ALUCAST 2020 – Summary

Zoom – 11 & 12 December 2020

Aluminium Casting Technology for the 20s

The Conference was inaugurated and addressed by Mr T Parabrahman, former CEO & Managing Director of Kirloskar Toyoda Machinery Ltd and the ALUCAST Trustee in Bangalore. He mentioned that this is the first of its kind – a conference resulting out of our experience and response to multiple webinars conducted over the past six months. It has elicited a tremendous response with nearly one hundred and fifty delegates from all over the country registering to listen and interact over the next two days with a galaxy of domain experts covering a wide array of technologies relevant to the die casting industry. We would also have the opportunity to see some unique product presentations to help us brainstorm the way ahead. This effort has resulted in opening of doors to many opportunities for us to become manufacturers for the world. The Prime Minister’s call of “Atma Nirbhar Bharat - Produce in India for the World” should not remain as a slogan but a way forward for all of us in the industry. The aluminum casting industry is no exception and we see new opportunities in every aspect of the die casting process. The surging demand from auto, electrical, white goods, aerospace and defense industries is a clear indication that the pendulum which had swung towards gloom and depression has started swinging back with great momentum towards a greater global demand cycle.

The first paper was on Surface treatment on Dies by Dr Stephen Midson, President, Midson Group, Denver, USA and a Consultant with NADCA. This paper was on PVD (Physical Vapour Deposited) AlCrN coating which improves the overall performance of a die and extends its useful life. The next presentation was on thermal vision on real time temperature monitoring of dies by Mr Adarsh Maheshwari, Marposs India. The third paper was on Triggering Technological Transitions by Mr Jayesh Rathod, Godrej Tooling Division. The fourth presentation was on using X-ray Technology to Control Rejections immediately after casting stage. It was presented by Mr Hemant Kumar of Carl Zeiss India, and mentioned about in line defect analysis in a technology which few industries have realised.

The fifth paper was on Digitalisation Application along with Automation by Mr Jagannath V of BFW/m2nxt Solutions by using indigenously developed IRIS system which essentially aids Industry 4. It was an excellent presentation extending to smart intelligent devices to monitor automation. Next was a presentation on “Fusion” the next generation die casting machine by Mr Michael Cinelli of Buhler AG Die Casting in which he highlighted the innovation and capabilities of these new machines. This was followed by a paper on Advanced Aluminium Refractory Technology by Mr Bryan Nelson of Allied Mineral Products. It was early morning in US and he was up and ready to present his paper. He highlighted the improvement in refractory material which reduces corundum formation, improves refractory lining life in melting and holding furnaces. Last paper on the first day was Vacuum Die Casting Technology and the level vacuum required for good die casting parts by Mr Jan Emmenegger of Fondarex, Switzerland, who explained in detail about vacuum required inside a die as well about die seals

Day Two began with a Special Address by Mr. Kaushik Manna, COO of Rockman Industries. He remotely released the ALUCAST Conference Technical Volume. He remarked that change is investable and change is now new constant.

The first paper was on Improvement of Melt Quality by using their new MTS 1500 and VMET Melt Quality Assessment by Mr Philippe Kientzler of Foseco International. He mentioned about new fluxes which improve cost saving, reduces loss of metal in dross, better strontium pick up in molten metal, reduced grain size and hence better mechanical properties. This was followed by Advanced and High Performance Die Lubricant Technology for True Cost Saving by Mr John Belyk of Chemtrend L.P. He highlighted the importance of selecting the correct lubricant to improve metal flow characteristics. The third paper of the day was on using Simulation Techniques to Optimise the Casting Process for developing high quality castings. This was presented by Mr B Kaushik of Kaushik International with number of case studies – a presentation that was outstanding and well received. The next presentation was on Shibaura Die casting machines by Mr Deepankar Agarwal on their die casting machines with advanced technology.

The afternoon session was started by Mr Christian Kleeberg of RGU Asia Pte. Ltd. with paper on Digitalisations of Metal Casting Operations and ten common misconceptions on digitalisation. It gave good tips to start Industry 4. The next presentation was by Bharat Fritz Werner on High Speed Machining Solutions for Aluminium Die Casting and presentation was made by Mr Praful Shende who explained in detail about building new generation machine tools to suit customer requirements. The seventh paper of the day was on Tool Steel Solutions by Mr Pulkit Datta of Hitachi Metals India. He explained in detail about melting, refining, re-melting, forging and heat treatment of tool steel. The last presentation was on Autonomous Engineering for Die Casting Applications by Ms Kanaka Lakshmi of Magma Engineering India Pvt. Ltd. An excellent case study was presented.

In all we had about sixteen presentations spread over eight sessions on two days. Sessions were chaired by Mr Anurag Luthra (ALUCAST – Delhi), Mr Tej Bambra (ALUCAST – Delhi), Mr Rahat Bhatia (ALUCAST – Delhi), Mr Natarajan Ganeshan (ALUCAST – Trustee) and Mr Niranjan Toraskar (ALUCAST – Trustee & Hon Treasurer).

The Principal Sponsor was Rockman Industries Ltd and the Pen Drives were sponsored by the Raga Group.

Associate Sponsors included Endurance Technologies Ltd, Sundaram Clayton Ltd, Jaya Hind Industries Ltd, Bharat Fritz Werner Ltd/M2NXT, Frech India Machinery Pvt. Ltd,(along with Robomat and VDS), Lubrikote Specialities Pvt Ltd, Maini Group and Prex India Automation Pvt Ltd.

Over 150 registered and took part in the event while at remote locations, teams from the supporting companies viewed the proceedings on large screens in conference rooms and halls.

Mr Vivek Vibuti and his team from Rockman Industries Ltd managed the platform and conducted the event. Technical assistance for the event came from Brand Studio in Pune, with anchoring by Ms Samidha Kolhatkar (with Mr Rahul Awati). The Advisory Committee to the Conference included Mr Ganeshan Natarajan, Mr Niranjan Toraskar, Mr Vishwas Kale, Mr Rajesh Aggarwal, Mr Suhas Palekar and Mr Rajendra Prasad. Marketing efforts were extended by various people, including Mr Govindrao Vasudevan and Mr B B Lohiya.