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# STAINLESS INDIA VEARS AMAGAZINE PUBLISHED BY

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May 2013

## Stainless Steel Water Tankers: Delivering Clean Water at your Doorsteps



Stainless Steel Water Tankers (Delhi Jal Board, Govt of NCT Delhi)

Access to clean potable water is the right of every citizen in a healthy living environment. With city population swelling up every year, there is an ever increasing demand of clean water. To overcome the serious shortage of potable water supply, especially in peak summer months, Delhi Jal Board, responsible for production and distribution of potable water in the National Capital Territory of Delhi, runs a fleet of water tankers to fulfil the requirements of its residents. Tankers filled with water is the main mode of transporting water to areas in case of shortage or failure in direct water supply.

Water supply tankers are conventionally made of carbon steel. In Delhi also the water tankers made of carbon steel have been in use for a long time. Recently,



Stainless Steel 304 water tankers being mounted on chassis of the vehicle

state-run water utility Delhi Jal Board (DJB) decided to privatise the water tanker management system in the national Capital and awarded the contract to three private companies to run 385 water tankers in 3000 ltrs and 9000 ltrs *Continued on page..2* 

#### Continued from page..1

capacity. The decision to convert the existing carbon steel tankers with stainless steel (AISI 304) was taken after a long discussion between various stakeholders. Delhi Jal board was explained about the benefits of using stainless steel for potable water system. Once the excellent hygienic properties, high corrosion resistance, longer life, life cycle costing, better strength and formability of stainless steel was explained to them it was an easier decision to make.

#### **Hygienically Reliable**

World Health Organization, a specialized agency of the United Nations (UN) concerned with international public health, in their technical note on 'delivering safe water by tanker highlights the fact that stainless steel is safe for suitable storage and transportation of potable water. The easy cleaning ability of stainless steel makes it the first choice for strict hygienic conditions.

It has been proved that Stainless steel's cleanability is similar to that of glass, porcelain and far superior to plastics, aluminium and earthenware.

For Delhi Jal Borad (DJB) one of the prime reasons to select Stainless steel was to ensure the hygiene, purity of water and assurance that tankers will not degrade in service. Thanks to stainless steel excellent corrosion resistance it is one of the best materials to preserve the quality of water. There has been complaint to Delhi Jal Board about the severe rusting of mild steel tanks promoting bacterial overgrowth. It was informed that inside surface of steel tankers are painted with black coal tar paint which over a periodic use dissolves into the water posing serious health issues.

#### Lighter and Stronger

When it comes to design, stainless steel offers same strength at lower thickness. Stainless steel (AISI 304) high strength permits the use of lighter gauges than other metals - and at prices competitive with most of them. The tankers for both 3000 & 9000 ltrs capacities are built of 4mm thick sheets and are as light as nearly 500 and 1100 kg respectively. Lower weight helps in achieving higher fuel efficiency. Stainless steel resists



Fabricated SS water tanker with ladder and mud-guard all in SS 304



Mass Production of SS 304 Water tankers

denting, nicking and scratching under the most vigorous of operating conditions.

#### Costs less over the service life

There is an increasing awareness that life cycle costs, not just initial cost, should be considered when making a decision and Delhi Jal Board took the decision considering the fact that expected service life of stainless steel water tankers will be more than 5 times than that of steel tankers. Although the initial cost of each tanker is nearly twice than that of steel tankers but this incremental initial cost is recovered in few years considering the downtime, maintenance and replacement of rusted steel tankers over a period of every 3 to 4 years. Because stainless steel does not corrode under normal conditions and never needs paint, costly maintenance is cut down drastically. Stainless steel is eco-friendly as it is fully recyclable and offers high residual value compared to steel tankers.

Riding on this success, ISSDA will be approaching other municipal corporation in different states of the country and will explain the benefits of using stainless steel for water transportation and this could translate into a huge market potential.

## Stainless Steel Centenary Symposium (SSCS2013)

The global stainless steel community is marking 100 years since stainless steels were first discovered, patented and produced. Since then, stainless steel has grown to be an integral part of our modern world. To mark 100 years of discovery of stainless steels, a number of events are taking place in India and the rest of the world.

We are glad to inform you that Department of Atomic Energy Government of India is organizing a Stainless Steel Centenary Symposium (SSCS2013) with Indian Institute of Metals. This symposium is being organized in association with Indian National Academy of Engineering. ISSDA has extended its full support to the symposium. This would take place during August 12-14, 2013 to coincide with the completion of 100 years (on the widely accepted date) for discovery of stainless steels.

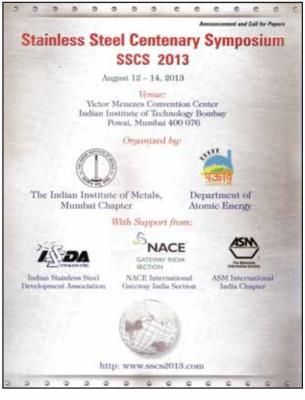
The objective of the symposium is to take a stock of the latest developments and advancements in various fields related to production, fabrication and experience of tackling corrosion and achieving long service life of components in various industries. Prominent scientists, leading people from academic and stainless steel industry from country and abroad will enlighten you with their knowledge, experience and innovation with stainless steel.

## Topics covered would include

- Melting and refining
- Fabrication/forming
- Welding & Joining
- Physical metallurgy
- Corrosion and its control
- Experience from use of stainless steels in various industries including newer varieties of stainless steels and its properties

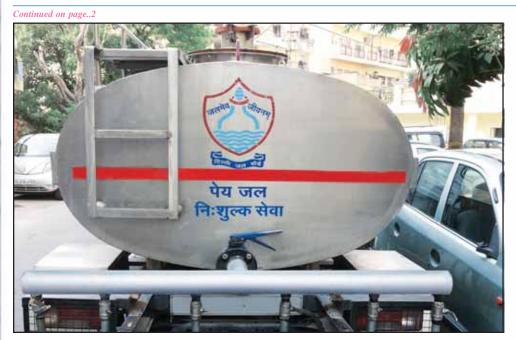
### Who should attend

This centenary seminar would bring together all those who are involved with stainless steel - making, shaping, treating, use, research and development etc. The focused thematic symposia would be useful for engineers, technicians, managers, scientists, researchers. users. architects, fabricators of stainless steels. It would be an appropriate forum to look back at the beginning of stainless steels and how far we have come with stainless steels.



#### For details contact:

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#### Photo courtesy :

Mr. Firoz Alam (Mfrs. of SS water tankers) **Fabtech Industries,** B-58, Sector 83, Phase-II Extn. Noida, U.P. Mob : +91-9350703008

#### For details contact

Mr. Gurpal Dhamja, Director Metro Waste Handling (P) Ltd. and City Life Line Travels (P) Ltd. Ph: 011-2382 0009 www.citylifeinfra.com

## Latest Global Stainless Steel Production Trend

The International Stainless Steel Forum (ISSF) has released preliminary figures for 2012 which show that world stainless steel production grew by 5.2% to reach a record high of 35.4 million metric tonnes (Mt).

Again China accounted for most of the increase in production. Stainless steel production in Asia (excluding China) decreased by 0.6% to 8.7 Mt in 2012. Japanese production reduced by 2.5% to 3.2 Mt, while Taiwan, China lost 7.8% of its stainless steel production over the year. Few countries in Asia increased output, though Korea (+0.5%) and India (+5.3%) achieved positive growth during 2012.

Even during the recent years of reduced economic activity, China has been the principal growth area for stainless steel production. During 2012 it increased production by 14.2% to reach 16.1 Mt (based on corrected figures for 2011 and 2012). Together, Asian stainless steel producers now account for 70% of global production.

Western Europe and Africa is the second largest stainless steel producing region despite lower production during 2012. Volume for the year reached 7.8 Mt, down 0.7% compared to 2011. Growth rates for

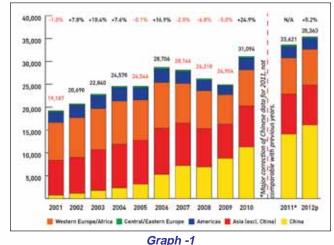
individual countries in the region ranged from -13 to +8%.

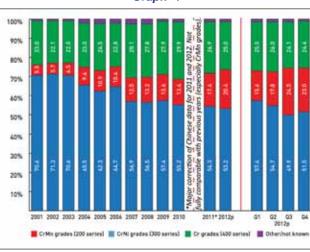
Stainless production in the Americas was 4.7% lower than in 2011 with a total output of 2.4 Mt. In Central and Eastern Europe output dropped by an average 8.2%. Total production was, however, 0.4 Mt, which is almost negligible in global terms.

**Graph 1** shows the stainless crude steel production by region 2001-2012 (p) ( in '000 metric tones)

Over the past few years, the stainless steel market has seen major changes in the grades of stainless steel produced. Chromium manganese grades have become increasingly important in this time. More recently, production of chromium grades has also increased.

**Graph 2** shows the market share of three main categories of stainless steel. The data is based on reports from ISSF's stainless Steel producing members.





Graph -2

Source: International Stainless Steel Forum (ISSF)

# STAINLESS STEEL

## 🛾 Conference & Expo 🖿

Following a number of successful events around the globe since the 1990s, the Stainless Steel World Conference & Exhibition will again be hosted in Maastricht, the Netherlands, from 12th to 14th November, 2013.

This international platform will provide a professional setting in which materials experts can update their knowledge on the development, specification and application of a range of corrosion resistant alloys in key industries.

Mr. N C Mathur, president Indian Stainless Steel Development Association

#### will also be speaking on the subject "Latest developments in the Indian Stainless Steel Market and with the 200 series" in the plenary session 6 on 13<sup>th</sup> November 2013

The Stainless Steel World Exhibition will again run in parallel with the conference. Drawing suppliers and buyers from around the globe, the exhibition is a strong platform to showcase company products, services and activities.

For further information please contact:

## 12th - 14th November, 2013

## Maastricht Exhibition Congress Centre Maastricht, The Netherlands

#### **Conference Information:**

Mr. John Butterfield, Conference Manager Tel: +31 575 789 294, Fax: +31 575 511 099 E-Mail: j.butterfield@kci-world.com

Ms. Kiyo Ichikawa , Conference Coordinator Tel:+31 575 585 298 ,Fax: +31 575 511 099 Email: k.ichikawa@kci-world.com

#### **Exhibition information:**

Mrs. Ladan Pourtork, Sales Director Tel: +31 575 585 292 Fax: +31 575 511 099 Email: I.pourtork@kci-world.com

Mrs.Elisa Hannan,Sales Coordinator Tel: +31 575 585 291, Fax: +31 575 511 099 ISSDA's participation at National Association of Students of Architecture at Gateway College of Architecture and Design in Sonepat, Haryana



ISSDA participated in the "National Association of Students of Architecture" (NASA) organized at Gateway College of Architecture and Design in Sonepat on 26<sup>th</sup> January 2013 and was one of the sponsors for this event. Architectural sector is one of the rapidly growing markets where stainless steel is fast replacing the conventional materials. This event brought together young architectural students and interior designers in large numbers from all over India.

Mr N C Mathur, President, ISSDA, was a keynote speaker and enlightened the students with a presentation on the basics of stainless steel and showcased innumerable applications of stainless steel in the Architecture, Building & Construction (ABC) sector from around the world.

Many architects, designers, students and people from different walks of life interested in new products available in stainless steel visited ISSDA stall. Various products highlighting the applications of stainless steel in building hardware and construction industry were displayed in the stall. Visitors were informed that ISSDA, having wealth of information and technical resources, can help them to resolve their queries on stainless steel free of charge.



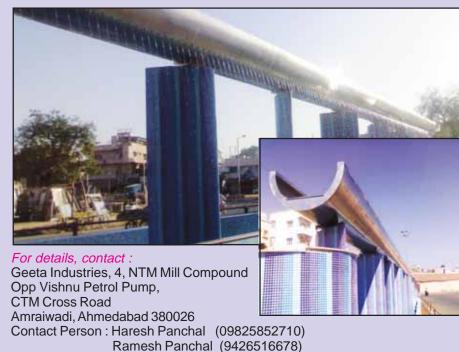
Special issue of A+D magazine which showcased the new and innovative applications of use of stainless steel in the ABC sector were distributed to architectural students visiting our stall. They were also encouraged to visit ISSDA's website <u>www.stainlessindia.org</u> and contact us for any technical help related to stainless steel and its applications.



## A fountain in stainless steel

Fountains have always been one of the most elegant and exciting way for water displays. When you pass next time to New Wadaj, Ahmedabad, you will see a beautiful water fountain fabulously falling amid the chaos and noise of the city providing a sense of coolness to the passersby in the blistering heat of summer. In its beautification drive Ahmedabad Municipal Corporation installed this fountain designed in a semicircular profile. Standing 125 feet long and 4 feet wide it is the longest fountain in the city. 2.00 mm thick stainless steel AISI 304 has been used with a hairline finish. Resting on decorated concrete columns, the fountain displays the beauty of streamline flow of water in contrast with gleaming stainless steel complimenting each other.

The fountain has been fabricated and installed by Geeta industries, Ahmedabad, Gujarat, who are well known for their innovative architectural works in stainless steel.



## Highly Durable Stainless Steel Handrail and Baluster Systems at International Cricket Stadium, Ranchi



Cricket is the second most popular sport in the world and in India it is the most popular and draws thousands of people to the nearest stadium. You will rarely find a stadium even partially empty when a cricket match is going on. Recently built International Cricket Stadium, located in Ranchi - Jharkhand, is one of the most popular junctions of cricketing events in Ranchi. It attracts thousands of spectators and there was a need to install a maintenance free sturdy handrails and Baluster Systems to ensure safety of visitors standing or leaning by it while also having an aesthetic appeal. Offering an ideal solution, AISI 304 Stainless Steel Handrail and Baluster Systems matched these intricate set of demands perfectly. The project was finished by Kich Architectural Products Pvt. Ltd. A variety of its Top Mounted Square Baluster Systems with Horizontal Members were duly installed in staircase, atrium, seating riser and bleacher areas with total length of Handrail amounting to 10,367 running foot (RFT).

Stainless steel AISI 304 offers high resistance to atmospheric changes, robust strength and can be easily designed and fabricated. These high quality handrails promise to sustain the graceful charm of International Cricket Stadium for a long time and will shine forever with the shining stars of cricket.

### For details, contact :

Anil Vanjani (Manager - Business Development) KICH Architectural Products Pvt. Ltd. Gondal Road, NH 8B, Vavdi Rajkot (Gujarat), India Ph.: +91-281-3290316/7/8/9 Cell: +91-93760 13638 Helpline No.: +91-9375713638 Fax: +91-281-2361602 E-Mail: anil@kichindia.com Website: www.kichindia.com



Top Mounted Square Baluster Systems with Two Horizontal Members in Atrium Area



Top Mounted Square Baluster Systems with Horizontal Members in Seating Riser Area



Top Mounted Short Height Square Baluster Systems with Top Handrail in Bleacher Area (Step Seating)



Top Mounted Square Baluster Systems with 3 Horizontal Members in Staircase Area

## **Gleaming Stainless Steel at Gautam Buddha University**

Situated at Greater Noida, a NCR of national capital Delhi, Gautam Buddha University (GBU) encourages multidimensional growth through its education and training system. The team of GBU university demanded a modern aesthetically beautiful railing system keeping in mind weather conditions of the installation areas (indoor and outdoor) as well as the design requirements for a regular heavy usage and heavy load bearing capacity.

Different areas of university such as staircase, atrium, ramp, walls and other outdoor area have been adorned with top mounted round baluster systems. Over 9,123 running feet of railing systems are made from AISI 304 Grade Stainless Steel. AISI 304 offers a great combination of strength and corrosion resistance.

The design takes into account the sensitivities of the architect responsible for the project, complementing the nature of civil work.



Top mounted round baluster system with horizontal members in stair case area. These 1100mm height railing system is suppose to be a high traffic area.





Top mounted round baluster system with additional handrail for handicaps.



Outdoor area of campus have been adorned with these short height railing system with AISI 304 Grade Stainless Steel.



Atrium areas are beautified with 38mm dia AISI 304 Grade stainless steel top mounted round baluster system with horizontal solid

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A Seminar on New BIS Standard for Low Nickel Austenitic Stainless Steel -Sheet & Strip for Utensils & Kitchen Appliances



Bureau of Indian Standard (BIS), in association with ISSDA hosted a seminar on the '*New BIS standard for Low Nickel Austenitic Stainless Steel Sheet & Strip for Utensils &* 

*Kitchen Appliances*' at Jindal Centre on 15<sup>th</sup> March 2013, New Delhi. In India utensils and kitchen appliances are manufactured in large quantities by using low nickel austenitic stainless steels. Keeping the interest of the consumers in view, alloy steel and forging sectional committee of BIS, MTD 16 has formulated an Indian Standard IS 15997:2012.

The objective of the Seminar was to create awareness of the above Indian Standard for the benefit of the large section of manufacturers of utensils and stainless steel. The programme was attended by more than 45 participants which included manufactures from utensil industry.

Seminar consisted of invited talks from experts who made significant contributions in the formulation of this standard.



Presentations were made by Mr N C Mathur, Mr. S Sisodia and Dr Arijit Saha Podder deliberating upon the making of this standard and its further usefulness. All the presentations are uploaded on ISSDA website <u>www.stainlessindia.org</u>

ISSDA is thankful to Jindal Stainless Limited for providing organizational support for successful conduction of this seminar. We are hopeful of getting many more standards for stainless steel products approved by BIS for the rapid growth of stainless steel market in India.



A section of the audience.

#### Welcome New Member



## Valbruna Stainless & Nickel Alloys India Pvt. Ltd.

Acciaierie Valbruna S.P.A. is a privately owned producer and supplier of Stainless Steel, Nickel Alloys and Titanium Long Products. It has an annual production of more than 180,000 tons of high quality special steels serving niche markets with high quality products, with excellent support and dedication. The development and the growth of the company is based on precise directions to pursue the objective of quality investing considerable resources in research and the optimization of its products.

With an objective of consolidating its presence in the rapidly evolving economy of the Indian Subcontinent, Valbruna

Group has initiated the launch of its latest fully owned subsidiary, Valbruna India Stainless & Nickel Alloys India Pvt. Ltd. located in Bandra Kurla Complex, Mumbai. Their objective is to influence and develop the Indian Consumers in terms of Marketing, Sales and Service of various Valbruna Products. With the launch of this subsidiary unit they aim to increase their proximity in handling the discussion of gueries with their clients directly which have been developed in this region since early 2006. This subsidiary will provide a better



Manufacturing Facility in Vicenza, Italy



## Salem Stainless Steel Suppliers (P) Ltd.

Established in the year 1984, Salem Stainless Steel Suppliers Pvt Ltd, based in Chennai, India is an authorized dealer of Salem Steel Plant, an Unit of SAIL. Apart from SAIL they also deal with JINDAL, OUTOKUMPU, THYSSEN KRUPP, AXERINOX, APERAM, DKC and many reputed brands all over the World. Their specialization lies in the bouquet of products in which they have carved a niche as one of the leading Stockist, importers and suppliers of Stainless Steel Coils, Plates, Sheets, Pipes, Bars & Fittings etc., They have a ready stock of Approx 1500-2000 MT of Stainless Steel Raw material in various forms. They also serve to global clients with superior quality products. The Chairman of the company Mr.Shantilal. P.Jain believes that only absolute guality and competitive price drives business. With an annual turnover of about 1250 - 1500 Million, their sales surpass over 7000 Tonnes.

Catering to different industrial sections, their penchant is to render absolute satisfaction to customer by providing quality products and expedite service. **SSSSPL** maintains a huge inventory of all product ranges in a fully equipped, well furnished warehouse with technicians deployed for expert handling of the material.

#### **Latest Ventures:**

They also have opened a new Stainless Steel Service center in Chennai. They are the first Stainless Steel trader to open such a facility in whole India. It will offer services like Cut-to-Length (Coil to sheet conversion machine), Matt Finish facility, Shearing facility etc.

**Plans in Progress :** They are in talks and plans to open a Pipe Manufacturing facility with 1000 Tonnes/Month capacity in Chennai. They have also planned to open a Branch in Kolkata.

## Their Contact details :

 Salem Stainless Steel Suppliers (P) Ltd,

 #33, Lawyer Chinnathambi Street,

 Kondithope, Chennai – 600 079.

 Tel . No: 044-23463000/51/53/54/55

 Direct N0: 044-25202353 / 25204353 / 23463056

 Fax
 : 044-25207353

 Email
 : info@ssssgroup.com, ssss1984@hotmail.com

 Msn
 : ssss1984

Branches :They have branches in all the major Cities in India which includes Hyderabad, Mumbai, Bangalore, and growing ..

#### Continued from page..9

platform enabling effective approach and a solution point to their available consumers.

Valbruna is a manufacturer renowned in the world for its superior quality and complete range of long products including: Billets, Ingots, Round, Square, Hexagon, Flat, Angle, Channel, Reinforcement and Wire. The mill produces Austenitic, Martensitic, Duplex, Heat Resisting and Precipitation Hardening Stainless Steel. Also, Valbruna manufactures Nickel Alloy Bar and Wire (400, 500, 625, 825, 904L, etc.) for High Temperature, Corrosion Resistant and Welding Applications together with Engine Valve Steel, Turbine Blade Steel and Electro Slag Remelted Steels (ESR) and Vacuum Arc Remelted (VAR) Steels. Adding to this, they also manufacture and supply Titanium Long Products for various medical and aerospace applications. Their products also find applications in various niche sectors such as Nuclear, Defense, Power Generation, Automotive, etc. apart from general usage sectors. Their contact details : Nadeem Hussain Area Commercial Manager Valbruna Stainless & Nickel Alloys India Pvt. Ltd. "A wholly owned subsidiary of Acciaierie Valbruna - Italy Tower 3, Ground Floor, Mini Suite 3 Equinox Business Park, Off BKC LBS Marg, Kurla West Mumbai – 400070 Tel : 02242630201 Fax : 02261215163 Mob. : 0091 897 112 5042 Email: nadeem@valbrunaindia.com



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## Facts of Indian Stainless Steel Market: 2013

Indian Stainless Steel Development Association (ISSDA) with the growing demand from the industry has commissioned a detailed market research report.

This report is an extensive study of the ever changing dynamics of growing Indian market with emergence of new applications, shifts in consumption from its traditional utensil and population oriented sectors. India is witnessing a exceptional growth in the recent years ushering in new manufacturing capacities and new product requirements for special applications. This report envisages to capture the very essence of unique Indian market phenomenon and present opportunities for business.

### OBJECTIVE OF MARKET RESEARCH

- To clearly map the Indian and International market to assist members of ISSDA to effectively negotiate the Market opportunities.
- To Showcase the Indian Stainless Steel supply capabilities and present Indian market capabilities.
- To identify existing and new usage market trends both in India as well as in the International markets.
- To forecast the demand for SS by various sub segments over the next 10 years

## Nickel Institute appoints New Director for Promotion & Market Development



Nigel Ward

Nigel Ward has been appointed Director for Promotion & Market Development of Nickel Institute. In this role, Nigel is responsible for raising awareness of nickel and its benefits in applications like stainless steel as well as promoting the use of nickel in appropriate applications across multiple industrial, construction and product sectors globally.

Nigel is a British citizen and joins the Nickel Institute from the British Stainless Steel Association where he was Managing Director from 2004. Nigel started his career as a graduate trainee with British Steel and subsequently held marketing and sales roles at British Steel Stainless, Avesta Sheffield, Avesta Polarit and Outokumpu. He worked on a number of high profile projects such as the Lloyd's building and Canary Wharf in London as well as both the Twin Towers and the International Airport at Kuala Lumpur. Latterly he was appointed Group Manager, Market and Trade Political Affairs at Outokumpu before joining the British Stainless Steel Association.

Dr. Kevin Bradley, President of the Nickel Institute said, "We are delighted to welcome Nigel to the Nickel Institute team. His wealth of experience in the stainless steel sector and knowledge of the markets for nickel will boost our efforts to grow and support the market for nickel-containing materials."

Nigel Ward will be based in the Nickel Institute's Brussels office and can be contacted on <u>nward@nickelinstitute.org</u>.

The Nickel Institute, which has its headquarters in Toronto, Canada, creates and communicates knowledge to support the sustainable production, use and reuse of nickel.

Nickel Institute's press release dated April.2013.

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