



Image Courtesy: MaxImage

Perfecting Mechanisation With Localisation

Being a harbinger of growth in bringing world-class foundry technologies to the Indian market, Disa India has been the preferred choice in moulding equipment. Along with its sister company, Wheelabrator, and having more than 100 years of experience in foundry and forging equipment manufacturing, Disa has now developed a long tradition of innovation and reliability by reducing customers' cost and the hunger for power. A recent visit to its Hoskote facility presented a classic combination of mechanisation with localisation to suit the Indian customers' requirements.

■ SUPRITA ANUPAM

Casting & forging techniques have long been regarded conventional methods of forming. At a time when adopting the latest automation software available in the market to produce high-quality moulds were considered a costly affair, Disa India's Hoskote plant set an example of what a modern foundry should look like for others to follow suit. Disa India set up its first plant in Tumkur, in India, in 1986 and the other plant at Hoskote in 1997.

Disa India and Wheelabrator of the Norican Group realised and came up with the solution of mechanisation with localisation to counter the

cost factor. In our facility visit to the company's Hoskote plant, it seemed as if they brought the fabled romance of automation by reducing customers' costs through innovation and localisation. Testifying the same, Viraj Naidu, MD, Disa India, said, "We keep the mantra simple: If you adopt conventional way, the more you produce, the more you need is labour, which leads to substantial increase in labour cost along with the residual cost. But if you automate the whole process, you will see a substantial increase in products' capacity without any increase in labour & maintenance cost."

Spread over 4.5 acre, the Hoskote plant is known for manufacturing a

variety of shot blast machines and filters with a capacity range of 1.5k-10k cum/hr & 7k-200k cum/hr. "We provide three ranges of products, foundry equipment like moulding machines and match plate; shot blast equipment like strengthening, peening, surface finishing, air blasting; and pollution control equipment like dust cleaning and flue gas disposal," informed Joydip Ghosh, VP – Filters Sales & Hoskote Operations, Disa India.

TECHNOLOGIES IMPLEMENTED

Disa India provides forming, preparing and coating technologies. "In forming, it provides the latest technologies of vertical moulding, horizontal moulding and match plates, while in the surface



Shaping the future of foundry: Fully automatic Shot blast machine (SBM) will make surface cleaning much easier and faster.

De-assembling MB 500, the latest product offering from Hosakote Plant. The MB 500 metal Belt tumb blast machine will complement the existing BB rubber belt tumb blast machines, giving the fullest range of products in the marketplace from (something small) to 2.5cubic meter machines, which run today in the US.



De-assembling machine in order to ensure easier and safer transportation

The ROTO-JET Wheel, a high performing wheel from Wheelabrator range, now localised in Disa India setup will bring many features and benefits to the Indian market.



Dust filters: Reverse air cleaning using RA Fan instead of compressed air

Safe disposal of dust after surface finishing and cleaning



Images Courtesy: MaxImage

preparing segment, we have long-term equipment targeting non-foundry industries as well,” commented Ghosh. “We are the world leader and Disa vertical moulding is No.1 in the world. It reduces customers’ cost to a great extent. The second technology we brought is horizontal moulding. Now, we have flex technology and then, match plate, which are again Disa’s patented technologies. Wheelabrator technologies have further boosted it with their high performance roto-jet and roto-wheels. These are certainly going to change the Indian market with their high running time and low maintenance.”

LOCALISING THE GLOBAL TECHNOLOGY

Disa India brings foreign technologies to India and localises it further as per Indian customers’ requirements. It increases the availability of all the foundry equipment in India, thereby reducing extra transportation and maintenance costs. Talking about localisation, Ghosh commented, “Earlier, green sand moulding equipment were used to import from abroad, but ever since we started manufacturing it here in India with complete automation support, we just have to load the mould & other components and you will get the final product. Technologies like flex technologies, reverse air filter system and match plate were actually developed at Disa, Denmark. We are implementing the same here with further advancements.”

ONE-STOP SHOP SOLUTION

Except the furnace, Disa manufactures everything. “We are known for our complete foundry approach,” averred Ghosh, adding, “Disa takes control of all the things right from setting up the plant to the plant design to the equipment installations. That is why we are very successful in India with 70 per cent of market share.”

REDUCING COST THROUGH INNOVATION

Automation and technology have a huge impact on capacity and speed. Green sand moulding can generate 550 moulds per hour, while on the other hand; same moulding machine can be used to produce 40-50 moulds per hour showing a great range of capacity. “All this has been possible



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because of their global teamwork and R&D. In casting, even if there is an inaccuracy of 2 mm, which happens when the sand boxes are manually joined, it costs a lot of time and labour to bring it back into shape. When we give a moulding, we give it with exact shape and size with 0.1 mm tolerances. Our machines are like Ferrari. Before handing them over to customers, we run all the equipment to make sure they are fine,” commented Ghosh. The Hoskote plant recently launched their new shot blasting machines (SBM), which are fully automated in their operation and are surprisingly fast. These will help solve the current labour crisis in foundries and the forging industry in India.

ENERGY-SAVING TECHNOLOGIES

Realising the future energy crisis, Disa India machines’ designs are state-of-the-art and ensure minimal possible consumption of energy. Elaborating further, Ghosh explained, “The dust collector of the pollution control equipment is considered a power-hungry equipment as it needs a lot of compressed air. Compressed air involves huge amount of money, as

it takes a lot of power to generate that compressed air. Besides, it needs lots of power to get the dust. But when we design and manufacture equipment in Hoskote, we do not use compressors. As a result, our equipment saves 30 per cent energy as compared to conventional ones. Our machines are designed such that they save energy for the whole lifespan of the machine.”

BEING ECO-FRIENDLY

Disa’s Hoskote plant produces a variety of filters and pollution control systems based on Garant technology, which is much more efficient in terms of power & proper waste disposal. “We have updated and modified the technologies available in Europe to suit the requirements of our Indian customers. We not only provide solutions for foundries, but also provide high-end solutions to a number of other industries like marine, aerospace, medical implantation, etc., where our pollution control equipment have been deployed,” said Ghosh.

Other eco-friendly initiatives implemented at the facility include planting of green trees around the manufacturing unit and installation of LEDs instead of tube lights in some areas of the plant.

SETTING AN EXAMPLE OF CUSTOMERS’ TRUST AND LOYALTY

This facility visit gave us a clear picture of innovative technologies, which could dramatically change the forging and foundry industry in India. With its Innovations like DISAMATIC and DISA MATCH fully inclined towards customers’ interest, Disa India seems to be standing alone at the top enjoying customer satisfaction with its reliability and commitment. With such impressive plans in place, Disa India is sure to transform the foundry landscape in India. ■

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