



780.897.5869
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Bruin 5000 Series Pneumatic Chemical Injection Pump

Questions? Call us at 780-897-5869 or email info@burkecalibration.com



BR5000



Pneumatically Driven Chemical Injection Pump



Product Details

The Bruin BR5000 Chemical Injector Pump is a single acting, positive displacement plunger type pump. Powered by pneumatic pressure acting against a diaphragm, equipped with a spring return, automatic switching mechanism and available in 6 plunger sizes. The BR5000 can produce output volumes up to 2150 Litres per day with a 1 1/4" head and discharge pressures up to 12000 psig with a 1/4" head. Volume is controlled based on plunger size, stroke length selection, and the speed of the pump via a speed control valve. Maximum discharge capability is governed by the packing selection and discharge pressure can be controlled with the supply pressure via a regulator.

Highlights

- Adjustable speed (0 - 60 spm) and plunger sizes (1/4", 3/8", 1/2", 3/4", 1" & 1 1/4") provide an adjustable volume output up to 2150 Litres per day maximum.
- Micro Switch system provides oilless operation.
- Safety relief valve prevents overpressurization.
- Lightweight aluminum pump body and double Buna nylon reinforced diaphragms.
- 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

BR5000 Series

Type	Pneumatically Operated
Volume	0 - 2150 Litres / Day 0 - 472 Imp. Gal. / Day 0 - 568 US. Gal. / Day
Pressure	Max. 12000 psig (Hard Packing Only) Max. 82737 kPa (Hard Packing Only) Max. 3000 psig (Other Packing) Max. 20684 kPa (Other Packing)
Operating Supply Pressure	50 psig (Maximum)
Plunger Sizes	1/4", 3/8", 1/2", 3/4", 1", 1 1/4"
Stroke Length	1/2" or 1 1/4"
Switching System	Micro Switch (Std.) Rotary Pilot Valve (Optional)
Fluid Suction & Discharge Connection	1/4" FNPT
Supply Connection	1/4" FNPT (Micro Switch) 1/4" FNPT (Pilot Valve)
Exhaust Valve Connection	3/8" FNPT

MATERIALS OF CONSTRUCTION

Fluid Head	Ductile Iron (Std.) Stainless Steel (Optional)
Internal Wetted Components	Stainless Steel
Plunger	Stainless Steel (Std.) Case Hardened Stainless Steel (Optional) Ceramic (Optional)
Diaphragm	Buna w/ Nylon Reinforcement (2 per Unit)
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

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

Performance Specifications

	PLUNGER SIZE					
	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"
Standard Model						
Model Number	BR5001	BR5003	BR5005	BR5006	BR5007	BR5008
Maximum Discharge Pressure (psig)	3000	3000	3000	3000	3000	2000
Maximum Discharge Pressure (kPa)	20684	20684	20684	20684	20684	13789
Maximum Discharge Pressure (bar)	206	206	206	206	206	137
High Pressure Model						
Model Number	BR5011	BR5013	BR5015	BR5016	BR5017	BR5018
Maximum Discharge Pressure ¹ (psig)	12000	12000	10000	5000	3000	2000
Maximum Discharge Pressure ¹ (kPa)	82737	82737	68947	34473	20684	13789
Maximum Discharge Pressure ¹ (bar)	827	827	689	344	206	137
Maximum Volume						
Continuous Service						
Maximum Recommended Speed (Strokes/Minute)	60	60	60	60	60	60
Hourly						
Maximum Volume* (litres/hour)	3.58	8.06	14.33	32.25	57.33	89.59
Maximum Volume* (imp gal/hour)	0.78	1.77	3.15	7.09	12.61	19.71
Maximum Volume* (US gal/hour)	0.94	2.13	3.78	8.52	15.14	23.67
Daily						
Maximum Volume* (litres/day)	86.0	193.5	344.0	774.0	1376.1	2150.1
Maximum Volume* (imp gal/day)	18.9	42.5	75.6	170.2	302.7	472.9
Maximum Volume* (US gal/day)	22.7	51.0	90.8	204.4	363.5	568.0
Intermittent Service						
Maximum Recommended Speed (Strokes/Minute)	75	75	75	75	75	75
Hourly						
Maximum Volume* (litres/hour)	4.50	10.09	17.91	40.32	71.69	111.97
Maximum Volume* (imp gal/hour)	0.99	2.22	3.94	8.87	15.77	24.63
Maximum Volume* (US gal/hour)	1.18	2.66	4.73	10.65	18.93	29.58

* Volumes shown are at 0 psig Discharge Pressure.

1. Maximum Discharge Pressure above 3000 psig (20684 kPa, 206 bar) requires Buna Hard Packing.

Plunger Packing

	PLUNGER SIZE					
	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"
Maximum Discharge Pressure (psig)						
Buna (Nitrile)	3000	3000	3000	3000	3000	2000
Buna Hard (High Pressure)	12000	12000	10000	5000	3000	2000
Viton (FKM)	3000	3000	3000	3000	3000	2000
Teflon (PTFE)	3000	3000	3000	3000	3000	2000
Fluorosilicone (FVMQ)	3000	3000	3000	3000	3000	2000
Buna / Teflon	3000	3000	3000	3000	3000	2000
Viton / Teflon	3000	3000	3000	3000	3000	2000
Bruetz (FEPM)	3000	3000	3000	3000	3000	2000
Bruetz FFKM (FFKM)	3000	3000	3000	3000	3000	2000