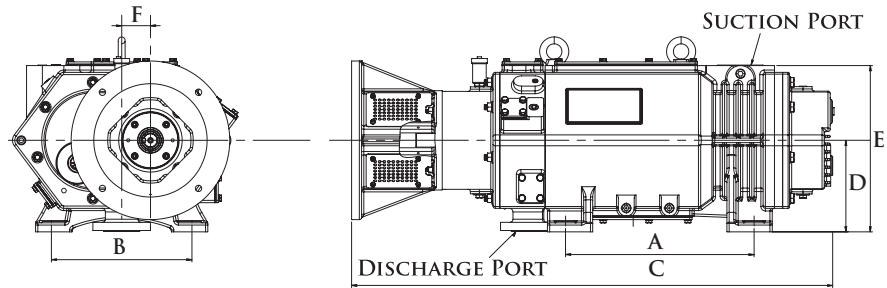


THIONYL CHLORIDE SOCL<sub>2</sub>, PHOSPHORYL CHLORIDE POCL<sub>3</sub> AND HCL SHALL HAUNT YOU NO MORE.

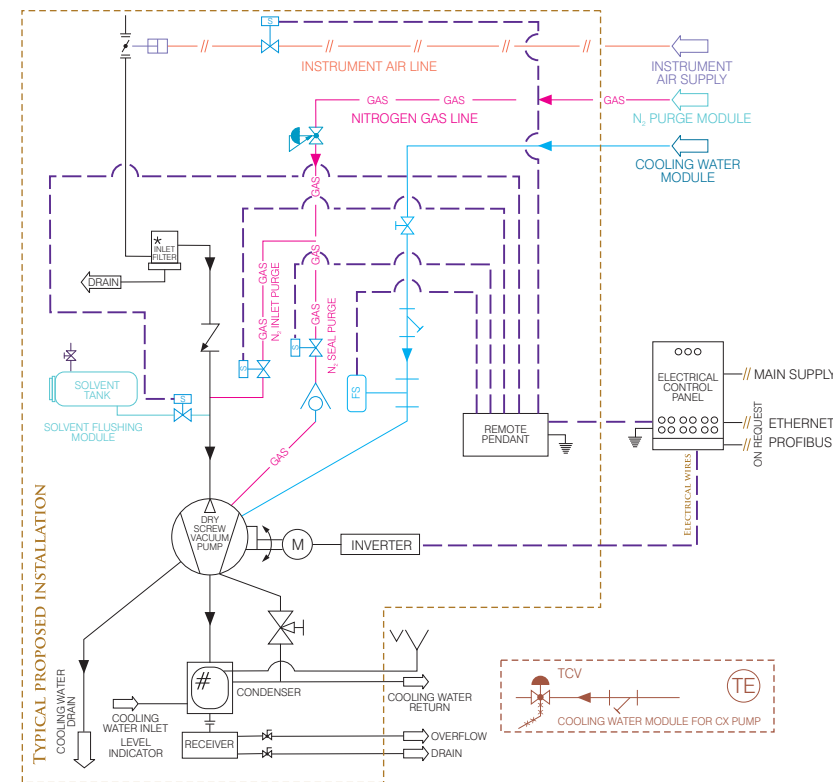
EVEREST HAS THE SOLUTION



DIMENSION DIAGRAM

Model	Side	A	B	C	D	E	F	G	H	I	Suction Port	Discharge Port
ESPH 60		185	170	535	115	220	32	365	260	130	35	25
ESPH 150		260	210	775	145	260	45	475	320	175	40	50
ESPH 300		370	290	935	190	345	60	595	435	195	50	50
ESPH 400		415	310	1060	200	365	65	675	480	205	65	50
ESPH 800		440	360	1195	220	400	75	775	480	245	100	65
ESPH 1500		720	460	1570	302	550	110	1105	710	267	125	80
ESPH 3000		TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA	TBA

P&I DIAGRAM OF A TYPICAL SUPERSCREW SYSTEM



STANDARD SUPPLY | Screw Pump, Motor, VFD, Seal-Purge, Cooling Water Module (Standard), Non-Return Valve, Main Isolation Valve  
 \* Contact Everest for more details  
 # Can be placed Upstream/Downstream as per requirement  
 \* TBA - To Be Announced

EVEREST ADVANTAGE

EVEREST HAS THE SKILL, EXPERTISE, KNOWLEDGE AND CAPABILITY THAT IT HAS ACQUIRED OVER THE YEARS TO CUSTOM DESIGN VACUUM SYSTEMS FOR SPECIFIC CUSTOMER REQUIREMENTS AND DELIVER GUARANTEED RESULTS

RELIABLE LOW MAINTENANCE DURABLE INDIGENOUS COST EFFICIENT

EVEREST PRODUCT RANGE

- VACUUM**  
 MECHANICAL VACUUM BOOSTERS  
 DRY SCREW VACUUM PUMPS  
 SUPERVAC  
 ROTARY VANE VACUUM PUMP  
 SUPERVANE  
 VACUUM SYSTEMS (WET)  
 ENGINEERED VACUUM SYSTEMS  
 MECHANICAL VAPOUR RECOMPRESSOR (MVR|MVC)  
 LOW TEMPERATURE THERMAL EVAPORATOR (LTTE)

- PRESSURE**  
 TWIN LOBE ROOTS BLOWERS  
 TRI LOBE ROOTS BLOWERS  
 CENTRIFUGAL BLOWERS  
 TURBO BLOWERS  
 BLOWER PACKAGES

<b>INDUSTRIES SERVED</b>	<b>CHEMICAL &amp; PHARMACEUTICAL</b> Degassers Vacuum Distillation Evaporators Crystallizers Vacuum Filters Vacuum Dryers
<b>VACUUM FURNACE INDUSTRY</b>	<b>ELECTRICAL INDUSTRY</b>
Heat Treatment Hardening Optical Coating Metallizing Degreasers in Furnace	Transformer Vacuum Impregnation Transformer Oil Purifier Vapour Phase Drying
<b>INDUSTRIAL PROCESSING</b>	<b>FOOD PROCESSING INDUSTRY</b>
Impregnating Windings Drying Textiles Mills Sterilizing re-circulation through Ethylene Dioxide Incandescent CFL and Tube Light Manufacturing TV Tubes Manufacture	Vacuum Packaging-Fresh & Cooked Meats Freeze Drying Deodorization of Vegetable Oil (FFA Distillation) Sugar Refining Vacuum Evaporative Cooling Vacuum Tray Drying Flash Drying

Our technology is so flexible, we can custom manufacture **Special Blowers, Vacuum Pumps & Systems** by alloying and cross linking diverse designs to suit individual requirements and import substitutes.



EVEREST VACUUM  
 Innovative Engineering Solutions

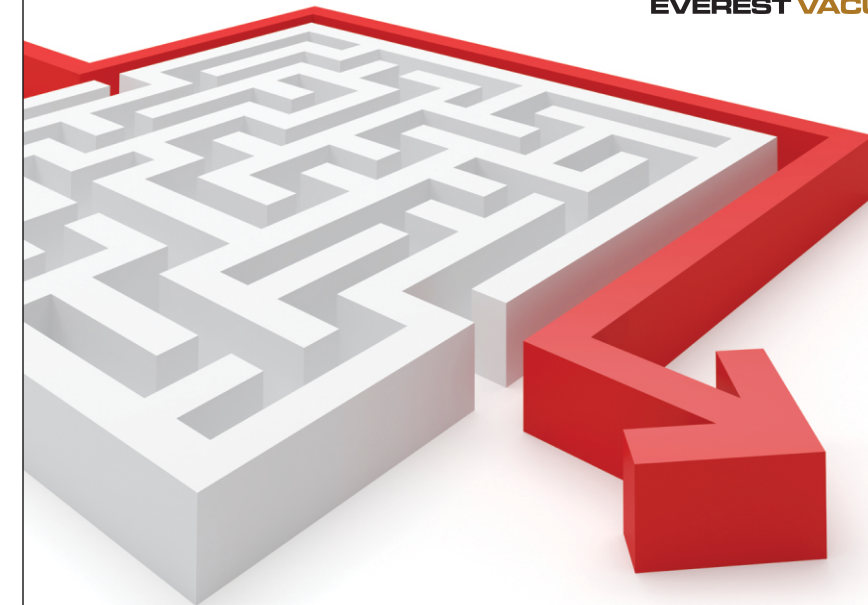
Corporate Office: DSM 255-227, DLF Tower, 15 Shivaji Marg, New Delhi 110015, India  
 T: +91 11 47322553, 41882062 | E: sales@everestvacuum.com | www.everestvacuum.com  
 24x7 Support: +91 9818742743



We don't just offer **Blowers, Boosters and Systems** we offer **SOLUTIONS !!**



EVEREST VACUUM



Innovative Engineering Solutions



SUPERSCREW  
 DRY SCREW VACUUM  
 PUMPS

HYBRID COMBINED VARIABLE PITCH

EverestVacuum a brand of Everest Blower Systems Private Limited brings to its customers, hybrid combined variable pitch Dry Screw Vacuum Pumps | SuperScrew.

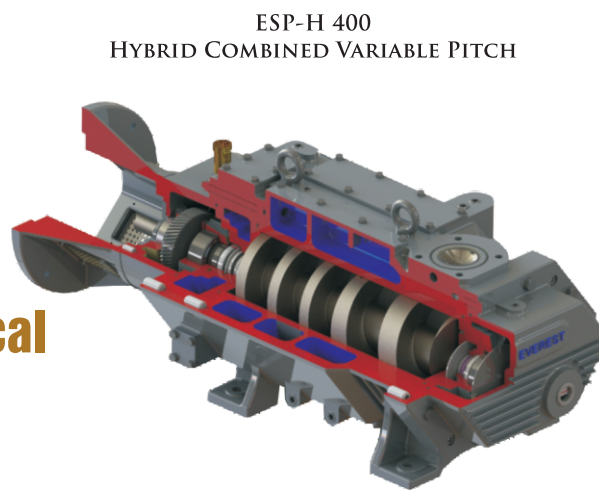
These are widely used in chemical, pharmaceutical, petrochemical, food processing, plastics, CD-DVD manufacturing, thin-film & wiped film evaporation and many other applications which require a clean and stable vacuum in general and central vacuum industry.

SuperScrew is the newest development in the vacuum pump industry. They offer a number of advantages over traditional vacuum pump design. There is No Oil / No Water in contact with the process vapours, therefore they are considered extremely environment-friendly.

As these pumps are completely dry, the process vapour can pass through the pump without any contamination and be collected at the discharge of the system by a vent condenser. This offers the customer a very efficient vapour recovery management system and an environment-friendly vacuum ecosystem.

ENGINEERING | EVALUATION | DESIGNING  
 MANUFACTURING | TESTING | EXECUTION | POST SALES AND SERVICE

**A Pump designed to perform in harsh tropical conditions**



**OPERATING PRINCIPLE**

The EVEREST ESPH Dry Screw Vacuum Pump is a hybrid variable pitch screw, dry running non-contact type vacuum pump. Two parallel screws, rotating in the opposite directions, having a highly sophisticated surface profile consisting of an Archimedean Quimby and an Arc curve. The driveshaft rotation is clockwise (CW) when viewed from the motor end (Drive End) of the pump. Helical timing gears position these screws relative to each other. The pumped gas is compressed into the discharge port by the rotation of the screws. The advanced screw design results in lower energy consumption compared to standard screw design. This also results in lower heat generation because of the high compression of the gas/vapours.



EVEREST VACUUM

**SuperScrew Dry Screw Vacuum Pump**

**SALIENT FEATURES**

- 100% Oil-Free Dry Pumping
- Hybrid Combined Variable Pitch Screw
- Faster Pump Down Time
- Superior Ultimate Vacuum
- Low Discharge Gas Temperature
- Low Power Consumption
- Low Noise and Vibration
- Special Alloy Casting for Durability
- Special Coating For

**THE ADVANCED SCREW DESIGN RESULTS IN LOWER ENERGY CONSUMPTION COMPARED TO STANDARD SCREW DESIGN**

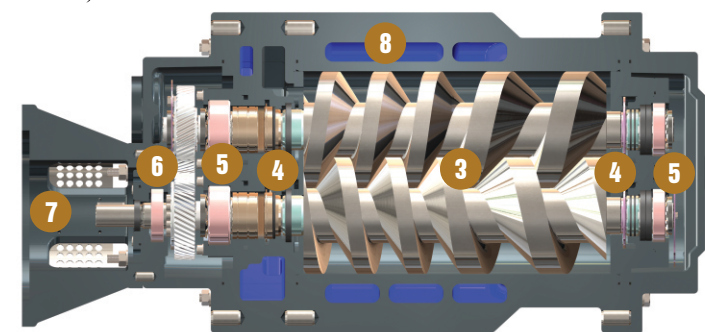
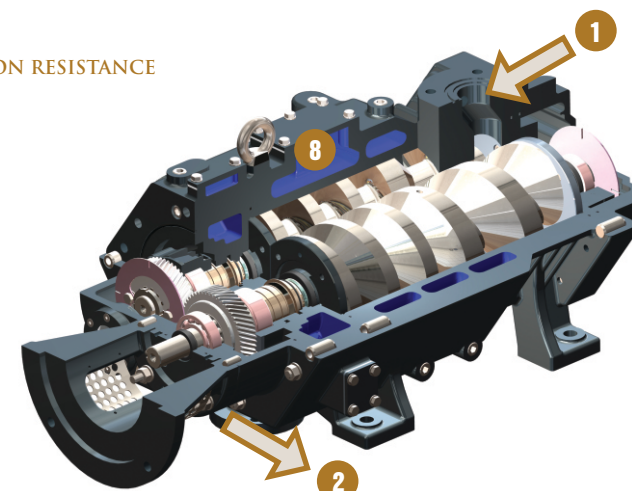
**KEY FEATURES**

- Reduced power consumption as opposed to the standard screw design pump by up to 30%.
- Low discharge gas temperature and high volumetric efficiency resulting in lower pump downtime with higher ultimate process vacuum.

**SPECIAL COATING for BETTER CORROSION RESISTANCE ALL WETTED PARTS**

**SECTIONAL VIEW OF SUPERSCREW DRY SCREW VACUUM PUMP**

- 1 SUCTION
- 2 DISCHARGE
- 3 SCREWS
- 4 SEALS
- 5 BEARINGS
- 6 TIMING GEARS
- 7 SHAFT/COUPLING
- 8 COOLING JACKET



**SUPERSCREW DRY SCREW VACUUM PUMP**

**SPECIFICATIONS**

Model	Nominal Displacement (50/60 Hz)		Ultimate Vacuum		Power (KW)		Rotation (RPM)		Cooling Water (Mineral) Flow		Approx Weight (Bare Shaft) Kgs.
	m <sup>3</sup> /hr	CFM	Torr	Pa	50 Hz	60 Hz	50 Hz	60 Hz	Lts./Min	Lts.	
ESPH 60	50/60	35/25	0.75	100	2.2	2.2	2900	3480	3-5	0.8	80
ESPH 150	120/150	70/90	0.75	100	3.7	3.7	2900	3480	5-10	1.2	200
ESPH 300	250/300	150/180	0.075	10	7.5	7.5	2900	3480	10-15	1.8	300
ESPH 400	330/400	195/235	0.075	10	7.5	11	2900	3480	10-15	2.2	380
ESPH 800	660/800	390/470	0.05	6.66	11	15	2900	3480	15-20	3	500
ESPH 1500	1250/1500	735/885	0.05	6.66	30	37	1470	1750	30-40	8	1200
ESPH 3000	2250/2700	1325/1590	0.05	6.66	45	55	1470	1750	40-50	10	1500

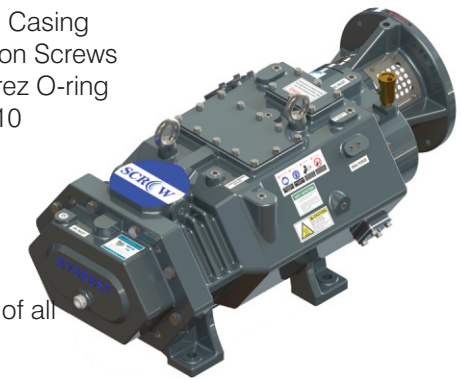
	STD Standard Application	ENP Mildly Corrosive Application	CX Corrosive Application	CL Clean Application
<b>SEAL TYPE</b>	HV (Suction) Double Lip (PTFE+PTFE) Seal	HV (Suction) Double Lip (PTFE+PTFE) Seal on Alloy Steel Sleeve (H&G)	HV (Suction) Double Lip (PTFE+PTFE) Seal on Alloy Steel Sleeve (H&G)	HV (Suction) Double Lip (PTFE+PTFE)
	LV (Discharge) Double Lip (PTFE+PTFE) and Mechanical Bellow Seal (AM350+Viton), N <sub>2</sub> Purged	LV (Discharge) Double Lip (PTFE+PTFE) & Mechanical Bellow Seal (AM 350+Viton), N <sub>2</sub> Purged	LV (Discharge) Double Lip (PTFE+PTFE) & Mechanical Bellow Seal (HAST-C+Kalrez), N <sub>2</sub> Purged	LV (Discharge) Double Lip (PTFE+PTFE) Seal
<b>MOC</b>	BODY: C.I FG 260 with PEEK coating	Alloy Cast Iron with ENP	Alloy Cast Iron with ENP+PEEK coating	C.I FG 260 with ENP
	SCREW: Ductile Iron with PEEK coating	Alloy Ductile Iron with ENP	Alloy Ductile Iron with ENP+PEEK coating	Ductile Iron with ENP
	CP PLATE: C.I FG 260 with PEEK coating	Alloy Cast Iron with ENP	Alloy Cast Iron with ENP+PEEK coating	C.I FG 260
	GP PLATE: C.I FG 260 with PEEK coating	Alloy Cast Iron with ENP	Alloy Cast Iron with ENP+PEEK coating	C.I FG 260

EVEREST ADVANTAGE HIGH VOLUMETRIC EFFICIENCY | LOW ENERGY CONSUMPTION | PACKAGE SUPPLY | PLUG AND PLAY CONCEPT

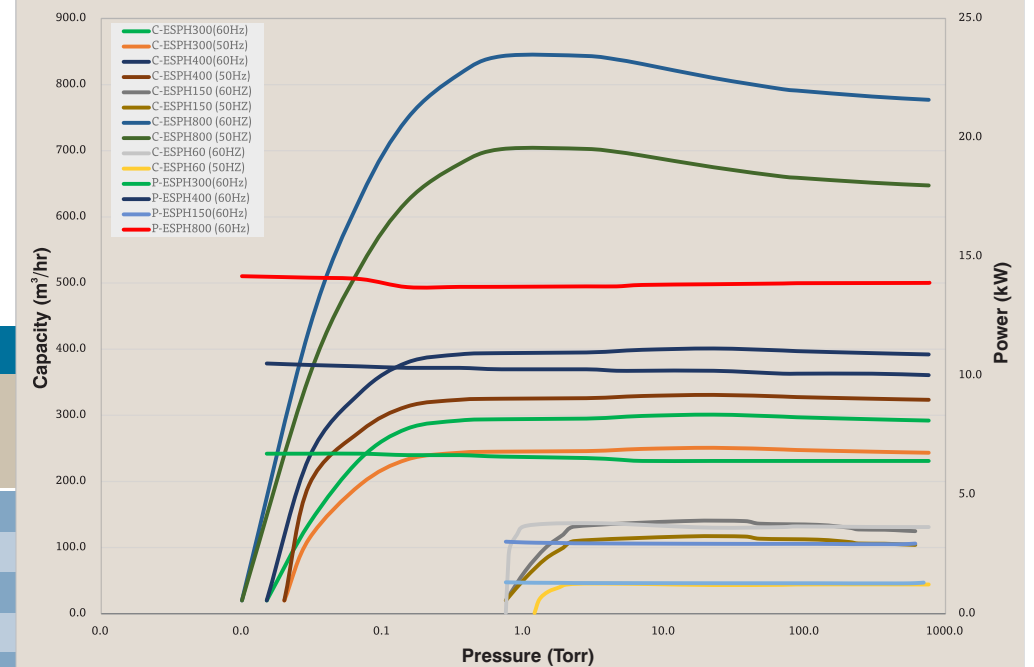
**ANTI CORROSIVE DRY SCREW VACUUM PUMP | CX**

**SALIENT FEATURES**

- ENP coating on Alloy Cast Iron Casing
- ENP coating on Alloy Ductile Iron Screws
- Hast-C Bellow M/Seal with Kalrez O-ring
- PTFE Double Lip seal on SS 410 Hardened and Ground Bush
- Synthetic Lubrication Oil
- N<sub>2</sub> Inlet and N<sub>2</sub> Seal Purge
- PLC Controlled Logic of all instrumentation
- PEEK/HALAR coated internals of all pipelines (opt.)
- PTFE lined SS 304/316 Valves
- Thermostatic Control Valve (TCV): To maintain optimum operating temperature of the pump thereby limiting any vapour condensation
- Top Suction/Bottom Discharge: To ensure the free gravity flow of any condensate/solvent getting condensed within the pump



**ESPH CAPACITY AND POWER CURVE | ESPH 60|150|300|400|800**



**PUMPING SPEED CURVE | ESPH 1500 / 3000**

