



# BRX3



## Pneumatically Driven Chemical Injection Pump



### Product Details

The Bruin BRX3 Chemical Injector Pump is a double acting, positive displacement, plunger type pump. Powered by pneumatic pressure acting onto a cylinder resulting in plunger displacement, an internal switching system switches the main spool valve when full cylinder stroke is reached in both cylinder stroke directions. Single and double head configurations available in 4 plunger sizes, the BRX3 is capable of producing output volumes up to 272 Litres per day with a 1/2" head and discharge pressures up to 6000 psig with a 3/16" head. The cylinder requires only a differential pressure across the cylinder to operate and is capable of fully operating with significant back pressure placed on the exhaust port providing sufficient differential pressure is present. This allows the pump to exhaust into a point that has a lower pressure than the pump supply pressure (dependant on the differential pressure required to operate the pump at the required discharge pressure).

### Highlights

- Adjustable stroke length (0 – 100%), stroke speed and plunger sizes (3/16", 1/4", 3/8" & 1/2") provide an adjustable volume output up to 272 Litres per day per head maximum.
- Available in single and double head configurations.
- Compact, lightweight design for ease of operation and maintenance under varied pumping applications.
- Capable of Exhaust Recovery to use for further applications or sale.
- Conversion for handling of various chemicals is easily accomplished by the change out of the packing set and fluid end seals.

### SPECIFICATIONS

#### BRX3 Series

Type	Pneumatically Operated
Volume	0 - 272 Litres / Day per Head 0 - 60 Imp. Gal. / Day per Head 0 - 71 US. Gal. / Day per Head
Number of Fluid Heads	1 or 2
Pressure	Max. 6000 psig (Hard Packing Only) Max. 41368 kPa (Hard Packing Only)  Max. 3000 psig (Other Packing) Max. 20684 kPa (Other Packing)
Operating Supply Pressure	20 psig (Minimum) 250 psig (Maximum)
Plunger Sizes	3/16", 1/4", 3/8", 1/2"
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

## Performance Specifications

	PLUNGER SIZE			
	3/16"	1/4"	3/8"	1/2"
<b>Standard Model</b>				
Model Number	<b>BRX304</b>	<b>BRX301</b>	<b>BRX303</b>	<b>BRX305</b>
Maximum Discharge Pressure (psig)	3000	3000	3000	3000
Maximum Discharge Pressure (kPa)	20684	20684	20684	20684
Maximum Discharge Pressure (bar)	206	206	206	206
Max. Recommended Speed (Strokes/Minute) @ 0-1500 psig Discharge Pressure	60	60	60	60
<b>Maximum Volume</b>				
<b>Daily</b>				
Maximum Volume* (litres/day)	38.7	68.8	154.8	272.4
Maximum Volume* (imp gal/day)	8.5	15.1	34.0	60.0
Maximum Volume* (US gal/day)	10.2	18.1	40.9	71.9
<b>High Pressure Model</b>				
Model Number	<b>BRX314</b>	<b>BRX311</b>	<b>BRX313</b>	<b>BRX315</b>
Maximum Discharge Pressure <sup>1</sup> (psig)	6000	6000	6000	3500
Maximum Discharge Pressure <sup>1</sup> (kPa)	41368	41368	41368	24131
Maximum Discharge Pressure <sup>1</sup> (bar)	413	413	413	241
Max. Recommended Speed (Strokes/Minute) above 1500 psig Discharge Pressure	45	45	45	45
<b>Maximum Volume</b>				
<b>Daily</b>				
Maximum Volume** (litres/day)	23.1	41.1	92.6	164.7
Maximum Volume** (imp gal/day)	5.1	9.0	20.3	36.2
Maximum Volume** (US gal/day)	6.1	10.8	24.4	43.5

\* Volumes shown are at 0 psig Discharge Pressure.

\*\* Volumes shown are at 3000 psig Discharge Pressure.

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

## Plunger Packing

	PLUNGER SIZE			
	3/16"	1/4"	3/8"	1/2"
<b>Maximum Discharge Pressure (psig)</b>				
Buna (Nitrile)	3000	3000	3000	3000
Buna Hard (High Pressure)	6000	6000	6000	3500
Viton (FKM)	3000	3000	3000	3000
Teflon (PTFE)	3000	3000	3000	3000
Fluorosilicone (FVMQ)	3000	3000	3000	3000
Buna / Teflon	3000	3000	3000	3000
Viton / Teflon	3000	3000	3000	3000
Brueze (FEPM)	3000	3000	3000	3000
Brueze FFKM (FFKM)	3000	3000	3000	3000