

Steel Founders' Society of America
National T&O Conference – December 11-13 2025
Wright Ballroom, Loews Hotel, Chicago, IL

Session 1

Thursday Morning – December 11

9:00 AM

- 1.1 A Comprehensive Analysis of the Factors that Affect the Propensity of Mold Wash to Form Gas and Inclusion Quality Details
Nick Knotts, Tory Wendlandt, SFSA, Temperform
- 1.2 Fimex Wash Trial
Willy Oyarzabal, Fimex
- 1.3 Calorimetry Test and Riser/Wash Work
Cody Suveges, Vulcan - Tacoma, WA
- 1.4 Testing the Efficiency of Hot Topping Powders
Rémi Godfroy, Ferry-Capitain
- 1.5 Modernization of a Sand Lab for Chemical Bond Sand
Jorge Leon, Tonkawa Foundry
- 1.6 Green Sand with Ceramic Media – Problems and Solutions
Jerrod Miller, Tyler Clouse, Wear Tek
- 1.7 Implementation of Mobile Workstation for Portable Laser
Kyle Smith, Duraloy Technologies
- 1.8 Cost Optimization of Furnace Charges
Jhonny Leon Trejo, Martin Lizzetti Rosales, ME Elecmetal - Funvesa
- 1.9 Electrode Consumption in Electric Arc Furnaces – Trends, Improvements, and Opportunities
Benjamin Wells, ME Global - Tempe, AZ
- 1.10 Thermodynamic and Kinetic Modelling of EAF Process for the Production of CrMo Steels
Constanza Bravo, Constanza Bravo, Alex Escobar, Fundicion Talleres ME Elecmetal
- 1.11 Making Stainless in an Electric Arc Furnace
Mitchell Wright, Henderson Manufacturing Company
- 1.12 Foundry Operations and Valuations
Peter Macler, SFSA Alumni

Industry Luncheon

- 2.1 Increasing Production Capacity and Improving Shop Flow
Amanda Springer, Mauricio Torres, Tonkawa Foundry
- 2.2 The Automation of Environmental Data Collection
Evan Arachikavitz, Viking Pump
- 2.3 Magotteaux Group Strategy for SBTi Alignment and CO₂ Footprint
Travis Glover, Marc Babineau, Elena Luquin, Magotteaux - Pulaski TN
- 2.4 A Technique to produce Large Ceramic Molds for Steel Casting
Jorge D Okhuysen, SFSA Alumni
- 2.5 Surface Finish Investigation in 300 Series Stainless Casting
Sam Spencer, MetalTek Investcast
- 2.6 Why do We Experience Mold-Metal Interaction in Castings?
Don Deptowicz, SFSA Alumni
- 2.7 Eliminating Porosity Defects in Centrifugally Cast Test Material
Tyson Wolfe, MetalTek - WC
- 2.8 Project 80 and Technical Resources for Being a Rock Star
Paul Rudd, SFSA Alumni
- 2.9 Hybrid Manufacturing with Castings
Arshad Harooni, Vulcan - Tacoma, WA
- 2.10 Case Study: The Cost of Aging Infrastructure on Industrial Gas Supply
Ken Plunkett, Vulcan - Tacoma, WA
- 2.11 Nil Ductility
Greg Raudenbush, Ashland Foundry & Machine Works
- 2.12 Alloy Optimization and FEA-Based Redesign of Furnace Rolls for the Cooling Section of Hot Dip Galvanizing Lines
Federico Prandi, Tanya Ross-Yanez, Cleveland-Cliffs Research & Innovation Center, Soumitra Agashe, Lauren Hart, Ali Jamai, Cleveland-Cliffs Burns Harbor, FAI-FTC Spa
- 2.13 Help Yourself... and Your Customer – Design Improvements that Consider the Load Case
Michael Gwyn, SFSA Alumni

Discussion Session followed by Industry Reception

- 3.1 Training the Next Generation of Foundry Employees at Stainless Foundry & Engineering
Tom Roberts, Stainless Foundry & Engineering
- 3.2 IoT Wash Project
Andrew Francis, Omaha Steel Castings Company
- 3.3 Green Sand System Control: Real-Time Discoveries and Industry 4.0
Shawn Cefalu, Matthew Deyarmond, Michael Meyer, Susan Bear, Grede
- 3.4 Andritz First Experience with AI and Product Training
Bill Reinsel, William Reinsel, Andritz
- 3.5 On Generative AI and Preventive Maintenance
Jason Garrett, Magotteaux - Pulaski TN
- 3.6 Potential AI Applications for Foundries
Doug Imrie, Southern Cast Products
- 3.7 Implementation of a Robotic Mold Spray line
Alexis Zuñiga, Jorge Flores, Diego Rossel, Nelson Salinas, Paulo Garces, Matias Bustos, Fundicion Talleres ME Elecmental
- 3.8 Evaluation of a Brokk Breakout Robot
Nate Bird, Joe Cavicchio, US Navy
- 3.9 Near Net Shape + Assisted Grinding Robotic Cell
David Sola, Magotteaux - Navarra, Spain
- 3.10 Adapting Robotic Grinding to a Job-Shop Foundry with Instinct Robotics
Andrew Sobek, Duraloy Technologies
- 3.11 Automation Activities at Fisher Cast Steel Products
Dan Buergel, Fisher Cast Steel Products
- 3.12 Steel Foundry Cookbook
Max Falcone, PushCorp
- 3.13 Pitfalls and opportunities of Steel Foundry Industry 4.0
David Poweleit, SFSA

Industry Luncheon

- 4.1 **Cast in Steel Winner**
Ely Vuksanovich, Youngstown State University
- 4.2 **Accuracy and Precision of Structured Light 3D Scanner for Dimensional Inspection of Steel Castings**
Madison Saunders, Ashland Foundry & Machine Works
- 4.3 **Aluminum Backing and More**
Josiah Pyles, Howell Foundry
- 4.4 **Training and Standardizing the Welding Program in a Foundry**
Nathan Willcutt, Eagle Alloy
- 4.5 **Standardized Coatings**
Hanna Blake, Harrison Steel Castings Company
- 4.6 **Evaluating The Effect of Quenching Steel at Higher Temperatures**
Bryson Duff, Harrison Steel Castings Company
- 4.7 **Quenching and Carbon & Low Alloy Atlas**
Caelan Kennedy, SFSA
- 4.8 **Data Analysis for Steel Casting Properties**
Elliott Yarwood, Vulcan - Tacoma, WA
- 4.9 **Heavy Section Casting Tensile Bar Expectations**
Shawn Martin, Harrison Steel Castings Company
- 4.10 **Evaluation of the One Hour per Inch Rule of Thumb**
Josh Wildgoose, Goodwin Steel Castings
- 4.11 **Gas Savings through Furnace Pressure Control – Sheffield Forgemasters**
Samuel Batchelar, Sheffield Forgemasters
- 4.12 **Shot Blasting Efficiencies**
Rich Chase, Eagle Alloy
- 4.13 **Installation of 12.5 ton BCT Blast Unit**
Blaine Gretencord, Harrison Steel Castings Company
- 4.14 **Surface and Depth Hardness Variation Measured in an 1,800lb (818kg) Shell Liner Casting**
Ed Vesely, S. Haines, SFSA Alumni
- 4.15 **Development of Phased Array Ultrasonic Testing (PAUT) for Steel Castings**
Hossein Taheri, Georgia Southern University

Discussion Session

- 5.1 Automation of Trades Labor?
Matthew Draper, US Navy
- 5.2 Casting a New Era -
Integrating Industry 4.0 into Foundry Operations
José Luis Salinas, Marc Babineau, Magotteaux - Nueva Leon, Mexico
- 5.3 Chemical Analysis Round Robin
Tory Wendlandt, SFSA
- 5.4 Applicability of Equations for Calculating The Pitting Resistance
Equivalent Number (PREN)
Jeff Slaughter, SFSA Alumni
- 5.5 Inclusions
Robin Foley, John Griffin, University of Alabama - Birmingham
- 5.6 Gating Review
George Hartay, SFSA Alumni
- 5.7 Direct Pour Gating
Jeanne Wagner, Midwest Metal Products
- 5.8 Rigging System for Bottom Pour
Abigail Molina, Caterpillar - Ramos Arizpe
- 5.9 The Pros and Cons of Filtration and the Advantages of
Flow Modification
Tim Hays, SFSA Alumni
- 5.10 Impact of Pouring Sequence on Casting Quality
Franco Narvaez, Caterpillar - Ramos Arizpe
- 5.11 A Review of Nonmetallic Inclusions in Steel Castings –
From Theory to Application
Amir Baghani, McConway & Torley
- 5.12 Filling Molds
Richard Hardin, University of Iowa
- 5.13 SFSA Clean Steel (What Really Cause Inclusions and
Why They Aren't Bi-Films)
Raymond Monroe, SFSA

Adjourn