



“Emerging Markets, Like India, Have To Go a Long Way for Development of Equipment & Processes Targeting Low Energy Intake, High Product Quality and Zero Effect on Environment”

Vacuum industry in India is still in its infancy stage. There are very limited indigenous manufacturers offering products & services to global standards. This has created a market for foreign players and large quantum of advanced vacuum pumps, gauges & allied accessories are being imported. Now, there is a growth in the Indian industries who are gearing up to meet the international levels of design and manufacture and this would result in a good growth when solutions offered are energy efficient and eco-friendly, says **Rajesh Malhotra, Group Managing Director, Everest Group** in an exclusive interview with **Chemical Engineering World**.

What is the new development in the vacuum pumps sector?

Vacuum Pump industry is fast growing in India. Currently this industry is dominated by foreign players as Vacuum Pumps and related technology is new to our country. Application of Vacuum finds use in Nuclear and semi conductor industry and for this reason; India was always kept at a distance and had a limited access to this technology. “Everest” has been working in vacuum related processes and technology and applied it to use in various Chemical processes including Pharma, Agro, and Food Processing. Everest

has developed new processes using combination of Vacuum Pumps and allied accessories which is widely accepted by the Pharma and Chemical industry. Everest was the first to introduce high vacuum oil free Boosters 20 years back and now is again the first Indian manufacturer to successfully design and manufacture Dry Screw, energy efficient Vacuum pumps, to meet the ever-growing industrial demand. Everest has to its credit development 100% indigenous MVR Mechanical Vapor Recompressor, both for pressure and vacuum duty applications. Everest

Group companies are proud recipients of National Awards from the Hon. PM, for their outstanding work in R&D and related areas.

Discuss the trends in the Blowers industry?

Everest is pioneer in Blowers and Pumps covering the entire range-both pressure duty applications and vacuum duty applications. The group has two primary laterals, one catering to the pressure duty applications while the other caters to vacuum duty applications. The both



Director Mr. Dhruv Malhotra Receiving 1st prize from Minister MSME.

laterals are fast growing as there is consistent growth in both the sectors. The pressure duty applications cover Effluent Treatment Plants, Sewage Treatment Plants, Portable drinking water plants, Chemical plants, Pneumatic conveying applications, Furnace, process industries etc., whereas the vacuum applications cover Vacuum dryers, Used oil refining, edible oil refining, Zero discharge plants, Roll Metalizers, CVD and similar applications.

How do vacuum pumps have an advantage over steam/water based pumps?

- Dry vacuum pumps are a great technical development over the conventional steam/water based pumps, mainly due to following reasons.
- Highly energy efficient over the conventional steam/water based pumps.
- Since they do not require any motive fluid like water or steam the effect on environment is practically zero.
- They do not require any pre-treatment and post treatment plant like water softener or pollution equipment.
- They are compact, reliable and easy to operate.

- They allow greater level of automation and regulation, permitting greater process flexibility.
- They are economical and have short payback period.

What is the growth potential in emerging markets related to the vacuum pumps/systems?

Vacuum industry in India is still in its infancy stage. There are very limited indigenous manufacturers offering products & services to global standards. This has created a market for foreign players and large quantum of advanced vacuum pumps, gauges & allied accessories are being imported. Now, there is a growth in the Indian industries who are gearing up to meet the international levels of design and manufacture and this would result in a good growth in Vacuum Pumps and Blowers, especially when solutions offered are energy efficient and ecofriendly. The general awareness to conserve energy and minimize pollution is a great factor for all companies to switch to modern pumps and blowers, replacing the old inefficient polluting options.

What is the growth potential in emerging markets related to the Blowers industry?

Ans. India is developing at a fast pace and is probably fastest growing economy as on date. Industrial development brings in improved process having least impact on the environment, consuming minimum energy, economical and reliable. Emerging markets, like India, have to go a long way for development of equipment & processes targeting low energy intake, High product quality and Zero effect on environment meeting our PM, Honorable Narendra Modi's "ZED" concept- Zero Effect Zero Defect vision. Everest is able to offer all the above expectations for their pumps and blowers and expects a good growth in these segments. The same may not be true for industries that are not able to meet the expectations of the industry.

What are the key factors driving the global industrial vacuum pump market?

Application of medium to high Vacuum environment is finding use in practically all areas associated with Nuclear, Solar, Semiconductor, Space, Chemical, Pharma, Agro, Polymer, oil refining, Solvent recovery, Zero Discharge etc processes. The growth

in the above sectors has created in the need for quality, reliable Vacuum Pumps & allied equipment to improve the process making them energy efficient, fast and less polluting. The markets are become global and every manufacturer has to raise its product quality and standards to meet the global expectations. This global awareness has created opportunity for many to research in the vacuum field for new products and processes.

Compare the chemical industry vacuum pump requirements of Asia Pacific (developing) markets with the US/Europe (developed) markets.

The Indian chemical industry, in the recent years has transformed drastically to meet the international global standards set by the developed market like US & Europe. There was a time, few years back when developed market products were considered good and developing market product were unacceptable to that market. The same is not true today, as Indian manufacturers have raised their standard of products and successfully compete at par with developed market products. In order to manufacture such products, the need for good pumps and process plays an important role. Indian Companies have started in investing in-house R&D and moving away from “copy technology”. Today, we have hundreds of products manufactured in India and accepted well in all developed countries. Everest has to its credits Export of Pressure

& Vacuum systems to advanced countries like Germany & USA.

What is the level of automation that is available for the pumps?

What are the customer demands in terms of the vacuum pumps?

Improved processes and process reliability has raised the level of automation. Every process and allied equipments like pumps, blowers etc., go through many process variation and in order to work effectively over the entire process variation range need to have sensors to sense and modify to

suite the process variation maintaining consistent output / product quality. The variations could be atmosphere, weather, temperature, raw material inputs while the final product must be of a consistent quality. Everest has a complete team of qualified people who are able to provide solution and automation for all variations that the process may encounter during its manufacture and ensure consistent quality output.

Give us a brief overview about vacuum pumps/systems and blowers business at Everest?

Everest has wide range of vacuum pump and systems ranging from small 1 HP to larger 300 HP systems.

What is your future business and expansion plan for the vacuum pumps?

Everest has undertaken an expansion program under its both laterals Pressure and Vacuum divisions. The state of art plant infrastructure and machinery has been planned to ensure that the products manufactured meet international quality standards. Our focus is not only at the final product but are setting high standards for in process operations at all levels of working. Everest now targets global market and with our proven successful track record shall surely be the market leader. In the year financial year 2017-2018 we hope that both our expansion program would be fully functional and operative.

Elaborate on your focus regarding R&D and innovation related to the fields of vacuum pumps/systems.

Everest is probably the only Indian manufacturer in this segment, having in-house R&D facility recognized by Govt. of India and approved by DSIR-Department of Scientific & Industrial Research, under the Ministry of Science & Technology. Everest R&D center is run by very competitive research team which

is working around the clock to meet the

ever-growing customer's expectation offering reliable, tested and tried solutions. The latest development is Dry Hybrid Screw Pump and Mechanical Vapor Recompressor.

Do you have any patents for the chemical vacuum pumps?

At present, we haven't applied for any patents .

For the chemical vacuum pumps, give us some information regarding your after sales services. How do you address customer problems and look into availability of spare parts or spare pumps during on-going operations?

Everest offers a turnkey solution right from the design to final commissioning supported by efficient after sales service. Customer education and training has great importance to ensure that the process and equipment developed is maintained and run for best results. Everest has a technical and qualified after sales service staff offers full assistance as and when needed for the smooth operation of process and equipment.

What are the challenges faced by the vacuum pump manufacturers?

Everest promoters are all qualified technocrats and create a best mix of senior experienced players complemented by innovative and hard working juniors. Everest team is unique in its composition and this mix would ensure us to take Everest at new heights. We see challenges from global players and global entries but are very sure that with our in-house talent, vision and dedication shall be able to meet the same. ■