



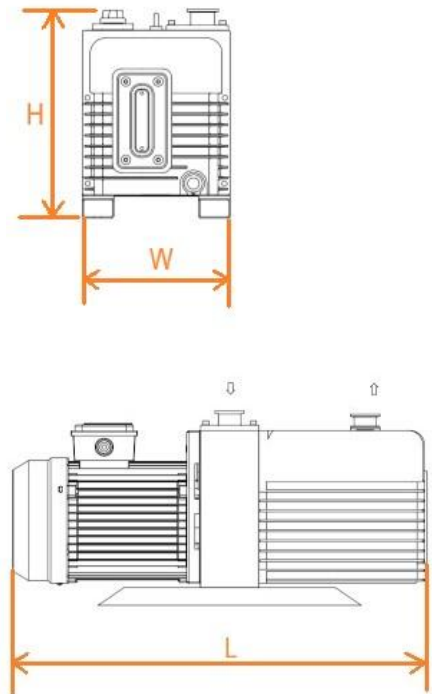
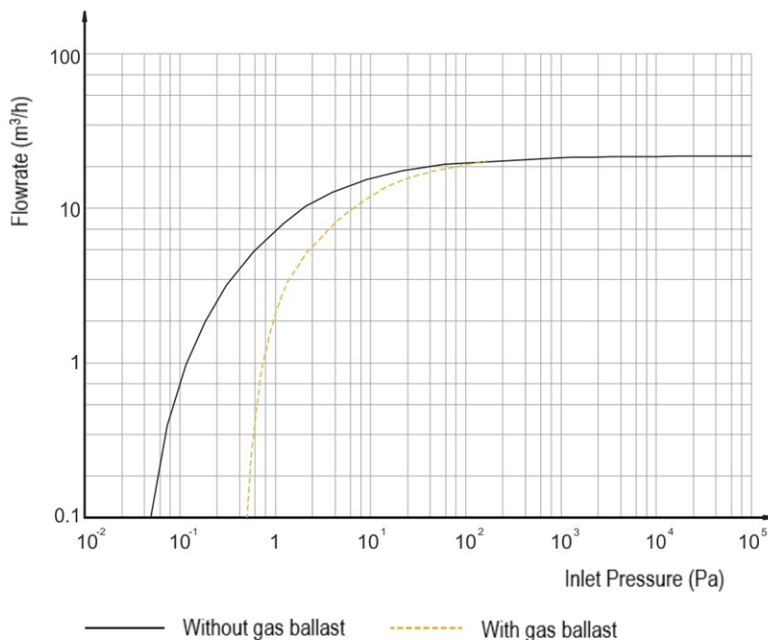
NAVAC offers the NRD and NRD M series rotary vane pumps. These are UL listed, two-stage, air-cooled, and direct-driven for long term continuous use. Typical applications include:

- ✓ 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  $H_2O_2$  in the process. Excellent for freeze drying applications' high  $H_2O$  vapor content.

### NRD24 Flow Rate Characteristic



# TECHNICAL DATA



Pumping Speed (m <sup>3</sup> /h / cfm)	<b>50 Hz</b>	24 / 14.1
	<b>60 Hz</b>	28.9 / 17
Rotational Speed	<b>50 Hz</b>	1440
	<b>60 Hz</b>	1720
Ultimate Total Pressure	<b>torr</b>	3.00 x 10 <sup>-3</sup>
	<b>mbar</b>	4.00 x 10 <sup>-3</sup>
Ultimate Total Pressure w/ GB	<b>torr</b>	6.00 x 10 <sup>-3</sup>
	<b>mbar</b>	8.00 x 10 <sup>-3</sup>
Standard Cooling Method		air
Dimension (L x W x H)	<b>in</b>	22.1 x 7.4 x 10.7
	<b>mm</b>	560 x 188 x 272
Weight	<b>(lb/kg)</b>	77 / 35
Inlet / Outlet Ports		KF25
Power Rating @ 60Hz 1-ph	<b>kW</b>	1.1
	<b>hp</b>	0.5
Power Rating @ 60Hz 3-ph	<b>kW</b>	0.75
	<b>hp</b>	1
Oil Capacity	<b>ml</b>	2000
Sound emission	<b>dB(A)</b>	≤ 58
Water Vapor Tolerance	<b>torr</b>	18
	<b>mbar</b>	25
Water Vapor Capacity	<b>kg/h</b>	0.5
Protection Category		IP44
Ambient Temperature range	<b>°C</b>	5 - 40

# ORDERING INFORMATION

Product Description	Order No. (Standard)	Order No. (M Series)	Order No. PFPE prepped	Order No. (M Series, PFPE prepped)
115V, 60Hz, 1 ph	N10241001	N10241001M	N10242001	N10242001M
230V, 50Hz, 1 ph	N10241002	N10241002M	N10242002	N10242002M
200-220/380-415V, 50Hz, 200-230/460v, 60Hz, 3 ph	N10241003	N10241003M	N10242003	N10242003M
Oil Mist Filter	NOT30B	NOT30B	NOT30B	NOT30B
Oil	NPO68H (1L)	NPO68H (1L)	* Prep Only *	* Prep Only *
Repair Kit	NSK24	NSK24M	NSK24	NSK24M