



# BR4300



## Electric Driven Chemical Injection Pump



### Product Details

The Bruin BR4300 Chemical Injector Pump is a gear driven, positive displacement, plunger type pump that utilizes a rotary electric or hydraulic power source. An integral worm gear drive, available in three standard gear ratios, along with six available plunger sizes, provides a wide selection of volumes up to 1232 Litres per day with a 1" head and discharge pressures up to 5000 psig with a 3/16" head. Each pump is capable of supporting a single or double head configuration with the ability to link multiple pumps together, allowing up to eight heads to be driven by a common motor. The BR4300 comes standard with a micrometer type stroke adjustment for each head allowing independent adjustment.

### Highlights

- Adjustable stroke length (0 – 100%), plunger sizes (3/16", 1/4", 3/8", 1/2", 3/4" & 1") and gear ratios (100:1, 50:1, 25:1) provide an adjustable volume output up to 1232 Litres per day per head.
- Single head, double head and multiplex configurations available. Supports different sized plungers on a single gearbox.
- Stroke length adjustable during operation.
- 12V, 115V and 230V XP CSA electric motors and hydraulic drive motor configuration available.
- Clear acrylic lid for easy inspection of pump internals.
- Designed for ease of operation and maintenance under varied pumping applications.
- Conversion for handling of various chemicals is easily accomplished by the change out of the packing set and fluid end seals.

### SPECIFICATIONS BR4300 Series

Type	Electric or Hydraulic Driven
Volume	0 - 1232 Litres / Day per Head 0 - 271 Imp. Gal. / Day per Head 0 - 325 US. Gal. / Day per Head
Number of Fluid Heads	1 - 8 (2 Heads per Gearbox)
Pressure	Max. 5000 psig (Hard Packing Only) Max. 34473 kPa (Hard Packing Only)  Max. 3000 psig (Other Packing) Max. 20684 kPa (Other Packing)
Plunger Sizes	3/16", 1/4", 3/8", 1/2", 3/4", 1"
Stroke Length	Variable - Up to 1" Maximum

Fluid Suction & Discharge Connection 1/4" FNPT

### MATERIALS OF CONSTRUCTION

Fluid Head	Ductile Iron (Std., Not Available for 3/16") Stainless Steel (Optional, Std. on 3/16")
Internal Wetted Components	Stainless Steel
Plunger	Stainless Steel (Std.) Case Hardened Stainless Steel(Optional) Ceramic (Optional)
Packing V-Style	Buna, Buna Hard, Viton, Teflon, Fluorosilicone, Brueze, Brueze FFKM, Other Material Arrangements Available
Seals	Buna, Metal-to-Metal, Viton, Teflon, Fluorosilicone, Brueze

**APPLICATIONS** Methanol Injection, Chemical Injection, Soap Injection, Corrosion Inhibitors

**ACCESSORIES** Bases, Tanks, Regulators, Gauges, Stainless Steel Fittings, Skid Package  
Various Electric Motors Available

## Performance Specifications

	PLUNGER SIZE					
	3/16"	1/4"	3/8"	1/2"	3/4"	1"
<b>100:1 Ratio</b>						
Model Number	<b>BR4324</b>	<b>BR4321</b>	<b>BR4323</b>	<b>BR4325</b>	<b>BR4326</b>	<b>BR4327</b>
Maximum Discharge Pressure <sup>1</sup> (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure <sup>1</sup> (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed (Strokes/Minute)	17.5	17.5	17.5	17.5	17.5	17.5
<b>Maximum Volume</b>						
Maximum Volume* (litres/day)	10.8	19.2	43.3	77.0	173.3	308.1
Maximum Volume* (imp gal/day)	2.3	4.2	9.5	16.9	38.1	67.7
Maximum Volume* (US gal/day)	2.8	5.1	11.4	20.3	45.8	81.4
<b>50:1 Ratio</b>						
Model Number	<b>BR4304</b>	<b>BR4301</b>	<b>BR4303</b>	<b>BR4305</b>	<b>BR4306</b>	<b>BR4307</b>
Maximum Discharge Pressure <sup>1</sup> (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure <sup>1</sup> (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed (Strokes/Minute)	35	35	35	35	35	35
<b>Maximum Volume</b>						
Maximum Volume* (litres/day)	21.6	38.5	86.6	154.0	346.6	616.2
Maximum Volume* (imp gal/day)	4.7	8.4	19.0	33.9	76.2	135.5
Maximum Volume* (US gal/day)	5.7	10.1	22.9	40.7	91.5	162.8
<b>25:1 Ratio</b>						
Model Number	<b>BR4334</b>	<b>BR4331</b>	<b>BR4333</b>	<b>BR4335</b>	<b>BR4336</b>	<b>BR4337</b>
Maximum Discharge Pressure <sup>1</sup> (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure <sup>1</sup> (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed (Strokes/Minute)	70	70	70	70	70	70
<b>Maximum Volume</b>						
Maximum Volume* (litres/day)	43.3	77.0	173.3	308.1	693.2	1232.4
Maximum Volume* (imp gal/day)	9.5	16.9	38.1	67.7	152.5	271.1
Maximum Volume* (US gal/day)	11.4	20.3	45.8	81.4	183.1	325.5

\* Volumes shown are at 0 psig Discharge Pressure and at 1750 rpm Motor Speed.

1. Maximum Discharge Pressure above 3000 psig (20684 kPa) requires Buna Hard Packing.

## Plunger Packing

	PLUNGER SIZE					
	3/16"	1/4"	3/8"	1/2"	3/4"	1"
<b>Maximum Discharge Pressure (psig)</b>						
Buna (Nitrile)	3000	2400	1200	600	300	150
Buna Hard (High Pressure)	5000	2400	1200	600	300	150
Viton (FKM)	3000	2400	1200	600	300	150
Teflon (PTFE)	3000	2400	1200	600	300	150
Fluorosilicone (FVMQ)	3000	2400	1200	600	300	150
Buna / Teflon	3000	2400	1200	600	300	150
Viton / Teflon	3000	2400	1200	600	300	150
Bruze (FEPM)	3000	2400	1200	600	300	150
Bruze FFKM (FFKM)	3000	2400	1200	600	300	150

### SINGLE OR DOUBLE?

Bruin Instruments has developed a conversion kit that allows our client to convert a single head pump into a double head pump. The conversion kit (BR43XX2CK) contains all the necessary pieces needed to convert the pump, excluding the fluid head.

However, you may wish to consider the double headed pump option when ordering a single head set up. It is as easy as setting up the gear box for two and leaving the second fluid head off.

### Horsepower Required for Multi-Headed Units

Number of Gear Boxes	Gear Ratio		
	25:1	50:1	100:1
1	1/4	1/4	1/4
2	1/2	1/2	1/3
3	3/4	3/4	1/2
4	1	1	3/4

**Note:** Two Heads can be mounted on each Gear Box.

9001-20 Street NW, Edmonton, Alberta, Canada T6P 1K8  
Email: [info@bruinpumps.com](mailto:info@bruinpumps.com)

Phone: 780-430-1777

Fax: 780-449-5233

[www.bruinpumps.com](http://www.bruinpumps.com)