ASİL ÇELİK

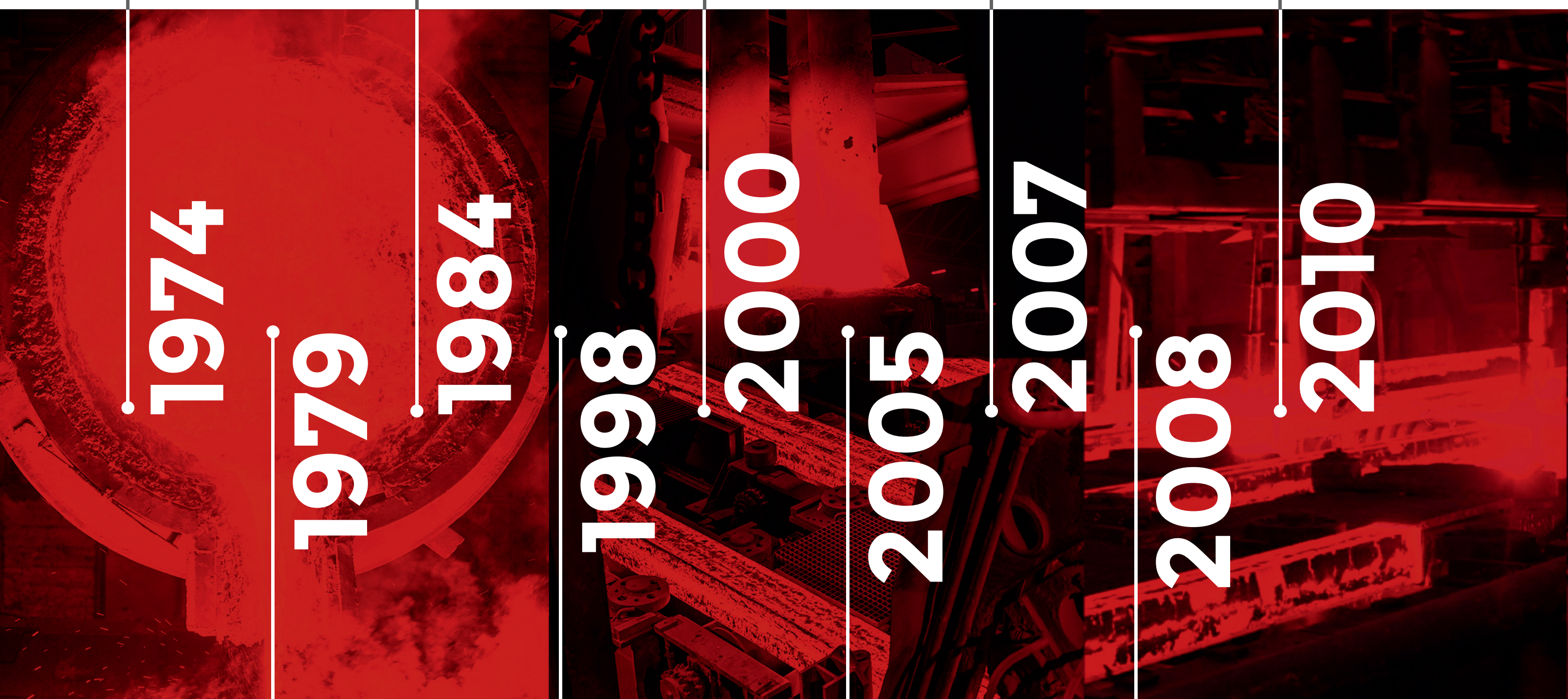
SPECIAL STEEL PRODUCER

As the first and foremost producer of engineering and stainless steel bars and billets in Turkey, Asil Çelik has had a major influence in the development of various industries across the country.

In the course of more than 45 years of steel making, we have obtained numerous approvals from major original equipment manufacturers in various sectors such as automotive, defence, machinery, mining and energy. Our consistent quality and attentive service have enabled us to become a preferred raw material supplier to a prestigious customer portfolio worldwide.

In a changing world, we remain committed to constantly upgrading our production process in order to provide the best service to our partners and meet their individual needs going forward.

COMPANY HISTORY



1974 Asil Çelik founded by Koç Group to meet the special steel needs of the nascent Turkish automotive, machinery and defence industries.

1979 Production started.

1984 Asil Çelik became a government company.

1998 Continuous Casting Machine investment.

2000 Privatization. Two major holding groups purchased over 99 % of Asil Celik in equal shares.

DİLER HOLDİNG

GÜRİŞ

2005 New Electric Arc Furnace installed.

2007 Second set of Ladle Furnace and Vacuum Degassing Units added.

2008 Two Continuous Type Quenching and Tempering Furnaces installed with a capacity of 70.000 tons/year.

2010 Asil Çelik Deutschland established in Germany.
&
Medium Section Rolling Mill modernization completed.

(11 stands continuous rolling mill added.)

2012
Continuous Casting Machine revision and addition of new sections.

⌀ 300
⧄ 280x300

2015
Jumbo Continuous Casting Machine added to the existing continuous casting facilities.

(Ø310, Ø406, Ø500 and Ø600 mm)

2016
AC Americas Inc. established in Chicago.

Modernization of Large Section Rolling Mill.

Peeling facility started to operate.

Modernization of Medium Section Rolling Mill.

2017
3rd Medium Section Conditioning Line

Air Separation Plant

2018
Slag Crushing Handling and Recycling Plant

2019
3rd Dust Collecting System

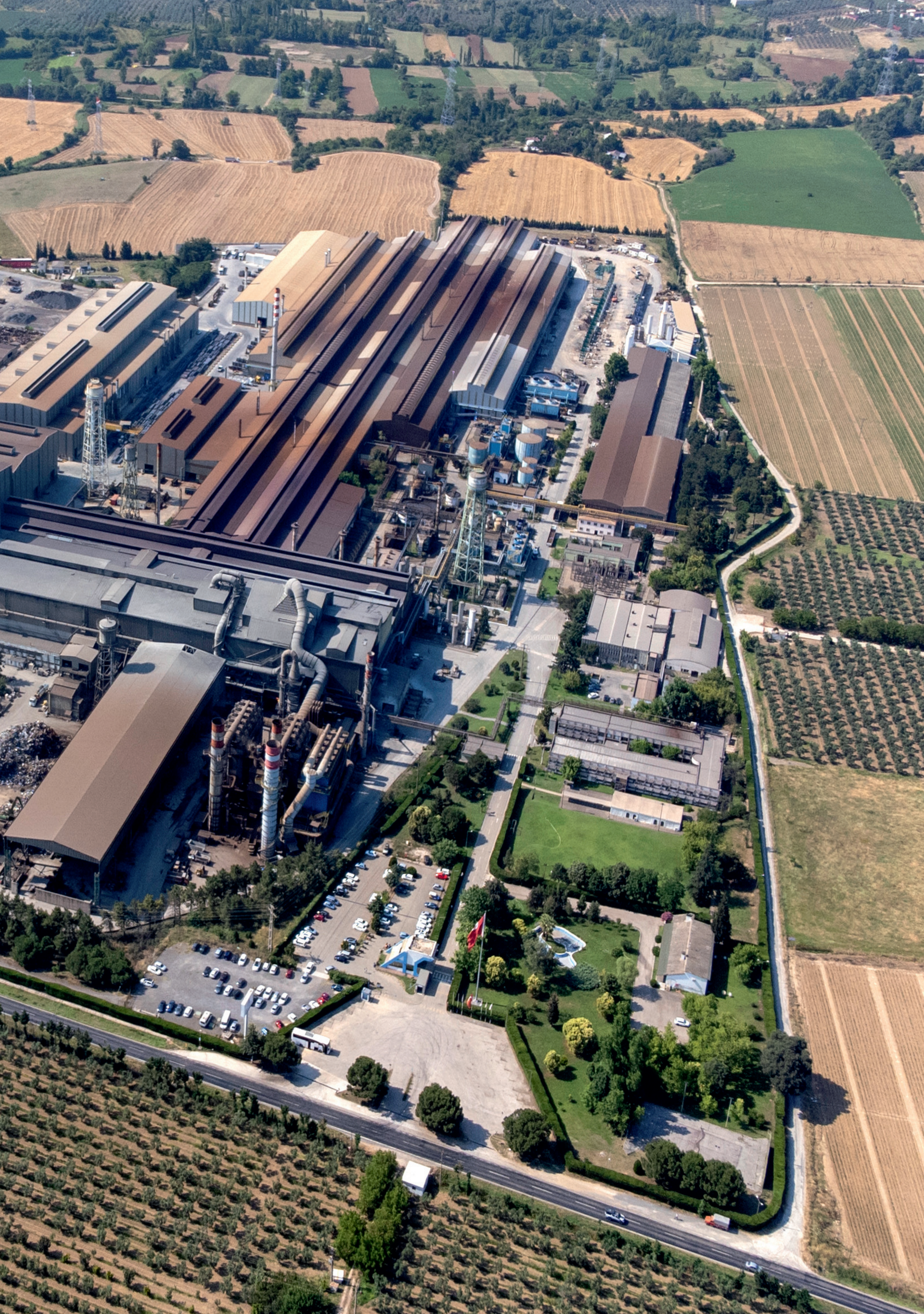
2020
Bloom & Billet Grinding Station

ESR Unit

2021
Open Die Forging Plant

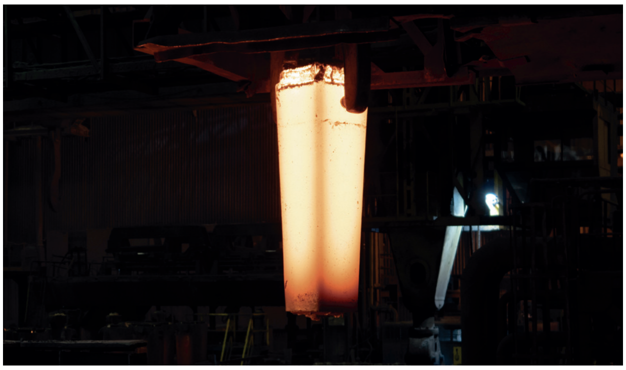
Lab Scale VIM Unit for R&D

2022
EAF upgrade



PRODUCTS

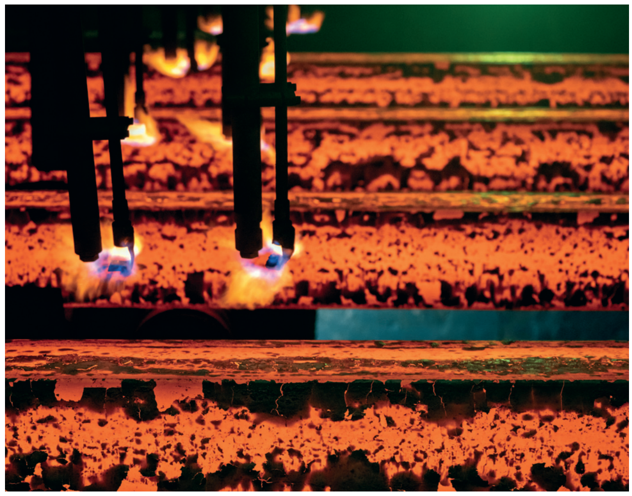
INGOTS



INGOT SECTIONS

	Dimensions (mm)	Weight (kg)
Square	480 x 480	2.250
Square	550 x 550	2.850
Square	595 x 595	3.650
Square	630 x 630	4.200
Square	795 x 795	7.700
Square	1060 x 1060	12.350
Polygonal	720	4.600
Polygonal	945	9,300
Polygonal	980	12.900
Polygonal	P 18	16.200
Polygonal	P 25	22.700
Polygonal	P 35	31.700

CONTINUOUS CAST BILLETS AND BLOOMS



CONTINUOUS CAST SECTIONS

	Dimensions (mm)	min - max Length (mm)
Square	160 x 160	3.000 - 12.000
Square	240 x 240	2.500 - 10.000
Round	310, 406, 500, 600	2.000 - 6.000

HOT ROLLED PRODUCTS

Our rolled products are divided into two categories according to the mill in use as Large Section Mill and Medium Section Mill.

HOT ROLLED PRODUCT SIZE RANGE

	Section (mm)
Round Bars	19 - 300
Round Corner Square Bars	50 - 245
Hexagonal Bars	18 - 80
Large Flat Bars	80 - 200 x 200 - 400
Flat Bars	8 - 60 x 60 - 130

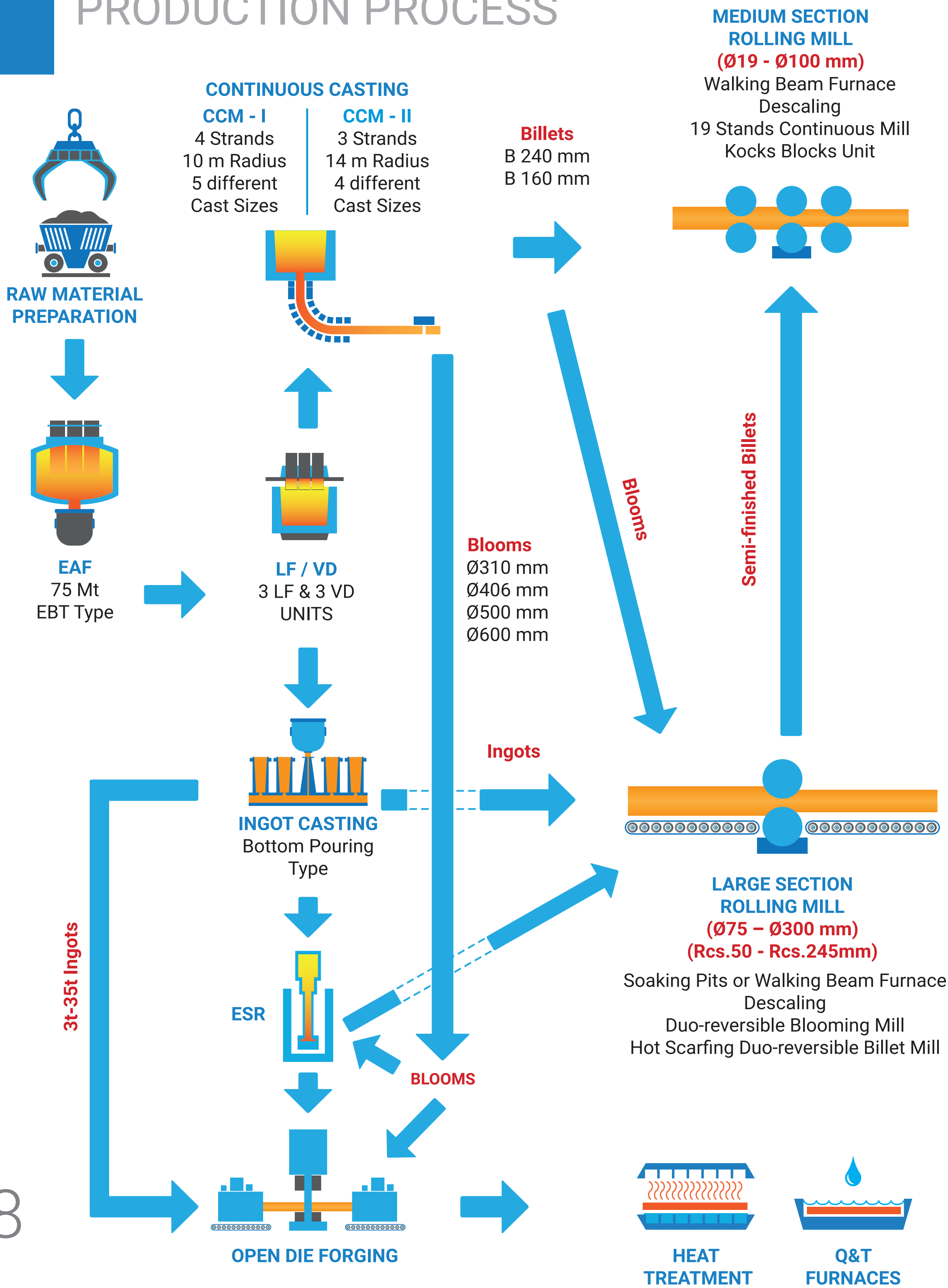
RANGE of PRODUCTS

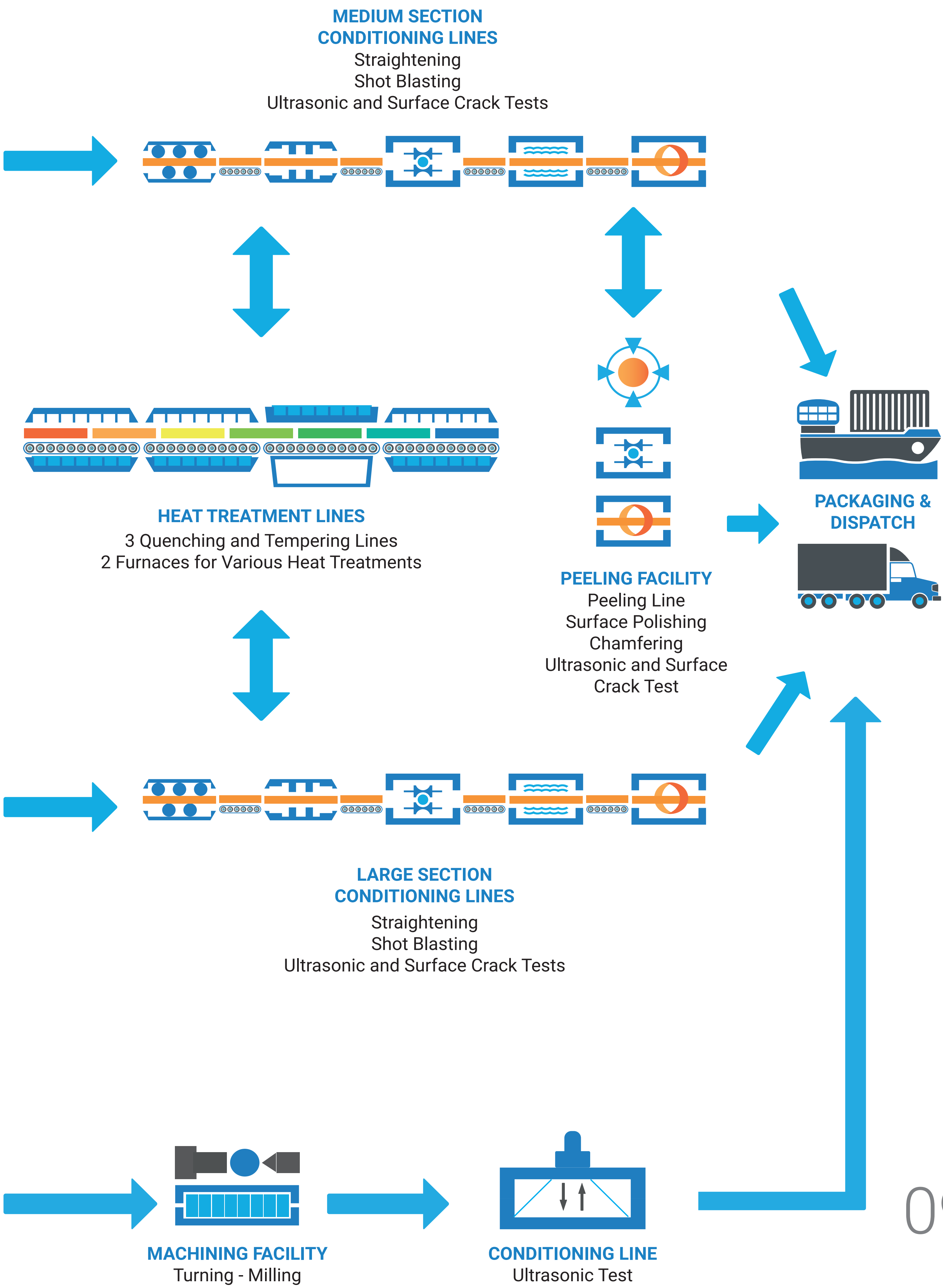
Carbon Steels
Heat Treatable Steels
Case Hardening Steels
Micro Alloy Steels
Boron Steels
Bearing Steels
Spring Steels
Stainless Steels (Ferritic and Martensitic)
Free Cutting Steels (with/without Lead)
Wear Resistant Steels
High Temperature Resistant Steels
Tool Steels (Cold and Hot Working)
Nitriding Steels
Constructional Steels

END USE of OUR PRODUCTS

Automotive & Automotive Subsidiary Industry
Machine & Manufacturing Industry
Spring Production Industry
Hand Tools Production Industry
Military and Defence Industry
Bolts and Nuts Production Industry
High Pressure Tubes Production Industry
Energy Industry
Mining Industry
Train Wheel and Railway Industry
Ship Construction Industry

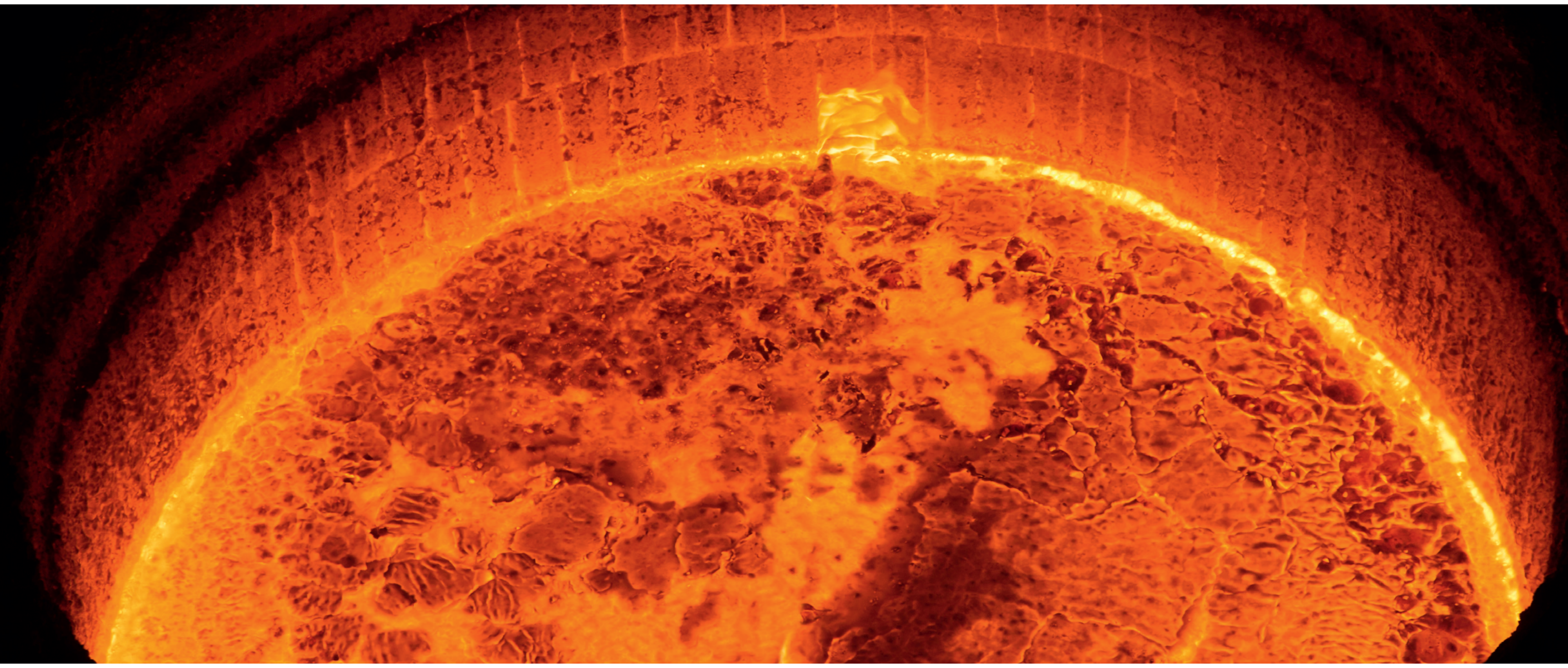
PRODUCTION PROCESS





MEDIUM SECTION
CONDITIONING LINES
Straightening
Shot Blasting
Ultrasonic and Surface Crack Tests
HEAT TREATMENT LINES
3 Quenching and Tempering Lines
2 Furnaces for Various Heat Treatments
PEELING FACILITY
Peeling Line
Surface Polishing
Chamfering
Ultrasonic and Surface
Crack Test
PACKAGING &
DISPATCH
LARGE SECTION
CONDITIONING LINES
Straightening
Shot Blasting
Ultrasonic and Surface Crack Tests
MACHINING FACILITY
Turning - Milling
CONDITIONING LINE
Ultrasonic Test

STEEL MELT SHOP



ELECTRIC ARC FURNACE

Capacity 75 tons

Liquid Steel Capacity:
700.000 tons/year

LADLE FURNACE (3 Units)

Capacity 75 tons

VACUUM DEGASSING (2 Units) VOD

Capacity 75 tons

CONTINUOUS CASTING - 1

4 strands
10 m radius

Cast Sizes :

- Squares : 160 mm, 240 mm

CONTINUOUS CASTING - 2

3 strands
14 m radius

Billet / Bloom Sizes:

- Rounds : 310 mm, 406 mm, 500 mm, 600 mm

INGOT CASTING

Ingot Sizes:

- Square: 480 x 480 mm; 2.250 kg
- Square: 550 x 550 mm; 2.850 kg
- Square: 595 x 595 mm; 3.650 kg
- Square: 630 x 630 mm; 4.200 kg
- Square: 795 x 795 mm; 7.700 kg
- Square: 1060 x 1060 mm; 12.350 kg
- Polygonal: 720; 4.600 kg
- Polygonal: 945; 9.300 kg
- Polygonal: 980; 12.900 kg
- Polygonal: P 18; 16.200 kg
- Polygonal: P 25; 22.700 kg
- Polygonal: P 35; 31.700 kg

Other sizes based on customer specifications.

ESR UNIT

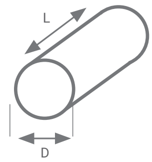
ESR INGOTS

410 Round	2.200
550 Round	3.900
660 Round	6.100
800 Round	8.500
1000 Round	16.000

OPEN DIE FORGING PLANT

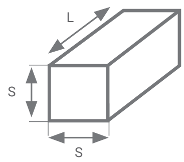
* Forging tolerances are according to DIN 7527 standard.

* Given product dimensions and shapes are nominal, exact dimensions are determined at the order stage.



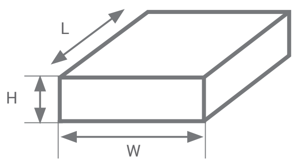
FORGED ROUNDS

Diameter (D)	mm	200	800
Length (L)	mm	2.000	12.000
Forged Weight	kg	2.000	27.000



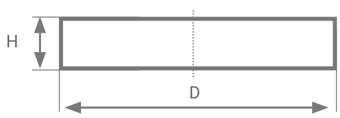
FORGED SQUARES

Length (L)	mm	-	8.000
Square Size (S)	mm	2.00	8.000
Forged Weight	kg	2.000	27.000



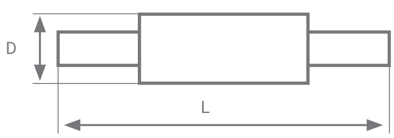
FORGED BLOCKS

Length (L)	mm	2.000	7.000
Width	mm	400	800
Height	mm	200	600
Forged Weight	kg	2.000	27.000



DISCS

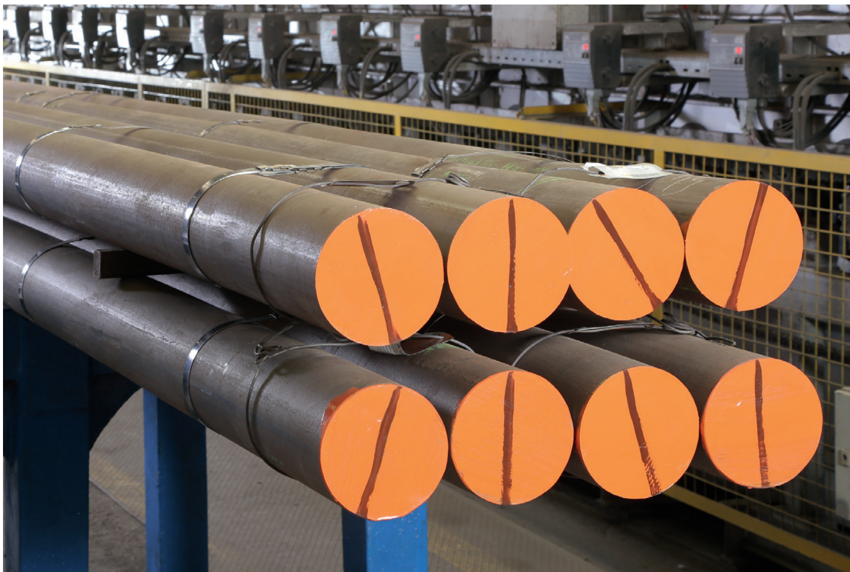
Diameter (D)	mm	500	1.600
Length (L)	mm	200	500
Forged Weight	kg	2.000	27.000



ROLL BLANKS

Diameter (D)	mm	300	1.000
Length (L)	mm	2.000	6.000
Forged Weight	kg	2.000	20.000

LARGE SECTION ROLLING MILL



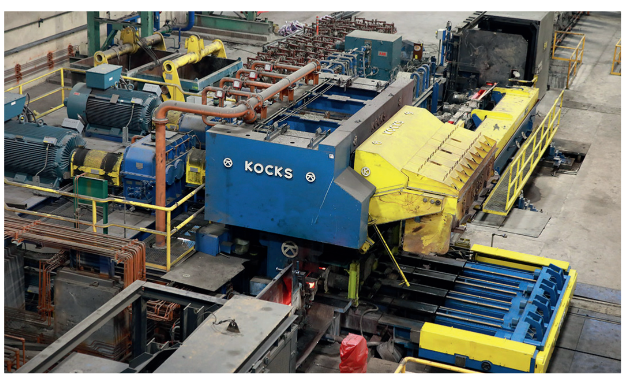
Capacity
250.000 tons / year

Sections
75-300 mm Round
50-245 mm Round Corner Square

MEDIUM SECTION ROLLING MILL

Capacity
450.000 ton / year

Sections
19 - 100 mm Round
50 - 65 mm Round Corner Square
8 - 60 x 60 - 130 mm Flat
18 - 80 mm Hexagonal



CONDITIONING LINES


After the rolling process, all products go through conditioning lines. Conditioning lines include following processes:

- Shot Blasting
- Straightening (Cross Rolling and Gag Press)
- Ultrasonic Inspections
- Surface Crack Test
- Spectro (mix-up) Tests

HEAT TREATMENT LINES

Heat Treatment Furnace x2

- Stress Relieving
- Annealing
- Normalization
- F + P Annealing
- Spheroidizing

Capacity 110.000 ton

Quench & Tempering Furnace x3

- Quench and Tempering + Stress Relieving

Capacity 110.000 ton

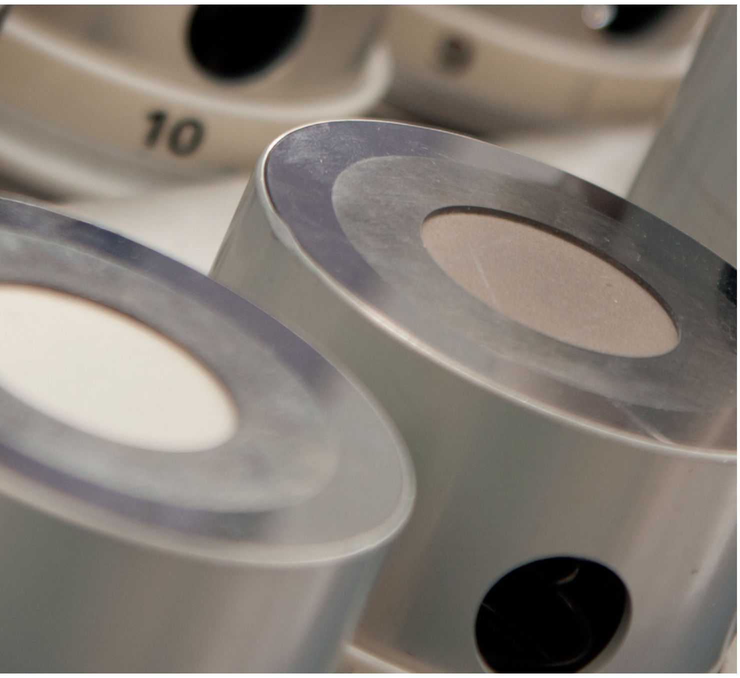
LABORATORIES

Chemistry Laboratory:

- Optical Emission Spectrometers (ARL)
- X-Ray Spectrometers (ARL)
- N/O/H Analysis (LECO)
- C/S Analysis (LECO)

Metallography Laboratory:

- Sample Preperation Devices
- Optical Microscopes
- Micro Hardness Test Devices
- Electron Microscope



Mechanical Test Laboratory:

- Hardness Measurement Devices
- Stress and Impact Test Devices
- Heat Treatment Laboratory

Detailed tests are performed on accredited devices by experienced personnel.
Precise test results are reported on quality certificates as requested by end users.

Asil Çelik Laboratories has successfully completed the TS EN ISO/IEC 17025:2017 Laboratory accreditation process.

Asil Çelik Laboratories was granted accreditation certificate by TURKAK according to TS EN ISO/IEC 17025:2017 standard from 13 tests and 26 test methods with AB-1492-T accreditation number on 29 November 2019.

WORLD WIDE PRESENCE WITH MAJOR OEM APPROVALS

CERTIFICATES

IATF 16949
ISO 9001
ISO 45001
ISO 50001
ISO 27001
BUREAU VERITAS 1828

BUREAU VERITAS 1828
Marine & Offshore

K - Q
TSE-ISO-EN
9000

Ç-E
TSE-İSO-EN
14000

DNV·GL

DAIMLER

RENAULT

SCANIA

ZF

VOLVO

MAN

CE 2344

ISO 17025 ACCREDITED LABORATORY

Lloyd's Register

KR KOREAN REGISTER

ABS FOUNDED 1862

NIPPON KAIJI KYOKAI ClassNK

PRODUCT TECHNICAL PROPERTIES

HOT ROLLED PRODUCTS

	Ebat (mm)
Round Bars	19 - 300
Round Cornered Square Bars	50 - 245
Hexagonal Bars	18 - 80
Large Flat Bars	80 - 200 x 200 - 400
Flat Bars	8 - 60 x 60 - 130

WEIGHT PER METER FORMULAS

d — weight per meter = $\frac{d^2 \times 0.616}{100}$ kg

a — weight per meter = $\frac{a^2 \times 0.785}{100}$ kg

a, b — weight per meter = $\frac{a \times b \times 0.785}{100}$ kg

a — weight per meter = $\frac{a^2 \times 0.68}{100}$ kg

r, a — weight per meter = 0.0076495 a^2 - 0.0059579 r^2 kg

STEEL GRADES PRODUCED

CARBON STEELS	
080A42	S 35 C
C 45	SAE 1040
C 60 R	SAE 1050
CF 53	

HEAT TREATABLE STEELS	
34 CrNiMo 6	AISI 4145
39 NiCrMo 3 Pb	605M36
41 Cr 4	817M40
42 CrMo 4	SAE 4150
AISI 4130	SCM 440H
AISI 4140	31 CrMoV 9

BEARING STEELS	
100 Cr 6	100 CrMo 7-3
100 CrMnSi 6-4	AISI 52100
100 CrMn 6	SUJ 3
100 CrMo 7	

BORON STEELS	
20 MnB 4	ZF 6
33 MnCrB 5-2	ZF 7
SAE 51B60	ZF 7B

CONSTRUCTIONAL STEELS	
150M19	St 44-2
St 37-2	St 60-2
S355J2 (S355J2G3, St 52-3)	

STAINLESS STEELS	
AISI 410	X 17 CrNi 16-2
AISI 431	X 20 Cr 13
420S29	X 46 Cr 13

HIGH TEMPERATURE RESISTANT STEELS	
10 CrMo 9-10	16 Mo 3
13 CrMo 4-5	X 20 CrMoV 12-1
32 CrMoV12-10	

MICROALLOYED STEELS	
(High Strenght Low Alloy (HSLA) Steels)	
19 MnVS 6	38 MnVS6
30 MnVS 6	ZF 59
38 MnSiVS 5	AMC ® 1200 (Bainitic Steel)

COLD AND HOT WORKING TOOL STEELS	
1.2343 (X 37 CrMoV 5-1)	1.2714 (55 NiCrMoV 7)
1.2344 (X 40 CrMoV 5-1)	1.2842 (90 MnCrV 8)
1.2367 (X 38 CrMoV 5-3)	1.2083 (X40 Cr14)

CASE HARDENING STEELS	
16/20 MnCr(S) 5	SAE 8620H
18 CrNiMo 7-6	SCM 420
18 NiCrMo 5	ZF1
25 MoCr4	ZF1A
AISI 5120	19 CN 5
655M13	

FREE CUTTING STEELS
11 SMn 30 (9 SMn 28)
11 SMn 37 (9 SMn 36)
11 SMnPb 30 (9 SMnPb 28)
11 SMnPb 37 (9 SMnPb 36)
35 S 20
AISI C12L14
220M07
EN 8M
SAE 1117

SPRING STEELS	
55 Cr 3	52 CrMoV4
51 CrV4	31 CrV3
60 SiCr 8	SUP 9
60 SiMn 5	SUP9A
AISI 9260	

WEAR RESISTANT STEELS
X 90 Mn 18
15 NiMoCrB 4-5
X 120 Mn 12
GS-60 CrSi 5

HOT ROLLED PRODUCTS

ROUNDS

19 mm - 300 mm

mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
19	0,75	45	1,77	71	2,80	97	3,82	166,7	6,56
20	0,79	46	1,81	72	2,83	98	3,86	170	6,69
21	0,83	47	1,85	73	2,87	99	3,90	173,45	6,83
22	0,87	48	1,89	74	2,91	100	3,94	180	7,09
23	0,91	49	1,93	75	2,95	101,5	4,00	186,15	7,33
24	0,94	50	1,97	76	2,99	102,4	4,03	190	7,48
25	0,98	51	2,01	77	3,03	105	4,13	192,5	7,58
26	1,02	52	2,05	78	3,07	108,75	4,28	198,86	7,83
27	1,06	53	2,09	79	3,11	110	4,33	200	7,87
28	1,10	54	2,13	80	3,15	111,5	4,39	205,2	8,08
29	1,14	55	2,17	81	3,19	115	4,53	210	8,27
30	1,18	56	2,20	82	3,23	115,1	4,53	211,55	8,33
31	1,22	57	2,24	83	3,27	120	4,72	217,9	8,58
32	1,26	58	2,28	84	3,31	121,65	4,79	220	8,66
33	1,30	59	2,32	85	3,35	125	4,92	230	9,06
34	1,34	60	2,36	86	3,39	128	5,04	240	9,45
35	1,38	61	2,40	87	3,43	130	5,12	250	9,84
36	1,42	62	2,44	88	3,46	134,35	5,29	260	10,23
37	1,46	63	2,48	89	3,50	135	5,31	270	10,62
38	1,50	64	2,52	90	3,54	140	5,51	280	11,02
39	1,54	65	2,56	91	3,58	140,7	5,54	290	11,40
40	1,57	66	2,60	92	3,62	145	5,71	300	11,80
41	1,61	67	2,64	93	3,66	147,65	5,81		
42	1,65	68	2,68	94	3,70	150	5,91		
43	1,69	69	2,72	95	3,74	154	6,06		
44	1,73	70	2,76	96	3,78	160	6,30		

Abilitiy to produce by 0,1 mm intervals with Kocks Block Technology (3-Roll Block)

According to DIN EN 10060

HEXAGONALS

18 mm - 80 mm

mm	inch	mm	inch	mm	inch
18	0,71	33,5	1,32	57	2,24
20,5	0,81	37,5	1,48	62	2,44
23,5	0,93	39,5	1,56	67	2,64
25,5	1,00	42,5	1,67	71	2,80
28,5	1,12	47,5	1,87	80	3,10
31,5	1,24	52	2,05		

According to DIN EN 10061

ROUND CORNER SQUARE

50 mm - 245 mm

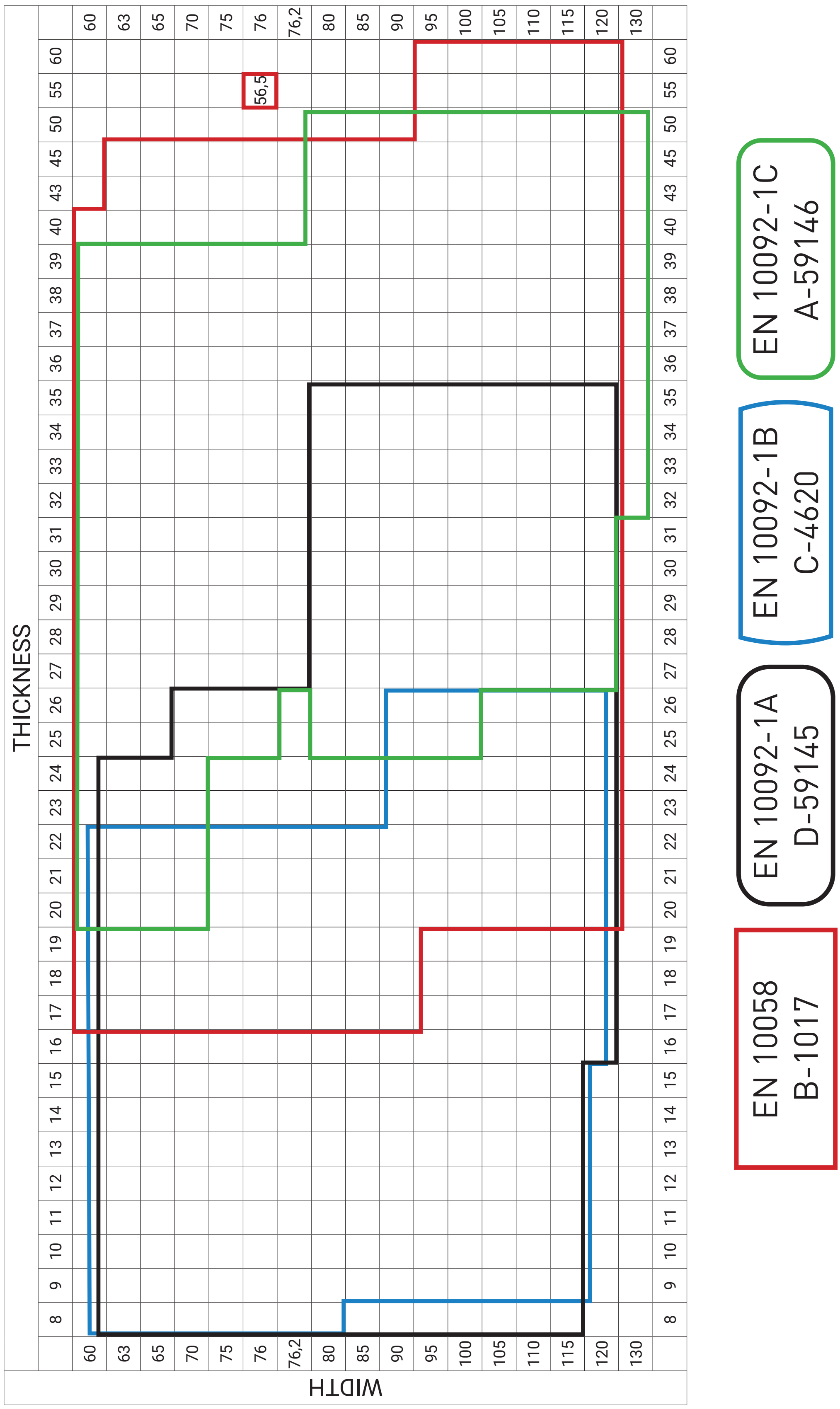
Size mm	Radius mm	Size inch	Radius inch	Size mm	Radius mm	Size inch	Radius inch
50	10	1,97	0,39	145	10	5,71	0,39
55	10	2,17	0,39	145	26	5,71	1,02
60	10	2,36	0,39	150	10	5,91	0,39
65	10	2,56	0,39	150	26	5,91	1,02
70	13	2,76	0,51	155	10	6,10	0,39
75	14	2,95	0,55	155	26	6,10	1,02
80	14	3,15	0,55	155	33	6,10	1,30
85	15	3,35	0,59	160	33	6,30	1,30
90	17	3,54	0,67	170	33	6,69	1,30
95	17	3,74	0,67	175	33	6,89	1,30
100	18	3,94	0,71	180	33	7,09	1,30
105	18	4,13	0,71	185	33	7,28	1,30
110	20	4,33	0,79	190	33	7,48	1,30
115	20	4,53	0,79	190	24	7,48	0,95
120	22	4,72	0,87	200	24	7,87	0,95
125	22	4,92	0,87	200	10-45	7,87	0,39-1,77
130	22	5,12	0,87	225	10-45	8,86	0,39-1,77
135	22	5,32	0,87	245	10-45	9,65	0,39-1,77
140	22	5,51	0,87				

According to DIN EN 10059

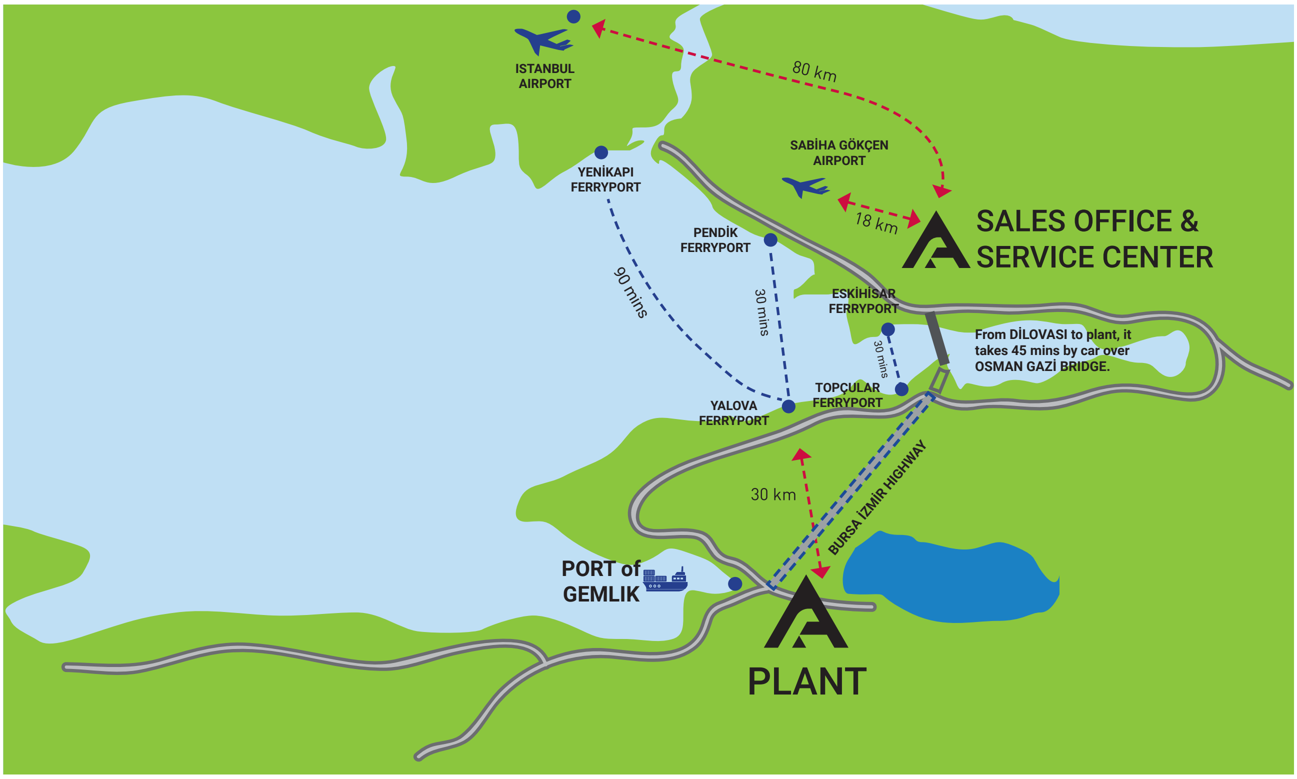
FLAT BARS SIZE RANGE

LARGE FLATS SIZE RANGE
Width Range : 200 - 400 mm
Thickness Range : 80 - 200 mm

FLATS SIZE RANGE
Width Range : 60 - 130 mm
Thickness Range : 8 - 60 mm



CONTACT



Plant:
Gemiç Mahallesi Gemiç Sokak
No:183 16800 Orhangazi
BURSA / TÜRKİYE
Tel : +90 224 280 61 00
FaX : +90 224 280 62 00

Sales Office / Service Centre:
TOSB Otomotiv (OSB)
Mah 13. Sokak No:3/1
Çayırova
KOCAELİ / TÜRKİYE
Tel : +90 262 781 60 00
Fax : +90 262 781 60 05

Germany Sales Office:
Asil Celik Deutschland GmbH
Nove-Mesto-Platz 3A 40721
Hilden GERMANY
Tel : +49 2103 78 92 30
Fax : +49 2103 78 92 399
www.asilcelik.de

United States of America Sales Office:
AC Americas Inc.
633 S Plymouth Ct. Suite 201
Chicago, IL 60605 USA
Tel : +1 312 366 2947
www.ac-americas.com

www.asilcelik.com.tr

satis@asilcelik.com.tr

sales@asilcelik.com.tr

ASİL ÇELİK

www.asilcelik.com.tr