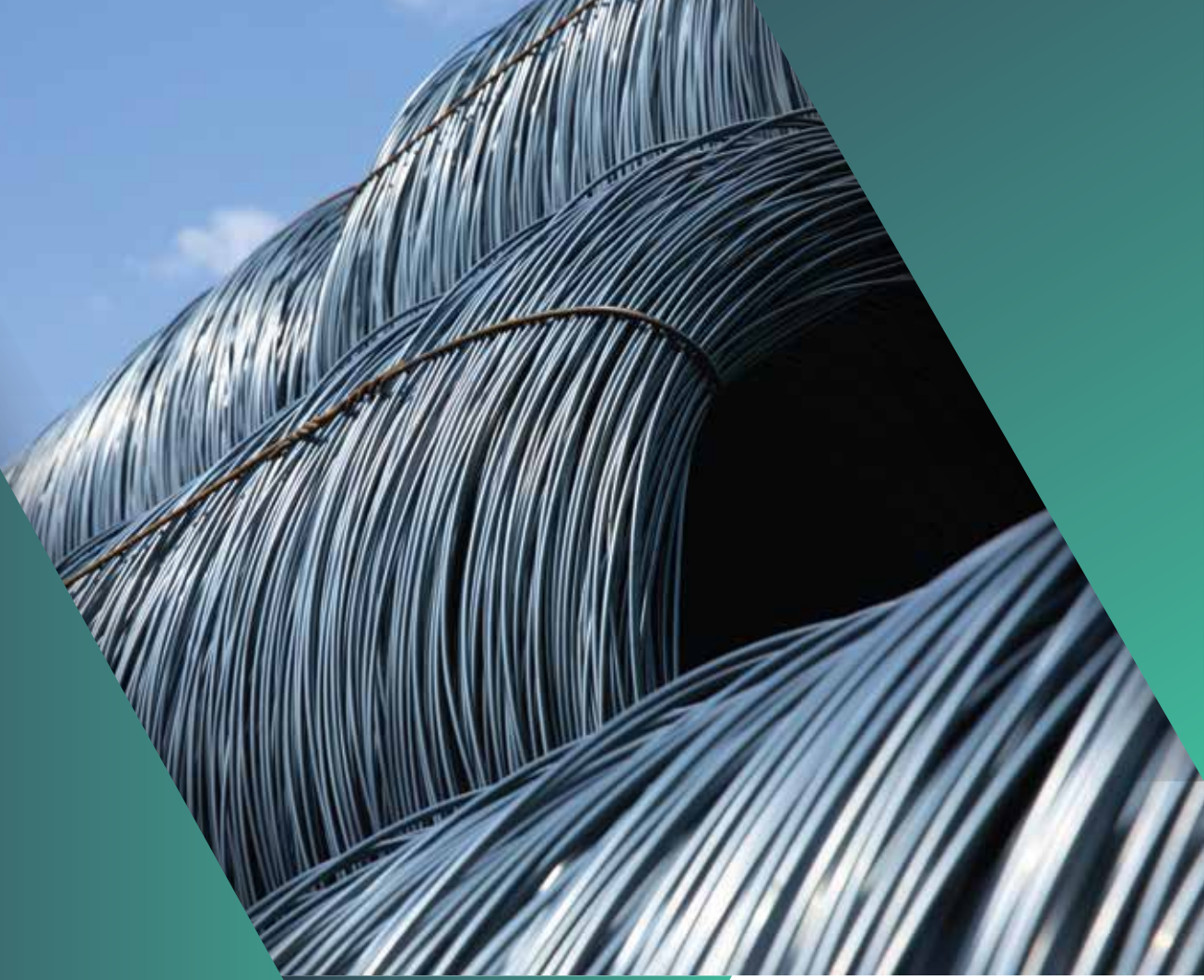




TOSYALI Filmaşın ve İnşaat Demiri



Tosyalı
Filmaşın ve
İnşaat Demiri

www.tosyalifilmasin.com.tr

ENG





TOSYALI FOR A SUSTAINABLE LIFE

Tosyalı not only strengthens its position in the steel industry through product quality but also through sustainability-focused efforts. By declaring "Tosyalı for a Sustainable Life" we commit to green steel and decarbonization initiatives, demonstrating our dedication to environmental responsibilities.

Our responsible production and consumption approach includes the use of eco-friendly technologies, and the generation of energy from renewable sources ensures that our production maintains a low carbon footprint. At the same time, our production with a high scrap ratio contributes to the circular economy.

With the commencement of the Solar Power Plant (SPP) project across our facilities, we take pride in having the world's largest rooftop Solar Power Plant. This project not only reduces our energy costs but also contributes to making our steel production one of the cleanest and greenest facilities globally.

At our R&D Center, we focus on sustainability-driven projects, constantly reducing our carbon footprint through process improvements. Through innovation and technological advancements, we pave the way for environmentally friendly methods in steel production.

With a high rate of waste recycling and a commitment to the principles of the circular economy, we strive to leave a sustainable world for future generations. At Tosyalı, we take maximum effort to ensure a livable world for tomorrow. By taking steps today for a sustainable future, we play a pioneering role in the steel industry and maintain our determination to minimize environmental impacts.

GREEN STEEL



TOSYALI FOR A SUSTAINABLE LIFE

Steel is in life today, at the forefront of change and transformation tomorrow, and at the center of life in the future.

Leader in Green Steel for Today and Tomorrow

-  Türkiye's steel producer with the lowest carbon footprint
-  Partnership with world giants in circular economy
-  Sustainability-oriented R&D projects and investments
-  Leading the steel industry in the use of renewable energy sources



About Us

The foundation of Tosyalı Filmaşın ve İnşaat Demiri factory with an annual capacity of 700,000 tons was laid in 2012 in Osmaniye.

The facility, established on an area of 90,000 square meters, started production in August 2014. The facility can produce wire rod in the range of Ø5.5-25 mm, rebar in the range of Ø8-32 mm and ribbed wire rod in the range of Ø8-16 mm.

The facility, which has Türkiye's first TMB (Twin Module Block) system, can produce with low ovality and high surface quality.

The facility, which has the ability to produce in many different qualities and norms, has the longest conveyor in Türkiye.

Our Vision

To be the architect of a better future through green steel production.

Our Mission

To represent the best reference to the world as one of the most important and strategic iron and steel companies in Europe and Africa.



Environmentalist



World Company



Sustainability



Innovator



Experienced Staff



Efficiency Oriented



Industry Leading

Tosyalı Filmaşın ve İnşaat Demiri



2014
Production started



TOSYALI

Filmaşın ve
İnşaat Demiri

700.000

Annual
Production
Capacity is
700.000 Tons



165+
Product range of
more than 165
grades and sizes



50+

Supplying its wide
range of products to
the over 50 countries

**RENEWABLE
ENERGY**

Eco-friendly production with
Solar Power Plant



WIRE ROD

WIRE ROD

MESH

MESH

WIRE

WIRE

NAIL

NAIL

WELDING WIRE

WELDING WIRE

BOLT AND NUT

BOLT AND NUT

SPRING

SPRING

BILLET

BILLET

DESCALER

DESCALER

ROUGHING MILL

ROUGHING MILL

FINISHING MILL

FINISHING MILL

LAYING HEAD

LAYING HEAD

REFORMING TUBE

REFORMING TUBE

BAR SEPERATOR

BAR SEPERATOR



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Wire Rod and Rebar Mill



- 700,000 tons of production capacity
- 5.5 mm - 25 mm size range of wire rod.
- 8 mm - 32 mm size range of rebar.
- 8-10-12-14-16 mm size range of debar in coil.
- 110 m/sec rolling speed
- Use of 150x150 and 160x160 billet

- Wire rod coil;
- Weight min 2000 max 2400 kg
 - Outside diameter 1250 mm
 - Inside diameter 850 mm
 - Coil Height 1400-2300 mm

Qualities Produced

- Mesh
SAE1008-SAE1010-SAE1012-SAE1015
- Wire/Galvanized Wire
SAE1006-SAE1008-SAE1010
- Fine wire
SAE1006
- Nail
SAE1008-SAE1010-SAE1018-SAE1030
- Screw
SAE1022
- Welding wire
S1-S2-SG2-SG3
- Bolt and nut
20MnB4- 27MnB4-30MnB4
- Spring
SAE1045-SAE1065
- PCStrand
SAE1080-SAE1082

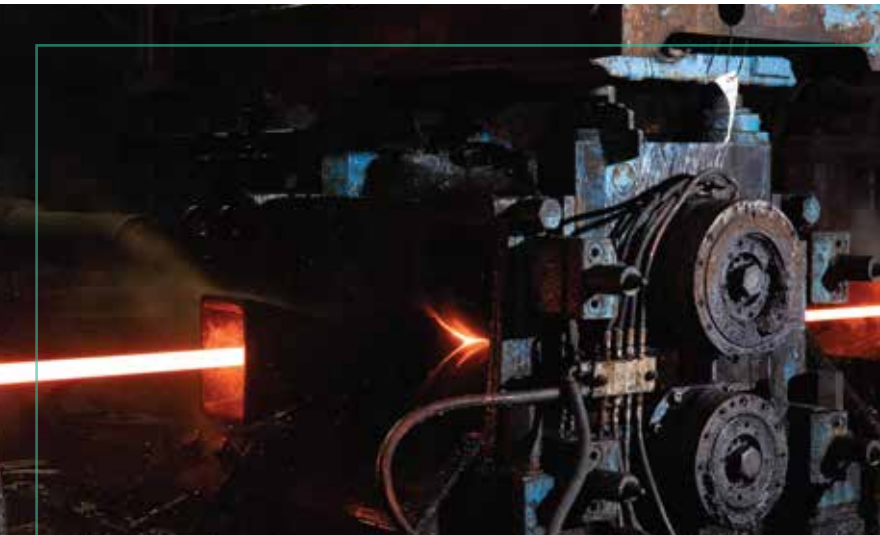


125 ton/h Walking Beam Type Reheating Furnace



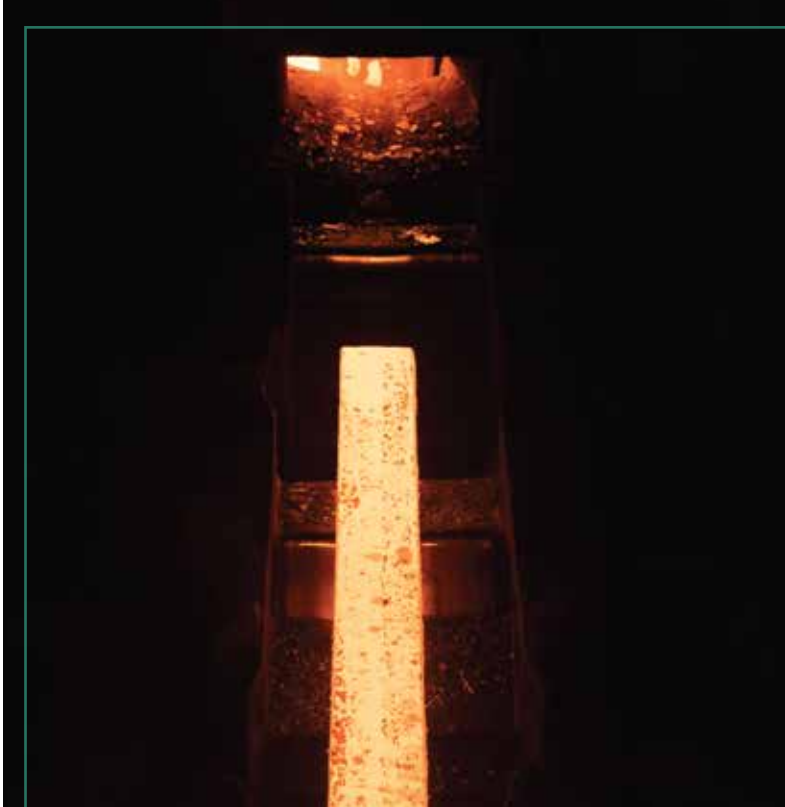
- Decarburization control and homogeneous heating of billet with the ability to control billet charge interval. There is a difference of 30 °C between head and tail of the billet.
- Yield of combustion is increased with automatic combustion system.
- Heating time is saved by using billet tracking program.

Descaler



- Surface defects are removed by descaling of four surfaces before rolling in all qualities.

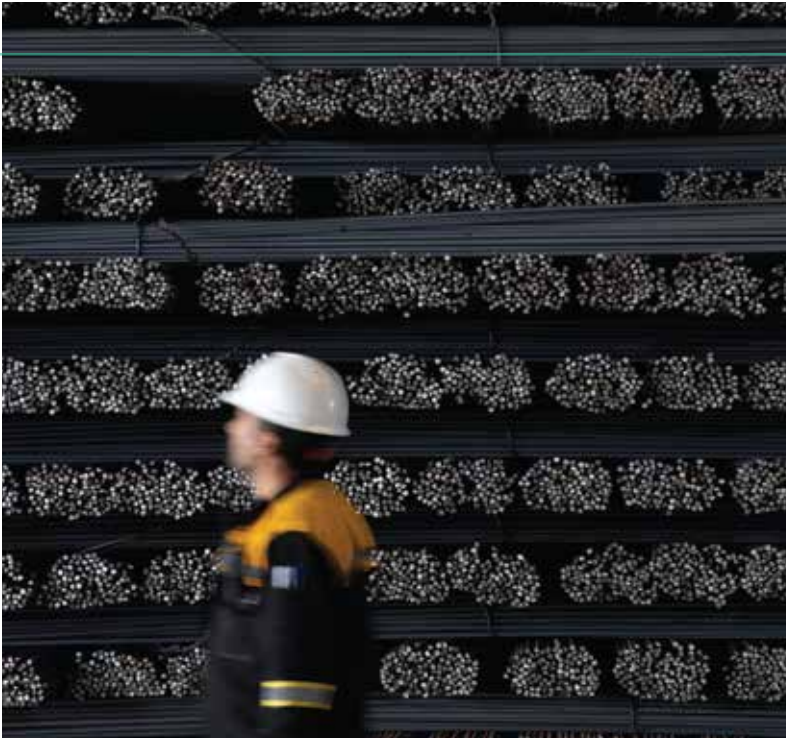
18 Horizontal Vertical One Way Rolling Stands



- ≡ Billets of 150x150 mm and 160x160 mm are rolled and wire rods of 2.1 tons are produced. This helps to reduce consumer wastage.
- ≡ Surface defects, internal torsion, burr, and scratch defects that may occur due to twist rolling are less. Opportunity of rolled without tension is better because of single strand type full continuous rolling controlled by cascade and tension control system. In this way, size and surface defects do not occur.
- ≡ Thanks to downstream system of monoblock, size and surface defects do not occur.
- ≡ Consist of 6 stands roughing mill, 6 stands intermediate mill, and 6 stands finishing mill. Finishing mill stands are controlled by loop system. 14th, 16th, and 18th stands that work horizontal and vertical have the property to increase ability of groove calibration. All the signals of process are followed by PDA. Problems and malfunctions are immediately resolved.



Fast Finishing Monoblock 8 Stands



- Monoblock BGV include 8 stands. Quick ring changing with new design mandrel system.

Smart Water Cooling Systems



- There are 9 water boxes from the exit of the 18th stand to laying head.
- According to qualities and rolling size, cooling procedures are applied.
- Water boxes can adjust set value of temperature around +/- 5 °C automatically. It provides the value of required strength.
- Required dry head and dry tail spire can be adjusted.
- Strength and microstructure are provided according to the customer request by controlling the laying head temperature in the conveyor.

Coil Sizing Module Block (TMB1+TMB2)



- ≡ 0.16 mm maximum ovality is provided with Oval-Round + False Round –Round groove set.
- ≡ Superior physical structure is obtained by thermomechanical rolling at 810 – 860 °C entry temperature of sizing block.
- ≡ Minimizing ovality is the most important customer request. This feature is available only in our premises in Türkiye.
- ≡ Sizing module block (TMB) is applied for the first time in Türkiye
- ≡ 110 m/s finishing speed
- ≡ Quick pass and charging size
- ≡ Varieties of production

Smart Pinch Roll and Laying Head



- ≡ With the ability to produce at a fix temperature exit of the laying head, standard strength is ensured.
- ≡ Spires with diameters over than 12 mm can be spread in a controlled manner with the wobbling mode. The hot spot area (Touch area) is distributed in this way. It prevents strength fluctuation.
- ≡ Tiltable Roller; Spire control is provided with the tiltable roller unit.
- ≡ Microstructure and scale value can be adjusted according to customer request with the ability to control the products mechanically and chemically at conveyor.
- ≡ Head flow degree can be adjusted by the system.

Steelmore Line-Conveyor



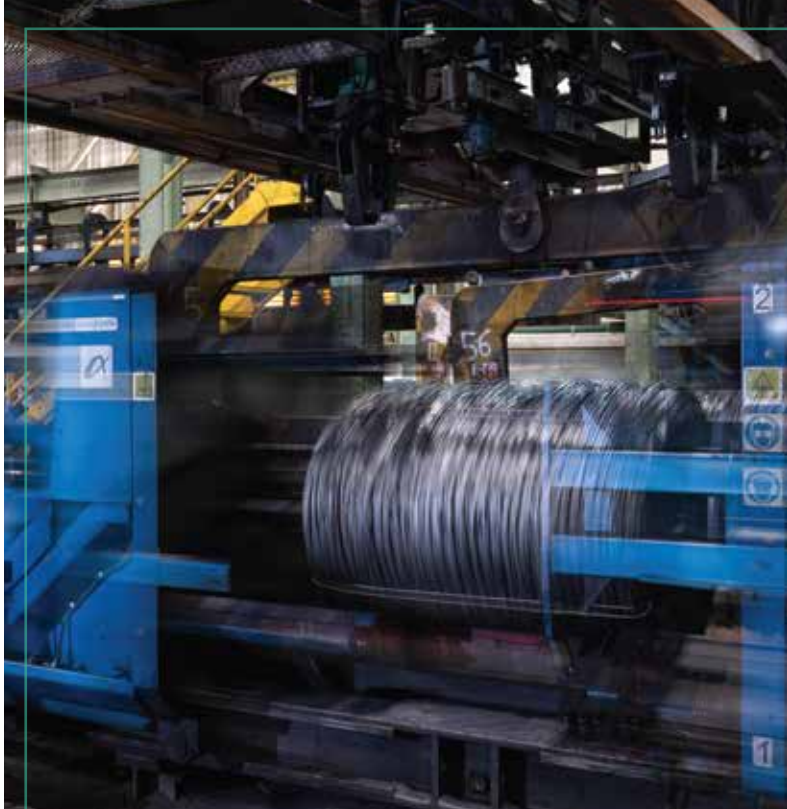
- Roller alignment allows the centering of the windings to obtain uniform windings.
- Air nozzles rip air film at a high power, and rapid cooling is achieved.

Reforming Tube and Easy Down System

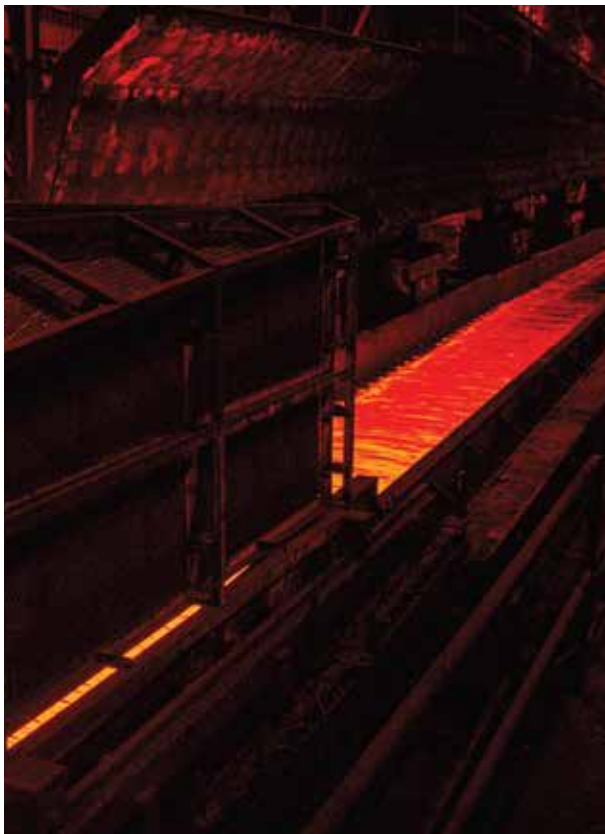


- Thanks to the easy down type reform station which descends with material flow ;
- Better coil shape,
- Easy to open coil for using,
- Without spire defect,
- that do not have frictional defects on the turntable are produced.

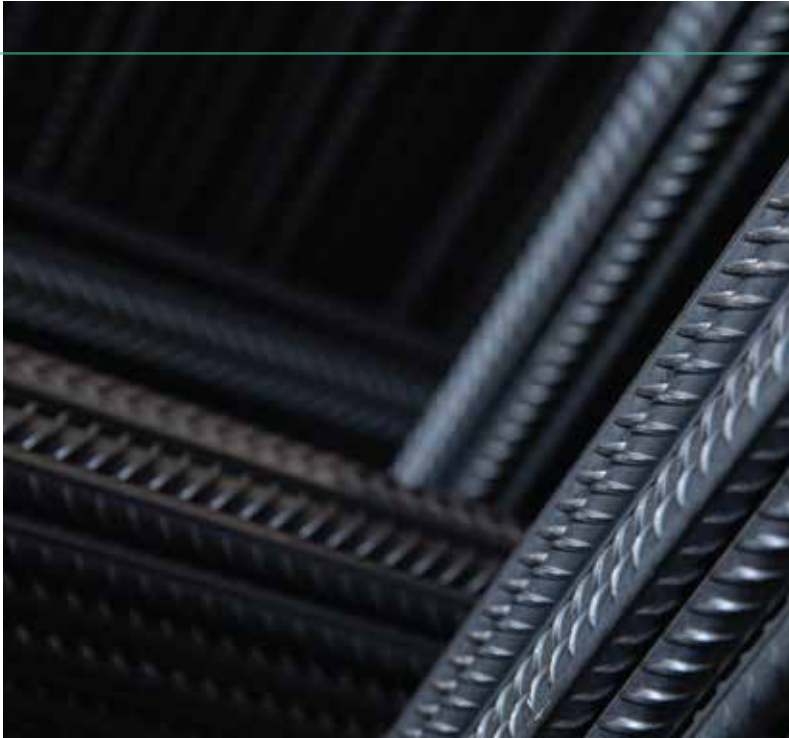
Coil Packaging System



- Head tail balance is performed more effectively.
- Wire rod and debar in coils are packed with arrangeable compactor pressure.
- Production is traced with coil number, barcode and weighing by level 2. This allows the production from billet to wire rod coil to be followed and archived with all the parameters and the value.

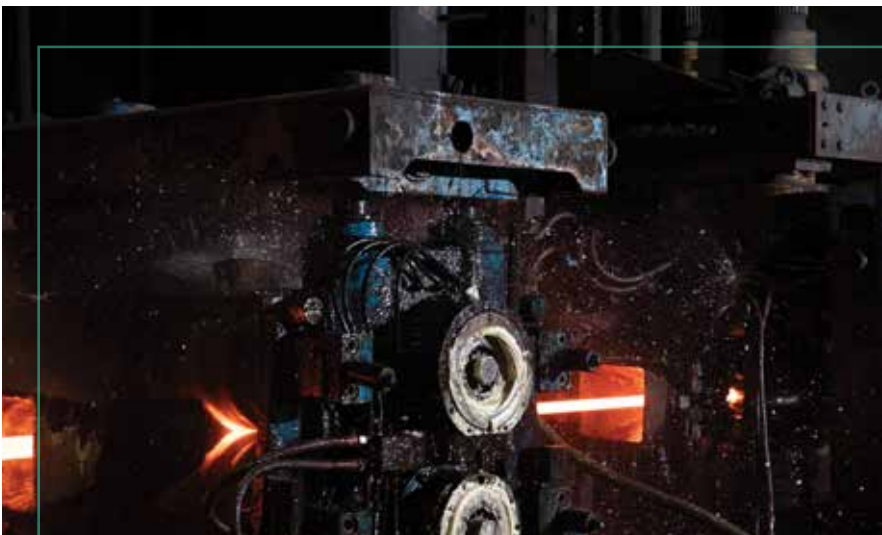


Rebar Mill Rod Counting and Adjustable Length



- Length range : 6 m - 12 m
- Counter precision;
 - *0.01% (Diameter > Ø14)
 - *0.02% (Diameter ≤ Ø14)
- Thanks to bar separator system, each group can be separated without stopping production.

Rebar Mill Water Cooling System



- 650 m³/h water flow capacity
- 18 bar of pressure capacity
- The cooling system can be adjusted based on pressure or flow. This eliminates fluctuations in strength.



Microstructure results:

- Residue determination can be used to assess sulfide, aluminum oxide, silicate, and globular oxide according to ASTM E45, ISO 4967, DIN 50602, JIS G 0555, and EN 10247 standards.
- Determinations in accordance with ASTM A247, ASTM B46.1, ASTM B487, ASTM E1077, ASTM E112 / E1382, ASTM E1245, ASTM E1268, ASTM E45, ASTM E562, DIN17230, ISO 945 standards such as cell count, fibre length, grain size, layer thickness, nodularity, particle size, phase area, porosity, shape analysis and surface roughness can be made.
- Because of its extensive standard coverage, we can serve our customers globally.
- The use of multiple sample holders enables the determination of total residue values for up to 12 samples at the same time. Reports of different samples can be analysed in different casting.

With a motorized table:

- 160mm² field can be scanned in less than 2.5 minutes, giving total results. The equipment can sequentially scan several samples on the table. It is capable of overlapping images generated by auto focus on surfaces at different levels.
- All measurement results are described in correction with ASTM E45-11, DIN 50602 - 10247, ISO 4967, and JIS G 0555 can be administered in accordance with the standards reports.

Management Systems Certificates



Product Conformity Certificate



V I S I O N G R E E N

“

*As Tosyalı, our vision is to contribute to building a sustainable world via ensuring environmentally production in our facilities, with the help of technology, innovation and renewable energy usage. Within our responsible ecosystem management approach, we produce green steel products in every category of the steel. We produce **less carbon emission, consume less water, focus on renewable energy resources, produce with highest efficiency and recycle all our wastes.***

We believe that a sustainable world is possible with the green transformation of the steel industry.

Fuat Tosyalı
Chairman of the Board
of Directors of Tosyalı Holding

”

Tosyalı proudly presents a new umbrella brand to represent its green steel vision in every touch point of its operations.

Tosyalı V-Green

This is not just a brand, it is also the strongest indicator of sustainability actions those have been taking place for many years at Tosyalı and will continue by highest determination.

In all our production facilities, we focus on new generation green steel production and under the umbrella of V-Green, we introduce environment friendly products for our suppliers.

How we are making this vision live in Tosyalı?

We produce green steel with the help of;

- technology usage,
- innovation,
- renewable energy resources,
- recycling in every touch point production and
- operating with highest efficiency.

We aim to be the world's leading sustainable green steel producer with the lowest carbon footprint.

“

“V” are ready to be “Green”!

V-Green.
Vision Green.









TOSYALI Filmaşın ve İnşaat Demiri

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