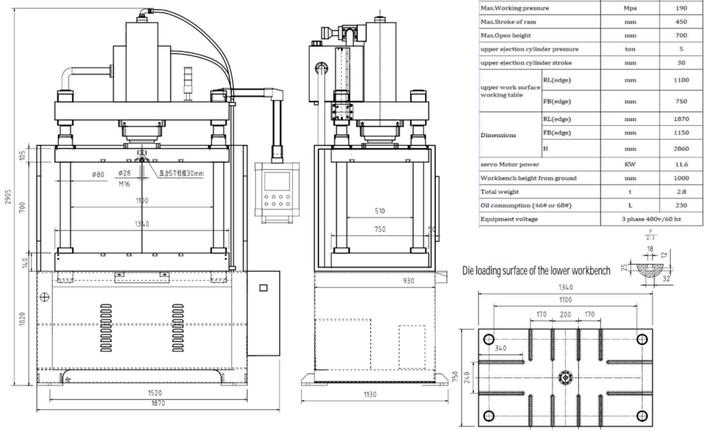
CHARACTERISTICS

Specialized machine, specially designed for die-castings that combines:

Die casting: die casting of metals (such as aluminum, magnesium or zinc).

Trimming: trimming of excess material or burrs from the casting.

Servo + hydraulics: servo-assisted technology that precisely controls the movements of the hydraulic system.



Item		Unit	YHA4-60TS
Main cylinder force		ton	60
Max.Working pressure		Mpa	190
Max.Stroke of ram		mm	450
Max.Open height		mm	700
upper ejection cylinder pressure		ton	5
upper ejection cylinder stroke		mm	30
upper work surface working table	RL(edge)	mm	1100
	FB(edge)	mm	750
Dimensions	RL(edge)	mm	1870
	FB(edge)	mm	1150
	H	mm	2860
servo Motor power		KW	11.6
Workbench height from ground		mm	1000
Total weight		t	2.8
Oil consumption (46# or 68#)		L	230
Equipment voltage		3 phase 480v/60 hz	

ADVANTAGES

- High precision: thanks to servo control.
- Less noise and vibration than mechanical systems.
- Better repeatability and constant quality.
- Reduced energy consumption compared to traditional hydraulics.
- Less maintenance and easier programming.
- Flexibility for different types of parts or trimming molds.

COOLING TOWER

MACHINERY AND OTHERS

USE

A heat exchange system used to reduce the temperature of hot water used in industrial processes, returning it to a cooler state for reuse.
It works by expelling heat from the water to the environment through forced or natural evaporation.

COMMON USES IN INDUSTRY

Foundry and metallurgy: Cooling molds, furnaces, ingot molds, hydraulic systems.

Automotive: Cooling systems in aluminum stamping, injection or casting processes.

HVAC (building air conditioning): Chilling water from chillers in large buildings and shopping malls.

Power plants: Cooling of water used in turbines or generators.

Plastic industry: Cooling of injection and extrusion molds.

PARAMETERS

Model:	HTGP-40T
Power:	9.2kw
Cooling capacity:	200000Kcal/H
Fan volume:	22000m3/h *2
Machine weight:	850kg
Machine size:	3350*1140*2770mm

HR STEEL

Hot Rolled Steel (Hot Rolled)

USE

Structures: beams, profiles and angles for buildings and large engineering works.

Heavy machinery: Truck chassis, agricultural and construction equipment.

Railway tracks and components where strength takes precedence over aesthetics.

CHARACTERISTICS:

Surface: Rough and covered by a thin layer of dark oxide (scale).

Tolerances: Less dimensionally accurate and with slightly rounded edges due to shrinkage during cooling.

Cost: Cheaper than cold rolled steel.

Properties: Easier to weld and handle.

PARAMETERS

Category	Specification / Range	Remarks
Common standards	ASTM A36, ASTM A1011, SAE 1006-1020, EN 10025	Varies by market and use
Typical composition (A36)	C: 0.25-0.29% / Mn: 0.80-1.20% / P ≤ 0.04% / S ≤ 0.05%.	More carbon than standard CR, higher strength
Yield Strength	250 - 355 MPa	Depends on grade and thickness
Tensile strength (UTS)	400 - 550 MPa	Lower dimensional accuracy than CR
Elongation (%)	20 - 30%	Lower ductility than CR but still formable
Brinell Hardness (HB)	120 - 180	Harder than soft CR
Commercial thicknesses	1.5 - 25 mm (sheet) / up to 150 mm (plate)	Higher rank than CR
Standard widths	1000, 1220, 1500, 2000 mm	Cut to length
Standard lengths	2000, 2440, 3000, 6000 mm	Or in continuous coil
Surface finish	Rust/mill scale (dark coat), pickled (pickled & oiled)	P&O improves protection and aesthetics
Tolerance	± 0.1 - 0.3 mm (less accurate than CR)	Ideal for parts that do not require high precision

CR STEEL

Cold Rolled Steel (Cold Rolled)

USE

Automotive: Body panels (doors, hoods) that need a smooth and precise finish.

Household appliances: Refrigerator, washing machine and microwave oven casings.

Metal furniture: desks, shelves and cabinets.

CHARACTERISTICS:

Surface: Smooth, uniform and often oily to protect it from rust.

Tolerances: Very precise in its dimensions, with defined edges and right angles.

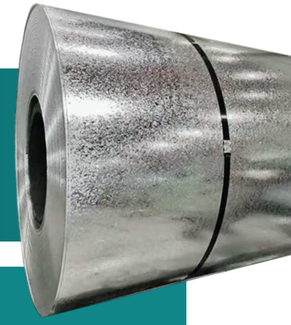
Cost: More expensive due to additional processing.

Properties: It is harder and stronger (up to 20% more) than HR steel, but less flexible.

PARAMETERS

Category	Specification / Range	Remarks
Typical Chemical Composition (SAE 1008 / 1010)	C: 0.08-0.12% / Mn: 0.30-0.50% /. P ≤ 0.035% / S ≤ 0.035% / Fe: balance	Low carbon → high malleability
Yield Strength	140 - 280 MPa	Varies by grade and temper
Tensile Strength (Tensile Strength)	270 - 410 MPa	High ductility
Minimum elongation (50 mm)	28 - 40 %	Ideal for stamping
Brinell Hardness (HB)	40 - 70	Mild steel
Commercial thicknesses	0.25 - 3.0 mm	Thin and precise foil
Finishes	Bright, Matte, Skin-pass	Depending on aesthetics and end use
Tolerances	± 0.05 mm in typical thickness	High precision
Common standards	ASTM A1008, SAE 1008-1010, JIS G3141, EN 10130	Varies by region
Form	**Typical dimensions**	**Frequent use**
Coil	Width: 600-1500 mm Thickness: 0.25-3.0 mm	Industrial processes, slitting, spooling, winding
Sheet	Length: 1000-3000 mm Thickness: 0.25-3.0 mm	Bodywork, white goods

GALVANIZED STEEL



USE

Outdoors: Roofing sheets, gutters, fences, posts, and fasteners. It is ideal for any application exposed to rain and humidity.

Ventilation systems (HVAC): Air conditioning ducts.

Dry construction: Metal profiles (tracks and studs) for drywall partitions.

CHARACTERISTICS

Corrosion resistance: Its main attribute. Zinc creates a protective barrier.

Sacrificial protection: If the surface is scratched, the zinc corrodes before the steel, maintaining the integrity of the part.

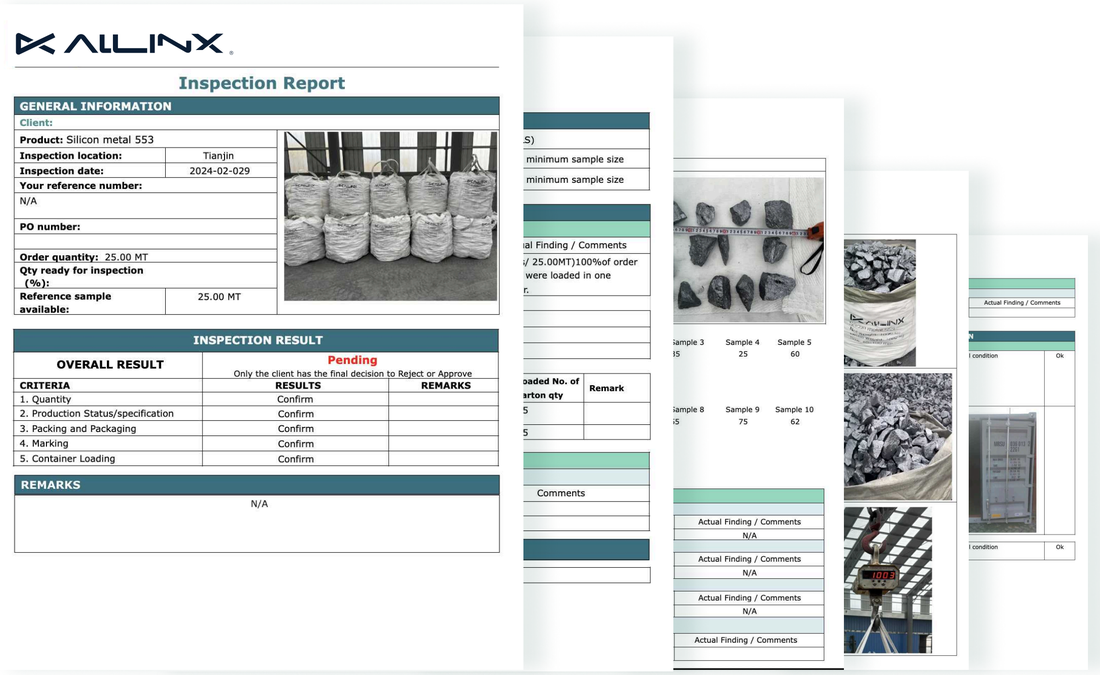
Appearance: Metallic finish with a characteristic crystalline pattern called "spangle."

PARAMETERS

Parameter / Characteristic	Hot-Dip Galvanizing	Electrogalvanizing	Reference Standard
Process	Steel immersion in a molten zinc bath at ~450 °C	Zinc deposition by electrolysis in an aqueous solution	ASTM A123, ISO 1461, NMX-H-004
Process temperature	445-465 °C	20-40 °C (controlled room temperature)	-
Coating composition	≥ 98% Zn, traces of Al (0.005-0.02%), optional Ni or Pb	100% Zn or Zn-Ni alloy	-
Immersion / deposition time	2-10 min	Variable speed, usually 10-60 min depending on thickness	-
Typical thickness	45-100 µm (hup to 200 µm on thick parts)	5-25 µm	ASTM A123 (minimum thicknesses)
Surface finish	Matte, grayish, crystalline texture (spangle)	Bright, uniform, smooth	-
Corrosion resistance	Very high (20-50 years in rural environments, 10-20 years in marine environments)	Medium (1-5 years without maintenance, depending on thickness)	-
Coverage	Complete, even on edges and internal cavities	Limited to areas exposed to electric current	-

QUALITY REPORTS

We monitor every stage of the manufacturing process with **detailed reports that ensure compliance with required standards.**



ALLINX

Inspection Report

GENERAL INFORMATION	
Client:	
Product: Silicon metal 553	
Inspection location:	Tianjin
Inspection date:	2024-02-029
Your reference number:	
N/A	
PO number:	
Order quantity: 25.00 MT	
Qty ready for inspection (%):	
Reference sample available:	25.00 MT

INSPECTION RESULT		
OVERALL RESULT	**Pending** Only the client has the final decision to Reject or Approve	
CRITERIA	**RESULTS**	**REMARKS**
1. Quantity	Confirm	
2. Production Status/specification	Confirm	
3. Packing and Packaging	Confirm	
4. Marking	Confirm	
5. Container Loading	Confirm	

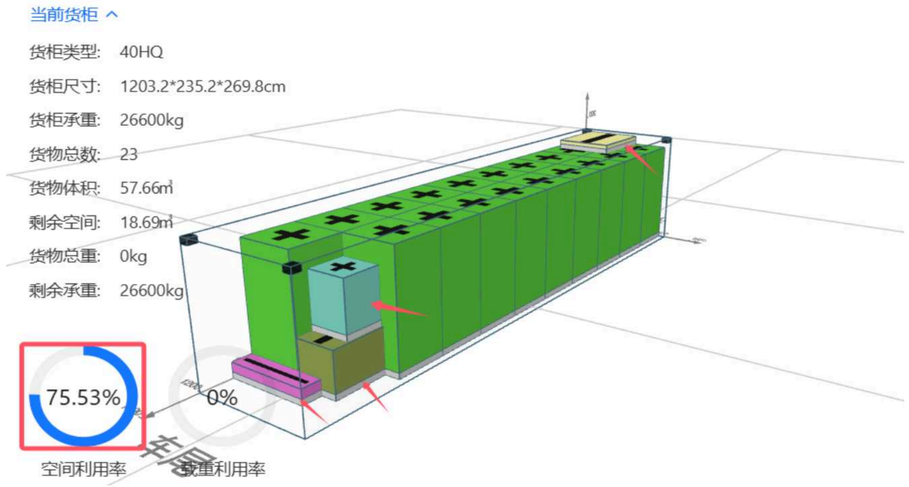
REMARKS
N/A

- Complete visual inspection of the equipment prior to shipment.
- Detailed report including overall results, observations, and pending items.
- Record of defects and observations with photographic evidence.
- Control of technical documentation: manuals, programs, parts, and drawings.
- On-site functional checks: motors, dimensions, and electrical connections.

LOGISTICS OPTIMIZATION

We maximize space utilization and reduce logistics costs by efficiently consolidating loads and packaging.

Optimization example:



- **Smart consolidation**
  391 items organized on just 23 pallets, optimizing volume and weight.
- **Container optimization**
  Total load adjusted to 1 x 40HQ container, minimizing multiple shipments.
- **Volume reduction**
  Precise distribution of items on pallets to reduce total CBM to 57.66 m^3.
- **Product diversity**
  Grouping of heterogeneous materials (blankets, rotors, strips, and equipment) into a single shipment.
- **Efficient packaging**
  Use of standard pallets and custom-designed wooden crates to reduce empty space.

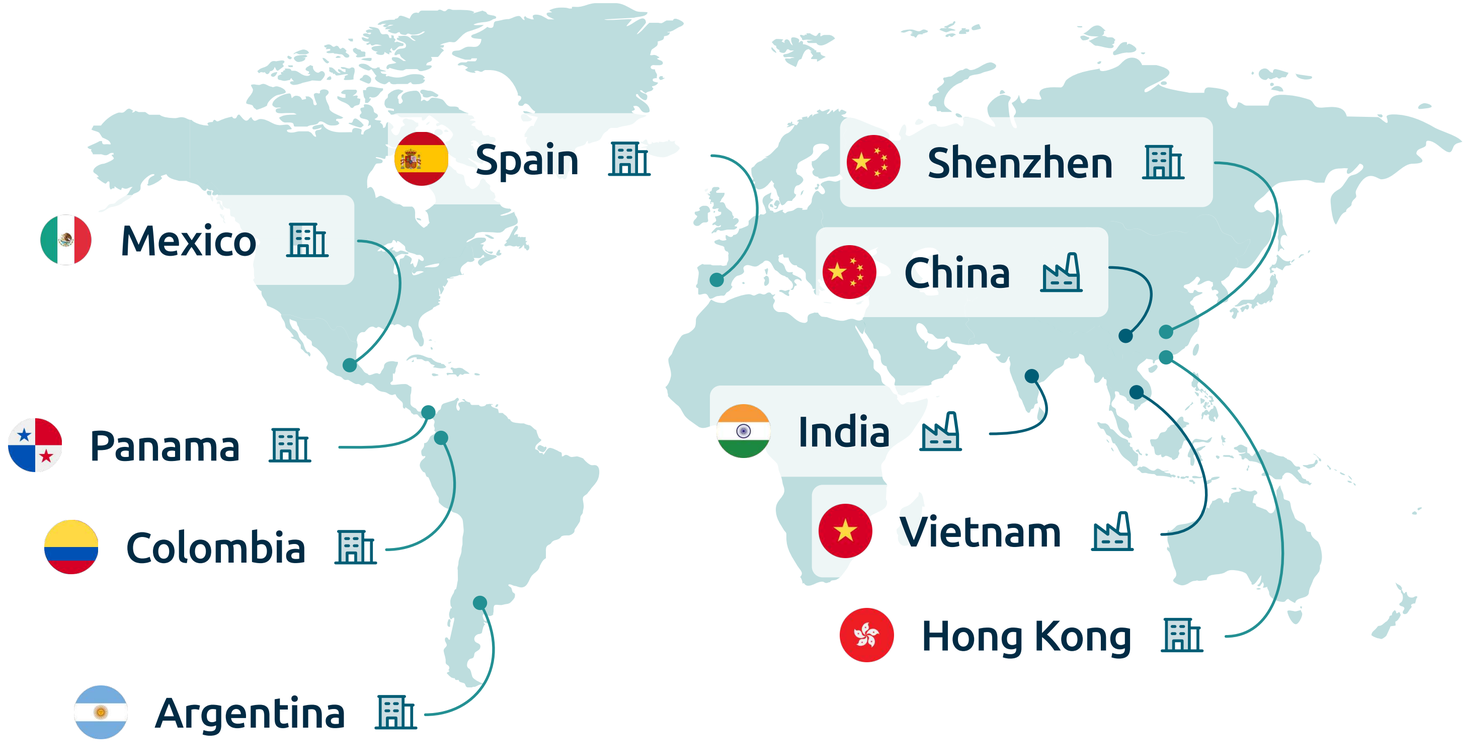
PROJECT TRACKING

Real-time monitoring so you can track each stage of the process and always know the exact status of your order.

Reporte de cargas 2024

Internal reference	POL	Peso	CBM	ETD	ETA	Entrega en Planta
ALE-C-0025	Guangzhou, Gua...	130	2.38	Oct 14, 2024	Nov 3, 2024	Nov 13, 2024
ALE-C-0026	Qingdao, Shand...	25,100	4.5	Jul 29, 2024	Aug 18, 2024	Aug 24, 2024
ALE-C-0027	Tianjin, China	1,365	4.15	Aug 16, 2024	Sep 12, 2024	Sep 23, 2024
ALE-C-0028	Guangzhou, Gua...	720	5.95	Sep 30, 2024	Oct 30, 2024	Nov 11, 2024
ALE-C-0029	Guangzhou, Gua...	8,000	21.74	Oct 14, 2024	Nov 3, 2024	Nov 13, 2024
ALE-C-0030	Xin'Gang, Binhai,...	25,050	25	Aug 22, 2024	Oct 12, 2024	Oct 18, 2024
ALE-C-0031	Shanghai, China	20,000	40	Oct 30, 2024	Nov 22, 2024	Nov 30, 2024
ALE-C-0032	Xin'Gang, Binhai,...	25,050	25	Oct 12, 2024	Nov 24, 2024	Dec 4, 2024
ALE-C-0033	Qingdao, Shand...	25,050	25	Nov 27, 2024	Dec 21, 2024	Dec 30, 2024

OUR FACTORIES AND OFFICES



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