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Preliminary Programme

February 2006

5-7 June 2006

**Harrogate International Centre
Harrogate, United Kingdom**

**FOUNDRY, FURNACES
AND CASTINGS EXPO**



**The premier exhibition
for all those involved in
the international cast
metals, metallurgy
plant and foundry
equipment industries**

www.ffc-expo.com

message from dr pam murrell, chair of the technical & scientific papers group wfc2006

I am delighted to be able to present this preliminary programme for the World Foundry Congress in June. Our theme is "Casting the Future" and the excellent response to the Call for Papers has enabled us to build a programme which truly delivers on that theme.

The Technical Programme for Casting the Future will feature more than 120 papers from over 35 countries around the world, presented in technical sessions and a poster display. A truly international Congress, the programme includes casting engineers, industrialists, foundrymen as well as information from the leading universities in cast metals research and the international supply industry.

On Monday and Tuesday the Congress features Keynote

presentations, technical sessions of papers on particular themes and poster sessions.

On Wednesday the WFO Technical Forum brings together a number of experts who will present their views on adding value to the cast metal supply chain and participate in a discussion forum with delegates.

On Thursday a number of industrial tours will be offered allowing delegates to visit manufacturing companies and research organisations.

This preliminary programme will be updated over the next few weeks and regular programmes published on our web site, www.wfc2006.com

I look forward to welcoming you to Harrogate.

casting the future: preliminary technical programme

Plenary session: Monday am, 5th June

Professor Rachel Thomson, MA PhD Cambridge, Metals Research Group for the Institute of Polymer Technology and Materials Engineering, Loughborough University, will present the latest findings on modelling for the prediction of microstructural evolution in cast alloys.

Dr Mike Ashton, Chief Executive of Castings Technology International will present a global perspective on the adoption of best technological practice in cast metals manufacture.

The place of the castings industry in international manufacture: challenges and opportunities. Speaker to be confirmed.

Preliminary list of Technical Sessions Monday 5th and Tues 6th

Latest developments in ferrous casting production

featuring: Malcolm Blair, Steel Founders Society of America: Design of steel castings, Malcolm Macnaughtan, Eurac Group Ltd, Chair of the International Standards Committee for cast iron: The new international cast iron standards

Rudi Sillen of Novacast Technologies, Sweden: Producing ductile iron castings in greensand without feeders

Erhard Wiese of Foseco Germany: Filtering large iron castings.

Optimising ferrous melting to save energy and costs

with papers from Otto Junker GmbH; Efficient operation of induction furnaces and use of sensors to monitor crucibles,

Precision Disc Castings, producer of grey cast iron brake discs: Quality improvements at the foundry

Thomas Niehoff, Air Products GmbH: Optimising oxygen technologies.



Aluminium Casting Production

includes Tim Baron of Disa Group, Honda Manufacturing UK and SPX Contech, UK.

Defect control and control of microstructure in aluminium castings:

featuring papers on hydrogen control, oxide film defects and control of microstructure, speakers from the University of Birmingham, UK, Jonkoping University, Sweden, Cinvestav Unidad, Spain and Foseco UK.

Non-ferrous alloy development and casting control:

Castings Technology International, UK and Brunel University, UK on Magnesium alloy development and application

Dr Sundararajan of DRDL, India: Application of Magnesium to the aerospace industry. Dr Richard Harding University of Birmingham: Improving the quality and reliability of cast Titanium alloys.

Semi-solid processing and rheocasting applied to ferrous and non-ferrous alloys

including presentations from the Midson Group, SAG AG and Prof Fan of Brunel University, UK.

Die-casting technology and squeeze casting – developments in shot sleeve materials and automotive applications

from researchers at Tsinghua University, Beijing, China and KITECH (Korea Institute of Industrial Technology).

Advanced simulation techniques applied to casting production

– featuring presentations by Ashland Inc, Magmasoft and Castings Technology International.

Moulding and Coremaking – latest developments in binders and coatings

by the leading suppliers to the industry, Foseco GmbH, Ashland Casting Solutions, USA and James Durrans and Sons Ltd.

Finishing and inspecting castings – application of the latest technology

featuring automatic 3D inspection, use of robots for cutting and grinding and fluidised beds technology for stripping sand by industrialists and researchers from Korea, Italy, Germany and the UK.



Innovative and novel means of casting production

includes the latest work being carried out at Kinki University in Japan, new work on the Lost Foam casting process by Mark Ainsworth, Gemco Cast Metal Technology and by Birmingham University, the use of Hippo to improve casting quality and controlling structure by ultrasonic vibration from China.

Dr Horoczek, Brno University, Cz: optimisation of the casting process

Dr Rajesh Ransing, Swansea University, Wales: Machine learning and defect reduction.

Metal Matrix Composites, MMCs, and Refractories for the modern castings industry,

People and skills development – experiences from around the globe

including presentations from

Bill Sorenson from the Foundry Educational Foundation, USA

Elizabeth Bonfield from SEMTA, UK and Dr Gnanamurthy from LMW, In.

Environmental issues:

foundry emissions and the occupational health in foundries. Lee Horvath, Ashland Casting Solutions and J Costa of ISQ Portugal.

The global nature of the industry and ways to optimise foundry management:

addressed by Trevor Law of AF Software and Tec Transnational, Dr T Paterson of Striko Westhofen, and Dr Narasimhan of Brakes India Ltd.

Users of castings:

their views on supply issues which the castings industry will need to address in the future in order to remain competitive. This session will feature JCB, Holset, Boeing and a speaker from CTIF.

For more information about the programme, keep visiting www.wfc2006.com

congress banquet: monday 5th june

Join your colleagues for a Drinks Reception followed by formal Dinner in the Harrogate International Centre. Dress code: lounge suits.

Featuring live musical entertainment and late bar.

Tickets for the Banquet are included in the three day delegate ticket or may be purchased separately. For price and booking details please refer to the booking form or visit the congress website.

Special: Tables of 10 may also be purchased at the special price of £600 plus VAT.

foundrymen's night: tuesday 6th june

Travel by coach to the National Railway Museum in York for this Party Night.

Live music, welcome drink and cash bar, buffet style food and a tour of this internationally renowned museum.

This event is included in the three day delegate ticket or tickets may be purchased separately.

For price and booking details please refer to the booking form or visit the congress website.

programme of industrial and research visits

Thursday June 8th 2006

This programme will feature visits to a number of key UK industrial and research centres.

For full details and how to book, please visit www.wfc2006.com

tours and accommodation

Programme of Tours

Featuring a Sunday tour of the locality of Harrogate and a full programme of half and full day partners tours during the three days of the Congress. These tours will visit all the major sites of interest in this distinct area of the UK.

For full details of this programme and the booking form, visit www.wfc2006.com

Accommodation Booking Service

This dedicated service is available to all delegates, exhibitors and visitors and provides hotels and guesthouses covering a wide range of standards and prices, all within easy walking distance of the Harrogate International Centre.

To book your accommodation, please visit the www.wfc2006.com website and follow the link for 'Hotels/Travel'.

WORLD FOUNDRY ORGANISATION TECHNICAL FORUM 2006

Optimising the Added Value Chain in Foundries

A seminar and discussion Forum where leading industry figures present their views and answer delegate's questions

Wednesday June 7th 09.15 to 15.00 hours

Forum chaired by Dr Gotthard Wolf – Director, Verein Deutscher Giessereifachleute Germany and including talks by the following major presenters

David Hussey – Foseco, UK

The Evolution of a supplier to meet the changing demands of the market

Dr Andreas Huppertz and Dr Christine Bartels – CLAAS GUSS, Germany

Casting Design Service in a medium sized iron foundry

Speaker to be confirmed – Automotive Industry

Future Demands on Foundries in the Added Value Chain

Dr Ingo Ederer – Voxeljet, Germany

Patternless mould production using high performance printing technology

Tony Lowe and Oliver Johnson – NPL Technologies, UK

Internal or outsourced pattern making shop

Norbert Schrader – Eurokern, Germany

Integration of an external core shop in the added value chain of foundries

Torsten Schrader and Mario Gropp – Rautenbach Guss, Germany

Integration of machining process in the added value chain of an automotive supplier

Heinz Koll – Inotec GmbH, Germany

Outsourcing of maintenance activities

Dr Gotthard Wolf - VDG, Germany

Discussions and summary

special symposium: investment castings

Recent research and dissemination of the FOCAST Project The University of Birmingham, IRC in Materials Processing

Rheology and other material properties of waxes for investment casting. Methods for measuring, interpreting and predicting the behaviour of waxes in pattern manufacture.

Professor Stuart Blackburn

Ceramic shells for investment casting: material properties, materials development and de-waxing. Optimisation of the properties of water based ceramic shell technology – a unique insight into these properties will be presented.

Dr Samantha Jones

Progress Towards More Reliable Investment Castings. A practical comparison of quality obtained using three different techniques: traditional gravity casting, tilt casting and counter gravity casting. Industrial implementation will be discussed.

Dr Ric Harding

Modelling the Investment Casting Process: problems and successes. The problems and successes of process modelling will be presented and future work that will be necessary to model the complete investment casting process will be highlighted. Practical examples of the successes will be shown.

Dr Mark Jolly



List of exhibitors (provisional jan 06)

ABD Ltd
ABS Group
Acetarc Design
Acetarc Engineering
Air Products plc
ALM
Arrow International (Castings) Ltd
Ashland Casting Solutions Inc
Bertoli Gianfranco
Brita Benkel
Bureau of Analysed Samples
Calcarb Ltd
Carbolite
Casting Association
Clansman Dynamics
China Xian Welong Foundry Co Ltd
de Belder Associates Limited
Delimon Cooling
dmg
Drayton Beaumont Furnaces
Eurotherm Ltd
Expert Heat Treatment
FE Mottram Group
Finite Solutions Inc
Foseco (FS) Ltd
Foundry Trade Journal
FTL Roper
Goodwin Steel Castings Ltd
Heraeus Electro-Nite (UK) Ltd
Hi Alloy Castings (PTY) Ltd
Hofmann Ceramic GmbH
Honeywell Control Systems Ltd
Hüttenes-Albertus (UK) Ltd
ICME
IKO/S&B Industrial Minerals GmbH
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Impac Infrared Ltd
Inductotherm Europe Ltd
Ipsen Abar Ltd
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Maney Publishing
Masterflex Technical Hoses Ltd
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Morgan Molten Metal Systems
NA Combustion
New Pro Foundries Ltd
North Cape Minerals AS
Omega Foundry Machinery Ltd
Otto Junker
Pangborne (UK) Ltd
PVM Druckgussmaschinen GmbH
Refractory International Developments
Rex Materials Inc
Ridsdale & Co
Rosler
Sanken Insertec Europe SA
Scaglia Indeva Ltd
Striko Westofen GmbH
The Westley Group
Tokai Carbon Europe
Uddeholm Technology AB
Vesuvius (UK) Ltd
Voxeljet
Wallwork Cast Alloys Ltd
Weko Industrial Component Corp
Welong Machinery

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Contact us / How to register



Interested in attending the World Foundry Congress?

Visit www.wfc2006.com and follow the links to download the Congress booking form

Attendance fee - £450 (includes VAT at 17.5% and attendance at the 3 day conference and social functions). For costs of partner's tickets and concessions, visit the wfc website: www.wfc2006.com

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www.wfc2006.com



Interested in taking a stand?

If you would like to exhibit at the Expo, contact:

Stefano Di Nardo, Global Sponsorship and Exhibition Manager, Metal Bulletin

Tel: + 44 (0) 20 7827 5220

Fax: + 44 (0) 20 7827 5292

Email: sdinardo@metalbulletin.com

How to register as a visitor to the Expo:

Register online at www.ffc-expo.com

Email: enquiries@metalbulletin.com

www.ffc-expo.com

Entry to the FFC Expo is free of charge.

Exhibition visitors are welcome to attend the Congress social functions and field trips at cost price. Full details of how to register for the social programme and field trips will be sent to visitors with their registration confirmation.

Supporters of the event

Leading international trade associations have agreed to sponsor the Foundry, Furnaces & Castings Expo 2006. Industry support is crucial in making the event successful and we would like to thank the following organisations for their support:

Congress sponsors

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