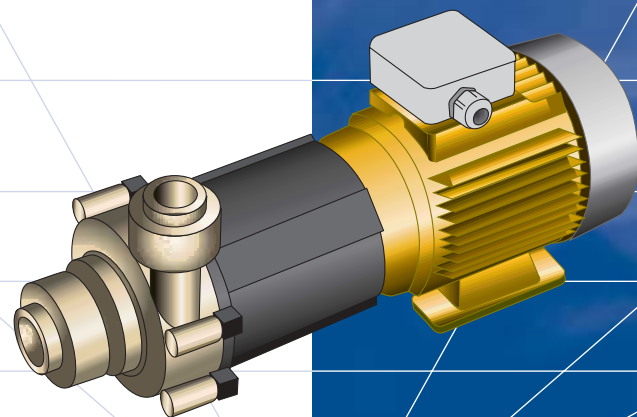




Magnetic drive pumps

Info 21 513 / R1 15-02-2003

Design and realization: Concorde Grafimedia, Bladel, The Netherlands

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 pipework 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

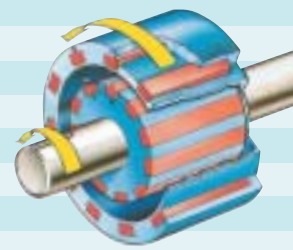
Flow l/h	Inner pipe diameter (mm)						
	15	20	25	32	40	50	100
Velocity (m/s) at given flow (l/h)							
1000	1,57	0,88	0,57				
2000	3,15	1,77	1,13	0,69			
4000	6,29	3,54	2,26	1,38	0,88		
6000		5,31	3,40	2,07	1,33		
8000			4,53	2,76	1,77	1,13	
10000			5,66	3,46	2,21	1,42	0,84
15000				5,18	3,32	2,12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

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 leakfree pumping !

hendor
Quality Pumps & Filters

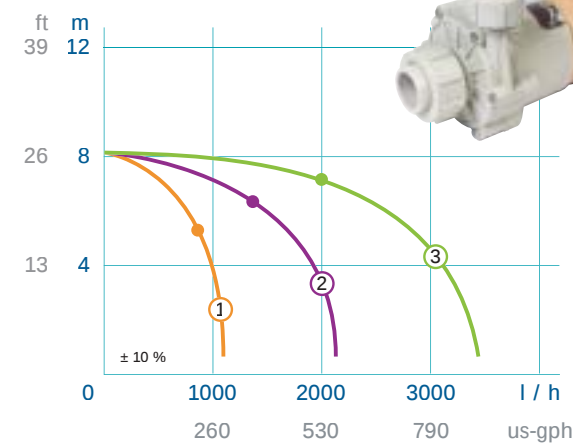


- Sealless.
- Max. temp. PP 80°C, PVDF 90°C.
- Two component Polyurethane motor coating for excellent chemical resistance.
- PP motorparts for maximum chemical protection.
- 3 phase multivoltage capability.

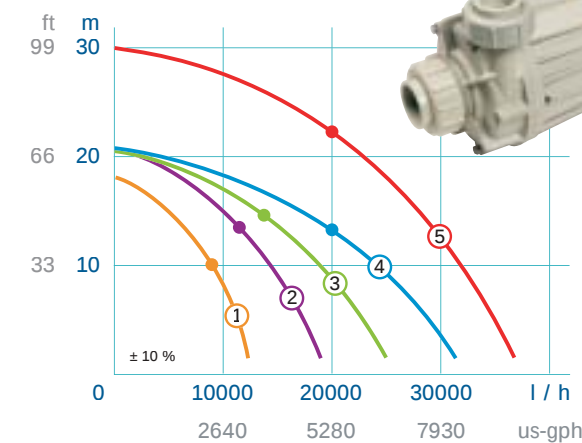
- All inlet/outlet unions available with CPVC sockets for CVPC and PVC pipework.
- Option:
 - hose adaptors.
 - flange connections (DIN, ANSI).
 - threaded (BSP).

- Ideal pump for use with frequency-converter.

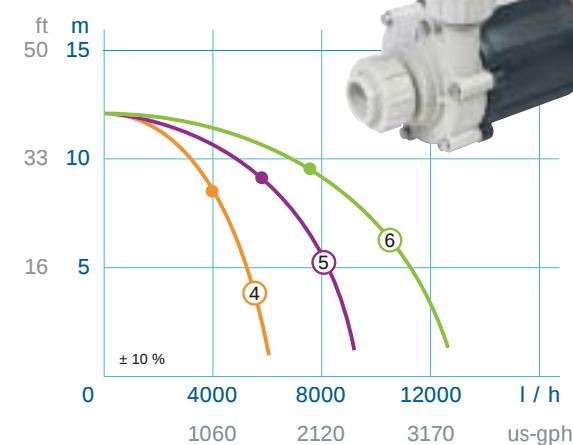
M10 - M15



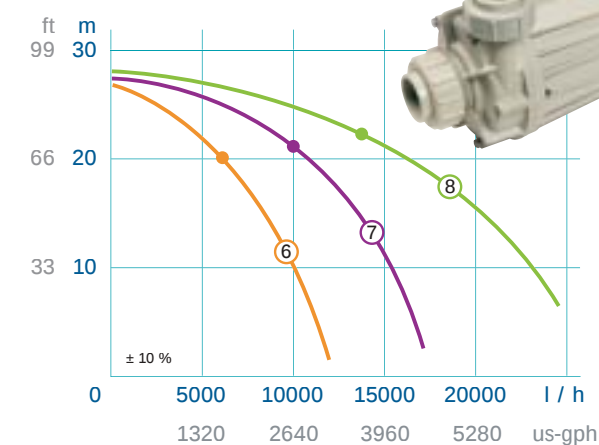
M110 - M400



M60 - M120

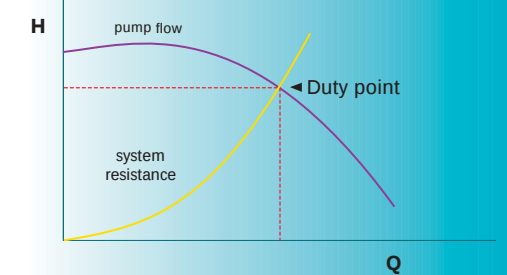


M150-H - M300-H

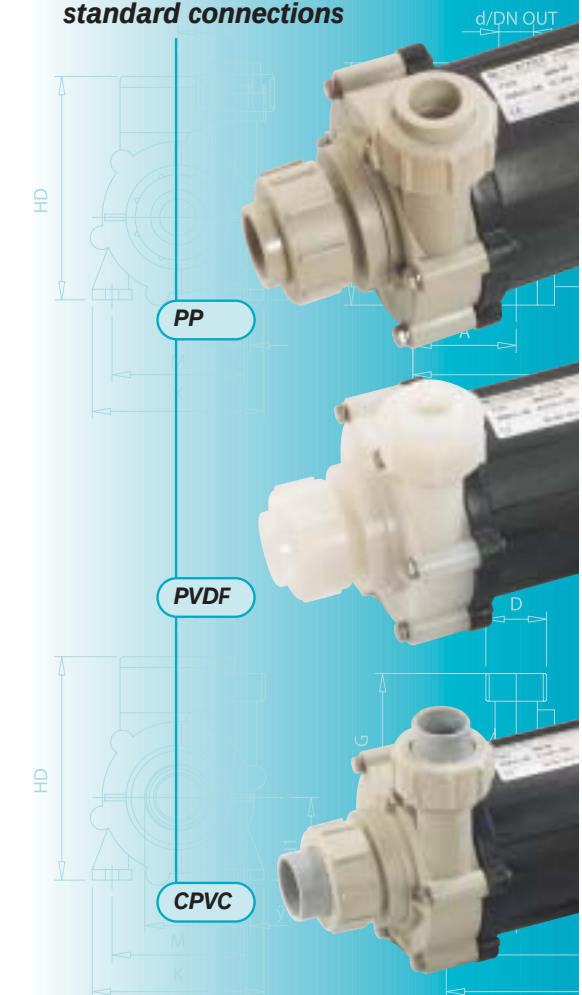


Best Efficiency Point (BEP).
Water 20° C., 50/60 Hz.

Best Efficiency Point (BEP).
Water 20° C., 50/60 Hz.



Hendor
standard connections



www.hendor.com

	Q l / h	H m	SG < 1,2			SG > 1,2			Material	in (mm) d / DN	out (mm) d / DN
			Type	kW	hp	Type	kW	hp			
①	1000	8	M10	0.12	1/6				PP/PVDF	32 / 25	20 / 15
②	2000	8	M11	0.18	1/4						
③	3500	8	M15	0.18	1/4						
④	6000	12	M60	0.25	1/3	M62	0.55		PP/PVDF	32 / 25	25 / 20
⑤	9000	12	M90	0.37	1/2	M91	0.55				
⑥	12000	12	M120	0.55	3/4						

3 ph motor B3 / B14 small
1 ph motor on request

	Q max l / h	H max m	Type	Motor		Frame size	Material	in (mm) d/DN	out (mm) d/DN	Max SG at	
				kW	hp					BEP	End of curve
①	12000	18	M110	1,1	1 1/2	80	PP/PVDF	40/32	32/25	1,52	1,27
②	18000	20	M150	1,5	2	90		50/40	40/32	1,47	1,14
③	24000	20	M220	2,2	3	90		63/50	50/40	1,60	1,26
④	30000	20	M300	3,0	4	100		63/50	50/40	1,41	1,25
⑤	36000	30	M400	4,0	5 1/2	110		63/50	50/40	1,38	1,13
⑥	10000	28	M150-H	1,5	2	90	PP/PVDF	63/50	50/40	1,27	1,10
⑦	16000	28	M220-H	2,2	3	90		63/50	50/40	1,58	1,16
⑧	24000	28	M300-H	3,0	4	100		63/50	50/40	1,27	1,10

3 ph motor B3 / B14 small