

## DIAPHRAGM PUMP

### MV 10 NT AND MV 10 NT VARIO

■ Four-stage diaphragm pumps are an excellent solution for continuous, oil-free pumping of gases when the need is to reach fractional millibar ultimate vacuum. All parts in contact with pumped vapors or gases are made of aluminum, stainless steel and carefully selected plastics suitable for a wide range of non-corrosive applications. These pumps provide the advantageous combination of high pumping speed with an extraordinarily good ultimate vacuum down to 0.5 mbar, and down to 0.3 mbar with the VARIO® version with self-adapting motor speed control. The highly flexible, fabric-reinforced double diaphragm made of FKM offers extended operating life. The VARIO® system consists of the VARIO® pump and the CVC 3000 vacuum controller with external gauge head. It provides precise vacuum control, higher pumping speed and improved ultimate vacuum. Eight-cylinder NT pumps feature quiet operation, with smooth and easy-to-clean surfaces.



#### PERFORMANCE FEATURES

- contamination-free pumping and evacuation
- high performance even close to the excellent ultimate vacuum
- VARIO® with removable CVC 3000 vacuum controller, can be arranged flexibly, easily operated with clear text menus
- VARIO® version offers self-regulating vacuum optimization throughout the process
- TURBO·MODE™ in VARIO® version with even better ultimate vacuum especially for backing of turbo pumps



**MV 10 NT**  
10.4 m<sup>3</sup>/h  
0.5 mbar

**MV 10 NT VARIO**  
12.1 m<sup>3</sup>/h  
0.3 mbar



#### APPLICATIONS

Four-stage diaphragm pumps are an excellent choice for continuous, contamination-free evacuation and pumping of non-aggressive gases under the very high vacuum demands of applications in physics and analytics. Due to the outstanding ultimate vacuum these pumps are often used as an alternative to rotary vane pumps. Typical applications are for vacuum ovens, for very quick and efficient degassing of viscous media, exhaust gas analytics and especially as backing pump for large turbomolecular drag pumps. The pumps are extraordinarily silent and exhibit very low vibration making them an excellent match for sensitive equipment such as electron microscopes. Back diffusion of oil or even oil back flow, e.g., into a high vacuum chamber is excluded due to its oil-free operation. Additionally, the VARIO® version provides precise (hysteresis-free) vacuum control. Depending on the application the demand-responsive motor speed control results in unsurpassed lifetimes of service parts like diaphragms as well as optimal performance for backing of turbo pumps.