



STONEBOR PUMP

McFarland Pump Group

SERIES C-3A / C-3AS

Chemical Injection Pump

Flow Rate up to 396 GPD | Pressure up to 10,000 PSI

SPECIFICATIONS

- The C-3A / C-3AS CHEMICAL INJECTION PUMP is constructed from stainless steel.
- Designed specifically for use offshore or in the corrosive environments.
- The pump is gas-operated and will deliver from less than 1qt.- 396 GPD
- Operate on a supply pressure off 25-125 psi, utilizing any available gas or liquid.
- The C-3AS "Snap-Out" Check Valves ensure fewer pump failures due to O-ring problems.
- Designed for low maintenance and, when necessary, can be completely Overhauled in the field less than 15 minutes.
- Power piston size 4"
- Stroke length 1 1/2"
- Cycles/Minutes Adjustable 5-60
- Max. Input Pressure 150 PSI
- Power Gas Max. Consumption 11 SCFM
- Temperature limit 0-180 °F
- Easily portable (Weight only 14 lbs.)
- Considerably fewer parts than most other pumps on the market.
- Work fine on wet gas supply-will even operate on water supply pressure.
- Meets N.A.C.E Standards for H₂S Service.



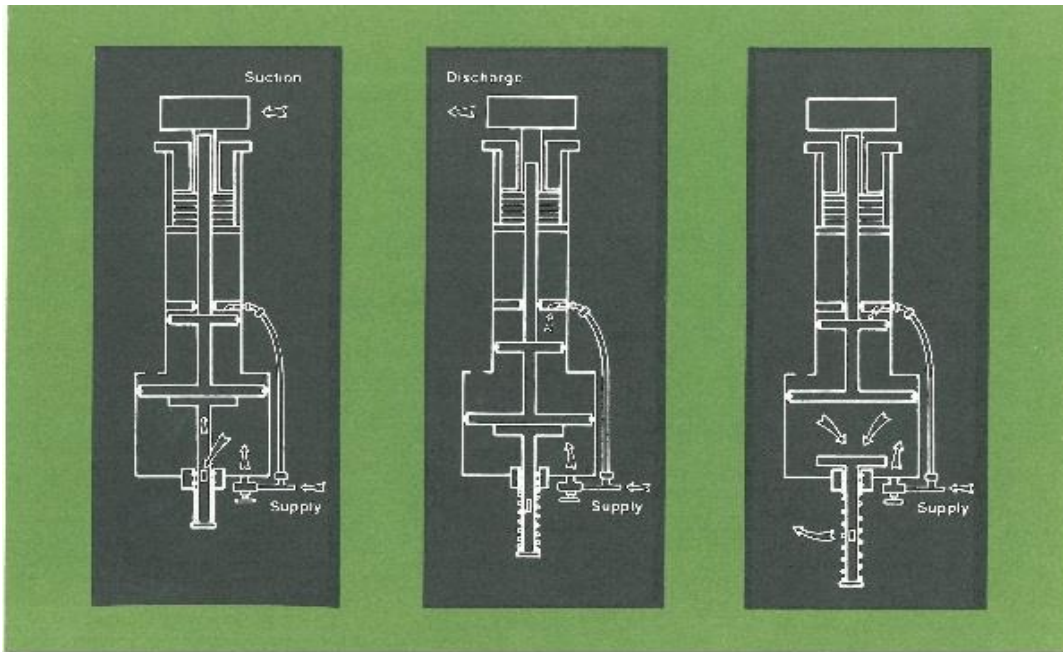
MATERIALS OF CONSTRUCTION

Item	Standard	Optional
Fluid End	303 St.St	316 St.St
Plunger	17-4 PH	INCONEL
Packing	Flurocarbon	Teflon, BUNA-N
Power End Seal	Moly-Impregnated Urethane	Teflon, Flurocarbon, BUNA-N
Power Body	303 St.St	316 St.St
Check Valves	303 St.St	316 St.St
Check Valve Balls	316 St.St	Ceramic

PERFORMANCE DATA

Plunger Size (in)	Volume-Gallons@60 cpm			Operating Pressure @ 100 psi input	Stall Pressure
	Min	Hr	Day		
1/4"	0.02	1.03	24.80	10,000	12,250
1/2"	0.07	4.13	99.10	3,370	4,100
3/4"	0.15	9.30	223.10	1,500	1,800
1"	0.28	16.53	396.60	850	1,000

STONEBORE MODEL C-3A / C-3AS CHEMICAL INJECTION PUMP



OPERATION

- 1- Gas flows into the small chamber, forcing the power piston down. At this condition the valve has been released, and the gas in the large chamber is flowing to atmosphere through a hole in the center of the suction cup, down through the hollow valve stem and out through the hole in the side of the valve stem. The downward motion of the power piston pulls the pump plunger down and causes the liquid being pumped to flow into the suction check valve.
- 2-The large power piston is forced down by the pressure exerted on the top of the small power piston. When the large piston contacts the suction cup, a seal is accomplished around the rim of the suction cup; and gas can no longer exit through the hole in the valve stem. As soon as enough pressure is built up under the large piston to exert a greater force than that exerted on the small piston, the large piston begins to move upward. The pressure holds the suction cup to the large piston, and it is carried upward with the piston.
- 3-The end of the upstroke is determined by the location of the hole in the side of the valve stem. The instant that the hole appears above the stem seal, the supply pressure enters the hole and flows upward into the underside of the suction cup. At this instant the pressures of the suction cup are balanced and the cup turns loose. The valve spring returns the valve stem to the down position, and gas pressure in the large chamber exits to atmosphere. The supply pressure on top of the small piston returns the large piston downward, and the pump has completed a cycle.

STONEBOR PUMPS
The Maximum in Efficiency
The Minimum in Maintenance



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921 Seaco Court, Deer Park, TX 77536
Tel: 1-713-864-3366 / Fax: 1-713-864-3252
Email: sales@mcfarlandpump.com , www.mcfarlandpumpgroup.com

