

Magnetic drive pumps

Info 21 513 / R1 15-02-2003

Quality pumps deserve quality piping!

Many pump problems are caused by poor suction conditions. The bigger the pump and the higher the temperature, the more important that pump and pipe work match.

Select the right pipe size

Always try to respect the basic rules for liquid velocity v (metre/second)

We recommend for: **Suction side $v = 1 - 2$ m/s**

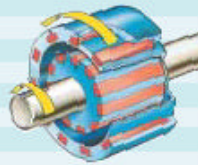
Discharge side $v = 1,5 - 3$ m/s

| Flow l/h | Inner pipe diameter (mm) | | | | | | | | |
|---|--------------------------|------|------|-------|------|------|------|------|------|
| | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| Velocity (m/s) at given flow (l/h) | | | | | | | | | |
| 1000 | 1,57 | 0,88 | 0,57 | | | | | | |
| 2000 | 3,15 | 1,77 | 1,13 | 0,69 | | | | | |
| 4000 | 6,29 | 3,54 | 2,26 | 1,38 | 0,88 | | | | |
| 6000 | | 5,31 | 3,40 | 2,07 | 1,33 | | | | |
| 8000 | | | 4,53 | 2,76 | 1,77 | 1,13 | | | |
| 10000 | | | 5,66 | 3,46 | 2,21 | 1,42 | 0,84 | | |
| 15000 | | | | 5,18 | 3,32 | 2,12 | 1,26 | 0,83 | |
| 20000 | | | | 6,91 | 4,42 | 2,83 | 1,68 | 1,11 | |
| 30000 | | | | 10,37 | 6,63 | 4,25 | 2,51 | 1,66 | 1,06 |
| 40000 | | | | | 8,85 | 5,66 | 3,35 | 2,21 | 1,42 |
| 50000 | | | | | | 7,08 | 4,19 | 2,76 | 1,77 |
| 60000 | | | | | | 5,03 | 3,32 | 2,12 | |
| 70000 | | | | | | 5,86 | 3,87 | 2,48 | |

10 Golden rules for suction piping:

1. Keep suction pipe as short as possible.
2. Increase suction pipe size by at least one diameter for longer suction pipe and/or high temperature.
3. Prevent or limit fittings on suction side.
4. If unavoidable, keep fittings a distance of 10 pipe diameters away from pump inlet.
5. Allow sufficient liquid level to prevent intake of air into suction pipe.
6. Support piping near pump to prevent stress.
7. Ensure piping is completely leak free.
8. Use generously oversized strainer in case of risk of foreign particles.
9. Use siphon breaker if pump is primed over top of tank.
10. Never throttle pump on suction side.

Magnetic drive for leak free pumping

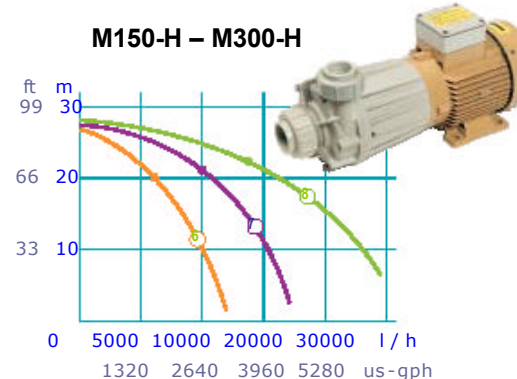
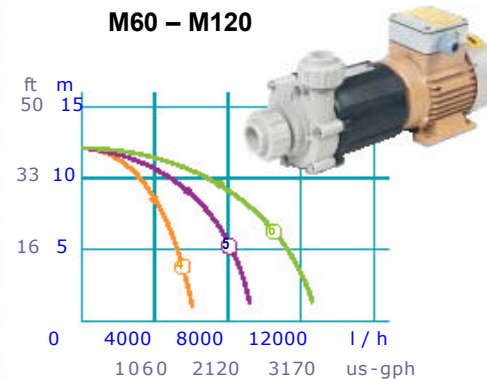
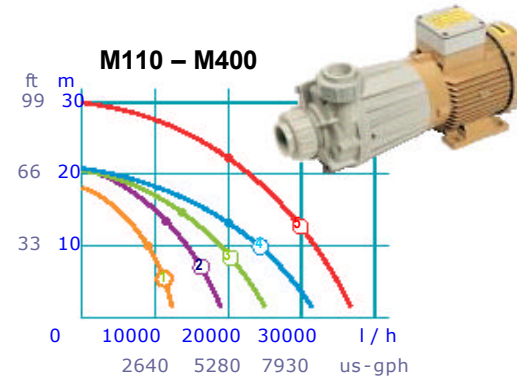
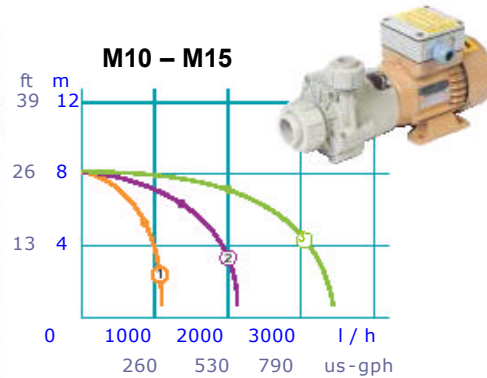


- Seal less.
- Max. temp PP 80° C, PVDF 90° C
- Two component Polyurethane motor coating for excellent chemical resistance.
- PP motor parts for maximum chemical protection
- 3 phase multivoltage capability

- All inlet/outlet unions available with CPVC sockets for CPVC and PVC pipe work.

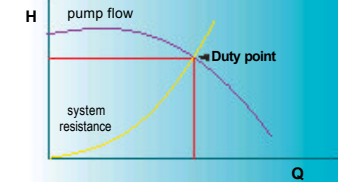
- Option:
 - hose adaptors
 - flange connections (DIN, ANSI).

- Ideal pump for use with frequency-converter

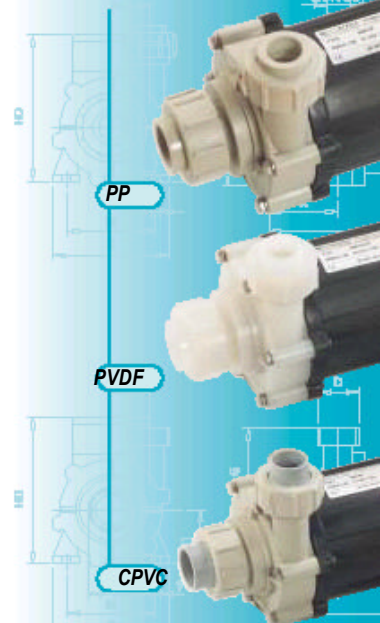


Best efficiency point (BEP).
Water 20o C, 50/60 Hz.

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Water 20o C, 50/60 Hz.



Hendor
Standard connections



www.hendor.com

| Q l/h | H m | SG < 1,2 | | | SG > 1,2 | | in (mm) d / DN | out (mm) d / DN |
|----------|--------|----------|------|-----|----------|---------|-------------------|--------------------|
| | | Type | kw | hp | Type | kw | | |
| 1000 | 8 | M10 | 0.12 | 1/6 | | | 32 / 25 | 20 / 15 |
| 2000 | 8 | M11 | 0.18 | 1/4 | | PP/PVDF | | |
| 3500 | 8 | M15 | 0.18 | 1/4 | | | | |

| | | | | | | | | |
|-------|----|------|------|-----|-----|------|---------|---------|
| 6000 | 12 | M60 | 0.25 | 1/3 | M62 | 0.55 | 32 / 25 | 25 / 20 |
| 9000 | 12 | M90 | 0.37 | 1/2 | M91 | 0.55 | 32 / 25 | 25 / 20 |
| 12000 | 12 | M120 | 0.55 | 3/4 | | | 40 / 32 | 32 / 25 |

3 ph motor B3 / B14 small

1 ph motor on request

| Q l/h | H m | type | Motor | | Frame size | Material | in (mm) d / DN | out (mm) d / DN | Max SG at | | |
|----------|--------|------|-------|----|---------------|----------|-------------------|--------------------|-----------|-------------|------|
| | | | kw | hp | | | | | BEP | End of pipe | |
| 12000 | 18 | M110 | 1,1 | 1½ | 80 | PP/PVDF | 40 / 32 32 / 25 | 1,52 | 1,27 | | |
| 18000 | 20 | M150 | 1,5 | 2 | 90 | | | | | 1,47 | 1,14 |
| 24000 | 20 | M220 | 2,2 | 3 | 90 | | | | | 1,6 | 1,26 |
| 30000 | 20 | M300 | 3,0 | 4 | 100 | | | | | 1,41 | 1,25 |
| 36000 | 30 | M400 | 4,0 | 5½ | 100 | | 63 / 50 50 / 40 | 1,38 | 1,13 | | |

| | | | | | | | | | | | |
|-------|----|--------|-----|---|-----|---------|-----------------|------|-----|------|------|
| 6000 | 12 | M150-H | 1,5 | 2 | 90 | PP/PVDF | 63 / 50 50 / 40 | 1,27 | 1,1 | | |
| 9000 | 12 | M220-H | 2,2 | 3 | 90 | | | | | 1,58 | 1,16 |
| 12000 | 12 | M300-H | 3,0 | 4 | 100 | | | | | 1,27 | 1,1 |

3 ph motor B3 / B14 small

Bestandsnaam: MAGNE2
Map: G:\WE\WORD\FOL2003
Sjabloon: C:\Documents and Settings\Administrator\Application
Data\Microsoft\Sjablonen\Normal.dot
Titel:
Onderwerp:
Auteur: Wil van den Eijnde
Trefwoorden:
Opmerkingen:
Aanmaakdatum: 16-1-2004 15:18
Wijzigingsnummer: 2
Laatst opgeslagen op: 16-1-2004 15:18
Laatst opgeslagen door: Wil van den Eijnde
Totale bewerkingstijd: 4 minuten
Laatst afgedrukt op: 17-2-2004 16:40
Vanaf laatste volledige afdruk
Aantal pagina's: 2
Aantal woorden: 14 (ong.)
Aantal tekens: 84 (ong.)