Turbomolecular Pumps
TURBOVAC MAG W
Compact line with magnetic levitation.
The Compact Line for Modern Applications.

The High Vacuum Technology Experts

As a vacuum technology pioneer, Oerlikon Leybold Vacuum has a broad spectrum of innovative vacuum components.

Based on many decades of our engineering and application expertise we develop and manufacture solutions which perfectly match the customer requirements.

Quality, high reliability and excellent performance data are an integral part of our portfolio.

Comprehensive application consulting, a customer-oriented after sales service and vacuum technology training courses complete our product line.

MAG W - “Wide Range” Turbomolecular Pumps

With the market introduction of the first magnetically levitated turbomolecular pumps worldwide in the year 1975 and the long success story of the TURBOVAC TMP 340 M, Leybold Vacuum presents itself as a specialist for low-vibration turbomolecular pumps.

The successor generation to the 340 M is based on the new MAG W 300 to 700 design platform which is equipped with a maintenance-free, active five-axis magnetic suspension system.

With reduced vibration levels and optimized equipment it surpasses the specific performance data of the predecessor model.

For high compression and throughput, the turbomolecular pumps from the MAG W line are equipped with a compound stage as standard.

The compact construction facilitates easy integration within already existing systems.

All models are equipped with a combined purge gas/venting connection for pumping of harmful, non-corrosive media.

These pumps are available in the following sizes:

- MAG W 300 P / MAG W 300 iP
- MAG W 400 P / MAG W 400 iP
- MAG W 600 P / MAG W 600 iP
- MAG W 700 P / MAG W 700 iP

The “iP” types are equipped with an integrated frequency converter.

More than 30 Years of Experience with Maglev Turbomolecular Pumps

Typical Applications

- Gas analysis systems
- Particle accelerators
- Electron microscopes
- Research
- Coating systems
- and other vibration-sensitive, non-corrosive applications and processes.

Advantages and Customer Benefit

- New low vibration and noise-less drive concept for utmost reliability and efficiency
- Stable system performance capability; offering the highest pumping speed and compression rates for all gases
- Modular frequency converter concept for the levitation and drive system; either by way of a benchtop unit or an integrated solution with flexible add-on options
- Innovative and future-oriented interfacing concept through industrial communications modules for simple system integration
- Easy and space-saving mounting owing to the compact design
The New Benchmark for Maintenance-free Systems.

**Design Features**

- Installation in any orientation
- Cooled by convection
- High vacuum connection
  - MAG W 300, MAG W 400: DN 100 or 160 ISO-K and CF
  - MAG W 600, MAG W 700: DN 160 or 200 ISO-K and CF
- Forevacuum connection
  - MAG W 300, MAG W 400: DN 16 KF clamping shoe
  - MAG W 600, MAG W 700: DN 25 KF clamping shoe
- Purge gas/venting connection
- Water or air cooling optional (in case of very high gas loads, for example)
- Two slots for industrial communication modules
  - Standard 9-Pin 24 V PLC-IO in the control slot
  - Standard RS 232 module in the service slot
  - Further optional interfaces: ProfiBus, RS485
- CE and RoHS compliant; UL approved

**Accessories and Options**

The following components are required to operate turbomolecular pumps from the MAG W line

- MAG.DRIVE S benchtop unit, also available with integrated display
- TURBO.POWER 500 power supply unit
- Mains cord EU or US (100 - 240 V, 50/60 Hz)
- Drive/bearing cable for connection of the benchtop unit MAG.DRIVE S
- DC cable from power supply to pump with attached MAG.DRIVE iS
- Optional units
  - Air cooling unit
  - Water cooling
  - Interface modules RS 485 and ProfiBus

**Vacuum Technology Performance Portfolio**

- Broad product range comprising components, accessories and services - all from a single source
- Vacuum engineering and design of tailor-made vacuum systems for any application
- Worldwide application support through engineers with practical experience from many industrial branches
- “Customer Care” programme, i.e. tailor-made full coverage service packages
- Worldwide sales and service network
- Decontamination
- Calibration of measurement systems in our DKD certified laboratories
## Technical Data

### Ordering information

<table>
<thead>
<tr>
<th>Turbomolecular Pump</th>
<th>MAG W 300 P/ iP</th>
<th>MAG W 400 P/ iP</th>
<th>MAG W 600 P/ iP</th>
<th>MAG W 700 P/ iP</th>
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<tbody>
<tr>
<td>Pumping speed</td>
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<tr>
<td>N\textsubscript{2} l/s</td>
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### Ordering Information

- TURBOVAC MAG W
- with compound stage and seal gas connection
  - including integrated frequency converter MAG.DRIVE iS
    - ISO-K version P/N 410300V0505 410400V0505 410600V0505 410700V0505
    - CF fashion P/N 410300V0506 410400V0506 410600V0506 410700V0506
  - for operation with separate frequency converter MAG.DRIVE S
    - ISO-K version P/N 410300V0005 410400V0005 410600V0005 410700V0005
    - CF version P/N 410300V0006 410400V0006 410600V0006 410700V0006
  - Frequency converter MAG.DRIVE S P/N 410300V0202 410300V0202 410300V0202 410300V0202
  - MAG.DRIVE S with display P/N 410300V0212 410300V0212 410300V0212 410300V0212
  - TURBO.POWER 500 P/N 410300V0221 410300V0221 410300V0221 410300V0221

### Cable/connecting lines

- DC power cord for connection of TURBO.POWER 500 - MAG W, with integrated converter, 3 m
- Connection line for connection of MAG.DRIVE S - MAG W, 3 m
  - P/N 410300V4003 410300V4003 410300V4003 410300V4003
- Mains cord MAG W, 3 m (EU)
  - P/N 800102V0002 800102V0002 800102V0002 800102V0002

### Options/accessories

- Water cooling P/N 410300V0101 410300V0101 410600V0101 410600V0101
- Air cooling unit P/N 410300V0102 410300V0102 410600V0102 410600V0102

* Example only; for further types, respectively cable lengths and the complete range of accessories please refer to the Oerlikon Leybold Vacuum full line catalogue, Chapter C09.