

Diaphragm Pumps, ILMVAC®

For dry, oil-free applications in the rough and medium-high vacuum range ILMVAC diaphragm pumps are used world-wide in production, research and science as well as in industry, laboratory and education. As an economically and ecologically superior alternative to water operated vacuum pumps the ILMVAC diaphragm pump range always offers a versatile, practical solution for many diverse applications.

- Vacuum distillation and filtration
- Vacuum concentration
- Vacuum drying
- Manipulating and handing systems
- Gel drying etc.

ILMVAC diaphragm pumps offer

- different material for chemical or physical processes
- different flow rates from 300 l/h to 16 m³/h
- final pressures from 75 to < 1 mbar
- pressure control using VCZ424

ILMVAC diaphragm pumps are available in complete pump systems – LVS laboratory vacuum systems – with components and materials selected for optimal practical employment in laboratory and industry.

Also used as regeneration pumps in combination pumping systems (Chemvac), they fulfill their tasks due to outstanding chemical resistance and stable vacuum parameters.

All ILMVAC diaphragm pumps are compactly and functionally designed. Maintenance and service work is fast and easy. ILMVAC diaphragm pumps guarantee outstanding operation and possess a long life span. They can be used up to < 1 mbar, are extremely quiet in operation and work without oil.

Diaphragm pumps with ATEX approval are available on request.

Single-stage diaphragm pumps, final vacuum < 75 mbar

The single-stage diaphragm pumps from ILMVAC are robust mechanical and oil-free vacuum pumps. Their low purchase price, compact design, low-cost operation and straightforward handling make these pumps suitable for a wide range of applications. MP: for physical applications, MPC: for chemical-resistant applications.

Type	Suction rate m ³ /h	W × D × H mm	Weight kg	Order No.
MP 104 Ep	0.9	235×140×290	6.0	56 92 40059
① MP 201 Ep	1.8	195×235×145	6.5	56 92 40172
MP 601 Ep	3.8	230×265×169	11.2	56 92 40292
MP 1201 Ep	8.3	230×380×169	18.3	56 92 40392
MP 2401 Ep	15.5	540×300×240	32.8	56 92 41532
MPC 104 Ep	0.9	235×140×290	6.0	56 92 40057
MPC 201 Ep	1.8	195×235×145	6.5	56 92 40173
② MPC 601 Ep	3.8	230×265×169	11.2	56 92 40492
MPC 1201 Ep	8.3	230×380×169	18.3	56 92 40532
MPC 2401 Ep	15.5	540×300×240	32.8	56 92 41792

Two-stage diaphragm pumps, final vacuum < 8 mbar

The two-stage diaphragm pumps from ILMVAC have greater suction power and a lower final pressure than diaphragm pumps with „final pressure <75 mbar“. They have a wide range of applications – in the rough vacuum range, as preliminary pumps, for general physical applications, and as an alternative to water jet pumps. MP: for physical applications, MPC: for chemical-resistant applications.

Type	Suction rate m ³ /h	W × D × H mm	Weight kg	Order No.
MP 054 Zp	0.48	235×140×290	6.0	56 92 40055
MP 101 Zp	1.0	195×235×145	6.5	56 92 40170
MP 301 Zp	2.3	230×265×169	11.2	56 92 40282
MP 901 Zp	6.8	230×380×169	18.3	56 92 40322
MP 1801 Zp	12.0	540×300×240	32.8	56 92 41542
MPC 054 Zp	0.48	235×140×290	6.0	56 92 40054
MPC 101 Zp	1.0	195×235×145	6.5	56 92 40171
MPC 301 Zp	2.3	230×265×169	11.2	56 92 40482
MPC 901 Zp	6.8	230×380×169	18.3	56 92 40522
MPC 1801 Zp	12.0	540×300×240	32.8	56 92 41552



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Three-stage diaphragm pumps, final vacuum < 2 mbar

The three-stage diaphragm pumps from ILMVAC are characterized by low final pressures. They have a wide range of applications – as oil-free pumps in the rough vacuum range, as preliminary pumps, and for drawing off solvent and acid vapors.

MP: for physical applications, MPC: for chemical-resistant applications

Type	Suction rate m³/h	W × D × H mm	Weight kg	Order No.
MP 201 Tp	2.0	200×260×150	10.3	56 92 40176
MP 601 Tp	4.5	230×380×169	18.3	56 92 40312
MP 1201 Tp	8.3	540×300×240	32.8	56 92 41522
MPC 104 TP	0.9	235×140×340	7.1	10 92 40082
MPC 201 Tp	2.0	200×260×150	10.3	56 92 40177
MPC 601 Tp	4.5	230×380×169	18.3	56 92 40512
MPC 1201 Tp	8.3	540×300×240	32.8	56 92 41782

Four-stage diaphragm pumps, final vacuum < 1 mbar

The four-stage diaphragm pumps from ILMVAC with a final pressure < 1 mbar are characterized by low final pressures. They have a wide range of applications – as oil-free pumps in the rough vacuum range, as preliminary pumps, for general physical applications and as an alternative to water jet pumps.

Type	Suction rate m³/h	W × D × H mm	Weight kg	Order No.
MP 101 Vp	1	200×260×150	10.3	56 92 40180
MP 301 Vp	2.3	230×380×169	18.3	56 92 40722



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③ Diaphragm pumps ecoflex

The new generation of intelligent vacuum engineering.

Ecoflex diaphragm pumps are equipped with the vacuum Controllers VCZ and are able to automatically adjust their rotational speed. Thus regulation of flow rate to match demand is achieved and the accuracy of the vacuum level is improved. The vacuum processes run more effectively and reproducibly. A reduction in operating cost of up to 80% is possible, so Ecoflex diaphragm pumps guarantee a positive economic and ecological balance.

- precisely regulated vacuum
- process orientated vacuum properties
- automatic adjustment possible
- accurate trial processes with distillation, drying etc.
- optimal condensation by continuous processes
- optimal product yield
- lower operating cost by reduced energy consumption
- low noise level
- smaller wear, longer maintenance level, longer life span
- simple, menu-led programming of the Controllers VCZ, directly or over PC
- storage of all program and measuring data

Scope of delivery:

Diaphragm pump with special motor and frequency converter; Lead 1.5 m; Power supply plug and switch; hose nozzles for 8 mm hose inside diameters (with MP 1201 Tp ecoflex with anges DN 16 KF) and controllers VCZ.

Technical data:

Measuring sensor:	capacitive with aluminium ceramic diaphragm
Measuring range:	(sensor dependent) 1 to 1100 mbar
Measured value read out:	10 × per second
Display:	digital in mbar and menu, red, 9 mm high numbers
Linearity:	typ. ±0.15% full scale ±2 over the complete range
Hysteresis:	±1 digit
Switching accuracy:	±1 digit
Thresholds/output:	at front panel adjustable, 24 VDC, 10 W
Input:	switch-selectable 0.5 to 5 V and 0 to 5 V
Power supply:	90 to 240 V / 50/60 Hz / 40 W
Fuse:	electronic
Vacuum connection:	DN 16 KF via sensor ventilation valve
Protective system:	IP 40
Working temperature:	15 to 40°C

Type	Suction rate m³/h	Ultimate vac. mbar	W × D × H mm	Wght kg	Order No.
MP 301 Zp ecoflex	2.6	8	260×310×190	15.5	56 92 42102
MP 301 Vp ecoflex	2.6	1	260×420×190	22.6	56 92 42122
MP 601 Tp ecoflex	4.9	2	260×420×190	22.6	56 92 42142
MP 1201 Tp ecoflex	8.3	2	540×300×240	34	56 92 42162
MPC 301 Zp ecoflex	2.6	8	260×310×190	15.5	56 92 42112
MPC 601 Tp ecoflex	4.9	2	260×420×190	22.6	56 92 42132
MPC 1201 Tp ecoflex	8.3	2	540×300×240	34	56 92 42152

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