

# Diaphragm pump MD 1

[Link to the website](#)

## Product description

The MD 1 diaphragm pump is an excellent choice for oil-free evacuation and pumping of non-corrosive gases down to 1.5 mbar ultimate vacuum. The three-stage design with precisely guided flat diaphragms provides outstanding pumping speed even close to the ultimate vacuum, especially when compared with similarly rated two-stage diaphragm pumps. The MD 1 is an ultra-low vibration pump with very long diaphragm lifetime and stable ultimate vacuum documented with years of testing. With a flow path consisting of aluminum and selected plastics (diaphragms and valves made of PTFE/FKM and FKM, respectively) the pumps are suitable for a wide range of applications with non-corrosive gases.

## Performance features

- contamination-free pumping and evacuation
- high flow rate even near ultimate vacuum
- excellent ultimate vacuum
- whisper quiet and ultra-low vibration
- proven long diaphragm life, maintenance-free drive system

## Ordering data

Product name	Nominal mains voltage   mains frequency	Plug type	Articleno.
MD 1	220-230 V   50-60 Hz 100-115 V   50-60 Hz 60 Hz   60 Hz	CEE	20696080
MD 1	220-230 V   50-60 Hz 100-115 V   50-60 Hz 60 Hz   60 Hz	CH, CN	20696081
MD 1	220-230 V   50-60 Hz 100-115 V   50-60 Hz 60 Hz   60 Hz	UK, IN	20696082
MD 1	220-230 V   50-60 Hz 100-115 V   50-60 Hz 60 Hz   60 Hz	US	20696083

## Items supplied

Pump completely mounted, ready for use, with manual.

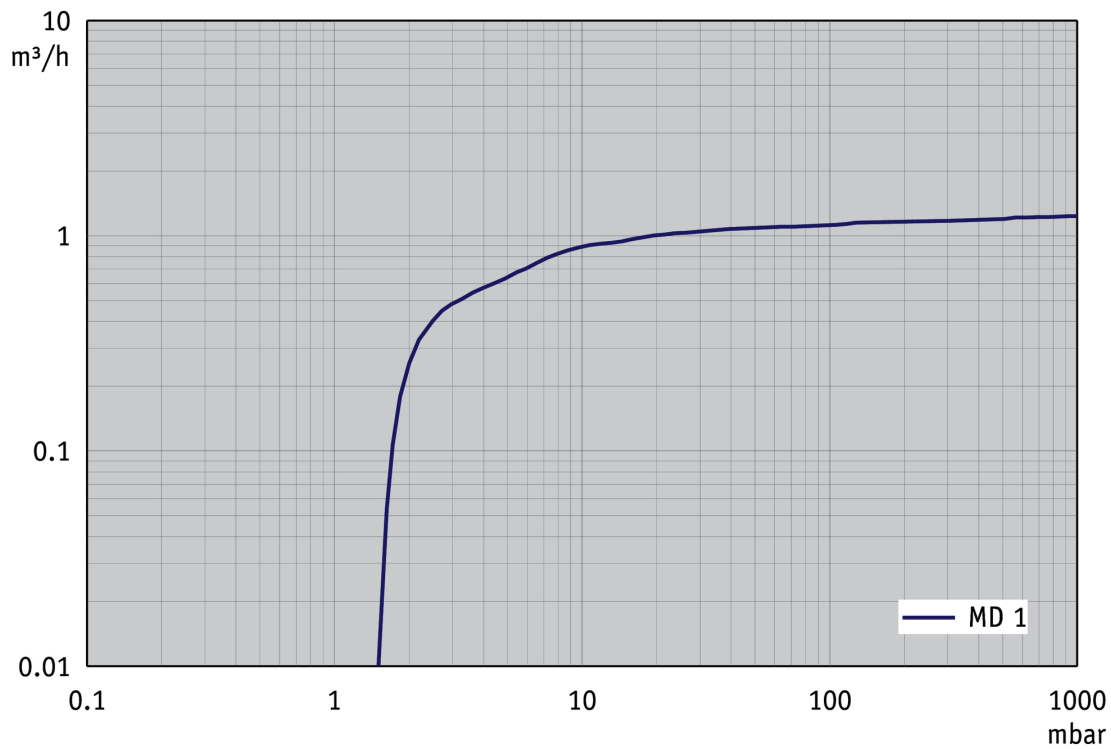
## Accessories

- Rubber vacuum tubing DN 8 mm (20686001)
- Set of diaphragms and valves MD 1, MV 0.5 (20696824)

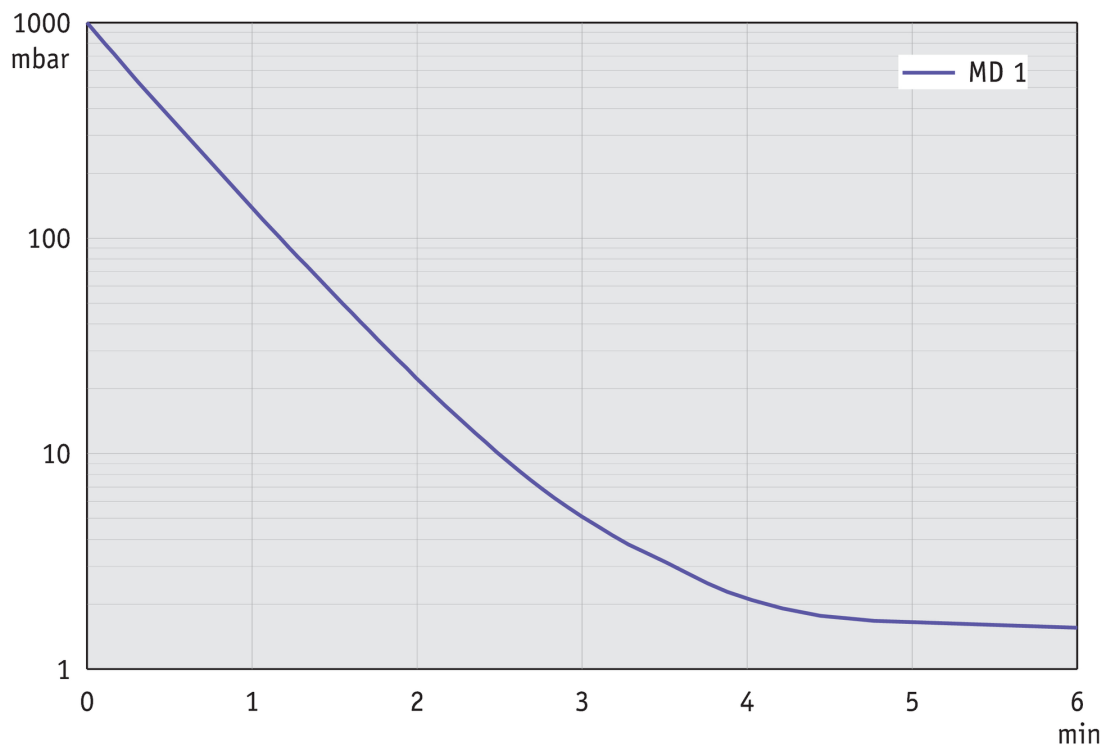
## Technical data

Max. pumping speed 50 Hz (mbar)	1.2 m <sup>3</sup> /h
Max. pumping speed 60 Hz (cfm)	0.82 cfm
Ultimate vacuum	1.5 mbar / 1.1 torr
Number of heads	4
Number of stages	3
Permissible ambient temperature range (operation)	10 - 40 °C
Permissible ambient temperature range (storage)	-10 - 60 °C
Max. outlet pressure (abs.)	1.1 bar
Inlet connection	Hose nozzle DN 6 mm
Outlet connection	Silencer / G1/8"
Rated motor power	0.08 kW
Rated speed 50/60 Hz	1500/1800 min <sup>-1</sup>
Protection class IEC 60529	IP 40
Dimensions (L x W x H)	326 mm x 143 mm x 215 mm
Weight	7.3 kg
Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU·PURE®)	40 dBA
NRTL certification	Yes

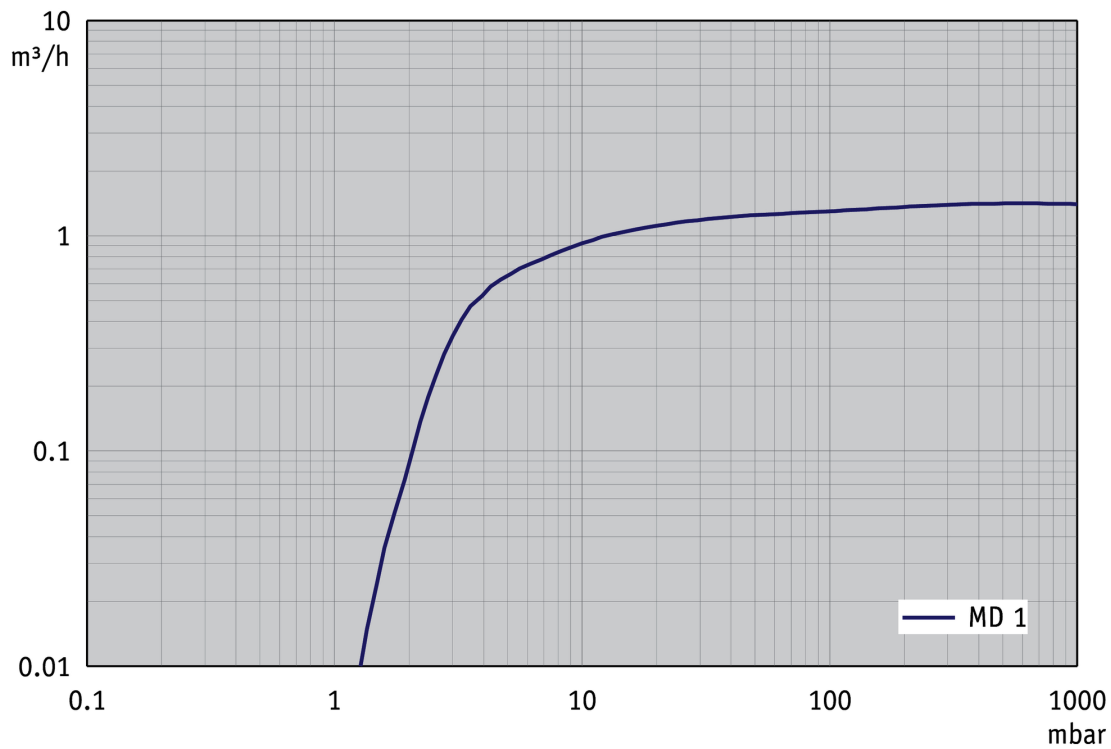
## Pumping speed graph at 50 Hz



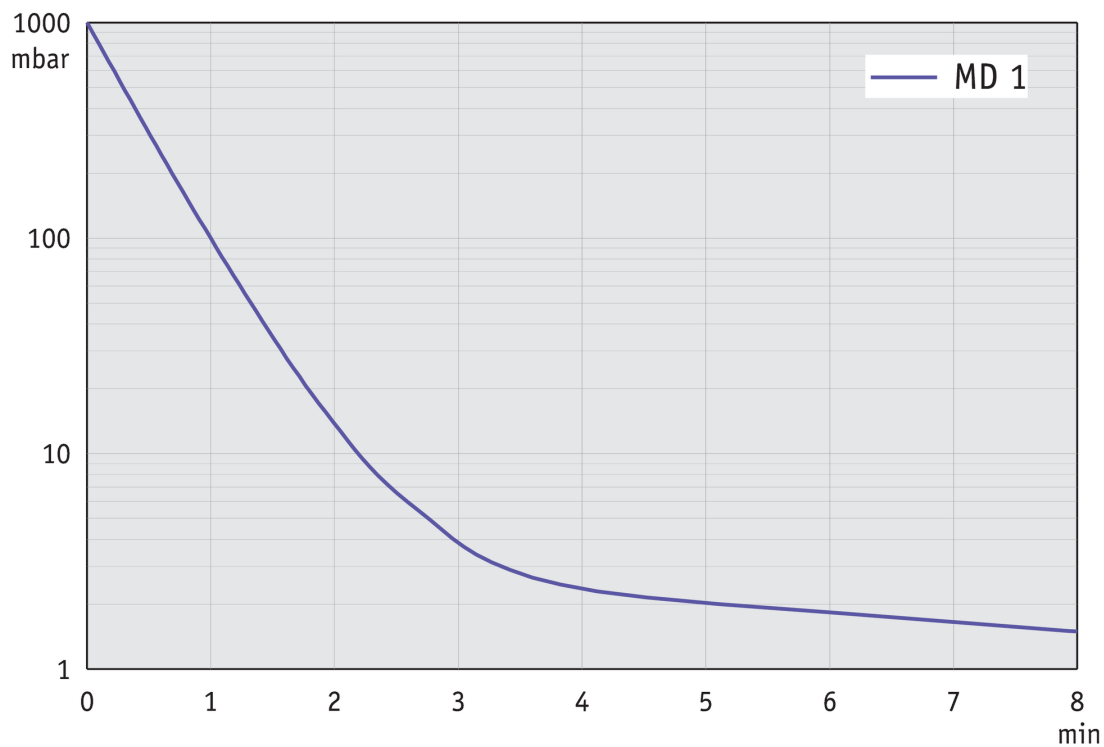
## Pump down graph at 50 Hz (10 l volume)



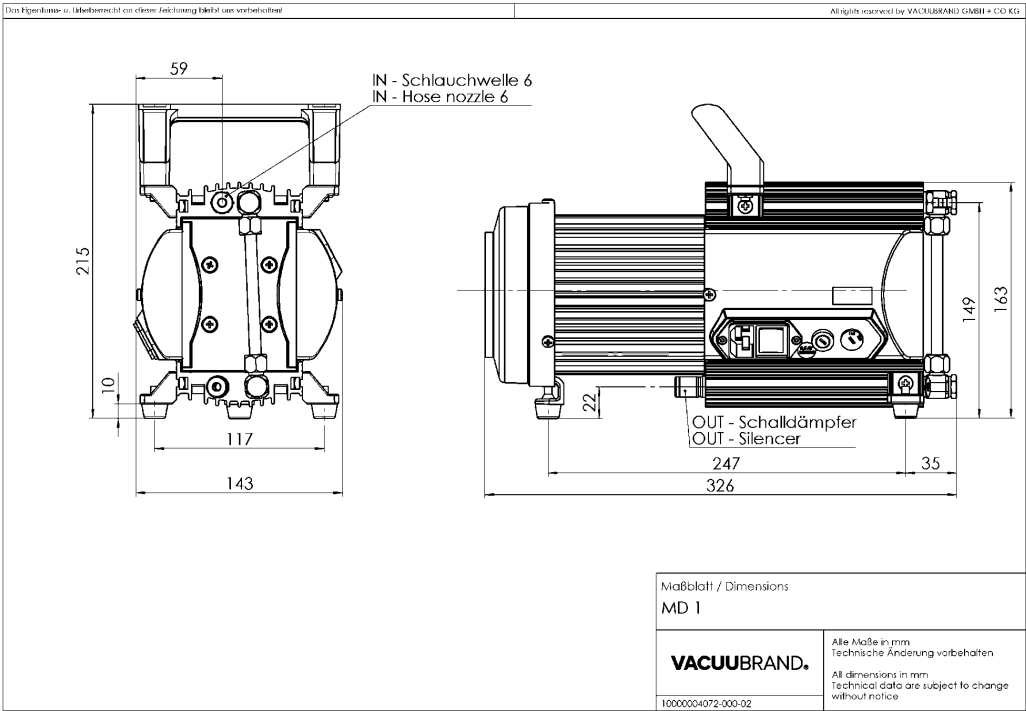
## Pumping speed graph at 60 Hz



## Pump down graph at 60 Hz (10 l volume)



Dimension sheet



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