steeling

FABRICATION & MACHINING CATALOG 2027



PARTS MADE TO YOUR DRAWING IN TÜRKIYE

Cut. Bend. Weld. Machine. Finish.

Sheet metal fabrication, heavy steel construction, CNC machining, gears and castings from a vetted network of Turkish manufacturers – coordinated through one contact, with no fees for buyers.

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AT A GLANCE

One network, every process from blank to finished part

Instead of one workshop with one set of machines, you get access to many specialised manufacturers. We place each job where it fits best – by material, thickness, size, tolerance and quantity – and coordinate combined jobs across shops.

30 kW
fiber laser power, highest in the network

6,000 mm
maximum press brake bending length

300 mm
plate thickness with oxy-fuel cutting

Ø700 mm
CNC turning diameter, lengths up to 3,000 mm

6,000 mm
large-part milling travel

4,000 mm
tank diameter in one piece

PROCESS GROUP	WHAT WE COVER	PAGE
Cutting	Fiber laser, plasma, oxy-fuel, waterjet, CNC punching, tube and 3D laser	4–5
Forming	CNC press brake bending, plate rolling	6
Joining & finishing	MIG/MAG, TIG, submerged arc, robotic and laser welding; powder coating, galvanizing, painting	7–8
Heavy fabrication	Tanks, silos, plant equipment, steel structures	9
Sheet metal products	Enclosures, cabinets, frames, brackets, panels	10
CNC machining	Turning, Swiss-type, 3- to 5-axis and large-part milling, grinding	11–12
Gears & castings	Gear cutting and grinding; iron and steel castings	13–14

FROM DRAWING TO PART

What we need from you – and what you get back

A good RFQ gets a fast, accurate quotation. Partial information is fine – we ask for what is missing.

Send us

- Drawings as PDF plus DXF (flat parts) or STEP (3D parts)
- Material grade, thickness and surface finish
- Quantity per order and estimated annual volume
- Tolerances – ISO 2768-m applies unless specified
- Inspection and documentation requirements
- Delivery address and preferred Incoterm

You receive

- A coordinated quotation with prices direct from the manufacturer
- Lead time, packing, Incoterms and payment terms
- Manufacturability feedback where useful
- Samples or first articles before series production
- EN 10204 3.1 material certificates and dimensional reports on request

1
RFQ
Drawings and specs

2
Matching
Right factories, NDA on request

3
Quotation
Producer prices, terms

4
Samples
First articles, approval

5
Series
Production, inspection, shipment

Quantities

Prototypes, spare parts and small batches up to repeat series with annual call-offs. Combined jobs – for example laser cutting, bending, welding and powder coating – are delivered as finished parts.

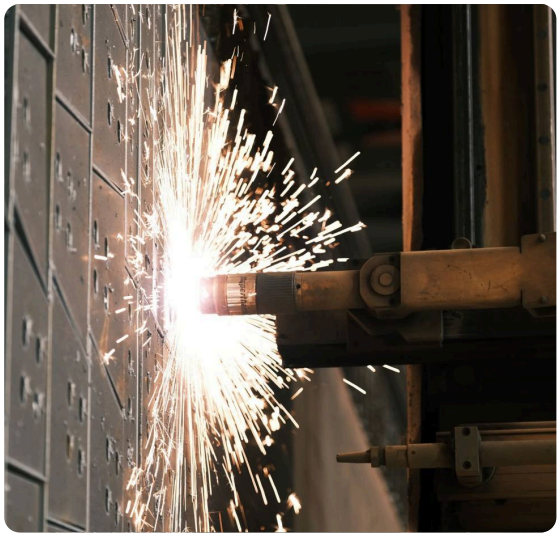
Materials

Mild and structural steel (DC01, S235, S355), high-strength steels, stainless steel (304, 316), aluminium (5754, 5083 and others), galvanized and pre-painted sheet, alloy and tool steels, brass, bronze, cast iron and engineering plastics.

Fiber laser cutting from 1 to 30 kW

An extensive network of laser cutting partners across Türkiye – from precision cutting of thin sheet to high-power cutting of thick plate.





MATERIAL	THICKNESS RANGE IN THE NETWORK
Carbon steel	0.5 to 70 mm
Stainless steel	0.5 to 30 mm
Aluminium	0.5 to 25 mm
Galvanized sheet	0.5 to 12 mm

Machines

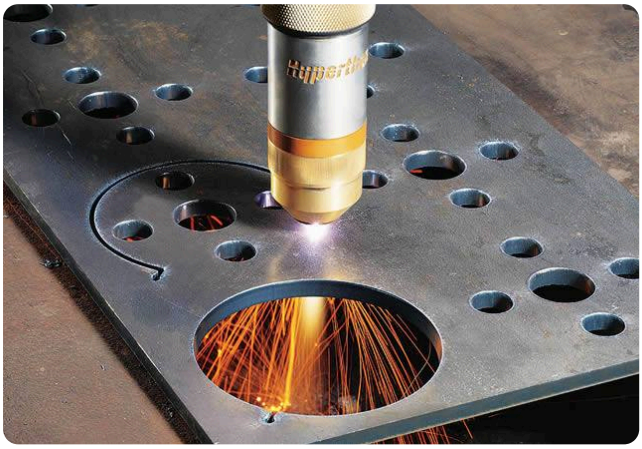
- Fiber lasers from 1 to 30 kW
- Standard tables 3,000 × 1,500 mm
- Example: one partner runs four fiber lasers of 1, 3, 6 and 20 kW side by side
- Brands in the network include Bystronic and Nukon

Good to know

- Higher power means faster cutting and cleaner edges on thick plate
- Nitrogen cutting for oxide-free edges on stainless and aluminium
- Engraving and part marking on request
- Nesting optimised for material use

Plasma, oxy-fuel, waterjet, punching and tube laser

The right cutting process for every thickness, material and shape.



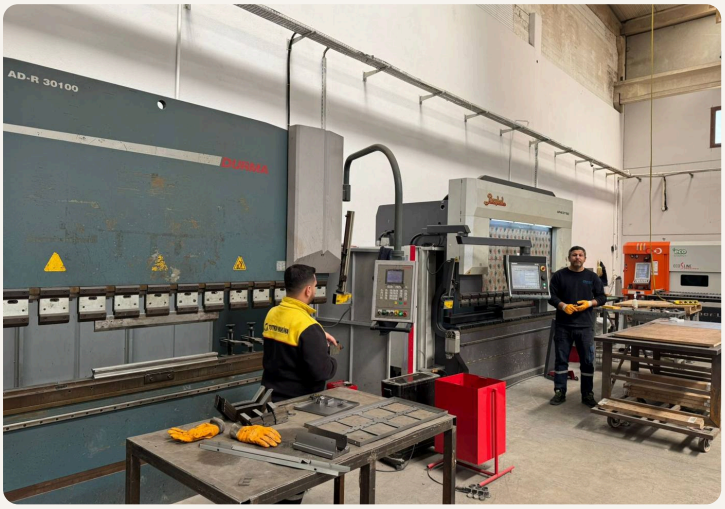


PROCESS	NETWORK CAPABILITY (EXAMPLES)
CNC plasma cutting	Carbon and stainless plate; typical range 1 to 35 mm; bevel cutting for weld preparation
Oxy-fuel cutting	Heavy carbon steel plate; cutting capacity up to 300 mm; CNC tables up to 3,000 × 12,000 mm
Waterjet cutting	Cold cutting without heat-affected zone – for heat-sensitive materials, thick aluminium, stone, glass and composites
CNC turret punching	Perforated panels, louvres, embosses and formed features in series (e.g. Amada EM Z 3612)
Tube and profile laser	2D and 3D tube laser cutting of round, square and rectangular tubes and open profiles; bevel cutting
Robotic 3D laser	6-axis robotic laser cutting and welding of formed and pressed parts
Shearing and sawing	Guillotine shearing of sheet; bandsaw cutting of bars, tubes and sections

FORMING

CNC bending up to 6,000 mm and plate rolling up to 70 mm

From thin sheet enclosures to heavy plate parts and rolled shells for tanks and pipes.





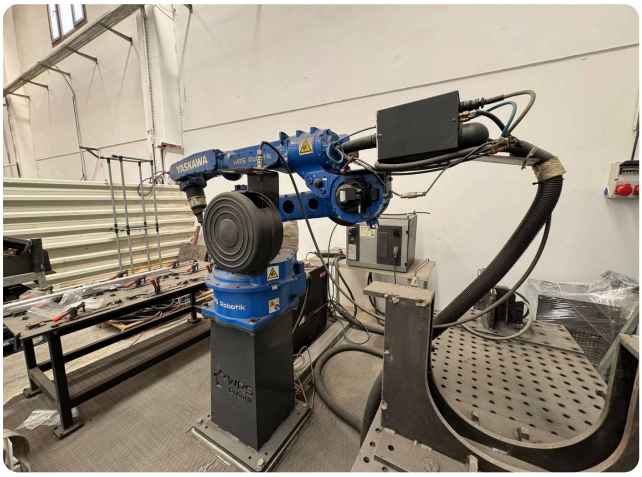
PARAMETER	NETWORK CAPABILITY (EXAMPLES)
Bending length	Up to 6,000 mm; most sheet metal work on 3,000–4,000 mm press brakes
Press force	Press brakes from 60 t up to 320 t
Thickness	Thin sheet from 0.5 mm; heavy plate up to 50 mm
Plate rolling	Cylinder rolling up to 70 mm thickness and 2,000 mm width
Angle tolerance	Typically ±0.5° to ±1°; tighter with angle-measuring press brakes
Tooling	Standard V-dies, gooseneck, acute, radius and hemming tools

Flat patterns can be developed by the manufacturer from your STEP model. Press brake brands in the network include Durma and Ermaksan.

JOINING & ASSEMBLY

Welding and assembly by qualified teams

Manual and robotic welding for thin sheet, structural parts and heavy plate – assembled, checked and ready to install.





PROCESS	TYPICAL USE
MIG/MAG (synergic)	Frames, brackets, structures in carbon steel
TIG	Stainless steel, aluminium, visible and food-contact welds
Submerged arc	Long seams on thick plate, tanks and pipes
Robotic welding	Repeat parts in series with consistent quality
Laser welding	Thin sheet with minimal distortion and clean seams
Stud welding, PEM inserts	Fasteners for enclosures and panels

Qualification

Welder qualifications and welding procedures to ISO standards are available at our partners; weld inspection (visual, MT, PT, UT, RT) can be specified.

Assembly

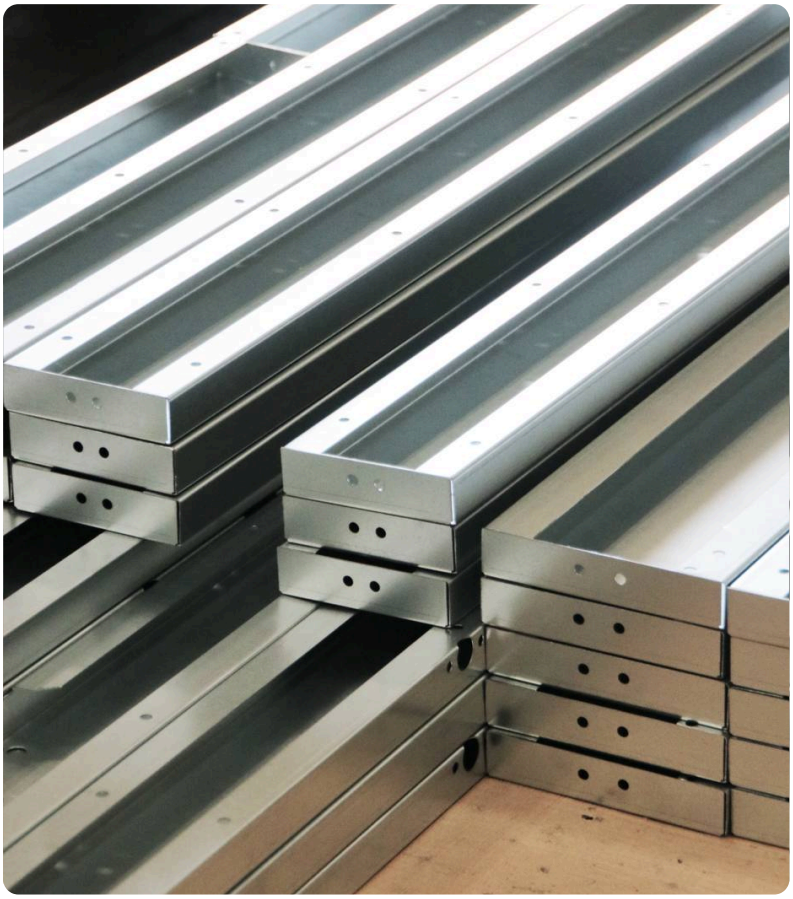
Mechanical assembly, kitting of mixed parts, fitting of hardware, hinges, locks and seals, labelling and packing for your production line.

SURFACE FINISHING

Delivered coated, protected and ready to use

Finishing is organised within the same order, so you receive complete parts from one supplier contact.





Coatings

- Powder coating in RAL colours
- Hot-dip galvanizing
- Electro-galvanizing and zinc plating
- Wet painting, primers and high-resistance coatings, including acid-resistant systems
- Anodizing, blackening and nickel plating for machined parts

Preparation & treatment

- Shot blasting and sandblasting
- Deburring, edge rounding and grinding
- Pickling, passivation and electropolishing of stainless steel
- Heat treatment: annealing, normalising, quenching and tempering, induction hardening, stress relieving

HEAVY STEEL CONSTRUCTION

Tanks, silos and plant equipment

Heavy fabricators in our network build large welded equipment for steel mills, mining, chemical, food and energy plants.





4,000 mm
tank diameter in one piece; modular tanks up to 50,000 mm

300 bar
hydrostatic testing

15 t
overhead cranes in heavy workshops

- Storage tanks and acid tanks
- Silos and bunkers
- Pipelines, ducts and steel distribution systems
- Blast furnace, foundry and galvanizing line equipment
- Steel structures, platforms, stairs and walkways
- Maintenance platforms and machine bases
- Roller stands and handling equipment
- Sandblasting and painting, including acid-resistant coatings

SHEET METAL PRODUCTS

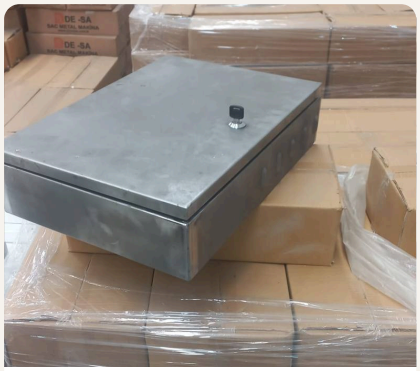
Typical parts we source to drawing

Examples of sheet metal parts and assemblies made by our partners for buyers in Europe and beyond.



Cabinets & enclosures

Manifold cabinets, electrical and distribution boxes, housings, control panels



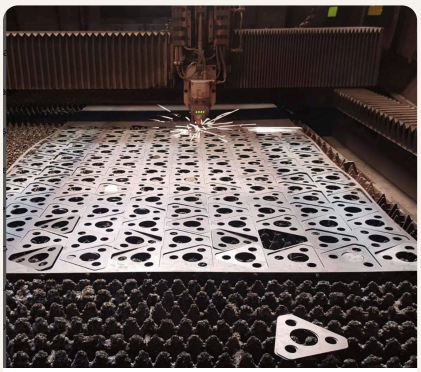
Boxes & covers

Junction boxes, covers, guards, lids, packed in series



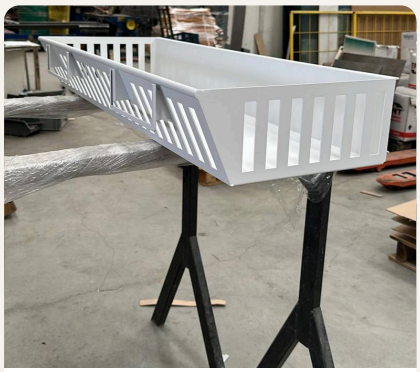
Brackets & profiles

Mounting brackets, angles, custom profiles, rails



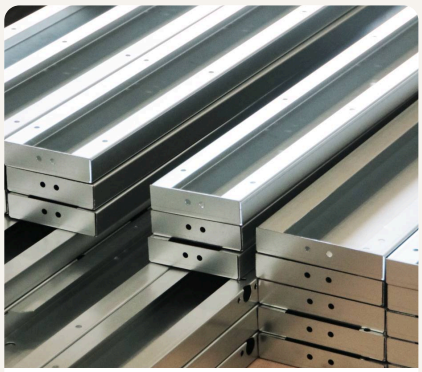
Laser-cut parts

Flat parts, perforated and decorative panels, blanks for further processing



Frames & furniture

Machine frames, chassis, racks, metal furniture components



HVAC & building parts

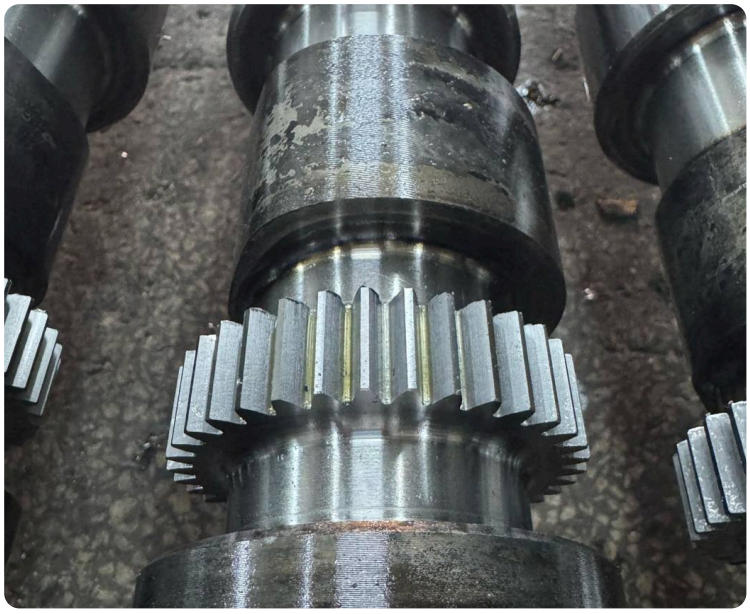
Ducts, ventilation parts, facade and construction elements

Also: trailer and truck parts, wind and rail components, marine parts, transport cages and storage containers, conveyor parts.

Turning, turn-milling and Swiss-type turning

Turned parts from Ø3 to Ø700 mm – from small precision pins in series to large shafts and rollers.





PROCESS	TYPICAL PARTS	CAPABILITY (EXAMPLES)
CNC turning & turn-milling	Shafts, pins, bushings, flanges, rollers, hydraulic parts	Up to Ø700 × 3,000 mm; C- and Y-axis turn-mill centres for flats, cross holes and keyways in one set-up
Swiss-type turning	Small precision pins, connectors, fittings	7- and 8-axis sliding-head lathes for bar up to about 32 mm, complete in one cycle
Grinding	Bearing seats, shafts, hardened parts	Cylindrical and surface grinding; IT6 or better on ground diameters when specified

Machines in the network include Doosan Puma MX2550ST, DMG Mori CTX 400, Nakamura SC200 and Tsugami BS32 / BO-III. Accuracy: ISO 2768-m as standard; ±0.01 mm on critical features when specified.

3-, 4- and 5-axis milling and large parts

From complex housings and impellers to machine frames, bases and welded structures of up to 6 metres.



PROCESS	CAPABILITY (EXAMPLES)
3- and 4-axis milling	Vertical machining centres with travels up to 1,300 × 700 × 700 mm; pallet systems for series parts
5-axis milling	Huron 5-axis centre, 1,500 × 500 × 500 mm; several faces in one set-up
Large-part milling & boring	Travels up to 6,000 × 1,200 × 1,200 mm for castings and welded fabrications after stress relieving
Secondary operations	Drilling, tapping, threading, heat treatment, plating, painting, marking and assembly

EXAMPLE · ONE PRECISION MACHINING PARTNER

CNC turn-mill centres (Doosan, DMG Mori, Nakamura, Tsugami) · Swiss-type lathes, 7 and 8 axes · turning up to Ø700 × 3,000 mm · two 3-axis and one 5-axis machining centre · large-part milling 6,000 × 1,200 × 1,200 mm · fiber laser and press brakes up to 4,000 mm · 3D CNC vision measuring machine and CMM.

GEARS & POWER TRANSMISSION

Gears from one replacement part to series production

Specialist gear manufacturers with dedicated hobbing, shaping, broaching and grinding machines.







GEAR TYPE
Spur and helical gears
Worm gears and worm wheels
Straight bevel gears
Racks and pinions, internal gears
Gear and splined shafts (DIN 5480, 5482)
Sprockets (ISO 606), timing pulleys

MATERIAL	TREATMENT
16MnCr5, 20MnCr5	Case carburised, ~58–62 HRC
18CrNiMo7-6	Case carburised
42CrMo4	Q&T, induction hardened, nitrided
C45	Normalised, induction hardened
CuSn12 bronze	Worm wheels

Example machine park · one gear partner: 43 machines on 1,150 m² – 5 vertical machining centres, 4 CNC and 4 conventional lathes, 6 hobbing and 5 Fellows gear shaping machines, 2 worm cutting machines, 1 worm grinding machine, profile grinding and broaching. Hardness and case-depth reports on request.

CASTINGS

Iron and steel castings, supplied raw or machined

Sand castings from about 1 kg to several hundred kilograms, with patterns made from your 3D model.





MATERIAL	COMMON GRADES	TYPICAL PARTS
Ductile iron	EN-GJS-400 to 700 (GGG40–70)	Pump and valve bodies, gearbox housings, hubs
Grey iron	EN-GJL-200 to 300 (GG20–30)	Machine beds, housings, brake discs, counterweights
Carbon / low-alloy steel	GP240GH, G20Mn5, G28Mn6	Railway and bogie parts, lifting components
Stainless & heat-resistant	1.4308, 1.4408, 1.4848	Pump, valve and furnace parts
Wear-resistant alloys	Manganese steel, high-Cr iron	Mining, crusher and cement plant wear parts

Green sand and resin-bonded sand moulding; investment casting for small precision parts. Tolerances ISO 8062-3 DCTG 10–13. Testing: chemical analysis, tensile and hardness tests, nodularity, UT/MT/RT when specified.

QUALITY & DOCUMENTATION

Checked before it ships

Quality requirements are agreed at quotation stage and passed on to the manufacturer with your drawings.

Systems

- Many partners certified to ISO 9001; several also to ISO 14001 and ISO 45001
- Welder qualifications and welding procedures
- Supplier forms and audits for European buyers on request

Measurement

- 3D CNC vision measuring machines and CMM
- Height gauges, gear and surface roughness measurement
- First article inspection reports

Testing

- Hardness and case-depth tests
- Weld inspection: visual, MT, PT, UT, RT
- Hydrostatic tests up to 300 bar
- Third-party inspection on request

Documents

- EN 10204 3.1 material certificates
- Dimensional and coating thickness reports
- Certificate of origin, A.TR or EUR.1
- CBAM emissions data on request

Track record: parts made to drawings for customers in the USA, Germany, Italy, the United Kingdom and Czechia.

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REQUEST A QUOTE

Send your drawing once. We handle the rest.

RFQ checklist

- PDF drawing plus DXF or STEP
- Material, thickness and finish
- Quantity per order and per year
- Tolerances and inspection needs
- Delivery address and Incoterm
- Target dates

Use our free RFQ builder at steeling.net/tools to check your request before sending. NDAs are signed on request.

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Partner names are shared during the quotation process. Capabilities are examples from our partner network and vary by manufacturer. © 2027 İlk İhracat A.Ş.