

## Winner Vacuum Packing Pvt Ltd.

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## Roots Vacuum Pump

### Introduction

The pump consists of two figures "8" shaped rotors and two semicircular pump houses. The rotors rotate synchronously in opposite directions and high speeding. The pump cannot be separate used; it must be used as boosters combined with a backing pump such as rotary piston or a rotary vane pump, or a liquid ring vacuum pump. These vacuum systems can get higher vacuum, a stable, fairly high pumping speed can be gained in effective pressure range. The backing pump decides the ultimate pressure of roots pump. The data of the list is lowest ultimate pressure with the standard equipment (Equipped double stage oil mechanical vacuum pump)



### Application

The roots pumps are widely used in vacuum moulding, vacuum smelting, vacuum gas pumping, vacuum coating industry, vacuum distilling and vacuum drying of chemical and pharmaceutical industry etc. The dust cannot be pumped by roots pumps.

### Features

1. The lack of reciprocating parts allows a perfect dynamic balancing, because the rotors are processed by numerical control machine tools and balanced carefully. It has perfect geometry symmetry. There is certain clearance between the two rotors. The pump house and end cover is processed by especial machine tools. It has high precision. So the pump own feature of stable operation, low noise, vibration and high ultimate pressure.
2. The robust drive of pump and operating parts balanced carefully permit that the pump be stably operated continuously under the condition of high different pressure.
3. They can be started quickly and in short time ultimate pressure is reached.
4. Lubrication is unnecessary as there is no contact between rotors and house that avoid oil vapor from polluting vacuum system
5. Good reliability characteristic. Their inherent overflow valve play auto-protective role.
6. Compact structure, low footprint design. There are three gas outlet ports that are in left, right and under pump house. It is convenient for consumer installing.

### Technical Data :

Model	Ultimate Pressure		Pump Speed (L/s)	Inlet Diam (mm)	Outlet Diam (mm)	Max. Permissible Diff. Pressure		Motor Power (KW)	Recommended Backing Pump	Cooling Water consumed.	Noise dBA	Weight Kg.
	Pa	Torr				Pa	Torr					
WZJ-30	$5 \times 10^{-2}$	$3.7 \times 10^{-4}$	30	50	50	$8 \times 10^3$	60	1.1	2X-4A	2	78	87
WZJ-70	$5 \times 10^{-2}$	$3.7 \times 10^{-4}$	70	80	80	$8 \times 10^3$	60	1.1	2X-15A	4	78	87
WZJ-150	$5 \times 10^{-2}$	$3.7 \times 10^{-4}$	150	100	100	$8 \times 10^3$	60	2.2	2X-30A	5	82	195
WZJ-300	$5 \times 10^{-2}$	$3.7 \times 10^{-4}$	300	150	150	$6 \times 10^3$	45	4.0	2X-70A	6	83	270
WZJ-600	$5 \times 10^{-2}$	$3.7 \times 10^{-4}$	600	200	200	$4.5 \times 10^3$	34	7.5	2X-70*2	8	86	760

WZJ-1200	$5\times10^{-2}$	$3.7\times10^{-4}$	1200	250	200	$4\times10^3$	30	11.0	WZJ-300+2X-70A	10	90	845
WZJ-2500	$5\times10^{-2}$	$3.7\times10^{-4}$	2500	320	320	$4\times10^3$	22.5	22.0	WZJ-600/H-150	15	90	1360

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