Availability: a road-map

The second day of the Stainless Steel World Conference 2017 saw an Plenary Discussion on the topic of Availability, inviting exhibition participants to engage in the conference. This innovative session proved to be a real hit with the mixed audience who became fully engaged in various discussions.

By David Sear

Dr. Lars Rose from DowDuPont in Germany (insert, and standing left) was an outstanding chairman, encouraging and facilitating open dialogue between panellists and the audience. Insert photo courtesy Heidrun Spohr.

The Discussion was opened by Dr. Lars Rose from DowDuPont, who did an excellent job in creating an open platform in which the panellists and the audience were eager to participate, sharing their concerns, success stories and suggestions on how to improve availability of stainless steels.

In fact, the discussions were so 'fast and furious' that it would be practically impossible to record everything that was said. Therefore, the following notes are intended to highlight some of the key discussion points during the discussion and to give a flavour of the positive exchanges between those present who represented the entire length and breadth of the supply chain. We also invite our readers to continue the discussion on this topic in their circles to advance these points for the benefit of all in the stainless steel industry.

1) Communication is key

An important point that was raised time and again was the need for open, honest communication. "If you are purchasing a repeat order of a commodity item from a regular supplier then you can get away with sending an email. But if you are looking to procure niche products then you need to start a proper dialogue with your source." said one panellist. "Talk to each other. A knowledgeable stockist can help you identify your needs, helping to prevent delays later on," commented another.

There was also a general sentiment that small stockists can find it hard to access the right people within large companies such as the chemical or oil and gas majors. One participant observed: "anonymized pre-project procurement questionnaires may act as barriers to communication." Consequently, better lines of communication would help tremendously as future equipment users may not be properly aware of the properties of more advanced alloys. "Using a nickel alloy is quite a different matter from selecting 304 stainless steel," was a telling comment. "Moreover, small specialist stockists often know the best way to obtain hard-to-find items."

Some participants went further and encouraged better, direct communications between the steel mill and the EPC or even the end user. "End users need to ensure their requirements and expectations in terms of alloys are properly defined and appreciated. The steel mill should be involved in that process. If the metallurgist adds in extra requirements later on, that can mean additional expensive testing and delays in availability." This prompted a further comment: "having a direct line of communication between the metallurgists at the mill and the metallurgists working for the end user or EPC can vastly help in reducing lead time and costs, and can help in ensuring that the correct alloys with the best properties for the final application are chosen."

2) Standards are necessary

Many industries are, it seems, bedevilled by the question of standards. Indeed, standards could rightly be described as a 'hot topic' during this particular discussion, with several people expressing the sentiment that there are too many and too diverse standards which lack input from materials engineers working for end users. As an aside, one observer wondered why end user companies added extra requirements to existing specifications such as ASTM. "Including extra requirements with regards to materials will make it very hard to fulfil any subsequent MRO needs once the plant has been commissioned," he said. In reply, an end user present stressed that his company was in fact working to harmonise standards both internally and in conjunction with peers. Several others chimed in to agree, with one comment being that specification changes were only ever done for very sound reasons, often as a result of failures in the field, in order to make the overall industry safer.

A stockist then highlighted the financial ramifications of changes to standards and specifications. "If a product specification is changed, even to a very small degree, it might mean that we are left with stocks that we simply cannot sell. I would therefore urge people who contribute to specifications to consider the effect changes can have on stockists and in consequence on availability, cost, and lead time."

This prompted another participant to give the following message to end users. "By all means try and identify the best possible alloy chemistry for your application but do consider whether it might be worth making concessions. If you can keep within existing common standards it will help to ensure product availability before and after your project."

Summing up this area of debate, Dr. Rose indicated that platforms such as Joint Industry Projects, ASTM, NACE, the MTI (Materials Technology Institute) which he co-chairs in EMEA and also Stainless Steel World can and do motivate and facilitate end users in creating new harmonized standards. He pointed to recent success stories, including welding standards, the Duplex ISO 17781 and the global effort to harmonize ASTM standards (e.g. ASTM A 350 LF2 grain size / impact requirements). The common goals always being, he indicated, to simplify supply chains and requirements, ensure all stock is manufactured to and tested with the same procedures, and to make operations at the end users safer.

3) Developing trust

The need for trust in the supply chain was another hot topic that kept bubbling to the surface throughout the session. The question, of course, is how can trust be built and then maintained? Many people agreed this is best achieved by re-humanising the process of procurement. For example, by encouraging end users and EPCs to visit the original manufacturers and also by involving purchasing departments in the Stainless Steel World Conference and in technical discussions.

Whilst discussing visits, one stockist reaffirmed that he always invited purchasers to visit and see for themselves the challenges facing some stockists. "It's his fingers crossed that the manufacturer can deliver unique parts on time? Or does he rely on fellow stockists to meet any shortcomings? This can be a real headache. So I recommend purchasers to visit and get a better understanding of the challenges facing us in terms of quality and availability." Similarly, a panellist outlined the difficulties facing companies stocking clad materials. "There are so many options in cladding, that it is challenging to stock all the right material combinations for the customers," he said.

But back to the concept of trust. A good example of how trust can benefit both sides came from a steel mill representative who recalled working with a shipyard that built chemical tankers. "We spoke at length with their design team about suitable metallurgies and helped them to make the best possible use of our plates. The willingness of both sides to divulge information in this way has created a win-win situation for all. Not only do we share the risks but this arrangement makes it more attractive for us to hold safety stocks."

Rounding off the topic of trust, one stockist warned of the dangers of opting for the lowest price. "Sadly materials certificates are easily forged, so if you place an order with an unknown source then how can you say you trust that source? You may not be getting the materials you think you are."

"When identifying the best possible alloy chemistry for your application do consider whether it might be worth making concessions"

4) Expertise is essential

Materials engineering is without doubt a venerable and respected field, yet sadly the 'knowledge pool' is declining for obvious reasons, including an aging workforce (both materials engineers and procurement officers) as well as the outsourcing of procurement and materials engineering to ever-changing contractors and consultants often selected based on lowest cost bids.

Solutions proposed during the ensuing debate included urging end users and EPCs to keep materials engineering expertise in-house and not to rationalize it all away. Also, end users and others should make proper arrangements for knowledge transfer to successors.

Luca Pentericci (Raccortubi Group, on left) answering a question from the audience, with Hiromichi Tsuchiya (JGC) looking on.

The panellists came from all sides of the industry, including stockists/suppliers such as Lizette Hartholt (Hart b.v.) and EPCs like Mrinal Das (Jacobs Engineering).

for improvements

Commenting on the knowledge level, one gentleman who has had work experience around the globe said that people should not simply assume that comparable piping design groups will have equal knowledge about special alloys. "When it comes to grades such as duplex, super duplex, 6 Mo and similar alloys, there can be a considerable lack of knowledge in some countries. Staff need to be well educated and told not to simply rely on what they pick up from the Internet."

Further discussing expertise, another comment from an EPC was that perhaps the steel mills – who do a considerable amount of research – could be more open when it comes to passing on knowledge. "For example, they are the ideal people to educate the fabricators about best practices for working on and welding exotic grades."

5) Understanding the cost considerations

And last but by no means least, the discussion revealed that whilst "the supply side" may in fact be perfectly able to make and deliver less common items in good time, end users might not always be willing to accept the necessary higher prices or lead times. As one fittings producer commented: "Suppose a client wants a single piece from a special alloy, but also requires extensive testing. That can mean we have to produce two or more perfectly good pieces, and then destroy at least one of them. Who will pick up the bill for that destroyed item?"

A similar message came from a steel mill executive: "When we quote orders for special alloys we have to bear in mind our smallest melt size. Sadly, it may not make economic sense to produce an order for, say, ten tonnes of an exotic alloy if the minimum melt size is eighty tonnes."

With time fast running out after more than two hours of intense discussion, Dr. Rose closed the discussion, thanking the panellists and the audience for their active participation. The positive spirit during the session was nicely encapsulated by one participant who, on leaving the hall, was heard to remark: "If you want to get a range of people with different interests talking constructively about a common topic, then a discussion like this at the Stainless Steel World Conference is a superb place to do it!"

Liam Bates (Outokumpu) bringing yet another apt observation on availability.

The discussion benefitted from having panellists from around the globe, such as Freddy Busschaert (TOTAL in France) and Norbert Heinzle (BUTTING, Germany). Other members came from Sweden, India, the Netherlands, Italy and Japan.

Thank you to all the panellists

Stainless Steel World wish to express our sincere gratitude to all the panellists for taking part. Their willingness to freely share their professional experiences and insights really made the Discussion come alive. Taking part were:

- Liam Bates, Outokumpu, Sweden
- Freddy Busschaert, TOTAL, France
- Mrinal Das, Jacobs Engineering, India
- Lizette Hartholt, Hart b.v., the Netherlands
- Norbert Heinzle, BUTTING, Germany
- Luca Pentericci, Raccortubi Group, Italy
- Lars Rose, DowDuPont, Germany (chairman)
- Hiromichi Tsuchiya, JGC, Japan

Experienced metals professional open for new opportunities

An experienced, enthusiastic, innovative manager (MEng.) with an extensive knowledge of cold and hot forming, forging, and the welding of all type of steels/alloys/metals, is searching for a new challenge/opportunity.

He has a demonstrated history in industrial engineering as a Technical and Managerial Director. Further, he enjoys training engineers and craftsmen to improve quality. A strong mechanical engineering professional with expertise in materials, metallurgy, welding, and many other aspects of production, he also has experience with products from almost every industry: from food to aerospace, from wind energy to nuclear power, and from oil & gas to petrochemicals. He has performed an extensive amount of research during his career. Though his home base is in The Netherlands he has also worked in Belgium, Germany, Saudi Arabia, Romania, the US, and Mexico. He is used to greenfield projects, from a complete production plant in Saudi Arabia (his biggest achievement) to production lines and machines. All projects included training the personnel. The type of work association he is looking for is based on long-term projects but he is also prepared to accept short-term ones. He is willing to work world-wide and speaks and writes fluently in Dutch, English, and German.

PROFILE

- Very good analytical skills;
- Innovative, quality driven;
- Skillful in communication, can work with and talk to every level of employees;
- Team player, but can work very well independently as well;
- Focused and determined in the attainment of goals.

If you would like to contact this person `then please send us a message at: jobapplication@kci-world.com

SSW India journal launch!

The launch of a dedicated journal for the Indian stainless market is an exciting development for the world's second largest stainless-steel producer. The Indian publication compliments existing brands Stainless Steel World, Stainless Steel World Americas, Stainless Steel World News, and Edelstal Aktuell. Stainless Steel World India Journal is a dedicated publication for the Indian market with primary distribution in India, Iran, Kuwait, Oman, Azerbaijan, Jordan, Kazakhstan, Qatar, Saudi Arabia, Sri Lanka and UAE and additional secondary distribution in Europe and the USA. For information on editorial or commercial content please contact Mrs. Kay Creedon at k.creedon@kci-world.com

Pictured is Mr. Dilip Chandan, MD of Chandan Steel (left) and Mr. Aashish Sanghvi, MD of Raaj Tubes.