

TUESDAY, 28 NOVEMBER 2017

09:00	OPENING: Stainless Steel World
09:15	CHAIRMAN'S WELCOME: Roy A. Grichuk, Fluor, USA
09:30	KEYNOTE LECTURE: The Versatile Metal – Stainless Steel in Art and Architecture, L. William Zahner, A. Zahner Company, USA
10:00	KEYNOTE LECTURE: Resiliency and Sustainability Create Opportunities for Stainless Steel, Catherine Houska, TMR Consulting, USA

10:30 COFFEE & EXPO BREAK

	Euro Room	Florin Room	Dollar/Yen Room
	CORROSION Chair: Jan van de Wetering, AkzoNobel Industrial Chemicals, the Netherlands	WELDING Chair: Iris Rommerskirchen, Wilhelm Schulz, Germany	HEAT EXCHANGERS Chair: John Houben, ExxonMobil Research and Engineering, the Netherlands
11:00	Budi Susilowati A. Soedarsono, MEDCO E&P Natuna, Indonesia <i>316L Stainless Steel Instrument Tubing Repetitive Leak in Marine Environment</i>	Loïc Amadu, Friedlander – Ortec Group, France <i>Welding of Superduplex without Filler Metal</i>	Jan-Willem Rensman, Fluor, the Netherlands <i>Design and Fabrication of Tube-Tubesheet Joints Involving Stainless Steels and Nickel Alloys</i>
11:30	Charles Leballeur, Institut de la Corrosion, France <i>Design and Qualification of a New Crevice Assembly Adapted for Tube Geometries</i>	Takahiro Osuki, Nippon Steel & Sumitomo Metal Corporation, Japan <i>Weldability of 347AP with Excellent Polythionic Acid Stress Corrosion Cracking Resistance without Post Weld Heat Treatment</i>	François Dupouiron and Cornelis Reinhoud, TOTAL Refining & Chemicals, France <i>Heat Exchanger on Cooling Water: Use of DSS Tubes Welded on Carbon Steel TS. Industrial Experience and Electrochemical Modeling</i>
12:00	Jacko Aerts, DSM, the Netherlands <i>Massive Cracking in Stainless Vessel Due to 'Small' Mistake during Construction – a Case Study</i>	John Haines, Arc Energy Resources, UK <i>Weld Overlay – an Attractive Alternative</i>	Yong-Joo Kim, Webco Industries, USA <i>Seam Welded Duplex Stainless Steel Tubing – Critical Process Components for Optimum Corrosion Performance</i>
12:30	Dirk Engelberg, University of Manchester, UK <i>On the Application of Standard Corrosion Practices and Test Procedures to Assess Stainless Steel Microstructure Susceptibility</i>	Kasra Sotoudeh, TWI, UK <i>Weldability and Characterisation of Duplex-to-Duplex and Duplex-to-Carbon Steel Friction Stir Welds</i>	Jérôme Bridel, Aperam Stainless Europe, France <i>Heat Treatments of Cold-Rolled Aperam DX2202 Welds</i>

13:00 LUNCH & EXPO BREAK

	Euro Room	Florin Room	Dollar/Yen Room
14:30	WORKSHOP: Fighting Counterfeit Products Moderators: Steve Paterson, Arbedie Consultants, UK Thomas Ladwein, Aalen University, Germany	WORKSHOP: Let's Focus on Welding Moderator: Raymond Cordewener, R. Cordewener Management & Consultancy, the Netherlands	WORKSHOP: Heat Exchanger Reliability Improvement Moderator: John Houben, ExxonMobil Research and Engineering, the Netherlands
	Counterfeit stainless steel components have caused a large number of incidents in recent years and present an increasing risk in the current cost-constrained business climate. To combat this problem, an integral approach will be needed, involving the entire supply chain and other key stakeholders. The recent development of ISO 17781 for duplex stainless steels and related alignment of internal standards between end users will be discussed. The objective of this workshop is to explore and propose additional industry initiatives that could further mitigate the manufacture and use of counterfeit products. Panellists: • Jared Ayres, IPP Group, UK • Alan Cockerill, Engineering Equipment & Materials Users Association, UK • Carlo Farina, Friedrich Geldbach, Germany • Joelle Greenwood, Salzgitter Mannesmann Stainless Steel Tubes, France • Michael Kremmel, Erne Fittings, Austria	Every welding engineer will think, "How can I focus on welding if there are so many things to consider?" and name at least ten aspects: the weldability of the steel, the influence of the welding process, the welder, the welding consumables, matching composition, multi-layer welding, automated welding, manual welding, laser welding, mechanical properties, corrosion resistance, etc. But still – we would like to focus. Bring your experience to this workshop. We invite you to share your disasters, challenges and dilemmas with the panel and fellow delegates. With so many welding experts in the room, solutions to your questions are almost guaranteed. Four short presentations on various aspects of welding will set the stage for a fruitful discussion. We look forward to focusing with you on welding. Presenters: • Briony Holmes, TWI, UK <i>Wavelength Dispersive X-Ray Microanalysis of Stainless Steel Weld Metal</i> • Gerrit Sasse, Sandvik Materials Technology, Germany <i>The Benefits of Hyper-Duplex and How to Weld It</i> • Peter Stones, Sandvik Materials Technology, UK <i>Successful High Deposition, Overlay Welding with 25% Cr Strip Electrode to Achieve a Super Duplex Composition</i>	Failure or low operational efficiency of a heat exchanger can lead to significant lost-opportunity costs for process plant operators. Fouling and under-deposit corrosion are among the most typical factors behind these risks. This workshop will address two main strategies to reduce maintenance costs and improve the reliability of heat exchangers. The first one is material upgrade from lower-alloyed stainless steels to highly corrosion-resistant duplex grades, while the second one involves corrosion mitigation by means of surface modification and, more specifically, electropolishing. Following four short presentations detailing these strategies, delegates will be invited to pose questions to the workshop panel and share their own experiences and problems related to heat exchanger materials and performance. The workshop will also follow up on questions and discussions from the morning session on heat exchangers, providing a perfect opportunity to address all issues concerning this critical part of process equipment, including design, fabrication and in-service experience. Presenters: • Sarrata Cisse, Industeel, France <i>Effect of Ageing on Lean Duplex UR2202 (1.4062) Properties</i> • Benedikt Henkel, HENKEL Beiz- und Elektropolieretechnik, Germany <i>Electropolishing of Metal Alloys – Setup, Applications, Benefits and Limits for Industrial Use in Practice</i> • Bernardo Siza Vieira, Sandvik Materials Technology, Portugal <i>Comparison SANDVIK SAF2707HDTM Vs. Nickel Based and Other Duplex Alloys</i>

WEDNESDAY, 29 NOVEMBER 2017

	Euro Room	Florin Room	Dollar/Yen Room
	DUPLEX Chair: Jacko Aerts, DSM, the Netherlands	NICKEL ALLOYS Chair: Jan Links, Dow, the Netherlands	OIL & GAS Chair: Marc Wilms, Shell Global Solutions, the Netherlands
09:00	Charles David, Aperam Stainless France, France <i>Influence of Galvanic Coupling between Two Phases of Duplex Stainless Steel on Environment Assisted Cracking Resistance</i>	Martin Wolf, VDM Metals International, Germany <i>Weld Qualification of the Novel Highly Corrosion-Resistant Material Alloy 2120</i>	Freddy Busschaert, TOTAL, France <i>Case Studies with Materials in Oil and Gas Upstream Production</i>
09:30	Makoto Kawamori, Kobe Steel, Japan <i>Effect of Tantalum Addition on Pitting Corrosion Behavior of Heat-Affected Zone in Super Duplex Stainless Steels</i>	Helena Alves and Heike Hattendorf, VDM Metals International, Germany <i>Alloy 2120, Alloy 31 Plus and Alloy 699 XA – New Alloy Developments for the Chemical and Petrochemical Process Industry</i>	Jean Denis Mithieux, Aperam Stainless Europe, France <i>Influence of Temperature and pH on Stress Corrosion Cracking Assisted by H₂S Susceptibility of 22% Cr Duplex Stainless Steel</i>
10:00	Vincent Villaret, Industeel, France <i>Effect of Welding Operation and Residual Aluminum Content on Duplex UR2205 Properties (1.4462)</i>	Tracey Holmes, Special Metals Corporation, UK <i>Corrosion Performance and Fabricability of the New Generation of Highly Corrosion Resistant Ni-Cr-Mo Alloys</i>	Deniz Ugur, Shell Global Solutions, the Netherlands <i>Unexpected SCC Failures of Stainless Steel in Low Chloride and Very Low Oxygen Conditions</i>
10:30	Jocelin Poinot, Université de Bourgogne / Industeel, France <i>Influence of Copper and Tungsten Addition on the Passivity and on the Pitting Corrosion Resistance of Super Duplex Stainless Steel</i>	Martin Müller, Brück, Germany <i>Forging and Ring Rolling of Nickel-Base or High-Nickel Alloys with Challenges During Production and Achievable Properties</i>	Clara Herrera, Deutsche Edelstahlwerke Specialty Steel, Germany <i>Mechanical and Corrosion Properties of High CrMnN Austenitic Stainless Steels for Oil and Gas Applications</i>

11:00 COFFEE & EXPO BREAK

	Euro Room	Florin Room
11:30	INTERACTIVE SESSION: Duplex Moderator: Jacko Aerts, DSM, the Netherlands	WORKSHOP: 3D Printing & Powder Metallurgy Moderator: Alain Honnart, Metalvalue, France
	Duplex stainless steels (DSS) show superior corrosion resistance compared to standard austenitic grades. This is especially the case in chloride-containing environments where many austenitic grades are failing due to stress corrosion cracking. However, even DSS have their limitations, for example, when a substantial chloride load is combined with a low-pH environment. Understanding the limits of application of DSS grades is therefore crucial to prevent unexpected – and costly – failures. The presentations in this interactive session will address both the application limits as well as how these are linked to the specific material structure of DSS. These presentations will be shorter than those given in the preceding session on the same subject, to allow for more comments and questions from the audience. Following the presentations, delegates will be invited to engage in further discussion and are encouraged to bring forward their own cases for comments by the panel and fellow delegates. Presenters: • Hiroshi Urashima, Nippon Steel & Sumikin Stainless Steel Corporation, Japan <i>Passivation Behaviors of Various Types of Duplex Stainless Steel in Sulfuric Acid Including Chloride Ion</i> • Steve Roberts, Goodwin Steel Castings, UK <i>Greater Levels of Safety for Super Duplex Steel</i> • Florent Krajcarz, Aperam Stainless Europe, France <i>Influence of Centerline Intermetallic Stringers on the Hydrogen Embrittlement Susceptibility of Superduplex Stainless Steel</i> • Abdelkader Meroufel, Desalination Technologies Research Institute, Saudi Arabia <i>Galvanic Corrosion between Corrosion Resistant Alloys – Application to Desalination Process</i>	3D printing is entering the mainstream, not only in the manufacture of consumer products, but also in the production of demanding industrial applications. Riding on the wave of recent technological advances and facilitated by the proliferation of powder metallurgy on which it relies for feedstock, 3D printing with metals is no longer science fiction, but reality. Some industries, such as aerospace, biomedical and automotive, are already fully exploiting the advantages which this novel manufacturing method affords (customisation, minimal scrap, etc.), while others are slowly but steadily understanding and realising its potentials. This discussion-based workshop will open with a broad 'state of the art' overview of recent developments in additive manufacturing processes for metals, followed by three short presentations revealing some of the opportunities that await to be seized upon across the industrial landscape. Join us to discover how 3D printing could revolutionise your business. Presenters: • Charles de Forges, Spartacus3D, France <i>Is Metal 3D Printing Ready for Production?</i> • Freddy Busschaert, TOTAL, France <i>Oil and Gas End-User Experience on Hipped Components</i> • Mats Petersson, Sandvik Powder Solutions, Sweden <i>A New PM HIP Super Austenitic Grade</i>

13:00 LUNCH & EXPO BREAK

14:30	PLENARY DISCUSSION: Availability Is a Key Material Property (Open to Conference Delegates and Exhibitors) Moderator: Lars Rose, DowDuPont, Germany
	Although, technically speaking, availability is not an inherent material property, its importance is on a par with the chemical composition, quality, finish and any other material characteristic. Long lead times can delay projects, encourage the use of unsafe products, and have an adverse effect on all industry stakeholders. Why does it take so long to manufacture/deliver certain materials, particularly non-standard CRAs? What can mills, fabricators and vendors do to improve their lead times? What role do end users and EPC contractors play in this process? How can all parties forming the supply chain work together to make hard-to-get products and materials more readily available? These and other crucial questions will be first addressed by a carefully selected panel representing the entire supply chain, followed by a plenary discussion with the audience. Do not miss this unique opportunity to participate in an attempt to solve a pressing industry-wide problem. Panellists: • Liam Bates, Outokumpu, Finland • Freddy Busschaert, TOTAL, France • Pinakin Desai, Larsen & Toubro, India • Lizette Hartholt, Hart bv., the Netherlands • Norbert Heinze, BUTTING, Germany • Luca Pentericci, Raccortubi Group, Italy • Hiromichi Tsuchiya, JGC, Japan

THURSDAY, 30 NOVEMBER 2017

09:30	KEYNOTE LECTURE: The Future Is Ultra-Light, Aleš Mikuž, Akrapovič, Slovenia
10:00	KEYNOTE LECTURE: Keeping Stainless Steels Safe in Oil and Gas Production Facilities, Steve Paterson, Arbedie Consultants (formerly Shell Global Solutions), UK

10:30 COFFEE & EXPO BREAK

	Euro Room	Florin Room	Dollar/Yen Room
	HIGH TEMPERATURE Chair: Barinder Ghai, Sandvik Materials Technology, UK	APPLICATION Chair: Lena Wegrelius, Outokumpu Stainless, Sweden	DESIGN / STANDARDS Chair: Peter van Gansewinkel, Brück, Germany
11:00	Lars Rose, DowDuPont, Germany <i>Oxidation Characteristics of Porous Stainless Steel</i>	Sarrata Cisse, Industeel, France <i>New Developments on Roll-Bonded Clad Plates</i>	Nancy Baddoo, Steel Construction Institute, UK <i>Recent Developments in International Design Standards for Structural Stainless Steel</i>
11:30	Vincent Villaret, Industeel, France <i>Development of a Test Methodology for the Stress Relaxation Cracking Issue</i>	Björn Helmersson, Outokumpu Stainless, Sweden <i>Corrosion Performance of Stainless Steel in Wet Scrubbers</i>	John Mclean, John Mclean Architect, USA <i>Architecture and 'zero-stressSM' Structures</i>
12:00	Steve Roberts, Goodwin Steel Castings, UK <i>Next Generation Nickel Alloy Castings for High Efficiency Power Plants</i>	Sandra Le Manchet, Industeel, France <i>Duplex Stainless Steels for Storage Tanks</i>	Mrinal Das, Jacobs Engineering, India <i>Codes & Standards, esp. with Regard to Compatibility of Different (Inter)national (Safety and Quality) Standards and Challenges Arising from Differences between Them</i>
12:30	Tommaso Coppola, RINA Consulting – Centro Sviluppo Materiali, Italy <i>Microstructurally-Based Methods for Residual Life Assessment of Components at High Temperature</i>	Stephan Heppner, Outokumpu, Germany <i>With Simulation to an Award-Winning Application</i>	Yassar Ghanimi, Andritz, Austria <i>Mechanical Surface Treatment of the Soft-Martensitic Stainless Steel F6NM (1.4313) by Means of Deep Rolling and Its Effect on Hardness, Roughness and Residual Stresses</i>

13:00 CLOSING