

Iron & Steel Technology

Index for 2004

List of Titles

- 2004 AIST Executive Officers and Board of Directors, Jan., p 28
- AIST Awards, Dec., p 48
- “AIST: Bigger, Stronger and Aiming to Be Even Better” — K.D. Hadley and S.L. Varmucky, July, p 19
- AIST Bylaws, Jan., p 88
- AIST Foundation 2004 Scholarship Program, Dec., p 91
- AIST Foundation Board of Trustees, July, p 154
- AIST Foundation News, Mar., p 158
- “AIST Operating Committees — Are You Missing Out?” — J. Cantrell and W. Albaugh, Aug., p 77
- AISTech 2004 Conference and Exposition Information, July, p 19
- AISTech 2004 Conference and Exposition Information, Sept., p 26
- AISTech 2004 President’s Breakfast Keynote Address, Dec., p 36
- “AISTech 2004 — The Iron & Steel Technology Conference and Exposition Pictorial Review,” Nov., p 15
- AISTech 2004 Town Hall Opening Session, Dec., p 31
- “Alternating Taphole Practice With a Two-Taphole Blast Furnace” — A. Petruccielli, F. van Laar, F. Hribljan and B. Boettcher, Nov., p 28
- “Applications of the Crown and Shape Model in BlueScope Steel’s Western Port Hot Strip Mill,” *AIST Transactions* — V. Panjkovic, G. Fraser and D. Yuen, Oct., p 97
- “Benchmark Study of EAF Plants Using the KT Injection System” — F. Memoli and P. Lückhoff, July, p 138
- “Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden” — R. Stokman, E. van Stein Callenfels and R. van Laar, Nov., p 21
- “BOF Hood Life Cycle Cost Improvement Program” — G.A. Stemetzki, M.M. Kuta and C. Shepard, Jan., p 54
- “Boiler and Combustion Safety — What You Don’t Know Can Kill You!” — J. Puskar, June, p 80
- “Breaking the Work-Harder Syndrome During Process Improvement” — M. Bresko, Apr., p 49
- “Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56
- “Cold Drawing of Tubes on a Movable Mandrel” — G.I. Gulyayev, A.I. Lobanov, V.V. Sergeev and C.V. Darragh, Feb., p 34
- “Communicating Product Recipes to a Rolling Mill Control System” — S. Stebbing, H. Fazlollahi and K. Fazlollahi, Feb., p 17
- “Comprehensive Mold and Oscillator Monitoring” — M.J. Korzi, J.E. Arzberger and W.H. Emling, Sept. p 178
- “Continuous Caster Roll Improvements From Machine Head Through Horizontal Section” — S. Plewka and A.T. Donet, Sept., p 187
- “Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode” — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113
- “Coordinated Application of Roll Gap Lubrication, Work Roll Cooling and Antipeeling Systems in Hot Rolling Mills” — M.J. Peretic, J. Seidel and S. Kraemer, May, p 27
- “Creative Approach to RCRA Corrective Action at an Integrated Steel Plant, A” — M. Vignovic, D.C. Bluedorn II and D.N. Olson, June, p 67
- “Danieli Technology Forum 2004” — D. Fritz, Oct., p 19
- “Design Aspects of an Ideal Oxygen Steelmaking Converter” — G. Staudinger, J. Müller, D.D. Guzela and J.G. de Oliveira, Jan., p 45
- “Development of Coke Properties for the Improvement of Blast Furnace Operations” — J. Curilla, Z. Machajová, H.D. Huntingdon and F.W. Hyle, Mar., p 85
- “Development of Coke Strength After Reaction (CSR) at Dofasco” — T.W. Todoschuk, J.P. Price and J.F. Gransden, Mar., p 73
- “Development of the Next Generation of Bath Hardware Materials” — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31
- “Developments in Refractory Linings for Basic Oxygen Furnaces in Germany” — H.G. Daldrup and H. Jansen, Aug., p 56
- “Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23
- “Dofasco No. 2 Hot Mill Profile/Flatness Performance and Finishing Mill Work Roll Practices” — A. Monaco and G. Stephen, May, p 38
- “EAF Energy Optimization at Nucor-Yamato Steel” — A. Pujadas, J. McCauley and M. Iacuzzi, July, p 104
- “EAF Refractory Performance at Pacific Steel” — D. Sanford, B. Garside, C. Schonewille and T. Miller, Aug., p 48
- “Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels” — Y.R. Cho, S.I. Kim and B.S. Seong, May, p 46
- “Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process, The” *AIST Transactions* — P. Noll, A.W. Cramb and D. Choo, Dec., p 116
- “Endless Welding[®] and Spooler Lines” — A. Zanoni and G. Salvador, Feb., p 41
- “Equipment and Practice Enhancements at Dofasco’s Vacuum Degas Tank for ULC Steel” — T. Kuhl, S. Sun and M.K. Trinh, Apr., p 21
- “Exfoliation Corrosion on Dofasco’s No. 1 Continuous Caster” — G. Lake, R. Dufresne and S.D. Klatskin, June, p 56
- “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel” — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

- "From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122
- Galvatech '04 Technical Program, Mar., p 92
- "Heat Balance of SIDERAR Continuous Casting" — R.D. Lopez, Sept., p 193
- "High-Speed Steel Rolls for Long Products" — R.R. Xavier, M.A. de Carvalho, E. Cannizza, T.H. White, A. Rivaroli Jr. and , Feb., p 28
- "Hydrogen and Nitrogen Control in Ladle and Casting Operations" — S. Misra and R.J. Fruehan, Apr., p 34
- "Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163
- "Instant Control of Metallurgical Slags in EAFs and Ladles Utilizing an Electrochemical Sensor" — W. Glitscher and R. Maes, Apr., p 28
- "Interview With Thomas C. Graham Jr., 2004 AIST President" — J. Cantrell, May, p 5
- "Lance-based Sensing and Vision Systems" — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69
- "Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine," *AIST Transactions* — M. Warzecha, J. Jawsa, S. Garncarek and T. Merder, Nov., p 81
- "Measuring Maintenance Effectiveness: The Bulls and the Bears" — R.D. Hedding, Dec., p 86
- "Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating," *AIST Transactions* — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, Apr., p 80
- "Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating," *AIST Transactions* — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, May, p 92
- "Modeling System for Improved Roll Pass Design" — H. Gutierrez and B.V. Kiefer, Feb., p 21
- MS&T 2004 Conference and Exhibition Information, Sept., p 213
- MS&T 2004 Conference Information and Preliminary Program, Aug., p 99
- MS&T 2004 Keynote Address, Dec., p 44
- "MultiLine High-Speed Wire Rod Mill, The" — M. Burkhardt, H. Müller and G. Ellis, Feb., p 50
- "New No. 3 Galvanizing Line at Voest-Alpine Stahl, The" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47
- "New Skid Button Design for Hot Strip Mill Reheating Furnaces" — H. Yamaguchi, Y. Shida and S. Amako, May, p 57
- "Nozzle Plugging of Calcium-treated Steel," *AIST Transactions* — R. Dekkers, B. Blanpain and P. Wollants, Aug., p 92
- "NSR Reform: Update on the New Regulations and Their Impact on Air Permitting" — M.H. Winek and R.L. Hawks, June, p 74
- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19
- "Numerical Modeling of Fluid Flow Into a Ladle During Bottom Gas Injection," *AIST Transactions* — M. Warzecha, J. Jawsa, S. Garncarek and T. Merder, Nov., p 87
- "Practical Application of Coke Plant Automation Systems" — K.P. Leuchtmann, R.V. Ramani and M. Platts, Mar., p 46
- "Prediction and Prevention of Slopping in a BOF" — M. Shakirov, A. Boutchenkov, G. Galperine and B. Schrader, Jan., p 38
- "Predictive Maintenance of DC Drives on Process Lines" — D. Laird, Oct., p 24
- "Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH" — A. Jungreithmeier, E. Pissenberger, K. Burgstaller and J. Mörtl, Apr., p 41
- "Recycling of Ladle Slag and Spent Refractories by Injection Into an EAF" — S. Porisiensi, June, p 63
- "Reliability-based Approach to Mill Drive Spindle Maintenance" — J.S. Kroner, Dec., p 53
- "Reliability-based Design: Annealing Furnace Helper Roll Bearing Upgrade" — D.J. Northrop and M.R. Whitten, Dec., p 63
- "Reoxidation of Low-Carbon, Aluminum-Killed Steel," *AIST Transactions* — Y. Wang, S. Sridhar, A.W. Cramb, A. Gomez and C. Cicutti, Feb., p 86
- "Replacement of the Collecting Mains at the Açominas Coke Plant" — P. Allen, T. Mullen, P. Gootjes and R. James, Mar., p 62
- "Roll Cool-down Facility at the ISG Burns Harbor Hot Strip Mill" — B. Bramfitt and R. Perry, May, p 53
- "Slag Practices for Refractory Wear Control in Steelmaking," *AIST Transactions* — M. Lee and S. Jahanshahi, June, p 105
- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57
- "Snort Valve Replacement at WCI Steel" — W.A. Toot, Nov., p 36
- "Solidification, Segregation and Banding in Carbon and Alloy Steels," *AIST Transactions* — G. Krauss, Mar., p 144
- "Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace" — S. Andrews, J. Powers, M. Fox and J. Zellman, July, p 129
- "Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30
- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill" — N.L. Samways, June, p 19
- "Steel Ladle Campaign Improvements at ISG Sparrows Point" — J.O. Barrett, R.E. Fash, T. Richter and B. Patterson, Aug., p 65
- "Steel Ladle Sidewall Buildup," *AIST Transactions* — M.L. Swinnerton, S.A. Nightingale and G.A. Brooks, Jan., p 108
- "Switch From Reactive to Proactive Maintenance at the Crawfordsville Cold Mill, The" — S. Mills, J. Roche and B. Cooper, Dec., p 74
- "Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38
- "Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina" — A. Figueiredo Jr., N. Bellandi, A. Vanola and L. Zamboni, Aug., p 42
- "Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness," *AIST Transactions* — J. Peter, K.D. Peaslee and D. Panda, July, p 171
- "Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length" — P.D. King, L.J. Heaslip, D. Xu, J.D. Dorricott and Q.K. Robinson, Aug., p 33
- "Using Laser Scanning Technology to Measure Deflections in Steel Columns" — M. Hawarey and M.O. Falk, Mar., p 40
- "Valbruna: New Continuous Casting Machine for Stainless Steel" — D. Lestani, W.D. Ruzza and A. Miconi, Sept. p 170
- "Web-based Computer Model for Blast Furnace Performance Analysis" — Y. Zhao, C.J. Rabold, S.E. Yaniga, A. Daniels, M.L. Zmierski, S. Feltnate and B. Salter, Nov., p 41

List of Authors

A

- Albaugh, W., and Cantrell, J. — “AIST Operating Committees — Are You Missing Out?” Aug., p 77
- Allen, P.; Mullen, T.; Goojtes, P.; and James, R. — “Replacement of the Collecting Mains at the Açominas Coke Plant,” Mar., p 62
- Amako, S.; Shida, Y.; and Yamaguchi, H. — “New Skid Button Design for Hot Strip Mill Reheating Furnaces,” May, p 57
- Andrews, S.; Powers, J.; Fox, M.; and Zellman, J. — “Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace,” July, p 129
- Arzberger, J.E.; Korzi, M.J.; and Emling, W.H. — “Comprehensive Mold and Oscillator Monitoring,” Sept. p 178

B

- Barbero, E.J.; Irwin, C.; Liu, X.; Sikka, V.; and Goodwin, F.E. — “Development of the Next Generation of Bath Hardware Materials,” Oct., p 31
- Barrett, J.O.; Fash, R.E.; Richter, T.; and Patterson, B. — “Steel Ladle Campaign Improvements at ISG Sparrows Point,” Aug., p 65
- Bellandi, N.; Figueiredo Jr., A.; Vanola, A.; and Zamboni, L. — “Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina,” Aug., p 42
- Billy, J.; Šimcák, F.; Dadejova, D.; Kundracik, V.; and Bobenic, A. — “Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice,” Oct., p 38
- Blanpain, B.; Dekkers, R.; and Wollants, P. — “Nozzle Plugging of Calcium-treated Steel,” *AIST Transactions*, Aug., p 92
- Bluedorn II, D.C.; Vignovic, M.; and Olson, D.N. — “A Creative Approach to RCRA Corrective Action at an Integrated Steel Plant,” June, p 67
- Bobenic, A.; Billy, J.; Šimcák, F.; Dadejova, D.; and Kundracik, V. — “Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice,” Oct., p 38
- Boettcher, B.; Petruccelli, A.; van Laar, F.; and Hribljan, F. — “Alternating Taphole Practice With a Two-Taphole Blast Furnace,” Nov., p 48
- Bonin, M.P.; Jensen, S.T.; Federoff, W.; Rymarchyk, N.; and Smith, T. — “Lance-Based Sensing and Vision Systems,” Jan., p 69
- Boutchenkov, A.; Shakirov, M.; Galperine, G.; and Schrader, B. — “Prediction and Prevention of Slopping in a BOF,” Jan., p 38
- Bramfitt, B., and Perry, R. — “Roll Cool-down Facility at the ISG Burns Harbor Hot Strip Mill,” May, p 53
- Bresko, M. — “Breaking the Work-Harder Syndrome During Process Improvement,” Apr., p 49
- Brooks, G.A.; Swinnerton, M.L.; and Nightingale, S.A. — “Steel Ladle Sidewall Buildup,” *AIST Transactions*, Jan., p 108
- Burgstaller, K.; Jungreithmeier, A.; Pissenberger, E.; and Mörtl, J. — “Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH,” Apr., p 41
- Burkhardt, M.; Müller, H.; and Ellis, G. — “The MultiLine High-Speed Wire Rod Mill,” Feb., p 50

C

- Cannizza, E.; de Carvalho, M.A.; Xavier, R.R.; White, T.H.; Rivaroli, A., Jr.; and Sinatora, A. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- Cantrell, J. — “Developments in the North American Iron and Steel Industry,” Mar., p 23
- Cantrell, J., and Albaugh, W. — “AIST Operating Committees — Are You Missing Out?” Aug., p 77
- Cho, Y.R.; Kim, S.L.; and Seong, B.S. — “Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels,” May, p 46
- Choo, D.; Nolli, P.; and Cramb, A.W. — “The Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process,” *AIST Transactions*, Dec., p 116
- Cicutti, C.; Wang, Y.; Sridhar, S.; Cramb, A.W.; and Gomez, A. — “Reoxidation of Low-Carbon, Aluminum-Killed Steel,” *AIST Transactions*, Feb., p 86
- Cooper, B.; Mills, S.; and Roche, J. — “The Switch From Reactive to Proactive Maintenance at the Crawfordsville Cold Mill,” Dec., p 74
- Cotchen, J.K.; Mueller, E.G.; Zeien, R.; and Novicki, E. — “Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode,” July, p 113

- Cramb, A.W.; Nolli, P.; and Choo, D. — “The Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process,” *AIST Transactions*, Dec., p 116
- Cramb, A.W.; Wang, Y.; Sridhar, S.; Gomez, A.; and Cicutti, C. — “Reoxidation of Low-Carbon, Aluminum-Killed Steel,” *AIST Transactions*, Feb., p 86
- Curilla, J.; Machajová, Z.; Huntingdon, H.D.; and Hyle, F.W. — “Development of Coke Properties for the Improvement of Blast Furnace Operations,” Mar., p 85

D

- Dadejova, D.; Billy, J.; Šimcák, F.; Kundracik, V.; and Bobenic, A. — “Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice,” Oct., p 38
- Daldrup, H.G., and Jansen, H. — “Developments in Refractory Linings for Basic Oxygen Furnaces in Germany,” Aug., p 56
- Daniels, A.; Zhao, Y.; Rabold, C.J.; Yaniga, S.E.; Zmierski, M.L.; Feltmate, S.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41
- Darragh, C.V.; Gulyayev, G.I.; Lobanov, A.I.; and Sergeev, V.V. — “Cold Drawing of Tubes on a Movable Mandrel,” Feb., p 34
- de Carvalho, M.A.; Xavier, R.R.; Cannizza, E.; White, T.H.; Rivaroli, A., Jr.; and Sinatora, A. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- de Oliveira, J.G.; Staudinger, G.; Müller, J.; and Guzela, D.D. — “Design Aspects of an Ideal Oxygen Steelmaking Converter,” Jan., p 45
- Dekkers, R.; Blanpain, B.; and Wollants, P. — “Nozzle Plugging of Calcium-treated Steel,” *AIST Transactions*, Aug., p 92
- Donet, A.T., and Plewka, S. — “Continuous Caster Roll Improvements From Machine Head Through Horizontal Section,” Sept., p 187
- Dorricott, J.D.; Heaslip, L.J.; King, P.D.; Xu, D.; and Robinson, Q.K. — “Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length,” Aug., p 33
- Drummond, J.L. — “Start-up of the Blast Furnaces at ISG Cleveland,” Nov., p 30
- Dufresne, R.; Lake, G.; and Klatskin, S.D. — “Exfoliation Corrosion on Dofasco’s No. 1 Continuous Caster,” June, p 56

E

- Ellis, G.; Burkhardt, M.; and Müller, H. — “The MultiLine High-Speed Wire Rod Mill,” Feb., p 50
- Emling, W.; Keller, C.; Evans, T.; and Graham, D. — “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel,” Dec., p 67
- Emling, W.H.; Korzi, M.J.; and Arzberger, J.E. — “Comprehensive Mold and Oscillator Monitoring,” Sept. p 178
- Evans, T.; Keller, C.; Emling, W.; and Graham, D. — “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel,” Dec., p 67

F

- Falk, M.O., and Hawarey, M. — “Using Laser Scanning Technology to Measure Deflections in Steel Columns,” Mar., p 40
- Fash, R.E.; Barrett, J.O.; Richter, T.; and Patterson, B. — “Steel Ladle Campaign Improvements at ISG Sparrows Point,” Aug., p 65
- Fazlollahi, H.; Stebbing, S.; and Fazlollahi, K. — “Communicating Product Recipes to a Rolling Mill Control System,” Feb., p 17
- Fazlollahi, K.; Fazlollahi, H.; and Stebbing, S. — “Communicating Product Recipes to a Rolling Mill Control System,” Feb., p 17
- Federoff, W.; Jensen, S.T.; Bonin, M.P.; Rymarchyk, N.; and Smith, T. — “Lance-Based Sensing and Vision Systems,” Jan., p 69
- Feltmate, S.; Zhao, Y.; Rabold, C.J.; Yaniga, S.E.; Daniels, A.; Zmierski, M.L.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41
- Figueiredo Jr., A.; Bellandi, N.; Vanola, A.; and Zamboni, L. — “Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina,” Aug., p 42
- Fox, M.; Powers, J.; Andrews, S.; and Zellman, J. — “Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace,” July, p 129
- Fraser, G.; Panjkovic, V.; and Yuen, D. — “Applications of the Crown and Shape Model in BlueScope Steel’s Western Port Hot Strip Mill,” *AIST Transactions*, Oct., p 97

Fritz, D. — “Danieli Technology Forum 2004,” Oct., p 19
Fruehan, R.J., and Misra, S. — “Hydrogen and Nitrogen Control in Ladle and Casting Operations,” Apr., p 34
Fruehan, R.J.; Story, S.R.; Piccone, T.J.; and Potter, M. — “Inclusion Analysis to Predict Casting Behavior,” Sept., p 163

G

Galperine, G.; Shakirov, M.; Boutchenkov, A.; and Schrader, B. — “Prediction and Prevention of Slopping in a BOF,” Jan., p 38
Garncarek, S.; Warzecha, M.; Jawsa, J.; and Merder, T. — “Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine,” *AIST Transactions*, Nov., p 81
Garncarek, S.; Warzecha, M.; Jawsa, J.; and Merder, T. — “Numerical Modeling of Fluid Flow Into a Ladle During Bottom Gas Injection,” *AIST Transactions*, Nov., p 87
Garside, B.; Sanford, D.; Schonewille, C.; and Miller, T. — “EAF Refractory Performance at Pacific Steel,” Aug., p 48
Glitscher, W., and Maes, R. — “Instant Control of Metallurgical Slags in EAFs and Ladles Utilizing an Electrochemical Sensor,” Apr., p 28
Gomez, A.; Wang, Y.; Sridhar, S.; Cramb, A.W.; and Cicutti, C. — “Reoxidation of Low-Carbon, Aluminum-Killed Steel,” *AIST Transactions*, Feb., p 86
Goodwin, F.E.; Barbero, E.J.; Irwin, C.; Liu, X.; and Sikka, V. — “Development of the Next Generation of Bath Hardware Materials,” Oct., p 31
Goodwin, F.E., and Silva, E.A. — “Challenges for Zinc-based Sheet Steel Coatings Production,” Oct., p 56
Gootjes, P.; Allen, P.; Mullen, T.; and James, R. — “Replacement of the Collecting Mains at the Acominas Coke Plant,” Mar., p 62
Graham, D.; Keller, C.; Evans, T.; and Emling, W. — “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel,” Dec., p 67
Gransden, J.F.; Todoschuk, T.W.; and Price, J.P. — “Development of Coke Strength After Reaction (CSR) at Dofasco,” Mar., p 73
Guggenberger, J.; Riha, G.; and Kaiser, M. — “The New No. 3 Galvanizing Line at Voest-Alpine Stahl,” Oct., p 47
Gulyayev, G.I.; Lobanov, A.I.; Sergeev, V.V.; and Darragh, C.V. — “Cold Drawing of Tubes on a Movable Mandrel,” Feb., p 34
Gutierrez, H., and Kiefer, B.V. — “Modeling System for Improved Roll Pass Design,” Feb., p 21
Guzela, D.D.; Staudinger, G.; Müller, J.; and de Oliveira, J.G. — “Design Aspects of an Ideal Oxygen Steelmaking Converter,” Jan., p 45

H

Hadley, K.D., and Varmecy, S.L. — “AIST: Bigger, Stronger and Aiming to Be Even Better,” July, p 19
Hart, E.B. — “SMI’s Rebar Detailing Education Program,” Feb., p 57
Hawarey, M., and Falk, M.O. — “Using Laser Scanning Technology to Measure Deflections in Steel Columns,” Mar., p 40
Heaslip, L.J.; Rogler, J.P.; Xu, D.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating,” *AIST Transactions*, Apr., p 80
Heaslip, L.J.; Rogler, J.P.; Xu, D.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating,” *AIST Transactions*, May, p 92
Heaslip, L.J.; King, P.D.; Xu, D.; Dorricott, J.D.; and Robinson, Q.K. — “Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length,” Aug., p 33
Hedding, R.D. — “Measuring Maintenance Effectiveness: The Bulls and the Bears,” Dec., p 86
Hribljan, F.; Petruccelli, A.; van Laar, F.; and Boettcher, B. — “Alternating Taphole Practice With a Two-Taphole Blast Furnace,” Nov., p 48
Huntingdon, H.D.; Curilla, J.; Machajová, Z.; and Hyle, F.W. — “Development of Coke Properties for the Improvement of Blast Furnace Operations,” Mar., p 85
Hyle, F.W.; Curilla, J.; Machajová, Z.; and Huntingdon, H.D. — “Development of Coke Properties for the Improvement of Blast Furnace Operations,” Mar., p 85

I-J

Iacuzzi, M.; McCauley, J.; and Pujadas, A. — “EAF Energy Optimization at Nucor-Yamato Steel,” July, p 104

Irwin, C.; Barbero, E.J.; Liu, X.; Sikka, V.; and Goodwin, F.E. — “Development of the Next Generation of Bath Hardware Materials,” Oct., p 31
James, R.; Allen, P.; Mullen, T.; and Gootjes, P. — “Replacement of the Collecting Mains at the Acominas Coke Plant,” Mar., p 62
Jansen, H., and Daldrup, H.G. — “Developments in Refractory Linings for Basic Oxygen Furnaces in Germany,” Aug., p 56
Jensen, S.T.; Bonin, M.P.; Federoff, W.; Rymarchyk, N.; and Smith, T. — “Lance-Based Sensing and Vision Systems,” Jan., p 69
Jowsa, J.; Warzecha, M.; Garncarek, S.; and Merder, T. — “Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine,” *AIST Transactions*, Nov., p 81
Jowsa, J.; Warzecha, M.; Garncarek, S.; and Merder, T. — “Numerical Modeling of Fluid Flow Into a Ladle During Bottom Gas Injection,” *AIST Transactions*, Nov., p 87
Jungreithmeier, A.; Pissenberger, E.; Burgstaller, K.; and Mörtl, J. — “Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH,” Apr., p 41

K

Kaiser, M.; Riha, G.; and Guggenberger, J. — “The New No. 3 Galvanizing Line at Voest-Alpine Stahl,” Oct., p 47
Keller, C.; Evans, T.; Emling, W.; and Graham, D. — “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel,” Dec., p 67
Kiefer, B.V., and Gutierrez, H. — “Modeling System for Improved Roll Pass Design,” Feb., p 21
Kim, S.I.; Cho, Y.R.; and Seong, B.S. — “Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels,” May, p 46
King, P.D.; Heaslip, L.J.; Xu, D.; Dorricott, J.D.; and Robinson, Q.K. — “Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length,” Aug., p 33
Klatskin, S.D.; Lake, G.; and Dufresne, R. — “Exfoliation Corrosion on Dofasco’s No. 1 Continuous Caster,” June, p 56
Korzi, M.J.; Arzberger, J.E.; and Emling, W.H. — “Comprehensive Mold and Oscillator Monitoring,” Sept. p 178
Kraemer, S.; Seidel, J.; and Peretic, M.J. — “Coordinated Application of Roll Gap Lubrication, Work Roll Cooling and Antipeeling Systems in Hot Rolling Mills,” May, p 27
Krauss, G. — “Solidification, Segregation and Banding in Carbon and Alloy Steels,” *AIST Transactions*, Mar., p 144
Kroner, J.S. — “Reliability-based Approach to Mill Drive Spindle Maintenance,” Dec., p 53
Kuhl, T.; Sun, S.; and Trinh, M.K. — “Equipment and Practice Enhancements at Dofasco’s Vacuum Degas Tank for ULC Steel,” Apr., p 21
Kundracik, V.; Billy, J.; Šimcák, F.; Dadejova, D.; and Bobenic, A. — “Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice,” Oct., p 38
Kuta, M.M.; Stemetzki, G.A.; and Shepard, C. — “BOF Hood Life Cycle Cost Improvement Program,” Jan., p 54

L

Laird, D. — “Predictive Maintenance of DC Drives on Process Lines,” Oct., p 24
Lake, G.; Dufresne, R.; and Klatskin, S.D. — “Exfoliation Corrosion on Dofasco’s No. 1 Continuous Caster,” June, p 56
Lee, M., and Jahanshahi, S. — “Slag Practices for Refractory Wear Control in Steelmaking,” *AIST Transactions*, June, p 105
Lestani, D.; Ruzza, W.D.; and Miconi, A. — “Valbruna: New Continuous Casting Machine for Stainless Steel,” Sept. p 170
Leuchtmann, K.P.; Ramani, R.V.; and Platts, M. — “Practical Application of Coke Plant Automation Systems,” Mar., p 46
Liu, X.; Barbero, E.J.; Irwin, C.; Sikka, V.; and Goodwin, F.E. — “Development of the Next Generation of Bath Hardware Materials,” Oct., p 31
Lobanov, A.I.; Gulyayev, G.I.; Sergeev, V.V.; and Darragh, C.V. — “Cold Drawing of Tubes on a Movable Mandrel,” Feb., p 34
Lopez, R.D. — “Heat Balance of SIDERAR Continuous Casting,” Sept., p 193
Lückhoff, P., and Memoli, F. — “Benchmark Study of EAF Plants Using the KT Injection System,” July, p 138

M

- Machajová, Z.; Curilla, J.; Huntingdon, H.D.; and Hyle, F.W. — “Development of Coke Properties for the Improvement of Blast Furnace Operations,” Mar., p 85
- Maes, R., and Glitscher, W. — “Instant Control of Metallurgical Slags in EAFs and Ladles Utilizing an Electrochemical Sensor,” Apr., p 28
- Manenti, A.A. — “From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill,” July, p 122
- McCauley, J.; Pujadas, A.; and Iacuzzi, M. — “EAF Energy Optimization at Nucor-Yamato Steel,” July, p 104
- Mehrvar, M.; Rogler, J.P.; Heaslip, L.J.; and Xu, D. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating,” *AIST Transactions*, Apr., p 80
- Mehrvar, M.; Rogler, J.P.; Heaslip, L.J.; and Xu, D. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating,” *AIST Transactions*, May, p 92
- Memoli, F., and Lückhoff, P. — “Benchmark Study of EAF Plants Using the KT Injection System,” July, p 138
- Merder, T.; Warzecha, M.; Jawsa, J.; and Garncarek, S. — “Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine,” *AIST Transactions*, Nov., p 81
- Merder, T.; Warzecha, M.; Jawsa, J.; and Garncarek, S. — “Numerical Modeling of Fluid Flow Into a Ladle During Bottom Gas Injection,” *AIST Transactions*, Nov., p 87
- Miconi, A.; Lestani, D.; and Ruzza, W.D. — “Valbruna: New Continuous Casting Machine for Stainless Steel,” Sept., p 170
- Miller, T.; Sanford, D.; Garside, B.; and Schonewille, C. — “EAF Refractory Performance at Pacific Steel,” Aug., p 48
- Mills, S.; Roche, J.; and Cooper, B. — “The Switch From Reactive to Proactive Maintenance at the Crawfordsville Cold Mill,” Dec., p 74
- Misra, S., and Fruehan, R.J. — “Hydrogen and Nitrogen Control in Ladle and Casting Operations,” Apr., p 34
- Monaco, A., and Stephen, G. — “Dofasco No. 2 Hot Mill Profile/Flatness Performance and Finishing Mill Work Roll Practices,” May, p 38
- Mörtl, J.; Jungreithmeier, A.; Pissenberger, E.; and Burgstaller, K. — “Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH,” Apr., p 41
- Mueller, E.G.; Cotchen, J.K.; Zeien, R.; and Novicki, E. — “Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode,” July, p 113
- Mullen, T.; Allen, P.; Goojtes, P.; and James, R. — “Replacement of the Collecting Mains at the Açominas Coke Plant,” Mar., p 62
- Müller, H.; Burkhardt, M.; and Ellis, G. — “The MultiLine High-Speed Wire Rod Mill,” Feb., p 50
- Müller, J.; Staudinger, G.; Guzela, D.D.; and de Oliveira, J.G. — “Design Aspects of an Ideal Oxygen Steelmaking Converter,” Jan., p 45

N

- Nightingale, S.A.; Swinnerton, M.L.; and Brooks, G.A. — “Steel Ladle Sidewall Buildup,” *AIST Transactions*, Jan., p 108
- Nolli, P.; Cramb, A.W.; and Choo, D. — “The Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process,” *AIST Transactions*, Dec., p 116
- Northrop, D.J., and Whitten, M.R. — “Reliability-based Design: Annealing Furnace Helper Roll Bearing Upgrade,” Dec., p 63
- Novicki, E.; Zeien, R.; Mueller, E.G.; and Cotchen, J.K. — “Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode,” July, p 113

O-P

- Olson, D.N.; Bluedorn II, D.C.; and Vignovic, M. — “A Creative Approach to RCRA Corrective Action at an Integrated Steel Plant,” June, p 67
- Panda, D.; Peter, J.; and Peaslee, K.D. — “Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness,” *AIST Transactions*, July, p 171
- Panjikovic, V.; Fraser, G.; and Yuen, D. — “Applications of the Crown and Shape Model in BlueScope Steel’s Western Port Hot Strip Mill,” *AIST Transactions*, Oct., p 97

- Patterson, B.; Barrett, J.O.; Fash, R.E.; and Richter, T. — “Steel Ladle Campaign Improvements at ISG Sparrows Point,” Aug., p 65
- Peaslee, K.D.; Peter, J.; and Panda, D. — “Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness,” *AIST Transactions*, July, p 171
- Peretic, M.J.; Seidel, J.; and Kraemer, S. — “Coordinated Application of Roll Gap Lubrication, Work Roll Cooling and Antipeeling Systems in Hot Rolling Mills,” May, p 27
- Perry, R., and Bramfitt, B. — “Roll Cool-down Facility at the ISG Burns Harbor Hot Strip Mill,” May, p 53
- Peter, J.; Peaslee, K.D.; and Panda, D. — “Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness,” *AIST Transactions*, July, p 171
- Petrucelli, A.; van Laar, F.; Hribljan, F.; and Boettcher, B. — “Alternating Taphole Practice With a Two-Taphole Blast Furnace,” Nov., p 48
- Piccone, T.J.; Story, S.R.; Fruehan, R.J.; and Potter, M. — “Inclusion Analysis to Predict Casting Behavior,” Sept., p 163
- Pissenberger, E.; Jungreithmeier, A.; Burgstaller, K.; and Mörtl, J. — “Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH,” Apr., p 41
- Platts, M.; Leuchtmann, K.P.; and Ramani, R.V. — “Practical Application of Coke Plant Automation Systems,” Mar., p 46
- Plewka, S., and Donet, A.T. — “Continuous Caster Roll Improvements From Machine Head Through Horizontal Section,” Sept., p 187
- Porisiensi, S. — “Recycling of Ladle Slag and Spent Refractories by Injection Into an EAF,” June, p 63
- Potter, M.; Story, S.R.; Piccone, T.J.; and Fruehan, R.J. — “Inclusion Analysis to Predict Casting Behavior,” Sept., p 163
- Powers, J.; Andrews, S.; Fox, M.; and Zellman, J. — “Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace,” July, p 129
- Price, J.P.; Todoschuk, T.W.; and Gransden, J.F. — “Development of Coke Strength After Reaction (CSR) at Dofasco,” Mar., p 73
- Pujadas, A.; McCauley, J.; and Iacuzzi, M. — “EAF Energy Optimization at Nucor-Yamato Steel,” July, p 104
- Puskar, J. — “Boiler and Combustion Safety — What You Don’t Know Can Kill You!” June, p 80

R

- Rabold, C.J.; Zhao, Y.; Yaniga, S.E.; Daniels, A.; Zmierski, M.L.; Feltmate, S.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41
- Ramani, R.V.; Leuchtmann, K.P.; and Platts, M. — “Practical Application of Coke Plant Automation Systems,” Mar., p 46
- Richter, T.; Barrett, J.O.; Fash, R.E.; and Patterson, B. — “Steel Ladle Campaign Improvements at ISG Sparrows Point,” Aug., p 65
- Riha, G.; Guggenberger, J.; and Kaiser, M. — “The New No. 3 Galvanizing Line at Voest-Alpine Stahl,” Oct., p 47
- Rivaroli, A., Jr.; Cannizza, E.; de Carvalho, M.A.; Xavier, R.R.; White, T.H.; and Sinatora, A. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- Roche, J.; Mills, S.; and Cooper, B. — “The Switch From Reactive to Proactive Maintenance at the Crawfordsville Cold Mill,” Dec., p 74
- Robinson, Q.K.; Heaslip, L.J.; King, P.D.; Xu, D.; and Dorricott, J.D. — “Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length,” Aug., p 33
- Rogler, J.P.; Heaslip, L.J.; Xu, D.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating,” *AIST Transactions*, Apr., p 80
- Rogler, J.P.; Heaslip, L.J.; Xu, D.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating,” *AIST Transactions*, May, p 92
- Ruzza, W.D.; Lestani, D.; and Miconi, A. — “Valbruna: New Continuous Casting Machine for Stainless Steel,” Sept., p 170
- Rymarchyk, N.; Jensen, S.T.; Bonin, M.P.; Federoff, W.; and Smith, T. — “Lance-Based Sensing and Vision Systems,” Jan., p 69

S

- Salter, B.; Zhao, Y.; Rabold, C.J.; Yaniga, S.E.; Daniels, A.; Zmierski, M.L.; and Feltmate, S. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41

- Salvador, G., and Zanoni, A. — “Endless Welding Rolling® and Spooler Lines,” Feb., p 41
- Samways, N.L. — “Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility,” Dec., p 19
- Samways, N.L. — “Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” June, p 19
- Sanford, D.; Garside, B.; Schonewille, C.; and Miller, T. — “EAF Refractory Performance at Pacific Steel,” Aug., p 48
- Schonewille, C.; Sanford, D.; Garside, B.; and Miller, T. — “EAF Refractory Performance at Pacific Steel,” Aug., p 48
- Schrader, B.; Shakirov, M.; Boutchenkov, A.; and Galperine, G. — “Prediction and Prevention of Slopping in a BOF,” Jan., p 38
- Seidel, J.; Peretic, M.J.; and Kraemer, S. — “Coordinated Application of Roll Gap Lubrication, Work Roll Cooling and Antipeeling Systems in Hot Rolling Mills,” May, p 27
- Seong, B.S.; Kim, S.I.; and Cho, Y.R. — “Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels,” May, p 46
- Sergeyev, V.V.; Gulyayev, G.I.; Lobanov, A.I.; and Darragh, C.V. — “Cold Drawing of Tubes on a Movable Mandrel,” Feb., p 34
- Shakirov, M.; Boutchenkov, A.; Galperine, G.; and Schrader, B. — “Prediction and Prevention of Slopping in a BOF,” Jan., p 38
- Shepard, C.; Stemetzki, G.A.; and Kuta, M.M. — “BOF Hood Life Cycle Cost Improvement Program,” Jan., p 54
- Shida, Y.; Yamaguchi, H.; and Amako, S. — “New Skid Button Design for Hot Strip Mill Reheating Furnaces,” May, p 57
- Sikka, V.; Barbero, E.J.; Irwin, C.; Liu, X.; and Goodwin, F.E. — “Development of the Next Generation of Bath Hardware Materials,” Oct., p 31
- Silva, E.A., and Goodwin, F.E. — “Challenges for Zinc-based Sheet Steel Coatings Production,” Oct., p 56
- Šimčák, F.; Billy, J.; Dadejova, D.; Kundracik, V.; and Bobenic, A. — “Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice,” Oct., p 38
- Sinatora, A.; Cannizza, E.; de Carvalho, M.A.; Xavier, R.R.; White, T.H.; and Rivaroli, A., Jr. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- Smith, T.; Jensen, S.T.; Bonin, M.P.; Federoff, W.; and Rymarchyk, N. — “Lance-Based Sensing and Vision Systems,” Jan., p 69
- Sridhar, S.; Wang, Y.; Cramb, A.W.; Gomez, A.; and Cicutti, C. — “Reoxidation of Low-Carbon, Aluminum-Killed Steel,” *AIST Transactions*, Feb., p 86
- Staudinger, G.; Müller, J.; Guzela, D.D.; and de Oliveira, J.G. — “Design Aspects of an Ideal Oxygen Steelmaking Converter,” Jan., p 45
- Stebbing, S.; Fazlollahi, H.; and Fazlollahi, K. — “Communicating Product Recipes to a Rolling Mill Control System,” Feb., p 17
- Stemetzki, G.A.; Kuta, M.M.; and Shepard, C. — “BOF Hood Life Cycle Cost Improvement Program,” Jan., p 54
- Stephen, G., and Monaco, A. — “Dofasco No. 2 Hot Mill Profile/Flatness Performance and Finishing Mill Work Roll Practices,” May, p 38
- Stokman, R.; van Stein Callenfels, E.; and van Laar, R. — “Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden,” Nov., p 21
- Story, S.R.; Piccone, T.J.; Fruehan, R.J.; and Potter, M. — “Inclusion Analysis to Predict Casting Behavior,” Sept., p 163
- Sun, S.; Kuhl, T.; and Trinh, M.K. — “Equipment and Practice Enhancements at Dofasco’s Vacuum Degas Tank for ULC Steel,” Apr., p 21
- Swinerton, M.L.; Nightingale, S.A.; and Brooks, G.A. — “Steel Ladle Sidewall Buildup,” *AIST Transactions*, Jan., p 108
- T**
- Todoschuk, T.W.; Price, J.P.; and Gransden, J.F. — “Development of Coke Strength After Reaction (CSR) at Dofasco,” Mar., p 73
- Toot, W.A. — “Snort Valve Replacement at WCI Steel,” Nov., p 36
- Trinh, M.K.; Kuhl, T.; and Sun, S. — “Equipment and Practice Enhancements at Dofasco’s Vacuum Degas Tank for ULC Steel,” Apr., p 21
- V**
- van Stein Callenfels, E.; Stokman, R.; and van Laar, R. — “Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden,” Nov., p 21
- van Laar, F.; Petruccelli, A.; Hribljan, F.; and Boettcher, B. — “Alternating Taphole Practice With a Two-Taphole Blast Furnace,” Nov., p 48
- van Laar, R.; van Stein Callenfels, E.; and Stokman, R. — “Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden,” Nov., p 21
- Vanola, A.; Figueiredo Jr., A.; Bellandi, N.; and Zamboni, L. — “Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina,” Aug., p 42
- Varnecky, S.L., and Hadley, K.D. — “AIST: Bigger, Stronger and Aiming to Be Even Better,” July, p 19
- Vignovic, M.; Bluedorn II, D.C.; and Olson, D.N. — “A Creative Approach to RCRA Corrective Action at an Integrated Steel Plant,” June, p 67
- W**
- Wang, Y.; Sridhar, S.; Cramb, A.W.; Gomez, A.; and Cicutti, C. — “Reoxidation of Low-Carbon, Aluminum-Killed Steel,” *AIST Transactions*, Feb., p 86
- Warzecha, M.; Jowsa, J.; Garncarek, S.; and Merder, T. — “Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine,” *AIST Transactions*, Nov., p 81
- Warzecha, M.; Jowsa, J.; Garncarek, S.; and Merder, T. — “Numerical Modeling of Fluid Flow Into a Ladle During Bottom Gas Injection,” *AIST Transactions*, Nov., p 87
- White, T.H.; Cannizza, E.; de Carvalho, M.A.; Xavier, R.R.; Rivaroli, A., Jr.; and Sinatora, A. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- Whitten, M.R., and Northrop, D.J. — “Reliability-based Design: Annealing Furnace Helper Roll Bearing Upgrade,” Dec., p 63
- Winek, M.H., and Hawks, R.L. — “NSR Reform: Update on the New Regulations and Their Impact on Air Permitting,” June, p 74
- Wollants, P.; Dekkers, R.; and Blanpain, B. — “Nozzle Plugging of Calcium-treated Steel,” *AIST Transactions*, Aug., p 92
- X-Z**
- Xavier, R.R.; de Carvalho, M.A.; Cannizza, E.; White, T.H.; Rivaroli, A., Jr.; and Sinatora, A. — “High-Speed Steel Rolls for Long Products,” Feb., p 28
- Xu, D.; Rogler, J.P.; Heaslip, L.J.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating,” *AIST Transactions*, Apr., p 80
- Xu, D.; Rogler, J.P.; Heaslip, L.J.; and Mehrvar, M. — “Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating,” *AIST Transactions*, May, p 92
- Xu, D.; Heaslip, L.J.; King, P.D.; Dorricott, J.D.; and Robinson, Q.K. — “Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length,” Aug., p 33
- Yamaguchi, H.; Shida, Y.; and Amako, S. — “New Skid Button Design for Hot Strip Mill Reheating Furnaces,” May, p 57
- Yaniga, S.E.; Zhao, Y.; Rabold, C.J.; Daniels, A.; Zmierski, M.L.; Feltmate, S.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41
- Yuen, D.; Panjkovic, V.; and Fraser, G. — “Applications of the Crown and Shape Model in BlueScope Steel’s Western Port Hot Strip Mill,” *AIST Transactions*, Oct., p 97
- Zamboni, L.; Figueiredo Jr., A.; Bellandi, N.; and Vanola, A. — “Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina,” Aug., p 42
- Zanoni, A., and Salvador, G. — “Endless Welding Rolling® and Spooler Lines,” Feb., p 41
- Zeien, R.; Mueller, E.G.; Cotchen, J.K.; and Novicki, E. — “Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode,” July, p 113
- Zellman, J.; Fox, M.; Powers, J.; and Andrews, S. — “Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace,” July, p 129
- Zhao, Y.; Rabold, C.J.; Yaniga, S.E.; Daniels, A.; Zmierski, M.L.; Feltmate, S.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41
- Zmierski, M.L.; Zhao, Y.; Rabold, C.J.; Yaniga, S.E.; Daniels, A.; Feltmate, S.; and Salter, B. — “Web-based Computer Model for Blast Furnace Performance Analysis,” Nov., p 41

List of Companies

ABB

“Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode” — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113

Acciaierie Valbruna

“Valbruna: New Continuous Casting Machine for Stainless Steel” — D. Lestani, W.D. Ruzza and A. Miconi, Sept. p 170
“Danieli Technology Forum 2004” — D. Fritz, Oct., p 19

Acières et Laminaires de Paris

“Endless Welding Rolling® and Spooler Lines” — A. Zanoni and G. Salvador, Feb., p 41

Acme

“Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” N.L. Samways, June, p 19

Açominas

“Replacement of the Collecting Mains at the Açominas Coke Plant” — P. Allen, T. Mullen, P. Gootjes and R. James, Mar., p 62

Advent Process Engineering

“Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating,” AIST Transactions — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, Apr., p 80
“Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating,” AIST Transactions — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, May, p 92
“Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length” — P.D. King, L.J. Heaslip, D. Xu, J.D. Dorricott and Q.K. Robinson, Aug., p 33

Air Liquide

“Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” N.L. Samways, June, p 19

AISI Strategic Alliance for Steel Fuel Tanks

“Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56

Ajax Tocco Magnethermic

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

AK Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

AK Tube

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Alcoa

“Breaking the Work-Harder Syndrome During Process Improvement” — M. Bresko, Apr., p 49

Alfa Acciai

“Endless Welding Rolling® and Spooler Lines” — A. Zanoni and G. Salvador, Feb., p 41

Algoma Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Allegheny Ludlum

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Allegheny Technologies

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Allen Bradley

“Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” N.L. Samways, June, p 19
“Nucor Steel–Decatur: A Potential 3 Million Tons/year Strip Steel Facility” — N.L. Samways, Dec., p 19

Alton Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

American Iron and Steel Institute

“Lance-Based Sensing and Vision Systems” — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69
“Exfoliation Corrosion on Dofasco’s No. 1 Continuous Caster,” G. Lake, R. Dufresne and S.D. Klatskin, June, p 56

“Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56

American Society for Mechanical Engineers

“Boiler and Combustion Safety — What You Don’t Know Can Kill You!” J. Puskar, June, p 80

Andritz-Ruthner

“Nucor Steel–Decatur: A Potential 3 Million Tons/year Strip Steel Facility” — N.L. Samways, Dec., p 19

Andritz Selas

“The New No. 3 Galvanizing Line at Voest-Alpine Stahl” — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

ArvinMeritor

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Babst, Calland, Clements & Zomnir

“NSR Reform: Update on the New Regulations and Their Impact on Air Permitting,” M.H. Winek and R.L. Hawks, June, p 74

Berry Metal

“Lance-Based Sensing and Vision Systems” — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69

Bethlehem Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Birmingham Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Bliss Salem

“Nucor Steel–Decatur: A Potential 3 Million Tons/year Strip Steel Facility” — N.L. Samways, Dec., p 19

Bloom Engineering

“Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” N.L. Samways, June, p 19

BlueScope Steel

“Slag Practices for Refractory Wear Control in Steelmaking,” *AIST Transactions*, M. Lee and S. Jahanshahi, June, p 105
“Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56
“Applications of the Crown and Shape Model in BlueScope Steel’s Western Port Hot Strip Mill,” AIST Transactions — V. Panjkovic, G. Fraser and D. Yuen, Oct., p 97

Bricmont

“Nucor Steel–Decatur: A Potential 3 Million Tons/year Strip Steel Facility” — N.L. Samways, Dec., p 19

Brock Solutions

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Broner Metals Solutions

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Butech

“Nucor Steel–Decatur: A Potential 3 Million Tons/year Strip Steel Facility” — N.L. Samways, Dec., p 19

California Steel Industries

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Camrose Pipe

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Canadian Drawn Steel

“Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

CANMET Energy Technology Center

“Development of Coke Strength After Reaction (CSR) at Dofasco” — T.W. Todoschuk, J.P. Price and J.F. Gransden, Mar., p 73

Carnegie Mellon University

“Reoxidation of Low-Carbon, Aluminum-Killed Steel,” AIST Transactions — Y. Wang, S. Sridhar, A.W. Cramb, A. Gomez and C. Cicutti, Feb., p 86
“Hydrogen and Nitrogen Control in Ladle and Casting Operations” — S. Misra and R.J. Fruehan, Apr., p 34

- "Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163
- "The Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process," *AIST Transactions* — P. Nolli, A.W. Cramb and D. Choo, Dec., p 116
- CEC Consultants**
- "Boiler and Combustion Safety — What You Don't Know Can Kill You!" J. Puskar, June, p 80
- Central Tubing Facility**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- Centro-Metal Cut**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- Charter Steel**
- "Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode" — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113
- Chemiplas**
- "EAF Refractory Performance at Pacific Steel" — D. Sanford, B. Garside, C. Schonewille and T. Miller, Aug., p 48
- Chicago/Chesapeake Finish Metals**
- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56
- Cinergy**
- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19
- Cleveland-Cliffs**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30
- Cliffs Michigan Mining**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- CMC Steel Group**
- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- CMS East Group**
- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57
- Cognex**
- "Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH" — A. Jungreithmeier, E. Pissenberger, K. Burgstaller and J. Mörtl, Apr., p 41
- Colorado School of Mines**
- "Solidification, Segregation and Banding in Carbon and Alloy Steels," *AIST Transactions* — G. Krauss, Mar., p 144
- Combustion Safety**
- "Boiler and Combustion Safety — What You Don't Know Can Kill You!" J. Puskar, June, p 80
- Commercial Metals**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- Commonwealth Scientific & Industrial Research Organization (CSIRO)**
- "Slag Practices for Refractory Wear Control in Steelmaking," *AIST Transactions*, M. Lee and S. Jahanshahi, June, p 105
- Companhia Siderurgica Paulista (Cosipa)**
- "Design Aspects of an Ideal Oxygen Steelmaking Converter" — G. Staudinger, J. Müller, D.D. Guzela and J.G. de Oliveira, Jan., p 45
- Concrete Reinforcing Steel Institute**
- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57
- CORE Furnace Systems**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122
- Corus IJmuiden**
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- "Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden" — R. Stokman, E. van Stein Callenfels and R. van Laar, Nov., p 21
- CSIRO Minerals**
- "Slag Practices for Refractory Wear Control in Steelmaking," *AIST Transactions*, M. Lee and S. Jahanshahi, June, p 105
- Cyra Technologies**
- "Using Laser Scanning Technology to Measure Deflections in Steel Columns" — M. Hawarey and M.O. Falk, Mar., p 40
- D&G Enterprises**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- DaimlerChrysler**
- "Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimcák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38
- Danieli**
- "Communicating Product Recipes to a Rolling Mill Control System" — S. Stebbing, H. Fazlollahi and K. Fazlollahi, Feb., p 17
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- Danieli Automation**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19
- Danieli Centro Met**
- "Valbruna: New Continuous Casting Machine for Stainless Steel" — D. Lestani, W.D. Ruzza and A. Miconi, Sept. p 170
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- Danieli Corus**
- "Replacement of the Collecting Mains at the Açominas Coke Plant" — P. Allen, T. Mullen, P. Gootjes and R. James, Mar., p 62
- "Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden" — R. Stokman, E. van Stein Callenfels and R. van Laar, Nov., p 21
- Danieli Morgårdshammar**
- "Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- Danieli Rotelec**
- "Valbruna: New Continuous Casting Machine for Stainless Steel" — D. Lestani, W.D. Ruzza and A. Miconi, Sept. p 170
- Danieli Wean United**
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- Dataflow**
- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19
- Davsteal**
- "Benchmark Study of EAF Plants Using the KT Injection System" — F. Memoli and P. Lückhoff, July, p 138
- Deacero**
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
- Deacero Celaya**
- "Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41
- Deacero Saltito**
- "Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41
- DJ Galvanizing**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- DNN Galvanizing**
- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

List of Companies

Dofasco

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Development of Coke Strength After Reaction (CSR) at Dofasco" — T.W. Todoschuk, J.P. Price and J.F. Gransden, Mar., p 73
- "Equipment and Practice Enhancements at Dofasco's Vacuum Degas Tank for ULC Steel" — T. Kuhl, S. Sun and M.K. Trinh, Apr., p 21
- "Dofasco No. 2 Hot Mill Profile/Flatness Performance and Finishing Mill Work Roll Practices" — A. Monaco and G. Stephen, May, p 38
- "Alternating Taphole Practice With a Two-Taphole Blast Furnace" — A. Petruccielli, F. van Laar, F. Hribljan and B. Boettcher, Nov., p 48

Dofasco de Mexico

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Dofasco Marion

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Dofasco Research

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Double Eagle Steel Coating

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Douglas Dynamics

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Dunn Del Re Steel

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Dürr

- "The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Ebner

- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

École Centrale Paris

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

École Polytechnique de Montréal

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Electro-Nite

- "Hydrogen and Nitrogen Control in Ladle and Casting Operations" — S. Misra and R.J. Fruehan, Apr., p 34

Electrode Technologies

- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Entec Systems International

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Environmental Quality Management

- "NSR Reform: Update on the New Regulations and Their Impact on Air Permitting," M.H. Winek and R.L. Hawks, June, p 74

European Coil Coating Association

- "Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

Ferralloy

- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Ferriere Nord

- "Recycling of Ladle Slag and Spent Refractories by Injection Into an EAF," S. Porisiensi, June, p 63
- "Danieli Technology Forum 2004" — D. Fritz, Oct., p 19

Fiat

- "Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

FOEN

- "The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Ford Motor

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Friedrich Kocks

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Fredericksburg Regional Alliance

- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57

Gallatin Steel

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Galvak Hylsamex

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

GE Betz

- "Exfoliation Corrosion on Dofasco's No. 1 Continuous Caster," G. Lake, R. Dufresne and S.D. Klatskin, June, p 56

GE Infrastructure Water & Process Technologies

- "Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel" — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

GeGa

- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

General Electric

- "Breaking the Work-Harder Syndrome During Process Improvement" — M. Bresko, Apr., p 49
- "Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19
- "Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

General Motors

- "Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

George Kelk

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Gerdau AmeriSteel

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Germanna Community College

- "SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57

Greens Port Industrial Park

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Halyvourgiki

- "Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41

Hamilton Spectator

- "Exfoliation Corrosion on Dofasco's No. 1 Continuous Caster," G. Lake, R. Dufresne and S.D. Klatskin, June, p 56

Harris Steel Group

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Harsco

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Heckett MultiServ

- "Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Helliniky Halyvougia

- "Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41

Hengli

- "From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

Heraeus Electro-Nite Intl.

"Instant Control of Metallurgical Slags in EAFs and Ladles Utilizing an Electrochemical Sensor" — W. Glitscher and R. Maes, Apr., p 28

Herkules

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Hibbing Taconite Mining

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Hitachi Zosen

"Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel" — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

Hoogovens

"Blast Furnace Lining and Cooling Technology: Experiences at Corus IJmuiden" — R. Stokman, E. van Stein Callenfels and R. van Laar, Nov., p 21

Huta Sendzimir Krakow

"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimcák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 28

I/N Kote

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

I/N Tek

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

ILZRO Galvanized Autobody Partnership

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

IMS Systems

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

IMT

"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Independence Tube

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Indiana Department of Environmental Management

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Indiana Harbor Coke

"Using Laser Scanning Technology to Measure Deflections in Steel Columns" — M. Hawarey and M.O. Falk, Mar., p 40

Indianapolis Water

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Industrial Automation Services

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

International Lead Zinc Research Organization

"Development of the Next Generation of Bath Hardware Materials" — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

International Steel Group

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Roll Cool-down Facility at the ISG Burns Harbor Hot Strip Mill" — B. Bramfitt and R. Perry, May, p 53
"Steel Ladle Campaign Improvements at ISG Sparrows Point" — J.O. Barrett, R.E. Fash, T. Richter and B. Patterson, Aug., p 65

IPSCO

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

ISG Cleveland

"Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30

ISG Research

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Ispat Inland

"Prediction and Prevention of Stopping in a BOF" — M. Shakirov, A. Boutchenkov, G. Galperine and B. Schrader, Jan., p 38
"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Nozzle Plugging of Calcium-treated Steel," AIST Transactions — R. Dekkers, B. Blanpain and P. Wollants, Aug., p 92
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Ispat Inland Research

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

ITAM

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

JE Baker

"Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode" — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113

Jewell Coal & Coke

"Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30

JFE Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Kakogawa Works

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Katholieke Universiteit Leuven

"Nozzle Plugging of Calcium-treated Steel," AIST Transactions — R. Dekkers, B. Blanpain and P. Wollants, Aug., p 92

Kobe Steel

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Korea Atomic Energy Research Institute

"Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels" — Y.R. Cho, S.I. Kim and B.S. Seong, May, p 46

KUBOTA

"New Skid Button Design for Hot Strip Mill Reheating Furnaces" — H. Yamaguchi, Y. Shida and S. Amako, May, p 57

Kwangyang Steel Works

"Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels" — Y.R. Cho, S.I. Kim and B.S. Seong, May, p 46

Kyoei Steel

"From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

Laclede Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

LAI Acquisition

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Lianyuan Iron & Steel

"Endless Welding Rolling® and Spooler Lines" — A. Zaroni and G. Salvador, Feb., p 41

Lofland Acquisition

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Lorain Pipe Mills

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

List of Companies

LTV

"Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30

LWB Refractories Applied Technology

"EAF Refractory Performance at Pacific Steel" — D. Sanford, B. Garside, C. Schonewille and T. Miller, Aug., p 48

MacSteel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Magnesita

"Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina" — A. Figueiredo Jr., N. Bellandi, A. Vanola and L. Zamboni, Aug., p 42

Mannesmann Demag

"Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel" — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

Materials Science

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

McMaster University

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Mercedes

"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

Metal Refinishing and Improvements

"Continuous Caster Roll Improvements From Machine Head Through Horizontal Section" — S. Plewka and A.T. Donet, Sept., p 187

METSO

"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

MikroPul

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Millcraft SMS Services

"Comprehensive Mold and Oscillator Monitoring" — M.J. Korzi, J.E. Arzberger and W.H. Emling, Sept. p 178

"Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel" — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

MIT

"Breaking the Work-Harder Syndrome During Process Improvement" — M. Bresko, Apr., p 49

Mi-Tech Steel

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Mobarakeh Nisco

"Danieli Technology Forum 2004" — D. Fritz, Oct., p 19

Monarch Steel

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

MORE

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"EAF Energy Optimization at Nucor-Yamato Steel" — A. Pujadas, J. McCauley and M. Iacuzzi, July, p 104

Morgan Construction

"Modeling System for Improved Roll Pass Design" — H. Gutierrez and B.V. Kiefer, Feb., p 21

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Morgårdshammar

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

MultiServ

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

National Board of Pressure Vessel Inspectors

"Boiler and Combustion Safety — What You Don't Know Can Kill You!" J. Puskar, June, p 80

National Coil Coaters Association

"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

National Fire Protection Association Journal

"Boiler and Combustion Safety — What You Don't Know Can Kill You!" J. Puskar, June, p 80

National Institute of Mental Health

"Reoxidation of Low-Carbon, Aluminum-Killed Steel," AIST Transactions — Y. Wang, S. Sridhar, A.W. Cramb, A. Gomez and C. Cicutti, Feb., p 86

National Research Council (Canada) – Industrial Materials Institute

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

National Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

National Technical University – San Nicolás Regional College

"Technological Evolution of Magnesia-carbon Bricks for Steel Ladles in Argentina" — A. Figueiredo Jr., N. Bellandi, A. Vanola and L. Zamboni, Aug., p 42

"Heat Balance of SIDERAR Continuous Casting" — R.D. Lopez, Sept., p 193

New Millennium Building Systems

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Nippon Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Development of Coke Strength After Reaction (CSR) at Dofasco" — T.W. Todoschuk, J.P. Price and J.F. Gransden, Mar., p 73

Nisterhammer

"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

North American Refractories

"Steel Ladle Campaign Improvements at ISG Sparrows Point" — J.O. Barrett, R.E. Fash, T. Richter and B. Patterson, Aug., p 65

North Star BHP Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

North Star Steel

"Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode" — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113

Nucor

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Nucor Steel

"From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Nucor Steel-Decatur

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Nucor Steel-Hertford

"Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace" — S. Andrews, J. Powers, M. Fox and J. Zellman, July, p 129

Nucor Steel-Indiana

"The Switch From Reactive to Proactive Maintenance at the Crawfordsville Cold Mill" — S. Mills, J. Roche and B. Cooper, Dec., p 74

Nucor Steel-Nebraska

"Communicating Product Recipes to a Rolling Mill Control System" — S. Stebbing, H. Fazlollahi and K. Fazlollahi, Feb., p 17

Nucor-Yamato Steel

"EAF Energy Optimization at Nucor-Yamato Steel" — A. Pujadas, J. McCauley and M. Iacuzzi, July, p 104
"Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness," AIST Transactions — J. Peter, K.D. Peaslee and D. Panda, July, p 171

Oak Ridge National Laboratories

"Development of the Next Generation of Bath Hardware Materials" — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Osada State Tube Institute (DTI-VNITI)

"Cold Drawing of Tubes on a Movable Mandrel" — G.I. Gulyayev, A.I. Lobanov, V.V. Sergeev and C.V. Darragh, Feb., p 34

Outokumpu Stainless

"Danieli Technology Forum 2004" — D. Fritz, Oct., p 19

Pacific Steel

"EAF Refractory Performance at Pacific Steel" — D. Sanford, B. Garside, C. Schonewille and T. Miller, Aug., p 48

Parsytec

"Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH" — A. Jungreithmeier, E. Pissenberger, K. Burgstaller and J. Mörtl, Apr., p 41

Paul Wurth

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30

P.C. Campana

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Perwaja Steel

"Benchmark Study of EAF Plants Using the KT Injection System" — F. Memoli and P. Lückhoff, July, p 138

Piedmont Plate & Processing

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Pomini

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

POSCO

"Effect of Boron Addition on the Microstructure and Mechanical Properties of Low-carbon Steels" — Y.R. Cho, S.I. Kim and B.S. Seong, May, p 46

Praxair

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Start-up and Operating Results of the CoJet® Sidewall Injectors on a Consteel Furnace" — S. Andrews, J. Powers, M. Fox and J. Zellman, July, p 129

Process Metrix

"Lance-Based Sensing and Vision Systems" — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69

Process Technology International

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Profilati Nave

"Benchmark Study of EAF Plants Using the KT Injection System" — F. Memoli and P. Lückhoff, July, p 138

Pro-tec Coating

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Quad Engineering

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Quad Infotech

"Communicating Product Recipes to a Rolling Mill Control System" — S. Stebbing, H. Fazlollahi and K. Fazlollahi, Feb., p 17
"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Qualitech

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Quanex

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Refractarios Argentinos

"Technological Evolution of Magnesite-carbon Bricks for Steel Ladles in Argentina" — A. Figueiredo Jr., N. Bellandi, A. Vanola and L. Zamboni, Aug., p 42

Refratechnik Steel

"Developments in Refractory Linings for Basic Oxygen Furnaces in Germany" — H.G. Daldrup and H. Jansen, Aug., p 56

Renault

"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimčák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

Republic Engineered Products

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Republic Steel

"Start-up of the Blast Furnaces at ISG Cleveland" — J.L. Drummond, Nov., p 30

Republic Technologies International

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Research Institute of Industrial Science and Technology

"The Effect of Surface Oxide Films on Heat Transfer Behavior in the Strip Casting Process," AIST Transactions — P. Nolli, A.W. Cramb and D. Choo, Dec., p 116

R.J. Lee Group

"Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163

Rouge Steel

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Ryerson University

"Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part I — Without Heating," AIST Transactions — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, Apr., p 80
"Modeling of Ladle Bubbling for the Elimination of Thermal Stratification, Part II — With Heating," AIST Transactions — J.P. Rogler, L.J. Heaslip, D. Xu and M. Mehrvar, May, p 92

Sanyo Special Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Sartid

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

SES

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Shaoguan Iron and Steel Group

"From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

Shiheng

"From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

Shougang Iron and Steel

"Danieli Technology Forum 2004" — D. Fritz, Oct., p 19

List of Companies

SIDERAR

"Heat Balance of SIDERAR Continuous Casting" — R.D. Lopez, Sept., p 193

Siderar SIAC

"Reoxidation of Low-Carbon, Aluminum-Killed Steel," AIST Transactions — Y. Wang, S. Sridhar, A.W. Cramb, A. Gomez and C. Cicutti, Feb., p 86

Siemens

"Communicating Product Recipes to a Rolling Mill Control System" — S. Stebbing, H. Fazlollahi and K. Fazlollahi, Feb., p 17

"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Siemens Energy & Automation

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Signode

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

SMI Rebar Virginia

"SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57

SMI Steel-Alabama

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

SMS Demag

"Coordinated Application of Roll Gap Lubrication, Work Roll Cooling and Antipeeling Systems in Hot Rolling Mills" — M.J. Peretic, J. Seidel and S. Kraemer, May, p 27

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

"Conversion From a DC Furnace Conductive Bottom to an SMS Demag Pin-type Bottom Electrode" — J.K. Cotchen, E.G. Mueller, R. Zeien and E. Novicki, July, p 113

"Comprehensive Mold and Oscillator Monitoring" — M.J. Korzi, J.E. Arzberger and W.H. Emling, Sept. p 178

SMS Meer

"The MultiLine High-Speed Wire Rod Mill" — M. Burkhardt, H. Müller and G. Ellis, Feb., p 50

St. Mary's Cement

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Stamco

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Steel Dynamics Industries

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Stelco

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Stoody

"Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel" — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

Straightline Source

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Strategic Asset Management

"Measuring Maintenance Effectiveness: The Bulls and the Bears" — R.D. Hedding, Dec., p 86

Surface Combustion

"Reliability-based Design: Annealing Furnace Helper Roll Bearing Upgrade" — D.J. Northrop and M.R. Whitten, Dec., p 63

Tangshan Iron & Steel

"Endless Welding Rolling® and Spooler Lines" — A. Zanoni and G. Salvador, Feb., p 41

Techint

"Benchmark Study of EAF Plants Using the KT Injection System" — F. Memoli and P. Lückhoff, July, p 138

Techint Technologies

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Technical University of Czestochowa

"Mathematical Modeling of Steel Flow in the Tundish of a 6-strand Continuous Casting Machine," AIST Transactions — M. Warzecha, J. Jawsa, S. Garncarek and T. Merder, Nov., p 81

Teck Cominco

"Development of the Next Generation of Bath Hardware Materials" — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Thyssen Krupp Stahl AG

"Development of Coke Properties for the Improvement of Blast Furnace Operations" — J. Curilla, Z. Machajová, H.D. Huntingdon and F.W. Hyle, Mar., p 85

Thyssen Krupp EnCoke

"Practical Application of Coke Plant Automation Systems" — K.P. Leuchtmann, R.V. Ramani and M. Platts, Mar., p 46

Timken

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Nucor Steel-Decatur: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

Timken Latrobe Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Tonghua

"From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill" — A.A. Manenti, July, p 122

Torrington

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Toyota

"Breaking the Work-Harder Syndrome During Process Improvement" — M. Bresko, Apr., p 49

Tri-Cam

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Trinecke Zelezarny

"Prediction and Prevention of Stopping in a BOF" — M. Shakirov, A. Boutchenkov, G. Galperine and B. Schrader, Jan., p 38

UEC Coal & Coke Laboratories

"Development of Coke Properties for the Improvement of Blast Furnace Operations" — J. Curilla, Z. Machajová, H.D. Huntingdon and F.W. Hyle, Mar., p 85

United Steelworkers of America

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

University of Aachen

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

University of Ghent

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

University of Lille

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

University of Missouri-Rolla

"Thermomechanical Processing of HSLA Wide-flange Steel Beams for Increased Core Toughness," AIST Transactions — J. Peter, K.D. Peaslee and D. Panda, July, p 171

University of Waterloo

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

U. S. Steel

"BOF Hood Life Cycle Cost Improvement Program" — G.A. Stemetzki, M.M. Kuta and C. Shepard, Jan., p 54
"Lance-Based Sensing and Vision Systems" — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69
"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56
"Web-based Computer Model for Blast Furnace Performance Analysis" — Y. Zhao, C.J. Rabold, S.E. Yaniga, A. Daniels, M.L. Zmierski, S. Feltmate and B. Salter, Nov., p 41
"Nucor Steel-Decorat: A Potential 3 Million Tons/year Strip Steel Facility" — N.L. Samways, Dec., p 19

U. S. Steel Balkan

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

U. S. Steel Corp. Research and Technology Center

"Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

U. S. Steel Košice

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"Development of Coke Properties for the Improvement of Blast Furnace Operations" — J. Curilla, Z. Machajová, H.D. Huntingdon and F.W. Hyle, Mar., p 85
"Danieli Technology Forum 2004" — D. Fritz, Oct., p 19
"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimcák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

U.S. Census Bureau

"Exfoliation Corrosion on Dofasco's No. 1 Continuous Caster," G. Lake, R. Dufresne and S.D. Klatskin, June, p 56

U.S. Dept. of Energy

"Lance-Based Sensing and Vision Systems" — S.T. Jensen, M.P. Bonin, W. Federoff, N. Rymarchyk and T. Smith, Jan., p 69
"Inclusion Analysis to Predict Casting Behavior" — S.R. Story, T.J. Piccone, R.J. Fruehan and M. Potter, Sept., p 163
"Development of the Next Generation of Bath Hardware Materials" — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

U.S. Environmental Protection Agency

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"A Creative Approach to RCRA Corrective Action at an Integrated Steel Plant," M. Vignovic, D.C. Bluedorn II and D.N. Olson, June, p 67
"NSR Reform: Update on the New Regulations and Their Impact on Air Permitting," M.H. Winek and R.L. Hawks, June, p 74

USSC-POSCO Industries

"Reliability-based Approach to Mill Drive Spindle Maintenance" — J.S. Kroner, Dec., p 53
"Reliability-based Design: Annealing Furnace Helper Roll Bearing Upgrade" — D.J. Northrop and M.R. Whitten, Dec., p 63

VAI Clecim

"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

VAI Industries

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

VAI Pomini

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Valley City Steel

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Vectren

"Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill," N.L. Samways, June, p 19

Vesuvius FCAD R&D

"Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length" — P.D. King, L.J. Heaslip, D. Xu, J.D. Dorricott and Q.K. Robinson, Aug., p 33

Vesuvius Research

"Tundish Slidegate System for Enhanced Performance, Reduced Alumina Clogging and Extended String Length" — P.D. King, L.J. Heaslip, D. Xu, J.D. Dorricott and Q.K. Robinson, Aug., p 33

Viking & Worthington Steel Enterprises

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Viking Industries

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

Villares/Sidenor

"High-Speed Steel Rolls for Long Products" — R.R. Xavier, M.A. de Carvalho, E. Cannizza, T.H. White, A. Rivaroli Jr. and A. Sinatoro, Feb., p 28

Virginia Employment Commission

"SMI's Rebar Detailing Education Program" — E.B. Hart, Feb., p 57

Voest-Alpine Industrieanlagenbau

"Design Aspects of an Ideal Oxygen Steelmaking Converter" — G. Staudinger, J. Müller, D.D. Guzela and J.G. de Oliveira, Jan., p 45
"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23
"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Voest-Alpine Schienen

"Danieli Technology Forum 2004" — D. Fritz, Oct., p 19

Voest-Alpine Services & Technologies

"Continuous Caster Roll Improvements From Machine Head Through Horizontal Section" — S. Plewka and A.T. Donet, Sept., p 187

Voest-Alpine Stahl

"Production of ULC IF Steel Grades at Voest-Alpine Stahl GmbH" — A. Jungreithmeier, E. Pissenberger, K. Burgstaller and J. Mörtl, Apr., p 41
"The New No. 3 Galvanizing Line at Voest-Alpine Stahl" — G. Riha, J. Guggenberger and M. Kaiser, Oct., p 47

Volkswagen

"Surface Evaluation Methods for Coated Sheets at U. S. Steel Košice" — J. Billy, F. Šimcák, D. Dadejova, V. Kundracik and A. Bobenic, Oct., p 38

Walbridge Coatings

"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

WCI Steel

"Snort Valve Replacement at WCI Steel" — W.A. Toot, Nov., p 36

Worlton Steel

"BOF Hood Life Cycle Cost Improvement Program" — G.A. Stemetzki, M.M. Kuta and C. Shepard, Jan., p 54
"A Creative Approach to RCRA Corrective Action at an Integrated Steel Plant," M. Vignovic, D.C. Bluedorn II and D.N. Olson, June, p 67
"Challenges for Zinc-based Sheet Steel Coatings Production" — E.A. Silva and F.E. Goodwin, Oct., p 56

Welding Services

"BOF Hood Life Cycle Cost Improvement Program" — G.A. Stemetzki, M.M. Kuta and C. Shepard, Jan., p 54

Welland Pipe

"Developments in the North American Iron and Steel Industry" — J. Cantrell, Mar., p 23

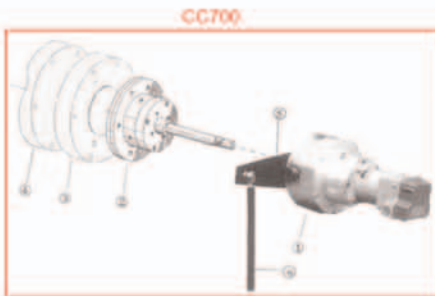


**Improve
Quality and
Productivity**

Automate screwdown
positioning.
Save many hours of
setup time!
Serial interface available.



CC77III



CC700

Absolutely
the most
precise
speed
feedback.
Eliminate
once
per rev.
noise.

Shaft mounted
absolute
position
23 bit
per rev.
Programmable
serial
interface.



CC3608MF/CC461



CC815

Steel encoder
wheel.
No delicate
magnets!
Separate
read head
module.

www.carlencontrols.com
ph.: 540-772-1736 ext. 3
fax: 540-772-1737

List of Companies

West Virginia University

- “Development of the Next Generation of Bath Hardware Materials” — E.J. Barbero, C. Irwin, X. Liu, V. Sikka and F.E. Goodwin, Oct., p 31
- “Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56

Wheeling-Nisshin

- “Challenges for Zinc-based Sheet Steel Coatings Production” — E.A. Silva and F.E. Goodwin, Oct., p 56

Wheeling-Pittsburgh Steel

- “Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23
- “From Blast Furnace to EAF: The Technology for the Conversion From Integrated Producer to High-quality Electric Minimill” — A.A. Manenti, July, p 122
- “Extending the Performance of Caster Components at Wheeling-Pittsburgh Steel” — C. Keller, T. Evans, W. Emling and D. Graham, Dec., p 67

Winkle Industries

- “Steel Dynamics, Pittsboro Plant: A Revitalized SBQ Bar Mill,” N.L. Samways, June, p 19

Worthington Industries

- “Nucor Steel—Decatur: A Potential 3 Million Tons/year Strip Steel Facility” —N.L. Samways, Dec., p 19

Worthington Steel

- “Developments in the North American Iron and Steel Industry” — J. Cantrell, Mar., p 23

Xinjiang Bayi Iron & Steel

- “Endless Welding Rolling® and Spooler Lines” — A. Zanoni and G. Salvador, Feb., p 41

Youngstown State University

- “Predictive Maintenance of DC Drives on Process Lines” — D. Laird, Oct., p 24

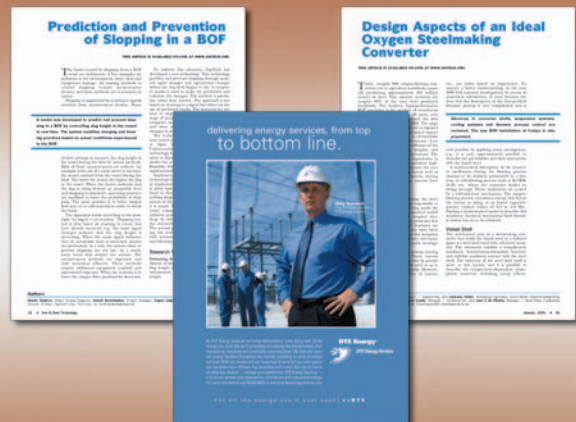
ZapTech

- “Prediction and Prevention of Stopping in a BOF” — M. Shakirov, A. Boutchenkov, G. Galperine and B. Schrader, Jan., p 38

Zenar

- “Nucor Steel—Decatur: A Potential 3 Million Tons/year Strip Steel Facility” —N.L. Samways, Dec., p 19

Magazine-quality reprints of
your article or advertisement
are available direct from AIST



To obtain a price quote for your
custom reprint, contact:
Karen D. Hadley, Managing Editor
(724) 776-6040, ext. 625 or khadley@aist.org