



Growth in Indian Economy A Boon for Manufacturing Industry

- NEERAJ RAJA KOCHHAR

Post his success in the business of Logistics for two decades, Neeraj Raja Kochhar forayed into the arena of stainless steel in 1992. With his vision "to be counted amongst the most respected and preferred enterprises globally", Viraj Profiles commenced operations with a small induction furnace, manufacturing utensil grade steel for domestic markets, in the industrial township of Tarapur. Fundamental in ensuring the continuous growth of the organisation, Kochhar transformed the company into one of the largest stainless steel manufacturers with a capacity of 528,000 tons per annum producing stainless steel wires, wire rod, flanges, fasteners, bright bars and profiles. A clear achiever with the desire to absorb and develop new skills, Kochhar left no stone unturned whilst learning and implementing production processes; researching market demand; understanding and attaining worldwide quality standards; developing strategies; integrating new technology and personally visiting customers abroad to expand the market operations. Under his aegis, Viraj Profiles Limited was recognized for achieving "Highest Exports" as an Export Orientated Unit and received an award by SEEPZ in 2009 and EEPC Top Exporter Award, Silver Trophy in the year 2013 and 2014.

An avid traveller and a keen observer by nature, Kochhar is the driving force behind the expansion plans of the current set-up which has made the company, one of the largest manufacturers and exporters of stainless steel long products in the country and one of the leading manufacturers of stainless steel flanges in the world. Under his leadership, Viraj has expanded its foot prints across 6 continents, more than 90 countries and is currently serving to more than 1300 satisfied customers.

Kochhar also played an instrumental role in making Viraj self-reliant in terms of its logistics needs. He was the driving force behind establishing the Container Freight Station and Inland Container Depot. The Container Freight Station is



located just 14km from JNPT NhavaSheva Port which is India's largest containerized port terminal. The Container Freight Station, which operates under the name of Vaishno Logistics CFS, not only caters to Viraj's own needs but also offers services to other exporters and importers. The Inland Container Depot (Vaishno Container Terminal), which is spread across an area of 11 acres and has a handling capacity of 5,000 TEUs per month, is strategically located in Tarapur. The facility with state of the art container/cargo handling equipment, trained manpower has adequate warehousing space of 33000 Sq. ft for Import/Export, LCL/FCL warehousing, as per requirement.

Kochhar was also actively involved in the conceptualization and setting up of the recent fully automatic Section Rolling Mill at Tarapur. This fully automatic mill is equipped with production capacity of 180,000 tons per annum and can manufacture 700 different shapes and sizes of profile and other products. 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 Labelling and Packaging line and automated storage system. With a clear vision and a strong urge to create a successful empire, Kochhar is set to lead the company to newer heights and increase its footprints globally in time to come. It is his relentless efforts and focused vision which has established Viraj as one of the largest players in the stainless steel long products sector in India as well as on international arena.

"The potential growth of Stainless Steel in India is huge, considering the fact that the per capita consumption at 1.9 KG is much lower compared to global average of around 6 KG. But we are sure that in coming years, India will be consuming a bigger chunk of the whole pie." In an exclusive interview with Editorial Assistant, Trupti Jagtap of Steelworld, Neeraj Raja Kochhar has expressed his views about technology up-gradation & increasing demand of Stainless steel. Excerpts

Viraj has its presence worldwide having operations in many countries, which are your flagship products?

- Today, the company marks its strong presence amongst global competitors, with its products being exported to more than 1300 customers in over 90 countries across 6 continents. Talking about the flagship products of the company, we manufacture a wide range of products using austenitic, ferritic, martensitic and duplex stainless steel grades. We produce wire rods, wires, fasteners, flanges & fittings, bright bars and sections & profiles. We manufacture more than 50,000 SKUs across different product verticals. All our product categories are equally important to us and have equal demand across different countries. However some of the products have specific application in a particular industry but

What are your plans to cater to the rising demand of Stainless steel long products?

- We have already augmented our production capacities in order to cater to the rising demands of our products. And also constant technological up-gradation is one of the regular features across all our manufacturing facilities. The recent robust growth in Indian economy has proved to be a boon for manufacturing industry. If we look at the trend of stainless steel consumption in India in past couple of years we notice that the consumption of stainless steel has actually increased multifold. Some of the main sectors which have led to this trend are infrastructural and architectural application like modernization of airports, metro railways, modernized bus shelters, stainless steel wall

melting and re-melting furnaces to the existing facility, Viraj will be in a position to supply critical grades of alloys required by these sectors in various forms, shapes and sizes. The special grades manufactured in this new facility, shall be used for turbine blade application in steam turbines, Pressurized heavy water reactor, Fuel handling machine of PHWR in the power sector. In defence sector, these special grades shall be used in making Gun barrels used in T72 and T 90 battle Tanks, Breech rings, breech blocks etc. These alloys steel shall also be used in making flow formed tubes for special projects of Defense Research Development Laboratory, which is a Missile system laboratory and works on design, development and flight evaluation of various types of Missile Systems for the Indian armed forces. Apart from these sectors, these grades



some have a universal demand. Our products have a variety of applications in industries like petrochemical plants, oil pipelines, ship buildings, structural designs, high tensile cables and springs, boilers, pressure vessels, liquid storage terminals, liquid cargos ships and surgical instruments to name a few. We are one of the largest manufacturers of Flanges in the world and one of the largest suppliers of flanges for marine applications. Globally, our bright bars and profiles range of products have got huge demand across the globe and our wire range of products has also witnessed a healthy growth in last couple of years. Our flanges are quite popular and highly sought after product amongst some of the leading oil and gas pipeline companies and Viraj is one of the few Indian companies with that kind of market strength in Middle East market.

claddings, household applications like stainless steel modular kitchens, furniture, street infrastructures, process industries etc. The potential growth of Stainless Steel in India is huge, considering the fact that the per capita consumption at 1.9 KG is much lower compared to global average of around 6 KG. But we are sure that in coming years, India will be consuming a bigger chunk of the whole pie.

As the way forward, we are in the process of setting up facilities for manufacturing special steels and super alloys. These special grades of steel shall be used for critical applications in Aerospace, Defence, Power projects etc. This facility would be upgraded with special melting and re-melting furnaces such as Vacuum Induction Melting (VIM), Electro slag re-melting (ESR), Vacuum Arc re-melting etc. With the addition of the vacuum

shall also be used in aerospace sector. The steels and super alloys used for critical application in the above sectors have to meet stringent quality requirements and to achieve these requirements it is necessary to produce these alloys by special melting and re-melting processes.

Currently, we are producing more than 30 grades of stainless steels as per ASTM DIN/EN and other international standards in various shapes and sizes and supply to more than 90 countries of the world for application in oil & gas, chemical & petro chemical, marine, medical, food processing, waste water, power and other industries. We have an established and approved quality system ISO 9001: 2008 in place and we have more than 90 certificates of approvals for supplying stainless steel flanges to our various global customers. With the

addition of the new melting facilities we will be able to manufacture and supply alloy steels, stainless steels and super alloys to the above Critical Sectors complying with the stringent quality requirements.”

In addition to this, in terms of new grades Viraj has developed super duplex stainless steel. These grades are especially used for oil and gas industry, marine applications and also in architecture and construction where high load bearing capacity is desired. The corrosion resistance level of this grade is much higher than any other grade of SS. Apart from its range of Austenitic, Martensitic and Ferritic grades, the company has also developed Martensitic grades with Hardening and Tempering. On the value addition and quality enhancement front, Viraj has developed Pump Shaft quality bright bars. These bars are manufactured especially for rotating industries. Because of the enormous pressure and high speed at which this product has to perform, it takes a great deal of experience and expertise to manufacture these special products.

What are the activities carried by Viraj for environmental safety?

- Viraj is going Eco-friendly by focusing on Energy efficiency in its factories and production processes with the use of eco-friendly recyclable materials. We recognize that use of recycled scrap of supports waste management, conserve natural resources and reduce carbon footprint. Without compromising on quality, we use waste exchange extensively where the waste product of one process becomes the raw material for another process. Some of the initiatives towards this are -

- In line with the latest emission norms and to ensure Zero discharge of fumes, we have imported and installed new induction furnaces in our melt shop. These furnaces have ash collectors to collect the dust and conveyor belts for charging process.

- For processes such as Induction Melting, AOD refining and continuous casting, we ensure that our induction furnaces are utilized on a rotational basis. This also ensures that they are maintained to perform at optimum levels to provide better output of material quality and minimize the consumption of energy, offering overall efficiency through reduced wastage and high utilization of resources.

- Automatic Temperature controlling system prevents overheating which directly saves energy requirement per cycle.

- In our shot blasting process, in the

profiles division, we collect all the particles of dust generated during the process fitted to the vessel. The heavy particles with heavy iron content remain at the bottom and are removed manually. These are then charged again into the Induction Furnace to save cost and reduce wastage.

- We conserve the water used in our Annealing and Pickling process as well. We recycle water by installing a scrubber and absorber system and treating it with acid or base as required for neutralization. After filtration we remove the solid impurities. Thus we use the same water again and save the cost and natural resource at the same time.



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- We have recently installed gas conversion plant in association with Gas Authority of India Ltd. This new technology will not only help us in reducing the carbon footprint on the environment rather will also help us achieve the economy of scale in our operation. By adapting this new process of gas conversion, which is an environment friendly process, we shall be able to achieve combustion efficiency as well as be able to increase the life of the furnace. As of now the Furnace oil which is used emits harmful gases in the environment but through this process, we will be able to reduce that significantly. Some of the advantages of this new technology are that by

using natural gas instead of furnace oil, the emission of CO₂ is around 45% lesser. Natural gas burns cleaner without leaving any smoke, ashes or any kind of smell thus causing less harm to the environment

- In addition to this, our CSR department drive Green Campaign in the vicinity wherein we undertake tree plantation activity in the nearby village areas and encourage the local residents also to do the same.

Tell us about your technological up-gradation for delivering operational excellence.

- Viraj has now added a new Ring rolling machine, 2000 Ton forging Press and one more 10 Ton pneumatic hammer to enhance our production capacity and installed 15 new CNC machines and big diameter flange machining Hyundai make CNC-VMC's for machining flanges. With this new machine in place, we are aiming to cater to the increasing demand of SS flanges with high-end quality, which Viraj is known for.

- A Continuous Hardening and Tempering furnace for coils and bars has been commissioned which uses natural gas instead of the furnace oil. The furnace when operated with gas offers much better combustion efficiency and is also environment friendly.

- The company has started manufacturing soap coated Fine spring wires in Size range 0.35 mm – 0.65 mm. We have also developed special Coating wires which are especially used for springs and Nails. This development leaves a very light lubricant film on the wire, as a result guides are not jammed, tool life is increased and epoxy coating on nails is improved during processing at customer end.

- Development of in-line drawing with spooling of 1 MT euro coils with precision winding.

- Viraj have also got approval from CE, VDTUV and ABS for welding grades TIG and MIG wires.

- On the packaging front also, the company has added some new options like Spool SH 460, SH 390 for spring wire and have also developed larger coil weight for spring wire 0.80mm – 1.60mm 125 Kg, 2mm – 3.20mm 500Kg.

- As a value addition to its packaging solutions, the company has developed plastic strapping instead of metal strapping upto 1MT coils for easy handling & to avoid damages. Development of in-line drawing with spooling of 1 MT euro coils with precision winding.