



# 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

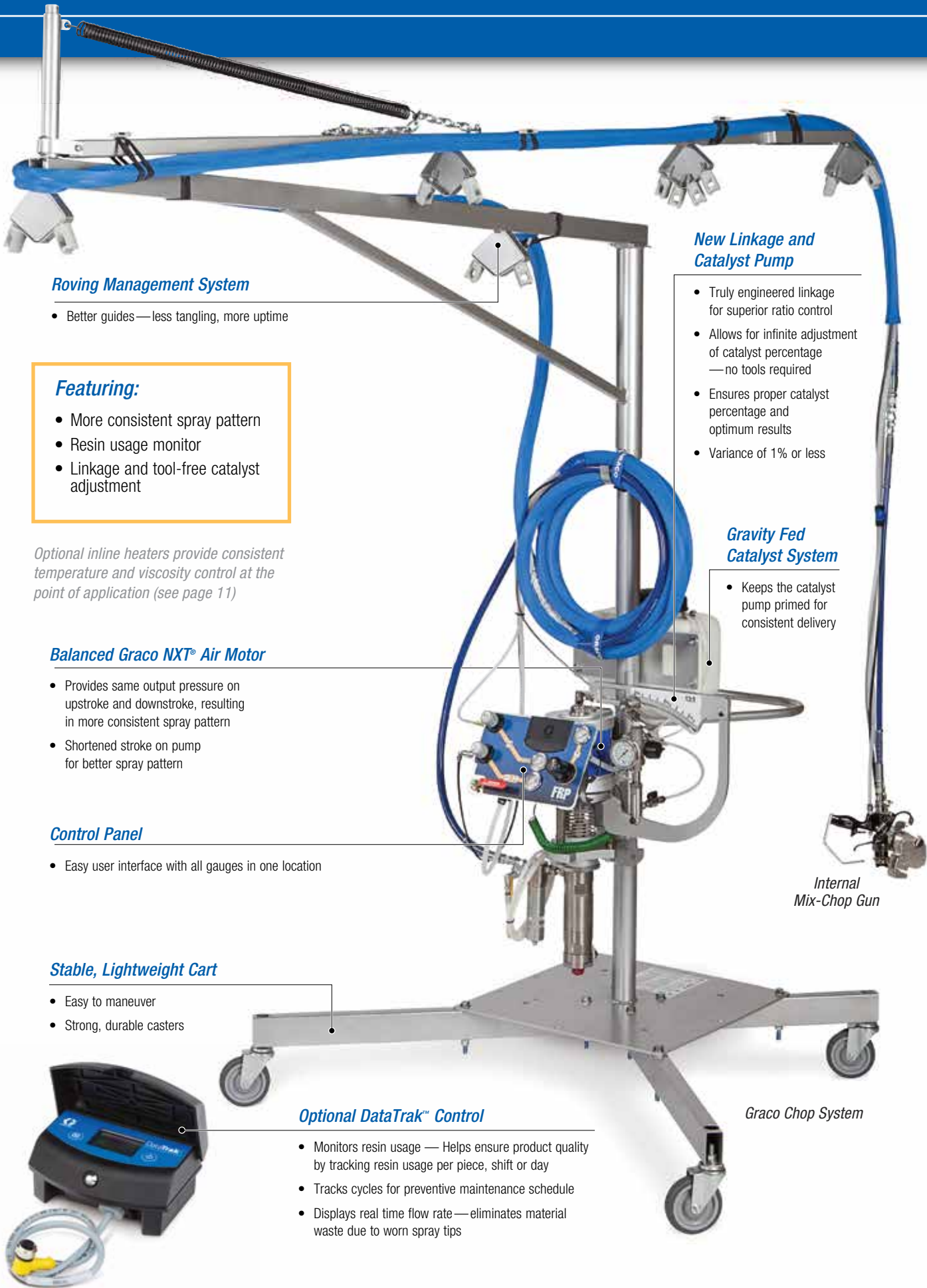
Graco FRP equipment features MACT (Maximum Achievable Control Technologies)-compliant RS spray guns. As regulations change to require new technologies, Graco promises to be a smart investment for the future of your business.

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)*

### 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

### Stable, Lightweight Cart

- Easy to maneuver
- Strong, durable casters

### 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

*Internal Mix-Chop Gun*

*Graco Chop System*

### 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



# Easy to use, lightweight guns

## Graco RS Chop Gun with Cutter

### Magnetic Cutter Drum

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

### 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

## Graco RS Gel Coat Gun

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



### Constant Control

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

### 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



### 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!

### 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



# Fast switch tip design – A Graco Exclusive



Impingement Tip



Air Assisted Airless Tip

OR



*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

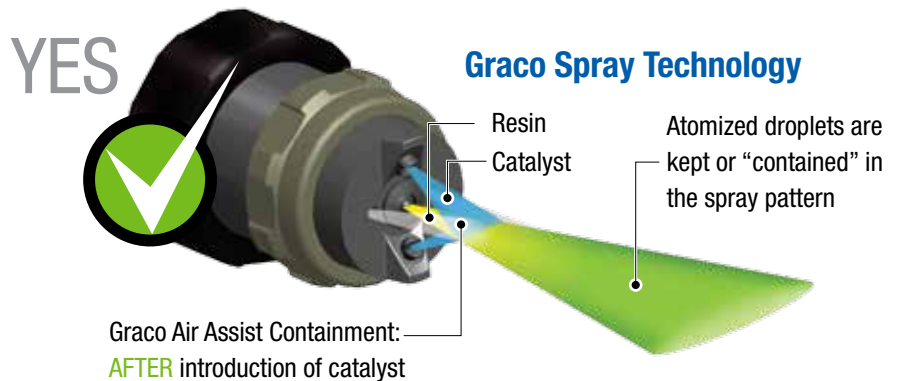
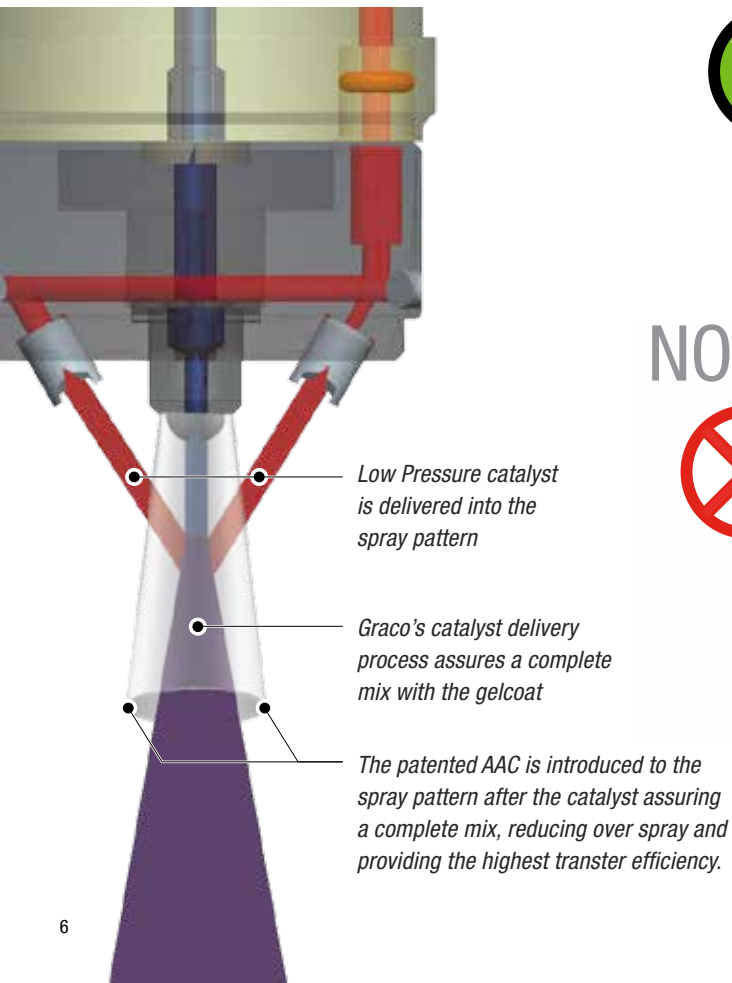


## Air Assist Containment® (AAC) – control and contain your spray pattern

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.





# Systems

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





## 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												
		0.015	0.017	0.019	0.021	0.023	0.027	0.031	0.035	0.043	0.051	0.061	0.071	
Fan Width	IN (MM)													
	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	

### Impingement Composite Spray Tips (CSTXXX)

		ORIFICE SIZE - INCHES								
		0.018	0.021	0.036	0.042	0.052	0.062	0.070	0.081	
Fan Width	IN (MM)									
	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							



## 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.	Description	Drive	HP	Length in (cm)	Material	Manual
231414	Heavy-duty back-gearred agitator with elevator, drum cover and siphon kit	Air	1/2	32 (81.25)	SST	<a href="#">308609</a>
231413	Same as 231414, except without siphon capability	Air	1/2	32 (81.25)	SST	<a href="#">308609</a>
238157	Heavy-duty back-gearred agitator	Air	1/2	32 (81.25)	SST	<a href="#">308609</a>
240209	Same as 238157 with siphon kit	Air	1/2	32 (81.25)	SST	<a href="#">308609</a>
238250	Siphon tube kit; fits 238157 agitator			43 (109)	SST	<a href="#">308609</a>

## 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



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	<a href="#">307968</a>	224571 Agitator and hose
204536	5 gal (18 l)	Round prop (3 blade)	Air	1/4	13.25 (33.6)	SST	<a href="#">306565</a>	224571 Agitator and metal tube
226086	5 gal (18 l)	Pail cover, round prop	Air	1/4	13.25 (33.6)	CS	<a href="#">306670</a>	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	<a href="#">306565</a>	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	<a href="#">309305</a>	
245895	5 gal (18 l)	CS pail cover with SST agitator	Air	1/4	13.25 (33.6)	CS	<a href="#">306565</a>	
224572	10 gal (37 l)	Single round prop (3 blade)	Air	1/4	17.25 (43.8)	SST	<a href="#">306565</a>	

## 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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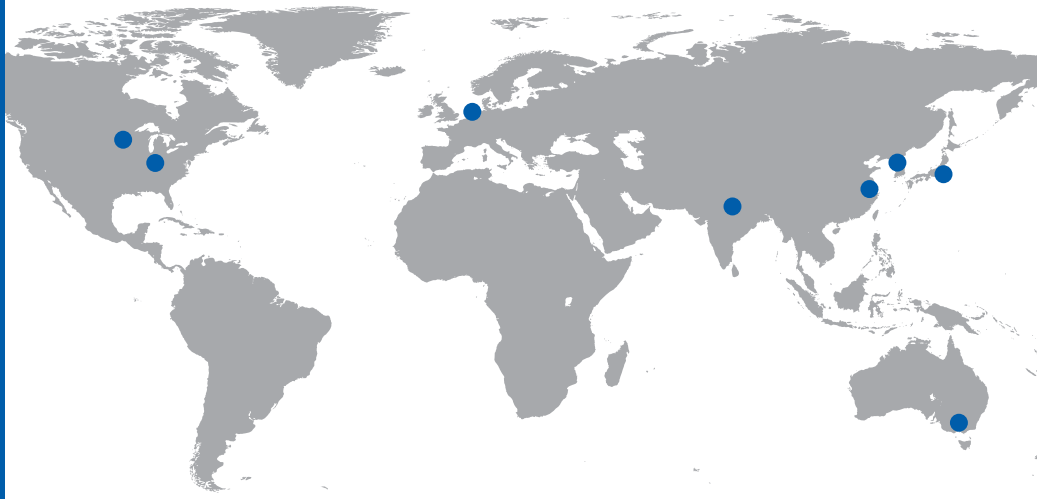
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# Graco has you covered.

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.

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or visit [www.graco.com](http://www.graco.com) for more information.

