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Delivery of an O₂-reference combustion chamber to control the gas / air ratio and for continues calorific value assessment of fluctuating high-grade and low-grade natural gas qualities.	Hamburger Stahlwerke Germany	1991
Installation of an automatic burner shutdown system to adapt flexible throughput requirements from the Mill in order to increase the quality performance at a 110t walking beam furnace in front of a Rail Mill.	Thyssen Stahl AG Duisburg	1991
Installation of lambda-correction device for multivalent energy deployment in process employing liquefied natural gas. GEVA developed special electronic assemblies for this application. The correction device was successfully implemented on the pusher furnaces no.1 & no.2. A total of 12 GEVA electronic assemblies of type VHS2 were installed.	Badische Stahlwerke Kehl	1991
Optimisation of process measuring and control systems at pusher furnaces no.1 & no.2, with the aim on saving energy and improving efficiency.	Badische Stahlwerke Kehl	1991
Consultancy services for the DANIELI on matters relating to furnace engineering were provided for a Rolling Mill project in Taiwan.	DANIELI German Office	1991
Assessment of a process measuring and control system for heat treatment of semiconductor elements.	Siemens Matsushita oHG Deutschlandsberg Austria	1991

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Design of electrical circuit diagrams for existing process measuring and control systems with the use of an electrical CAD system; type E-Plan.	Badische Stahlwerke Kehl	1991
Modification of an automatic control system for the input of liquid gas at pusher furnaces no.1 & no.2. The system was designed to use liquid gas in order to substitute natural gas between 0 and 100%. For this purpose, special control algorithms have been implemented. The mode of functioning is very similar to a power control unit, as a switch over mechanism required with max. limits. A SIEMENS S5 (115 U) was installed.	Badische Stahlwerke Kehl	1992
Delivery of an Automatic Computer Control System at pusher furnace no.1 (100 t/h) and pusher furnace no.2 (80 t/h), to adapt the operating mode to hot-charged billets; based on SIEMENS; type MMC 216.	Badische Stahlwerke Kehl	1992
Engineering Study with the aim of saving energy at Rolling Mill furnaces no.1 & no.2	LECH-Stahlwerke Meitingen	1992
Staff training courses on the subject of "Safety Management in the field of gas supply" in connection with these courses, operating instructions were also drawn up for the industrial furnace plants, taking current safety regulations into account. In addition, fundamental aspects relating to the present-day approach of legal practitioners to "organisational blame" under civil and criminal law were also discussed.	LECH-Stahlwerke Meitingen	1992
Energy concept assessment on the basis of available operational data for the individual gas-consuming units, a cost analysis was drawn up for various alternative operating modes and the contractual arrangements for gas supply.	LECH- Stahlveredelung Oberndorf	1992

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Assessment of the mode of operation for a walking beam furnace the energy consumption during the weekend stops was reduced by almost 2.000,-DM / stop. In the case concerned, this amounts to a reduction in annual energy costs of around 90.000,-DM.	Neue Maxhütte Sulzbach- Rosenberg	1992
Modification of process measuring and control system at a pusher furnace the existing process measuring and control system was modified and expanded in order to minimise energy costs.	LECH-Stahlwerke Meitingen	1992
Optimisation of operations with hot charged billets Consultancy and training services to improve operations with hot charged billets.	LECH-Stahlwerke Meitingen	1993
Consultancy services for an Italian furnace company on the subject of a furnace revamp in course of this consultancy work, a digital control system was also developed and commissioned on site.	Forni Industriali Bendotti Bergamo Italy	1993
Installation of an automatic shutdown system to adapt flexible throughput requirements from the Mill in order to increase the quality performance and to reduce the gas consumption at a 80 t pusher furnace. The installation was designed with a SIEMENS S5 (115 U) System.	LECH-Stahlwerke Meitingen	1994
Delivery and Installation of O₂-analytical flue-gas measuring facilities for the continues combustion control in the pusher furnaces no.1 and no.2.	LECH-Stahlwerke Meitingen	1994

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<p>Process engineering for pusher furnaces no.1 & no.2 GEVA rendered a consultancy service for 2 pusher furnaces over a period of 12 months with the aim of energy saving. The main activity was to implement additional control algorithms according to changes on the production on the existing computer control systems. This project was financed on a monthly base according to achieved energy savings.</p>	<p>Badische Stahlwerke Kehl</p>	<p>1994</p>
<p>Delivery & Installation of an automatic computer control system for a pusher furnace to optimise operations with hot charged billets. A complete data acquisition and material tracking system was developed, together with the optimisation project. The financial base was a participation on achieved energy savings over a period of 2 years.</p>	<p>LECH-Stahlwerke Meitingen</p>	<p>1994</p>
<p>Assessment of the mode of operation for 3 reheating furnaces with the aim of energy saving & production increase. While the study had been done several improvements of technical equipment were realised. A new design of 80 roof burners for the pusher furnace at Vaal Works was developed with an average increase of the heat transfer via radiation of approx. 34%. At least a total energy saving of approx. 40% was achieved.</p>	<p>Iscor Steel Ltd. Vereeniging South Africa</p>	<p>1994</p>
<p>Consultancy work for a furnace revamp over Christmas</p>	<p>LECH-Stahlwerke Meitingen</p>	<p>1994</p>
<p>Installation of data transmission from the computer control system to the dispatcher terminal</p>	<p>Badische Stahlwerke Kehl</p>	<p>1995</p>
<p>Preliminary Engineering Study for a pusher furnace the study includes engineering work for an increase of the nominal capacity from 35 to 45 t/hr. Therefore a modification of the furnace chamber was designed in order to increase the heat transfer related to the higher throughput requirements.</p>	<p>DAV-Steel Vanderbijlpark South Africa</p>	<p>1995</p>

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Forge Press Study Assessment of the mode of operation for the preheating and annealing furnaces with several heat up measurements via flexible thermocouples. The thermocouples were point welded on the material surface with a special point welding device.	Iscor Steel Ltd. Vereeniging South Africa	1995
Process engineering work for an annealing furnace several heating curves are measured with thermocouples to optimise the heating process and the temperature uniformity	LECH-Stahlwerke Meitingen	1995
Consultancy work in the field of "Safety Reglementations" according to German Standards	Neue Maxhütte Sulzbach- Rosenberg	1995
Assessment of a process measuring and control system for a walking beam system in front of a bar mill.	NTS Thailand	1995
Engineering Study for a pusher furnace at Scaw Metals the combustion lay out has to change from Producer Gas to Sasol Gas in order to stabilise the gas supply situation. A cost calculation was carried out with special respect to possible energy savings and less on scale.	Sasol Oil Johannesburg South Africa	1995
Engineering Study with the aim of energy saving at 2 reheat furnaces. The operation mode was analysed with special respect to the gas supply situation; three different types of gas were consumed. A total new energy economy system was introduced in order to combine all surplus products.	Highveld Steel & Vanadium Corp. Witbank South Africa	1995

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Engineering Study for a pusher furnace to increase the capacity from 45 t/hr. up to 75 t/hr.; the study had been done with special respect to increase the quality performance in order to produce spring steel with a significant decrease of the decarburisation effect. The furnace revamp had been done over Christmas 1996 in co-operation with a local furnace builder.	Isacor Steel Ltd. Vereeniging South Africa	1996
Assessment of a process measuring and control system for a heat treatment of semiconductor elements	Siemens Matsushita oHG; Deutschlandsberg Austria	1996
Engineering work for a new combustion lay out the gas supply for the total plant (3 heating + 4 annealing furnaces) have been changed from Producer Gas to Sasol Gas. A complete new lay out for the pipe- and combustion- system was designed.	2.700 Press Plant Steelforge Isacor-Pretoria South Africa	1996
Software modification for the furnace model in order to adapt changes of the operation modes in the rolling mills no.1 & no.2; new software tools were developed and commissioned.	Badische Stahlwerke Kehl	1996
Preliminary Furnace Study for a 140 t walking beam furnace an Engineering Study was made in order to reduce the gas consumption and to improve the quality performance by using the GEVA-Automisation-System.	VOEST ALPINE Draht Austria	1996
Preliminary Furnace Study for a 150 t walking beam furnace an Engineering Study was made in order to reduce the gas consumption and to improve the quality performance by using the GEVA-Automisation-System.	VOEST ALPINE Schiene Austria	1996

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Installation of the GEVA-Automisation-System in connection with a digital control device for an automatic set point control of a 75 t pusher furnace. This project was executed with a long term contract over a period of 4 years where a Digital Control System was established including material tracking and visualisation.	Iskor Steel Ltd. Vereeniging South Africa	1996
Preliminary Furnace Study an Engineering Study was permitted with the aim to reduce the gas consumption and to increase the Quality Standards	Irish Ispat Cork Ireland	1996
Inspection of the automatic control system for liquid gas control an inspection was made at the control system which was installed by GEVA in January 1992 to adapt new control algorithm according to the actual technical requirements.	Badische Stahlwerke Kehl	1996
Installation of the GEVA-furnace model for the 140 t walking beam furnace a complete Automization System was installed in combination with an automatic burner shut "OFF" system for the preheat zones in order to reduce the preheated furnace length for lower throughput requirements. In a second step the conventional control system was renewed with digital control loops.	VOEST ALPINE Schiene Austria	1996
Software modification at BSW the existing software package at the Rolling Mill no.2 was expanded in order to calculate the possible discharging frequency and to protect the rolling motors at the stands.	Badische Stahlwerke Kehl	1996
Commissioning of a Pomini wap coiler in relation of the mentioned 4 years long term contract at Iskor Vereeniging the commissioning of a new installed wap coiler, delivered by Pomini had been done.	Iskor Steel Ltd. Vereeniging South Africa	1997

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<p>Consultancy assistance in the field of increased productivity and preventive maintenance for a combined bar and rod mill a consultancy assistance regarding improvements in the field of preventive maintenance and improved productivity had been done by GEVA in order to reduce production costs.</p>	<p><i>Iscor Steel Ltd. Vereeniging South Africa</i></p>	<p>1997</p>
<p>Commissioning of an old digital control system at the GFM steelforge machine, executed as an emergency assistance a pre-selection of old hardware devices (analog- and digital transformers) was made in order to find the right functionary for different software applications.</p>	<p><i>Iscor Steel Ltd. Vereeniging South Africa</i></p>	<p>1997</p>
<p>Executing of production trials at a hardening and heat-treating plant was made in order to stabilise the quality performance and to increase the process transparency.</p>	<p><i>BDW Badische Drahtwerke Kehl</i></p>	<p>1997</p>
<p>Regular inspection of the control systems at the pusher furnaces no.1 & no.2 in order to stabilise the functionality with the aim to keep the gas consumption down.</p>	<p><i>Badische Stahlwerke Kehl</i></p>	<p>1997</p>
<p>Expansion of the software program at the furnace model the furnace computer program at the Rolling Mill no.1 was expanded after achieving positive results at the Rolling Mill no.2 in order to get an automatic discharging time schedule.</p>	<p><i>Badische Stahlwerke Kehl</i></p>	<p>1997</p>
<p>Installation of long distance data transmission via a separate X-terminal the pusher furnace no.1 with a GEVA-furnace model installation for automatic set point adjustments was expanded for long distance data transmission in order to control the furnace operation from a separate control room.</p>	<p><i>LECH-Stahlwerke Meitingen</i></p>	<p>1997</p>

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<p>Further production trials at a hardening and heat-treating plant on the base of the first test runs from September 1997 a higher sophisticated test run was made with the aim to find an alternative process technology with a higher quality performance.</p>	<p><i>BDW Badische Drahtwerke Kehl</i></p>	<p>1997</p>
<p>Installation and commissioning of new electric actuators for the flow control valves at the pusher furnace in Vaal Works in relation of the mentioned modification of the pusher furnace at Iscor Ltd., Vereeniging new electric actuators were installed instead of pneumatic devices for a more precise temperature and ratio control in order to reduce gas consumption.</p>	<p><i>Iscor Steel Ltd. Vereeniging South Africa</i></p>	<p>1998</p>
<p>Execution of a furnace study for a scheduled furnace revamp at a Bar Mill in co-operation with Badische Stahlengineering and Thyssen Still Otto Industriefenbau, a furnace study was made in order to increase the quality performance with special respect to additional energy savings.</p>	<p><i>Smorgon Steel Australia</i></p>	<p>1998</p>
<p>Installation and commissioning of new electric actuators for the flow control valves at the 140 t walking beam furnace in addition to the delivery of the new control system new electric actuators were installed and commissioned in order to improve the function of the control system.</p>	<p><i>VOEST ALPINE Schiene Austria</i></p>	<p>1998</p>
<p>Execution of an Engineering Study at the Aluminium Slab Furnaces in cooperation with the <i>Energie Consulting GmbH</i>, a daughter company from Badische Stahlwerke at Kehl, <i>GEVA</i> made an Engineering Study according a general modification of the process technology for an improved efficiency of the heat up of Aluminium Slabs.</p>	<p><i>Alusuisse Singen Germany</i></p>	<p>1998</p>
<p>Installation of an automatic burner shutdown system to adapt flexible throughput requirements from the Mill in order to increase the quality performance at a 80 t pusher furnace.</p>	<p><i>LECH-Stahlwerke Meitingen</i></p>	<p>1998</p>

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<p>Execution of burner tests for the Galvanising Line at Iscor Vanderbijlpark for the direct pre-heated section of the Galvanising Line #3 some burner tests were made at Sasolburg in order to increase the combustion quality to avoid free excess air in the combustion gas and to improve the sticking quality of the zinc.</p>	<p><i>Iscor Steel Ltd. Vanderbijlpark South Africa</i></p>	<p>1998</p>
<p>Expansion of the existing control system at the pusher furnace no.2 in order to increase the nominal capacity a mechanical furnace revamp had been done by Thyssen Still Otto in order to increase the nominal capacity from 65 t/hr. up to 85 t/hr.; <i>GEVA</i> delivered and commissioned all electrical devices.</p>	<p><i>LECH-Stahlwerke Meitingen</i></p>	<p>1999</p>
<p>Delivery, installation and commissioning of a complete roller system for hot billets tracking at the charging side of the pusher type furnace no.2</p>	<p><i>LECH-Stahlwerke Meitingen</i></p>	<p>1999</p>
<p>Execution of a Quality Study to carry out possible Opportunities to minimise decarburization effects via a modified furnace construction lay out an increase of the nominal capacity of the 140t walking beam furnace up to 185 t/hr. was calculated with the aim to increase the quality performance, especially to minimise the decarburization effects via a retarded heat up strategy, developed by <i>GEVA</i>.</p>	<p><i>VOEST-ALPINE Schiene Austria</i></p>	<p>1999</p>
<p>Inspection of the control system at the Roller Hearth Furnace after the thin slab caster</p>	<p><i>Saldanha Steel South Africa</i></p>	<p>1999</p>
<p>Installation and commissioning of the <i>GEVA</i> furnace model at an 100 t/hr. Rotary Hearth Furnace for high alloyed steel at Edelstahlwerke-Witten in Germany</p>	<p><i>GKI-OFU Edelstahlwerke Witten-Krefeld Witten</i></p>	<p>1999</p>

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<p>Execution of an Engineering Study with the aim to optimise a 150t walking beam furnace in order to reduce the gas consumption and to increase the furnace productivity. Furthermore several calculations regarding the energy economy situation were made to use a maximum of surplus products like coke oven gas. The study includes a new gas supply concept and recommends a modernised supply-concept of the total</p>	<p>Iscor Steel Ltd. Newcastle South Africa</p>	<p>1999</p>
<p>Preliminary Furnace Study at a 40 t Rotary Hearth Furnace The Study was based on solving quality problems according scale formation problems at a Seamless Tube Mill</p>	<p>Iscor Steel Ltd. Vereeniging South Africa</p>	<p>1999</p>
<p>Execution of a test run with flexible thermocouples fo heat up measurements at the material for a 35t Rotary Heart Furnace In a test trial the material heat up was measured with flexible thermocouples in order to define the heat transfer conditions for hexagons.</p>	<p>GKI-OFU Benteler AG</p>	<p>2000</p>
<p>Preliminary Furnace Study at a 150t Walking Beam Furnace for high alloyed slabs based on an analyse of the production situation a malfunction of the existing ABB System (Level 1 + Level 2) was found and a new concept was introduced in order to adapt a new heat up strategy with special respect to high alloyed steel requirements in order to solve scale formation problems.</p>	<p>Columbus Stainless Steel Middelburg South Africa</p>	<p>2000</p>
<p>Delivery, Installation and Commissioning of a complete electric devices GEVA got the order to install the complete electric installation of for a finishing line</p>	<p>LECH-Stahlwerke Meitingen</p>	<p>2000</p>
<p>Revamp of the 140t Walking Beam Furnace with reference to the quality study, done by GEVA in 1999 a big furnace revamp was executed by GKI-Ofu with the aim to remove the solid hearth and to establish a retarded heat up strategy. An increase of the nominal capacity was the reason.</p>	<p>LOI-GKI-OFU VOEST-ALPINE Schiene Austria</p>	<p>2000</p>

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<p>Consultancy assessment for a planed revamp of a 150t Walking Beam Furnace at the Medium Mill</p> <p>for the furnace revamp a detailed consulting regarding possible modifications were discussed in order to improve the installation base for further productivity improvements and energy savings.</p>	<p>Iscor Steel Ltd. Newcastle South Africa</p>	<p>2000</p>
<p>Preliminary Engineering Study at a 100t Pusher Type Furnace at a Heavy Plate Mill</p> <p>an order of a Study was placed to GEVA to carry out the main requirements for a planed modernisation of the whole plant. Especially the furnace operation was analysed to optimise the operation conditions of the tracking system</p>	<p>VOEST-ALPINE Stahl Linz Austria</p>	<p>2000</p>
<p>Optimisation of the production situation at a 150t Walking Beam Furnace after a maintenance repair</p> <p>the Walking Beam Furnace at the Medium Mill was optimised via changes of the operation manual with modified set point adjustments.</p>	<p>Iscor Steel Ltd. Newcastle South Africa</p>	<p>2000</p>
<p>Preliminary Engineering Study at a 60t Pusher Type Furnace with the aim to increase productivity</p> <p>at this stage the general relationship of the Energy Economy was taken into account in order to change the gas supply from mixing gas to coke oven gas for higher combustion temperatures.</p>	<p>Nanjing Steel Peoples Republic of China</p>	<p>2000</p>
<p>Preliminary Engineering Study at a 100t walking beam furnace in co-operation with Badische Stahl-Engineering, Kehl in order to operate hot-charging for energy saving and increased productivity</p> <p>the benefits of hot-charging were introduced with special respect to practical experience at BSW</p>	<p>Xinjiang Bayi Steel Peoples Republic of China</p>	<p>2000</p>
<p>Delivery, installation and commissioning of a complete furnace automation project Level 1 + Level 2</p> <p>a complete turnkey project was ordered by <i>VOEST ALPINE</i> in order to increase the productivity of a 100 t pusher type furnace in combination with soaking pit furnaces for cladding slabs.</p>	<p>VOEST-ALPINE Stahl Linz Austria</p>	<p>2000</p>

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Commissioning of a 140 t Walking Hearth Furnace SIEMENS delivered and installed a Rolling Mill in the Ukraine. Therefore GEVA commissioned the reheat furnace for mill operation.	SIEMENS OEMK Mill Ukraine	2001
Energy Economy Study for an integrated Steel Plant For an integrated Steel Plant a Feasibility Study was made. A saving potential on energy of approx. 10,0 Mill. DM per year was found. A Global Long Term Partnership Agreement was introduced over a period of 5 years.	Iscor Steel Ltd. Newcastle South Africa	2001
Commissioning of an Annealing Plant After the commissioning of the Walking Hearth Furnace in April 2001, 3 Annealing Furnaces were commissioned in Phase 2 in order to improve the quality performance.	SIEMENS OEMK Mill Ukraine	2001
Execution of a Feasibility Study for 2 reheat furnaces the Study had been done for further productivity increase and quality improvements a significant reduction in scale production was achieved	Al Ittefaq Damman Saudi Arabia	2001
Execution of an Engineering Study with the aim to analyse working conditions at a 130t walking beam furnace a complete analyse of operation procedures were made with special respect on 2-shift working conditions a big potential in energy saving was found	TSTG Schienen Technik Duisburg Germany	2002
Execution of a Feasibility Study for a pusher furnace a Feasibility Study had been done in order to improve hot-charging activities for Energy saving the Study included ROI-calculations for further investments	Sidenor Ltd. Thessaloniki Greece	2002

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Modification of a 40t pusher furnace a redesign of existing burner equipment had been done in co-operation with local refractory companies	Iscor Steel Ltd. Pretoria South Africa	2002
Execution of an Engineering Study with the aim to analyse working conditions at a 180t pusher furnace the Study had been done in order to analyse the working conditions with special respect to advanced furnace technology	ISPAT Stahlwerk Duisburg	2002
Consultancy Service in changing operation conditions a long term consultancy service was supplied in order to change furnace operations in order to reduce energy consumption. A Reference Combustion Chamber was delivered in order to optimise the Ratio-Control for BOF-gas. An energy saving of approx. 12% was achieved. The consultancy service included also staff training for furnace operators onsite	TSTG Schienen Technik Duisburg Germany	2002
redesign of combustion equipment at a 120t Walking Beam Furnace a redesign of existing burner equipment was execution in co-operation with a local consulting company	Highveld Steel & Vanadium Corp. Witbank South Africa	2003
Consultancy Service at 4 reheat furnaces at a Hot Strip Mill in co-operation with a local partner a long term consultancy service had been executed with the aim of energy saving an quality improvements. A total save of 1,15 Mill ZAR/month was achieved.	Iscor Steel Ltd. Vanderbijlpark South Africa	2003
delivery of a Reference Combustion Chamber a Reference Combustion Chamber for Combustion Control was delivered for a 120t Walking Beam Furnace	Highveld Steel & Vanadium Corp. Witbank South Africa	2003

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delivery of a Level-2 System for hot charging for a Wire Rod Mill a Level-2 system with a mathematical furnace model was installed in order to save energy via hot-charging	SIDENOR Ltd. Thessaloniki Greece	2004
long term consultancy service for the erection of a 1 Mill ton Wide Plate Mill at Khouzestan Steel in Ahwaz, Iran GEVA became a member of a Consultancy Group and assist the end customer in technical performance. The consultancy work includes technical recommendations for the erection of 2 Walking Beam Furnaces (200t each) and an annealing line with 2 annealing furnaces incl. quenching	MME Düsseldorf Germany	2004
onsite investigation at a roller hearth furnace, behind a thin slab caster with aim to analyse production improvements	Saldanha Steel South Africa	2004
delivery of a 2nd Reference Combustion Chamber in cooperation with Danieli a Reference Combustion Chamber for Combustion Control was delivered for a 110t Pusher Furnace, erected by Danieli Centro Combustion	Highveld Steel & Vanadium Corp. Witbank South Africa	2004
Modification of a 180 t Pusher Furnace for energy saving and improving quality an automatic burner shut off system was installed including Level-2 and additional re-design of burner equipment, an energy saving of 10% was achieved	Mittal Steel Duisburg-Ruhrort Germany	2004
execution of a feasibility study at a 45 t pusher furnace a feasibility study for a redesign of a 45 t pusher furnace had been done in order to increase the nominal capacity by approx. 25 %	Iscor Steel Ltd. Pretoria South Africa	2005

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onsite investigation at a 140 t walking hearth furnace at a wire rod mill a feasibility study had been done in order analyse the actual furnace operation and to increase the nominal capacity of approx. 25%	<i>Gerdau AZA Colonia Chile</i>	2005
redesign and delivery of 42 roof burners at a 150 t walking hearth furnace with the aim to improve combustion technology and to avoid overheating.	<i>Mittal Steel Gandrange France</i>	2005
execution of a feasibility study at a 55 t walking hearth furnace in order to increase quality performance	<i>Edelstahlwerke Südwestfalen Hagen</i>	2005
onsite investigation at a 140 t walking beam furnace in order to improve combustion technology	<i>Mittal Steel Schifflange Luxemburg</i>	2005
onsite investigation at a 140 t walking hearth furnace in order to analyse opportunities for hot charging	<i>Gerdau Ameristeel Manitoba Canada</i>	2005
onsite investigation at Mittal Gandrange after burner installation an analyse of furnace operation modes were discussed with responsible furnace operators in order to implement new operation procedures with the aim to save energy and reduce decarburization effects	<i>Mittal Steel Gandrange France</i>	2005

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delivery of spare parts for roof burner installation several burner blocks and air nozzles for existing combustion equipment based on Bloom design were delivered	Mittal Steel Duisburg-Ruhrort	2005
delivery of new O₂-measurement equipment type GEVA in order to improve combustion quality, new thermocouples and O ₂ -measurement devices were delivered and installed	Edelstahlwerke Südwestfalen Hagen	2006
delivery of new burner nozzles with a modified design 13 new burner nozzles with a modified design were delivered in order to improve thermal efficiency	Edelstahlwerke Südwestfalen Hagen	2006
onsite investigation at a 120 t walking hearth furnace in order to improve combustion technology	Mittal Steel Hamburg	2006
onsite investigation at a 140 t walking beam furnace in order to improve combustion technology	UMIT WW Peine	2006
delivery of 20 DP-transmitters for water cooling at a walking beam furnace in order to renew an existing installation (spares)	TSTG Schienen Technik Duisburg Germany	2006

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delivery of roof burners for a walking hearth furnace in order to renew an existing installation	Mittal Steel Hamburg	2006
delivery of roof burners for a pusher furnace in order to renew an existing installation	Mittal Steel Duisburg Ruhrort	2006
execution of a feasibility study for 2 rolling mill furnaces a general inspection of furnace design & operation was executed in order to increase quality performance & optimise energy consumption	Smorgon Steel Melbourne Australia	2006
installation of additional heating equipment at a 10 t EAF in order to increase productivity at a steel foundry	Friedrich Wilhelmshütte Mülheim / Ruhr	2007
2nd onsite investigation at Smorgon Steel incl. delivery of 3 Oxygen probes	Smorgon Steel Melbourne Australia	2007
delivery of burner nozzles for roof burner in order to improve combustion technology	ArcelorMittal Gandrange France	2007

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delivery of O₂ probes in order to reduce scale	<i>ESF feralpi Stahlwerke Riesa</i>	2007
bottleneck study for a 140 t walking hearth furnace in order to adapt hot charging & increased productivity	<i>ESF feralpi Stahlwerke Riesa</i>	2007
assistance in furnace operation with reduced decarburization for high alloyed steel	<i>Deutsche Edelstahlwerke Hagen</i>	2007
delivery of spare parts for roof burner installations	<i>ArcelorMittal DU-Ruhrort</i>	2008
redesign of burner installation at a 120 t pusher furnace in order to improve temperature-uniformity	<i>ArcelorMittal DU-Hochfeld</i>	2008
delivery of spare burners	<i>ArcelorMittal DU-Ruhrort</i>	2008

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delivery of burner blocks for roof burner + thermocouples in order to improve the quality performance	<i>One Steel Australia</i>	2008
delivery of spare burners	<i>ArcelorMittal DU-Ruhrort</i>	2008
technical Engineering for a new trafo installation at a 10 t EAF in order to increase productivity	<i>Friedrich Wilhelmshütte Mülheim / Ruhr</i>	2008
Engineering Study + delivery of 3 O₂-probes for heavy oil combustion	<i>CISCO Steel South Africa</i>	2008
delivery of spare burners	<i>ArcelorMittal Schifflingen Luxemburg</i>	2008
Engineering study for annealing furnaces at a steel foundry in order to decrease surface decarburization	<i>Friedrich Wilhelmshütte Mülheim / Ruhr</i>	2009

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development of a new heating system for low temperature applications in order improve pre-heating of casted material for welding	<i>Friedrich Wilhelmshütte Mülheim / Ruhr</i>	2009
consultancy work for cracking effects after optimisation of hot charging several surface cracking's were found	<i>ESF feralpi Stahlwerke Riesa</i>	2009
delivery of burner blocks	<i>TSTG Schienen Technik Duisburg Germany</i>	2009
delivery of additional O₂ probes in order to reduce scale	<i>CISCO Steel South Africa</i>	2009
Engineering study for a redesign of tube annealing furnace at Vallorec Mannesmann in Rath in co-operation with Fa. Hennig (Ratingen)	<i>Vallorec Mannesmann Düsseldorf</i>	2009
feasibility study for furnace operation at Bendotti-Level-2-Sytem in order to get the system running & saving gas consumption	<i>LECH-Stahlwerke Meitingen</i>	2009

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redesign of furnace walls at a 100t walking beam furnace in order to reduce scale	LECH Stahlwerke Meitingen	2009
visit at LAMDRO Drobeta Severin in order to check the actual situation for the conversion to natural gas	Max Aicher GmbH Freilassing	2009
2nd investigation at a Bendotti furnace operation Level-2-System in order to follow up the scheduled activities for Bendotti	LECH-Stahlwerke Meitingen	2010
100 t/h pusher furnace; complete conversion from heavy oil to natural gas a total cost reducing of 13,- e/t was achieved	Lamdro Drobeta Severin Romania	2010
Engineering study at a 100 t/h pusher furnace in order to analyse the actual production situation	ArcelorMittal Gandrange France	2010
complete furnace revamp incl. new burner equipment & control system a total energy saving of 2,50 e/t (22%) was achieved	ArcelorMittal Gandrange France	2011

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delivery of 54 new roof burners & 16 new low NOx baffles for a 240 t/h walking beam furnace a general improvement in quality performance & energy saving was achieved after redesign of level-2-; a saving of approx. 25% was achieved	ArcelorMittal Ostrava Tscheslowakia	2011
complete conversion of a 140 t/h walking beam furnace from mixing gas to pure natural gas	ArcelorMittal Asturias Spain	2011
feasibility study to increase quality performance at a special re-heat furnace with the aim to reduce decarburization effects	Buderus-Edelstahl Wetzlar	2012
re-sales of aused annealing furnace	MH-Technology Annahütte	2012
safety consultancy with regard to the new EN 746-2 for a walking beam furnace at the new Wire Rod Mill	ArcelorMittal DU-Ruhrort	2012
feasibility study at 140 t/h walking beam furnace with the aim to improve productivity & save energy	Republic Steel Blasdell, NY USA	2012

Reference List 1991 - 2016

delivery of 2 Vapour Burners in Stainless Steel incl. control unit for a coke oven plant in Indonesia; NH ₃ /H ₂ S combustion heat capacity 14.600 kW	DMT Deutsche Montan-Technik Essen	2012
delivery of 2 Vapour Burners in Stainless Steel incl. control unit for a coke oven plant in India; NH ₃ /H ₂ S combustion heat capacity 19.000 kW	DMT Deutsche Montan-Technik Essen	2012
onsite investigation at a 100 t/h pusher type furnace with the aim to adapt new production features	LECH-Stahlwerke Meitingen	2012
delivery of spare burner	ArcelorMittal DU-Ruhrort	2012
1. revamp at the special re-heat furnace incl. delivery of O₂-measurments in order to change the working operation	Buderus-Edelstahl Wetzlar	2012
delivery of a complete pressure & safety control device for Calme cementy in Italy	KHD Humboldt Wedag Köln	2012

Reference List 1991 - 2016

delivery of 4 additional O₂-measurment devices	<i>Buderus-Edelstahl Wetzlar</i>	2012
new chimney design for 2 annealing furnaces	<i>Friedrich Wilhelmshütte Mülheim / Ruhr</i>	2012
feasibility study at 2 furnaces in order to change the combustion system fro coke-oven-gas enrichment to natural gas enrichment; 1 Rail Mill furnace 1 normalising furnace the new European safety rules EN-746-2 were discussed & included	<i>ArcelorMittal ASTURIAS Spain</i>	2012
2. revamp at the special re-heat furnace in order to change the combustion design completely and to minimize decarbon effects	<i>Buderus-Edelstahl Wetzlar</i>	2013
engineering work for a mixing gas station for a normalising furnace	<i>ArcelorMittal Asturias Spain</i>	2013
delivery of 2 Vapour Burners in Stainless Steel incl. control unit for a coke oven plant in Brasil; NH ₃ /H ₂ S combustion heat capacity 22.000 kW	<i>DMT Deutsche Montan-Technik Essen</i>	2013

Reference List 1991 - 2016

safety consultancy with regard to the new EN 746-2 for a walking beam furnace at the new Wire Rod Mill	LECH-Stahlwerke Meitingen	2013
quality consulting for 2 re-heat furnaces with regard to achieve European standards in co-operation with BSE for 2 walking beam furnaces	Nanjing Steel; Peoples Republic of China	2013
delivery of spare burners	ArcelorMittal DU-Ruhrort	2013
Installation of a control system at a Walking Beam Furnace for tubes Scope of Delivery: Control panel with Siemens S7-300 PLC, Software, HMI System, field device	Schulz GmbH Krefeld SXP/Hernando USA	2013
consulting lay out: heat recovery system at the new Wire Rod Mill	ArcelorMittal DU-Ruhrort	2014
Delivery and Installation of a control system for a Roller Hearth Furnace Scope of Delivery: Control panel with Siemens S7-300 PLC, Software, HMI System, field device	Schulz GmbH Krefeld SXP/Hernando USA	2014

Reference List 1991 - 2016

implementation of [GEVA-Process-Control] a new software tool for an interactive "Energy Management Control"	LECH-Stahlwerke Meitingen	2014
Installation of a test plant for internal maintenance personal training	KHD Humboldt Wedag Köln	2014
implementation of [GEVA-Process-Control] a new software tool for an interactive "Quality Management System"	LECH-Stahlwerke Meitingen	2014
Risk analysis Safety technology for thermoprocess plants (100t Walking Beam Furnace) with particular reference to the EN 746-2 standard	ArcelorMittal DU-Ruhrort	2014 2015
Installation of SHUT OFF valves for gas & air at the 100t Walking Beam Furnace	ArcelorMittal DU-Ruhrort	2015
delivery of 2 complete pressure & safety control device scope of delivery: Gas/Air train, Controll system, Ignitionburner L=10.000mm, IR-Flamedetectors	KHD Humboldt Wedag Köln Klinskowskij/Russia	2015

Reference List 1991 - 2016

quality consulting for 2 re-heat furnaces with regard to achieve European standards in co-operation with BSE for 2 walking beam furnaces	<i>Yongfeng Steel;</i> <i>Peoples Republic of China</i>	2015
delivery of a complete pressure & safety control device scope of delivery: Gas/Air train, Controll system, Ignitionburner L=10.000mm, IR-Flamedetectors	<i>KHD Humboldt Wedag</i> <i>Köln</i> <i>Argos Cement / Columbia</i>	2015
Risk analysis Safety technology for thermoprocess plants (100t Walking Beam Furnace) with particular reference to the EN 746-2 standard	<i>LECH-Stahlwerke</i> <i>Meitingen</i>	2016
engineering study at a Walking Hearth Furnace in order to save energy & improve quality performance	<i>ASCOMETAL</i> <i>France</i>	2016
inspection of production at the Walking Hearth Furnace	<i>ASCOMETAL</i> <i>France</i>	2016
delivery of 2 complete pressure & safety control device incl. Ignition Burner for Yumbo in Columbia	<i>KHD Humboldt Wedag</i> <i>Köln</i>	2016

Reference List 1991 - 2016

Risk analysis Safety technology for thermoprocess plants (70t Pusher Furnace) with particular reference to the EN 746-2 standard	LECH-Stahlwerke Meitingen	2016
Risk analysis Safety technology for thermoprocess plants (annealing furnace) with particular reference to the EN 746-2 standard	LECH-Stahlwerke Meitingen	2016
Installation of a Safety check panel in the control pulpit in order to chek safety locks during production (100t Walking Beam Furnace)	LECH-Stahlwerke Meitingen	2016
Installation of varioBlock valves for safety SHUTT OFF (100t Walking Beam Furnace)	LECH-Stahlwerke Meitingen	2016