Bethlehem Steel Company

General Offices: Bethlehem, Pa.

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COPPER-BEARING BETH-CU-LOY FOR RUST RESISTANCE

The charts at the right show conclusively the superior rust resistance of copper-bearing steel. Sheets of the same composition as Beth-Cu-Loy, Bethlehem's copper-bearing steel, outlasted ordinary iron and steel by a wide margin when exposed to atmospheric corrosion.

Beth-Cu-Loy, available in the form of sheets, pipe and plates, offers 2 to 3 times longer life as indicated by these three corrosion tests—and Beth-Cu-Loy costs only 3 to 5 per cent more than ordinary steel, much less than open-hearth or copper-bearing iron.

Heating, ventilating and air conditioning engineers, architects and contractors are finding it pays to specify Beth-Cu-Loy wherever moisture or corrosion is a factor. Beth-Cu-Loy sheets are easily workable, durable and low in cost.

BETHLEHEM MAKES:

Sheet Steel—all grades, hot-rolled (black), cold-rolled, and galvanized—available in Beth-Cu-Loy.

Steel Pipe—all sizes and weights, butt-welded and lap-welded.

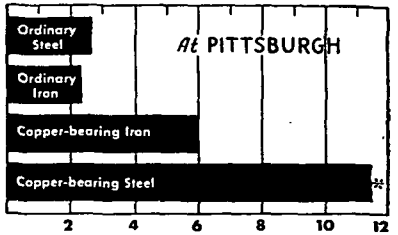
Ammonoduct—A new kind of pipe that has an outstanding advantage in its unusual ductility. It can be bent cold, without need for annealing, without danger of fracturing. Recommended for ammonia piping and for heater coils, water legs in furnaces and similar uses where pipe must be bent.

Boiler Tubes—Charcoal iron and steel.

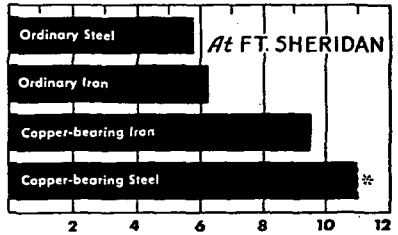
Plates—all sizes; flanged and dished heads. Available in Beth-Cu-Loy.

Literature and further information on any of these products can be secured from the nearest district office or from the general offices in Bethlehem, Pa.

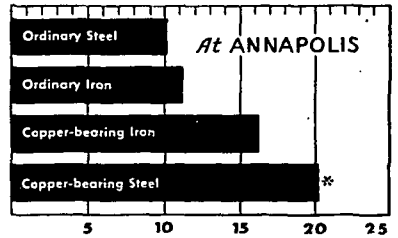
A.S.T.M. Test of 22-gage black sheets
Years to average first failure of 4 materials



Sheets exposed April 21, 1926; tests still under way (see Proceedings of *A.S.T.M.*—Committee A-5, Vol. 38).
*No failures in copper-bearing steel sheets at last report.



Sheets exposed April 19, 1917; test discontinued April 16, 1928 (see Proceedings of *A.S.T.M.*—Committee A-5, Vol. 28).
*Only 10 of 61 copper-bearing steel sheets had failed when test was discontinued.



Sheets exposed October 17, 1916; tests still under way (see Proceedings of *A.S.T.M.*—Committee A-5, Vol. 38).
*Only 9 of 78 copper-bearing steel sheets had failed at last report.

A booklet "Beth-Cu-Loy Sheets," gives the story of these tests. A copy is yours for the asking.

Carnegie-Illinois Steel Corporation

General Offices: **Pittsburgh and Chicago**

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RUST-RESISTING U·S·S COPPER STEEL GALVANIZED SHEETS

Copper steel is an alloy made by adding copper to molten steel, thereby increasing the resistance of steel to rust. Metallurgists, railroad construction engineers and independent research laboratories have tested U·S·S Copper Steel and discovered that it lasts two to three times as long as plain steel when subjected to atmospheric corrosion.

When you specify U·S·S Copper Steel Sheets for air-conditioning ducts or equipment, you get the advantage of 100 per cent to 200 per cent longer life for about 5 per cent more cost. Duct work is so costly to replace that Copper Steel should be considered for any worthwhile job.

U·S·S Copper Steel Sheets are saving thousands of dollars yearly in the ceaseless fight against rust. They give maximum protection per dollar of cost and are being used in ever-increasing volume by heating, ventilating and air-conditioning engineers, architects and contractors.

Gauges of Steel Sheets Used for Duct Construction

HEATING AND VENTILATING				Planing Mill and Other Exhaust Systems	
Round Ducts		Rectangular Ducts			
Diam., Inches	Gauge	Width, Inches	Gauge	Diam., Inches	Gauge
6 to 19	26	4 to 18	26	Up to 8	24
20 to 29	24	19 to 30	24	9 to 14	22
30 to 39	22	31 to 60	22	15 to 20	20
40 to 49	20	61 to 118	20	21 to 30	18
50 and above	18	118 and above	18		

In the above table rectangular ducts are to have cross breaks for the gauges shown, otherwise two gauges heavier should be used. One inch standing seams should be used on widths up to 48 in., 1½ in. seams on widths over 48 in., and for widths over 60 in., the seams should in addition be provided with reinforcing bars or angles.

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U·S·S Black and Galvanized Sheets

Two principal types of black sheets are used by air-conditioning engineers. They are U·S·S Hot Rolled and U·S·S Hot Rolled Annealed. These steel sheets may be had in a number of different finishes, suitable for all sorts of forming operations and for painting.

Remember that every kind of U·S·S Black Sheet is available in Copper-Steel Black Sheets for blowers, refrigerator cabinets, dust collectors, tube collectors, fans, ducts and a thousand other specialty products.

Five types of galvanized sheets made by U·S·S Subsidiaries are used extensively in heating and ventilating work. The best types for your particular products or installations may be ascertained by consulting U·S·S engineers. Write the nearest branch office.