



FRC
Global

COPPER MOLD TUBES



Precision-engineered copper mold tubes optimized for superior heat transfer, longevity, and consistent casting performance



Expert Teams.



Quality Products.



Global Networks.

Who We Are

FRC Global is a leader in the supply of refractories, electrodes, and high-temperature combustion systems.

Supplying the iron, steel, and non-ferrous metals industries for over three decades, our reputation has been built upon being problem solvers for our customers. We are constantly looking for new ways to maximize output, increase efficiency, and positively impact your bottom line.

Our commitment goes beyond providing premium raw materials; we are dedicated to offering unparalleled technical support from our team of seasoned engineers.

As a second-generation, family-owned and -operated company, we are dedicated to shaping the future of our industry for generations to come.



Co-owners of FRC Global

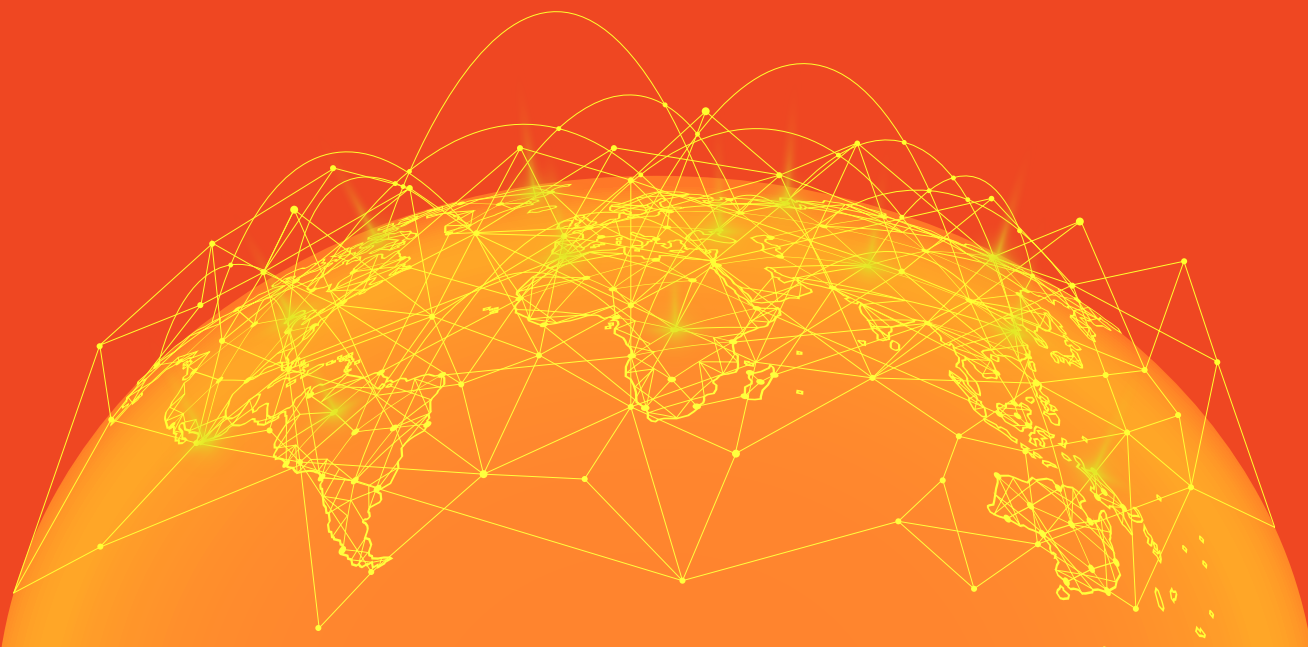
Sisters Leanne Pate, Julie Lord, and Dianne Detwiler

From left, Leanne (Director of People Operations), Julie (President and CEO), and Dianne (Director of Electrode Sales)



Our Mission

We are dedicated to delivering innovative, efficient, and sustainable products and capabilities. We meet our customers everywhere by traveling across the globe to solve their complex and unique challenges. By showing up when others don't, we open new market spaces and bring the best of our expertise with a personal, small-company touch.



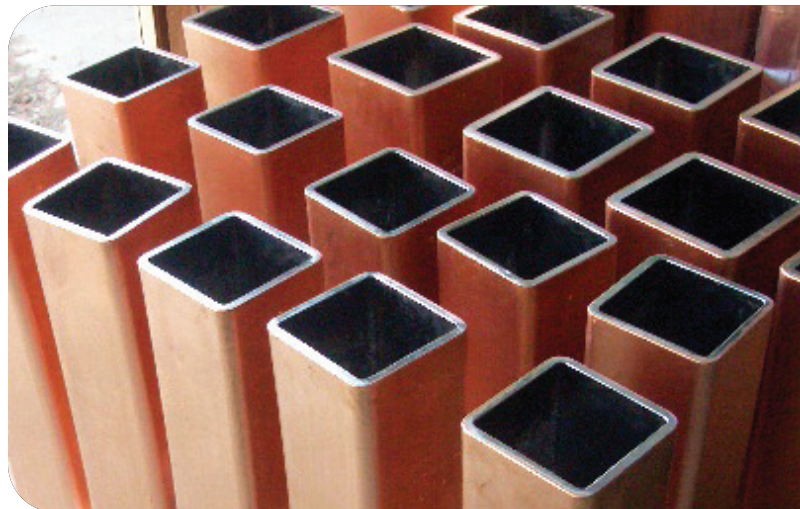
Copper Mold Tube Qualities

Copper Qualities

- **Phosphorous Deoxidized Copper (Cu DHP):** The basic material for many applications. Used when the thermal flow is moderate and the thickness of the mold is not excessive. DHP quality is commonly used for billet casting applications.
- **Copper Silver (Cu Ag):** Higher softening temperature. When there are considerations for higher temperatures in the mold, a high thermal flow, and a thicker mold wall, this quality is an alternative. Cu Ag is used in billet casting applications when there are special operating conditions such as high casting speeds, poor cooling considerations, and sequential castings. Cu Ag is also commonly used for casting blooms and slabs.
- **Copper-Chromium-Zirconium (Cu-Cr-Zr):** Almost double the softening temperature of DHP. Molds of this quality are able to hold their hardness at much higher temperature ranges and also maintain the thermal conductivity essential to the performance of this product. Cu-Cr-Zr molds are the premium choice.

Coating Qualities

- Mold coatings are critical to increase wear resistance for longer mold life and less maintenance. They also prevent copper pickup from the mold into the steel.
- **Chrome (Cr) Coating:** High initial hardness and good lubrication (low friction). Cr coating is standard for the majority of billet casting applications
- **Chrome-Nickel (Cr-Ni) Coating:** Offers higher hardness than standard Cr coating with high wear resistance.
- Other qualities and coatings available at special request. Contact us today with your special requirements.



Product

Description

Copper mold tubes are engineered to meet the unique requirements of each casting application. With a wide range of designs available, the optimal choice ensures rapid, uniform heat transfer from molten steel to cooling water, promoting quick solidification and consistent product quality.

The primary function of every mold tube is to extract heat at a rate matched to caster speed, enabling uniform steel shell formation and reducing defects such as rhomboidity. This performance depends on both material conductivity — whether concentrated at the meniscus or across the entire tube — and precise fitting within the mold housing.

FRC Global engineers evaluate your design, operating conditions, and production goals to recommend the ideal taper and configuration. Our expertise helps minimize downtime and deliver mold tubes that meet demanding productivity requirements.



More About Us

Background Information

FRC Global is a second-generation, family-owned company with a 35-year history.

Global Offices

FRC Global has offices, agents, or partners in 20 countries around the world.

- North America: United States and Canada
- South America: Colombia
- Asia: China

We provide quality engineered products and services for all your high temperature applications.

FRC Global facts

Our quality control employees thoroughly inspect shipments to ensure products are within specification and are properly packaged.

Sales force and service needs are available in the following:

- North America
- Central America
- South America
- Europe
- Middle East



Why FRC Global?

We show up for you.

For over three decades, we have built strong partnerships by living up to our reputation of showing up for our customers. Our team is made up of hard-working people—many who have been in your shoes and understand the challenges you face. We are constantly thinking ahead, anticipating new barriers, and providing better solutions.

Our team knows that no two challenges are the same. When we show up to understand you and your operation, we study it to ensure we propose solutions, not just products.

As a company full of dedicated product managers and meticulous quality control teams, we travel around the world to produce high-end products

from only the best raw materials. With seasoned engineers on staff, we identify opportunities for performance and production improvements.

We are committed to excellence. Our strong relationships with global enterprises—primarily in strategic raw materials—ensure availability, performance, and consistent high quality. Our vast network serves as a cornerstone in our ability to deliver results on a global scale.

As proactive problem-solvers, we see your challenges as our own and look forward to achieving your project's greatest potential.



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