

## INVESTMENT CASTING INSTITUTE BIBLIOGRAPHY

SECTION II  
PROCESS

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1980	11:37	22	Productivity gains through automation beyond the shell room K. T. Wiese Nielsen	6
	11:38	22	The Automatic Dipping System Shell-O-Matic George Muri	6
	11:39	26	Copper Base Alloys for Plaster Mold Casting Y. Tamazaki	7
	11:40	26	The CLA Casting of Non-ferrous Alloys R. L. Sharkey, G. D. Chandley	12
1981	11:41	28	Development of High Performance IN718 Alloy Investment Castings for Compressor Components P. G. Honore, L. F. Norris, and L. E. Dardi	49
	11:46	31	The CLV Process G. D. Chandley	9
1982	11:47	32	Use of Foamed Ceramic Nodules to Increase Shell Permeability G. D. Chandley, D. Rostoker	10
	11:48	32	The Segmented Mold Process - A New Approach to Investment Casting W. S. Blazek, T. S. Piwonka	19
	11:49	32	Rainfallsanders: A New Development George Muri, Shell-O-Matic	5
	11:50	33	Review of Fluidity Testing As Applied to Lost-Polystyrene Investment Casting J. A. Capadona, D. I. Albright	12
1983	11:51	35	Computer Controlled Robot Line for the Manufacturing of Precision Castings U. Franzen, Kanthal Casting Co.	7
	11:52	36	Update on Vacuum Investment Casting Furnaces Michael J. Blasko	14
	11:53	36	Investment Casting Instrumentation Robert Brown	25

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	11:57	37	An Automatic Firing and Pouring System George Muri	10
	11:58	37	Update of Current Molten Metal Filtration Techniques in the Investment Casting Industry J. Michael Stamper	9
	11:59	37	Recent Advances and Trends in Automation of Superalloy Investment Casting C. Vishnevsky and J. Mathew	24
	11:60	37	Precision Casting MAR-M 246 DS Alloy D. C. Pratt, D. H. Wilkinson and P. E. Waudby	22
1984	11:61	37	Development and Evaluation of Improved High Temperature Ceramic Foams for Filtering Investment Casting Alloys W. H. Sutton and J. R. Morris	19
1985	11:62	38	Automation of Vacuum Precision Casting Equipment Franz Hugo, Hans Mosch; Leybold-Heraeus Technologies Inc.	29
	11:63	38	Developments in Investment Casting J. D. Jackson, M. H. Fassler, Pratt & Whitney Aircraft Group	32
	11:64	39	Progression from Batch Analysis to Continuous Metal Control using an E959 Polyvac Mrs. A. Stubbs, Willan Metals Ltd.	10
	11:65	39	From Research to Cost Effective Directional Solidification and Single Crystal Production - An Integrated Approach G. J. S. Higginbotham	53
1987	11:66	41	Computer Implementation of SPC for the Investment Casting Industry R. W. Golland and J. R. Gassen, Nalco Chemical Co.	25

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1990	11:69	47	Investment Casting of Aluminum Metal Matrix Composites David O. Kennedy, Knight Architects Engineers Planners, Inc.	25
	11:70	47	Vacuum Precision Casting Furnace Advances Lennie L. Ashburn, PV/T, Inc.	16
	11:71	47	Improved Casting Characteristics by Optimized Shell Schedules R. McCallum, W. Lang and S. Pilbury, National Engineering Laboratory, Scotland I. Metcalfe, Vickers Precision Components	24
	11:72	48	An Alternative Single Crystal Casting Process F. Bernasconi, Precicast SA, and B. Walser and J. Wortmann, Sulzer-MTU Casting	16
	11:73	48	Present and Future Trends in DS/SC Technology G. J. S. Higginbotham, Rolls Royce plc	20
1990	11:74	48	Investment Casting of Aluminium-Lithium Alloys C. Bolfarini, P. R. Sahn and W. Axmann, Aachen University	22
	11:75	48	A Comparison of Lost Pattern Casting Processes T. S. Piwonka, University of Alabama	24
1992	11:76	50	Biofiltration - A Treatment Alternative for Ethanol Emissions from Investment Casting Operations Gero Leson, RMT, Inc.	6
	11:77	50	Integration of Rapid Prototyping Into Investment Casting C. L. Atwood, G. D. McCarty and B. T. Pardo, Sandia National Laboratories	8
	11:78	50	Rapid Mesh Generation for Finite Element Analysis of Investment Castings R. R. Lober, W. J. Bohnhoff, R. Cass, R. J. Meyers and R. Oakes, Sandia National Laboratories	15

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	11:80	50	Integrating Computer-Aided Technologies to Speed Up Investment Casting R. Sikorski, Sandia National Laboratories	10
<b>1993</b>	11:81	53	Vacuum Induction Melting and Precision Casting Plants for Directional Solidification H. Altena and H. Mayer, KOPP Vakuumtechnik, Austria	8
	11:82	53	Rapid Prototyping: An Overview of the Technology Applied to Investment Casting David Ian Wimpenny, University of Warwick, UK	7
	11:83	53	Stereolithography 1993: Epoxy resins, Improved Accuracy and Investment Casting Dr. Paul Jacobs, 3D Systems, Inc.	9
	11:84	53	Making Ceramic Shells Directly from a CAD File with Direct Shell Production Casting - New Opportunities for the Investment Casting Industry Yehoram Uziel, Soligen Inc.	6
	11:85	53	Fused Deposition Modelling: Process Enhancements James W. Comb, Stratasys, Inc.	4
	11:86	53	Helisys Laminated Object Manufacturing K. Howell and T. Wring, Umak Ltd., UK	4
<b>1993</b>	11:87	53	The Selective Laser Sintering process: New Technology in a Traditional Casting Process Patrick Fossett, DTM GmbH	9
	11:88	53	Utilization of Rapid Prototyping in Casting Technologies Giora Baum, Schneider Prototyping, Germany	7
	11:89	54	A New Tool Handling Concept George Muri, Shell-O-Matic, Inc., Canada	4
	11:90	54	Very Large Investment Castings Made by the Urea Pattern Process M. Munakata & T. Nammba, Riken Corp., Tadao Fujita and Hiroshi Inoue, Associated Foundries Eng. Co. Ltd., Japan	21
	11:91	54	How Pressure & Flow Affect Wax Injection Keith Hedrick, MPI-Mueller Phipps International Inc.	14

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	11:93	55	Influence of Backing Materials on the Thermal Profiles of Investment Casting Moulds P. A. Withey, S. Jones and P. M. Marquis, School of Metallurgy and Materials, The University of Birmingham, UK	7
	11:94	56	Flashfire Dewax for Today's Investment Casting Foundry Glenn Foster, Pacific Kiln & Insulations Co. Inc.	11
	11:95	56	MPI's Wax Conditioning (Paste) System with Case Histories Matthew Pinczes, MPI, Inc.	7
	11:96	56	Laser Machining of Ceramic Cores: A New Rapid Prototype Technology Mike Muntner, Textron Lycoming; and Stu Uram, Certech, Inc.	31
	11:97	56	The Control of Non Metallic Inclusions by Woven Refractory Cloth Filtration for Investment Casting Foundries Roy M. Smith, Pyrotek	26
	1996	11:98	58	Countergravity Casting in Flexible Casting Bags C. Cingi and J. J. Vuorinen, Laboratory of Foundry Technology, Helsinki University of Technology, Finland
11:99		58	Hollow Castings for Commercial and Automotive Industries: An Alternate Cost-effective Solution Nobuyoshi Sasaki, C.A.D.I.C., Japan	12
11:100		58	Advances in Directional Solidification and Single Crystal Precision Casting Equipment and Process U. Betz, F. Hugo, H. J. Kemmer, ALD Vacuum Technologies GmbH, and R. Schumann, ALD Vacuum Technologies, Inc., Enfield, CT.	10
11:101		58	Dimensional Repeatability of Investment Castings Frank E. Peters, Robert C. Voigt, Pennsylvania State University	10
11:102		58	A New Approach in the Treatment and Recovery of Alcohol from the Exhaust Airstream of Ethyl Silicate Shell Building Operation Mark Oles, Hitchiner Manufacturing	22
11:103		58	Investment Casting - Process Technology for the Future H. P. Nicolai, Titan-Aluminium-Feinguss GmbH, Germany	8

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	11:105	59	Reactions Between Nickel Aluminide and Investment Refractory Materials in the Production of Turbocharger Rotors I.F. Chequer, S. Jones and P.M. Marquis, The University of Birmingham - U.K. S.P. Leyland, Trucast Limited - U.K. D.Hendley, Ross and Catherall Limited - U.K.	21
1998	11:106	61	Investment Casting of Low Density Turbocharger Wheels from NIAL I.F. Chequer, S. Jones and P.M. Marquis, The University of Birmingham - U.K. D. Hendley, Ross & Catherall Limited - U.K. S. Leyland, Trucast Limited - U.K.	21
	11:107	61	Mathematical Modeling of Casting Process: Analysis of a Production Case and a Rapid Prototyping Case Carosi, F. Ielpo and D. Pocci, Centro Sviluppo Materiali SpA - Italy D. Taccardo, Microcast - France G. Mondadori, Promau Engineering – Italy	19
	11:108	61	Mould Non-Fill and its Relationship to Mould Wettability and Surface Finish in Thin Walled Castings S. Connolly, S. Jones and P.M. Marquis, The University of Birmingham - U.K. D.A. Ford, Rolls Royce plc - U.K.	20
	11:109	61	Prerequisites for the Use of Investment Casting to Manufacture Components Currently Produced by Other Technologies J. Cilecek, Fimes Foundry Limited - Czech Republic M. Horacek, University of Brno - Czech Republic	16
1998	11:110	62	Investment Casting of Titanium Using the Induction Skull Melting Process Scott Reed, Flowserve Corporation and Jai Narayan, Consarc Corporation	7
	11:111	62	Improved Performance Dual Property Wheels for Turbine Applications Allen R. Price, Dr. Thomas Tom, Howmet Research Corporation; Randy Helmink, Allison Engine Company	13

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	11:114	63	Investment Casting Shells in 1 day using Selective Laser Sintering (SLS) Dr. H. Wirtz and Dr. C. Freyer, Fraunhofer Institut Produktionstechnologie, Germany	6
	11:115	63	The Synergistic Benefits of Supplying Sub-contracted Ceramic Cored Wax Patterns K. Howells, P. Palmieri, Carpenter Engineered Products, Precision Moulded Products – Certech	14
	11:116	64	Using Internet Technologies to Streamline Investment Casting Processes Tom Conklin, Gray-Syracuse, Inc.	6
	11:117	64	East to Understand Manufacturing Process Control The Bliss Process Control System Robert R. Kegerreis, Independent Steel Castings Co.	5
	11:118	64	Computer Aided Engineering in the Investment Casting Industry Neil E. Paton and Boyd A. Mueller, Howmet Research Corp.	14
<b>2000</b>	11:119	65	Accuracy Improvement in Investment Casting W. Bonilla, S. Masood & P. Iovenitti, Industrial Research Institute, Swinburne University of Technology, Australia	14
	11:120	65	Investment Casting Accuracy M. Horacek, Technical University Brno, Czech Republic	16
	11:121	65	Influencing Solidification Rates Using Thermal Emissivity Control Coatings R. S. Doles, Colloidal Technologies Group, Nalco Chemical Company	15
	11:122	65	Casting Conversions Utilizing Computer Aided Engineering E. Foes and B. Mueller, Howmet Ti-Cast, USA	11

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2001	11:123	67	Applications of Investment Shell Moulds to Semi-Solid Metal Forming (Thixoforming) P. Kapranos*, H. V. Atkinson*, D.H. Kirkwood, A.R.A. McLelland*** and P.R.G. Anderson+ *Thixoforming Group, Department of Engineering Materials The University of Sheffield, U.K. ** LuK Lemington Ltd., Warwickshire, U.K. + nCode Ltd., Sheffield, U.K	9
	11:124	67	Process Modelling Research for Investment Casting M. R. Jolly, M. Cox, J. C. Gebelin, S. Jones, A. Cendrowicz IRC in Materials for High Performance Applications, The University of Birmingham	22
	11:125	67	Casting Via CAD E. B. Lambourne, Delcam PLC, Birmingham, U.K.	9
	11:126	68	Energy Efficiency in the Investment Casting Foundry Tom Jantzen, Pacific Kiln and Insulations Co.	6
2002	11:127	69	Using The Six Sigma Approach To Solving A Non-Fill Problem Scott E. Hanson, Vermont American Investment Castings	5
2003	11:128	70	A Parameter Design Approach – Casting Defect Prevention Robert L. McCormick – Chief Engineer Gilberto Jimenez – Manager Hitchiner Manufacturing Co., Inc.	21
	11:129	70	A Picture is Worth a Thousand Words – Advantages & Disadvantages of Process Imaging Stephen Hoppe – President Guardian Software Systems	4
	11:130	70	Miscut Scrap Case Study Using Six Sigma Approach Brian Ferg – Process Control Manager Concord Castings, Inc.	11
	11:131	70	New Technology for Automating the Waterjet Casting Cleaning Process Joseph Tebbe – President Triplex Systems, Inc.	8
	11:132	70	Dimensional Prediction and Control of Investment Castings Dr. Victor Okhuysen – Professor Cal Poly Pomona University	31

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	11:134	71	Alloy Melting Inclusions and Dross Tom Thornton, S&A Consulting Group LLP	7
	11:135	71	Experience with Molten Caustic Cleaning of 356 Aluminum Investment Castings Len Ceriotti	11
2005	11:136	72	Understanding Single Crystal Seed Meltback Mechanisms in Nickel-Based Superalloy Investment Casting Lea Kennard	11
	11:137	72	Liquid Nitrogen Cleaning of Investment Castings Jerry Donahue, Vulcan Engineering	13
	11:138	72	The Impact of Clean Molten Metal Processing on Total Operational Cost in the Production of Ferrous Alloy Investment Castings Terry LaSorda	14
2007	11:139	74	Process Optimisation Using X1 Recall Dr. Rajesh Ransing, Swansea University	10
	11:140	74	Commercial Investment Foundry Process Control Advantage Robert Jordan, Dal-Air Investment Casting, Inc.	22
2008	11:141	75	Too Many Variables – Too Much Data! How to Learn From Every Casting Produced To Improve Your Process Dr. Rajesh Ransing, University of Swansea	23
2009	11:142	76	Concept to Casting Andy Bomberger, Tech Cast	12
	11:143	76	Design of Experiments for Optimum Process Control Nip Singh, S&A Consulting Group	14
	11:144	76	Comparing Continuous Versus Batch processes Associated with Investment Casting From a Lean Manufacturing Perspective Brennan Reilly, DePuy Orthopaedics, Inc.	15
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	11:147	77	The Impact of Temperature and Oxygen on Product Quality, Equipment Cost, Operating Costs, and Emissions Brian Kwolek, Armil / CFS, Inc.	15
	11:148	77	From Inception to Completion..."A Process Control View For the Lost Wax Process – Wave of the Future" Dhru Patel, Precision Castings of Tennessee	28
<b>2011</b>	11:149	78	Development of Foundry Casting Methods for Cost-Effective Manufacture of Medical Implants Gavin Dooley, University of Birmingham Alan Kavanagh, DePuy Johnson & Johnson	21