

# VARIO®-SP chemistry diaphragm pump MD 1C VARIO-SP

[Link to the website](#)



## Product description

The three-stage MD 1 VARIO-SP diaphragm pump with its variable speed drive system attains significantly higher pumping speed and a better ultimate vacuum than the corresponding fixed speed pump. The brushless 24V DC motor (maintenance-free) enables easy integration of the pump into other equipment and operation independent of line voltage. The pump is particularly silent and vibration-free, and has an outstanding lifetime of its diaphragms and valves. For exceptional chemical resistance of the pump's internal flowpath it is also available as a chemistry design version (MD 1C VARIO-SP).

## Performance features

- contamination-free pumping and evacuation
- high flow rate even near ultimate vacuum
- VARIO®-SP = variable speed: Fast pump down at high motor speed, maintain vacuum with reduced motor speed
- very powerful and extremely compact; whisper quiet and ultra-low vibration, especially at low speed
- MD 1C VARIO-SP in chemistry design, with gas ballast valve and outstanding chemical resistance and superior vapor tolerance

## Ordering data

Product name	Nominal mains voltage   mains frequency	Plug type	Articleno.
MD 1C VARIO-SP	24 V   DC	Open wires	20696110

## Items supplied

Pump completely mounted, ready for use, with 2 m cable without plug and with manual.

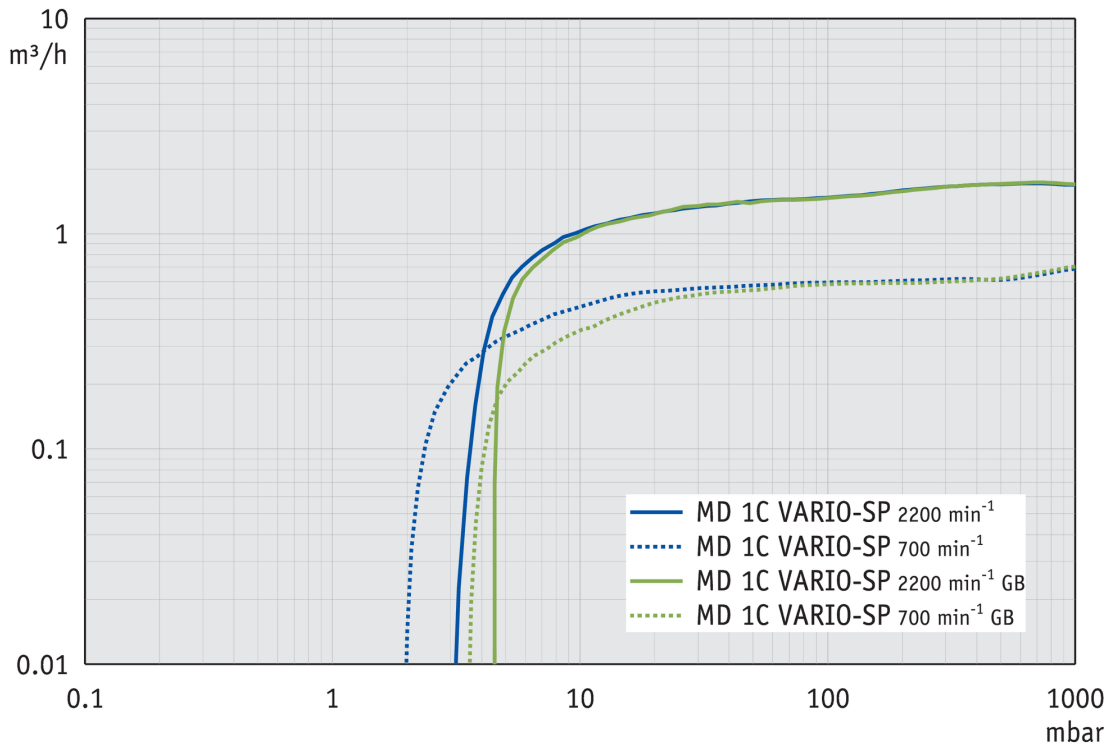
## Accessories

- Rubber vacuum tubing DN 8 mm (20686001)

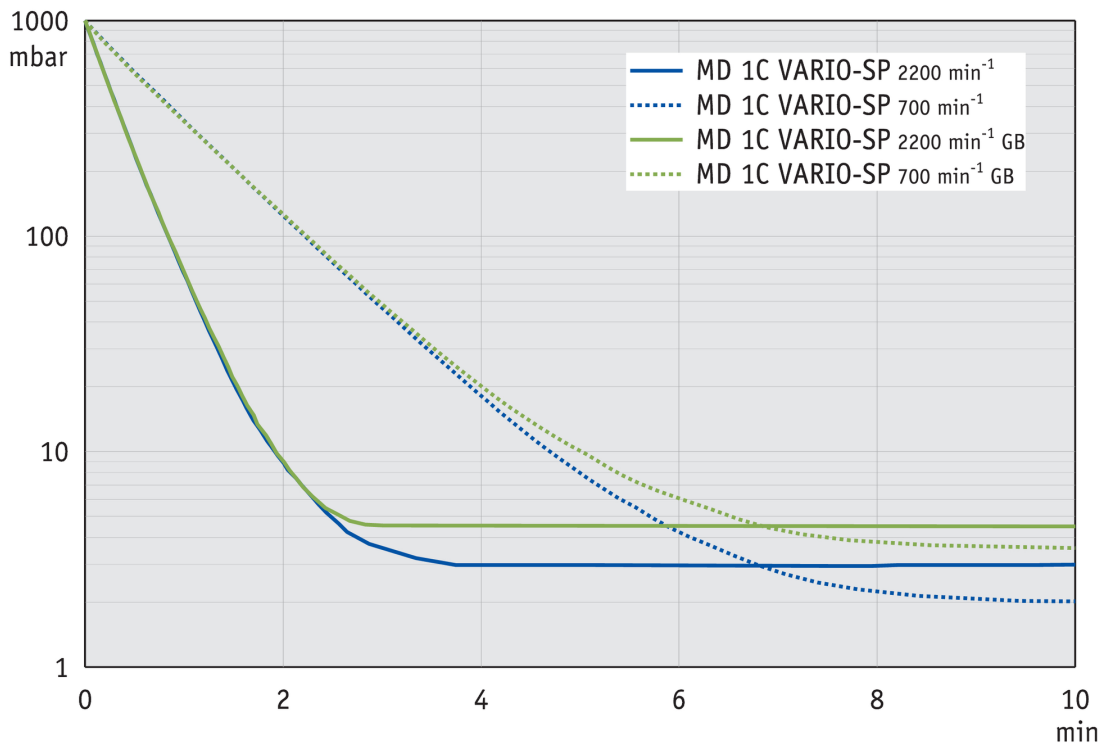
## Technical data

Max. pumping speed 50 Hz (mbar)	1.8 m <sup>3</sup> /h
Max. pumping speed 60 Hz (cfm)	1.0 cfm
Ultimate vacuum	2 mbar / 1.5 torr
Ultimate vacuum with gas ballast	4 mbar / 3 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 8-10 mm
Outlet connection	Hose nozzle DN 8 mm
Rated motor power	0.064 kW
Motor speed range	200 - 2400 min <sup>-1</sup>
Protection class IEC 60529	IP 20
Dimensions (L x W x H)	235 mm x 143 mm x 175 mm
Weight	4.2 kg
Noise (sound pressure level) in dBA at 50 Hz or 1500 rpm/62% (VARIO)/1500 rpm (VARIO-SP)/12500 Upm (VACUU·PURE®)	37 dBA
ATEX conformity	II 3/- G Ex h IIC T3 Gc X Internal Atm. only
NRTL certification	Yes

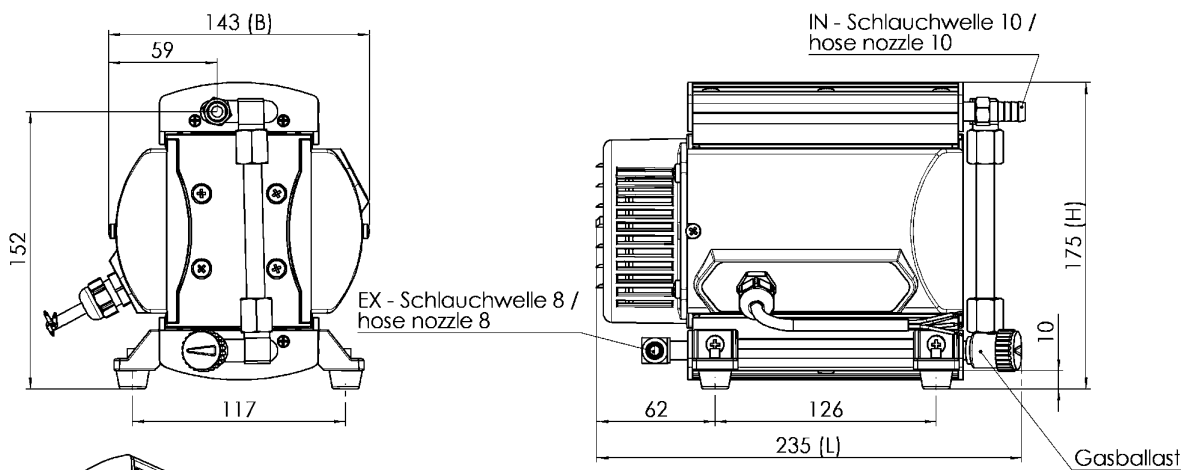
Pumping speed graph at 50 Hz



Pump down graph at 50 Hz (10 l volume)



## Dimension sheet



Alle Maße / all dimensions (mm)

VACUUBRAND MD 1C VARIO-SP  
Version 2009/03/16

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