

Wednesday, May 14, Technical Papers Schedule

8:15 a.m.–9:45 a.m. OPENING GENERAL SESSION – OSCEOLA C-D, (See page 4 for details.)

10:00a.m.–10:30a.m. BREAK NEAR ET EXPO HALL

ROOM Osceola A Osceola B Osceola C

ROOM	Osceola A	Osceola B	Osceola C
10:30 a.m. – 10:55 a.m.	<p>Alloy Development</p> <p>097BP The Future of 6xxx Medium Strength Structural Applications Pangborn, Hydro</p>	<p>Hollow Profiles</p> <p>049PR Static and Dynamic Mechanical Properties of Longitudinal Weld Seams den Bakker, Nedal Aluminium</p>	
11:00 a.m. – 11:25 a.m.	<p>019BP New Generation of Matte Alloys from Alcan Ramanan, Alcan</p>	<p>051PR Quality Issues of Hollow Extrusions for Aerospace Applications Saha, Boeing</p>	
11:30 a.m. – 11:55 a.m.	<p>101BP ▲ Al-Mg-Si Alloys with Improved Crush Properties Røyset, Hydro</p>	<p>076PR Seam Welds Modeling and Mechanical Properties Prediction in Extrusion Donati, University of Bologna</p>	

LUNCH IN ET EXPO HALL

	Osceola A	Osceola B	Osceola C
1:15 p.m. – 1:40 p.m.	<p>Metallurgy</p> <p>098BP Effect of Alloy Chemistry and Process Parameters on Extrudability Røyset, Hydro</p>	<p>Modeling and More</p> <p>041TH Simulation and Experimental Investigations of Composite Extrusion Processes Schikorra, University of Dortmund</p>	<p>Press I</p> <p>137EE Seven Steps for Selecting an Extrusion Press Kennedy, Kennedy Eurotech</p>
1:45 p.m. – 2:10 p.m.	<p>083BP The Effect of Sc and Zr on Al Extrusion and Post-Braze Grain Structure Kraft, Ohio University</p>	<p>093TH Thermomechanical Simulation of Continuous Extrusion Velay, Bournemouth University</p>	<p>034EE Comprehensive Extrusion Automation for Isothermal Extrusion Pandit, University of Kaiserslautern</p>
2:15 p.m. – 2:40 p.m.	<p>152BP Standardization in Metal Analysis - No Longer an Option Choquette, Alcan</p>	<p>032TH Application of QForm Program for Improvement of the Die Design Biba, QuantorForm</p>	<p>126EE Innovative Tube Extrusion Plant for Aluminum Alloys Muschalik, SMS Meer</p>

2:45 p.m.–3:15 p.m. BREAK NEAR ET EXPO HALL

	Osceola A	Osceola B	Osceola C
3:15 p.m. – 3:40 p.m.	<p>Dies and More</p> <p>039TH Extrusion Simulation as the Way to Close the Loop in Die Design Andreoli, Phoenix International</p>	<p>Die Modeling</p> <p>040TH Die Design and Manufacturability Using the Medial Axis Transform van Ouwkerk, University of Twente</p>	<p>Billet/Log Heating/Handling</p> <p>086EE New Conveying System...Rapid Heaters with Hot Log Shear, Welder, Saw Johnen, Otto Junker</p>
3:45 p.m. – 4:10 p.m.		<p>079TH Lifetime Comparison of Hot Work Tool Steels for Extrusion Tools Sommitsch, Christian Doppler Laboratory</p>	<p>160EE Operational Experience of an Induction Billet Heater with Superconductivity Masur, Zenergy Power</p>
4:15 p.m. – 4:40 p.m.	<p>078TH Indirect Extrusion of Rapidly Solidified Powder and Deformation Behavior Mueller, Technical University Berlin</p>	<p>037TH Biomechanics in Extrusion Dies...Finding a Web Cross-Section in Porthole Dies Pourvali, Shaghayegh</p>	<p>027EE Building a 200kW Rotating Billet Superconducting Induction Heater Magnusson, SINTEF</p>

5:30 p.m.–7:30 p.m. RECEPTION IN ET EXPO HALL

ET Expo & Extrusion Showcase Open 10:00 a.m. – 7:30 p.m.

See page 5 for details.

Billet Process and Equipment (BP)
 Extrusion/Die Practical (PR)
 Extrusion/Die Theoretical (TH)

Extrusion Equipment (EE)
 Management Issues (MI)
 Value-Added Processes (VA)

Osceola D

Osceola 1-2-3

Osceola 4-5-6

Microstructure I

060TH

Influence of Recrystallization...on Peripheral Coarse Grain in Indirect Extrusion

Bandar, Scientific Forming

091TH

Prediction and Control of Subgrain Size...with Feeder Plates

Velay, Bournemouth University

092TH

Innovative Methodologies to Increase Productivity by Simulating Development...

Sheppard, Bournemouth University

Fabrication

008VA

Aluminum Extrusion Fabrication Solutions for Automotive & Transportation

Barbareschi, Tekna

077VA

Increasing the Use of Aluminum Extrusions for Structural Applications through Welding

Anderson, ESAB Welding & Cutting

10:30 a.m. – 10:55 a.m.

11:00 a.m. – 11:25 a.m.

11:30 a.m. – 11:55 a.m.

Recovery Improvement

052PR ▲

Scrap Allocation

Jowett, Alcan

085PR

Extrusion Defects – Striking

Takagi, Techno-Consul

134PR

Effects of Process Conditions on Die Pick-Up Formed during Extrusion

Peris, AUT University

Globalization

114MI

Development of Recycling-Friendly Aluminum Alloys for Extruded Products

Das, Secat

122MI

The Globalization Trap of the Aluminum Extrusion Industry

Rüttimann, Alcan

007MI

Indian Aluminum Extrusion Industry – Challenges & Opportunities

Chokhani, Sudal Industries

Customers

082VA

Hybrid Nanostructure of the Anodic Oxide: A Case Study

Runge, CompCote International

135VA

Friction Stir Welding of Aluminum Alloy Extrusion Panels for Navy Vessels

Chen, AUT University

156VA

The Decoration of Extruded Aluminum Profiles

Piva, Decoral System

1:15 p.m. – 1:40 p.m.

1:45 p.m. – 2:10 p.m.

2:15 p.m. – 2:40 p.m.

Tooling Performance I

132EE

Abrasive Flow Machining

Lundstedt, Aluminum Shapes

023PR

The Use of Gaseous Nitrogen to Improve the Surface Finish of Dilute 6xxx Extrusions

Fortier, Rio Tinto Alcan

157PR

Butterfly Dies - Increase Extrusion Speed through Innovative Porthole Die Design

Pinter, Almax Mori

Packaging

075VA

Process Control and Data Acquisition Impact on Plantwide Operation

Fudge, Bulk Chemicals

066VA

Managing Your Product from Your Dock to the Customer's Dock

D'Andrea, Emmebi

140VA

New Solutions for Packaging Extrusions

Gallimberti, Autel

Architects

010MI

The Role and Use of Aluminum in "Green" Architecture

Biedronska, Silesian Technical University

024VA

Thermal-Efficient Products through Computer Simulation Software

Muessig, Azon

116VA

Filiform Corrosion and Results of 10 Years Natural Weathering

Pietschmann, FEM

3:15 p.m. – 3:40 p.m.

3:45 p.m. – 4:10 p.m.

4:15 p.m. – 4:40 p.m.

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▲ Denotes an award-winning paper.

Thursday, May 15, Technical Papers Schedule

10:00a.m.–10:30a.m. BREAK NEAR ET EXPO HALL

ROOM Osceola A Osceola B Osceola C

8:00 a.m. – 8:25 a.m.

Furnaces
065BP
Electromagnetic Stirring for Aluminum Furnaces
 Sjoden, ABB Automation

Tooling and Performance I
036PR
Metal Flow in Extrusion with Different Orifices
 Nagao, Sumitomo

Measurement & Diagnostics
046EE
Unique Tool Matching System
 Marinov, EngView Systems

8:30 a.m. – 8:55 a.m.

103BP
O₂-Enhanced Combustion for Aluminum Melting Furnaces
 Jepson, Air Liquide

055PR
Gas Nitriding Versus Ferritic Nitrocarburizing in Surface Hardening of Extrusion Dies
 Tymowski, Nitrex Metal

017EE
Diagnostics and Experiences on Extrusion Press Tooling
 Haehnel, Kind & Co

9:00 a.m. – 9:25 a.m.

087BP
Dross Management: Maximizing Dross Value and Minimizing Dross Generation
 Roth, Altek-MDY

021PR
The Die Does Not Make the Extrusion
 P. Robbins, Castool

054EE ▲
Non-Destructive Examination Components
 Manganello, Carlesa

9:30 a.m. – 9:55 a.m.

106BP
Dross Reduction in the Aluminum Casthouse – Considerations and Practices
 Waite, Alcan

018PR
Die Performance Optimization...Understanding Fatigue-Fracture Surface Features
 Kazanowski, Hydro

044EE
New Measurement System for Quality Control
 Marinov, EngView Systems

10:00a.m.–10:30a.m. BREAK NEAR ET EXPO HALL

10:30 a.m. – 10:55 a.m.

Neural Networks & Simulation
028TH
Analysis of Mechanical Properties of Extruded Rods by Neural Networks
 Duplancic, University of Split

Container & Tooling
111EE
Performance Enhancement of Tool Lube Systems
 Dyla, AMCOL

11:00 a.m. – 11:25 a.m.

035TH
Use of Adaptive Neural Networks in Aluminum Extrusion Process Control
 Campana, Companhia Brasileira de Alumínio

129EE
Automated Die-Polishing Update
 Stackhouse, Micro Technica

11:30 a.m. – 11:55 a.m.

047PR
Simulation-Aided Extrusion: An Efficient Optimization Strategy
 Krähenbühl, MTD SA

096EE
Extrusion Container Technology from Yesterday until Tomorrow
 Kortmann, S+C MÄRKER

LUNCH IN ET EXPO HALL

1:15 p.m. – 1:40 p.m.

Casting – Homogenization
073BP
Understanding Key Factors to Improve Billet Surface Quality and Casting Mold Life
 Dubé, ABI

Simulation
072TH
3-D Numerical Simulation of Direct Aluminum Extrusion and Die Deformation
 Assaad, University of Twente

Control
003EE
Automatic Closed-Loop Control Comes of Age for Aluminum Extrusion
 Barron, Williamson Corp.

1:45 p.m. – 2:10 p.m.

125BP
Advanced 6xxx Alloys – Challenges in Casting and Extrusion Processes
 Schloz, Wagstaff

080TH
Flow Front Tracking in Aluminum Extrusion Dies Using a Eulerian Description
 Koopman, University of Twente

016EE
Process Controlled Containers – Smart Containers
 Eckenbach, Marx GmbH

2:15 p.m. – 2:40 p.m.

057BP
Measuring, Modeling Precipitation/Dissolution during Billet Cooling, Preheating
 Gouttebroz, SINTEF

048TH
Advanced Numerical Techniques to Simulate Extrusion
 Krähenbühl, MTD SA

070EE
Water Hydraulic Press Control
 DeMar, Hauhinco

2:45 p.m.–3:15 p.m. BREAK NEAR ET EXPO HALL

ET Expo & Extrusion Showcase Open 10:00 a.m. – 7:30 p.m.

See page 5 for details.

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Osceola D

Osceola 1-2-3

Osceola 4-5-6

Extrusion Process

149PR

Implications and Influence of Complex Extrusions...on Productivity

Al Mekdad, Gulf Extrusions

026PR ▲

Extrusion Surface Effects Resulting from Billet Surface Inflow

Dixon, QED Extrusion

013PR

Process of Achieving Extrusion Excellence

Srimay, Dubai Aluminium

150PR

Boron Nitride – Solutions for Aluminum Extrusion

Klöpper, ESK Ceramics

Quality Management

084MI

Customer Focus on Quality Control of Extruded Products

Hamzah, Press Metal Berhad

012MI

Can Quality Production be Achieved Consistently on All Shifts?

Long, Consultant

056MI

Recovering Recovery

Dathathri, Bhoruka Aluminium

107MI

Scrap... The Most Expensive Thing We Do

Scheuing, Werner Extrusion Solutions

Anodizing

033VA

Innovative Anodizing and Coating Technologies for Processes and Plants...

Dalla Barba, Italtelco

001VA

Acid Etch for Aluminum Extrusions prior to Anodizing

Basaly, Houghton

058VA

Chemical Depth Profiling of Anodized Extrusion Surfaces Using rf-GD-OES

Björk, KIMAB

068VA ▲

Mechanisms of Streaking on Anodized 6xxx Series Extrusions

Zhang, Rio Tinto

8:00 a.m. – 8:25 a.m.

8:30 a.m. – 8:55 a.m.

9:00 a.m. – 9:25 a.m.

9:30 a.m. – 9:55 a.m.

Metal Flow, Weld Seam, Modeling

009TH

Process Engineering Modeling: A Ticket to Higher Efficiency in Aluminum Extrusion

Misiolek, Lehigh University

074TH

Solid-State Bonding in Longitudinal Weld Seam Formation

den Bakker, Nedal Aluminium

014TH

Extrusion Benchmark 2007

Donati, University of Bologna

Sawing

138EE

Hot Billet Saw: A Real Innovation in Handling Equipment

Corra, Aluminium Trevisan Cometal

081EE

Sawing Hot Billets at the Extrusion Press

Turnipseed, Belco

Metal Forming

095VA

Retrospection Heat Treatment as a Means of Improving Formability of Aluminum Extrusions

Benedyk, Illinois Institute of Technology

029VA

Flexible Extrusion of 3D-Curved Profiles for Structural Components

Becker, University of Dortmund

117VA

A New Profile-Shaping Technique for Automotive Components

Jensrud, Raufoss Technology

10:30 a.m. – 10:55 a.m.

11:00 a.m. – 11:25 a.m.

11:30 a.m. – 11:55 a.m.

Quench and Temper I

144PR

Progressive Quenching: A New Approach to Distortion Control

Jenista, Granco Clark

155PR

Product Development via Metallurgy, Process Control, Lean Manufacturing

Parkinson, Kaiser

067PR

Quench Sensitivity Test Method for Aluminum Extrusion Alloys

Sweet, Rio Tinto

Paint I

121VA

A Non-HAP Coating for Extruded Aluminum

Algrim, BASF Corp.

158VA

A Safer Alternative to Chromate Passivation for Aluminum Pretreatment

Zaki, SurTec International

063VA

Choosing the Best Coating Solution for Aluminum Extrusions

Lawley, Nordson

1:15 p.m. – 1:40 p.m.

1:45 p.m. – 2:10 p.m.

2:15 p.m. – 2:40 p.m.

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Thursday, May 15, continued

ROOM	Osceola A	Osceola B	Osceola C
3:15 p.m. – 3:40 p.m.	Operations Management 148MI A Two-Decade Case Study – How Modeling Drove Exceptional Results Werner, Werner Extrusion Solutions	Microstructure II 142TH ▲ Control of Asymmetric Recrystallization in Single and Multi-Hole Die Extrusion Sheppard, Bournemouth University	Press II/Aging 143EE Oil Cleanliness: the Lifeblood of the Modern Extrusion Press System Drake, Oilgear
3:45 p.m. – 4:10 p.m.	141MI Implementation of 6 Sigma Methodology into the Extrusion Die Shop Funai, Werner Extrusion Solutions	015TH Grain Size Prediction in AA6060 Profile Extrusion Donati, University of Bologna	088EE Second Generation Combination Quenches: Improving the Theory and the Practice Jenista, Granco Clark
4:15 p.m. – 4:40 p.m.	002MI ▲ Continuous Extrusion Optimization System: Measure Twice...Cut Once Werner, Werner Extrusion Solutions	153TH Recrystallization Mechanisms...Complex Forgings from Extruded 6061Stock Matuska, Kaiser	161EE Profile Aging Systems Spizzo, OMS

5:00 p.m.–6:00 p.m. ET SOCIAL HOUR in nETworking Lounge, Emerald Bay Plaza

Friday, May 16, Technical Papers Schedule

ROOM	Osceola A	Osceola B	Osceola C
8:00 a.m. – 8:25 a.m.	Metal Quality 006BP Metallurgical Quality of Aluar Billets: Ten Years of Increasing Quality Canullo, Aluar Aluminio	Market/Education 020MI Increasing the Use of Extrusions for Electrical Applications Pollak, Aluminum Association	General Session Follows (See page 5.)
8:30 a.m. – 8:55 a.m.	123BP Cl₂-Free Aluminum Processing Technologies Privé, STAS	069MI The Evolving Heat Exchanger Market for 3xxx-Series Extrusions Hartlieb, Alcan	
9:00 a.m. – 9:25 a.m.	154BP Degassing Technology: Effective Removal of Hydrogen in Molten Aluminum Shoemaker, Kaiser	004MI Upcoming Structural Design Rule Changes Impacting Aluminum Extrusions Kissell, TGB Partnership	
9:30 a.m. – 9:55 a.m.	045BP Improved Hydrogen Measurement in Molten Aluminum and Aluminum Alloys Chesonis, Alcoa	131MI Extrusion Dies - The Key to Success <i>AEC BONUS SESSION</i> L. Robbins, Consultant	

5:30 p.m.–7:30 p.m. RECEPTION IN ET EXPO HALL

10:15 a.m.–Noon CLOSING GENERAL SESSION – OSCEOLA C (See page 5 for details.)

ET Expo & Extrusion Showcase Open 10:00 a.m. – 7:30 p.m.

See page 5 for details.

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Osceola D

Osceola 1-2-3

Osceola 4-5-6

Quench and Temper II

038PR

Two-Step Aging Behaviors of Al-Mg-Si Alloy Extrusions

Hatta, Sumitomo

Paint II

145VA

Comparative Study of Electrostatic Applicators for Vertical Powder Systems

Zucchetti, Trasmetal

139VA

Automatic Self-Cleaning Booth for Vertical Powder Coating Lines

Dalla Vecchia, Aluminium Trevisan Cometal

089VA

In-Line Paint Stripping of Hooks

Zavattoni, Condoroil Chemical

3:15 p.m. – 3:40 p.m.

3:45 p.m. – 4:10 p.m.

4:15 p.m. – 4:40 p.m.

Osceola D

Osceola 1-2-3

Osceola 4-5-6

Tooling Performance II

130PR

The Case-Based System for Aluminum Extrusion Die Design

Noomtong, King Mongkut's Inst. of Technology

136PR

Extended Die Life and Consistent Weight per Foot Using BC-115 Inserted Tooling

Nolting, VIP Tooling

100PR

Extrusion Die Specification – How to Obtain Repeatable Performance

Dickson, Hydro

Heat Exchanger Tube & Hollows

109PR

Development of the Latest Heat Exchanger Tube

Hiramoto, Showa Denko

147PR

Optimizing AA3003 for Extrudability and Grain Size Control

Parson, Alcan

050PR

Experimental Study of Longitudinal Weld-Seam Properties in Tubular Extrusions

den Bakker, Nedal Aluminium

043PR

Seam Welds Quality in AA6060 Alloy

Donati, University of Bologna

8:00 a.m. – 8:25 a.m.

8:30 a.m. – 8:55 a.m.

9:00 a.m. – 9:25 a.m.

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