

## DIAPHRAGM PUMP

## ME 1

■ Vacuum filtration is one of the most common applications used for sample preparation in chemistry, microbiology, waste water control and other analytical processes. The new ME 1 diaphragm pump offers a compact, high performance and easy-to-use solution which is perfect for single port filtrations. This new development, based on the highly successful technology of the oil-free diaphragm pump MD 1, provides a well-proven and extraordinarily long diaphragm life time. The functional, space saving and innovative design with visible top mounted power switch ensures convenient and quick operation for day to day lab work. The PTFE diaphragm and valves are rugged and provide high chemical resistance. An optional manual regulator valve with dial gauge enables variable fine adjustment of the pumping speed and ultimate vacuum.

## PERFORMANCE FEATURES

- convenient, quick and simple to use due to the new top mounted power switch
- whisper quiet and very low vibration
- requires minimal benchtop space
- maintenance-free drive system and proven long diaphragm life
- wetted materials: PTFE, aluminum



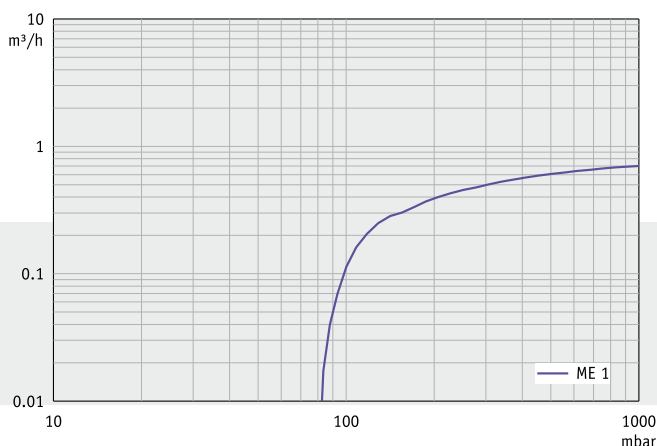
**ME 1**  
0.7 m<sup>3</sup>/h  
100 mbar

**ME 1**  
Vacuum regulator valve unit

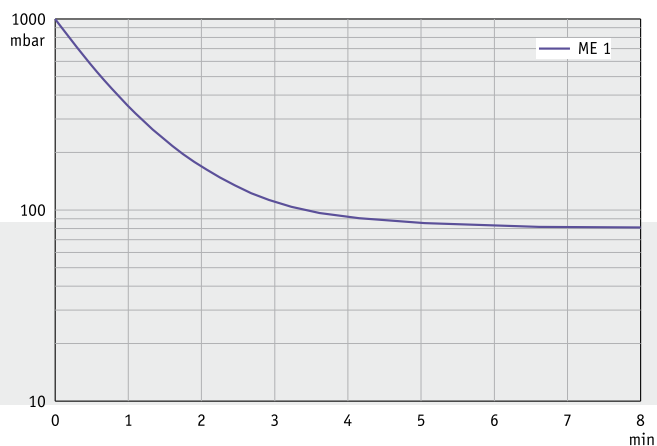


## APPLICATIONS

One-stage diaphragm pumps are an excellent solution for continuous, oil-free pumping of gases and vapors for modest vacuum requirements. In contrast to water-jet pumps, they do not consume water and therefore do not produce any contaminated waste water in daily use. Typical applications for the ME 1 are aqueous filtrations. With filtration at 100 mbar, 90% of atmospheric pressure is available as a driving force. If a certain pressure difference must not be exceeded, an optional manual regulator valve with dial gauge enables variable fine adjustment of the pumping speed and ultimate vacuum. For working with aggressive solvents a chemistry version (ME 1C) is available.



Pumping speed graph at 50 Hz


 Pump down graph at 50 Hz  
(10 l volume)

Pumping speeds and pump down times are only for information. Ultimate vacuum specification: See "Technical Data"

### TECHNICAL DATA

Number of heads / stages

Max. pumping speed at 50/60 Hz

m³/h

Ultimate vacuum (abs.)

mbar

Max. back pressure (abs.)

bar

Inlet connection

Outlet connection

Rated motor power

kW

Degree of protection

Dimensions (L x W x H), approx.

mm

Weight, approx.

kg

### ME 1

1 / 1

0.7/0.85

100

1.1

Hose nozzle DN 6-10 mm

Silencer / G1/8"

0.04

IP 40

247 x 121 x 145

5.0

### ORDERING INFORMATION ME 1

230 V ~ 50-60 Hz	CEE	Ex*	721000
230 V ~ 50-60 Hz	CH, CN	Ex*	721001
230 V ~ 50-60 Hz	UK	Ex*	721002
100-120 V ~ 50-60 Hz	US		721003
100-120 V ~ 50-60 Hz /			
200-230 V ~ 50-60 Hz	IEC plug EN 60320	Ex*	721005**

With NRTL certification for Canada and the USA

Ex\*: ATEX: II 3G IIC T3 X, Internal Atm. only

\*\*Please order power cable separately

► pg. 185

### ACCESSORIES ME 1

Rubber vacuum tubing DN 6 mm (686000)

Rubber vacuum tubing DN 8 mm (686001)

Vacuum regulator valve unit for ME 1 (696842)

### ITEMS SUPPLIED

Pump completely mounted, ready for use, with manual.

## DIAPHRAGM PUMP

## ME 2 NT AND ME 4 NT

■ Diaphragm pumps are an excellent solution for continuous, oil-free evacuation and pumping of gases. All parts in contact with pumped media are made of aluminum and selected plastics, allowing a wide range of applications for non-corrosive gases. The one-stage construction provides the advantageous combination of high pumping speed and an ultimate vacuum down to 70 mbar. The highly flexible fabric-reinforced double diaphragm made of FKM is ideal for extended operating life. The new NT-series features further improved performance data.

## PERFORMANCE FEATURES

- contamination-free pumping and evacuation
- high flow rate even near ultimate vacuum
- whisper quiet
- ME 4 NT with low vibration and higher pumping speed
- exceptionally long diaphragm life and maintenance-free drive system for low lifetime costs



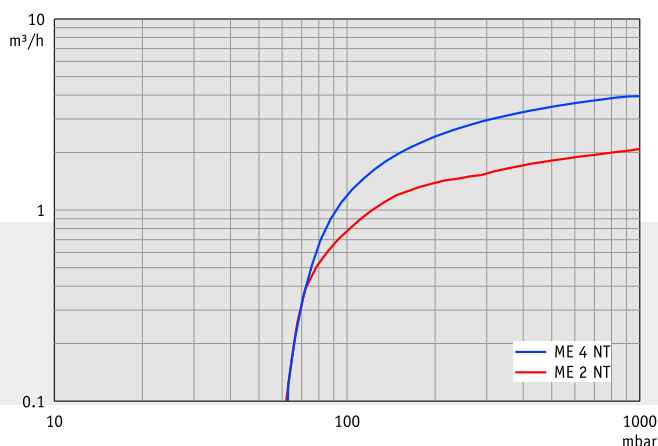
**ME 4 NT**  
4.0 m<sup>3</sup>/h  
70 mbar



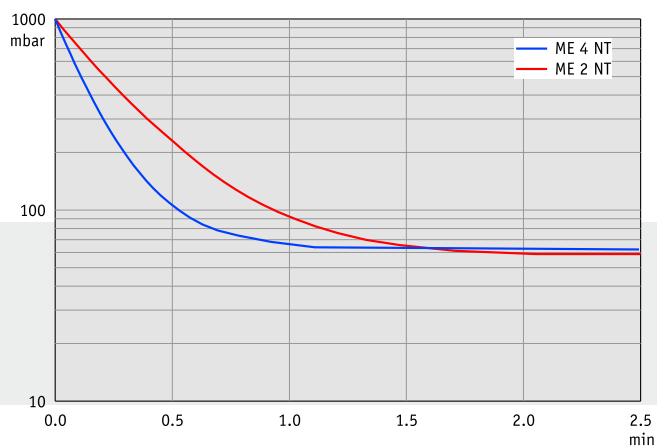
**ME 2 NT**  
2.0 m<sup>3</sup>/h  
70 mbar

## APPLICATIONS

One-stage diaphragm pumps are an excellent choice for continuous, oil-free pumping at modest vacuum requirements. In contrast to water jet pumps, they do not consume water and therefore do not produce any contaminated waste water. Typical applications are vacuum ovens, aqueous filtrations and pumping and evacuation of non-aggressive gases in general. The ME 4 NT offers shorter evacuation times and higher gas throughput.



Pumping speed graph at 50 Hz


Pump down graph at 50 Hz  
(10 l volume)

Pumping speeds and pump down times are only for information. Ultimate vacuum specification: See "Technical Data"

## TECHNICAL DATA

		ME 2 NT	ME 4 NT
Number of heads / stages		1 / 1	2 / 1
Max. pumping speed 50/60 Hz	m³/h	2.0 / 2.2	4.0 / 4.4
Ultimate vacuum (abs.)	mbar	70	70
Max. back pressure at outlet (abs.)	bar	2	2
Inlet connection		Hose nozzle DN 8-10 mm	Hose nozzle DN 8-10 mm
Outlet connection		Silencer / G1/4"	2 x silencer / G1/4"
Rated motor power	kW	0.18	0.18
Degree of protection		IP 40	IP 40
Dimensions (L x W x H), approx.	mm	243 x 211 x 198	243 x 239 x 198
Weight, approx.	kg	10.2	11.0

## ORDERING INFORMATION ME 2 NT

230 V ~ 50-60 Hz	CEE	Ex*	730000
230 V ~ 50-60 Hz	UK	Ex*	730002
100-115 V ~ 50-60 Hz /			
120 V ~ 60 Hz	US		730003

With NRTL certification for Canada and the USA

Ex\*: ATEX: II 3G IIC T3 X, Internal Atm. only

## ORDERING INFORMATION ME 4 NT

230 V ~ 50-60 Hz	CEE	Ex*	731000
230 V ~ 50-60 Hz	CH, CN	Ex*	731001
230 V ~ 50-60 Hz	UK	Ex*	731002
100-115 V ~ 50-60 Hz /			
120 V ~ 60 Hz	US		731003
100-115 V ~ 50-60 Hz / 120 V ~ 60 Hz		Ex*	
200-230 V ~ 50-60 Hz	IEC plug EN 60320		731005**

With NRTL certification for Canada and the USA

Ex\*: ATEX: II 3G IIC T3 X, Internal Atm. only

\*\*Please order power cable separately

▶ pg. 185

## ACCESSORIES

Vacuum regulator valve with manometer (696840)

VACUU-LAN® Mini-Network (2614455)

Rubber vacuum tubing DN 8 mm (686001)

## ITEMS SUPPLIED

Pump completely mounted, ready for use, with manual.