

## **High Reliability**

Speed • Innovation • Quality



## Roots Blower

The pump has a pair of rotors that are designed and processed with good symmetry, so it has the characteristics of high speed, small size, light weight, and small vibration; and it has a compact structure and a small footprint.

- Quick start can reach the ultimate vacuum in a short time. No compression occurs in the pump cavity, so condensable gases can be eliminated without the need for a vent valve.
- There is a certain gap between the rotors, and there is no contact between the rotor and the pump cavity, so there is no friction, low power consumption, and good energy saving effect.
- Does not require oil lubrication, eliminates oil vapor pollution to the vacuum system, and is not sensitive to tiny dust.
- The pump has a stable large pumping speed within the pressure range of  $1.3 \times 10^3 \sim 1.3$  Pa, and can quickly release the suddenly released gas, which makes up for the shortcomings of oil-sealed vacuum pump and diffusion pump, and is most suitable for use as a booster pump.
- This type of pump has a relief valve, which has the function of automatically preventing overload. The pump always runs under safe conditions. So it can start at the same time as the foreline pump, and it is safe and reliable.





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## **NRB**

Model		NRB100	NRB250	NRB500	NRB1000	NRB2000
Pump Speed m³/h (L/S)		100 (30)	250 (70)	500 (150)	1000 (300)	2000 (570)
Ultimate Pressure (Pa)	Dual stage pump as backing	3×10 <sup>-2</sup>				
	Single stage pump as backing	1×10 <sup>-1</sup>				
Maximum allowable pressure differential in continuous operation (Pa)		1×10 <sup>4</sup>		8×10³		
Relief Valve Pressure Difference (Pa)		4×10 <sup>3</sup>	4×10 <sup>3</sup>	4.8×10 <sup>3</sup>	5.8×10°	3.2×10 <sup>3</sup>
Motor Speed (r/min)		3000				
Motor Power (kW)		0.75	1.1	2.2	4	7.5
Flange Nominal Size	Inlet (mm)	50	80	100	150	200
	Outlet (mm)	40	50	80	150	200
Allowed Temperature Rise (°C)		100				
Weight (kg)		80	98	220	310	630

NRB is one of the most basic vacuum obtaining equipment in the field of vacuum application. It is widely used in chemical industry, food, medicine, smelting, and motor manufacturing. Especially when its front stage uses a two-stage rotary vane pump, it can pump out gas containing a large amount of water vapor, so it is very suitable for distillation, evaporation, freeze drying and other production processes.

## **Flow Rate Characteristic**



