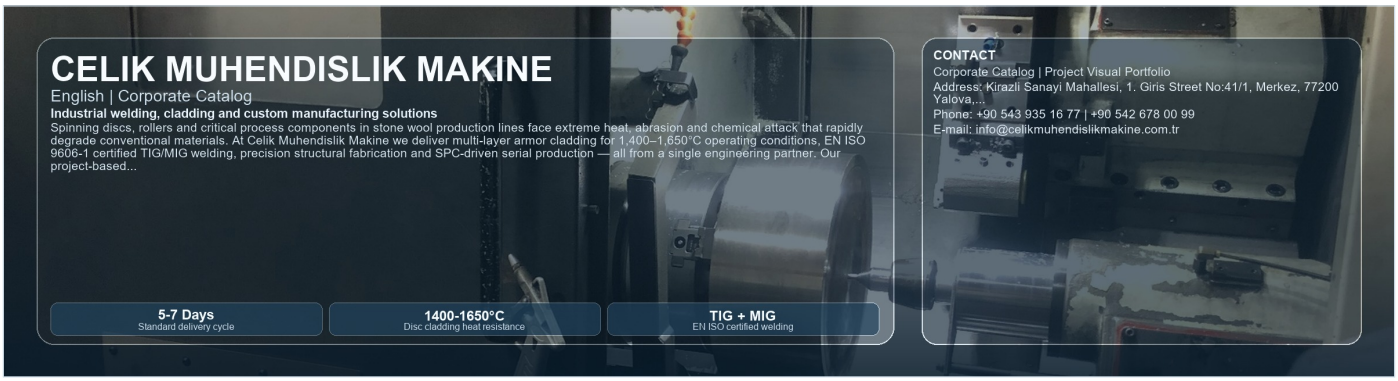



# Corporate Catalog

Industrial welding, cladding and custom manufacturing solutions

Spinning discs, rollers and critical process components in stone wool production lines face extreme heat, abrasion and chemical attack that rapidly degrade conventional materials. At Celik Muhendislik Makine we deliver multi-layer armor cladding for 1,400–1,650°C operating conditions, EN ISO 9606-1 certified TIG/MIG welding, precision structural fabrication and SPC-driven serial production — all from a single engineering partner. Our project-based approach — correct material selection, controlled process and full documentation — permanently improves our customers' operational continuity and cost efficiency.


| 5-7 Days | 1400-1650°C | TIG + MIG |
|---|---|---|
| Standard delivery cycle | Disc cladding heat resistance | EN ISO certified welding |

## Core Capabilities

- AISI 307+310 armor cladding extends disc life 3–5×
- EN ISO 9606-1 certified TIG/MIG welding personnel
- Field-ready mobile revision, balancing and grinding support
- CMM-assisted fixture fabrication with ±0.05 mm tolerance guarantee
- SPC serial production with barcode/QR traceability system
- Material certificate EN 10204 3.1 included with every delivery
- Project-specific WPS preparation and NDT weld verification
- Flexible lot capacity from 5 to 5,000 units

# Disc Cladding and Surface Improvement

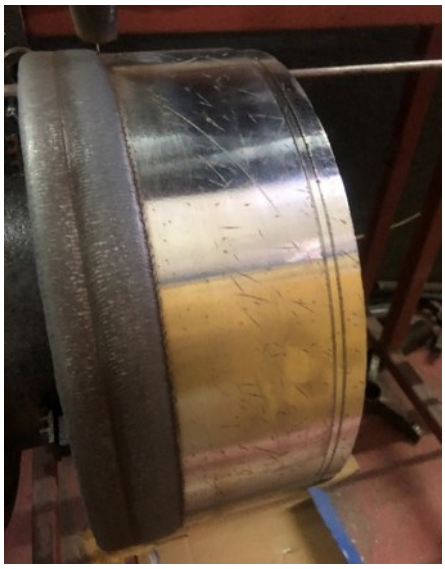
**Industrial welding, cladding and custom manufacturing solutions**

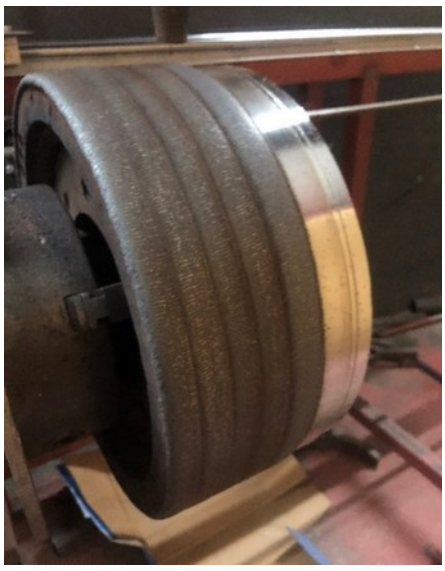
Spinning discs in stone wool production lines face extreme temperatures of 1,400–1,650°C combined with continuous abrasive loads that rapidly degrade conventional materials. Our multi-layer armor cladding applications restore and significantly extend disc service life by depositing AISI 307 and 310 stainless alloy coatings that form a metallurgical bond at the atomic level, simultaneously enhancing mechanical and chemical resistance. Each application is preceded by surface roughness and geometry measurement, with post-cladding CNC grinding and independent quality verification completed after every job.

| | | |
|---|---|---|
| **CLADDING TYPE**<br>AISI 307+310 stainless, multi-layer | **HEAT RANGE**<br>1,400–1,650°C continuous resistance | **SURFACE HARDNESS**<br>45–58 HRC (measured delivery) |
| **TOLERANCE**<br>±0.05 mm post-machining geometry | **CYCLE TIME**<br>5–7 business days standard | **TARGET**<br>Extend disc life 3–5× over baseline |

## Core Capabilities

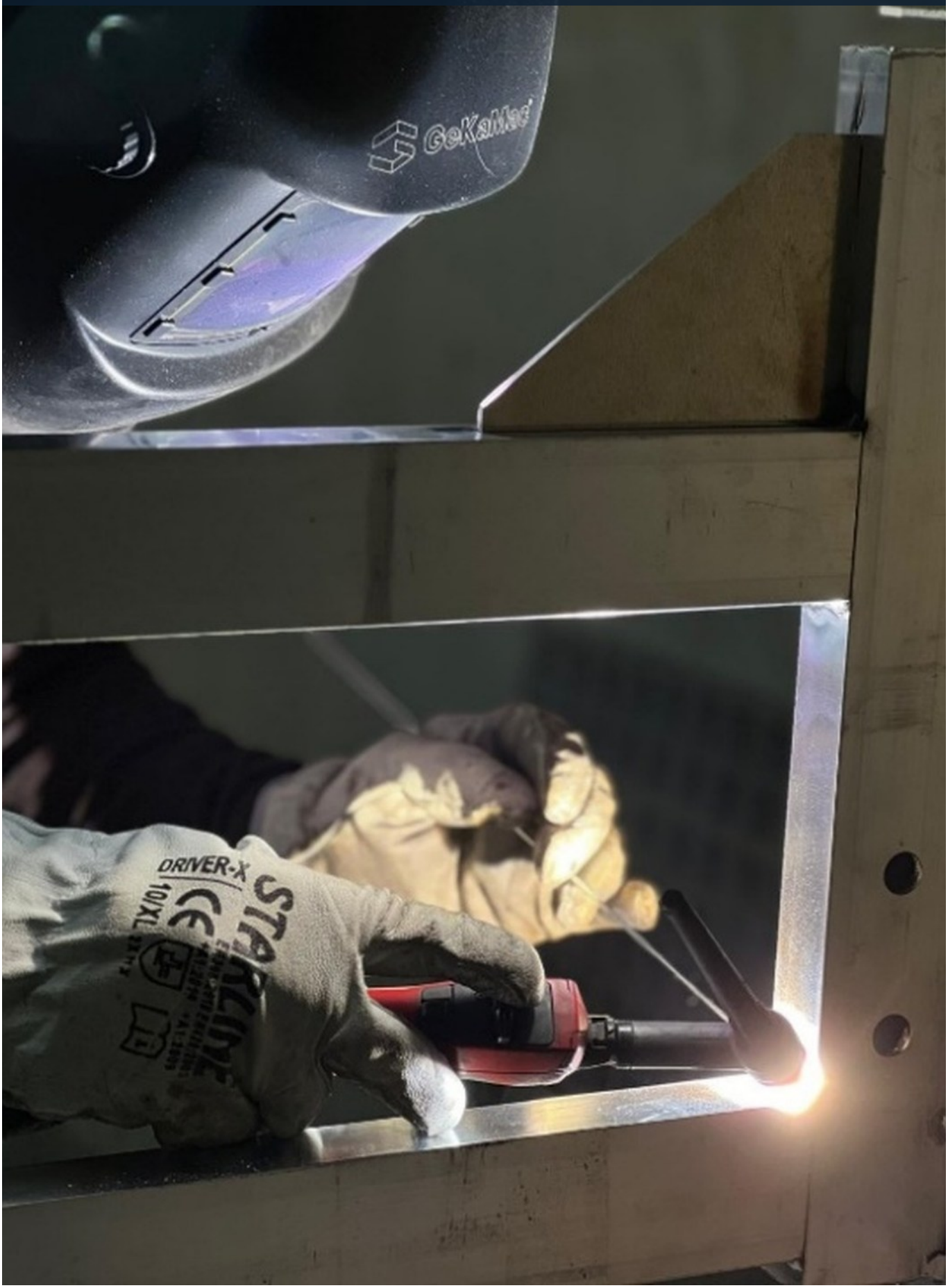
– AISI 307 + 310 stainless alloy multi-layer arc cladding
– Controlled heat input for metallurgical bond and low residual stress
– Sintered layer structure achieving surface hardness 45–58 HRC
– Resistance to high-temperature oxidation and sulfur compounds
– Post-cladding CNC grinding to ±0.05 mm geometric tolerance
– Numerical process log and QC certificate delivered with each part
– Standard disc geometry completed in 5–7 business days
– On-site mobile revision and balancing support available


# Welding Applications and Repair

**Industrial welding, cladding and custom manufacturing solutions**



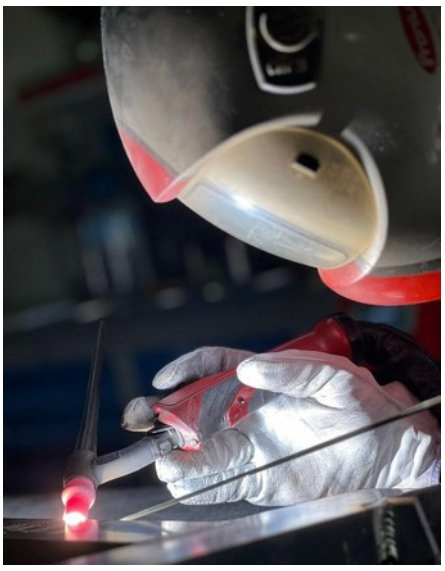
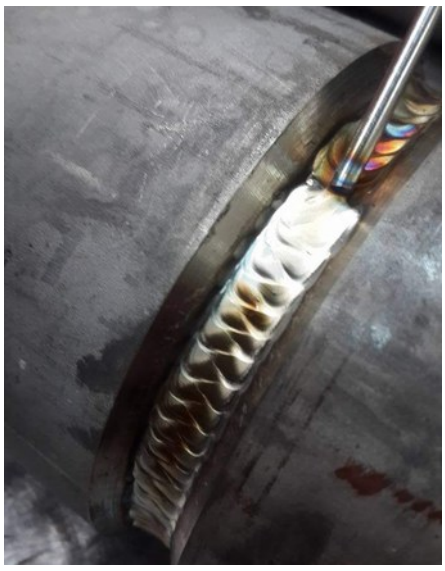
Achieving near-zero defect rates in critical industrial joint welding determines both process safety and long-term operational reliability. Our team applies TIG and MIG processes with mastered pass discipline, performing inter-pass cleaning, temperature monitoring and visual dimensional verification at every stage from root to cap pass. Our competence covers stainless steel, carbon steel and low-alloy special materials in full compliance with customer technical specifications; all welding personnel hold EN ISO 9606 certification and every job is governed by a written Welding Procedure Specification.

| | | |
|---|---|---|
| **PROCESSES**<br>TIG (GTAW), MIG (GMAW), Manual Arc | **CERTIFICATION**<br>EN ISO 9606-1 / EN ISO 15614 | **MATERIALS**<br>Stainless, carbon steel, special alloys |
| **QUALITY CONTROL**<br>Visual, dimensional, NDT inspection | **PWHT**<br>Post-weld heat treatment and stress relief | **TARGET**<br>Near-zero weld defect rate |

## Core Capabilities

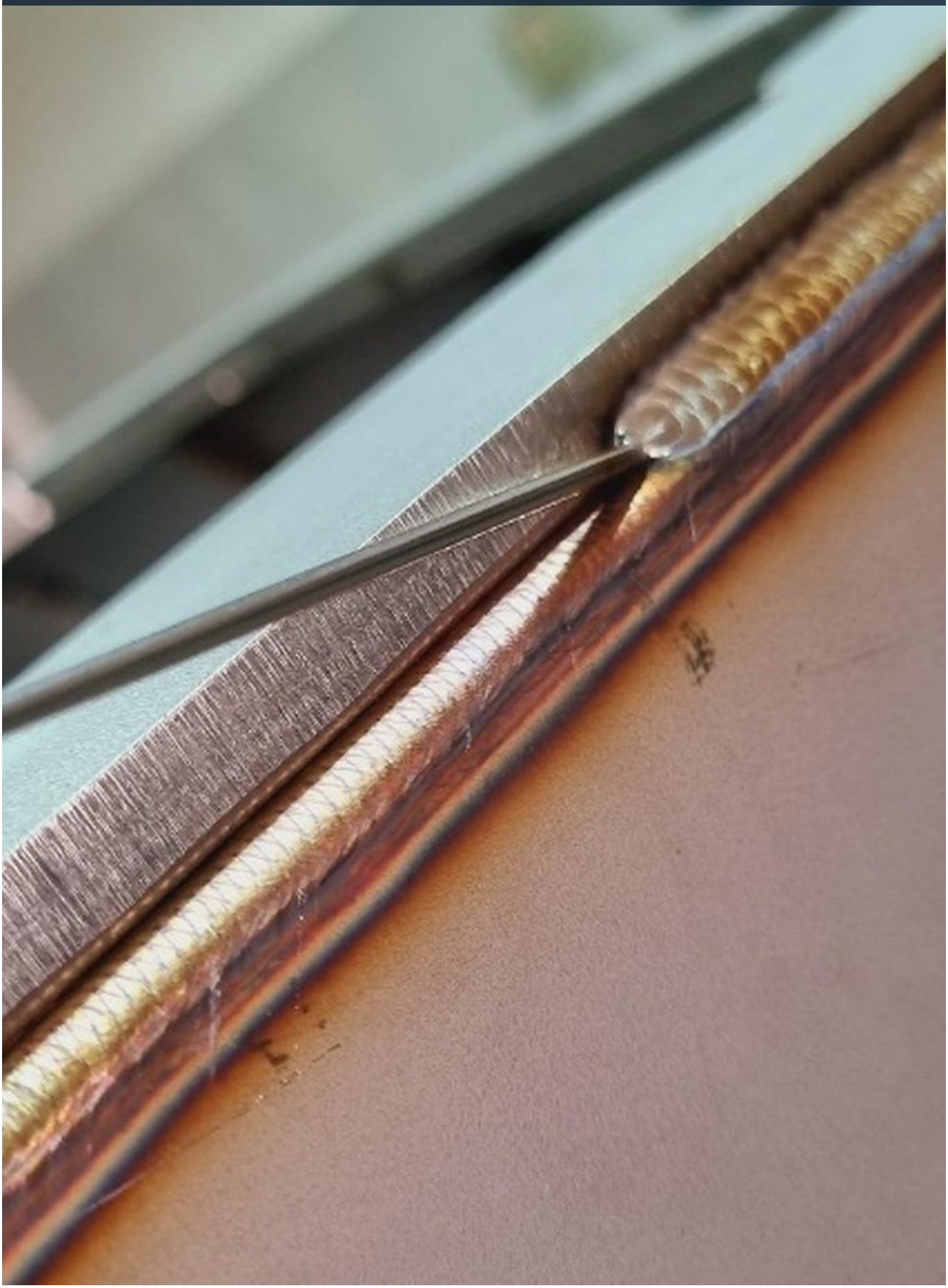
– Full command of TIG (GTAW) and MIG (GMAW) processes
– EN ISO 9606-1 certified welding personnel
– Inter-pass temperature control with Ar+He shielding gas system
– Oscillator-assisted weld pool stability for uniform bead profile
– Root pass ultrasound and dimensional NDT inspection
– Post-weld heat treatment (PWHT) and stress-relief capability
– Range from thin sections (0.5 mm) to heavy profiles (80 mm)
– Project-specific Welding Procedure Specification (WPS) prepared




# Custom Construction and Project Fabrication

**Industrial welding, cladding and custom manufacturing solutions**

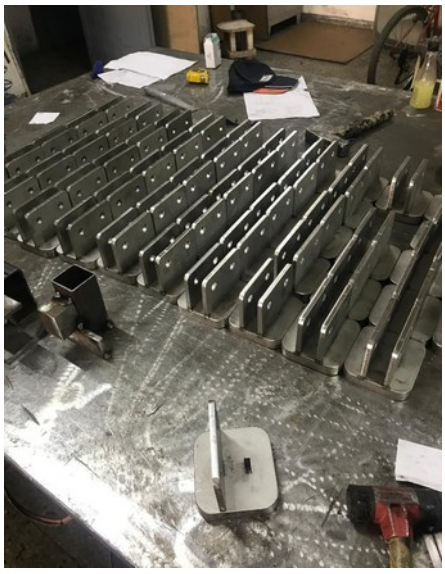


Project-based fabrication requirements demand custom design, careful material selection and precision manufacturing that go well beyond standard catalog products. We fabricate fully welded structures, fixtures, fasteners and machine components in stainless, carbon, duplex and special alloy grades. Our digitally assisted fixture systems achieve assembly and tolerance conformance at first attempt, and every project is managed with full documentation from design revision through final delivery inspection.

| | | |
|---|---|---|
| **MATERIALS**<br>SS 304/316L/321, Duplex 2205, Carbon | **PRODUCTION**<br>CMM-assisted fixture and assembly tolerance | **JOINTS**<br>Full-penetration fillet and butt welds |
| **CUTTING**<br>Plasma, laser and gas cutting | **DOCUMENTATION**<br>EN 10204 3.1 material certificate | **TARGET**<br>First-attempt assembly conformance |

## Core Capabilities

– Structural fabrication in AISI 304, 316L, 321, Duplex 2205 and special alloys
– Digital (CMM) assisted fixture and assembly tolerance tracking
– Full-penetration fillet and butt weld joints
– Pipe and profile cutting, forming, plasma and laser cutting
– Welded and mechanical assembly package managed in-house
– On-site installation support and commissioning coordination
– Delivery with material certificate (EN 10204 3.1) and weld records
– 3D model-compatible fabrication with dimensional verification report



# Batch Production and Application Portfolio

**Industrial welding, cladding and custom manufacturing solutions**

In serial production projects, repeatable quality and precise delivery schedules directly impact customer operational continuity and cost efficiency. Our work instructions parametrize the process for each batch, ensuring quality standards independent of individual operator variation. Dimensional tolerance monitoring, surface quality control and packaging inspection are applied to every unit before shipment, while real-time production tracking and batch-level traceability give customers the data they need for effective stock and process planning.

| | | |
|---|---|---|
| **LOT RANGE**<br>5–5,000 units flexible serial production | **QUALITY**<br>SPC + dimensional and Ra surface control | **TRACEABILITY**<br>Barcode/QR batch tracking system |
| **REPORTING**<br>Real-time production progress status | **PACKAGING**<br>Damage-risk minimizing pack design | **TARGET**<br>On-time delivery and zero rejection rate |

## Core Capabilities

– Batch-based repeatable workflow with fixed process parameters
– Dimensional measurement and surface quality (Ra) control for every part
– Full traceability and shipping documentation with barcode/QR tracking
– Agreed shipping schedules with real-time production progress reporting
– Statistical process control (SPC) applied to critical dimensions
– Material certificate and test report included with every batch delivery
– Packaging and palletizing optimized to minimize transit damage risk
– Flexible lot sizes from 5 to 5,000 units serial production capacity

# Celik Muhendislik Makine

Industrial welding, cladding and custom manufacturing solutions

| 5-7 Days | 1400-1650°C | TIG + MIG |
|---|---|---|
| Standard delivery cycle | Disc cladding heat resistance | EN ISO certified welding |

## Contact

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### Core Capabilities

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This catalog is for information purposes. Technical and commercial proposals are prepared specifically for each project.