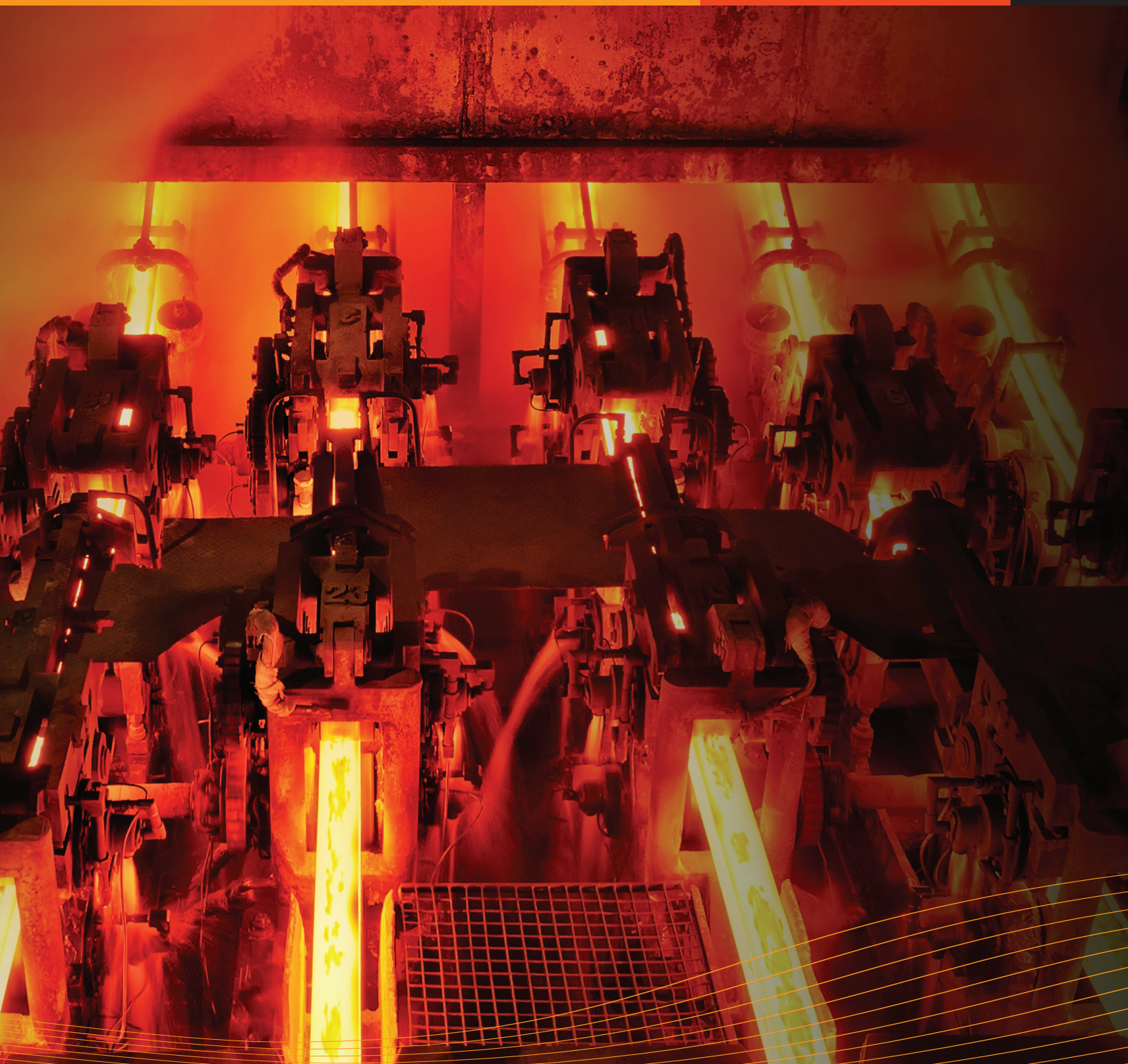


FRC Global

Copper Mold Tubes





Expert Teams.



Quality Products.



Global Networks.

Who We Are

FRC Global is a leading supplier of refractories, electrodes, and high temperature combustion systems. FRC Global provides outstanding results for our clients within the iron, steel, and non-ferrous industries. Our company's reputation is built by delivering high quality products made with premium raw materials. We are more global now than ever before.

We give you a competitive advantage by offering you superior proven products that positively impact your bottom line and perform better. Our knowledgeable engineers ensure the proper application of our products to give you the maximum level of output and safety.

With over 25 warehouse facilities in the United States, Canada, Mexico, and South America we assure your products are readily available when you need them in these regions.

Through the use of vast global resources, all of us at FRC Global are committed to being the value creators and problem solvers for our industry.



Our Mission

Embrace modern technology to increase innovation, efficiency, and transparency. Inspire the next generation by driving change, promoting curiosity, and shaping sustainable solutions in the high temp world.





About Us

Background Information

FRC Global is a second generation family owned company with a 30-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 high-temp potential.

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.

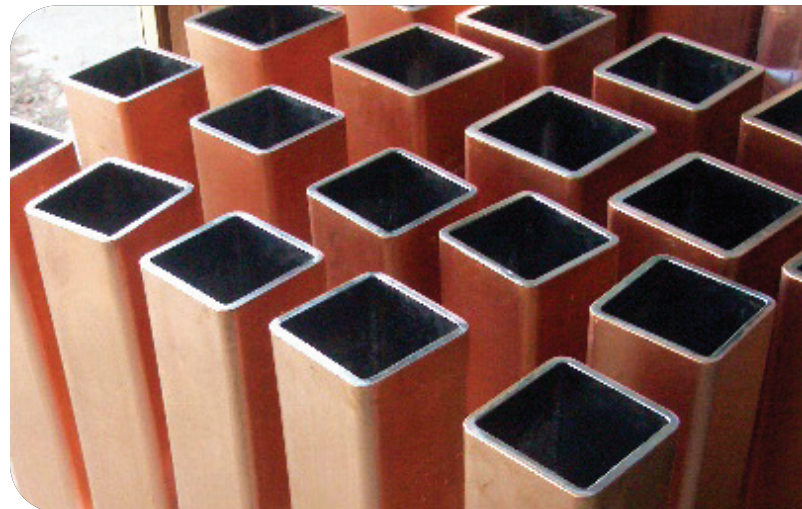
Copper Mold Tube Qualities

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.



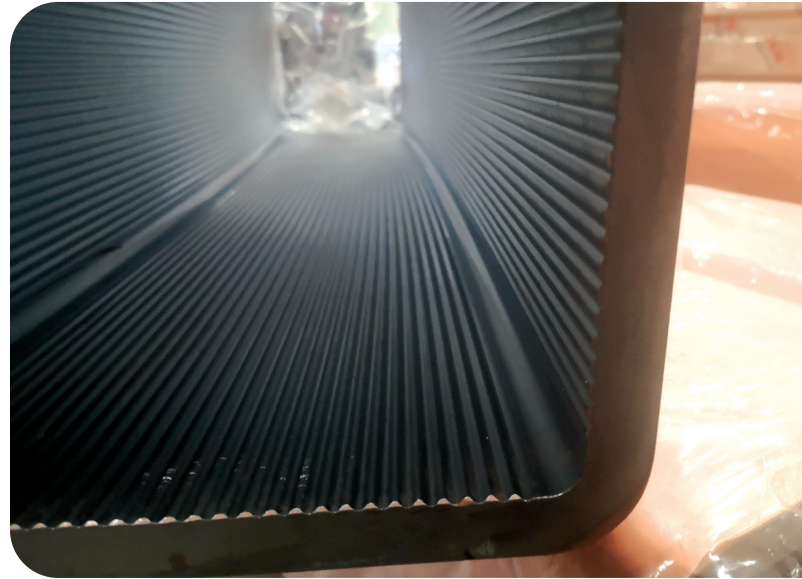
Product

Description

At high caster speeds, increased heat transfer is required within the copper mold tube. You can achieve this with FRC Global Grooved Molds and Textured Molds

Grooved molds create more surface area throughout the entire length of the copper mold tube. Increased surface area increases conductivity, allowing the copper mold tube to extract heat from the molten steel at a faster rate, improving steel shell formation.

Textured Molds have less copper thickness in alternating convex places in the meniscus area. This increases conductivity in the meniscus, which results in faster steel shell formation.





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