

Texsteam Products

Gas/Pneumatic Driven Injection Pump

Series 5000

Description

Texsteam Series 5000 chemical injectors are positive displacement units powered by an integral gas/air motor. These pumps fill the requirements of a broad range of applications because of their ability to achieve high discharge pressures (up to 12,000 psig) and wide volume ranges. A horizontal plunger and vertical check valve arrangement provide high operating efficiency. The standard pump head has a Ductile Iron body and stainless steel trim. Stainless steel heads are available for high corrosive applications. A built-in priming valve facilitates pump head priming, enables the operator to easily check pump operation, and offers a sample-catching device. The pump frame and body castings are high-strength aluminum. The operating mechanism strokes in oil and is gasket sealed to protect against dust and other atmospheric influences. Oil-less models are also available. A standard equipment safety valve offers protection against accidental overpressure of the main diaphragm. The adjustable packing is equipped with lantern ring and a grease jack (except on 1 1/4" head) for lubricating the plunger and packing to provide long life.

Applications

- Introducing detergents in air-gas drilling operations
- Blending foaming agents in water laden gas wells
- High pressure addition of fluid compounds in blending and chemical processing

Performance Data

| Model # | Plunger Size | Operating Ratio Gas/Fluid | Maximum Pressure (PSIG) | | Maximum Volume | | | |
|---------|--------------|------------------------------|-------------------------|--------------|----------------|-----|------------|-----|
| | | | Hard Packing | Soft Packing | Intermittent | | Continuous | |
| | | | | | GPH | GPD | GPH | GPD |
| 5002 | 1/4" | 1000/1 | 12,000 | 3,000 | 0.83 | 20 | 0.67 | 16 |
| 5003 | 3/8" | 497/1 | 12,000 | 3,000 | 2.33 | 56 | 1.79 | 43 |
| 5005 | 1/2" | 264/1 | 12,000 | 3,000 | 4.38 | 105 | 3.54 | 85 |
| 5004 | 3/4" | 115/1 | 5,000 | 3,000 | 7.42 | 190 | 6.67 | 160 |
| 5006 | 1" | 66/1 | N/A | 3,000 | 16.66 | 400 | 13.33 | 320 |
| 5007 | 1-1/4" | 42/1 | N/A | 2,000 | 26.04 | 625 | 20.83 | 500 |

†Maximum Power Gas Pressure: 50 PSI. Specify a TB-0040 & TA-0129 inlet regulator and gauge when the inlet air/gas pressure is over 50 psig.

Stroke Length - Long: 1-1/4"; Short: 1/2"

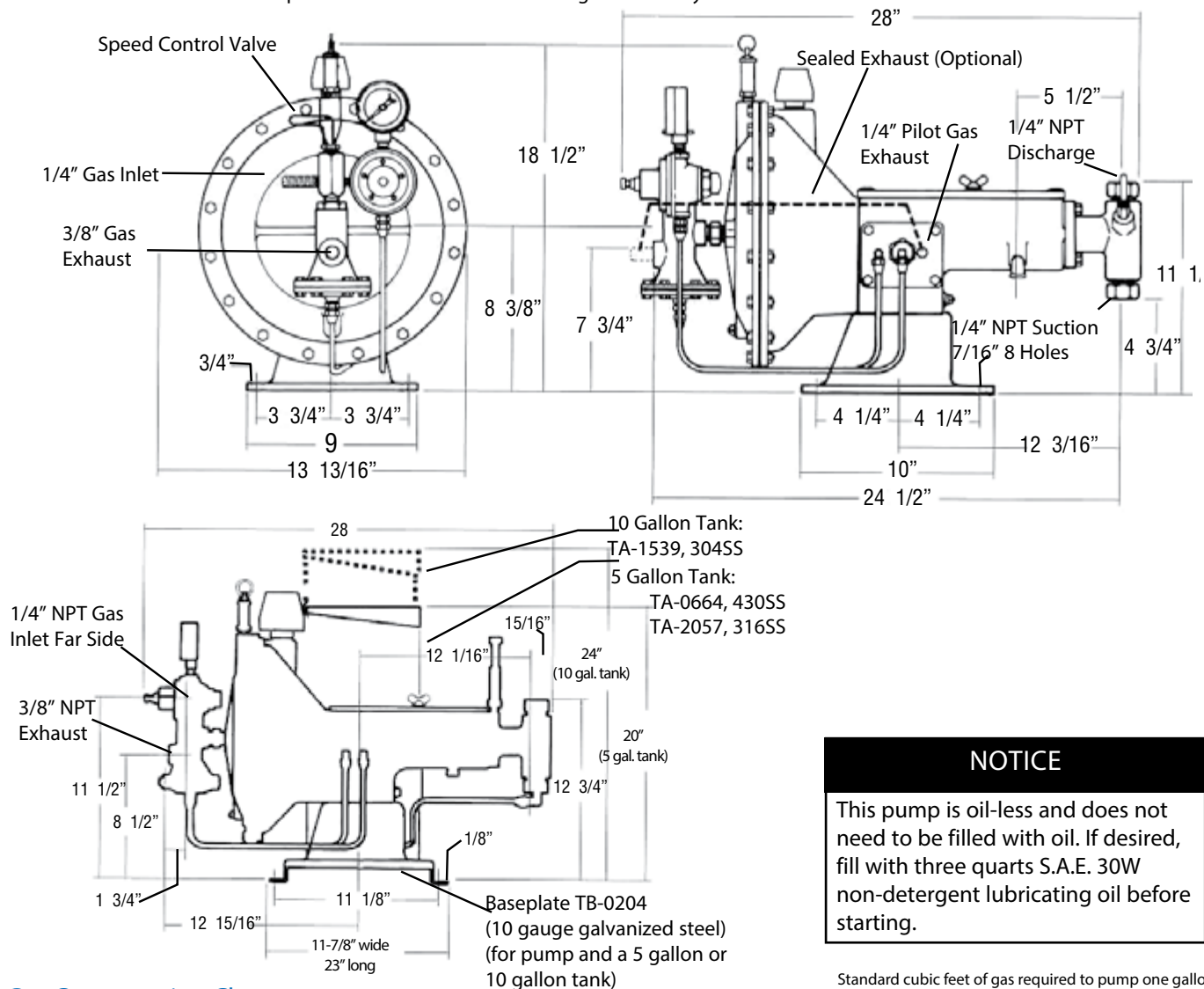
Hard Packing Available in Buna or Viton only, Depending on Model



- Introduction of de-salting agents, de-emulsifiers, inhibitors and flocculants in crude oil and gas steams
- High and low pressure lubrication systems
- Methanol and alcohol injection in gas systems to prevent freezing
- General high pressure injection applications
- Fluid blending of extreme pressures within varied, controlled processes
- Hydrostatic testing
- Glycol circulation
- Water treatment

Dimensions

Do not use for construction. Request Certified Dimension Drawing from factory if needed.



NOTICE

This pump is oil-less and does not need to be filled with oil. If desired, fill with three quarts S.A.E. 30W non-detergent lubricating oil before starting.

Gas Consumption Chart

Standard cubic feet of gas required to pump one gallon. For inlet regulator sizing, double the requirement indicated.

| Injection Press in PSIG | 50 | 100 | 150 | 200 | 250 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1500 | 2000 | 3000 | 3500 | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 | 10000 |
|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1/4" Piston Long Stroke 5002 | 280 | 281.2 | 282.4 | 283.6 | 284.8 | 286 | 289 | 292 | 294.6 | 297.2 | 300 | 303 | 306 | 318 | 330 | 356 | 368 | 380 | 404 | 428 | 452 | 476 | 500 | 522 |
| 1/4" Piston Short Stroke | 700 | 703 | 706 | 707 | 709 | 712 | 720 | 724 | 731 | 737 | 741 | 748 | 756 | 779 | 802 | 854 | 872 | 897 | 937 | 984 | 1017 | 1057 | 1090 | 1122 |
| 3/8" Piston Long Stroke 5003 | 140 | 140.6 | 141.2 | 141.8 | 142.4 | 143 | 144.5 | 146 | 147.3 | 148.8 | 150 | 151.5 | 153 | 159 | 165 | 178 | 184 | 190 | 202 | 214 | 226 | 238 | 250 | 262 |
| 3/8" Piston Short Stroke | 355 | 355.6 | 356.2 | 356.8 | 357.4 | 358 | 359.5 | 361 | 362.3 | 363.6 | 365 | 366.5 | 368 | 374 | 380 | 393 | 399 | 405 | 417 | 429 | 441 | 453 | 465 | 477 |
| 1/2" Piston Long Stroke 5005 | 80.6 | 81.2 | 81.8 | 82.4 | 83 | 83.6 | 84.8 | 86 | 87.2 | 88.4 | 89.6 | 90.8 | 92 | 98 | 104 | 116 | 122 | 128 | 140 | 152 | 164 | 176 | 188 | 200 |
| 1/2" Piston Short Stroke | 200.6 | 201.1 | 201.8 | 202.4 | 203 | 203.6 | 204.8 | 206 | 207 | 208.4 | 209.6 | 210.8 | 212 | 218 | 224 | 236 | 242 | 248 | 260 | 272 | 284 | 296 | 308 | 320 |
| 3/4" Piston Long Stroke 5004 | 36 | 37 | 38 | 39 | 40 | 41 | 43 | 45 | 47.3 | 49.4 | 51.3 | 52.8 | 55.6 | 66 | 76.2 | 97 | 107 | 114 | 121 | | | | | |
| 3/4" Piston Short Stroke | 89 | 91 | 92 | 94 | 95 | 96 | 99 | 101 | 105 | 109 | 111 | 113 | 117 | 132 | 145 | 172 | 183 | 190 | 191 | | | | | |
| 1" Piston Long Stroke 5006 | 20.6 | 21.2 | 21.8 | 22.4 | 23 | 23.6 | 24.8 | 26 | 27.2 | 28.4 | 29.6 | 30.8 | 32 | 38 | 44 | 56 | 62 | | | | | | | |
| 1" Piston Short Stroke | 50.6 | 51.2 | 51.8 | 52.4 | 53 | 53.6 | 54.8 | 56 | 57.2 | 58.4 | 59.6 | 60.8 | 62 | 68 | 74 | 86 | | | | | | | | |
| 1-1/4" Piston Long Stroke 5007 | 13.6 | 14.2 | 14.8 | 15.4 | 16 | 16.6 | 17.8 | 19 | 20.2 | 21.4 | 22.6 | 23.8 | 25 | 31 | 37 | 49 | | | | | | | | |
| 1-1/4" Piston Short Stroke | 32.6 | 33.2 | 33.8 | 34.4 | 35 | 35.6 | 36.8 | 38 | 39.2 | 40.4 | 41.6 | 42.8 | 44 | 50 | 56 | | | | | | | | | |

Industrial Products Group

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