

The logo for Economy, featuring a stylized grid icon to the left of the word "ECONOMY" in a bold, white, sans-serif font.

ECONOMY

Fits right. Works right.

VACUUM SOLUTIONS

Economy Process Solutions

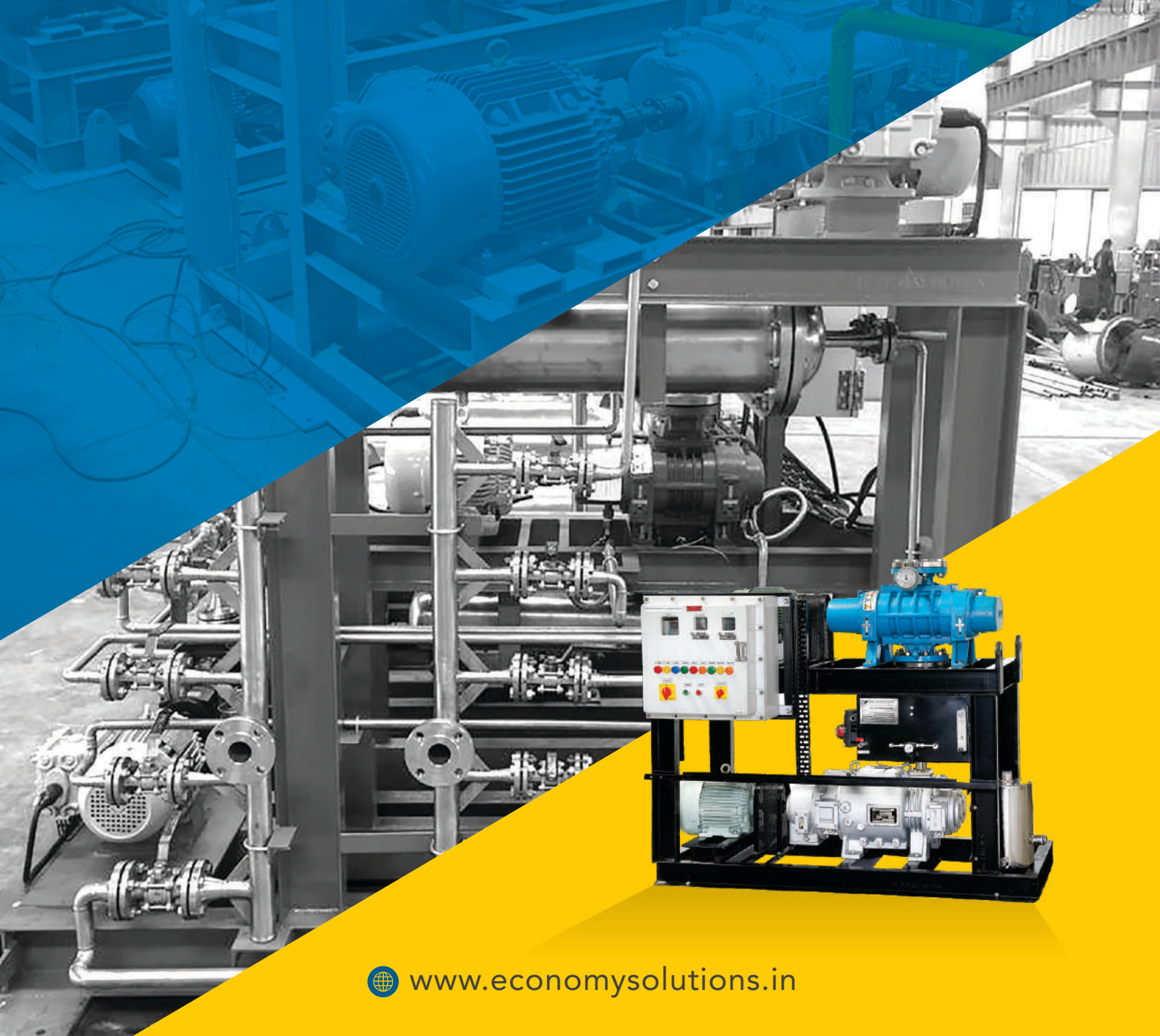


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ABOUT US

Economy, established in 1926, has its corporate office in Mumbai and branches at Chennai, Nashik, Delhi, Hyderabad, Pune and a growing dealer network.

Economy caters to Middle East and Africa customers through its associate company M/s Rotative Process System, FZE located in UAE.

Economy has its manufacturing facilities at Chakan, Pune. These plants have state of the art machinery and experienced and qualified managers and engineers.

Economy offers a complete range of Industrial Vacuum Solutions, Lobe Blower Packages, Process Equipment and Beverage processing and packaging solutions. These products are integrated, customized, designed and engineered to provide solutions for Vacuum and Process requirements for a wide range of industries, worldwide.

Economy is approved by many engineering and project consultants. Our client list includes OEMs and major customers in Agrochemical, Cement, Chemical, Food Processing, Gas Processing, Paint, Pharmaceutical, Power, Sugar, Vapour Recovery, Waste oil, Water and Waste water treatment, Zero Liquid discharge system, etc.

Economy's dedicated and technically qualified team of engineers apply their experience and knowledge to provide solutions to an ever growing list of our valued customers. Presence of strong and dynamic sales and service network has helped us in becoming one of the largest company in our segment.

Economy also manufactures complete turnkey solutions including design, installation, commissioning, training and operating plants for various processes.

Economy looks forward to the responsibility of owning your requirements, understanding them and providing solutions for them.....

- ◆ CHEMICAL PROCESSING
- ◆ STEAM RECOMPRESSION
- ◆ SOLVENT HANDLING
- ◆ PNEUMATIC CONVEYING
- ◆ DEGASSING
- ◆ VACUUM DISTILLATION
- ◆ CRYSTALLIZATION
- ◆ DISTILLATION
- ◆ FREEZE DRYING
- ◆ STERILIZATION
- ◆ WASTEWATER MANAGEMENT
- ◆ EXTRUDER DEGASSING
- ◆ VACUUM SIZING TANK
- ◆ PLASTIC RESINS PRODUCTION
- ◆ WIRE COATING
- ◆ CORRUGATED PIPE MANUFACTURING
- ◆ PIPELINE DRYING
- ◆ VACUUM PACKAGING
- ◆ THERMOFORMING
- ◆ BOTTLING
- ◆ PHARMACEUTICAL PACKAGING
- ◆ SOLAR INDUSTRY
- ◆ LANDFILL GAS APPLICATIONS
- ◆ WASTE OIL RECOVERY



VACUUM SOLUTIONS

- ◆ ROTARY PISTON PUMP (SINGLE/DOUBLE STAGE)
- ◆ ROTARY VANE PUMP (SINGLE/DOUBLE STAGE)
- ◆ HOOK AND CLAW DRY PUMP
- ◆ DRY SCREW VACUUM PUMP
- ◆ DRY VANE PUMP
- ◆ DIFFUSION PUMP
- ◆ LIQUID RING PUMP
- ◆ VACUUM BOOSTERS
- ◆ CUSTOMISED VACUUM SYSTEMS
- ◆ VACUUM SYNTHETIC OIL

ACCESSORIES

- ◆ PLC/HMI
- ◆ SCRUBBERS
- ◆ FILTERS
- ◆ HOT/COLD TRAPS
- ◆ HEAT EXCHANGERS
- ◆ FLAME ARRESTORS
- ◆ INSTRUMENTATION
- ◆ SPIRAL CONDENSERS
- ◆ SILENCERS
- ◆ SPLIT PANELS
- ◆ CUSTOMISED OPERATING PROCEDURES

PROCESS EQUIPMENT

- ◆ RISING FILM EVAPORATOR
- ◆ FALLING FILM EVAPORATOR-TUBULAR
- ◆ FALLING FILM EVAPORATOR-PLATE
- ◆ FORCED CIRCULATION EVAPORATOR
- ◆ AGITATED THIN FILM EVAPORATOR
- ◆ SHORT PATH DISTILLATION UNIT
- ◆ LIQUID-LIQUID EXTRACTOR
- ◆ AGITATED THIN FILM DRYER
- ◆ ZERO DISCHARGE SYSTEM (MVR/TVR)
- ◆ HEAT EXCHANGER
- ◆ DISTILLATION COLUMN
- ◆ AGITATED REACTOR
- ◆ SPIRAL HEAT EXCHANGER
- ◆ ROTARY VACUUM PADDLE DRYER
- ◆ AGITATED NUTSCHE FILTER DRYER

LOBE BLOWER

- ◆ TWIN LOBE
- ◆ TRI LOBE

FOOD & BEVERAGE EQUIPMENT

- ◆ FOR BOTTLING & PACKAGING PROCESS
- ◆ FOR WINE MAKING PROCESS
- ◆ FOR DAIRY PROCESS
- ◆ FOR BREWERY PROCESS
- ◆ FOR WATER & JUICES

Dry Screw Vacuum Pump

EDPH Series

A new compact design and highly efficient Dry Vacuum Pump featuring patented continuously variable pitch screw design, Consumes 30% less power than competitive Dry Vacuum Pump designs and generates lower process gas discharge temperature.



Material of Construction

Pump Casing	Ductile Iron
One-piece Rotor & Shafts	Ductile Iron
Shaft Seals	Drive end-Mechanical & Lip Seal Non Drive End-Triple Lip Seal
"O" Rings	KALREZ / VITON / BUNA
Coating	Body & Screws-NIFLON/PFA/NIFA/PTFE/PEEK RESIN based special PFA for very corrosive applications.

Features

Patented continuously Variable pitch rotor design.
Water Jacket cooling - no internal cold spots.
Rotor Shaft is rugged one - piece component with greater shaft strength and no disassembly problem.
Tip clearance is more generous, hence particulate tolerance is excellent.
One piece, rugged jacketed body, without any partitions inside, for straight transfer of gas, liquids & particles. No problem of rotor jamming due to accumulation of slug, liquids & particles, (in case of partition type body).
No metal to metal contact between operating parts, handles liquids, slugs & particles.
Low noise and vibration levels. Compact low-profile design.
Coatings to suit various applications.

Specification Type		EDPH 120	EDPH 200	EDPH 320	EDPH 430	EDPH 800
Nominal displacement 50 Hz / 60Hz (m ³ /hr)		100 / 120	155 / 187	267 / 320	358 / 430	625 / 750
Ultimate Pressure (50 Hz / 60Hz)		1.3x10 ⁻² /6.6x10 ⁻³ kPa (0.1/0.05Torr)	6.6x10 ⁻³ /2.7x10 ⁻³ kPa (0.05/0.02Torr)	4.0x10 ⁻³ /2.7x10 ⁻³ kPa (0.03/0.02Torr)	4.0x10 ⁻³ /2.7x10 ⁻³ kPa (0.03/0.02Torr)	4.0x10 ⁻³ /1.3x10 ⁻³ kPa (0.03/0.01Torr)
Power (KW/HP)		3.0/4.0	5.5/7.5	7.5/10	11/15	15/20
Rotation (R.P.M) 50Hz/60Hz		2900 / 3500				
Port Size	Suction (A)	40	40	50	65	100
	Discharge (A)	40	40	40	50	65
Cooling water (l / min)		3	5	8	11	20
Seal Type	Front End Plate	Plate Spring (or Bellows) type Mechanical Seals & Lip Seals				
	Rear End Plate	Lip Seals				
	Front End Cover (Drive Shaft)	Plate Spring (or Bellows) type Mechanical Seal				
Weight (Pump only)		150 kg	220 kg	300 kg	400 kg	600 kg

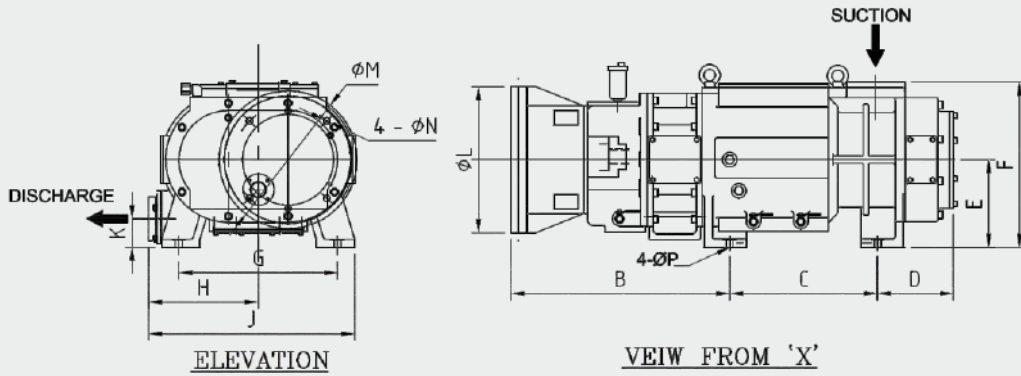
*Specifications are subject to change without notice to improve product quality.

Dry Screw Vacuum Pump EDPH Series

Specification Type		EDPH 1000	EDPH 1200	EDPH 1500	EDPH 1800	EDPH 2700
Nominal displacement 50 Hz / 60Hz (m ³ /hr)		750 / 900	1000 / 1200	1300 / 1500	1500 / 1800	2250 / 2700
Ultimate Pressure (50 Hz / 60Hz)		4.0x10 ⁻³ /1.3x10 ⁻³ kPa (0.03/0.01Torr)	4.0x10 ⁻³ /1.3x10 ⁻³ kPa (0.03/0.01Torr)	1.3x10 ⁻² /6.6x10 ⁻³ kPa (0.1/0.05Torr)	1.3x10 ⁻² /6.6x10 ⁻³ kPa (0.1/0.05Torr)	1.3x10 ⁻² /6.6x10 ⁻³ kPa (0.1/0.05Torr)
Power (KW/HP)		18.5 / 25	22 / 30	37 / 50	45 / 60	55 / 75
Rotation (R.P.M) 50Hz/60Hz		2900 / 3500	2900 / 3500		1450 / 1750	
Port Size	Suction (A)	100	100	125	125	150
	Discharge (A)	65	80	80	80	100
Cooling water (l / min)		20	82	36	40	48
Seal Type	Front End Plate	Plate Spring (or Bellows) type Mechanical Seals & Lip Seals				
	Rear End Plate	Lip Seals				
	Front End Cover (Drive Shaft)	Plate Spring (or Bellows) type Mechanical Seal				
Weight (Pump only)		600 kg	850 kg	1350 kg	1350 kg	1650 kg

*Specifications are subject to change without notice to improve product quality.

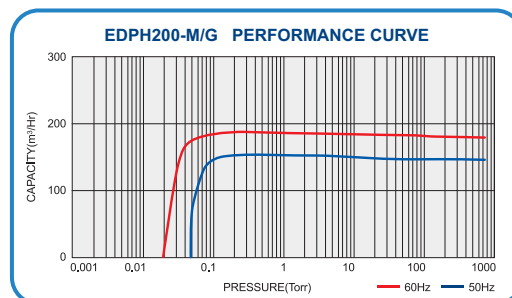
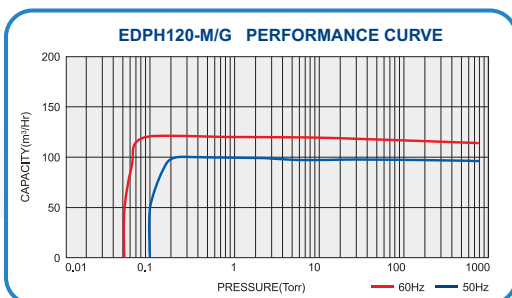
Dimension



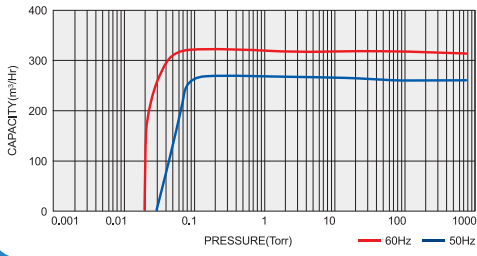
Size Model	A	B	C	D	E	F	G	H	J	K	OL
EDPH120	621	328	200	93	140	262	260	150	300	50	250
EDPH200	760	348	301	111	163	294	248	204	355	95	250
EDPH320	857.5	404.5	334	119	178	326	270	225	380	97	300
EDPH430	993	468	392	133	192	352	310	255	445	96	350
EDPH800	1131	514	407	140	211.5	388	348	270	479	126	350
EDPH1000	1131	514	407	140	211.5	388	348	270	479	126	350
EDPH1200	1222	580	405	238	240	437	435	278	542	78	400
EDPH1500	1531	642	649	222	290	529	440	375	635	180	450
EDPH1800	1531	642	649	222	290	529	440	375	635	180	450
EDPH2700	1684	731	685	268	320	585	444	421	683	210	550

Dry Screw Vacuum Pump EDPH Series

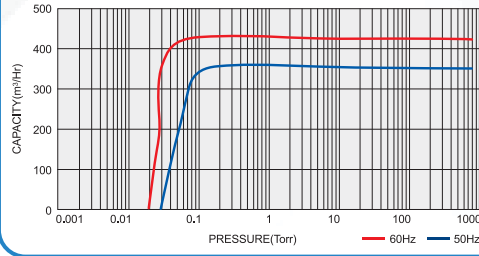
Performance Curve



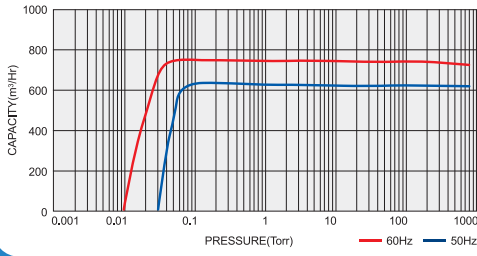
EDPH320-M/G PERFORMANCE CURVE



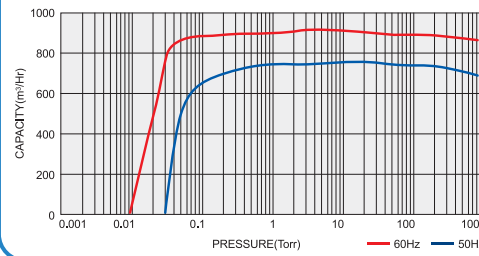
EDPH430-M/G PERFORMANCE CURVE



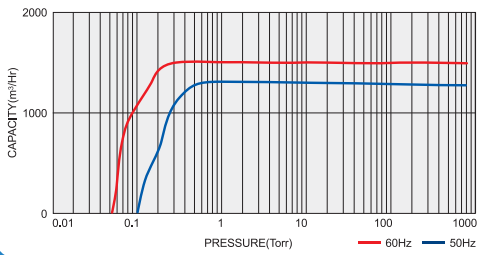
EDPH800-M/G PERFORMANCE CURVE



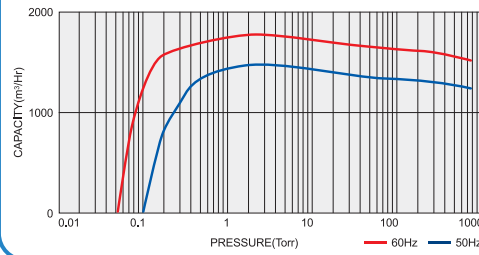
EDPH1000-M/G PERFORMANCE CURVE



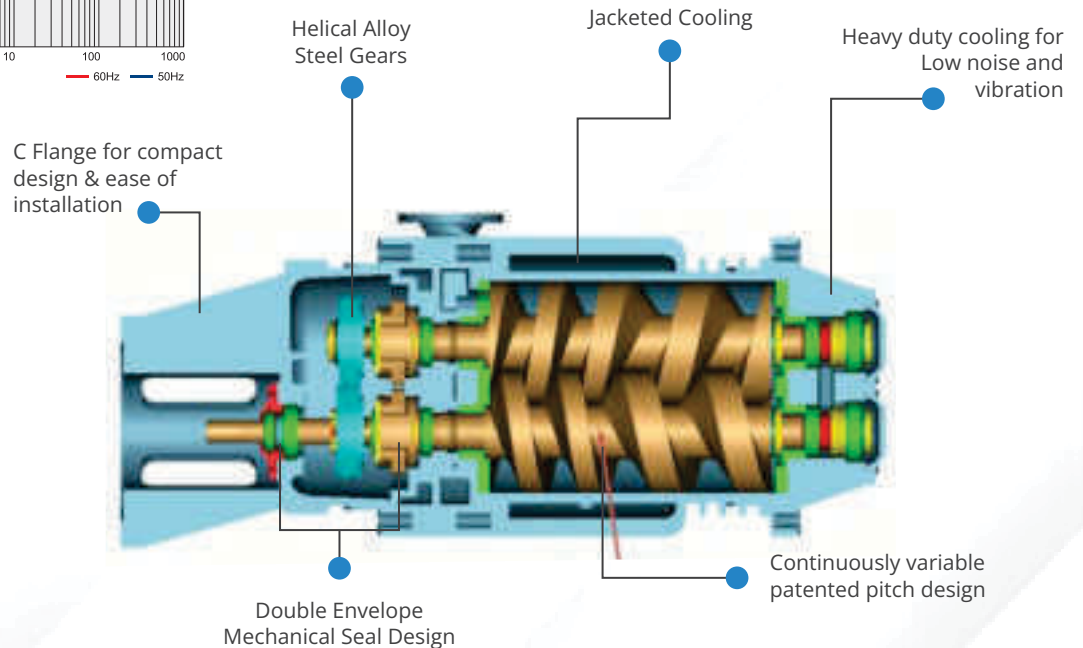
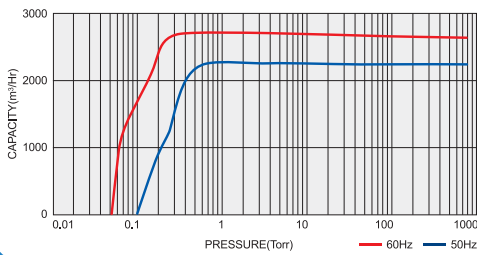
EDPH1500-M/G PERFORMANCE CURVE



EDPH1800-M/G PERFORMANCE CURVE



EDPH2700-M/G PERFORMANCE CURVE



Dry Screw Vacuum Pump

EDP Series

A new compact design and highly efficient Dry Vacuum Pump featuring fixed pitch screw designs.



Material of Construction

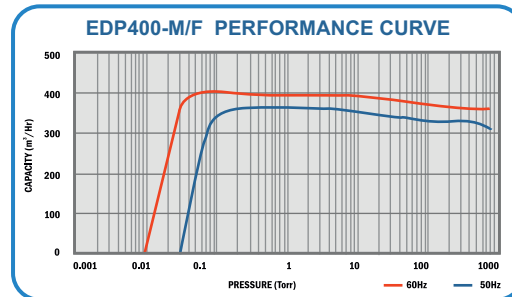
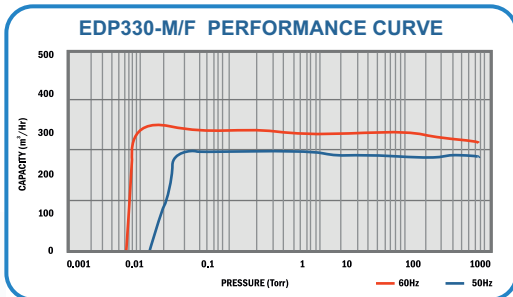
Pump Casing	Ductile Iron
One-piece Rotor & Shafts	Ductile Iron
Shafts Seals	Drive end-Mechanical & Lip Seal
"O" Rings	KALREZ / VITON / BUNA
Coating	Body & Screws-NIFLON/PFA/NIFA/PTFE/PEEK RESIN based Special PFA for very corrosive applications.

Features

No oil or water in contact with process.
No contact between operating components in the casing.
Simple, robust design can handle process-by-products.
Full pumping speed from atmospheric pressure down to 1 Torr, ultimate pressure 0.1 Torr.
Short gas path through the pump for quick discharge.
Extended shaft for either V - belt or direct drive.
Quiet operation - less than 85 dB (A).
High Discharge temperatures to avoid product condensation.

MODEL		EDP 330	EDP 400
Capacity	60 Hz CFM/M ³ /hr 50 Hz CFM/M ³ /hr	194/330 159/270	235/400 194/360
Ultimate vacuum [60Hz]	Torr	0.1	0.1
Rotation Speed	50Hz	2900	2900
Electric Motor	HP	12.5	15
Suction Connection	in/mm	2/50	2.5/65
Discharge Connection	in/mm	1.5/40	2/50
Cooling Water	LPM	8	11
Noise Level	dB [A]	84	84
Gear Case Oil Capacity	Lit	1.6	2
Weight	Kgs.	320	403

Dry Screw Vacuum Pump EDP Series



Applications

Screws

Mechanical Seals

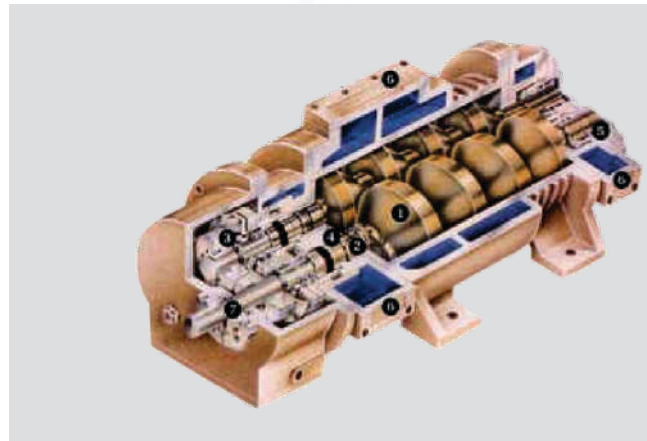
Timing Gears

Bearings

Bearings

Removable Plates

Drive End



Dry Hook & Claw Vacuum Pumps

VCX Series



The VCX Series is constructed in modular construction of compartments. Pumping and gear chambers are separated by using labyrinth seals. As two Hook and claws rotate in opposite direction, the air will be sucked in the pumping chamber, compressed and discharged under pressure. In gear chamber, two gears for synchronizing of claws rotation will be placed with appropriate oil lubrication. A built-in anti-suck back valve installed in inlet flange will prevent the air from flowing back into the vacuum chamber when the pump is shutdown. The pumps are directly driven by a flanged motor via coupling.

* Versions with Water Cooled Arrangement are available to achieve ultimate vacuum up to 5 Torr.

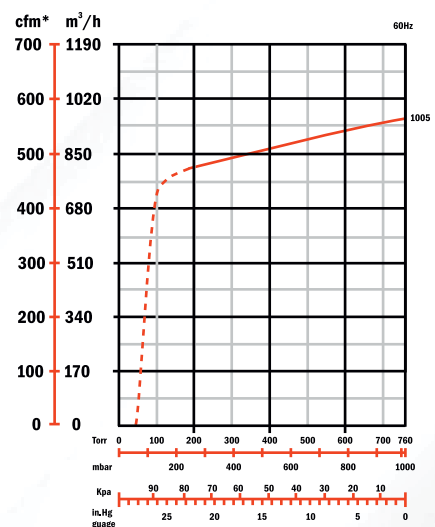
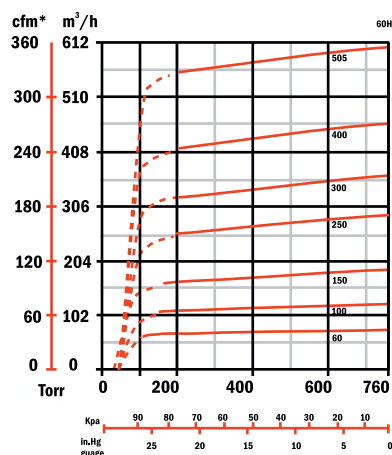
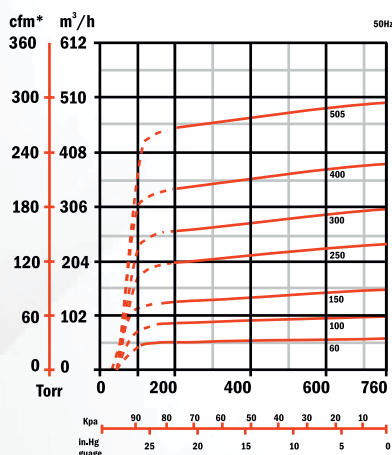
Applications

Packaging	CNC Routing	Wood Works
Pneumatic Conveying	Holding & Lifting	Pick and Place
Medical & Lab	Plastic Industries	Central Vacuum Systems

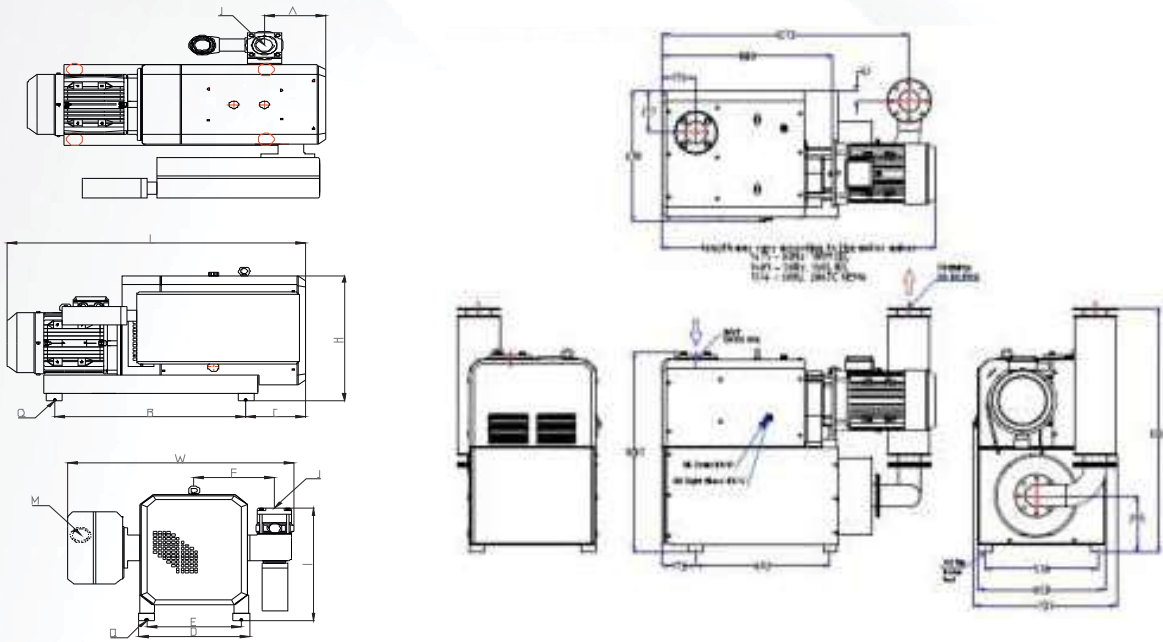
Model		VCX 60	VCX 105	VCX 155	VCX 255	VCX 305	VCX 330	VCX 405	VCX 515	VCX 1005
M3 / Hour	60Hz	72	120	180	300	360	390	480	600	1140
	50Hz	60	100	150	250	300	330	400	500	950
Ulti. Vac. Max.	mmHg	722.5 mmHg gauge (50mbar abs)								
Ulti. Vac. Conti.	Torr	70	110	120				150		
KW (Motor)	60Hz	1.5	3	4	5.5	7.5	7.5	9	11	22
	50Hz	1.1	2.2	3	4.3	5.5	5.5	7.5	9	18.5
RPM (Motor)	60/ 50Hz	3450/2850								
Voltage Available		208~230/460V, 220~240 /380~420V, 400/690V								
dB(A), max + - 3 tolerance	60Hz	80	82	77	80	80	80	80	82	85
	50Hz	78	80	73	78	78	78	78	80	82
Oil Cap (Gear box)	Ltr	0.6	0.75	0.5	0.9	0.9	0.9	1.8	1.8	3.2
Inlet / Outlet Conn.	**BSP	1"	1-1/2"	1-1/2"	2"/ 1 1/2"		2"/ 1 1/2"	3"		DN 100 PN6 DN100 PN10
Amb.Operating Temp.	(°C)	5°C~40°C								
Approx. *Weight (Kg).	60Hz	60	113	142	247	264	310	371	400	766
	50Hz	55	108	136	233	255	295	364	384	733
Accessories		Non Return Valve, Vacuum Regulator, Exhaust Silencer								

Note: 1) *Weight may vary due to motor used 2) **NPT threads available upon request.

Dry Hook & Claw Vacuum Pumps VCX Series Performance Curve



VCX Dimensions



DIMENSIONS	L	W	H	B	C	E	D	F	A	I	J	M	Q
VCX-60 (1.1, 1.5KW)	736/758	321	461	247	194	144	174	120	162	235	1"	1"	4xM8
VCX-100 (2.2, 3KW)	707/717	553	368	440	98	224	254	201	128	334	1-1/2"	1-1/2"	4xM8
VCX-155 (3, 4KW)	744/769	553	368	440	122	224	254	201	144	334	1-1/2"	1-1/2"	4xM8
VCX-255 (4, 5.5KW)	906/903	698	526	590	167	292	342	249	180	471	2"	2"	4xM10
VCX-305 (5.5, 6.5KW)	918	698	526	590	182	292	342	249	187	471	2"	2"	4xM10
VCX-330	982	501	609	408	201	354	402	279	110	584	2"	1-1/2"	M12
VCX-405 (7.5, 9KW)	1001/1039	870	545	800	133	292	372	284	205	468	3"	3"	4xM12
VCX-515 (9, 11KW)	1058/1227	870	545	800	152	292	372	284	215	468	3"	3"	4xM12
VCX-1005	1049	737	1037	692	173	578	578	325	175	1037	4"	4"	M12

Dry Rotary Vane Vacuum Pumps

WVS Series

Single Stage, Carbon Vane
Rotary, Air Cooled.



Features

Compact Design-Reliability & Durability-Easy to maintain and operate

Simple Installation - Air Cooled, No Water Required. Oil Free

Quiet Operation

Direct Coupling Drive

Standard Accessories

Carbon Vanes, Built-in-particulate Filter & Silencer, Vibration Isolators, Vacuum gauge and Regulator,

TEFC High Efficiency Motor.

Optional Accessories

Gauge & regulator for Blower Operation

MODEL		WVS 3/3H	WVS 5/5H	WVS 6/6H	WVS 8/8H	WVS 9/9H	WVS 10/10H
DISPLACEMENT	60 Hz LPM	280	480	685	1115	1350	2000
	50 Hz LPM	235	405	575	935	1130	
ULTIMATE VACUUM	mm OF HG	610	650	650	650	650	670
NORMAL OPERATING VACUUM	mm OF HG	450/600	450/600	450/600	450/600	450/600	410/600
NORMAL OPERATING PRESSURE	KG F/CM2	0.6	0.6	0.6	0.6	0.6	0.5
MOTOR POWER	KW	0.4	0.75	1.5	1.5(6P)	2.2(6P)	4
PUMP RPM	60 Hz LPM	1740	1740	1740	1160	1160	1100
	50 Hz LPM	1450	1450	1450	980	980	1100
OPERATING AMBIENT TEMPERATURE	DEG C	0-40 DEG C					
CONNECTIONS	INLET G BSP	3/4"	3/4"	3/4"	1"	1"	1 1/4"
TYPE OF DIRVE		COUPLING					V BELT
WEIGHT	KG WITH MOTOR	24	33	44	73	97	120

Custom Made Vacuum Boosters



Economy offers customized solutions for vacuum requirements. We have several models and configurations to choose from to ensure the most appropriate selection.

Our Boosters Handle

Higher flow rates and vacuum levels required for coating machine, steel and refinery degassing, space simulator.

Harsh gas or corrosive vapour in 24/7 chemical process.

High Staging ratios with high cut in pressures.

With solid vacuum experience, Process knowledge and manufacturing know how, Economy offers customised engineered solutions specifically designed for customer process applications.

At any given flow from 110~25,000 m³/hr , with vacuum levels reaching 10⁻³ mBar(a) customers get a wide selection. Based on Process requirement we build tailor made vacuum systems with accessories as required to ensure optimal performance.

High or low rpm

Options on coatings

Type of seals

Type of drives

Options on type of technology - Dry / Oil etc.



Custom Made Vacuum Boosters

ECONOMY CUSTOM MADE VACUUM BOOSTERS					
MODEL	CAPACITY m3/hr		HP	RPM	IN/OUTLET SIZE
ER	50Hz	60Hz	50/60Hz		mm/mm
ER200	170	210	1/1	2900/3600	50/40
ER400	320	400	2/2	2900/3600	80/50
ER650	560	670	2/3	2900/3600	100/100
ER890	720	890	5/5	2900/3600	100/100
ER1200	1040	1280	5/5	2900/3600	100/100
ER1600	1450	1720	5/7.5	2900/3600	150/150
ER3300	2750	3300	7.5/10	2900/3600	150/150
ER5300	4500	5400	7.5/10	2900/3600	200/200
ER7000	5900	7100	15/20	2900/3600	200/200
ER9000L	6640	9100	20/25	1450/2000	250/250
ER12000L	9030	12500	25/30	1450/2000	350/350
ER18000L	15000	18000	25/30	1450/2000	350/350
ER19000	18060	21600	30/40	1450/3600	350/350
ER30000	15000	33000	30/40	1450/3600	350/350
ER40000	18500	38000	30/40	1450/3600	350/350



MKBM Vacuum Booster

Higher pumping speed in a wide pressure range
No oil in pump casing to prevent oil vapour from polluting vacuum system
Low vibration and noise
Little mechanical friction loss, and lower drive power
Convenient for maintenance & service and long service life
Suitable for emergent exhaust of vacuum system
No gas exhaust valve, permits handling condensable vapours.



The Pump, consists of rotors, pump casing, end covers, gears, etc., Roller bearings in the back & front end covers support rotors which keep constant clearance between pump casing and two end covers, as the two rotors maintain the clearance. Four groups of internal shaft seals are installed in back & front end covers to prevent lubricating oil in gear housing and bearing housing from being pulled into pump casing. The mechanical seals on the extension shaft is employed to prevent gas from entering the pump casing.

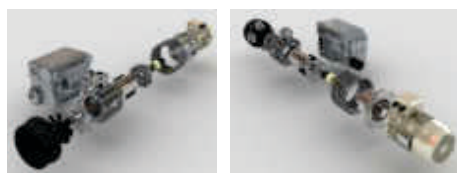
	MBM-400	MBM-890	MBM-1680	MBM-3370
Capacity (m ³ /hr)	330	740	1400	2800
Ultimate Vacuum (Pa)	5 x 10 ⁻²	5 x 10 ⁻²	5 x 10 ⁻²	5 x 10 ⁻²
R.P.M	2900	2900	1450	2900
Inlet mm	80	100	150	200
Outlet in mm	50	100	150	150
Weight Kg	87	198	490	495
Motor Power KW	1.5	3	4	5.5

Rotary Vane Vacuum Pumps

KVA/KVAH Series

Features :

- ◆ Direct drive multi-vane and rugged construction.
- ◆ Cargo Composite vane material for long life.
- ◆ Air Cooled.
- ◆ Suitable for operating in continuous fluctuating vacuum level at high intake pressure.
- ◆ High water vapour tolerance
- ◆ Continuous filtration of oil at separate oil reservoir
- ◆ keeps the pump free of contamination.
- ◆ Wire mesh inlet screen.
- ◆ Non-return valve to prevent oil entry in to the system.
- ◆ The pump uses less than 10% of the oil when compared to the oil-immersed vacuum pump.
- ◆ The system is designed to operate at 80 Deg.C enhancing moisture and vapour handling capacity.
- ◆ Quiet operation-59-82 dB(A) at 1 mtr.



MODEL			12	15	20	25	40	63	100	160	215	250	300	400	500	600	750
DISPLACEMENT	60Hz	M3/ HR	12	18	24	36	48	78	120	192	258	300	360	505	600	780	NA
	50Hz		10	15	20	30	40	65	100	160	215	250	300	420	500	660	750
END VACUUM		mbar	2	2	2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MOTOR 3 PH	Kw	60Hz	0.4	0.75	0.9	1.1	1.5	2.2	3	3.7	5.5	7.5	8.6	15	15	18.5	18.5
		50Hz	0.4	0.55	0.75	0.9	1.1	1.5	2.2	3.7	5.5	5.5	7.5	11.25	11.25	15	
MOTOR 1 PH	Kw	50/ 60Hz	0.4	0.55	0.75	1.5	1.5										
REVOLUTION	RPM	60Hz	1740	1740	3480	1740	1740	1740	1740	1740	1740	1740	1740	1160	1160	1160	
		50Hz	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	1450	980	980	980	1450
NOISE LEVEL	db (A)	60Hz	59	60	62	67	67	68	68	75	77	77	78	78	78	79	
		50Hz	57	56	60	64	64	65	65	72	74	74	75	76	76	77	77
WATER VAPOUR	TOLERANCE	mbar				40	40	40	40	40	40	40	40	40	40	40	40
	CAPACITY LPH	50/ 60Hz				0.7/ 0.9	0.9/ 1.1	1.6/ 1.8	2.6/ 2.8	3.0/ 3.6	4.0/ 4.5	4.0/ 4.5	5.0/ 5.8	17/ 19	21/ 23	27/ 30	27/ 30
OPERATING TEMP.	DEG C	50/ 60Hz	77	80	85	78	80	84	85	83	85	85	86	81	81	83	82
OIL CAPACITY	LITRE		0.5	0.5	0.5	1.4	1.4	2.5	2.7	7	7	7	7	19	19	19	19
CONNECTIONS	G (BSP) OR NPT	INLET	1/2"	1/2"	1/2"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	2"	2"	2"	2"	3"	3"	3"	3"
		OUTLET	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/2"	1-1/2"	2"	2"	3"	3"	3"	3"
WEIGHT	WITH MOTOR	KGS	20	22	20	47	53	66	75	124	145	184	188	504	637	703	535

Rotary Piston Pumps

ET Series



Model	CFM/m ³ /h	HP/KW
ET-150C	144/255	7.5/5.5
ET-300D	296/505	15/11

ET single stage pumps are quiet running vacuum pumps with high pumping capacity at both high and low pressures. The triplex piston design is inherently dynamically balanced and is practically vibration-free. Even in dirty applications, the ET enjoys unequal durability, as there is no metal-to-metal contact between the pump piston and the cylinder, clearances are filled with oil. All ET models include an integral, positive pressure lubrication system to ensure reliable lubrication at all pressure levels. ET pumps are water-cooled.

Liquid Ring Vacuum Pumps

ELRC Series



Model	CFM/m ³ /h	HP/KW
ELRC-75	70/120	5/3.7
ELRC-100	100/170	7.5/5.5
ELRC-125	130/220	10/7.5
ELRC-200	205/350	15/11
ELRC-300	300/510	25/18.5
ELRC-525	560/950	50/37
ELRC-950	990/1680	100/75

ELRC liquid ring vacuum pumps are ideally suited for pumping wet mixtures and even slugs of liquid.

ELRC liquid ring vacuum pumps can pull down as low as 4 Torr (5.3 mbar a). However, low-pressure performance is limited by the vapor pressure of the sealing liquid, which can be water, oil or process liquids.

Two Stage Rotary Vane Vacuum Pump

Oil Rotary Vane Vacuum Pump



MODEL			DRV10	DRV16	LVD24
Pumping Rate	50Hz	m ³ /h (L/min)	9.9 (165)	14.4 (240)	20 (336)
	60Hz	m ³ /h (L/min)	12 (200)	17.4 (290)	24 (403)
Ultimate Pressure	Gas Ballast Closed	Pa		5x10 ⁻¹	
	Gas Ballast Opened	Pa		5	
Motor Power (4P)		kW	0.4	0.55	0.75
Voltage	3 Phase	V		380, 400	
	Single Phase	V		220, 230	
Oil Filling		L	0.55~1.1	0.65~1.2	0.75~1.5
Inlet		KF		25	
Outlet		KF		25	
Ambient Temp.		°C		5~40	
Weight		kg	25	27	32

MODEL			LVD30	LVD40	LVD60	LVD90
Pumping Rate	50Hz	m ³ /h (L/min)	30 (500)	40 (667)	60 (1000)	90 (1500)
	60Hz	m ³ /h (L/min)	36 (600)	48 (800)	72 (1200)	108 (1800)
Ultimate Pressure	Gas Ballast Closed	Pa	5X10 ⁻¹			
	Gas Ballast Opened	Pa	2.0			
Motor Power (4P)		kW	1.1	1.5	2.2	3.7
Voltage	3 Phase	V	380,400			
Oil Filling		L	1.2~2.8		2.5~4.2	
Inlet		KF		40		
Outlet		KF		40		
Ambient Temp.		°C		5~40		
Weight		kg	63	65	87	101

MODEL			LVD175	LVD275
Pumping Rate	50Hz	m ³ /h	160	255
	60Hz	m ³ /h	196	306
Motor Rotational Speed	50Hz	r/min	1440	1440
	60Hz	r/min	1720	1720
Motor Power	3 Phase / 4 Pole	kW	5.5	7.5
Ultimate Pressure	Gas Ballast Closed	Pa	5x10 ⁻¹	5x10 ⁻¹
	Gas Ballast Opened	Pa	2	2
Allowed Maximum Outlet Pressure	Gauge Pressure	MPa	0.05	0.05
Maximum Capacity of Water Vapor	-	kg/h	2.4	2.5
Inlet	JIS	DN	VG80	VG80
Outlet	JIS	DN	VG50	VG50
Oil Filling	Max	L	25	28
	Min	L	20	23
Cooling Water Requirement	Water Temp 20 ^o	L/h	80	120
Weight	With Motor	kg	230	255

Competitor Plus Blowers

Applications:

Dairy Milking

Air Sparging

Waste Water Aeration

Silo Aeration

Dust Collection

Premium Features:

Oil Lubricated on both ends

Double row ball bearings

Helical gear

Rated to 15 PSIG pressure

Rated to 16" Hg Vacuum



Competitor Plus blowers include special features usually found only on premium blowers and at competitive prices.

They are generally interchangeable with Roots Universal RAI® and many Sutorbit® California Legend™ models. Compatible with most existing OEM engineering dimensions.

Competitor Plus blowers are rated up to 15 PSIG (1.03 bar g) discharge pressure or 16" Hg [450 mbar (a)] dry vacuum.

MODEL	CFM/m ³ /h	HP/KW
2002	6-76/10-129	0.3-4.9/0.2-3.7
2004	21-156/36-265	0.4-5.6/0.3-4.2
3002	20-155/34-264	0.4-12/0.3-9
3003	28-205/48-349	0.5-12/0.4-9
3006	57-344/97-585	0.7-12/0.5-9
4002	17-206/29-350	0.4-15/0.3-11
4005	39-410/66-697	0.6-24/0.5-18
4007	52-542/88-921	0.8-18/0.6-19
5003	38-355/65-604	0.6-25/0.5-19
5006	63-594/107-1010	0.9-37/0.7-28
5009	125-881/213-1488	1.2-29/0.9-22
6005	70-545/119-927	1.1-39/0.8-29
6008	112-875/190-1488	1.5-58/1.1-43
6015	261-1639/444-2786	2.6-54/2.0-40
7011	321-1449/546-2463	2.6-67/2.0-50
7018	762-2240/1295-3808	4.1-65/3.0-48

PD Plus Blowers

PD Plus is a long-established line of premium, heavy-duty models ranging from 3.25" to 12" gear diameter and 2.5" to 48" rotor length. These blowers are renowned for their quality, dependability and outstanding performance.



MODEL	CFM/m ³ /h	HP/KW
3202	8-90 / 14-153	0.8-8.6 / 0.6-6.4
3204	12-146 / 20-248	0.9-13 / 0.7-9.7
3206	21-220 / 36-374	1.0-18 / 0.8-3.0
3210	37-368 / 63-626	1.2-28 / 0.9-21
4006	39-338 / 66-575	1.5-30 / 1.1-22
4009	49-497 / 83-845	1.7-45 / 1.3-34
4012	87-682 / 148-1159	2.0-51 / 1.5-38
5507	99-794 / 168-1350	2.5-70 / 1.9-52
5509	128-956 / 218-1625	2.7-84 / 2.0-63
5511	152-1171 / 258-1991	3.0-96 / 2.2-62
5514	490-1522 / 833-2587	3.5-95 / 2.6-71
5516	277-1743 / 471-2963	3.8-100 / 2.8-75
5518	350-1962 / 595-3335	4.1-94 / 3.0-70
5520	435-2185 / 740-3715	4.5-84 / 3.3-63
7010	349-1690 / 593-2873	4.3-143 / 3.2-107
7013	445-2148 / 757-3652	6.0-183 / 4.5-136
7017	601-2807 / 1022-4772	7.2-226 / 5.4-169
7021	783-3478 / 1331-5913	8.3-244 / 6.2-182
7026	1052-4314 / 1788-7334	9.8-242 / 1.3-180
9012	266-2277 / 452-3871	4.6-163 / 3.4-122
9016	354-3028 / 602-5148	5.5-215 / 4.1-160
9020	465-3986 / 791-6776	6.5-280 / 4.8-209
9027	620-5315 / 1054-9036	8.0-371 / 6.0-276
1215	284-3764 / 483-6399	6.3-271 / 4.7-202
1224	494-6036 / 840-10261	8.6-427 / 6.4-318
1230	618-7546 / 1051-12828	10-496 / 7.5-370
1236	771-9065 / 1311-15411	12-385 / 9.0-287
1248	1304-9273 / 2217-15764	15-267 / 11-199

Applications:

- Pulp / Paper Processing
- Fluid/Bed Combustion
- Pneumatic Conveying
- Fluidization/Agitation of Powders
- Vapor Recovery
- Elevated Pressures
- Gas Applications

Premium Features:

- 5 bearing design
- Single / Double Envelope Gastight
- Cooling Coils for High temperature
- Coating options
- 2 or 3 Lobe Design
- AGMA 10 rated Helical timing gears
- SAE 4140 Forged Alloy Steel drive shaft
- Shaft integral with Lobes
- Heavy duty casing
- Liquid injection features
- Applications upto 100 PSIG
- Oil Splash lubrication on both ends



Booster/Dry Vacuum Pump System ER / EDPH Series



Description:

Dry Screw Vacuum System with Vacuum Booster, for distillation application. Vacuum level of <1 Torr

MODEL		EDPH 120/ ER 650	EDPH 120 / ER 890	EDPH 200/ ER 890	EDPH 320/ ER 1200	EDPH 320/ ER 1600	EDPH 430/ ER 1600	EDPH 430/ ER 3000	EDPH 800/ ER 3000	EDPH 800/ ER 5300
Capacity	M3/hr	670	890	920	1280	1720	1720	2600	3300	5400
Ultimate Vacuum	Torr	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²
Booster	HP	2	5	5	5	5	5	10	10	10
Vacuum Pump	HP	5	5	7.5	10	10	15	15	20	20
Booster Cit In Pressure	Torr	40	20	50	50	20	50	20	50	20
Inlet Connection	mm/Inch	100/4"	100/4"	100/4"	100/4"	150/6"	150/6"	150/6"	150/6"	200/8"
Discharge Connection	mm/Inch	40/1-1/2"	40/1-1/2"	40/1-1/2"	40/1-1/2"	40/1-1/2"	50/2"	50/2"	65/2/1/2"	65/2/1/2"
Weight	Kgs.	525	600	650	700	800	900	1050	1200	1350
Noise Level	db A	80	80	80	80	80	80	80	80	80

Booster/Dry Vacuum Pump System ER / EDP Series



Description:

Dry Screw Vacuum System with Vacuum Booster, for distillation application. Vacuum level of <1 Torr

MODEL		EDPH 120/ ER 650	EDPH 120 / ER 890	EDPH 200/ ER 900	EDPH 320/ ER 1200	EDPH 320/ ER 1600	EDPH 430/ ER 1600	EDPH 430/ ER 3000	EDPH 800/ ER 3300	EDPH 800/ ER 5300
Capacity	M3/hr	670	890	920	1280	1720	1720	2600	3300	5400
Ultimate Vacuum	Torr	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²	5 X 10 ⁻²
Booster	HP	2	5	5	5	5	5	10	10	10
Vacuum Pump	HP	7.5	7.5	15	15	15	20	20	30	20
Booster Cit In Pressure	Torr	50	20	50	50	20	50	20	50	20
Inlet Connection	mm/Inch	100/4"	100/4"	100/4"	100/4"	150/6"	150/6"	150/6"	150/6"	200/8"
Discharge Connection	mm/Inch	40/1-1/2"	40/1-1/2"	40/1-1/2"	40/1-1/2"	40/1-1/2"	50/2"	50/2"	65/2/1/2"	65/2/1/2"
Weight	Kgs.	600	675	757	800	925	1025	1100	1200	1350
Noise Level	db A	80	80	80	80	80	80	80	80	80

Custom Engineered Solution



Dry Screw Vacuum System



Two stage Blower system for Ammonia Gas Boosting with differential pressure of 2 bar g



Two Stage Hook & Claw Vacuum System



Liquid ring Vacuum system

- ◆ Economy prides itself in having designed & delivered vacuum systems tailormade to customer specifications complying with the highest engineering standards & statutory requirements.
- ◆ Understanding customer processes and taking every requirement into consideration including environmental factors, our engineers select the optimum solution based on our technical expertise and experience based on supplying several hundred systems in India & worldwide.
- ◆ Our design team validates material compatibility and construction details to ensure longevity of the solution provided. Our experience allows us to offer solutions for highly corrosive and stringent duty applications.
- ◆ By incorporating the latest operation logic and procedures aided by precise instrumentation & robust designs our solutions deliver excellent performance, optimum pump down time with safety features and the lowest power consumption.
- ◆ Economy looks forward for opportunities to offer custom engineered solutions to customers worldwide.

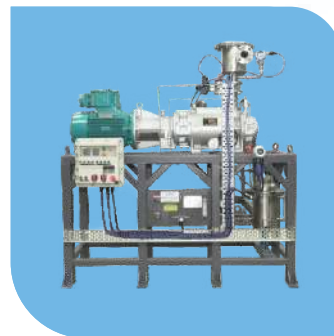
Vacuum Booster - Vane systems	Multi stage vacuum booster-dry pump systems
Multistage Vacuum Booster - LRVP systems	Vacuum booster-Piston pump systems
Multistage Claw Dry pump systems	Centralized Vacuum systems
Mobile self contained systems	Diffusion Pump systems
Multi-stage Blower systems	Elevated Pressure Blower Package
Exotic Gas handling	



Multi stage Mobile Dry screw pumping system



Multi stage Rotary Vane Vacuum system



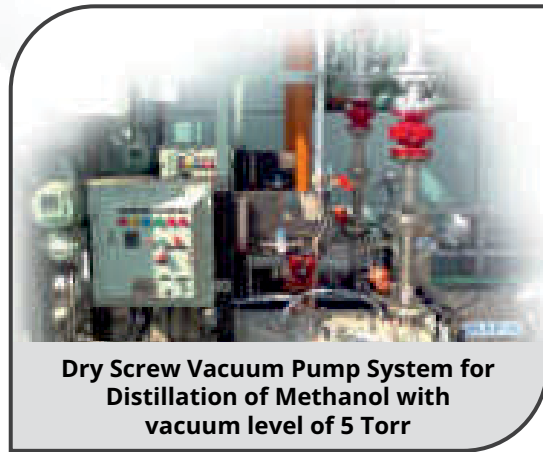
Dry Screw Vacuum Pump System with full automation



Liquid Ring Vacuum System with seal liquid tank and automation



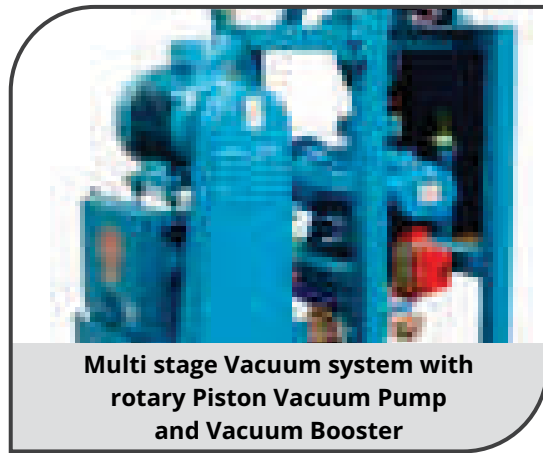
Battery of Dry Screw Vacuum system at one location



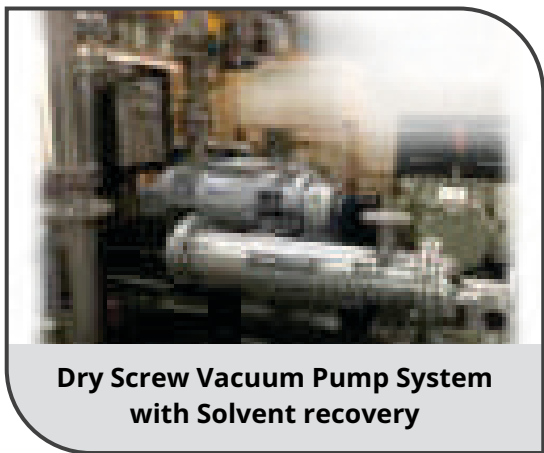
Dry Screw Vacuum Pump System for Distillation of Methanol with vacuum level of 5 Torr



Dry Screw Vacuum System for Phenolic Application



Multi stage Vacuum system with rotary Piston Vacuum Pump and Vacuum Booster



Dry Screw Vacuum Pump System with Solvent recovery



Dry Screw Vacuum System for 2000 m3/hr Capacity and vacuum level of 1 Torr



Multi stage Liquid Ring Vacuum Systems



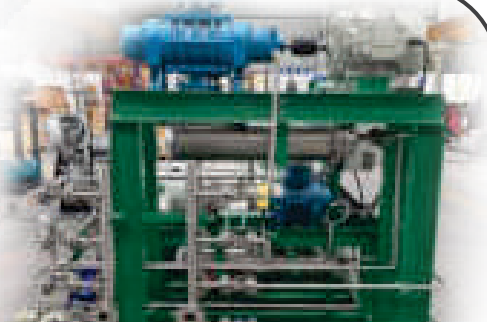
Dry Screw Vacuum Systems for 1100 m3/hr, Vacuum level of 0.1 Torr



Centralized Vacuum System



Dry Screw Vacuum Pump with Vacuum Booster for Used oil Re-cycling plant



Liquid ring vacuum system with Heat Exchanger



Vacuum system of 1200m³/hr at 1 Torr with seal liquid as ODCB, Suction at 75 Deg C



Dry Screw Vacuum System for Moisture removal



Dry Screw Vacuum Pump system for Solvent Distillation.

Vacuum Drying of Gas Pipe Lines



Accessories and Spares



Couplings



Kits



Inlet Air / Oil Filters



Lubricant Oil

Economy Genuine Parts and Accessories

- ◆ **Repair Kits:** Genuine and economically priced spares provided by us ensure maximum performance and longevity of your equipment. The functional spare part kits are compiled by our engineers to ensure availability of all parts required for a general overhaul of the equipments at site.
- ◆ **Lubricants:** We provide the best synthetic lubricants for high vacuum pumps and blowers. Using genuine lubricants supplied by us increases life, guarantees enhanced performance and reduces pump downtime.
- ◆ **Filters:** Specially designed by our team of engineers, the oil, air and process filters protect your equipment. We also offer custom-built solutions for the filtration requirements for process industry.
- ◆ **Instrumentation:** We provide reliable instruments for accurate measurement of Vacuum, Temperature, Pressure, Flow, etc.
- ◆ **Oil Mist Eliminators:** The oil mist eliminators provided by us trap the hydrocarbons and eliminate oil fumes from the exhaust of vacuum pump. A very high percentage of oil goes back into the pump chamber.
- ◆ **Control Panels:** We design and supply control panels with pre-programmed variable frequency drives. The panels are available in FLP and non-FLP construction with PLC or relay based logic.
- ◆ **Heat Exchanger:** We offer a complete range of highly efficient and cost effective inter-stage heat exchanger in Carbon steel, SS and other exotic materials.
- ◆ **Suction/Discharge Silencers:** Properly designed and sized silencers provided by us reduce the noise levels and ensure minimal pressure drop.
- ◆ **Flexible Connectors:** Our flexible connectors are designed for full vacuum to compensate for misalignment, expansion and contraction.
- ◆ **Special Tools:** Our special tool box is available to make the service of our pumps even easier and faster.



McLeod Gauge & Pirani Gauge



Variable Frequency Drive



Temperature Controller & Vacuum Controller



Flameproof Control Panel & Pressure Controller



Bearings & Seals



Exhaust Filters



Timing Belts & Vanes



Filter Cartridges

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