



# BR1100



## Solar Powered Chemical Injection Pump



### Product Details

The Bruin BR1100 Chemical Injection Pump is a rotary cam driven, positive displacement plunger type pump that utilizes a rotary electric power source (DC or AC). The standard offset cam and 3/8" plunger arrangement allows for a wide selection of volumes which is controlled by providing intermittent signals from the control system. The BR1100 is capable of producing volume outputs ranging from less than 1 Litre per day to 454 Litres per day and of handling pressures up to 3000 psig. In addition, the pump design can be factory ordered with independent dual suction and discharge ports allowing for multiple injection points or multiple chemical usages.

### Highlights

- Various control system setups and a 3/8" plunger provide an adjustable volume output up to 454 Litres per day maximum.
- Tungsten Carbide Plunger provides increased durability and corrosion resistance.
- Full stainless steel construction.
- Designed for ease of operation and maintenance under varied pumping applications.
- Port connections can be either connected (standard) or separated (optional).
- Designed to meet Standard 56C mounting enabling a wide variety of electric motor options.
- Can be supplied with electric motors, control system enclosures, batteries, solar panels, stands, tanks and skids.

### SPECIFICATIONS

#### BR1100 Series / Solar Pump

Type	Rotary Cam Driven / Solar Powered
Volume	0 - 454 Litres / Day 0 - 100 Imp. Gal. / Day 0 - 120 US. Gal. / Day
Pressure	Max. 3000 psig Max. 20684 kPa
Plunger Size	3/8"
Motor	12V, 1/8HP, 14 Amp, Explosion Proof Optional Motor Specifications Available
Fluid Suction & Discharge Connection	1/4" FNPT

### MATERIALS OF CONSTRUCTION

Fluid Head	Stainless Steel
Internal Wetted Components	Stainless Steel
Plunger	Tungsten Carbide
Plunger Seal	Graphite Fibre Reinforced PTFE
O-Ring	Buna, Aflas, Viton, Teflon, Fluorosilicone, Bruez

### APPLICATIONS

Methanol Injection, Chemical Injection, Soap Injection, Corrosion Inhibitors

### ACCESSORIES

Bases, Tanks, Gauges, Stainless Steel Fittings, Skid Package, Solar Package

## Operating Time and Equivalent Duty Cycle Chart

Locate the approximate injection pressure listed on the top of the table and then follow the column down to the approximate daily injection volume located on the left column of the table, the intersecting box is the approximate duty cycle required.

**Note:** Larger duty cycles require more power; if large volumes are needed, a battery operated solar package may not be viable.

Volume (L/day)	Pressure (psig)													
	0		100		250		500		1000		2000		3000	
	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle	On time (s/min)	Duty cycle
1	0.035	0.06	0.042	0.07	0.045	0.08	0.058	0.10	0.085	0.14	0.145	0.24	0.22	0.37
2	0.052	0.09	0.066	0.11	0.075	0.13	0.097	0.16	0.15	0.25	0.27	0.45	0.42	0.70
3	0.073	0.12	0.09	0.15	0.102	0.17	0.14	0.23	0.23	0.38	0.4	0.67	0.62	1.03
4	0.094	0.16	0.115	0.19	0.138	0.23	0.19	0.32	0.32	0.53	0.54	0.90	0.8	1.33
5	0.12	0.20	0.14	0.23	0.177	0.30	0.25	0.42	0.4	0.67	0.68	1.13	1.02	1.70
6	0.15	0.25	0.175	0.29	0.23	0.38	0.315	0.53	0.49	0.82	0.8	1.33	1.3	2.17
7	0.18	0.30	0.21	0.35	0.28	0.47	0.38	0.63	0.58	0.97	0.95	1.58	1.4	2.33
8	0.217	0.36	0.25	0.42	0.33	0.55	0.44	0.73	0.66	1.10	1.08	1.80	1.6	2.67
9	0.265	0.44	0.31	0.52	0.38	0.63	0.52	0.87	0.75	1.25	1.19	1.98	1.77	2.95
10	0.306	0.51	0.36	0.60	0.44	0.73	0.57	0.95	0.83	1.38	1.32	2.20	1.95	3.25
15	0.543	0.91	0.63	1.05	0.75	1.25	0.9	1.50	1.28	2.13	2	3.33	2.95	4.92
20	0.82	1.37	0.9	1.50	1.03	1.72	1.26	2.10	1.7	2.83	2.69	4.48	3.96	6.60
25	1.07	1.78	1.19	1.98	1.3	2.17	1.6	2.67	2.15	3.58	3.38	5.63	4.92	8.20
30	1.37	2.28	1.45	2.42	1.63	2.72	1.9	3.17	2.58	4.30	4.07	6.78	5.95	9.92
35	1.615	2.69	1.7	2.83	1.9	3.17	2.3	3.83	3.02	5.03	4.76	7.93	6.94	11.57
40	1.875	3.13	1.97	3.28	2.2	3.67	2.6	4.33	3.45	5.75	5.45	9.08	8.05	13.42
45	2.13	3.55	2.25	3.75	2.5	4.17	2.95	4.92	3.88	6.47	6.14	10.23	9	15.00
50	2.4	4.00	2.53	4.22	2.8	4.67	3.28	5.47	4.32	7.20	6.83	11.38	10.17	16.95
60	2.94	4.90	3.1	5.17	3.4	5.67	3.95	6.58	5.2	8.67	8.16	13.60	12.05	20.08
70	3.5	5.83	3.65	6.08	3.97	6.62	4.65	7.75	6.1	10.17	9.53	15.88	14.14	23.57
80	4	6.67	4.2	7.00	4.57	7.62	5.3	8.83	6.94	11.57	11	18.33	16.14	26.90
90	4.55	7.58	4.75	7.92	5.17	8.62	5.96	9.93	7.82	13.03	12.26	20.43	18.24	30.40
100	5.1	8.50	5.3	8.83	5.76	9.60	6.65	11.08	8.69	14.48	13.69	22.82	20.36	33.93
120	6.2	10.33	6.4	10.67	6.96	11.60	7.98	13.30	10.5	17.50	16.29	27.15	24.43	40.72
140	7.2	12.00	7.5	12.50	8.16	13.60	9.35	15.58	12.2	20.33	19.17	31.95	28.73	47.88
160	8.3	13.83	8.6	14.33	9.35	15.58	10.95	18.25	13.95	23.25	21.93	36.55	32.47	54.12
180	9.35	15.58	9.7	16.17	10.9	18.17	12.55	20.92	15.75	26.25	24.69	41.15	36.55	60.92
200	10.4	17.33	11.25	18.75	11.75	19.58	13.9	23.17	17.5	29.17	27.55	45.92	41.06	68.43
300	15.7	26.17	16.27	27.12	17.7	29.50	20.25	33.75	26.3	43.83	41.23	68.72		
400	21	35.00	21.8	36.33	23.3	38.83	26.6	44.33	35.05	58.42	55.35	92.25		
500	26.3	43.83	27.3	45.50	29.5	49.17	33.9	56.50	43.9	73.17				
600	31.6	52.67	32.7	54.50	35.6	59.33	40.7	67.83	51.4	85.67				
800	42.2	70.33	43.65	72.75	47.55	79.25	54.36	90.60						
1000	52.8	88.00	54.6	91.00	58.75	97.92								