GrafTech Customer Technical Service

Assisting you in achieving your business objectives















GrafTech Service Solutions

Scope of Advantage Services is Wide



• Comparative analysis through benchmarking • Advice and training on industry best practices • Total energy audits **New Arc Furnace Technology** GrafTech experts can help in understanding implications of new developments. **Training Program** • Electrode handling • Electrical priciples Modes of consumption Chemistry energy • EAF benchmarking • EAF raw material • EAF productivity Oxygen practices • Total energy utilization Inventory management Ladle furnace operations Slag practices **Benchmarking Analysis** Electrical Energy versus Total Oxygen 700 Electrical kWh/

EAF Best Practices

700 Electrical kWh/t 600 400 300 200 100 0 10 0 10 20 30 40 50 60 70 Vour Furnace



Our global presence gives us an independent overview of all EAF equipment and technology. We can help you in your new project planning.

- Equipment selection
- Productivity planning and capability
- Configuration and vetting

Handling practices

- Jointing techniques
- Time utilization

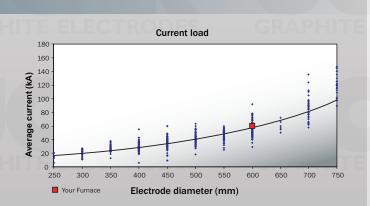
Optimizing Elec

- Oxygen and burners
- Foaming slag
- Electrode spray cooling
- Furance regulation
- Power programs
- Raw materials



We offer customized seminars for customer groups focused on subject areas of interest.

- Equipment selection
- Productivity capability and planning
- Configuration and layout
- Start-up services



Arc Furnace Optimization

ArchiTech

FURNACE PRODUCTIVITY SYSTEM

- Evaluate and trend electrode consumption by phase
- Maximize power input by determining effectiveness of power profile
- Determine electrical balance and solve arc flare problems
- Enhance foaming slag practice
- Trend more than 75 furnace parameters, including those affecting electrode consumption
- Power input optimization
- Primary and secondary metering, as well as phase sequence verification
- Regulator response and interaction analysis
- Calculate short circuit reactance, line reactance, and other key parameters
- Mobile platform
- Surface hidden problems with statistical based alerts
- Benchmarking

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The GrafTech Team

- Largest technical service team in our industry with a proven track record
- Multi-disciplined with wide-ranging skills
- Tailored service offerings from a comprehensive list of over 30 different services



For more information: 1.216.676.2000 (Toll-Free USA) | 41.21.821.33.11 (International) | www.graftech.com



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