



GRACO® 5:1 MONARK® AIRLESS SPRAY PUMPS



PART NUMBERS AND SCHEMATICS GUIDE

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® 5:1 MONARK® AIRLESS SPRAY PUMPS						
Part Numbers	Maximum Working Pressure	Output Per Cycle	Maximum Air Input Pressure	Pump Input Size	Pump Outlet Size	For Use With
20G224343	600 PSI	157 CC	120 PSI	3/4" NPT (F)	1/2" NPT (F)	Low Viscosity Sealants and Adhesives
20G218956	900 PSI	135 CC	180 PSI	N/A	3/4" NPT (F)	Solventborne and Waterborne Finishing Materials
20G224345	900 PSI	157 CC	180 PSI	3/4" NPT (F)	1/2" NPT (F)	Water and Cleaning Solutions
20G224350	900 PSI	157 CC	180 PSI	1-1/5" (F)	3/4" NPT (F)	Solventborne and Waterborne Finishing Materials

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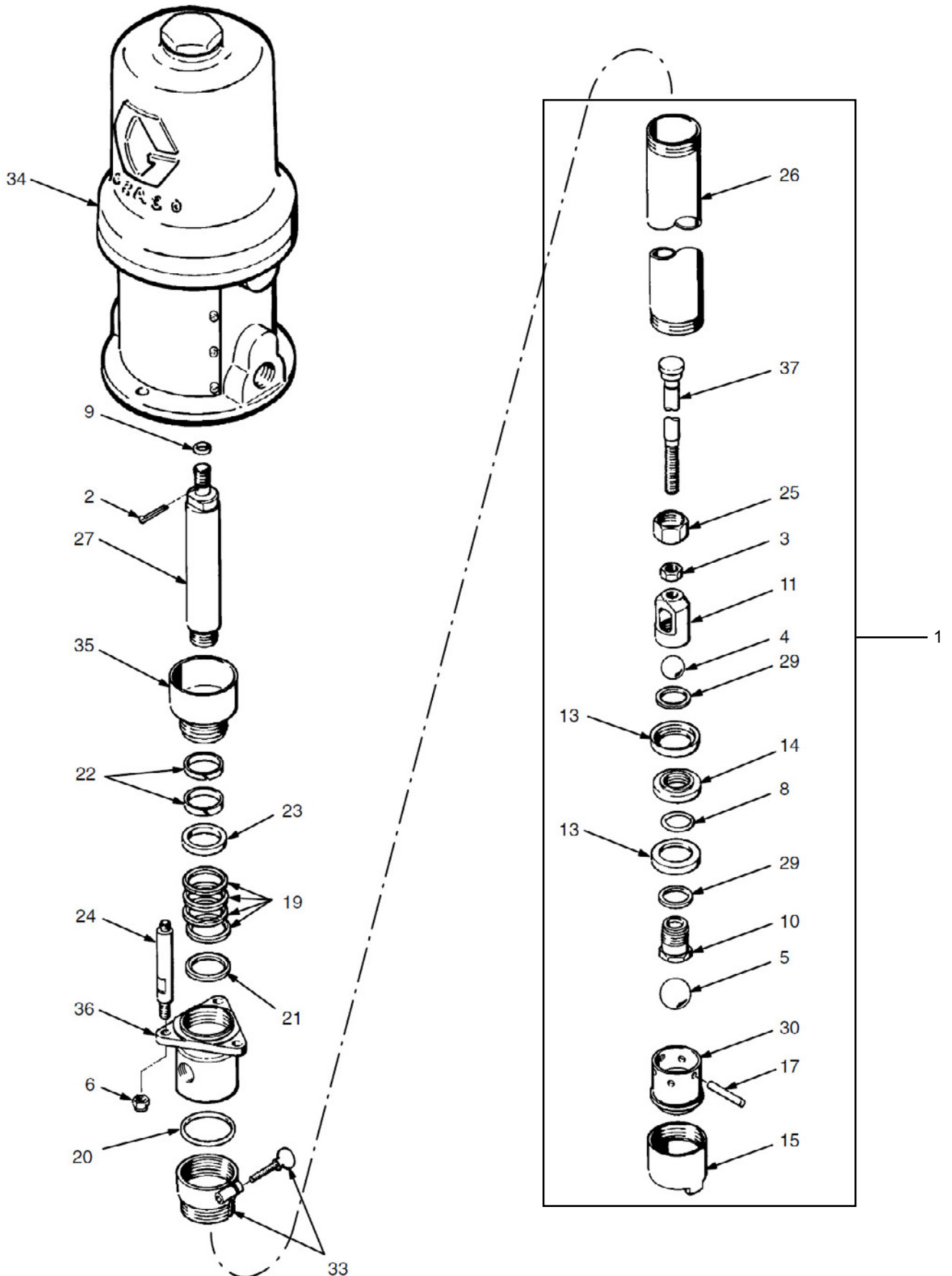
PART NUMBERS AND SCHEMATICS GUIDE

Graco® 5:1 Monark® Airless Spray Pump

Item#	Part#	Description
Fig. 1		
—	20G218956	Graco® 5:1 Monark® Airless Spray Pump
1	20G220465	135 CC Displacement Pump <i>Includes Items #: 3-5, 8, 10-23, 25-30, 35-37</i>
2	20G100103	Cotter Pin, 0.12" Diameter, 1/5" long
3	20G100111	Jam Nut, 0.5-20
4	20G100279	Steel Ball, 0.88" Diameter
5	20G101178	Steel Ball, 1.25" Diameter
6	20G101566	Lock Nut, 0.19 Thread <i>(Quantity of Three)</i>
8	20G164623	O-Ring, PTFE
9	20G156082	O-Ring, Nitrile Rubber
10	20G156989	Piston Seat
11	20G157184	Piston Housing
13	20G162871	Cup Packing, PTFE <i>(Quantity of Two)</i>
14	20G158857	Packing Spacer
15	20G159839	Intake Valve Housing
17	20G160726	Stop Pin
19	20G162866	V-Packing, PTFE <i>(Quantity of Four)</i>
20	20G164782	O-Ring, PTFE
21	20G164837	Male Gland
22	20G165287	Bearing, PTFE <i>(Quantity of Two)</i>
23	20G165288	Female Gland
24	20G24B189	Tie Rod Kit <i>(Quantity of Three)</i>
25	20G166033	Swivel Nut
26	20G24C504	Stainless Steel Cylinder
27	20G24C496	Displacement Rod
29	20G171594	Backup Washer <i>(Quantity of Two)</i>
30	20G204762	Intake Valve Seat
33	20G222308	Bung Adapter With Screw
34	20G205997	Air Motor <i>(See Air Motor Assembly)</i>
35	20G208312	Packing Nut
36	20G192188	Outlet Housing, 3/4" NPT (F)
37	20G208314	Piston Rod
—	20G208520	Graco® Monark® 5:1 Airless Spray Pump Repair Kit <i>Includes Item #'s: 8, 13 (Quantity of Two), 19 (Quantity of Four), 20, 21, 22 (Quantity of Two), 23</i>
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V516	Operator's Manual — Graco® 5:1 Monark® Airless Spray Pump

PART NUMBERS AND SCHEMATICS GUIDE

Figure 1: Graco® 5:1 Monark® Airless Spray Pump



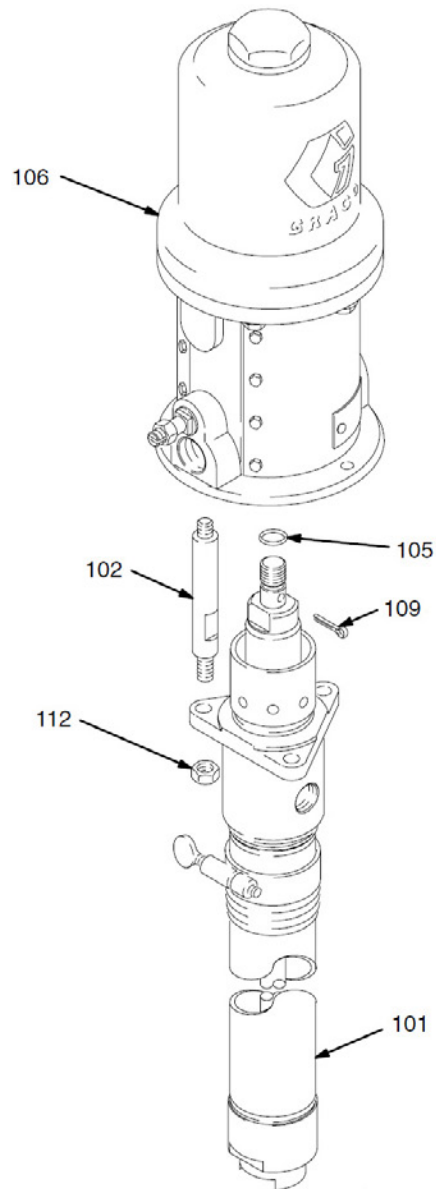
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Graco® 5:1 Monark® Airless Spray Pump

Item#	Part#	Description
Fig. 2		
—	20G224350	Graco® 5:1 Monark® Airless Spray Pump
101	20G224349	157 CC Displacement Pump Assembly (See <i>Displacement Pump Assembly 20G224349</i>)
102	20G24B189	Stainless Steel Tie Rod (<i>Quantity of Three</i>)
105	20G156082	Nitrile Rubber O-Ring Seal
106	20G205997	Air Motor (<i>See Air Motor Assembly</i>)
109	20G101946	Stainless Steel Cotter Pin, 0.12" Diameter, 1/5" long
112	20G102021	Lock Nut (<i>Quantity of Three</i>)
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V517	Operator's Manual — Graco® 5:1 Monark® Airless Spray Pump

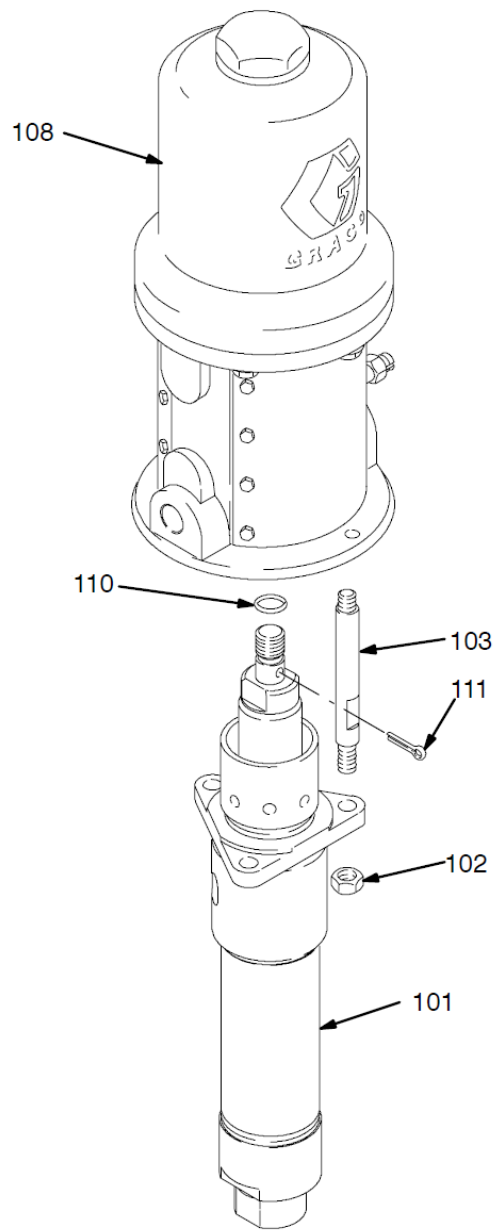
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Figure 2: Graco® 5:1 Monark® Airless Spray Pump



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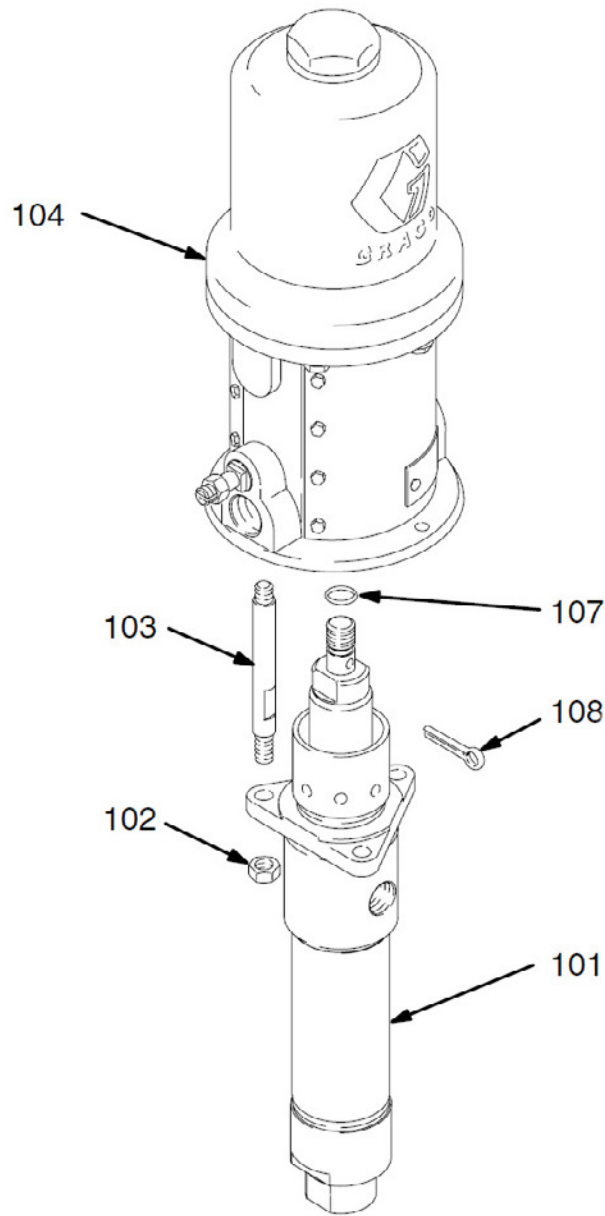
Figure 3: Graco® 5:1 Monark® Severe-Duty Airless Spray Pump



Item#	Part#	Description
Fig. 3		
—	20G224343	Graco® 5:1 Monark® Severe-Duty Airless Spray Pump
101	20G224341	157 CC Displacement Pump Assembly (See Displacement Pump Assembly 20G224341)
102	20G102021	Lock Nut, 3/8" (Quantity of Three)
103	20G24B189	Tie Rod Kit (Quantity of Three)
108	20G205997	Air Motor (See Air Motor Assembly)
110	20G156082	Nitrile Rubber O-Ring Seal
111	20G102021	Stainless Steel Cotter Pin, 0.12" Diameter, 1/5" long
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V518	Operator's Manual — Graco® 5:1 Monark® Severe-Duty Airless Spray Pump

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Figure 4: Graco® 5:1 Monark® Hydra-Clean® Pump



Item#	Part#	Description
Fig. 4		
—	20G224345	Graco® 5:1 Monark® Hydra-Clean® Pump
101	20G224344	157 CC Displacement Pump Assembly (See Displacement Pump Assembly 20G224344)
102	20G102021	Lock Nut, 3/8" (Quantity of Three)
103	20G24B189	Tie Rod Kit (Quantity of Three)
104	20G205997	Air Motor (See Air Motor Assembly)
107	20G156082	Nitrile Rubber O-Ring Seal
108	20G101946	Cotter Pin, 0.12" Diameter, 1/5" long
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V519	Operator's Manual — Graco® 5:1 Monark® Hydra-Clean® Pump

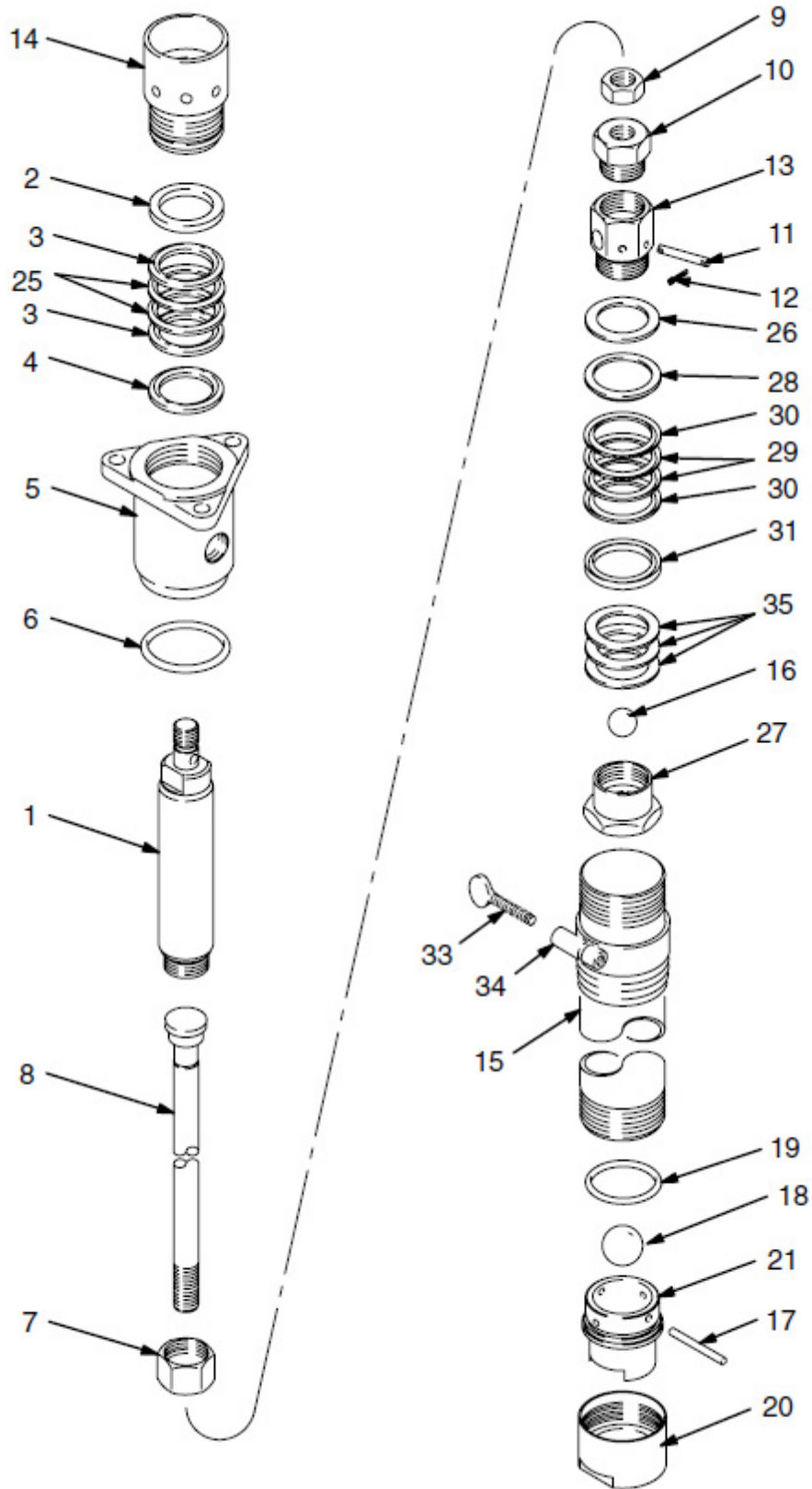
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Graco® Displacement Pump Assembly

Item#	Part#	Description
Fig. 5		
—	20G224349	Graco® 157 CC Displacement Pump Assembly <i>(For Use With 20G224350)</i>
1	20G24C506	Stainless Steel Displacement Rod
2	20G24B189	Stainless Steel Female Throat Gland
3	20G176639	UHMWPE Throat V-Packing <i>(Quantity of Two)</i>
4	20G186987	Stainless Steel Male Throat Gland
5	20G192188	Stainless Steel Outlet Housing
6	20G164782	PTFE O-Ring
7	20G166033	Coupling Nut
8	20G206449	Stainless Steel Connecting Rod
9	20G166037	Stainless Steel 5/8-11 unc-2b Jam Nut
10	20G166036	Stainless Steel Connecting Rod Adapter
11	20G176637	Stainless Steel Piston Ball Stop Pin
12	20G100063	Stainless Steel 1/16" x 1/2" Cotter Pin <i>(Quantity of Two)</i>
13	20G176644	Stainless Steel Piston Mounting Stud
14	20G186995	Stainless Steel Packing Nut/Wet-Cup
15	20G24C504	Stainless Steel Cylinder
16	20G101917	Stainless Steel Piston Ball, .875" Diameter
17	20G162947	Stainless Steel Intake Ball Stop Pin
18	20G101968	Stainless Steel Intake Ball, 1.25" Diameter
19	20G164846	PTFE O-Ring
20	20G164630	Stainless Steel Locking Ring
21	20G186991	Stainless Steel Intake Valve Housing
25	20G162866	PTFE Throat V-Packing <i>(Quantity of Two)</i>
26	20G176634	Stainless Steel Piston Washer
27	20G186993	Stainless Steel Piston Stud
28	20G186990	Stainless Steel Male Piston Gland
29	20G176635	PTFE Piston V-Packing <i>(Quantity of Two)</i>
30	20G176638	UHMWPE Piston V-Packing <i>(Quantity of Two)</i>
31	20G186989	Stainless Steel Female Piston Gland
32	20G205573	Bung Adapter <i>(Includes Item #s 33 and 34)</i>
33	20G101961	1/4-20 unc x 1.5" Long Thumbscrew
34	20G205572	Stainless Steel Bung Adapter
35	20G190484	Shim <i>(Quantity of Three)</i>
36	20GC38225	O-Ring Packing
37	20G15J577	Foot Valve Ball Retainer
38	20G101178	Metallic Ball
39	20G15J574	Intake Valve Housing
—	20G224403	Repair Kit <i>Includes Item #'s: 2, 3 (Quantity of Two), 4, 11, 12 (Quantity of Two), 16-18, 25 (Quantity of Two), 26, 28, 29 (Quantity of Two), 30 (Quantity of Two), and 31</i>
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V517	Operator's Manual — Graco® 5:1 Monark® Airless Spray Pump

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Figure 5: Graco® Displacement Pump Assembly



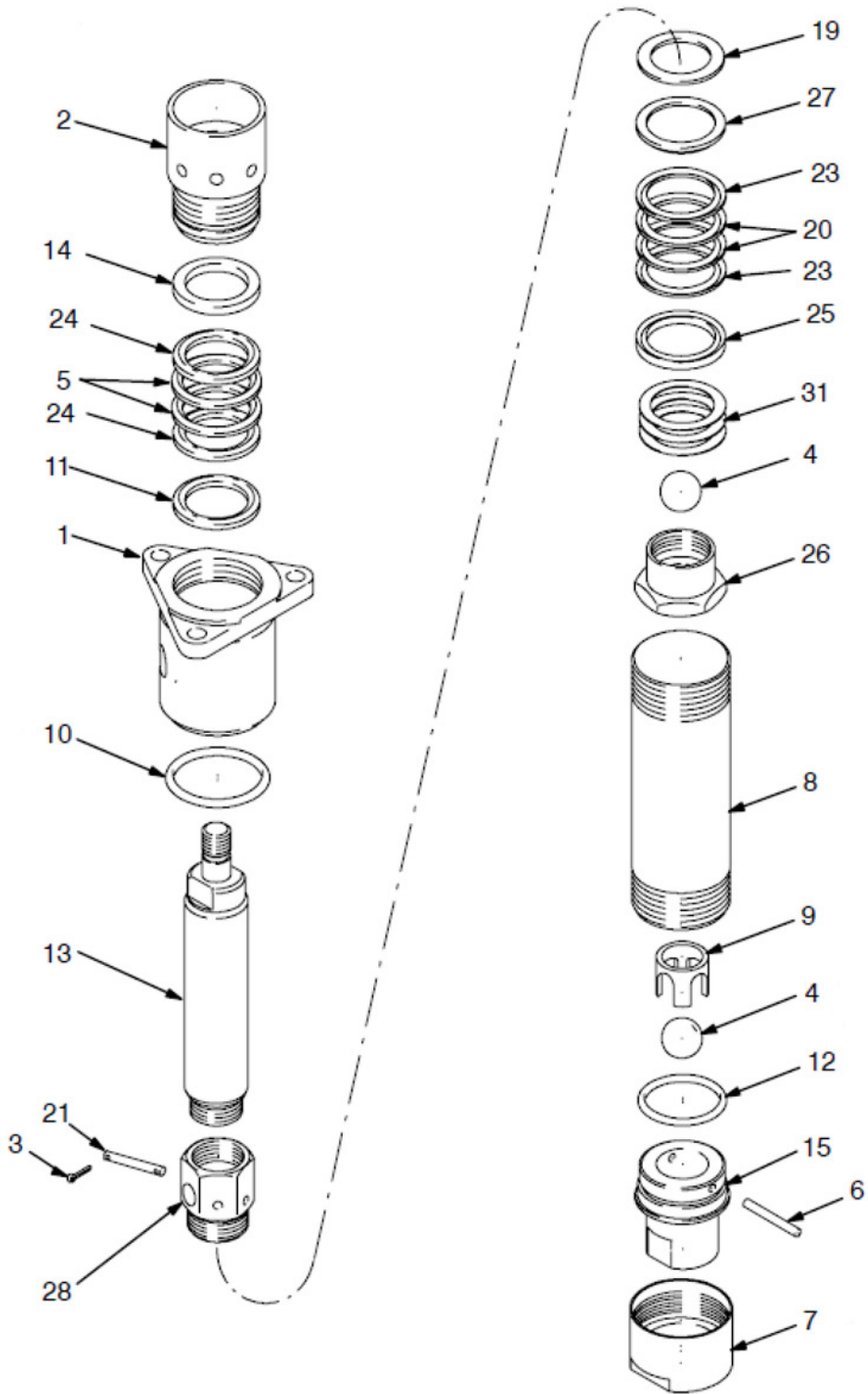
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Graco® Displacement Pump Assembly

Item#	Part#	Description
Fig. 6		
—	20G224341	Graco® 157 CC Displacement Pump Assembly <i>(For Use With 20G224343)</i>
1	20G205999	Stainless Steel Outlet Housing
2	20G186995	Stainless Steel Packing Nut/Wet-Cup
3	20G100063	Stainless Steel Cotter Pin <i>(Quantity of Two)</i>
4	20G101917	Stainless Steel Ball, .875" Diameter <i>(Quantity of Two)</i>
5	20G162866	PTFE Throat Packing <i>(Quantity of Two)</i>
6	20G162947	PTFE O-Ring
7	20G164630	Stainless Steel Locking Ring
8	20G24C505	Stainless Steel Cylinder
9	20G164679	Stainless Steel Intake Ball Guide
10	20G164782	PTFE O-Ring
11	20G186987	Stainless Steel Male Throat Gland
12	20G164846	PTFE O-Ring
13	20G24C506	Stainless Steel Displacement Rod
14	20G186988	Stainless Steel Female Throat Gland
15	20G186992	Stainless Steel Intake Valve Housing
19	20G176634	Stainless Steel Piston V-Packing
20	20G176635	PTFE Piston V-Packing <i>(Quantity of Two)</i>
21	20G176637	Stainless Steel Piston Ball Stop Pin
23	20G176638	UHMWPE Piston V-Packing <i>(Quantity of Two)</i>
24	20G176639	UHMWPE Throat V-Packing <i>(Quantity of Two)</i>
25	20G186989	Stainless Steel Female Piston Gland
26	20G183993	Stainless Steel Piston Stud
27	20G186990	Stainless Steel Male Piston Gland
28	20G176644	Stainless Steel Piston Mounting Stud
31	20G190484	Shim <i>(Quantity of Three)</i>
—	20G224401	Repair Kit <i>Includes Item #'s: 3 (Quantity of Two), 4 (Quantity of Two), 5 (Quantity of Two), 6, 11, 14, 19, 20 (Quantity of Two), 21, 23 (Quantity of Two), 24 (Quantity of Two), 25, 27, and 31 (Quantity of Three)</i>
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V518	Operator's Manual — Graco® 5:1 Monark® Airless Spray Pump

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Figure 6: Graco® Displacement Pump Assembly



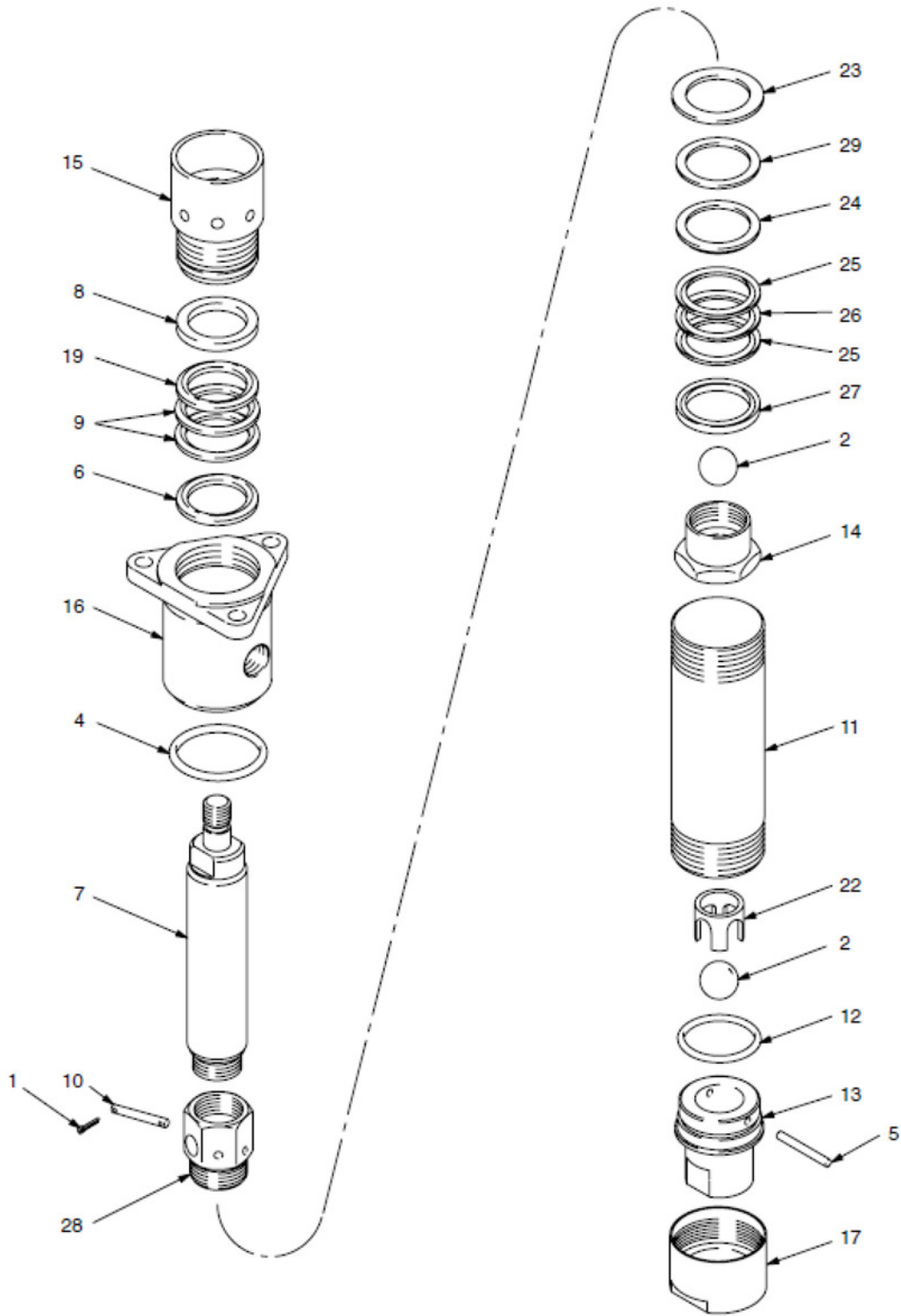
PART NUMBERS AND SCHEMATICS GUIDE

Graco® Displacement Pump Assembly

Item#	Part#	Description
Fig. 7		
—	20G244344	Graco® 157 CC Displacement Pump Assembly <i>(For Use With 20G224345)</i>
1	20G100063	Stainless Steel Cotter Pin 1/16" x 1/2" <i>(Quantity of Two)</i>
2	20G101917	Stainless Steel Ball, .875" Diameter <i>(Quantity of Two)</i>
4	20G164782	PTFE O-Ring
5	20G162947	Stainless Steel Intake Ball Stop Pin
6	20G186987	Stainless Steel Male Throat Gland
7	20G24C506	Stainless Steel Displacement Rod
8	20G186988	Stainless Steel Female Throat Gland
9	20G166133	Neoprene Throat Packing <i>(Quantity of Two)</i>
10	20G176637	Stainless Steel Piston Ball Stop Pin
11	20G24C505	Stainless Steel Cylinder
12	20G164846	PTFE O-Ring
13	20G186992	Stainless Steel Intake Valve Housing
14	20G186993	Stainless Steel Piston Stud
15	20G186995	Stainless Steel Packing Nut/Wet-Cup
16	20G205999	Stainless Steel Outlet Housing
17	20G164630	Stainless Steel Locking Ring
19	20G170625	UHMWPE Throat V-Packing
22	20G164679	Stainless Steel Intake Ball Guide
23	20G176634	Stainless Steel Piston Washer
24	20G186990	Stainless Steel Male Piston Gland
25	20G176638	UHMWPE Piston V-Packing <i>(Quantity of Two)</i>
26	20G111293	Neoprene Piston V-Packing
27	20G186989	Stainless Steel Female Piston Gland
28	20G176644	Stainless Steel Piston Mounting Stud
29	20G111790	Stainless Steel Shim
—	20G224402	Repair Kit <i>Includes Item #'s: 1 (Quantity of Two), 2 (Quantity of Two), 5, 6, 8, 9 (Quantity of Two), 10, 19, 23, 24, 25 (Quantity of Two), 26, 27, and 29</i>
—	206M555	Part Numbers and Schematics Guide - Graco® Monark® 5:1 Airless Spray Pump
—	209V519	Operator's Manual — Graco® 5:1 Monark® Airless Spray Pump

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Figure 7: Graco® Displacement Pump Assembly



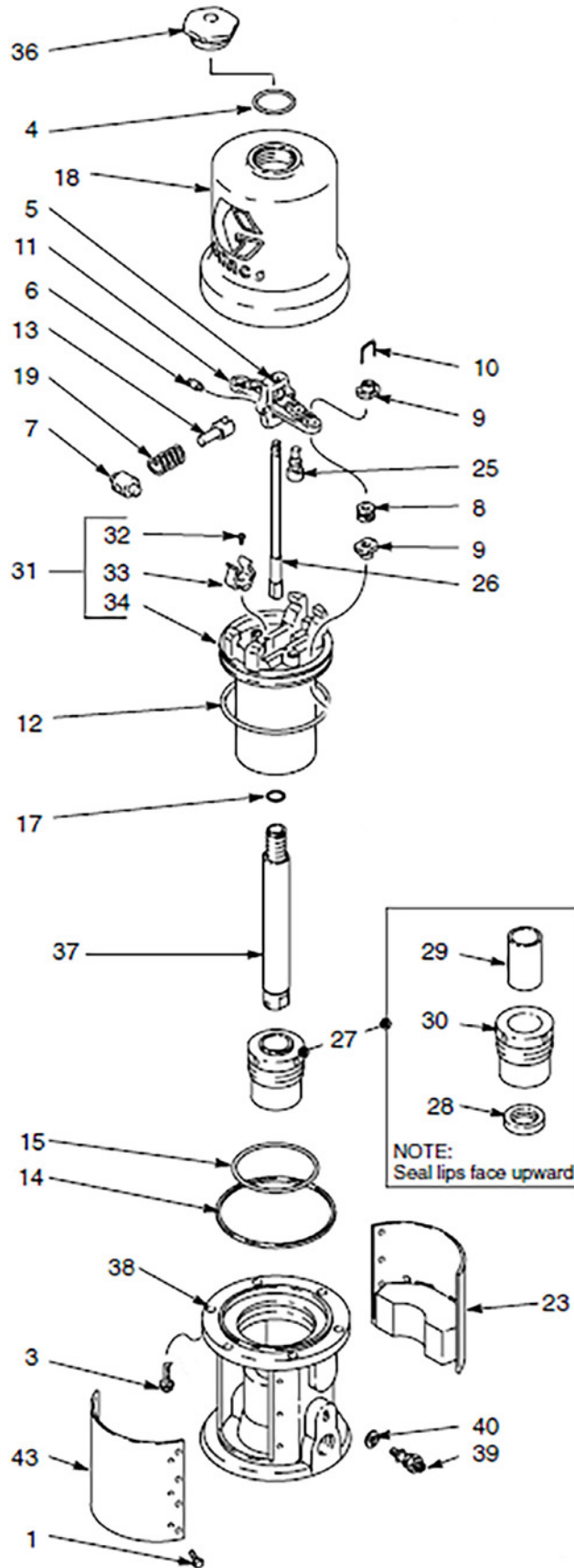
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Graco® Monark® Air Motor Assembly


Item#	Part#	Description
Fig. 8		
—	20G205997	Graco® Monark® Air Motor
1	20G114422	Phillips HD Mach Screw, 8-32 x .375 Inches Long (<i>Quantity of 16</i>)
3	20G101578	Hex Head Screw, 5/16 x .875 Inches Long (<i>Quantity of Six</i>)
4	20G156698	Buna-A O-Ring
5	20G158360	Trip Rod Yoke
6	20G158362	Toggle Pin (<i>Quantity of Two</i>)
7	20G158364	Toggle Rocker (<i>Quantity of Two</i>)
8	20G158367	Air Intake Rubber Grommet (<i>Quantity of Two</i>)
9	20G160261	Adjusting Nut (<i>Quantity of Four</i>)
10	20G160618	Transfer Valve Lockwire (<i>Quantity of Two</i>)
11	20G172867	Valve Actuator
12	20G160621	Nitrile Rubber O-Ring
13	20G160623	Toggle Arm (<i>Quantity of Two</i>)
14	20G160624	Buna-N O-Ring
15	20G160625	Buna-A O-Ring
17	20G160932	Copper Gasket
18	20G164186	Cylinder
19	20G167585	Helical Compression Spring (<i>Quantity of Two</i>)
23	20G241651	Identification Plate
25	20G170709	Urethane Valve Poppet (<i>Quantity of Two</i>)
26	20G203965	Trip Rod
27	20G205529	Bearing Housing (<i>Includes Item #s 28-30</i>)
28	20G101524	Seal
29	20G101526	Bearing
30	20G164701	Packing Nut
31	20G214036	Piston Assembly (<i>Includes Item #s 32-34</i>)
32	20G102975	RD HD Mach Screw, 6-32 x .25 (<i>Quantity of Two</i>)
33	20G172866	Spring Clip (<i>Quantity of Two</i>)
34	—	Bare Piston (<i>Not Sold Separately</i>)
36	20G161435	Cap Nut
37	20G177136	Piston Rod
38	20G205998	Base
39	20G104029	Grounding Lug
40	20G104582	Tab Washer
42	20G180233	Warning Label
43	20G241650	Warning Plate
—	20G206728	Repair Kit <i>Includes Item #s: 8 (Quantity of Two), 9(Quantity of Four), 10 (Quantity of Two), 12, 15, 24 (Quantity of Two), and 25(Quantity of Two)</i>

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Figure 8: Graco® Monark® Air Motor Assembly



OPTIONAL ACCESSORIES




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

Part Numbers		SIPHON KITS				
		For Use With	Material	Suction Hose ID	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)

Part Numbers		FILTERS		
		Type	Inlet/Outlet	Maximum Working Pressure
	20G106148	Air Filter	3/8" NPT	250 PSI

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
	20G210658	3/8" NPT	3/8" NPT	5,000 PSI

GLOBAL HEADQUARTERS

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