

dualTECH

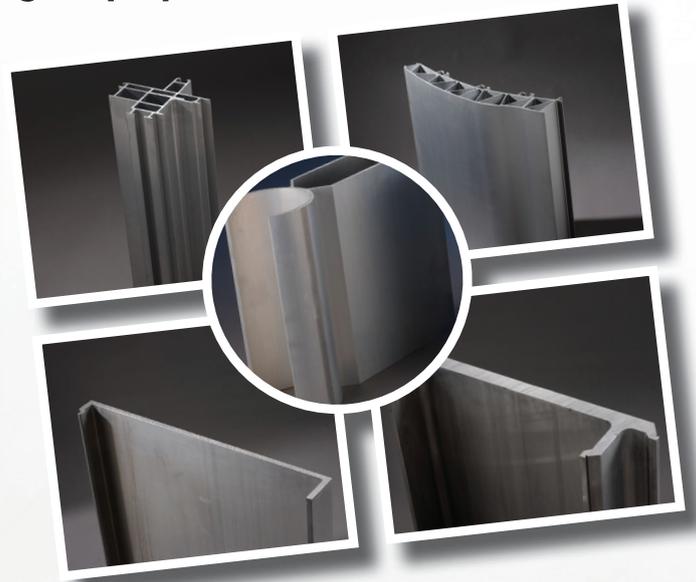
INDUSTRIAL PROFILES & SHEETS

PRODUCT CATALOGUE

- CONSTRUCTION
- SHIP BUILDING
- RAIL TRANSIT
- AUTOMOTIVE
- AVIATION
- POWER & ELECTRONICS

Aluminum and aluminum alloy provide some good properties like;

- * Low density
- * High specific strength and stiffness
- * Extra elasticity
- * Good impact, corrosion and wear resistance
- * Thermal conductivity
- * Easy to color surface and process
- * Can be recovered & recycled



dualTECH is principally engaged in the production of high precision, large-section and high value-added industrial aluminum extrusion & rolling products to offer superior quality profiles and sheets for below listed industries;



- * Aircrafts and aerospace
- * Automobile manufacturing
- * Ship manufacturing
- * Rail transportation
- * Military and defense
- * General machine manufacturing
- * Mould making
- * Large scale construction works
- * Container, radiator and other civilian fields

EXTRUSION DIE DESIGN

dualTECH works with a world-class professional die design and research team who are capable of carrying out independent R&D in die design that meet customers' special demands, providing strong technical support for the making of high-tech dies with reliable and stable quality.



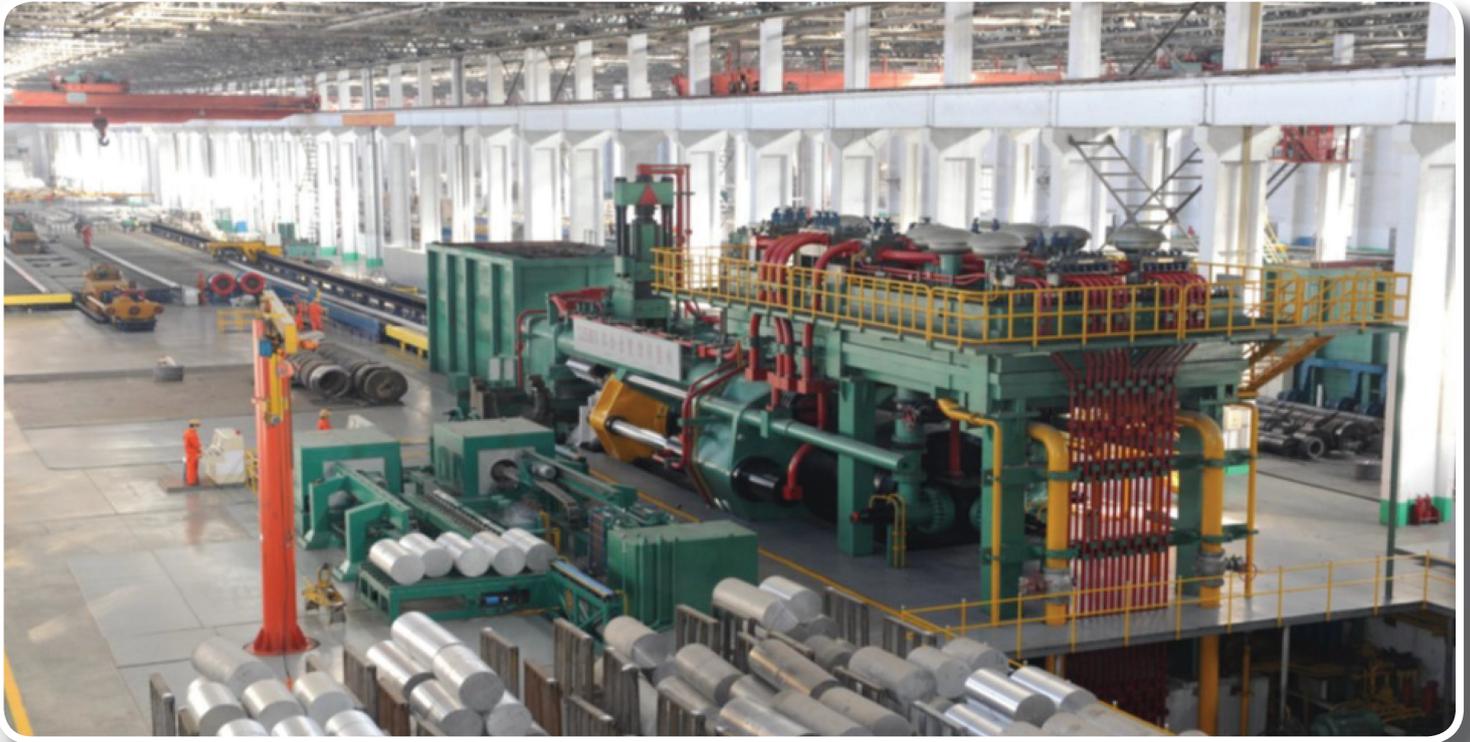
With 200 die production equipments, including several world advanced automatic equipments from Germany and Switzerland, with the capability of developing and producing 200,000 sets of all sizes of dies ranging from $\varnothing 120 \times 70$ to $\varnothing 1250 \times 600$ per year. The largest one has a diameter of 1.25m, weighing 4 tons.

The advantage of die design & equipment capability helps accelerate the process of structural adjustment of aluminium products.

CERTIFICATIONS

- Quality Management System ISO 9001:2008
- Environment Management System ISO 14001:2004
- Occupational Health and Safety Assessment System OHSAS 18000:2007
- Social Responsibility Management System SA 8000:2008
- Global Automotive Quality Management System ISO/TS 16949:2009
- Quality Management Systems - Requirements for Aviation, Space and Defense Organizations AS 9100:2009
- America AAMA Authorization
- Europe Qualicoat Authorization
- Certificate of Det Norske Veritas (DNV)
- CNAS National Level Lab Accreditation Certificate
- IRIS Certificate for Aluminum Alloy Structural Profiles

125MN Extrusion Press - World's 2nd Biggest



- * 93 extrusion presses including the tonnage of 5MN to 125MN
- * Annual capacity of 800,000 tons
- * High quality bars, tubes and large-size and complex section profiles
- * 1xxx to 8xxx alloys

dualTECH works with 36 world first-class surface treatment production lines, which are able to produce many kinds of surface treatment according to customers' requirements, including;

- * anodizing
- * electrophoresis
- * mechanical polishing
- * powder coating
- * fluorocarbon (PVDF) coating
- * wood effect



High Voltage Electrostatic Powder Coating Vertical Line



Electrophoresis Horizontal Line



Powder Coating Horizontal Line



Polishing Machine

Concentration makes Excellence

Plate



Thickness: 6 - 300 mm
Width: 1.000 - 4.300 mm
Length: 2.000 - 38.000 mm

Sheet



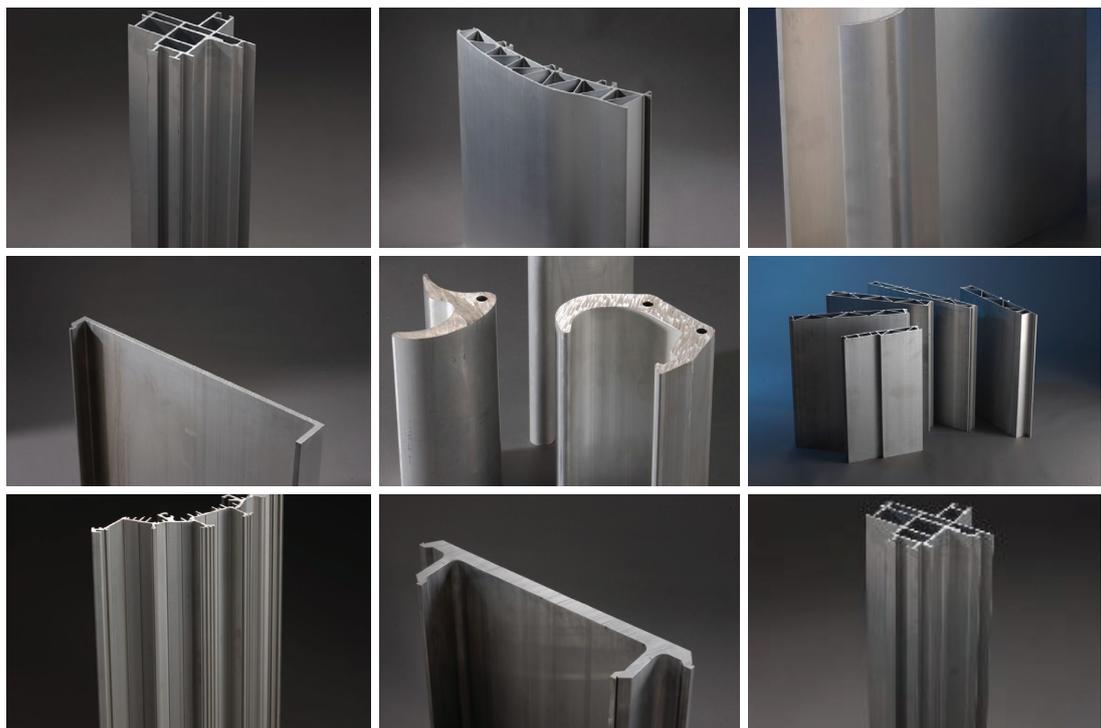
Thickness: 0,2 - 6 mm
Width: 1.000 - 2.600 mm
Length: 1.000 - 12.000 mm

Strip



Thickness: 0,2 - 3 mm
Width: 1.000 - 2.600 mm

Large Size & Complex Section Profiles



CONSTRUCTION



Curtain wall corner profile
6063-T6



dualTECH provides large size, high quality, high strength, good surface quality and corrosion resistance products in the field of building materials. Specific solutions can be customized, and requirements of environmental protection can be met at the same time.

Plate	Sheet
6082 T651	6082 T651
2524 T351	2524 T351
5182 H321	5182 H321
6082 H112	6082 H112

Merger Architectural & Industrial Metals has cooperated with many domestic and overseas construction units, curtain wall companies, and doors and windows enterprises, and **dualTECH** aluminum profiles have been chosen by many national key large – scale construction projects.



Key features:

- * Large size
- * Excellent surface quality
- * Less maintenance requirements
- * Easy coating
- * Corrosion resistance
- * Recyclable

Application fields:

- * Curtain wall
- * Decoration sheet
- * Roof panel
- * Wall panel

Typical Product	Alloy	Product Specification (mm)		Temper
		Thickness	Width	
Curtain Wall	3003	2.5	1500	H24
Decoration Sheet	3003	0.5	1250	H24

SHIP BUILDING

As development of global marine industry and request for shipping efficiency, high speed passenger ship has been used more and more aluminium alloy as body structural material. Since the density of aluminium alloy is only one third of steel, and its excellent corrosion resistance, it has become the best solution to reduce the weight. However, there are only a few manufacturers to provide high quality & large scale aluminium alloy all over the world.

dualTECH provides extra-large specification marine plates with excellent corrosion resistance, max width 4300mm. They are widely used in deck, super structure and underlying structure where need high weld strength. Det Norske Veritas certified since 2007 to supply 5083, 5383, 6061, 6082 profiles successfully for Australia Shipyard, South Korea SAMGONG Co., etc.



Key features:

- * High strength
- * Excellent fatigue resistance
- * Great corrosion resistance
- * Excellent formability
- * Good welding performance
- * High machining precision

Product details:

- * Grades: 2xxx,5xxx,6xxx,7xxx
- * Thickness: max.300mm
- * Width: max 4300 mm
- * Length: max 24000 mm

What we can do:

- * Excellent melt purification treatment
- * Strictly controlled hot rolling process
- * Extra-large specification products
- * Material application solutions
- * No limit on order quantity and delivery

Application	Grade	Product Classification
Side of the ship, external board of ship bottom	5083, 5086, 5456, 5052	Plate
Rib plate, seperating panel	5083, 6061	Plate
Rib, engine pedestal	5083	Plate
Operation room funnel	5083, 5052	Plate
Deck	5052, 5083, 5086, 5456, 5454, 7039	Plate
Bulwark	5083	Plate
Side wall or top of the container	3033, 3034, 5052	Plate

RAIL TRANSPORT

dualTECH supplies 5083, 6082, 6061, 6005, 7020 aluminium plates which are suitable for the rail transit and high speed train. The advantages of high speed train built with aluminium alloy are: high specific strength and lighter weight under the precondition of ensuring the strength; more than 50% weight will be reduced with the aluminium welding; strong corrosion resistance.

French Alstom's certification accepted by the Ministry of Railways in 2008 to provide 6005, 6005A, 6082 Al-Mg-Si series of aluminum profile used for vehicles with superior quality for the European project.

Key features:

- * Low density, light weight, high strength
- * Excellent corrosion resistance
- * Products with large size and high quality
- * Great shock absorption
- * High machining precision
- * High toughness

Product details:

- * Grade: 2xxx, 5xxx, 6xxx, 7xxx
- * Thickness: max 300 mm
- * Width: max 4300 mm
- * Length: max 38000 mm

What we can do:

- * Adopt fine melt purification technology
- * Strict control of hot rolling process
- * Top equipment with great capability
- * Various specifications
- * Material application solution
- * Professional R&D and technician team



Grade	6082	6061	...
Temper	T651	T651	...

AVIATION

Because of low density, high strength, good corrosion resistance, good formability, and a series of advantages, Aluminium alloys become the significantly aerospace materials and are widely used in aircraft wing, fuselage, skin, etc. The main aluminium alloys applied in aerospace are: 2xxx, 5xxx, 6xxx, 7xxx

Key features:

- * High strength
- * High fatigue resistance
- * Low residual stress
- * High machining accuracy
- * High toughness



Product details:

- * Grade: 2xxx, 5xxx, 6xxx, 7xxx
- * Thickness: max 250 mm
- * Width: max 3300 mm
- * Length: max 38000 mm

What we can do:

- * Large-scale product specification
- * The ultrasonic testing of AAA level can be achieved
- * Remove residual stress by the tensile
- * Provide technical support
- * Continuous improvement of products and technology

dualTECH has not only the ability to supply large size, high performance aerospace plate, but also can focus on research of the following two aspects:

- 1) Optimization to the original alloys:
 - a) Improving purity of alloy, reducing impurity content
 - b) adding trace element, narrowing scope of alloy composition
 - c) Perfecting and improving manufacturing technique
- 2) Develop special performance alloy

Item	Grade	Temper	Application
1	2024	O, T351, T851	Fuselage structure, wing tensile component, shear web, stiff structure section
2	2014	T851, T351	Fuselage machining component, bulkhead, wing skins and other structure component for high performance military aircraft
3	2324	T39	Lower wing skins and wing box component for commercial aircraft
4	7050	T7651, T7451	fuselage ring, frame
5	7150	T6151, T7751	Upper wing skins for large commercial airplane which requires resistant to high pressure, upper wing reinforce plate and lower horizontal stabilizer panel for civil and military aircraft
6	7055	T7751	Upper wing structure, horizontal stabilizer, keel beam, seat track, freight slide track
7	7075	T651, T7651, O, T7351	Airplane structure component required high strength, moderate toughness and moderate corrosion resistance
8	7475	T651, T7351	Fuselage skin, wing skin, wing spar, fuselage bulkhead

AUTOMOTIVE

More and more automobile manufacturers use aluminium alloy on their products to reduce fuel use and protect environment, because of its light weight, high toughness, great corrosion resistance, better recyclability and other good features.

Key features:

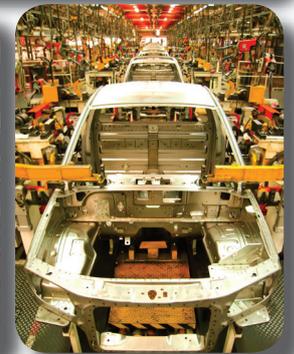
- * Light weight
- * Easy shaping
- * Good impact resistance
- * High yield strength
- * Good hot corrosion resistance (brazing aluminium)
- * Great surface quality (no stripe defect)
- * Recyclable

Application fields:

- * Decoration structural parts
- * Radiator
- * Body panel skin
- * Other special parts

Product details:

There is great comprehensive ability on coil and sheet manufactured by **dualTECH**, which provides more choice in automobile design and helps to ensure high quality of downstream products.

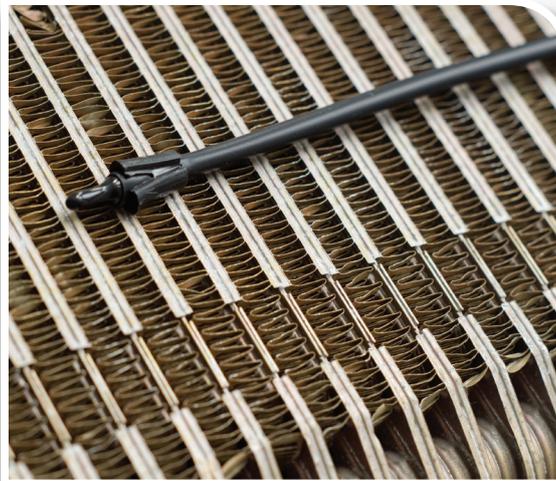


The 6082 (Al-Mg-Si series) aluminum auto structural profiles and the bars used for forging produced by our company are used by many auto parts suppliers. The structural profiles include: automotive frame profile, hollow profiles used for the side car bodies, profiles for gate and wallboard, structural profiles for car bodies, basic framework profiles for car bodies, bus frame profiles, bus ceiling water proof profiles.

Typical Product	Alloy	Product Specification (mm)		
		Thickness	Width	Temper
Automotive body shell sheet	6016	0.8-1.5	1200-2650	T4
Automotive body shell sheet	6111	0.8-1.5	1200-2650	T4
Automotive body shell sheet	6181	0.8-1.5	1200-2650	T4
Automotive body inner sheet	5182	0.8-1.5	1200-2650	H34
Automotive body inner sheet	5754	0.8-1.5	1200-2650	H34

POWER & ELECTRONICS

Along with increasing of various requirement in heat exchanger manufacture industry, more and more aluminium alloy are used because of their great corrosion resistance, conductivity, light-weight, and machining ability. Together with world top grade equipment and strong R&D ability, **dualTECH** provides the first-class heat transfer material basing on customer's requirement and achieve heat treatment requirement. High quality **dualTECH** is the best choice in automobile manufacture industry and other relative industries.



Main Application:

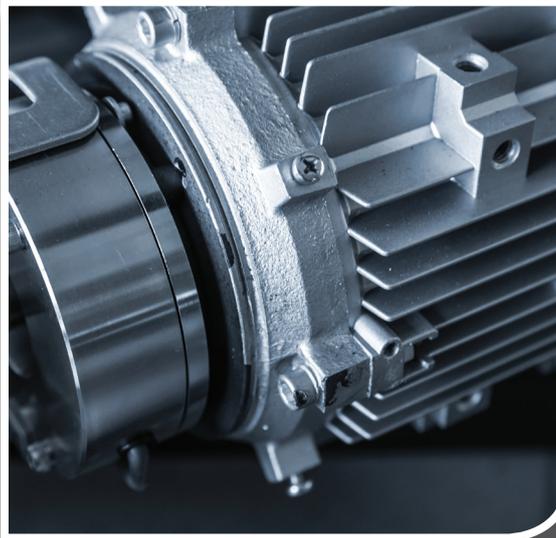
- * Radiator
- * Evaporator
- * Condenser
- * Water, oil, or fuel cooler
- * Heat exchanger in aerospace industry

Relative Certificate:

- * ISO9001
- * EN ISO14001
- * ISO/TS16949

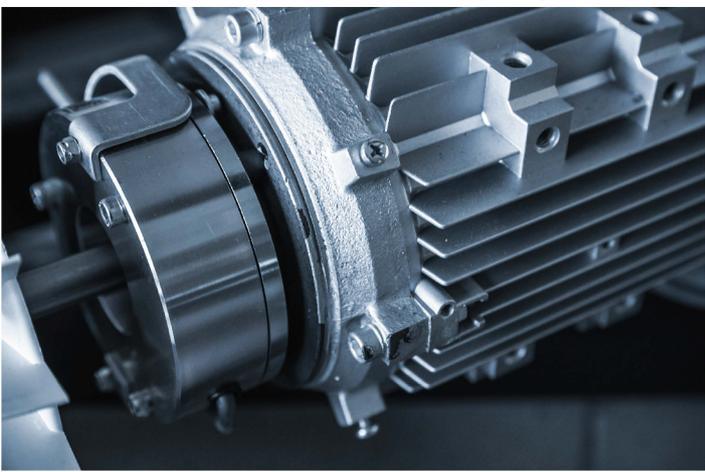


electric power engineering sections



Coil

4343/3003/4343	0
4343/3003/4343	H14/H16/H24
4343/3003/7072	H14/H16/H24
4045/3003/4045	H14/H16/H24
4047/3003/4047	H14/H16/H24
4004/3003/4004	H14/H16/H24
1050/6025/1050	T6




MERGER

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MERGER ISTANBUL

Louis Vuitton Orjin Building Bostan Str
15/5 34367 Nisantasi Istanbul, Turkey
Phn : +90 212 373 9454
Fax : +90 212 373 9650
E-mail : info@mer-ger.com
Web : www.mer-ger.com

MERGER GULF

Unit 101, Parcel 04,
La Croisette, The Pearl
Doha, Qatar
Phn : +974 6699 1944
Fax : +974 3360 9947
E-mail : doha@mer-ger.com

MERGER BENELUX

Global Building Partners
Magneet 12v, 1446 XD
Purmerend, The Netherlands
Phn : +31 299 764 340
Fax : +31 299 764 340
E-mail : benelux@mer-ger.com

MERGER CASABLANCA

Excel Trade SARL
26 Avenue Mers Sultan Apt 3
Estage 1 Casablanca, Morocco
Phn : +212 650013705
Fax : +212 522270585
E-mail : casablanca@mer-ger.com