

Dry Vacuum Pumps Model ESR

Energy Saving Roots

The Model ESR (Energy Saving Roots) is a multi-stage dry vacuum pump engineered for application from clean to medium duty processes such as Load Lock, SEM, PVD, Ashing, Sputtering and Etch. The ESR Model covers a wide pumping speed range from 120 to 3,000 m³/h and is distinguished by low ultimate pressure. The larger models ESR80WN, ESR200WN, ESR300WN and ESR500WN are combinations of main pump with an additional booster pump on top. Both pumps are roots pumps. The pump is constructed of Ni-Resist, a homogeneous steel alloy with high Ni-content known for its superior corrosion resistance.

Applications

- PVD
- Metal etch
- CVD
- Ion implant
- Ashing
- SEM
- Load lock

Technical Characteristics

- Multistage lobe design engineered for application in clean and medium harsh processes as load lock, SEM, PVD, ashing, ion implantation and etch
- Adjustable pumping speed by RPM variation
- High pump operating temperature preventing condensation and clogging
- High performance brushless DC motors
- Low noise and low vibration
- Thoroughly corrosion resistant material



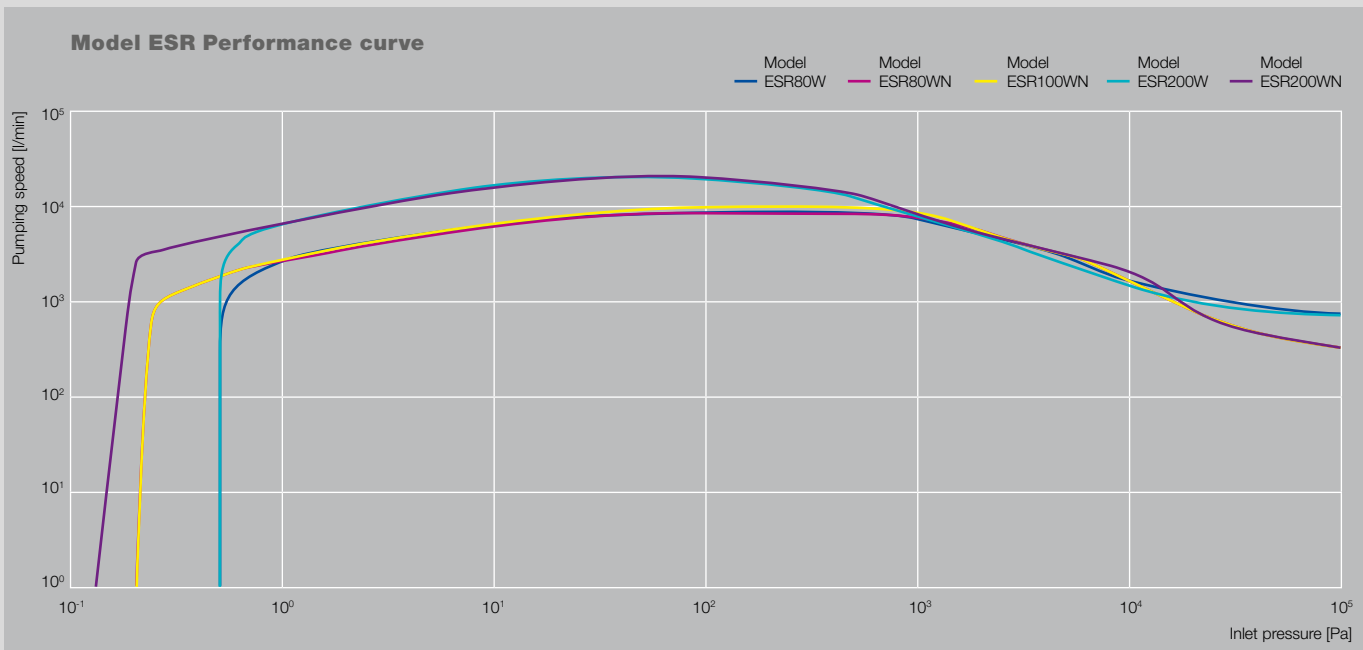
Customer Benefits

- Low Cost of Ownership (power, N₂, water, footprint, volume, weight)
- Variable pumping speed to match application requirements
- State-of-the-art control and monitoring devices
- Idle mode can be employed for increased utility savings

Technical Data

Model		ESR20N	ESR30N	ESR80WN	ESR100WN	ESR200WN	ESR300WN	ESR500WN
Pumping speed (N ₂)	[m ³ /h]	120	180	510	600	1,200	1,800	2,760
	[l/min]	2,000	3,000	8,500	10,000	20,000	30,000	46,000
Ultimate pressure	[mbar]	2x10 ²	6.7x10 ⁻²	2x10 ⁻³		1.3x10 ⁻³	2x10 ⁻³	
	[Pa]	2	0.67	0.2		0.13	0.2	
Voltages ranges	[V]	200–220 / 380–440, 3-ph, 50/60 Hz						
Maximum power	[kW]	2.2	3.5	5.2	4.5	5.6	7.5	7.9
Power at ultimate pressure	[kW]	0.7	1.7	1.0	1.0	1.1	2.9	3.1
Weight, approx.	[kg]	90	190	180	180	250	390	500
Sizes (LxWxH)	[mm]	695x280x370	760x400x488	720x380x705	704x380x705	825x460x880	975x460x880	1092x460x955

Model ESR in this leaflet is our model code.



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