GRACO

FRP Systems

Proportioners and Guns for Gel Coat and Chop Applications

PROVEN QUALITY. LEADING TECHNOLOGY.

Industry-leading solutions for FRP

Raising the bar for high-performance FRP equipment

Engineered with industry-proven Graco components, Graco FRP (Fiber-Reinforced Plastic) Systems and RS™ (resin spray) applicator guns provide you with a system that is technologically advanced, durable and easy to use.

Lower cost of ownership

- Easy maintenance—fewer wear parts than competitive models
- More uptime for production—longer periods between scheduled maintenance

Quality parts—all day, every day

Your reputation rides on the quality of your end products. With Graco FRP equipment, you're assured of a consistent catalyst ratio for a consistent cure—resulting in higher quality, finished products.

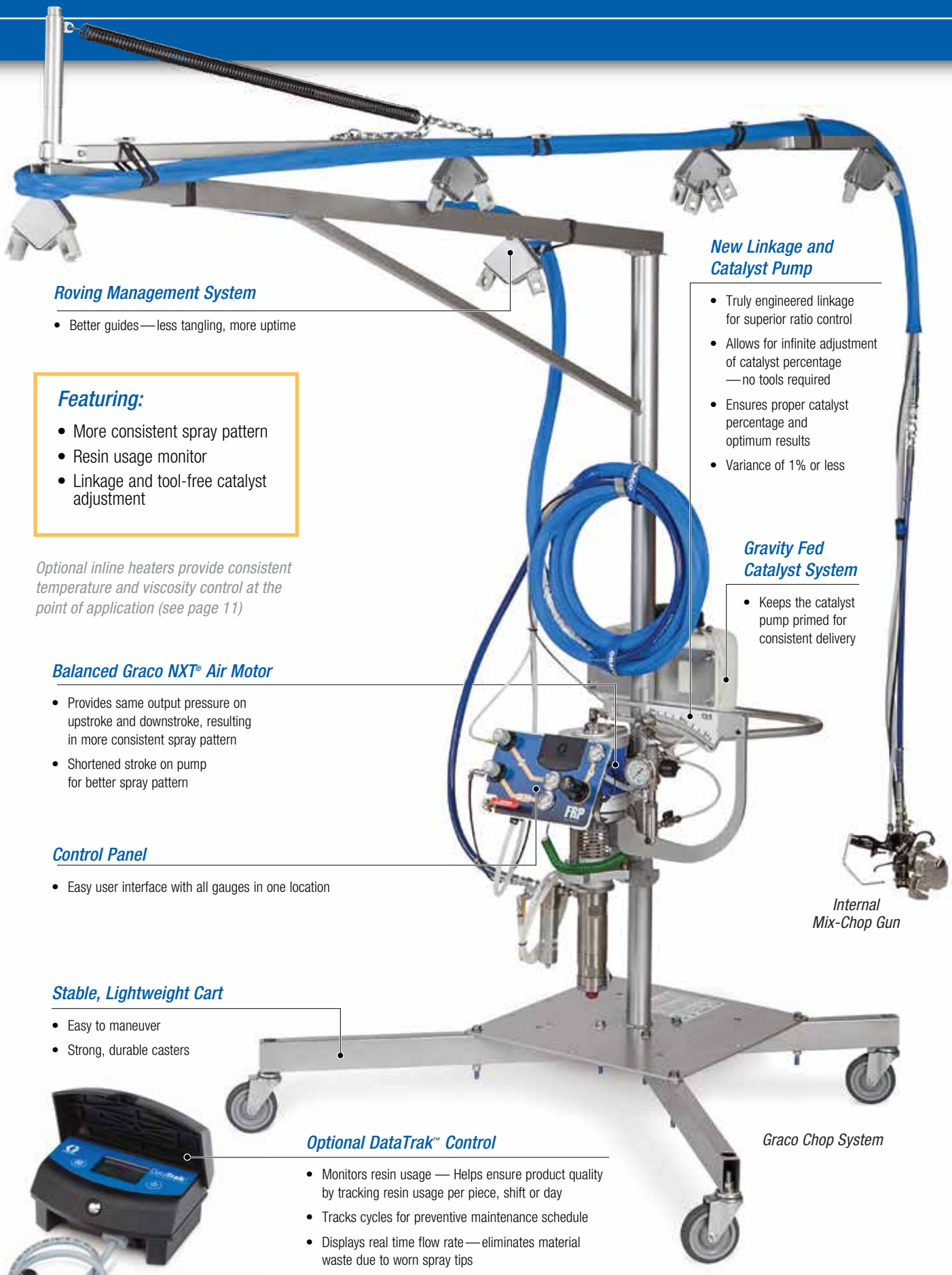
A smart future investment: MACT-compliant technology

Graco FRP equipment features MACT (Maximum Achievable Control Technologies)-compliant RS spray guns. As regulations change to require new technologies, Graco promises to be a smart investment for the future of your business.

Here's why. Graco FRP equipment supports MACT requirements with two application tip designs—one for air assisted airless and a second one for impingement spray processes. **With Graco, you can switch from air assisted airless to impingement by simply changing the spray tip.**

Graco Gel Coat System

External Mix Gun



Roving Management System

- Better guides—less tangling, more uptime

Featuring:

- More consistent spray pattern
- Resin usage monitor
- Linkage and tool-free catalyst adjustment

Optional inline heaters provide consistent temperature and viscosity control at the point of application (see page 11)

New Linkage and Catalyst Pump

- Truly engineered linkage for superior ratio control
- Allows for infinite adjustment of catalyst percentage —no tools required
- Ensures proper catalyst percentage and optimum results
- Variance of 1% or less

Gravity Fed Catalyst System

- Keeps the catalyst pump primed for consistent delivery

Balanced Graco NXT® Air Motor

- Provides same output pressure on upstroke and downstroke, resulting in more consistent spray pattern
- Shortened stroke on pump for better spray pattern

Control Panel

- Easy user interface with all gauges in one location

Internal Mix-Chop Gun

Stable, Lightweight Cart

- Easy to maneuver
- Strong, durable casters

Optional DataTrak™ Control

- Monitors resin usage — Helps ensure product quality by tracking resin usage per piece, shift or day
- Tracks cycles for preventive maintenance schedule
- Displays real time flow rate—eliminates material waste due to worn spray tips

Graco Chop System

Easy to use, lightweight guns

Graco RS Chop Gun with Cutter

Constant Control

- Adjust glass cutting tension output on the production floor in seconds
- No tools needed to make many adjustments

Magnetic Cutter Drum

- Quick and easy blade changes
- Magnet in cutter head holds blades in place

Lightweight, High-Output Cutter

- Allows you to get the glass output you need with fewer strands of roving
- Fewer strands of roving means less chance of tangling, easier handling and more uptime
- External anvil adjustment lets you quickly and easily adjust anvil tension

Swivel Feature

(Where the fluid line connects to the gun)

- Allows smooth movement
- Operator can easily pivot in different directions without kinking the hose

Ergonomic Handle

- Less operator fatigue

Optional Quick-Change Blade Cartridges

- Change blades in a matter of seconds
- Replace the whole cartridge at once, not individual blades
- Greatly reduces the chance of nicks and cuts
- Only available from Graco!

Graco RS Gel Coat Gun

Solvent-Safe

- Easy shutdown — simply place front end in solvent at end of shift

Quick-Disconnect Front End

- Modular design means it's very easy to get to the specific part you need to replace
- No need to disassemble the entire gun
- Increases productivity, reduces cleanup time

Both Graco RS Gel Coat Guns and Graco RS Chop Guns are available in internal and external mix models

Fast switch tip design – A Graco Exclusive

Impingement Tip

OR

Air Assisted Airless Tip

Only Graco allows you to switch technologies just by changing tips

Exclusive Graco Feature

Today's FRP market uses two different technologies. Mechanical Air Atomized (Air Assisted Airless) and Mechanical Non-Air Atomized (Impingement). Using the Graco RS Guns allows you to switch from one technology to the other by simply changing the spray tip. This can be done quickly and cost effectively. Competitive models require time-consuming spray gun head changes and or complete replacement of the spray gun which results in lost time and higher cost conversion.

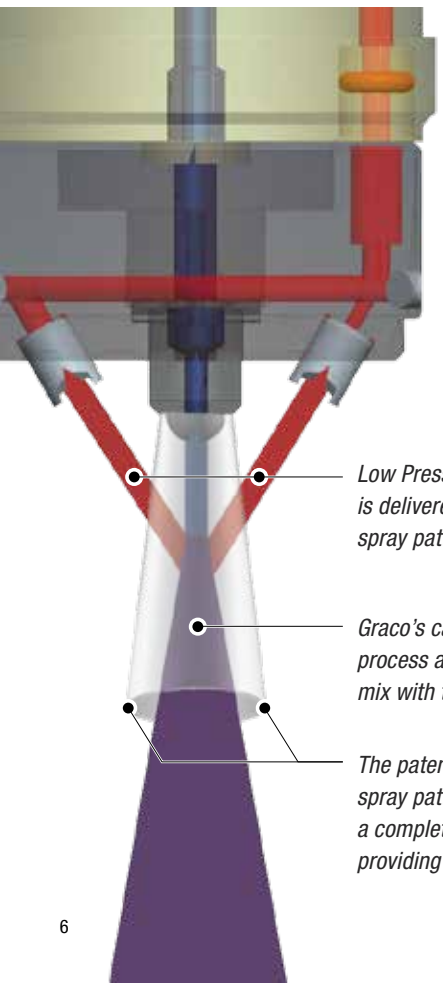
AAC Spray Control Technology – A Graco Exclusive

Air Assist Containment® (AAC) – control and contain your spray pattern

When you buy a drum of resin or gelcoat, you pay for every drop of material. Graco will help you put as many of those drops as possible on the mold.

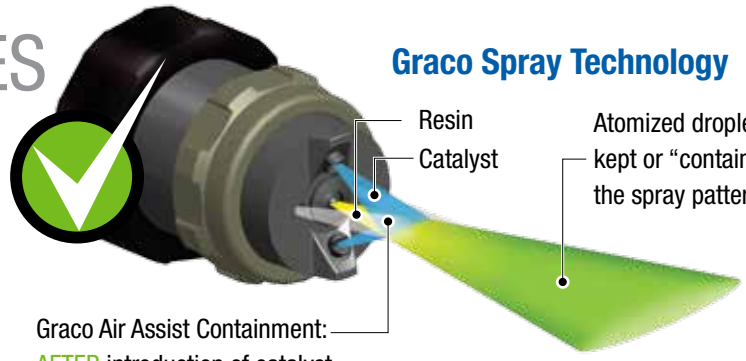
Our exclusive Air-Assist Containment (AAC) wraps the spray pattern in a containment shield of air. This prevents atomized droplets from escaping the spray pattern creating a better working environment. Droplets that escape and end up on the floor, wall or employee's clothing are a waste of money.

AAC creates a spray pattern where the droplets travel to the mold at very low pressure. The low speed or "particle velocity" creates very little turbulence or disturbance in the material when it is applied to the mold. Competitive spray guns with higher "particle velocity", create a great deal of turbulence during the application process. Turbulence, or over-atomization, creates air entrapment which can result in porosity issues.



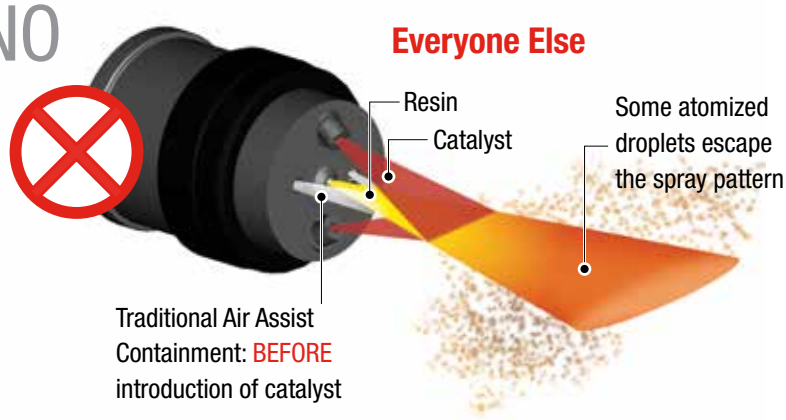
YES

Graco Spray Technology



NO

Everyone Else



Systems

			No Cart/Hose Length*		Cart/Hose Length *		Cart, Mast and Boom/Hose Length *	
			Part #	ft (m)	Part #	ft (m)	Part #	ft (m)
13:1 Ratio Max Air Consumption** - 35 SCFM Max Fluid Output** - 1.5gpm (5.7 lpm)"	**Internal Mix**	Gel	16R065 16R068 16R071 16R074	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R002 16R044 16R047 16R050	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R053 16R056 16R059 16R062	25 (7.6) 35 (10.7) 50 (15.2) (None)
		Chop	16R135 16R138 16R141 16R144	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R123 16R114 16R117 16R120	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R004 16R126 16R129 16R132	25 (7.6) 35 (10.7) 50 (15.2) (None)
	External Mix	Gel	16R030 16R033 16R036 16R039	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R001 16R009 16R012 16R015	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R018 16R021 16R024 16R027	25 (7.6) 35 (10.7) 50 (15.2) (None)
		Chop	16R100 16R103 16R106 16R109	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R088 16R079 16R082 16R085	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R003 16R091 16R094 16R097	25 (7.6) 35 (10.7) 50 (15.2) (None)
17:1 Ratio Max Air Consumption** - 35 SCFM Max Fluid Output** - 1gpm (3.8 lpm)	**Internal Mix**	Gel	16R205 16R208 16R211 16R214	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R006 16R184 16R187 16R190	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R193 16R196 16R199 16R202	25 (7.6) 35 (10.7) 50 (15.2) (None)
	External Mix	Gel	16R170 16R173 16R176 16R179	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R005 16R149 16R152 16R155	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R158 16R161 16R164 16R167	25 (7.6) 35 (10.7) 50 (15.2) (None)
9:1 Ratio High Output System Max Air Consumption** - 35 SCFM Max Fluid Output** - 2.2gpm (8.4 lpm)"	**Internal Mix**	Chop	16R300 16R303 16R306 16R309	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R301 16R304 16R307 16R310	25 (7.6) 35 (10.7) 50 (15.2) (None)	16R302 16R305 16R308 16R311	25 (7.6) 35 (10.7) 50 (15.2) (None)
13:1 Ratio with High Flow Gun 24P435 Max Air Consumption** - 35 SCFM Max Fluid Output** - 1.5gpm (5.7 lpm)"	**Internal Mix**	Chop	24W435 24W436 24W437	25 (7.6) 35 (10.7) 50 (15.2)	24W432 24W433 24W434	25 (7.6) 35 (10.7) 50 (15.2)	24W438 24W439 24W440	25 (7.6) 35 (10.7) 50 (15.2)

** Systems without hoses do not come with guns ** Fluid and air flow rate for 70 cpm*

Solvent Flush Kits

16M560 Diaphragm Pump Solvent Flush Kit - 2.5 gal (9.5 l)
16M561 Diaphragm Pump Solvent Flush Kit - 5 gal (19 l)
16M893 Pressure Pot Solvent Flush Kit - 2 gal (7.6 l)
16M894 Pressure Pot Solvent Flush Kit - 5 gal (19 l)
16M874 CE Pressure Pot Solvent Flush Kit - 2 gal (7.6 l)

Optional Kits

16M881 DataTrak Upgrade Kit
24M501 5 gal (19 l) Catalyst Tank Kit
16M896 55 gal (208 l) Drum Cart for Cart, Mast and Boom
16M897 55 gal (208 l) Drum Cart for Pole Cart
16M961 Roving Box Kit
16N918 Wall Mount Bracket Kit
16N761 Boom Kit

Hose Kits

16M718 Internal Gel Hose Extension 25 ft (7.6 m)
16M587 Internal Gel Hose Bundle 25 ft (7.6 m)
16M590 Internal Gel Hose Bundle 35 ft (10.7 m)
16M584 Internal Gel Hose Bundle 50 ft (15.2 m)
16M719 External Gel Hose Extension 25 ft (7.6 m)
16M588 External Gel Hose Bundle 25 ft (7.6 m)
16M591 External Gel Hose Bundle 35 ft (10.7 m)
16M585 External Gel Hose Bundle 50 ft (15.2 m)
16M712 Chop Hose Extension 25 ft (7.6 m)
16M586 Chop Hose Bundle 25 ft (7.6 m)
16M589 Chop Hose Bundle 35 ft (10.7 m)
16M583 Chop Hose Bundle 50 ft (15.2 m)

Replacement Outlet Filters

224458 30 mesh, 2-pack
238436 30 mesh, 25-pack
224459 60 mesh, 2-pack
238438 60 mesh, 25-pack
224468 100 mesh (standard option), 2-pack
238440 100 mesh (standard option), 25-pack
224469 200 mesh, 2-pack
238442 200 mesh, 25-pack

Pump Kits and Parts

W17CFS 17:1 Pump Assembly 75 cc SST
W13DFC 13:1 Pump Assembly 100 cc CS
W09DFC 9:1 Pump Assembly 150 cc CS
M07LNL 4.5 in FRP NXT Air Motor
16N238 4.5 in FRP NXT Air Motor - Seal Kit
LW150A 150 cc FRP Lower
17E098 150 cc FRP Lower - Seal Kit
17E099 150 cc FRP Lower - Connection Kit
LW100C 100 cc FRP Lower
16N232 100 cc FRP Lower - Seal Kit
16N243 100 cc FRP Lower - Connection Kit
LW075S 75 cc FRP Lower
16N231 75 cc FRP Lower - Seal Kit
16N242 75 cc FRP Lower - Connection Kit
16N740 Internal Mix Catalyst Pump Assembly
16N741 External Mix Catalyst Pump Assembly
16N919 Catalyst Pump Rebuild Kit

Guns

RS Guns

258853 RS Internal Mix Gel Coat Gun, CST521 tip
258840 RS External Mix Gel Coat Gun, CST521 tip
258971 RS Internal Mix Chop Gun with Cutter, CST443 tip
258970 RS External Mix Chop Gun with Cutter, CST443 tip
258854 RS Internal Mix Chop Gun without Cutter, CST443 tip
258852 RS External Mix Chop Gun without Cutter, CST443 tip
24P435 RS Internal Mix Chop Gun (High Flow) with Cutter, CST561 tip
24P436 RS Internal Mix Chop Gun (High Flow) w//o Cutter, CST561 tip

RS Gun Parts

24E512 Cutter assembly
24E448 4-Blade Cartridge Kit, 5-pack
24F602 6-Blade Cartridge Kit, 5-pack
24E449 8-Blade Cartridge Kit, 5-pack
123672 Anvil - Cartridge Cutter Head
126995 Anvil - Individual Blade Cutter Head
16K768 RS RTM and Pour Adapter
24H337 Internal Mix High Flow Kit
24H336 External Mix High Flow Kit
24M569 Roving guide, 2-hole feeder bar

Optional Cutter Chutes

16K759 Open, Short, Adjustable Chute
16K760 Closed, Short, Adjustable Chute
16K762 Open, Long, Adjustable Chute
16K763 Closed, Long, Adjustable Chute
125883 Closed, Long, Wide Chute
125884 Closed, Narrow Chute

Head Assemblies

24E426 External Mix Horizontal Front Head Kit
24E427 External Mix Vertical Front Head Kit
24E442 Internal Mix Chop Front Head Kit
24G615 Internal Mix Gel Front Head Kit

Gun Kits

24E415 Solvent AAC assembly fitting kit
24E416 Needle clamp assembly kit
24E417 Complete needle assembly
24E418 Needle repair kit
24E419 Needle AAC kit
24E420 Catalyst Seat Kit
24E421 Resin Seat Kit
24E422 Cutter adapter kit
24E423 Catalyst check valve
24E424 Check valve housing kit
24E425 Trigger air valve kit
24E428 Seat seal, 6-pack
24E435 Tip seal kit, 6-pack
24E436 Needle assembly kit, 6-pack
24E443 Front head internal check valve
24E444 Internal spring check valve kit
24E445 Internal mixer kit
24E446 Front head external check valve kit
24E447 Front head external check valve repair kit
24F706 Chopper Air Shutoff Valve
16N889 Carbide seat kit
24Y928 RS Gun ratio check kit

HOW TO READ A COMPOSITE SPRAY TIP NUMBER

Airless Composites Spray Tips - For example: CST521

1. The first three letters (CST) = Composite Spray Tip.
2. The 4th digit indicates pattern width code.
   Double this number to get the pattern width at 12 inches.
   In this case, 5 equals a 10-inch spray pattern width at a 12-inch spraying distance.
3. The last two digits indicates orifice size.
   In this case, 21 is equivalent to a .021" diameter orifice.

Impingement Composite Spray Tips - For example: CSTS75

1. The first three letters (CST) = Composite Spray Tip.
2. The 4th digit indicates S for stainless steel or T for tool steel.
3. The 5th digit indicates spray pattern width code.
   Double the number to get pattern width at 18 inches.
   In this case, 7 equals a 14-inch pattern width at an 18-inch spraying distance.

Airless Composite Spray Tips (CSTXXX)

		ORIFICE SIZE - INCHES											
IN	(MM)	0.015	0.017	0.019	0.021	0.023	0.027	0.031	0.035	0.043	0.051	0.061	0.071
4	102	215	217	219	221	223	227	231	235				
6	152	315	317	319	321	323	327	331	335	343	351		
8	203	415	417	419	421	423	427	431	435	443	451	461	471
10	254	515	517	519	521	523	527	531	535	543	551	561	571
12	305	615	617	619	621	623	627	631	635	643	651	661	671

Fan Width

Impingement Composite Spray Tips (CSTXXX)

		ORIFICE SIZE - INCHES							
IN	(MM)	0.018	0.021	0.036	0.042	0.052	0.062	0.070	0.081
6	152	S31	S32	S33	S34	S35	S36, T36	S37, T37	
8	203	S41	S42	S43	S44	S45	S46, T46	S47, T47	
10	254	S51	S52	S53	S54	S55	S56, T56	S57, T57	S58
12	305	S61	S62	S63	S64	S65	S66, T66	S67, T67	S68
14	356	S71	S72	S73	S74	S75	S76, T76	S77	S78
16	406	S81	S82	S83	S84	S85	S86, T86	S87	S88
18	457	S91	S92						

Fan Width

FRP Accessories

Heavy Duty Drum Agitator

- Heavy duty gearbox mixes high viscosity materials
- Leak-free and oil-less gearbox prevents material contamination
- Stainless steel agitator and cover for corrosion resistance
- Twin paddles thoroughly mix finishing materials
- Siphon option allows material transfer through agitator shaft
- Access port for easy sampling and inspection of material during operation

Part No.	Descripiton	Drive	HP	Length in (cm)	Material	Manual
231414	Heavy-duty back-geared agitator with elevator, drum cover and siphon kit	Air	1/2	32 (81.25)	SST	308609
231413	Same as 231414, except without siphon capability	Air	1/2	32 (81.25)	SST	308609
238157	Heavy-duty back-geared agitator	Air	1/2	32 (81.25)	SST	308609
240209	Same as 238157 with siphon kit	Air	1/2	32 (81.25)	SST	308609
238250	Siphon tube kit; fits 238157 agitator			43 (109)	SST	308609

In-line Air Filter and Coalescers

- Reusable filter removes particles down to 5 microns
- Coalescer removes contaminants down to 0.01 microns
- Auto-drain eliminates manual emptying of filters
- Built-in filters change indicator signals replacement to ensure optimal efficiency

234408 *234405* *234409*

Part No.	Description	Air Inlet in	Air Outlet in	Air Flow Capacity	Maximum Inlet Pressure
234405	Air filter/coalescer assembly (both with auto drain)	1/2 npt (f)	1/2 npt (f)	70 CFM	175 psi (1.2 MPa, 12 bar)
234406	Stage 1 - Air filter with auto drain removes contaminants to 5 microns	1/2 npt (f)	1/2 npt (f)	108 CFM	175 psi (1.2 MPa, 12 bar)
234407	Stage 2 - Coalescer with auto drain removes particles to 0.01 microns	1/2 npt (f)	1/2 npt (f)	70 CFM	175 psi (1.2 MPa, 12 bar)
234408	Air filter with auto drain removes contaminants to 5 microns	3/4 npt (f)	3/4 npt (f)	300 CFM	175 psi (1.2 MPa, 12 bar)
234409	Coalescer with auto drain removes particles to 0.01 microns	3/4 npt (f)	3/4 npt (f)	115 CFM	175 psi (1.2 MPa, 12 bar)

Instruction Manual: 309919

Pail Cover Agitator

- Lift handles for easy moving and color changes
- Locking bolts to secure cover and reduce spills
- Ideal for wall mount pumps or spray packages

Part No.	Size	Description	Drive	HP	Length in (cm)	Material	Manual	Notes
222695	5 gal (18 l)	Round prop	Air	1/4	13.25 (33.6)	SST	307968	224571 Agitator and hose
204536	5 gal (18 l)	Round prop (3 blade)	Air	1/4	13.25 (33.6)	SST	306565	224571 Agitator and metal tube
226086	5 gal (18 l)	Pail cover, round prop	Air	1/4	13.25 (33.6)	CS	306670	224571 Agitator and CS pail cover
243340	5 gal (18 l)	SST pail cover with SST agitator	Air	1/4	13.25 (33.6)	SST	306565	224571 Agitator and SST pail cover
245081	5 gal (18 l)	SST pail agitator kit for Triton pkgs	Air	1/2	13.25 (33.6)	SST	309305	
245895	5 gal (18 l)	CS pail cover with SST agitator	Air	1/4	13.25 (33.6)	CS	306565	
224572	10 gal (37 l)	Single round prop (3 blade)	Air	1/4	17.25 (43.8)	SST	306565	

Fluid Heater Kit

- Variable heating levels for consistent viscosity control
- Approved for hazardous locations
- 7250 psi (500 bar) maximum working pressure
- Stainless steel construction is compatible with polyester resins and coats

Part No.	Description
16N014	Viscon Heater Kit - 120V
16N015	Viscon Heater Kit - 240V

Part No.	Description
16N018	Viscon HP Heater Kit – 120V
16N019	Viscon HP Heater Kit – 240V
16N016	Viscon HP Hazardous Location Heater Kit – 120V
16N017	Viscon HP Hazardous Location Heater Kit – 240V
16N119	Heater Mount Kit

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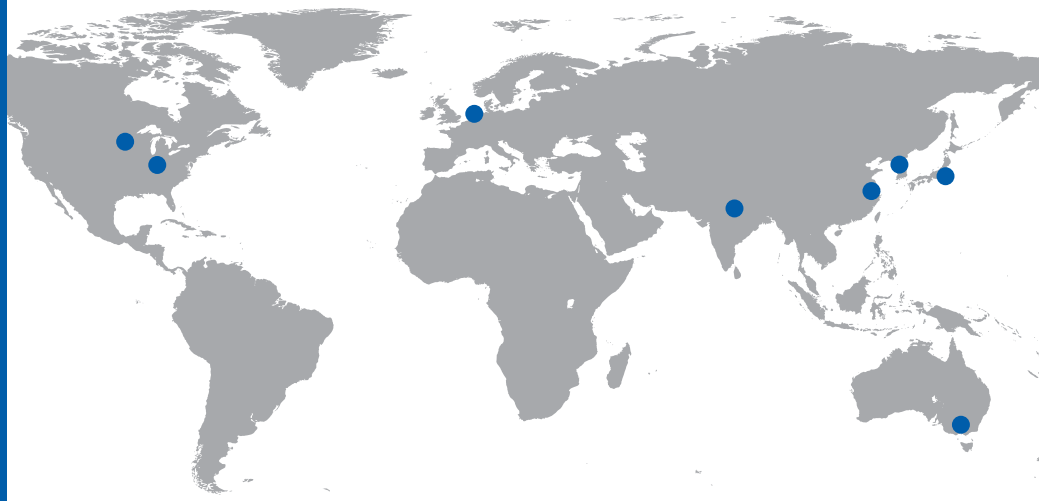

Graco has you covered.

Facilities Worldwide for Global Support

Quality First

At Graco we pride ourselves on providing best-in-class products. Engineered solutions are manufactured in our own facilities, with the highest standards in the industry. We provide you with world-class customer support and expertise to help solve your fluid management challenges.

Global Reach

Graco has facilities across the globe to provide you with the products and service *you* need, where *you* live. Plus, Graco has dedicated field experts in all areas of the world to support the products we sell.

Product Capabilities

Graco has a broad range of products to provide solutions that meet your needs. Our products are engineered and tested to perform in the harshest environments so you can be certain your equipment is protected and working at peak performance.

Contact us today!

Call **800-746-1334** to speak with a Graco representative,
or visit **www.graco.com** for more information.

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