CPA Series
Mag-Drive Sealless Pumps

TECH-MAG

Complete Source for sealless Mag-Drive Pumps

Series CPA

Alloy
MAG-DRIVE

ROTARY VANE
PUMPS

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TECH-MAG Series CPA

Alloy P.D. ROTARY VANE Seal-less Mag-Drive Pumps

The **TECH-MAG CPA** Series Alloy P.D. Rotary Vane Seal-less Mag-drive pumps are ideally suited for low flow / high head applications. All **CPA** pumps are equipped with zero leakage magnetic couplings to meet the latest toxic emissions regulations. The absence of mechanical seals or packing glands eliminates costly pump maintenance, lost production time, lost product, process contamination and unexpected failures.

CPA Series pumps feature self-compensating sliding-vanes that maintain design head and flow capacities for extended operating life. **CPA Series** pumps are suitable for thin non-lubricating liquids and/or high differential pressures. The **CPA** pumps are capable of self-priming from a dry start.

Technical Design Features

- Self-priming and can run dry without damage
- No gears to wear or metal to metal contact, low internal slip
- Capable of proportioning with variable speed drives, turn-down ratios depending upon differential head requirements
- Heavy duty casing
- Heavy duty alloy containment shell for added safety
- Replaceable carbon cartridge - low maintenance costs
- Chemically resistant carbon or silicon carbide sleeve bearings
- High torque magnets for direct starting motors
- Pedestal mounted or closed coupled design

Commercial Benefits

- Eliminates vapor discharges and catastrophic seal leakage
- Exempt from costly seal pots and EPA seal monitoring
- Avoids by-pass lines associated with oversized centrifugals
- Extended pump life for reduced maintenance cost

Materials of Construction

Alloy Components
- AISI SS-316L Stainless Steel
- Incoloy-825
- Hastelloy-C276

Internal Sleeve Bearings
- Alpha Grade Silicon Carbide

Specifications

Self-Priming from dry:	to 10 Feet
Viscosities:	to 2000 cPs
System Pressures:	350 PSI to 2500 PSI
Operating Temperatures:	-100°F to 480°F
Flows:	to 17.5 gpm
Differential Pressures:	to 200 psig

Options

- Flanged ports
- Silicon carbide journal bearings
- High temperature design
- External relief valve*

*Top port design includes internal relief valve as standard (factory set at 150 PSIG)

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MODEL CODIFICATION **Sample Model: CPA-S2F1A123**

SERIES: CPA

MATERIAL:
S = 316SS I = Incoloy 825
H = Hastelloy C276

SIZE:

1 - 26 gph	5 - 132 gph	11 - 300 gph
2 - 53 gph	6 - 158 gph	12 - 480 gph
3 - 80 gph	7 - 185 gph	14 - 660 gph
4 - 105 gph	8 - 212 gph	
	9 - 238 gph	
	10 - 264 gph	

PUMP HEAD DESIGN:

A = Inline ⅜" NPT	E = 300# Flange
B = Inline ½" NPT	F = Top Port ⅜" NPT
C = Inline ¾" NPT	G = Top Port ½" NPT
D =150# Flange	H = Top Port ¾" NPT

CARTRIDGE MATERIAL:
1 = Carbon (self-lubricating) 2 = Special Carbon (self-lubricating / hi temp)

ROTOR MATERIAL:
A - Alloy B = Alloy w/ SiC End Support Bearings

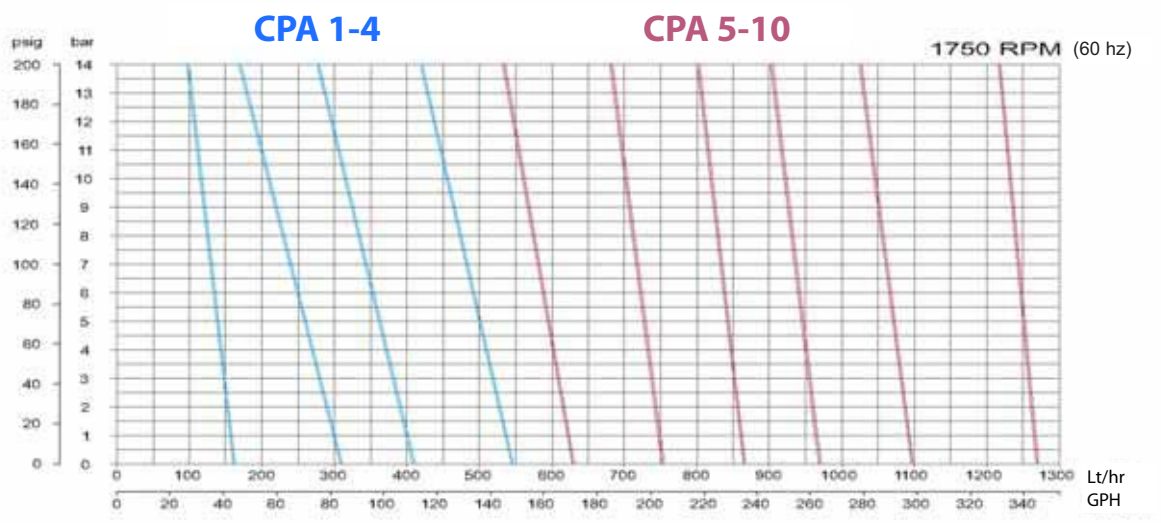
FRAME SIZE:
1 = NEMA 56C 2 = NEMA 145TC 3 = Bearing Frame (oil lubricated)
Note: Metric frame sizes also available

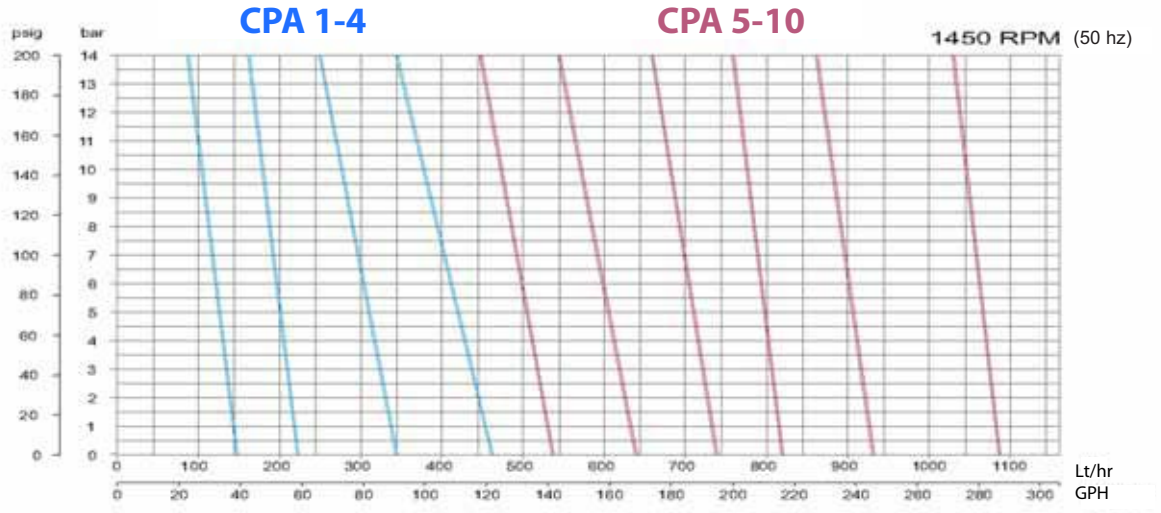
DRIVE:

0 = Less Motor	1 = ODP	2 = TEFC
3 = ULXP	4 = Chem-Duty	X = Special

PHASE:
1 = Single 1750 2 = Single 1150 3 = three 1750 4 = three 1150

Performance Curves

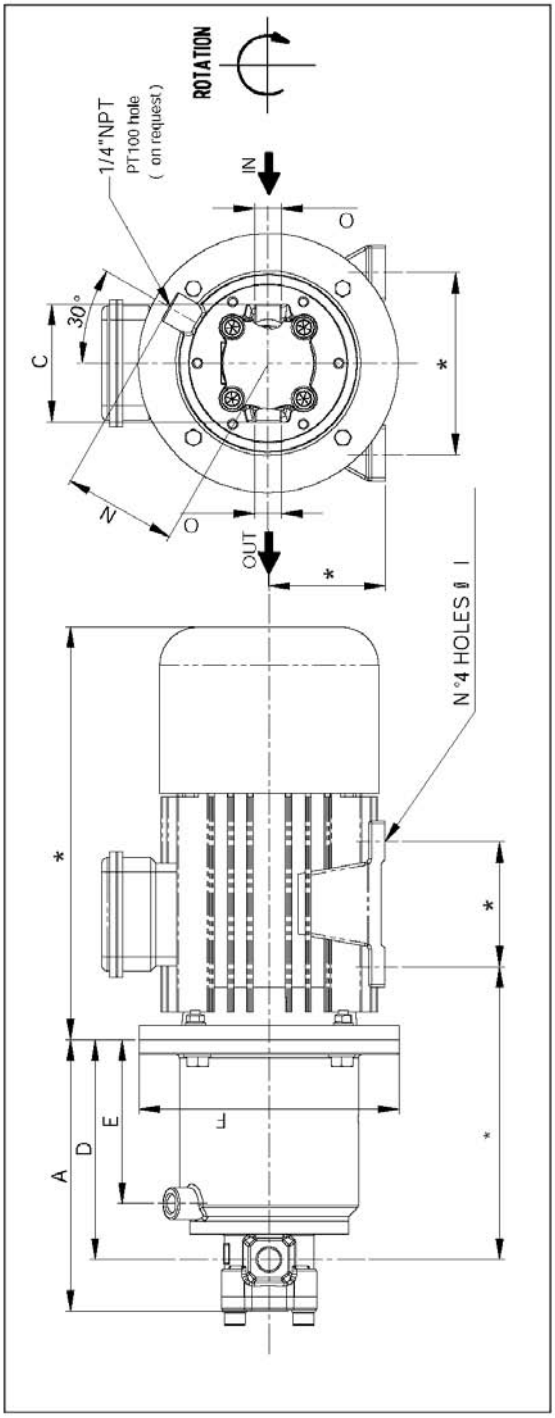




CPA 11-14 Performance curves available upon request

Performances at 2800 and 3500 rpm are available upon request

Dimensional Drawing



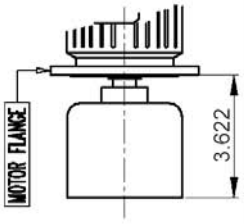
A	B	C	D	E	F	G	H	I	L	M	N
6.22	*	2.83	5.35	4.01	6.29	*	*	*	*	*	2.75

- This drawing is for reference only
- Pump may be supplied without motor
- All dimensions are in inches

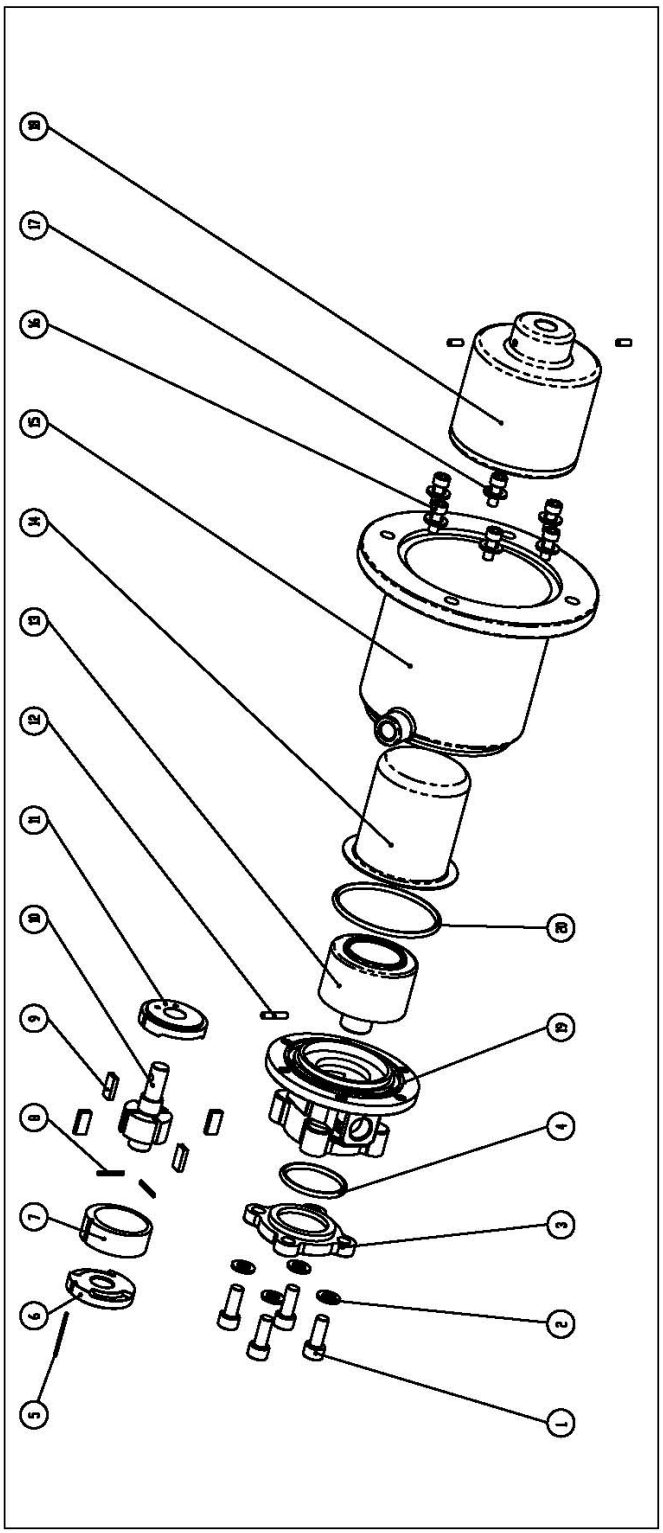
* Depend on the manufacturer

Suction / Discharge Port	O	3/8" NPT	

external magnet



EXPLODED VIEW - PARTS LIST



ITEM N°	Description	Material	Quantity
1	Set screws	SS 316	4
2	Washer	SS 316	4
3	Cover	SS 316	1
4	Cover o-ring 4150	VITON	1
5	Guide pins	SS 316	1
6	Front disc	carbon	1
7	Stator	carbon	1
8	Pins	SS 316	2
9	Vanes	carbon	4
10	Rotor	SS 316	1
11	Rear disc	carbon	1
12	Internal magnet locking pin	SS 316	1
13	Internal magnet	SS 316	1

ITEM N°	Description	material	Quantity
14	Rear casing	SS 316	1
15	Bracket	Aluminium	1
16	Set screws	SS 316	6
17	Washer	SS 316	6
18	External magnet	Carbon steel	1
19	Pump casing	SS 316	1
20	Rear casing o-ring 4262	VITON	1

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