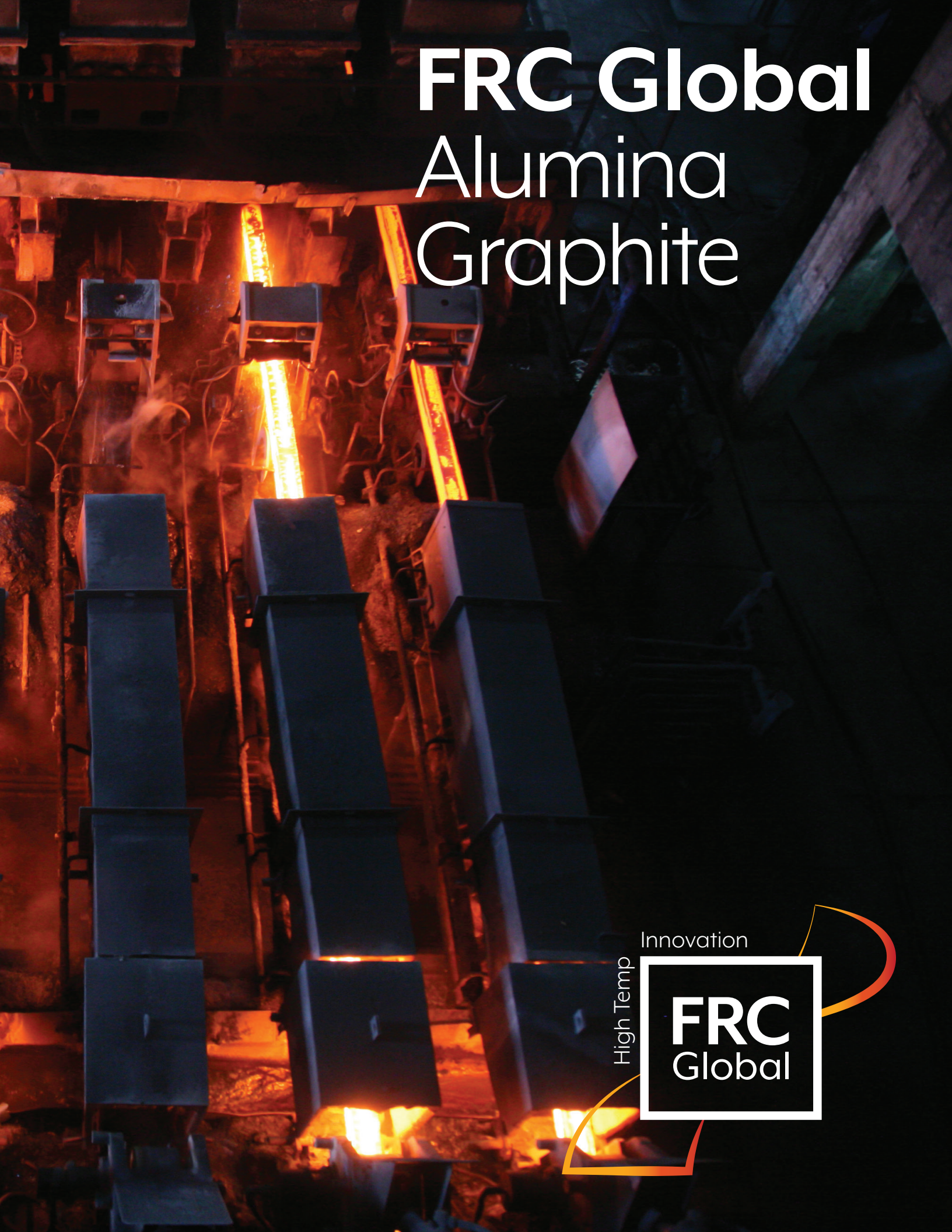

FRC Global
Alumina
Graphite
Innovation
High Temp
FRC
Global

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.

Mission Statement

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.

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

Global Offices:

- 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?

Why Us

Our experts in the refractory and metals industry provide the products and services that you need to successfully run your plant. We offer a variety of alumnia graphite flow control products including stopper rods, ladle shrouds, SEN-SES, tundish upper nozzels, quick change and thin slab SEN and more. Our knowledgeable engineers ensure the proper application of our products to give you the maximum level of output and safety.

Through the use of our vast global resources, FRC Global is committed to delivering an exceptional customer experience and innovative solutions to all of our clients in the high temp world.

Flow Control

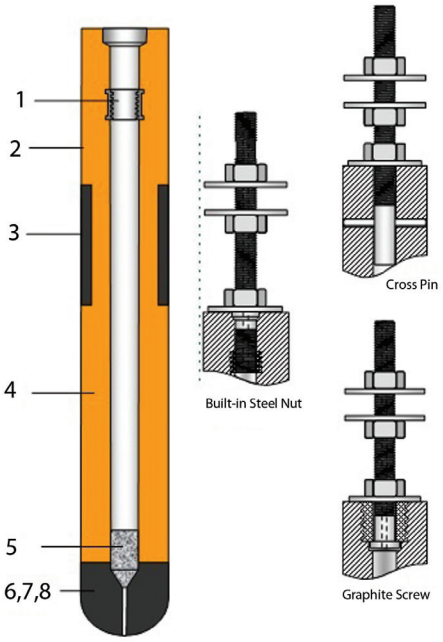
Product Description

Flow control products are absolutely critical to the safety, production and quality considerations of the end user. FRC Global has invested greatly in its ability to design, formulate, produce and deliver high-performance alumina-graphite and fused silica products.

Performance Highlights

- Safety is our mutual primary concern
- Custom-engineered products for your specific application
- CAD and modelling software available
- Formulations can be developed to achieve the right balance of cost and performance
- Only the best raw materials are used
- Every piece of alumina-graphite is inspected for flaws by X-ray
- Maximize productivity by recharging at the optimal time

Stopper Rods



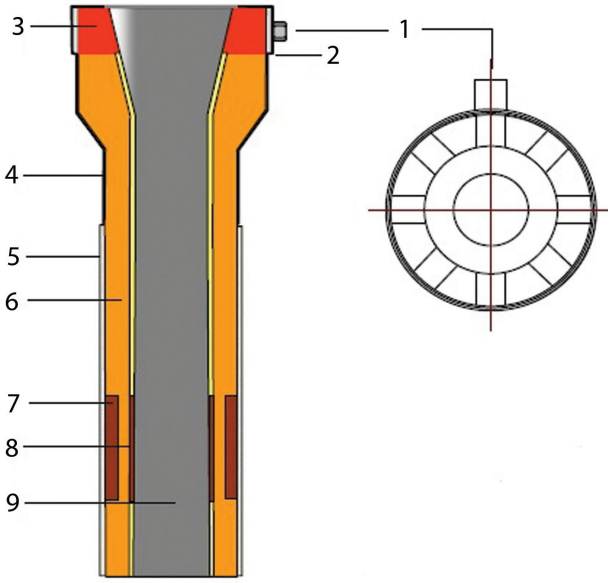
Product Description

We offer ISO-statically pressed carbon bonded alumina-graphite stopper rods with enhanced composition wear bands. We also offer argon purging where necessary for the particular casting and cleanliness requirements of a shop. Various head compositions to ensure throttling control and a clean shut-off at the end of the casting sequence. A choice of designs with rigging supplied with the stopper as required.

Graphic Illustration

1. Multiple designs for attaching the rigging.
2. Ceramic glaze coating to prevent external oxidation. High temperature glaze coatings are available for extreme preheat conditions.
3. Zr-based slag zone composition to ensure greater resistance to slag corrosion.
4. High quality AL-C materials having high corrosion and thermal shock resistance.
5. Porous plug to prevent steel from entering the stopper.
6. Spinel head materials having exceptional resistance to slag corrosion.
7. Mg-C head materials having good slag corrosion resistance when processing steel with Ca.
8. High quality Zr-based materials to ensure good corrosion resistance of the head.

Ladle Shrouds



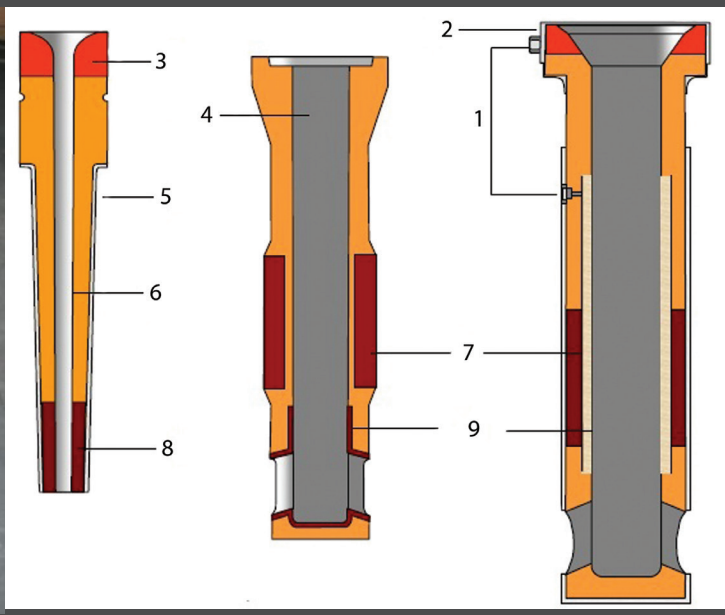
Product Description

ISO-statically pressed carbon bonded alumina-graphite ladle shrouds with enhanced composition wear bands and argon channels as necessary for the particular casting and cleanliness requirements of a shop. Preheat is not required as the shrouds are free of thermal shock characteristics. A variety of gasket designs and materials are also available for easy disconnect between heats.

Graphic Illustration

1. Multiple argon injection designs engineered for customer requirements.
2. Precision steel components for protection of the ceramic body.
3. Enhanced bowl composition for greater protection during lancing.
4. Ceramic glaze coating to prevent external oxidation.
5. Ceramic fiber to prevent heat loss during casting.
6. High quality Al-C materials having high corrosion and thermal shock resistance.
7. High quality composites to provide enhanced corrosion resistance at the slag line.
8. Non-graphite based materials to meet the requirements of producing low carbon steel, silicon steel and high purity steel.
9. Reverse taper and bell designs for the prevention of “blow-back” during submerged openings.

Alumina-Graphite SEN -SES



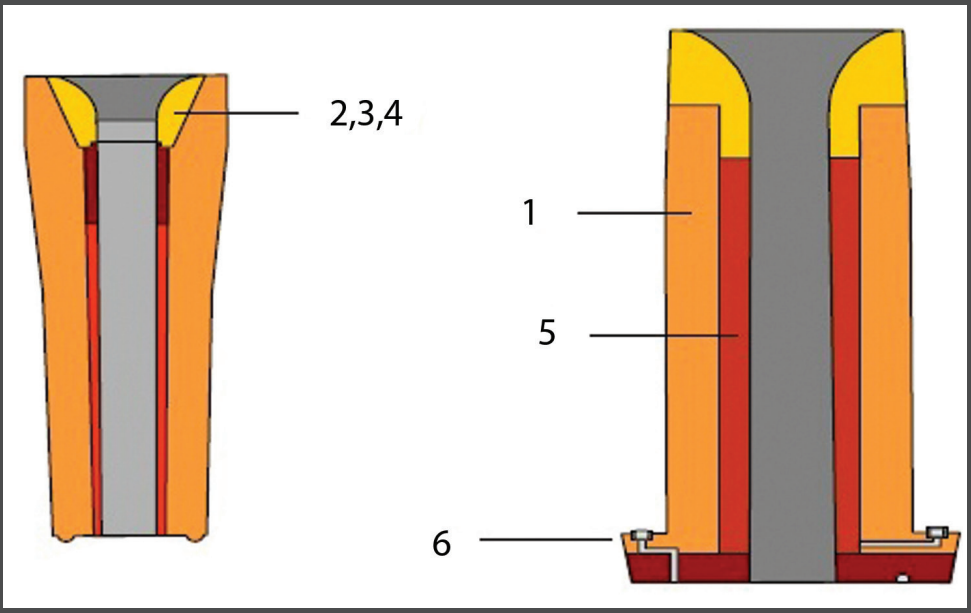
Product Description

ISO-statically pressed carbon bonded alumina-graphite SEN (sub-entry nozzles) and SES (sub-entry shrouds) with enhanced composition wear bands, argon channels and anti-clogging inner layers as necessary for the particular casting and cleanliness requirements of a shop.

Graphic Illustration

1. Multiple argon injection designs engineered for customer requirements.
2. Precision steel components for protection of the ceramic body.
3. Enhanced bowl and seat compositions for an improved seal.
4. Ceramic glaze coating to prevent oxidation during preheat. High temperature glaze coatings available for extreme preheat conditions.
5. Ceramic fiber to prevent heat loss during preheat and casting.
6. High quality Al-C materials having high corrosion and thermal shock resistance including compositions with special antioxidants for high O2 steels.
7. High quality composites to provide enhanced corrosion resistance at the slag line.
8. Non-graphite based materials to meet the requirements of producing low carbon steel, silicon steel and high purity steel.
9. Anti-clogging inner layers and Slit SEN technology.

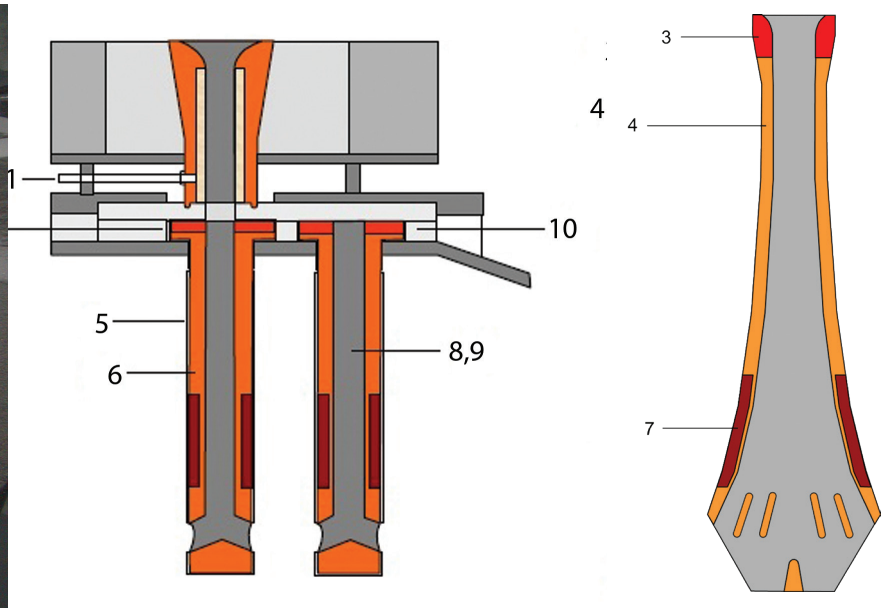
Tundish Upper Nozzles



Graphic Illustration

1. Al-C body materials having high corrosion and thermal shock resistance.
2. Enhanced Al-C materials for the bowl structure having high corrosion resistance.
3. Spinel compositions for the bowl structure to assure better adoption of the stopper including exceptional good resistance to slag corrosion.
4. Mg-based compositions for the bowl structure having good corrosion resistance to slag containing Ca.
5. Compositions to prevent Al2O3 adhesion inside the nozzle.
6. Argon injection designs to prevent air ingress.

Quick Change and Thin Slab SEN



Product Description

ISO-statically pressed carbon bonded alumina-graphite SEN (sub-entry nozzles) and SES (sub-entry shrouds) with enhanced composition wear bands, argon channels and anti-clogging inner layers as necessary for the particular casting and cleanliness requirements of a shop.

Graphic Illustration

1. Multiple argon injection designs engineered for customer requirements.
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5. Ceramic fiber to prevent heat loss during preheat and casting.
6. High quality Al-C materials having high corrosion and thermal shock resistance including compositions with special anti-oxidants for high O2 steels.
7. High quality composites to provide enhanced corrosion resistance at the slag line.
8. Non-graphite based materials to meet the requirements of producing low carbon steel, silicon steel and high purity steel.
9. Anti-clogging inner layers and Slit SEN technology.
10. Composite sliding surface materials to ensure sealing and fast change.

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