Jones & Laughlin Steel Corporation

AMERICAN IRON AND STEEL WORKS

Jones & Laughlin Building, **Pittsburgh, Pa.**

WELDED AND SEAMLESS STEEL TUBULAR PRODUCTS

J & L Welded Pipe

Jones & Laughlin manufactures Standard Weight, Extra Strong, and Double Extra Strong Welded Pipe, Black and Galvanized, for steam, gas, air, water, refrigeration and sprinkler work. Sizes: ⅛ in. to 16 in. O.D. inclusive.

J & L Copper-bearing Steel Pipe, when specified, can be supplied in standard weight, or extra strong, black or galvanized. Use of this product is recommended for long life, where piping is to be exposed to the atmosphere or other alternate wet and dry conditions.

Jones & Laughlin Steel Pipe is made of soft, weldable steel rolled from solid ingots made to a special analysis which, checked over a period of years, has proved to be very uniform in quality. The steel pipe produced from this special grade of J & L Steel is soft and ductile, free cutting, strong at the welds, and free from excess scale. J & L Pipe is commercially straight and free from blisters, cracks or other injurious defects and is well within the allowable tolerances as to dimensions and weights, and true to round in the outside diameter.

Careful attention is given the threading of the pipe with good clean-cut threads fitted with sound couplings correctly tapped to give a tight joint. Soft, ductile steel of free cutting quality enables the contractor to cut clean, sound threads on the job.

The Jones & Laughlin process of galvanizing assures a thorough coating and insures against pipe being clogged with spelter. The surface of the pipe is carefully cleaned so that when the galvanized coating is applied it adheres strongly and does not tend to flake off.

J & L Seamless Pipe

J & L Seamless Pipe is made in three weights; standard, extra strong and double extra strong. Sizes: ⅜ in. nominal to 14 in. O.D. inclusive.

J & L Seamless Steel Pipe is pierced from a solid billet—there are no welds. The result is dependable and uniform wall strength. The method of manufacture, and the use of only specially selected steel, assure exceptional ductility, a quality that is essential to successful coiling and bending, and flanging for Van Stone joints.

J & L Seamless Pipe can be used with full satisfaction in either threaded joint or completely welded installations. Ductility, strength and safety—highly developed attributes of J & L Seamless—make this product especially adaptable for air, steam, gas and gasoline lines, boilers, refineries, dry kilns, refrigerating systems and other exacting applications.

J & L Hot Rolled Seamless Steel Boiler Tubes

J & L Seamless Boiler Tubes are manufactured in accordance with the *A.S.M.E.* Boiler Code and comply with the *A.S.T.M.* Specifications and the rules and regulations of the Bureau of Navigation and Steamboat Inspection of the U. S. Department of Commerce. They are supplied in a full range of standard sizes, from 1 in. O.D. to 6 in. O.D. inclusive.

The process by which Jones & Laughlin manufactures seamless boiler tubes is largely responsible for the unusually high ductility of the product. It is a process in which a forging action is predominant. This forging action gives to the steel the greater density and higher ductility that may be expected of any forging operation. It makes it stronger yet more pliable and, therefore, more easily formed in its cold state. Forging also effectively eliminates any such imperfections as air holes or blow holes that may be present in the steel.

Inspection of this product begins with the careful selection of the steel for the billets and continues without interruption through every stage of manufacture. It is your assurance of receiving only the very finest boiler tubes that can be manufactured.

Other J & L Tubular Products

J & L also manufactures Reamed and Drifted Pipe in sizes 1 in. to 6 in. inclusive, Dry Kiln Pipe, Pipe for Refrigeration Service, Water Well and Irrigation Casing, Line Pipe and a complete line of Oil Country Tubular Products in welded and seamless.

Republic Steel Corporation

General Offices — **Cleveland, Ohio**

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BOSTON, MASS.
BUFFALO, N. Y.
CHICAGO, ILL.
CINCINNATI, OHIO
CLEVELAND, OHIO
DENVER, COLO.
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General Export Dept.: NEW YORK CITY

TONCAN COPPER MOLYBDENUM IRON

What Is Toncan Iron?

Toncan Iron is a highly refined open-hearth iron with which is alloyed the correct proportion of copper and molybdenum. As such, it possesses the maximum rust-resistance of any ferrous material in its price class.

Thousands of rigid tests and the performance of untold tons of Toncan Iron in actual service point to the greater economy in the heating and ventilating systems of which the sheet metal and pipe are Toncan Iron.

Advantages of Toncan Iron

(1) It resists to a higher degree more of the many and varied types of corrosion than other ferrous material in its price class. This resistance is not confined to the surface or "skin" of the metal, but is uniform throughout.

(2) It combines the high rust-resistance of an alloy iron with many of the desirable physical qualities of less resistant ferrous materials.

(3) It is one of the most workable of materials. Sheets form easily. Pipe may be handled like any iron.

(4) Unlike other ferrous materials, cold working — cutting, bending, punching, threading, etc.—does not materially affect the rust-resistance of Toncan Iron.

(5) It welds easily by any of the usually accepted modern methods. The use of Toncan Iron welding rod insures an installation of equal rust- and corrosion-resistance throughout.

(6) A uniform and tightly adherent galvanized coating can be applied, thus adding the protection of a heavy coating of zinc to the already high rust-resistance of the base metal itself.

(7) Through its longer, trouble-free life, it has been found to cost far less per year of service. Its use is more than an economy. It is insurance against early sheet and pipe failures and costly replacements.

Toncan Iron Sheets

Toncan Iron is available in various sheet forms. Plain sheets may be had black or galvanized, in gauge nos. 8 to 28, widths from 24 to 50 in., and lengths from 10 to 13 ft., depending upon gauge and width. The Toncan Iron trade mark is stenciled in two or three places on every sheet.

Toncan Iron Pipe

Toncan Iron Pipe is available in standard and extra heavy weights; black or galvanized; in sizes from ¼-inch to 16-inch O.D. All Toncan Iron Pipe, 2-inch and larger, is electric resistance welded, and combines the foregoing advantages of Toncan Iron with the advantages of Republic's electric welding process—100 per cent weld, perfect roundness, uniform diameter and wall thickness, and freedom from scale. Toncan Iron Pipe, "black" finish, is painted blue; galvanized finish is marked with two blue stripes. Couplings are stamped TM.

Source of Supply

Toncan Iron Sheets and Pipe are stocked by jobbers in all large cities; leading contractors everywhere use Toncan Iron and are glad to supply it where specified. If, for any reason, you cannot obtain Toncan Iron, write to Republic's nearest sales office.

Literature

Two interesting books, "The Path to Permanence" on Toncan Iron Sheets and "Pipe for Permanence" on Toncan Iron Pipe, will bring you the complete story. Write for either or both books.

Other Republic Products

Republic Steel Corporation manufactures hundreds of iron, steel and alloy products, among which of interest to heating and ventilating engineers are Enduro Stainless Steel in sheets and other usual forms, steel pipe, steel sheets, and steel or Toncan Iron boiler tubes.