



First choice when quality counts.™

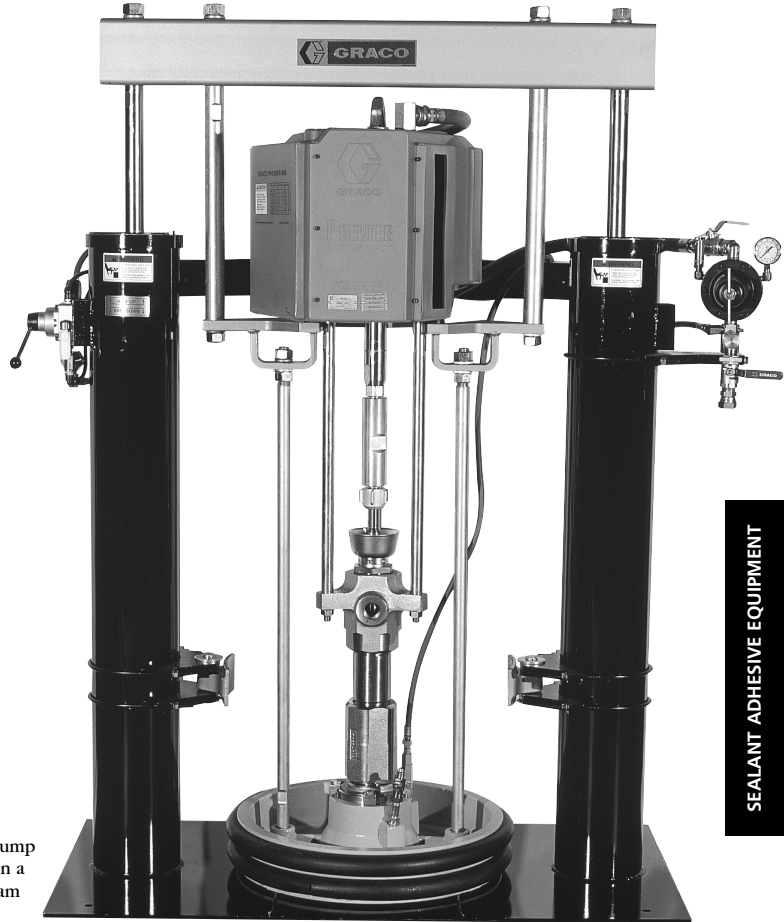
# Dura-Flo™ Ram Pumps

55, 30, 5 Gallon (200, 120, 20 Liter) Supply Packages

**High volume, pressure-balanced pump for moving large volumes of low viscosity materials**

- **Severe Duty carbon steel pump rod and cylinder for long life and durability**
- **High flow rates and high fluid pressures increase production rates**
- **High output per cycle reduces wear for longer life and lower repair costs**
- **Exclusive air valve and shroud design decreases pump changeover time and minimizes icing**

Premier pump shown on a 6.5 in. ram



SEALANT ADHESIVE EQUIPMENT

Graco has over 30 Dura-Flo ram pump packages in a variety of styles and size combinations. Equipment choices are available in 55 gallon (200 liter), 55/5 gallon (200/20 liter), 55/30 gallon (200/30 liter), and 5 gallon (20 liter) pumps to meet your many pump needs.

The Dura-Flo pump 2-ball pump lowers are a pressure-balanced designed and have reduced internal pressure drop to provide the same fluid output on both the up and the down stroke. Improved pump efficiency produces greater pressure for pumping flowable fluids or supplying long fluid pipe runs or lines. Large internal porting not only balances fluid pressures but reduces wear for longer life and less downtime.

### Typical Fluids Handled

- PVC sealers
- Plastisol-based sealants
- Adhesives
- Flowable epoxy
- Flowable inks
- Flowable lubricants

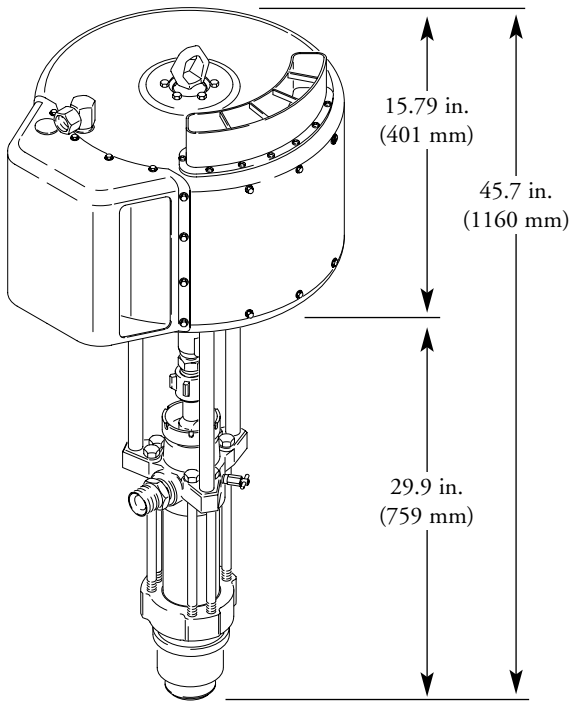
### Typical Applications

- Transferring sealants and adhesives to one or more application dispensing stations
- Feeding high volume applicators or multiple meters or proportioners
- Transferring viscous chemicals in the formulation of sealants and adhesives
- Packaging drums, pails, caulking tubes or chubs

# Technical Specifications for Premier 34:1 with Dura-Flo 2400 Lower

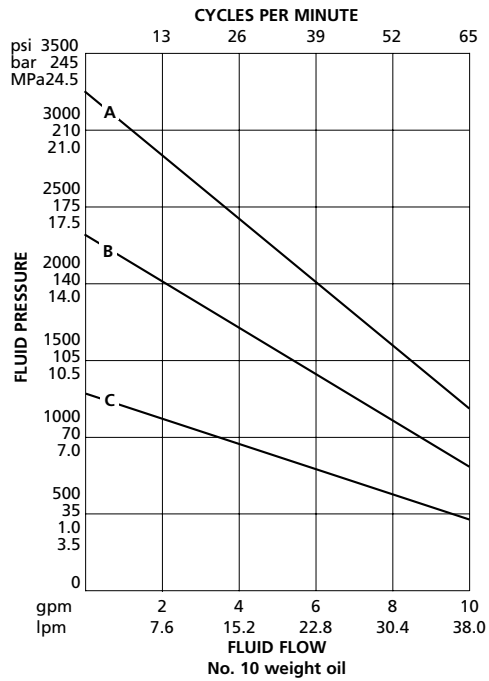
Maximum fluid pressure . . . . . 3400 psi (23 MPa, 230 bar)  
 Maximum air input pressure . . . 100 psi (0.7 MPa, 7 bar)  
 Fluid Flow at 60 cpm . . . . . 9.2 gpm (34.8 lpm)  
 Volume per cycle . . . . . 19.6 oz (579 cc)  
 Air inlet size . . . . . 3/4 npsm(f)  
 Fluid outlet size . . . . . 1-1/2 npt(m)  
 Weight . . . . . 240 lb (109 kg)  
 Instruction manuals . . . . . 308-151 and 308-152

## Dimensions

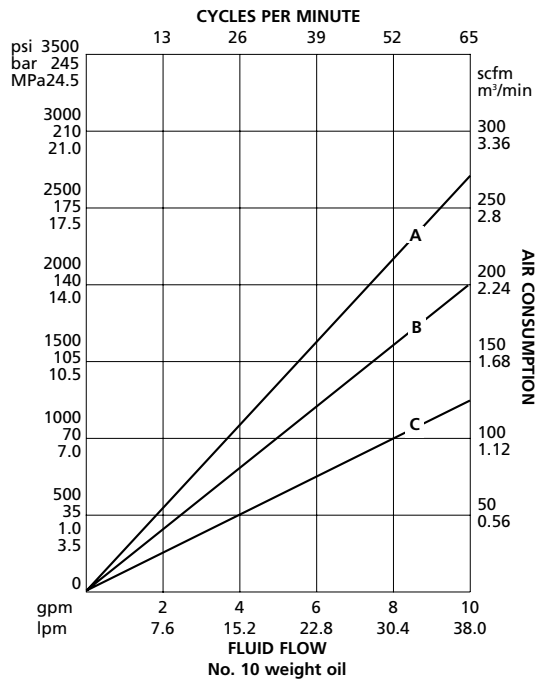


# Performance Charts for Premier 34:1

Fluid Outlet Pressure



Air Consumption



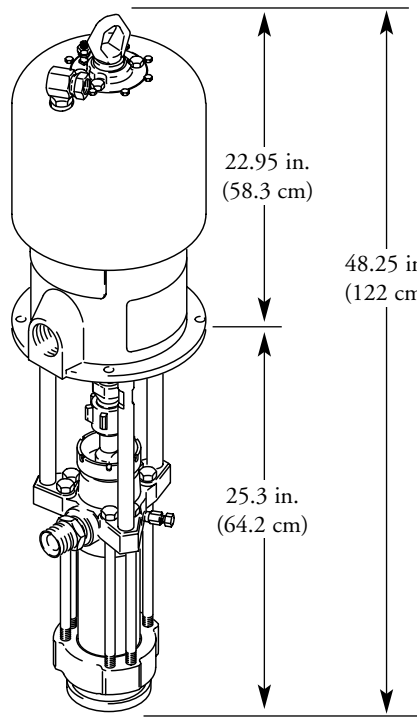
**Key to Air Pressures:**

- A = 180 psi (1.22 MPa, 12.2 bar)
- B = 100 psi (0.7 MPa, 7 bar)
- C = 70 psi (0.47 MPa, 4.7 bar)

# Technical Specifications for King 20:1 with Dura-Flo 2400 Lower

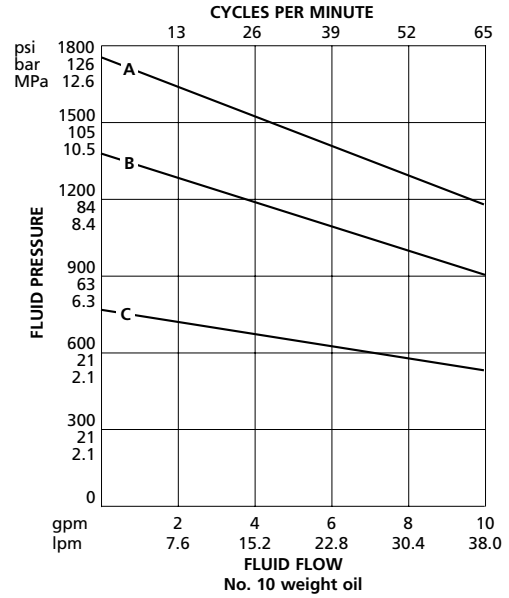
- Maximum fluid pressure . . . . 1800 psi (12.6 MPa, 126 bar)
- Maximum air input pressure . . . . 90 psi (0.6 MPa, 6 bar)
- Fluid Flow at 60 cpm . . . . . 7.7 gpm (29.1 lpm)
- Volume per cycle . . . . . 19.7 oz (582.5 cc)
- Air inlet size . . . . . 3/4 npsm(f)
- Fluid outlet size . . . . . 1-1/2 npt(m)
- Weight . . . . . 152 lb (69 kg)
- Instruction manuals
  - Carbon steel . . . . . 308-151
  - Stainless steel . . . . . 308-152

## Dimensions

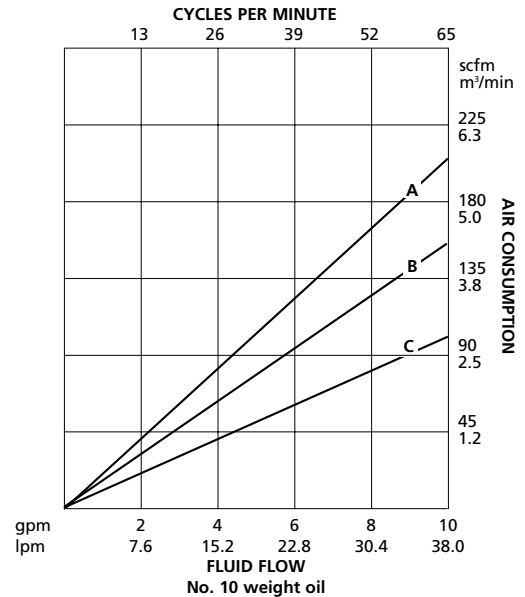


## Performance Charts for King 20:1

Fluid Outlet Pressure



Air Consumption



**Key to Air Pressures:**

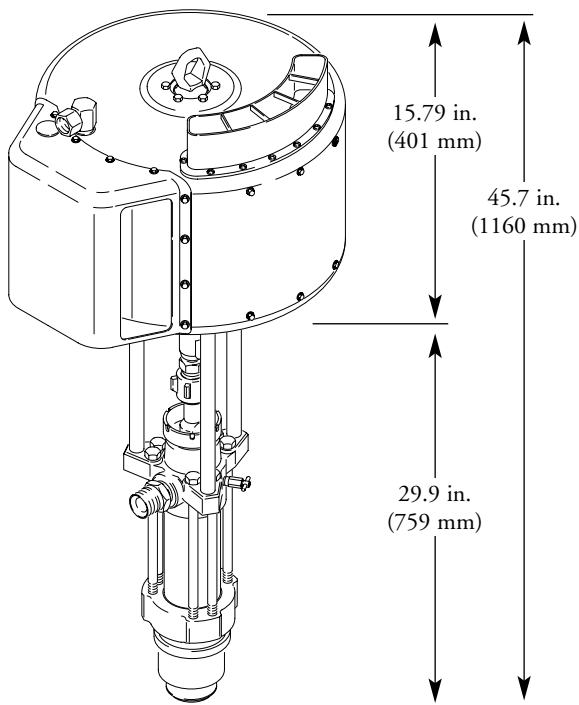
- A = 180 psi (1.22 MPa, 12.2 bar)
- B = 100 psi (0.7 MPa, 7 bar)
- C = 70 psi (0.47 MPa, 4.7 bar)

SEALANT ADHESIVE EQUIPMENT

# Technical Specifications for Premier 45:1 with Dura-Flo 1800 Lower

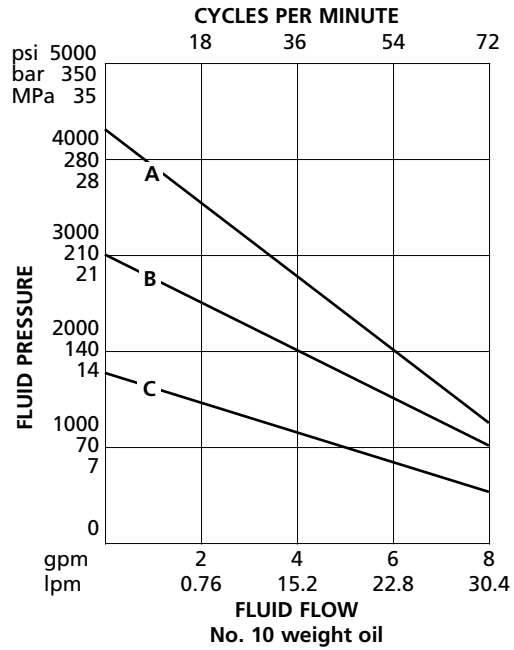
- Maximum fluid pressure . . . . . 4500 psi (31 MPa, 310 bar)
- Maximum air input pressure . . . . . 100 psi (0.7 MPa, 7 bar)
- Fluid Flow at 60 cpm . . . . . 6.9 gpm (26.1 lpm)
- Volume per cycle . . . . . 14.7 oz (434.6 cc)
- Air inlet size . . . . . 3/4 npsm(f)
- Fluid outlet size . . . . . 1-1/2 npt(m)
- Weight . . . . . 240 lb (109 kg)
- Instruction manual . . . . . 308-147, 308-148

## Dimensions

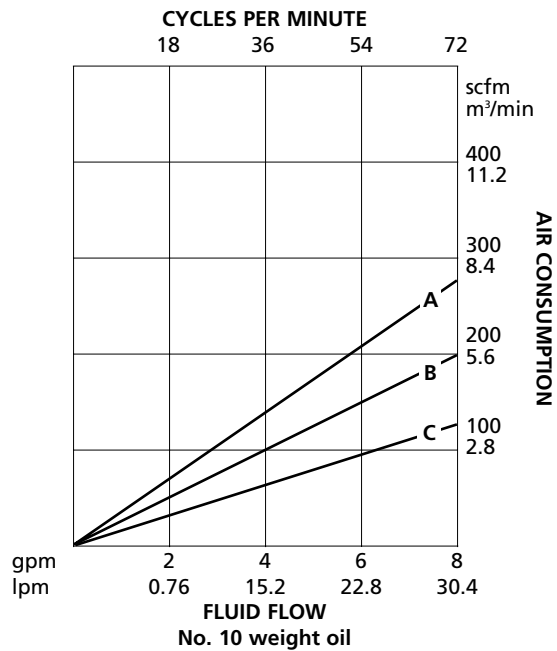


# Performance Charts for Premier 45:1

## Fluid Outlet Pressure



## Air Consumption



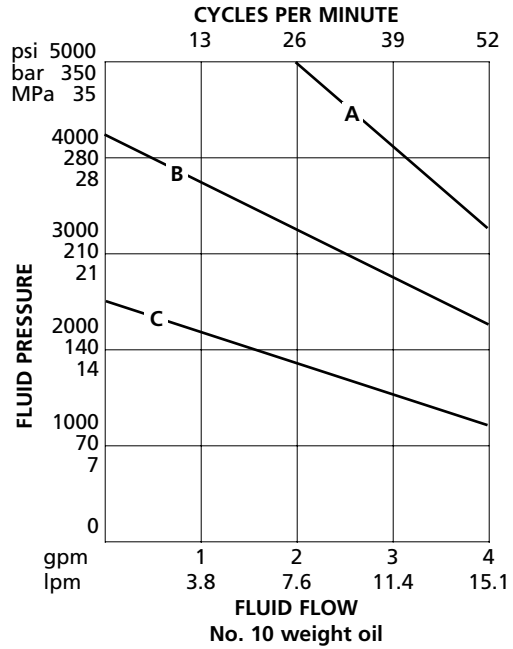
**Key to Air Pressures:**  
 A = 180 psi (1.22 MPa, 12.2 bar)  
 B = 100 psi (0.7 MPa, 7 bar)  
 C = 70 psi (0.47 MPa, 4.7 bar)

# Technical Specifications for Premier 67:1 with Dura-Flo 1200 Lower

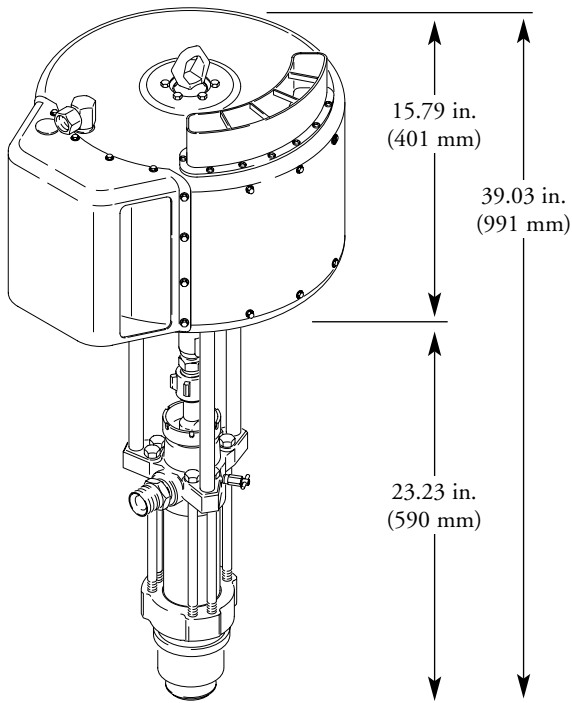
- Maximum fluid pressure . . . . . 5000 psi (34 MPa, 345 bar)
- Maximum air input pressure . . . . . 75 psi (0.5 MPa, 5.2 bar)
- Fluid Flow at 60 cpm . . . . . 4.8 gpm (18.2 lpm)
- Volume per cycle . . . . . 10.24 oz (303 cc)
- Air inlet size . . . . . 1 npsm(f)
- Fluid outlet size . . . . . 1 npt(f)
- Weight . . . . . 195 lb (88.5 kg)
- Instruction manual . . . . . 308-812

# Performance Charts for Premier 67:1

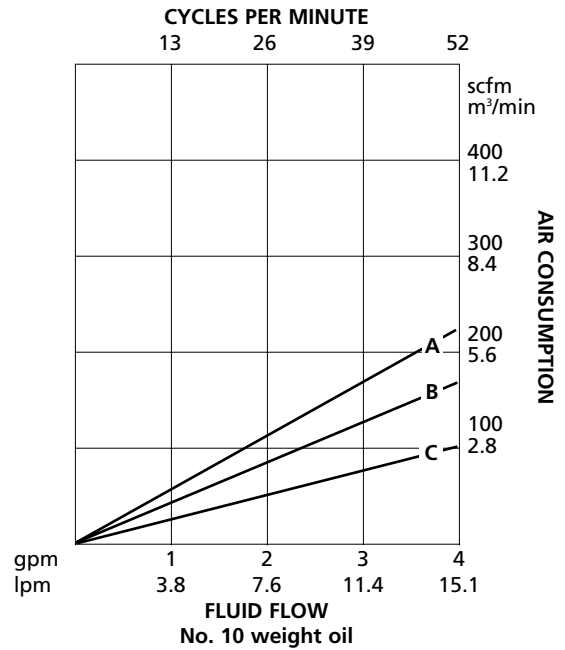
## Fluid Outlet Pressure



## Dimensions



## Air Consumption



### Key to Air Pressures:

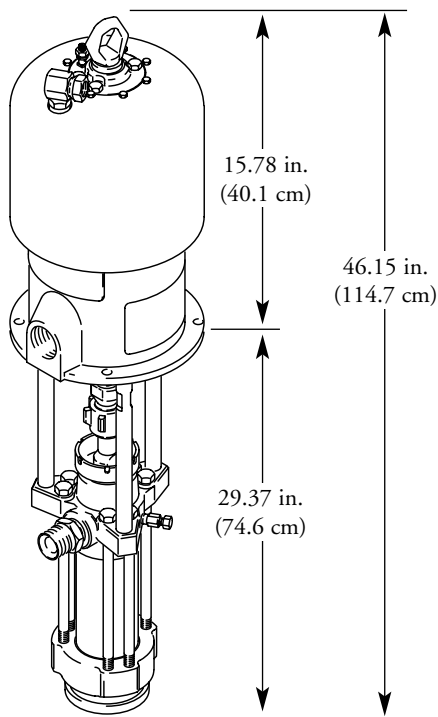
- A = 100 psi (0.76 MPa, 76 bar)
- B = 70 psi (0.49 MPa, 4.9 bar)
- C = 50 psi (0.34 MPa, 3.4 bar)

SEALANT ADHESIVE EQUIPMENT

# Technical Specifications for King 56:1 with Dura-Flo 900 Lower

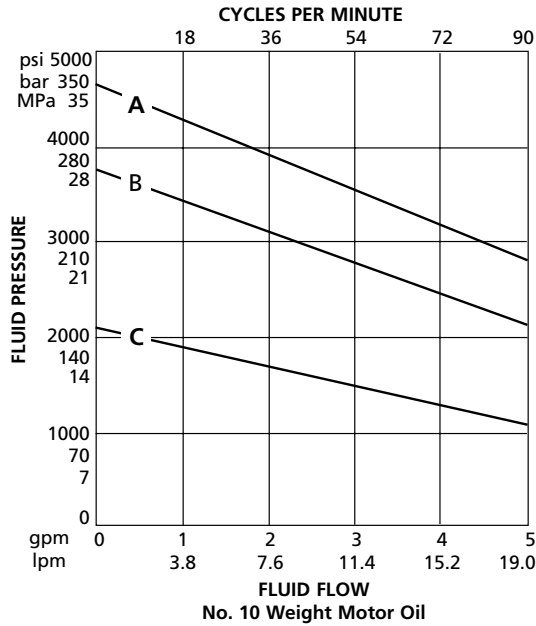
- Max. fluid working pressure . . . 5000 psi (34.5 MPa, 345 bar)
- Max. air input pressure . . . . . 90 psi (0.63 MPa, 6.3 bar)
- Fluid flow at 60 cpm . . . . . 3.4 gpm (13 lpm)
- Volume per cycle . . . . . 7.25 oz. (0.21 cc)
- Max. pump operating temperature . . . . . 180°F (82°C)
- Air inlet size . . . . . 3/4 npsm(f)
- Fluid outlet size . . . . . 1 npt(f)
- Weight . . . . . 240 lbs. (109 kg)
- Instruction manuals
  - CS models . . . . . 308-353
  - SST models . . . . . 308-354

## Dimensions

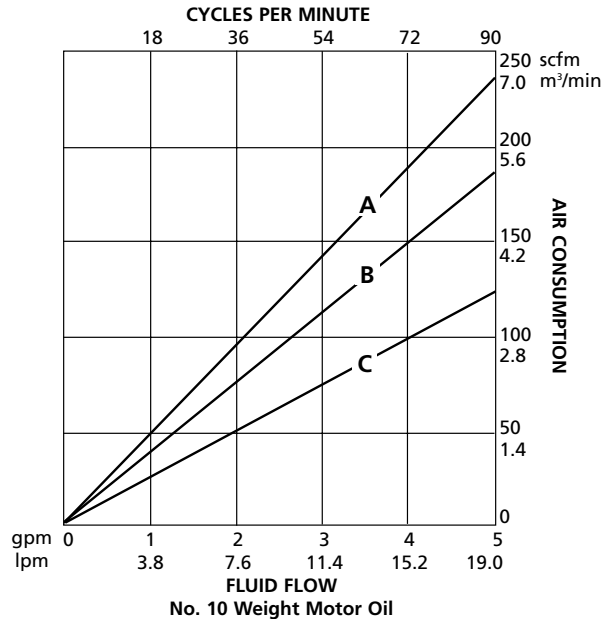


# Performance Charts for King 56:1

## Fluid Outlet Pressure



## Air Consumption



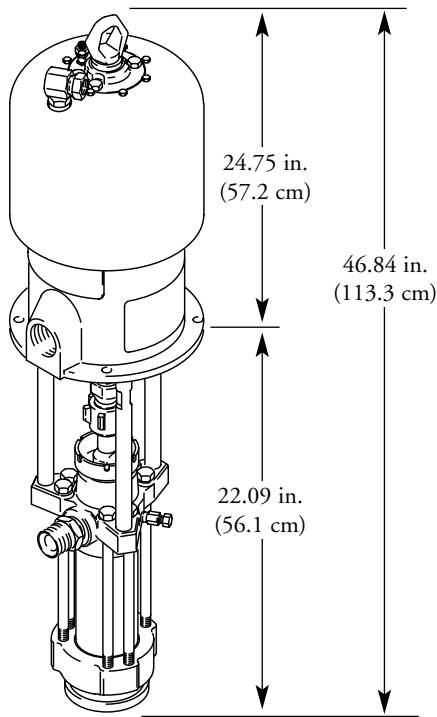
### Key to Air Pressures:

- A = 180 psi (1.22 MPa, 12.2 bar)
- B = 100 psi (0.7 MPa, 7 bar)
- C = 70 psi (0.47 MPa, 4.7 bar)

# Technical Specifications for Senator 25:1 with Dura-Flo 600 Lower

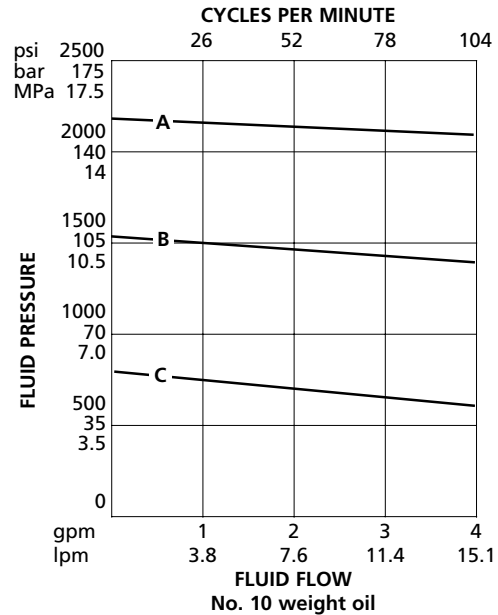
- Max. fluid working pressure . . . 2500 psi (17.5 MPa, 175 bar)
- Max. air input pressure . . . . . 100 psi (0.7 MPa, 7 bar)
- Fluid flow at 60 cpm . . . . . 2.3 gpm (8.7 lpm)
- Volume per cycle . . . . . 4.89 oz. (144.7 cc)
- Max. pump operating temperature . . . . . 180°F (82°C)
- Air inlet size . . . . . 3/4 npsm(f)
- Fluid outlet size . . . . . 3/4 npt(f)
- Weight . . . . . 135 lbs. (61 kg)
- Instruction manuals
  - Senator air motor (217-540) . . . . . 307-592
  - Dura-Flo lower (236-457) . . . . . 308-349

## Dimensions

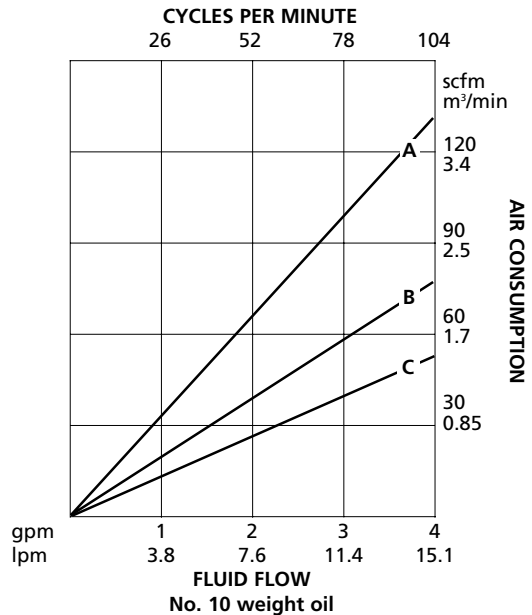


# Performance Charts for Senator 25:1

## Fluid Outlet Pressure



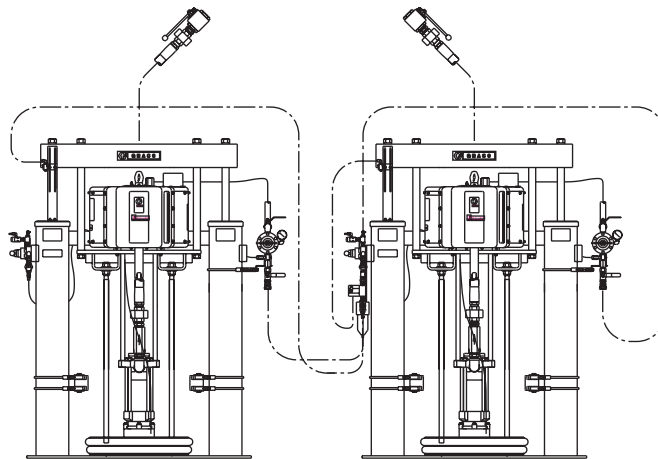
## Air Consumption



### Key to Air Pressures:

- A = 100 psi (0.7 MPa, 7 bar)
- B = 70 psi (0.48 MPa, 4.8 bar)
- C = 40 psi (0.28 MPa, 2.8 bar)

# Ordering Information for Dura-Flo Pump Packages



970-199 shown

## 6.5 in. / 55 Gallon (200 Liter) Ram Pumps

### With Dura-Flo 2400 Pump Lower:

**970-199 Tandem 34:1 Premier Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with shutoff valves.

**970-200 Tandem 34:1 Premier Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, electric crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with shutoff valves.

**970-201 Single 34:1 Premier Ram Pump**  
Includes: (1) 55 gal. (200 liter) 6.5 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.

### With Dura-Flo 1800 Pump Lower:

**970-196 Tandem 45:1 Premier Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

**970-142 Tandem 45:1 Premier Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, SST pump lowers with carbide balls and seats, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

**970-143 Tandem 45:1 Premier Ram Pumps, Pneumatic Crossover and Depressurization**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, automatic depressurization, SST pump lowers with carbide balls and seats, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

### With Dura-Flo 1800 Pump Lower (cont'd):

**970-197 Tandem 45:1 Premier Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, electric crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

**970-198 Single 45:1 Premier Ram Pump, Pneumatic Low-Level Shutoff**  
Includes: (1) 55 gal. (200 liter) 6.5 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) fluid dispense hose with shutoff valve.

### With Dura-Flo 1200 Pump Lower:

**970-067 Tandem 67:1 Premier Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

**970-070 Tandem 67:1 Premier Ram Pumps, Pneumatic Crossover and Depressurization**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves and automatic depressurization.

**970-063 Tandem 67:1 Premier Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 6.5 in. dual post rams, 55 gal. (200 liter) follower plates, electric crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

**970-149 Single 67:1 Premier Ram Pumps, Pneumatic Low-Level Shutoff**  
Includes: (1) 55 gal. (200 liter) 6.5 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) fluid dispense hoses with shutoff valves.



# Ordering Information for Dura-Flo Pump Packages (cont'd)

## 3 in. / 55 Gallon (200 Liter) Ram Pumps

### With Dura-Flo 2400 Pump Lowers:

- 970-159 Tandem 20:1 King Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) follower plates and pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with shutoff valves.
- 970-160 Tandem 20:1 King Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) follower plates and electric crossover control with drum empty light kit, outlet check valves, and (2) 10 ft. (3 m) supply hoses with shutoff valves.
- 970-163 Single 20:1 King Ram Pump, Pneumatic Low-Level Shutoff**  
Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.

### With Dura-Flo 900 Pump Lowers:

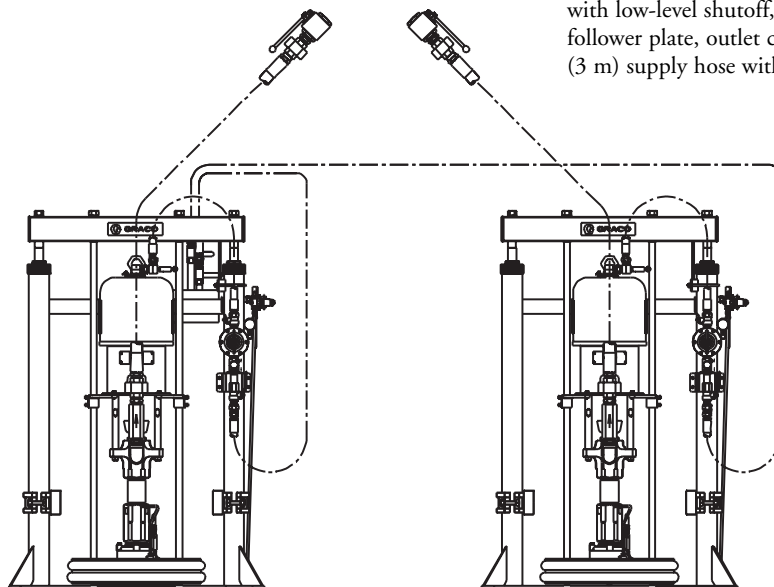
- 970-161 Tandem 56:1 King Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) follower plates, pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.
- 970-162 Tandem 56:1 King Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) follower plates, electric crossover control with drum empty light kit, outlet check valves, and (2) 10 ft. (3 m) fluid dispense hoses with shutoff valves.

### With Dura-Flo 900 Pump Lowers (cont'd):

- 970-092 Single 56:1 King Ram Pump**  
Includes: (1) 55 gal. (200 liter) 3 in. dual post ram, 55 gal. (200 liter) follower plate, 15 ft. (4.6 m) fluid dispense hose, Z-swivel, and Ultra-Lite 4000 SD manual pistol grip flow gun without nozzle.
- 970-164 Single 56:1 King Ram Pump, Pneumatic Low-Level Shutoff**  
Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, outlet check valve, (1) 10 ft. (3 m) fluid dispense hose with shutoff.
- 970-261 Single 56:1 King Ram Pump, Pneumatic Low-Level Shutoff with Alarm**  
Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 55 gal. (200 liter) follower plate, fluid regulator, and audible alarms.

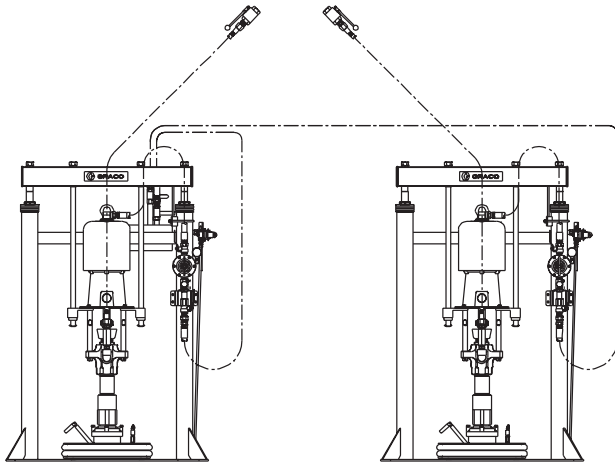
### With Dura-Flo 600 Pump Lowers:

- 970-056 Tandem 25:1 SST Senator Ram Pumps, Pneumatic Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) TFE-coated follower plates and pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.
- 970-057 Tandem 25:1 SST Senator Ram Pumps, Electric Crossover**  
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 55 gal. (200 liter) TFE-coated follower plates and electric crossover control with drum empty light kit, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.
- 970-058 Single 25:1 SST Senator Ram Pump**  
Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 55 gal. (200 liter) TFE-coated follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.



970-161 shown

## Ordering Information for Dura-Flo Pump Packages (cont'd)



970-071 shown

### 55/30 Gallon (200/120 Liter) Ram Pumps with Dura-Flo 600 Pump Lower

#### 970-071 Tandem 25:1 SST Senator Ram Pumps, Pneumatic Crossover

Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 30 gal. (120 liter) CS follower plates and pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.

#### 970-072 Tandem 25:1 SST Senator Ram Pumps, Electric Crossover

Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 30 gal. (120 liter) CS follower plates and electric crossover control with drum empty light kit, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.

#### 970-073 Single 25:1 SST Senator Ram Pump

Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 30 gal. (120 liter) CS follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.

### 55/5 Gallon (200/20 Liter) Ram Pumps with Dura-Flo 900 Pump Lower

#### 970-093 Single 56:1 King Ram Pump

Includes: (1) 55 gal. (200 liter) 3 in. dual post ram, 5 gal. (20 liter) follower plate, 15 ft. (4.6 m) fluid dispense hose, Z-swivel, and Ultra-Lite 4000 SD manual pistol grip flow gun without nozzle.

### 55/5 Gallon (200/20 Liter) Ram Pumps with Dura-Flo 600 Pump Lower

#### 970-059 Tandem 25:1 SST Senator Ram Pumps, Pneumatic Crossover

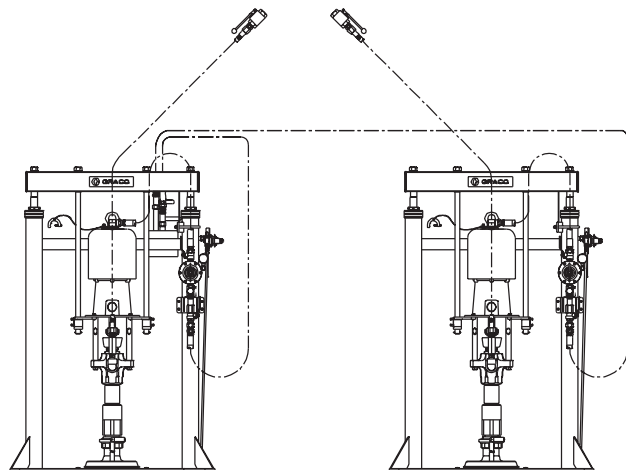
Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 5 gal. (20 liter) SST follower plates and pneumatic crossover control, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.

#### 970-060 Tandem 25:1 SST Senator Ram Pumps, Electric Crossover

Includes: (2) 55 gal. (200 liter) 3 in. dual post rams, 5 gal. (20 liter) SST follower plates and electric crossover control with drum empty light kit, outlet check valves, and (2) 10 ft. (3 m) supply hoses with SST shutoff valves.

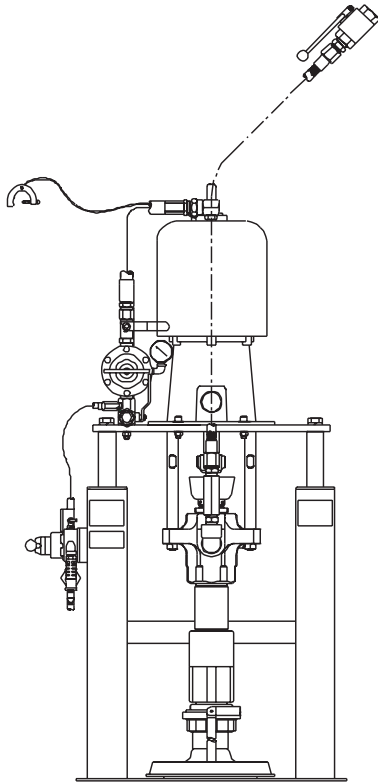
#### 970-061 Single 25:1 SST Senator Ram Pump

Includes: (1) 55 gal. (200 liter) 3 in. dual post ram with low-level shutoff, 5 gal. (20 liter) SST follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.



970-059 shown

# Ordering Information for Dura-Flo Pump Packages (cont'd)



970-166 shown

## 30 Liter Ram Pumps

### with Dura-Flo 900 Pump Lower

#### € 970-250 Single 20:1 King Ram Pump

Includes: (1) 30 liter 3 in. dual post ram, 30 liter follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with shutoff valve.

### with Dura-Flo 900 Pump Lower

#### € 970-251 Single 56:1 King Ram Pump

Includes: (1) 30 liter 3 in. dual post ram, 30 liter follower plate, outlet check valve, mastic regulator, low level with audible alarm, and (1) 10 ft. (3 m) supply hose with shutoff valve.

## 5 Gallon (20 Liter) Ram Pumps

### with Dura-Flo 2400 Pump Lower

#### 970-165 Single 20:1 King Ram Pump Pneumatic Crossover

Includes: (1) 5 gal. (20 liter) 3 in. dual post ram, 5 gal. (20 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with shutoff valve.

### with Dura-Flo 900 Pump Lower

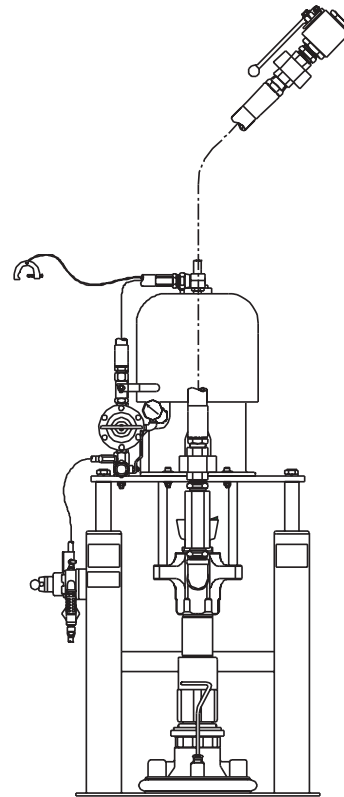
#### 970-166 Single 56:1 King Ram Pump

Includes: (1) 5 gal. (20 liter) 3 in. dual post ram, 5 gal. (20 liter) follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with shutoff valve.

### with Dura-Flo 600 Pump Lower

#### 970-062 Single 25:1 SST Senator Ram Pump

Includes: (1) 55 gal. (200 liter) 3 in. dual post ram, 5 gal. (20 liter) SST follower plate, outlet check valve, and (1) 10 ft. (3 m) supply hose with SST shutoff valve.



## Accessories

**C59-719 Depressurization Kit, 6.5 Ram**  
Allows depressurization of fluid supply hoses and header. Includes electrical and pneumatic controls for depressurization, return valves, and hoses. 120v single phase, 50/60 Hz. Requires crossover kit (918-393).

**918-393 Pneumatic Crossover Kit**

**C34220 Hose Support Kit**

**Throat Seal Liquid**

Non-evaporating lubricant for wet cup.

**206-995 1 Quart (.95 liter)**

**206-996 1 Gallon (3.8 liter)**

## Dispense Kits and Packages

- 969-201 In-line Ball Needle Manual Extrude Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 25 ft. (7.6 m) dispense hose, 6 ft. (1.8 m) whip hose, Z-swivel, and Ultra-Lite in-line flow gun.
- 969-202 In-line Tapered Needle Manual Extrude Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 25 ft. (7.6 m) dispense hose, 6 ft. (1.8 m) whip hose, Z-swivel, and Ultra-Lite in-line flow gun.
- 970-094 Pistol Grip Manual Dispense Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 15 ft. (4.6 m) dispense hose, Z-swivel, and Ultra-Lite 4000 SD pistol grip flow gun.
- 970-167 Pistol Grip Manual Extrude Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 25 ft. (7.6 m) dispense hose, 6 ft. (1.8 m) whip hose, Z-swivel, and Ultra-Lite 4000 SD pistol grip flow gun with nozzle.
- 970-124 Pistol Grip Manual Airless Spray Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 25 ft. (7.6 m) dispense hose, 6 ft. (1.8 m) whip hose, straight swivel, and Silver Plus pistol grip airless spray gun with fan spray tip.
- 970-145 Pistol Grip Manual Air-Assisted Spray Kit**  
Includes: ball valve, 3/8 in. mastic regulator, 25 ft. (7.6 m) dispense hose, 6 ft. (1.8 m) whip hose, straight swivel, and AA Plus pistol grip spray gun with fan spray tip.
- 970-077 Ultra-Lite 6000 Manual Dispense Package**  
Includes: ball valve, 3/4 in. mastic regulator, 1/2 in. x 10 ft. (4.6 m) and 3/8 in. x 5 ft. (?? m) dispense hoses, straight swivel, and Ultra-Lite 6000 flow gun.
- 970-144 Silver Plus Manual Airless Spray Package**  
Includes: ball valve, 3/4 in. mastic regulator, 3/4 in. x 10 ft. (4.6 m) and 3/8 in. x 5 ft. (?? m) dispense hoses, straight swivel, and Silver Plus pistol grip airless spray gun with RAC fan spray tip.
- 970-193 AA Plus Manual Air-Assisted Spray Package**  
Includes: ball valve, 3/8 in. mastic regulator, 3/8 in. x 25 ft. (7.6 m) and 1/4 in. x 6 ft. (?? m) dispense hoses, straight swivel, and AA Plus pistol grip air-assisted spray gun with RAC fan spray tip (242-317), and air/regulator/hose kit.