

# R 5

## Rotary Vane Vacuum Pumps RAH 200/300 A



Busch has introduced the first hygienically designed rotary vane vacuum pumps in the world: the RAH 200 A and RAH 300 A. They are members of the Busch R 5 family of rotary vane vacuum pumps, which has long been the established industry standard. More than 2.5 million R 5 vacuum pumps are in daily operation in many industries throughout the world.

R 5 RAH models were developed specifically for food packaging with tray sealers and thermoforming machines, and are designed to be cleaned using steam jets and conventional detergents. The unit surfaces are smooth and slightly inclined, allowing water and detergent to drain away after cleaning to leave a residue-free finish.

The vacuum pumps are water cooled, preventing heat emissions to the packaging machine and cooled packaging area. The packaging area temperature (a legal requirement, and important for food packaging operations) remains unaffected. In addition, cooling energy is saved. A water cooled motor may be ordered as an option to further reduce heat emissions.

The heat energy from the cooling system can be reused elsewhere, resulting in an additional improvement to the energy balance of the vacuum system. The water supply is easily connected to the packaging machine cooling system. Installation is a simple process due to the unit's compact dimensions and flexible vacuum connector.

### Operationally reliable and cost-effective

The rotary vane technology has been continuously developed and optimised by Busch for 50 years, with constant focus on both economy and reliability of operation. High efficiency and energy-efficient drive units are the positive results of this development.

Busch rotary vane vacuum pumps are fitted with highly durable carbon fibre composite rotor vanes as standard equipment. These vanes were developed by Busch for the harsh conditions encountered by R 5 vacuum pumps, and are manufactured in-house exclusively by Busch. Also specially developed are the highly efficient oil separators, which guarantee the optimal removal of even the smallest of oil particles from the exhaust air.



**R 5 RAH – the only hygienic rotary vane vacuum pump for food packaging.**



R 5 RAH 300 A

# R5

## Rotary Vane Vacuum Pumps RAH 200/300 A



### Technical specifications

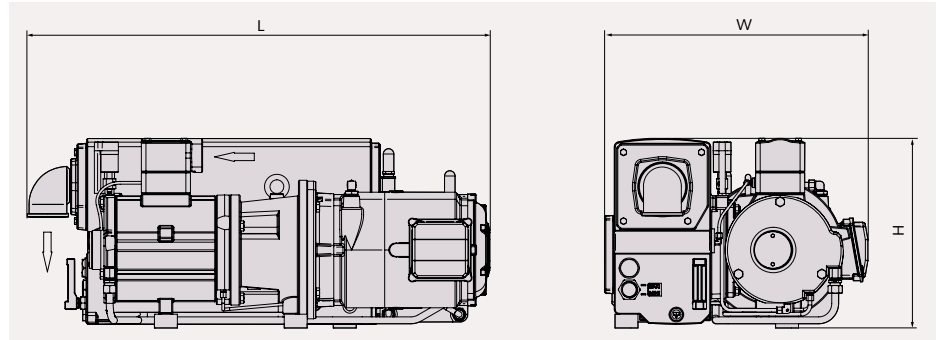
The rotary vane technology enables a technically simple structure of the vacuum pumps. The consistently high vacuum level in continuous operation is guaranteed through circulating oil lubrication, perfectly coordinated materials and state-of-the-art and precise manufacturing. The integrated oil separator ensures clean and oil-free exhaust thanks to its sophisticated extractor system with integrated oil return. When fitted with a gas ballast valve (optional), even large amounts of vapour can be processed. A non-return valve in the inlet flange prevents air from flowing back into the vacuum chamber when the vacuum pump is switched off. The pump is driven by a directly flange-mounted water cooled standard motor.

### Accessories/technical options

In addition to the standard version with water cooled standard motor and heat exchanger, versions with water cooling and encapsulated air cooled motor are also available.

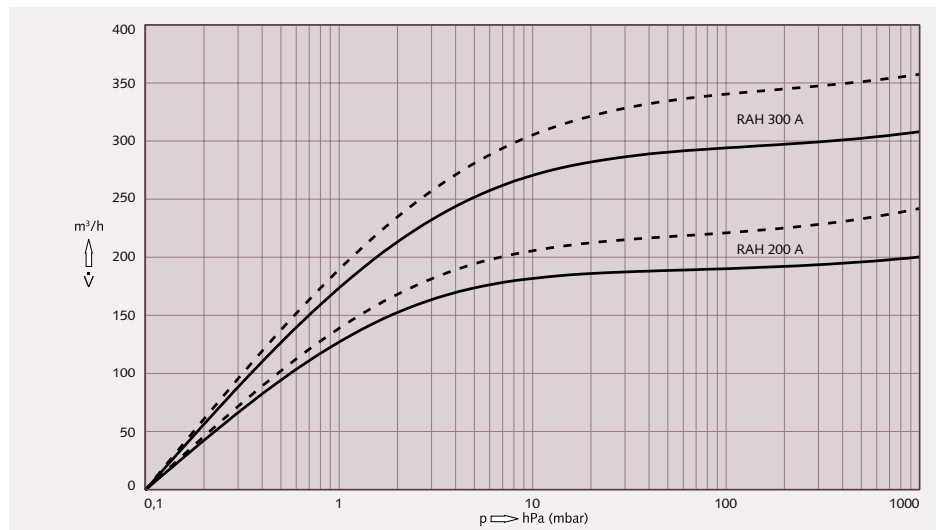
- Filter pressure gauge
- Oil level switch
- Vacuum pump oils
- Oil temperature switch

### R5 RAH 200/300 A



### Pumping speed

Air at 20 °C. Tolerance: ± 10% — 50 Hz - - - - 60 Hz



Technical data			RAH 200 A	RAH 300 A
Nominal pumping speed	50 Hz / 60 Hz	m <sup>3</sup> /h	200 / 240	300 / 360
Ultimate pressure with opened gas-ballast valve	50 Hz / 60 Hz	hPa (mbar)	0.5	0.5
Ultimate pressure with closed gas-ballast valve	50 Hz / 60 Hz	hPa (mbar)	0.1	0.1
Nominal motor rating	50 Hz / 60 Hz	kW	5.5 / 6.6	7.5 / 9.2
Nominal motor speed	50 Hz / 60 Hz	min <sup>-1</sup>	1500 / 1800	1500 / 1800
Water consumption		l/min	4	5
Noise level (ISO 2151)	50 Hz / 60 Hz	dB(A)	72 / 74	72 / 74
Oil capacity		l	6.5	6.5
Weight approx.		kg	150	190
Dimensions (L x W x H)		mm	960 x 561 x 423	1025 x 561 x 423
Gas inlet / outlet			G 2" / G 2"	G 2" / G 2"

### Busch Vacuum Kft.

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