2\textsuperscript{nd} International Conference, Zurich, 29 – 30 September, 1955

2.01 The Importance of the Alloy in Precision Casting  
*H J Meerkamp van Emden; NV Philips Gloeilampenfabrieken, Netherlands*

2.02 Investment Cast Turbo Rotors and Blades  
*Dr Eiserman; Sulzer Bros. Switzerland*

2.03 Report of a Survey made by the American Investment Institute  
*Mr Sulzer; Sulzer Bros., Switzerland*

2.04 US Investment Casting Industry; Its Growth, Problems and Future  
*T Operhall, C W Schwartz*

2.05 Investment X Process  
*Mr Turnbull – presented by Sulzer Bros. Switzerland*
3rd International Conference, 7-8 May, Eindhoven, 1956

3.01 A Review of the Properties of Stellite Alloys
   M Riddihough; Deloro Stellite. UK

3.02 Tentative and Finalised Specifications in the USA for Investment Castings
   V Di Sambuy; Associazione Italiana di Metallurgia. Italy

3.03 Could mistakes in the past in the Precision Foundry be avoided in the future?
   B G Holders. N.V. Industrie, Netherlands

3.04 The Philips X-Ray Intensifier
   H J Meerkamp van Emden; NV Philips, Netherlands

3.05 Defects in Precision Castings
   A Bouman: Werkspoor N.V. & C Nieuwenhuis; NV Philips, Netherlands

3.06 An Approach Towards the Classification of Casting Defects in Investment Castings
   W H Sulzer: Sulzer Brothers, Switzerland

3.07 Decarburization in Investment Castings and its Heat Treatment
   N J Grant

3.08 Price Estimation and Cost Calculation in Precision casting
   F Polzgutter; Deutsche Edelstahlwerke AG Germany

3.09 Some Applications of Mathematical Statistics in the Microcast Process
   JJ Tiedema; Werkspoor N.V. Netherlands
4th International Conference, Stratford upon Avon, UK, 1957

4.01 “Speaking of Investments”
   H J Meerkamp van Emden; NV Philips, Netherlands

4.02 Tour of the P.I. Castings (Altringham) Ltd
   D Armitage, P.I. Castings Ltd, UK

4.03 Investment Founders Discuss Specifications
   EICF Specification Sub Committee

4.04 Application of Statistical Control in the Production of Precision Castings
   V di Sambuy; Assoccazione, Italiana di Metallurgia, Italy

4.05 Wax Models for use in the Investment Casting Process
   E Sargent; Aster, Boisselier & Lawrence Ltd, UK

4.06 Influence of Vacuum Melting on the Properties of Various Materials
   W Moore, A Kiesler, General Electric Research Laboratory, USA

4.07 Refractories and Mould Materials for Vacuum Melting and Casting
   H O McIntire

4.08 Investment Casting of Non Ferrous Metals
   E Weisner; Furstlich Hohenzollernsche Huttenverwaltung Laucherthal, Germany
6th International Conference, 1-3 June, Essen, 1959

6.01 Problems Poses Par L’ Armurerie au Fondeur a Cire Perdue
P Mathy, Usines Gilson La Croyère, Belgium

6.02 Das Batten-Cordonnier System zur Klassifikation der Fachliteratur
S Jouwersma

6.03 Bericht über die Arbeiten des Fachausschusses Feinguss innerhalb des Vereins Deutscher Gießereifachleute
Dr E G Nickel, Dr W Bochum, D.E.W. Bochum, Germany

6.04 Estimation of the Temperature of the Melt
H J Meerkamp van Emden; NV Philips Gloeilampenfabrieken, Netherlands

6.05 Some Investment Cast Alloys for High Temperature Service
D R Wood; Mond-Nickel, UK

6.06 Technical Communication Between Investment Casting Manufacturers and their Customers
L R Schwedes; Lawrence Laboratories, USA

6.07 The Investment Casting of Precious Metals
P E Gainsbury, Mond-Nickel, UK

6.08 The American Investment Casting Industry in 1959
R J Waindle; WaiMet Alloy Company, USA

6.09 Tolerances in Wax Moulding
G Nieuwenhuis; NV Philips Gloeilampenfabrieken, Netherlands

6.10 Considérations sur Différents Arguments de Vente
M W Zwerner, Durox S.A. Switzerland

6.11 Matrizenherstellung für Feinguss-Modelle
E Hengler; Carp und Hones, Germany

6.12 Silica Binders for Investment Casting
J I Evans; Monsanto, UK

6.13 Eisenkunstguss um 1800
Dr S Theissen-Trier, Germany
7th International Conference, Liège, 4-6 July, 1960.

7.01 Specifications for the Investment Casting Industry in the UK
   L S Taylor & A G Mason; A.C.T. (Birm). UK

7.02 Tätigkeit Der Deutschen Feingießergruppe Auf Dem Gebete Der Werkstoff Untersuchungen.
   Dr Ing K A Krekeler; Gebr. Böhler & Co A.G., Germany

7.03 Introduction to the American Film on Shells for Investment Casting (K W Thompson)
   H J Meerkamp van Emden; NV Philips Gloeilampenfabrieken, Netherlands

7.04 Some Activities of the British Investment Casters’ Technical Association
   J Bolton, BICTA, UK

7.05 Le Pyromètre à Immersion aux Points Multiles avec Enregistreur de Températures
   M F Faus; Maquinas de Coser, Spain

7.06 Einfluss der Gießbedingungen auf Eigenschaften Hochwärmebeständiger Legierungen
   W Tolfaute & U Gravenhorst; Freid, Krupp Widia-Fabrik, Germany

7.07 Investment Casting in Vacuum: Some Experiences
   L S Taylor; A.C.T. (Birm). UK

7.08 The Investment Casting Industry, US, 1960
   R F Waindle, Michigan, USA

7.09 The Influence of Test Bar Design on the Mechanical Properties of Two Cast High Temperature Alloys
   R M Cook, P J Penrice; Mond Nickel Company, UK

7.10 Report on the Impact Value of Castings – Survey by EICF member Companies
   P Mathy; S.A. Ursines Gibson, Belgium
   A Bouman; Werkspoor, Netherlands
8th International Conference, Florence, 11-13 September, 1961

8.01 The Vacuum Techniques Applied to Investment Casting
   A Dunlop; Jessop-Saville Ltd, UK

8.02 The US Market for Investment Castings and Casting Reliability
   R Waindle, Michigan, USA

8.03 Rundentkohlung Bei Prazisionguss
   K Keiper: Gebr. Pfafdf. Nahmaschinenfabrik

8.04 Equipment for Carbon Restoration in Precision Castings
   S Grunde Ohlin, B Behle; AB Kanthal, Sweden

8.05 Ransentkohlung Ein Beispiel Aus Der Praxis
   S Pellier; Deutsche Spinnereimaschinenbau, Germany

8.06 Une Fonderie a Modele Perdue Grand Serie
   M Marinier; Regie Nationale dews Ursines Renault, France

8.07 Technical Reports and US Patents on Investment Precision Castings
   R Tindula: US Department of Commerce, USA

8.08 Investigation on Impact Properties
   A Bouman; Werkspoor, Netherlands

8.09 The Misrun Problem in Investment Castings
   H Rosenthal; Frankford Arsenal, USA

8.10 Vacuum Cast Rotors in “Nimocast 713V” Alloy
    R Cook; Mond Nickel Co. UK

8.11 The Drying of the Dip Coat
    B Buysman et al: NV Philips, Netherlands

8.12 Semi Continuous Vacuum Melting and Casting of Investment Moulds
    L Taylor; GL Willan Lid, UK

8.13 Bewertungsmethoden Fur Feinguss
    J Sprung; Bohler & Co AG, Germany

8.14 Contribution à l’étude des Characteristiques Mechaniques d’acier et d’alliages moules
    à la Cire Perdue
    M Roques, M Cameo; Microfusion, France

8.15 Ausfurungen über ein neues, Billetteres Verfahren Formsand mit Kolloi der Kieseleaure
    zu Binden
    W Kring; Dynamit Nobel AG, Germany

8.16 The Minicast Process for Commercial and Industrial Investment Castings
    J Cadieux; Casting Engineers Inc, USA

8.17 A Casting Problem in NonFerrous
    K Thompson; K Thompson Tool Co.Inc. USA
8.18 Investment castings in Spring Steel
    J Gwynn; Pl Castings ltd, UK

8.19 Commentaire du Film “Le Procede Shaw”
    H Marshall; Nicholas Hezmark, France
9th International Conference, Stockholm, 27-29 May, 1963

9.01 Recent Developments in Investment Cast Nickel Base High Temperature Alloys
   D R Wood; Mond Nickel Inc. UK

9.02 Anschnitt Und Abguss Eines Hochbeanspriuchren Flugzeugteiles Nach Dem Feinguss-Verfahren
   H Ballewski; Zentroguss Hizenhaim, Germany

9.03 Case Study of an Investment Casting, Gas Burner Nozzles
   N Mason; Firth Vickers Stainless Steels Ltd, UK

9.04 Solidification of Investment Castings
   H Rosenthal; Frankford Arsenal, USA

9.05 British Investment Casting Specifications
   L S Taylor; BICTA Metallurgical Committee

9.06 Une Etude Comparative des Possibilities Economiques Contemporaine d'une Fonderie a la Cire Perdue
   C A Nieuwenhuis; ‘Cirex’ Philips Netherlands

9.07 The formation of Blisters in the Dip-Coat of Investment Moulds
   P J Buysman; NV Philips, Gloeilampenfabrieken, Netherlands

9.08 Quantum Planning
   K Hemmes ‘Cirex’ Philips, Netherlands

9.09 Hat Der Feinguss Eine Zukunft
   H Moeschlin; Precisions-Produkter AB, Sweden

9.10 Ceramic Cores
   B Behle, AB Kanthal, Sweden.

9.11 Specifications in the USA 1963
   R E Waindle; Techno-Metallurgical Co. USA

9.12 Cast v Forged Turbine Blades for Aircraft Gas Turbines
   W H Sharp; Connecticut Metallurgical Corp. USA

9.13 Ethyl Silicate
   G Fredenmark; AB Nyås-Petroleum, Sweden

9.14 Adaption of the Ceramic Shell Mould to Meet Mass Production Requirements
   E J Shepherd; Monsanto Chemicals Ltd. UK

9.15 Le Procede Ceramcast
   H J Marshall; N Hezmark, France
10th International Conference, 4-7 October, Madrid, 1964

10.01 Lösung Einer Massproblems
W Wiedenhoff; Fürstlich Hohenzollerische Hüttenverwaltung, Germany

10.02 Pressure Casting in Investment Moulds
S Lipson, F Ripkin, Frankford Arsenal, USA

10.03 Silica-Aluminiumester, ein Neuer Binder Für Präzisionsgussformen
W Dittricht, Dynamit Nobel AG, Germany

10.04 Dewaxing Autoclaves
M Pickard; Leeds and Bradford Boiler Company, UK

10.05 Superalloys for Investment Precision Casting
A Dunlop; Jessop-Saville Co. UK

10.06 An Investigation of Catastrophic Oxidation of Castings Produces from N-155 Alloy
W M Matthes, N Davidson, B Heyer; Arwood Corp. USA

10.07 Pre-formed Cores, their use, Manufacture and Benefits
E M Briscoe; Doulton Industrial Porcelains, UK

10.08 The Future Development of the Lost Wax Casting Process
P A Crooke; Rolls-Royce Ltd. UK

10.09 An Automatic Bottom Pouring Method for Invested Moulds, Eliminating the Melting Furnace
J B Ingall; AEI Birlec, UK

10.10 Eigenschaften und Verhalten von Wachsen bei der Herstellung von Waschmodellen für den Metallpräzisionsguss
E Frink. Germany

10.11 The Relative Merits of Medium and High Vacuum Casting with some notes on a recent development in Vacuum Refractories
L S Taylor; G L Willan Ltd. UK

10.12 Casting Copper Parts
J Valenta; Cercast, Canada

10.13 Untersuchungen an einem Warmfesten Chromstahl mit Co-Zusatz und Hochwarmfesten Co-Legierungen
K A Krekler, H R Kautz, H Gerlach; Gebr Bohler, Germany

10.14 The Application of the Ceramic Shell Process to the Production of Investment Castings
D E Hope; Monsanto Chemicals UK

10.15 How to Keep Tolerances in Wax Models
C E Nieuwenhuis; Cirex, Netherlands

10.16 Investment Casting has a future
J Aherne Heron; Trucast, UK

10.17 Hat der Feinguss eine Vergangenheit
H Moeschlin; Precisions Produkter A.B. Sweden
12th International Conference, 11-13 September, Eindhoven, 1967

12.01 Soluble Cores Based on Calcium Phosphates for use with certain Non Ferrous Alloys
   K Rose; Doulton Industrial Porcelains Ltd. UK

12.02 Serienfertigung von Feingussteilen
   H Staehl; Gebr. Sulzer, Switzerland

12.03 Feingusswerkzeuge aus dem Schnelldrehstahl mit Hoher Schlagtorsionszähigkeit
   O Kastanek; Techn Hochschule, CSSR

12.04 Influence of Casting Conditions on the Grain Size and Tensile and Stress Rupture
   Properties of Cast Nickel Base Alloy MC 102
   P J Penrice, E G Richards, International Nickel Ltd. UK

12.05 Precision Castings in Titanium and Titanium Alloys
   A Dunlop; Dunlop Metallurgical Services Ltd, UK

12.06 History and Future of Gas Turbine Alloys
   R H Tielemann; Martin Marietta Corp. USA

12.07 Development of the Extended Launder Process for High Quality Melting Stock and
   Lost Wax Castings.
   L S Taylor; GL Willan Ltd, UK

12.08 Application du Moulage de Précision à des Fabrications d’Outillages
   J Blanchard; Ac Legénsil at Blanchard, France
   R G Greenwood; Unicast Development Corp. USA

12.09 Meeting the Social Obligations of the Investment Casting Industry
   A Saunders; A Sounders & Co. USA

12.10 The Development of a non Shrinking Wax “Nosink”, Machinery for its use and the
   result: High Precision Casting.
   H Moeschlin; Precisions Produkter A B Sweden

12.11 The Relationship Between the Structure and the Strength of Ceramic Shell Moulds and
   Permeability of Ceramic Shell Moulds
   P J Buysman, W Luiten, Philips Research Laboratories, Netherlands

12.12 Dipcoat Nucleation
   R C Feagin; Howmet Corp. USA

12.13 Ventilation and Protection against Radiant Heat in Hot Factories
   H Bordes Philips Gloeilampenfabrieken, Netherlands

12.14 Feingussteile aus Martensi Ausharbarem Nickel-Cobalt-Molydänstahl
   E G Nickel; Deutsche Edelstahlwerke, Germany

12.15 The Influence of Mechanisation on the cost of Investment casting
   G M Tofield, E J Shepherd; Monsanto Chemicals. UK
14th International Conference, Zurich, 5-7 October, 1970

14.01 The Economic production of Investment Cast Valves in Austenitic Steel 18/8
O Kastenek; CSSR

14.02 Experiences in Setting-up Mechanised Shell Mould Production in a Typical
Jobbing Investment Foundry
D Hope; Monsanto Chemicals, UK

14.03 Investment Casting Supports Development in the Non-polluting Sterling Engine
G TM Neelen; NV Philips, Netherlands

14.04 Isostatically Presssed Products in the Investment Casting Industry
W B Harris; Refractory Mouldings, UK

14.05 Design features of an Automatic Production Investment Casting Machine
W Hart; Elliott Mechanical Automation Ltd, UK

14.06 The Features and Development of Wax Injection Machines
A Muesfeldt; H Maihak AG, Germany

14.07 A Film on Investment Casting made at CIREX with the Collaboration of the Delft
Technical University
B Holders; Cirex BV, Netherlands

14.08 Speeding up Quotations by Positioning the Relevant Price factors in a Nonagram
H Moeschlin; Precision-Produkter AB, Sweden

14.09 The INCAMET Rapid Shell System of Investment Casting
A Dunlop; UK

14.10 Effect of Mould Materials on Micro Cracks in Ceramic Shell Moulds during Flash
Dewaxing
T Nishigori, Ishikawajima-Harima, Heavy Industries Co, Ltd, Japan

14.11 Some Factors influencing the Dewaxing of Ceramic Shell Moulds
G Halsey, UK

14.12 Precision Investment Casting of Aluminium Alloys
W O Beer; Canadian Marconi Company, Canada

14.12 The Economies of Sand or Shot Blasting in Investment Casting
H Schulze; Scheinmann & Vogel, Germany

14.14 Cost reduction in the Investment Foundry
J Broughton; Singer Manufacturing, UK

14.15 Materials used for Lost Wax Models
D Muller; Honsel Werke, Germany

14.16 Quality of Wax Patterns as a Function of Wax Preparation and Injection
V Stanciu; Tempcraft Tool & Mold Co. USA
16th International Conference, London, 1974

16.01 Ductile Iron Castings at Two Tons per Day  
G D Chandley; Hitchiner Manufacturing, USA

16.02 Factors Influencing the Properties of Cast High Strength Nickel Base alloys  
J Hockin; Hockin Associates, Canada

16.03 The Development and Application of the Lost Wax technique in Dentistry  
J N Kidd; University of Leeds, UK

16.04 The Value of Ceramic Feeders in Investment Casting  
M Leadbetter; Nalfloc Ltd, UK

16.05 Recent Developments in Autoclave Dewaxing  
M Pickard; Leeds & Bradford Boiler Co. Ltd. UK

16.06 Analytical Spectrometric Inspection in the Investment Foundry  
G Rotamartir; Microfusione, Italy

16.07 Developments in the Transition from Solid Moulds to Shell Moulds for the Production of Non Ferrous investment Castings  
F Valenta; Cercast Canada

16.08 Ceramic Cores Materials and Manufacture  
C E Webb; Doulton Industrial Products Ltd, UK

16.09 Manufacture of Large Ceramic Cores by Injection Moulding  
S Uram; Certech, USA

16.10 Managing the Energy Crisis: Some Implications for an Effective International Energy Project  
M K Badawy; Cleveland State University, USA

16.11 Unidirectional Solidification of Nickel Base Alloys  
E Grundy; International Nickel Ltd. UK

16.12 Ceramic Moulds with a Sprayed Internal Layer  
W Dittrich, Dynamit Nobel A.G. Germany

16.13 The Identification, Segregation and Preparation of Nickel and Cobalt Base Alloy Scrap for Air and Vacuum Induction Melt Applications  
G A Sked; Ireland Alloys Ltd, UK

16.14 The Unimate Industrial Robot and Investment Casting  
W G Lamb; Unimation Inc, UK
18th International Conference, Stockholm, 18-21 June, 1978

18.01 Investment Cast Cutting and Forming Tools
   R McCallum: National Engineering Laboratory

18.02 Use of an Industrial Microwave Furnace for Dewaxing
   J Hichon: Fonderie de Laval, France

18.03 Computer Aided Determination of Technological Time of Solidification of Wax Patterns
   K Rushin Technical University of Czechoslovakia

18.04 Trace Elements in Investment Castings
   R Hambleton, Howmet Alloys International, UK

18.05 Flexible Automation of Shell Mould Production
   S Soini Oy Rosenlew, Finland

18.06 Estimating the Wax Temperature Range for Mould Injection
   G Szende, t Kovacs: Institut fur Technologie des Maschinenbause, Hungary

18.07 The Univocal Appreciation of Casting Ultimate Strength
   S Balicki et al: Politechika, Czeestochowska, Poland

18.08 Thermographic Investigation of Ceramic Mould Forming Processes in Investment Casting
   Chr Iv Ivanov: deL Institut Superieur, Bulgaria
   M Schklennik: deL Institut dses Aciers et Alliages, URSS

18.09 Quality of Slurry Materials for Ceramic Shell Moulding
   P Taylor, Monsanto, Belgium

18.10 Some Mathematical Models of Changes Involving Mechanical Properties in Connection with Structural Stability
   V Bina, J Hakl, National Institute for Materials, Czechoslovakia

18.11 Unusual Additions and their Influence on Steel Crystallisation
   O Kastanek: Technical Hochschule, Czechoslovakia

18.12 A Few Considerations on Investment Casting of Textile Machine Parts
   A Fulop et al: Research and Engineering Centre for Machines and Equipment for Light Industry, Romania

18.13 Production Experience with Boron Modified Nickel Base High Temperature Alloys
   C Hammersley: Sorcery Metals Ltd, UK

18.14 The Influence of Nitrogen and Oxygen on the Castability of IN100
   K Harris, r Schwer, Cannon-Muskegon, USA
   G Brown, D Valentine, AiResearch Casting Company, USA

18.15 High Speed Motion Picture Analysis of the Wax Injection Process
   T Piwonka; TRW Inc. USA

18.16 Demonstration of Mechanisation Concepts for the Investment Casting Process
   T Piwonka; TRW Inc. USA

18.17 Removing Ceramic Cores and Coating using High Pressure Water
   R Fisher: Dare Hydrophone Ltd, UK
18th International Conference, Stockholm, 18-21 June, 1978 - continued

18.18 Technical Aspects on the use of Ceramic Cores for Investment Casting  
   J Doskar et al, Technical University of Brno Czechoslovakia

18.19 Dendrite Arm Spacing in the Cast Microstructure of Alloy A 356  
   P Wilson: Arwood Corp, USA

18.20 Preformed Cores: Some Case Histories and Recent Developments  
   K Rose, J Poulter, C Webb: Doulton Industrial Products UK

18.21 Electrohydraulic Blasting of Investment Castings  
   J Valenta: Vestshell Inc, Canada

18.22 Characteristics of some AluminoSilicate – Colloidal Shell Systems  
   R Feagin: Remet Corp USA

18.23 The Influence of Different Test Bar Dimensions on the Mechanical Properties of  
   Investment Cast Steels  
   E Hauschild, F Klein: Schubert & Salzer, Germany

18.24 On Cost Reduction and Process Improvement by the use of In House Wax  
   Reclamation.  
   K Wiese: Unimation Inc, USA

18.25 A Survey of the Physiological Conditions Relevant to Work in an Investment Foundry  
   F Alacevich, Pacchetti; Microfusione, Italy

18.26 Promising Development of Investment Casting in the USSR  
   L Koslov: Moscow Steel Institute, USSR
19th International Conference, Palma de Mallorca, 10-14 October, 1982

19.01 Use of Foamed Ceramic Nodules to Increase Shell Permeability
   G Chandley; Hitchener Mtg. Co. Inc., D Rostoker; Norton Co. USA

19.02 Actions Taken to Improve the Working Conditions in the Wax Assembly Department at Microfusione Italiana (MFI)
   F Alacevich & L Pozzoli; Microfusione Italiana, Italy

19.03 The Scope for Using Silica Binder Gel testing Time
   P R Taylor; Monsanto European Technical Centre, Belgium

19.04 Time Dependant Change in Precision Investment Casting Slurries on a Silica Sol Basis and Possibilities for their Control
   H Friedrich; Schubert 7 Salzer AG, Germany, P Schober; Bayer AG, Germany

19.05 New Waxes for Investment Casting
   A Saunders; Saunders Foundry Supply Inc, USA

19.06 Single Crystal Alloys for Gas Turbine Blades
   J Northwood, M Winstone, J Greenbank; NGTE, UK

19.07 Computer Gesteuertes Mechanisches Abtrennen von Feinguss
   W S Blazek, T Piwonka; TRW, USA

19.08 Development of the CM Series of Single Crystal Alloys for Advanced Technology Turbine Components
   K Harris, G Erickson, R Schwer; Cannon Muskegon Corp, USA

19.09 Segmented Mould Processing of Castings Having Circular Symmetry
   W Blazek, T Piwonka; TRW, USA

19.10 Metallurgical Advantages of Induction Melted/AOD Refined Master Alloy
   J Snowden, R Quigg, R Schwer, Cannon Muskegon Corp. USA
20th International Conference, 4-7 June, Brussels, 1986

20.01 Improved Ceramic Mould Technology and Process Automation
W Weinacht; Feingusswerk, Lobenstein, German Democratic Republic

20.02 A New Approach to the Assessment of Hot Deformation of Ceramic Shell Moulds
R McCallum, W Lang: Nationals Engineering Laboratory, UK

20.03 Alumina Ceramic Shell Moulds for Directional Solidification of Nickel Base Superalloys
J Cihlar, K Rusin; High Technical University, Brno, Czechoslovakia

20.04 Improvement of Mechanical Properties on a Ni Based Superalloy by the reduction of Microporosity Levels through Mould Design
R Lowe, J McGobbon et al; National Institute for Materials Research, South Africa

20.05 Further Development Work on High Strength High Integrity Investment Castings
R McCallum, W Lang, R Loy: Nationals Engineering Laboratory, UK

20.06 Defining the Material Properties in Conventional Precision Casting by means of Process Parameters involving Melt and Temperature Progression
K Bydlowski, H Friedrich; Johannes Croning GmbH, Germany

20.07 Directional Solidification and Single Crystal technology in the Investment Casting Process
F Feikus, F Hediger, Giesserie Institut RWTH, Germany

20.08 Application of Polish experiments and Materials in Casting the Endoprosthese of the HIP Joint
L Lusniak-Lech, J Stachanczyk, Foundry Research Institute, Poland

20.09 Remelting Practice for the Precision Caster
T Klemp, J P Kiley; Cannon Muskegon, USA

20.10 The Benefits of Double Refined Remelt Barstock to the General Cleanliness of Investment Castings
W Molloy, J Dykes, T Dalton; Glossop Superalloys Ltd, UK

20.11 Ceramic Foams for Metal Filtration
C Richmond, W Steen, Morgan Refractories Ltd, UK

20.12 The Use of Supervac Melting and Advanced Casting Technology in the Production of High Integrity Large castings
P E Wauby R&C Ltd, G H George, Deritend Vacuum Castings Ltd, UK

20.13 New Developments in the Manufacture of Aluminium Investment Castings
D Lorch; Fürstlich Hohenzollernschen Huttenverwaltung Laucherthal, Germany

20.14 Titanium Investment Casting – A Review of Technology
R Feagin; Remet Corporation, USA

20.15 Titanium Investment Castings: Properties and Applications
Ch Liesner, H P Nicolai, Titan-Aluminium Feinguss GmbH, Germany

20.16 From Micro to Mega HIP
D J Roberts HIP Ltd, UK

20.17 Upgrade and Repair of Aerospace Castings by GTA Welding Process
W H Simon; US Welding Corporation, USA
21.02 The role of analysis in the development of new casting wax materials
    A. Barker, Burmah Speciality Chemicals; P Solomon, Yates Manufacturing Co.

21.04 An analysis of the changes in properties of a copolymer silicate binder during
    the process of its aging
    A Karwinsky, L Lusnjak : Lech, Academy of mining and metallurgy, Poland

21.05 The production of water base shells in one day
    R Challinor, E Williams: Drytech Processing Ltd
    W Lang, R McCallum: Nationa Engineering Laboratory

21.07 Improved casting characteristics by optimised shell schedules
    S Plibury, I Metcalf: Vickers Precision Components UK
    W Lang, R McCallum: Nationa Engineering Laboratory

21.08 An analysis of ceramic shell materials
    M Hendricks: Ransom & Randolph USA

21.09 A comparison of investment casting shell making practice
    J Regrych: Minco Inc, USA

21.10 New trends and developments in vacuum precision casting equipment with
    special consideration for cold crucible melting.
    F Hugo, Leybold AG, Germany

21.11 Observations of the atmosphere in a vacuum casting furnace
    J M Gibbon, S Yates: CSIR, South Africa

21.12 An alternative single crystal casting process
    F Bernasconi, Precicast, Switzerland,
    B Walser, J Wortmann, Sulzer-MTU Casting Technology, Switzerland

21.13 Present and future trends in DS/SC Technology
    G Higginbotham, Rolls Royce plc

21.14 Investment Casting of Aluminium-Lithium Alloys
    C Bolfarini, P Sahm, W Axmann: Aachen Foundry Institute

21.15 A comparison of the lost pattern casting process
    T Piwonka, University of Alabama, USA

21.16 Simulation of the solidification process in an integral rotor and comparison of
    results with casting practice.
    H Bowles, P Carter, P Kotscky, J McGibbon: CSIR South Africa

21.17 BICTA Research and Development
    R Smart, BICTA

21.18 Development of a versatile shell system
    J-C Carlier, Fonderie Formetal, Sa, Belgium

21.19 "Inductive Cold Wall Metallurgy" A new approach to the manufacture of highly
    stressed investment castings for high technology applications.
    S Baliktay, E-G Nickel, Vacu cast Feinguss GmbH, Germany
22\textsuperscript{nd} International Conference, 22-25 April, Paris, 1992

22.01 Update on Market Trends in the Investment Casting Industry
\textit{R Williams; Blayson Olefines Ltd. UK}

22.02 Development of European Standards for Aluminium Castings
\textit{D B Critchley; BICTA. UK}

22.03 Factors Affecting the Precision of Investment Casting
\textit{J Dudley, G Bennett; Sandwell College of Technology}

22.04 A Review of Investment Casting applications and Process Problem Areas
\textit{J Shearer; TPC Components. Sweden}

22.06 Rapid Grinding
\textit{G Bell; AW Bell Pty. Australia}

22.07 New Approach to the Determination of the Dropping Points and Softening Points of the Pattern Waxes used for Investment Casting
\textit{P Bouvet; CTIF. France}

22.08 Innovative Pattern Waxes to Satisfy Modern Casting Needs
\textit{J Argueso; M Argueso & Co, G Schiefelbein; Remet, C Kovach; Signcast. USA}

22.09 Advances in Reclamation and Reconstitution of Filled Wax
\textit{D J Morson, R B Williams; Blayson Olefines Ltd. UK}

22.10 Continuous Wax Cooling at the Wax Injector for Higher Productivity
\textit{B S Phipps; Mueller Phipps International Inc. USA}

22.11 Le Place de la Fonderie a Modele Perdu Francais
\textit{J-G Deponge; SGFF. France}

22.12 The Effect of Impurities upon the Thermal Reponses of Several Proprietary Casting Binders
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22.15 Factors Affecting Shell Strength and the Effect of Dry Time on Shell Strength
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23.08 Developments in Aerofoil Ceramic Core Measurement Techniques  
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23.09 Analysis of the Nature and Extent of the Interaction Between Ceramic Foam Filters and High Chrome Steel.  
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   W O Roberts; Dupont USA

24.05 Comparison of the Properties of Zircon/Alumino-Silicate Shells with water based and  
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24.06 An Improved Investment Casting Procedure Exploiting Water Based Silica Binders  
   Z Adamczyk; Institute of Surface Chemistry, A. Karwinski; Foundry Institute, Poland

24.07 Revitalisation of Expertise in Foundries using Information Technology  
   C N Bancroft; University of Coventry, UK

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24.11 Mathematical Modelling of Casting Process: Analysis of a Production Case and Rapid  
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25.07 Investment Casting for High Volume Automotive Production – a Technology with a future.  
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25.09 Building, Maintaining and Securing your Data Assets  
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25.10 Simulation of Die Filling for the Wax Injection Process  
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25.15 Casting Improvements for the Automotive Industry  
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1. State of the Industry – Key Note Speech
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   * R Hirst – Blayson Olefines,

3. Chinese Markets
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4. Japanese Markets
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5. Indian Markets
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6. Challenges from Aeroengine Manufacturers on Investment Casting Suppliers
   * O Caballero - ITP

7. Market Opportunities in the Power Generation Sector
   * D Allen - Alstom

8. EICF – The First 50 Years
   * R Smart

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9. Successful Turbocharger Wheel Manufacture
   * S Leyland – Honeywell Turbo Technologies

10. Concurrent Engineering to Develop a Manufacturing Process for Turbine Rear Frame Components
    * C Duquenne – SNECMA

11. Advantage of Statistical Tools Application in the Foundry: a way to Optimise Productivity and Reduce Costs
    * A Mourier - UCPI

12. 6 Sigma in Investment Casting. A scientific method for improvement
    * C Olabe - PCB

13. Simulation assisted optimisation of shell design for investment casting
    * C Veringmeier – Eurocast bv

14. Self Learning Diagnostic System for Scrap Reduction
    * R Ransing – University of Wales Swansea

15. How to Become a First Class Investment Casting Foundry: A cost efficient approach to process improvement based on numerical data
    * J Bedialauneta - PCB

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16. Understanding how Wax Properties can Affect Foundry Performance
   *P Hancock – Blayson Olefines*

17. Profit Begins in the Wax Room
   *B Phipps – MPI*

18. Dimensional Stability of Commercial Shell Systems
   *P Quested – NPL, S Jones – Birmingham University IRC*

19. A Shell for All Seasons
   *J Snow – Minco*

20. A New Philosophy for Shell Drying
   *W Weihnacht – Wex*

21. Rapid Shell Build: Returning to Basics in an Art Foundry
   *M Thomas – Birmingham University IRC*

22. Alumina and Silico – Aluminate refractories and their role in ceramic mould properties.
   *D Frulli – Imerys Molochite*

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23. Investment Casting - Quantum Leap
   *S Byrne - VA Technology*

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25. Equipment for Large DS and Single Crystal Casting
   *U Betz – ALD*

26. Developments in Superalloy Castability and New Applications for Advanced Superalloys
   *K Harris – Cannon Muskegon*

27. Some Recent Developments in the Melting and Casting of Titanium Alloys
   *R Harding – Birmingham University – IRC*

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29. Determination of the factors controlling crystallography non-conformance in single crystal turbine blade production on an industrial scale
   *J Cameron – Firth Rixson Superalloys*

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    *I Menoyo - PCB*
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Prof M Horáček - Brno University of Technology.

4. How to achieve investment casting world-class level  
Grzegorz Furgał - WSK Rzeszów

5. Refractory Ceramic Fibre (RCF) – the search for safer alternatives  
Steve Irwin – Rolls-Royce plc

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7. Ageing control method for wax pattern etchants and solvents.  
Garikoitz Artola – Microfusion de Aluminio. SA

8. “Rethink your future”  
Geoff Bell – A W Bell Machinery, Pty. Ltd

9. Identification of mould weight variation  
Maria Kopta, Regina Szeliga (WSK “PZL-Rzeszow” S.A.)

10. Does it make sense to reclaim your own wax material  
Stephen Barnett – INCAST Consultancy Ltd.

11. Investment casting waxes – supply guarantee and quality management in relation to changes in the global market conditions.  
Dipl.-Ing. Jörg Abraham, Dr. Carola Tretner – Romonta Bergwerks AG.

12. Ash values, their nature and their influence in reclaim waxes on investment casting qualities  
John Machielse – Paramelt-Argüeso

13. Advances in wax testing  
Phil Hancock – Blayson Olefines Ltd

14. Look Through Shell by X-ray Micro Tomography  
Dr Lu Zhigang – Tsinghua University, Beijing

15. Process and economic benefits realized with a new binder system  
Mark Bijvoet – Ransom & Randolph

16. Standardisation and optimisation of DS/SC – Bridgman technique for Ni-base alloys  
S Hollad, D Ma, (RWTH Aachen University) U Betz, G Jarczyk (ALD Technologies GmbH)

17. Investment casting technology for the manufacture of TiAl low pressure turbine blades in centrifugal casting – casting technology and quality assurance.
18. The latest trends in superalloys for gas turbines
Dr. Tasadduq Khan – ONERA, France

19. Insight on the use of Fused Alumina and Silica free solutions for the casting of Ni/Co based superalloys and Titanium alloys
Danilo Frulli - IFME (Imerys Foundry Minerals Europe)
Thomas Krumrei (CARRD - Center for Refractory and Abrasive Research and Development)

20. Study of the solidification features of investment casting aluminium alloys reinforced with ceramic particulates
Dr Pedro Egizabal (Fundación Inasmet-Tecnalia)

21. Automation and Process Control in the wax room – case studies
Bruce Phipps (MPI Inc)

22. Autoclave NT for gentle dewaxing of ceramic shells
Michael Kügelgen (MK technology GmbH)

23. Healthy Shell - How a robust shell will survive dewax
C. Whitehouse, B. Snyder (Minco Inc)

24. Evaluating the true cost of melting stock
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25. The investment Casting Research Laboratory – processes, technology and materials investigations
Jakub Michalski - Materials Engineers Group Ltd

26. Factors affecting the results of quantitative evaluation of gamma prime phase in nickel-based superalloys.
Jan Cwajna, Agnieszka Szczotok (Department of Materials Science, Silesian University of Technology)

27. Ceramic moulds production process time optimization using innovative contactless microwave moisture measurement method.
Ricardo Monleone, Andrea Salvadè (Swiss University of Applied Science), Giuseppe Facchini (Precicast SA)

28. Investment casting at Foundry Research Institute in Kraków
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Prof. N Sobczak
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