

## R 5 1000 - 1600 B



RA 1600

### Description

Modular designed Bosch R 5 oil-sealed rotary vane vacuum pumps are single stage, air-cooled, and direct-driven. This oil-recirculating design is one of the simplest and most reliable vacuum pumps available on the world market. These rugged pumps are used in a variety of industries such as packaging and food processing, rubber molding, thermoforming, printed circuit board testing, hospitals, laboratories, robotics, vacuum lamination, printing, and many others.

Pumping speeds range from 670 to 1030 CFM. Two models are available: the RC for applications to 15 Torr (29.3" Hg); the RA for applications to 0.375 Torr (29.9" Hg).

### Features

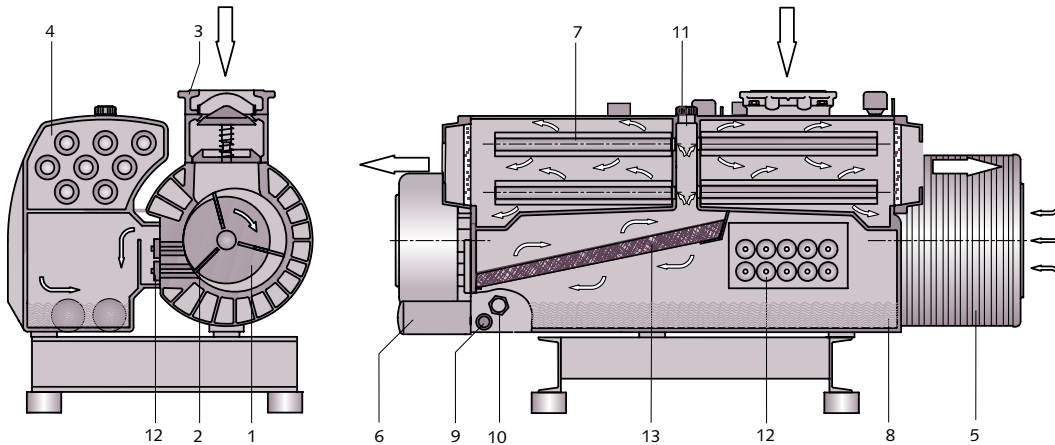
- Compact, simple design for easy installation and low maintenance
- Air-cooled, requiring no water
- Direct driven, eliminating belts and gears to loosen or wear
- Quiet operation
- Continuous duty
- Easy exhaust filter change
- High quality US made motors

### Standard Equipment

- TEFC motor
- Motor starter (optional)
- Anti-suckback valve
- Built-in exhaust filter
- Exhaust pressure gauge
- Exhaust temperature switch
- Wire mesh inlet screen
- Non-metallic, non-asbestos vanes
- Vibration isolators
- Automotive type spin-on oil filter
- Oil level sight glass
- Oil level switch

# Rotary vane vacuum pumps

## Operating Principle



- 1 Rotor
- 2 Vanes
- 3 Inlet flange
- 4 Oil mist separator
- 5 Oil cooler

- 6 Oil filter
- 7 Discharge filter
- 8 Oil sump
- 9 Oil drain plug
- 10 Oil sight glass

- 11 Oil fill plug
- 12 Exhaust valve
- 13 Demister

## Operating Principle

Rotation of the pump rotor, which is mounted eccentrically in the pump cylinder, traps entering vapor between rotor vane segments. As rotation continues, vapor is compressed and discharged into the exhaust box.

Vapors then pass through several stages of internal oil and mist eliminators to remove lubricating oil from the exhaust. The oil that is separated is then returned to the oil reservoir. Additional features include an automotive

type spin-on oil filter, and a built-in inlet anti-suckback valve that prevents the pump from rotating backwards.

A built-in gas ballast permits pumping with high water vapor loads and provides oil drying for maximum performance.

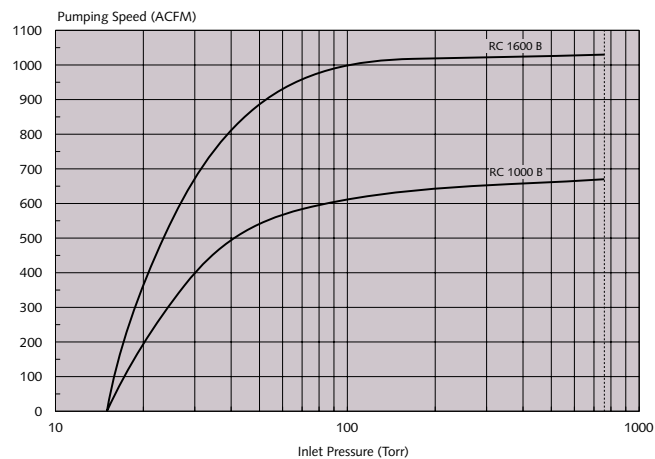
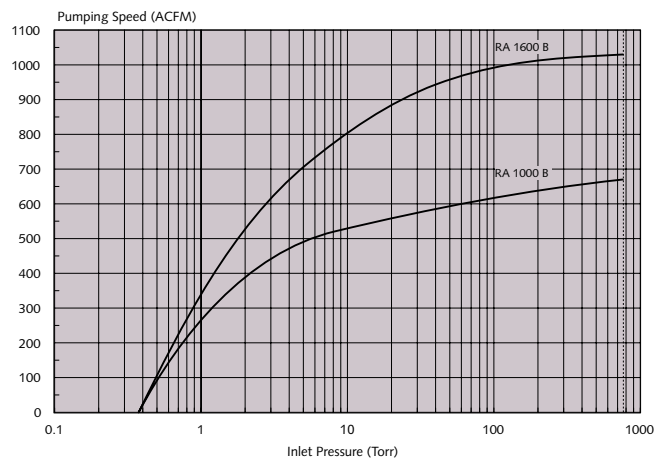
## Applications

- Packaging industry
- Food industry
- Pneumatic conveying
- Transport and lifting systems
- Medical technology
- Central vacuum systems
- Environmental technology
- Woodworking
- Plastic industry
- Ceramics and brick industry
- Sewage transfer
- Textile industry
- Beverage industry
- Paper industry
- Printing Industry
- Vacuum furnace
- Plasma coating
- Metallurgy
- Leak detectors
- Coating systems
- Degassing systems
- Gas recovery



## Technical Data

### Pumping Speed vs. Inlet Pressure

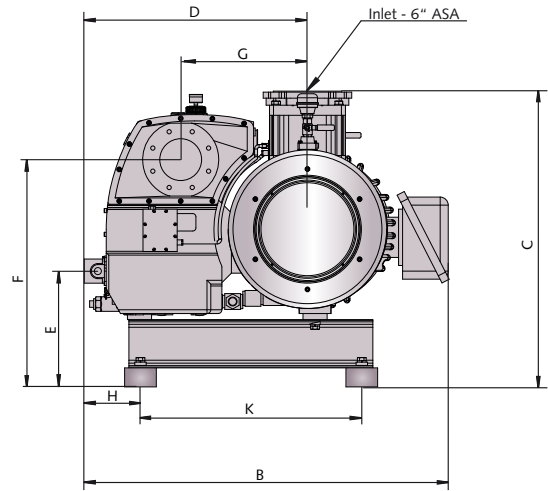
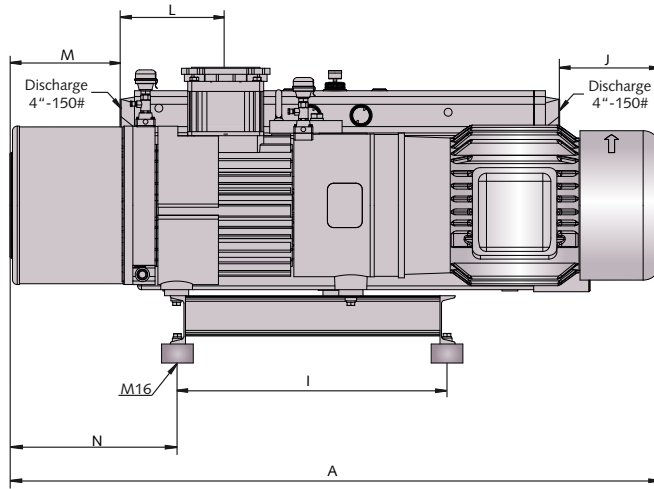


Technical Data		1000	1600
Nominal pumping speed	ACFM	670	1030
Ultimate Pressure (RC)	Torr	15	15
Ultimate Pressure (RA)	Torr	0.375	0.375
Motor size	HP	40	50
Motor rotational speed	RPM	1150	1150
Sound rating**	dB(A)	85	86
Approx. oil capacity*	Qts.	42	44
Approximate weight	Lbs.	2151	2833

\*Performance based on ambient conditions of 14.7 PSIA and 70° F, and have a tolerance of +/- 10%.

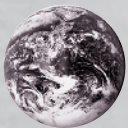
\*\* DIN EN ISO 2151

Dimensions



Dimensions	A	B	C	D	E	F	G	H	I	J	K	L	M	N
RA/RC 1000	75 <sup>1</sup> / <sub>4</sub>	45 <sup>1</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>8</sub>	28 <sup>5</sup> / <sub>8</sub>	15 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	33 <sup>1</sup> / <sub>2</sub>	8 <sup>3</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>8</sub>	11 <sup>5</sup> / <sub>8</sub>	21
RA/RC 1600	87 <sup>3</sup> / <sub>4</sub>	45 <sup>1</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>8</sub>	28 <sup>5</sup> / <sub>8</sub>	15 <sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	33 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>4</sub>	27 <sup>1</sup> / <sub>2</sub>	19 <sup>1</sup> / <sub>2</sub>	11 <sup>3</sup> / <sub>4</sub>	33 <sup>1</sup> / <sub>2</sub>

All dimensions in inches unless otherwise noted.



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