WHY CHOOSE EVEREST?

Everest Blower Systems (EBS) has been successfully involved in the manufacture of high quality engineered systems for the chemical, pharmaceutical, food and all other process industries for many years now. We manufacture INDIGENIOUS vacuum systems, making them COST EFFECTIVE and fit for ASIAN PROCESS INDUSTRIES.

As a part of EVEREST GROUP and through its experienced and specialized product teams, EBS is an ideal and competent partner offering its customers comprehensive engineering and project management capability, attending to its customer's needs and process requirements to provide the very best engineered solutions.

Our Core Strengths

EPC-Engineering, Procurement, Commissioning. We undertake Consultancy -Product Development Engineering - Application & Selection - Design & Construction - Project Management - Manufacture & Assembly - Inspection & Testing - Installation & Commissioning - Spares & Service

EBS supplies a diverse range of vacuum packages from standard compact units to complex purpose built systems with integrated instrumentation and control panels (Local / Remote Operation). Typical vacuum generation packages may include Rotary Oil Pump Systems, Liquid Ring Vacuum Pump Systems, Piston Pump Systems, Screw Pumps, Mechanical Vacuum Boosters, DRY SUPERVAC VACUUM SYSTEMS, Pre-Condensers, Post-Condensers, Heat Exchangers, Scrubber Systems, Gauges, Separators, Traps, Electric Panel etc.

Everest Vacuum System at MATRIX LABORATORIES LTD.

Everest has supplied Vacuum Pumping System comprising of the Everest Dry Screw Vacuum Pump, & Everest Mechanical Vacuum Booster combination to M/S MATRIX LABOTATORIES LTD. Details of the systems supplied are as under:

Fig: Everest Vacuum Pumping System at MATRIX LABORATORIES LTD.

Model : SUPER VAC- 1000
Effective Displacement : 1000 m^3/hr.
Ultimate Vacuum : 0.02 Torr(Absolute)

Orientation of equipment was under (starting from connection of Process Line ie from receiver to the discharge end)

Everest Mechanical Vacuum Booster

Effective Displacement : 1000 m^3/hr.
Ultimate Vacuum : 0.02 Torr (A)
Connected Power : 5 HP, 2 Pole, Flame Proof Motor.
Used Power : 3.7 HP

Everest Inter Cooler Unit

Effective Cooling Rate : 5 TR
Area of the condenser : 0.5 m^2.

Everest Dry Screw Vacuum Pump

Effective Displacement : 250 m^3/hr.
Ultimate Vacuum : 0.2 Torr(A).
Connected Power :10 HP, 2 Pole, Flame Proof Motor
Used Power : 6 HP

Everest Post Condenser with Receiver Unit

Effective Cooling Rate : 5 TR
Area of Condenser : 2.5 m^2
Volume of Receiver : 12 Litres.

Interlocking Features

1) Nitrogen Purging for the Dry Screw Vacuum Pump: The Dry Screw Vacuum Pump has a provision of Nitrogen purging for cooling and sealing of the Mechanical Seals fitted with KALREZ 'O' Rings at the discharge or Low Vacuum Side.

Fig: Solenoid Valve for Nitrogen Purging with Rotameter

2) Cooling Water Jacket for the Dry Screw Vacuum Pump: The Dry Screw Pump has a a provision for water cooling. Cooling water flows in the water jacket around the pump, dissipates the heat of compression generated and keeps the internals cool. The cooling water does not come in connect with the process vapours. The flow switch for cooling water is interlocked with the pump operation.

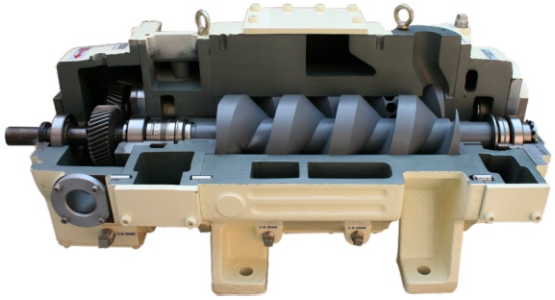

Fig: Cut Section Dry Screw Vacuum Pump

Automations Provided

1) Electro Pneumatic Butterfly Valve at suction: Everest supplied the vacuum system with an Electro pneumatically operated Butterfly valve. This provides instants open and shut off of the Vacuum Systems and proved to be more efficient in Isolating the system from the process.

Fig: Electro Pneumatic Butterfly Valve

2) Frequency Control: Everest supplied the vacuum system with VFD which has the capability to control and vary the frequency & current and resulting in safe and smooth start up of the Vacuum Pump as well as the vacuum booster

Fig: Variable Frequency Drive L&T Yashkawa make (Standard)

3) Solvent Flushing, Nitrogen Purging: Everest Vacuum Pumps have the provision for the Nitrogen Purging, Solvent Flushing as well as supply of water in the cooling jacket of the Screw Pump for which Everest provides solenoid valves connected over the pump for the automatic working of the same.

4) Timer Based Operation: Everest vacuum systems are supplied with a PLC where the parameters are set as per the requirement of the process and this enables smooth start up & stop of the Vacuum System.

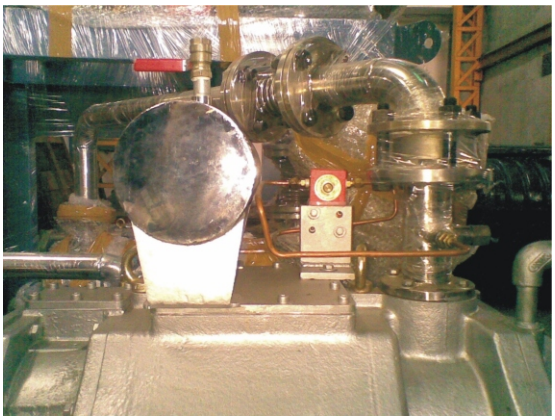

Fig: *Everet Vacuum Pumping System withSolvent Flushing provision.*

Advantages of Everest Vacuum Pumping System

1) Everest Mechanical Vacuum Booster has a power saving design by virtue of speed enhancement and control for shorter process cycles.

2) Everest Mechanical Vacuum Booster & Everest Vacuum Pump have a long life and very low maintenance.

3) Everest Mechanical Vacuum Booster & Everest Vacuum Pump are equipped with Variable Frequency Drive to protect the motor against overload for over voltage, under voltage, over current, over heating, Ground fault etc., resulting in trouble free operation of the System.

4) Everest ensures provision of optimum piping for vacuum distribution to various processes as per customers requirements.

5) In Everest Vacuum Pumps & Boosters no oil (or) water is in contact with the process vapour there by maintaining product quality.

6) There is no metal to metal contact between operating parts inside the Vacuum Booster and the Vacuum Pump resulting in lesser wear & tear and longer pump life.

7) The Everest Vacuum Boosters and Vacuum Pumps are designed considering process cycles hence have a short gas path.

8) Single stage design of the pump enables easy discharge of solid waste & eliminates the residue in the pump.

9) The Screw pump is suitable for pumping toxic, corrosive and various condensable gas as due to special coating on the internals/wetted parts.

10) All the pumps have PTFE coatings as standard.

11) The pumps have bellows type Mechanical Seals or Lip Seal.

12) Screw Type Rotors have high volumetric efficiency.

13) Everest Boosters have lobe type reliable design. Additionally it has capability of producing high levels of vacuum.

14) Everest Boosters have the capability to withstand corrosive vapours in the plants.

Benefits of Everest Vacuum Pumping Systems over Steam Jet Ejectors

EVEREST DRY VACUUM PUMPING SYSTEM Vs STEAM JET EJECTOR			
Parameters	Units Of Measurement	Steam Jet System	Everest's SUPER VAC 1200m3/Hr (Inlet Pumping)
Operating Hours	Hours/ Year	7000	7000
Steam			
- Flow Rate	Kg/Hr.	180	0
- Unit Rate	/ kg	1.45	0
Steam Cost	/Year	18,27,000	0
CoolingWater			
- Flow Rate	m^3/hr.	15	2.7
- Unit Rate	/m^3	2	2
Water Cost	/Year	2,10,000	37,800
EffluentTreatment			
- Flow Rate	m^3/hr.	0.18	0
- Unit Cost	/ m^3	60	0
Treatment Cost	/Year	75,600	0
Nitrogen			
- Flow Rate	LPM/ m^3/hr.	0	40/ 2.4
- Unit Cost	/m^3	0	4
Nitrogen Cost	/Year	0	67,200
Power			
- Units Consumed	kW	10	7.9
- Unit Cost	Per kW/hr	4	4
Power Cost	/ Year	2,80,000	2,21,200
BatchDetails			
- Time	Hours	42	33.5
- Cost/ Batch		13,389	1,561
- Total Batches/ Year	Nos.	190	238
- Number of Batches Increased	Nos.		48
- Total Savings / Batch			10,753
Additional operational Cost for the differential batches [No. of Batches Increased(48) x Cost/hr for steam jet system(318 .8) x Batch cycle time(42)]		6,41,088	0
Total Utility Cost/ Hour		318.8	46.6
Total Utility Cost/ Year		31,91,488	3,72,800
Maintenance Cost/ Year		20,000	5000
Yearly Operating Cost for the Equipment		30,33,688	3,26,800
Operating Cost/ Month	/Month	2,67,624	31,483
Dry System Cost Saving / Year		-	27,06,888
Dry System Cost Saving/ Month	/Month	-	2,25,574
Installation Cost		-	0
Total Expenditure in Running the Vacuum Systems		**30,33,688**	**3,26,800**

INSTALLATIONS

Fig: Vacuum system supplied to a pharmaceutical company in Visakhapatnam.

Everest being a renowned name in the field of Vacuum Systems has Installations in some of the Reputed Pharmaceutical Industries as shown above.

STRENGHTS OF EVEREST

Everest, is a 30 years old company engaged in the manufacturing of Industrial Equipments such as Roots Blowers, Acoustic Hoods, Mechanical Vacuum Boosters, Dry Vane Pump & Industrial Vacuum Systems. Everest is today a leading manufacturer of vacuum equipments and systems in India.

The Group consists of 400 trained staff members and workers spread over its four manufacturing locations in New Delhi & Bahadurgarh, Haryana. This includes over 70 engineers, eminent in their fields of operation & highly trained for various jobs pertaining to their area of expertize.

Smart Execution: All Everest facilities work on P.A.P.D. concept of manufacturing ensuring adequate work in progress. This enables us execute orders with in committed delivery dates. Our smart execution personal ensure P.A.P.D. is vigorously followed in all process areas, there by enabling us to provide outstanding customer service.

After Sales Support: Everest has thousands of vacuum equipments installed all over the country for which we have highly skilled and technical team of After Sales Service wide spread in different areas of the country.

The team comprises of 20 technicians and 10 engineers trained to troubleshoot various process and product related problems.

Everest also has its Branch in the Heart of Andhra Pradesh i.e. Hyderabad for last 3 years with 2 Service Engineers and 2 Marketing Engineer catering the clients in the region and providing them with all the support from Everest at all fronts.

PARTICIPATION IN EVENTS/EXHIBITIONS

Everest sales Team at various trade shows all over the Country.

Everest is a leading manufacturer of Industrial Vacuum Systems, Roots Blowers, Acoustic Hood and other Industrial equipments. Everest Group participates in various Industrial Exhibitions, seminars, conferences and other events being organized in various cities. This platform helps us in establishing one is to one relationship with our prospects & clients, resulting in better understanding of their process and related issues / problems. Our strong technical support team helps us in providing our valuable clients the best solutions which exist for optimization & trouble free operation of their plant & processes.