Winery Engineering Association

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(Commercial Presentation)

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COMMERCIAL PRESENTATION:DRY VACUUM PUMPS

COBRA NC Series:

Volumetric Displacement: 100 m3/h – 900 m3/h

Ultimate Vacuum: 0.01 mbara

This is the **‘flagship’** of our dry running pumps

Asymmetrical screw profile and free gas outlet greatly improve the pump ability to handle liquid and dust carry over

Non-contacting => no wear

Constant temperature distribution => high corrosion resistance

Optimised efficiency reduces the thermal load => increasing service life of the installation

Easy to service =>easy and fast access to the screws; integrated predictive status monitoring

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Busch Mink MM Series - Aqua

* Dry-Running rotary claw vacuum pump
* single stage
* dry running
* non-contacting and hence no friction loss and free of wear
* absolutely oil-free compression
* no cooling water required
* very sturdy construction
* oil- and abrasion-free exhaust air
* Maintenance free
* long life span
* Internal CFC coating to prevent the pump from corrosion

Technical Data

Nominal displacement	70 – 320 m³/hr
Max. ultimate pressure	60 - 150 mbar
Nominal motor rating	3.0 - 15.0 kW
Voltage	3 x 400/690V
Frequency	50/60 Hz
Rotation	3000 rpm

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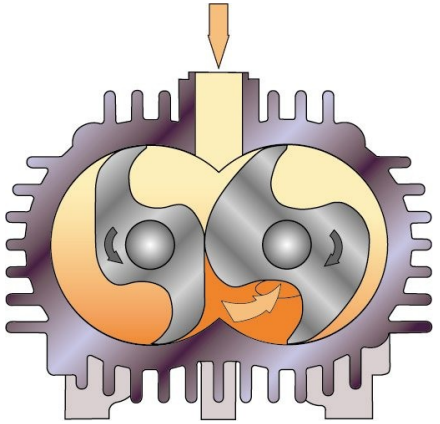
Principle of operation:

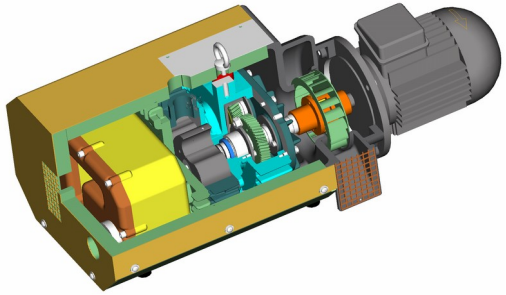
Mink vacuum pumps work according to the rotary lobe principle.



They are compressing dry, contact free and hence free of wear.

Two rotary lobes are rotating in opposite directions within a cylinder, inducting and compressing a gas medium.

The shape of the lobe is such that a small gauged clearance is maintained between the lobe tips and the cylinder walls and also at the adjacent lobe surfaces.



As the lobes rotate constantly, gas is sucked in, compressed and discharged under pressure.

Mink rotary lobe vacuum pumps are air-cooled.

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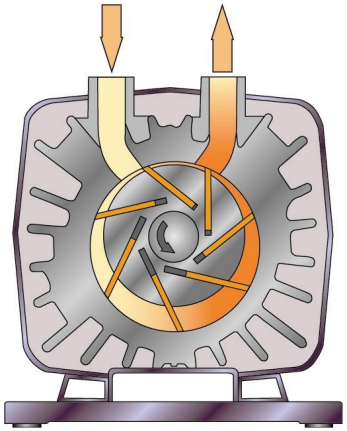
Busch Seco SV/SD Series:

Vol. Displacement: 10 – 40 m3/h

Ultimate Vacuum: 120 – 150 mbara

Dry running rotary vane => totally oil-free with self-lubricating



(carbon) vanes

Low energy consumption

Relatively quiet

Eco-Friendly => no lubrication fluids

Compact (motor is directly flange-mounted to pump casing)

Low maintenance => robust design, lifetime lubricated bearings; surface-cooled driving motor = long service life

Busch Side-Channel Blowers SB Series:

Vol. Displacement: 50 – 1400 m3/h

Max. Pressure Differential: Vacuum:90-360mbar; Pressure:100-460mbar

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Single or Double Stage (Difference is in the pressure differential)

Pulsation free => very quiet

Robast construction

Oil-free compression

Low power consumption

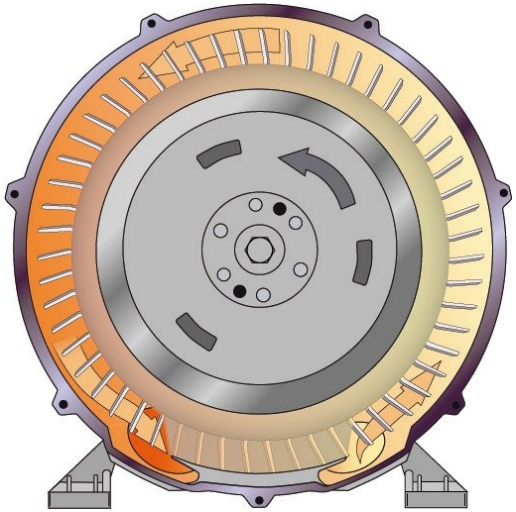
Suitable for application requiring large volume air flow

at low to medium pressure (vacuum and/or over pressure)

Principle of Operation:

Works on the impluse principle, i.e. kinetic energy is tranferred from the rotating wheel to the medium agent being pumped and then is converted into pressure.

The impeller, which is mounted directly on the shaft of the drive motor, together with the aluminium housing forms the side channel, in which the medium is compressed and then discharged through the pressure-side silencer.



In the two-stage version, the medium is passed from the first-stage impeller and is then emitted through the discharge side silencer. The two-stage compression resulots in a higher differential pressure.

Busch Panther Three-Lobe Roots Pump:

Totally dry-running => No oil or water

Contact free

No contamination by lubricants of the gases being transported

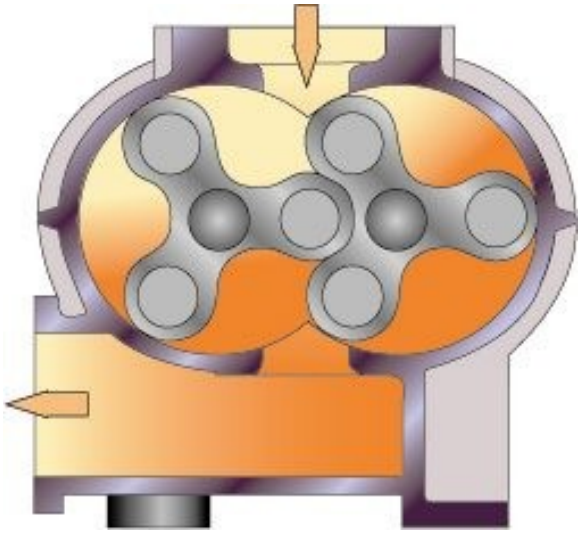
Reliable => sturdy design & sophisticated manufacturing process, Labyrinth seals between cylinder and gear housing

Modular construction and motor to IEC standard.

Maintenance: gear oil change and lubrication of the bearings

Principle of Operation:

Based on Roots system. Two rotors with identical profile rotate in opposite directions within a casing. As they rotate, the gas is drawn into the space between each rotor and the casing where it is tgrapped, transported and discharged by the rotation.



This action is repeated twice for each revolution of each rotor and therefore six times for each revolution of the drive-shaft. There is no mechanical contact between rotors and the cylinder therefore no lubrication is required in the compression chamber.

It is constructed with a pulsation reduction system which obtains a progressive compression => reduces the pulsation at its very point of start.

THE END

Thank you for your attention and interest

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