

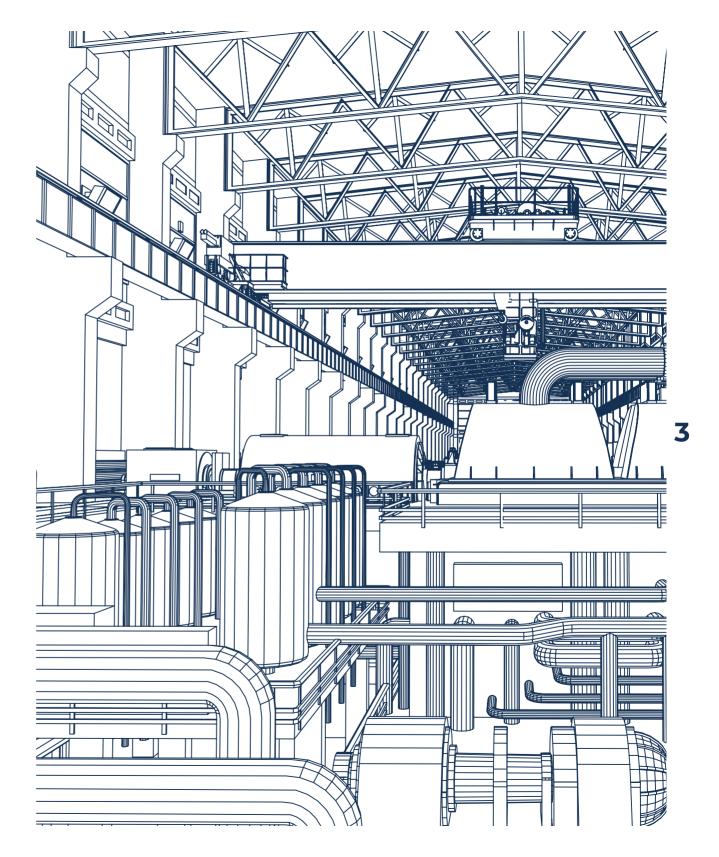


AVRASYA HADDE ÇELİK LTD. ŞTİ.



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ABOUT US

As Avrasya Hadde Çelik Company, we have set out our targets to be a quality & qualified steel producer; In 2021, a cold drawing line was established and commissioned in the factory in accordance with the industrial standard 4.0. Apart from the special steels we produce, we benefit from our raw material storages that we import as well as a variety ranges of other products. We PRODUCE our valuable customers' orders with high quality, competitive prices at the lowest time possible.



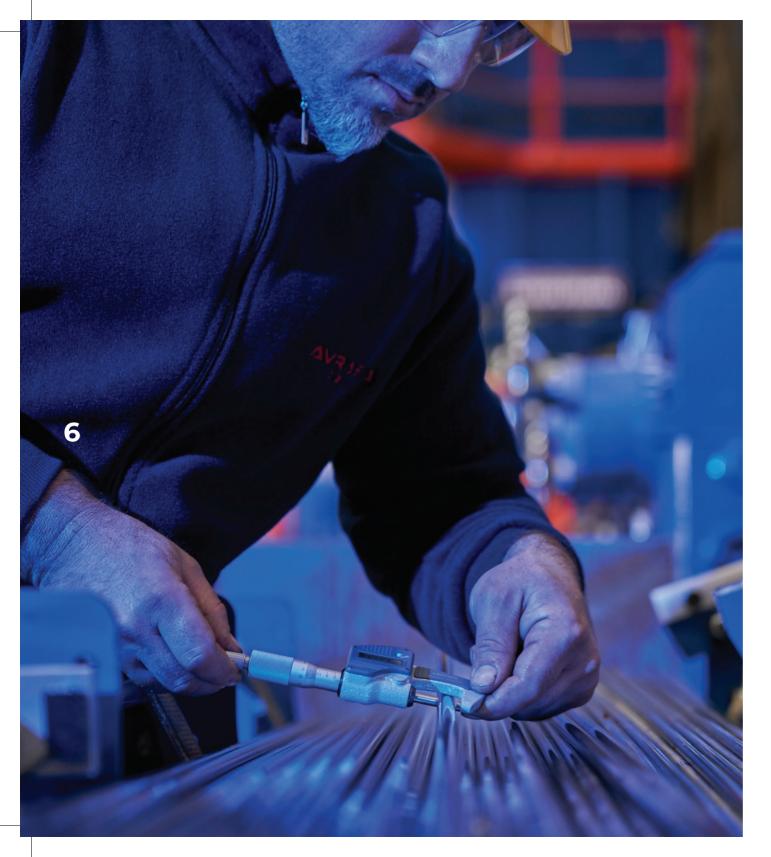


VISION

To be a customer-oriented manufacturer that stands out with its quality in the iron and steel industry.

MISSION

To be a quality-oriented, ever-developing supplier that considers the customer satisfaction a principle and respects society and the environment.





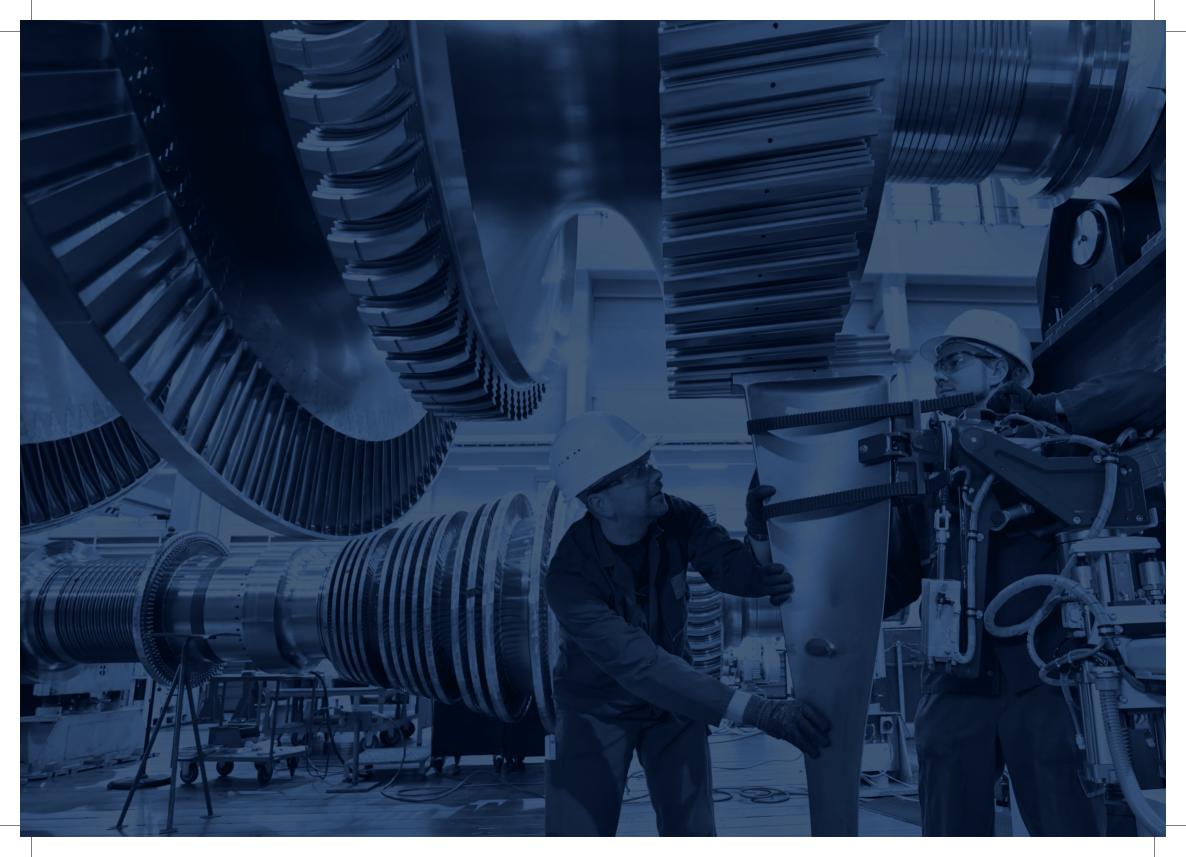




QUALITY POLICY

As Avrasya Hadde Çelik, with the participation of our technical team and experienced managers; we carry out all our activities within the scope of our quality policy which we have established on the basis of the principle of continuous improvement. We reduce our impact on the environment by improving our production methods in accordance with Quality Management Systems; and we are also working round the clock to fulfill customer demands in the fastest time and best quality possible.









SPECIAL STEELS GROUP

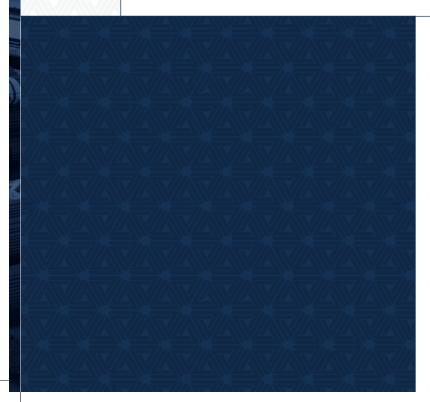
1 QUALITY BASED

- ▶ FREE CUTTING
- ▶ CARBON STEELS
- ▶ STRUCTURAL
- ▶ HEAT TREATABLE
- ▶ SPRING STEELS
- ▶ STAINLESS STEELS
- CASE HARDENING
- ▶ BEARING STEELS
- ▶ MICRO ALLOYES STEELS

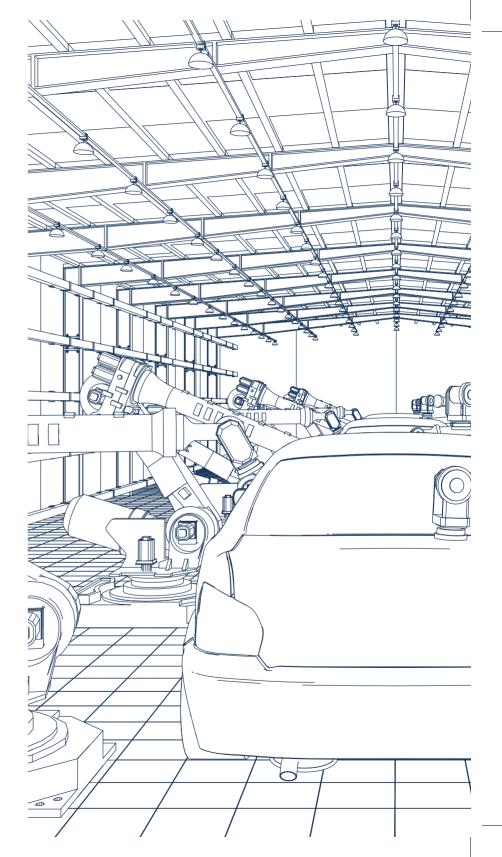
2 SECTION BASED

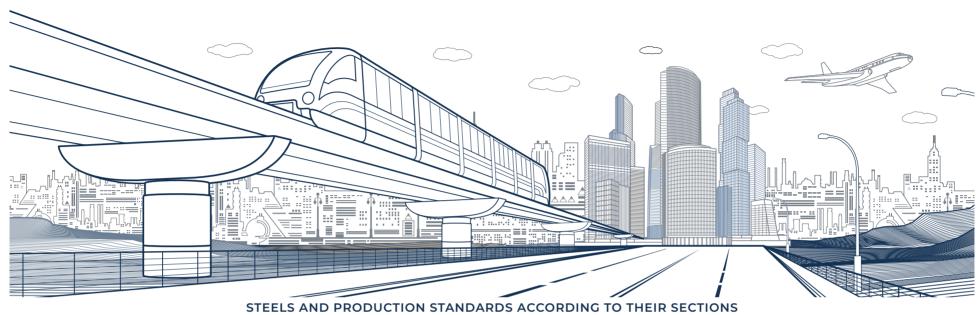
- ▶ ROUND STEELS
- ▶ SQUARE STEELS
- ▶ HEXAGON STEELS
- ▶ LAMA STEELS





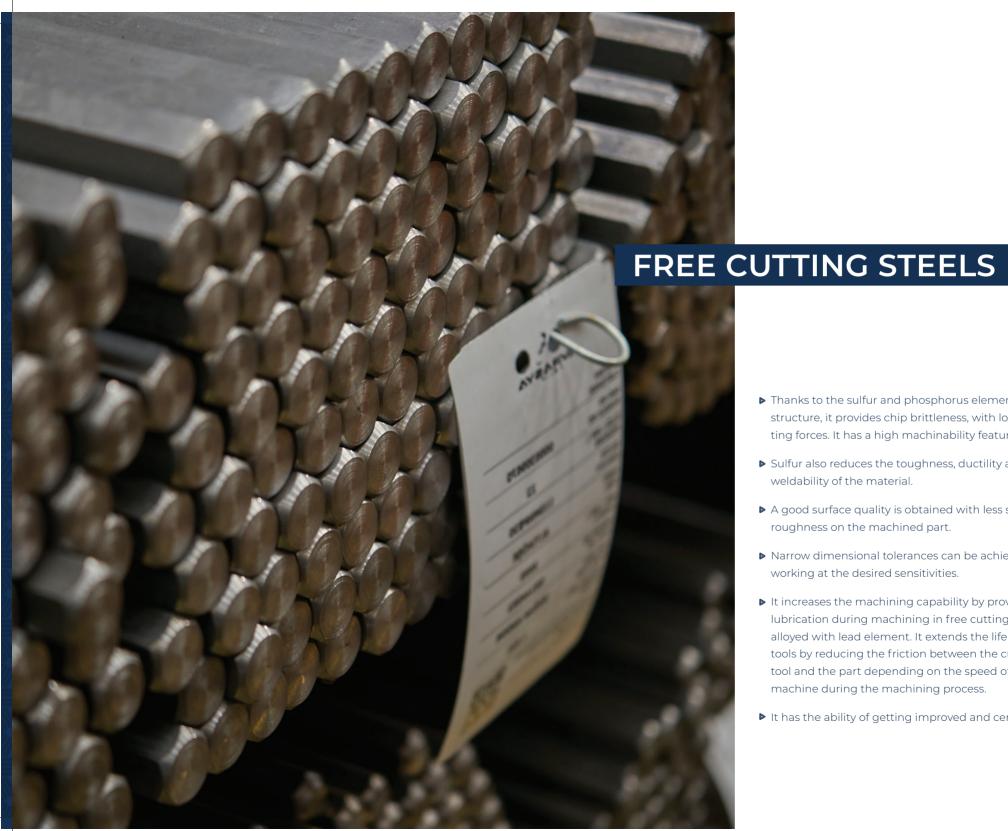
	STEELS-BASED ON QUALITY							
12	CARBON STEELS	SAE 1008-1010-1015-1016-1020-1030-1035- 1040-1045-1050-1060						
	STRUCTURAL STEELS	S235JR-S235J2G3(St37-2)-S275JR-S275J2G3(St44- 2)-S355JO-S355JR-S355J2G3(St52-3) E235(St50-2)- E335(St60-2) E360(St70-2)						
	FREE CUTTING STEELS	11SMnPb30 (9SMnPb28/SAE 12L13)- 11SMnPb37 (9SMnPb36/SAE 12L14 11SMn3030 (9SMn28/SAE1213) - 11SMn37(9SMn36/SAE1215)						
	HEAT TREATABLE STEELS	41Cr4(SAE 5140) - 42CrMo4(SAE 4140) - 34CrNiMo6(SAE 4340) - 34CrMo4 (4135) - 50CrMo4 (SAE 4150) - 34Cr4 (SAE 5132)						
	SPRING STEELS	60SiMn5 - 55Cr3 (SAE 5155) - 51CrV4 (SAE 6150) - 60S1Cr7 (SAE 9262 S5S17 (SAE 9255)						
	STAINLESS STEELS	303 - 304 - 304L - 316 - 316L - 420						
	CASE HARDENING STEELS	20NiCrMo2 (SAE 8620) - 16MnCr5 (SAE5115)- 20MnCr5 (SAE 5120) - 16MnCrS5 - 20MnCrS5 - 17CrNiMo6 - 16MnCrPb5 - 15CrNi6 - 18CrNi8						
	BEARING STEELS	100Cr6 - 100CrMn6 - 100CrMn4 - 100Cr5 - 20MnCr5 - 20NiCrMo2 - 16MnCr5						
	MICRO ALLOYED STEELS	10V45 - 38MnV56 - 30MnV56 - 38MnSiV5i - 5AE1141						





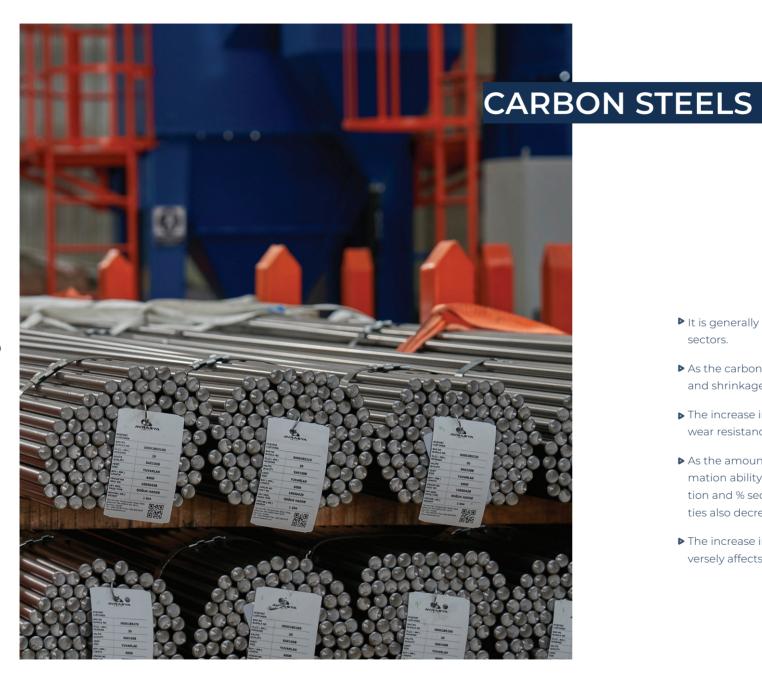
SECTION		SIZE (MM)	HOT DRAWN STANDARDS		COLD DRAWN STANDARDS	
	COIL	Ø5 - Ø42	New Norm (TS EN 10060) Old Norm (DIN 1013)			
ROUND	ROLLING STEELS	Ø5 - Ø340			TS EN 10278/h9-h11	
ROUND	FORGED STEELS	Ø200 - Ø1200			12 EN 107/8/113-1111	
	BRIGHT STEELS	Ø5 - Ø160				
LIEVACON	HOT DRAWN	HEX14,5 - HEX80	New Norm (TS EN 10061)		TS EN 10278/h11	
HEXAGON	COLD DRAWN	HEX6 - HEX80	Old Norm (DIN 1015)			
	LIOT DDAMA	20*/ 200*/50	450 Cutting Edge	New Norm (TS EN 10058)	TS EN 10278/h11	
	HOT DRAWN	20*4 - 800*450		Old Norm (DIN 1017)		
LAMA	COLD DDAWN	30*/ /00*100 Padius F	Dadius Edge	New Norm (TS EN 10092-1)		
	COLD DRAWN 10*4 - 400*100	Radius Edge Old	Old Norm (DIN 4620)			
SQUARE	HOT DRAWN	8*8 - 600*600	New Norm (TS EN 10061)		TS EN 10278/h11	
	COLD DRAWN	5*5 - 60*60	Old Norm (DIN 1015)			





- ▶ Thanks to the sulfur and phosphorus element in its structure, it provides chip brittleness, with low cutting forces. It has a high machinability feature.
- ▶ Sulfur also reduces the toughness, ductility and weldability of the material.
- ▶ A good surface quality is obtained with less surface roughness on the machined part.
- ▶ Narrow dimensional tolerances can be achieved by working at the desired sensitivities.
- ▶ It increases the machining capability by providing lubrication during machining in free cutting steels alloyed with lead element. It extends the life of the tools by reducing the friction between the cutting tool and the part depending on the speed of the machine during the machining process.
- ▶ It has the ability of getting improved and cemented.



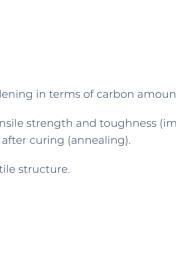


- ▶ It is generally used in the manufacturing and building sectors.
- ▶ As the carbon in the steel increases; hardness, yield and shrinkage strength properties improve.
- ▶ The increase in carbon ratio has a positive effect on wear resistance.
- ▶ As the amount of carbon increases, their plastic deformation ability decreases, so their ductility (% elongation and % section shrinkage) and toughness properties also decrease.
- ▶ The increase in the amount of carbon in the steel adversely affects the weldability.



- ▶ Mechanical properties of transmission (cold rolled structural steels) steels depend on the amount of carbon in their structure.
- ▶ It provides high welding capability thanks to its low carbon value.
- ▶ With the manganese (Mn) value in its structure, it increases the yield and tensile strength without heat treatment.
- Since it does not perform at the level of free cutting steel in chip breaking, the processing time may be extended.
- ▶ It is economical.







- ▶ Suitable for hardening in terms of carbon amounts.
- ▶ Reaches high tensile strength and toughness (impact strength) values after curing (annealing).
- ▶ They have a ductile structure.

SPRING STEELS

- ▶ They are materials with high ductility used as spring material.
- ▶ These steels have the ability to change shape in the elastic area under load, resist breakage and recover with the removal of the load.
- ▶ Spring ability depends on the amount of energy stored (elastic modulus) during elastic deformation.
- ▶ Elastic modulus changes at high temperatures and high alloy spring steels.
- ▶ This material is used in the production of flexible parts; Welding of parts, surface notch effect, internal cracks that may result from heat treatment increase the fracture effect.





▶ Stainless steels; they are alloy steels with high corrosion resistance that contain at least 10.5%-11% chromium (Cr) and maximum 1.2% carbon (C) by mass in their composition.

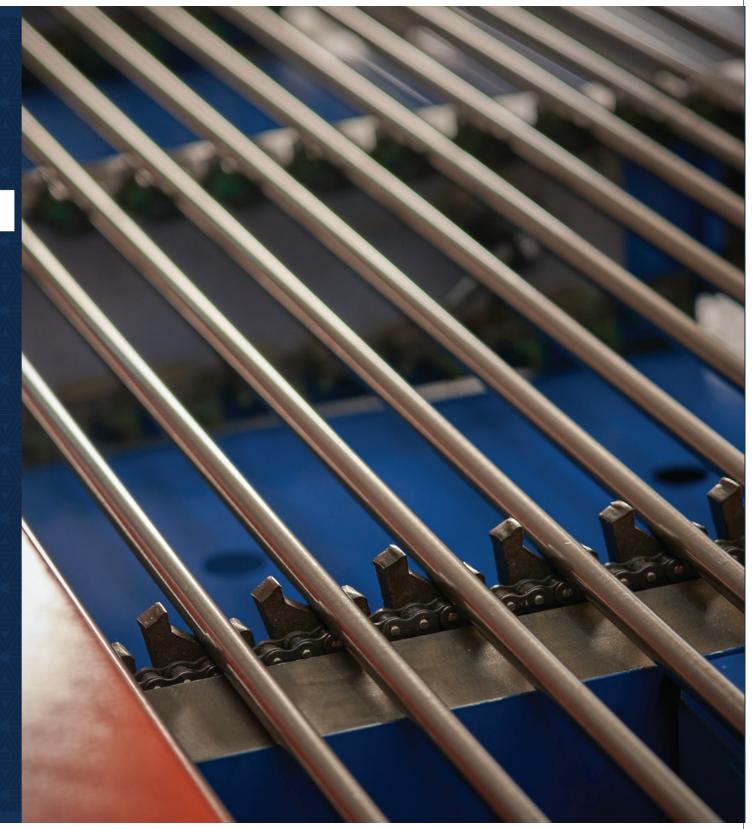
▶ Stainless steels can be easily formed by cutting, welding, hot and cold forming and machining processes.

- ▶ They are easy to clean.
- ▶ Since they are durable and easy-to-maintain materials, they increase the service life of the produced part and provide economic efficiency.

CASE HARDENING STEELS

Case hardening steels have a high surface hardnessand wear resistance, and a softer structure in the core.

- ▶ These ductile and tough steels are used in the manufacture of parts resistant to variable and impact stresses.
- ▶ Low carbon, unalloyed or alloyed steels.
- ▶ With case hardening steels, large variable and sudden loads are met and warping is prevented, while the inner parts of the steels can be easily processed.
- ▶ Good welding capabilities.





BEARING STEELS

- ▶ Bearing steels have a high proportion of carbon by mass in their chemical component.
- ▶ They are very hard so they can break under impact or shock loads.
- ▶ Bearing steels are used where there is friction, sliding surfaces and moving parts rolling on each other.
- ▶ It is used in the manufacture of point and linear contact parts due to its resistance to abrasion.
- ▶ It can be used in parts requiring high fatigue strength; as well as using for cutting, slitting, grinding applications with its hardness level.



- ▶ Developed as high strength steels..
- ▶ These steels also provide high yield-tensile strength, lightness, good cold formability and good weldability.

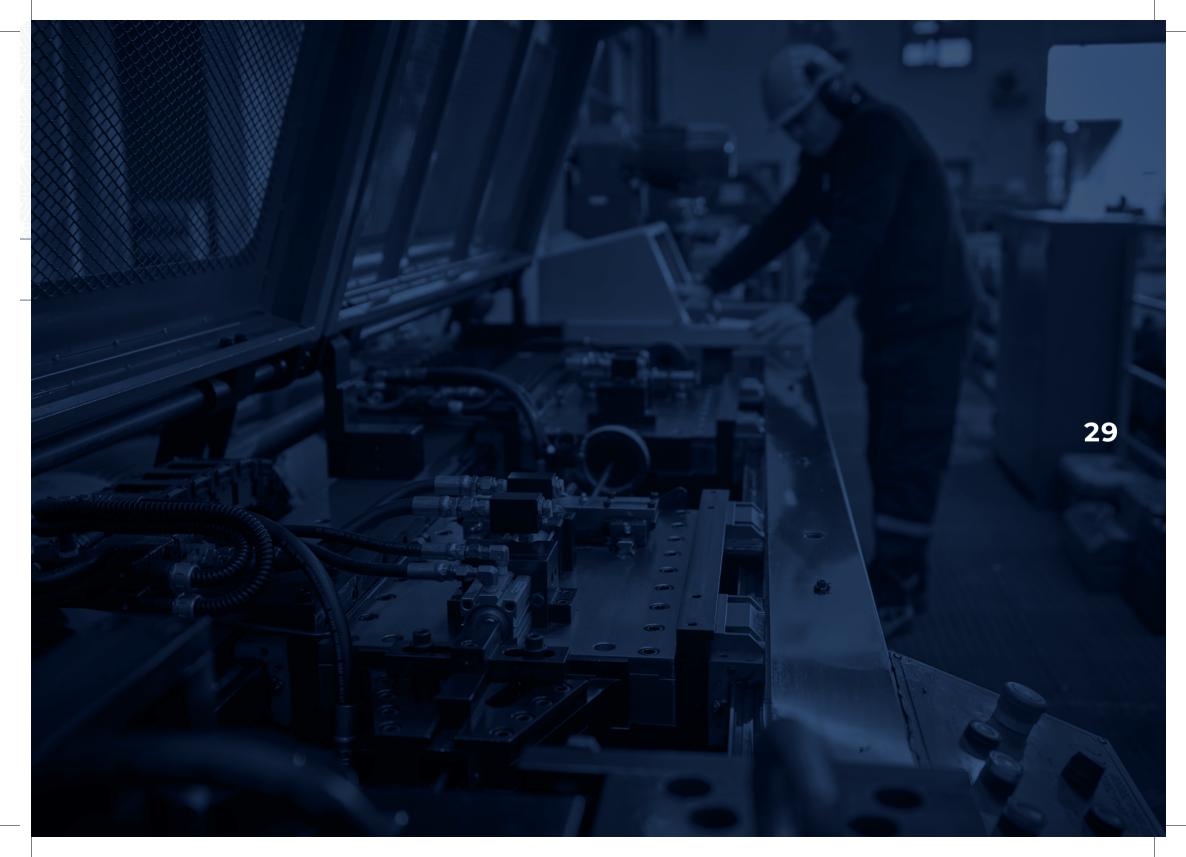
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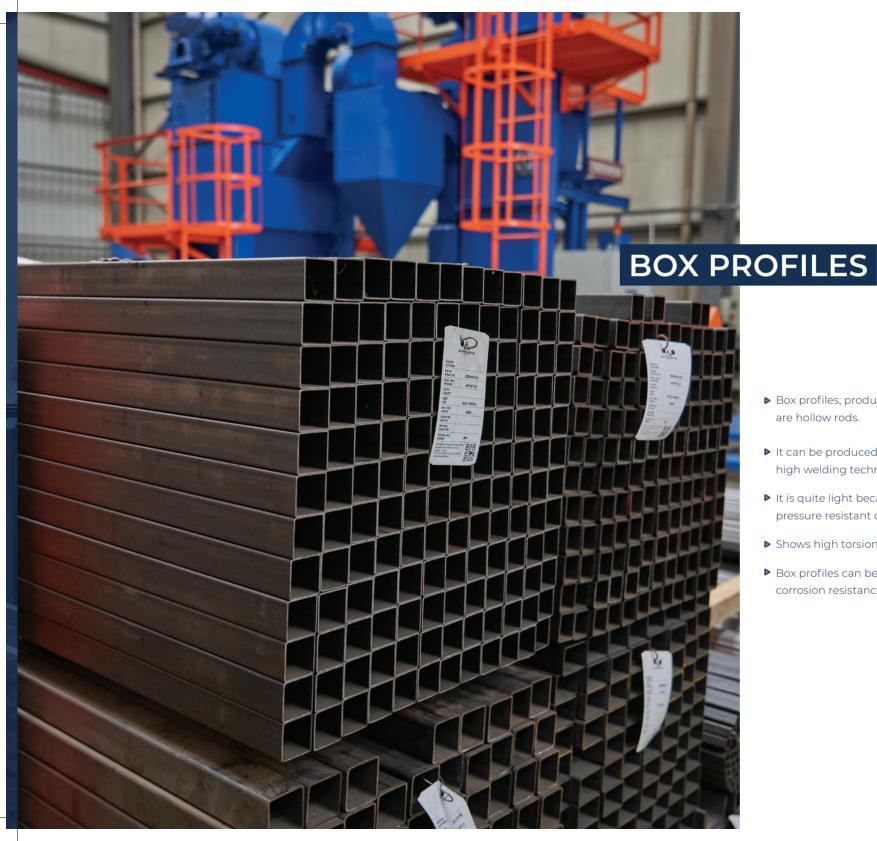




IRON GROUP ▶ BOX PROFILES DRAWING PROFILES ▶ PIPES ▶ SHEETS 28







- ▶ Box profiles; produced as square or rectangular are hollow rods.
- ▶ It can be produced from hot and cold sheets, with high welding technology or cold forming.
- ▶ It is quite light because it is hollow, but hard and pressure resistant due to its vast surface.
- ▶ Shows high torsional strength.
- ▶ Box profiles can be painted with primer paint for corrosion resistance.

DRAWING PROFILES

▶ NPU Profile

32 ▶ NPI Profile

▶ HEA Profile

▶ HEB Profile

▶ IPE Profile

▶ Square Irons

Lama Irons

▶ Brackets











- ▶ Industrial Pipes
- ▶ Boiler Pipes
- ▶ Water and Gas Pipes
- ▶ Construction Pipes



- ▶ DKP Black Sheets
- ▶ Checkered Patterned Sheets
- ▶ Gang-Tear Patterned Sheets
- ▶ Galvanized Sheets
- ▶ Trapezoidal Corrugated Sheets
- ▶ Roll Sheets







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