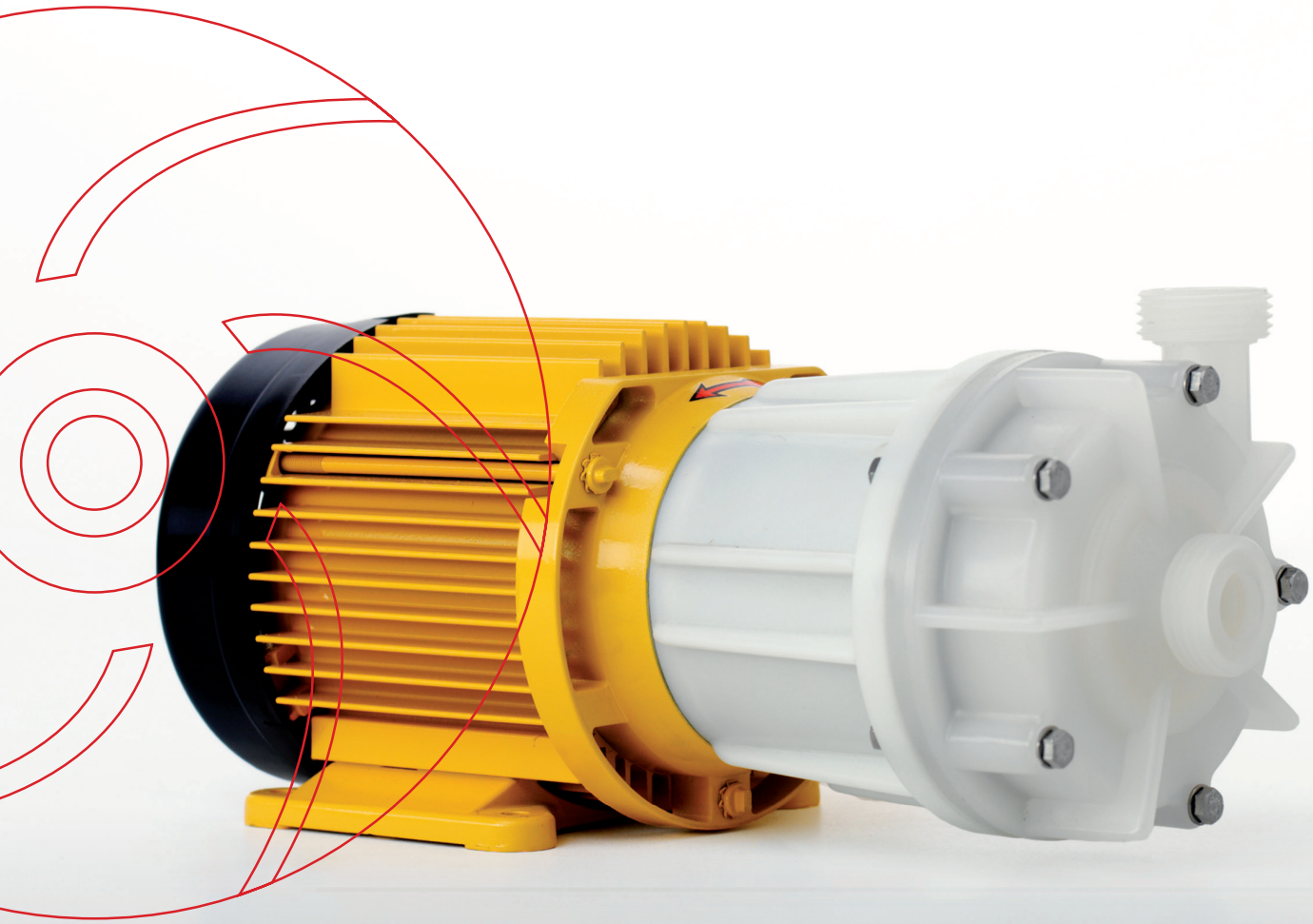


Product information

SCHMITT

**MPN Pump Series**
Normal priming,
magnetically coupled
centrifugal pumps
Materials: PVDF or PP

chemical resistant pumps

# Description
## MPN Pump Series



SCHMITT

chemical resistant pumps

Normal priming, magnetically coupled centrifugal pumps

| | |
|---|---|
| **Application:** | The MPN Pump Series is particularly suitable for crystallizing media (no air can get inside), toxic or environmentally hazardous media. A small amount of gas in the liquid can also be transferred without disrupting the liquid flow. |
| **Field of application:** | Electro-plating technology, wastewater treatment, laboratory and medical engineering, wafer production, printed circuit board (PCB) manufacturing, solar cell production, analytical instruments, semiconductor technology, zoological seawater aquaria, environmental technology, wastewater treatment, plant dosage |
| **Materials:** | PVDF (polyvinylidene fluoride) oder PP (polypropylene) |
| | hermetically sealed |
| **Max. output rate:** | 400 l/min |
| **Max. discharge head:** | 32 m |
| **Motor power:** | 0,18 - 3,0 kW |
| | In the MPN Pump Series, the motor power is transmitted contact free and abrasion-free with a magnetic coupling through the closed housing wall („Slot-pot“) to the pump impeller. An encapsulated counter-magnet is built-in inside the impeller. Therefore, a rigid shaft passage is not necessary. |
| **Advantages:** | » hermetically sealed, absolutely leak-proof<br>» highest chemical resistance<br>» robust design - without vulnerable (floating) axles<br>» low-maintenance through double hydro-dynamic slide bearings with extra big radii<br>» long-lasting and wear-resistant through axial thrust compensation<br>» self-cooling design for the operation under demanding conditions<br>» half-open impeller (i.e. solids up to 3 mm of grain size and 10 Vol. % are possible)<br>» dry run safe within certain conditions<br>» no abrasion into the medium to be pumped (high purity applications)<br>» negative pressure tight for vacuum systems<br>» no metal parts are in contact with the medium<br>» easy to maintain (wear parts can be changed swiftly)<br>» universally applicable, quiet and compact<br>» various chemical resistant materials can be supplied from stocked inventory<br>» available as explosion proof version for combustible environments (ATEX) |

# Types
## MPN Pump Series



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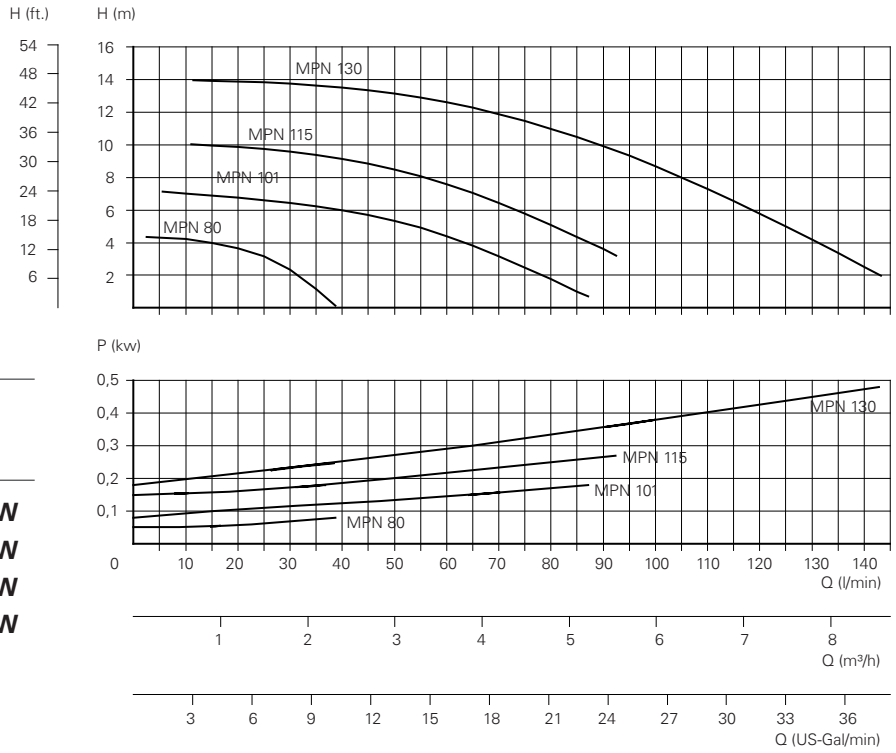
chemical resistant pumps

| | |
|---|---|
| **Materials and Components:** | » Parts in contact with the medium are made solid of PVDF, (up to +95° C), or PP (up to +80° C)<br>» Housing seal alternatively made of FKM, EPDM, FEP or Kalrez®<br>» Slide bearings made of the materials PTFE/ceramic or SiC / SiC<br>» High-quality electric motors made in Germany |
| **Material details:** | » **PVDF:** Polyvinylidene Fluoride, Pure, milky white, not colored (up to +95° C)<br>» **PP:** Polypropylene, Fiber glass-reinforced, gray (up to +80° C)<br>» **FKM:** Viton® quality, -20...+200° C<br>» **EPDM**: Ethylene propylene diene M-class rubber, Food-safe (FDA, KTW, WRC), -40...+160° C<br>» **FEP**: Fluorinated ethylene propylene with Viton® or silicone core, -60...+200° C<br>» **Kalrez®**: High performance elastomere up to +315° C<br>» **PTFE:** Pure Teflon®, fiber glass or carbon fiber reinforced<br>» **Ceramic**: Highly pure $Al_2O_3$-ceramic 99.7%<br>» **SiC**: Silicon carbide, without free silicon, sintered |
| **Motor details:** | |
| Standard Motors (stock items): | » Three-phase motors: 230/400 V 3ph, 50 Hz, IP 55, insulation-class F or 277/480 V 60 Hz also with PTC thermistor<br>» Alternating current motors: 230 V 1ph, 50/60 Hz, IP 55, Insulation class F<br>» Three-phase motors: spark arrested for combustible environments, explosion proof: EEx e II T3 |
| Special design models (available): | » Three-phase motors, explosion proof, flameproof enclosure, EEx de II CT4<br>» Special voltages and frequencies<br>» 2-, 4- and 8-pole<br>» UL and CSA execution<br>» Special protection types (e.g. IP 65)<br>» High temperature designs<br>» Special insulation classes (e.g. tropical insulations)<br>» Multi area voltage (e.g. 220-290 / 380-500 V 50 Hz; 220-332 / 380-575 V 60 Hz.)<br>» Additional designs upon enquiry |

# Characteristics
## MPN Pump Series

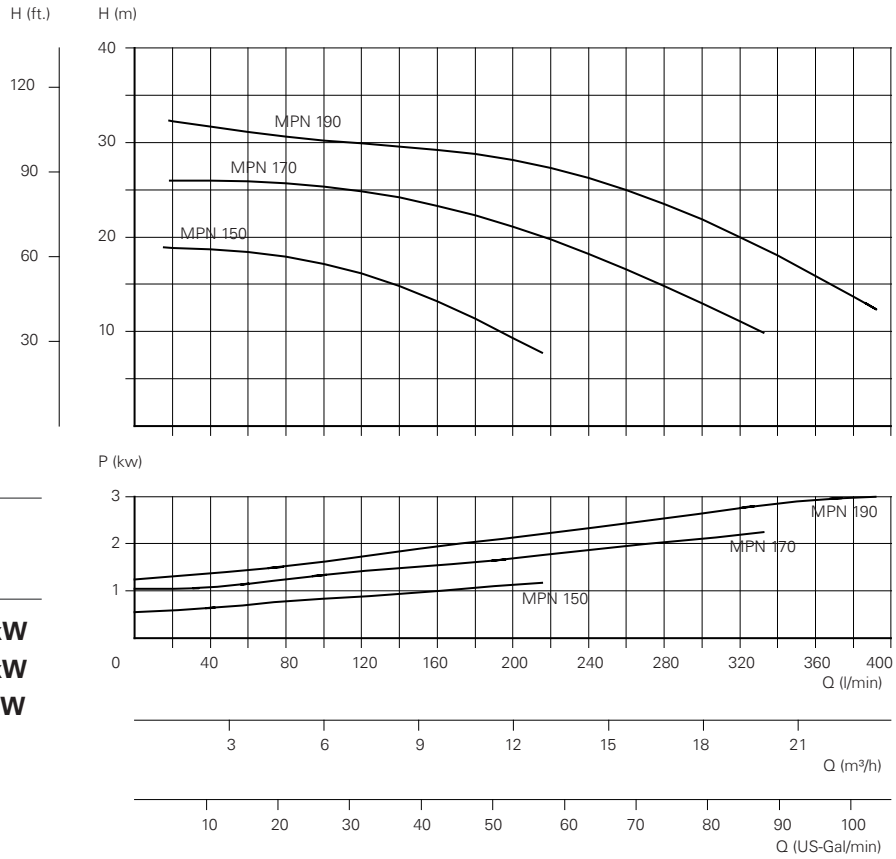
SCHMITT

chemical resistant pumps




### MPN 80 bis MPN 130
### Pump Series

**Motor power**
- **» MPN 130: 0,55 kW**
- **» MPN 115: 0,25 kW**
- **MPN 101: 0,18 kW**
- **» MPN 80: 0,18 kW**




### MPN 150 bis MPN 190
### Pump Series

**Motor power**
- **» MPN 190: 3,00 kW**
- **» MPN 170: 2,20 kW**
- **» MPN 150: 1,10 kW**

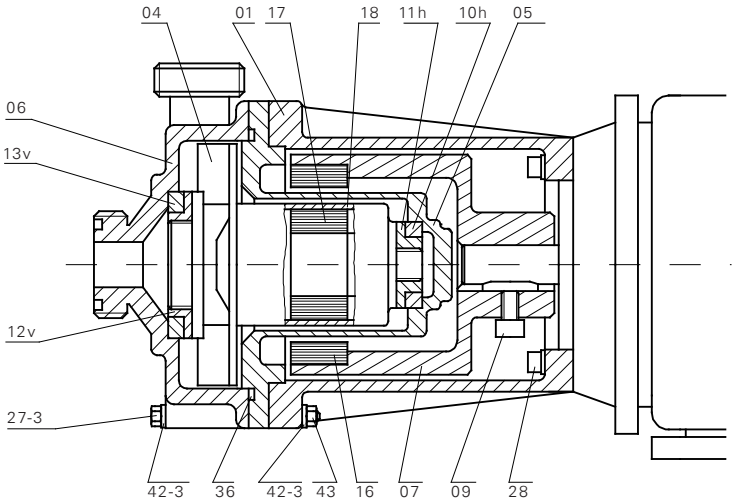
Characteristic lines measured with water, 20° C and 2900 Rpm (50 Hz.)

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chemical resistant pumps

# Parts Descriptions

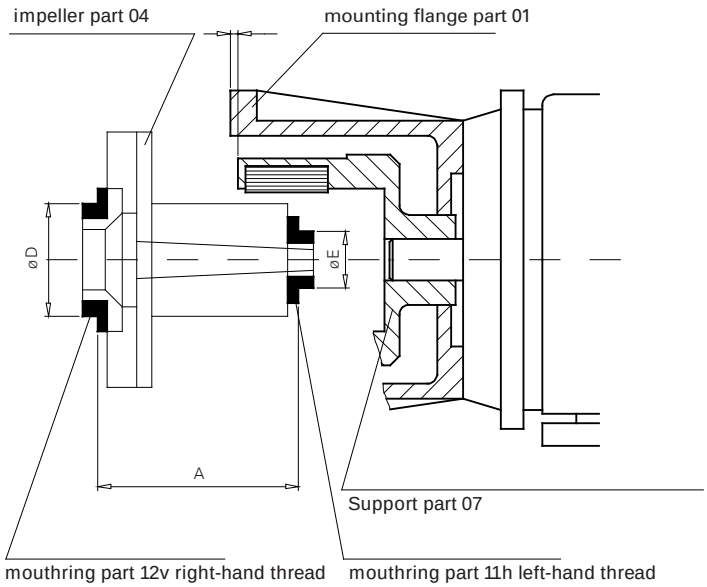
## MPN Pump Series




| Part-No. | Part | Material standard | Material on request |
|---|---|---|---|
| 01 | mounting flange | PP*/AL | |
| 04/17 | impeller with magnet + cover | PVDF | PP |
| 18 | | PVDF | PP |
| 11h | mouthring (left-hand thread) | PTFE | SiC |
| 12v | mouthring (right-hand thread) | PTFE | SiC |
| 05 | backplate + stationary ring | PVDF | PP |
| 10h | | ceramic | SiC |
| 06 | pump housing + stationary ring | PVDF | PP |
| 13v | | ceramic | SiC |
| 36 | pump housing seal | FKM** | FEP or EPDM |
| 07 | support with | | |
| 16/09 | magnet + cylinder bolt | | |
| 27-3 | hexagon bolt | A4 | |
| 28 | cylinder bolt | A4 | |
| 42-3 | washer | A4 | |
| 43 | hexagon bolt | A4 | |

*MPN 101–150: PP, others: AL

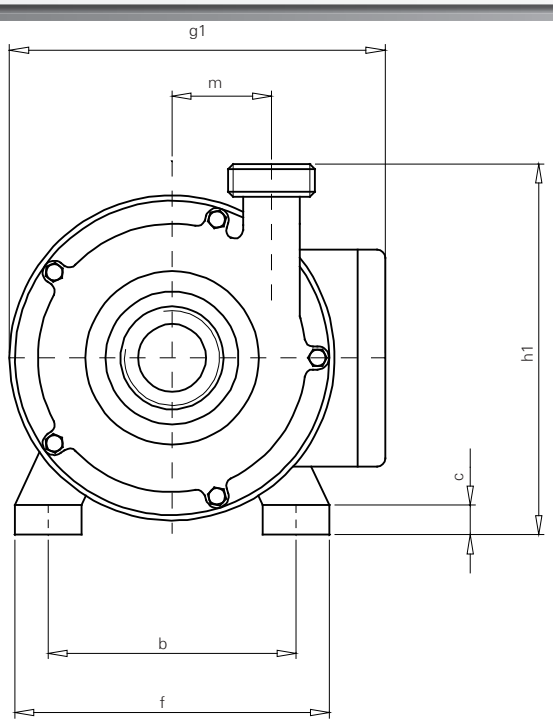
**FKM = e.g. Viton®




| Type | A | C | Axial play | D | E |
|---|---|---|---|---|---|
| MPN 80 | 56,5 | 5,0 | 1,0 | 33,8 | 19,8 |
| MPN 101 | 64,0 | 6,5 | 1,0 | 41,8 | 19,8 |
| MPN 115 | 66,0 | 5,5 | 0,8 | 41,8 | 19,8 |
| MPN 130 | 80,0 | 6,0 | 0,8 | 41,8 | 19,8 |
| MPN 150 | 82,5 | 6,5 | 1,2 | 64,7 | 33,8 |
| MPN 170 | 108,5 | 7,5 | 2,0 | 64,7 | 33,8 |
| MPN 190 | 109,0 | 7,0 | 2,0 | 64,7 | 33,8 |

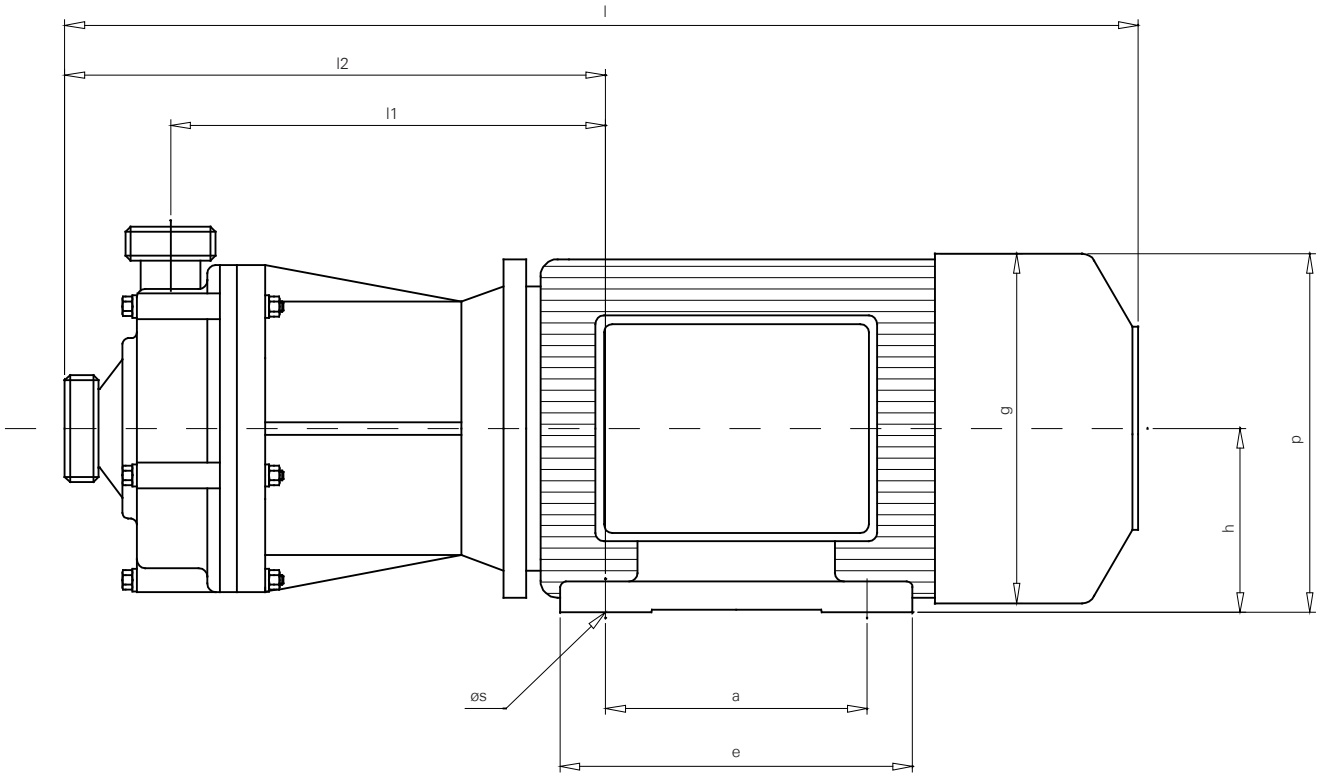
# Parts Descriptions

## MPN Pump Series

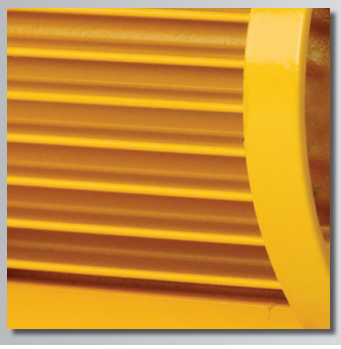



| Type | h | h1 | l | l1 | l2 | g | g1 | p | a | b | e | f | c | ø s | m | suction conn. | | pressure conn. | | weights |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | nom. bore | male thread | nom. bore | male thread | kg |
| MPN 80 | 56 | 110 | 290 | 123 | 158 | 111 | 164 | 113 | 71 | 90 | 90 | 112 | 8 | 6 | 25 | 10 | G ¾" | 10 | G ¾" | 4,6 |
| MPN 101 | 56 | 118 | 297 | 131 | 165 | 111 | 164 | 113 | 71 | 90 | 90 | 112 | 8 | 6 | 31 | 15 | G 1" | 15 | G 1" | 4,5 |
| MPN 115 | 63 | 134 | 335 | 145 | 185 | 126 | 156 | 126 | 80 | 100 | 97 | 116 | 6 | 7 | 37 | 15 | G 1" | 15 | G 1" | 5,3 |
| MPN 130 | 71 | 150 | 372 | 153 | 203 | 139 | 194 | 140 | 90 | 112 | 108 | 140 | 10 | 8 | 42 | 20 | G1¼" | 15 | G 1" | 8,6 |
| MPN 150 | 80 | 170 | 415 | 178 | 228 | 157 | 209 | 159 | 100 | 125 | 125 | 160 | 11 | 10 | 47 | 25 | G1½" | 20 | G1¼" | 15,3 |
| MPN 170 | 90 | 190 | 495 | 222 | 277 | 177 | 235 | 180 | 125 | 140 | 152 | 180 | 14 | 11 | 58 | 32 | G 2" | 25 | G1½" | 23,8 |
| MPN 190 | 100 | 211 | 535 | 235 | 295 | 198 | 255 | 200 | 140 | 160 | 175 | 205 | 14 | 12 | 65 | 32 | G 2" | 25 | G1½" | 30,0 |

The dimensions of the motors refer to three-phase standard motors.



# Types
## MPN Pump Series



**Motors:**
» all driving motors are to IEC standard operating on 230/400 volts 50 cycles.
» single phase A.C. motors are also available up to 1,10 kW.
» explosionproof motors can be supplied to the whole range of pumps.
» special voltages, frequencies and types of protection can be delivered on request.

**Note:**
» upon request all motors can be supplied for USA standard (UL proof).
» for each pump also detail handouts are available.

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TÜV CERT
DIN EN ISO 9001:2000
Zertifikat 71 100 A 013

We reserve the right to alter the technical details.
Dimensions and performance details without guarantee.

updated 03/2013