

ROTOR

CDF (II) LIQUID - RING VACUUM PUMPS OPERATION INSTRUCTION



Obtaining ISO9001 Quality System Certificate

ROTOR

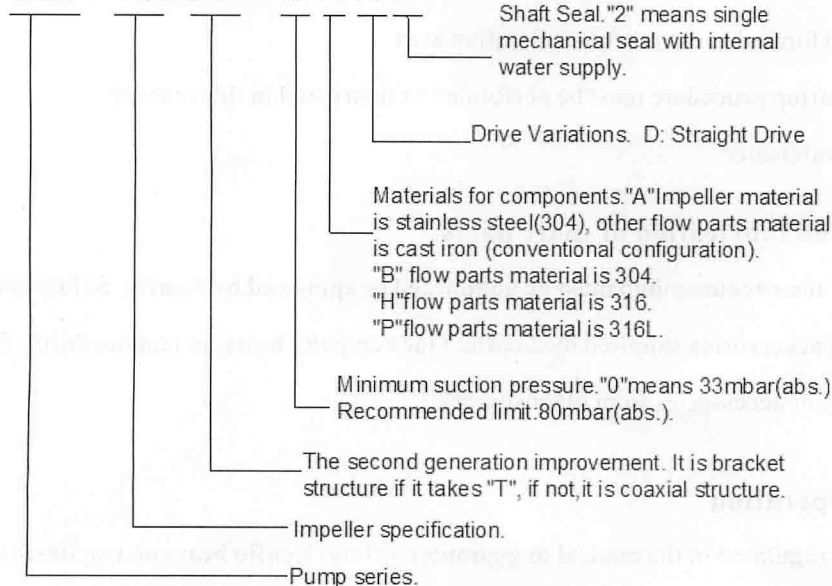
- 3、 Simple and compact structure, small space necessary, easy in installation and maintenance.
- 4、 High efficiency in the whole vacuum range. The flexible valve plate can adjust the area of discharge port automatically.
- 5、 Maximum vacuum up to 33 mbar (abs), even higher vacuum can be available when equipped with a air ejector.
- 6、 Fitted with reliable mechanical seal as a standard arrangement, less maintenance work.
- 7、 Steady operating with low noise level, no need to equip silencer.
- 8、 Oilless design and low water consumption, benefit to environmental protection.
- 9、 Various options of wetted parts material, applicable to different kinds of operating conditions.
- 10、 A CDF(II) package can be supplied, including separator, heat exchanger, anti-cavitation pipe etc .

Product Standard: Q/FP 2106-2007 Liquid Ring Vacuum Pump, Liquid Ring Compressor and Liquid Ring Pump Unit.

Record NO.: QB/440600 23 535-2007

Mode Code

• CDF 140 2T— 0 A D 2



Note: Coaxial structure Pump as CDF1202~CDF2212 only material code A available.

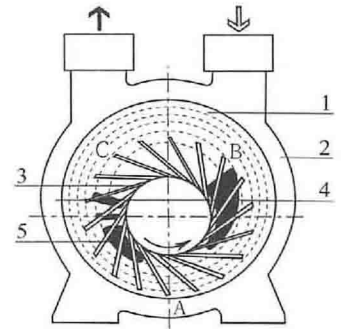
Application Scope

- 1、 Vacuum drying and packing services in Pharmaceutical and Food Processing sector.
- 2、 Vacuum extrusion and forming services in Plastic and Rubber Industry.
- 3、 Liquid degassing, and vacuum water diversion for pump priming in Waterworks.
- 4、 Vacuum filtering, distilling and dipping in Chemical and Textile Industry.

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Working Principle

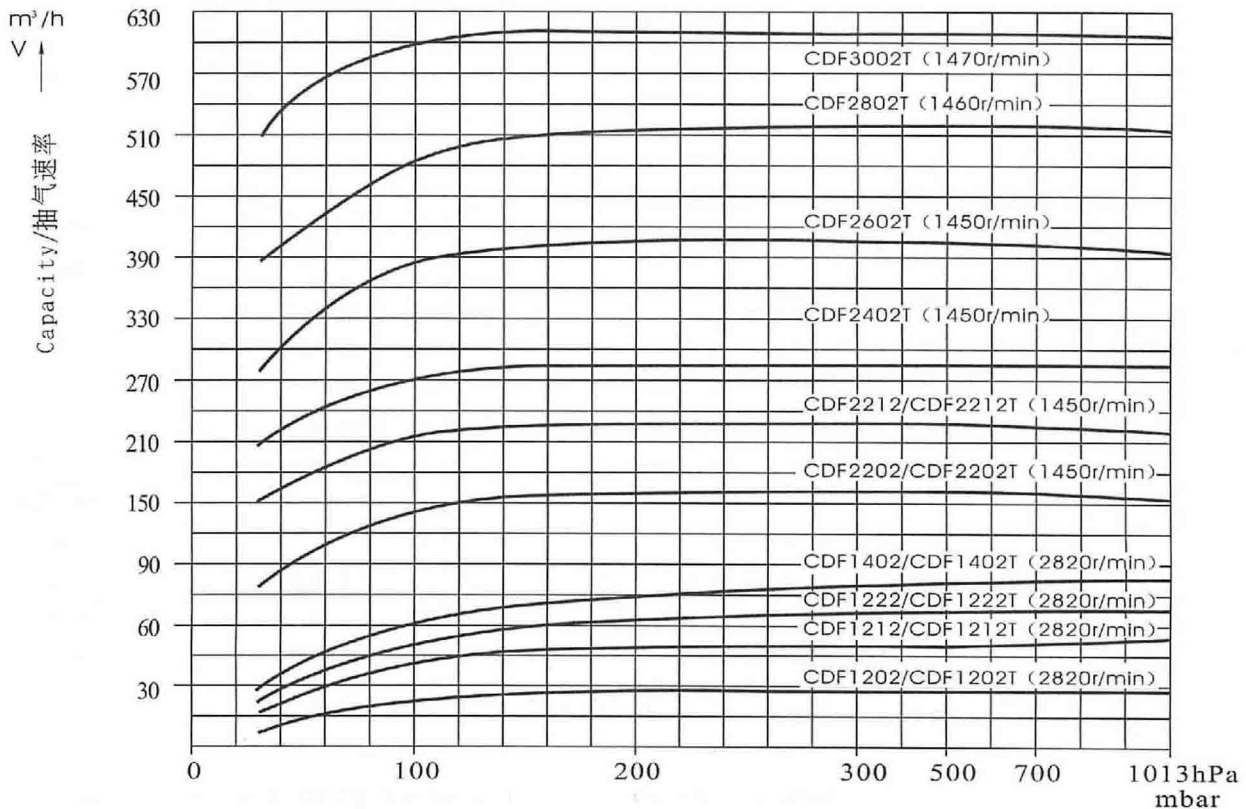
The impeller is mounted off-center in the approximately cylindrical casing. When the impeller revolves at the direction as shown in the Figure, the working liquid is thrown against the inner of the casing by centrifugal force and forms a cylindrical liquid ring with uniform thickness. As a result, a crescent chamber is developed between the inner surface of the liquid ring and the impeller hub. As the impeller rotates to Point B from Point A, the chamber space between adjacent vanes increases gradually, and the gas is drawn in. As the impeller rotates from Point C to Point A, the corresponding chamber space decreases gradually to compress the gas drawn in previously. When the pressure is equal to atmospheric pressure, the compressed gas is expelled through the discharge port.



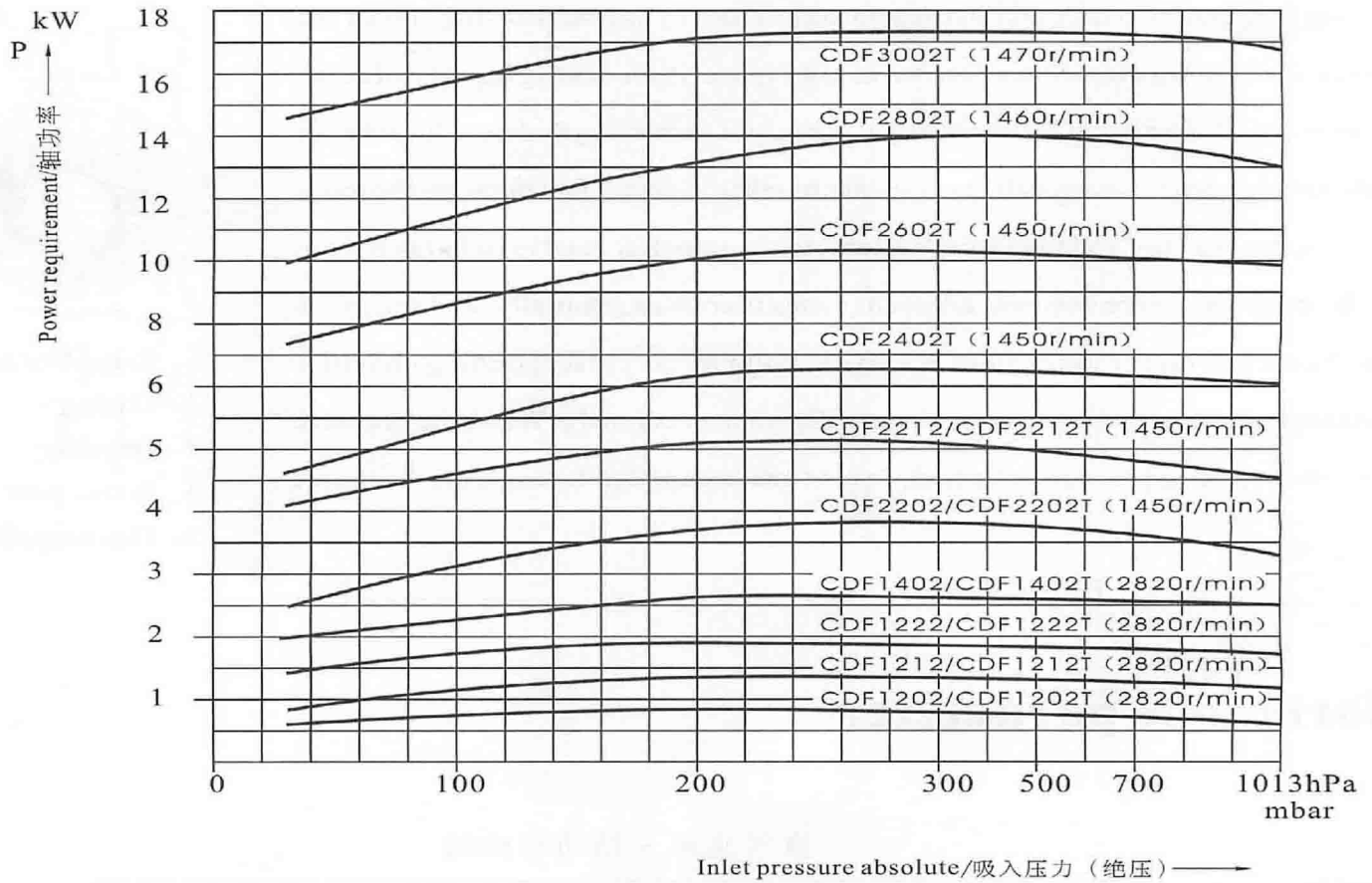
- 1、Liquid-ring
- 2、Casing
- 3、Impeller
- 4、Intake port
- 5、Discharge Impeller

Performance parameter

抽气速率 · 轴功率曲线



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Note:

1、 These performance curves are based on operating conditions with saturated air at a temperature of 68 of (20°C), operating water at a temperature of 60 oF(15°C), and discharge pressure of 1013mbar.

2、 The tolerance of capacity and power requirement should be in range of 10%.

3、 Suction pressures can be less than 33mbar when equipped with a P type air ejector.

产品型号 Type	电机额定功率 Motor Rated output kW	不同吸入压力下的供水量 Operating liquid(water) at various inlet pressure m ³ /h			重量 Weight kg
		<200 mbar	200~500 mbar	>500 mbar	
CDF1202(T)-0	1.1	0.40~0.30	0.30~0.25	0.25~0.15	60(34)
CDF1212(T)-0	1.5	0.45~0.40	0.40~0.30	0.30~0.20	63(37)
CDF1222(T)-0	2.2	0.46~0.43	0.43~0.35	0.35~0.25	80(40)
CDF1402(T)-0	3	0.48~0.46	0.46~0.36	0.36~0.25	95(55)
CDF2202(T)-0	4	1.0~0.9	0.9~0.8	0.8~0.5	150(102)
CDF2212(T)-0	5.5	1.1~1.0	1.0~0.9	0.9~0.5	200(122)
CDF2402T-0	7.5	1.1~1.0	1.0~0.9	0.9~0.5	270
CDF2602T-0	11	1.2~1.1	1.1~1.0	0.9~0.5	290
CDF2802T-0	15	1.8~1.7	1.7~1.3	1.2~0.6	370
CDF3002T-0	18.5	2.0~1.9	1.7~1.5	1.4~0.8	420

1hPa (百帕) =0.75Torr (托) =1mbar (毫巴)

1Torr (托) =1.332hPa (百帕) =1.332mbar (毫巴)

Note: The weight in the bracket is coaxial structure weight.