AKÇELİK

STRONGER TOGETHER



BRIGHT STEEL

YOUR GLOBAL SOLUTION PARTNER
IN THE HIGH-QUALITY STEEL INDUSTRY.

akcelik.com.tr

STRONGER TOGETHER

Both Role and Power of Steel in Our Lives are Great!

We are proud to be a part of every industry we provide solutions to.



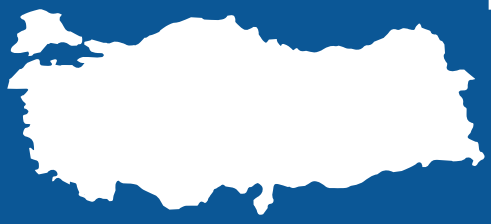
BRIGHT STEEL

215.000 TON'S

By combining our experience from the past with technology, we deliver quality products to our stakeholders.

With our investments, we produce 215,000 tons of Bright Steel in our production facilities in Turkiye and Germany annually.

Türkiye



165.000 Ton / Year Capacity
22.000 m2 Open Area,
24.000 m2 Closed Area



Germany

50.000 Ton / Year Capacity
32.000m² Open Area,
15.000m² Closed Area

AKTEQA is our new generation steel production and supply philosophy in the Industry 4.0 world and is basically a set of actions in which our production and activities are handled together with Technology, Environment, Quality and Automation.

IT IS OUR PHILOSOPHY THAT MAKES US DIFFERENT **IN OUR BUSINESS.**

AKTEQA

A	K	T	E	Q	A
AKÇELİK		TECHNOLOGY	ENVİRONMENT	QUALİTY	ADVENCEMENT

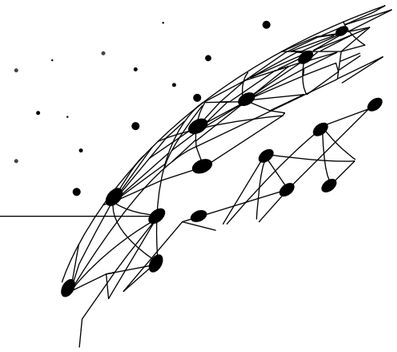
Our AKTEQA philosophy is a set of disciplines in which our **Technology, Environment, Quality** and **Advancement** goals are handled together in addition to humanitarian values.

As Akçelik, we completed our planned investments in 2019 in order to achieve our Industry 3.0 targets and turned all our machines in our factories into integrated production lines with new investments and modernizations. Our vision is to complete our Industry 4.0 investments and Afterwards, we aim to prepare for the Industry 5.0 process in line with our AKTEQA philosophy.

Our Philosophy

Akçelik prioritizes investing in people and targets a strong corporate memory.

QUALITY



The company focuses on achieving speed and continuity in development and becoming one of the global leaders in the industry.

TECHNOLOGY



Achieves improvement on its way to perfection together with the stakeholders of Akçelik.

ADVANCEMENT



The company's main concentration is not how talents can be maintained but how they can be improved.

Has the ambition to develop skills and learn to launch the best products in the world.

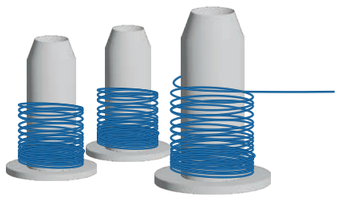
ENVIRONMENT

PRODUCTION **PROCESSES**

With our 7000 strategic product varieties, we serve directly many different industries, specifically the main and sub-industry.

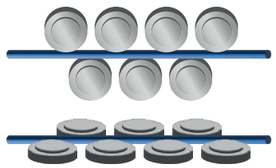
From Coil to Bar Cold Drawn

1



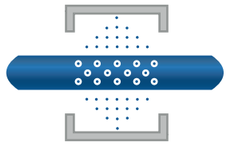
Pay-Off

2



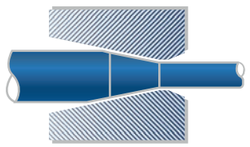
Front Straighteners

3



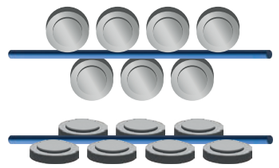
Shot Blasting

4



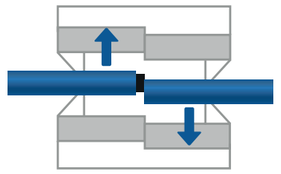
Cold Drawing

5



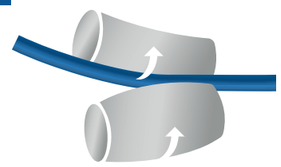
Straighteners

6



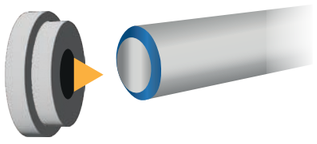
Cutting

7



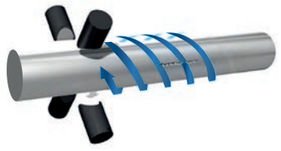
2 Batch Straighteners

8



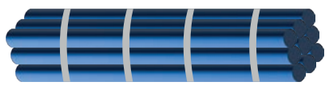
Chamfers

9



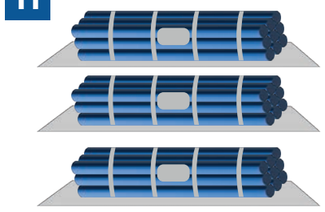
Surface Crack
Control (Eddy Current)

10



Packaging

11



Stocking

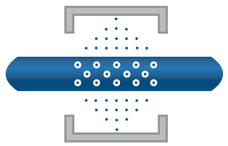
From Bar to Bar Cold Drawn

1



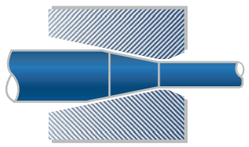
Stock Area

2



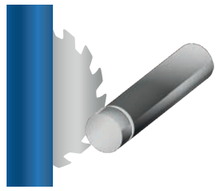
Shot Blasting

3



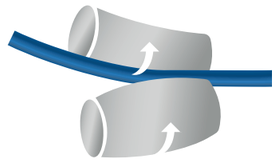
Cold Drawing

4



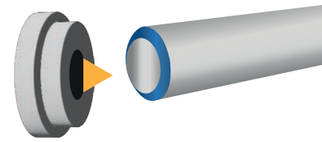
Cutting

5



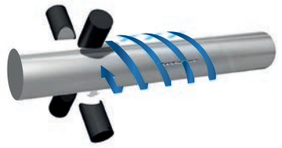
2 Batch Straighteners

6



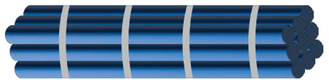
Chamfers

7



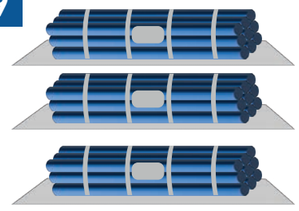
Surface Crack
Control (Eddy Current)

8



Packaging

9



Stocking

Cold Drawing

In the production of bright steel, we produce our bright steel products from hot rolled bars or coils in precise dimensional tolerances in line with the demands of the sector. As Akçelik, we support our experience from the past with our investments and serve the sectors with our production and product quality in international standards. In our Industry 4.0 integrated continuous cold drawing plants, straightening, chamfering, section measurement and defect inspection operations are performed automatically on the line. We produce our cold drawn bright steels from both coil and bar in our combined cold drawing plants to fully meet the needs of our customers. Our state-of-the-art cold drawing technology enables us to increase production efficiency and maximize product quality.

Cold Drawing Diameter Range

Cross Section	Diameter Tolerance		Diameter Range
Round	EN 10278	h6*	10 - 60 mm
		h7*	6 - 60 mm
		h8*	6 - 80 mm
		h9, h10, h11	6 - 100 mm
Hexagon	EN 10278	h11	7 - 85 mm
		h12	7 - 85 mm

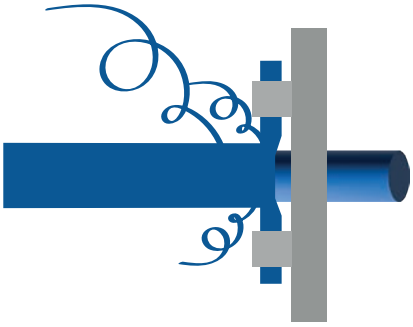
*** Guarraneted with grinding.**





Peeling Process

We process hot rolled bars from 15.00 mm to 300.00 mm diameter as peeled bright steels up to IT 9 tolerance with the widest peeling diameter range in Turkey and Europe. **We offer a final product with 100% defect-free surface** for automotive and similar demanding engineering applications by removing the decarbonized layer from the surface of the material with machining.



Our modern peeling facilities allow us to produce with precise tolerances within the EN 10278 norm. Thanks to our non-destructive testing (NDT) machines, we inspect surface defects up to Class 4 in EN10277 norm. **We have been serving 1200 customers in the main and sub-industry sectors in 35 countries in 5 continents with our quality products for 45 years.**

We prevent surface defects that may occur during possible stocking and transportation processes by preventing the bars from contacting each other with automatic ring insertion integrated into our machine line in order to maintain high surface precision.

We produce bright steels in conformity with the international standards. We offer them to our valued customers on the basis of quality and depending on the areas of use.

Peeled Diameter Range

Cross Section	Diameter Tolerance		Diameter Range
Round	EN 10278	h6* - h7*	15 - 60 mm
		h8*	15 - 80 mm
		h9	15 - 300 mm
		h10	15 - 300 mm
		h11	15 - 300 mm

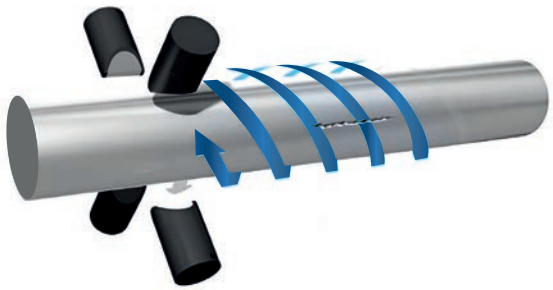
*** Guarraneted with grinding.**

Finishing Lines

We perform the finishing processes for the cold drawn and peeled bars we produce in accordance with the purchase orders. Our finishing lines consist of processes such as Grinding, Surface Defect and Internal Defect Inspections, Cutting to Customized Length, Chamfering and Packaging. The surface defect inspection process can be applied as an integrated process in all of our lines, or it can be applied off-line as a finishing process. The chamfering process is integrated into all our lines.

Defect Inspection

We are able to apply 100% non-destructive testing (NDT) methods for surface and internal defect detection of steel to ensure the bes product quality in bright steel.



Surface Defect Inspection (Eddy Current)

Eddy Current is applied to detect surface defects of the steel through testing with eddy current method and ensure that the product is offered to the customer without defects.

We are able to perform 100% surface defect inspection with Eddy Current method up to Class 4 in EN 10277 standard in all our bright steel production lines.

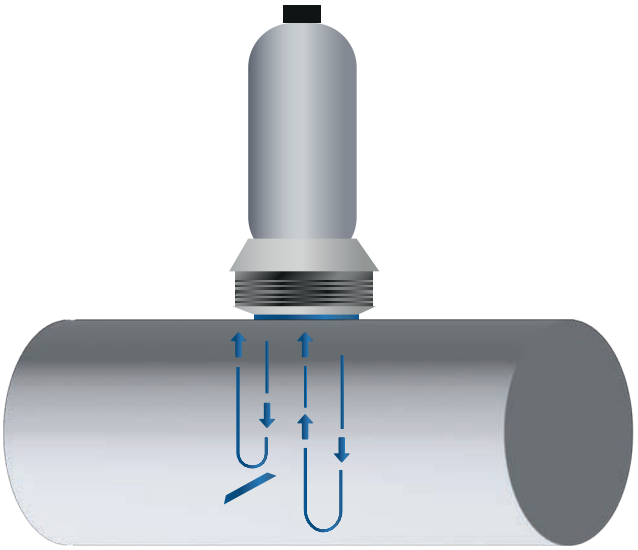
Thus, it is ensured that the defects that may occur transversely and longitudinally on the surface of the bars are detected.

These inspections are used up to 80 mm in bright steel with round section and up to 75 mm in bright steel with hexagonal section.

Internal Defect Inspection (Ultrasonic Test- UT)

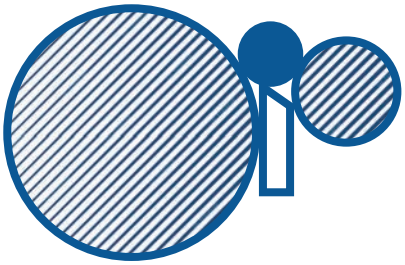
We are the only manufacturer in Turkey that can perform internal defect inspection with ultrasonic testing of bright bars in accordance with EN10308 standard. We certify our products in accordance with EN 10204 3.1 standards.

Internal defect inspection is performed between 8 - 50 mm according to Class 4 which the most precise level of EN 10308 standard.



Grinding

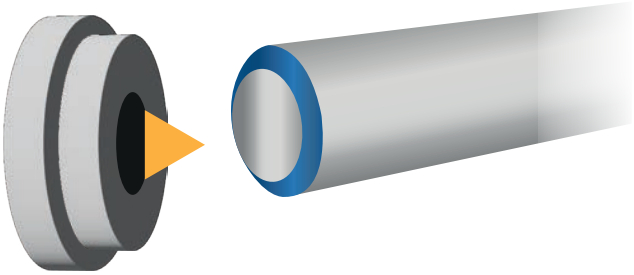
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Grinding Diameter Range

Cross Section	Diameter Tolerance		Diameter Range
Round	EN 10278	h6	10 - 60 mm
		h7	6 - 60 mm
		h8	6 - 80 mm
		h9	6 - 80 mm

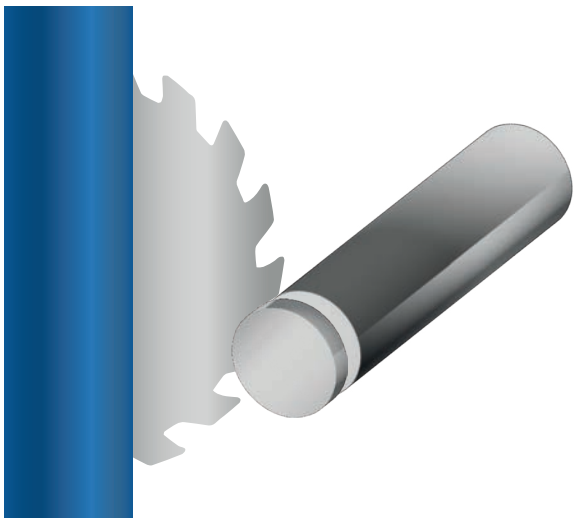
Chamfering



The ends of the qualified bright steel bars we produce are chamfered at 45 degrees as standard. According to customer demand, single or double sided chamfering can be applied at 15, 30, 60 or desired angles.





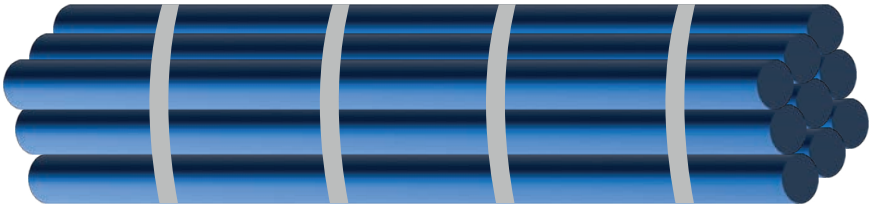


Cutting to Customized Length

Quality, zero waste, time, labour, financing and storage advantages.

In all our Steel Service Centres, we cut with state-of-the-art circular saws that cut up to 250 mm in diameter with an accuracy of +/- 0.1 mm. Thanks to this unique technology, which enables us to make more than 14 million cuts per year, we are able to meet our customers' special size demands without any errors.

We offer our customers quality, zero waste, time, labour, financing, and storage advantages with our high-performance, state-of-the-art saw park.



Packaging

In line with the requests of our customers, we offer our bright steels in automatic double-end chamfered, special lengths and different packaging types according to the shipment type.
In addition, the packages can also be formed according to the weight or quantity requested by the customer.

Bright steel bars are packaged in different types of packaging. Based on the requirements subject to the purchase order, conditions of use, logistic distance, and processes, "Jute, Nylon and Crate are used for packaging.





5 Continents
35 Countries





+1.200
Customer



+150.000m²
Field of activity



+60.000ton
Stock Capacity



+215.000ton
Production Capacity



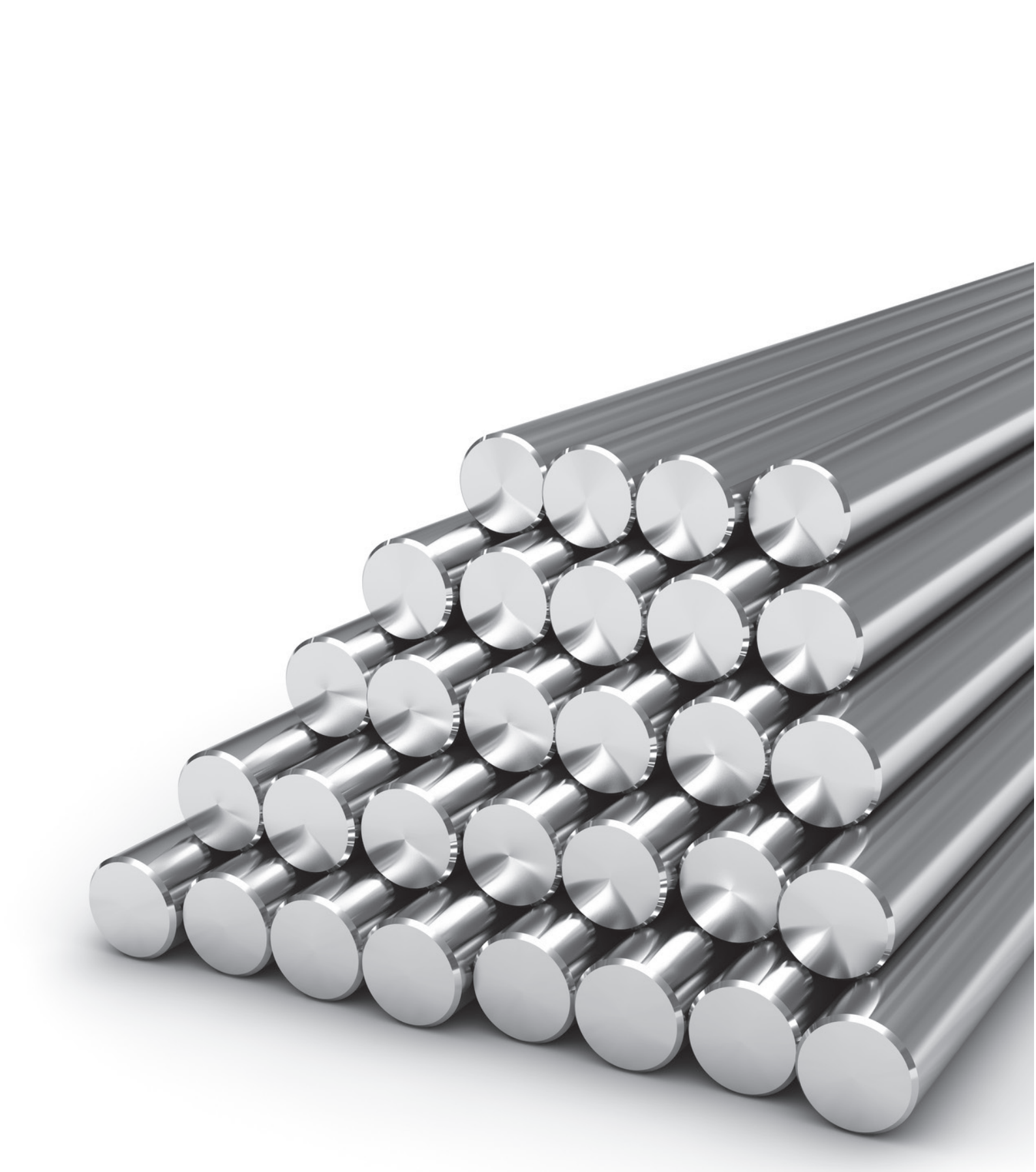
+7.000
Product



+500
Teammates



+10
Location



PRODUCTS

We create value with the special supply solutions we offer for the industry, particularly for the main and sub-industry manufacturers, ranging from the defense industry to automotive, from construction to white appliances.

We are the solution partner of our stakeholders in the bright steel products we produce in our modern factories in Türkiye and Germany.

QUENCHED AND TEMPERED STEELS

25CrMo4
30CrNiMo8
34CrNiMo6
41Cr4
42CrMo4
42CrMoS4
30Mn5/46Mn7
50CrMo4
En 16
SAE 4140
SAE 5135
SAE 5140

COLD, HOW WORK AND PLASTIC TOOL STEELS

1,2344 1,2714 1,2367 1,2379
1,2767 1,2311 1,2312 1,2738

FREE CUTTING STEELS

12L14
35S20
45S20
11SMn30
11SMn37
11SMnPb30
11SMnPb37
En 8M
SAE 1117
SAE 1137
44SMn28
44SMnPb28

CASE HARDENING STEELS

15CrNi6
16MnCr5
16MnCrS5
16MnCrS5Pb
17CrNiMo6
18CrNiMo7-6
20MoCr4
20MoCrS4
14NiCr14
15Cr3
19CN5
19MnCr5
21NiCrMo2
25MoCr4
SAE 8620

CARBON STEELS

C22R
C35E
C43
Cf 53
Ck 15
Cq 10
SAE 1008
SAE 1010/C10
SAE 1018
SAE 1030/C30
SAE 1040/C40
SAE 1050/C50
SAE 1090

SPRING STEELS

50CrV4
51CrMoV4
54SiCr6
55Cr3
60SiCr7
60SiMn5

BORON STEELS

30MnB4
30MnCrB5
ZF 6 (16MnCrB5)
ZF7/ ZF7B (18MnCrB5)

CONSTRUCTIONAL STEELS

St 37-2/ S235JR
St 52-3/ S355J0
St 60-2/ E335
St 70-2/ E360
StE 460
StE 690

STAINLESS STEELS

X20Cr13 X30Cr13
X40Cr13 X46Cr13

BEARING STEELS

C80W1
100Cr6
100CrMn6

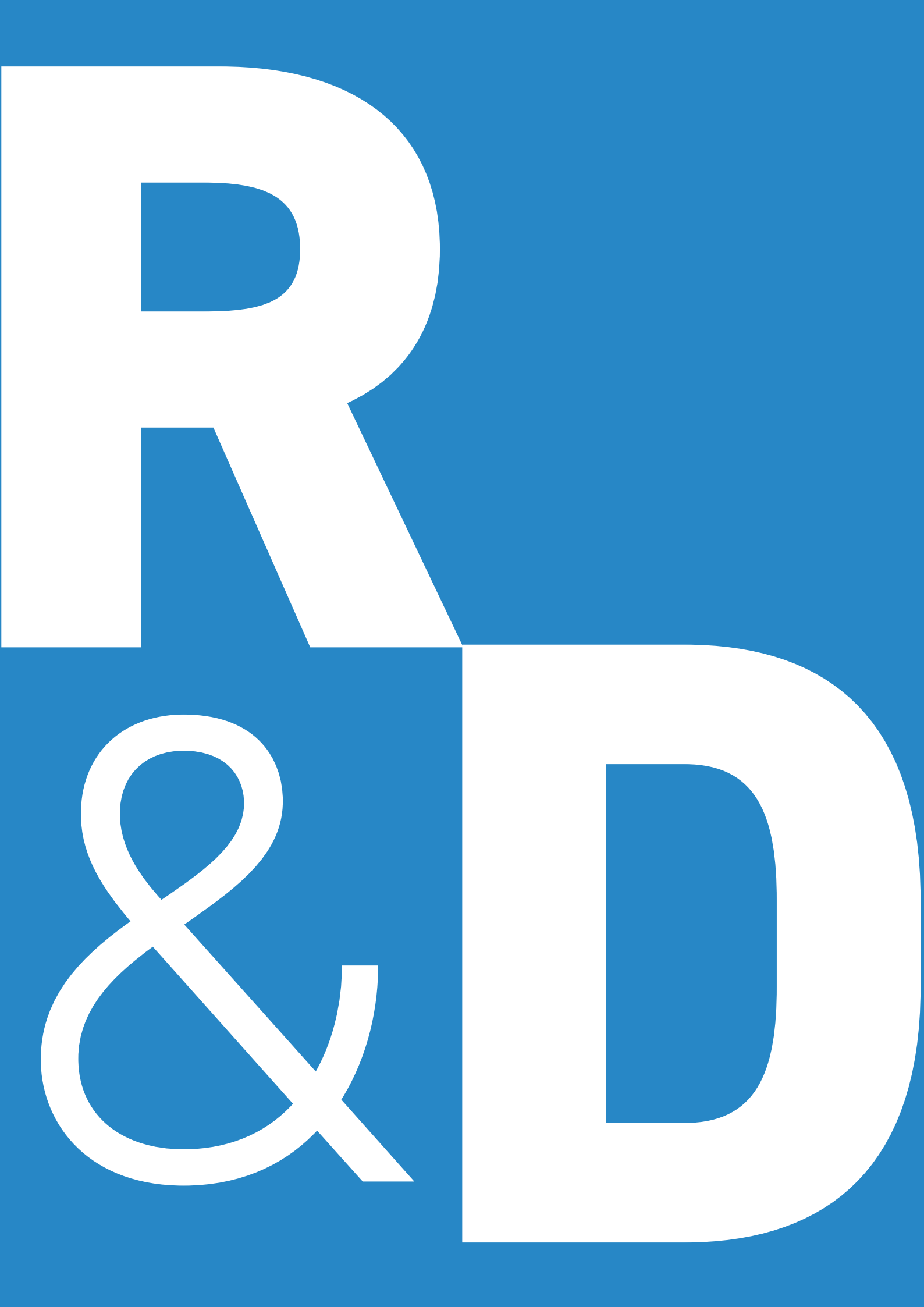
NITRIDING SURFACE HARDENING STEELS

31CrMo12 31CrMoV9 15CrMoV5-9

MICRO ALLOY STEELS

27MnSiVS6
38MnSiVS5
44MnSiVS6
49MnVS3

For grades not listed, please contact us at www.akcelik.com.tr.


R&D

The goals of our activities carried out by Akçelik R&D department are to:

Increase productivity and quality, reduce costs,

Provide solutions to customer expectations and needs at the maximum level,

Realize the transfer and adaptation of technology according to the needs of our sector,

Provide competitive advantage in the sector

In line with these goals;

We produce solutions through continuous improvement studies that will meet the expectations and needs of our customers and facilitate their processes. We carry out R&D studies together with our suppliers in order to find solutions to the improvement expectations of our customers in their production processes.

Our R&D activities in the areas of quality, sustainability, and innovation;

- Adaptation of current technologies to our existing processes by monitoring technological developments for Industry 4.0 transformation,
- Modernization of our machine park with our new technological investments,
- Using artificial intelligence supported software and hardware solutions to improve all processes
- Continuous investment in the improvement of our production lines using modern technologies to provide products that meet the growing quality needs of our customers,
- Ensuring that early action is taken by collecting and evaluating instant data from production with our MES system project, which we are implementing to maximize digitalization in all our production lines,
- In line with the goal of increasing the digital maturity level of our company, our digitalization project to improve all our processes with digitalization and advanced automation capabilities.

In the course of all our R&D activities, we evaluate the effects of new ideas and evolutions that may emerge on the environment, occupational health and safety, energy and other natural resource consumption and we realize our projects by taking the necessary actions.

- Reducing energy and consumption of other natural resources and meeting our energy needs with our SPP (Solar Power Plant) system project,

- We carry out our activities within the scope of our Lean Transformation Project in order to implement the lean management philosophy in all processes of our company, especially in production.

- The "Responsible Production and Consumption" approach, which we plan and implement for a liveable future, has an important share in the strategy of our current location and future investments. Many aspects such as green energy, reduction of carbon footprint, zero waste, recycling, social justice and labour standards, job creation, gender and opportunity equality, skills development and training, waste and scrap management are integrated into the natural flow of our processes.

INNOVATION

**We attach importance to environmental sensitivity in every aspect.
The projects we realize and the significant investments we make with an environmental focus guide us for a sustainable future.**



QUALITY

1 Input Quality Control

Purchase orders are checked according to the procurement specifications. All inspections are performed visually and dimensionally within the framework of the specifications. We periodically evaluate our suppliers and work together for the improvements.

2 100% Chemical Analysis

All raw materials that are used as an input in production are taken into production after 100% chemical analysis by means of a mobile spectrometer. Defects that may occur in suppliers or during stocking are detected before they are introduced to production process.

3 Production Line Control

Batch approvals are given by the quality department at the start of production. Intermediate production controls are carried out by operators with self-control certificates. These controls are supervised by the quality department.

4 Final Control

The materials to be shipped to customers are prepared in the dispatch inspection areas. The conformity of the prepared materials with the order conditions of our customers is checked prior to shipment.

Our Certificates

CERTIFIED IATF 16949:2016 COMPANY

International Organization for Standardization ISO 9001

International Organization for Standardization ISO 14001

International Organization for Standardization ISO 45001

International Organization for Standardization ISO 27001

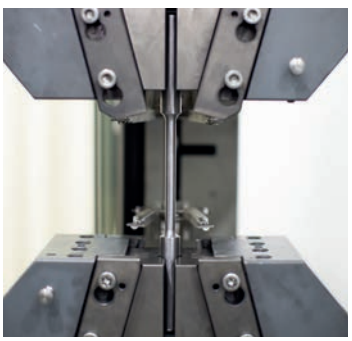
ZERO WASTE

LABORATORY









Akçelik laboratory has the capability to perform chemical analysis, mechanical and metallography tests.

Chemical analysis processes are carried out with a mobile spectrometer at the beginning of our production lines and a fixed spectrometer in our laboratory.

Our laboratories are equipped with a tensile tester, 4 hardness testers (Rockwell, Vickers, Micro Vickers and Brinell), a sample cutting device to examine the internal structure, Bakelite removal, sample surface preparation and metal microscope.

In addition to the chrome plated bars we produce, we also have NSS - Salt test and accelerated CASS test cabinets for corrosion testing.

Laboratory test results are included in the quality certificates (EN10204 3.1) of the materials.

ANALYSIS

Mission

To deliver top-quality steel products to its customers on time under the most competitive conditions based on the principle of operational excellence with its suppliers as solution partners.

Vision 2027

With our uncompromising understanding of quality, to be the leading private steel company that meets the expectations and needs of our stakeholders by generating solutions with our technological investments, supply network, and sustainability-oriented and environmental-friendly structure.

AKÇELİK
STRONGER TOGETHER

CHANGE 2027

AKCELIK BLANKSTAHL
TRISTARSTEEL SHAFTS CRAFTED FOR MOTION
SCHWERT TOOL STEELS

We are proud to be a part of
every industry we provide solutions to.



AKÇELİK
STRONGER TOGETHER

Your global solution partner in the High-Quality Steel Industry.

KOCAELİ - TÜRKİYE

Cold Drawing Factory
Akçelik Demir Çelik Sanayi ve Ticaret A.Ş.

TOSB Otomotiv Yan Sanayi İhtisas Organize
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KOCAELİ - TÜRKİYE

Peeling Factory
Akçelik Demir Çelik Sanayi ve Ticaret A.Ş.

TOSB Otomotiv Yan Sanayi İhtisas Organize
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