

Diaphragm Pumps MP for Physical Applications

The MP series of diaphragm pumps for physical applications provide a compact design and oil free evacuation. They are available in one- or multistage configuration - with controlled (ecoflex) or uncontrolled pumping speed. The pumps provide a very long life.

Ranges of application:

- for physical applications
- dry oil-free in the rough vacuum range
- alternative to water jet pumps
- degassing processes
- manipulation technology
- as backing pumps

Scope of delivery:

Diaphragm pump complete with ON/OFF switch and integrated protective switchgear for the motor, hose nozzles for hose inside diameters 8 mm and/or small flanges DN 16 KF and optimized anti vibration feet.

Note:

Country specific mains connection cable separately to the pump, see page 146.



NEW
MP 301 E

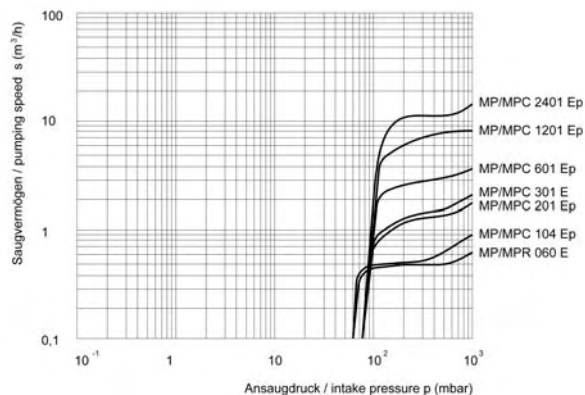


NEW
MP 060 E
with power pack

Diaphragm Pumps MP, Ultimate Pressure < 75 mbar

Special characteristics:

- one-stage diaphragm pumps
- suction/pressure flanges: hose nozzle DN 8 for hose inside diameter 8 mm or small flange DN 16 KF
- option: gas ballast valve



Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m³/h l/min	Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 060 E	< 60	0.60/- 14/-	115/165/145	2.8	20	DN 6/8 / DN 6/8
MP 104 Ep	< 60	0.9/1.0 15/16.6	235/140/290	6.0	68	DN 8 / DN 8
MP 201 Ep	< 75	1.8/2.0 30/33	195/235/145	6.5	60	DN 8 / DN 8
MP 301 E	< 75	2.3/2.5 38/41	162/260/252	8.9	180	DN 8 / DN 8
MP 601 Ep	< 75	3.8/4.2 63/70	230/265/169	11.2	180	DN 8 / DN 8
MP 1201 Ep	< 75	8.3/9.1 138/151	230/380/169	18.3	370	DN 16 KF / DN 8
MP 2401 Ep	< 75	15.5/17.0 258/283	540/300/240	32.8	370/440	DN 16 KF / DN 16 KF



Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 060 E with power pack 24 V DC	100-240 / 50	yes	1	420312
MP 104 Ep	230 / 50/60	yes	1	4000592
MP 104 Ep	115/230 / 50/60	yes	1	4000592-01
MP 201 Ep	230 / 50/60 CEE	no	1	400172
MP 201 Ep	230 / 50/60 UK	no	1	400172-02
MP 201 Ep	230 / 50/60 CH	no	1	400172-03
MP 201 Ep	115 / 50/60 US	no	1	400172-04
MP 301 E	230 / 50/60	yes	1	4000732
MP 301 E	115 / 50/60	yes	1	4000732-01
MP 601 Ep	230 / 50/60	yes	1	4000292
MP 601 Ep	115 / 50/60	yes	1	4000292-03
MP 601 Ep	230/400 / 50/60 CEE	no	1	4000292-04
MP 1201 Ep	230 / 50/60	yes	1	4000392
MP 1201 Ep	115 / 50/60	yes	1	4000392-03
MP 1201 Ep	230/400 / 50/60 CEE	no	1	4000392-04
MP 2401 Ep	230 / 50/60	yes	1	4001532
MP 2401 Ep	115 / 60	yes	1	4001532-03
MP 2401 Ep	230/400 / 50/60 CEE	no	1	4001532-04

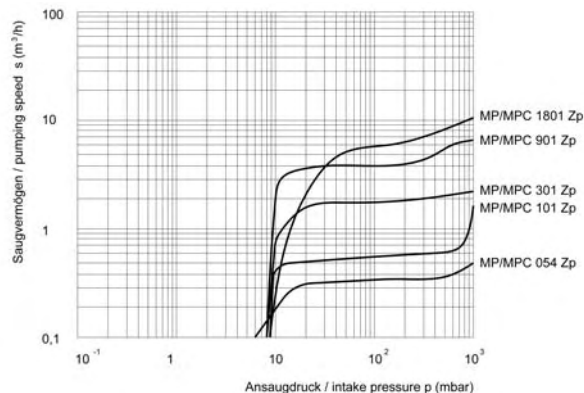
Note:
Country specific
mains connection
cable separately
to the device, see
page 146.



Diaphragm Pumps MP, Ultimate Pressure < 8 mbar

Special characteristics:

- two-stage diaphragm pumps
- suction/pressure flanges: hose nozzle DN 8 for hose inside diameter 8 mm or small flange DN 16 KF
- option: gas ballast valve



Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m ³ /h l/min	Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 054 Zp	< 5	0.5/0.55 8/9.1	235/140/290	6.0	68	DN 8 / DN 8
MP 101 Zp	< 8	1.0/1.1 16.7/18	195/235/145	6.5	60	DN 8 / DN 8
MP 301 Zp	< 8	2.3/2.5 38/41	230/265/169	11.2	180	DN 8 / DN 8
MP 901 Zp	< 8	6.8/7.5 113/125	230/380/169	18.3	370	DN 16 KF / DN 8
MP 1801 Zp	< 8	12.0/13.3 201/222	540/300/240	32.8	370/440	DN 16 KF / DN 16 KF

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 054 Zp	230 / 50/60	yes	1	4000552
MP 054 Zp	115/230 / 50/60	yes	1	4000552-01
MP 101 Zp	230 / 50/60 CEE	no	1	400170
MP 101 Zp	230 / 50/60 UK	no	1	400170-03
MP 101 Zp	230 / 50/60 CH	no	1	400170-05
MP 101 Zp	115 / 50/60 US	no	1	400170-06
MPC 301 Zp	230 / 50/60	yes	1	4000282
MPC 301 Zp	115 / 50/60	yes	1	4000282-03
MPC 301 Zp	230/400 / 50/60 CEE	no	1	4000282-04
MPC 901 Zp	230 / 50/60	yes	1	4000322
MPC 901 Zp	115 / 50/60	yes	1	4000322-03
MPC 901 Zp	230/400 / 50/60 CEE	no	1	4000322-04
MPC 1801 Zp	230 / 50/60	yes	1	4001542
MPC 1801 Zp	115 / 60	yes	1	4001542-03
MPC 1801 Zp	230/400 / 50/60 CEE	no	1	4001542-04

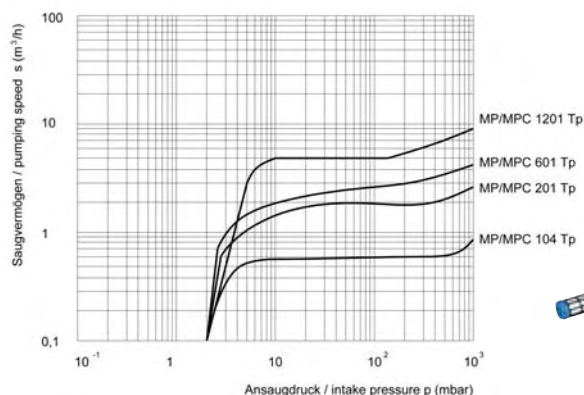


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page 146.

Diaphragm Pumps MP, Ultimate Pressure < 2 mbar

Special characteristics:

- three-stage diaphragm pumps
- suction/pressure flanges: hose nozzle DN 8 for hose inside diameter 8 mm or small flange DN 16 KF
- option: gas ballast valve



Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m³/h l/min	Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 201 Tp	< 2	2.0/2.2 33/36	200/260/150	10.3	90	DN 8 / DN 8
MP 601 Tp	< 2	4.5/4.9 75/81	230/380/169	18.3	370	DN 16 KF / DN 8
MP 1201 Tp	< 2	8.3/9.1 138/151	540/300/240	32.8	370/440	DN 16 KF / DN 16 KF

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 201 Tp	230 / 50/60 CEE	no	1	400176
MP 201 Tp	230 / 50/60 UK	no	1	400176-02
MP 201 Tp	230 / 50/60 CH	no	1	400176-03
MP 201 Tp	115 / 50/60 US	no	1	400176-04
MP 601 Tp	230 / 50/60	yes	1	4000312
MP 601 Tp	115 / 50/60	yes	1	4000312-03
MP 601 Tp	230/400 / 50/60 CEE	no	1	4000312-04
MP 1201 Tp	230 / 50/60	yes	1	4001522
MP 1201 Tp	115 / 50/60	yes	1	4001522-03
MP 1201 Tp	230/400 / 50/60 CEE	no	1	4001522-04



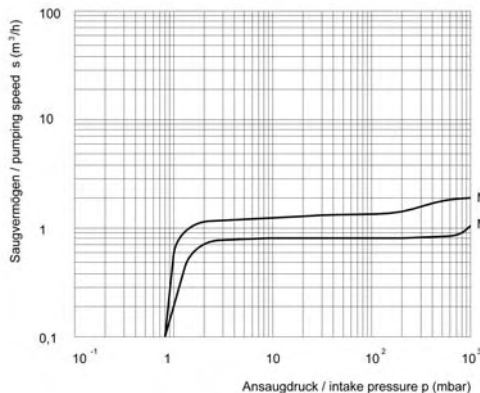
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page 146.



Diaphragm Pumps MP, Ultimate Pressure < 1 mbar

Special characteristics:

- four-stage diaphragm pumps
- suction/pressure flanges: hose nozzle DN 8 for hose inside diameter 8 mm or small flange DN 16 KF
- option: gas ballast valve



Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m³/h l/min		Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 101 Vp	< 1	1.0/1.1	16.7/18	200/260/150	10.3	90	DN 8 / DN 8
MP 301 Vp	< 1	2.3/2.5	38/41	230/380/169	18.3	370	DN 16 KF / DN 8



Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 101 Vp	230 / 50/60 CEE	no	1	400180
MP 101 Vp	230 / 50/60 UK	no	1	400180-01
MP 101 Vp	230 / 50/60 CH	no	1	400180-02
MP 101 Vp	115 / 50/60 US	no	1	400180-03
MP 301 Vp	230 / 50/60	yes	1	4000722
MP 301 Vp	115 / 50/60	yes	1	4000722-03
MP 301 Vp	230/400 / 50/60 CEE	no	1	4000722-04

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Diaphragm Pumps MP ecoflex for Physical Applications

The new generation of intelligent vacuum engineering, ecoflex diaphragm pumps are equipped with a state of the art vacuum control by controlling the pumping speed of the pumps. The vacuum is precisely adjusted to

the needs of the process, resulting in more effective and reproducible processes. The additional pressure reduction allows the distillation of gas mixtures almost automatically and without fractionated operation.

Operation costs can be reduced by 80%, and ecoflex diaphragm pumps guarantee a positive economical and ecological balance.

Special characteristics

- two-, three or four-stage diaphragm pumps
- precisely regulated vacuum
- process orientated pumping speed
- automatic vacuum adjustment
- accurate processes with distillation, drying etc.
- optimal condensation due to constant vacuum
- optimal product yield
- low noise level
- reduced wear and tear
- long service intervals
- reduced operating costs by reduced energy consumption
- long life span
- selection of different process cycles
- menu-led programming via the display of the vacuum controller
- operating over windows via PC (optional)
- serial interface RS 232 for PC connection
- storage of all program and measuring data



Scope of delivery:

- diaphragm pump with special motor and vacuum control box VCB 424
- connections: hose nozzle DN 8 for hose inside diameters 8 mm or small flange DN 16 KF

Diaphragm Pumps MP, Ultimate Pressure < 8 mbar, ecoflex

The pumping speed diagram of the ecoflex diaphragm pumps is identical to the one of the standard types listed on pages 39 - 41.

Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m³/h l/min		Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 301 Zp ecoflex	< 8	2.6	38	260/310/190	15.5	200	DN 8 / DN 8

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 301 Zp ecoflex	230 / 50/60 CEE	no	1	4200102
MP 301 Zp ecoflex	230 / 50/60 UK	no	1	4200102-01
MP 301 Zp ecoflex	230 / 50/60 CH	no	1	4200102-02
MP 301 Zp ecoflex	115 / 50/60 US	no	1	4200102-03



Diaphragm Pumps MP, Ultimate Pressure < 2 mbar, ecoflex

The pumping speed diagram of the ecoflex diaphragm pumps is identical to the one of the standard types listed on pages 39 - 41.

Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m ³ /h l/min		Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 601 Tp ecoflex	< 2	4.9	75	260/420/190	22.6	390	DN 8 / DN 8
MP 1201 Tp ecoflex	< 2	8.3	138	540/300/320	34.0	370	DN 16 KF / DN 16 KF

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 601 Tp ecoflex	230 / 50/60 CEE	no	1	4200142
MP 601 Tp ecoflex	230 / 50/60 UK	no	1	4200142-01
MP 601 Tp ecoflex	230 / 50/60 CH	no	1	4200142-02
MP 601 Tp ecoflex	115 / 50/60 US	no	1	4200142-03
MP1201 Tp ecoflex	230 / 50/60	yes	1	4200162

Note:
Country specific
mains connection
cable separately
to the device, see
page 146.



Diaphragm Pumps MP, Ultimate Pressure < 1 mbar, ecoflex

Technical Features

Type	Ult. pressure total DIN 28432 mbar	Pumping speed 50/60 Hz m ³ /h l/min		Dimensions (W/D/H) mm	Weight kg	Motor power W	Connections suction/pressure side
MP 301 Vp ecoflex	< 1	2.6	38	260/420/190	22.6	390	DN 16 KF / DN 8

Ordering Information

Type	Mains supply V / Hz	Mandatory accessories Connection cable	PU pcs.	Order-No.
MP 301 Vp ecoflex	230 / 50/60 CEE	no	1	4200122
MP 301 Vp ecoflex	230 / 50/60 UK	no	1	4200122-01
MP 301 Vp ecoflex	230 / 50/60 CH	no	1	4200122-02
MP 301 Vp ecoflex	115 / 50/60 US	no	1	4200122-03