

Roots vacuum pump

Product feature

- Oil-free intermediate seal and multiple sealing methods are adopted to ensure a high clean vacuum environment inside the rotor cavity ;
- Advanced processing technology to ensure good geometrical symmetry of the rotor, low noise, high life ;
- The pump body rotor is made of aluminum alloy, fast heat dissipation, corrosion resistance, high efficiency and energy saving ;
- Adopt special shaft sealing method to achieve long-term stable operation without oil leakage ;
- Compact structure, light weight, small size.



XRJ100Z main performance index

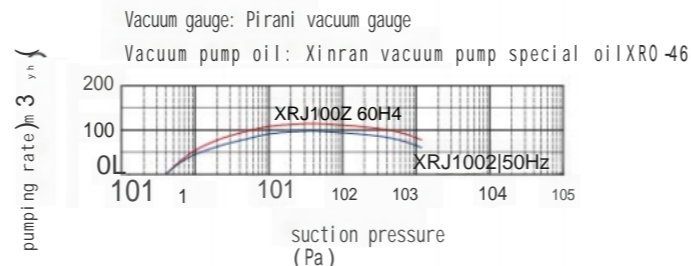
model	XRJ100LZ	
pumping rate	50Hz	m ³ /h(L/min)
	60Hz	.95
		108
Maximum inlet pressure (continuous operation)	50Hz	Pa
	60Hz	1.2X10 ³
Maximum allowable pressure difference	50Hz	Pa
	60Hz	9.3X10 ²
stalled pressure	50Hz	Pa
	60Hz	4.0X10 ²
Motor power (2 poles)	3phase	kW
		0.4
voltage	3phase	V
		380,400
Fuel requirement	L	
		0.4
cooling water	flow	L/min
	differential pressure	MPa
	water temperature	
air inlet	-	VG50
air outlet	-	VF50
Ambient temperature	-	50~40
weight	kg	30

XRJ系列直连式罗茨真空泵主要性能指标

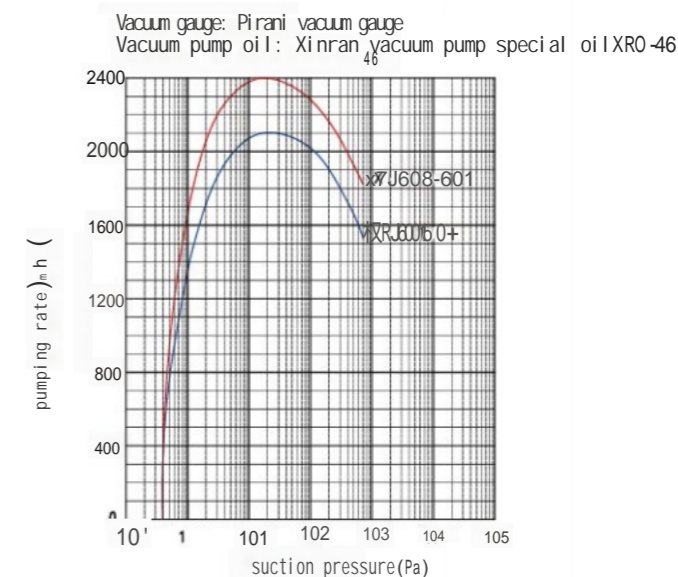
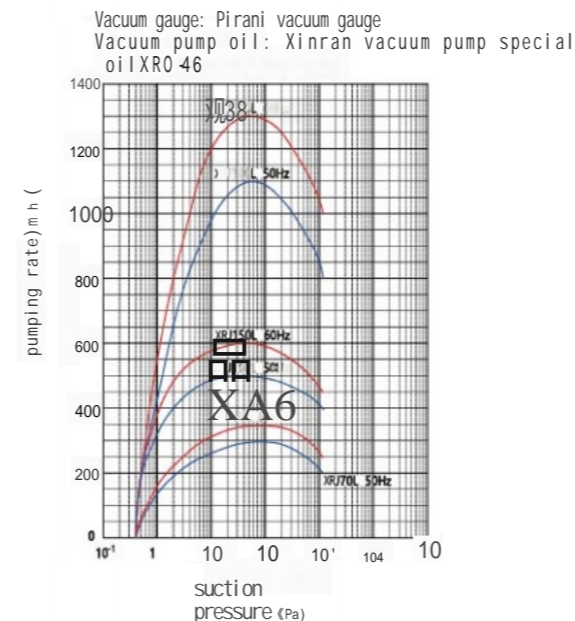
model	XRJ70L	XRJ150L	XRJ300L	XRJ600L
pumping rate	50Hz	m ³ /h(L/min)	280.(4670)	500.(8330)
	60Hz	330.(5500)	600.(10000)	1000.(16667)
Maximum inlet pressure (continuous operation)	50Hz	Pa	1.3X10 ³	8.0X10 ²
	60Hz	1.1X10 ³	7.3X10 ²	6.7X10 ²
pressure difference	50Hz	Pa	6.0X10 ³	4.7X10 ³
	60Hz	4.0X10 ³	3.7	2.5
stalled pressure	50Hz	Pa	0.75	2.2
Motor power (2 poles)	3phase	kW	0.8	1.6
voltage	3phase	V	380,400	3
Fuel requirement	L		2	3
water temperature	flow	L/min	2	3
	differential pressure	MD3	0.1	0.1
	water temperature		5~30	5~30
air inlet	-	VG80	VG100	VG200
air outlet	-	VF80	VF80	VF200
Ambient temperature	-	5~40	115	227
weight	kg	51	80	115

Note: The "limit pressure" in the table is the display value measured by the Pirani vacuum gauge when using the special oil of Xinran vacuum pump. If measured by the McLegg vacuum gauge, it is about 4X10⁻³Pa.

Pumping speed diagram



Pumping speed diagram



XRJ series hydraulic coupling Roots vacuum pump main performance indicators

model	XRJ600LC		XRJ1200LC	
pumping rate	50Hz	m ³ /h(L/min)	2590	4140
	60Hz	3110	4985	
Maximum inlet pressure (continuous operation)	50Hz	Pa	1.0 × 10 ³	1.0 × 10 ³
	60Hz	8.0 × 10 ²	6.0 × 10 ²	
pressure difference	50Hz	Pa	6.7 × 10 ³	5.0 × 10 ³
	60Hz	0.4	0.4	
stalled pressure	Pa	0.4	0.4	
Motor power (2 poles)	W	11	11	
Lubricating oil specification	-	XR0-46	XR0-46	
Side cover	L	3.5	3.5	
Motor side cover	L	6.5	6.5	
Motor side cover	L	1.5	1.5	
water temperature	flow	L/min	6	6
	differential pressure	MPa	0.2~0.6	0.2~0.6
	water temperature		5~35	5~35
weight	-	350	420	420
air inlet	-	ISO160	ISO250	ISO250
air outlet	-		ISO100	ISO100

Depending on the performance of the roughing pump, the data in the table is used in combination with the standard roughing pump.

The ultimate pressure is the value measured with a Pirani gauge or, if measured with a McLeod gauge, is 4 × 10⁻² Pa.

The inlet temperature of cooling water must be 5 ~ 35°C. When the cooling water temperature is too low, the pump should be used in an environment that is not easy to condensation.

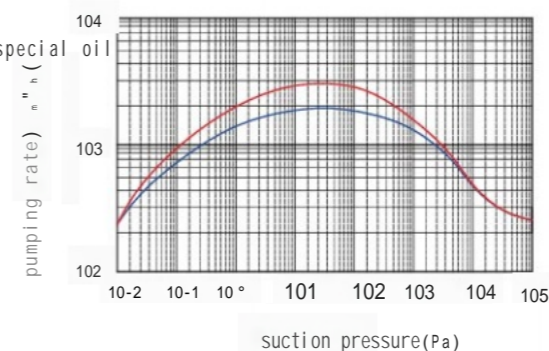
Pumping speed diagram

power supply :380V-50HZ

Vacuum gauge: Pirani vacuum gauge

Vacuum pump oil: Xinran vacuum pump special oil

XRJ600LC+XRJ275 (blue line)
XRJ1200LC+XRJ275 (red line)



Unit series



Use

- Evaporation coating, magnetron sputtering, coil coating, ion coating, optical coating, etc ;
- Single crystal furnace, polycrystal furnace, vacuum heat treatment furnace, sintering furnace, annealing furnace, quenching furnace, etc ;
- Vacuum drying, freeze drying, leak detection equipment and system, gas recovery system, liquid crystal injection, etc. · Refrigerators, household air conditioners, central air conditioners, energy-saving lamps, backlight automatic evacuation lines, exhaust equipment, etc

Roots pump unit main performance indicators

		model		JZ70A JZ70B JZ70C JZ70D	JZ150C JZ150D	JZ300H
stalled pressure	Pa				4X10 ⁻²	
Maximum allowable pressure difference	Roots pump	XRJ70L		XRJ150L		XRJ300L
	Oil vane pump	XRJ3C		XRJ60		XRJ275
		XRJ40		XRJ60		XRJ275
		XRJ60		XRJ90		XRJ275
electrical machinery (Kw)	Roots pump (2 poles)	0.75		2.2		3.7
		1.1		2.2		7.5
	Roots pump (2 poles) (4 poles)	1.5		2.2		7.5
		2.2		3.7		7.5
Fuel requirement (L)	Roots pump standard oil	0.8		1.6		2
	Oil vane pump	1.2~2.8		2.5~4.2	Xinran vacuum pump special oil XR046	23~28
	Oil vane pump	2.5~4.2		2.5~4.2	Xinran vacuum pump special oil XR068	23~28
air outlet	type of cooling	Roots pump	-	水冷		水冷
	Oil vane pump		-	水冷		水冷
water yield(exit) (L/m ³)	water pressure/inlet/outlet water pressure difference			0.3M Pa (gage pressure)/0.1M Pa		
	coolant temperature()			5~30		
Suction diameter				VG80		VG100
Exhaust diameter				KF40		VG50
Optional parts	-1: electric control box 2: vacuum gauge 3: air intake flange 4: oil mist filter 5: cooling water flow switch					