



GRACO
First choice when
quality counts.™

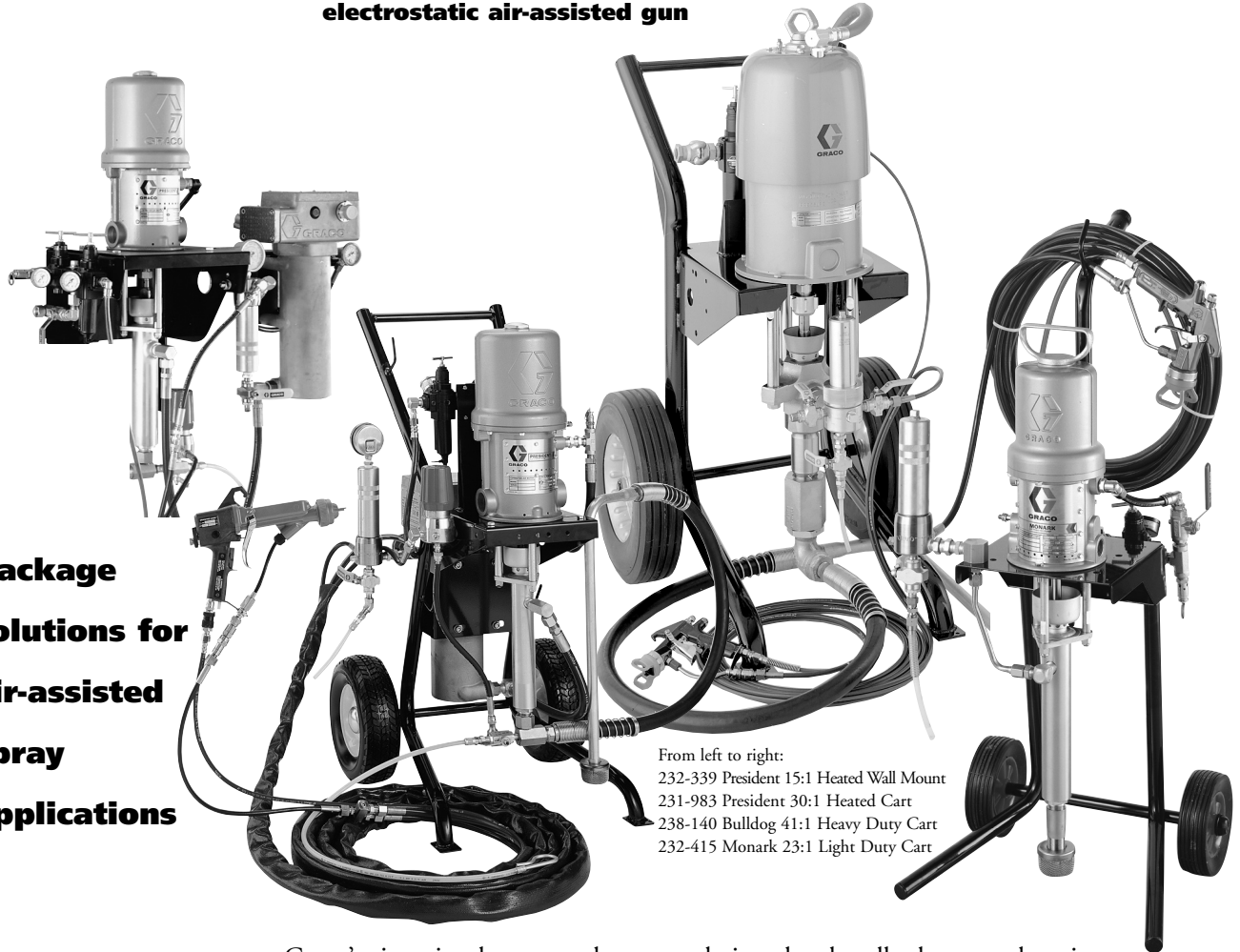
Air-Assisted Packages

Medium Pressure Spray Finishing

- All packages completely tested and ready to spray
- Modular design, CS and SST packages available
- Designed with the operator in mind: ergonomic and simple
- Pressures up to 4100 psi (27.8 MPa, 278 bar)
- Features the AA Plus air-assisted gun or the PRO AA4500 electrostatic air-assisted gun

PACKAGES

Package solutions for air-assisted spray applications



From left to right:
232-339 President 15:1 Heated Wall Mount
231-983 President 30:1 Heated Cart
238-140 Bulldog 41:1 Heavy Duty Cart
232-415 Monark 23:1 Light Duty Cart

Graco's air-assisted spray packages are designed to handle the rugged environment of coatings applications, including polyurethanes, lacquers and enamels. They are fully assembled, tested and ready to use, including spray gun, fluid whip hoses and swivel.

These sprayers are specifically designed to maximize the application of today's tough coatings. Delivering high production capacity and high finish quality, Graco has mounting configurations to suit most applications.

Typical Fluids Handled

- Epoxies
- Polyurethanes
- Lacquers
- Enamels
- Waterbornes

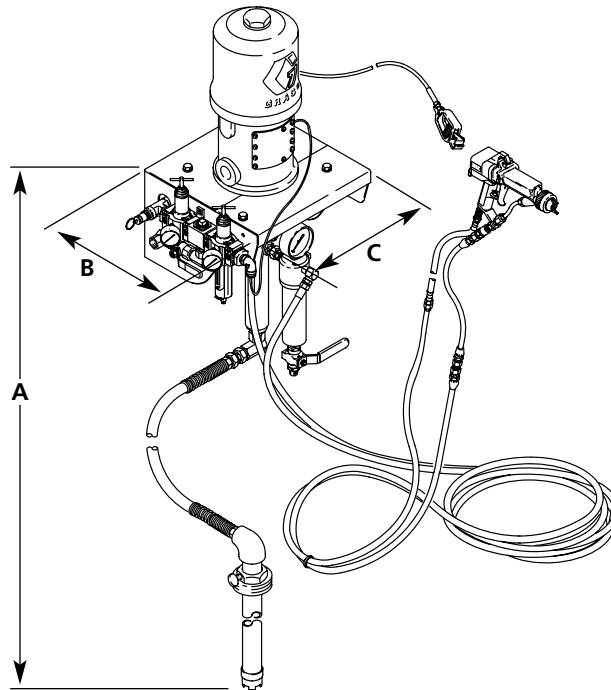
Typical Applications

- Furniture/Wood/Cabinets
- Farm & Construction Equipment
- Aerospace
- Truck & Fleet
- General Metal Fabrication

Technical Specifications for Air-Assisted Spray Packages

Pump Package	Max. Working Pressure psi (MPa, bar)	Max. Air Input Pressure psi (MPa, bar)	Fluid Flow at 60 cpm gpm (lpm)	Vol. per Cycle oz (cc)	Air Inlet Size	Fluid Inlet Size	Fluid Outlet Size
Monark 10:1	950 (6.4, 64)	95 (0.6, 6.4)	1.0 (3.8)	2.1 (62)	3/8 npsm(f)	3/4 npt(m)	1/4 npsm(m)
Monark 15:1	1500 (10, 100)	100 (0.7, 7)	0.7 (1.5)	1.5 (44)	3/8 npsm(f)	3/4 npt(m)	1/4 npsm(m)
Monark 23:1	2300 (16, 160)	100 (0.7, 7)	0.4 (1.1)	0.85 (25)	3/8 npsm(f)	3/4 npt(m)	1/4 npsm(m)
President 15:1	1800 (12, 124)	100 (0.7, 7)	1.8 (6.8)	3.8 (112)	3/8 npsm(f)	3/4 npt(m)	1/4 npsm(m)
President 30:1	3000 (210, 21)	100 (0.7, 7)	1.0 (3.8)	2.1 (62)	3/8 npsm(f)	3/4 npt(m)	1/4 npsm(m)
Bulldog 33:1	3300 (22.4, 224)	100 (0.7, 7)	2.9 (11.0)	6 (177)	3/4 npsm(f)	1-1/2 npt(f)	3/4 npt(f)
Bulldog 41:1	4100 (28.3, 283)	100 (0.7, 7)	2.3 (8.7)	4.9 (145)	3/4 npsm(f)	1-1/2 npt(f)	3/4 npt(f)
Senator 17:1	1700 (11.7, 117)	100 (0.7, 7)	3.4 (12.9)	7.25 (215)	3/4 npsm(f)	2 npt(f)	1 npt(f)
SAA 2000	950 psi (6.4, 64)	95 psi (0.6, 6.4)	0.4 (1.1)	0.85 (25)	1/4 npsm(f)	3/8 npt(f)	3/8 npt(f)

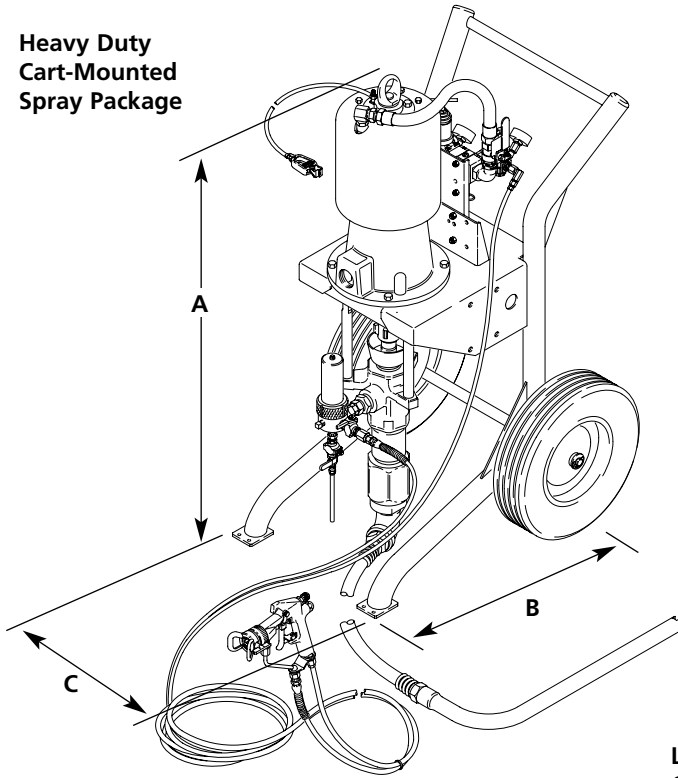
Wall-Mounted Spray Package



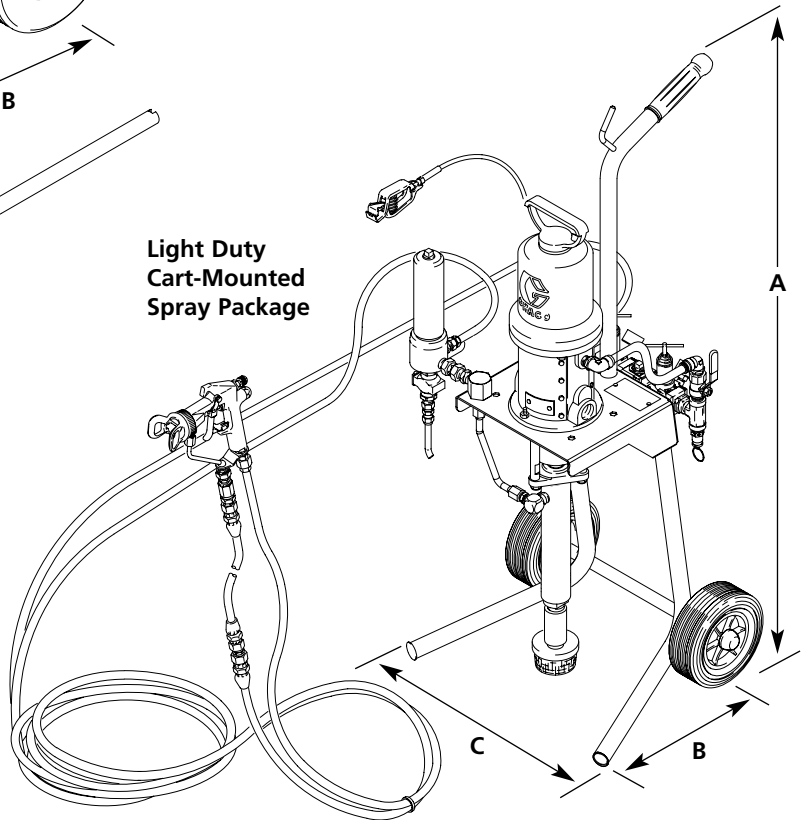
Wall-Mount	A Height	B Depth	C Width	Approx. Weight
Monark	Max 5 ft (1.8 m)	7 in (178 mm)	11.5 in (292 mm)	65 lb (30 kg)
President	Max 5 ft (1.8 m)	7 in (178 mm)	11.5 in (292 mm)	75 lb (34 kg)
SAA 2000	Max 5 ft (1.8 m)	7 in (178 mm)	11.5 in (292 mm)	65 lb (30 kg)

Dimensions

**Heavy Duty
Cart-Mounted
Spray Package**



**Light Duty
Cart-Mounted
Spray Package**



Light-Duty Cart	A Height	B Depth	C Width	Approx. Weight
Monark	39.1 in (993 mm)	14.5 in (368 mm)	15.75 in (400 mm)	45 lb (20 kg)
Heavy-Duty Cart	A Height	B Depth	C Width	Approx. Weight
Monark	38.5 in (978 mm)	21 in (534 mm)	20 in (508 mm)	125 lb (57 kg)*
President	38.5 in (978 mm)	21 in (534 mm)	20 in (508 mm)	125 lb (57 kg)*
Bulldog	49.5 in (1258 mm)	30.7 in (780 mm)	26 in (666 mm)	265 lb (120 kg)
Senator	49.6 in (1261 mm)	30.7 in (780 mm)	26 in (666 mm)	295 lb (134 kg)

*heated package

Selection Guide for Air-Assisted Spray Packages

The following items are available only in North America, South America and Southeast Asia.

	Stainless Steel* Construction Part No.	Bare Pump only (B)	Heavy-Duty Cart Mount	Wall Mount	Pail Mount	Light Duty Cart	Heaters (voltage)**	Fluid Regulator	Fluid Filter and Gauge	Agitator	Suction Kit	Circulation Kit	Recirculation Manifold	Fluid Hose Swivel	Whip Hose (2 ft., 0.6 m)	Fluid Hose (25 ft., 7.6 m)	Applicator	Instruction Manual	
MONARK 10:1																			
950 psi (6.6 MPa, 66 bar) 1 gpm (3.8 lpm)	231-970		•					• F,G						• • •	AA Plus	308-690			
	232-259			•				• F,G		•				• • •	AA Plus	308-757			
	232-260	B		•				• F,G		•							308-757		
	232-331			•			240	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	232-332			•			480	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	232-429					•		F,G						• • •	AA Plus	308-763			
MONARK 15:1																			
1500 psi (10 MPa, 100 bar) 0.7 gpm (2.6 lpm)	232-507	B	•					• F,G										308-690	
	• 231-964		•					• F,G					• • •	• • •	AA Plus	308-690			
	232-506		•					• F,G		•			• • •	• • •	AA Plus	308-690			
	• 232-005		•				120	F,G		•		• • •	• • •	• • •	AA Plus	308-693			
	• 232-006		•				240	F,G		•		• • •	• • •	• • •	AA Plus	308-693			
	• 232-251			•				• F,G		•			• • •	• • •	AA Plus	308-757			
	• 232-252	B		•				• F,G		•								308-757	
	232-255			•				• F,G		•				• • •	• • •	AA Plus	308-757		
	232-256	B		•				• F,G		•								308-757	
	232-315			•			240	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	232-316			•			480	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	232-323			•			240	F,G		•		• • •	• • •	• • •	PRO AA4500	308-761			
	232-324			•			480	F,G		•		• • •	• • •	• • •	PRO AA4500	308-761			
	• 232-403			•			240	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	• 232-404			•			480	F,G		•		• • •	• • •	• • •	AA Plus	308-760			
	232-425					•		F,G						• • •	• • •	AA Plus	308-760		

*Stainless steel wetted areas.
All other models SevereDuty™ (SST/CS)
**Voltage
200v available in SE Asia only
120v, 240v, 480v available in North America only

Suction Kit:
All HD cart packages ... Standard 5 gal. (18.9 liter) siphon tube
All wall packages ... Standard 5 gal. (220 liter) siphon tube
All LD cart packages ... Optional 5 gal. (18.9 liter) siphon tube

Selection Guide for Air-Assisted Spray Packages

The following items are available only in North America, South America and Southeast Asia.

MONARK 23:1	Stainless Steel* Construction Part No.	Bare Pump only (B)	Heavy-Duty Cart Mount Wall Mount	Pail Mount	Light Duty Cart	Heaters (voltage)**	Fluid Regulator	Fluid Filter and Gauge Agitator	Suction Kit	Circulation Kit	Recirculation Manifold	Fluid Hose Swivel	Whip Hose (2 ft., 0.6 m)	Fluid Hose (25 ft., 7.6 m)	Applicator	Instruction Manual
2300 psi (16 MPa, 160 bar) 0.4 gpm (1.5 lpm)	231-943	•					F	•			•	•	•	AA Plus	308-690	
	231-944	B	•				F	•								308-690
	231-945	•					F,G	•			•	•	50 ft.	AA Plus	308-690	
•	231-952	•					F	•			•	•	•	AA Plus	308-690	
•	232-049	•			120		F,G	•		•	•	•	•	AA Plus	308-693	
•	232-050	•			240		F,G	•		•	•	•	•	AA Plus	308-693	
	232-059	•			120		F,G	•		•	•	•	•	AA Plus	308-693	
	232-060	•			240		F,G	•		•	•	•	•	AA Plus	308-693	
	232-226		•				F,G	•			•	•	•	AA Plus	308-757	
	232-227	B	•				F,G	•								308-757
	232-230		•				F,G	•			•	•	•	PRO AA4500	308-758	
•	232-237		•				F,G	•			•	•	•	AA Plus	308-757	
•	232-238	B	•				F,G	•								308-757
•	232-241		•				F,G	•			•	•	•	PRO AA4500	308-758	
	232-299		•		240		F,G	•		•	•	•	•	AA Plus	308-760	
	232-300		•		480		F,G	•		•	•	•	•	AA Plus	308-760	
	232-307		•		240		F,G	•		•	•	•	•	PRO AA4500	308-761	
	232-308		•		480		F,G	•		•	•	•	•	PRO AA4500	308-761	
•	232-387		•		240		F,G	•		•	•	•	•	AA Plus	308-760	
•	232-388		•		480		F,G	•		•	•	•	•	AA Plus	308-760	
•	232-395		•		240		F,G	•		•	•	•	•	PRO AA4500	308-761	
•	232-396		•		480		F,G	•		•	•	•	•	PRO AA4500	308-761	
	232-415			•			F,G				•	•	•	AA Plus	308-763	
	232-416	B		•			F,G									308-763
	232-419			•			F,G				•	•	•	PRO AA4500	308-764	
•	232-422			•			F,G				•	•	•	PRO AA4500	308-764	
•	232-688			•			F,G				•	•	•	AA Plus	308-766	

*Stainless steel 304 or better, all wetted areas.
All other models SevereDuty™ (SST/CS)

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Suction Kit:
All HD cart packages . . . Standard 5 gal. (18.9 liter) siphon tube
All wall packages Standard 55 gal. (220 liter) siphon tube
All LD cart packages . . . Optional 5 gal. (18.9 liter) siphon tube

Selection Guide for Air-Assisted Spray Packages

The following items are available only in North America, South America and Southeast Asia.

PRESIDENT 30:1 3000 psi (21 MPa, 210 bar) 1.0 gpm (3.8 lpm)	Stainless Steel* Construction	Part No.	Bare Pump only (B)	Heavy-Duty Cart Mount	Wall Mount	Pail Mount	Light Duty Cart	Heaters (voltage)**	Fluid Regulator	Fluid Fitter and Gauge	Agitator	Suction Kit	Circulation Kit	Recirculation Manifold	Fluid Hose Swivel	Whip Hose (2 ft., 0.6 m)	Fluid Hose (25 ft., 7.6 m)	Applicator	Instruction Manual
			231-925		•					F		•			•	•	•	AA Plus	
		231-926	B	•					F		•								308-690
		231-927		•					F,G		•			•	•	50 ft.	AA Plus		308-960
		231-928		•					F		•			•	•	•	PRO AA4500		308-691
	•	231-934		•					F		•			•	•	•	AA Plus		308-690
	•	231-935		•					F,G		•								308-960
	•	231-936		•					F,G		•			•	•	50 ft.	AA Plus		308-960
		231-929		•					F,G		•			•	•	50 ft.	PRO AA4500		308-960
	•	231-938		•					F,G		•			•	•	50 ft.	PRO AA4500		308-960
	•	231-937		•					F		•			•	•	•	PRO AA4500		308-691
		231-979		•			120		F,G		•		•	•	•	•	AA Plus		308-693
		231-980		•			240		F,G		•		•	•	•	•	AA Plus		308-693
		231-981		•			200		F,G		•		•	•	•	•	AA Plus		308-693
		231-987		•			200		F,G		•		•	•	•	50 ft.	AA Plus		308-693
		231-983		•			120		F,G		•		•	•	•	•	PRO AA4500		308-694
		231-984		•			240		F,G		•		•	•	•	•	PRO AA4500		308-694
	•	232-034		•			120		F,G		•		•	•	•	•	AA Plus		308-693
	•	232-035		•			240		F,G		•		•	•	•	•	AA Plus		308-693
	•	232-038		•			120		F,G		•		•	•	•	•	PRO AA4500		308-694
	•	232-039		•			240		F,G		•		•	•	•	•	PRO AA4500		308-694
		232-204			•				F,G		•			•	•	•	AA Plus		308-757
		232-205	B		•				F,G		•								308-757
		232-208			•				F,G		•			•	•	•	PRO AA4500		308-758
	•	232-215			•				F,G		•			•	•	•	AA Plus		308-757
	•	232-216	B		•				F,G		•								308-757
	•	232-219			•				F,G		•			•	•	•	PRO AA4500		308-758
		232-275			•		240		F,G		•		•	•	•	•	AA Plus		308-760
		232-276			•		440		F,G		•		•	•	•	•	AA Plus		308-760
		232-283			•		240		F,G		•		•	•	•	•	PRO AA4500		308-761
		232-284			•		480		F,G		•		•	•	•	•	PRO AA4500		308-761
	•	232-363			•		240		F,G		•		•	•	•	•	AA Plus		308-760
	•	232-364			•		480		F,G		•		•	•	•	•	AA Plus		308-760
	•	232-371			•		240		F,G		•		•	•	•	•	PRO AA4500		308-761
	•	232-372			•		480		F,G		•		•	•	•	•	PRO AA4500		308-761

*Stainless steel 304 or better, all wetted areas.
 All other models SevereDuty™ (SST/CS)
 **Voltage
 200v available in SE Asia only
 120v, 240v, 480v available in North America only

Suction Kit:
 All HD cart packages . . . Standard 5 gal. (18.9 liter) siphon tube
 All wall packages Standard 55 gal. (220 liter) siphon tube
 All LD cart packages Optional 5 gal. (18.9 liter) siphon tube

Selection Guide for Air-Assisted Spray Packages

The following items are available only in North America, South America and Southeast Asia.

	Stainless Steel* Construction Part No.	Bare Pump only (B)	Heavy-Duty Cart Mount Wall Mount	Pail Mount	Light Duty Cart	Heaters (voltage)**	Fluid Regulator	Fluid Filter and Gauge Agitator	Suction Kit	Circulation Kit	Recirculation Manifold	Fluid Hose Swivel	Whip Hose (2 ft., 0.6 m)	Fluid Hose (25 ft., 7.6 m)	Applicator	Instruction Manual
PRESIDENT 15:1 1500 psi (10 MPa, 102 bar) 1.8 gpm (6.8 lpm)	231-958	•				• F		•		•	•	•	•	•	AA Plus	308-690
	231-961	•				• F,G		•		•	•	•	•	•	PRO AA4500	308-691
	232-015	•			120	F,G				•	•	•	•	•	AA Plus	308-693
	232-016	•			240	F,G				•	•	•	•	•	AA Plus	308-693
	232-019	•			120	F,G				•	•	•	•	•	PRO AA4500	308-694
	232-020	•			240	F,G				•	•	•	•	•	PRO AA4500	308-694
	232-244		•			• F,G		•			•	•	•	•	AA Plus	308-757
	232-245	B	•			• F,G		•								308-757
	232-248		•			• F,G		•			•	•	•	•	PRO AA4500	308-758
	232-339		•		240	F,G		•		•	•	•	•	•	AA Plus	308-760
	232-340		•		480	F,G		•		•	•	•	•	•	AA Plus	308-760
	232-347		•		240	F,G		•		•	•	•	•	•	PRO AA4500	308-761
	232-348		•		480	F,G		•		•	•	•	•	•	PRO AA4500	308-761
BULLDOG 33:1 3300 psi (22.4 MPa, 224 bar) 2.9 gpm (11.0 lpm)	237-405	•				F		•			•	•	•	•	AA Plus	308-472
BULLDOG 41:1 4100 psi (27.8 MPa, 278 bar) 2.3 gpm (8.7 lpm)	238-140	•				F		•			•	•	•	•	AA Plus	308-472
SENATOR 17:1 1700 psi (11.7 MPa, 117 bar) 3.4 gpm (12.8 lpm)	237-289	B	•			F		•								308-472
	237-294		•			F		•			•	•	•	•	AA Plus	308-472
	232-282	B	•													
	237-295	B	•		120											
	238-919	B	•		240											
	238-920	B	•		480											
SAA 2000 10:1 950 psi (6.4 MPa, 64.6 bar) 0.4 gpm (1.5 lpm)	• 222-390		•								•	•	•	•	AA Plus	307-917
	• 222-393		•					•			•	•	•	•	AA Plus	307-917

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All other models SevereDuty™ (SST/CS)

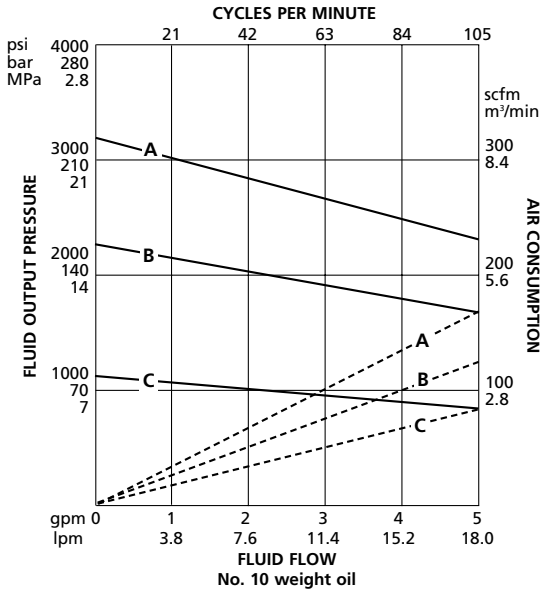
**Voltage
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Suction Kit:

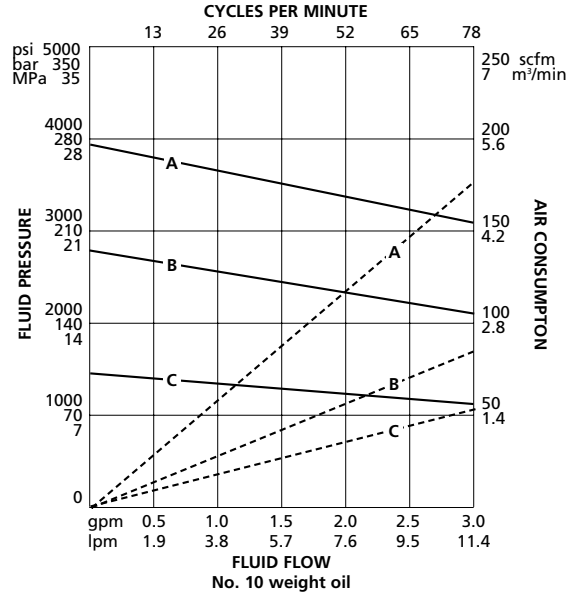
All HD cart packages . . . Standard 5 gal. (18.9 liter) siphon tube
All wall packages Standard 55 gal. (220 liter) siphon tube
All LD cart packages Optional 5 gal. (18.9 liter) siphon tube

Performance Charts for Air-Assisted Spray Packages

Bulldog 33:1



Bulldog 41:1



Air Pressures:

A = 100 psi (0.7 MPa, 7 bar)

B = 70 psi (0.48 MPa, 4.8 bar)

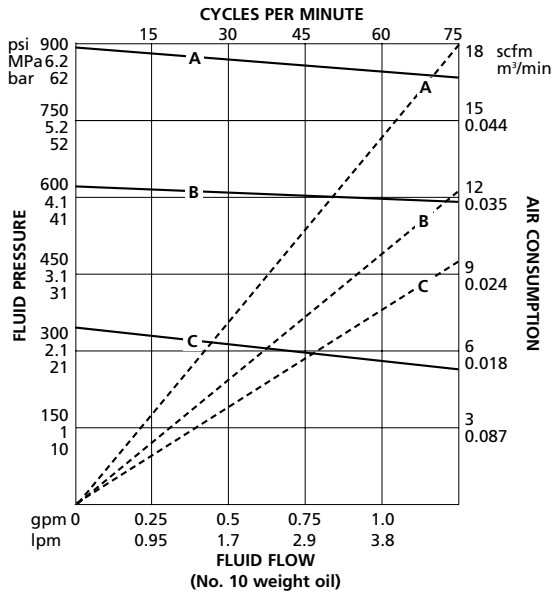
C = 40 psi (0.28 MPa, 2.8 bar)

Fluid outlet pressure = solid lines

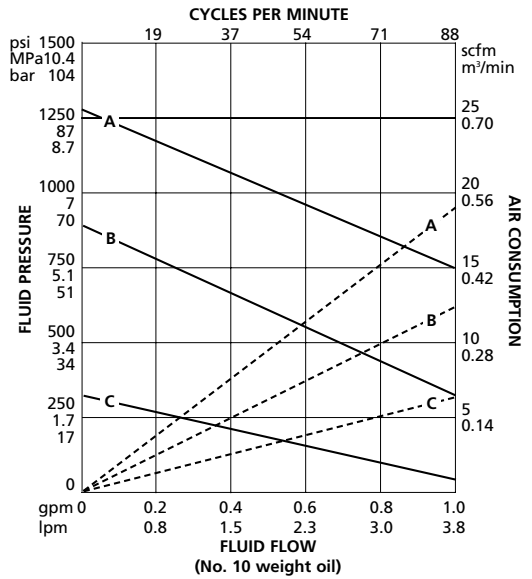
Air consumption = dashed lines

Performance Charts for Air-Assisted Spray Packages

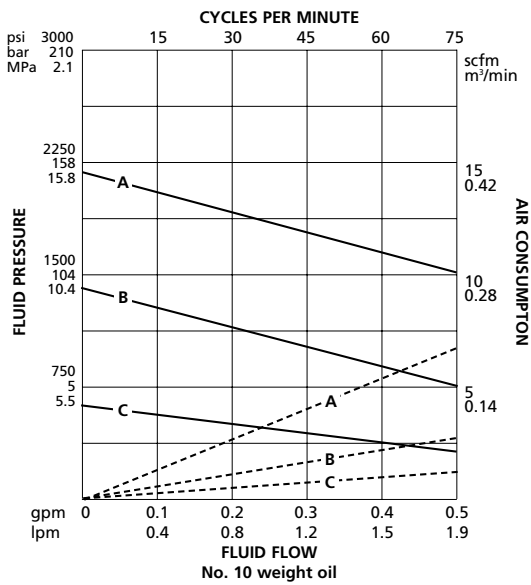
Monark 10:1



Monark 15:1



Monark 23:1

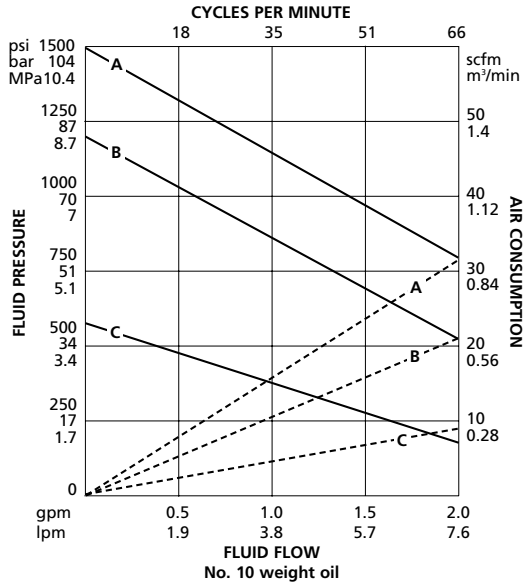


Air Pressures:

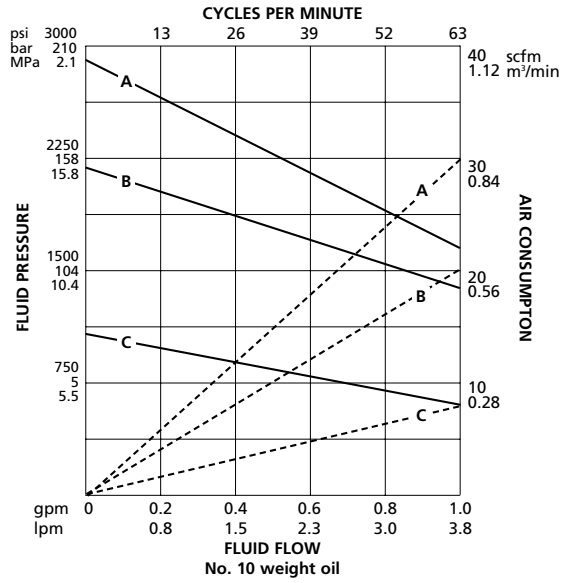
- A = 100 psi (0.7 MPa, 7 bar)
 - B = 70 psi (0.48 MPa, 4.8 bar)
 - C = 40 psi (0.28 MPa, 2.8 bar)
- Fluid outlet pressure = solid lines
Air consumption = dashed lines

Performance Charts for Air-Assisted Spray Packages

President 15:1



President 30:1

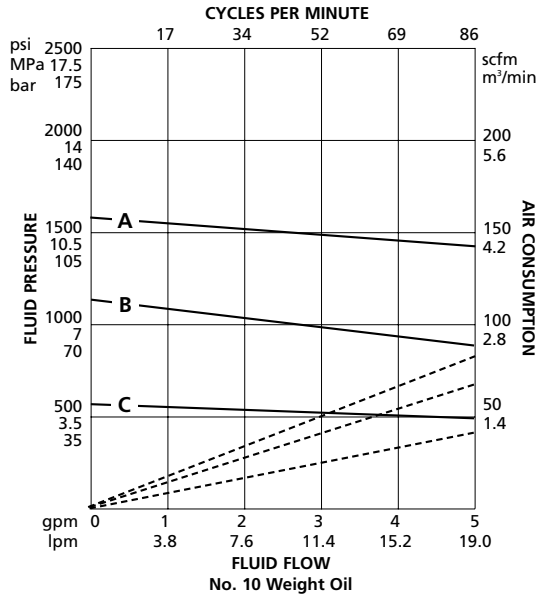


Air Pressures:

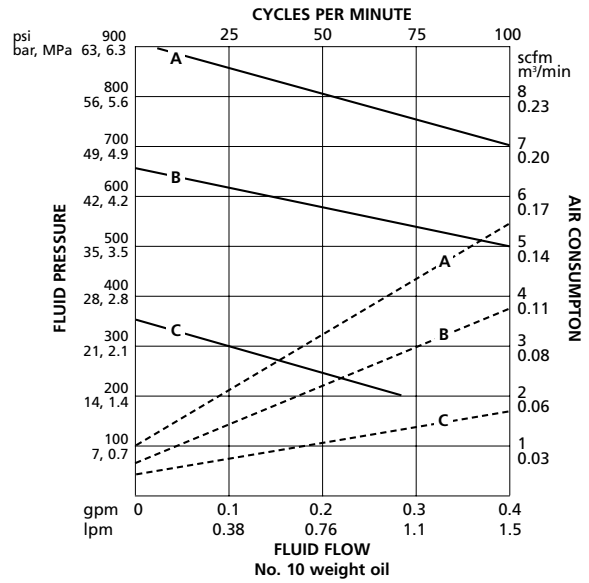
- A = 100 psi (0.7 MPa, 7 bar)
- B = 70 psi (0.48 MPa, 4.8 bar)
- C = 40 psi (0.28 MPa, 2.8 bar)
- Fluid outlet pressure = solid lines
- Air consumption = dashed lines

Performance Charts for Air-Assisted Spray Packages

Senator 17:1



SAA 2000 10:1



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)
- Fluid outlet pressure = solid lines
- Air consumption = dashed lines

Accessories

Fluid Whip Hoses

Maximum working pressure: 3000 psi (20.7 MPa, 207 bar).

1/4 npt(m) x 1/4 npsm(f). CS wetted fittings.

236-134 1/8 in. x 3 ft. (3 mm x 0.9 m)

236-135 1/8 in. x 6 ft. (3 mm x 1.8 m)

Maximum working pressure: 4100 psi (28 MPa, 280 bar).

1/4 npsm(fbe). SST wetted fittings.

239-069 3/16 in. x 23.6 in. (4.7 mm x 0.6 m)

239-108 1/4 in. x 23.6 in. (6.3 mm x 0.6 m)

Maximum working pressure: 4100 psi (28 MPa, 280 bar).

1/4 npsm(fbe). CS wetted fittings.

238-708 3/16 in. x 23.6 in. (4.7 mm x 0.6 m)

238-709 3/16 in. x 39.4 in. (4.7 mm x 1 m)

238-822 1/4 in. x 23.6 in. (6.3 mm x 0.6 m)

239-082 3/16 in. x 39.4 in. (4.7 mm x 1 m)

Twin Air and Fluid Hose Sets

Maximum air working pressure: 100 psi (0.7 MPa, 7 bar)

Maximum fluid working pressure: 4100 psi (28 MPa, 280 bar).

1/4 npsm(fbe). CS wetted fittings.

239-102 1/4 in. x 24.6 ft. (6.3 mm x 7.5 m)

1/4 npsm(fbe). SST wetted fittings.

239-074 1/4 in. x 24.6 ft. (6.3 mm x 7.5 m)

239-075 1/4 in. x 32.8 ft. (6.3 mm x 10 m)

189-018 Fluid Swivel

Maximum working pressure: 5000 psi (35 MPa, 350 bar). SST. 1/4 npt(m) x 1/4 npsm(f).

239-394 Fluid Swivel/Filter

SST. 100 mesh. 1/4 npt(m) x 1/4 npsm(f).

224-040 Runaway Valve

Maximum working pressure: 120 psi (0.8 MPa, 8.4 bar)
Inlet and outlet: 3/4 npt(f).

Fluid Filters

For non-heated heavy duty cart packages.

239-060 CS Filter

239-063 SST Filter

SST Replacement Filter Screens, 3 Pack

238-435 30 mesh

238-437 60 mesh

238-439 100 mesh

238-441 200 mesh

Air-Powered Pail Agitator

226-086 CS

224-571 SST

207-199 Drum Agitator with SST Cover

Fluid Regulators

238-890 Maximum working pressure: 6000 psi (40.8 MPa, 408 bar). CS. Regulator range: 500-3000 psi (3.4-21 MPa, 34-210 bar). Includes fluid gauge.

222-121 Maximum working pressure: 1500 psi (10 MPa, 102 bar). SST. Regulator range: 150-1200 psi (1-82 MPa, 10-81.6 bar).

Fluid Heaters

Maximum working pressure: 4000 psi (27.2 MPa, 272 bar). SST Viscon².

220-522 120V

237-312 200V

220-523 240V

220-524 480V

238-402 AA Plus Gun

Includes standard spray tip, air cap, tip guard, and 1/4-18 npsm (R1/4-19) air line fitting. Please reference the AA Plus data sheet, 305-781 for additional gun models and tip selection chart.

236-030 PRO AA4500 Gun

Includes basic power supply. No RF signal. Will not communicate with SVR. Please reference the PRO AA4500 data sheet, 305-600 for additional gun models.