

NEWS

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CHAIRMAN'S REFLECTIONS

As with most industries currently, we are being assaulted with bad news regarding product pricing, availability and transport. And yet despite being at the bottom of the world, anecdotally as an industry we are coping better than possibly Europe and the US. With a larger proportion of our stainless steels being imported from Asian producers where the effects of Covid have been less severe than in other regions, mill production has continued with relatively minimal production delay lead times, and to date little capacity restraint. Customers in Europe are already facing first quarter 2022 production with allocated availability, and recently NAS in the US advising force de majeure due to inadequate gas supplies.

So positive news is welcome currently and I have been trying to find some. Attending the recent SESOC conference in Hamilton where I hosted a video presentation that Tim Collins of ISSF generously recorded for NZSSDA, I was struck by the possibilities that exist to make an impact into the structural engineering market. Amid a range of papers on concrete, carbon steel, coatings and design I realised that the term "sustainable" kept being mentioned, together with slightly hesitant or embarrassed use of the words... stainless steel.

From the brief Q&A at the end of our presentation, it was apparent that most of the approx. 40 attendees had little knowledge or experience of working with stainless steel. What an opportunity and challenge for our product and association!

We received advice that the standard AS/NZS 4673:2001 Cold-formed stainless steel structures was being withdrawn by Standards Australia (much to the surprise of ASSDA and the concern of some of their members). At the time we canvassed our membership and received no feedback, but subsequently it has been raised with me. Once again it shows the need, and the opportunity, to expand our membership base. Because the use of stainless steel for structures overseas has expanded markedly, and we need to actively promote it here in the NZ market.

There are new standards and specifications in both Europe and the US entering the final stages of consultation, and the withdrawal of AS/NZS 4673 gives us the opportunity to learn about and promote these new international standards. With more infrastructure being specified and designed for NZ both overseas as well as locally, we need to give our local structural engineers and consultants the opportunity to become aware of these developments.

Unfortunately the AGM has had to be postponed due to the current Covid level. As soon as we return to a level where the AGM can be held in person we will notify you of the date.



Paul Gapper

CODE OF PRACTICE
FOR THE FABRICATION
OF STAINLESS STEEL
PLANT & EQUIPMENT®



What is the Blue Book?

On joining NZSSDA a free copy of the NZSSDA Code of Practice for the Fabrication of Stainless Steel Plant & Equipment is available. Make sure you have received your member copy. If you are not a member or would like an additional copy please complete the order form on the website www.nzssda.org.nz.

INCOMING NZSSDA EXECUTIVE FOR 2021-2022

Thank you to those who put their names forward and for their commitment of time and effort agreeing to being on the NZSSDA executive.

Here are the executive for the 2021-2022 year.

Boyd Carruthers - Stainless Works

Campbell Batts - Spiraweld Stainless

Gavin Fuszard - Longveld

Ian Foster - Industrial Tube Manufacturing

Mick Bell - Southern QA

Paul Gapper - Stainless Products ,

Prassanna Manoharan - GEA New Zealand

Roz Reekie - May - Tetra Pak

SESOC CONFERENCE

NZSSDA were invited by the Australasian Corrosion Association to provide a presentation to the SESOC (Structural Engineers Society) conference that was held in Hamilton on 5th and 6th July.

Paul Gapper introduced a pre-recorded power point presentation with accompanying video provided by Tim Collins, secretary-general of the International SS Forum (ISSF) based in Belgium.

The session was well attended by over 40 structural engineers, and resulted in a number of questions following Tim's presentation. Of particular interest was the increased use of lean duplex for bridge construction, and the growing awareness of the Life Cycle Costing advantages over whole of life for this infrastructure.

It is planned to run the presentation to members at our AGM which is being held 24th August 2021.



STAINLESS STEEL SPECIALIST COURSE

The **Stainless Steel Specialist Course (SSSC)** is a breakthrough educational tool that provides a standard level of knowledge and qualification across the industry. It provides comprehensive information about every aspect of stainless steel practice in Australia.

It is an advanced and effective e-learning tool, and is designed to improve your knowledge of stainless steel, its properties, performance and uses. It consists of 17 challenging and rewarding modules delivered and marked online, covering a wide range of topics from introductory to more complex material. Input from the industry has ensured that topics covered are relevant to the workplace. It is useful for anyone specifying, manufacturing or working with stainless steel.

If you are interested in registering for the course please send an email to admin@nzssda.org.nz.

LES'S CORNER - TRUE OR FALSE

Welcome to Les's corner where he will ask and answer a True or False Question.

In recent years the use of solid fuel heaters in houses has led to an increase in the use of lightweight stainless steel flues to extricate the hot flue gases.

The grade of stainless steel best suited for fabricating a solid fuel flue is grade 304 austenitic stainless steel (SS).

Grade 304 SS has heat resistance and it is also corrosion resistant against any corrosive fumes being extracted from the solid fuel stove into the flue.

Question : Can 304 SS lightweight flue be fabricated by welding?

CHROMIUM MEMBERS

GOLD MEMBERS



LONGVELD ACHIEVES EXCELLENCE IN QUALITY MANAGEMENT



Source HERA / articles for Michail Karpenko (I thank you to HERA for allowing NZSSDA permission to use this article.)

In the age of Industry 4.0 and advanced quality control systems, Longveld has become the first New Zealand stainless steel fabricator certified by HERA Cert.

This process has seen them meet the requirements of the International Institute of Welding Manufacturer Certification Scheme IIW ISO AS/NZS 3834 Part 2 – Comprehensive.

A drive to expand and refine capability

Longveld was founded by Pam and Les Roa in 1992 with little more than a toolbox, a welder and some great trade skills, to provide stainless steel site installation services to the dairy sector in Australasia.

Managing Director Pam Roa saying: “We led a number of site-based teams carrying out projects in New Zealand, Singapore and Indonesia, and by the end of the 90’s our customers were asking us to apply our high level of quality, and attention to detail, to the fabrication of stainless steel primary processing equipment.”

Since opening their fabrication facility at the current site in Hamilton in April 1999, they’ve continued to expand and refine their capability, particularly in their project engineering and design team. **Read more**



NEWS FROM AROUND THE WORLD

The Global Life Cycle of Stainless Steels - source - worldstainless.org



The results of a recent Team Stainless study concluded that on average, 85% of stainless steels are recycled once they reach their end of life, either to become new stainless steels (56%) or a valuable iron source for carbon steels (29%). The study also considered the recycled content of stainless steels (the amount of scrap used in the production of new stainless steels). Globally, the average recycled

content of stainless steel was 44% (32% stainless steel scrap and 12% carbon steel scrap). However, there were significant regional differences, for example, in the USA and Europe recycled content of stainless steels was 71% and 70% respectively. The global figure is strongly impacted by China which, in 2015, produced 52% of the world’s stainless steels but contained on average only 23% recycled content. It is likely that this reflects the fact that the availability of scrap stainless steel in China is lower because most in-use stainless steels have not yet reached their end of life. **Read more:**



NEWS FROM AROUND THE WORLD IS SOURCED FROM - ISSF, ASSDA, IMO A , WORLD STAINLESS & NICKEL INSTITUTE .

LES'S CORNER - AND THE ANSWER IS

Answer - False

Although grade 304 SS will provide some years of service life as a solid fuel flue, 304 SS is unlikely to provide long term durability in flue applications.

Grade 304 flues may degrade early and even fail prematurely by cracking due to a metallurgy problem. .

Flue gas temperatures in solid fuel heaters may get as high as 500 deg C.(during over-firing). Grade 304 SS is not a good heat-resistant SS for such potential high temperature applications.

Grade 304 SS is not a low carbon grade (required for SS fabrication involving welding) and the L grade is used to avoid "sensitization" at high temperatures, which can lead to cracking.of the 304SS exposed to high temperature flues over time in service.

Grade 316L (low carbon grade 316 SS) would give better service life for solid fuel flues than would grade 304 SS.

However, for maximum performance and durability the flue is best made from a high-temperature grade stainless steel such as austenitic SS grade 310S.

Grade 321 austenitic SS would also give good durability but this alloy is not readily available now.

Do not be tempted to employ duplex grades of SS in high-temperature flue applications, e.g. grades 2101 SS & 2205 SS, as the duplex SS family is not high temperature resistant.

There are also a number of special grades of SS that are specifically designed for high temperature applications, but these SS alloys are often very expensive .

