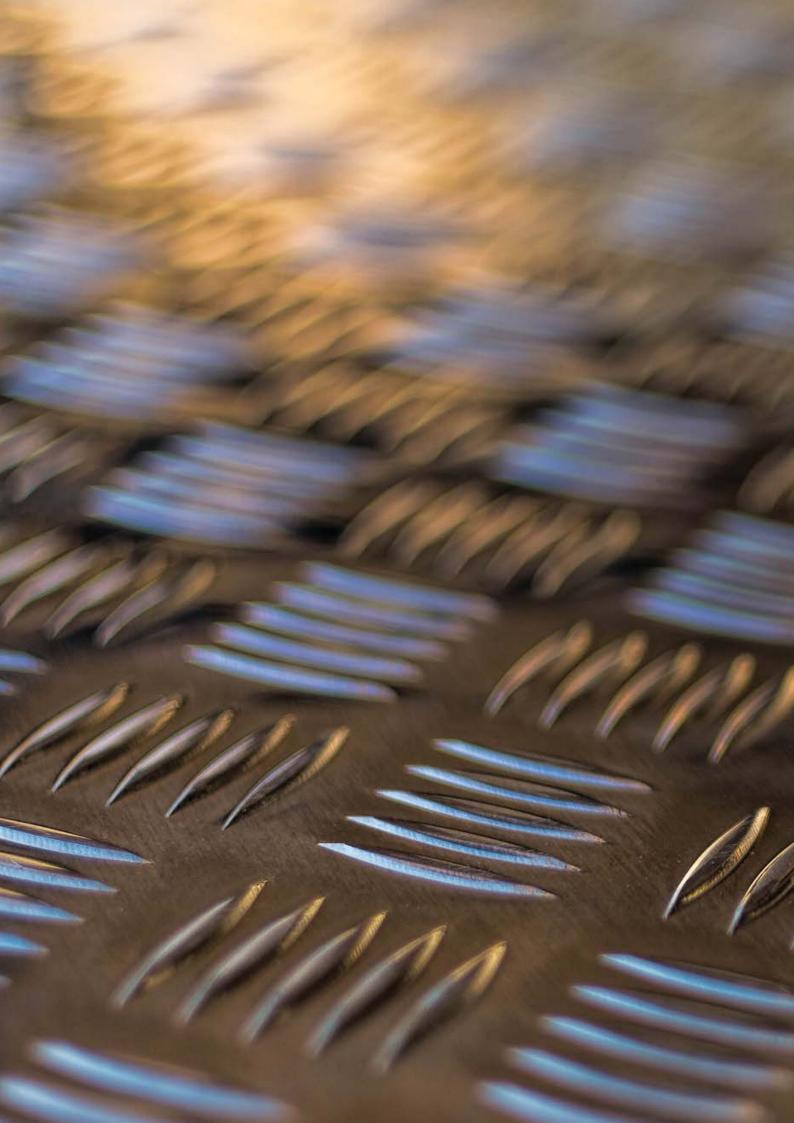


## Where Steel Matters



#### **ABOUT US**

Odelya® International Steel Industry & Trade Co. supplies a wide range of high quality steel products since its foundation year in 2004. Located in Istanbul - Turkey, Odelya® beneficially uses its geographical position in order to meet continuously growing demand of the most challenging markets world-wide.

#### **Extensive Opportunities**

We specialize in providing first class quality ERW or SAW steel tubes and flat and long steel materials. Odelya® supplies three product lines: Tubular Steel Materials', 'Piping Project Materials' and 'Rolled Steel Materials', which are widely used in many applications and industries, such as energy, construction, engineering, automobile, boiler industry, etc.

Odelya® has an opportunity to provide an extensive range of steel products and steel grades, with variety of sizes and surface conditions. Moreover, all required joints, connectors, fittings, valves and other accessories are available to complete the project requirements.

Years of experience in steel industry give us opportunity and confidence to create customized tube solutions for every specific requirement and application. Consequently, along with standardized products, we are able to use appropriate steel grades, manufacturing process and finishing operations, adjusting product characteristics for very specific customer requirements.

#### **Excellence in Quality of Products and Services**

Odelya® Steel products meet strictest quality criteria, as manufacturing process is under continuous control, all required quality tests are performed and all loading and shipment activities are supervised by qualified members of Odelya® team.

Nowadays the quality of a product is not the only factor for successful business, quality of service and safe delivery on-time are important as well. We are proud to say that working with Odelya® means excellent quality of steel products and services. Odelya® has established a reliable and trustable network of partners and customers around the world due to its competent and cooperated work of Odelya's team. As a result, our customers and partners derive optimum benefits from Odelya's flexible, fast and profitable solutions.

#### Success of Odelya® Projects

Odelya® has a valuable experience of successfully completing even large piping projects, as we provide better solutions along with expert consultancy. Starting of fully understanding of project requirements and providing the most competitive and reliable solution, our team creates a project management plan with clear deadlines in order to assure safe and on-time delivery of the products. Furthermore, all necessary documentation and shipment procedures can be arranged by our dedicated experts.

#### Why to Choose Odelya®?

Odelya® is a reliable supplier and partner, as comprehensive services and optimized solutions are fundamental issues of Odelya's vision. Additionally, offered solutions are innovative, flexible and competitive, as the main focus of Odelya® is on customer's requirements and excellent quality of products.

# SECTIONS SECTIONS CHANNELS BEAMS TEES RAILS

Odelya® provides tailor made and application based steel profiles such as; sections, channels, beams, tees, and rails under RSM product line.

Steel Profiles are special shaped carbon steel products with respect to application requirements, which are mostly used for constructional and architectural purposes such as building bridges or viaducts mainly as a supportive material for those structures.

Some of the other application areas for steel profiles are automotive industry, home appliances and furniture manufacturing.



#### Rolled Steel Materials / Steel Angles (Eaual & Uneaual) (L)

Steel Angles are carbon steel products rolled from steel plates and transformed into different sizes and dimensions. Steel Angles are also referred as "(L)-shaped steel legs".

Steel Angles have two edges. And if the length of both edges are the same then they are called "Equal Angles". If length of the edges are not identical they it is referred as "Unequal Angles".

Odelya® offers wide variety of options for Steel Angles (L-shaped Steel Legs) with different size and shapes also with different color and coating.

#### **Product Range**

Equal Angles (20 - 250 mm)

Size: In various dimensions starting from 20 x 20 x 3 mm up to 160 x 160 x 13 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1028, EURONORM 56, TS 908 or equivalents.

#### **Unequal Leg Angles**

Size: From 100 x 65 x 7 mm to 200 x 150 x 18 mm

Unequal: 120 x 80 x 8 mm - 200 x 100 x 14 mm

Length: 12 m

Standard: DIN, EN

Quality: S 235 JR (SR37) / S 275 JR (ST 44) / S 355 JR (ST 52).



#### Rolled Steel Materials / Steel Channels (U.C)

Odelya® offers wide range of products which are categorized under Steel Sections Product Group such as Steel Channels, Beams, Coloumns & Struts, Tees (H,I,U,C,T).

Steel Sections are strong carbon steel products which are rolled into special shapes to be used mostly in construction, architecture, machinery, furniture manufacturing and automotive industry.

Each product in Steel Sections product group can be tailor made having different shapes, dimensions, technical specs and sizes with respect to clients' requirements.



#### Steel Channels (U, C)

Steel Channels are rolled flange sections which have three corners with a hollow shape. Steel Channels are steel profiles which can be categorized under Steel Section Products Group. Odelya® supplies different sized and shaped steel channels which are mostly used for constructional purposes.

#### **Product Range**

Size: From 40 mm up to 380 mm

Length: From 40 mm up to 380 mm

Quality: In various internationally well-known standards including AFNOR (NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: AS per DIN 1026, EURONORM 24, TS 912 or equivalents.

#### Rolled Steel Materials / Steel Beams (H. I) - Steel Colums & Struts

#### Steel Beams (H, I)

Steel Beams are rolled flange sections with different shapes and dimensions. Beams are used for supporting strength to structures. Most commonly know Steel Beams are H & I Beams. Steel Beams could be sorted under Steel Profile Products Group.

Odelya® supplies Steel Beams with different dimensions, sizes and shapes which are mainly used for constructional applications.

#### **Product Range**

Size: From 80 mm up to 600 mm

European Standard Beams IPN (IPN Profiles)

Size: From 80 mm up to 600 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR (NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: AS per DIN 1025, EURONORM, TS 910 or equivalents.

#### Steel Columns & Struts

Columns & Struts are carbon steel products which carry loads and can be found in most structures. The strength of these products varies regarding to the production techniques and the quality of the processed material.

Columns & Struts are similar products in shape with Steel Beams yet Columns & Straits have plates welded to its body on the both edges which leads those products to be used vertically.

Odelya® provides tailor made Columns & Struts to its clients with respect applicational requirements.

#### **Product Range**

Size: 20-25-30-35 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR (NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: AS per DIN 1024, TS 911 or equivalents.

#### Rolled Steel Materials / Steel Tees

#### Steel Tees (T)

Steel Tees are carbon steel bars or beams with a cross section which resembles T-shape. Steel Tees are also referred as T-Bars or T-profiles.

Steel Tees are used for joining and edging other steel materials in the construction.

Odelya® offers the most suitable T-Bars (T-profiles) for the clients' applicational purposes.

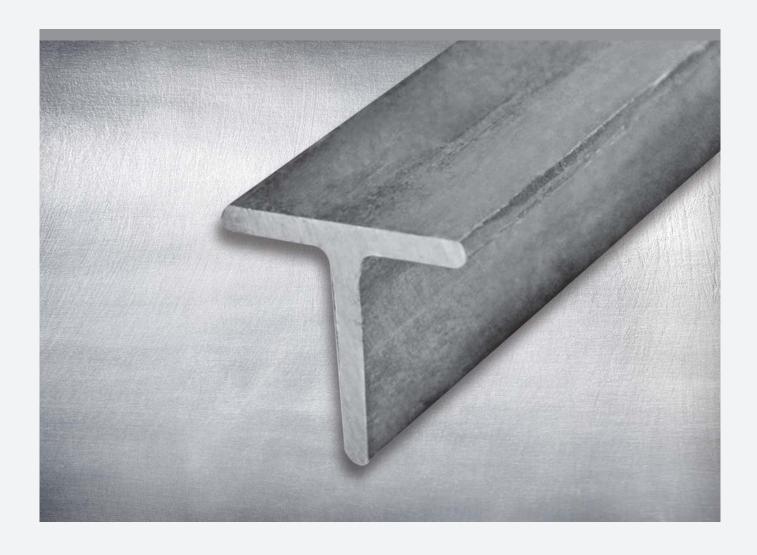
#### **Product Range**

Size: From 20 x 20 x 3 mm up to 80 x 80 x 10 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR (NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: AS per DIN 1024, TS 911 or equivalents.



#### Rolled Steel Materials / Rails



Rails are continuous line of steel bars which lays on the ground in order to form a railway. To eliminate any risks may occur after completion of the railway project, we invite you to enyoj Odelya's quality for both supplying the steel material and for precautious quality controls by Odelya® Quality Assurance & Control team.

#### **Product Range**

Acc. to DIN 5901 DIN 536

Steel Rails, Heavy Steel Rails, Crane Rails

# BARS (ROUND SQUARE SQUARE RECTANGULAR)

Steel Bars are processed carbon steel materials which are not hollow but filled inside. Steel bars come with different shapes, dimensions and coatings. And the most common steel bars are:

- Round Bars
- Square Bars
- Rectangular Bars
- Bright, Polished, Grinded, Peeled, Cold Drawn Bars
- Special Steel Bars



#### Rolled Steel Materials / Round Bars - Sauare Bars

#### **Round Bars**

Round Bars are circular and filled, processed steel products. Odelya® supplies different sized and shaped Round Bars which are used in various application areas such as cement industries, industrial equipment, ship building, machinery and construction.

#### **Product Range**

Round Bars: 5 - 250 mm

Size: In various diameters starting from 5 mm up to 80 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1013, EURONORM 60, TS 1291 or equivalents.

Transmission Bars: 6 - 200 mm

#### **Square Bars**

Square Bars are carbon steel products which are square shaped and filled. Application areas for these products are diverse. Mostly applied for furniture, stair railings and farm equipment constructions. Odelya® supplies different sized and shaped square bars for various purposes.

#### **Product Range**

Square Bars: 6 - 250 mm

Size: In various dimensions starting from 8 x 8 mm up to 50 x 50 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1014, TS 1378 or equivalents.



#### Rolled Steel Materials / Rectangular Bars (Flat Bars)

#### Rectangular Bars (Flat Bars)

Rectangular Bars (Flat Bars) are rectangulary shaped and filled, processed flat carbon steel materials. Odelya® offers a wide range of size and shape options for Rectangular/Flat Bars. These products are used in many applications such as construction, energy, ship building, furniture.

#### **Product Range**

Flat Bars: 10 - 300 mm

Size: In various dimensions starting from 10 x 3 mm up to 150 x 20 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1017 or equivalents.



#### Rolled Steel Materials / Bright, Polished, Grinded, Peeled, Cold Drawn Bars - Special Steel Bars



#### Bright, Polished, Grinded, Peeled, Cold Drawn Bars

After hot rolling process, steel products are put through cold drawning and special treatments and are transformed into Bright, Polished, Grinded, Peeled, Cold Drawn Bars. These products are used in many diverse fields of application: Agriculture, automotive, machinery, home appliances. Odelya® provides complete solutions to it's clients for these special treated products with superior quality regulations.

#### **Product Range**

Round Bars: 5 - 85 mm

Size: In various dimensions starting from 5 mm up to 85 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1013, EURONORM 60, TS 1291 or equivalents.

#### **Special Steel Bars**

Special Steels are produced with different shapes and different components to take part in a particular project. So that Special Steels are used in many different industries such as construction, energy, furniture, machinery. Odelya® supplies tailor made Special Steels for their clients' application areas.

#### **Product Range**

Round Bars: 19 - 220 mm

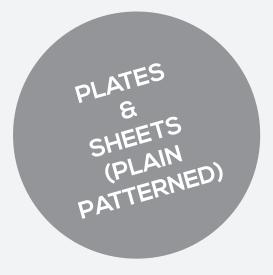
Hex Bars: 18 - 85 mm

Size: In various dimensions starting from 19 mm up to 220 mm

Length: Specifiable up to 12 m

Quality: In various internationally well-known standards including AFNOR(NF), AISI, ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, SI, TS, UNI, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)

Tolerances: As per DIN 1013, EURONORM 60, TS 1291 or equivalents.



Steel Plates and Steel Sheets are rolled, flat, carbon steel products which falls under Odelya® "Rolled Steel Materials" product line. Steel Plates/ Sheets are rolled from slabs.

Steel Plates are thick materials where Steel Sheets are tending to have thinner thickness ranges.

Steel Plates/Sheets are produced in different sizes and different appearances (patterns) with respect to the process they were subjected to.

Steel Plates/Sheets are used in construction, lifting & excavating, energy & power, shipbuilding.

Odelya® supplies Steel Plates/ Sheets for every purpose in different dimensions, patterns and sizes.



#### Rolled Steel Materials / Hot Rolled Steel Plates & Sheets

Hot Rolled Steel Plates are carbon steel flat materials which are produced by putting slabs into a hot rolling mill. Hot Rolled Steel Plates have greater thickness than sheets or piles.

Hot Rolled Steel Sheets are flat carbon steel products that are rolled from slabs in a hot rolling mill which tend to have thinner dimensions than plates.

Hot Rolled Steel Plates/Sheets are used in construction, lifting & excavating, energy & power, shipbuilding.

Odelya® supplies Hot Rolled Steel Plates/Sheets under supreme quality policies for its clients.

#### **Product Range**

Hot Rolled Plates: 1,5 to 200 mm thickness & width of 1000 mm to 3000 mm

Thickness: From 8 mm up to 120 mm

Width: 1500 mm / 1800 mm / 2000 mm

Length: 6000 mm / 12000 mm

Packing: In loose.

Quality: In various internationally well-known standards including ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, etc.



#### Rolled Steel Materials / Cold Rolled Steel Plates & Sheets

Hot Rolled Steel Plates are put through a cold-reduction mill in order to get Cold Rolled Steel Plates which are stronger when compared to Hot Rolled Steel Plates.

Cold Rolled Steel Sheets are tend to be stronger than Hot Rolled Steel Sheets and thinner than Steel Plates.

Cold Rolled Steel Plates/Sheets are used in construction, lifting & excavating, energy & power, shipbuilding.

Odelya® supplies Cold Rolled Steel Plates/Sheets under supreme quality policies to its clients.

#### **Product Range**

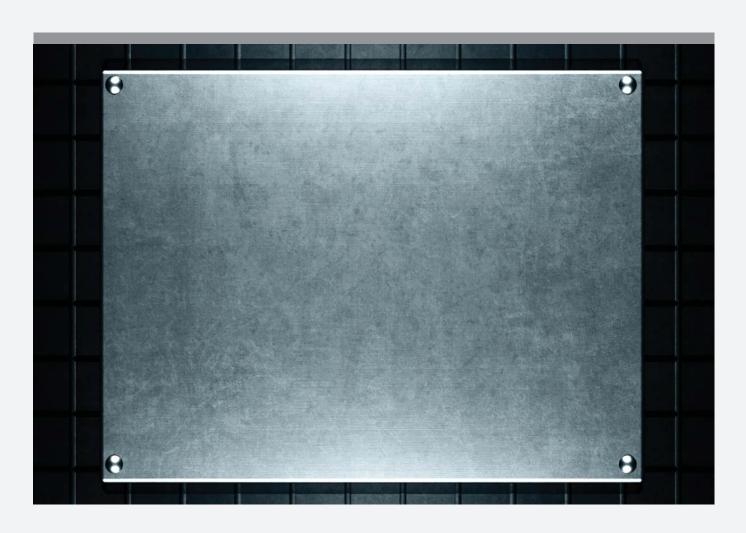
Thickness: From 0.20 mm up to 2.0 mm

Width: 1000 mm / 1250 mm

Length: 1250 mm / 2500 mm

Weight: Max. 5 mt. in bundles

Quality: In various internationally well-known standards including ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, etc.



#### Rolled Steel Materials / Patterned Plates (Checkered, Diamond, Teardrop)



Patterned Plates are flat steel products which have special shapes on the surface. Patterned Plates are widely used for lifting & excavating applications. Odelya® supplies different sized and patterned plates with sophisticated quality policies.

Checkered Plates are flat steel products which have special shapes on the surface. Checkered Plates are widely used for lifting & excavating applications. Odelya® supplies different sized and shaped checkered plates with sophisticated quality policies.

Diamond Plates are flat steel products with diamond shapes on the surface. Diamond Plates are widely used for lifting & excavating applications. Odelya® supplies diamond plates with different dimensions and sizes with respect to specific quality policies.

Teardrop Plates are flat steel products with teardrop shapes on the surface. Teardrop Plates are widely used for lifting & excavating applications. Odelya® supplies teardrop plates with different dimensions and sizes with respect to specific quality policies.

#### **Product Range**

Patterns: Diamond and Tear Drop

Thickness: From 2.5 mm up to 12.0 mm

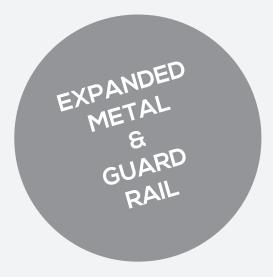
Coil Width: 1000 mm / 1250 mm / 1500 mm

Length: 1250 mm / 2500 mm / 6000 mm / 12000 mm

Weight: Max. 5 mt. in bundles and min. 6 mt max. 32 mt in coil

Coil I.D.: 600 - 800 mm

Quality: In various internationally well-known standards including ASTM, BS, DIN, EURONORM, GOST, JIS, ISO, SAE, etc. (Eg. ST 37.2 or ST 44.2 DIN 17100, ASTM A 36, ASTM A 572, JIS G 3101, BS 4360, 3 SP/PS GOST 380-88, etc.)



Expanded metals are strong, long-lasting and price-competitive products which are produced by elongating metal sheets with different thickness by pressing them under hydraulic press.

Expanded metals are very convenient and widely used steel materials. Expanded metals are used in such application areas as:

- Automotive industry
- Grid taps
- Ring vehicles protection
- Factory compartment
- Cage ,dustbin and basket production
- Heating and cooling systems
- Ironing boards
- Machine protection
- Jails
- Scarecrow and fences
- Decorative garden fenders
- Ventilation
- Stairs footboard
- Walking platforms
- Wall plaster bottom
- Inside field concrete



#### Rolled Steel Materials / Expanded Meta

Expanded metals are preferred with respect to following advantages;

- Strength against the shocks
- Anti-skid specification
- Decorative
- Efficiency at acoustic insulation
- Lighter than sheets and plates

Odelya® supplies expanded metals for its clients only with the most relevant, top quality which suits with the desired application.

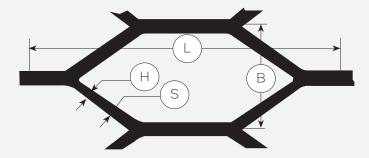
#### Range

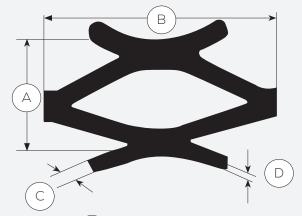
Blade Dimensions: 25 x 8 mm - 203 x 60 mm

Plate Thickness: 1, 00 mm - 5, 00 mm

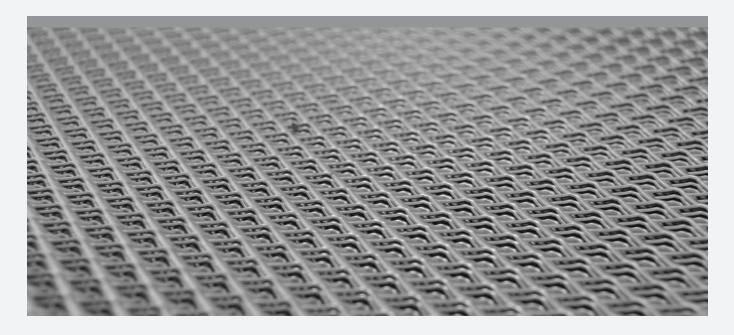
Pitch: 1, 50 mm - 9, 00 mm

Approx. Weight: 1, 6 kg/m<sup>2</sup> - 22, 9 kg/m<sup>2</sup>





- (A) Width of Mesh (SWD)
- (B) Length of Mesh (LWD)
- C Strand Thickness
- (D) Strand Width
- L Braid Lenght
- B Braid Width
- Sheet Thickness
- (H) Strip Width





Guardrails are globally used materials to protect drivers and passengers from obstacles near roads and also protects pedestrians and premises from vehicles. Guardrails are found very frequently next to:

- Autobahns
- Urban streets and roads
- BridgesBends
- Roundabouts
- · Highway booths etc.



#### Rolled Steel Materials / Guardrail

Guardrails can be named as the first security preventive tool for road side safety applications furthermore it is easy to apply and convenient by low costs.

Odelya® puts all the effort in supplying the most suitable materials for its clients' project and is also aware of the vital importance of the guardrails in daily life of societies world-wide.

#### Range

Rail Length: 4300 mm - 4320 mm

Post Length: 495 mm - 2400 mm

Interval between Posts: 1, 33 m - 4, 00 m

Corrosion Protection: Hot Dip Galvanizing



#### **QUALITY ASSURANCE**

Our quality assurance policies are a harmonious combination of our experience in global market and strict dedication to our sophisticated quality management, which ensures accurate and reproductive results.

Quality assurance tests are conducted, regulated and documented with accordance to standards specifications. Thus, for every type of product and its application, mandatory and optional tests are applied to ensure high quality of Odelya® Steel Products. Moreover, Odelya® Quality Assurance Policy includes quality control of manufactured products during packing, loading and shipment procedures as well.

As a result, at the destination point our customers receive Odelya® Rolled Steel Materials in a good condition with excellent properties.

#### **Hydrostatic Test**

Testing of leakage in the welded areas by high pressure water applies according to further application and requirements (Leak Tightness).

#### **Non-Destructive Tests**

Eddy current test: Detection of the defects on the surface and testing quality of the weld and the material using electromagnetic device.

Ultrasonic test: Full Body & Weld-zone Ultrasonic Test: Automatic ultrasonic rotary plant precisely detects flaws and monitors weld quality using high frequency sound waves. Ultrasonic inspection ensures 100% flaw detection and immediate elimination.

#### Mechanical & Technological Properties

Tensile test: Determining mechanical properties, such as yield strength, tensile strength, Young's module, deformation, elongation, strain hardening behavior, and reduction of sample.

Flattening test: Quality, strength and ductility of the weld and the tube is evaluated by pressure application.

Bending test: Evaluating ductility of the tubes and the welds to resist cracking or other surface irregularities during one continuous bend of the material.

Impact test: Determining a total energy required to break the test sample by fracturing impact at high velocity (Charpy, Izod, Drop Weight tests).

Expansion test: Determining the durability of steel tubes to withstand heavy weights and pressure.

Fracture toughness test: Indicating the amount of stress required to cause brittle or ductile crack extension in a sample with preexisting flaw.

Flange test: Boiler steel tubes are examined for the ductility and the ability to withstand the bending process into a tube sheet.

Surface roughness test: A measurement of the surface texture to ensure that it fits for required application.

Flaring test: Alternative to the flange test (evaluation of weld quality) for certain types of tubes used in pressure applications





### Where Steel Matters



