



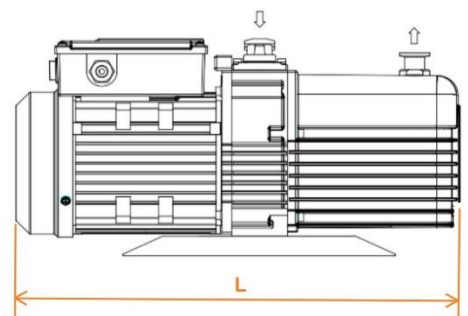
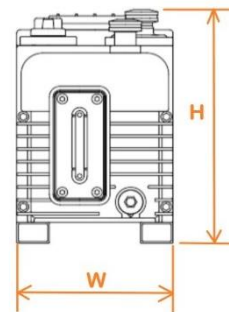
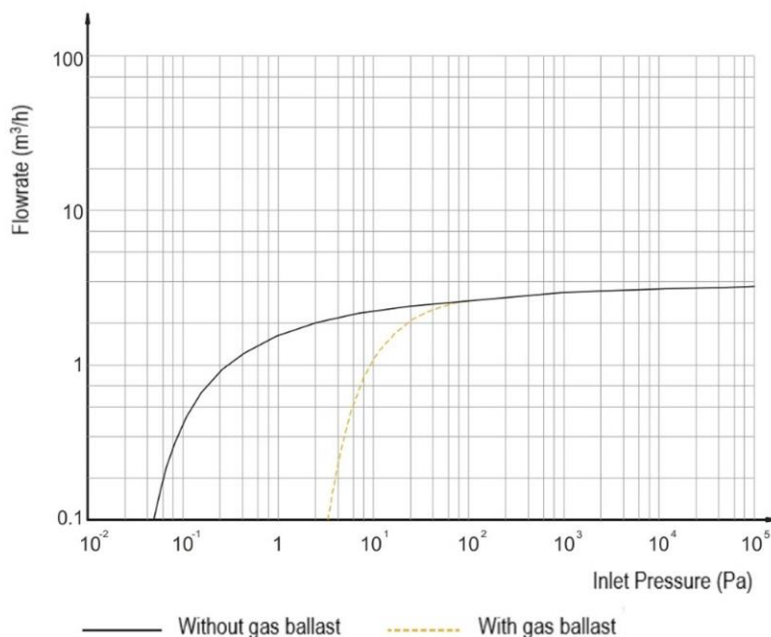
NAVAC offers the NRD and NRD M series rotary vane pumps. These are UL listed, two-stage, air-cooled, and direct-driven for long term continuous use. Typical applications include:

- ✓ Analytical Instruments (mass spectrometry, leak detection, RGA)
- ✓ Medical Equipment (plasma sterilizers, pharma freeze drying)
- ✓ Industrial Coatings (thin films, vacuum ovens, furnaces)
- ✓ Controlled Environment Horticulture (extraction, vacuum ovens)
- ✓ HVAC (refrigerant charging, helium leak detection and recovery)
- ✓ Electronics, Power, Gas Recovery, etc...
- ✓ General laboratory use (backing for turbo-pump, central vacuum)

DESIGN FEATURES

- Adjustable gas ballast valve – allows for the different requirements of condensable gases.
- Dual automatic anti-suckback design – protects vacuum system from oil contamination in the event of an unexpected shutdown.
- Forced oil circulation – ensures stable vacuum
- Integrated cylinder structure and pin connection – convenient and accurate for maintenance/inspection.
- M series pumps were specifically created for the plasma sterilization industry to handle the mild corrosiveness of H₂O₂ in the process. Excellent for freeze drying applications' high H₂O vapor content.

NRD4 Flow Rate Characteristic



TECHNICAL DATA



Pumping Speed (m ³ /h / cfm)	50 Hz	4 / 2.4
	60 Hz	4.8 / 2.8
Rotational Speed	50 Hz	1440
	60 Hz	1720
Ultimate Total Pressure	torr	3.75 x 10 ⁻³
	mbar	5.00 x 10 ⁻³
Ultimate Total Pressure w/ GB	torr	2.25 x 10 ⁻²
	mbar	3.00 x 10 ⁻²
Standard Cooling Method		air
Dimension (L x W x H)	in	18.11 x 5.67 x 8.15
	mm	460 x 144 x 207
Weight	(lb/kg)	42 / 19
Inlet / Outlet Ports		KF16
Power Rating @ 60Hz 1-ph	kW	0.4
	hp	0.54
Power Rating @ 60Hz 3-ph	kW	0.375
	hp	0.5
Oil Capacity	ml	600 - 1000
Sound emission	dB(A)	≤ 56
Water Vapor Tolerance @ 50Hz	torr	22
	mbar	30
Water Vapor Capacity @ 50Hz	kg/h	0.1
Protection Category		IP44
Ambient Temperature range	°C	5 - 40

ORDERING INFORMATION

Product Description	Order No. (Standard)	Order No. (M Series)	Order No. PFPE prepped	Order No. (M Series, PFPE prepped)
115/230V, 50/60Hz, 1 ph	N10041001	N/A	N10042001	N/A
200-220/380-415V, 50Hz, 200-230/460v, 60Hz, 3 ph	N10041002	N/A	N10042002	N/A
Oil Mist Filter	NOT8A	N/A	NOT8A	N/A
Oil	NPO46H (1L)	N/A	* Prep Only *	N/A
Repair Kit	NSK4	N/A	NSK4	N/A