

# Surfing on Green Waves

## Everest's latest innovative offerings for the water industry

With expertise in design, manufacture and supply of components that can be applied to various industries, the Everest Group has emerged as a leading solution provider in pressure and vacuum systems. The company has executed multiple projects in various industries including water, F&B, pharma, etc. With its trained workforce and focus on application oriented R&D, the company has been able to establish its prominence in the market.



Everest's R&D Centre at Bahadurgarh (Haryana)

● The performance of an OEM's design ultimately depends on the quality and dependability of its components. May be that is why many plants be it water treatment, effluent treatment, cement, chemical, paper, vacuum have entrusted their reputation with the Everest Group. Constantly setting new benchmarks, this company today provides components like roots blowers, dry screw vacuum pumps, acoustic hoods, industrial vacuum to OEMs

such as Thermax, Ion Exchange, Degremont India Ltd, Grindwell Norton, etc.

Everest Group, a 30 year old company, started its operations with manufacturing of twin lobe rotary air blowers (popularly known as 'roots blowers') in 1980. "There were considerable demands for quality blowers from cement and chemical industries that were in boom and these blowers were part of the basic equipment for pneumatic conveying, blending, kiln operation, etc.," mentioned Director-Technical, Everest Group, Amit Kapur.

With a growth in economy, the limited application of roots blowers has grown dramatically and now finds its use in numerous industries such as effluent, water and sewage treatment, food, cement, chemical and pharmaceutical plants, etc. The company's main strength is its technical capability to design and manufacture twin lobe rotary air blowers to meet the customer's requirements and demands.

Besides these, the company has designed many other products useful for the industry. "We were the first to introduce quite a few new products for the Indian market such as mechanical vacuum boosters, aqua air blowers, extended shaft design blowers, expo series air blowers etc., all these have been widely accepted in the industry," informed Kapur.

### Project execution

Mechanical vacuum boosters need a special mention here as these were especially developed for Indian research organizations such as Indian Space Research Organisation (ISRO), Bhabha Atomic Research Centre (BARC), National Institute of Ocean Technology (NIOT), Midhani, etc. These boosters were specifically designed to meet their stringent requirement of high vacuum in the production of chemical lasers, nanotechnology, semi-conductor processing, sea water desalination, etc.



Swati Deshpande  
Assistant Editor  
Vogel Business Media India  
swati.deshpande@vogel.de



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*Director-Technical, Everest Group, Amit Kapur*

Talking about some of the prestigious projects delivered with its vacuum booster, Kapur said, "The company was associated with NIOT in development of sea water desalination plants based on low temperature thermal desalination (LTTD) technique, which was carried out for the first time in the world on a full scale production model. It is installed at Kavaratti, one of the Lakshadweep islands." The plant has been in operation since the last one year giving one lakh liters potable water per day. Based on the success of the pilot production plant, a number of similar projects for various other islands in the vicinity have also been sanctioned.

### Technological edge

These mechanical vacuum boosters are also helpful in the food & beverages industry and have been installed at the Cadbury's plant in Thane. The results were so impressive that Cadbury's total tray drying process at the new setups at Baddi

and Nigeria were designed with Everest vacuum boosters and the same is running satisfactorily. Pharma giants such as Ranbaxy, Wockhardt, Aurobindo, etc., have also been using these mechanical vacuum boosters.

Another one of Everest's product that stands tall is the 'mechanical vapor compressor'. "This 1800 kg/hr compressor has been successfully commissioned at Ghardha Chemicals at its plant at Lote, for the concentration of sodium chloride (NaCl) solution from 10 to 35 per cent and the coefficient of performance achieved is as high as 16, setting a new benchmark. It is an energy efficient product as compared to the conventional multi effect evaporators and thermal evaporators," Kapur averred.

### Market trends

According to the Technical Director, currently the market is driven by the demand for such energy efficient products and solutions. "Probably the most

important issues for any industry today are better resource utilization, reduction in process time, higher yields and better product quality," he said. He further mentioned that the major concern nowadays is low energy consumption per unit of product produced and this objective is a major decision factor, which favors the chance of Everest's product offerings over any other possible alternative.

### Green initiative

To address the demand of energy efficient and green products, the company designs, manufactures and supplies package blowers. Its supplied as a complete system with the integrating blower, motor and accessories in an acoustic enclosure with all the measuring and monitoring equipment. "With growing concerns about noise, this is bound to be the future and Everest is once again the only Indian blower manufacturer to offer such package systems," said Kapur proudly. Similarly, Everest has been the first blower manufacturer in India to offer trilobe roots blowers and vertical trilobe roots blowers, which have a major advantage of less noise, less vibrations, longer life and smaller foot print.

Talking about the green initiative, Kapur mentioned, "Strict environmental norms, pollution control, increase in scarcity of water and need for decreasing energy consumption are major challenges of the day and this is what has forced the big

Source: Everest Group



Dedicated CNCs at R&D centre

industries to re-think on conventional methods of production and introduce newer and environment-friendly technologies with lower cost of manufacturing. All these translate into opportunities for Everest since we support them in terms of bringing in continuously upgraded technologies and giving them the highest quality products at best possible prices."

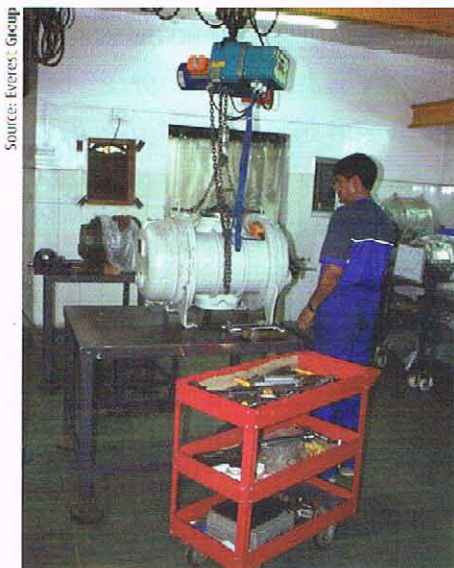
### Being innovative

To fulfill the demand of energy efficient products, the company has its in-house research and development (R&D) facility. This concentrates on application oriented products offering cost effective and energy efficient solutions thus, creating larger market demand for its products. This facility is approved by Department of Scientific & Industrial Research, Ministry of Science & Technology, Government of India. "Our application oriented R&D has made it possible to cover wider areas of application, offering cost effective and energy efficient solutions, which further lead to creating larger market demands for our products," said Kapur.

Furthermore, the company has plans of setting up the most modern R&D facility, which would not only roll out reliable products but also assist in meeting the targeted expansion program.

"We create new markets by developing new applications for our products and services. This is important for the continual growth of the industry targeted by our company. We are the only blower manufacturer in the country to have a dedicated R&D and application engineering cell that are always on the lookout for new application areas for our products and services to cater to the growing demand of the blower industry," he added.

In addition to the R&D, Everest also creates and offers innovative engineering solutions for its customers through customization; for example, customized industrial vacuum systems. "Our application engineering team is well-trained to study various vacuum processes and offer customized solutions with drastic reductions in process cycle time and power consumption. In many cases the end product quality (purity) has also increased by many folds," said Kapur.



New design mechanical vacuum booster in progress at the R&D centre

### Core areas

Through this R&D center and customization, the company serves big players in various industries such as Hindustan Lever, Maruti Udyog, LG, Wipro, L&T, Uhde, GEA Energy System, Toyo (Japan), Becktel (France), Dailem (Korea), Mitsubishi Heavy Industries (Japan), Babcock Hitachi (Singapore) etc. However, one of the most important segments where the company's products and services are extensively being used is the treatment of water & waste water (sewage treatment plants, effluent treatment plants, sea water desalination, etc.). "This segment is bound to grow with the increasing scarcity of water, which is now being seen as the second most expensive commodity after crude, in the times to come. We are sure that this shall definitely result in the drastic increase for the demand of our equipment in the blower market in India," predicts Kapur.

Besides water and wastewater treatment, the other area where Everest products find its application is vacuum. "Water and vacuum, both the industries are still at a very nascent stage; thereby, offering a lot of growth potential and opportunities for our company's products and services," said Kapur.

### Future expansion

"Looking into the opportunities available, we feel that the growth potential is also



Trilobe blower rotor being checked on a coordinate measuring machine

quite good, provided they are encashed in the right way with the right strategy. The Everest Group is bound to grow many folds in the times to come," Kapur continued. According to him, India, today, is part of a boundary-less world with an unhindered flow of capital, technology, products and services of world-class standards. "It is for this reason that we have great plans for expansion especially with the objective to cover practically all industrial processes so as to offer total solutions for energy conservation, improvement in product quality and higher yields. The product expansion would take place accordingly in order to meet individual demands and needs," concluded Kapur.

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