



EKİN ENDÜSTRİYEL

**FLUID TRANSFER
GENERAL CATALOGUE**

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EKIN ENDÜSTRİYEL
Isıtma-Soğutma San. Tic. Ltd. Şti.





The first condition of innovation is to question.

And the first condition of sustainable innovation is to question constantly.

The journey of innovation has started with a question for us too: “How can we develop value-added technologies in Turkey?”. First turning point in this long journey was the birth of MIT (Made in Türkiye) brand. MIT made us the first plate heat exchanger producer of Turkey and it’s founding vision was not to become a local alternative, it was to build a high-quality brand that can compete on a global level.

While we are working towards this goal in the past 17 years, our products and processes deemed worthy for documentation by many national and international quality assessment institutions such as ISO, TSE, CE, GOST and many more. This was the natural outcome of our constant questioning of the status-quo and our desire to outperform ourselves.

New Generation Engineering

With our engineering approach that focuses on the process, not the problem, we do not just specialize in a product, we consider the entire ecosystem of that product. Ergo, we produce all the other components of a system in addition to plate heat exchangers and we focus on the constant development of engineering staff required to provide an end-to-end application.

We provide a “solution” rather than a product with our business development, presales, sales and after sales services provided by our expert engineers.

In our 17th year, we continue to grow as a solution partner for projects that need high technology in more than 60 countries with our internationally approved high-quality plate heat exchangers; components such as accumulation tanks, boilers, industrial pumps and installation materials that completes these exchangers to form a system; and complementary services provided by our expert engineer staff.



HEAT TRANSFER PRODUCTS

- Gasketed Plate Heat Exchangers
- Brazed Heat Exchangers
- Shell & Tube Heat Exchangers
- Evaporators and Condensers
- DC Fan Driven Oil Coolers
- Heat Coils
- Serpentine / Radiators / Economizers

PRESSURE VESSELS

- Water Heater Tanks
- Water Storage Tanks
- Buffer Tanks
- Expansion Tanks
- Stainless Steel Tanks
- Balance Tanks / Dirt Separators / Air Separators / Air Tubes
- Steam Separators
- Pressured Air Tanks
- Neutralization Units

INDUSTRIAL AND FOOD GRADE SYSTEMS

- Heat Stations
- Industrial Process Systems
- Dosing Systems
- Substations
- Thermoregulators
- Pasteurizers
- CIP and Hygienic Process Systems
- Hygienic Storage and Process Tanks
- Homogenizers
- Turn-key Projects

FLUID TRANSFER PRODUCTS

- Lobe Pumps
- Hygienic Centrifugal Pumps
- Twin Screw Pumps
- Gear Pumps
- Magnetic Drive Pumps / Thermoplastic Pumps
- Dosing Pumps
- Air Operated Double Diaphragm Pumps (AODD)
- Drum Pumps
- Monopumps
- Peristaltic (Hose) Pumps
- Centrifugal Blowers
- Roots Blowers
- Turbo Blowers

FLOW CONTROL UNITS

- Butterfly Valves
- Ball Valves
- Globe Valves
- Knife Gate Valves
- Actuators
- Check Valves and Strainers
- Thermoplastic Valves

ENERGY SYSTEMS

- Boilers
- Steam Generators
- Solar Collectors
- Chillers
- Cooling Towers

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Acid Pump







LOBE PUMP

MIT LOBE PUMPS

MIT lobe pumps are valve-free and positive-displacement pumps. Each MIT pump is a special solution. Lobe pumps are fully designed to meet the requirements of applications.

Working Principle of MIT Lobe Pumps

As the rotor rotates, the volume in the pump inlet line increases and the fluid is dragged into the pump. The fluid remaining between the rotors and the pump inner wall is transported to the pump outlet. These pumps are mainly composed of three or two lobe rotors which rotate from each other within the body. The rotation of the rotor pair can be defined by the direction of rotation of the drive, which creates a vacuum on the suction side of the pump. This vacuum draws fluid into the pump body. When the rotor is rotated, it is transferred to the fluid outlet line as a result of the volume decrease at the outlet.



Features

- Thanks to its positive displacement feature, it is used without problems in transferring low, medium and high viscosity fluids.
- No problem can be used when transferring products at temperatures in the range of 0-150 °C.
- Easy installation and maintenance.
- Easy transport of adhesive, abrasive or surface-sensitive fluids.
- 4 different rotors available, 2 lobe rotors, 3 lobe rotors, butterfly rotors and single butterfly rotor-shaped.
- Two lobe options for products containing solid particles (like jam, molasses).
- Mechanical seal with double (wash) cartridge, mechanical seal, gaskets (for applications such as glucose, jam).
- Standard input / output as standard pump can easily convert from top to bottom input / bottom outlet.
- Rotation in both directions (counterclockwise and clockwise).
- The gearbox is made of cast iron with a protective coating coated with epoxy paint.
- All shaft, rotor and pump body are made of AISI 316 stainless steel.
- As the material quality of the surfaces in contact with the fluid is AISI 316 stainless steel, they are used in applications requiring hygiene.
- Clamp, food fitting and flange connection options are available.

ADVANTAGES OF MIT LOBE PUMPS

- Easily transfer medium size solids.
- There is no friction between the surface materials during the fluid transfer.
- The pump can be cleaned while it is connected to the service line.
- Quiet operation.
- In pumps with optional heating jackets, the flow of fluid through the material is prevented from freezing and provides an easy flow. It transfers smoothly without disturbing the product to be transferred.
- Optionally, it can be used in different application areas by making dashboard application on portable wheeled chassis. The only thing to do is to connect the power line to the board on the chassis.
- Taking the energy from the vehicle without taking up space on land vehicles, it provides convenience especially in the unloading and filling operations of food tankers.
- It carries out the transfer of high viscosity products without any problems.



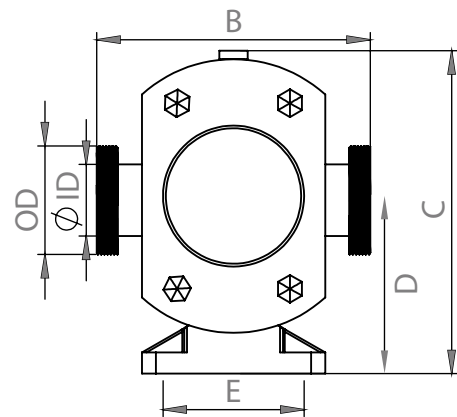
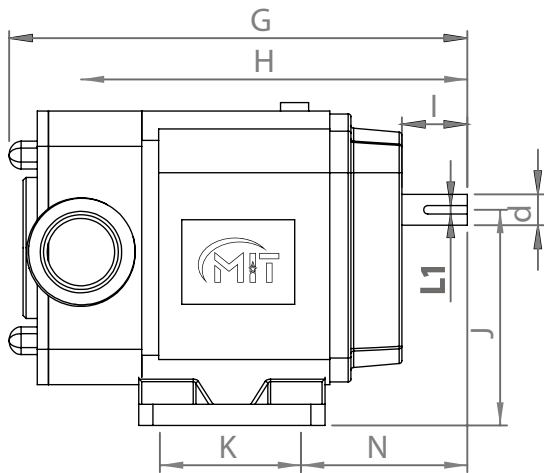
LOBE PUMP SELECTION

The specifications of the product to be transferred and the line to be transferred to the lobe are the desired technical details. The desired values are shown in the table below in detail.

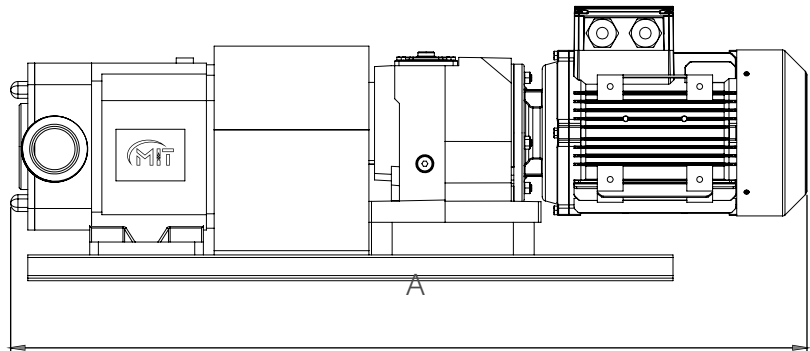
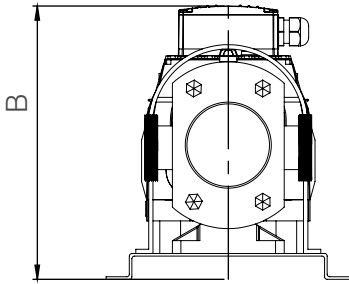
| Desired Details | Sample Information |
|----------------------|------------------------------------|
| Type of Fluid | Chocolate, honey, buttermilk etc. |
| Flow Rate of Fluid | m ³ /H, L/H, TON/H etc. |
| Pressure of Fluid | Bar, mSS vb. |
| Viscosity of Fluid | cP, cSt vb. |
| Temperature of Fluid | °C |
| Density of Fluid | g/cm ³ |

HEATING JACKET, which is designed to prevent the product from freezing in the pump, is applied on the pump according to the demands.

MOTOR-FREE PUMP SIZE TABLE



| Model | B | C | D | E | K | G | H | I | J | L1 | OD | ID | d |
|--------|-------|-----|-----|-----|-----|-------|-------|------|-------|----|------|------|----|
| MLP 20 | 182 | 229 | 123 | 100 | 100 | 311 | 260 | 46.5 | 153 | 6 | 52 | 25 | 22 |
| MLP-23 | 191 | 229 | 123 | 100 | 100 | 315.5 | 264.5 | 46.5 | 153 | 6 | 64.5 | 35 | 22 |
| MLP-25 | 194 | 229 | 123 | 100 | 100 | 325 | 274 | 46.5 | 153 | 6 | 77 | 47.8 | 22 |
| MLP-30 | 225 | 271 | 149 | 125 | 125 | 432.5 | 357 | 56 | 186.5 | 8 | 77.5 | 47.8 | 28 |
| MLP-36 | 260.5 | 271 | 149 | 125 | 125 | 438.5 | 363 | 56 | 186.5 | 8 | 77.5 | 59.5 | 28 |
| MLP-55 | 240 | 271 | 149 | 125 | 125 | 443.5 | 368 | 56 | 186.5 | 8 | 77.5 | 66 | 28 |
| MLP-60 | 245 | 271 | 149 | 125 | 125 | 447.5 | 372 | 56 | 186.5 | 8 | 109 | 72.2 | 28 |

MOTOR-REDUCER DIMENSION TABLE


| Motor Series | A | B |
|--------------|-----|-----|
| 002 | 715 | 285 |
| 003 | 715 | 285 |
| 102 | 745 | 285 |
| 172 | 865 | 325 |
| 202 | 910 | 320 |
| 272 | 915 | 320 |
| 282 | 930 | 320 |

| Motor Series | MLP-20 | |
|--------------|--------|-----|
| | A | B |
| 002 | 715 | 285 |
| 003 | 715 | 285 |
| 282 | 930 | 320 |

MODELS AND CAPACITIES

| Model | Flow (m ³ /h) | Pressure (bar) | Motor Power (kW) | Recommended Cycle (min-1) | Flow in Each Cycle (L/rev) | Input-Output Connection Dimensions |
|---------|--------------------------|----------------|------------------|---------------------------|----------------------------|--|
| MLP-20 | 1-2 | 20 | 3,0 | 100-450 | 0,15 | 1"-DN25 DIN, SMS, DF, RJT |
| | 1-3 | 15 | 2,2 | | | |
| | 1-3 | 12 | 1,5 | | | |
| | 1-3 | 9 | 1,1 | | | |
| | 1-3 | 5 | 0,75 | | | |
| MLP-23 | 2-5 | 20 | 4,0 | 100-450 | 0,212 | 1,5"-DN40 DIN, SMS, DF, RJT |
| | 2-5 | 15 | 3,0 | | | |
| | 2-5 | 12 | 2,2 | | | |
| | 2-5 | 9 | 1,5 | | | |
| | 2-5 | 5 | 1,1 | | | |
| MLP-25 | 3-7 | 15 | 5,5 | 100-450 | 0,298 | 2"-DN50 DIN, SMS, DF, RJT |
| | 3-7 | 10 | 4,0 | | | |
| | 3-7 | 7 | 3,0 | | | |
| | 3-7 | 4 | 2,2 | | | |
| MLP-30 | 5-10 | 20 | 7,5 | 100-400 | 0,496 | 2"-DN50 DIN, SMS, DF, RJT |
| | 5-10 | 12 | 5,5 | | | |
| | 5-10 | 8 | 4,0 | | | |
| | 5-10 | 4 | 3,0 | | | |
| MLP-36 | 6,5-13 | 18 | 7,5 | 100-400 | 0,631 | 2,5"-DN65 & 2" -DN50 DIN, SMS, DF, RJT |
| | 6,5-13 | 10 | 5,5 | | | |
| | 6,5-13 | 7 | 4,0 | | | |
| | 6,5-13 | 3 | 3,0 | | | |
| MLP-55 | 7-14 | 12 | 7,5 | 100-400 | 0,705 | 2,5"-DN65 DIN, SMS, DF, RJT |
| | 7-14 | 9 | 5,5 | | | |
| | 7-14 | 6 | 4,0 | | | |
| | 7-14 | 3 | 3,0 | | | |
| MLP-60 | 8-16 | 10 | 7,5 | 100-400 | 0,778 | 3"-DN80 DIN, SMS, DF, RJT |
| | 8-16 | 9 | 5,5 | | | |
| | 8-16 | 5 | 4,0 | | | |
| | 8-16 | 3 | 3,0 | | | |
| MLP-70 | 15-31 | 18 | 15 | 100-360 | 1,791 | 3"-DN80 DIN, SMS, DF, RJT |
| | 15-31 | 12 | 11 | | | |
| | 15-31 | 9 | 7,5 | | | |
| | 15-31 | 5 | 5,5 | | | |
| MLP-80 | 20-40 | 15 | 15 | 100-360 | 1,824 | 3"-DN80 DIN, SMS, DF, RJT |
| | 20-40 | 10 | 11 | | | |
| | 20-40 | 7 | 7,5 | | | |
| | 20-40 | 4 | 5,5 | | | |
| MLP-100 | 25-50 | 10 | 11 | 100-360 | 2,299 | 4"-DN100 DIN, SMS, DF, RJT |
| | 25-50 | 6 | 7,5 | | | |
| | 25-50 | 3 | 5,5 | | | |
| MLP-125 | 31-62 | 10 | 15 | 100-360 | 2,922 | 5"-DN125 DIN, SMS, DF, RJT |
| | 31-62 | 7 | 11 | | | |
| | 31-62 | 4 | 7,5 | | | |

INFORMATION ON THE WORKING PRINCIPLE

As the rotor rotates, the volume in the pump inlet line increases and the fluid is dragged into the pump. Fluid between the rotors and the pump inner wall is transported to the pump outlet.

MIT lobe pumps are designed to provide reliable performance, trouble-free operation and superior energy efficiency for demanding applications. These hygienic pumps meet the high standards of low damage to the product and low pressures.



MAINTENANCE AND REPAIR

Thanks to its compact structure, MIT lobe pumps can be operated in the field and in a very short time and easily.

Before the pump is serviced, the electrical connections must be disconnected from the pump motor.

After this operation, the pump can be serviced and repaired.

- The maintenance and replacement of the lobes can be made with the pump and line connections and the dismantling of the front cover bolts without dismantling the coupling connections between the motor and the pump.
- In this section, the lobes can be easily removed and cleaned and maintained.
- The front body must be removed for replacement of the packing. The dismantling process of the body can be done in a simple way.
- The oil reservoir in the gear unit is replaced by opening the oil drain plug periodically. This will increase the life of the gears.
- After necessary cleaning, all parts are removed and reassembled. When switching on the pump, electrical connections must be made according to the direction of rotation of the motor.



A large, stylized blue circular arrow graphic is positioned on the left side of the dark grey background. The arrow starts from the bottom left, curves upwards and to the right, then loops back down and to the left, ending with a triangular arrowhead pointing towards the top right.

HYGIENIC CENTRIFUGAL PUMP

MIT HYGIENIC CENTRIFUGAL PUMPS

MIT hygienic centrifugal pumps have all the features necessary for the transfer of all liquids in milk, fruit juices, alcoholic and non-alcoholic beverages, beer, pharmaceuticals and chemical industry. Made of 304 or 316L quality stainless steel. Thanks to its high wall thickness, it has a long service life against corrosion wear.

Thanks to the special design of the lid and fan, friction is reduced and non-hygiene blind spots are eliminated. The convenience of the special structure of the fluid in the pump speed can reach the highest level. In addition, it allows easy control and cleaning applications in a short time with its easy disassembly feature.

Pump Technical Specifications

Max. Flow: 100 m³/h

Max. Discharge Head: 70 m

Max. Operating Temperature: 120 °C
(30 mins. in CIP/SIP applications)

Max. Cycle: 3600 d/dk.

Materials

Pump Body and Fan: AISI 316L / AISI 304

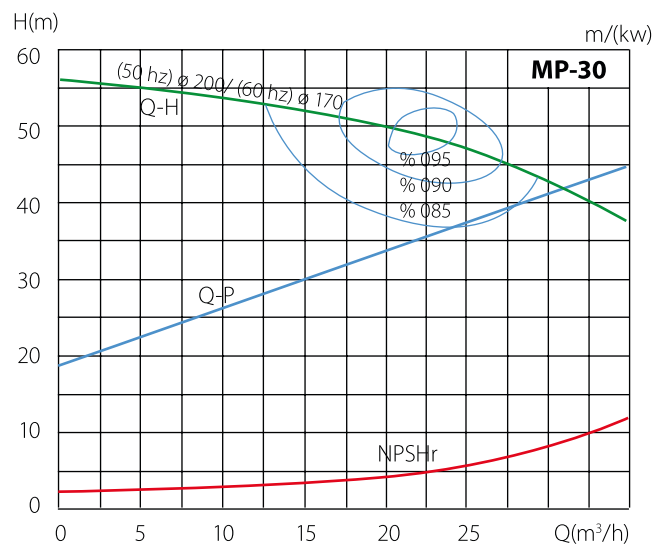
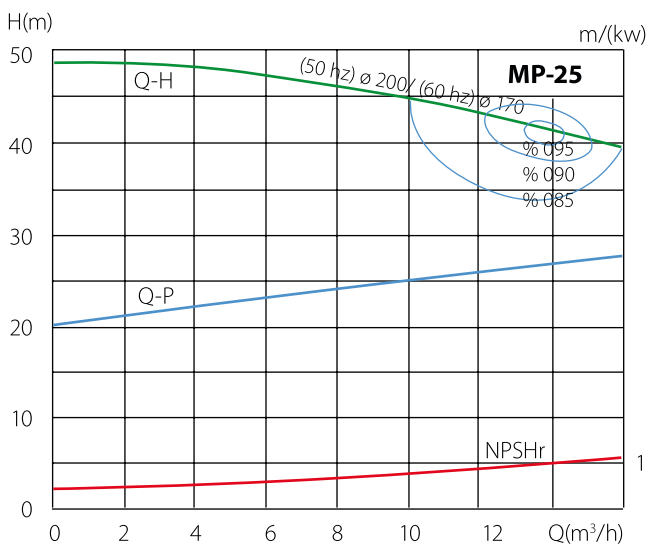
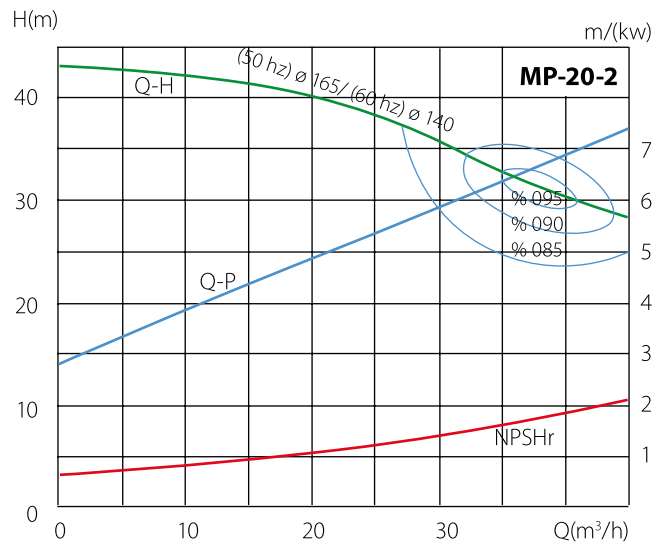
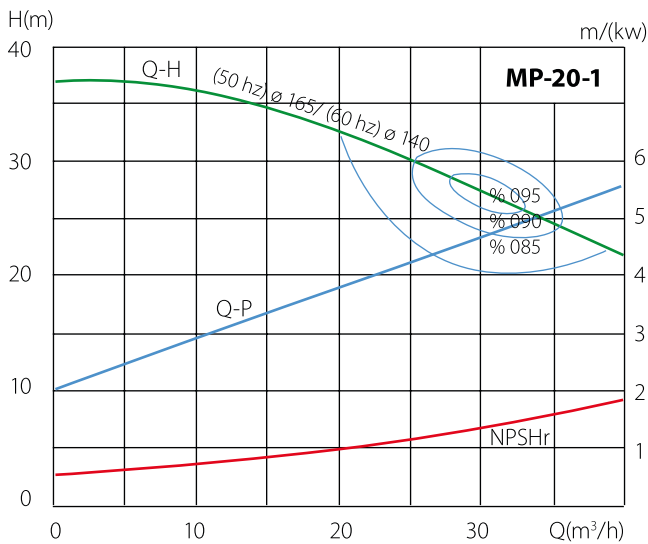
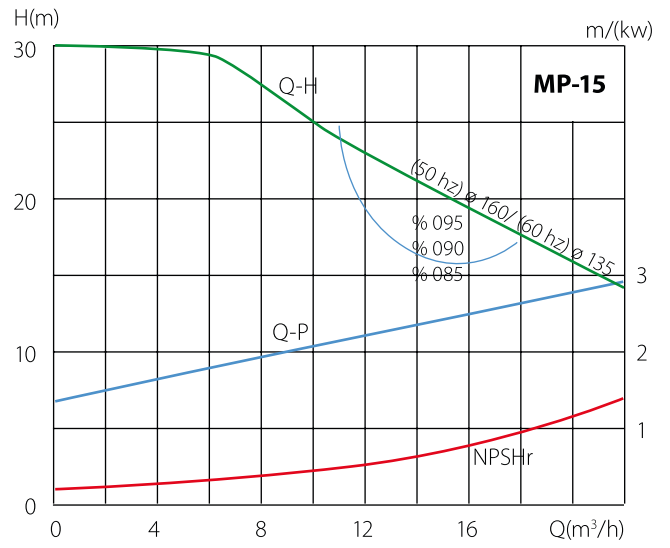
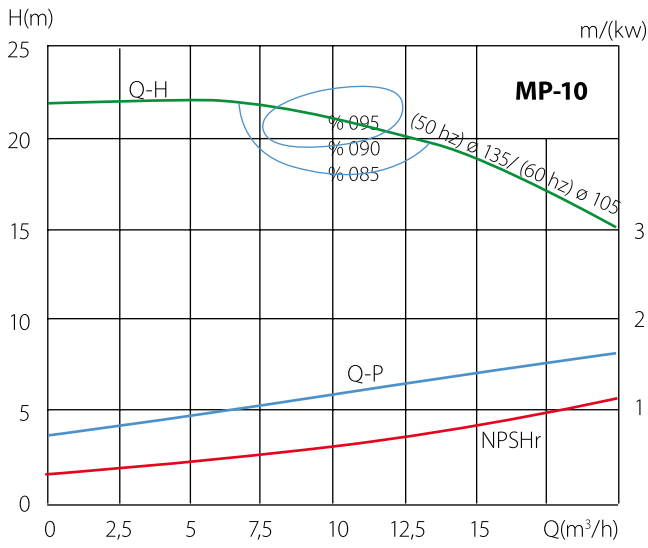
Gasket: EPDM (conformity to food - FDA)

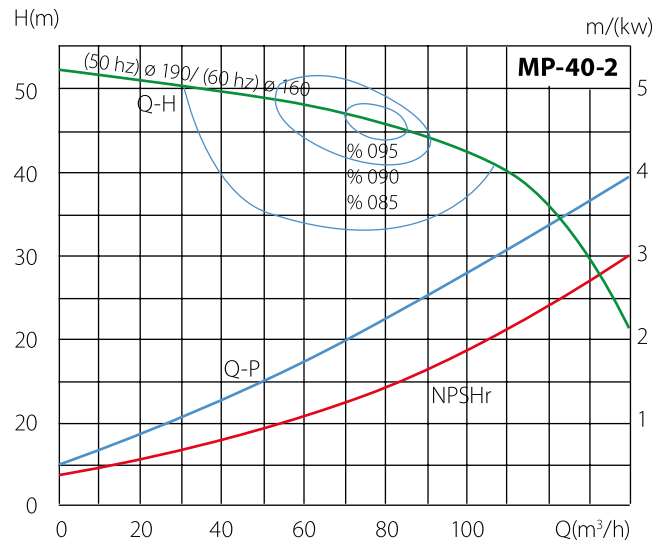
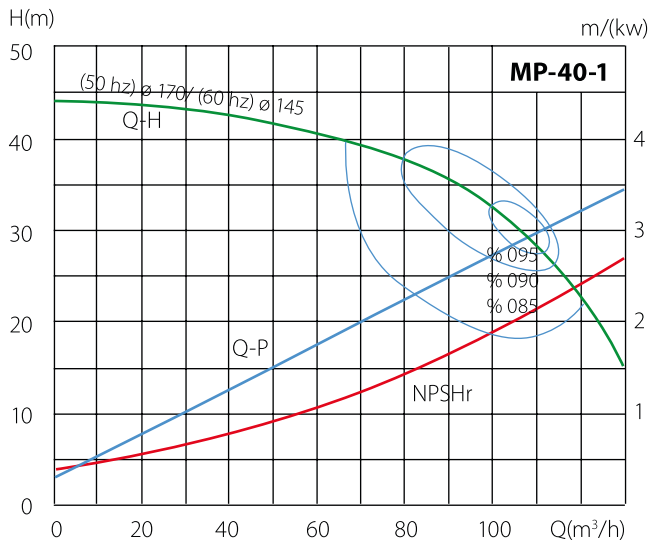
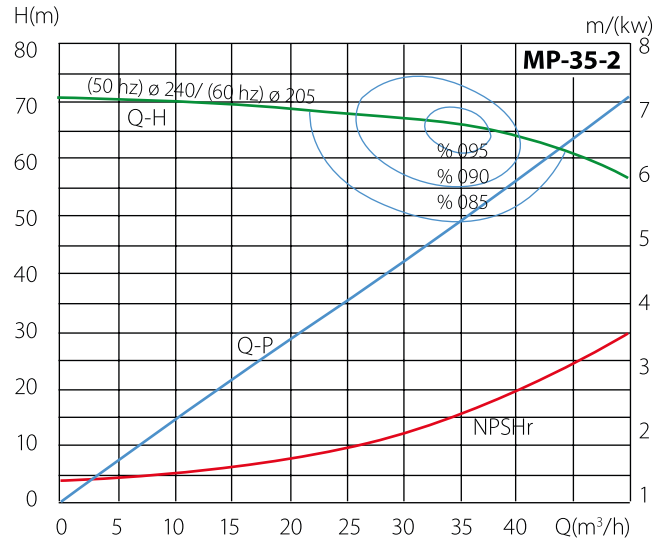
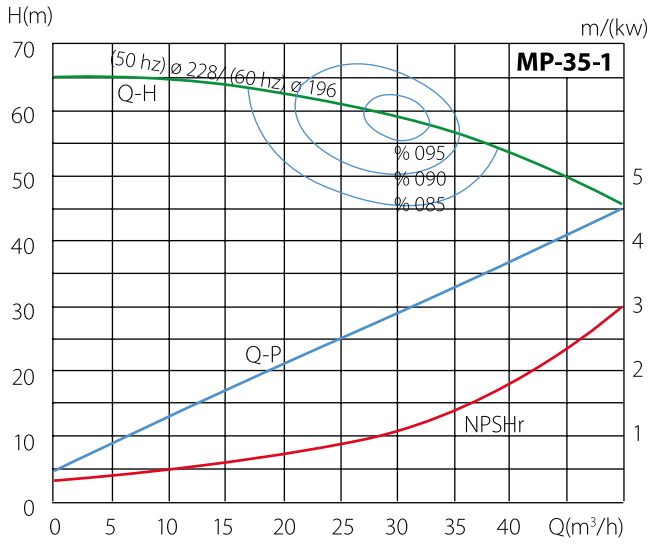
Leak-proofing: Mechanical Seal



| Model | Capacity | | Motor Power (kW) | Input-Output Connection Dimensions |
|---------|-------------------|-------|------------------|------------------------------------|
| | m ³ /h | Metre | | |
| MP-03 | 1 | 13 | 0,55 | DN25 / DN25 |
| | 7 | 10 | 0,55 | |
| MP-05 | 3 | 12 | 0,75 | DN40 / DN40 |
| | 8 | 10 | 0,75 | |
| | 17 | 3 | 0,75 | |
| MP-10 | 3 | 27 | 1,5 | DN50 / DN40 |
| | 5 | 26 | 1,5 | |
| | 7 | 25 | 1,5 | |
| | 11 | 24 | 1,5 | |
| MP-15 | 3 | 27 | 2,2 | DN50 / DN50 |
| | 10 | 24 | 2,2 | |
| | 29 | 13 | 2,2 | |
| MP-20-1 | 5 | 30 | 3,0 | DN50 / DN50 |
| | 11 | 28 | 3,0 | |
| | 10 | 30 | 4,0 | |
| | 35 | 19 | 4,0 | |
| MP-20-2 | 5 | 40 | 5,5 | DN65 / DN50 |
| | 10 | 38 | 5,5 | |
| | 40 | 29 | 5,5 | |
| MP-30 | 10 | 41 | 7,5 | DN65 / DN50 |
| | 30 | 36 | 7,5 | |
| | 49 | 30 | 7,5 | |
| MP-35-1 | 20 | 55 | 11,0 | DN80 / DN65 |
| | 25 | 50 | 11,0 | |
| | 30 | 45 | 11,0 | |
| | 50 | 25 | 11,0 | |
| MP-35-2 | 10 | 53 | 15 | DN80 / DN65 |
| | 29 | 52 | 15 | |
| | 40 | 51 | 15 | |
| | 52 | 50 | 15 | |
| | 64 | 46 | 15 | |
| | 30 | 65 | 18,5 | |
| | 60 | 50 | 18,5 | |
| MP-40-1 | 10 | 82 | 22,0 | DN80 / DN65 |
| | 30 | 81 | 22,0 | |
| | 39 | 80 | 22,0 | |
| | 51 | 76 | 22,0 | |
| | 59 | 73 | 22,0 | |
| | 61 | 72 | 22,0 | |
| | 65 | 72 | 22,0 | |
| | 68 | 71 | 22,0 | |
| 71 | 70 | 22,0 | | |
| MP-40-2 | 40 | 80 | 30,0 | DN80 / DN65 |
| | 45 | 78 | 30,0 | |
| | 50 | 76 | 30,0 | |
| | 60 | 72 | 30,0 | |
| | 70 | 67 | 30,0 | |
| | 80 | 64 | 30,0 | |
| | 85 | 63 | 30,0 | |
| | 90 | 60 | 30,0 | |
| | 93 | 58 | 30,0 | |
| | 95 | 55 | 30,0 | |
| | 100 | 50 | 30,0 | |

PERFORMANCE CURVES









BLOWER

MIT BLOWERS

Blowers are installation equipment that provides the transfer of air in the emitted environment at high or low pressure and rotates the fan with the force received from the motor.

The fan in the blowers rotates by vacuuming the air in the suction section, the air trapped inside is then pushed towards the outlet side. Blowers are often used to move air.

MIT branded blowers offer the most reliable service for your application areas in terms of size, performance and technology.



WHY SHOULD I USE MIT BLOWERS?



MIT centrifugal blowers have a maintenance-free, highly efficient fan, electric motor and various mounting (horizontal and vertical) shapes.

They provide high pressure and vacuum. Can produce oil-free air. Easy to install and maintenance-free AC motor.

ADVANTAGES OF MIT CENTRIFUGAL BLOWERS

MIT branded blowers are designed to provide the best service to our valued customers with our expert engineer staff. We offer you the most efficient blower with the advantage of MIT brand below.

- It provides a maximum flow rate of 2500 m³/ h.
- Creates a maximum pressure of 570 mbar.
- High temperature operation (maximum: 70-80 °C).
- Provides a quiet working environment (50-85 dBA).
- Environment-friendly thanks to the lack of oil-free operation and no pollution level.
- Vibration is minimized with dynamic balance adjustment.
- Easy installation. Suitable for horizontal and vertical installation.
- Swedish SKF or Japanese NSK bearings are used, ensuring efficient and long-lasting use.
- Provides trouble-free operation for 3-5 years under normal conditions.

WHAT ARE THE TYPES OF BLOWERS?

Single Stage Blowers

Single-stage blowers are available in a range of 55-1050 m³/h flow rates, 0-460 mbar pressures and 0.25 to 5.5 kW range of motor power.

Double Stage Blowers

Double-stage blowers are available in a range of 88-2050 m³/h flow rates, 0-570 mbar pressures and 0,7-25 kw.



HOW TO SELECT A BLOWER?

The most important information needed for blower selection (for air) is listed as follows.

- Air flow rate required (m³/h, Nm³/h).
- The positive pressure of the blower to be used for air transfer (such as mbar, bar, mSS).
- Vacuum value of the blower to be used for vacuum (mbar, bar, etc.).
- Ambient temperature.





PERFORMANCE TABLE

Each blower has different operating values depending on the motor power.

| Model | | | | | | | Δp mBar | | 0 | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 |
|-----------|---------------------|-------------|-------------|--------|------------------|--------------------|------------------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| | Electric Motor (kW) | Outlet Line | Weight (kg) | Stage | Max. Vacuum mBar | Max. Pressure mBar | Flow Rate (m³/h) | | | | | | | | | | | | | |
| B1TT-102 | 0,25 | 1 1/4" | 7 | Single | -100 | 100 | 55 | 25 | | | | | | | | | | | | |
| B2TT-104 | 0,40 | 1 1/4" | 11 | Single | -120 | 130 | 80 | 50 | 28 | | | | | | | | | | | |
| B2CC-207 | 0,7 | 1 1/4" | 14 | Double | -210 | 240 | 88 | 68 | 54 | 41 | 30 | | | | | | | | | |
| B3TT-105 | 0,55 | 1 1/4" | 12 | Single | -120 | 130 | 100 | 77 | 50 | | | | | | | | | | | |
| B3TT-107 | 0,7 | 1 1/4" | 13 | Single | -150 | 170 | 100 | 77 | 50 | 20 | | | | | | | | | | |
| B4TT-107 | 0,7 | 1 1/2" | 14 | Single | -120 | 120 | 145 | 111 | 80 | | | | | | | | | | | |
| B4TT-108 | 0,85 | 1 1/2" | 15 | Single | -160 | 160 | 145 | 111 | 80 | 55 | | | | | | | | | | |
| B4TT-113 | 1,3 | 1 1/2" | 16 | Single | -170 | 200 | 145 | 111 | 80 | 55 | 30 | | | | | | | | | |
| B4CC-216 | 1,6 | 1 1/2" | 24 | Double | -280 | 280 | 150 | 135 | 120 | 105 | 93 | 78 | | | | | | | | |
| B4CC-222 | 2,2 | 1 1/2" | 27 | Double | -330 | 440 | 150 | 135 | 120 | 105 | 93 | 78 | 64 | 50 | 35 | | | | | |
| B5TT-116 | 1,6 | 2" | 21 | Single | -200 | 190 | 210 | 178 | 145 | 110 | | | | | | | | | | |
| B5TT-122 | 2,2 | 2" | 25 | Single | -220 | 270 | 210 | 178 | 145 | 110 | 87 | 58 | | | | | | | | |
| B5CC-230 | 3,0 | 2" | 39 | Double | -340 | 410 | 230 | 205 | 182 | 167 | 148 | 130 | 115 | 100 | 88 | | | | | |
| B5CC-240 | 4,0 | 2" | 43 | Double | -390 | 490 | 230 | 205 | 182 | 167 | 148 | 130 | 115 | 100 | 88 | 60 | | | | |
| B6TT-122 | 2,2 | 2" | 27 | Single | -230 | 250 | 270 | 240 | 200 | 160 | 118 | | | | | | | | | |
| B6TT-130 | 3,0 | 2" | 32 | Single | -270 | 310 | 270 | 240 | 200 | 160 | 118 | 78 | | | | | | | | |
| B7TT-122 | 2,2 | 2" | 29 | Single | -210 | 200 | 318 | 278 | 238 | 200 | | | | | | | | | | |
| B7TT-130 | 3,0 | 2" | 34 | Single | -270 | 290 | 318 | 278 | 238 | 200 | 170 | 140 | | | | | | | | |
| B7TT-140 | 4,0 | 2" | 42 | Single | -290 | 330 | 318 | 278 | 238 | 200 | 170 | 140 | 110 | 75 | | | | | | |
| B7TC-130 | 3,0 | 2" | 43 | Single | -220 | 220 | 420 | 355 | 295 | 244 | 200 | | | | | | | | | |
| B7TC-140 | 4,0 | 2" | 43 | Single | -260 | 310 | 420 | 355 | 295 | 244 | 200 | 160 | 120 | | | | | | | |
| B7CC-222 | 2,2 | 2" | 42 | Double | -220 | 210 | 320 | 300 | 282 | 264 | 250 | | | | | | | | | |
| B7CC-230 | 3,0 | 2" | 47 | Double | -280 | 260 | 320 | 300 | 282 | 264 | 250 | 235 | | | | | | | | |
| B7CC-243 | 4,3 | 2" | 53 | Double | -360 | 380 | 320 | 300 | 282 | 264 | 250 | 235 | 218 | 202 | | | | | | |
| B7CC-255 | 5,5 | 2" | 70 | Double | -440 | 500 | 320 | 300 | 282 | 264 | 250 | 235 | 218 | 202 | 184 | 174 | 158 | | | |
| B7CC-275 | 7,5 | 2" | 77 | Double | -440 | 570 | 320 | 300 | 282 | 264 | 250 | 235 | 218 | 202 | 184 | 174 | 158 | 140 | | |
| B8TT-155 | 5,5 | 2 1/2" | 65 | Single | -300 | 320 | 530 | 465 | 420 | 380 | 348 | 305 | 275 | | | | | | | |
| B8TT-175 | 7,5 | 2 1/2" | 68 | Single | -320 | 380 | 530 | 465 | 420 | 380 | 348 | 305 | 275 | 240 | 180 | | | | | |
| B8TC-175 | 7,5 | 2 1/2" | 74 | Single | -270 | 260 | 700 | 615 | 550 | 490 | 448 | 390 | | | | | | | | |
| B8CC-275 | 7,5 | 2 1/2" | 87 | Double | -400 | 400 | 520 | 480 | 455 | 440 | 410 | 390 | 370 | 350 | 330 | | | | | |
| B8CC-2110 | 11 | 2 1/2" | 127 | Double | -280 | 370 | 900 | 800 | 720 | 650 | 580 | 515 | 440 | 350 | | | | | | |
| B9TT-1250 | 12,5 | 4" | 132 | Single | -280 | 270 | 1050 | 980 | 900 | 830 | 770 | 695 | 695 | | | | | | | |
| B9TT-1850 | 18,5 | 4" | 140 | Single | -340 | 460 | 1050 | 980 | 900 | 830 | 770 | 695 | 695 | 630 | 520 | 480 | | | | |
| B9CC-2225 | 25,0 | 4" | 235 | Double | -310 | 280 | 2050 | 1850 | 1800 | 1750 | 1500 | 1420 | | | | | | | | |

WORKING PRINCIPLE OF MIT CENTRIFUGAL BLOWER



Blowers increase the pressure of the absorbed gas by a series of vortex motions formed by the centrifugal movement of the impeller. When the impeller is rotating, the channels in the impeller push the air forward by the centrifugal movement and a helical movement occurs. During this movement, the gas is continuously compressed along the channel and the pressure increases linearly. The pressurized air is transferred from the outlet duct of the blower to the installation to be used.

WHAT ARE THE BLOWER USAGE AREAS?

Blowers are used in various processes such as food, transportation, granite carrier.

Blowers, other than vacuum pumps are effectively used in food washing, transport equipment, powder granur conveyor, suction equipment, industrial dust extraction, paper handling, degassing, bottle filling machines, automatic filling machines, paper cutting industry, printing paper handling process, dust removal equipment production, car washing, treatment plants, whirlpool, bottle drying, vegetable fruit washing and heating installations.







**AIR
DIAPHRAGM
PUMP**

MIT DIAPHRAGM TRANSFER PUMPS

Diaphragm pumps which work with air can be used in various areas in industrial works. It works as the same principle with lift and force pumps. Diaphragm pumps works with air instead of electricity motors with help of a compression motor that supplies demand of the pumps air according to its own flow rate and pressure values.

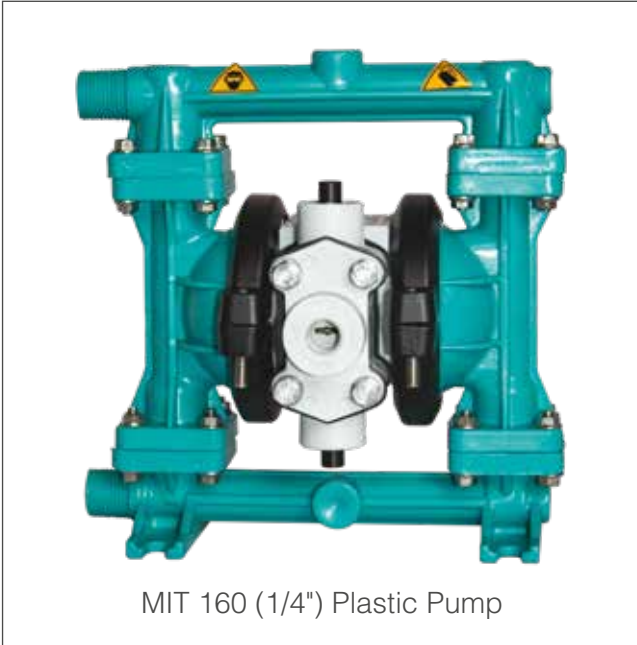
Due to pumps non-electric motor it has an ex-proof feature. For this reason this pump can serve under oil, solvent and many other flammable material containing work spaces. Besides having deep vacuum and dry working features this pumps flow rate and pressure can be easily adjustable.

Considering all these reasons air working pumps can serve at various areas of industry like transfer, circulation, injection, filling.



MIT 160 SERIES DIAPHRAGM PUMPS

MIT ac diaphragm transfer pumps have multiple applications which give opportunity to be used at high flow rated and parti-culated fluids. With differing diaphragm adjustments according to flows MIT air diaphragm transfer pumps offers a longer life-time.



Areas of Usage

MIT diaphragm pumps can easily transfer the fluid with connecting to the bottom of the tank.



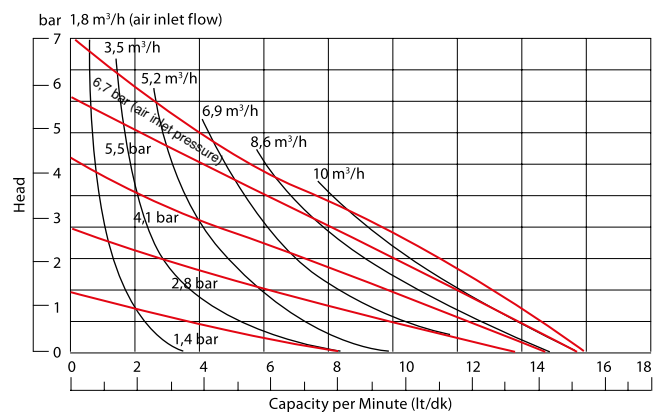
TECHNICAL FEATURES

| | |
|---------------------------|-------------|
| Flow | 16 l/min. |
| Pump Inlet-Outlet | 1/4" |
| Operating Pressure (max.) | 7 bar |
| Head (max.) | 70 m |
| Sucking | 6 m |
| Operating Temperature | 0 ~ +100 °C |
| Air Inlet | 1/4" |
| Particle Permeability | 1 mm |
| Weight | 1,5 kg |

MATERIAL FEATURES

| | |
|------------|--------------------|
| Body | Polypropylene (PP) |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |

MIT 160 (1/4") Plastic Pumps Per. Curve



MIT 550 SERIES DIAPHRAGM PUMPS

MIT 550 series offers the user to choose the most effective application for various chemicals with and aluminum body.



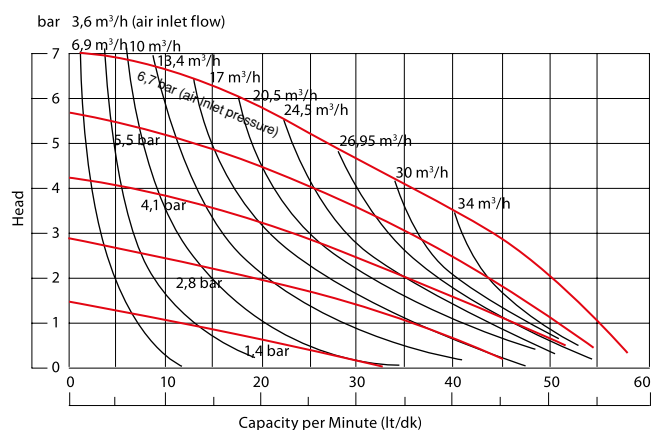
Areas of Usage

MIT diaphragm pumps can also be used as submerged pumps. To do this, air release pipe should go above the water level to keep pumps exhaust for releasing the air.

| TECHNICAL FEATURES | | |
|---------------------------|--------------|---------------|
| | Plastic Body | Metal Frame |
| Flow | 55 l/min. | 55 l/min. |
| Pump Inlet-Outlet | 3/4" | 3/4" |
| Operating Pressure (max.) | 7 bar | 7 bar |
| Head (max.) | 70 m | 70 m |
| Sucking | 6 m | 6 m |
| Operating Temperature | 0 ~ +100 °C | -18 ~ +100 °C |
| Air Inlet | 1/4" | 1/4" |
| Particle Permeability | 3 mm | 3 mm |
| Weight | 4,2 kg | 4,9 kg |

| MATERIAL FEATURES | |
|-------------------|---------------------------------|
| Body | Polypropylene (PP) Aluminium |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |

MIT 550 (3/4") Plastic and Metal Pumps Performance Curve



MIT 1500 SERIES DIAPHRAGM PUMPS

MIT air diaphragm pumps are commonly used at marine industry. Bilge water discharge, sanding, scrape and rusted wastes are also in the line of work of this pump. Air diaphragm pumps are also used at transferring and storing most of the chemicals which used at dye houses and press machines paint circulations which used at textile industry. With the color and press capacity of the machine a different pump can be used for every color.



MIT 1500 (1") Metal Pump



MIT 1500 (1") Plastic Pump

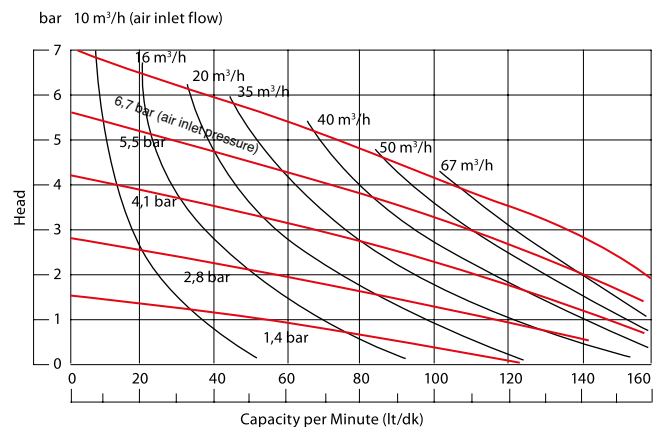
TECHNICAL FEATURES

| | Plastic Body | Metal Body |
|---------------------------|--------------|---------------|
| Flow | 150 l/min. | 150 l/min. |
| Pump Inlet-Outlet | 1" | 1" |
| Operating Pressure (max.) | 7 bar | 7 bar |
| Head (max.) | 70 m | 70 m |
| Sucking | 6 m | 6 m |
| Operating Temperature | 0 ~ +100 °C | -18 ~ +100 °C |
| Air Inlet | 1/2" | 1/2" |
| Particle Permeability | 4 mm | 4 mm |
| Weight | 8 kg | 9 kg |

MATERIAL FEATURES

| | |
|------------|--------------------|
| Body | Polypropylene (PP) |
| | Aluminium |
| | Stainless Steel |
| | Nodular Cast Iron |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |

MIT 1500 (1") Plastic and Metal Pumps Performance Curve



MIT 4000 SERIES DIAPHRAM PUMPS

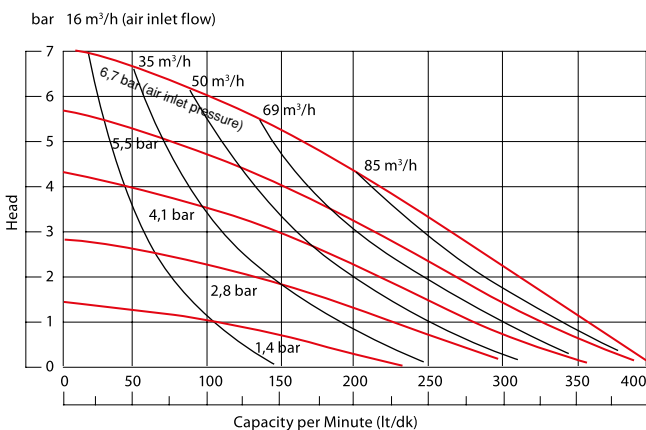
MIT air diaphragm pumps are very useful at cleaning oil and sludge which occurred at storage basins of petrol products. These pumps can be used for any type of chemical, glue, solvents, paint or inks transfer and circulation. A MIT air diaphragm pump doesn't require any electrical engine due to this reason it has a resistance to explosion and combustion which called the Ex-proof feature. It can be used in transferring and storing paint and glue materials. For water based fluids nitrile caoutchouc diaphragm can be used and for solvent based fluids PTFE diaphragm can be used.



| TECHNICAL FEATURES | | |
|---------------------------|--------------|---------------|
| | Plastic Body | Metal Body |
| Flow | 400 l/min. | 400 l/min. |
| Pump Inlet-Outlet | 1 1/2" | 1 1/2" |
| Operating Pressure (max.) | 7 bar | 7 bar |
| Head (max.) | 70 m | 70 m |
| Sucking | 6 m | 6 m |
| Operating Temperature | 0 ~ +100 °C | -18 ~ +100 °C |
| Air Inlet | 3/4" | 3/4" |
| Particle Permeability | 6 mm | 6 mm |
| Weight | 20,5 kg | 25 kg |

| MATERIAL FEATURES | |
|-------------------|--------------------|
| Body | Polypropylene (PP) |
| | Aluminium |
| | Stainless Steel |
| | Nodular Cast Iron |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |

MIT 4000 (1 1/2") Plastic and Metal Pumps Performance Curve

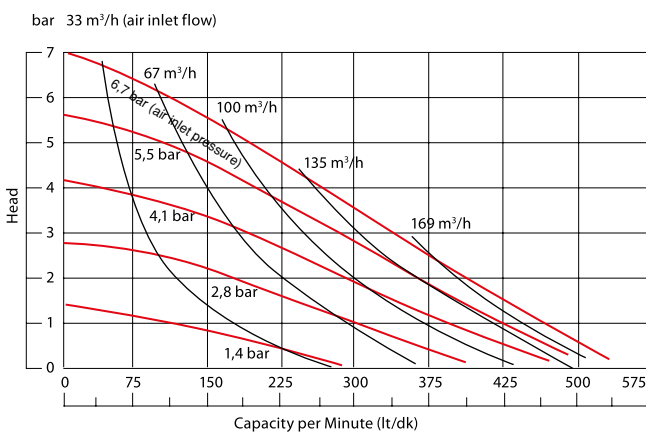


MIT 5600 SERIES DIAPHRAM PUMPS

MIT air diaphragm pumps are used in transferring acid and chemical based sludge and dewatering sedimentation sludge with pressing it to filter at water treatment plants. Transferring animal based waste in slaughtering facilities, storing and bottling process at fish oil industry can be referred work areas of MIT air diaphragm pumps.



MIT 5600 (2") Plastic and Metal Pumps Performance Curve



| TECHNICAL FEATURES | | |
|---------------------------|---------------|---------------|
| | Plastic Body | Metal Body |
| Flow | 560 l/min. | 560 l/min. |
| Pump Inlet-Outlet | 2" | 2" |
| Operating Pressure (max.) | 7 bar | 7 bar |
| Head (max.) | 70 m | 70 m |
| Sucking | 6 m | 6 m |
| Operating Temperature | -18 ~ +100 °C | -18 ~ +100 °C |
| Air Inlet | 3/4" | 3/4" |
| Particle Permeability | 6 mm | 6 mm |
| Weight | 30 kg | 32 kg |

| MATERIAL FEATURES | |
|-------------------|--------------------|
| Body | Polypropylene (PP) |
| | Aluminium |
| | Stainless Steel |
| | Nodular Cast Iron |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |



MIT 8900 SERIES DIAPHRAM PUMPS

MIT air diaphragm pumps are used in ceramic industry for transferring sludge and mold filling purpose. Beside this it can also be used at sealing sector with circulation and spraying purpose.



MIT 8900 (3") Metal Pump



MIT 8900 (3") Plastic Pump

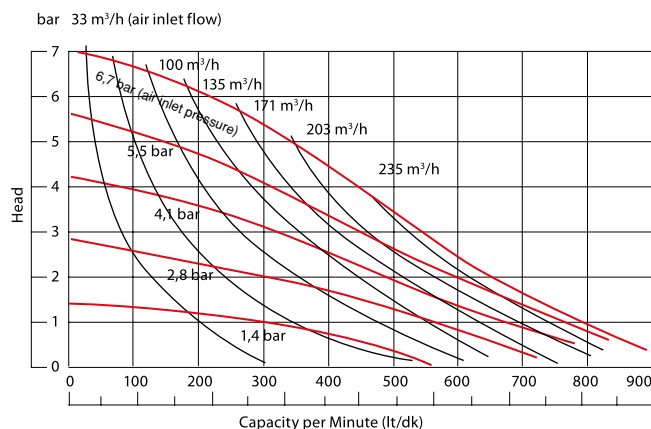
TECHNICAL FEATURES

| | Plastic Body | Metal Body |
|---------------------------|---------------|---------------|
| Flow | 890 l/min. | 890 l/min. |
| Pump Inlet-Outlet | 3" | 3" |
| Operating Pressure (max.) | 7 bar | 7 bar |
| Head (max.) | 70 m | 70 m |
| Sucking | 6 m | 6 m |
| Operating Temperature | -18 ~ +100 °C | -18 ~ +100 °C |
| Air Inlet | 3/4" | 3/4" |
| Particle Permeability | 6 mm | 6 mm |
| Weight | 49 kg | 51 kg |

MATERIAL FEATURES

| | |
|------------|--------------------|
| Body | Polypropylene (PP) |
| | Aluminium |
| | Stainless Steel |
| | Nodular Cast Iron |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Viton |
| | Buna-N |
| | Neoprene |

MIT 8900 (3") Plastic and Metal Pumps Performance Curve



MIT HJ SERIES DIAPHRAGM PUMPS

MIT HJ Series hygienic pumps are used in industries like food, pharmaceutical and cosmetics. Clamp type connection is used. 316 L stainless steel is used for frame material.

MIT HJ Series hygienic pumps does not thins the fluid its transferring and not effecting the chemical state of the fluid makes this pumps indispensable for transferring and storing milk, yogurt, cream, mustard, ketchup, mayo type of sensitive materials.

For transferring concentrated materials as chocolate, marmalade, air transfer pumps are suitable which are designed based on food regulations.



| MATERIAL FEATURES | |
|-------------------|------------|
| Body | SS 316 L |
| Diaphragms | Santoprene |
| | Teflon |
| | EPDM |
| | Neoprene |

| TECHNICAL FEATURES | | | | | | | | | | |
|--------------------|--------|--------------|--------------------------|------------------------------|--------------|-------------|--------------------------|-----------|---------------------------|-------------|
| Model | | Flow (lt/dk) | Pump Inlet-Outlet (inch) | Operating Pressure (max.bar) | Head (max.m) | Sucking (m) | Operating Temperature °C | Air Inlet | Particle Permeabilit (mm) | Weight (kg) |
| MIT HJ 550 | 3/4" | 55 | 3/4" | 7 | 70 | 6 | -18 ~ +100 | 1/4" | 3 | 6,5 |
| MIT HJ 1500 | 1" | 150 | 1" | 7 | 70 | 6 | -18 ~ +100 | 1/2" | 4 | 12,0 |
| MIT HJ 4000 | 1 1/2" | 400 | 1 1/2" | 7 | 70 | 6 | -18 ~ +100 | 3/4" | 6 | 26,0 |
| MIT HJ 5600 | 2" | 560 | 2" | 7 | 70 | 6 | -18 ~ +100 | 3/4" | 6 | 31,0 |
| MIT HJ 8900 | 3" | 890 | 3" | 7 | 70 | 6 | -18 ~ +100 | 3/4" | 8 | 65,0 |







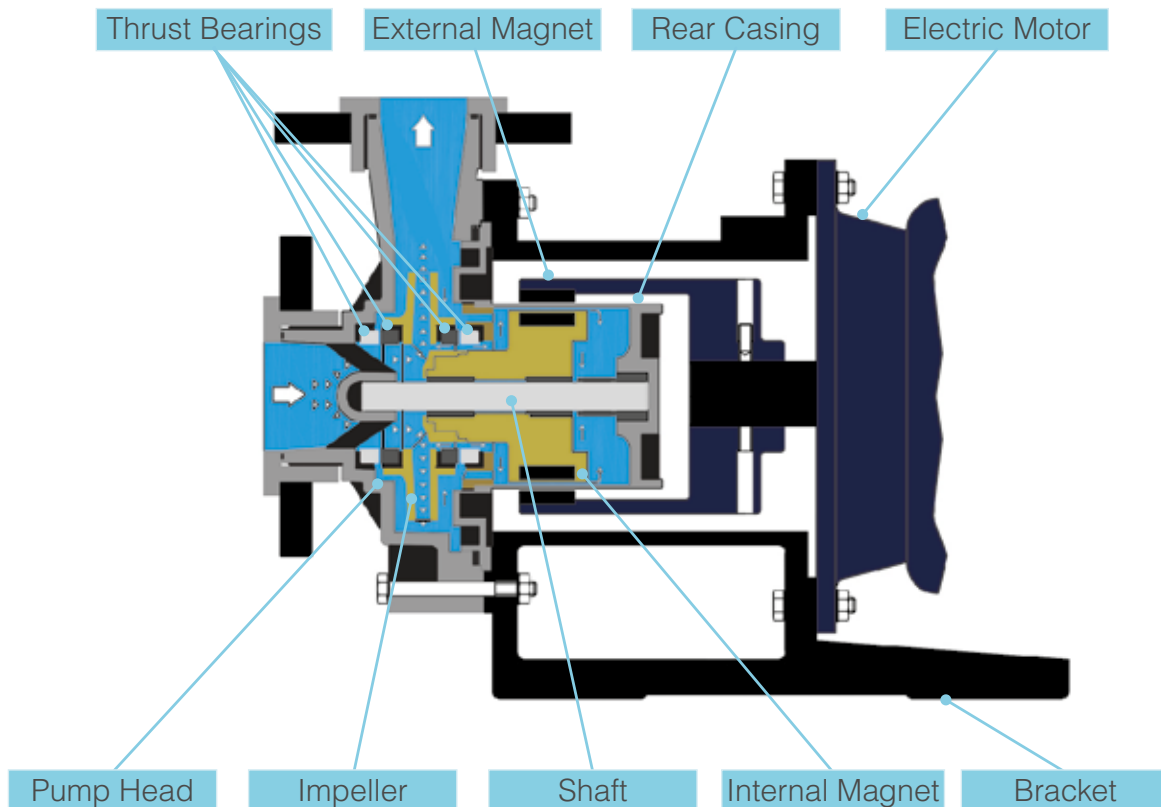
ACID PUMP

MAG DRIVE PUMPS

Mag drive pumps have a particular sealless design that is suitable for pumping corrosive and dangerous liquids thanks to the high chemical resistance and absence of leakage and emissions. The structure is really simple and it requires a very reduced maintenance with consequent save in terms of repairing and spare parts costs during the pump life. The external magnet placed on the drive shaft transmits the motion to the internal magnet connected to the impeller which rotates and moves the fluid through the pump.

Advantages

1. This special hermetic pump design prevents any leakage of fluid and fugitive emissions that, in case of chemicals, corrosive liquids, explosive and flammable fluids, could be very dangerous for people dealing with the pump and for the environment. So mag drive pumps allow to follow strict environmental and safety objectives required by many regulations. We shouldn't forget also that some liquids could be very expensive and their loss due to a seal failure may cause high unnecessary extra costs.
2. Mag drive pumps are very reliable and need very low maintenance thanks to their simple design. With normal working conditions these pumps can work without any kind of repair for more than a decade so their life cost is highly reduced. Nevertheless it's always better to check o-rings and bearings every one/two years just to be sure that there is no wearing.
3. The coupling is very easy because there is no need for a motor/pump alignment.



SEAL-LESS MAG DRIVE CENTRIFUGAL PUMPS

In seal-less magnetic drive centrifugal pumps, the external magnet is directly connected to the motor shaft and it transmits the torque to the internal magnet.

The magnetic field created produces a rotation without physical contact between the parts so the impeller spins and moves the fluid. The rear casing is placed between the two magnet joints and it hermetically closes the hydraulic part from the motor.

Magneto can supply three different models of mag drive centrifugal pumps:

MG PP / PVDF

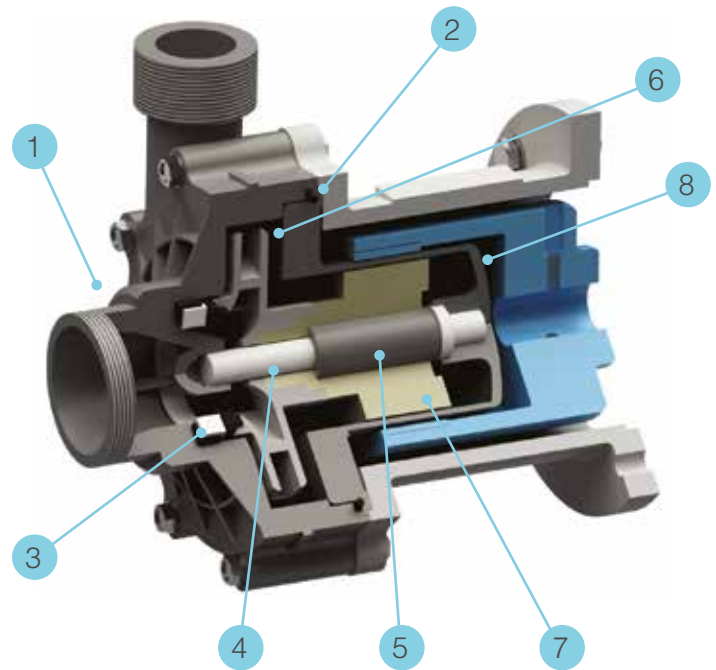
- Thermoplastic pumps made in PP or PVDF
- Capacity up to 45 m³/h.
- Head up to 33 mlc.
- Injection molded parts.

MGXL

- Thermoplastic pumps made in PP or PVDF
- Capacity up to 130 m³/h.
- Head up to 48 mlc.
- Pump head machined from a block.

MG SS316

- Metallic pumps made in stainless steel AISI316.
- Capacity up to 32 m³/h.
- Head up to: 24 mlc.



| MATERIALS IN CONTACT WITH THE LIQUID | | | |
|--------------------------------------|--|--|------------------|
| Part Number / Description | Centrifugal Pumps | | |
| | MG PP / PVDF | MGXL | MG SS316 |
| 1 - Pump Head | PP or PVDF | PP or PVDF | AISI 316 |
| 2 - O-Ring | EPDM or Viton | EPDM or Viton | EPDM or Viton |
| 3 - Casing Thrust Bush | Ceramic Al ₂ O ₃ + EPDM or Viton | Ceramic Al ₂ O ₃ + EPDM or Viton | PTFEC |
| 4 - Shaft | Ceramic Al ₂ O ₃ %99,7 | Ceramic Al ₂ O ₃ 99,7% | HASTELLOY – C276 |
| 5 - Bearings | PTFEC | PTFEC | PTFEC |
| 6 - Impeller | PP or PVDF | PP or PVDF | AISI 316 |
| 7 - Internal Magnet | PP or PVDF + NdFeB | PP or PVDF + NdFeB | AISI 316 + SmCo |
| 8 - Rear Casing | PP or PVDF | PP or PVDF | AISI 316 |

THERMOPLASTIC MAG-DRIVE CENTRIFUGAL PUMPS

Mag drive centrifugal pumps series MG PP/PVDF are made of thermoplastic materials (Polypropylene and PVDF) and are suitable for high corrosive liquids. Thanks to the innovative mag drive system, pumps model MG PP/PVDF reduce the risks of leakage and emissions and the maintenance costs. The transmission of the motion occurs through magnetic joints without any mechanical seal and this design guarantees the maximum safety and efficiency. The pumped liquid has to be clean and without solids in suspension. High torque magnetic coupling NdFeB standard. Suitable for high corrosive liquids.



Technical Features

Materials available: PP / PVDF

Materials in contact with the liquid;

Casing and impeller: PP/PVDF;

- O-ring: EPDM (Standard for PP pumps);
- Viton (Standard for PVDF pumps);
- Static Shaft: Al₂O₃ 99,7 %; Bushing PTFEC.

Max flow: 45 m³/h; Max head 33 m.

Temperature: PP: max 70°C – PVDF: max 90°C.

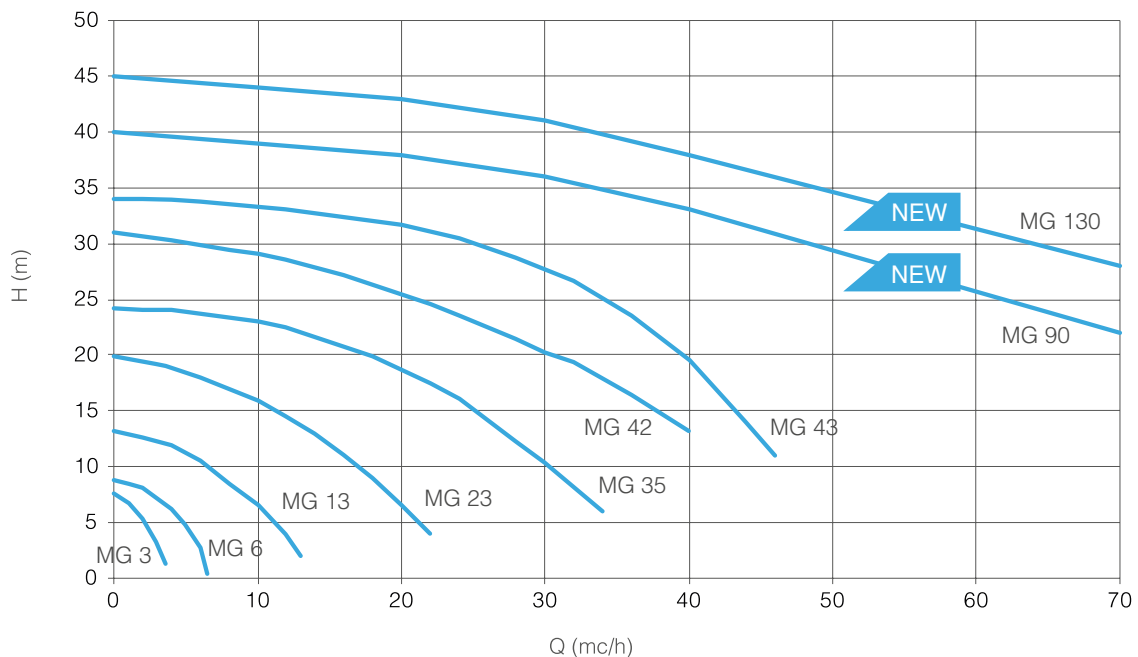
Max viscosity: 200 cSt.

Motor gücü: Modele göre 0,12 kW ile 7,5 kW arasında değişir.

Bağlantı çapı: Modele göre 1" ile 3" arasında değişmektedir.

Pressure rating: NP 6 at 20°C.

Performance Curves 50 Hz – 2900 RPM



THERMOPLASTIC MAG-DRIVE CENTRIFUGAL PUMPS



Main Features

Mag drive centrifugal pumps series MGXL are made of thermoplastic materials (Polypropylene or PVDF) and, thanks to their strong and resistant structure, they are suitable for high corrosive fluids and heavy duty applications. The pump casing is machined from a solid block for a great resistance in terms of pressure and temperature and the transmission of the motion occurs through magnetic joints without any mechanical seal. This magnetic drive system guarantees the maximum safety and efficiency reducing risks of leakage and emissions.

Optional:

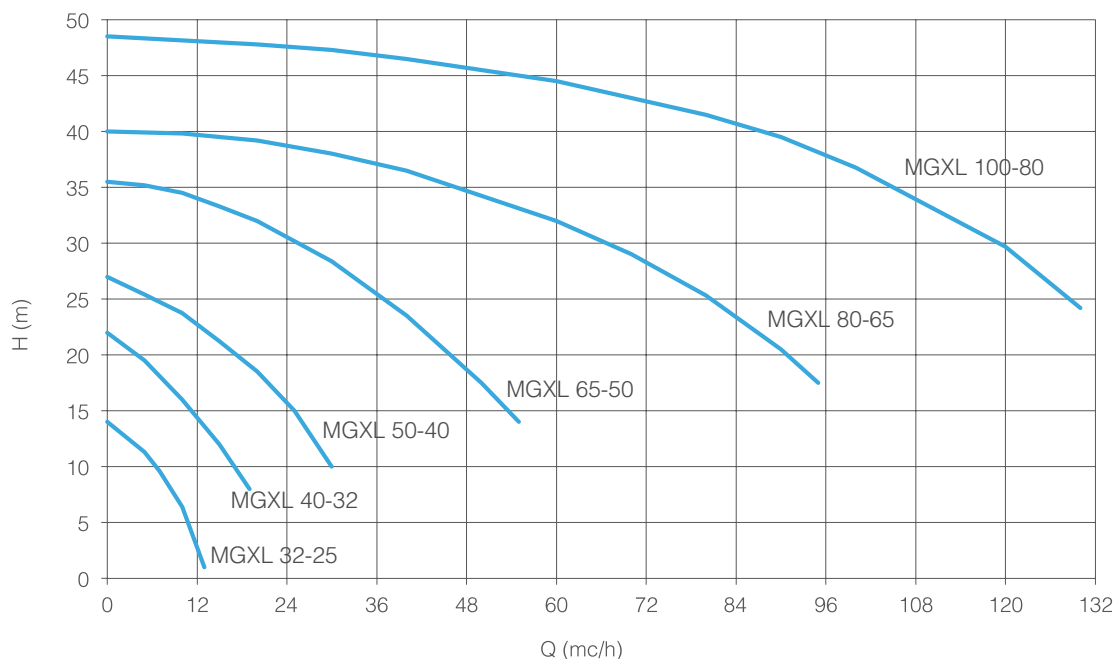
- Dry-running protection.

Typical Applications:

- High corrosive liquids.
- Toxic, noxious and carcinogenic liquids.

- Materials available: PP / PVDF
- Materials in contact with the liquid: Pump head and impeller PP or PVDF; O-Ring EPDM (standard for PP pumps); Viton (standard for PVDF pumps); Shaft Al_2O_3 99,7%; Bushing PTFEC.
- Max capacity: 130 m³/h.
- Max head: 48m.
- Max temperature: PP: 70°C –PVDF: 90°C.
- Flanged or threaded connections according to the pump size.
- Strong structure, maximum resistance to corrosive liquids.

Performance Curve 50 Hz – 2900 RPM



METALLIC MAG-DRIVE CENTRIFUGAL PUMPS



Main Features

Mag drive centrifugal pumps series MG SS are made of AISI 316 or, on request, of other metallic materials (such as HASTELLOY or TITANIUM) and are suitable for hydrocarbons, solvents and dangerous liquids. Thanks to the innovative mag drive design, pumps model MG SS reduce the risks of leakage and emissions and the maintenance costs. The transmission of the motion occurs through magnetic joints without any mechanical seal. This design guarantees the maximum safety and efficiency. The pumped liquid has to be clean and without solids in suspension. Pumps series MG SS 316 are also available in ATEX version for zone 1 and 2 (pump model EM-C).

Standard:

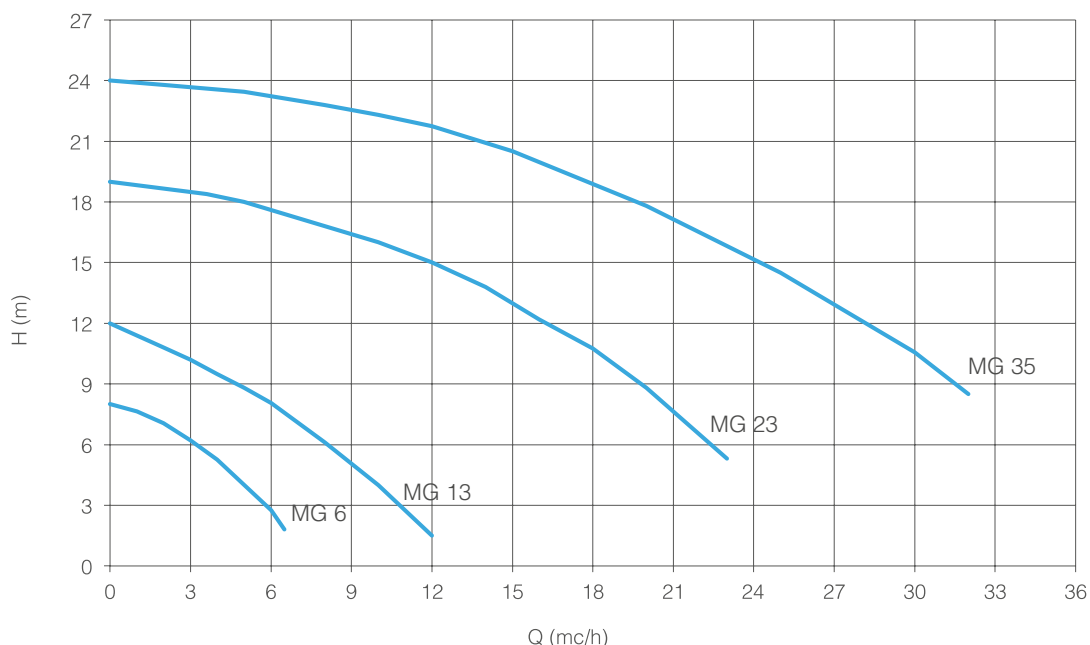
- Threaded in and out connections.

Optional:

- Pump available in other materials (HC 276; Titanium).
- ATEX version
- Explosion proof motor.
- Flanges available.
- Dry-running protection.
- Baseplate.
- Overload switch.

- Materials available: AISI 316;
- Materials in contact with the liquid: casing and impeller: stainless steel AISI 316; O-Ring: EPDM/VITON; Bushing: PTFE/CARBON; Shaft: Hastelloy C276.
- Max flow: 32 m³/h; max head: 24 m.
- Max temperature: 160° C.
- Max viscosity: 200 cSt.
- Pressure rating: NP 10 at 20° C.

Performance Curves 50 Hz – 2900 RPM



THERMOPLASTIC SELF-PRIMING MAG DRIVE CENTRIFUGAL PUMPS



Standard:

- Gas threaded in and out connections.

Optional:

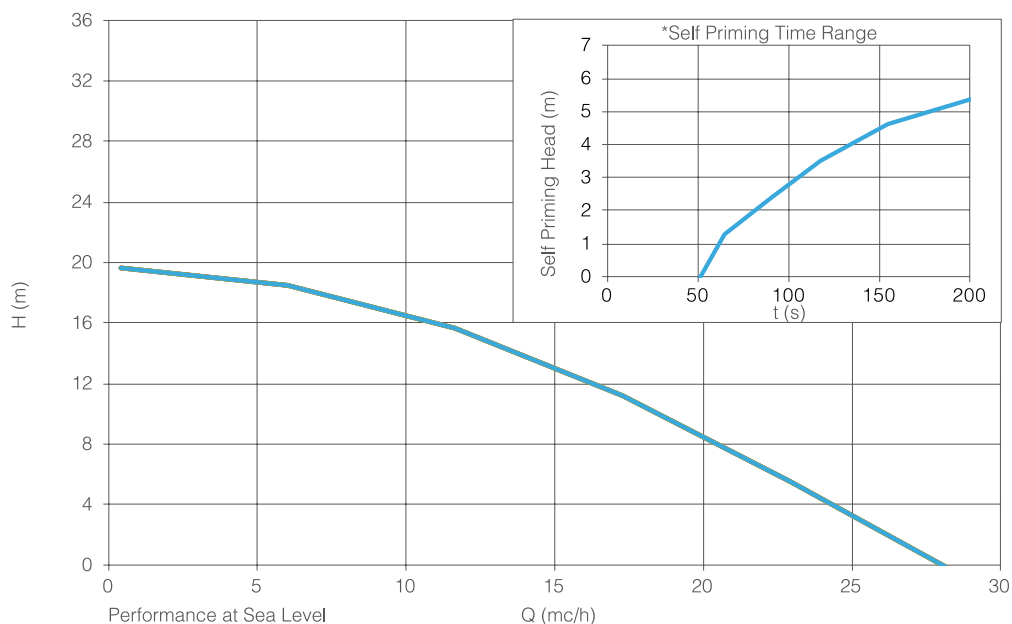
- Flanges connection.

Main Features

MG-SP pumps combine the typical features of our mag drive centrifugal pumps with the self-priming capability. At sea level, these pumps can prime up to 6 meters in a very short time. MG-SP pumps can be made of Polypropylene (PP) or PVDF and assure high resistance and chemical compatibility with a large range of corrosive and dangerous fluids. Thanks to the innovative seal-less magnetic drive system, pumps model MG-SP guarantee the maximum safety and efficiently reducing risks of leakage and emissions in the environment and the maintenance costs. The pumped liquid has to be clean, without solids in suspension.

- Materials available: PP or PVDF;
- Materials in contact with the liquid:
Casing and Impeller: PP/PVDF;
O-Ring: EPDM (standard for PP pumps) /
VITON (standard for PVDF pumps);
Static Shaft: Al₂O₃ 99.7%;
Bearing: PTFEC.
- Capacity up to 26 m³/h.
- Head up to 21 m.
- Max temperature: PP: 70° C - PVDF: 90° C.
- Max viscosity: 200 cSt.
- Pressure rating: PN6 at 20° C.
- Self-priming up to 6m at sea level.

Performance Curves 50 Hz – 2900 RPM



SEAL-LESS MAG DRIVE TURBINE PUMPS

In seal-less magnetic drive turbine pumps, the external magnet is directly connected to the motor shaft and it transmits the torque to the internal magnet.

The magnetic field created produces a rotation without physical contact between the parts and the turbine spins and moves the fluid. The rear casing is placed between the two magnet joints and it hermetically closes the hydraulic part from the motor.

Mangeto can supply three different models of mag drive turbine pumps:

MGT

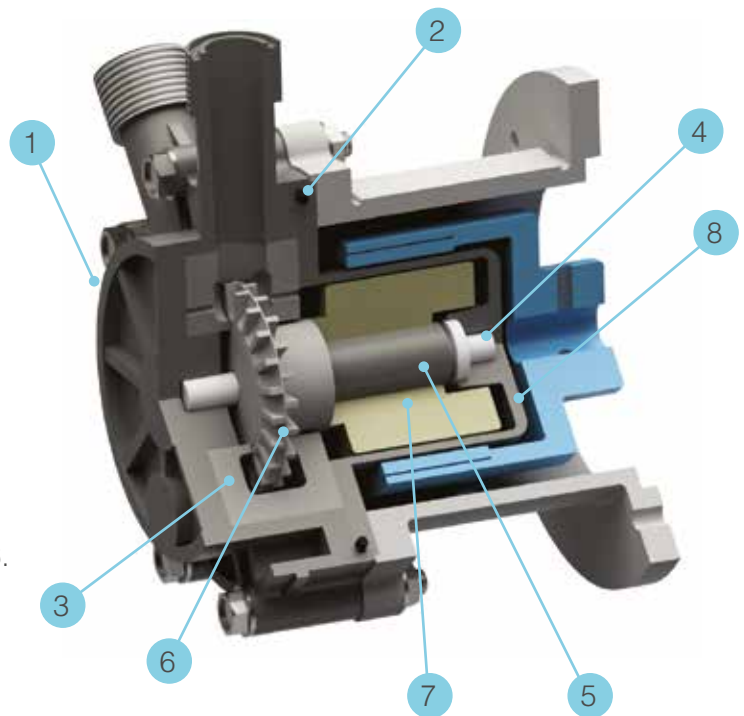
- Thermoplastic pumps made in PP or PVDF
- Capacity up to 9 m³/h.
- Head up to 50 mlc.

MGT-SP

- Thermoplastic pumps made in PP or PVDF
- Capacity up to 7 m³/h.
- Head up to 25 mlc.
- Machined from a block.
- Self-priming up to 3 m.

MGT-SS

- Metallic pumps made in stainless steel AISI316.
- Capacity up to 7 m³/h.
- Head up to: 80 mlc.



| MATERIALS IN CONTACT WITH THE LIQUID | | | |
|--------------------------------------|--|--|--------------------|
| Part Number / Description | Turbine Pumps | | |
| | MGT | MGT-SP | MGT-SS |
| 1 - Pump Head | PP or PVDF | PP or PVDF | AISI 316 |
| 2 - O-Ring | EPDM or Viton | EPDM or Viton | EPDM or Viton |
| 3 - Front and Rear Disc | PP or PVDF | PP or PVDF | PTFEC |
| 4 - Shaft + Ring | Ceramic Al ₂ O ₃ %99,7 | Ceramic Al ₂ O ₃ %99,7 | HASTELLOLOY – C276 |
| 5 - Bearing | PTFEC | PTFEC | PTFEC |
| 6 - Impeller | PVDF | PVDF | AISI 316 |
| 7 - Internal Magnet | PP or PVDF + NdFeB | PP or PVDF + NdFeB | AISI 316 + SmCo |
| 8 - Rear Casing | PP or PVDF | PP or PVDF | AISI 316 |

THERMOPLASTIC MAG-DRIVE REGENERATIVE TURBINE PUMPS



Mag drive regenerative turbine pumps series MGT are made of thermoplastic materials (polypropylene-PP and PVDF) and are suitable for pumping high corrosive liquids. Thanks to the innovative mag drive system, pumps model MGT reduce risks of leakage and emissions and the maintenance costs. The transmission of the motion occurs through magnetic joints without any mechanical seal. This sealless design guarantees the maximum safety and efficiency. The pumped liquid has to be clean and without solids in suspension.

Standard:

- Gas threaded In and Out connections.
- Static shaft in high purity ceramic.
- Chemical resistant PTFE/carbon sleeve bearings.
- High torque magnetic coupling.
- Direct starting motor.

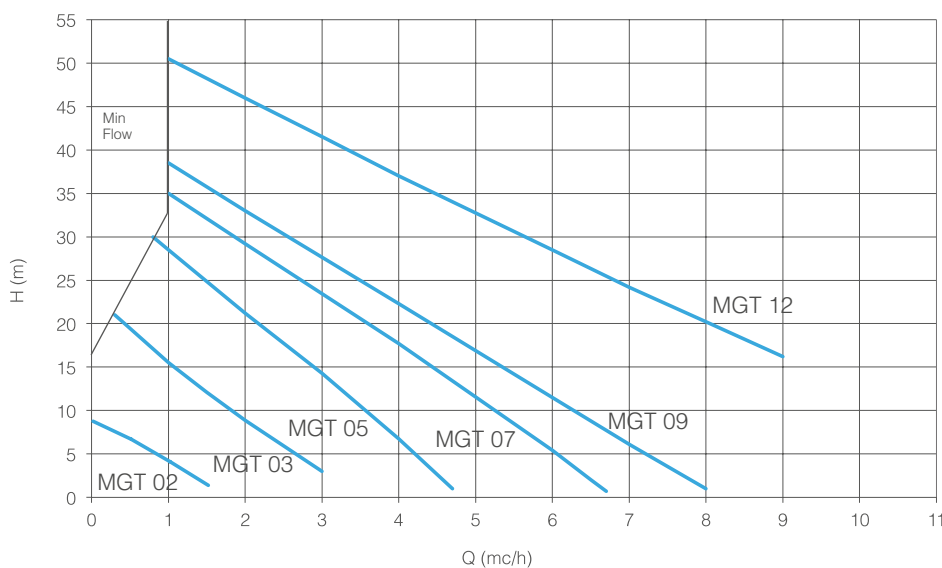
Optional:

- DIN or ANSI 150 flanges available.
- Baseplate.
- Dry-running protection.

Main Features

- Materials available: PP / PVDF
- Plastic injection moulded.
- Materials in contact with the liquid:
Casing and rear casing: PP/PVDF; Impeller: PVDF;
O-ring: EPDM (standard for PP pumps);
Viton (standard for PVDF pumps);
Shaft: Al_2O_3 99,7%;
Bearing: PTFEC.
- Max flow: 9 m³/h; Max head 50 mlc.
- Temperature: PP: max 70° C - PVDF: max 90° C.
- Max viscosity: 40 cPs.
- Pressure rating: NP 6.
- It handles up to 20% entrained gas.
- MGT pump resists cavitation.

Performance Curves 50 Hz – 2900 RPM



THERMOPLASTIC MAG-DRIVE REGENERATIVE TURBINE PUMPS SELF-PRIMING



MGT-SP pumps can prime up to 5 m with water at ambient temperature. The casing is made from a PP solid machined block and the impeller in PVDF for maximum chemical resistance. The casing is machined from a solid block. The impeller in PVDF is self-balanced to eliminate thrust bearing wear and it is separate to minimize the maintenance costs. This kind of pump offers maximum resistance withstanding also external corrosion. It handles up to 20% entrained gas and resists cavitation.

Standard:

- Gas threaded in and out connections.
- Static shaft in high purity ceramic.
- Chemical resistant PTFE/carbon sleeve bearings.
- High torque magnetic coupling.
- Direct starting motor.

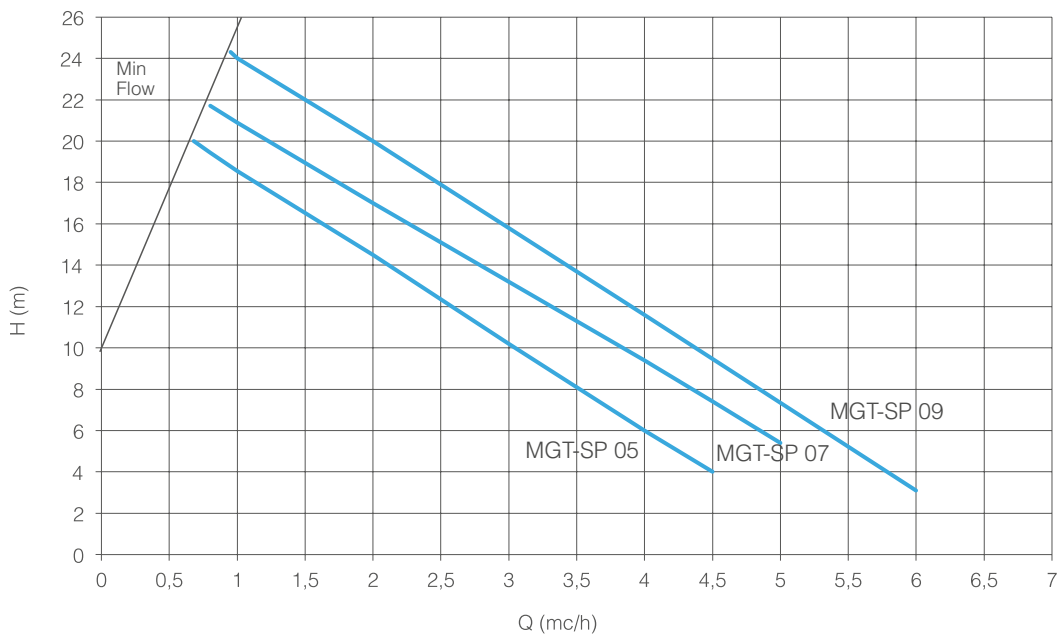
Main Features

- Max flow: 6 m³/h; max head 28 m.
- Max temperature: PP: 70° C - PVDF: 90° C.
- High torque magnetic coupling.
- Chemical resistant PTFE/carbon sleeve bearings.
- Static shaft in high purity ceramic.
- Direct starting motor.

Optional:

- ANSI 150 flanges available.
- Baseplate.

Performance Curves 50 Hz – 2900 RPM



METALLIC MAG-DRIVE REGENERATIVE TURBINE PUMPS



Standard:

- Static shaft in HC 276.
- Chemical resistant PTFE/Carbon sleeve bearings standard.
- High torque magnetic coupling.
- Direct starting motors.

Optional:

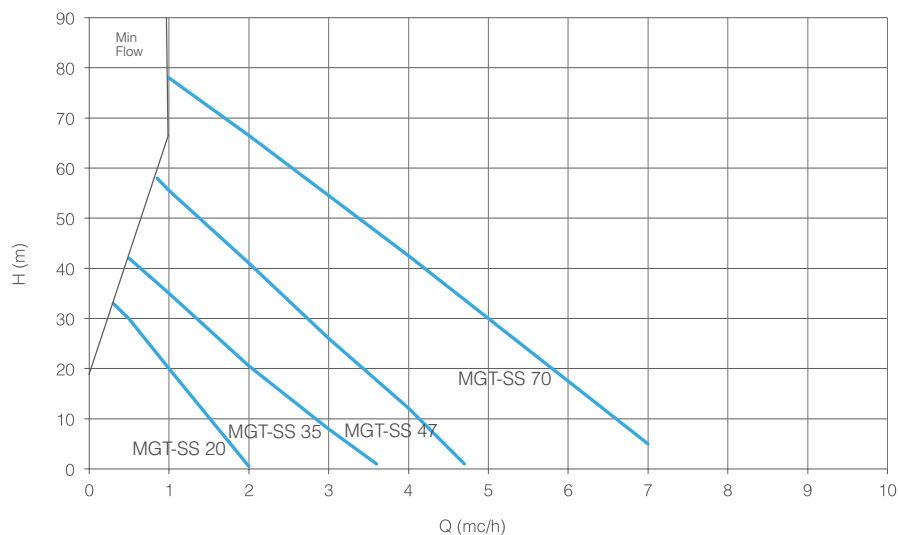
- ANSI 300 flanges available.
- ATEX version.
- Explosion proof motor.
- Dry-running protection.
- Baseplate.

Main Features

Mag drive regenerative turbine pumps series MGT-SS are made of AISI 316 or, if requested, of other metallic materials (HASTELLOY or TITANIUM) and are suitable for solvents, hydrocarbons, dangerous and inflammable liquids. Thanks to the innovative mag drive system, pumps model MGT-SS reduce the risks of leakage and emissions and maintenance costs. The transmission of the motion occurs through magnetic joints without any mechanical seal. This design guarantees the maximum hermetic safety and efficiency. The pumped liquid has to be clean and without solids in suspension. Pumps series MGT-SS are also available in ATEX version for zone 1 and 2 (pump model EM-T).

- High head / low flow capability minimizes by-pass requirements.
- Materials available: AISI 316;
- Materials in contact with the liquid:
Casing and impeller: stainless steel AISI 316;
O-ring EPDM/VITON;
Bushing: PTFEC; shaft: Hastelloy C276.
- Max flow 7 m³/h; max head 80 mlc.
- Max Temperature: 160° C.
- Pressure Rating NP 25 at 20° C.
- Impeller design handles up to 20% entrained gas.
- Ideal for pumping liquefied gas.

Performance Curves 50 Hz – 2900 RPM



SEAL-LESS MAG DRIVE VANE PUMPS

In seal-less magnetic drive vane pumps, the external magnet is directly connected to the motor shaft and it transmits the torque to the internal magnet. The magnetic field created produces a rotation without physical contact between the parts and the rotor spins. The vanes inside the rotor slide in and out of their seat and they move the fluid. The rear casing is placed between the two magnet joints and it hermetically closes the hydraulic part from the motor.

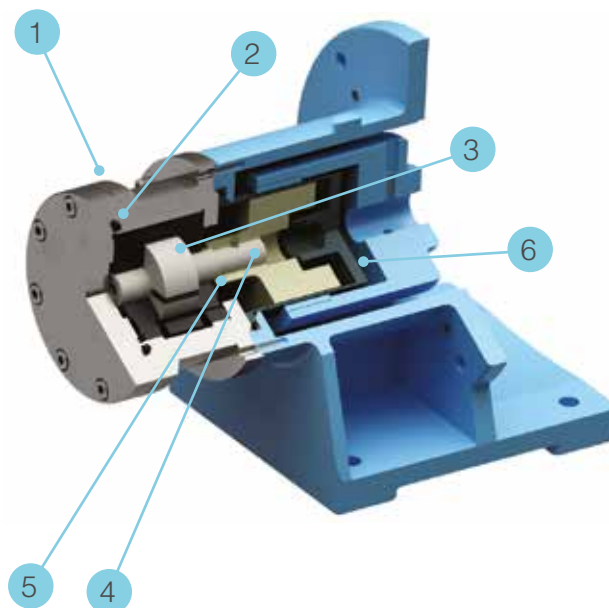
Mangeto can supply two different models of volumetric pumps:

MGP

- Thermoplastic pumps made in PP or PVDF
- Capacity up to 1000L/h.
- Pressure up to 5 bar.

MGP-S

- Metallic pumps made in stainless steel AISI316.
- Capacity up to 2100L/h.
- Pressure up to: 13 bar.
- Dry self-priming.



| MATERIALS IN CONTACT WITH THE LIQUID | | |
|--------------------------------------|--------------------|-----------------|
| Part Number / Description | Vane Pumps | |
| | MGT | MGT-SP |
| 1 - Pump Body + Cover | PP or PVDF | AISI 316 |
| 2 - O-Ring | EPDM or Viton | EPDM or Viton |
| 3 - Flanges Stator Vanes + Pins | PVDF+ Grafit | Graphite |
| 4 - Rotor Shaft | PVDF | AISI 316 |
| 5 - Internal Magnet | PP or PVDF + NdFeB | AISI 316 + SmCo |
| 6 - Rear Casing | PP or PVDF | AISI 316 |

THERMOPLASTIC MAG-DRIVE ROTARY VANE PUMPS



System Pressure:

- 8 bar.

Standard:

- High torque magnetic coupling.
- Direct starting motor.

Optional:

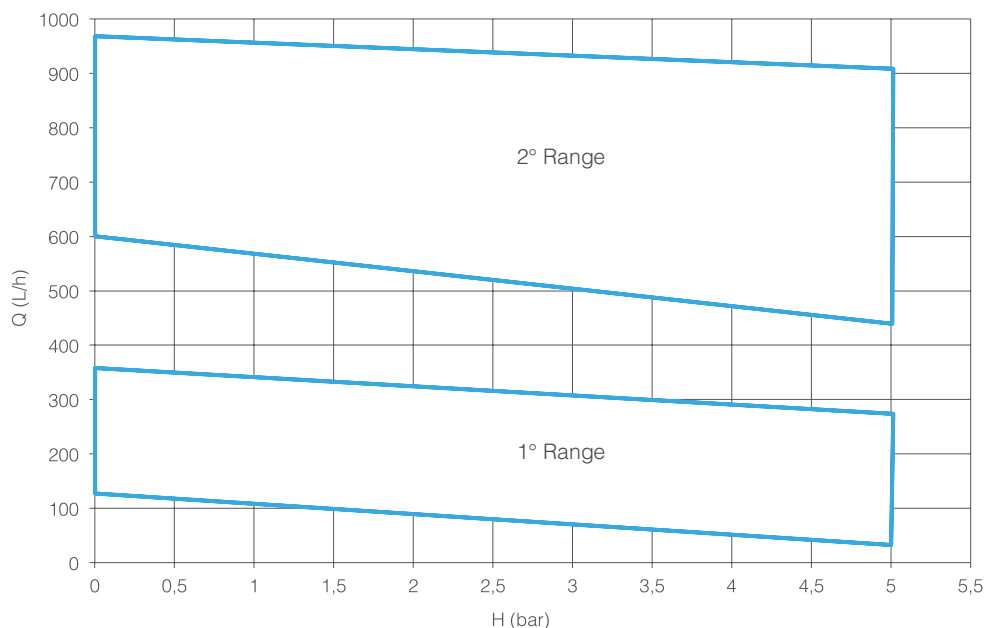
- Flanges available.
- Dry-running protection.
- Baseplate.

Main Features

Mag drive rotary vane pumps series HPP-HPF are made of thermoplastic materials (PP/PVDF) and are suitable for corrosive liquids, alkalis, toxic, noxious and carcinogenic fluids. Thanks to the innovative mag drive system, pumps model HPP-HPF reduce the risks of leakage and the maintenance costs. HPP-HPF pumps are useful for low flow and high head applications such as Pilot Plants and Sampling.

- PP, PVDF
- Materials in contact with the liquid:
Casing, end cover, internal magnet and rear casing: PP/PVDF;
O-ring: EPDM (standard for PP pumps);
VITON (standard for PVDF pumps).
- Graphite Stator.
- Rotor shaft: PVDF
- Max flow: 1000L/h.
- Max pressure: 5 bar.
- Temperature: PP: max 70° C - PVDF: max 90° C.

Performance Curves 50 Hz – 1450 RPM



METALLIC ROTARY VANE MAG-DRIVE PUMPS DRY SELF-PRIMING



Main Features

Rotary vane mag drive pumps series HTP are made of AISI 316 or, if requested, of other metallic materials (Titanium and Hastelloy) and are suitable for hydrocarbons, solvents, heat transfer oils, refrigerants, cryogenics and radioactive liquids. Thanks to the innovative mag drive system, pumps model HTP reduce the risks of leakage and emissions and the maintenance costs. HTP pumps are useful for low flow and high head applications such as Pilot Plants, Sampling and Flushing of mechanical seals. Especially designed for thin non-lubricating liquids and/or high differential pressure. Pumps series HTP are also available in ATEX version for zone 1 and 2 (pump model EM-P).

Standard:

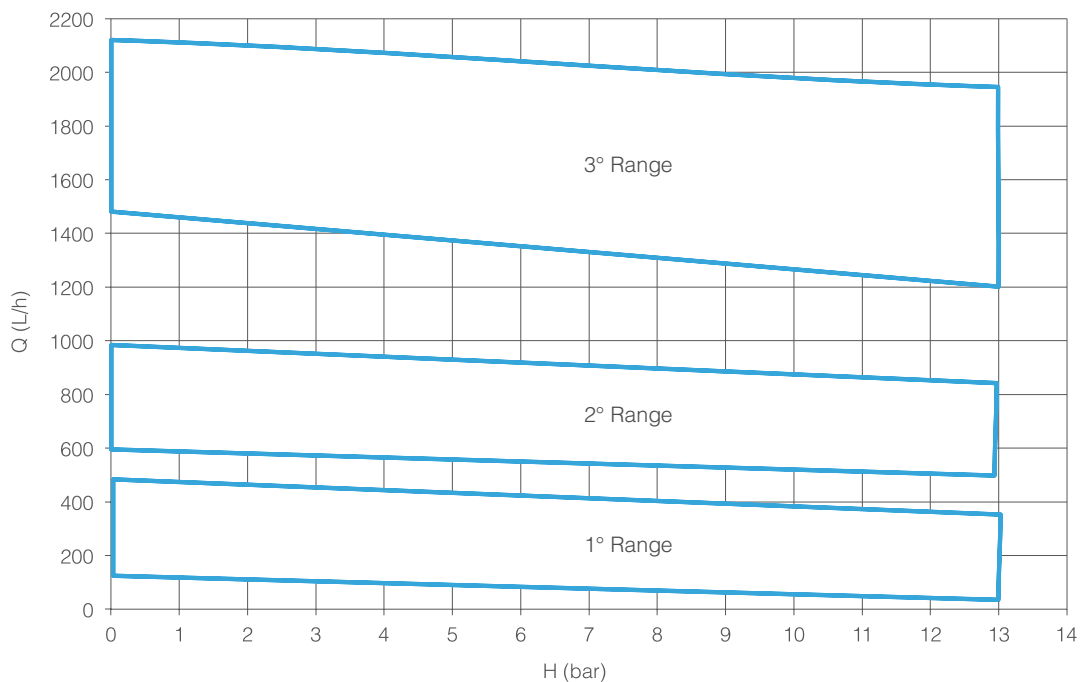
- High torque magnetic coupling.
- Direct starting motor.

Optional:

- Flanges available.
- Dry-running protection.
- Baseplate.
- Atex version (Pump mode. EM-P).
- Explosion proof motor.

- Materials available: AISI 316.
- Materials in contact with the liquid:
Pump body, end cover and rotor: AISI 316;
O-ring: EPDM/VITON; carbon graphite stator.
- Max flow: 2100L/h.
- Max pressure: 13 bar.
- Temperature range: from - 70 °C to + 200 °C.
- Max viscosity: 2000 cPs.
- System Pressure: 25 bar.

Performance Curves 50 Hz – 1450 RPM



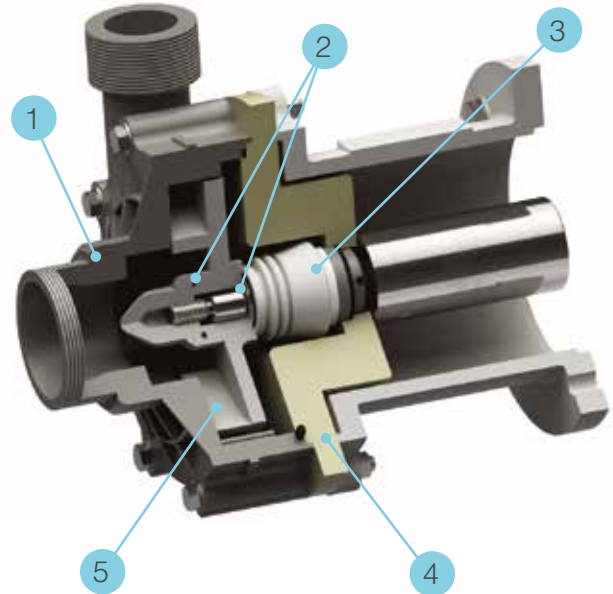
MECHANICAL SEAL CENTRIFUGAL PUMPS

Mechanical seal centrifugal pumps are the right solution for applications involving solids in the liquid because their design with open impeller allows to pump dirty liquids and fluids with high viscosity. The seal in mechanical seal pumps is composed by a static ring and a rotating ring placed on the pump shaft which is directly coupled to the motor shaft. The two surfaces sliding together need to be lubricated and the seal lubricant is the liquid itself that is being pumped.

Mangeto can supply the following model of mechanical seal pump:

MS

- Thermoplastic pumps made in PP or PVDF
- Capacity up to 58 m³/h.
- Head up to 38 m.
- Two different kind of mechanical seal available: lip seal for model MS 95-10, internal PTFE bellow mechanical seal for all the other pump sizes.



| MATERIALS IN CONTACT WITH THE LIQUID | |
|--------------------------------------|---------------------------------------|
| Part Number / Description | Mechanical Seal Pumps |
| | MS |
| 1 - Pump Head | PP or PVDF |
| 2 - O-Ring | EPDM or Viton |
| 3 - Mechanical Seal | PTFE + Al ₂ O ₃ |
| 4 - Cover | PP or PVDF |
| 5 - Impeller and Impeller Nut | PP or PVDF + NdFeB |

MECHANICAL SEAL CENTRIFUGAL PUMPS



Main Features

Centrifugal pumps series MS with mechanical seal are made of thermoplastic materials (Polypropylene and PVDF) and are suitable for high corrosive liquids containing solids in suspension. The seal of pumps MS size 95-10 is guaranteed by a special elastomeric lip seal, while all the other pump sizes (from size 110 to 170) are equipped with an internal PTFE bellows mechanical seal (sic/ceramic), which is manufactured by Ekin Endüstriyel.

- Materials available: PP / PVDF
- Flow up to 60 m³/h; Head up to 38 m.
- Temperature: PP: max 70 °C - PVDF: max 90 °C.
- Max viscosity: 200 cSt.
- Pressure rating: NP 6 at 20 °C.
- Lip seal for pumps size 95-10; internal PTFE bellows mechanical seal for all the other sizes.
- Suitable for high corrosive liquids containing solids in suspension.

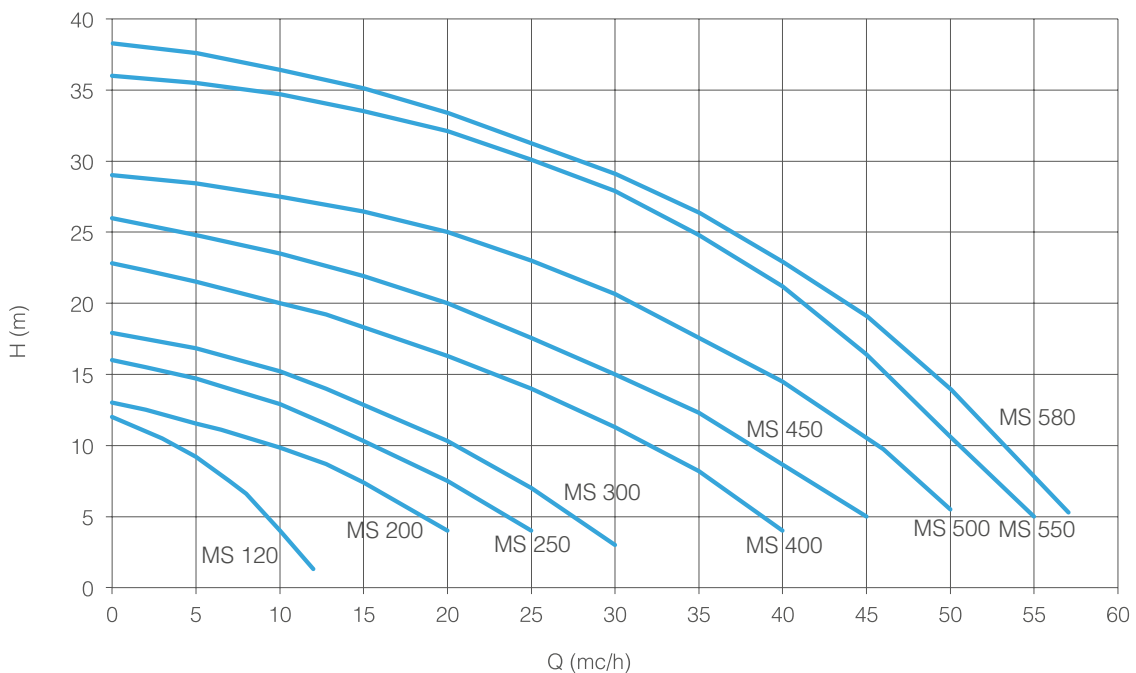
Standard:

- Gas threaded in and out connections.
- Direct starting motor

Optional:

- Flanges available.
- Dry-running protection.
- Baseplate.

Performance Curves 50 Hz – 2900 RPM



VERTICAL CENTRIFUGAL PUMPS

Vertical centrifugal pumps are suitable for installations with pump immersed directly in the tank. Mangeto can supply the following models of vertical pumps:

VS

- Thermoplastic pumps made in PP or PVDF.
- Capacity up to 40 m³/h.
- Head up to 22 mlc.
- Monobloc pump with semi open-impeller.
- Suitable for high corrosive liquids with solids in suspension.
- Maximum length 1000 mm.

VSXL

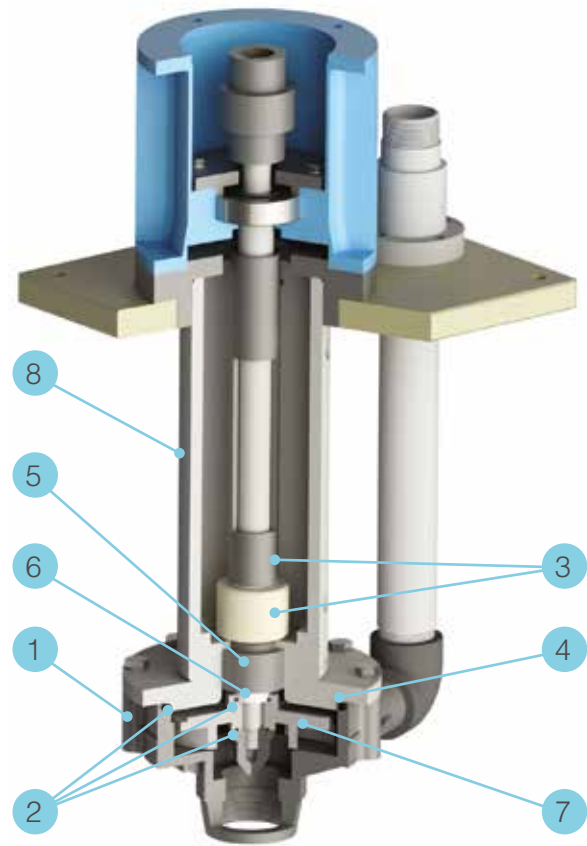
- Thermoplastic pumps made in PP or PVDF.
- Capacity up to 57 m³/h.
- Head up to 39 mlc.
- Centrifugal pump with coupling and semi open-impeller.
- Suitable for high corrosive liquids with solids in suspension.
- Maximum column length 2000 mm.

MG-V

- Vertical magnetic drive pumps.
- Thermoplastic pumps made in PP or PVDF.
- Capacity up to 23 m³/h.
- Head up to 20 mlc.
- Column length: 320 mm.

VS-SS

- Vertical centrifugal cantilever pumps.
- Made in AISI316.
- Capacity up to 24 m³/h.
- Head up to 26 mlc.
- Especially designed for the production of PCBs.



MATERIALS IN CONTACT WITH THE LIQUID

| Part Number / Description | Vertical Pumps | |
|---------------------------|--------------------------------|--------------------------------|
| | VS | VSXL |
| 1 - Pump Head | PP or PVDF | PP or PVDF |
| 2 - O-Ring | EPDM or Viton | EPDM or Viton |
| 3 - Shaft Covering | PP | PP |
| 4 - Cover | PP or PVDF | PP or PVDF |
| 5 - Bushing | PTFEC | PTFEC |
| 6 - Wear Bushing | Al ₂ O ₃ | Al ₂ O ₃ |
| 7 - Impeller | PP or PVDF | PP or PVDF |
| 8 - Column | PP or PVDF | PP or PVDF |

VERTICAL CENTRIFUGAL PUMPS



- Centrifugal monoblock pump.
- Materials available: PP, PVDF.
- Max flow: 40 m³/h;
- Max head: 22 m.
- Temperature: PP: max 70 °C; PVDF: max 90 °C.
- Suitable for high corrosive liquids containing solids in suspension.
- Length of the column: from 500 to 1000 mm.

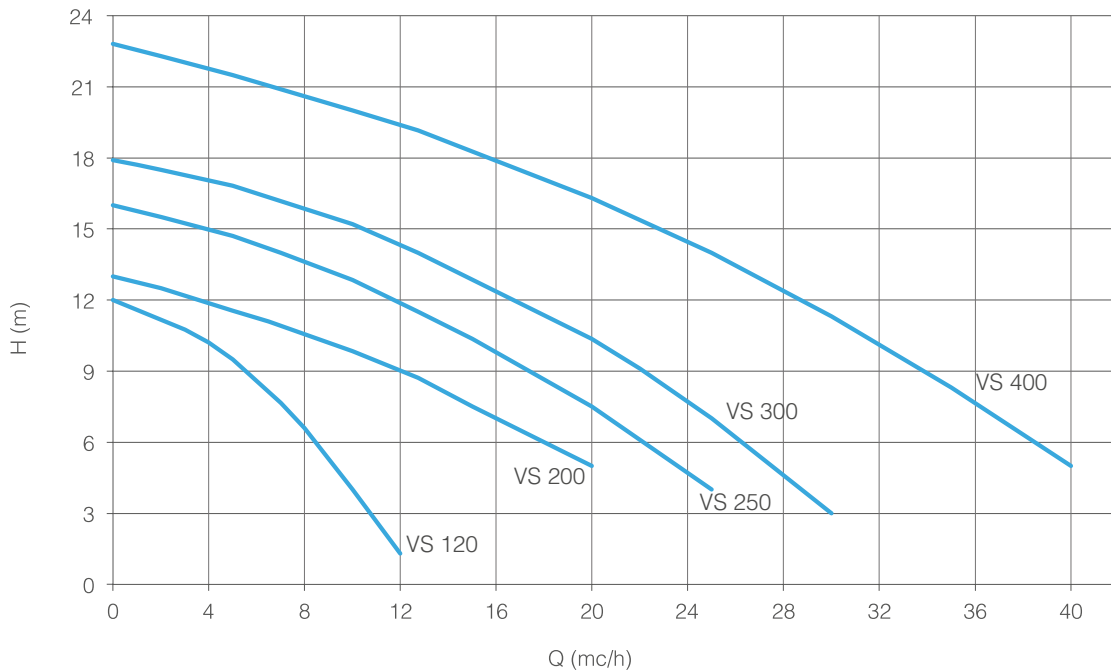
Standard:

- Threaded in and out connections.

Optional:

- Dry-running protection.
- Flanges available.
- Suction strainer.

Performance Curves 50 Hz – 2900 RPM



VERTICAL CENTRIFUGAL PUMPS



- Centrifugal pump with coupling.
- Materials available: PP, PVDF
- Max flow: 57 m³/h; Max head: 39 mlc.
- Temperature: PP: max 70 °C;
PVDF: max 90 °C.
- Suitable for high corrosive liquids containing solids in suspension.
- Length of the column: from 500 to 2000 mm.

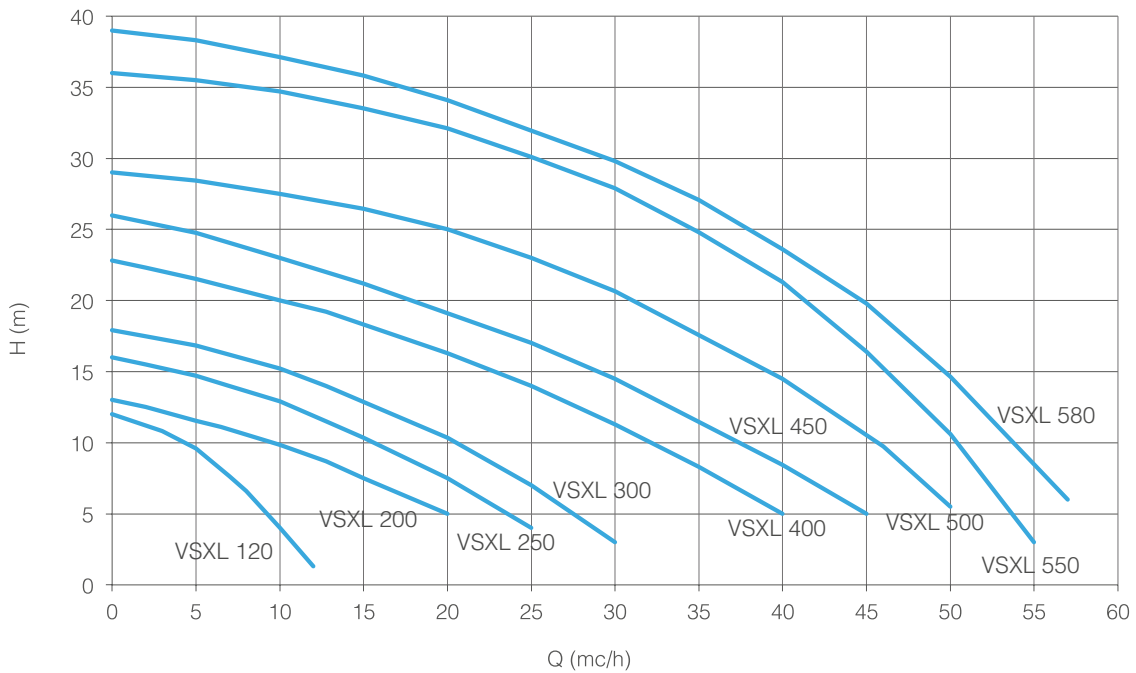
Standard:

- Threaded in and out connections.

Optional:

- Dry-running protection.
- Flanges available.
- Suction strainer.

Performance Curves 50 Hz – 2900 RPM



VERTICAL MAG DRIVE CENTRIFUGAL PUMPS



Main Features

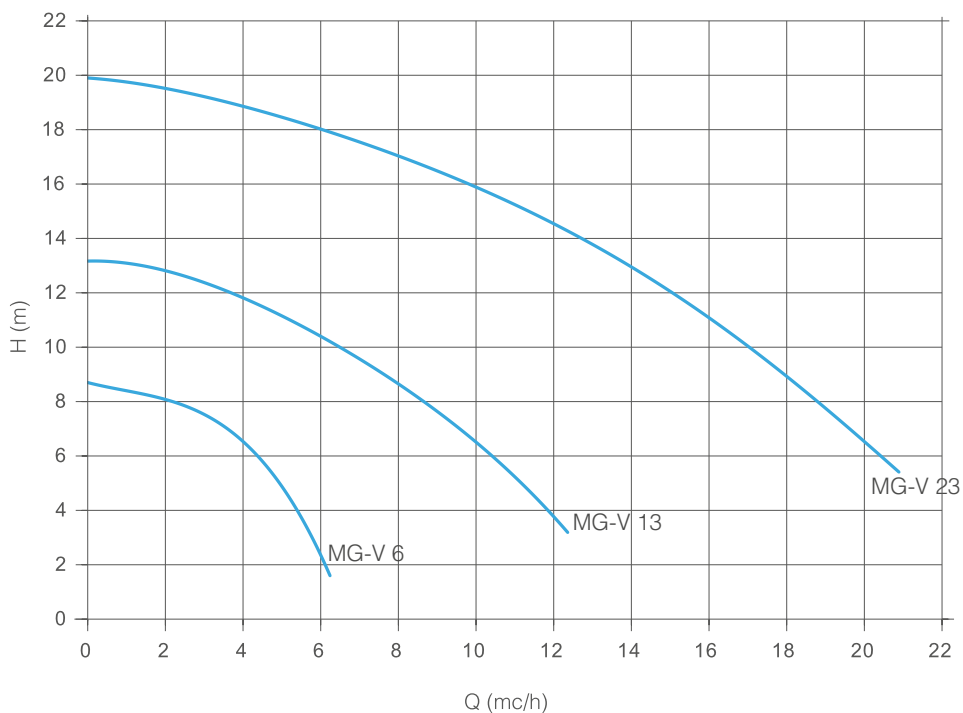
Vertical mag drive centrifugal pumps series MG-V are made of thermoplastic materials (Polypropylene and PVDF) and are suitable to handle chemicals and corrosive liquids. This kind of pump has been designed for a vertical submerged installation, providing high reliability for intank and sump applications. MG-V are seal-less magnetic drive pumps without any kind of labyrinth or mechanical seal. The column of the pump is hermetically sealed and it allows complete isolation of the motor, the extension shaft and external magnet of the pump from the process liquid.

- Materials available: PP /PVDF
- Materials in contact with the liquid:
 - Casing and impeller: PP/PVDF;
 - O-Ring: EPDM (standard for PP pumps);
 - VITON (standard for PVDF pumps);
 - Shaft: Al₂O₃ 99,7%;
 - Bushing: PTFEC.
- Max flow: 22 m³/h.
- Max head 20 m.
- Temperature: PP: max 70 °C
PVDF: max 90 °C.
- Compact design.
- Column length: 320 mm.

Optional:

- Dry running protection.
- Also available with bracket suitable for NEMA motors.

Performance Curves 50 Hz – 2900 RPM



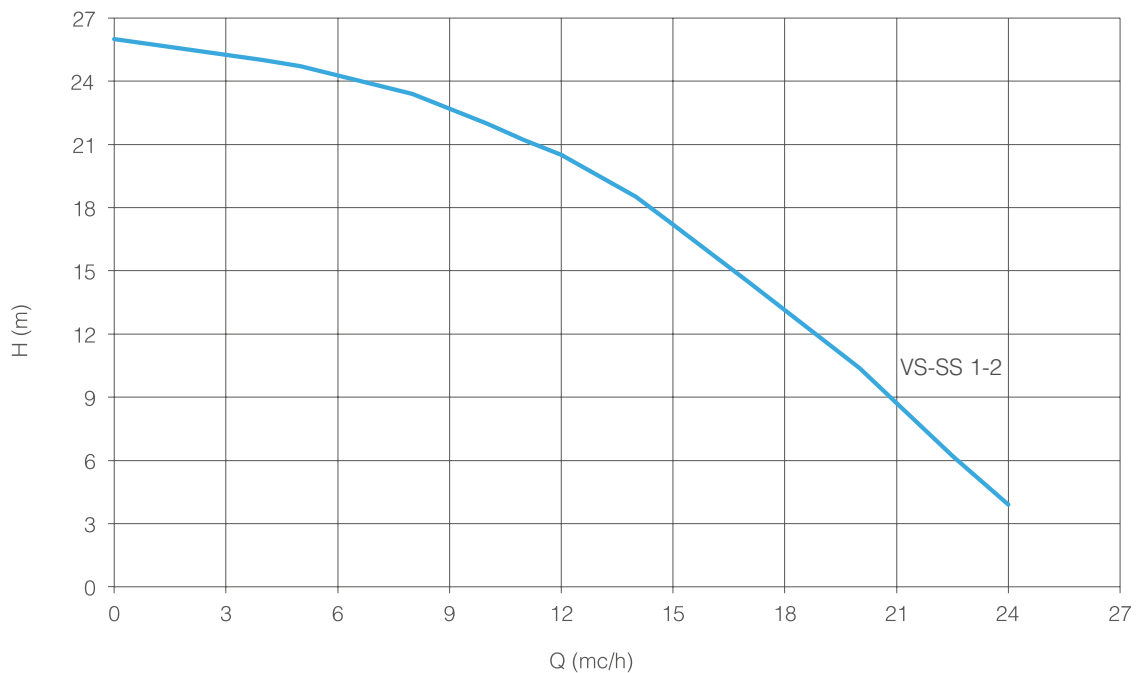
CENTRIFUGAL VERTICAL CANTILEVER PUMPS



Features

- Materials available: AISI 316 or Titanium.
- Max flow: 24 m³/h.
- Max head: 26 m.
- Fume labyrinth seal. A combined system of labyrinth, rings and PTFE lip seal guarantees tightness against gas and vapours.
- Impeller with low axial thrust.
- Suitable for corrosive liquids containing solids.
- Especially designed for use in the production of printed circuit boards (PCB). AISI 316 version is suitable for potassium permanganate applications at 90 °C.
- Titanium version is suitable for "Black Oxide".
- Two different types available: VS-SS 1 for tank transfer and VS-SS 2 used as a boosting pump. VS-SS 2 model should be installed in the same tank where VS-SS 1. This provides a tight system which prevents any leaks.

Performance Curves 50 Hz – 2900 RPM



ATEX PUMPS

For pumping applications in potentially explosive atmospheres Mangeto offers ATEX certified pumps suitable for zone 1 II 2G c Tx and zone 2 II 3G c Tx.

All our Atex pumps comply with the technical and safety requirements of ATEX directive 2014/34/EU.

The Atex Pumps Available

Only for ATEX zone 2.
(See pumps model MG PP/PVDF, MGT and MGP)

For Atex zone 1 and 2.
(See pump model MG SS316)



For Atex zone 1 and 2.
(See pump model MGT-SS)

For Atex zone 1 and 2.
(See pump model MGP-S)



ACCESSORIES

Dry-Running Protection

The installation of W 01 Emirel prevents expensive damage to pumps because it avoids the dryrunning working, the closed discharge and the blocked suction. We recommend the use of this instrument to unload tank truck or every other application when it's not certain if the liquid is constantly present in the pipes. This device checks constantly the active power of the motor, that is the medium value of the instantaneous power absorbed by the pump, through the reception of information about the voltage and about the voltage variations. Through a set point and a timer, which are adjustable, it's possible to set the minimum power and the triggering time of the device.

If the power goes under the established value, the pump stops and the device must be switched on again manually.

In case of continuous intervention on the apparatus, check the presence of liquid and/or the correct functioning of the plant to find the cause of working of the device.



Flanges



Mangeto pumps are usually supplied with threaded connections. Upon request we can also supply DIN or ANSI flanges for thermoplastic pumps (flat stub + free flange) and welded DIN or ANSI flanges for AISI316 pumps.





**AIROO
ROOTS
BLOWERS**

HG SERIES BLOWER

HG series blower is a positive displacement type of machine used to convey air and gas and is widely used in almost every industry, we has earned a high reputation in pressure and vacuum area by HG series three lobe roots blower for it's high efficiency and energy saving.

With a broad capacity range up to 10,000 m³/hr and pressure range up to 1 bar for pressure performance and capacimby range up to 10,000 m³/hr and vacuum range up to -500 mbar for vacuum performance, easy handling and quieter operation, HG series blower has been used for delivering air for sewage water treatment plant, shrimp aquaculture plant, cement plant, power plant, metallurgy, mining plant, sugar plant, pneumatic conveying system, and delivering gas for biogas power plant, landfili gas (LFG) power plant, gas extraction plants, oil and gas refinery plant, steel plant, foundry plant, metallurgical plant, chemical Plant etc.



HG Three Lobe Roots Blower Pressure Performance Table

Qs: Inlet Air Flow Rate (m³/min)

La: Bar Power (kW)

Po : Motor Power (kW)

| Model | RPM | 100 mBar | | | 200 mBar | | | 300 mBar | | | 400 mBar | | | 500 mBar | | | 600 mBar | | | 700 mBar | | | 800 mBar | | | 900 mBar | | | 1000 mBar | | | Motor Pole |
|--------|------|----------|-----|------|----------|-----|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|-----------|------|------|------------|
| | | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | |
| HG-50 | 1450 | 1.12 | 0.7 | 1.1 | 0.88 | 1.0 | 1.5 | 0.75 | 1.2 | 1.5 | 0.63 | 1.5 | 2.2 | 0.5 | 1.8 | 2.2 | | | | | | | | | | | | | | | 4 | |
| | 2000 | 1.76 | 1.0 | 1.5 | 1.42 | 1.4 | 2.2 | 1.33 | 1.7 | 2.2 | 1.23 | 2.1 | 3 | 1.19 | 2.5 | 3 | 1.00 | 2.9 | 4 | | | | | | | | | | | | 4 | |
| | 2500 | 2.34 | 1.2 | 1.5 | 2 | 1.7 | 2.2 | 1.82 | 2.1 | 3 | 1.72 | 2.6 | 4 | 1.6 | 3.1 | 4 | 1.54 | 3.6 | 5.5 | 1.43 | 4 | 5.5 | 1.38 | 4.5 | 5.5 | | | | | | 2 | |
| | 3000 | 2.93 | 1.4 | 2.2 | 2.59 | 1.9 | 3 | 2.41 | 2.5 | 3 | 2.21 | 3.1 | 4 | 2.06 | 3.7 | 5.5 | 1.93 | 4.2 | 5.5 | 1.88 | 4.8 | 7.5 | 1.8 | 5.4 | 7.5 | 1.7 | 6 | 7.5 | | | 2 | |
| | 3500 | 3.51 | 1.6 | 2.2 | 3.17 | 2.2 | 3 | 2.99 | 2.9 | 4 | 2.79 | 3.6 | 5.5 | 2.64 | 4.2 | 5.5 | 2.51 | 4.9 | 7.5 | 2.38 | 5.6 | 7.5 | 2.25 | 6.2 | 7.5 | 2.18 | 6.9 | 11 | 2.1 | 7.6 | 11 | 2 |
| | 4000 | 4.1 | 1.8 | 2.2 | 3.76 | 2.5 | 3 | 3.58 | 3.3 | 4 | 3.38 | 4.1 | 5.5 | 3.23 | 4.8 | 7.5 | 3.1 | 5.6 | 7.5 | 2.96 | 6.3 | 7.5 | 2.84 | 7.1 | 11 | 2.77 | 7.9 | 11 | 2.7 | 8.6 | 11 | 2 |
| | 4500 | 4.68 | 2 | 3 | 4.34 | 2.8 | 4 | 4.16 | 3.7 | 5.5 | 3.95 | 4.5 | 5.5 | 3.81 | 5.4 | 7.5 | 3.68 | 6.3 | 7.5 | 3.53 | 7.1 | 11 | 3.42 | 8 | 11 | 3.35 | 8.8 | 11 | 3.29 | 9.7 | 15 | 2 |
| HG-65 | 2000 | 2.98 | 1.4 | 2.2 | 2.46 | 2.1 | 3 | 2.13 | 2.7 | 4 | 1.78 | 3.4 | 4 | 1.53 | 4.0 | 5.5 | 1.33 | 4.6 | 5.5 | | | | | | | | | | | | 4 | |
| | 2500 | 3.97 | 1.8 | 2.2 | 3.45 | 2.6 | 3 | 3.12 | 3.4 | 4 | 2.77 | 4.2 | 5.5 | 2.52 | 5.0 | 7.5 | 2.32 | 5.8 | 7.5 | | | | | | | | | | | | 2 | |
| | 3000 | 4.95 | 2.2 | 3 | 4.43 | 3.1 | 4 | 4.1 | 4.1 | 5.5 | 3.75 | 5.1 | 7.5 | 3.5 | 6 | 7.5 | 3.3 | 7 | 11 | 3.14 | 8 | 11 | 3 | 8.9 | 11 | 2.89 | 9.9 | 15 | 2.82 | 10.8 | 15 | 2 |
| | 3500 | 5.93 | 2.5 | 3 | 5.41 | 3.7 | 5.5 | 5.08 | 4.8 | 7.5 | 4.73 | 5.9 | 7.5 | 4.48 | 7 | 11 | 4.28 | 8.1 | 11 | 4.12 | 9.3 | 11 | 3.98 | 10.4 | 15 | 3.87 | 11.5 | 15 | 3.8 | 12.6 | 15 | 2 |
| | 4000 | 6.91 | 2.9 | 4 | 6.39 | 4.2 | 5.5 | 6.06 | 5.5 | 7.5 | 5.71 | 6.7 | 11 | 5.46 | 8 | 11 | 5.26 | 9.3 | 11 | 5.1 | 10.6 | 15 | 4.96 | 11.9 | 15 | 4.85 | 13.1 | 18.5 | 4.78 | 14.4 | 18.5 | 2 |
| 4500 | 7.89 | 3.2 | 4 | 7.73 | 4.7 | 5.5 | 7.04 | 6.1 | 7.5 | 6.69 | 7.6 | 11 | 6.44 | 9 | 11 | 6.24 | 10.5 | 15 | 6.08 | 11.9 | 15 | 5.94 | 13.3 | 18.5 | 5.83 | 14.8 | 18.5 | 5.76 | 16.2 | 22 | 2 | |
| HG-80 | 2000 | 6.01 | 2.3 | 3 | 5.51 | 3.5 | 5.5 | 5.17 | 4.7 | 5.5 | 4.88 | 5.9 | 7.5 | 4.65 | 7.0 | 11 | 4.46 | 8.2 | 11 | | | | | | | | | | | | 4 | |
| | 2300 | 7.12 | 2.7 | 4 | 6.63 | 4.0 | 5.5 | 6.29 | 5.4 | 7.5 | 6.01 | 6.8 | 11 | 5.78 | 8.1 | 11 | 5.59 | 9.5 | 11 | | | | | | | | | | | | 2 | |
| | 2500 | 7.86 | 2.9 | 4 | 7.38 | 4.4 | 5.5 | 7.05 | 5.9 | 7.5 | 6.76 | 7.3 | 11 | 6.53 | 8.8 | 11 | 6.34 | 10.3 | 15 | 6.18 | 11.8 | 15 | 6.04 | 13.3 | 18.5 | 5.93 | 14.8 | 18.5 | 5.83 | 16.3 | 22 | 2 |
| | 2800 | 8.98 | 3.3 | 4 | 8.5 | 4.9 | 7.5 | 8.17 | 6.6 | 11 | 7.89 | 8.2 | 11 | 7.67 | 9.9 | 15 | 7.48 | 11.5 | 15 | 7.31 | 13.2 | 18.5 | 7.18 | 14.8 | 18.5 | 7.06 | 16.5 | 22 | 6.95 | 18.1 | 22 | 2 |
| | 3000 | 9.72 | 3.6 | 5.5 | 9.25 | 5.4 | 7.5 | 8.92 | 7.1 | 11 | 8.64 | 8.9 | 11 | 8.42 | 10.7 | 15 | 8.23 | 12.5 | 15 | 8.07 | 14.3 | 18.5 | 7.93 | 16 | 18.5 | 7.81 | 17.8 | 22 | 7.71 | 19.6 | 30 | 2 |
| | 3300 | 10.8 | 4 | 5.5 | 10.4 | 5.9 | 7.5 | 10.1 | 7.9 | 11 | 9.77 | 9.8 | 15 | 9.55 | 11.8 | 15 | 9.36 | 13.8 | 18.5 | 9.2 | 15.7 | 18.5 | 9.06 | 17.7 | 22 | 8.94 | 19.6 | 30 | 8.83 | 21.6 | 30 | 2 |
| | 3500 | 11.5 | 4.2 | 5.5 | 11.1 | 6.3 | 7.5 | 10.8 | 8.3 | 11 | 10.5 | 10.4 | 15 | 10.3 | 12.5 | 15 | 10.1 | 14.6 | 18.5 | 9.95 | 16.6 | 22 | 9.81 | 18.7 | 22 | 9.69 | 20.8 | 30 | 9.59 | 22.9 | 30 | 2 |
| 3800 | 12.7 | 4.6 | 5.5 | 12.2 | 6.8 | 11 | 11.8 | 9.1 | 11 | 11.6 | 11.3 | 15 | 11.4 | 13.6 | 18.5 | 11.2 | 15.8 | 18.5 | 11.1 | 18.1 | 22 | 10.9 | 20.3 | 30 | 10.8 | 22.6 | 30 | 10.7 | 24.8 | 30 | 2 | |
| HG-100 | 2000 | 9.13 | 3.2 | 4 | 8.43 | 5.0 | 7.5 | 7.93 | 6.7 | 11 | 7.51 | 8.5 | 11 | 7.17 | 10.3 | 15 | 6.88 | 12.1 | 15 | | | | | | | | | | | | 4 | |
| | 2300 | 10.8 | 3.7 | 5.5 | 10.1 | 5.8 | 7.5 | 9.62 | 7.8 | 11 | 9.21 | 9.9 | 15 | 8.87 | 11.9 | 15 | 8.59 | 14.0 | 18.5 | | | | | | | | | | | | 2 | |
| | 2500 | 11.9 | 4.1 | 5.5 | 11.2 | 6.3 | 7.5 | 10.8 | 8.6 | 11 | 10.3 | 10.8 | 15 | 10 | 13 | 15 | 9.73 | 15.2 | 18.5 | 9.48 | 17.5 | 22 | 9.26 | 19.7 | 30 | 9.08 | 21.9 | 30 | 8.91 | 24.1 | 30 | 2 |
| | 2800 | 13.6 | 4.7 | 5.5 | 12.9 | 7.2 | 11 | 12.5 | 9.7 | 15 | 12 | 12.2 | 15 | 11.7 | 14.7 | 18.5 | 11.4 | 17.2 | 22 | 11.2 | 19.7 | 30 | 11 | 22.2 | 30 | 10.8 | 24.7 | 30 | 10.6 | 27.2 | 37 | 2 |
| | 3000 | 14.7 | 5.1 | 7.5 | 14.1 | 7.8 | 11 | 13.7 | 10.4 | 15 | 13.2 | 13.1 | 18.5 | 12.8 | 15.8 | 18.5 | 12.6 | 18.5 | 22 | 12.3 | 21.2 | 30 | 12.1 | 23.8 | 30 | 11.9 | 26.5 | 37 | 11.7 | 29.2 | 37 | 2 |
| | 3300 | 16.4 | 5.5 | 7.5 | 15.7 | 8.5 | 11 | 15.4 | 11.4 | 15 | 14.9 | 14.4 | 18.5 | 14.6 | 17.3 | 22 | 14.3 | 20.2 | 30 | 14 | 23.2 | 30 | 13.8 | 26.1 | 30 | 13.6 | 29.1 | 37 | 13.5 | 32 | 37 | 2 |
| | 3500 | 17.5 | 5.8 | 7.5 | 16.9 | 8.9 | 11 | 16.5 | 12.1 | 15 | 16 | 15.2 | 18.5 | 15.7 | 18.3 | 22 | 15.4 | 21.4 | 30 | 15.2 | 24.5 | 30 | 14.9 | 27.7 | 37 | 14.8 | 30.8 | 37 | 14.6 | 33.9 | 45 | 2 |
| 3800 | 19.2 | 6.3 | 7.5 | 18.5 | 9.7 | 15 | 18.2 | 13 | 15 | 17.7 | 16.4 | 22 | 17.4 | 19.8 | 30 | 17.1 | 23.2 | 30 | 16.9 | 26.6 | 37 | 16.7 | 30 | 37 | 16.5 | 33.3 | 45 | 16.3 | 36.7 | 45 | 2 | |

| Model | RPM | 100 mBar | | | 200 mBar | | | 300 mBar | | | 400 mBar | | | 500 mBar | | | 600 mBar | | | 700 mBar | | | 800 mBar | | | 900 mBar | | | 1000 mBar | | | Motor Pole |
|--------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|------|----------|------|-----|----------|------|-----|----------|------|-----|----------|------|-----|-----------|------|-----|------------|
| | | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | | | | |
| HG-125 | 1450 | 13.4 | 4.1 | 5.5 | 12.5 | 7.0 | 11 | 11.9 | 9.7 | 15 | 11.3 | 12.4 | 15 | 10.9 | 14.5 | 18.5 | 10.6 | 17.7 | 22 | | | | | | | | | | | | 4 | |
| | 1750 | 16.7 | 4.9 | 7.5 | 15.8 | 8.1 | 11 | 15.3 | 11.3 | 15 | 14.7 | 14.5 | 18.5 | 14.3 | 17.6 | 22 | 13.9 | 20.8 | 30 | | | | | | | | | | | | 4 | |
| | 2000 | 19.5 | 5.6 | 7.5 | 18.6 | 9.2 | 11 | 18 | 12.9 | 15 | 17.5 | 16.5 | 22 | 17.1 | 20.2 | 30 | 16.7 | 23.8 | 30 | 16.4 | 27.9 | 37 | 16.2 | 31.1 | 37 | 16 | 34.8 | 45 | 15.8 | 38.4 | 45 | 4 |
| | 2300 | 22.8 | 6.4 | 7.5 | 21.9 | 10.6 | 15 | 21.4 | 14.8 | 18.5 | 20.8 | 18.9 | 22 | 20.4 | 23.1 | 30 | 20 | 27.3 | 37 | 19.8 | 31.5 | 37 | 19.5 | 35.7 | 45 | 19.4 | 39.9 | 55 | 19.2 | 4.4 | 55 | 2 |
| | 2600 | 26.1 | 7.2 | 11 | 25.2 | 12 | 15 | 24.7 | 16.7 | 22 | 24.1 | 21.4 | 30 | 23.7 | 26.2 | 37 | 23.4 | 30.9 | 37 | 23.1 | 35.6 | 45 | 22.9 | 40.4 | 55 | 22.7 | 45.1 | 55 | 22.5 | 49.8 | 75 | 2 |
| | 2800 | 28.3 | 7.8 | 11 | 27.5 | 12.9 | 15 | 26.8 | 18 | 22 | 26.4 | 23.1 | 30 | 26 | 28.2 | 37 | 25.6 | 33.3 | 45 | 25.4 | 38.4 | 45 | 25.1 | 43.5 | 55 | 24.9 | 48.6 | 55 | 24.7 | 53.7 | 75 | 2 |
| HG-150 | 1450 | 21.8 | 6.3 | 7.5 | 20.5 | 10.6 | 15 | 19.6 | 14.8 | 18.5 | 18.8 | 19.0 | 22 | 18.2 | 23.2 | 30 | 17.7 | 27.4 | 37 | | | | | | | | | | | | 4 | |
| | 1750 | 27.1 | 7.5 | 11 | 25.8 | 12.6 | 15 | 24.9 | 17.7 | 22 | 24.2 | 22.7 | 30 | 23.6 | 27.8 | 37 | 23.2 | 32.9 | 45 | | | | | | | | | | | | 4 | |
| | 2000 | 31.6 | 8.5 | 11 | 30.3 | 14.3 | 18.5 | 29.4 | 20.1 | 30 | 28.7 | 25.9 | 30 | 28.2 | 31.8 | 37 | 27.7 | 37.6 | 45 | 27.3 | 43.4 | 55 | 27 | 46.7 | 55 | 26.7 | 55 | 75 | 26.5 | 60.8 | 75 | 4 |
| | 2300 | 36.9 | 9.7 | 15 | 35.7 | 16.3 | 22 | 34.9 | 23 | 30 | 34.2 | 29.7 | 37 | 33.6 | 36.4 | 45 | 33.2 | 43 | 55 | 32.8 | 49.7 | 75 | 32.5 | 56.4 | 75 | 32.2 | 63 | 75 | 32 | 69.7 | 90 | 2 |
| | 2600 | 42.3 | 10.8 | 15 | 41.1 | 18.3 | 22 | 40.4 | 25.9 | 30 | 39.6 | 33.4 | 45 | 39.1 | 40.9 | 55 | 38.6 | 48.5 | 55 | 38.2 | 56 | 75 | 37.9 | 63.5 | 75 | 37.7 | 71.1 | 90 | 37.4 | 78.6 | 90 | 2 |
| | 2800 | 45.9 | 11.6 | 15 | 44.7 | 19.7 | 30 | 43.8 | 27.8 | 37 | 43.2 | 35.9 | 45 | 42.7 | 44 | 55 | 42.3 | 52.2 | 75 | 41.9 | 60.3 | 75 | 41.6 | 68.4 | 90 | 41.3 | 76.5 | 90 | 41.1 | 84.6 | 110 | 2 |
| HG-175 | 1150 | 23.5 | 5.1 | 7.5 | 22.1 | 9.7 | 11 | 20.9 | 14.2 | 18.5 | 19.9 | 18.7 | 22 | 19.1 | 23.3 | 30 | 18.3 | 27.8 | 37 | | | | | | | | | | | | 4 | |
| | 1450 | 30.6 | 6.8 | 11 | 29.1 | 12.5 | 15 | 28.1 | 18.2 | 22 | 27.0 | 24.0 | 30 | 26.2 | 29.7 | 37 | 25.4 | 35.4 | 45 | | | | | | | | | | | | 4 | |
| | 1750 | 37.7 | 8.7 | 11 | 36.2 | 15.6 | 18.5 | 35.1 | 22.5 | 30 | 34.1 | 29.4 | 37 | 33.2 | 36.6 | 45 | 32.5 | 43.2 | 55 | 31.8 | 50.1 | 75 | 31.1 | | | | | | | | 4 | |
| | 2000 | 43.6 | 10.3 | 15 | 42.1 | 18.2 | 22 | 41 | 26.1 | 37 | 40 | 33.9 | 45 | 39.2 | 41.8 | 55 | 38.4 | 49.7 | 75 | 37.7 | 57.6 | 75 | 37 | | | | | | | | 4 | |
| | 2300 | 50.7 | 12.5 | 15 | 49.2 | 21.5 | 30 | 48 | 30.6 | 37 | 47.1 | 39.7 | 55 | 46.2 | 48.7 | 75 | 45.5 | 57.8 | 75 | 44.7 | 66.9 | 90 | 44.1 | | | | | | | | 2 | |
| | 2600 | 57.8 | 14.9 | 18.5 | 56.3 | 25.2 | 30 | 55.1 | 35.4 | 45 | 54.2 | 45.7 | 55 | 53.3 | 55.9 | 75 | 52.5 | 66.2 | 90 | 51.8 | 76.4 | 90 | 51.2 | | | | | | | | 2 | |
| | 2800 | 62.5 | 16.6 | 22 | 61 | 27.8 | 37 | 59.9 | 38.7 | 55 | 58.9 | 49.7 | 75 | 58 | 60.8 | 75 | 57.3 | 71.8 | 90 | 56.6 | 82.9 | 110 | 55.9 | | | | | | | | 2 | |
| HG-200 | 970 | 38.6 | 10.4 | 15 | 36.6 | 17.8 | 22 | 35.0 | 25.1 | 30 | 33.9 | 32.5 | 45 | 32.9 | 39.9 | 55 | 32.0 | 47.3 | 55 | | | | | | | | | | | | 4 | |
| | 1250 | 51.5 | 13.5 | 18.5 | 49.5 | 22.9 | 30 | 48.0 | 32.4 | 45 | 46.8 | 41.9 | 55 | 45.9 | 51.4 | 75 | 45.1 | 60.8 | 75 | | | | | | | | | | | | 4 | |
| | 1450 | 60.7 | 15.4 | 18.5 | 58.7 | 26.3 | 37 | 57.3 | 37.3 | 45 | 56.1 | 48.3 | 55 | 55.2 | 59.3 | 75 | 54.4 | 70.3 | 90 | 53.8 | 81.3 | 110 | 53.1 | 92.3 | 110 | 52.6 | 103 | 132 | 52.2 | 114 | 132 | 4 |
| | 1600 | 67.6 | 16.8 | 22 | 65.6 | 28.9 | 37 | 64.2 | 41 | 55 | 63.1 | 53.2 | 75 | 62.1 | 65.3 | 75 | 61.3 | 77.4 | 90 | 60.7 | 89.5 | 110 | 60.1 | 102 | 132 | 59.6 | 114 | 132 | 59.2 | 126 | 160 | 4 |
| | 1750 | 74.5 | 18.3 | 22 | 72.5 | 31.5 | 37 | 71.1 | 44.8 | 55 | 70 | 58.1 | 75 | 69.1 | 71.3 | 90 | 68.3 | 84.6 | 110 | 67.6 | 97.9 | 132 | 67.1 | 111 | 160 | 66.6 | 124 | 160 | 66.2 | 138 | 160 | 4 |
| | 1900 | 81.4 | 19.8 | 30 | 79.5 | 34.2 | 45 | 78.1 | 48.6 | 55 | 77 | 63 | 75 | 76.1 | 77.5 | 90 | 75.3 | 91.9 | 110 | 74.6 | 106 | 132 | 74.1 | 121 | 160 | 73.6 | 135 | 160 | 73.1 | 150 | 185 | 4 |
| HG-250 | 970 | 49.8 | 12.9 | 15 | 47.5 | 22.2 | 30 | 45.8 | 31.5 | 37 | 44.5 | 40.9 | 55 | 43.5 | 50.2 | 75 | 42.6 | 59.6 | 75 | | | | | | | | | | | | 4 | |
| | 1250 | 66.2 | 16.4 | 22 | 63.9 | 28.5 | 37 | 62.3 | 40.6 | 55 | 61.1 | 52.7 | 75 | 60.1 | 64.8 | 75 | 59.2 | 76.8 | 90 | | | | | | | | | | | | 4 | |
| | 1450 | 77.9 | 18.7 | 22 | 75.7 | 32.8 | 45 | 74.1 | 46.7 | 55 | 72.9 | 60.9 | 75 | 71.9 | 74.9 | 90 | 71.1 | 89 | 110 | 70.4 | 103 | 132 | 69.9 | 117 | 160 | | | | | | 4 | |
| | 1600 | 86.7 | 20.6 | 30 | 84.5 | 36.2 | 45 | 83 | 51.7 | 75 | 81.8 | 67.2 | 90 | 80.8 | 82.8 | 110 | 80 | 98.3 | 132 | 79.3 | 114 | 132 | 78.8 | 129 | 160 | | | | | | | 4 |
| | 1750 | 95.5 | 22.5 | 30 | 93.4 | 39.5 | 55 | 91.8 | 56.5 | 75 | 90.6 | 73.5 | 90 | 89.7 | 90.5 | 110 | 88.9 | 108 | 132 | 88.2 | 125 | 160 | 87.8 | 142 | 160 | | | | | | | 4 |
| | 1900 | 104 | 24.5 | 30 | 102 | 43 | 55 | 101 | 61.5 | 75 | 99.5 | 80.1 | 110 | 98.6 | 98.6 | 132 | 97.8 | 117 | 160 | 97.1 | 136 | 160 | 96.6 | 154 | 185 | | | | | | | 4 |

HG Three Lobe Roots Blower Vacuum Performance Table

Qs: Inlet Air Flow Rate (m³/min)

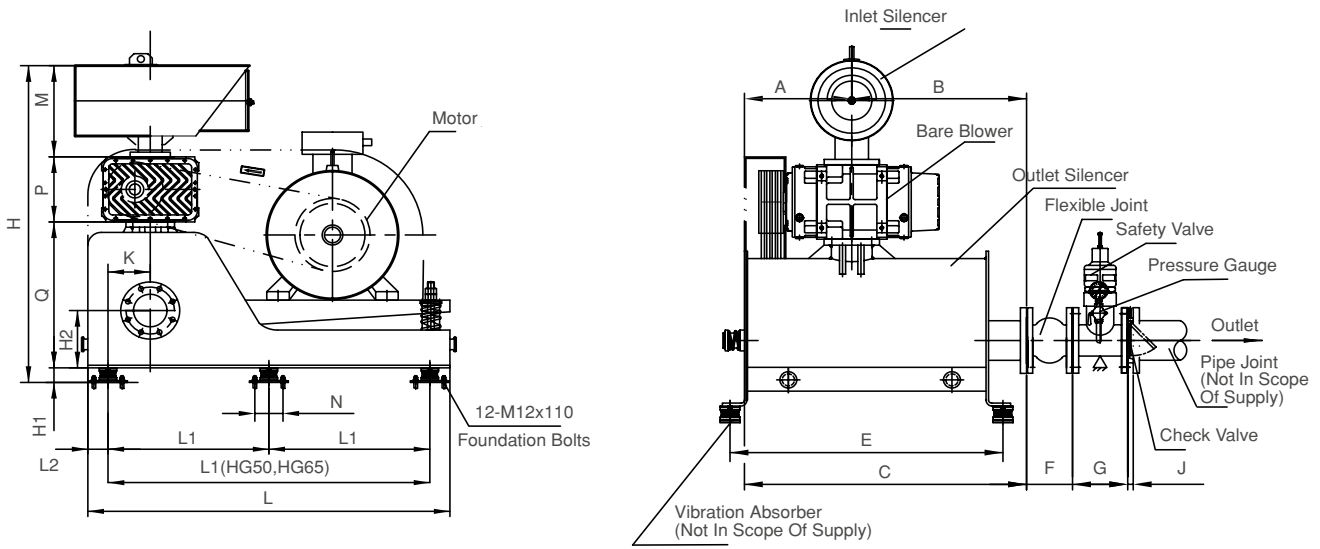
La: Bar Power (kW)

Po : Motor Power (kW)

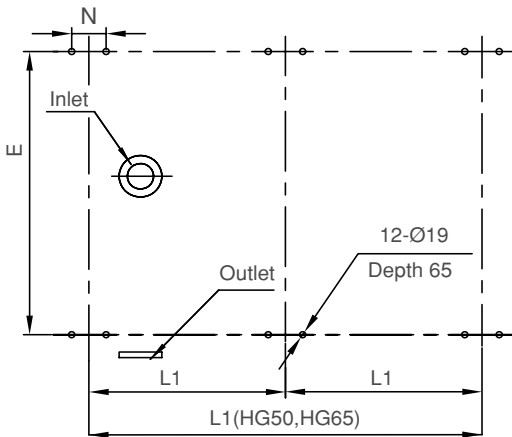
| Model | RPM | -100 Mbar | | | -200 mBar | | | -300 mBar | | | -400 mBar | | | -500 mBar | | | Motor Pole |
|---------|------|-----------|------|-----|-----------|------|-----|-----------|------|------|-----------|------|------|-----------|------|------|------------|
| | | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | |
| HG-50V | 2000 | 1.70 | 1.00 | 1.5 | 1.30 | 1.40 | 2.2 | 1.00 | 1.70 | 2.2 | | | | | | | 4 |
| | 2500 | 2.29 | 1.20 | 1.5 | 1.78 | 1.70 | 2.2 | 1.54 | 2.10 | 3 | 1.36 | 2.6 | 4 | | | | 2 |
| | 3000 | 2.88 | 1.4 | 2.2 | 2.37 | 1.9 | 3 | 2.03 | 2.5 | 3 | 1.85 | 3.1 | 4 | | | | 2 |
| | 3500 | 3.46 | 1.6 | 2.2 | 2.95 | 2.2 | 3 | 2.61 | 2.9 | 4 | 2.33 | 3.6 | 5.5 | | | | 2 |
| | 4000 | 4.05 | 1.8 | 2.2 | 3.54 | 2.5 | 3 | 3.2 | 3.3 | 4 | 2.92 | 4.1 | 5.5 | 2.68 | 4.8 | 7.5 | 2 |
| | 4500 | 4.63 | 2 | 3 | 4.12 | 2.8 | 4 | 3.78 | 3.7 | 5.5 | 3.5 | 4.5 | 5.5 | 3.16 | 5.4 | 7.5 | 2 |
| HG-65V | 2500 | 3.88 | 1.80 | 2.2 | 3.20 | 2.60 | 3 | 2.70 | 3.40 | 4 | 2.46 | 4.2 | 5.5 | | | | 2 |
| | 3000 | 4.87 | 2.20 | 3 | 4.18 | 3.10 | 4 | 3.68 | 4.10 | 5.5 | 3.24 | 5.1 | 7.5 | | | | 2 |
| | 3500 | 5.85 | 2.5 | 3 | 5.16 | 3.7 | 5.5 | 4.66 | 4.8 | 5.5 | 4.22 | 5.9 | 7.5 | | | | 2 |
| | 4000 | 6.83 | 2.9 | 4 | 6.14 | 4.2 | 5.5 | 5.64 | 5.5 | 7.5 | 5.2 | 6.7 | 11 | 4.86 | 8 | 11 | 2 |
| | 4500 | 7.81 | 3.2 | 4 | 7.12 | 4.7 | 5.5 | 6.62 | 6.1 | 7.5 | 6.18 | 7.6 | 11 | 5.84 | 9 | 11 | 2 |
| HG-80V | 2000 | 5.94 | 2.30 | 3 | 5.31 | 3.50 | 5.5 | 4.76 | 4.70 | 5.5 | 4.21 | 5.9 | 7.5 | | | | 4 |
| | 2300 | 7.05 | 2.70 | 4 | 6.44 | 4.00 | 5.5 | 5.89 | 5.40 | 7.5 | 5.35 | 6.8 | 11 | | | | 2 |
| | 2500 | 7.8 | 2.9 | 4 | 7.19 | 4.4 | 5.5 | 6.65 | 5.9 | 7.5 | 6.11 | 7.3 | 11 | 5.52 | 8.8 | 11 | 2 |
| | 2800 | 8.91 | 3.3 | 4 | 8.31 | 4.9 | 7.5 | 7.78 | 6.6 | 11 | 7.24 | 8.2 | 11 | 6.66 | 9.9 | 15 | 2 |
| | 3000 | 10.9 | 3.6 | 5.5 | 9.06 | 5.4 | 7.5 | 8.53 | 7.1 | 11 | 8 | 8.9 | 11 | 7.42 | 10.7 | 15 | 2 |
| | 3300 | 10.9 | 4 | 5.5 | 10.2 | 5.9 | 7.5 | 9.67 | 7.9 | 11 | 9.14 | 9.8 | 15 | 8.57 | 11.8 | 15 | 2 |
| | 3500 | 11.5 | 4.2 | 5.5 | 10.9 | 6.3 | 7.5 | 10.4 | 8.3 | 11 | 9.9 | 10.4 | 15 | 9.33 | 12.5 | 15 | 2 |
| | 3800 | 12.7 | 4.6 | 5.5 | 12.1 | 6.8 | 11 | 11.6 | 9.1 | 11 | 11 | 11.3 | 15 | 10.5 | 13.6 | 18.5 | 2 |
| HG-100V | 2000 | 9.04 | 3.20 | 4 | 8.14 | 5.00 | 7.5 | 7.35 | 6.70 | 11 | 6.55 | 8.5 | 11 | | | | 4 |
| | 2300 | 10.8 | 3.70 | 5.5 | 9.83 | 5.80 | 7.5 | 9.05 | 7.80 | 11 | 8.26 | 9.90 | 15 | | | | 2 |
| | 2500 | 11.9 | 4.1 | 5.5 | 11 | 6.3 | 7.5 | 10.2 | 8.6 | 11 | 9.41 | 10.8 | 15 | 8.55 | 13 | 15 | 2 |
| | 2800 | 13.6 | 4.7 | 5.5 | 12.7 | 7.2 | 11 | 11.9 | 9.7 | 15 | 11.1 | 12.2 | 15 | 10.3 | 14.7 | 18.5 | 2 |
| | 3000 | 14.7 | 5.1 | 7.5 | 13.8 | 7.8 | 11 | 13 | 10.4 | 15 | 12.3 | 13.1 | 18.5 | 11.4 | 15.8 | 18.5 | 2 |
| | 3300 | 16.4 | 5.5 | 7.5 | 15.5 | 8.5 | 11 | 14.7 | 11.4 | 15 | 14 | 14.4 | 18.5 | 13.2 | 17.3 | 22 | 2 |
| | 3500 | 17.5 | 5.8 | 7.5 | 16.6 | 8.9 | 11 | 15.9 | 12.1 | 15 | 15.1 | 15.2 | 18.5 | 14.3 | 18.3 | 22 | 2 |
| | 3800 | 19.2 | 6.3 | 7.5 | 18.3 | 9.7 | 15 | 17.6 | 13 | 15 | 16.8 | 16.4 | 22 | 16 | 19.8 | 30 | 2 |
| HG-125V | 1450 | 13.4 | 4.10 | 5.5 | 12.1 | 7.00 | 11 | 11.1 | 9.70 | 15 | 10.1 | 12.4 | 15 | | | | 4 |
| | 1750 | 16.6 | 4.90 | 7.5 | 15.5 | 8.10 | 11 | 14.5 | 11.3 | 15 | 13.4 | 14.5 | 18.5 | | | | 4 |
| | 2000 | 19.5 | 5.6 | 7.5 | 18.2 | 9.2 | 11 | 17.2 | 12.9 | 15 | 16.2 | 16.5 | 22 | 15.1 | 20.2 | 30 | 4 |
| | 2300 | 22.7 | 6.4 | 7.5 | 21.6 | 10.6 | 15 | 20.6 | 14.8 | 18.5 | 19.6 | 18.9 | 22 | 18.5 | 23.1 | 30 | 2 |
| | 2600 | 26.1 | 7.2 | 11 | 24.9 | 12 | 15 | 23.9 | 16.7 | 22 | 23 | 21.4 | 30 | 21.9 | 26.2 | 37 | 2 |
| | 2800 | 26.3 | 7.8 | 11 | 27.1 | 12.9 | 15 | 26.2 | 18 | 22 | 25.2 | 23.1 | 30 | 24.2 | 28.2 | 37 | 2 |

| Model | RPM | -100 Mbar | | | -200 mBar | | | -300 mBar | | | -400 mBar | | | -500 mBar | | | Motor Pole |
|---------|------|-----------|------|-------|-----------|------|------|-----------|------|------|-----------|------|------|-----------|------|-----|------------|
| | | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | Qs | La | Po | |
| HG-150V | 1450 | 21.7 | 6.30 | 7.5 | 19.9 | 10.6 | 15 | 18.4 | 14.8 | 18.5 | 16.9 | 19.0 | 22 | | | | 4 |
| | 1750 | 27.0 | 7.50 | 11 | 25.3 | 12.6 | 15 | 23.9 | 17.7 | 22 | 22.4 | 22.7 | 30 | | | | 4 |
| | 2000 | 31.4 | 8.5 | 11 | 29.8 | 14.3 | 18.5 | 28.4 | 20.1 | 30 | 27 | 25.9 | 30 | 25.5 | 31.8 | 37 | 4 |
| | 2300 | 36.8 | 9.7 | 15 | 35.2 | 16.3 | 22 | 33.9 | 23 | 30 | 32.5 | 29.7 | 37 | 31 | 36.4 | 45 | 2 |
| | 2600 | 42.1 | 10.8 | 15 | 40.6 | 18.3 | 22 | 39.3 | 25.9 | 30 | 38 | 33.4 | 45 | 36.5 | 40.9 | 55 | 2 |
| | 2800 | 45.7 | 11.6 | 15 | 44.2 | 19.7 | 30 | 42.9 | 27.8 | 37 | 41.7 | 35.9 | 45 | 40.2 | 44 | 55 | 2 |
| HG-175V | 1150 | 23.4 | 5.10 | 7.5 | 21.5 | 9.7 | 11 | 19.7 | 14.2 | 18.5 | 17.9 | 18.7 | 22 | | | | 4 |
| | 1450 | 30.4 | 6.80 | 11 | 28.6 | 12.5 | 15 | 26.8 | 18.2 | 22 | 25.1 | 24.0 | 30 | | | | 4 |
| | 1750 | 37.5 | 8.7 | 11 | 35.6 | 15.6 | 18.5 | 33.9 | 22.5 | 30 | 32.2 | 29.4 | 37 | 30.1 | 36.3 | 45 | 4 |
| | 2000 | 43.4 | 10.3 | 15 | 41.5 | 18.2 | 22 | 39.8 | 26.1 | 37 | 38.1 | 33.9 | 45 | 36 | 41.8 | 55 | 4 |
| | 2300 | 50.5 | 12.5 | 15 | 48.6 | 21.5 | 30 | 46.9 | 30.6 | 37 | 45.2 | 39.7 | 55 | 43 | 48.7 | 75 | 2 |
| | 2600 | 57.6 | 14.9 | 18.5 | 55.7 | 25.2 | 30 | 54 | 35.4 | 45 | 52.3 | 45.7 | 55 | 50.1 | 55.9 | 75 | 2 |
| HG-200V | 2800 | 62.3 | 16.6 | 22 | 60.5 | 27.7 | 37 | 58.7 | 38.7 | 55 | 58.8 | 49.7 | 75 | 54.8 | 60.8 | 75 | 2 |
| | 970 | 38.3 | 10.4 | 15 | 35.8 | 17.8 | 22 | 33.3 | 25.1 | 30 | 30.8 | 32.5 | 45 | | | | 4 |
| | 1250 | 51.2 | 13.5 | 18.5 | 48.6 | 22.9 | 30 | 46.3 | 32.4 | 45 | 44.1 | 41.9 | 55 | | | | 4 |
| | 1450 | 60.4 | 15.4 | 18.5 | 57.8 | 26.3 | 37 | 55.6 | 37.3 | 45 | 53.3 | 48.3 | 55 | 50.8 | 59.3 | 75 | 4 |
| | 1600 | 67.3 | 16.8 | 22 | 64.9 | 28.9 | 37 | 62.6 | 41 | 55 | 60.3 | 53.2 | 75 | 57.8 | 65.3 | 75 | 4 |
| | 1750 | 74.2 | 18.3 | 22 | 71.8 | 31.5 | 37 | 69.5 | 44.8 | 55 | 67.3 | 58.1 | 75 | 64.9 | 71.3 | 90 | 4 |
| HG-250V | 1900 | 81.1 | 19.8 | 30 | 78.6 | 34.2 | 45 | 76.5 | 48.6 | 55 | 74.3 | 63 | 75 | 71.9 | 77.5 | 90 | 4 |
| | 970 | 49.5 | 12.9 | 15 | 40.5 | 22.2 | 30 | 43.8 | 31.5 | 37 | 41.2 | 40.9 | 55 | | | | 4 |
| | 1250 | 65.9 | 16.4 | 22 | 62.9 | 28.5 | 37 | 60.4 | 40.6 | 55 | 57.8 | 52.7 | 75 | | | | 4 |
| | 1450 | 77.5 | 18.7 | 22 | 74.8 | 32.8 | 45 | 72.2 | 46.8 | 55 | 69.7 | 60.9 | 75 | 67 | 74.9 | 90 | 4 |
| | 1600 | 86.4 | 20.6 | 30 | 83.7 | 36.2 | 45 | 81.1 | 51.7 | 75 | 78.7 | 67.2 | 90 | 76 | 82.8 | 110 | 4 |
| | 1750 | 95.2 | 22.5 | 30 | 92.5 | 39.5 | 55 | 90 | 56.5 | 75 | 87.6 | 73.5 | 90 | 85 | 90.5 | 110 | 4 |
| 1900 | 104 | 24.5 | 30 | 101.1 | 43 | 55 | 98.9 | 61.5 | 75 | 96.5 | 80.1 | 110 | 93.9 | 98.6 | 132 | 4 | |

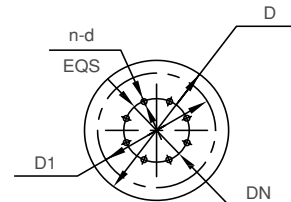
Roots Blower Unit Installation Drawing



Foundation Drawing



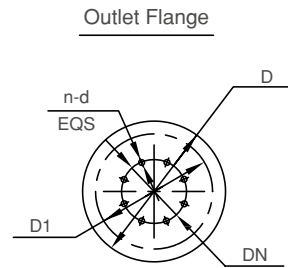
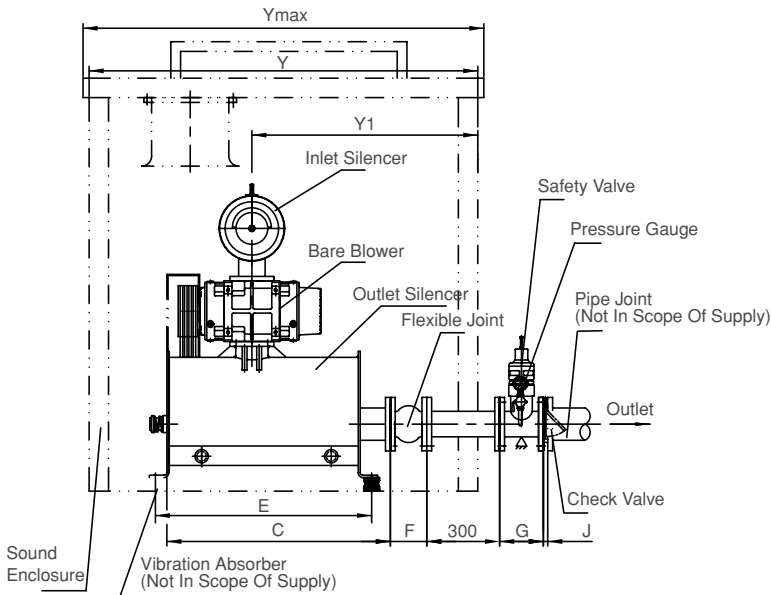
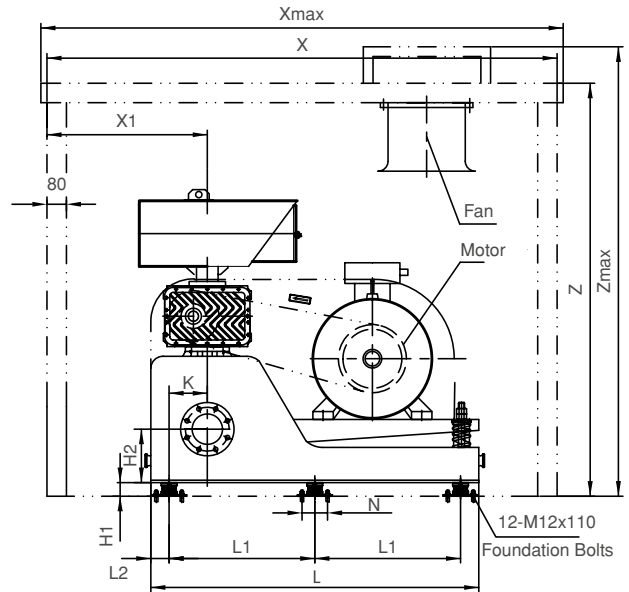
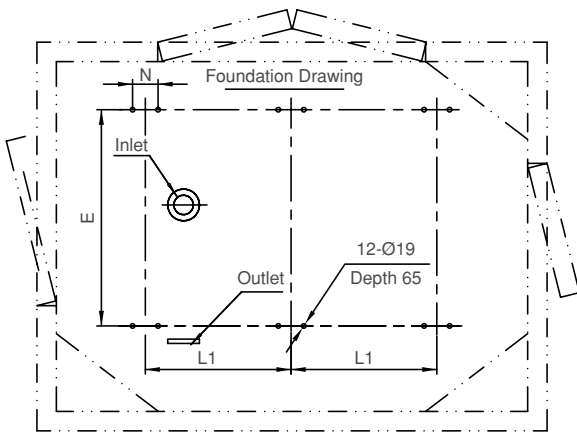
Outlet Flange



DIMENSIONS

| Blower Model | A | B | C | E | F | G | J | H | H1 | H2 | K | L | L1 | L2 | M | N | P | Q | DN | D1 | D | n | d |
|--------------|-----|-----|------|------|-----|-----|----|------|----|-----|-------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| HG 50 | 300 | 400 | 700 | 698 | 105 | 140 | 18 | 949 | 56 | 178 | 90 | 1000 | 850 | 75 | 310 | 105 | 173 | 410 | 50 | 125 | 165 | 4 | 18 |
| HG 65 | 300 | 400 | 700 | 698 | 115 | 150 | 18 | 978 | 56 | 178 | 90 | 1000 | 850 | 75 | 310 | 105 | 173 | 410 | 65 | 145 | 185 | 4 | |
| HG 80 | 308 | 510 | 818 | 810 | 135 | 180 | 18 | 1216 | 56 | 220 | 157.5 | 1350 | 600 | 75 | 350 | 105 | 250 | 560 | 80 | 160 | 200 | 8 | 22 |
| HG 100 | 340 | 570 | 920 | 890 | 150 | 180 | 18 | 1216 | 56 | 220 | 157.5 | 1350 | 600 | 75 | 350 | 105 | 250 | 560 | 100 | 180 | 220 | 8 | |
| HG 125 | 435 | 615 | 1050 | 1020 | 165 | 200 | 18 | 1750 | 56 | 290 | 215 | 1640 | 720 | 100 | 595 | 105 | 356 | 743 | 125 | 210 | 250 | 8 | |
| HG 150 | 505 | 615 | 1120 | 1090 | 180 | 220 | 18 | 1762 | 66 | 290 | 215 | 1640 | 720 | 100 | 595 | 134 | 356 | 745 | 150 | 240 | 285 | 8 | |
| HG 175 | 578 | 725 | 1303 | 1220 | 190 | 250 | 23 | 1834 | 66 | 290 | 215 | 1640 | 720 | 100 | 647 | 134 | 376 | 745 | 200 | 295 | 340 | 8 | |
| HG-200 | 620 | 860 | 1480 | 1445 | 190 | 250 | 23 | 2189 | 66 | 305 | 300 | 2155 | 950 | 125 | 683 | 134 | 505 | 935 | 200 | 295 | 340 | 12 | |
| HG-250 | 720 | 760 | 1480 | 1445 | 230 | 300 | 45 | 2191 | 66 | 305 | 300 | 2155 | 950 | 125 | 683 | 134 | 505 | 937 | 250 | 350 | 395 | 12 | |

Roots Blower Unit Installation Drawing (With Acoustic Enclosure)



DIMENSIONS

| Blower Model | C | E | F | G | J | H1 | H2 | K | L | L1 | L2 | N | X | X1 | Xmax | Y | Y1 | Ymax | Z | Zmax | DN | D1 | D | n | d | | | |
|--------------|------|------|-----|-----|----|----|-----|-------|------|-----|-----|-----|------|-----|------|------|------|------|------|------|-----|-----|-----|----|----|----|----|----|
| HG 50 | 700 | 698 | 105 | 140 | 18 | 56 | 178 | 90 | 1000 | | | 105 | 1800 | 565 | 1850 | 1300 | 680 | 1350 | 1300 | 1450 | 50 | 125 | 165 | 4 | 18 | | | |
| HG 65 | 700 | 698 | 115 | 150 | 18 | 56 | 178 | 90 | 1000 | | | 105 | 1800 | 565 | 1850 | 1300 | 680 | 1350 | 1300 | 1450 | 65 | 145 | 185 | | | | | |
| HG 80 | 818 | 810 | 135 | 180 | 18 | 56 | 220 | 157.5 | 1350 | 600 | 75 | 105 | 2100 | 660 | 2150 | 1600 | 870 | 1650 | 1700 | 1850 | 80 | 160 | 200 | 8 | | 22 | | |
| HG 100 | 920 | 890 | 150 | 180 | 18 | 56 | 220 | 157.5 | 1350 | 600 | 75 | 105 | 2100 | 660 | 2150 | 1600 | 930 | 1650 | 1700 | 1850 | 100 | 180 | 220 | | | | | |
| HG 125 | 1050 | 1020 | 165 | 200 | 18 | 56 | 290 | 215 | 1640 | 720 | 100 | 105 | 2200 | 650 | 2250 | 1850 | 980 | 1900 | 2000 | 2240 | 125 | 210 | 250 | 12 | | | 22 | |
| HG 150 | 1120 | 1090 | 180 | 220 | 18 | 66 | 290 | 215 | 1640 | 720 | 100 | 134 | 2200 | 650 | 2250 | 1850 | 980 | 1900 | 2000 | 2250 | 150 | 240 | 285 | | | | | |
| HG 175 | 1303 | 1220 | 190 | 250 | 23 | 66 | 290 | 215 | 1640 | 720 | 100 | 134 | 2400 | 700 | 2450 | 2100 | 1100 | 2150 | 2000 | 2300 | 200 | 295 | 340 | 12 | | | | 22 |
| HG-200 | 1480 | 1445 | 190 | 250 | 23 | 66 | 305 | 300 | 2155 | 950 | 125 | 134 | 2800 | 760 | 2850 | 2400 | 1250 | 2450 | 2600 | 2900 | 200 | 295 | 340 | | | | | |
| HG-250 | 1480 | 1445 | 230 | 300 | 45 | 66 | 305 | 300 | 2155 | 950 | 125 | 134 | 2800 | 760 | 2850 | 2400 | 1250 | 2450 | 2600 | 2900 | 250 | 350 | 395 | 12 | 22 | | | |





A chain is only as strong as its weakest link.

Running and maintaining a quality production process that meets international standards requires focusing on quality all along the ecosystem. Maintaining this focus requires a unifying vision of constant improvement shared by all stakeholder, and a certain level of expertise for all parties involved. Ekin Academy was established with the principles of continuous development and growing together to share the knowledge and experience that will realize this vision.

We support the development of our employees with training programs that directly contribute to the results in their business processes and make a difference in their personal development. We offer technical trainings on heat transfer, pressure vessels, package systems, food systems and liquid transfer. We help them become individuals who will make a difference with our development programs that covers topics like leadership, strategy, sales and many more. In addition, we provide information regarding installation, operating, maintenance and repairs with our pre and after sales training modules prepared for our business partners and customers.

At Ekin Academy we do not solely focus on the development of our staff, partners and customers. Thanks to our university collaborations, we provide the means for future engineers to put their theoretical knowledge to use with practical applications.



We organize seminars, conferences and trainings for professional chambers, and institutions we collaborate on social responsibility projects. Because we know that only by investing in the society, the industry and the future of the industry, we can become a country known for its high-quality engineering products.

SALES TEAM

An Engineering Approach from Sales to Maintenance

We offer value added pre and after sale services with our customer satisfaction-oriented approach and deep expertise we are more than happy to share. Thanks to our expert engineers that provide proactive solutions, we focus on making a difference throughout the process, from presales to maintenance.

With our “quality product, quality service, quality solution” approach, we are more than a manufacturer and supplier, we are a highly motivated solution partner for all kinds of heating and cooling projects.



Customer Satisfaction



Our priority is to ensure customer satisfaction and protect the rights of our customers with our pre-sales processes that analyze customer needs well, quality-registered product range, expert staff and meticulous working methods.

Ethical Values



We conduct all our activities in accordance with the laws and then with ethical values. We believe in growing together and we look for mutual benefit in all our business relationships.

Privacy Policy

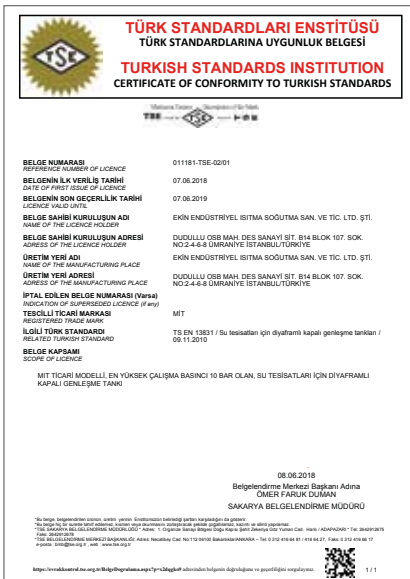


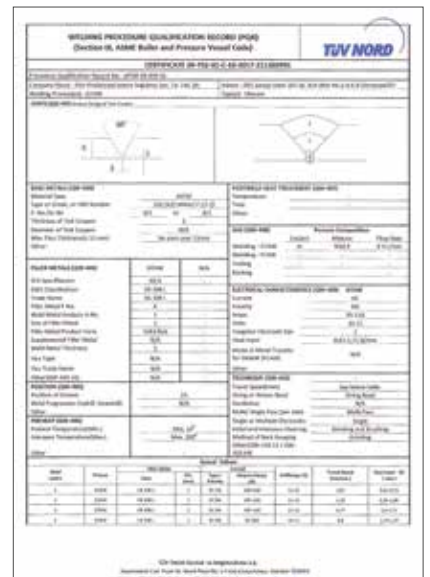
All your personal information shared with our company is guaranteed by our ethical values and our processes in compliance with the Law No. 6698 on Protection of Personal Data.

Information Security



All our information technology operations are protected by our information security processes, which are managed in accordance with ISO 27001 Information Security Management System requirements.





NOTES

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PROFESSIONAL SYSTEM SOLUTION CENTER

From our MIT professional system solution center, you can get help with problems with your pumps, heat exchangers and your system. Our solution center consisting of our expert engineers will be happy to help you.

- Domestic hot water installations.
- Central and district heating systems.
- Milk, yogurt, heating, cooling and pasteurization systems.
- Industrial cooling and heating systems.
- Oil cooling systems.
- Energy recovery systems.
- Pool heating systems.
- Steam installations.



It is vital for your system to be designed and implemented correctly in the first installation in order to be able to operate at the desired capacity, smoothness and long life. For this reason, you can get first-hand

the technical support you need during the installation phase of your system and the problems that may arise in the business; You can reach us **24 hours +90 (216) 232 24 12 in 7 days.**



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We would like to reiterate that we will be happy to share our knowledge accumulated over many years with our valued customers in order for your system to work correctly and performance.

Ekin will continue to be the best solution partner for you in all applications with all kinds of heating and cooling applications.

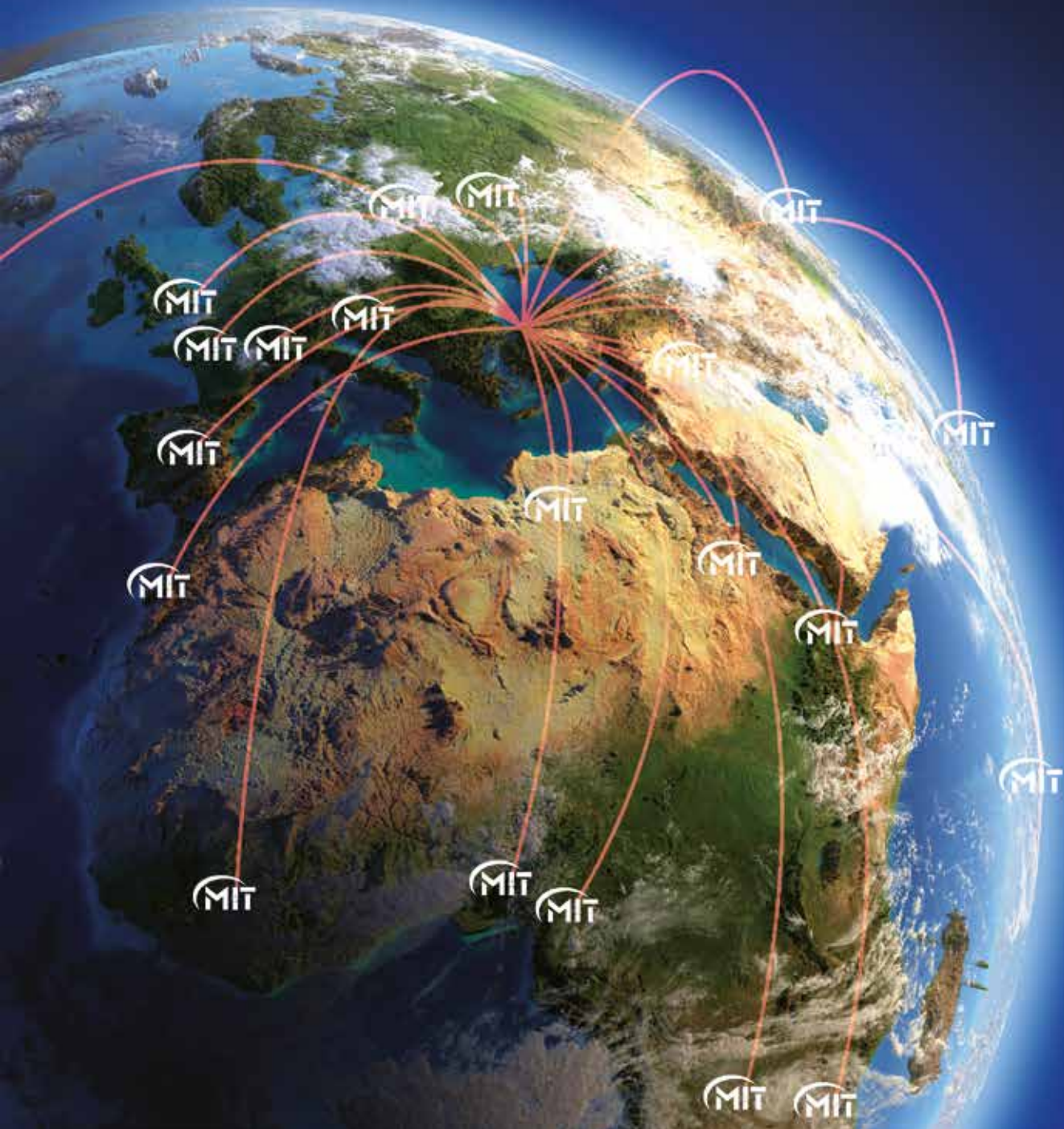


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