



**CASE STUDIES OF PIHBOND INDUCTION IN
VERTICALLY PARTED HIGH PRESURE LINE**

By Goyal Technical Team

AGENDA

- The Goyal Group, trying to ensure better castings for the foundries, have now after considerable R&D effort, developed Single Additive product – ***PihBond series*** for foundry's green sand system and now associated with a Foundries with Vertically Parted High Pressure Line.
- Goyal Group introduced Single Additive– ***PIHBOND series*** in the sand system with the following objectives:
 - ✓ *Improve the peel off and finish of castings.*
 - ✓ *Optimizing Shot blasting time .*
 - ✓ *Optimize the addition of various consumables.*
 - ✓ *Control Weight of Castings.*
 - ✓ *Reduction in Sand related Rejections.*

STATUS OF SAND STICKING



STATUS OF CASTING SURFACE FINISH



TECHNICAL IMPROVEMENT - FOR 150MT PRODUCTION FOUNDRY

• Reduction in Addition of Additives	44.82%
• Increase in GCS	83.41%
• Increase in WTS	23%
• Reduction in Sand Sticking	47.40%
• Reduction in Shot Blasting Time	30%
• Avg. Reduction in Casting Weight	3.80%
• Reduction in Sand Related Rejection	65.54%
• Reduction in New Sand Addition	56%

CONCLUSION

- The Foundry accrued Technical Advantages as stated in our proposal.
- WIP in the fettling was reduced considerably
- This enabled faster dispatch of castings
- Mould breakage reduction, enabled better production
- Shop floor pollution reduced considerably enabling better working conditions in the Foundry
- ***While the cost of PihBond enriched sand works out higher than Bentonite + LCA enriched sand, when considering the overall costing (cost advantage accrued by the tangible Technical Advantages) the Foundry was advantaged commercially in comparison to the Bentonite + LCA System.***