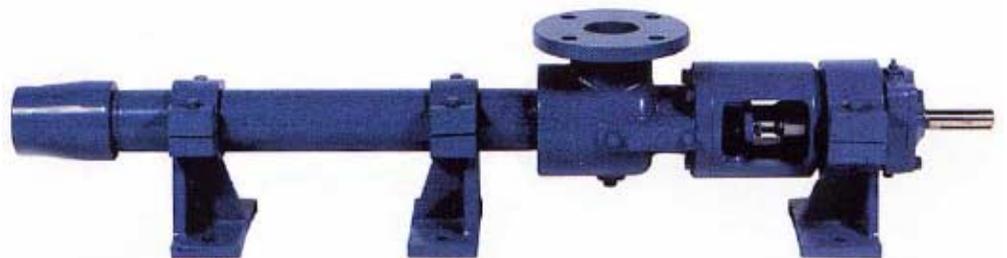




PROGRESSING CAVITY PUMPS



Models EL & EM PC800 Series

EAGLE PROGRESSING CAVITY PUMPS

RUGGED • RELIABLE • INTERCHANGABLE



“EP” Series

Eagle progressing cavity pumps will handle practically anything that you can push through a pipe, from free flowing liquids to abrasive slurries and substances containing relatively large particles. The operation of the PC800 might be compared to that of a precision screw conveyor. As the rotor turns within the stator, cavities are formed which progress toward the discharge end of the pump carrying the material being pumped.



“EL” & “EM” Series

Positive Displacement

A single rotating element generates positive displacement cavities which progress towards the discharge as the “rotor” is rotated, delivering uniform, continuous flow. Head is independent of speed. Slippage is a function of viscosity and pressure and is predictable for all operating conditions.

Features

Positive Displacement

Discharge is non-pulsating, uniform, predictable and accurately repeatable for any liquid or slurry being pumped. Capacity is approximately proportional to speed. Equipped with a variable speed driver, the pump becomes an accurate control for any process.

Quiet Operation

The rotor turning in a resilient stator generates very little noise. Pump noise runs well below 90 dbs., predominantly in the lower octave bands. The power source will usually be the loudest sound produced by an Eagle PC800 pump package.

Suction Lift and NPSH

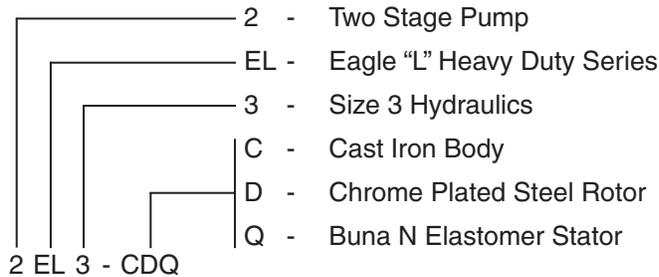
Eagle progressing cavity pumps can operate with suction lifts as high as 28 ft. when pumping water. (Corrective factors must be applied for other liquids.) These pumps perform consistently under wide fluctuations in suction pressures. For example, a change from 10 ft. suction lift to a 10 ft. suction head would have no effect on pump capacity. Pumping capacity is directly related to rpm, not changes in suction head.

Pumps Solids and Abrasives

PC800 pump displacement is practically unaffected by variations in solids content or the abrasive nature of the liquid. Only horsepower requirements change when solids or viscosities vary. Particles upto 11/8” diameter can be handled by the larger Eagle pumps without difficulty. Should a sharp particle become embedded in the stator, it’s passed over by the rotor and the following pumpage tends to flush it free

Models and Materials

Pump model sizes are indicated with 3 components - 1) Number of stages 2) Style of pump 3) Hydraulic size. Pump materials to be used are based on the fluid to be handled. Pump sizes are followed by a three digit code indicating the material of the three major components, the Body, Rotor and Stator. For example, a pump with the model number 2EL3-CDQ indicates the following:



Pump Materials		
Part	Letter	Material
Pump Body	C	Cast Iron
	S	316 Stainless Steel
Rotor	D	Chrome Plated Alloy Steel
	S	Chrome Plated 316 Stainless Steel
	H	Chromium Carbide
	T	Teflon®
Stator	F	Viton Rubber®
	Q	Buna N
	R	Natural Rubber

Teflon® and Viton® are registered trademarks of Dupont Dow Elastomers

Pump Performance Data (based on water @ 21°C or 70°F)

EL Models

Frame Size	U.S. Gal. @100 R.P.M.	Operating Range (P.S.I.)
1EL2	.250	0-60
2EL2	.250	0-120
3EL2	.250	0-180
1EL3	.840	0-75
2EL3	.840	0-150
3EL3	.840	0-225
1EL4	2.00	0-75
2EL4	2.00	0-150

Frame Size	U.S. Gal. @100 R.P.M.	Operating Range (P.S.I.)
3EL4	2.00	0-225
1EL6	5.20	0-75
2EL6	5.20	0-150
3EL6	5.20	0-225
1EL8	11.70	0-75
2EL8	11.70	0-150
3EL8	11.70	0-225
1EL10	18.0	0-75
2EL10	18.0	0-150

Frame Size	U.S. Gal. @100 R.P.M.	Operating Range (P.S.I.)
3EL10	18.0	0-225
1EL10H	27.5	0-75
2EL10H	27.5	0-150
1EL12	43.5	0-75
2EL12	43.5	0-150
3EL12	43.5	0-225
1EL12H	62.0	0-75
2EL12H	62.0	0-150
1EL14	83.0	0-75

EM Models

Frame Size	U.S. Gal. @ 100 R.P.M.	Operating Range (P.S.I.)
2EM1	.048	0-120
6EM1	.048	0-360
6EM2	.248	0-360
6EM3	.850	0-450
6EM4	2.00	0-450

Note:

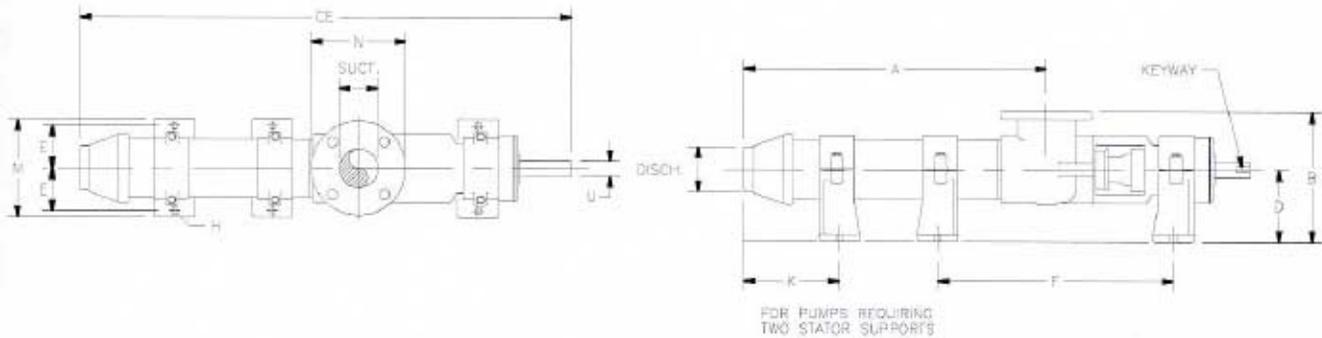
When selecting Eagle PC800 Progressing Cavity Pumps, consideration must be given to the following application conditions:

- Liquid viscosity
- Liquid temperature
- Abrasive qualities of the liquid
- Corrosive properties of the liquid

Based on the above data, correction factors are applied to pump performance, operating speed, materials and horsepower ratings. Your local distributor can assist you with the proper selection for your application.

Dimensions and Weights - EL Frame Pumps

Pump Size	Dimensions (inches)												Appr. Weight (LBS)	Port Sizes	
	CE	A	B	D	E	F	H	K	M	N	U	Keyway		Suct.	Disch.
1EL2	17-1/16	7-3/8	5-7/8	3-1/4	1-9/16	8-1/2	3/8	4-5/16	4	4-1/4	5/8	3/16x3/32	22	1"	3/4"
2EL2	20-9/16	10-15/16	5-7/8	3-1/4	1-9/16	10-1/2	3/8	5-13/16	4	4-1/4	5/8	3/16x3/32	23	1"	3/4"
3EL2	24-1/8	14-1/2	5-7/8	3-1/4	1-9/16	12	3/8	7-7/8	4	4-1/4	5/8	3/16x3/32	30	1"	3/4"
1EL3	22-11/16	10-11/16	7-5/16	4-1/8	2-1/8	11-1/2	7/16	5-1/2	5-3/8	5	3/4	3/16x3/32	45	1-1/2"	1-1/4"
2EL3	28	15-3/8	7-5/16	4-1/8	2-1/8	13	7/16	9-3/8	5-3/8	5	3/4	3/16x3/32	50	1-1/2"	1-1/4"
3EL3	33-7/16	20-5/16	7-5/16	4-1/8	2-1/8	16-1/2	7/16	7-1/4	5-3/8	5	3/4	3/16x3/32	58	1-1/2"	1-1/4"
1EL4	29-15/16	13-1/16	9-7/8	5-1/2	2-3/4	15-3/4	9/16	7-1/4	7	7	15/16	1/4x1/8	84	2-1/2"	2"
2EL4	37-3/16	20-5/16	9-7/8	5-1/2	2-3/4	22	9/16	8-3/16	7	7	15/16	1/4x1/8	90	2-1/2"	2"
3EL4	44-3/16	27-7/16	9-7/8	5-1/2	2-3/4	22-3/4	9/16	10-7/16	7	7	15/16	1/4x1/8	97	2-1/2"	2"
1EL6	39-3/16	17-7/8	11-1/4	6-1/4	3-1/2	20	11/16	10-5/8	8-5/8	7-1/2	1-1/8	1/4x1/8	140	3"	2-1/2"
2EL6	49-13/16	28-1/2	11-1/4	6-1/4	3-1/2	26	11/16	9-1/4	8-5/8	7-1/2	1-1/8	1/4x1/8	170	3"	2-1/2"
3EL6	60-5/16	39	11-1/4	6-1/4	3-1/2	20	11/16	13-5/8	8-5/8	7-1/2	1-1/8	1/4x1/8	190	3"	2-1/2"
1EL8	46-1/16	20-1/4	14	8	4-1/2	27	7/8	9-13/16	11-1/2	9	1-3/8	3/8x3/16	301	4"	4"
2EL8	58-1/4	32-1/4	14	8	4-1/2	32	7/8	10-1/16	11-1/2	9	1-3/8	3/8x3/16	337	4"	4"
3EL8	70-7/8	45	14	8	4-1/2	25	7/8	12-1/2	11-1/2	9	1-3/8	3/8x3/16	373	4"	4"
1EL10	53-3/16	21-15/16	16-11/16	9-3/4	4-1/2	30	7/8	9-11/16	11-1/2	11	1-7/8	1/2x1/4	414	6"	5"
2EL10	63-7/16	32-5/16	16-11/16	9-3/4	4-1/2	35-1/2	7/8	9-7/16	11-1/2	11	1-7/8	1/2x1/4	480	6"	5"
3EL10	73-15/16	42-7/16	16-11/16	9-3/4	4-1/2	30	7/8	12-7/16	11-1/2	11	1-7/8	1/2x1/4	544	6"	5"
1EL10H	58-7/16	27-3/16	16-11/16	9-3/4	4-1/2	30	7/8	14-15/16	11-1/2	11	1-7/8	1/2x1/4	423	6"	5"
2EL10H	73-13/16	42-9/16	16-11/16	9-3/4	4-1/2	30	7/8	12-5/16	11-1/2	11	1-7/8	1/2x1/4	542	6"	5"
1EL12	69-15/16	30-15/16	21	12-1/2	6-5/16	37-1/2	1	14-7/16	14-1/2	13-1/2	2-1/4	1/2x1/4	878	8"	6"
2EL12	85-1/2	46-1/2	21	12-1/2	6-5/16	35	1	12	14-1/2	13-1/2	2-1/4	1/2x1/4	1076	8"	6"
3EL12	101-1/8	62-1/8	21	12-1/2	6-5/16	42	1	14-1/8	14-1/2	13-1/2	2-1/4	1/2x1/4	1200	8"	6"
1EL12H	77-13/16	38-13/16	21	12-1/2	6-5/16	42	1	17-13/16	14-1/2	13-1/2	2-1/4	1/2x1/4	944	8"	6"
2EL12H	101-1/16	62-1/16	21	12-1/2	6-5/16	42	1	14-1/16	14-1/2	13-1/2	2-1/4	1/2x1/4	1203	8"	6"
1EL14	84-3/4	45	24	14	7-13/16	42	1	11-1/8	17-1/2	13-1/2	2-2/3	5/8x15/16	1622	8"	8"



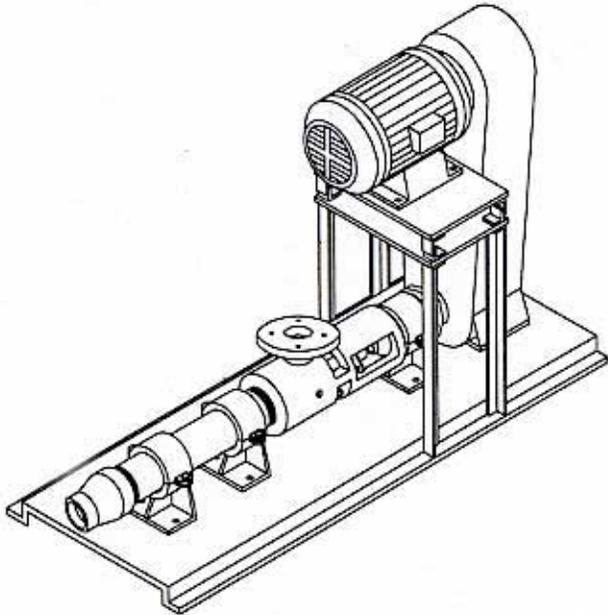
Dimensions and Weights - EM Frame Pumps

Pump Size	Dimensions (inches)												Appr. Weight (LBS)	Port Sizes	
	CE	A	B	D	E	F	H	K	M	N	U	Keyway		Suct.	Disch.
2EM1	17-1/16	7-3/8	5-7/8	3-1/4	1-9/16	8-1/2	3/8	4-1/16	7-9/16	4-1/4	5/8	3/16x3/32	22	1"	3/4"
6EM1	24-7/16	14-13/16	5-7/8	3-1/4	1-9/16	15-3/4	3/8	4-7/16	14-7/8	4-1/4	5/8	3/16x3/32	29	1"	3/4"
6EM2	39-1/16	26-3/8	7-5/16	4-1/8	2-1/8	11-1/2	3/8	7-7/8	26-3/8	4-1/4	3/4	3/16x3/32	54	1-1/2"	3/4"
6EM3	54-15/16	37-15/16	9-7/8	5-1/2	2-3/4	15-1/2	7/16	10-7/16	37-5/8	5	15/16	1/4x1/8	103	2-1/2"	1-1/4"
6EM4	70-15/16	49-11/16	11-1/4	6-1/4	3-1/2	20	7/16	17-3/8	49-7/8	5	1-1/8	1/4x1/8	169	3"	2-1/2"

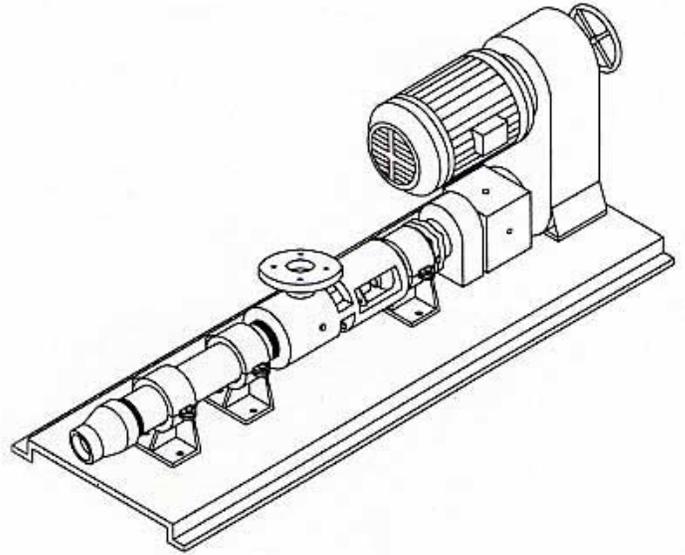
Note: Dimensions CE, A and K may vary 1/8"

Assembly Configurations

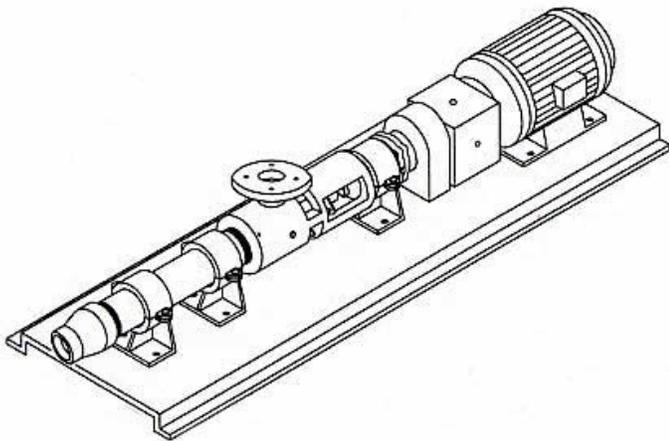
(1) Piggyback (Belt Driven)



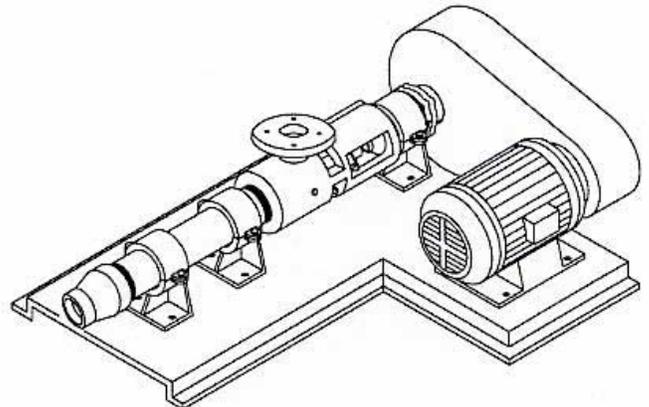
(2) Variable Speed Gear Reduction



(3) In-line Gear Reduction



(4) L-Assembly (Belt Driven)



Available in a wide range of drive configurations to suit your application.

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