

Republic Steel Corporation

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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 any 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.—in no way affects 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 gauges No. 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 1/4-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 64-page 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 your copies.

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, and steel or Toncan Iron boiler tubes.

Revere Copper and Brass Incorporated

Executive Office: 230 Park Avenue, New York City

MILLS—BALTIMORE, MD., TAUNTON, MASS., NEW BEDFORD, MASS.
ROME, N. Y., DETROIT, MICH., CHICAGO, ILL.

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REVERE COPPER WATER TUBE

Revere Copper Water Tube is recommended for heating lines, refrigerant lines, heat control lines and for other heating and ventilating piping. This tube is seamless, 99.9 per cent pure copper, completely deoxidized, with a gun-barrel finish inside.

It is furnished in three types known as "K," "L," and "M," which meet Government and A.S.T.M. specifications. In general the Type "K" is used where corrosive conditions are severe, and types "L" and "M" where these conditions are normal. For most heating work, Types "L" and "M" are satisfactory.

Types "K" and "L" are furnished in both hard and soft tempers; Type "M" in hard temper only. The hard temper is used for new and exposed work; the soft temper for hidden replacement work and where flexibility is essential.

Fittings—This tube is joined with Streamline soldered fittings or with any standard make of compression fittings. Thus, threading is eliminated and metal in S.P.S. pipe used only for cutting threads is saved. The wall thickness of Revere Copper Water Tube is uniform throughout and the joints are leak-proof, vibration proof and stronger than the tube itself.

The Streamline fitting is so made that friction is reduced to a minimum and partial stoppage due to the lodgment of sediment, etc., is prevented.

Advantages of Revere Copper Water Tube—In brief these are as follows:

1. Revere Copper Water Tube has many installation advantages which make for economical first cost, as well as maintained economy. With Streamline Fittings it can be installed in a minimum of space. The soft temper tube can be bent where needed, as for example, around spandrel beams. This saves installation time and eliminates fittings. Furring is greatly reduced. Joints may be easily disassembled.

2. Revere Copper Water Tube cannot rust, so that it is not necessary to install oversize pipe. Life-time service is assured for all uses. Flow is smooth and uninterrupted and turbulence and noises are greatly reduced.

3. In forced hot water systems, it has

been found practicable to install Copper Water Tube in smaller sizes than in the case where rustable pipe is used. The same holds good for some steam installations.

4. In general, pipe covering can be one size smaller with Copper Water Tube than for the same size S.P.S. pipe because of the smaller outside diameter of the tube.

Concealed Radiation—Revere manufactures two distinct types of convectors: the Robras, box fin type, and the Rocop, tubular convector, which meet almost all conditions of service, price, etc.

To Heating and Air Conditioning Manufacturers—Revere Engineers are anxious to cooperate with manufacturers of heating and air conditioning equipment and to make recommendations with reference to the use of non-ferrous products.

Revere Copper Water Tube STANDARD DIMENSIONS AND WEIGHTS

Size in In.	TYPE K			TYPE L			TYPE M		
	O.D. in In.	Wall Thick- ness in.	Wt. Lbs. per Ft.	O.D. in In.	Wall Thick- ness in.	Wt. Lbs. per Ft.	O.D. in In.	Wall Thick- ness in.	Wt. Lbs. per Ft.
3/8	.500	.049	.269	.035	.198	.025	.144		
1/2	.625	.049	.344	.040	.284	.028	.203		
5/8	.750	.049	.418	.042	.362	.033	.258		
3/4	.875	.065	.641	.045	.454	.032	.328		
1	1.125	.065	.839	.050	.653	.035	.464		
1 1/4	1.375	.065	1.040	.055	.882	.042	.681		
1 1/2	1.625	.072	1.360	.060	1.140	.049	.940		
2	2.125	.083	2.060	.070	1.750	.058	1.460		
2 1/2	2.625	.095	2.920	.080	2.480	.065	2.030		
3	3.125	.109	4.000	.090	3.330	.072	2.680		
3 1/2	3.625	.120	5.120	.100	4.290	.083	3.580		
4	4.125	.134	6.510	.110	5.380	.095	4.660		
5	5.125	.160	9.670	.125	7.610	.109	6.660		
6	6.125	.192	13.870	.140	10.200	.122	8.910		
8	8.125	.271	25.900	.200	19.290	.170	16.460		

Recommended Operating Pressures

Type K—Hard Temper..... up to 400 pounds
Type K—Soft Temper..... up to 250 pounds
Type L—Hard Temper..... up to 250 pounds
Type M—Hard Temper..... up to 250 pounds

Temper and Lengths

Type K | Hard Temper in straight 20 ft. lengths.
Type L | Soft Temper in 30 ft., 45 ft., and 60 ft. coils.
Type M—Hard Temper in straight 12 ft. and 20 ft. lengths.