JINDAL STAINLESS LAUNCHES FIRST-EVER NATIONAL CO-BRANDING INITIATIVE WITH PIPE AND TUBE MANUFACTURERS
“That’s one small step for man, one giant leap for mankind”.

What actually landed us on the moon 50 years ago was the courage borne by 3 men and their on-ground team, carrying aspirations of nearly 3 billion humans. Few have this courage to envision a dream, think beyond time, and make it happen. Jindal Stainless, India’s largest stainless steel producer, started out with a revolutionary small step in 1970, and went on to mark India’s presence as world’s second largest stainless steel producer today.

A resolute Jindal Stainless is rewriting the history of pipe and tube production in India in the right way. The company launched a first-of-its-kind co-branding strategy to staunch the counterfeit market and to expand its presence, counter forgery, and bring genuine stainless steel products to the consumers.

Be it the ailing railway infrastructure or the deepening water crisis, stainless steel has come up as an optimum solution for major issues circling the Indian infrastructure. This edition of Stainless Post also features company’s endeavours in the lifestyle segment, including the recent launch of a brand new store in Nagpur. What’s more is the inspiring story of CEO, INOXCVA, Mr Deepak Acharya, a man who has made unorthodox choices, in an orthodox Indian culture, only to become a legendary name in the cryogenic industry.

Globally, Nickel prices rose with a speculation of export ban by leading Nickel producer, Indonesia. This fluctuation was also attributed to the recent suspension of a nickel processing plant and natural calamity in Sulawesi, Indonesia that disrupted nickel processing operations by large.

Nevertheless, we are determined to take small steps and transform them into a big leap. For even a primary construction material of Apollo 11 was stainless steel!
**A Stainless World**

Stainless steel cases safeguard ancient manuscripts in Egypt

The UNESCO World Heritage site of St. Catherine’s monastery in Egypt is protecting its priceless collection of ancient manuscripts using precision-engineered stainless steel cases. A UK-based NGO, The Saint Catherine’s Foundation, in partnership with the Ligatus Research Centre at London’s University of Arts, commissioned a set of stainless steel boxes for preserving several rare documents from the ancient monastery’s library. Stainless steel is inherently corrosion-resistant and is inert in nature. Also, these stainless steel cases offer an increased mechanical protection in the event of impact, if they are dropped, or if they undergo physical stress during transportation. Thus, they vastly improve the documents’ longevity and safety during transport and storage. Apart from retaining its properties in low humidity, a near-infinite lifespan of stainless steel makes these manuscript cases more than competitive in price.  

(Source: World Steel)

Civic body strengthens Mumbai bridges with stainless steel

Post the tragic Gokhale bridge collapse in Mumbai on July 3, 2018, the Mumbai civic authorities have undertaken rejuvenation of major road-over-bridges (ROBs) and foot-over-bridges (FOBs) using stainless steel. In the past, bridges at Kalanagar and Vasai stations of Mumbai were revamped using stainless steel because of its durability. Moreover, the Western Railway authorities have incorporated stainless steel in the new FOB designs. These FOBs have been designed in such a manner that their columns are close to each other to prevent the ingress of water, thereby preventing corrosion.  

(Source: DNA India)

Global News Brief

Shanghai nickel hits 10 1/2 month high on Indonesian supply concerns

Shanghai nickel prices recently surged to their highest in more than 10 months, tracking an overnight rally in London, on concerns that top producer Indonesia will resume an export ban on ore in 2022. Indonesia, which has large nickel laterite ore reserves that are used to make nickel pig iron for the stainless steel industry, relaxed a ban on export of nickel ore in 2017, but said that exports of unprocessed ore will be restricted again in 2022. Many people had been sceptical that a full ban would be re-imposed; hence, a media report about sticking to the ban in 2022 created jitters in the market, pushing nickel on the London Metal Exchange to near a four-month high on Friday.  

(Source: Reuters)

Nickel: Is the rally sustainable?

The recent performance of nickel on the London Metal Exchange (LME) and Shanghai Futures Exchange (SHFE) has seen mixed signals. While the LME inventory has trended down to its lowest level in more than six years, SHFE inventory has surged to a 17-month high. In the physical market, there hasn’t been much improvement in the fundamentals out of China, although the global macro-environment has been generally supportive over the past month. There is also a wider expectation that downstream demand will pick up due to China’s economic stimulus measures. In the very short term, LME stocks are running lower and in the background, there are threats to supply, which remain a bullish sign for nickel. However, if prices continue to climb, it could potentially incentivise some off-exchange inventories to be switched on.  

(Source: Bloomberg, ING)
How did your journey begin?

I grew up in the ‘Orange City’, Nagpur and was just as vibrant as a child. My father served as an Audit Officer at the CAG office, Nagpur. I did my early schooling in Nagpur and then at Fergusson, Pune. Later, I went on to pursue Mechanical Engineering at NIT Nagpur. After graduating in ’85, I completed my post-graduation from IIT Roorkee, with specialization in welding technology. I then received my post graduate diploma in Marketing & Finance from Nirma Institute of Management, Ahmedabad. Welding technology was an unorthodox subject to pursue that time. I remember people laughing at my choice of specialization. Now that I think about it, it was my father who always motivated me to do what’s unconventional. Given the specialized disciplinary knowledge required for this subject, and the minimal number of seats available at prominent institutes like IIT Madras and Roorkee, I was convinced that my choice was right.

Right after my post-graduation in ’87, I was hired by Hero Honda as a welding engineer. The company was in its inception stage, and I couldn’t have found a better learning experience. Then, in ’90, I worked with Advani Oerlikon as a Product Specialist and mastered the art of manufacturing welding consumables and equipment. I was gradually promoted to the position of Sub-Area Manager where I was handling key accounts in the western region of India. It was in 1992 that I was employed by INOX CVA as a manager. You’d be glad to know that I was the second employee in the organization. Having been part of a company that made its first sale of a mere Rs 4 lakh in March’92, to managing an annual turnover of nearly Rs 620 crore today in a CEO outfit, it’s overwhelming.

What are some major milestones that you accomplished during this journey?

My biggest achievement is the fact that the passion that drew me to study welding technology never goes dry. A testimony to this fact is that I am the Vice President, Western Region, Indian Institute of Welding, and have just concluded my Chairmanship of the Baroda branch. I love my subject pursuing it and I have always had a ball.

In 1996, we supplied Nitrogen storage tanks for a Particle Physics research project in Geneva that studied properties of accelerating particles. From 2000-2004, we developed the entire cryogenic...
From 1992-1996, we majorly relied on imports to fulfil our stainless steel requirements. These included players from Japan, Germany, and others in the European market. Around 1996, Jindal Stainless’ Hisar unit started developing stainless steel plates in 1250 mm width. Although, our manufacturing process didn’t allow using sheets in this width, we were highly impressed with the product quality. So much so, that we redesigned our products to be able to adapt to the available 304 and 304L grade stainless steel sheets (1550-1600 mm width).

Jindal Stainless has always set new milestones in its products’ quality. A testimony to this is the fact that marine fuel tanks, developed for European market, made from 201 LN grade stainless steel produced by Jindal Stainless were qualified by DNV-GL, Lloyd, Bureau Veritas, a premier international certification agency. Along with this, a professional delivery system and technical expertise at Jindal Stainless call for an applause. Another feather in the company’s hat is the warmth with which it maintains its customer relationships.

How long has been your association with Jindal Stainless? What sets Jindal Stainless apart from your other suppliers?

I have always believed in dreaming big and aiming high. A dream that can give you an effortless sleep, and an aim that can draw sleepless efforts from you. I urge everyone to have a flexible approach and adapt to innovative solutions. That’s the only way to keep winning your customers.

A physically exhausting hobby takes you a long way and helps you become more agile. For me, they are swimming and cycling. I take pride in the fact that I do not have any major failures in life. That happens when you make sure that what you do, you do it better than anyone else.
Jindal Stainless to grip the decorative P&T market with its first-ever nationwide co-branding strategy

Jindal Stainless flagged off its first-ever nationwide co-branding strategy with its pipe & tube MoU partners. Addressing media in Delhi, Managing Director, Jindal Stainless, Mr Abhyuday Jindal mentioned that over 25% of pipes and tubes sold annually in India bear the counterfeit branding of Jindal Stainless, and are valued at over ₹1300 crore. In order to curtail this practice, the company came up with this step. As per this co-branding strategy, MoU partners of Jindal Stainless will mandatorily use a standard seal on the decorative pipes and tubes manufactured by them. Each seal comprises of the respective logos of the MoU partner and Jindal Stainless, an MoU number unique to every MoU partner, and the grade of stainless steel used. This Co-branding strategy is expected to mutually benefit these MoU partners and Jindal Stainless; by providing a greater visibility and penetration in the market for manufacturers, and increasing the company’s business share.

The market size of the decorative pipe & tube segment is to the tune of ~₹5300 crore, and is growing at a rate greater than 12% annually. This segment has continuous high consumption in northern and western India – the major hubs of stainless steel manufacturers and consumers at the moment. However, majority of southern and eastern India has also recently shown promising growth potential. The major city clusters of stainless steel pipes and tubes are Hisar, Ahmedabad, Jaipur, Jodhpur, Kolkata, Bhubaneshwar, Raipur and Bangalore. The Company will reach out to customer clusters through radio jingles, prints ads, and out-of-home branding, while continuing its thrust on training fabricators. Jindal Stainless currently has a market share of around 44%, with annual revenue of ~Rs 2400 crore. The company plans to take this up to 52%, with an estimated revenue of ~Rs 3300 crore over the next 2 years. 
**10th International Metallurgical Trade Fair With Congresses**

**Jindal Stainless** participated in the 10th International Metallurgical Trade Fair with Congresses (METEC) in Dusseldorf, Germany in June 2019. Chairman, Jindal Stainless, Mr Ratan Jindal, accompanied by Director, Jindal Stainless Limited, Mr Tarun Khulbe, and other team members, attended the prestigious 4-day event. METEC, which takes place every 4 years, serves as a platform for leading technology suppliers from around the world. Exhibitors from around the world presented solution concepts that primarily reflected the futuristic highlights for the industry: ecoMetals, additive manufacturing, sustainability, and digitalization. Jindal Stainless’ team met with prospective suppliers to adopt the latest technological developments for the company’s current and future requirements.

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**Arttd’inox launches its first store in Nagpur**

**Jindal Stainless’** lifestyle arm, JSL Lifestyle Limited launched its first Arttd’inox franchise (homeware and home spaces) in Nagpur, Maharashtra in June. The store located in Congress Nagar was inaugurated by Director, Nairsons, and President, Nagpur Mahila Club, Nagpur, Ms Vilasini Nair and Principal Architect, VK Associates, Mr Virendra Khare. Spread over ~1000 sq ft, the store offers varied options in home-ware and home-spaces categories. Hosted by Franchise Partner, JSL Lifestyle Ltd., Ms Swati Shrivastava, the store opening showcased JSL Lifestyle Ltd.’s differentiated yet functional designs that underline art in stainless steel.
Jindal Stainless initiates discussion to counter water issues

Initiating a dialogue to counter brimming water issues in the country, Jindal Stainless met with prominent stainless steel water tank manufacturers from all over India on June 26, 2019 in New Delhi. It was found that the plastic used for tanks is one of the major causes of water contamination. Upon hours of exposure to UV rays and temperature variations, plastic releases toxins like Bisphenole, Pthalic acid, and dioxins, contaminating the water and causing health problems. Stainless steel, as an inert metal, was found to be an optimum choice as it does not release any toxins into the stored water, and also requires minimal maintenance. The conference was presided by Director, Jindal Stainless, Mr S Bhattacharya. Head, Domestic Sales, Jindal Stainless, Mr Rajeev Garg and Head, Water Segment, Mr Payoj Jindal led discussions to address major issues faced by the manufacturers. Segment Leads, Mr Rajat Aggarwal and Mr Nimish Goel, were also present at the conference.

JSL Lifestyle deploys segregated kitchen manufacturing facility; eyes growth in the segment

JSL Lifestyle Ltd., the specialized lifestyle arm of Jindal Stainless, recently unveiled a segregated manufacturing facility in its plant in Pathredi, Haryana. This 640 square meter facility has been laid to smoothen up manufacturing of stainless steel modular kitchens. The estimated size of the modular kitchen market is nearly Rs 2500 crore. This new set-up will almost double the plant’s production capacity in the kitchen category, and will help cater the growing demand. The facility houses a state-of-the-art paint shop including a storage bank for paint samples, a first-in-first out (FIFO) sanding and polishing unit, and vacuum dust suction for better paint panel glossiness. Sophisticated instruments like spectrophotometer, gloss meter, and dry film thickness (DFT) meter have been introduced in this set-up. Along with it, a dedicated primer area, paint mixing area, and sanding area have also been included, making the plant self-sufficient and well equipped to handle varied orders.
Jindal Stainless participated in the 3rd edition of Confederation of Indian Industry’s (CII) National Energy Efficiency Circle competition organized on June 20-21, 2019 at New Delhi. The company made its mark at the event as Jindal Stainless (Hisar) Limited (JSHL) bagged the 'Energy Efficient Award' in the innovation category, while Jindal Stainless Limited (JSL) won the first runner-up position in the 'Best Energy Efficient Organization'. The national level competition witnessed over 150 Companies competing from different parts of India, as they showcased their contribution towards various green initiatives, across different industries.

Chromium recovery is also expected to rise by 1.5-2%, while reducing the production cost and increasing yield. Furthermore, the new furnace will help improve product quality as the process maintains material consistency. The project was successfully implemented under COO, JSHL, Mr J Sood and VP, Operations, Mr V K Bindlish, the entire project was led by Mr Nilesh Jain and Mr Pradeep Aggarwal.

In the wake of intense competition, ever changing customer needs, and an endeavor to improve production efficiency, a new induction furnace system was installed in the Steel Melting Shop (SMS) at Jindal Stainless (Hisar) Limited (JSHL). This step is expected to optimize plant production amidst the rising graphite electrode costs used in ARC furnace. In terms of resource utilization,
An essential step during stainless steel manufacturing at Jindal Stainless Limited (JSL), Jajpur’s Hot Strip Mill (HSM) is ‘annealing’. Annealing is a softening process for the metal that reduces internal strain caused by work hardening. During this process, the stainless steel coils are heated in a reducing environment in a Bell Annealing Furnace (BAF). Hydrogen in BAF is supplied by an Ammonia Cracking Furnace, where ammonia is disassociated into Hydrogen and Nitrogen in an endothermic reaction. This furnace is an arrangement of heating coils resting on ceramic blocks that heat the ammonia.

However, it was observed that these heating coils and ceramic blocks were frequently damaged. Both ends of the ceramic blocks were welded. Thermal expansions of supporting ceramic blocks generated stress during heating, which in-turn caused the breakdown. The problem also occurred due to non-uniformity in the cracking temperature as there was no consistency in dew point of Hydrogen gas (below -40°C). The result was an additional maintenance cost and loss of operation. In this period, the furnace went through complete shutdowns in order to maintain a working temperature for the set-up. The shutdown added 16 hours of no production, as it took 8 hours to cool down the furnace and another 8 hours for coil change and re-alignment.

In order to ensure the quality standards, a dedicated team comprising Mr Sanjaya Kumar Das, Mr Lipun Kumar Nayak, Mr Jitendra Kumar Das, Mr Reshabh Das Rajak, Mr Randhir Kumar Sah, and Mr Birbal Karmakar at the Hot Strip Mill (HSM) modified the Ammonia Cracking Furnace. The ammonia cracker design was re-designed to enable one end of the ceramic plate to move freely, thereby removing any internal stress buildup. This simple innovation speeded up the process by large, saving nearly 96 hours annually for the production process. Also, the modification was 100% in-house with no additional investment, and it did away with the recurring spare maintenance costs. Moreover, an intangible gain was achieving a consistent dew point of Hydrogen gas (below -70°C), confirming proper cracking of ammonia and better annealing of material.
DID YOU KNOW?

STAINLESS STEEL GRADE 321
The Ti-stabilized 304 grade for excellent inter-granular corrosion resistance.

Chemical Properties
- Chemical Composition (% by mass)
  - C: 0.08
  - Cr: 17-19
  - Ni: 9-13
  - Ti: 0.3-0.7

Mechanical Properties
- Excellent inter-granular corrosion resistance
- Improved performance at high temperatures (450C - 900C)
- Resists organic and inorganic chemicals (nitric acid, sulphuric acid)

Applications
1. Aircraft exhaust manifolds
2. Expansion joints
3. Thin wall tubes
4. Pressure vessels
5. Heating element tubing
6. Furnace parts
Social Buzz

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Jindal Stainless - July 2019

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Jindal Stainless - July 2019
Quiz & Contest

This iconic stainless steel sculpture is hailed as a ‘dreamboat’ and ‘an ode to the Sun’. It symbolizes the promise of undiscovered territory and exemplifies a dream of hope, progress and freedom. Can you name this sculpture and its location?

Send us your answers at corporatecommunications@jindalstainless.com
In the last edition, we asked the following question,

The above high-heel shaped sculpture, styled using stainless steel saucepans and lids, derives its name from a 50s Hollywood sensation. The monument is a symbol of feminine individuality and elegance. Can you guess the name of this sculpture and its location?

Answer

‘Marilyn’ by the Portuguese artist Joana Vasconcelos in Dnipro, Ukraine takes the form of an elegant pair of stainless steel high-heeled sandals, made by using stainless steel saucepans and lids. Positioned almost symmetrically, the pair refers to Marilyn Monroe’s absent figure. The unlikely yet assertive association between the saucepans and high-heeled sandals demonstrates the two paradigmatic symbols of a woman’s private and public dimensions. This unique sculpture proposes a revision of the ‘feminine’ in the light of the practices of the contemporary world. Read more at http://joanavasconcelos.com/info_en.aspx?oid=933.

Winners

We continue to get an overwhelming response for our quiz. Mr Gautam (Rishabh Enterprises, Ahmedabad) was the first one to get back to us with the correct answer. Our own Jindal Stainless team also took an active part with Mr Vikram Mittal (Manager, Export Commercial, Gurgaon) and Mr Surender Kumar (Associate Manager, Power Plant & Central Electrical, JSHL) cracking the correct answer before anyone else.

Winners will receive a small compliment from us shortly.
The 11th European Stainless Steel Conference (ESSC) and the 8th European Duplex Stainless Steel Conference & Exhibition will be jointly organized by Austrian Society for Metallurgy and Materials (ASMET). The conference will bring together developers, manufacturers and users of stainless steel from industry and academia and will compare the present and future needs to satisfy these demands now or in the future.

**ESSC & Duplex 2019**

**Date:** September 30- October 2, 2019  
**Venue:** Schloss Schönbrunn, Vienna, Austria  
**Website:** [www.stainlesssteel2019.org](http://www.stainlesssteel2019.org)

World of Metal, 2019

World of Metal, a joint initiative of World Metal Forum & International Trade and Exhibitions India Pvt Ltd –ITEI, is an international exhibition on Tubes, Pipes, Wires, Metal Processing, Metal Working and allied industries. It is a comprehensive business platform for showcasing the entire spectrum of products and services relating to Metals and allied industries. It provides a unique opportunity for networking, best sourcing, technology, knowledge transfer, and joint ventures from across the globe.

**Date:** September 20-22, 2019  
**Venue:** Bombay Exhibition Centre, Mumbai, India  
**Website:** [http://www.wom-expo.com](http://www.wom-expo.com)
Here for You

Are you facing any concerns related to corrosion, selection of material/right grade of stainless steel, maintenance and fabrication difficulties, or sourcing of material? We can provide support and revert with details required. Our training van is also available to visit your factory to provide onsite training to your officers and technicians. Contact us at marketing@jindalstainless.com and our technical and commercial experts will get in touch with you.

For any suggestions on this newsletter, reach out to corporatecommunications@jindalstainless.com.