

GRACO[®] MONARK[®] 23:1 AIRLESS SPRAY PUMPS



Company Profile

Since 1944, Marco has developed a strong tradition of providing innovative and reliable products and services to the surface preparation and protective coatings industries. We are the world's premier provider of Abrasives, Blasting Equipment, Coating Equipment, Engineered Systems, Rental Equipment, Safety Equipment, Service, and Repair.

Through innovative designs and a total commitment to quality, Marco manufactures products that increase production rates, create a safer workplace, and reduce maintenance costs. Marco's industry experience, manufacturing capabilities, legendary customer service, product availability, logistics services, and technology leadership is your assurance that we deliver high quality products and services, providing the best value to you, our customer.

The Marco Difference

- Industry Experience With Marco on your team, you have access to expertise which can only come from decades of industry leadership. We have organized our engineering department, production specialists, customer operations, and safety support into a "Center of Competence." As a Marco customer, you have access to hundreds of years of cumulative experience related to your operations.
- Manufacturing Excellence Marco is a U.S. based, ISO 9001:2008 certified manufacturer of equipment for the Surface Preparation and Protective Coatings industries. Marco's engineers benchmark the industry to ensure that we design and manufacture superior products that set the "Gold Standard" for performance, safety, and quality.
- Legendary Customer Service Marco's legendary customer service team is staffed by friendly, highly-trained individuals who are focused on providing the highest level of product support, order accuracy, and customer satisfaction.
- Product Availability We stock over 10,000 SKU's and have over 45 shipping locations to serve North American
 and International markets for all major brands of blasting and painting equipment. As the largest provider of surface
 preparation and protective coatings equipment in the world, our inventory levels and product availability are
 unmatched.
- Logistics Services Marco's in-house logistics team is dedicated to moving your shipment anywhere in the world. We move over 14,000 truckloads every year, allowing you to save on freight costs by leveraging our buying power. Lower your process costs with a single invoice, which includes product and freight.
- Technology Leadership Our website provides: Operator's Manuals, Part Numbers and Schematics Guides, MSDS information, and Features and Specifications Guides, providing access to information 24/7. Our Extranet application allows you to receive quotes and place orders online. Our Intranet maintains a complete record of your purchase history to assist with ongoing support of your existing equipment and future purchasing decisions.

Vision Statement

Marco is the world's premier provider of Abrasives, Blasting Equipment, Coating Equipment, Engineered Systems, Rental Equipment, Safety Equipment, Service, and Repair.

Mission Statement

Marco provides strong leadership and innovation to the surface preparation and protective coatings industries We dedicate our efforts to the continuous improvement of our products, services, processes, people, and most importantly, the quality of our customer's experience.

Quality Policy

Marco is committed to providing superior quality in the design, manufacturing, distribution, rental, service, and repair of our products. Our ISO 9001:2008 certification extends throughout all operations in all locations. Continuous improvement of our processes and supply chain Integration comprise the core of our business strategy for delivering exceptional quality and value in all Marco products and services.

Management Philosophy

We are a company dedicated to the success of every customer and associate. We discuss, debate, challenge, measure, and test our ideas. We will be boundless and limitless in our passion to improve. Through sound leadership and dedicated associates, we will ensure a long term, profitable future for Marco, our associates, customers, and suppliers.

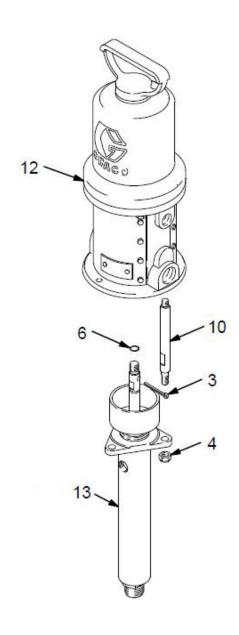
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	GRACO® MONARK® 23:1 AIRLESS SPRAY PUMPS					
Part Numbers	Maximum Working Pressure	Output Per Cycle	Maximum Air Input Pressure	Pump Construction	Pump Input Size	Pump Outlet Size
20G223596	2,760 psi	27 cc	120 psi	Carbon Steel	3/4" NPT (M)	3/8" NPT (F)
20G237958	3,450 psi	27 cc	150 psi	Stainless Steel	3/4" NPT (M)	3/8" NPT (F)
20G222839	4,140 psi	40 cc	180 psi	Stainless Steel	3/8" NPT (F)	1/2" NPT (M)

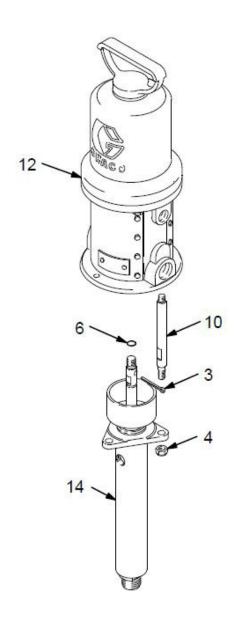


Figure 1: Graco[®] Monark[®] 23:1 Airless Spray Pump – Carbon Steel



Item#	Part#	Description
Fig. 1		
_	20G223596	Graco [®] Monark [®] 23:1 Airless Spray Pump – Carbon Steel
3	20G101946	Stainless Steel Cotter Pin
4	20G101566	3/8-16 Lock Nut (Quantity of Three)
6	20G154771	O-Ring Seal
10	20G164722	Carbon Steel Tie Rod (Quantity of Three)
12	20G222791	Graco® Monark® Air Motor (See Fig. 7)
13	20G223595	Carbon Steel Displacement Pump (See Fig. 4)
_	206M611	Part Numbers and Schematics Guide – Graco® Monark® 23:1 Airless Spray Pump
_	209V559	Operator's Manual – Graco® Monark® 23:1 Airless Spray Pump

Figure 2: Graco[®] Monark[®] 23:1 Airless Spray Pump – Stainless Steel

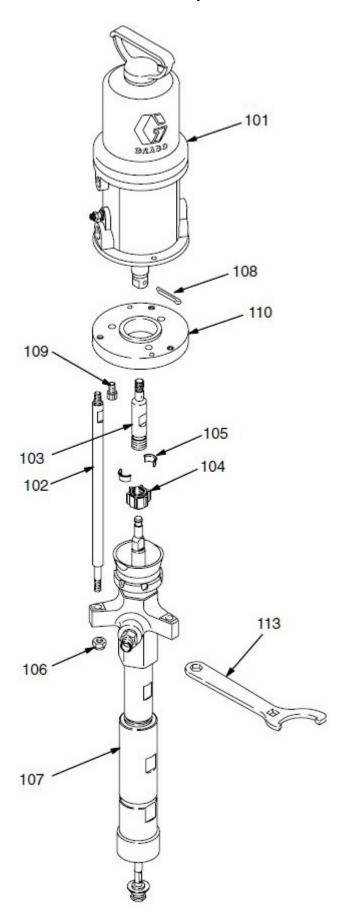


Item#	Part#	Description
Fig. 2		
_	20G237958	Graco [®] Monark [®] 23:1 Airless Spray Pump – Stainless Steel
3	20G101946	Stainless Steel Cotter Pin
4	20G101566	3/8-16 Lock Nut (Quantity of Three)
6	20G154771	O-Ring Seal
10	20G164722	Carbon Steel Tie Rod (Quantity of Three)
12	20G222791	Graco® Monark® Air Motor (See Fig. 7)
14	20G239145	Stainless Steel Displacement Pump (See Fig. 5)
_	206M611	Part Numbers and Schematics Guide – Graco® Monark® 23:1 Airless Spray Pump
_	209V559	Operator's Manual – Graco® Monark® 23:1 Airless Spray Pump

Graco[®] Monark[®] 23:1 Check-Mate 200 Pumps™

Item#	Part#	Description
Fig. 3		
_	20G222839	Graco® Monark® 23:1 Check-Mate 200 Pumps™
101	20G222791	Graco [®] Monark [®] Air Motor <i>(See Fig. 7)</i>
102	20G24B190	Tie Rod Kit (Quantity of Three)
103	20G184162	Adapter Rod
104	20G184100	Coupling Nut
105	20G184131	Coupling Collar (Quantity of Two)
106	20G109209	Self-Locking Hex Nut (Quantity of Three)
107	20G222814	Check-Mate 200 Pumps™ Displacement Pump (See Fig. 6)
108	20G101946	Stainless Steel Cotter Pin
109	20G109212	3/8-16 Socket Head Cap Screw (Quantity of Three)
110	20G184077	Adapter Plate
113	20G184119	Packing Nut Wrench
_	209V586	Operator's Manual – Graco® Monark® 23:1 Check-Mate 200 Pumps™

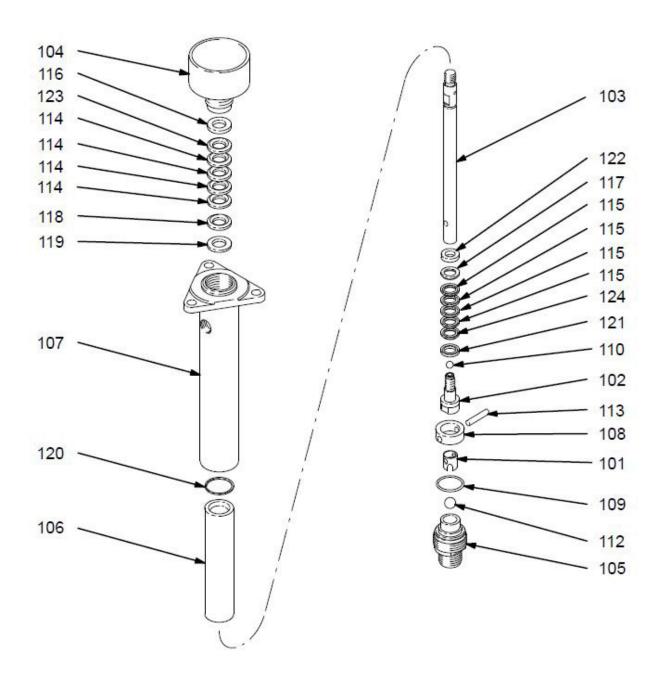
Figure 3: Graco[®] Monark[®] 23:1 Check-Mate 200 Pumps™



Carbon Steel Displacement Pump

Item#	Part#	Description
Fig. 4		
_	20G223595	Carbon Steel Displacement Pump
101	20G186187	Intake Ball Guide – Stainless Steel
102	20G223591	Piston Stud – Stainless Steel
103	20G24C508	Displacement Rod – Stainless Steel
104	20G206269	Wet Cup Packing Nut
105	20G223593	Stainless Steel Housing Valve Intake with Tungsten Carbide Seat
106	20G24C499	Housing Sleeve – Stainless Steel
107	20G207011	Housing Outlet – Carbon Steel
108	20G186183	O-Ring Retainer – Stainless Steel
109	20G165052	O-Ring Seal – Teflon
110	20G105444	Ball Piston – Stainless Steel – 0.31" Diameter
112	20G105445	Ball Piston – Stainless Steel – 0.5" Diameter
113	20G186179	Ball Stop Pin – Stainless Steel
114	20G164397	Leather Throat V-Packing (Quantity of Four)
115	20G184300	Leather Piston V-Packing (Quantity of Four)
116	20G186194	Female Throat Gland – Stainless Steel
117	20G186195	Male Piston Gland – Stainless Steel
118	20G186196	Male Throat Gland – Stainless Steel
119	20G186197	Flat Washer – Stainless Steel
120	20G164480	Flat Gasket – PTFE – Teflon
121	20G186198	Female Piston Gland – Stainless Steel
122	20G186199	Packing Retainer – Stainless Steel
123	20G164913	PTFE Throat V-Packing
124	20G164912	PTFE Piston V-Packing
_	20G172479	Instruction Tag
_	20G239328	Graco® Carbon Steel Displacement Pump Repair Kit (Includes Item #'s: 109, 110, 112, 114, 115, 116, 117, 118, 120, 121, 122, 123, and 124)
_	209V559	Operator's Manual – Graco® Monark® 23:1 Airless Spray Pump

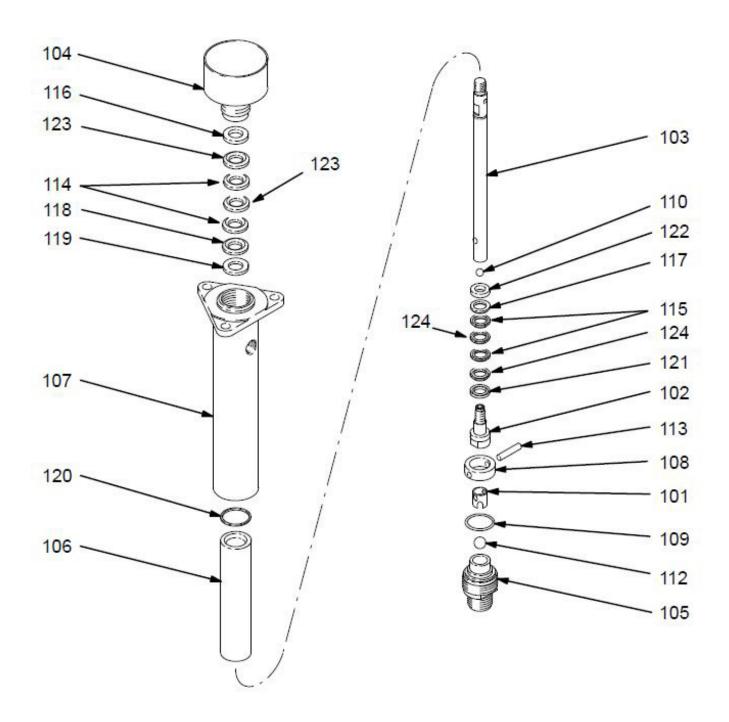
Figure 4: Carbon Steel Displacement Pump



Stainless Steel Displacement Pump

Item#	Part#	Description
Fig. 5		
_	20G239145	Graco® Stainless Steel Displacement Pump
101	20G186187	Intake Ball Guide – Stainless Steel
102	20G223591	Piston Stud – Stainless Steel
103	20G24C508	Displacement Rod – Stainless Steel
104	20G223590	Wet Cup Packing Nut – Stainless Steel
105	20G223593	Stainless Steel Housing Valve Intake with Tungsten Carbide Seat
106	20G24C499	Housing Sleeve – Stainless Steel
107	20G239137	Housing Outlet – Stainless Steel
108	20G186183	O-Ring Retainer – Stainless Steel
109	20G165052	O-Ring Seal – Teflon
110	20G105444	Ball Piston – Stainless Steel – 0.31" Diameter
112	20G105445	Ball Piston – Stainless Steel – 0.5" Diameter
113	20G186179	Ball Stop Pin – Stainless Steel
114	20G164397	Leather Throat V-Packing (Quantity of Two)
115	20G164715	Leather Piston V-Packing (Quantity of Two)
116	20G186194	Female Throat Gland – Stainless Steel
117	20G186195	Male Piston Gland – Stainless Steel
118	20G186196	Male Throat Gland – Stainless Steel
119	20G186197	Flat Washer – Stainless Steel
120	20G164480	Flat Gasket – PTFE – Teflon
121	20G186198	Female Piston Gland – Stainless Steel
122	20G186199	Packing Retainer – Stainless Steel
123	20G164913	PTFE Throat V-Packing
124	20G164912	PTFE Piston V-Packing
125	20G172479	Instruction Tag
_	20G235636	Graco® Stainless Steel Displacement Pump Repair Kit (Includes Item #'s: 109, 110, 113, 114, 115, 116, 117, 118, 120, 121, 122, 123, and 124)
_	209V559	Operator's Manual – Graco® Monark® 23:1 Airless Spray Pump

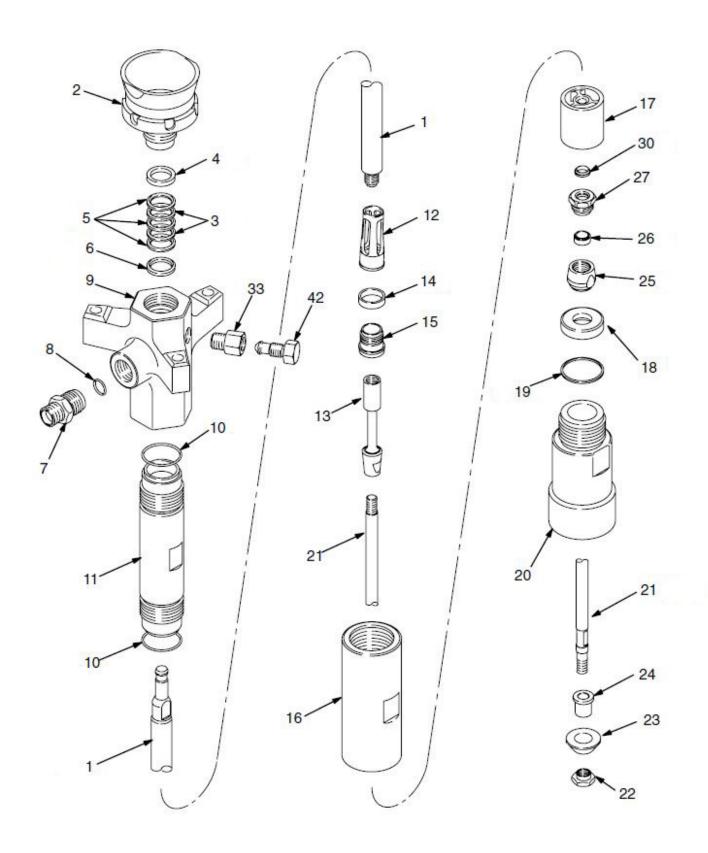
Figure 5: Stainless Steel Displacement Pump



Check-Mate 200 Pumps™ Displacement Pump

Item#	Part#	Description
Fig. 6		
_	20G222814	Check-Mate 200 Pumps™ Displacement Pump
1	20G184101	Displacement Rod
2	20G184423	Packing Nut
3	20G109301	V-Packing, PTFE (Quantity of Two)
4	20G184171	Female Gland
5	20G109251	V-Packing, UHMWPE (Quantity of Three)
6	20G184221	Male Gland
7	20G184424	M27 x 1-1/2" (M) Outlet Fitting
8	20G109450	O-Ring, PTFE (Quantity of Two)
9	20G184422	Outlet Housing
10	20G109451	O-Ring, PTFE (Quantity of Two)
11	20G184106	Pump Cylinder
12	20G15K690	Piston Guide
13	20G184426	Piston
14	20G184554	Piston Seal, PTFE
15	20G184428	Piston Seat
16	20G184430	Intake Valve Housing
17	20G184431	Rod Guide
18	20G184435	Intake Valve Seat
19	20G184296	Acetal Seal
20	20G184437	Intake Cylinder
21	20G184117	Priming Piston Rod
22	20G184440	Priming Piston Nut
23	20G184439	Priming Piston
24	20G184438	Priming Piston Guide
25	20G184433	Intake Valve Body
26	20G184114	Intake Valve Seal, PTFE
27	20G184432	Intake Valve Packing Nut
30	20G184553	Valve Seat, PTFE
33	20G184392	Valve Housing
42	20G190293	Valve Plug
_	20G222784	Seal Repair Kit (Includes Item #'s: 8, 10, 19, and 26)
_	20G222786	Throat Packing Conversion Kit (Includes Item #'s: 3, 4, and 6)
_	20G222785	Throat Packing Repair Kit (Includes Item #'s: 3, 4, 5, and 6)
_	20G222908	Intake Valve Repair Kit (Includes Item #'s: 19, 25, 26, and 30)
	209V586	Operator's Manual – Graco [®] Monark [®] 23:1 Check-Mate 200 Pumps™

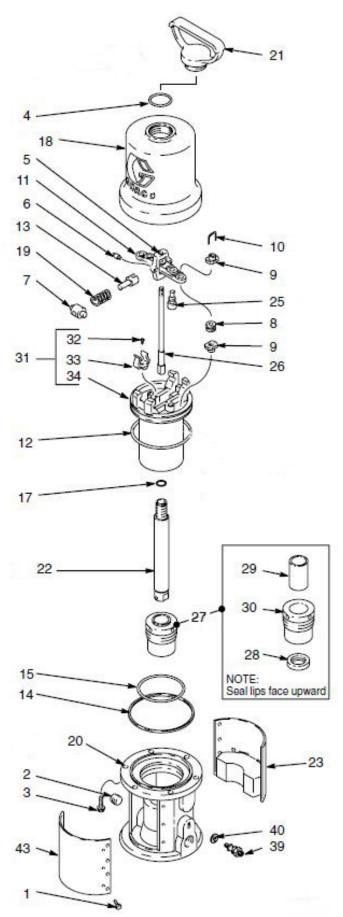
Figure 6: Check-Mate 200 Pumps™ Displacement Pump



Graco® Monark® Air Motor

ltem#	Part#	Description
Fig. 7	,	
_	20G222791	Graco® Monark® Air Motor
1	20G114422	Screw, 8-32 x 3/8" (Quantity of 16)
2	20G100361	1/2" Pipe Plug
3	20G101578	Hex Head Screw, 8-32 x 7/8" (Quantity of Six)
4	20G156698	Packing O-Ring, buna-N
5	20G158360	Trip Rod Yoke
6	20G158362	Toggle Pin (Quantity of Two)
7	20G158364	Toggle Rocker (Quantity of Two)
8	20G158367	Grommet – Rubber (Quantity of Two)
9	20G160261	Adjusting Nut (Quantity of Four)
10	20G160618	Lockwire Transfer Valve (Quantity of Two)
11	20G172867	Actuator Air Valve
12	20G160621	O-Ring, Nitrile Rubber
13	20G160623	Toggle Arm (Quantity of Two)
14	20G160624	O-Ring, buna-N
15	20G160625	O-Ring, buna-N
17	20G160932	Copper Gasket
18	20G164186	Cylinder
19	20G167585	Spring, Helical Compression (Quantity of Two)
20	20G184270	Base
21	20G164704	Cap Nut with Carry Handle
22	20G164705	Piston Rod
23	20G241651	Identification Plate – Monark® Air Motor
25	20G170709	Poppet Valve – Urethane (Quantity of Two)
26	20G203965	Trip Rod
27	20G205529	Packing Nut Assembly (Includes Item #'s: 28, 29, and 30)
28	20G16H224	Wiper Seal – Polyurethane
29	20G101526	Bronze Bearing
30	20G164701	Packing Nut
31	20G214036	Piston Assembly (Includes Item #'s: 32, 33, and 34)
32	20G102975	Screw, Round Head, 6-32 x 1/4" (Quantity of Two)
33	20G172866	Spring Clip (Quantity of Two)
34	_	Bare Piston
39	20G104029	Clamp Grounding
40	20G104582	Tab Washer
43	20G241650	Warning Plate
_	20G180233	Warning Label
_	20G206728	Graco® Monark® Air Motor Repair Kit (Includes Item #'s: 8, 9, 10, 12, 15, and 25)
_	209V560	Operator's Manual – Graco® Monark® Air Motor

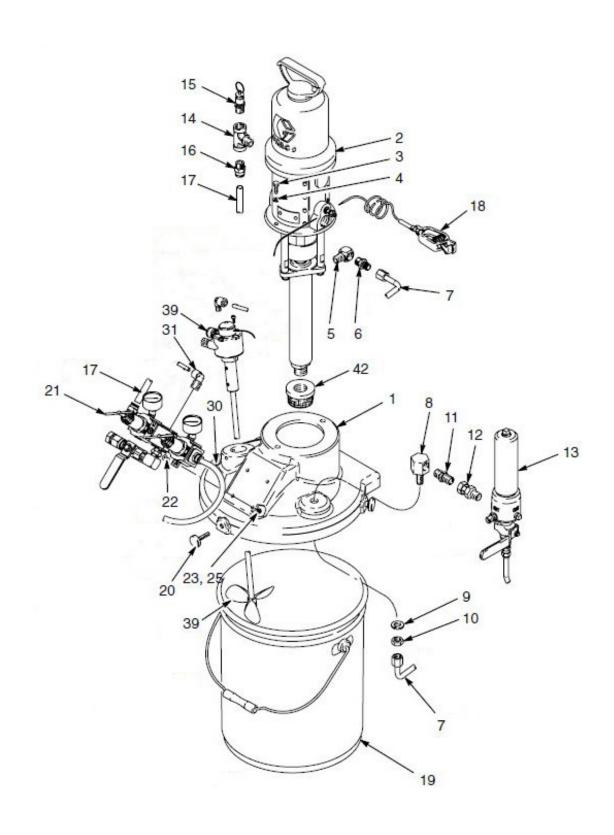
Figure 7: Graco® Monark® Air Motor



Pail Mount Air-Assisted Package - Carbon Steel

Item#	Part#	Description
Fig. 8		
_	20G232440	Pail Mount Air-Assisted Package – Carbon Steel Pump without Agitator, Hose, and Gun
1	20G240435	Pail Cover
2	20G223596	Graco® Monark® 23:1 Airless Spray Pump – Carbon Steel (See Fig. 1)
3	20G100644	1/4-20 x 3/4" Hex Head Cap Screw (Quantity of Two)
4	20G100016	1/4" Lockwasher Spring (Quantity of Two)
5	20G155699	3/8" Carbon Steel 90° Elbow
6	20G114337	3/8" x 9/16-18 Carbon Steel Adapter
7	20G114478	3/8" O.D. Carbon Steel Flare Tube
8	20G192889	Bulkhead Fitting
9	20G114830	9/16" Flat Washer
10	20G102300	9/16-18 Hex Nut
11	20G156849	3/8" Carbon Steel Nipple
12	20G155665	3/8" (M) x 3/8" (F) Union Swivel
13	20G239060	Carbon Steel Fluid Filter (See Fig. 11)
14	20G113777	3/8" (F) Run x 3/8" (M) Branch Tee
15	20G113769	Conventional Relief Safety Valve
16	20G114129	3/8" (M) x 1/2" O.D. Tube Fitting Connector
17	_	1/2" O.D. x 1.3' Polyurethane Tube
18	20G238909	Ground Wire and Clamp
19	20G101108	5 Gallon Pail
20	20G114371	1/4-20 Screw Knob (Quantity of Three)
21	20G240446	Air Regulator Kit
22	20G115439	Screw Socket (Quantity of Four)
23	20G105332	Self-Locking Hex Nut
25	20G110874	Flat Washer
30	20G101962	1/4-20 x 1/4" Set Screw (Quantity of Two)
31	20G100040	3/8" Pipe Plug
39	20G114575	Agitator Plug
42	20G187190	Fluid Inlet Strainer
_	209V593	Operator's Manual – Graco® Pail Mount Air-Assisted Package

Figure 8: Pail Mount Air-Assisted Package – Carbon Steel



Pail Mount Air-Assisted Package – Stainless Steel

Item#	Part#	Description
Fig. 9		
_	20G232452	Pail Mount Air-Assisted Package – Stainless Steel Pump without Agitator, Hose, and Gun
1	20G240435	Pail Cover
2	20G237958	Graco® Monark® 23:1 Airless Spray Pump – Stainless Steel (See Fig. 2)
3	20G100644	1/4-20 x 3/4" Hex Head Cap Screw (Quantity of Two)
4	20G100016	1/4" Lockwasher Spring (Quantity of Two)
5	20G114484	3/8" Stainless Steel 90° Elbow
7	20G114477	3/8" O.D. Stainless Steel Flare Tube
8	20G192889	Bulkhead Fitting
9	20G114830	9/16" Flat Washer
10	20G102300	9/16-18 Hex Nut
11	20G166469	3/8" Stainless Steel Nipple
12	20G235208	3/8" (M) x 3/8" (F) Union Swivel
13	20G239063	Stainless Steel Fluid Filter (See Fig. 12)
14	20G113777	3/8" (F) Run x 3/8" (M) Branch Tee
15	20G113769	Conventional Relief Safety Valve
16	20G114129	3/8" (M) x 1/2" O.D. Tube Fitting Connector
17	_	1/2" O.D. x 1.3' Polyurethane Tube
18	20G238909	Ground Wire and Clamp
19	20G101108	5 Gallon Pail without Cover
20	20G114371	1/4-20 Screw Knob (Quantity of Three)
21	20G240446	Air Regulator Kit
22	20G115439	Screw Socket (Quantity of Four)
23	20G105332	Self-Locking Hex Nut
25	20G110874	Flat Washer
30	20G101962	1/4-20 x 1/4" Set Screw (Quantity of Two)
31	20G100040	3/8" Pipe Plug
39	20G114575	Agitator Plug
42	20G187190	Fluid Inlet Strainer
_	209V593	Operator's Manual – Graco® Pail Mount Air-Assisted Package

Figure 9: Pail Mount Air-Assisted Package – Stainless Steel

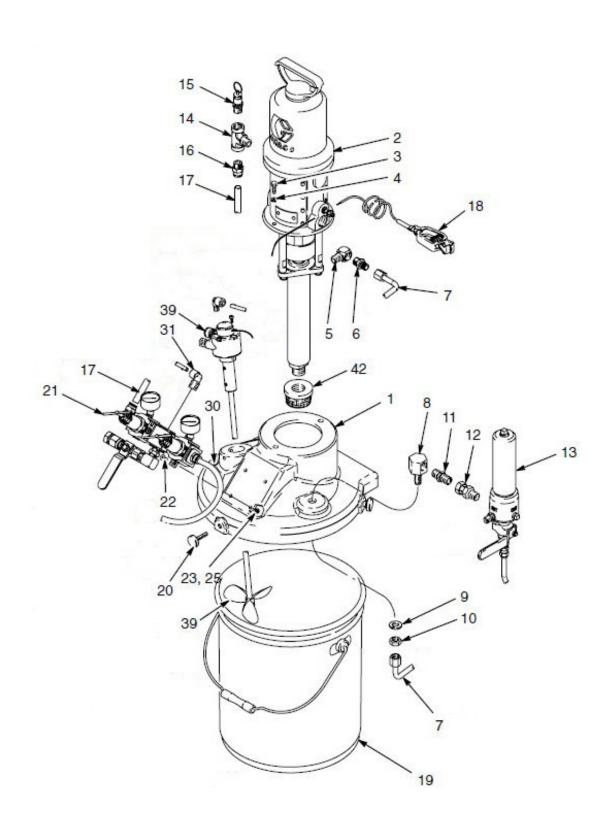
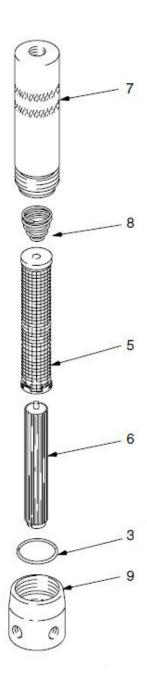
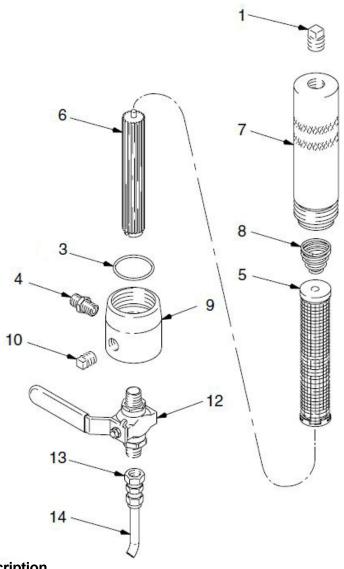


Figure 10: Carbon Steel Fluid Filter



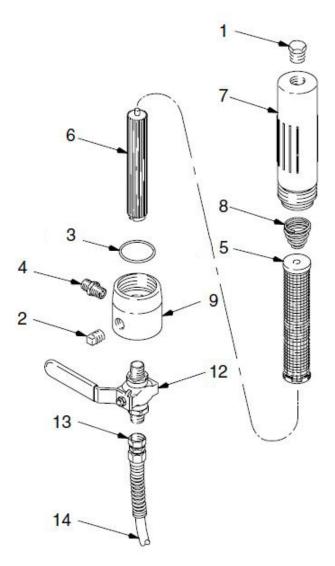
Item#	Part#	Description
Fig. 10	0	
_	20G218029	Carbon Steel Fluid Filter
3	20G104361	O-Ring, PTFE
5	20G167025	Stainless Steel Screen, 60 Mesh
6	20G186075	Filter Support, 7,250 psi
7	20G24C501	Carbon Steel Filter Bowl
8	20G171941	Stainless Steel Compression Spring
9	20G171942	Carbon Steel Filter Housing
_	209V585	Operator's Manual – Graco® Fluid Outlet Filter
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Figure 11: Carbon Steel Fluid Filter



Item#	Part#	Description
Fig. 11		
_	20G239060	Carbon Steel Fluid Filter
1	20G100040	3/8" Plug
3	20G104361	O-Ring, PTFE
4	20G162453	1/4" x 1/4" Carbon Steel Nipple
5	20G167025	Stainless Steel Screen, 60 Mesh
6	20G186075	Filter Support, 7,250 psi
7	20G24C501	Carbon Steel Filter Bowl
8	20G171941	Stainless Steel Compression Spring
9	20G171942	Carbon Steel Filter Housing
10	20G100509	1/4" Pipe Plug
12	20G238635	1/4" Carbon Steel Ball Valve
13	20G205447	1/4" Coupling
14	20G061132	1/4" I.D. x 8" Nylon Drain Tube
_	209V585	Operator's Manual – Graco® Fluid Outlet Filter

Figure 12: Stainless Steel Fluid Filter



Item#	Part#	Description		
Fig. 12	2			
_	20G239063	Stainless Steel Fluid Filter		
1	20G110740	3/8" Stainless Steel Plug		
2	20G111697	1/4" Stainless Steel Plug (Quantity of Two)		
3	20G104361	O-Ring, PTFE		
4	20G166846	1/4" x 1/4" Stainless Steel Nipple		
5	20G167025	Stainless Steel Screen, 60 Mesh		
6	20G186075	Filter Support, 7,250 psi		
7	20G185632	Bowl Filter		
8	20G171941	Stainless Steel Compression Spring		
9	20G185631	Housing Filter		
12	20G239018	1/4" Stainless Steel Ball Valve		
13	20G111913	1/4" Coupling		
14	20G061132	1/4" I.D. x 8" Nylon Drain Tube		
_	209V585	Operator's Manual – Graco® Fluid Outlet Filter		
24	Graco® Monark® 23:1 Airless Spray Pumps			

OPTIONAL ACCESSORIES

Part Numbers	ADAPTERS AND FITTINGS
Numbers	Description
20G243421	Muffler Accessory Kit (Includes Gaskets, Plates, Screws, and Muffler)
20G243801	Remote Exhaust Accessory Kit (Includes Gaskets, Plates, and Screws)

	SIPHON KITS				
Part Numbers	For Use With	Material	Suction Hose I.D.	Suction Hose Length	Swivel Fitting
20G207484	5 Gal Pail	Aluminum	3/4"	3.5'	3/4" NPT (F)
20G208920	5 Gal Pail	Aluminum	1"	4'	3/4" NPT (F)
20G208259	55 Gal Drums	Carbon Steel	3/4"	6'	3/4" NPT (F)

OPTIONAL ACCESSORIES

		FLUID DRAIN VALVES		
	Part Numbers	Inlet	Outlet	Maximum Working Pressure
	20G210657	1/4" NPT	1/4" NPT	5,000 psi
	20G210659	1/4" NPT	3/8" NPT	5,000 psi
april resection	20G210658	3/8" NPT	3/8" NPT	5,000 psi

Part Numbers		THROAT SEAL LIQUID Description
TSL	20G206994	Throat Seal Liquid – 8 oz.
751	20G206995	Throat Seal Liquid – 1 qt.
* TSL®	20G206996	Throat Seal Liquid – 1 gal.

MAINTENANCE NOTES

DATE	TYPE OF SERVICE	PART NUMBER
		<u> </u>

GLOBAL HEADQUARTERS

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