

Cupola Melting Systems

Advanced Engineering and Computer Modeling Mean Efficiency and Quality from Day One

Kuttner's exclusive computer modeling technology, and extensive engineering expertise in the foundry industry, drive our proven Cupola Melting Systems.

With our cupola designs, you'll realize unmatched efficiency and high-quality output, while reducing operating costs to achieve the lowest cost per ton from the very beginning.

Kuttner engineers can also help you troubleshoot, using our timesaving reconciliation process—matching predicted results to your individual real-life situation—and suggesting beneficial process changes.



Our extensive cupola melt system experience allows us to offer a melt system to meet your specific needs. We custom design our systems with the features that you demand.

- Above-charge and below-charge take-off cupola furnaces
- Upper stack or external CO combustion
- Completely integrated and automated process controls
- Refractory lined or unlined cupolas
- Tuyere and shell water cooling systems
- Bottom drop doors, door closing mechanisms, well-side access doors
- Oxygen injection or enrichment systems with integrated flow controls, complete code compliance, and optimal safety features
- Tuyere alloy injection for optimal chemistry control and maximum SiC recovery

Partner with Kuttner for Innovative Designs and Proven Results

Look to Kuttner for metallurgical engineering, cupola modeling, and comprehensive process engineering to meet your unique cupola melting system and environmental compliance needs. Our melt center portfolio offers a wide range of products and solutions to benefit your operation, including:

- Hot blast recuperator
- CO combustion
- Waste heat recovery

Global Resources Help You Compete in North America

Kuttner North America combines extensive cupola melting systems engineering expertise with the global technological resources of the Kuttner Group of companies. Contact Kuttner North America for single-source engineering and complete parts, service, and technical support.

Cupola Melting Systems



Our advanced process engineering and superior cupola technology assures that Kuttner Melt Systems meet your needs. Your custom Kuttner Cupola Melt System will allow scrap purchasing flexibility and the greatest production flexibility, while producing consistent high-quality iron output at the lowest cost per ton.

Scrap and Alloy Flexibility

- Large, small, thick, and thin scrap
- Uncleaned, unstripped or wet and oily scrap
- Galvanized steel with potential for zinc recovery
- Borings, briquettes, blast furnace runner iron
- Low cost ferro-silicon or silicon carbide alloys and briquettes

Engineered Operating Flexibility

- Up to 2:1 melt rate turn down with oxygen and blast
- Precise hot blast and oxygen control for in-spec chemistry
- Operator friendly tuyere covers, spouts, and lances
- Coke replacement options with coal or other carbon materials

Low Operating Cost

- Optimal cupola and tuyere design to maximize heat exchange
- Lowest possible coke rates
- Minimized heat and particulate loading to emission control systems
- Low manpower costs
- Low electric and gas energy costs
- Lowest refractory cost per ton
- Long melt campaigns up to 2 months between drops



Call (888) 918-4483 today for more information or a quote for your specific application.

Kuttner North America is your complete source for the planning, engineering, design, manufacture, installation, and support for state-of-the-art melt centers, gas cleaning systems, waste recovery systems, and environmental systems for many industries. Throughout our history, we have always placed a high emphasis on quality and customer care. Contact Kuttner North America for single-source engineering and complete parts, service, and technical support.