

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

Electric or Hydraulic Driven Type

0 - 1232 Litres / Day per Head Volume 0 - 271 Imp. Gal. / Day per Head

0 - 325 US. Gal. / Day per Head

Number of Fluid

1 - 8 (2 Heads per Gearbox) Heads

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, Bruez, Bruez FFKM, Other Material Arrangements Available

Seals Buna, Metal-to-Metal, Viton, Teflon,

Fluorosilicone, Bruez

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"
100:1 Ratio						
Model Number	BR4324	BR4321	BR4323	BR4325	BR4326	BR4327
Maximum Discharge Pressure (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure ¹ (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed						
(Strokes/Minute)	17.5	17.5	17.5	17.5	17.5	17.5
Maximum Volume						
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
50:1 Ratio						
Model Number	BR4304	BR4301	BR4303	BR4305	BR4306	BR4307
Maximum Discharge Pressure ¹ (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure ¹ (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed						
(Strokes/Minute)	35	35	35	35	35	35
Maximum Volume						
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
25:1 Ratio						
Model Number	BR4334	BR4331	BR4333	BR4335	BR4336	BR4337
Maximum Discharge Pressure (psig)	5000	2400	1200	600	300	150
Maximum Discharge Pressure ¹ (kPa)	34473	16547	8273	4136	2068	1034
Maximum Recommended Speed	00					
(Strokes/Minute)	70	70	70	70	70	70
Maximum Volume						
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"	
Maximum Discharge Pressure (psig)							
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	
Bruez (FEPM)	3000	2400	1200	600	300	150	
Bruez 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

	Gear Ratio			
Number of	25:1	50:1	100:1	
Gear Boxes	BR433_	BR430_	BR432_	
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.

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