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STAINLESS INDIA

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ABC Workshop held in Three Major Cities

Catherine Houska giving her presentation

Workshops on 'Applications of Stainless Steels for Architecture, Building and Construction' were held at Delhi, Mumbai and Bengaluru from 12th to 17th February, 2014. Attended by architects, builders, interior designers, govt. agencies responsible for urban and infrastructure development, fabricators, manufacturers and dealers of stainless steel, the workshops were an unqualified success.

The workshop was organized by ISSDA in association with the Nickel Institute. Presentations were made by Ms. Catherine Houska, a world renowned expert on the use of stainless steel in the ABC sector and a consultant to the Nickel Institute. In all the three cities, there was an overwhelming response from the participants.

Along with this an interactive session with senior officials, engineers and architects of Central Public Works Department, Ministry of Urban Development, Government of India was held in Delhi. Also a separate knowledge sharing session with students and faculty of prestigious School of Planning & Architecture, Delhi was held.

The workshop was made successful with the help of our sponsors — Fabrinox, JSL Stainless Ltd and Outokumpu India Pvt Ltd.

The workshop covered the following topics:

- Sustainable Stainless Steel.
- Selection and Design Fundamentals.
- Surface Finishes.
- Building Exteriors – Roofing, Walls, Sunscreens and other Exterior Applications.

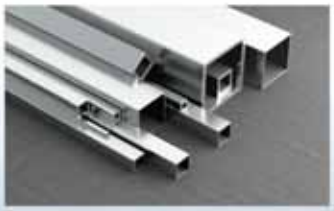
Continued on page...3

stainless is our passion

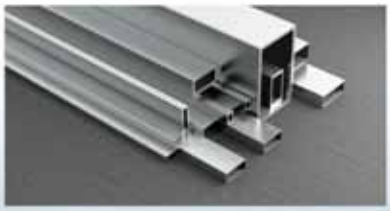
RAAJ TUBES

A Group with International Reputation for its Quality Manufacturing. Manufacturing of Stainless Steel Hollow Sections in Compliance with International Standards.

- Annual production capacity of 6000 MT.
- Raajratna Group has annual turnover of USD 200 million.
- We deal in Austenitic, Ferritic, Duplex and Lean Duplex materials and also manufacture Welded SS Hollow Sections/Tubes for special grades on demand.



Welded Square Hollow Sections/Tubes
Size : 12 x 12 mm to 150 x 150 mm
Thickness : 1.0 mm to 6.5 mm



Welded Rectangular Hollow Sections/Tubes
Size : 20 x 10 mm to 200 x 100 mm
Thickness : 1.0 mm to 6.5 mm

Welded Round Tubes
Size : OD 12.70 mm to OD 76.20 mm
Thickness : 1.0 mm to 5.0 mm

Slotted Tubes (Single / Double Slots)
Size : OD 42.40 mm to OD 76.20 mm
Slot Size : 15 x 15 mm to 27 x 30 mm
Thickness : 1.2 mm to 2.0 mm

ACHIEVEMENTS

- Export to international markets like Germany, the Netherlands, Finland, Turkey, Russia, the USA, Australia, South East Asia and others.
- **ISO: 9001-2008,ISO: 14001:2004** and **OHSAS:18001-2007** certification for best manufacturing and operational practices.

TECHNOLOGY

- **TIG-PLASMA –TIG** welding technology for precision.
- State-of-the-art manufacturing facilities with advanced technology tube mills, online polishing machines and belt polishing machines.
- The Company has installed the **'Direct Cage Forming Mill'** which is first-of-its-kind capacity in Asia, to manufacture Stainless Steel Hollow Sections / Tubes

AREA OF APPLICATION

- Construction and Architectural Design, Food and Pharmaceutical Industries, Offshore and Marine Industries, Metro Train, Railways and Bus Body Building, Process Machinaries, Nuclear Plants etc.

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N C Mathur greeting Mr. Pradeep Sachdeva, Architect

N C Mathur & Jaspreet Singh Sarna (Partner Fabrinox) with Catherine Houska

N C Mathur offering a bouquet to Mr A P Joshi, ADG (Border).

Y P S Suri (Country Manager, Outokumpu India Pvt. Ltd.) offering a bouquet to Catherine Houska

Part of the Audience at Central Public Works Department

Catherine Houska sharing her thoughts with students of School of Planning and Architecture, Delhi

- Stainless Steel Structural Design.
- Sustainable Interior Design.

Presentations made by Ms. Catherine Houska have been uploaded on ISSDA website.

The presentations were also extremely useful in strongly projecting stainless steel as a sustainable material. Such workshops will give a strong upward push to ISSDA's market development efforts in the ABC sector - specifically in the form of newer products like roofing, sunscreens, building envelopes and structural applications.

Leap towards the future - Viraj's Fully Automatic Section Rolling Mill in India

Viraj Profiles Ltd., one of the Largest Producers of Stainless Steel Engineering Products globally recently inaugurated its new state-of-the-art Section Rolling Mill (SRM) plant in Tarapur, Maharashtra, India. Mr. Neeraj Raja Kochhar, Chairman and Managing Director of Viraj Profiles, inaugurated the plant in the presence of other senior management members.

Equipped with completely automated process, the plant is first of its kind in the country on an industrial scale. The plant is quite unique in terms of Online Pickling facilities, Automatic Labeling inter-alia Packaging line. This new facility would be able to manufacture more than 700 different shapes and designs of Angle, Flats and other Profiles. With the new plant in place, the company which has created a niche for its products globally hopes to deliver world class quality products at assured delivery time and thus, increasing its efficiencies in catering to the significant global as well as local requirements.

CMD Mr. Neeraj R Kochhar shared, "We are very pleased commencing this long planned project and with this new plant, Viraj is going to enter into a new dimension of its history. Commissioning of this new plant is a bright example of Group's commitment to its strategy of modernization of the facilities and increasing the production volumes. Technological up-gradation is the need of the hour today and the market has become so competitive that we wanted to offer products to our customers faster and quicker without compromising on the quality. The annual capacity of this plant will be up to 180,000 tons per annum."

Mrs Renu Kochhar, Managing Director, Viraj Profiles who played a very important role in the conceptualization and execution of the whole project added**, "**This new facility has proven to be like a leap into the future for our customers as my personal endeavor is to serve the customers better and better. The use of fully automated processes will not only help increasing our production capacity but it will also ensure the accuracy in the measurement and dimensions of each product coming out of the plant. We aim for continuous development and growth in the business of manufacturing Stainless Steel Engineering products. Consequently, this investment aligns very well with our customers' strategy. The new facility will allow us to strengthen our business both Locally as well as Globally.**"**

The project is spread across around 10 Hectares of land. In the setting up of this plant, the company has collaborated with several partners inter-alia Siemens, Steuler Anlagenbau GmbH & Co. KG, ABP, FEHR, INOXIHP and Tenova Hyperthem Pvt Ltd.. Engineering support for the project has been provided by ESPIC Consulting Pvt Ltd. The plant boasts of some of the best machineries in the world in Stainless Steel industry.

The plant is expected to contribute towards flexibility and standardization in manufacturing. **Ravi Kamra, Executive Director, Viraj Profiles** who was also the Technical Director for this project shared, "This project has always been very close to my heart personally including the organization at large. The journey of setting up this plant has been a great learning experience for us as well as for our partners. Since this was the first time that an automation process of this magnitude was being carried out in the "Stainless Steel Long Products" sector, so we had to consider a lot of factors. Our project partners have been very supportive throughout in handling all the hurdles which we came across during the execution."

The new project has been implemented within the scope of Viraj's strategic investment program targeted at production facilities modernization; improved products quality, rise in production volumes and increased output of high added value products. The Plant complies with the high environmental standards of modern Stainless Steel manufacturing and has Level - 2 Automation processes.

This new facility has several locational advantages as well. The nearest railway track is merely 8 KMs from the production site and the nearest Port is around 170 KMs only. Inland Container Depot (ICD), started by Viraj Profiles at Tarapur will ensure smooth logistical support to its clients. The combination of the specific design and fully automated process coupled with smooth Logistics arrangement allows for a reliable and consistent production and supply of high quality products at optimum operational economy. The new facility will help Viraj to serve current and future markets in a more efficient manner.

For further information, please visit www.viraj.com

or contact Mr Bipin B Thakur, Corporate Communication, Viraj Profiles @ +91 7875443561

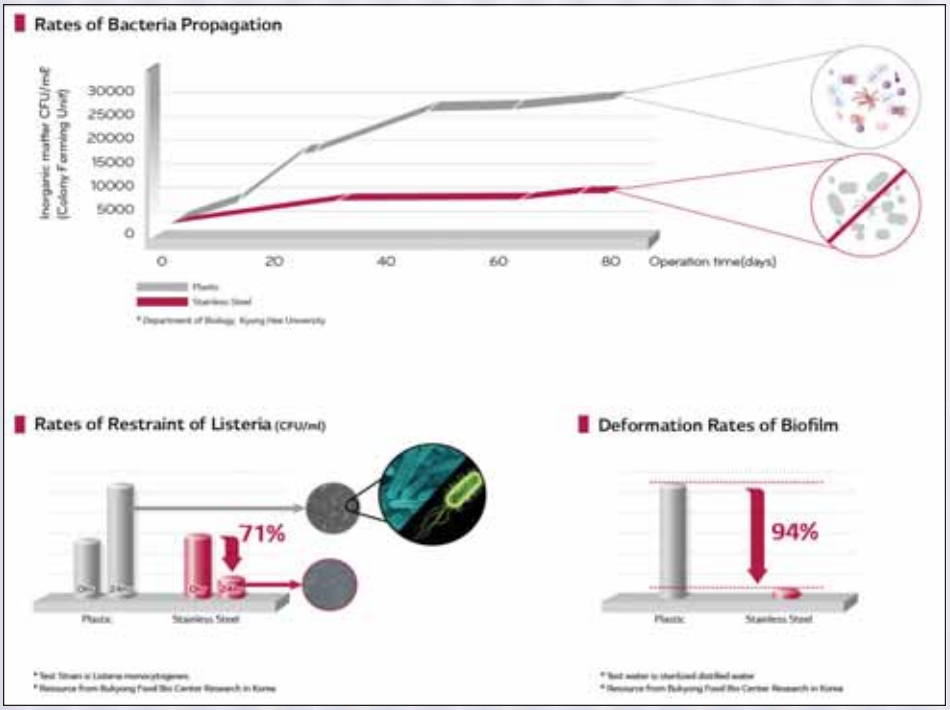
LG launches RO Water Purifier with Stainless Steel Storage Tank: First in India

Water resources are the driving force behind human development, city planning, food security, energy security and climate change.

More than half of the world's population now lives in urban areas. And the number is growing fast. Despite the importance of water, millions of people in the world are still without access to improved water sources, and even more are without access to consistently safe drinking water. Lack of access to improved water supply and sanitation services imposes huge costs on society. Even where access exists, services have been characterized for decades by poor management, inadequate financing and low levels of investment.

Contaminants that occur in untreated water include microorganisms such as viruses, protozoa and bacteria; inorganic contaminants such as salts and metals; organic chemical contaminants from industrial processes and petroleum use; pesticides and herbicides; and radioactive contaminants. Water quality depends on the local geology and ecosystem, as well as human uses such as sewage dispersion, industrial pollution, and the overuse of water bodies which may lower the level of the water.

Leading consumer appliance companies are looking at providing safe and hygienic drinking water to consumers through the introduction of effective water purification systems. LG India has introduced new room temperature control RO water purifiers equipped with a UV Circular Sterilizer, an Electrolysis Sterilizing Care and an eight



The Stainless Steel Water Tank Restrains the proliferation of bacteria and keeps the water hygienic.

- Prevents secondary contamination
- Restrains bacteria growth
- Durable material (STS 304J1)
- Stores and maintains tasty water (no sticking algae)

stage water purification process that prevents bacteria and ensures hygienic water storage with 99.9% water sterilization. These water systems have a separate sealed **stainless steel tank** for purified water preservation, which is a first of a kind feature by LG. The stainless steel tank restrains the proliferation of bacteria and keeps water hygienic by preventing secondary contamination. The stainless steel tank is made up of durable stainless steel grade of STS304J1 and has a storage capacity of 8 litres that provides enough purified water for daily drinking. The weight of the stainless steel tank is about 8.5 kg. As compared to plastic water purifier tanks, LG's innovative technology is specially designed to ensure superlative purification and provide hygienic and safe drinking water.

Considering the fact that today every household in urban India has to rely on water purifier system this could translate into a huge market for stainless steel.

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A “Bat of Honor”

Such is the craze for the game of cricket in India that it is said “if cricket is a religion then Sachin is the God”. The legendary batsman Sachin Tendulkar is one of the most successful batsman in international cricket with a statistics like 100 international centuries and over 15000 Test runs.

The “Master Blaster” always had this unmatched ability to adapt to format, physical conditions and the situation the team is in. He was selected to play for the Indian side in the year 1989. Readers of this magazine can recall and derive pleasure from the fact that it was exactly 25 years back that ISSDA was formed and started its journey parallel to Sachin

To pay a rich tribute to retired batting legend Sachin Tendulkar a monument in the form of a large stainless steel bat was unveiled in Mumbai. Sachin’s emotional farewell speech has also been etched on a plaque below the installation.

This monument has been installed on the Carter Road Promenade - close to Tendulkar’s residence. It is the largest stainless steel bat in the world - standing more than 25 feet high and weighing over two tonnes.

The core idea behind the concept was to make it timeless and iconic like Sachin, his ‘magic wand’ bat is sculpted in a scale to capture true weight of his bat which with each shot connected millions of hearts across India. The installation is intentionally created for human interaction, giving viewer a broader sensory experience and also to be enjoyed from a distant view. The bat is angled to give the fun illusion that the fan is holding Sachin’s bat.

According to the designer Mr. Abhijit Bansod “We chose toughest, yet most beautiful material stainless steel, because of its strength, toughness, corrosion resistance and flawless finish. It also symbolize the flawless cricketing career of India’s master blaster”

This project was sponsored by TV Network-18 and KBS Foundation

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Shiny Stainless Steel Banyan Tree.

Next time you visit National Gallery of Mordern Art you will find a Banyan Tree made in stainless steel waiting to grab your attention right in the front lawns.

The sculptor named 'Dada' is made by famous Indian artist Subodh Gupta. Dada is the Hindi word for grandfather, which symbolizes a sense of protection, warm memories and blessings. Standing in front of this sculpture you see your own reflection and instantly connect with the artist's grand vision. In an interview artist calls it a tree of life where roots identify your origin and various branches are the new generations interconnected together.

The artist wanted to create something to which people can relate themselves.

The trunks and branches of the sculpture are moulded in stainless steel and its leaves are made by arranging stainless steel pots, pans, buckets and spoons in various shapes and sizes which has been the hallmark of many of Subodh Guptas sculptures .The installation is about *25-feet high and* have around 20-feet diameter.

This sculpture is meant to be very easily recognizable especially to those driving past the roundabout of India Gate. Apart from the artistic importance, the charm of this sculpture is in its stunning effect it creates throughout the day in different shades of sunlight and especially in the night when it is illuminated with artificial lights.

Commencement of Stainless Steel Bus Shelters in Gurgaon

Since the public bus services started in Gurgaon, the city finally has bus queue shelters made of stainless steel. Being built at a cost of Rs 98 lakh, these shelters are probably the first ever that have come up in the city.

These bus shelters are similar to the stainless steel ones that are already there in Delhi. Initially these shelters have come up in seven different locations in Gurgaon and the final count will go up to around 70.

M/s Ozone Overseas Limited offering architectural hardware solutions have bagged this project and successfully completed seven stainless steel bus shelters in Gurgaon, Haryana.

Each bus shelter uses about 1.5 tonnes of 304 grade stainless steel.

The unique stainless steel bus-q-shelters are an eclectic mix of modern design, aesthetics and environment friendly structure. These bus shelters provide a comfortable seating arrangement along with litter bins.

In the second phase, the MCG will construct seven more bus shelters and these once will come up in new Gurgaon.

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Welcome New Member

We are pleased to introduce M/s Minox Metal Pvt Ltd, an ISO 9001- 2008 company which is one of the finest Stainless Steel Service Centres with installed capacity of 25000 M/Tons Per annum with factory and head office at Bangalore and Branch offices at Ahmedabad, Chennai, Mumbai, and Hyderabad.

Minox brand has created a niche in the industry with its No.4, Hair Line, Satin and No.8 Super Mirror finishes & Slitting line which are produced with the state of the art Stainless Steel processing capabilities.

The company has very rich assortment of highly professional and experienced management and Techno commercial staff with decades of specialisation in Global and Indian Stainless Steel Industry.

Their stock range includes Hot Rolled and Cold Rolled Stainless Steel Coils, Plates, Sheets, Pipes, Tubes, Rods, etc. in various sizes and finishes in a broad range of grades and thicknesses including 2D, 2B, BA, No.4 , Hair Line, Scotch Brite and No.8 Super Mirror finishes and various grades like low Nickel 200 series, 301, 301LN, 302, 303, 304, 304H, 304L, 305, 316, 316L, 430, 409, 441 / EN 1.4509 and many more.

Also, their wide spectrum of stock range also includes Embossed pattern, Etched and Coloured Stainless Steel.

Minox Metal Pvt.Ltd.

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SMART

FINITE ENGINEERING FOR INFINITE POSSIBILITIES

We are pleased to introduce Smart Stainless Pvt. Ltd. which has pioneered a very innovative product for ornamental applications: **SS Composite Tubes**. These tubes are an alternative to electro-plated MS tubes, Galvanized tubes and other SS tubes in all applications where corrosion resistance is important only on the surface.

Smart Tubes is a unique composite tube made by encasing welded Mild Steel tubing in a thin Stainless steel tube by a sophisticated rolling process. Mild steel strip is rolled and HF welded into a tube, then a sleeve of SS strip is formed around the mild steel tube and TIG welded thereby creating an air tight bond. These are available in standard tube sizes in a variety of wall thickness. They also make customized sizes and thicknesses for big orders.

The SS outer sleeve is of grade 304/316 and 202. The MS is in grade IS513. Manipulation of composite tube in possible like any SS or MS tube. Standard elongation values of both the MS IS513 and SS S304 are applicable. Material can be cut using normal saw blades. The ends of the tubes should be capped with stainless steel or joined by full welding to other similar sections, leaving the inner with no exposure to air or moisture to ensure life equal to pure SS tubes. Standard finish in production is bright polished or Mat finish but they can make the material in any particular polished finish for regular requirement against order.

SS Composite Tubes can be used to make Balustrade, Railing, Bus Stands, Furniture, Cycle & Motorcycle handle bars, Grill & Gates, Cloth dryers, Trolleys, Coach & Door Handles, etc. SS Composite tube is the revolutionary product **with the same unbeatable lifecycle durability, corrosion resistance and minimum maintenance** properties as SS tubes, but at **40% lesser cost**. They are the 'in-budget' composite tubes which can be welded, bent and powder coated.

Their state of the art production plant is built on more than 1 lakh sq ft land, with 40% covered area. With a production capacity of 6000 Mt/PA of combined sizes they are well equipped to cater to Indian and International Ornamental Tube. The company believes in only one mantra "Delivering Value for Money Products". Quality checks happen at each stage. All the necessary Mechanical, Chemical and surface test required to deliver world class products, are conducted at their in-house QC lab. Their ISO certification is under progress. They also provide third party tests & certification if the customer demands.

"Growth Through Technological Innovation"

Mohta group is an 80 years old business house having several manufacturing & service operations. Stainless Composite Pipe is its latest pioneering endeavor. The journey of hardship, mapped by a vision, has led them to an admirable position of 2 billion turnover with offices & assets in various cities. They have achieved a distinguished position in the marketplace due to their ability to innovate, capacity to adapt & deliver on time. Some of the Group's esteemed customers are SAIL, TISCO, TATA Motors, Hyundai, Hero Motor Corp, Ashok Leyland, Indian Railways, etc.

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Which one will you choose?

ISSDA participated in a seminar organized by Institute for Steel Development & Growth (INSDAG) and FICCI titled "Steel-The preferred Choice of Material for Construction" at The Lalit, Mumbai on March 14 & 15, 2014. Stainless Steel is also consider to be a family of Alloy steel and ISSDA objective was to showcase the versatility of stainless steel as a preferred structural material for construction. The seminar intended to disseminate knowledge about applications of steel and developments & design, construction methodology pertaining to steel. The sessions covered the usage of steel and stainless steel in Bridges & Flyovers, High Rise buildings, Commercial Complexes, Airports, Metro and Stadiums.

Experts in the field of Construction and Structural Engineering made presentations and shared their experiences. The seminar was attended by eminent architects, structural consultants, contractors, builders, academicians, steel applicators, government organizations, steel producers and distributors.

Shri Raman takes over as Executive Director of Salem Steel Plant

Shri Raman has taken over as Executive Director of SAIL, Salem Steel Plant on January 14th subsequent to transfer of former Executive Director, Shri A Bandyopadhyay to SAIL's Bokaro Steel Plant as Executive Director (Works).

A mechanical engineering graduate from BIT, Sindri, Shri Raman joined SAIL in 1979 at Bokaro Steel Plant and was in the Raw Material Handling Plant (RMHP), for over three decades, a key unit that facilitates production of the plant. During his tenure, Shri Raman made the RMHP a model unit of Bokaro Steel Plant with zero breakdown. He moved on to become General Manager of the plant's Hot Strip Mill and later held the post of General Manager (Services). In September 2012 he was promoted as Executive Director of SAIL's Centre for Engineering and Technology (CET) at Ranchi, which is the design, engineering and consultancy unit of SAIL. Under his leadership in CET, many project feasibility studies have been carried out which are in various stages of implementation and completion in different units of SAIL. He also held additional charge of Research & Development Centre for Iron & Steel, Ranchi as Executive Director Incharge, RDCIS.

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Attention Readers !

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