

PRESS RELEASE

GEA supplies energy-efficient hybrid vacuum ejector system to Mumbai refinery

Düsseldorf (Germany) March 02, 2016 – GEA recently successfully commissioned a Hybrid Vacuum Ejector System for Bharat Petroleum Corp. Ltd. for the crude distillation unit at its Mumbai (India) refinery. It is the first time this advanced technology has been used on a major refinery in India.

The GEA Hybrid Vacuum Ejector System is fitted with steam jet vacuum pumps and liquid-ring vacuum pumps that together represent the ultimate in highly energy-efficient, vacuum ejector technology. The combination of the two pump types at a well-defined interstage pressure reduces the consumption of the motive medium, power and cooling water. This is achieved by fitting condensers between the jet vacuum pumps to reduce the flow of drawn-off vapors and the motive medium before they reach the liquid ring pump. GEA jet vacuum pumps are able to convey large quantities of gas, operate smoothly and need very little maintenance making them perfectly suited for this application. They are also available in a wide choice of materials so, whatever the medium, corrosion can be reduced or eliminated.

The condensers comply with ASME (Sec. VIII, Div. I), TEMA-R and ASME-U Stamp. The total length of the tubes used in the condensers is 80 km each tube having dimensions of 12.85 m (L) x 2.85 m (W) x 2.95 m (H). The weight of each condenser unit is 65,000 kg and it was transported to site by multi-axle hydraulic trailer, covering a transit distance of 1600 km.

This project illustrates GEA's leading capability in engineering, manufacturing and delivery of future-oriented, energy-efficient vacuum ejector technology. The system was put into operation in November 2015.

All business enquiries to:

GEA Wiegand GmbH

Marketing Services

Andrea Heuser

Am Hardtwald 1, 76275 Ettlingen, Germany

Tel.: +49 7243 705 215

andrea.heuser@gea.com

PRESS RELEASE

All editorial enquiries to:

GEA Group Aktiengesellschaft

Corporate Media & Press

Nadine Gerndorf

Peter-Müller-Str. 12, 40468 Düsseldorf, Germany

Tel.: +49 211 9136-1503

Nadine.gerndorf@gea.com

gea.com

In case of publication, please submit two copies to us of each of the published items for our archives.

About GEA

GEA is one of the largest suppliers for the food processing industry and a wide range of process industries that generated consolidated revenues of approximately EUR 4.6 billion in 2015. As an international technology group, the Company focuses on process technology and components for sophisticated production processes in various end-user markets. The Group generates more than 70 percent of its revenue in the food sector that enjoys long-term sustainable growth. As of December 31, 2015, the Company employed around 17,500 people worldwide. GEA is a market and technology leader in its business areas. The Company is listed in Germany's MDAX (G1A, WKN 660 200). In addition, GEA's share is a constituent of the MSCI Global Sustainability Indexes. Further information is available on the Internet at gea.com.

If you do not want to receive any further information from GEA, please send an email to pr@gea.com.