

# Diaphragm pump MD 1

Order no.: 20696083

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 lilfetime 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

## **Technical data**

Number of heads / stages		4/3
Max. pumping speed at 50/60 Hz	m³/h	1.2 / 1.4
Max. pumping speed at 50/60 Hz	cfm	0.7 / 0.8
Ultimate vacuum (abs.)	mbar/torr	1.5 / 1.1
Ambient temperature range (operation)	°C	10 - 40
Ambient temperature range (storage)	°C	-10 - 60
Max. back pressure (abs.)	bar	1.1
Inlet connection		Hose nozzle DN 6 mm
Outlet connection		Silencer / G1/8"
Rated motor power	kW	0.08
Rated motor speed at 50/60 Hz	min <sup>-1</sup>	1500/1800
Protection class		IP 40
Dimensions (L x W x H), approx.	mm	326 x 143 x 215
Weight, approx.	kg	7.3
Noise level at 50 Hz, typ.	dBA	40

-Technical data are subject to change without notice-



CE mark

NRTL certification

ATEX conformity

Items supplied

Accessories

Yes

Canada and the USA

II 3/- G Ex h IIC T3 Gc X Internal Atm. only

Pump completely mounted, ready for use, with manual.

Rubber vacuum tubing DN 6 mm (20686000) Small flange KF DN 16 / G1/8" (20637425)



Pumping speed graph at 50 Hz



Pump down graph at 50 Hz (10 I volume)



#### Pumping speed graph at 60 Hz





Pump down graph at 60 Hz (10 I volume)





## **Dimension sheet**



Gewicht / weight ca. 7,3 kg Alle Maße / all dimensions [mm]

VACUUBRAND MD 1 Version 01

# Ordering data

Product name	Mains voltage and frequency	Plug	Order no.
MD 1	220-230 V~ 50-60 Hz 100-115 V~ 50-60 Hz	US	20696083
	120 V~ 60 Hz		