

EIP AC-Powered Electric Chemical Injection Pump with DigiMax ADC Control

Application

The WellMark EIPAC-Powered Electric Chemical Injection Pump provides an environmentally-clean method for injection of chemical into a line under pressure when AC power is available. It is a positive-displacement design, powered by an electric motor, thereby eliminating the gas emissions inherent with pneumatic-style pumps. Applications include injection of methanol, corrosion inhibitors, friction reducers or scale inhibitors into wellheads or pipelines. Unique Temperature Sensor allows operator to set temperature threshold to disallow pumping until temperature falls to a specified level.

Specifications

Connections

Pump Inlet and Outlet 1/4" Female NPT Threaded
 Electric Straight-Blade Plug with Ground

Pump

Fluid Head Stainless Steel, Single or Dual
 120VAC Gearmotor Size 1/6hp, 60rpm
 Available Plunger Sizes 1/4", 3/8", 1/2"
 3-Position Adjustable Displacement

Power • AC

Requirement Single Phase, 115VAC, 60 Hertz

General

Control DigiMax ADC Digital Display
 with Auto Mode, Temperature Sensor,
 Manual Pump Override,
 Breaker-Protected NEMA 4x Enclosure

Mount A-Frame Support



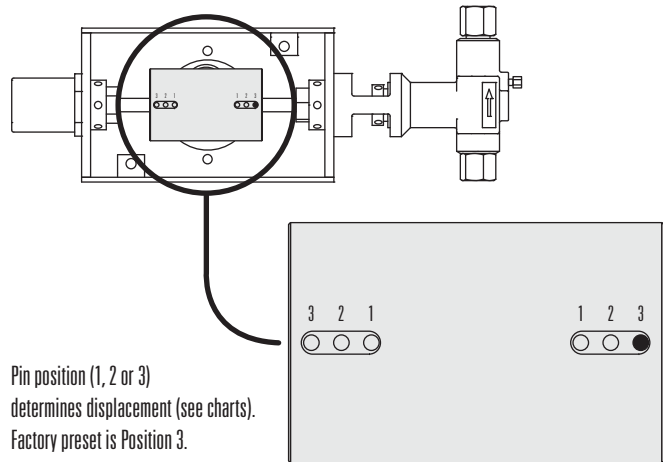
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Operation

The WellMark AC-Powered Electric Chemical Injection Pump features a control timer that allows a broad range of operating conditions.

The pump head can be adjusted for one of three different displacement settings. Control of fluid volume can be achieved by utilizing an infinite number of combinations of RUN and OFF times along with three different displacement settings. Suggested settings for common volumes are listed on charts included with each pump.

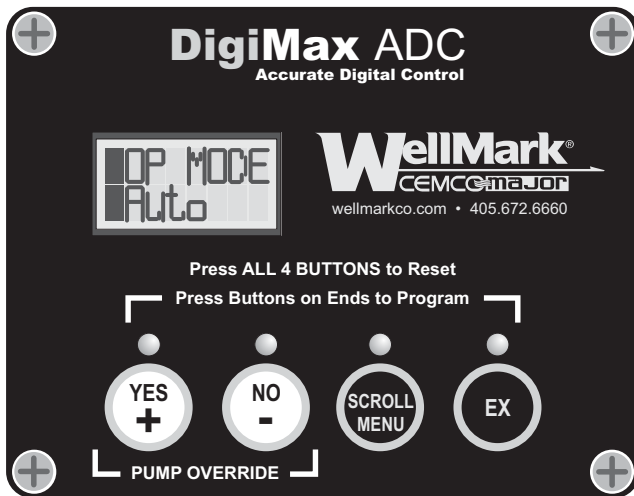
As reviewed against the "Pump Displacement & Timer Settings" charts, (refer to Installation, Operation & Maintenance Instructions for Solar-Powered Chemical Injection Pump) the pump's required rate should optimally fall within the middle of the pumps capacity range. This gives room for adjustment if the service criteria changes.



Displacement Volumes by Pin Placement

Displacement Volumes	Plunger/Pin Position								
	1/4" Plunger			3/8" Plunger			1/2" Plunger		
	1	2	3	1	2	3	1	2	3
DISPLACEMENT PER STROKE (OZ.)	0.0170	0.0238	0.0306	0.0382	0.0535	0.0688	0.0679	0.0951	0.1223
DISPLACEMENT PER SECOND (LARGE MOTOR)	0.0181	0.0254	0.0326	0.0407	0.0570	0.0733	0.0724	0.1014	0.1304

DigiMax ADC Control/Timer



Temperature Sensor

The Control Timer is equipped with a Temperature Sensor feature. When activated this feature turns the pump off until the temperature drops to a set temperature threshold or lower, regardless of program settings. This allows the user to minimize the waste of methanol by only pumping during conditions approaching freezing temperatures.

Program Functions

Auto Mode

After a one-time setup, this feature allows the operator to simply enter the number of quarts desired per day - No need to consult RUN TIME and OFF TIME charts. The DigiMax ADC is programmed to be hassle-free. Of course, Manual Mode is available allowing the user to manually set the control if desired.

In Auto Mode Digital Display continuously indicates settings:

- Plunger Size and Pin Setting
- Temp. Settings (ON/OFF, Temp. Threshold Setting and Current)
- Pump Rate (Quarts per Day)

In Manual Mode Digital Display continuously indicates settings:

- RUN Time
- OFF Time
- Cycle Count
- Temp. Settings (ON/OFF, Temp. Threshold Setting and Current)

Pump Override

Runs pump continuously, overriding the program until the button is pressed again or until the pump runs for 5 minutes.

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Pump Specifications

Specification	Plunger/Pin Position								
	1/4" Plunger			3/8" Plunger			1/2" Plunger		
	1	2	3	1	2	3	1	2	3
PISTON AREA (SQ. IN.)	0.0491			0.1104			0.1963		
STROKE (IN.)	0.624	0.874	1.124	0.624	0.874	1.124	0.624	0.874	1.124
DISPLACEMENT PER STROKE (CU. IN.)	0.0306	0.0429	0.0562	0.0689	0.0965	0.1241	0.1225	0.1716	0.2206
DISPLACEMENT PER STROKE (OZ.)	0.0170	0.0238	0.0306	0.0382	0.0535	0.0688	0.0679	0.0951	0.1223
DISPLACEMENT PER SECOND (OZ.)	0.0170	0.0238	0.0306	0.0382	0.0535	0.0688	0.0679	0.0951	0.1223

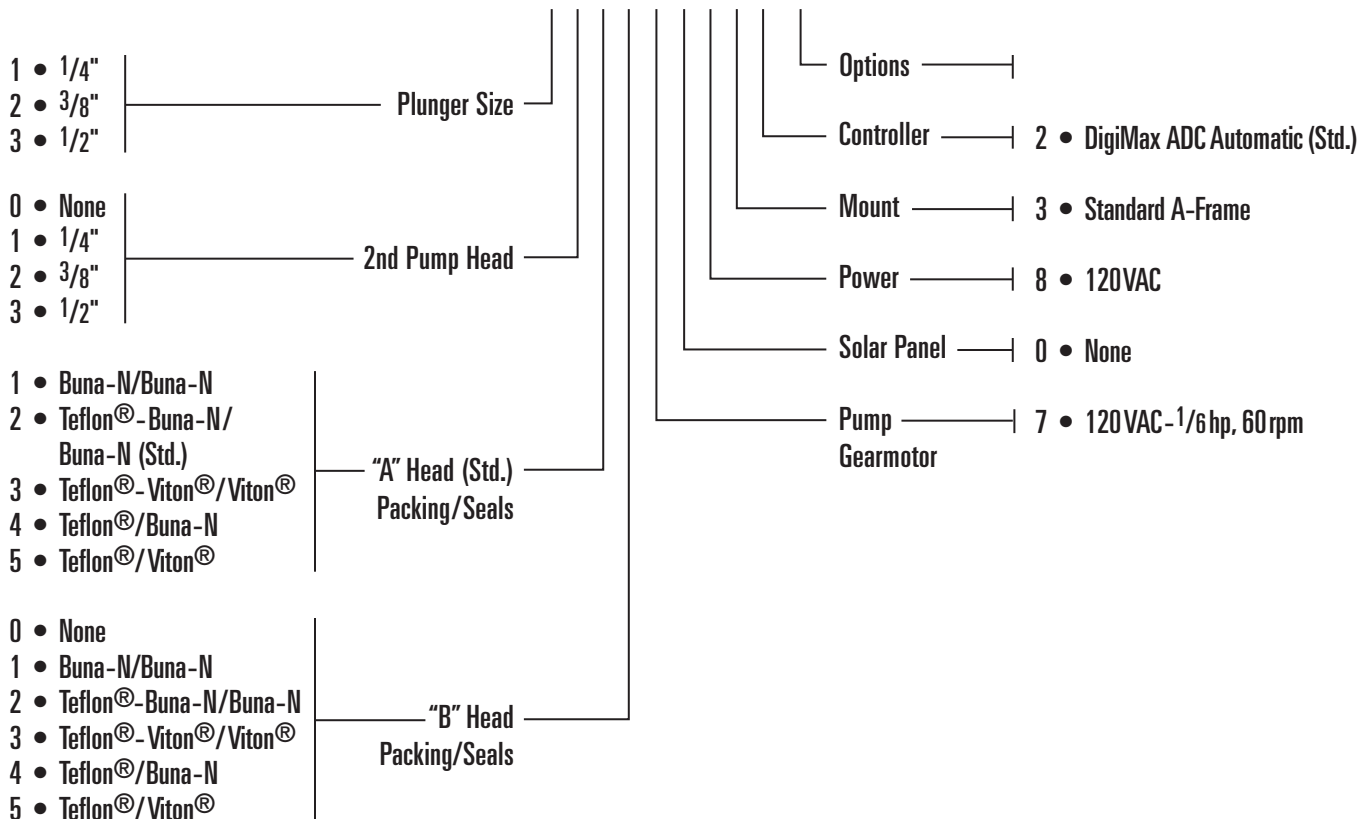
Maximum Discharge Pressures

Motor	1/4" Plunger	3/8" Plunger	1/2" Plunger
LARGE MOTOR - 1/6HP AC	5000 PSI	2500 PSI	1200 PSI

Determining the Model Number

Example given: Standard Model EIP-102070832 Pump with 1/4" Plunger, No 2nd Head, Teflon®-Buna-N/Buna-N Packing and Seals, 1/6hp 120VAC Gearmotor, DigiMax ADC Timer.

MODEL EIP - 1 0 2 0 7 0 8 3 2 -



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AC-Powered Pump Component Parts & Parts List

Item	Description	Qty.	Part No.
1	HOUSING	1	06500-7219
2	SCREW	2	05000-1692
3	HEX NUT	2	10007
4	MOTOR - 1/6HP 115VAC, 60 HERTZ	1	06000-9411
5	ECCENTRIC WHEEL	1	06500-7209
6	SET SCREW	2	05000-2294
7	LOCK WASHER	7	10709
8	BEARING	1	06000-8477
9	RECIPROCATING BLOCK	1	05013-6995
10	BUSHING	2	05013-7012
11	O-RING	2	11017
12	GUIDE NUT	2	05013-7020
13	GUIDE	1	05013-6986
14	JAM NUT	1	05013-6968
15	CAP	1	05013-7119
16	FLUID END	1/4"	05013-6907
		3/8"	05013-6909
		1/2"	05013-6905
17	PACKING SET-TEFLON®/BUNA-N*	1/4"	06000-9293
		3/8"	06000-9301
		1/2"	06000-9319
18	GLAND NUT	1/4"	05013-7005
		3/8"	05013-7001
		1/2"	05013-7007
19	PLUNGER	1/4"	05013-6975
		3/8"	05013-6977
		1/2"	05013-6979
20	BALL - 1/4"	1	06000-0265

Item	Description	Qty.	Part No.
21	O-RING	1	10460
22	SEAT	1	05013-6950
23	O-RING	2	05000-0066
24	BALL - 3/8"	2	06000-0267
25	O-RING	2	05000-0058
26	DISCHARGE VALVE BODY	1	05013-6942
27	SUCTION VALVE BODY	1	05013-6934
28	BLEED SCREW	1	05013-1558
29	PIN	2	001000-P
30	HOUSING COVER	1	05013-7136
31	WING NUT	2	05000-5642
32	PUMP BASE	1	05013-7142
33	SCREW, SOCKET HEAD	8	05000-5648
34	DIGIMAX ADC CONTROL AND HOUSING	1	06000-6395
35	FLAT WASHER	4	007124-P
38	SCREW	3	05000-5646
39	SPRING	1	10606
40	SPACER	1	05013-7543
41	PACKING COVER	1	05013-7527

*Other packing materials available. Consult factory for information.

