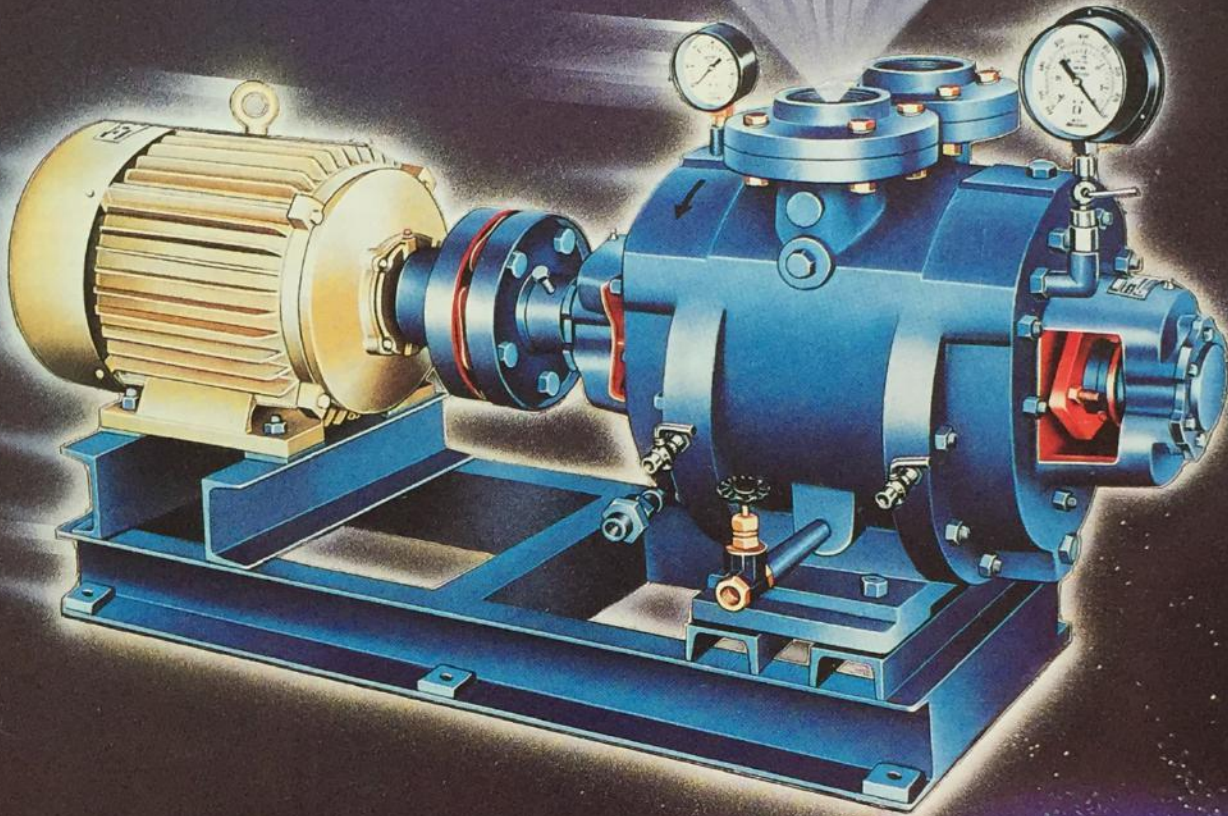


PARAG



WATER-RING
VACUUM PUMPS
COMPRESSORS



FEATURES

- * Entrained liquid drops, Condensable vapours, or occasional slugs of liquid can be handled without damage to the pump or significant effect on capacity. In the case of vapours, the pump can also serve as a condenser.
- * No lubricant or oil is required within the pump itself. Thus the air or other discharge gases are not contaminated. The liquid which forms the ring (usually water) serves both as a sealant and a pumping media.
- * A wide selection of materials and seal liquids can be used when corrosive gases and vapours are being pumped.
- * The pumps contain no metal parts that rub against each other. Packing glands and bearings are accessible from the outside. There is no clearance volume and the pumping action is smooth and uniform (non-pulsating).
- * The only moving part is a balanced impeller which reduces noise and vibration. This means lower foundation, installation and service costs.
- * The pump can be provided with partial liquid recycle, closed loop liquid operation, automatic control and other features.
- * Mechanical seals can be provided as an option.
- * Small entrained solid will pass through the pump. However, abrasive particles will result in reduced pump life.
- * Each pump is performance tested prior to shipment.

APPLICATIONS

The applications for liquid ring vacuum pumps are diversified and include drying, condensing, distilling, impregnating, sterilizing, evacuating, cooking, evaporating, draining, conveying, venting and sucking. Liquid ring vacuum pumps are being used in the chemical, petrochemical, Pharmaceutical, pulp and paper and food industries.

SOME SPECIFIC APPLICATIONS ARE :-

- Draining paper Webs,
- Saturating insulation materials, wood and textiles.
- Evacuating condensers and piping.
- Priming pumps.
- Evaporating acids, blood and milk.
- Drying resins, paints and chemicals.
- Conveying Wheat, sugar and chemical products.
- Lifting and transporting wood and plates.

OPERATING PRINCIPLE

The working parts of the PARAG pump consists of a multi-vane impeller mounted eccentrically in a round casing which is partly filled with liquid (usually water). As the impeller rotate the liquid is thrown by centrifugal force to form a liquid ring which is concentric with the periphery of the casing. Due to the eccentric position of the impeller relative to the casing and liquid ring, the spaces between the impeller vanes fill with liquid during rotation and any air or gas trapped in the impeller space or cell is compressed and discharged from the casing through the outlet part leaving the cell available to receive air or gas as it is presented to the inlet port of the casing. In addition to being the compressing medium the liquid ring performs three other important functions. It absorbs the heat generated by compression and friction.

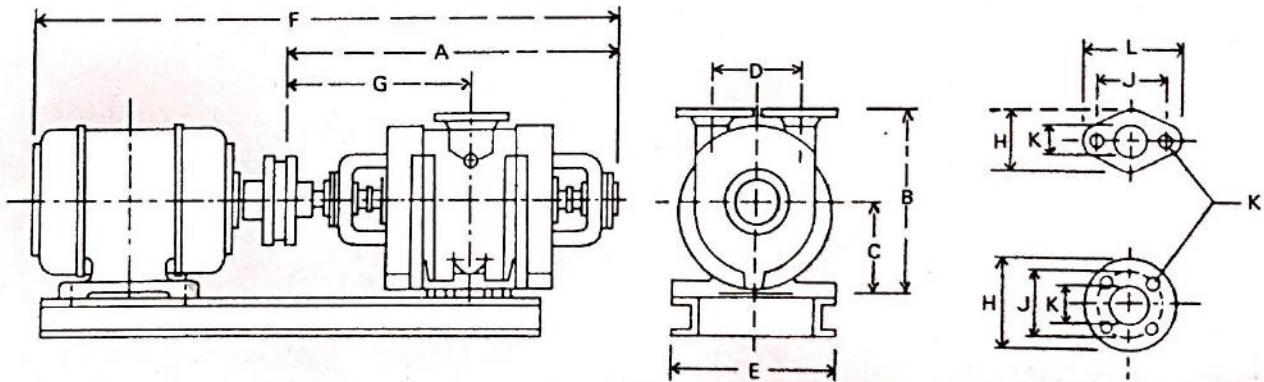
It absorbs any liquid slugs or vapour entering with the gas stream.

It will also absorb and wash out contaminants entrained in the gas.

WIDE CHOICE OF MATERIALS

Standard materials of construction is cast iron with semisteel rotor. Shaft material is stainless steel for model PW - 1 to PW - 4, larger sizes are carbon steel with brass of stainless steel shaft sleeves for wetted parts.

Alternate combination materials are available for special applications :



MODEL No.	SUCTION M ³ /Hr	CFM.	ELE. MOTOR H.P.	RPM.	WATER L/Min.	SUCTION KØ	N.B.	WATER CONN	R	B	C	D	E	F	G	H	J	L	M
PW-2	50	30	3	2880	7	25	1"	½"	380	245	120	130	250	750	240	72	75	100	M10
PW-3	80	50	5	2880	10	30	1¼"	½"	425	245	120	130	265	900	230	85	90	120	M12
PW-4	120	75	7.5	2880	14	36	1½"	½"	465	245	120	130	265	1100	260	95	100	130	M12
PW-5	160	95	7.5	1440	15	50	2"	½"	655	440	220	200	400	1200	360	150	120	---	4x16
PW-6	220	130	10	1440	20	60	2½"	¾"	690	440	220	200	400	1300	380	150	120	---	4x16
PW-7	330	195	15	1440	30	80	3"	¾"	785	440	220	200	420	1400	450	190	150	---	4x20
PW-8	440	260	20	1440	40	80	3"	¾"	855	440	220	200	420	1500	480	190	150	---	4x20
PW-9	720	410	30	980	60	125	5"	¾"	920	650	320	290	540	2100	510	240	200	---	8x20
PW-10	845	490	35	980	80	125	5"	¾"	980	650	320	290	540	2200	550	240	200	---	8x20
PW-11	1080	650	40	980	100	125	5"	¾"	1060	650	320	290	540	2300	590	240	200	---	8x20

Manufactured by :

PARAG ENGINEERING

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