



First choice when
quality counts.™

Bulldog® 33:1 Air-Powered Pump

- **More durable than ever before with longer life packing design**
- **Higher pump pressure and flow performance handles a broader range of paints and coatings**
- **Improved serviceability means fewer parts, faster repairs and lower overall maintenance and ownership costs**

**For durability,
power and
reliability under
tough working
conditions**

Graco's Bulldog pumps are designed to supply paint and coatings to multiple spray outlets. The Bulldog motor with its large-ported, built-in 4-way valve and efficient check valves reduce pulsation in the spray pattern for uniform coating thickness.

Downtime is minimized by the rugged displacement pump with long life Severe Duty™ rods and cylinders. Simple construction makes service and repair fast and easy.

The proven Bulldog air motor design is developed and tested for more than 10 million cycles of operation.

Typical Fluids Handled

- Solventborne paints and coatings
- Waterborne paints and coatings

Typical Applications

- Airless spray systems
- Air-assisted airless spray systems



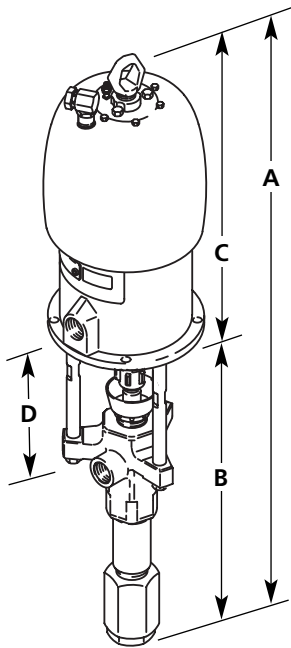
COMPONENTS

Technical Specifications

- Max. working pressure 3300 psi (22.4 MPa, 224 bar)
- Max. air input pressure 100 psi (0.7 MPa, 7 bar)
- Fluid flow at 60 cpm 2.9 gpm (11 lpm)
- Volume per cycle 6 oz. (0.17 liter)
- Max. pump operating temperature 180°F (82°C)
- Weight 90 lbs. (41 kg)
- Instruction manuals
 - CS models 308-417
 - SST models 308-418

Severe Duty™ is a registered trademark of Graco Inc.

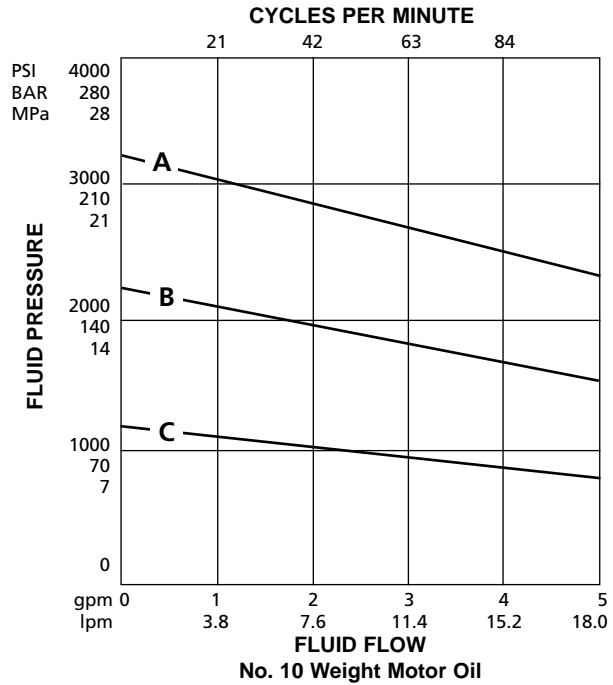
Dimensions



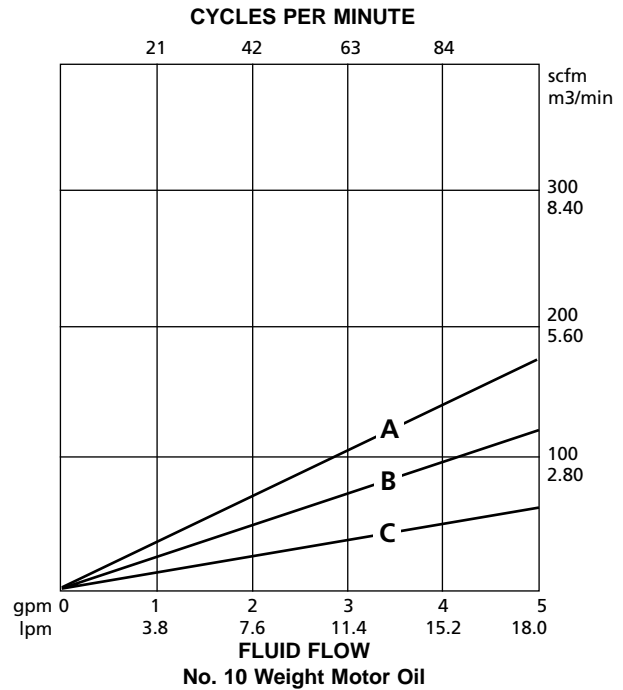
	A	B	C	D
Standard motor 237-366, 237-367, 237-370	43.50 in. (1105 mm)	22.09 in. (561 mm)	21.42 in. (544 mm)	10.12 in. (257 mm)
Quiet air motor 237-613, 237-582	45.47 in. (1155 mm)	22.09 in. (561 mm)	23.39 in. (594 mm)	10.12 in. (257 mm)

Performance Charts Bulldog 33:1

Fluid Pressure



Air Consumption



Air Pressures
 A = 100 psi (0.7 MPa, 7 bar)
 B = 70 psi (0.49 MPa, 4.9 bar)
 C = 40 psi (0.28 MPa, 2.8 bar)

Ordering Information for Bulldog 33:1

Order number includes motor and pump lower assembly

Order Nos.	237-366	237-582	237-370	237-367	237-613
Pump Lower					
Part No.	236-455	236-455	236-455	236-456	236-456
Construction	CS	CS	CS	SST	SST
Standard Seal Repair Kits	237-239	237-239	237-239	237-240	237-240
Construction	Leather	Leather	Leather	Leather	Leather
Optional Seal Repair Kits	237-241	237-241	237-241	237-242	237-242
Construction	Teflon®	Teflon	Teflon	Teflon	Teflon
	237-243	237-243	237-243	237-244	237-244
	UHMWPE/Leather	UHMWPE/Leather	UHMWPE/Leather	UHMWPE/Leather	UHMWPE/Leather
	237-608	237-608	237-608	237-608	237-608
	UHMWPE/Teflon	UHMWPE/Teflon	UHMWPE/Teflon	UHMWPE/Teflon	UHMWPE/Teflon
Motor					
Part No.	208-356	237-001*	208-356**	208-356	237-001*
Repair Kit	206-734	215-906	206-734	206-734	215-906

SERVICE PARTS INFORMATION

Pump Lower Part Nos.	236-455	236-455	236-455	236-456	236-456
Displacement Rod	189-853	189-853	189-853	189-853	189-853
Construction	SST	SST	SST	SST	SST
Cylinder	189-857	189-857	189-857	189-857	189-857
Construction	SST	SST	SST	SST	SST
Intake Valve (order separate part numbers)					
Intake Ball	102-973	102-973	102-973	102-973	102-973
Intake Valve Seat	222-930	222-930	222-930	236-585	236-585
Piston Valve (order separate part numbers)					
Piston Ball	100-400	100-400	100-400	101-859	101-859
Seat	237-790	237-790	237-790	237-790	237-790
Ball Guide	190-496	190-496	190-496	190-497	190-497

*Quiet air motor.

**Standard Bulldog air motor with riser tube.

Teflon® is a registered trademark of Du Pont.

COMPONENTS

Accessories

Whip Hose

Max. working pressure: 5000 psi (34.5 MPa, 345 bar).

1/4 in. ID (0.63 cm). 1/4 npsm(fbe).

214-912 3 ft. (0.9 m).

214-913 6 ft. (1.8 m).

156-173 Union

Connects 3/8 in. hoses. 3/8 npt(f) x 3/8 npsm(f).

150-287 Adapter

Connects 3/8 in. hose to whip hose.

3/8 npt(f) x 1/4 npt(m).

Nylon Paint Hose

215-245 Max. working pressure: 5000 psi (34.5 MPa, 345 bar). 3/8 in. ID x 50 ft. (0.95 cm ID x 15 m). 3/8 npt(mbe).

215-227 Max. working pressure: 4050 psi (28 MPa, 280 bar). 1/2 in. ID x 50 ft. (1.27 cm ID x 15 m). 1/2 npt(mbe).

214-925 Hose Swivel

Max. working pressure: 5000 psi (34.5 MPa, 345 bar).

3/8 npt(f) x 1/4 npsm(f).

189-018 Swivel

235-460 Silver Gun

With flat tip retainer. Inlet: 1/4 npsm(m). Outlet: 7/8 in.

222-674 HD RAC Tip Retainer with DripLess Guard

Inlet: 7/8 in.

GHD-xxx HD RAC Tips

See your local distributor for tip size selection.

224-040 Pump Runaway Valve

High Pressure Shutoff Valve

210-657 Inlet: 1/4 npt(m). Outlet: 1/4 npt(m)

210-658 Inlet: 3/8 npt(m). Outlet: 3/8 npt(m)

210-659 Inlet: 1/4 npt(m). Outlet: 3/8 npt(m)

235-417 Connection Kit

Includes tie rods and parts necessary to connect lower displacement pump (236-457 or 236-458) to existing Bulldog air motor.

206-221 Wall Mounting Bracket

205-712 Air Pressure Regulating Kit

238-620 Paint Filter, 60 Mesh

Carbon steel wetted parts

237-960 Adapter

For ram mounting. Includes lug kit (222-776).

1-1/2 npt(m) x flange

237-961 Floor Stand Kit

Includes floor stand (222-274) and adapter (237-960).