

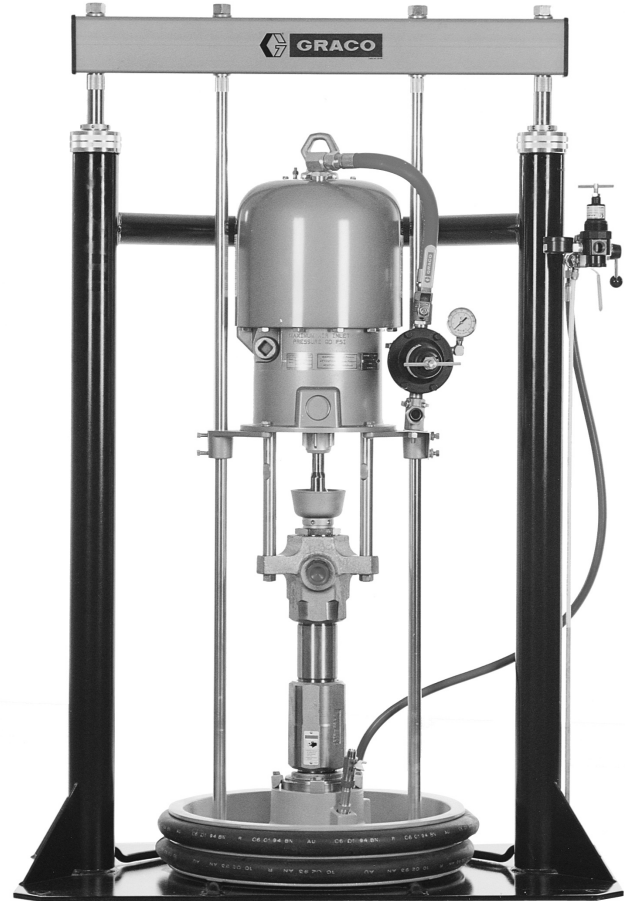


Check-Mate[®] 1000

CS & SST Priming Piston Fluid Pumps

**High volume,
high pressure
pump for
moving high
viscosity
materials**

- Available in Severe Duty carbon steel and stainless steel models
- 3.5 gpm (13.3 lpm) flow rate at 60 cpm
- 55 gal. (200 liter) ram systems available in King 50:1 and Premier 80:1 fluid power ratios
- 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 design decreases changeover time and minimizes icing
- Floating piston seal and flow-through priming plate improves pump loading of high viscosity materials



COMPONENTS

High Performance Pump for Viscous Fluids

The Check-Mate 1000 pump is designed to transfer high viscosity fluids from 55 gallon (200 liter) drums in high volumes to one or more locations. The internal design moves fluid from the inlet to the outlet port with the lowest pressure drop available. The metal wear parts are treated with the finest wear-resistant coatings to achieve the Graco Severe-Duty™ mark of excellence for long life. Two power ratios (50:1 and 80:1) provide different levels of pressure up to 5850 (40.4 MPa, 404 bar) and flow rates up to 3.5 gpm (13.3 lpm) to increase production capability and capacity.

Typical Fluids Handled

- Acrylics
- Adhesives
- Butyl
- Caulking Compounds
- Epoxy
- Inks
- Lubricants
- PVC Sealers
- Sealants
- Silicones
- Urethanes

King 50:1 shown (686-965)

Typical Applications

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

About Graco Premier and King Check-Mate Pumps

Powerful Air Motors

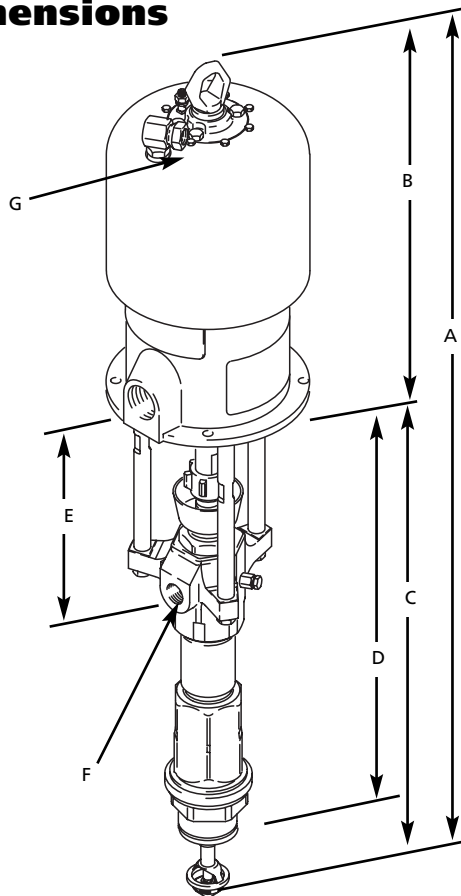
The unique, patented Premier air motor minimizes performance fall-off or stoppage due to ice build-up. The built-in air pump moves warm air across the four-way valve to reduce ice build-up. The reliable and durable four-way slide valve provides continuous operation even when working with dirty non-lubricated air. The King air motor is also utilized with the Check-Mate 1000 Lower Displacement Pump to provide a full line of high performance pumps for your application.

Check-Mate Pump Lower

Check-Mate 1000 Lower Displacement Pumps are pressure balanced designed and have reduced internal pressure drop to provide the same fluid output on both the up and down stroke. Improved pump efficiency produces greater pressure for pumping high viscosity fluids or supplying long fluid pipe runs or lines.

- Severe Duty rod and cylinder for long life durability
- Large internal porting balances fluid pressures
- Simplified pump lower design minimizes repair cost

Dimensions



Model	Motor	A	B	C	D	E	F	G
237-707	King	54.20 in.	22.95 in.	31.25 in.	25.61 in.	10.12 in.	1 npt(f)	3/4 npsm(f)
237-708	King	(1376.7 mm)	(583.0 mm)	(793.7 mm)	650.5 mm	(257.0 mm)		
237-518	Premier	53.06 in.	16.88 in.	36.18 in.	30.75 in.	15.26 in.	1 npt(f)	1 npsm(f)
237-520	Premier	(1347.8 mm)	(428.8 mm)	(919.0 mm)	(781.0 mm)	(387.5 mm)		

Technical Specifications

Displacement pump effective area 1.55 in.² (10 cm²)

Volume per cycle 14.7 in.³ (240 cm³)

Pump cycles per 1 gal. (3.8 liters) 16

Fluid flow at 60 cpm 3.8 gpm (14.4 lpm)

Max. fluid working pressure

King 50:1 4500 psi (31.1 MPa, 311 bar)

Premier 80:1 5850 psi (40.4 MPa, 404 bar)

Max. air input pressure

King 50:1 90 psi (0.63 MPa, 6.3 bar)

Premier 80:1 73 psi (0.5 MPa, 5 bar)

Max. pump operating temperature 150°F (66°C)

Air motor piston effective area

King 50:1 78.5 in.² (506 cm²)

Premier 80:1 38.5 in.² (800 cm²)

Stroke length 4.75 in. (120 mm)

Air inlet size

King 50:1 3/4 npsm(f)

Premier 80:1 1 npt(f)

Fluid outlet size 1 npt(f)

Wetted parts

Carbon steel model Carbon steel; chrome; zinc; and nickel plating; 304, 316, 440, and 17-4 PH grades of SST; alloy steel; ductile iron; Teflon®; glass-filled Teflon; UHMWPE

Stainless steel model Chrome; zinc; and nickel plating; 304, 316, 440, 440C, PH 13-8 MO, and 17-4 PH grades of stainless steel; Teflon®; glass-filled Teflon; UHMWPE

Weight 160 lbs. (73 kg)

Displacement Pump weight81 lbs. (37 kg)

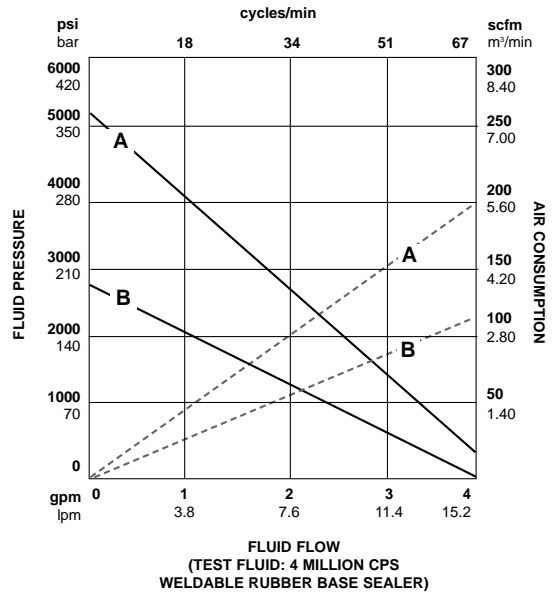
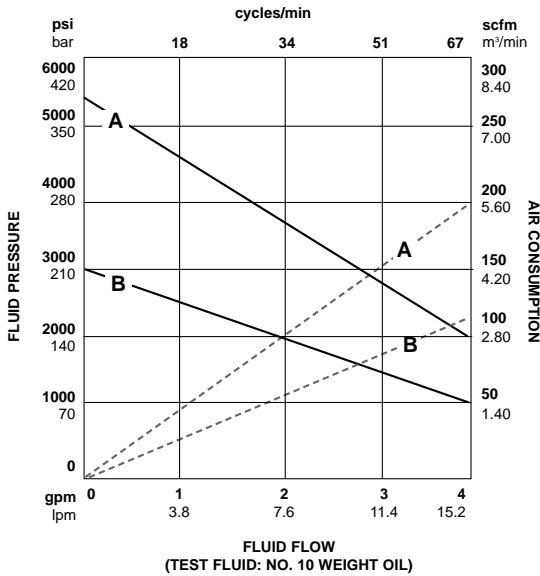
Instruction manual

Carbon steel models 308-355

Stainless steel models 308-356

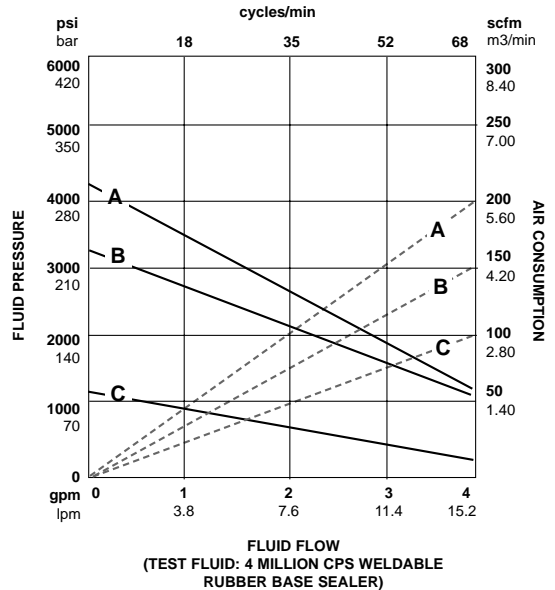
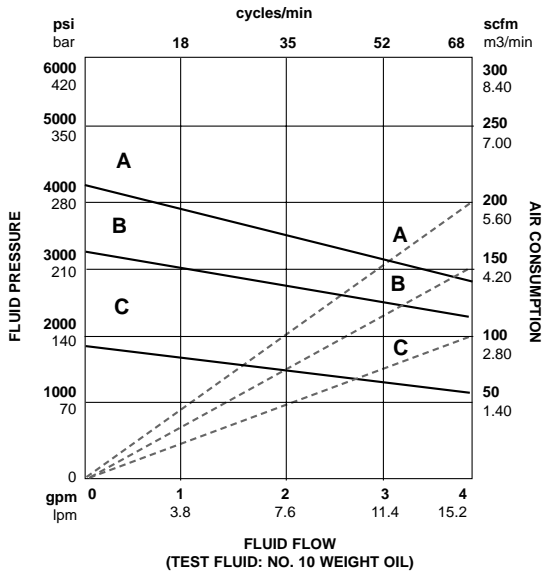
Teflon® is a registered trademark of Du Pont.

Premier 80:1 Check-Mate 1000 Pump Performance



Key: Fluid Outlet Pressure – Black Solid Curves
Air Consumption - Gray Dotted Curves
A = 73 psi (5.0 bar) air pressure
B = 40 psi (2.8 bar) air pressure

King 50:1 Check-Mate 1000 Pump Performance



Key: Fluid Outlet Pressure – Black Solid Curves
Air Consumption - Gray Dotted Curves
A = 6.3 bar (90 psi) air pressure
B = 4.9 bar (70 psi) air pressure
C = 2.8 bar (40 psi) air pressure

Pump Package Ordering Information

55 Gallon (200 liter) with 6.5 in. Dual Post Ram

- 918-315 King 50:1 EPDM plate, air controls
- 918-316 Premier 80:1 EPDM plate, air controls
- 970-187 Single Premier 80:1 Pneumatic Low-Level Shutoff
- 970-185 Tandem Premier 80:1 Pneumatic Crossover
- 970-186 Tandem Premier 80:1 Electric Crossover

55 Gallon (200 liter) with 3 in. Dual Post Ram

- 686-965 King 50:1

5 Gallon (20 liter) with 3 in. Dual Post Ram

- 918-378 King 50:1 Wiper plate, air controls
- 918-379 King 50:1 PVC tire plate, air controls
- 918-380 King 50:1 SST SST wiper plate, air controls

Bare Pump Modules Ordering Information

- 237-707 King 50:1 Check-Mate Pump, Severe Duty CS
- 237-708 King 50:1 Check-Mate Pump, Severe Duty SST
- 237-518 Premier 80:1 Check-Mate Pump, Severe Duty CS
- 237-520 Premier 80:1 Check-Mate Pump, Severe Duty SST

Repair Kits

- 222-869 UHMWPE/Teflon Packing and Seal Kits
For CM 1000 CS Lower Displacement Pump
(222-954)
- 222-871 UHMWPE/Teflon Packing and Seal Kits
For CM 1000 SST Lower Displacement Pump
(236-613)

Accessories

- C32-410 6.5 in. Bare Dual Post Ram Module
- 918-305 Bare 55 gal. (200 liter) Follower Plate
(without wiper)
- C32-438 Two Regulator Air Control Module w/ FRL
- C32-437 Four Regulator Air Control Module w/ FRL
- C32-463 Drum Centering Guide
(Two required per ram.)
- 918-395 Drum Hold Down Clamp, Heavy Duty
- 224-040 Pump Runaway Valve
3/4 npt(f) both ends
- 918-468 Dual Ram Changeover Control, 3 in. Ram
- 947-518 Low Level Cut-Off
- 206-537 Drum Clamp Kit for 3-in. Dual Post Ram
Included in some rams.
- 903-958 Mastic Fluid Regulator
5000 psi (345 bar), 3/4 npt(f) inlet and outlet ports.
Carbon steel.
- 214-623 Accumulator Surge Tank
- 222-780 Floor Stand Base
- 235-416 Premier Air Motor to Pump Connecting
Rod Kit
- C03-059 Dual PVC 55 gal. (200 liter) Tire Kit
- 918-312 Dual EPDM 55 gal. (200 liter) Tire Kit
- C03-228 Dual Neoprene 55 gal. (200 liter) Tire Kit
- 918-309 Pump and Plate Mounting Kit
- 207-651 King Air Regulator Kit
- 206-995 Throat Seal Liquid (TSL)
One quart (0.95 liter)