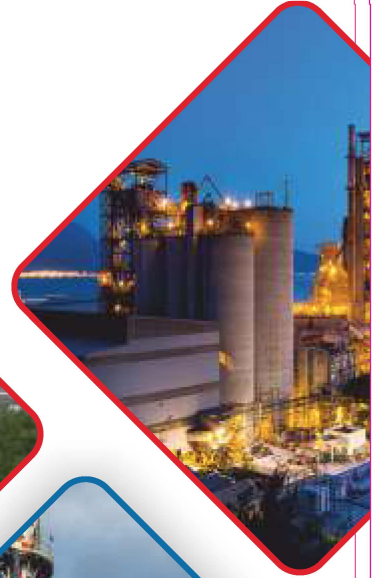




**BUILT
TO MAKE
YOU BETTER**

***Industry and Civil
Project Supplier***



www.kaskomakine.com

info@kaskomakine.com



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Project Supplier***



ABOUT US

Kasko Demir Çelik Makine Ltd is to supply materials and give maintenance service to Power, Refinery, Petro-Chemical, Pulp&Paper, Oil&Gas, F&B sectors. We are providing engineering support, after sales support and service&repair on site or in ourwork-shop for all types of industrial valves and process equipment with our long experiences in these sectors.

OUR VISION

To be Industrial Materials Valves&Process Equipment Provider and Solution Partner

OUR MISSION

We aim to be a continuos improving, directing through vision, succesfull and trustworhty company without compromising quality and our values.

BASIC VALUES

To be ethic and honest, To be customer-oriented, To submit the optimum solution, To be a good team, To benefit from experience To be open-minded, To respect environment and culture, To have health and safety first priority

COMPLETED SUPPLY PROJECTS



Assiut Add-On Power Plant
500 MW PCESCO / EGYPT



Brullus Power Plant
4800 MW PCESCO / EGYPT



New Capital Power Plant
4800 MW PCESCO / EGYPT



Azmecon Methanol Plant
BAKU / AZERBAIJAN



Methanol Terminal Project
POTI / GEORGIA



Co2 Plant -
BAKU / AZERBAIJAN



Cooling Towers -
BAKU / AZERBAIJAN



PVC Plant -
Nijninogorod RUSSIA



AIRPORT NEW COMPLEX
BAKU / AZERBAIJAN



SOCAR Black Sea Terminal
POTI / GEORGIA



DDO-4 Oil & Gas Platform
GUNESHLI / AZERBAIJAN



Cenal Elektrik Üretim A.Ş.
Karabiga 1320 MW



Osman Gazi Bridge Project
KOCAELI / TURKEY



Yavuz Sultan Selim Bridge
ISTANBUL / TURKEY



New Airport Project
ISTANBUL / TURKEY



Ulker Biscuit Fabric
ISTANBUL / TURKEY



ABRASIVES



AUTOMATION GROUP



**CLAMPING,
WORKHOLDING & POSITIONING**



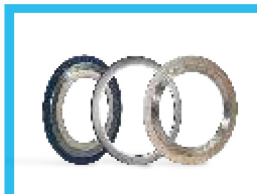
EXPANSION JOINTS



FASTENERS



FIRE EQUIPMENT GROUP



GASKETS



HAND TOOLS



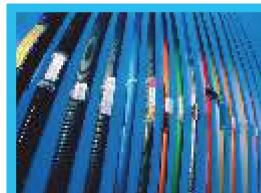
**HOSE, TUBE,
FITTINGS & VALVES**



HVAC



MACHINERY



MARKING & LABELING



MEASURING & INSPECTING



MILLING



**MOTION
CONTROL & FLUID POWER**



PIPE GROUP



**PLUMBING,
PUMPS & FILTRATION**



PUMP GROUP



SAFETY



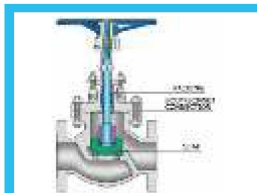
SAW BLADES



**STEEL PIPES
FITTINGS GROUP**



STUDBOLTS & NUTS



VALVE GROUP



WELDING & SOLDERING

ABRASIVES



Abrasives



Abrasive Brushes



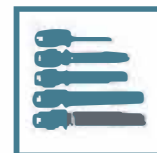
Buffing & Polishing



Coated & Non
Woven Abrasives



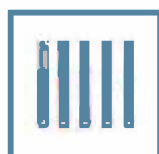
Deburring Tools



Files, Sticks & Stones



Grinding & Cutoff



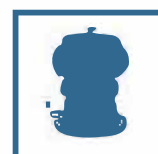
Laps & Hones



Points & Burrs



Sandblasting
Equipment



Tumblers



Blasting Media

AUTOMATION GROUP



All Tubing and
Accessories



Electrical Actuators



Flowmeter



Level Control



Limit Switch Box



Namur Valve



Pneumatic Actuators



Pressure and
Temperature
Transmitters



Pressure
Transmitters for
Level Measurements



Rotary Type
Positioners and
Linear Type Positioners



SmartCom
Control Panel



Water Meters

CLAMPING, WORKHOLDING & POSITIONING



Clamps & Clamping
Components



CNC Workholding
Systems



Die & Mold
Components



Lathe Chucks, Centers,
Rests & Accessories



Locating & Positioning
Components



Magnets



Stationary Fixturing
Stands & Mounts



Vises



Collet Fixtures,
Indexers & Spacers



Fixture Plates
& Columns



Vise Accessories



Sine & Toolmakers'
Vises

EXPANSION JOINTS



Braided Metal Hoses



Central Heating
System Type



Externally
Pressurized Type



Fabric
Expansion Joints



Fan-Coil Flexible
Metal Hoses



Fixed Flanged Type



Flexible Metal Hoses



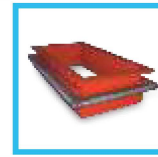
Floating
Flanged Type



Lens
Expansion Joints



Metal Expansion Joints



Rectangular
Expansion Joints



Rubber
Expansion Joints



Seismic Type



Special



Sprinkler
Flexible Hoses



Vibration Absorbers



Weld End Type



EPDM Expansion Joint

FASTENERS



Anchors



Bolts,
Screws & Cap Screws



Circuit Board
Fasteners



Fasteners



Nails & Staples



Nuts



Pins,
Clips & Retaining Rings



Rivets & Cleco
Fasteners



Self Sealing Fasteners



Stock Crowders



Threaded Inserts,
Rivet Nuts & Weld Nuts



Threaded Studs
With Nuts



Turnbuckles



Washers & Shims



Anchoring Adhesives



Concrete Anchors



Bolts



Hex Head Bolts

FIRE EQUIPMENT GROUP



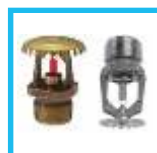
Alarm Valves



Check Valves



CMDA (Control Mode
Density Area)



CMSA (Control Mode
Specific Application)



Deluge-Valves



Deluge Valves 2



Dry Alarm Valve



EC Storage
(Extended Coverage)



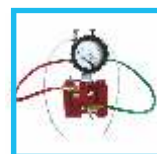
ESFR (Early
Suppression Fast
Response)



Fire Hydrants



Flow Switch



Flowmeter



Irrigation Hydrants



NRS National
Valve Promotion



OS&Y Rising Stem
Valve Monitoring



OS&Y Rising
Stem Valve



Preaction Systems



Pressure
Reducing Valve



Relief Valve



Watch Switched
Butterfly Valve



Wet Alarm Valve



Fire Extinguishers



Fire Protective Gloves



Fire Fighting Equipment

GASKETS



Corrugated Gaskets



Grooved Gaskets



Heat Exchanger
Gaskets



Isolation Gaskets



Metal Eyeleted
Flat Gaskets



Metallic Gaskets



Non Metallic Gaskets



PTFE Enveloped
Gaskets



Ring Joint Gaskets



Rubber Gaskets



Spiral Wound Gaskets



Spiral Wound Gaskets

HAND TOOLS



Benders,
Strippers & Crimpers



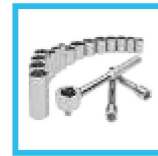
Bolt, Screw & Nut
Removers



Combination
Hand Tool Sets



Hammers, Striking &
Demolition Tools



Hand Tools



Knives & Blades



Pliers, Plier
Sets & Accessories



Punches & Grommet
Tools



Ratchets,
Drivers & Extensions



Rivet & Threaded
Insert Tools



Saws,
Chisels & Shears



Screwdrivers &
Hex Keys



Scribes & Awls



Sockets & Socket
Accessories



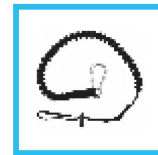
Staplers & Staple
Pullers



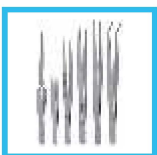
Stud Locators



Tool Bags & Organizers



Tool Holding
Accessories



Tweezers & Retrieving
Tools



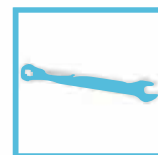
Wood Planes & Blades



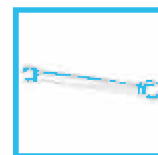
Wrenches



Adjustable Wrenches



Combination Wrenches



Flare Nut Wrenches

HOSE, TUBE, FITTINGS & VALVES



Access Valves



Air Valves



Ball Valves



Blow Guns, Hose
Reels & Hose
Accessories



Clamps,
Hangers & Supports



Diaphragm Valves



Filters & Strainers



Fittings & Couplings



Float & Check Valves



Gas Ball Valves



Gate, Globe & Butterfly
Valves



Hose, Tube,
Fittings & Valves

HOSE, TUBE, FITTINGS & VALVES



Hose



Instrumentat
ion Valves



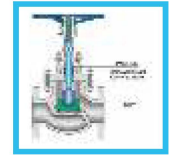
Plumbing Valves



Solenoid & Regulators



Tube



Valves

HVAC



Air Conditioning &
Humidity Control



Blowers &
Blower Accessories



Cleaners



Duct Work,
Fittings & Accessories



Exhaust & Ventilations



Fans



Heaters & Accessories



HVAC Controls
& Thermostats



Hvac Filters



HVAC Maintenance
Tools & Accessories



Shutters, Louvers,
Registers,
Grilles & Diffusers



Fuel Forced Air Heaters

MACHINERY



3d Printers,
Accessories & Supplies



CNC Machines



Digital
Readout Equipment



Drill Presses &
Tapping Machines



Dust, Mist &
Fume Collectors
& Accessories



Electrical
Discharge Machining



Grinding, Buffing &
Sharpening Machines



Lathes



Machinery



Metal Forming
& Cutting Machines



Milling Machines



Sanding Machines



Saw Machines



Universal Machine
Bases & Accessories



Way Covers & Bellows



Woodworking
Machines



Jointers



Planer Machines

MARKING & LABELING



Industrial Markers
Chalks & Layout Fluids



Labels & Tags



Marking & Labeling



Stamping & Engraving



Stenciling & Striping



Chalk Refills

MEASURING & INSPECTING



Calibration Layout &
Machine Setup Tools



Counters, Totalizers,
Timers & Clocks



Dimensional
Measuring Tools



Inspecting Detecting &
Testing Instruments



Levels & Plumb Bobs



Liquid Flow & Speed
Measuring Instruments



Measuring & Inspecting



Motion & Speed
Measuring Instruments



Pressure & Temperature
Measuring Instruments



Statistical Process
Control & Electronic
Measuring Equipment



Pressure &
Vacuum Gauges
Instruments



Temperature
Measuring Instruments

MILLING



End Mills



Engraving Cutters



Milling Cutters



Milling Saws



Milling



Router Bits

MOTION CONTROL & FLUID POWER



Bearings



Brakes, Clutches &
Speed Reducers



Cam Followers &
Track Rollers



Chain Breakers,
Pullers & Parts



Chains, Belts,
Pulleys & Sprockets



Gears, Gear
Bushings & Racks

MOTION CONTROL & FLUID POWER



Hydraulics



Linear Motion



Motion Control &
Fluid Power



Pneumatics



Shaft Collars,
Couplings,
Mounts & Keys

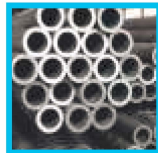


Vibrators

ALLOY STEEL PIPE



Alloy Steel P9
Seamless Pipes



Alloy Steel Pipes-
Chrome Moly Tubes



Alloy Steel T91
Seamless Pipes



ASTM A213 T2, T11,
T22, T91, T92 Pipes



ASTM A335 P11
Alloy Pipe



ASTM A335 P22
Alloy Pipe



A335 P5 High
Pressure Pipes



ASTM A335 P9
Alloy Pipe



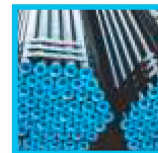
ASTM A335 P91
Alloy Pipe



ASTM A335 P92
Alloy Pipe



ASTM A333 Gr.1
Seamless Pipe



ASTM A333 Gr.4
Seamless Pipe



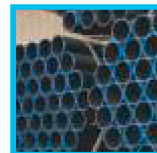
ASTM A333 Gr.6
Seamless Pipe



ASTM A213
Alloy Tubes



ASTM A213 T9
Alloy Pipes



ASTM A213 T5
Alloy Pipes



ASTM A213 T11
Alloy Pipes



ASTM A335 P11
Alloy Pipe



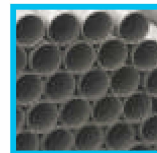
ASTM A213 T12
Alloy Pipes



ASTM A213 T91
Alloy Pipes



ASTM A213 T22
Alloy Pipes



ASTM A335 Grade P22
Alloy Steel Pipe



ASME SA335 Grade P5



ASTM A335 P11



ASTM A335 P12



ASTM A335 Grade
P91 NACE



ASME SA213 Grade T11



SA335 Grade P9



Alloy Tubes



Copper Alloy Tubes

Please find the further information about our seamless and alloyed pipes and tubes at the end of the document.

API PIPE



API 5L GR.B PSL 1



API 5L X 42 PSL 1



API 5L X 46 PSL 1



API 5L X 52 PSL 1



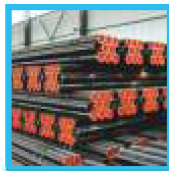
API 5L X 56 PSL 1



API 5L X 60 PSL 1



API 5L X 65 PSL 1



API 5L X 70 PSL 1



API 5L X 80 PSL 1



API 5L GR.B PSL 2



API 5L X42 PSL 2



API 5L X46 PSL 2



API 5L X52 PSL 2



API 5L X56 PSL 2



API 5L X60 PSL 2



API 5L X65 PSL 2



API 5L X70 PSL 2



API 5L X 80 PSL 2



**ASTM A333 Gr.6
Seamless Pipe**



**ASTM A213
Alloy Tubes**



**ASTM A213 T9
Alloy Pipes**



**ASTM A213 T5
Alloy Pipes**



**ASTM A213 T11
Alloy Pipes**



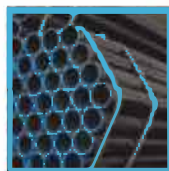
**ASTM A335 P11
Alloy Pipe**



API 5L EFW Pipe



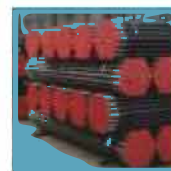
API 5L ERW Pipe



API 5L LSAW Pipe



API 5L HSAW Pipe



API 5L SAW Pipe



API 5L IBR Pipe



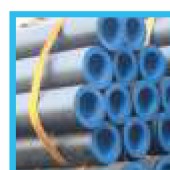
**API 5L
Seamless Pipe**



API 5L Welded Pipe



API 5L Seamless Pipe



API 5L Welded Pipe



API Steel Casing Pipe



API Drill Pipe

CARBON STEEL PIPE



**ASTM A53 Grade
A/B Pipes, Tubes**



**ASTM A106 Grade
A/B Pipes, Tubes**



**ASTM A333 Grade 6
Pipes, Tubes**



**Carbon Steel (CS)
Pipes, Tubes**



**API 5L B, X42 - X70
Steel Pipes, Tubes**



**St52, St52.3, St52.4
Seamless Pipe**



API 5L GR.B PSL 1



API 5L X 42 PSL 1



API 5L X 46 PSL 1



API 5L X 52 PSL 1



API 5L X 56 PSL 1



API 5L X 60 PSL 1



API 5L X 65 PSL 1



API 5L X 70 PSL 1



API 5L X 80 PSL 1



API 5L GR.B PSL 2

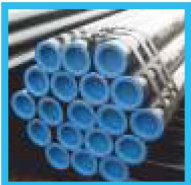


API 5L X42 PSL 2



API 5L X46 PSL 2

CARBON STEEL PIPE



API 5L X52 PSL 2



API 5L X56 PSL 2



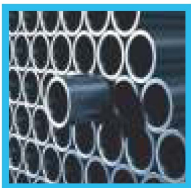
API 5L X60 PSL 2



API 5L X65 PSL 2



API 5L X70 PSL 2



API 5L X 80 PSL 2



API 5L EFW Pipe



API 5L ERW Pipe



API 5L LSAW Pipe



API 5L HSAW Pipe



API 5L SAW Pipe



API 5L IBR Pipe



**API 5L
Seamless Pipe**



API 5L Welded Pipe



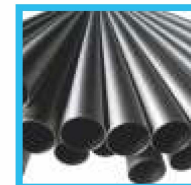
API 5L LSAW Pipe



API 5L HSAW Pipe



API 5L SAW Pipe



API 5L IBR Pipe

PLUMBING, PUMPS & FILTRATION



Filters & Accessories



Plumbing Tools
& Equipment



Plumbing, Pumps
& Filtration



Pumps



Water Coolers
& Fountains



Water Heaters
& Supply Lines

PUMP GROUP



Accessories



Air Operated Pump



Centrifugal Pump



Dosing Pump



Drum and
Container Pump



Electric Motor Driven
Diaphragm Pump



Fire Fighting Pump



Gear Pump



Hose (Peristaltic) Pump



Lobe Pump



Plunger Pump



Progressive
Cavity Pump



Screw Pump



Submersible Pump



Vane Pump



Diaphragm
Spray Pumps



Piston Spray Pumps



Centrifugal
Spray Pumps

SAFETY



Anti-Static &
ESD Equipment



Confined
Space Equipment



Ergonomic
Protection & Supports



Eye & Face Protection



Facility Safety



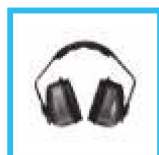
Fall protection



First Aid
Medical Hydrations



Gloves & Hand
Protection



Hearing Protection



Personal
Protective Equipment



Protective Clothing



Respiratory Protection

SAFETY



Safety



Master Lock



Lockout Tags



Locout Tagout
Equipment



Key Holder



Safety Holder

SAW BLADES



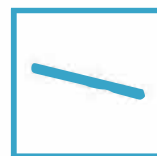
Band Saw Blades



Circular Saw Blades



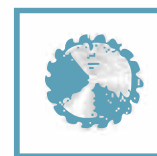
Compass Saw Blades



Hacksaw & Rod
Saw Blades



Hole Saws
& Hole-Cutting
Tool Accessories



Saw Blades

STEEL PIPES FITTINGS GROUP



Blind Flanges



Boss



Butt-Welding Fitting



Caps



Concentric Reduction



Couplings



Eccentric Reduction



Elbolet



Elbow LR



Elbow SR



Elbow



FLANGE



Flangolet



Flat Flanges



Forged Fittings



Forged Nipples



Lap Joint Flanges



Lateral



Latrolet



Loose Flanges



LWN Flanges



Nipolet



Nipples



Nippo Flanges

STEEL PIPES FITTINGS GROUP



Orifice Flanges



Reduction Tee



Reduction



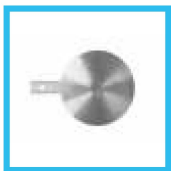
Slip-on Flanges



Socket Weld Flanges



Sockolet



Spades Flange



Special
Drawing Flanges



Special Nozzle Flanges



Spectacle Blind Flange



Supported Flanges



Swedge Nipple



Tee



Threaded Flanges



Threadolet



Weld Neck Flanges



Weldo Flanges



Weldolet

STUDBOLTS & NUTS



Anchors, Bolts,
Tension Bars, Rods



Bolts



Cold Bolts



Full Screw Studs



Hot Bolts



J And L Anchors



Nuts



Ribbed Anchors



Sleeve Anchors



Special Bolts



Stretching
Anchors and Forks



Stud Nails, Welded
And Embedded Anchors



Studs



Tension Control Bolts



T-Headed Hammer
Headed Anchor Bolts



Two Bit Theraded Studs



Two Bit
Threaded Anchors



U-Bolts

VALVE GROUP



Air Release Valve



Ball Valves



Basket Filter



Butterfly Valve



Check Valve



Diaphragm Valves



Float Valves



Foot Valves



Gate Valve



Globe Valve



Needle Valves



Pinch Valves



Plug Valves



PP-PVC-CPVC
Actuator Valves



PP-PVC-CPVC
Ball Valves



PP-PVC-CPVC
Butterfly Valves



PP-PVC-CPVC
Check Valves



PP-PVC-CPVC
Diaphragm Valves



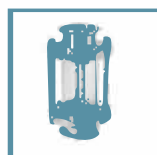
PP-PVC-CPVC
Gate Valves



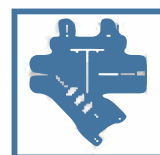
Pressure
Reducing Valves



Safety Valves



Sight Glasses



Steam Traps



Strainers

BELLOW SEALED VALVES



ANSI Carbon Steel Bellow
Sealed Globe Valve



DIN Bellow Sealed
Globe Valve



API 598 Bellow
Seal Valves



Cast Steel Bellow



Bellows-Sealed



Bellows Sealed Valves

BRONZE VALVE



Bronze
Flange Ball Valve



Bronze
Flange Globe Valve



Bronze
Flange Y Filter



Bronze Gate Valve



Bronze Lug Wing BFV



Bronze
Swing Check Valve

BUILDING VALVES



100X Floating Ball
Remote Control Valve



200X Pressure
Reduce Valve



300X Slow
Close Check Valve



400X
Flow Control Valve



500X Relief Valve



HC41X Energy Saving
Type Check Valve

OIL & GAS VALVES



Ansi Api Ball Valve



Ansi Api
Butterfly Valve



Ansi Api Gate Globe
Check Valve



ANSI DIN STREINER



Basket Strainer



Din Gate
Globe Check Valve

STEAM SYSTEM VALVES



Floating Ball
Type Steam Trap



Lever Floating
Ball Steam Trap



Sylphon
Type Steam Trap



HC42T Silence
Type Check Valve



JD 745X Multi-function
Pump Control Valve



Forget Steel Valve

WATET & WASTE WATER VALVES



Ball Valve



Butterfly Valve



Check Valve



Gate Valve



Globe Valve



Strainer

WELDING & SOLDERING



Crack Detection



Fume Exhausters
& Air Cleaners



Furnaces & Welding
Rod Ovens



Plasma Cutters



Soldering &
Desoldering Equipment



Welders &
Welding Equipment

CARBON STEEL PLATE



LOW / HIGH STEEL CARBON PLATE

Standard:

ASTM A36, ASTM A283, ASTM A572, ASTM A656, JIS G3101 Ss400
EN10025-2, DIN 17100, DIN 17102, GB/T700, GB/T1591

Surface Treatment:

Oiled, black painted, shot blasted, hot dipped galvanized

LOW ALLOY STEEL PLATE



HIGH STRENGTH LOW ALLOY STEEL PLATES

Standard:

A36, A514, A572, A588, A633, A656, SA514, SA572, SA588, SA633
SA656, EN10025-2, EN10025-3, EN10025-4, EN10025-6, JIS G3101
JIS G3106, DIN 17100, DIN 17102, GB/T700, GB/T1591, GB/T16270

Surface Treatment:

Oiled, black painted, shot blasted, hot dipped galvanized

PRESSURE VESSEL STEEL PLATE



PRESSURE VESSEL STEEL PLATE

Standard:

A202, A203, A204, A285, A299, A302, A387, A515, A516, A517
A533, A537, A612, A662, EN10028-2, EN10028-3, EN10028-5
EN10028-6, JIS G3103, JIS G3115, GB713, GB3531, DIN 17155

STAINLESS STEEL PLATE



STAINLESS STEEL PLATE

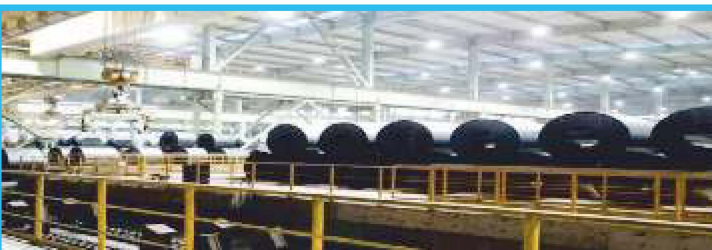
Standard:

304/304L, 316/316L, 321

Sizes:

From 3/16" to 2" thick x 48" or 60" wide x 96/120/144 lengths

STEEL COIL



STEEL COIL

Hot-Rolled Steel Coil: Any size coil by request

Cold-Rolled Steel Coil: Any size coil by request

A36, A283, A514, A572, A573, A588, A633, A656, A709,
SA36, SA283, SA514, SA572, SA573, SA588, SA633, SA656, SA709
EN10025-2, EN10025-3, EN10025-4, EN10025-6
JIS G3101, JIS G3106, DIN 17100, DIN 17102
GB/T700, GB/T1591, GB/T16270

ALUMINIUM AND ZAMAK CASTING

About Us

Our company was founded to serve for our customers in the fields of prime quality aluminium and zamak casting in the year of 2012. Production capacity of our company is 800 tons aluminum and 120 tons of zamak per year.

Our machineries can manufacture any kind of production from 200 grams up to 10 kilograms.



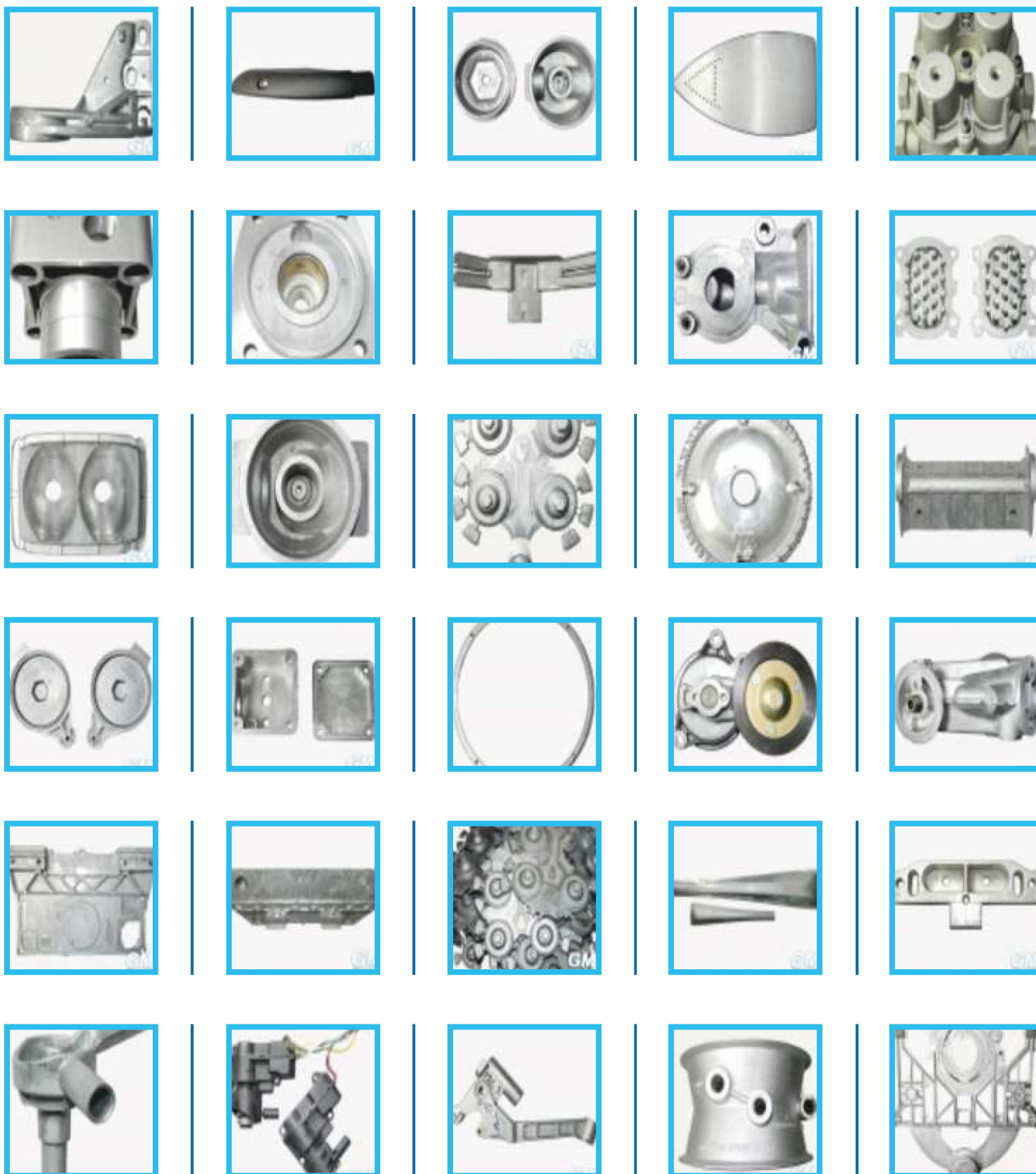
MACHINERY

- 1 piece 550 Tons Idra Injection Machine - 1 piece 550 Tons Idra Injection Machine
- 1 piece 400 Tons Hydro technical Injection Machine - 1 piece 300 Tons Metal Press Injection Machine
- 1 piece 200 Tons Hydro technical Injection Machine - 1 piece 100 Tons Hydro technical Injection Machine
- 1 piece Sandblaster - 1 piece Glazing Vibration Machine - 1 piece Deburring Machine - 1 piece Drying Machine
- 4 pieces EK Celik Drills - 4 pieces Polishing Engines - 1 piece AVEA 1020X 700X 600 CNC VERTICAL PROCESSING
- 1 piece JETCO 1000X320X 460 UNIVERSAL MILLING MACHINE - 1 piece 2 M JETCO UNIVERSAL TURNING MACHINE
- 1 piece Elar EDM bench

SERVICE AREAS



PRODUCTS



Seamless tubes and pipes

STANDARD	GRADES
ASTM A 53 (ASME SA53)	A, B
ASTM A 106 (ASME SA106)	A, B, C
ASTM A 192 (ASME SA192)	A 192
ASTM A 210 (ASME SA210)	A-1
ASTM A 333 (ASME SA333)	Gr 1, Gr 6
ASTM A 335 (ASME SA335)	P1, P5, P9, P11, P12, P22, P91
ASTM A 501 (ASME SA501)	Gr A, Gr B
ASTM A519 (ASME SA519)	MT 1010, MT 1015, MT 1020, 1010,1012, 1015, 1017, 1020, 1518
ČSN 42 0250	11 353.0, 11 353.1, 11 453.0, 11 453.1, 11 523.0, 11 523.1, 11 550.0, 11 550.1, 11 650.0, 11 650.1
ČSN 42 0251	12 021.1, 12 022.1
ČSN 42 0165	11 369.1, 11 503.11
DIN 1629	St 37.0, St 44.0, St 52.0
DIN 1630	St 37.4, St 44.4, St 52.4
DIN 17121	RSt 37–2, St 37–3, St 44–2, St 44–3, St 52–3
DIN 17175	St 35.8, St 45.8 – (only in category I.)
EN 10208-1,2	L210GA, L235GA, L 245GA, L290GA, L360GA, L245NB, L290NB, L360NB, L415NB
EN 10210-1,2	S235JRH, S275JOH, S275J2H, S275NLH S355JOH, S355J2H,S355K2H, S275NH, S355NH, S355NLH, S420NH, S420NLH, S460NH, S460NLH
EN 10216-1	P195TR1, P195TR2, P235TR1, P235TR2, P265TR1, P265TR2
EN 10216-2	P195GH, P235GH, P265GH, 16Mo3, 10CrMo5-5, 10CrMo9-10, 13CrMo4-5, X11CrMo5+NT1, X11CrMo9-1+NT1, X10CrMoVNb9-1
EN 10216-3	P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2; P355NL2, P460N, P460NH, P460NL1, P460NL2
EN 10216-4	P215NL, P265NL
EN 10224	L235, L275, L355
EN 10225	S355G1+N, S355G14+N, S355G15+N
EN 10297-1	E235, E275, E315, E355, E275K2, E355K2, E420J2, E470
ČSN 42 5710 (ČSN 42 5711)	11 353.0, 11 353.1
DIN 2440 (DIN 2441)	St 33
NF A 49–115	TU 34-1
EN 10255	S195T
API Spec 5L (ISO 3183)	PSL 1: A, B, X42, X46, X52, X56, X60, X65, X70
	PSL 2 (+R) : BR, X42R,
	PSL 2 (+N) : BN, X42N, X46N, X52N, X56N, X60N,
	PSL 2 (+Q) : BQ, X42Q, X46Q, X52Q, X56Q, X60Q, X65Q, X70Q
	PSL 2 (+N) : BNS, X42NS, X46NS, X52NS,
	PSL 2 (+Q) : BQS, X42QS, X46QS, X52QS, X56QS, X60QS, X65QS, X70QS
	PSL 2 (+N) : BNO, X42NO, X46NO, X52NO,
	PSL 2 (+Q) : BQO, X42QO, X46QO, X52QO, X56QO, X60QO, X65QO, X70QO
ISO 3183 Annex M:	PSL 2 (+N) : BNE, X42NE, X52NE, PSL 2 (+Q) : X52QE, X60QE, X65QE, X70QE

APPLICATION
Standard Specification for Pipe, Steel, Black and hot-Dipped, Zinc-Coated, Welded and Seamless
Standard specification for seamless carbon steel pipe for high temperature service
Standard specification for seamless carbon steel boiler tubes for high-pressure service
Standard specification for seamless medium-carbon steel boiler and super heater tubes
Standard specification for seamless and welded steel pipes for low-temperature service
Standard specification for seamless Ferritic Alloy-Steel pipes for High-temperature service
Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing
Standard Specification for Seamless Carbon and Alloy Steel Mechanical Tubing
Hot rolled seamless tubes of class 10 to 16 steels
Seamless steel tubes with guaranteed properties at elevated temperatures
Sheets and pipes of ferrite-pearlite steels with guaranteed impact properties at low temperatures
Seamless circular tubes of non-alloy steels with special quality requirements
Seamless circular tubes of non-alloy steels for extra-high requirements
Seamless structural steel circular tubes for structural engineering purposes
Seamless steel tubes for elevated temperatures” quality grade I
Steel pipes for pipelines for combustible fluids
Hot finished structural hollow sections of non-alloy and fine grain steels
Seamless steel tubes for pressure purposes” Part 1: Non-alloy steel tubes with specified room temperature properties
Seamless steel tubes for pressure purposes” Part 2: Non-alloy and alloy steel tubes with specified elevated temperature properties
Seamless steel tubes for pressure purposes ” Part 3 – Alloy and fine grain steel tubes
Seamless steel tubes for pressure purposes ” Part 4 – Non-alloy and alloy steel tubes with specified low temperature properties
Non-alloy steel tubes and fittings for the conveyance of aqueous liquids including water for human consumption
Weldable structural steels for fixed offshore structures – Technical delivery conditions
Seamless steel tubes for mechanical and general engineering purposes
“Steel tubes suitable for screwing – medium (heavy) series”
“Steel tubes, medium (heavy) weight suitable for screwing”
“Hot-rolled seamless steel tubes suitable for threading”
“Non-alloyed steel tubes suitable for screwing”
Line pipe
PSL 2 pipe ordered for European onshore natural gas transmission pipelines

Dimensional range and weight according to EN 10220 (ISO 4200)

Outside diameter (mm)	Wall thickness (mm)										
	2,3 ¹	2,6	2,9	3,2	3,6	4	4,5	5	5,4 ²	5,6	6,3
	Weight (kg/m)										
21,3	1,08	1,20	1,32	1,43	1,57	1,71					
22 ^{3,4,5}	1,12	1,24	1,37	1,48	1,63	1,78					
25 ^{4,5}	1,29	1,44	1,58	1,72	1,90	2,07					
25,4 ^{1,3,4,5}	1,31	1,46	1,61	1,75	1,94	2,11					
26,9	1,40	1,56	1,72	1,87	2,07	2,26	2,49				
30 ^{1,4}		1,76	1,91	2,11	2,34	2,56	2,83				
31,8 ⁴		1,87	2,07	2,26	2,50	2,74	3,03	3,31			
33,7		1,99	2,20	2,41	2,67	2,93	3,24	3,54	3,77	3,88	
35 ^{4,5}		2,08	2,30	2,51	2,79	3,06	3,38	3,70	3,94	4,06	
38 ⁴		2,27	2,51	2,75	3,05	3,35	3,72	4,07	4,35	4,48	4,93
40 ^{1,3,4,5}		2,40	2,65	2,90	3,23	3,55	3,94	4,32	4,61	4,76	5,24
42,4		2,55	2,82	3,09	3,44	3,79	4,21	4,61	4,94 ¹	5,09 ¹	5,61 ¹
44,5 ^{1,4}		2,69	2,98	3,26	3,63	4,00	4,44	4,87	5,22 ¹	5,38 ¹	5,94 ¹
48,3		2,93	3,25	3,56	3,97	4,37	4,86	5,34	5,72 ¹	5,91 ¹	6,53 ¹
51 ^{1,4}			3,44	3,77	4,21	4,64	5,16	5,67	6,08 ¹	6,28 ¹	6,96 ¹
54 ^{1,4}			3,65	4,01	4,47	4,93	5,49	6,04	6,47 ¹	6,68 ¹	7,41 ¹
57 ⁴			3,87	4,25	4,74	5,23	5,83	6,41	6,87 ¹	7,10 ¹	7,89 ¹
60,3			4,11	4,51	5,03	5,55	6,19	6,82	7,31	7,55	8,39
63,5 ^{1,4}			4,33	4,76	5,32	5,87	6,55	7,21	7,74	8,00	8,89
70 ^{1,4}			4,80	5,27	5,90	6,51	7,27	8,01	8,60	8,89	9,90
73 ^{4,5}			5,01	5,51	6,16	6,81	7,60	8,38	9,00	9,31	10,4
76,1			5,24	5,75	6,44	7,11	7,95	8,77	9,42	9,74	10,8
82,5 ^{4,5}				6,26	7,00	7,74	8,66	9,56	10,3	10,6	11,8
88,9				6,76	7,57	8,38	9,37	10,3	11,1	11,5	12,8
101,6					8,70	9,63	10,8	11,9	12,8	13,3	14,8
108 ⁴					9,27	10,3	11,5	12,7	13,7	14,1	15,8
114,3					9,83	10,9	12,2	13,5	14,5	15,0	16,8
127 ⁴						12,1	13,6	15,0	16,2	16,8	18,8
133 ⁴						12,7	14,3	15,8	17,0	17,6	19,7
139,7						13,4	15,0	16,6	17,9	18,5	20,7
141,3 ^{3,4,5}						15,2	16,8	18,0	18,7	18,7	21,0
152,4 ^{4,5}						16,4	18,2	19,6	20,3	20,3	22,7
159 ⁴						17,1	19,0	20,5	21,2	21,2	23,7
168,3						18,2	20,1	21,7	22,5	22,5	25,2
177,8 ⁵							21,3	23,0	23,8	23,8	26,6
193,7								25,1	26,0	26,0	29,1
219,1											33,1
244,5											37,0
273											41,4 ¹

¹ The tubes can be ordered only by prior agreement.

² Wall thickness onlyy acc to EN 10220.

³ Pipes out of dimensional series of DIN 2448.

⁴ Pipes out of dimensional series of EN 10210.

⁵ Pipes out of dimensional series of NF A 49 – 112.

Dimensional range and weight according to EN 10220 (ISO 4200)

Outside diameter (mm)	Wall thickness (mm)											
	7,1	8	8,8	10	11	12,5	14,2	16	17,5	20	22,2 ¹	25 ¹
	Weight (kg/m)											
42,4	6,18 ¹											
44,5 ^{1,4}	6,55 ¹											
48,3	7,21 ¹											
51 ^{1,4}	7,69 ¹											
54 ^{1,4}	8,21 ¹	9,08 ¹										
57 ⁴	8,74 ¹	9,67 ¹	10,5 ¹									
60,3	9,32	10,3	11,2	12,5 ¹								
63,5 ^{1,4}	9,88	11,0	11,9	13,2 ¹								
70 ^{1,4}	11,0	12,2	13,3	14,8 ¹								
73 ^{4,5}	11,5	12,8	13,95	15,5								
76,1	12,1	13,4	14,6	16,3								
82,5 ^{4,5}	13,2	14,7	16,0	17,9	19,4 ¹							
88,9	14,3	16,0	17,4	19,5	21,1	23,6	26,2 ¹					
101,6	16,5	18,5	20,1	22,6	24,6	27,5						
108 ⁴	17,7	19,7	21,5	24,2	26,3	29,4						
114,3	18,8	21,0	22,9	25,7	28,0	31,4	35,1	38,8 ¹	41,8 ¹	46,5 ¹		
127 ⁴	21,0	23,5	25,7	28,9	31,5	35,3	39,5	43,8 ¹	47,3 ¹	52,8 ¹		
133 ⁴	22,0	24,7	27,0	30,3	33,1	37,1	41,6	46,2 ¹	49,9 ¹	55,7 ¹		
139,7	23,2	26,0	28,4	32,0	34,9	39,2	43,9	48,8 ¹	52,7 ¹	59,0 ¹		
141,3 ^{3,4,5}	23,5	26,3	28,8	32,4	35,3	39,7	44,5	49,4 ¹	53,4 ¹	59,8 ¹		
152,4 ^{4,5}	25,4	28,5	31,2	35,1	38,4	43,1	48,4	53,8	58,2	65,3	71,3 ¹	
159 ⁴	26,6	29,8	32,6	36,7	40,1	45,2	50,7	56,4	61,1	68,6	74,9 ¹	82,6 ¹
168,3	28,2	31,6	34,6	39,0	42,7	48,0	54,0	60,1	65,1	73,1	80,0 ¹	88,4 ¹
177,8 ⁵	29,9	33,5	36,7	41,4	45,2	51,0	57,3	63,8	69,2	77,8	85,2 ¹	94,2 ¹
193,7	32,7	36,6	40,1	45,3	49,6	55,9	62,9	70,1	76,0	85,7	93,9 ¹	104 ¹
219,1	37,1	41,6	45,6	51,6	56,5	63,7	71,8	80,1	87,0	98,2	108 ¹	120 ¹
244,5	41,6	46,7	51,2	57,8	63,3	71,5	80,6	90,2	98,0	111	122 ¹	135 ¹
273	46,6	52,3	57,3	64,9	71,1	80,3	90,6	101	110	125 ¹	137 ¹	

1. The tubes can be ordered only by prior agreement.

2. Wall thickness onlyy acc to EN 10220.

3. Pipes out of dimensional series of DIN 2448.

4. Pipes out of dimensional series of EN 10210.

5. Pipes out of dimensional series of NF A 49 – 112.

Dimensional range and weight according to ASME B36.10M

Specified diameter	Size NPS (ASTM)	Outside diameter		Wall thickness		Weight category	Schedule No. (ASTM)	Weight of pipe with plain ends	
		in	mm	in	mm			lb/ft	kg/m
1,2	1,2	0,84	21,3	0,109	2,77	STD	40	0,85	1,27
				0,147	3,73	XS	80	1,09	1,62
3,4	3,4	1,05	26,7	0,113	2,87	STD	40	1,13	1,69
				0,154	3,91	XS	80	1,48	2,2
1	1	1,315	33,4	0,133	3,38	STD	40	1,68	2,5
				0,179	4,55	XS	80	2,17	3,24
1 1/4	1 1/4	1,66	42,2	0,14	3,56	STD	40	2,27	3,39
				0,191	4,85	XS	80	3	4,47
1 1/2	1 1/2	1,9	48,3	0,145	3,68	STD	40	2,72	4,05
				0,2	5,08	XS	80	3,63	5,41
2 3/8	2	2,375	60,3	0,125	3,18	...	30	3,01	4,48
				0,141	3,58	...	...	3,37	5,01
				0,154	3,91	STD	40	3,66	5,44
				0,172	4,37	...	...	4,05	6,03
				0,188	4,78	...	...	4,4	6,54
				0,218	5,54	XS	80	5,03	7,48
				0,25	6,35	...	...	5,68	8,45
				0,281	7,14	...	...	6,29	9,36
				0,344	8,74	...	160	7,47	11,11
				0,125	3,18	...	...	3,67	5,48
				0,141	3,58	...	...	4,12	6,13
				0,156	3,96	...	...	4,53	6,74
2 7/8	2 1/2	2,875	73	0,172	4,37	...	...	4,97	7,4
				0,188	4,78	...	30	5,4	8,04
				0,203	5,16	STD	40	5,8	8,63
				0,216	5,49	...	...	6,14	9,14
				0,25	6,35	...	...	7,02	10,44
				0,276	7,01	XS	80	7,67	11,41
				0,375	9,53	...	160	10,02	14,92
3 1/2	3	3,5	88,9	0,125	3,18	...	...	4,51	6,72
				0,141	3,58	...	...	5,06	7,53
				0,156	3,96	...	...	5,58	8,3
				0,172	4,37	...	...	6,12	9,11
				0,188	4,78	...	30	6,66	9,92
				0,216	5,49	STD	40	7,58	11,29
				0,25	6,35	...	...	8,69	12,93
				0,281	7,14	...	...	9,67	14,4
				0,3	7,62	XS	80	10,26	15,27
				0,438	11,13	...	160	14,34	21,35
4	3 1/2	4	101,6	0,141	3,58	...	...	5,82	8,65
				0,156	3,96	...	...	6,41	9,54
				0,172	4,37	...	...	7,04	10,48
				0,188	4,78	...	30	7,66	11,41
				0,226	5,74	STD	40	9,12	13,57
				0,25	6,35	...	...	10,02	14,92
				0,281	7,14	...	...	11,17	16,63
				0,318	8,08	XS	80	12,52	18,64
4 1/2	4	4,5	114,3	0,141	3,58	...	...	6,57	9,78
				0,156	3,96	...	...	7,24	10,78
				0,172	4,37	...	...	7,96	11,85
				0,188	4,78	...	30	8,67	12,91
				0,203	5,16	...	...	9,32	13,89
				0,219	5,56	...	...	10,02	14,91
				0,237	6,02	STD	40	10,8	16,08
				0,25	6,35	...	...	11,36	16,91
				0,281	7,14	...	...	12,67	18,87
				0,312	7,92	...	...	13,97	20,78
				0,337	8,56	XS	80	15	22,32
				0,438	11,13	...	120	19,02	28,32
				0,531	13,49	...	160	22,51	33,54

Dimensional range and weight according to ASME B36.10M

Specified diameter	Size NPS (ASTM)	Outside diameter		Wall thickness		Weight category	Schedule No. (ASTM)	Weight of pipe with plain ends	
		in	mm	in	mm			lb/ft	kg/m
5 9/16	5	5,563	141,3	0,156	3,96	...	...	9,02	13,41
				0,188	4,78	...	...	10,8	16,09
				0,219	5,56	...	...	12,51	18,61
				0,258	6,55	STD	40	14,63	21,77
				0,281	7,14	...	...	15,87	23,62
				0,312	7,92	...	...	17,51	26,05
				0,344	8,74	...	...	19,19	28,57
				0,375	9,53	XS	80	20,8	30,97
				0,5	12,7	...	120	27,06	40,28
6 5/8	6	6,625	168,3	0,188	4,78	...	...	12,94	19,28
				0,203	5,16	...	...	13,94	20,76
				0,219	5,56	...	...	15	22,31
				0,25	6,35	...	...	17,04	25,36
				0,28	7,11	STD	40	18,99	28,26
				0,312	7,92	...	...	21,06	31,33
				0,344	8,74	...	...	23,1	34,39
				0,375	9,53	...	...	25,05	37,31
				0,432	10,97	XS	80	28,6	42,56
				0,5	12,7	...	...	32,74	48,73
				0,562	14,27	...	120	36,43	54,21
				0,625	15,88	...	...	40,09	59,69
8 5/8	8	8,625	219,1	0,719	18,26	...	160	45,39	67,57
				0,25	6,35	...	20	22,38	33,32
				0,277	7,04	...	30	24,72	36,82
				0,312	7,92	...	...	27,73	41,25
				0,322	8,18	STD	40	28,58	42,55
				0,344	8,74	...	...	30,45	45,34
				0,375	9,53	...	...	33,07	49,25
				0,406	10,31	...	60	35,67	53,09
				0,438	11,13	...	...	38,33	57,08
				0,5	12,7	XS	80	43,43	64,64
				0,562	14,27	...	...	48,44	72,08
				0,594	15,09	...	100	51	75,92
10 3/4	10	10,75	273	0,625	15,88	...	...	53,45	79,59
				0,719	18,26	...	120	60,77	90,44
				0,25	6,35	...	20	28,06	41,76
				0,279	7,09	...	...	31,23	46,49
				0,307	7,8	...	30	34,27	51,01
				0,344	8,74	...	...	38,27	56,96
				0,365	9,27	STD	40	40,52	60,29
				0,438	11,13	...	...	48,28	71,88
				0,5	12,7	XS	60	54,79	81,53
				0,562	14,27	...	...	61,21	91,05
				0,594	15,09	...	80	64,49	95,98
				0,625	15,88	...	...	67,65	100,69
				0,719	18,26	...	100	77,1	114,71

Production possibilities - Sizes offered for product group

[illegible][illegible]

Production possibilites - product group

				OD≥ 60,3mm	
Size-grade group	A	F	P	L	N
Norm	Re<320MPa (NDT 12.5%)	+AR / +NR (NDT 12.5%)	LP-PSL1 (NDT 12.5%)	LP - PSL2 (NDT 12.5%)	+NR / +N (KCV NDT 12.5%)
ČSN 411353	11353.0, 11353.1				
ČSN 411453		11453.0, /,1			
ČSN 411503					11503.1
ČSN 411523					11523.1
ČSN 411550		11550.0			11550.1
ČSN 411650		11650.0			11650.1
ČSN 412021	12021.1				
ČSN 412022	12022.1				
DIN 1629	St 37.0, St 44.0	St 52.0			
DIN 1630	St 37.4, St 44.4,	St 52.4			
DIN 17121	RSt 37-2, St 37-3, St 44-2, St 44-3				St 52 - 3
DIN 17175	St 35.8, St 45.8				
EN 10208-1			L210GA, L235GA, L245GA, L290GA, L360GA		
EN 10208-2					
EN 10210-1	S235JRH, S275J0H				S275J2H, S275NH, S355J0H, S355J2H, S355K2H, S355NH
EN 10216-1	P195TR1 / TR2, P235TR1 / TR2, P265TR1 / TR2,				
EN 10216-2	P195GH, P235GH, P265GH				
EN 10216-3					P355N, P355NH
EN 10216-4					
EN 10224	L235, L275	L355			
EN 10225					
EN 10297-1	E235, E275, E315	E355			E275K2, E355K2, E470
NF A 49-112	TUE220A, TUE235A				
ASTM A 53/ ASME SA53	A, B				
ASTM A106/ASME SA106	A, B	C			
ASTM A 192/ASME SA192	A 192				
ASTM A 210/ ASME SA210	A-1				
ASTM A333/ ASME SA333					Gr.1, Gr.6
ASTM A335/ ASME SA335					
API 5L + ISO 3183 -PSL1			A, B, X42, X46, X52, X56, X60, X65 (+Ar)		
API 5L + ISO 3183 -PSL1			L245, L290, L320, L360, L390, L415, L450 (+Ar)		
API 5L + ISO 3183 -PSL2				BR, X42R and BN, X42N, X46N, X52N, X56N, X60N	
API 5L + ISO 3183 -PSL2				L245R, L290R and L245N, L290N, L320N, L360N, L390N, L415N	
API 5L +ISO 3183 -PSL2 +Annex H					
API 5L +ISO 3183 -PSL2 +Annex H					
API 5L +ISO 3183 -PSL2 +Annex J					
API 5L +ISO 3183 -PSL2 +Annex J					
ISO 3183/12 -PSL2 +Annex M					

OD≥ 60,3 and WT≥ 3,6	OD≥ 60,3 and WT≥ 4,5	OD≥ 60,3; WT≥3,6	OD=≥ 60,3 and WT≥4,5	OD≥ 88,9; WT≥ 4,5	OD≥ 88,9; WT≥6,3	OD= 88,9 - 245 and WT≥ 8
E	Z	J	U	S	T	Q
Onshore +NR (NDT 10%)	+N (add. +N +NDT 12.5%)	TC2 +Nr (NDT 5%)	TC2 + add +N (NDT 5%)	LP-Spec (NDT 5%)	+NT (TC2)	+QT / spec +NT (TC2)
L245NB, L290NB, L360NB, L415NB						
	S275NLH, S355NLH, S420NH, S420NLH, S460NH, S460NLH					
		P195GH, P235GH, P265GH, 16Mo3			10CrMo5-5, 10CrMo9- 10, 13CrMo4-5	X11CrMo5+NT1 (NT2), X11CrMo9-1+NT, X10CrMoVNb9-1
	P275NL1, P275NL2, P355NL1, P355NL2, P460NL1, P460NL2		P275NL1 /NL2, P355N, P355NH, P355NL1 / NL2, P460NL1 /2			
	P215NL, P265NL		P215NL, P265NL			
			S355G1+N, S355G14+N, S355G15+N			
	E420J2					34CrMo4 (Q+T)
					P1, P11, P12, P22	P5, P9, P91 (= +NT)
						X65, X70
						L450, L485
						BQ, X42Q, X46Q, X52Q, X56Q, X60Q, X65Q, X70Q
						L245Q, L290Q, L320Q, L360Q, L390Q, L415Q, L450Q, L485Q
				BNS, X42NS, X46NS, X52NS		BQS, X42QS, X46QS, X52QS, X56QS, X60QS, X65QS, X70QS
				L245NS, L290NS, L320NS, L360NS		L245QS, L290QS, L320QS, L360QS, L390QS, L415QS, L450QS, L485QS
				BNO, X42NO, X46NO, X52NO		BQO, X42QO, X46QO, X52QO, X56QO, X60QO, X65QO, X70QO
				L245NO, L290NO, L320NO, L360NO		L245QO, L290QO, L320QO, L360QO, L390QO, L415QO, L450QO, L485QO
L245NE, L290NE, L360NE, L415NE						L360QE, L415QE, L450QE, L485QE

Production possibilites - High streigth pipes acc to EN 10210-1, E 10216-3, E 10297-1, API 5L, ISO 3183 (defects to 12.5% of nominal WT) - YS min > 355MPa

WT (mm)	2,3	2,6	2,9	3,2	3,6	4,0	4,5	5,0	5,6	6,3
OD (mm)		(2,65)	(2,77 - 2,87)	(3,18 - 3,38)	(3,56 - 3,73)	(3,91 - 4,24)	(4,37 - 4,55)	(4,78 - 5,16)	(5,21 - 5,74)	(6,02 - 6,55)
60,3					PN	PN	PNZU	PNZU	PNZU	PNZU
63,5					PN	PN	PNZU	PNZU	PNZU	PNZU
70						PN	PNZU	PNZU	PNZU	PNZU
73						PN	PNZU	PNZU	PNZU	PNZU
76,1							PNZU	PNZU	PNZU	PNZU
82,5							PNZU	PNZU	PNZU	PNZU
88,9										
101,6										
108,0										
114,3									PNZU	PNZU
127,0						PN	PNZU	PNZU	PNZU	PNZU
133,0						PN	PNZU	PNZU	PNZU	PNZU
139,7						PN	PNZU	PNZU	PNZU	PNZU
152,4							PNZU	PNZU	PNZU	PNZU
159,0							PNZU	PNZU	PNZU	PNZU
168,3							PNZU	PNZU	PNZU	PNZU
177,8								PNZU	PNZU	PNZU
193,7									PNZU	PNZU
219,1										PNZU
244,5										PNZU
273,0										PNZU

Norm	Size group	Grades
EN 10210-1/06	Z	S420H, S420LH, S460H, S460LH
EN 10216-3/13	Z	P460N, P460NH, P460NL1, P460NL2
EN 10297-1/03	Z	E420J2 (+N)
	N	E470 (+Ar)
	Q	34CrMo4 (Q+T)
API 5L + ISO 3183 -PSL1	P	X60, X65-PSL1 (+Ar)
	Q	X60, X65, X70-PSL1 (+QT)
API 5L + ISO 3183 -PSL2	Z	X60N
ISO 3183 +M	Z	X60NE

7,1	8,0	8,8	10,0	11,0	12,5	14,2	16,0	17,5	20,0	22,2	25,0
(6,88 - 7,14)	(7,62 - 8,18)	(8,56 - 9,27)	(9,53)	(10,54 - 11,13)	(12,70)	(13,49 - 14,27)	(15,88)	(18,0 - 18,26)			
PNZU	PNZU	PNZ									
PNZU	PNZU	PNZ				Only sizes marked „Q“ (offered only LP X60-X70 in Q+T condition),					
PNZU	PNZU	PNZU									
PNZU	PNZU	PNZU	PNZ								
PNZU	PNZU	PNZU	PNZU								
PNZU	PNZU	PNZU	PNZU	PNZU							
	Q	Q	Q	Q							
	Q	Q	Q	Q							
	Q	Q	Q	Q	Q						
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	NZ	NZ	NZ		
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	NZUQ	NZ	NZ		
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	NZUQ	NZU	NZ		
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	NZUQ	NZU	NZ		
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	NZU	NZU		
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZU	NZ	NZ
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZU	NZU	NZ
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZU	NZU	NZ
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZU	NZU	
PNZU	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZUQ	PNZU	PNZU		
PNZU	PNZU	PNZU	PNZU	PNZU	PNZU	PNZU	PNZU	PNZU			

		WT	Rt 0,5 (MPa)	Rm (MPa)	Rt 0.5/Rm	A	KCV		Delivery condition
Norm	Grade		min 1)	min 3)	max	min	min	Temp.	
API 5L+ISO 3183	X60/L415-PSL1		415	520	-	A2"	-		+AR
	X65/L450-PSL1		450	535	-	A2"	-		+AR
API 5L+ISO 3183	X60N/L415N-PSL2		415-565	520-760	-	A2"	T=27J	0°C	+N
ISO 3183 + M	X60NE/L415NE-PSL1		415-565	520-760	-	20%	T=40J / L=60J	0°C	+N
EN 10210-1	S420NH	max 16,0mm	420	520-680	-	19%	L=40J	-20°C	+N
	S420NLH	>16,0mm	400		-		L=27J	-50°C	+N
	S460NH	max 16,0mm	460	540-720	-	17%	L=40J	-20°C	+N
	S460NLH	>16,0mm	440		-		L=27J	-50°C	+N
EN 10216-3	P460N				-		T=27J / L=40J	-20°C	+N
	P460NH	max 12,0mm	460	560-730	-	19%	T=27J / L=40J	-20°C	+N
	P460NL1	>12 - 20mm	450		-		T=27J / L=40J	-40°C	+N
	P460NL2	>20,0mm	440		-		T=27J / L=40J	-50°C	+N
EN 10297-1	E470	max 16,0mm	470	650	-	17%	-		+AR
		>16,0mm	430	600	-				
	E420J2	max 16,0mm	420	600	-	19%	L=27J / T=20J	-20°C	+N
		>16,0mm	400	560	-				

Seamless tubes suitable for screwing

STANDARD	GRADES	APPLICATION
ČSN 42 5710	11 353.0, 11 353.1	“Steel tubes suitable for screwing – medium series”
ČSN 42 5711	11 353.0, 11 353.1	“Steel tubes suitable for screwing – heavy series”
DIN 2440	St 33	“Steel tubes, medium weight suitable for screwing”
DIN 2441	St 33	“Steel tubes, heavy weight suitable for screwing”
NF A 49–115	TU 34-1	“Hot-rolled seamless steel tubes suitable for threading”
EN 10255	S195T	“Non-alloyed steel tubes suitable for screwing”

Dimensional range

According to ČSN 42 5710, DIN 2440, ČSN 42 5711, DIN 2441

Size		Outside diameter	Wall thickness / weight			
DN	NPS	mm	ČSN 42 5710, DIN 2440		ČSN 42 5711, DIN 2441	
			mm	Kg/m	mm	Kg/m
15	1/2	21,3	2,65	1,22	3,25	1,45
20	3/4	26,9	2,65	1,58	3,25	1,90
25	1	33,7	3,25	2,44	4,05	2,96
32	1 1/4	42,4	3,25	3,14	4,05	3,83
40	1 1/2	48,3	3,25	3,61	4,05	4,42
50	2	60,3	3,65	5,10	4,50	6,19
65	2 1/2	76,1	3,65	6,51	4,50	7,95
80	3	88,9	4,05	8,47	4,85	10,05
90	3 1/2	101,6	4,05	9,72	4,85	11,57
100	4	114,3	4,50	12,19	5,40	14,50
125	5	139,7	4,85	16,13	5,40	17,89

According to NF A 49–115, EN 10255

Size		Outside diameter	Wall thickness / weight			
DN	NPS	mm	Middle series		Heavy series	
			mm	Kg/m	mm	Kg/m
15	1/2	21,3	2,6	1,21	3,2	1,43
20	3/4	26,9	2,6	1,56	3,2	1,87
25	1	33,7	3,2	2,41	4,0	2,93
32	1 1/4	42,4	3,2	3,09	4,0	3,79
40	1 1/2	48,3	3,2	3,56	4,0	4,37
50	2	60,3	3,6	5,03	4,5	6,19
65	2 1/2	76,1	3,6	6,44	4,5	7,95
80	3	88,9	4,0	8,38	4,9 (5,0)	10,15 (10,35)
90	3 1/2	101,6	4,0	9,63	4,9	11,69
100	4	114,3	4,5	12,19	5,4	14,50
125	5	139,7	4,5 (5,0)	15,00 (16,61)	5,4	17,89

The data in brackets are sizes according to EN 10255

According to EN 10255 – nonstandart series L a L1

Series L	Series L1	Size		Wall thickness (mm)	weight Kg/m
DN	DN	(")	Outside diameter (mm)		
15	15	1/2	21,3	2,3	1,08
20	20	3/4	26,9	2,3	1,40
25	25	1	33,7	2,9	2,20
32	32	1 1/4	42,4	2,9	2,82
40	40	1 1/2	48,3	2,9	3,25
50	50	2	60,3	3,2	4,51
-	65	2 1/2	76,1	3,2	5,75
-	80	3	88,9	3,6	7,57
-	100	4	114,3	4,0	10,88
125	-	5	139,7	4,5	15,00

Note: Size marked „-“ is not produced or there is not defined size in mentioned series.

Lengths

- Plain-end tubes and pipes are supplied from carbon or high-grade carbon steel in the following lengths:
- Production length

– in a range of 4 – 14 m, lengths selected by the producer by technological possibilities
- Set length

– nominal length selected by the customer from the range of production lengths with a tolerance of ± 500 mm
- Exact length

– nominal length selected by the customer following agreement with the producer.
- Max. length of tubes:

< Ø 60.3 mm 9.5 m

≥ Ø 60.3 mm 12.5 m by technological possibility – see tables of sizes

Ends of tubes and pipes

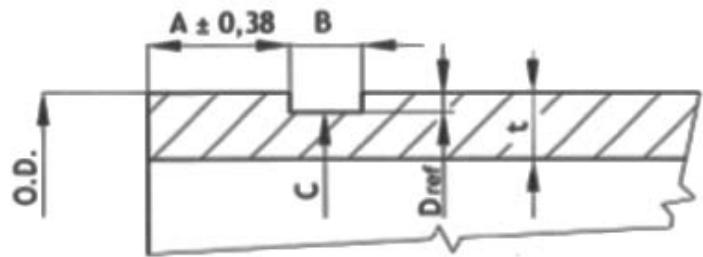
The tubes and pipes are standardly supplied with the square cut and de-burred ends. Other types of pipe end finish can be supplied after agreement with the producer (e.g. bevelled ends).

Pipes with WT ≤ 3,18mm are supplied only with square cut ends. Pipes with WT > 3,18mm can be supplied either with perpendicularly cut off ends or with beveled ends at an angle of 30° (-0/+5°) as per API Spec 5L, or ISO 3183, or ASTM A 106, or according to other standards (e.g. ASME B16.25, DIN 2559) with prior agreement.

Groove for Victaulic connection

Application for high universal connection with fast and simple instalation of pipeline
Pipes can be produced in grades acc. to customer requirement.

Design – outside groove on each pipe end:



O.D.	min. t	tol O.D.	A	B	tol. B	C	tol. C	D ref
Ø114,3	5,16	+1,14 -0,79	15,37	7,75	+0,25 -0,13	110,08	+0 -0,51	2,11
Ø168,3	5,56	+1,6 -0,79	15,37	7,75	+0,25 -0,13	163,96	+0 -0,56	2,16
Ø219,1	6,05	+1,6 -0,79	18,14	10,16	±0,25	214,4	+0 -0,64	2,34
Ø273,0	6,35	+1,6 -0,79	18,14	10,16	±0,25	268,28	+0 -0,69	2,39

AMTPO production possibilities of alloyed boiler pipes TC2

OD	WT (mm)																					
(mm)	2,3	2,6 (2,65)	2,9 (2,77-2,87)	3,2 (3,18 - 3,38)	3,6 (3,56 - 3,73)	4,0 (3,91 - 4,24)	4,5 (4,37 - 4,55)	5,0 (4,78 - 5,16)	5,6 (5,21 - 5,74)	6,3 (6,02 - 6,55)	7,1 (6,88-7,14)	8,0 (7,62 - 8,18)	8,8 (8,56 - 9,27)	10,0 (9,52 - 10,54)	11,0 (11,13)	12,5 (12,70)	14,2 (13,49 - 14,27)	16,0 (15,88)	17,5 (18,0 - 18,26)	20,0	22,2	25,0
60,3						A	A	A	A	A,B	A,B	A,B										
63,5						A	A	A	A	A,B	A,B	A,B	A,B									
70						A	A	A	A	A,B	A,B	A,B	A,B									
73						A	A	A	A	A,B	A,B	A,B	A,B									
76,1						A	A	A	A	A,B	A,B	A,B	A,B	A,B								
82,5						A	A	A	A	A,B	A,B	A,B	A,B	A,B	A,B							
88,9						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C							
101,6						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C						
108,0						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C						
114,3						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C					
127,0						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C				
133,0						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C			
139,7						A	A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C			
152,4							A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
159,0							A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
168,3							A	A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
177,8								A	A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
193,7									A	A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
219,1										A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
244,5										A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C		
273,0										A,B	A,B	A,B	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C	A,B,C			

Legend:

EN 10216-2	ASTM/ASME 335	in table
16Mo3	-	= A
10CrMo5-5	P11	= B
10CrMo9-10	P22	= B
13CrMo4-5	P12	= B
-	P1	= B
X11CrMo5+NT1	P5	= C
X11CrMo5+NT2	P5	= C
X11CrMo9-1+NT	P9	= C
X10CrMoVNB9-1	P91	= C

Billet source for relevant grade:

OD 130	OD 160	OD 200
External	AMO	AMO
External	AMO	AMO
External	External	AMO
External	External	AMO
External	External	External
External	External	External
External	External	External
External	External	External
External	External	External

Possible production of grades TC2 in range marked "A":

EN 10216-2	EN	P195GH, P235GH, P265GH, 16Mo3
10216-3	EN	P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2 P215NL, P265NL
10216-4		





KASKO DEMİRÇELİK MAKİNE VE İNŞAAT SANAYİ TİCARET LİMİTED ŞİRKETİ

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