World Foundry Organisation – update 2019

Joe Vecchio

- Tradesperson Pattern Maker – Northern Iron and Brass Foundry
- Operations Manager – Northern Iron and Brass Foundry
- National Secretary – Australian Foundry Institute
- AFI Queensland Legend - 2018
Annual WFO Technical Forum

The WORLD FOUNDRY ORGANIZATION - TECHNICAL FORUM and 59th IFC PORTOROZ 2019

Venue – Hotel Slovenia
Venue – Portoroz and Piran

Slovenia – Street castings
Slovenia – Street castings

Foundry Industry - Slovenia

- Incorporates Die Castings Factories
- Approximately 20 Foundries
- Produces the most castings in the world per capita
- Population of 2 Million
- Official languages – Slovenian, Italian and Hungarian
Summary – Technical Forum

• Location – Portoroz, Slovenia – Hotel Slovenia

• Organized by – Slovenian Foundrymen Society

• Held in conjunction with their 59th Congress

• 400 delegates from 27 Countries – Normally 250 attendees

• Registered Delegates, WFO Executive, Foundry Employees, University representatives and suppliers.

• 3 streams of technical papers of 2 days – 50 exhibitors
  All Technical Paper are delivered in English
Technical Forum - Time line of events

Tuesday – Welcome Party – 6pm

Wednesday –
• Foundry Tours – All day – 2 Groups – Die and Sand Cast
• Welcome address – Piran – 6pm

Thursday
• Opening Ceremony and Technical Papers
• Gala dinner – Bus to Piran – 7.30pm

Friday
• Technical Papers and Closing Ceremony
• AFI States – copies - 95 papers & WFO report

Foundry tour – LTH Castings

Capabilities
Aluminium die-cast automotive components
In-house manufacturing of tools and devices
Development of products, tools and processes
Prototyping
One stop shop - from initial development to serial production
Key Customers – BMW and AUDI

Locations
6 production sites in 3 countries (Slovenia, Croatia, Macedonia)

Key Figures (2018)
Turnover 315 Mio € - AUD$510M
No. of employees 3.200
No. of die casting cells > 90 (up to 2.800 t)
No. of machining centres > 170
WFO - Time line of events

Thursday
• WFO Executive Meeting

Friday
• WFO Working group
• WFO General Assembly – All countries
• WFO Executive Dinner

World Foundry Organization – Key Executives

Mark Fenyes - President

2020 President
Vinod Kapur
Indian Foundry Society
Streams of papers - Summary

Stream 1 – Cast Iron and Steel
- Casting defects – Steel castings
- Runners and gating systems for large castings
- Simulation for large steel castings
- ADI – Austempered Ductile Iron – applications
- Cooling rate affect – Ductile Iron Castings
- Mechanical Properties and part quality of investment cast Ductile Irons
  (Roger Lumley – AW Bell – Victoria, Australia)
- Imperfections in thick wall Cast Iron Castings

Streams of papers - Summary

Stream 2 – Non ferrous alloys
- Development of high strength Aluminum for gravity castings
- Development of heat resistant aluminum alloys
- Optimization of Boundary Conditions for Solidification Simulations
- Development of an Aluminum tilt casting pour method
- Optimization of high pressure die castings
- Benefits of data analysis for die casting technology
Streams of papers - Summary

Stream 3 – Technologies for the Foundry Industry and Development Trends

- What the EU wants for the Foundry Industry
- Development for advance Tool Steels
- Sustainable Cold-Box Systems
- Digital Transformations in Foundries – Challenges and Solutions
- Non-standard dynamic testing for green sand control

WFO – Future events

WFO World Foundry Summit May 2020 – New York

- New concept – Invitation only - First was successful – Rome 2019
WFO – Future events

World Foundry Congress – October 2020 - BEXCO, Busan, Republic of Korea

WFO – Future events

World Foundry Organization Technical Forum – Turkey 2021

2022 – Congress – Milan, Italy
2023 – Technical Forum – India
WFO – Active Working Groups

• Cast Metal Matrix Composites
• Die Castings
• Ferrous Metals
• Non-Ferrous Materials
• Training and Professional Development

Thank you