



HOT BLAST STOVES SERVICES

THE ULTIMATE ENHANCEMENT OF YOUR STOVES PERFORMANCE

Primetals Technologies can promise a competitive and reliable performance for your plant, based on our successful track record worldwide. Our specialists are dedicated to helping you reduce costs and remain at peak performance. As a lifelong partner for your blast furnace and hot blast stoves we can help you **maximize your assets!**

YOUR CHALLENGE

The hot blast stoves are key equipment that need to be working efficiently for optimal performance of the blast furnace. As a significant consumer of energy, counting for about 20% of the total energy requirement for an integrated steel plant, they need to be in prime condition to keep the fuel cost low. Emission levels can be significantly affected during the life of the stoves, hence it is important for the operation of the plant to be optimized regularly to maintain compliance with the legal limits.

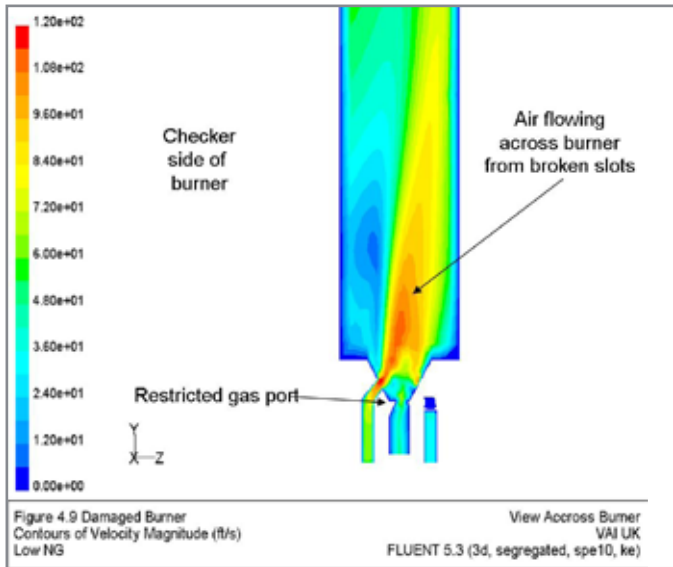
OUR SOLUTION

Primetals Technologies is able to offer you a variety of stove studies and health check investigations to ultimately enhance your stove performance, leading to better operations, lower fuel costs and better productivity from your blast furnace. Full process evaluation is a very powerful tool that looks at the entire plant performance for a complete optimization of the existing assets. This allows the net blast furnace performance (stove enrichment gas, coke rate, coal injection rate, productivity impact, fuel cost savings, etc.) to be determined on a case by case basis.

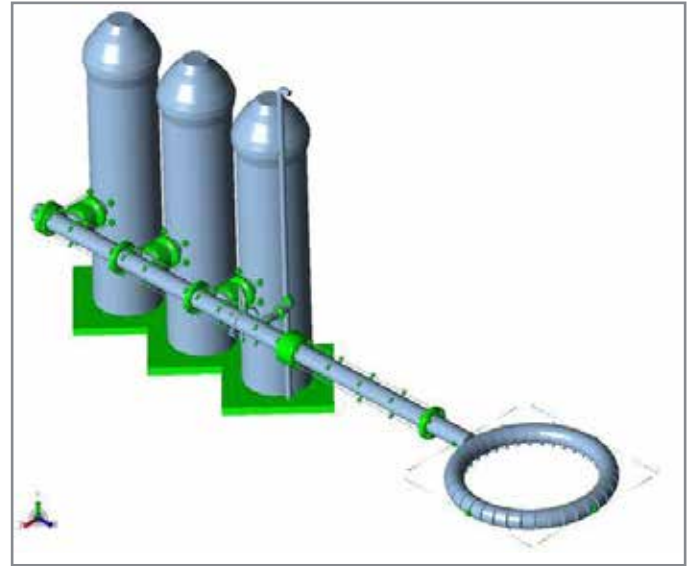
Typical operation savings can vary from 1 to 5 million euros per year.

THE HOT BLAST STOVE SERVICES

- **Computational fluid dynamics** model investigations to test ideas for stove upgrades and repairs prior to implementation
- **Thermal analysis** model used to investigate the actual operational data versus theoretical design in order to establish an agenda for stove improvements
- **Physical inspections** can include internal refractory inspection; external inspection of the stove shell; review of field instrumentation and control system
- **Create stove performance** models which are used to analyze and optimize the existing stove performance and predict performance cases during rebuilds or repairs, especially optimizing plant availability impact on production and fuel costs
- **Stove combustion** optimization, which will evaluate and optimize the fuel efficiency and operational costs of the existing operation control
- **Energy efficiency** review feasibility study to evaluate the opportunity to utilize the latest state-of-the-art energy reduction technology



CFD modelling of damaged burner



Hot blast system analysis

WHY USE PRIMETALS TECHNOLOGIES FOR YOUR PLANT HEALTH CHECK?

As a full-line blast furnace supplier Primetals Technologies is able to cover all blast furnace equipment and thus provide the best answers to your concerns.

Many customers worldwide have already reduced their operation costs using our services.

We can develop a tailored, customer specific package, to include:

- Equipment health checks
- Mechanical, refractory, electrical and automation studies
- Operational support
- Feasibility studies
- Plant performance assessments
- Plant modernisation and optimization

MAIN BENEFITS

- Increase fuel efficiency
- Maximize plant availability
- Protect your investment

PRIMETALS TECHNOLOGIES SERVICES WILL GIVE YOU

- Lower operational costs
- Lower emissions
- Longer lifetime of your assets

Primetals Technologies

A joint venture of Mitsubishi Heavy Industries and partners

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Order No. T01-0-N687-L3-P-V2-EN
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