

Plate

Wind Tower Applications



Introduction

The American Wind Energy Association (AWEA) has reported that the U.S. wind energy industry is one of the largest sources of new electrical power generation in the country. Significant new construction is underway throughout the U.S.A. Wind turbines use steel plate predominantly in the design of the towers. Currently, ArcelorMittal USA is an active supplier of the plate for the fabrication of these towers. ArcelorMittal USA is well positioned geographically and has significant facilities to make a continued strong contribution to the national wind energy program.

Capabilities

ArcelorMittal USA ranks among the world's leading producers of plate steels, including carbon, alloy and clad plates and plate shapes. We can roll thicknesses from 0.1875 in. (4.5 mm) to 28 in. (711 mm), widths to 150 in. (3800 mm) and lengths to 1500 in. (38.1 m), with weights up to 45 tons (40 Mt), depending upon size combinations.

Our melting and rolling facilities are among the most modern and efficient in North America, resulting in finished plate products that have enhanced internal and surface quality needed for wind turbine towers.

Our plate rolling mills are located in Northwest Indiana and Southeast, Pennsylvania as noted on this map. At these locations, ArcelorMittal has six plate mills capable of producing a complete size range of plate.

Facility Locations

Steelmaking, Rolling, Heat Treating:

- Burns Harbor
- Coatesville

Rolling and Heat Treating

- Conshohocken
- Gary

Steelmaking (slab supply)

- Indiana Harbor
- Sparrows Point
- Cleveland

Plate Mill Capabilities

Burns Harbor

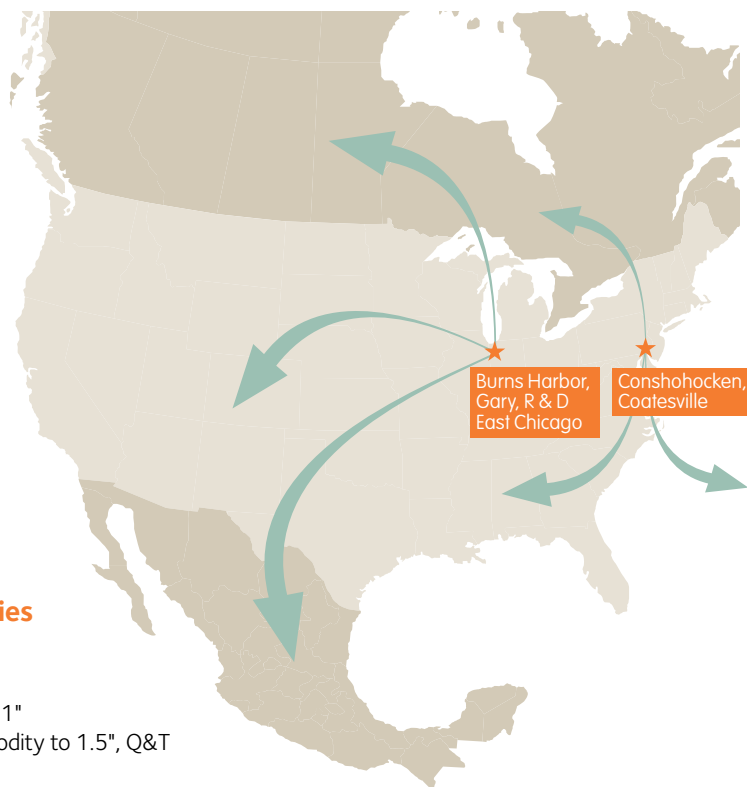
- 160" – larger, Q&T
- 110" – commodity to 1"
- 160" @ Gary – commodity to 1.5", Q&T

Conshohocken

- 110" – commodity, thin, Q&T

Coatesville

- 140" – heavy, Q&T
- 206" – wide, heavy



Also supporting these USA plate facilities is a Research and Development Laboratory in East Chicago, IN, as well as metallurgists at the producing locations, who are available to help develop new products to meet challenging applications.

ArcelorMittal USA's Plate facilities ship steel plate throughout North America and to export customers. ArcelorMittal USA is a division of the largest steel company in the world – ArcelorMittal. One of our sister plate mills in Gijón, Spain is the major producer of plate to the expansive Spanish wind energy program.

Specifications

ArcelorMittal USA's Plate mills have produced plate for U.S.A wind towers to ASTM specifications A36, A572-50, and A709 Grades 36 and 50. We have also supplied plates to European specification 10025 Grades S235, S275 and S355. Other grades are available or can be modified to meet new design requirements. ArcelorMittal USA also has significant experience producing plate for other construction applications such as bridges and electrical transmission towers. ArcelorMittal is also a major supplier of plate to the energy markets – such as line pipe, off-shore platforms and petrochemical refinery pressure vessels.



Bridge produced using ASTM A709 HPS 70W



Petrochemical refinery using ASTM A387

Further Information

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*Electrical transmission tower
produced with ASTM A871
Grade 65*



Plate production at Coatesville, PA

All information in this brochure is for the purpose of information only. ArcelorMittal USA reserves the right to change its product range at any time without prior notice.

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