



Solutions for Vertical Direct Chill Billet Casting



Pyrotek[®]

VDC Billet Casting Solutions

Vertical direct chill (VDC) casting of aluminium billets requires replacement of consumable products fitted to the casting table. Pyrotek has solutions for the entire metal delivery system. Each component is manufactured to match OEM specifications and made from materials that best suit an operation's needs.

Pyrotek produces components for major casting equipment manufacturers and customers who rebuild VDC billet casting tables.

Pyrotek application engineers offer in-plant consultations for VDC billet casting project requirements.

From coatings to crossfeeders, Pyrotek offers all products required

Tabletop Refractory

Pyrotek tabletop refractories include precast components used to distribute molten metal to mould positions in VDC billet casting tables. Components are pre-fired and ready for use. They provide extended product life in harsh environments. Non-refractory ceramic fibre (RCF) options are available.



- Monolithic tabletop refractory
- Shell-insulated tabletop refractory

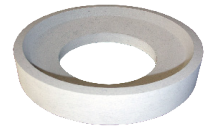
Thimbles

Thimbles are ceramic components used in hot-top billet casting systems to deliver metal to the mould from the crossfeeder. They ensure a proper fit to the tabletop refractory and transition plate. Pyrotek thimbles resist thermal shock and erosion while maintaining the optimal surface for coating and desking.



Transition Plates

Pyrotek transition plates act as the upper-mould boundary and provide insulation to maintain molten metal temperatures. The smooth surface eases transport of oxides to the billet surface. Pyrotek reinforced calcium silicate transition plates provide strength and toughness in the demanding environment of the mould.



Mastics

Pyrotek mastics are ready-to-use, durable repair and trough joint-filling materials. They can be caulked, troweled or hand-formed.

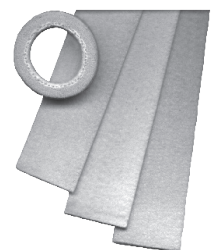
- Pyro-Mastic
- Pyrotek Mastic 85
- Pyrotek Mastic 85N

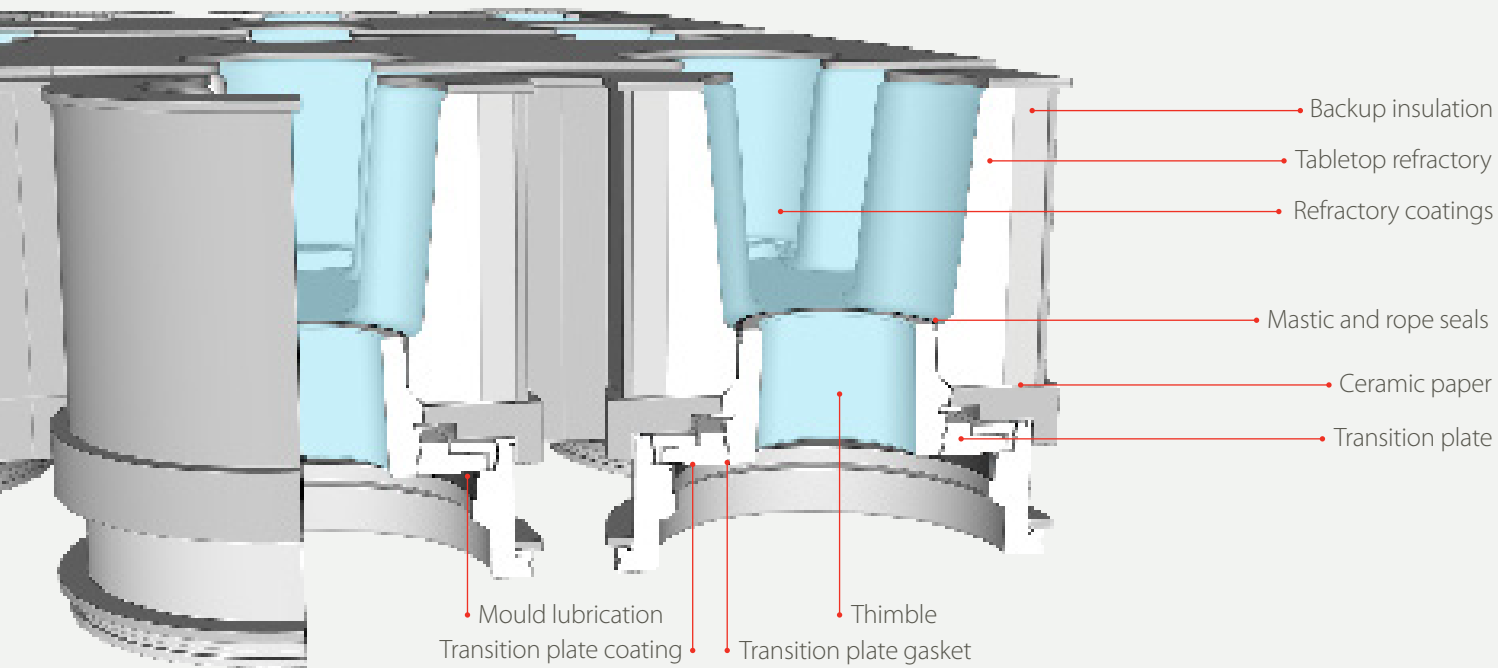


Thermal Insulation

Pyrotek insulation solutions can help provide optimal thermal performance of a metal delivery system. Pourable backup insulation also provides mechanical support to hot-facing refractory, reducing damage from impact stresses.

- Felt and blanket—RCF and non-RCF
- Microporous boards
- Paper—RCF and non-RCF
- Pourable backup insulation refractory





to operate and maintain VDC billet casting tables.

Gaskets and Seals

Ceramic paper and felt gaskets are used at the entry to the casting table, between the tabletop refractory components, around both dams and trough sock rings and between thimbles and transition plates.

- Ceramic felt
- Ceramic paper
- Precut gaskets
- Rope seals



Flow Control Products

Pyrotek metal flow control products for conventional billet casters.

- Control pins
- Floats
- Spouts



Coatings

Pyrotek offers a full line of coatings for VDC billet casters. For hot-top billet casting, Pyrotek's transition plate coatings help improve oxide mobility and reduce maintenance.

- Pyroslip graphite coatings
- Wise Chem safety coatings
- ZYP boron nitride coatings



Casting Lubricants

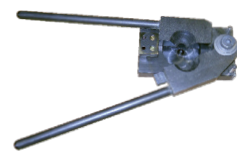
Pyrotek offers casting lubricants for both continuously-fed and batch-lubricated casting moulds that improve billet surface quality and reduce consumption of the lubricant. Fully biodegradable solutions are also available.

- Perlube™
- VAMA™

Casting Accessories

Pyrotek manufactures numerous products required during casting.

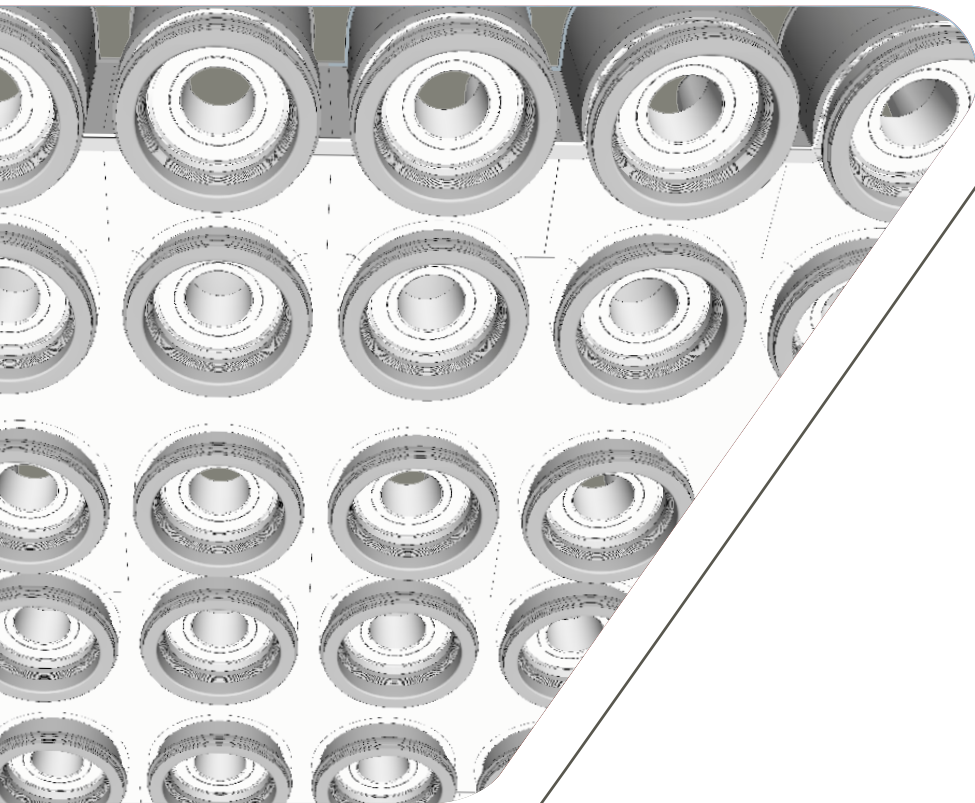
- Coupon moulds
- Dams
- Paddles
- Sampling ladles
- Skimmers
- Skull picks
- Sleeve and coated MgO thermocouples
- Stop-off plugs and cones
- Trough socks
- Trough sock rings
- Quick-tip thermocouples



Why Pyrotek?

Pyrotek® is a global engineering leader and innovator of technical solutions, integrated systems and consulting services in the aluminium industry. Our products and solutions are used around the world in automotive, aerospace, rail transportation and high-tech manufacturing.

We have global resources and local support in more than 35 countries and 60 locations. With more than 60 years of aluminium expertise from the smelter to the foundry, Pyrotek is your partner in improving VDC billet casting performance.



Pyrotek®