

Manish Kothari is a Mechanical Engineer graduate having over 24 plus years' of experience in Foundry Projects & Machines.

He has handled Foundry Projects Installation and Commissioning of projects across India and in Africa for the initial 4-5 years, and



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then moved into design, manufacturing, planning, and marketing fields.

He together with Mr. R. C Kothari filed and received the Patent for CO2 Sand Reclamation Machine in India in 2002. From 2009 to 2015 introduced and implemented Multiflex High Pressure Moulding, Mixer Cooler RMC Series, and now Ecoflex the next generation plant solution.

He has finalized and executing technical collaborations with FATA Aluminum, Italy in 2013 for Sand Reclamation, and built the concept for ROBOFLEX for Fondarc 2014-2015.

Got shortlisted as one of the 20 Semifinalists out of more than 160 innovation applicants in the Global Cleantech Innovation Program a global competition. GCIP has been brought to India by MSME, UNIDO with Cleantech USA - partnered and funded by GEF & FICCI. The theme is Energy & Environment Saving innovations. Reached the top 6 after the semi-final rounds in October 2015.

The Innovation ECOFLEX: sand handling system for Foundry has been selected is one of the only solutions of those selected addressing the core manufacturing industry.

Meeting Challenges is the Way of our Life has been the motto behind all the developmental work done.

"The Indian foundry industry is going through a very big correction phase and majority of the foundries are not in good shape for several reasons. There are orders available in many sectors, but without the availability of funds/liquidity. Some sectors are suffering due to the fall in commodity prices and rise in exchange rates"

says, **Manish Kothari, MD, Rhino Machines Pvt. Ltd.** in an exclusive interview with **Metalworld.**

Excerpts



Indian Foundry Industry Going through Correction

What is the present situation of Indian Foundry industry?

- The Indian foundry industry is going through a very big correction phase and majority of the foundries are not in good shape for several reasons. There are orders available in many sectors, but without the availability of funds/liquidity. Some sectors are suffering due to the fall in commodity prices and rise in exchange rates. The export or global markets in Middle East are hit by the ongoing oil prices slump. Government policies are being announced, but actual implementation is yet to start. Though there were predictions of the foundry to grow by 19.6% in reviews 2 years back, in fact the foundries have been operating at 30-40% lower capacity.

How do you see the future prospect of foundry nationally?

- We still find the hopes have not died down, as the industry understands that the fundamentals are being corrected by the new government, and the change will be slow. Infrastructure, defence & railway are the 3 key sectors which should start to generate the demand and once again push the foundry industry. The present is bleak, but there is hope ahead.

Those foundries having stable and strong fundamentals such as right investment, good organisation, modern technology and proactive management still continue to survive this downfall, and have already started planning their expansion and improvements.

The internal or domestic demand of India is very huge, as we need to build everything – roads, rail, defence, water system, sewage system, electrical transmission and so on. Each and every of this growth will generate an automatic demand for castings.

The foundries shall have to be competitive with the costs, lean and efficient as well to face the stiff internal and external competition. Experts predict the growth from 7 Million MT to 20 Million MT by 2020, which is possible if the above sectors get up and run and the money from the government projects starts flowing in. Industry has the money to invest, but due to uncertainty of liquidity, fluctuating prices has been waiting to grow.



The future of Indian foundry industry for sure is bright, one for internal demand, and the other being the rising costs of the other major supplier China making India more competitive in the world market.

What are your views on technological up-gradation in foundry industry ?

- Rhino has been deeply involved in pushing the foundries in India towards better and modern technology in the MSME sectors.

For long this sector has been struggling to upgrade itself since the imported technologies were not affordable. Many foundries never even thought of improving their technology, as it seemed a farfetched dream and investment.

With the availability of MULTIFLEX – Stand Alone high pressure moulding machine in green sand process by Rhino from 2009, slowly the industry has realised the possibility to upgrade themselves. The IFEX 2016 was a change with other equipment suppliers also shifting to the modern technology on the way shown by Rhino.

Foundries doing 100 TPM productions, those producing Hand Moulding in Howrah, producing the lowest value castings have upgraded themselves. The path has been set with benchmarks for technological up-gradation in the foundry industry.

Till now foundries have been embracing technologies which are obsolete in Europe, Japan and such developed countries like the Jolt Squeeze Machines.

These became obsolete for safety, noise and quality consistency. Today, larger foundries have put up high production machines at huge investment but smaller foundries who tried to take this path have suffered financially due to over investment.

We feel each and every of the 5000+ foundries in India needs to upgrade its technology if it wishes participate in the predicted foundry growth.

Optimising the investment, and yet having the latest technology will bring them at par for Quality, Productivity, Cost Competitiveness. They will also be able to upgrade to internationally accepted safety and pollution norms. They will be able to attract new generation into the industry with better work environment.

Those who will not embrace and upgrade will perish in the years to come.

Tell us about your facilities, products & customers.

- Established in 1983 as a project consultancy firm, Rhino evolved in 1991 into a fully-fledged manufacturing firm that produces conventional Green Sand, Pouring and Centrifugal Casting Products. In 1995, Rhino Machines collaborated with a French company 'Fondarc' to further strengthen their capabilities while bringing latest technologies to local markets.

It has truly come a long way since its inception. Today, Rhino is Gujarat's leading foundry machine production, equipment marketing, engineering and Consultancy Company. Rhino has evolved as a global player providing an exhaustive range of cutting edge foundry equipment and world-class technology from global industry leaders like Fondarc (France), Fata Aluminium-Regeneration Division in addition to their own Innovations and Developments. In the past it has represented and worked with several European/American/Japanese Global partners, wherein Rhino's market intelligence and standing was leveraged for developing their markets.

Rhino's own manufacturing facilities were set up in 1996 in leadership of Mr. Manish Kothari at V U Nagar, Anand, Gujarat. The engineering industry set up and ease of business enabled Rhino to set up a strong Vendor Centric infrastructure using the SSI backbone of V U Nagar. The loyalty, consistency and reliability of vendors working with Rhino since inception, and those joining in are the pillars of strength in Rhino's growth.

A lean manufacturing approach in its own production activities with distributed profit centres and cohesive working form the core strength of Rhino's manufacturing ability – and give the facility to expand and contract to industry needs without burdening the organisation on infrastructure.

Having Rhino's focus on SME/SMB as primary customer base, which constitutes nearly 80% of the foundries in no's, Rhino has successfully established themselves in the small and medium sector.

Rhino's presence is in foundries only, yet diversified to different industry segments such as Power, Infrastructure, Automobile, Tractor, Two-Wheeler, Railways, Valves, Refrigeration, Grinding Media, Manhole Covers, Sanitary Fittings, Pipe Fittings, Steel Castings.

The basis of Rhino's growth has been the unconditional support of the industry and readiness to adopt, implement and embrace Indian Technology.

Rhino's customer base has grown geographically, with Northern & Eastern regions being its biggest domains after the home domain of Gujarat.

Rhino has now entered into the rich engineering casting belt of Kolhapur-Belgaum, and Coimbatore with new technologies partnering with enterprising customers.

Internationally Rhino has successfully implemented installations in Saudi Arabia with two turnkey plant going into production as on 2016.

The latest success has been in getting recognised for ENERGY EFFICIENCY in Foundry Industry in the Global Cleantech Innovation Program by United Nations Industries Development Organisation & finishing in the Top 6. Below is the certificate which was presented by the Deputy Commissioner Mr. Tripathi – MSME, Indian Government.

We have introduced Green Sand Reclamation. This is one of the most important



subjects today for the foundry not only towards Environment and Dumping, but becoming their own sand supplier. The technology has been established with investment in a pilot plant at Rhino facility in March 2015, and the production plant in Dec 2015. At the IFEX 2016, with the data available, the interest of the Foundrymen in the Green Sand Reclamation was of the highest order.

Tell us about your future strategy & expansion plan.

- As always, RHINO is synonymous with Innovative Technologies synergising with Global Partners.

This IFEX we have seen the fruits of our efforts of last 6 years since the first display of MULTIFLEX series High Pressure Moulding Machines for the Small & Medium foundries in IFEX 2010 at Ahmedabad. Other manufacturers shifting their focus from the obsolete unsafe & polluting Jolt Squeeze Technology to High Pressure.

Once again a proud INDIAN manufacturer has laid the path for the future. Rhino shall be partnering its global partners to once again introduce the next level of technology to medium and large foundries to enable them to be more competitive.

The year of 2015 was a defining moment for Rhino as it was recognised by the United Nations Industries Development Organisation

(UNIDO), MSME (Govt of India), FICCI, GEF & Cleantech as one of the Top 6 Innovators in the Energy Efficiency & Environment Space. The efforts of RHINO Team in establishing ECOFLEX® as a successful sand plant solution – saving 30-50% energy, clean environment. Rhino is now taking the ECOFLEX® solution to larger foundries and enabling even the larger industry to benefit from the same.

Environment friendly approach being the bench mark of Rhino – the partnership with FATA in Green Sand Reclamation took shape in 2015, and converted to reality in 2016. With plants working worldwide and Rhino has brought Green Sand Reclamation to the Indian Foundry's doorsteps, with the pilot plant at its facility in Anand and the first plant in Coimbatore.

Demonstrating the technology in actual foundry, we have created a "hope" amongst the foundries of the possibility to becoming their own sand supplier, and protecting themselves against the vagaries of supply/demand. Rhino-FATA is planning increased focus in this area with set up of demo plants across the country for all types of sand.

With the established and proven solutions in RMC Mixer-Cooler – a revolutionary technology from Fondarc and RTC Online Sand Controller – the need of every foundry,

Rhino shall continue to take these proven technologies to a larger base and across all the levels of foundries. RTC is being taken from larger industry to smaller foundries, while RMC is being taken to larger foundries after having proven their performance in smaller industries.

Realising the need of skill gap Rhino has also taken the onus of serving the Indian Industry with the Human Capital – a trained skilled work force by partnering ACE Foundation in a unique Skill Development Institute. Working with SkillSonics® as its knowledge partner who are owned partially by NSDC, Swiss partners and promoted by Swiss Government, Rhino is enabling the young generation of India to be employable, skilled and dignified. ACE Foundation has been given the mandate to establish similar centres with SkillSonics partnership across the country to maybe 100 or more institutes and providing the 10+ students a better means of skilling suited to industry.

Rhino will soon come up with the SMART Foundry concept in the Green Sand Moulding with its partners Fata, Fondarc, Fondarc China, RC Technologies, Reichmann.....the year 2016 will change the way world looks at the foundry technology from a black/blue collared to a white/blue collared domain – safe, clean, lean and sustainable.