



FROM MILL TO MARKET: **OUR STEEL'S JOURNEY**

Steel Warehouse is committed to being our customers' trusted steel partner and helping to solve their fabrication challenges. We combine our innovative equipment and the capabilities of our people to provide the best steel and services in the industry. From our 16 locations worldwide, we deliver over 4 billion pounds of steel each year in the form of coil, plate, and sheet.

STEEL MANUFACTURING PROCESS



An electric arc furnace can reach temperatures of over 3,000°F!



RAW MATERIALS GATHERING THE ELEMENTS

5 - 6 trillion pounds of iron ore are excavated annually.



PRIMARY STEELMAKING **HEATING IN FURNACE**

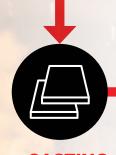
The steel manufacturing process can be completed with two different pieces of equipment: a basic oxygen furnace (BOF) or an electric arc furnace (EAF).



SECONDARY STEELMAKING

ADJUSTING THE COMPOSITION

There are over **3,500** different grades of steel.



CASTING **SHAPING STEEL**

A continuously cast slab can be up to 10" thick and 87" wide.



FORMING REFINING THE SHAPE

The cast steel is further shaped by hot rolling, where it is passed through heated rollers to achieve the desired thickness and form.



STEEL WAREHOUSE RECEIVES STEEL IN COIL OR PLATE

Steel Warehouse offers a range of secondary steel processing services to prepare the steel for customer fabrication and manufacturing processes.

SECONDARY PROCESSING



COLD REDUCING

Reduces the thickness without using heat and improves gauge consistency.



BATCH ANNEALING

Softens the steel by heat treatment cycles, allowing it to bend for the intended application.



BEVELING

Creates an angled edge for a smooth transition between two surfaces.



BLANKING

A specific shape, called a "blank," is precisely cut out from a larger, flat sheet of metal.



TEMPER PASSING/ CUT-TO-LENGTH

Improves flatness by passing through high pressure rolls and cutting into sheets.



PICKLING

Removes surface impurities by dipping in hydrochloric acid tanks.



LEVELING

Removes residual stress from steel and improves surface quality.



LASER & PLASMA CUTTING

Thermal cutting processes suitable for cutting a wide range of material thicknesses, from thin sheets to thick plates.



SLITTING

Minimizes scrap by providing the exact width needed for an application and supports a quality end product.

SHIPMENT TO CUSTOMER

CUSTOMER FABRICATION PROCESSES



CUTTING













FINAL APPLICATIONS



Aerospace
Uses about 3 - 4B pounds
of steel annually.



Automotive
Consumes approximately
12% of the world's steel.



Agriculture
Uses about
20 - 30B pounds
of steel annually.



Construction/

Infrastructure
Uses approximately
52% of the world's steel,
the most of any industry.



Military Equipment
The USS New York consists
of 48,000 pounds
of reclaimed and
recycled steel from the
World Trade Center.



Energy
A standard high-voltage transmission tower is made of 40,000 - 60,000 pounds of steel.



Heavy/Mining Equipment

This sector used approximately **50 - 60B pounds** of steel in <u>2023</u>.



Consumer

The average piece of exercise equipment is built with 11-gauge steel.



Pressure Vessels

Steel usage for large pressure vessels can exceed 200,000 pounds.



Trailers

Uses approximately
6 - 10B pounds
of steel annually.



Solar Panels

Each panel contains about 22 - 44 pounds each, mostly for the mounting.



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