Foseco's novel HOLLOTEX* Shroud

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The industry standard to meet increasing casting quality and faster delivery requirements.

Foundries pay insufficient attention to protecting the molten metal stream as it exits from the bottom-pour ladle during the casting process. Oxide films readily form on the surfaces of the metal streams, then through metal turbulence these films are entrained in the metal, and new oxide layers form. These films often exist as bi-films and initiate many defects in the casting, degrading the physical properties. For many years continuous casters of metals have been using processes to protect the metal streams during casting. Foundries are now able to enhance their casting quality using a shrouding concept.

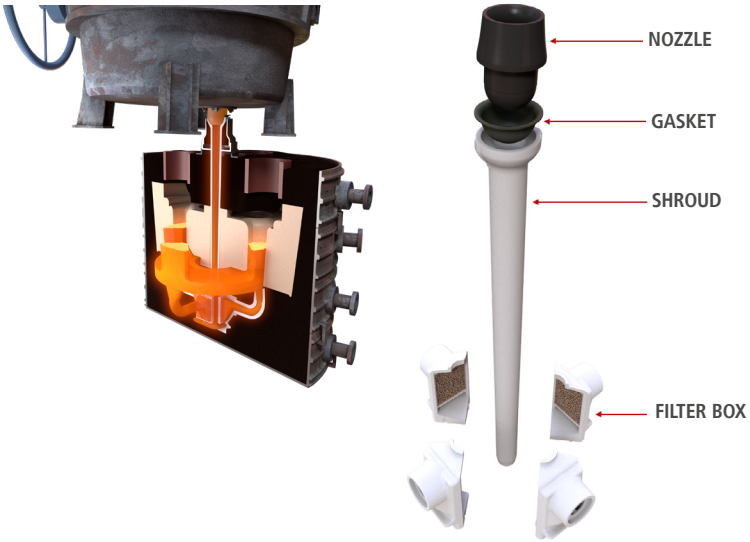
Shroud metal stream protection to improve castings quality

The HOLLOTEX Shroud has been developed to protect molten steel from air entrainment and bi-film formation during the casting process. The new shrouding process is applicable at foundries meeting the latest H&S standards and differentiates itself from ladle shrouds in steel plant applications which are operated using robotic manipulators. Foundries require the ability to cast several moulds from the pouring ladle. They also demand a safe, quick, and flexible way to operate a shroud system; having the shroud fixed to the ladle is not considered to be safe and practical for foundry use. The HOLLOTEX Shroud meets these requirements, it is positioned in the mould and lifted towards the ladle nozzle using a simple, efficient and reliable mechanical bayonet lifting system.

This lifting system is self-locking, so once twisted and sealed, the ladle operator can start pouring without physically holding it within the casting process. The VAPEX nozzle is self-centring so even if the ladle position is not perfectly aligned over the HOLLOTEX Shroud a seal can be achieved. The pouring shroud delivers the molten metal into the filter box without air entrainment and metal oxidation. The filter box is designed to eliminate metal splashing at the beginning of pouring and then distributes molten metal through STELEX ZR *ULTRA* filters into the ceramic hollowware which forms the gating system. The Shroud is tapered to ensure it fills with metal and keeps the sprue system pressurised.

Major Benefits

- No air entrainment
- Reduced unacceptable X-ray and MPI defects
- Reduced repair requirements
- Process repeatability (consistent casting quality)
- Faster delivery of castings
- Pouring temperature reduction
- Improvement in mechanical properties
- Health and safety through reduced exposure to molten metal during the casting process
- Environmental improvements



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