



## Seal-less, End Suction Magnetic Drive Centrifugal Pumps



## SETHCO® END SUCTION CORROSION RESISTANT MAGNETIC DRIVE, SEAL-LESS CHEMICAL PUMPS

Sethco magnetic drive, seal-less pumps are precision designed to meet the demands of a wide range of OEM, chemical and industrial applications. These pumps can be used for highly corrosive or mild chemicals, acids or solvents at flows to 275 GPM at temperatures to 210°F.

#### Leakproof, Seal-less Construction

No shaft seal is used or required on these magnetically driven pumps. Power is transmitted by a magnetic field traveling from a magnet attached to the motor, through the solid body of the pump, to a magnet attached to the impeller. *No shaft seal ensures that leakage and troublesome seal replacement are completely eliminated.* The superior seal-less, magnetic drive design provides a reliable, smooth running, vibration-free pump that delivers high flow and pressure.

#### **Excellent Chemical Resistance**

The wetted components of these rugged seal-less pumps are available in your choice of Polypropylene or all PVDF. Polypropylene is glass reinforced and PVDF is carbon reinforced for added strength and reliability. These materials offer broad corrosion resistance to acids, alkalies, caustics. bleaches. sea water, solvents and many harsh environments. All pumps include a 99.5% Alumina ceramic shaft and thrust washers. High purity carbon bearings are standard with 6 Ryton® or silicone carbide available where required. Viton o-rings are standard on all pumps, while teflon and EPDM are available. There is no metal contact with the liquid being pumped.

# PVDF Model KM-550

Sethco Division

Polypropylene Model PM-2550

#### **Run Dry Capability**

Once a Sethco end suction pump has been primed with solution, it is possible for it to run dry without damage if flow to the pump is interrupted for any reason. Run dry times may vary depending on model, bearing type and piping configuration.

#### **Designed for Reliability**

Among its many features is its unique impeller/driven magnet design. The two are separate distinct pieces so that one can be replaced without having to purchase the other. This feature also reduces the load on the front bearing and trust washer.

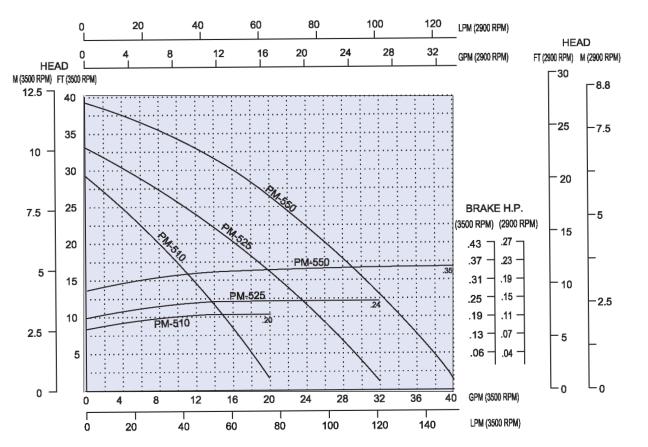
#### **Easy to Maintain**

In the event a pump should ever need service, the limited number of parts allows for easy disassembly, inspection and maintenance without any special tools or talent. The motor can be separated from the pump housing without difficulty. Magnetic coupling design acts as a clutch to eliminate motor burnout and overloading under adverse conditions. Magnet housing acts as an insulator to prevent motor heat from being transferred to the fluid being pumped



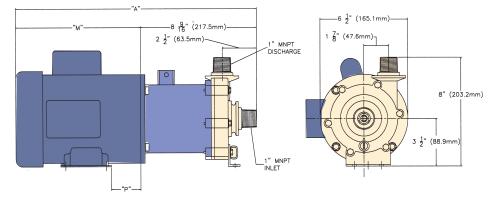
## **500 Series for flows to 40 GPM (150 LPM)**

#### **PERFORMANCE CURVE**



#### DIMENSIONS

Motor HP	Volts/Phase	"A"	"M"	"P"	
1/4	115-208/230, 1 ph	16-3/16" (411mm)	7-5/8" (194mm)	2-1/8" (54mm)	
1/3	115-208/230, 1 ph	16-3/16" (411mm)	7-5/8" (194mm)	2-1/8" (54mm)	
1/3	115-208/230, 1 ph	16-13/16" (427mm)	8-1/4" (209mm)	2-1/8" (54mm)	
1/2	115-208/230, 1 ph	17-5/16" (440mm)	8-3/4" (194mm)	2-1/8" (54mm)	
1/2	208-230/460, 3 ph	16-13/16" (427mm)	8-1/4" (209mm)	2-1/8" (54mm	
3/4	115-208/230, 1 ph	18-5/16" (465mm)	9-3/4" (247mm)	2-1/8" (54mm)	
3/4	208-230/460, 3 ph	18-5/16" (465mm)	9-3/4" (247mm	2-1/8" (54mm	

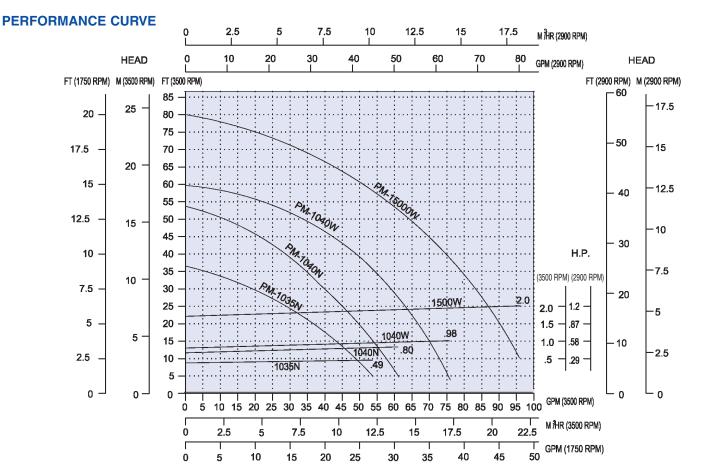


#### PUMP SPECIFICATIONS: FLOW CAPACITIES TO 40 GPM, PRESSURE TO 38 FT. 6 MODELS TO CHOOSE FROM

Model Number		Flow Maximum Head		Maximum Operating		Ν	/lotor Ch	Weight <sup>†</sup>					
Polypropylene	PVDF	GPM	LPM	Ft.	M.	Temp. (F / C)	HP*	Volts	Hz.	Phase	Туре	Lbs.	Kg.
PM-510	KM-510	20	75	28	8.5	Polypropylene	1/4					30	13.6
PM-525	KM-525	32	120	33	10	180°F / 82°C	1/3	115/230	60	1 ph	TEFC	31	14
PM-550	KM-550	40	150	38	11.5	PVDF 210°F / 99°C	1/2					34	15.5

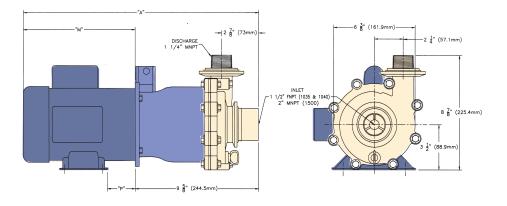
\* Customer supplied external overload protection is required on 3 phase motors. Consult factory for 50 Hz. motor. Explosion proof motors are available † Add approximately 3 pounds for PVDF. Add approximately 20% extra for shipping weight.

## **1000 Series for flows to 96 GPM (22 m<sup>3</sup>/hr)**



#### DIMENSIONS

Motor HP	Volts/Phase	" <b>A</b> "	"M"	"P"
1/2	115-208/230, 1 ph	18-3/8" (466mm)	8-3/4" (222mm)	2-1/8" (54mm)
1/2	208-230/460, 3 ph	17-7/8" (454mm)	8-1/4" (210mm)	2-1/8" (54mm)
3/4	115-208/230, 1 ph	19-3/8" (492mm)	9-3/4" (248mm)	2-1/8" (54mm)
3/4	208-230/460, 3 ph	19-3/8" (492mm)	9-3/4" (248mm)	2-1/8" (54mm)
1	115-208/230, 1 ph	19-3/8" (492mm)	9-3/4" (248mm)	2-1/8" (54mm)
1	208-230/460, 3 ph	19-3/8" (492mm)	9-3/4" (248mm)	2-1/8" (54mm
2	115-208/230, 1 ph	20-7/8" (530mm)	11-1/4" (285mm)	1-1/2" (38mm)
2	208-230/460, 3 ph	19-7/8" (504mm)	10-1/4" (260mm)	1-1/2" (38mm)
3	208-230/460, 3 ph	21-3/8" (543mm)	11-3/4" (298mm)	1-1/2" (38mm)
4	208-230/460, 3 ph	21-3/8" (543mm)	11-3/4" (298mm)	1-1/2" (38mm)



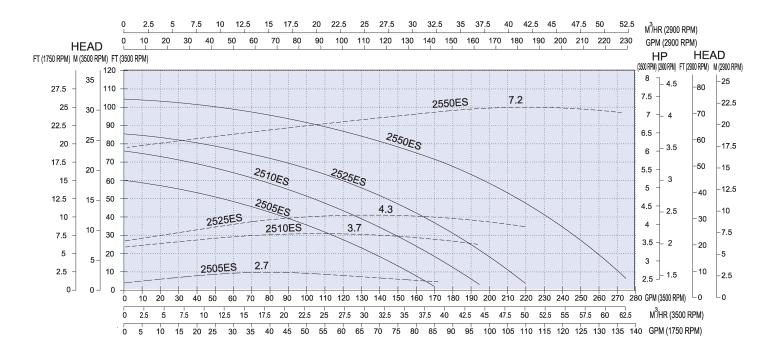
#### PUMP SPECIFICATIONS: FLOW CAPACITIES TO 96 GPM, PRESSURE TO 80 FT. 8 MODELS TO CHOOSE FROM

Model Number		Flow Maximum Head		Maximum Operating		Ν	Motor Characteristics*				Weight <sup>†</sup>		
Polypropylene	PVDF	GPM	m <sup>3</sup> /hr	Ft.	М.	Temp. (F / C)	HP*	Volts	Hz.	Phase	Туре	Lbs.	Kg.
PM-1035	KM-1035	54	12	36	11	Polypropylene	1/2					34	15.4
PM-1040N	KM-1040N	62	14	53	16	180°F / 82°C  PVDF 210°F / 99°C	3/4	115/230	60	1 ph	TEFC	35	15.8
PM-1040W	KM-1040W	76	17	60	18		1	115/230				37	16.8
PM-1500	KM-1500	96	22	80	24		2			3 ph (230/460V)		43	19.5

\*Customer supplied external overload protection is required on 3 phase motors. Consult factory for 50 Hz. motor. Explosion proof motors are available † Add approximately 3 pounds for PVDF. Add approximately 20% extra for shipping weight.

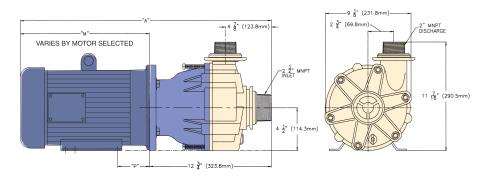
## **2500 Series for flows to 275 GPM (62 m<sup>3</sup>/hr)**

#### PERFORMANCE CURVE



#### DIMENSIONS

Motor HP	Volts/Phase	" <b>A</b> "	"M" Varies By Motor Selected	" <b>P</b> "	Motor Frame Standard
3	208-230/460 3 Phase	27" (686 mm)	14-1/4" (362 mm)	2-3/4" (70 mm)	182TC
5	208-230/460 3 Phase	29" (737 mm)	16-1/4" (413 mm)	2-3/4" (70 mm)	184TC
7.5	208-230/460 3 Phase	28-3/4" (730 mm)	16" (406 mm)	3-1/2" (89 mm)	213TC
10	208-230/460 3 Phase	30" (762 mm)	17-1/4" (438 mm)	3-1/2" (89 mm)	215TC



#### PUMP SPECIFICATIONS: FLOW CAPACITIES TO 275 GPM, PRESSURE TO 105 FT. 8 MODELS TO CHOOSE FROM

Model Number		Flow Maximum Head		Maximum Operating		Motor Characteristics*				Weight <sup>†</sup>			
Polypropylene	PVDF	GPM	m <sup>3</sup> /hr	Ft.	М.	Temp. (F / C)	HP*	Volts	Hz.	Phase	Туре	Lbs.	Kg.
PM-2505	KM-2505	170	38.5	60	18	Polypropylene	3					84	38
PM-2510	KM-2510	195	44	76	23	180°F / 82°C	5	208-230/	60	Qmh	TEFC	105	48
PM-2525	KM-2525	220	50	85	26	PVDF	5	460	460 60	3 ph	TEFC	105	48
PM-2550	KM-2550	275	56.5	105	32	210°F / 99°C	7-1/2					191	86

\*Customer supplied external overload protection is required on 3 phase motors. Consult factory for 50 Hz. motor. Explosion proof motors are available. Model with 10 HP motor is available. † Add approximately 3 pounds for PVDF. Add approximately 20% extra for shipping weight.

### SETHCO® SEAL-LESS, END SUCTION, MAGNETIC DRIVE, CENTRIFUGAL PUMPS

#### QUICK SELECTION GUIDE FOR MODELS PM & KM PUMPS

Add PM before model number for Polypropylene construction and KM before model number for PVDF construction.

	HEAD (Feet) 3500 RPM												
		10	20	30	40	<b>50</b>	60	70	80	90	100		
	10	510	525	550	1040NT	1040NT	1500	1500	2525	2550	2550		
	20	525	550	1035NT	1040NT	1040WT	1500	1500	2525	2550	2550		
	30	550	1035NT	1040NT	1040WT	1040WT	1500	1500	2525	2550	2550		
	40	1035NT	1040NT	1040NT	1040WT	1500	1500	2525	2525	2550	2550		
	50	1035NT	1040NT	1040WT	1040WT	1500	1500	2525	2550	2550	2550		
	60	1040WT	1040WT	1040WT	1500	1500	2510	2525	2550	2550	-		
Σ	70	1040WT	1500	1500	1500	2510	2510	2525	2550	2550	-		
RPM	80	1500	1500	1500	2505	2510	2525	2525	2550	2550	-		
3500	90	1500	1500	2505	2505	2510	2525	2550	2550	2550	-		
35	100	2505	2505	2505	2510	2510	2525	2550	2550	2550	-		
щ	110	2505	2505	2505	2510	2525	2525	2550	2550	_	-		
5	120	2505	2505	2510	2510	2525	2525	2550	2550	_	-		
MIN	130	2505	2505	2510	2525	2525	2550	2550	2550	_	-		
£	140	2505	2510	2510	2525	2525	2550	2550	2550	_	-		
РЕ	150	2505	2510	2510	2525	2550	2550	2550	—	_	-		
S	160	2510	2510	2525	2525	2550	2550	2550	_	_	-		
ŇO	170	2510	2525	2525	2550	2550	2550	2550	_	_	-		
<b>L</b> L	180	2510	2525	2525	2550	2550	2550	_	—	_	-		
GA	190	2525	2525	2550	2550	2550	2550	_	_	_	-		
	200	2525	2550	2550	2550	2550	_	_	_	_	-		
	210	2525	2550	2550	2550	2550	-	_	—	_	-		
	220	2550	2550	2550	2550	_	_	_	_	_	-		
	230	2550	2550	2550	2550	_	-	_	—	_	-		
	240	2550	2550	2550	_	_	_	_	_	_	_		
	250	2550	2550	_	_	_	_	_	_	_	_		
	260	2550	2550	_	_	_	_	_	_	_	_		
	270	2550	_	_	_	_	_	_	_	_	_		

Note: Not all selections will work for every application due to different specific gravity of liquids. Please consult a Sethco Application Engineer before purchasing a pump.

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