Engineered Isostatic Ceramics

Specializing in products for the continuous casting of steel
The purpose of a ladle shroud is primarily to eliminate re-oxidation of the steel during transfer from ladle to tundish.

Our shrouds are designed for 100% cold start capability.

Each product is specifically designed by our Product Specialists to suit each customer and application.

The product shown includes a Metal Can Design length up to 1800mm can be manufactured in varying diameters, argon control delivery systems to suit the customers needs.

1. Various alumina graphite body materials available to best suit the application.

2. Welded steel can for mechanical reinforcement.

3. Argon fitting for quick connect to customer argon control system.

4. Full line of magnesia and zirconia graphite materials available for a wide range of steel grades, tundish fluxes, and sequence lengths.
The purpose of a ladle shroud is primarily to eliminate re-oxidation of during steel transfer from ladle to tundish.

Our shrouds are designed for 100% cold start capability.

Each product is specifically designed by our Product Specialists to suit each customer and application.

Design length up to 1800mm can be manufactured in varying diameters, argon control delivery systems to suit the customers needs.

The product shown has been optimized to be supplied without a metal can.

1. Various alumina graphite materials available to best suit application along with a full line of magnesia and zirconia graphite materials available for a wide range of steel grades, tundish fluxes, and sequence lengths.

2. Fitting for quick connect to any argon distributing system is reinforced by means of a steel band to ensure complete integrity during casting.

3. Porous ring insert is shown to evenly distribute argon gas.
Gaskets

Ceramic Fiber

Mastic Gasket
With graphoil on the outside for clean release

Fiber Products

Ladle shroud
Starter Tube

Stopper
Pre heat tube
The purpose of a stopper rod is to control fluid flow from the tundish through the SEN to the mould. Nose profile designs can be made to suit any customer application requirement. Shipped pre assembled ready for immediate use at the application plant with no need for operators to prepare, rework or maintain hanger rod assemblies. Lengths of up to 1800 mm can be manufactured.

1. Various alumina graphite materials available to best suit application.
2. Wide range of stopper tip materials for superior strength and erosion resistance
3. Fully assembled Hanger rod supplied with each stopper
4. High strength ceramic nut isostatically pressed into stopper
The purpose of a stopper rod is to control fluid flow from the tundish through the SEN to the mould.

Nose profile designs can be made to suit any customer application requirement.

The design shown is a cross pin fixing method but these are also available with high strength ceramic threaded inserts.

Lengths of up to 1800 mm can be manufactured.

1. Various alumina graphite body materials are available to best suit the application.

2. Wide range of stopper tip materials made with high alumina, magnesia or zirconia graphite are available to suit strength and erosion or abrasion resistance requirements of the application.

3. New, stainless steel crosspin supplied with each stopper
Funnel Shroud

- Designed to suit long life applications for billet and beam blank casting using casting powder.
- Our Product specialists design these for specific customer applications to suit casting times and for various mould sizes.
- High temperature fiber available for added thermal shock resistance.

1. Various alumina graphite body materials available to best suit application needs with regard to preheating thermal shock resistance and cleaning throughout the cast.

2. Full line of zirconia graphite materials available for a wide range of steel grades, mould fluxes, and sequence lengths.
Tundish Outlet Nozzle

- Optimized for quick change tube changer systems.
- Designed specifically to work in conjunction with stopper rod flow control systems and optimized design to suit the tube change mechanism used in the application.

1. Various alumina graphite and magnesia graphite materials available to best suit application.

2. Welded steel can for mechanical reinforcement.

3. Abrasion resistant, hardened material fully machined to 0.05mm flatness and milled for accuracy.

4. Various argon delivery designs available all 100% leak tested at EI Ceramics before delivery.
1. Various alumina graphite materials available to best suit application.

2. Pressed steel can for mechanical reinforcement.

3. Abrasion resistant, hardened material fully machined to 0.05mm flatness and milled for accuracy.

4. Full line of zirconia graphite materials available for a wide range of steel grades, mould fluxes, and sequence lengths.

- Submerged shroud to suit various tundish tube changer systems.
- Design of tube changer flange to reduce thermal stressing and optimize performance.
- High temperature fiber available for added thermal shock resistance.
Submerged entry nozzles provide the metal transfer from tundish to mould, and are designed to suit the stopper for flow control at the inlet and the unique port configuration to optimize fluid flow in the mould.

Our product specialists provide full support in designing the product to meet the customer and application requirements.

High temperature fiber available for added thermal shock resistance

1. Various alumina graphite body materials available to best suit application.
2. Custom design to fit various tundish sizes.
3. Full line of zirconia graphite materials available for a wide range of steel grades, mould fluxes, and sequence lengths.
4. Various magnesia graphite materials available for superior erosion resistance at stopper inlet.
Thin slab caster submerged entry nozzle need to convert the tundish inlet stream from diameter to the rectangular mould delivery system.

- Unique profile of internal flow and port distribution system.
- Designed to suit customer and application working within the current patent constraints.
- High temperature fiber available for added thermal shock resistance

1. Various alumina graphite body materials available to best suit application.
2. Custom port design for optimum steel flow.
3. Full line of zirconia graphite materials available for a wide range of steel grades, mould fluxes, and sequence lengths.
4. Various alumina and magnesia graphite materials available for superior erosion resistance at stopper inlet.
The submerged entry shroud delivers the fluid metal from the tundish outlet device to the mould.

- They are Optimized for but not limited to slide gate flow control systems.
- Unique design to meet customer and application requirements.
- High temperature fiber available for added thermal shock resistance.

1. Various alumina graphite body materials available to best suit application.

2. Full line of zirconia graphite materials available for a wide range of steel grades, mould fluxes, and sequence lengths.