



E-Flo[®] SP

Electric Pumps + Supply Systems
for Sealants and Adhesives



PROVEN QUALITY. LEADING TECHNOLOGY.

E-Flo SP Electric Pump + Supply Systems

For industrial sealant and adhesive applications, Graco Electric Pumps and Supply Systems improve process performance, prevent downtime, reduce maintenance costs and increase electrical efficiency. E-Flo SP electric supply pumps are powered by an electric driver which provides real-time, integrated, closed-loop flow control. Trials have proven that the Graco solution provides superior performance and efficiency when compared to pneumatic supply pumps in constant pressure systems.

The Graco E-Flo SP enables the evolution of control strategies from constant-pressure to variable-flow. This revolutionary electric supply pump technology can be coupled with our Precision Continuous Flow (PCF) to provide real-time, closed-loop flow control.



Save Energy

More efficient than pneumatic, constant pressure systems

Prevent Downtime

The E-Flo SP lets users know how much work has been done by the pump, preventing unplanned maintenance

Lower Maintenance Costs

Coordinates multiple pump loads to evenly distribute, load and reduce wear

Improve Quality

Smooth, rapid changeovers and consistent flow

Improve Work Environment

Quiet electric motor

Improve Your Productivity + Throughput

Quiet Electric Motor

- Reduced noise levels

High Power Electric Drive

- High cycle rate
- Improved control
- No icing

Easy to Maintain

- Improved serviceability with fewer parts, faster repairs, and lower ownership costs



Improved Control

- Accurately control system pressure and flow rate
- Integrate with the PLC and robot controllers
- Local or remote commissioning, control and monitoring

Proven Pump Technology

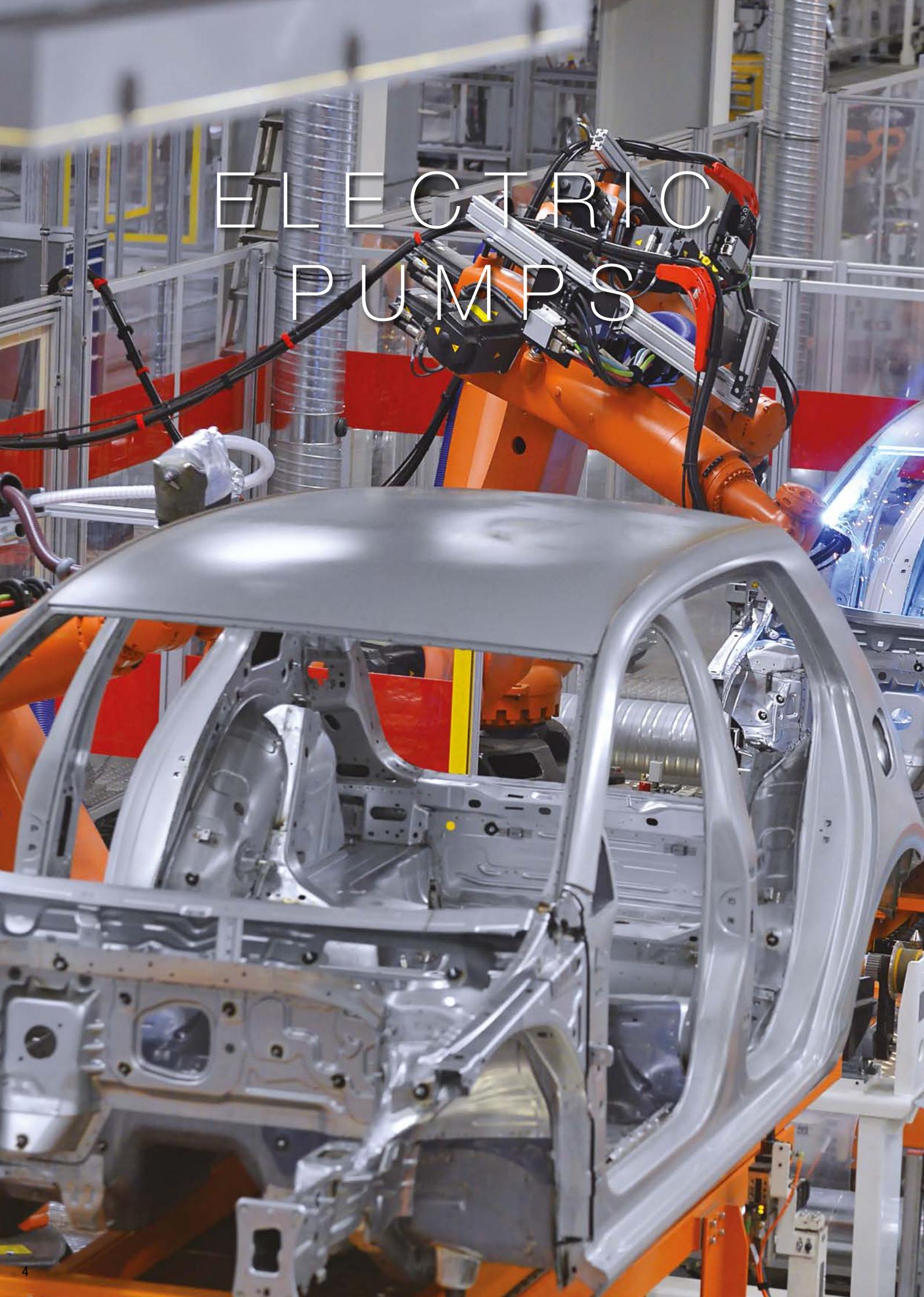
- Available with Check-Mate® or Dura-flo® lowers
- Volumes from 100 - 500 cc
- Delivers fluid pressures up to 414 bar (6000 psi)
- Available as a stand-alone pump or in 20L, 30L, 60L or 200L Supply System (RAM)

Energy Efficiency

The E-Flo SP provides the ability to impact process performance through a tighter control of the pump pressure and material flow rate. With real-time flow control strategies, systems can be designed and controlled to deliver only the energy that is required for the application process.

In addition to drastically increasing efficiency, these advanced control strategies also optimize process performance, reduce system downtime, and decrease total operating costs.

ELECTRIC PUMPS



E-Flo SP Electric Pump Ordering Information

Pump Style		Pump Type		Pump Size		Pump Material		Pump Material		Interface and Power Options							
E	Electric Pump	C	Check-Mate	100	100cc Check-Mate	C	Carbon Steel	S	SevereDuty	1	None	240 VAC					
										2	None	480 VAC					
				200	200cc Check-Mate	S	Stainless Steel	M	MaxLife	3	ADM	240 VAC					
										4	ADM	480 VAC					
				250	250cc Check-Mate												
																500	500cc Check-Mate
				D	Dura-Flo	115	115cc Dura-Flo	C	Carbon Steel	S	SevereDuty						
						145	145cc Dura-Flo									C	Carbon Steel
						180	180cc Dura-Flo	S	Stainless Steel								
						290	290cc Dura-Flo										
						430	430cc Dura-Flo										
						430	430cc Dura-Flo	S	Stainless Steel	M	MaxLife						



E-Flo SP Electric Pump Technical Specifications

	US	Metric
Driver Thrust	4,840 lbs	21.5 kN, 2,200 kg
Stroke Length	4.75 in.	120.7 mm
Maximum fluid operating temperature	180° F	82.3° C
Maximum driver cycle rate	25 cycles per minute	
Driver line voltage rating	200-240 VAC, single phase, 50/60 Hz - ttransformer option available (400-480 VAC)	
Driver peak input amperage	20 A per phase @ full load amps with all devices operating at maximum capabilities.	
Input current	20 A maximum	
Fluid Outlet Size - all pump materials		
Check-Mate 100, 200, 250	1 in. NPT, female	
Check-Mate 500	1-1/2 in. NPT, female	
Dura-Flow 115, 145, 180, 220, 290	1 in. NPT, female	
Dura-Flow 430	1-1/2 in. NPT, female	

			Pump Working (Stall) Pressure			Max Dynamic (Run) Pressure		
System Pressure	Name	Lower Size	psi	bar	MPa	psi	bar	MPa
	Check-Mate	100CS/CM/SS/SM	6000	414	41.4	6000	414	41.4
	Check-Mate	200CS/CM/SS/SM	4200	290	29.0	3905	269	26.9
	Check-Mate	250CS/CM/SS/SM	3400	234	23.4	2122	215	21.5
	Dura-Flow	500CS/CM/SS/SM	1600	110	11.0	1487	103	10.3
	Dura-Flow	145SS	5600	386	38.6	5204	359	35.9
	Dura-Flow	180SS	4500	310	31.0	4164	287	28.7
	Dura-Flow	220SS	3700	255	25.5	3470	239	23.9
	Dura-Flow	290SS	2800	193	19.3	2602	179	17.9
	Dura-Flow	430CS/SS/SM	1900	131	13.1	1735	120	12.0
	Dura-Flow	115CS	6000	414	41.4	6000	414	41.4
	Dura-Flow	145CS	5600	386	38.6	5204	359	35.9
	Dura-Flow	180CS	4500	310	31.0	4164	287	28.7
	Dura-Flow	220CS	3700	255	25.5	3470	239	23.9
	Dura-Flow	290CS	2800	193	19.3	2602	179	17.9

		Name	Lower Size	Flow Rate (cc/min)	Flow Rate (gpm)	Outlet Fitting Size
Flow Rate Table	Check-Mate	100CS/CM/SS/SM		2500	0.66	1 in. NPT female
	Check-Mate	200CS/CM/SS/SM		5000	1.32	1 in. NPT female
	Check-Mate	250CS/CM/SS/SM		6250	1.65	1 in. NPT female
	Dura-Flow	500CS/CM/SS/SM		12500	3.30	1-1/2 in. NPT female
	Dura-Flow	145SS		3625	0.96	1 in. NPT female
	Dura-Flow	180SS		4500	1.19	1 in. NPT female
	Dura-Flow	220SS		550	1.45	1 in. NPT female
	Dura-Flow	290SS		7250	1.92	1 in. NPT female
	Dura-Flow	430CS/SS/SM		10750	2.84	1-1/2 in. NPT female
	Dura-Flow	115CS		2875	0.76	1 in. NPT female
	Dura-Flow	145CS		3625	0.96	1 in. NPT female
	Dura-Flow	180CS		4500	1.19	1 in. NPT female
	Dura-Flow	220CS		5500	1.45	1 in. NPT female
	Dura-Flow	290CS		7250	1.92	1 in. NPT female



SUPPLY SYSTEMS

E-Flo SP Supply System Ordering Information

Supply System Style		Pump Type		Ram Size		Platen and Seal Options		Interface and Power Options		
EM	Electric Supply System	C1	Check-Mate 100cc, CS	1	D60	1	No Platen	1	None	240 VAC
		C2	Check-Mate 100cc, CM	2	D200	2	20I (5-gal), F, SW, CS, Nitrile	2	None	480 VAC
		C3	Check-Mate 100cc, SS	3	D200s	3	20I (5-gal), F, SW, CS, Polyurethane	3	ADM	240 VAC
		C4	Check-Mate 100cc, SM			4	20I (5-gal), F, DW, CS, Nitrile	4	ADM	480 VAC
		C5	Check-Mate 200cc, CS			5	20I (5-gal), F, DW, CS, Polyurethane			
		C6	Check-Mate 200cc, CM			6	20I (5-gal), F, SW, SS, PTFE Coated			
		C7	Check-Mate 200cc, SS			7	200I (55-gal),DR, PTFE Coated AL, EPDM			
		C8	Check-Mate 200cc, SM			8	200I (55-gal),DR, AL, EPDM			
		C9	Check-Mate 250cc, CS			9	200I (55-gal),DR, AL, Neoprene			
		CA	Check-Mate 250cc, CM			A	200I (55-gal),DR, AL, EPDM Hose			
		CB	Check-Mate 250cc, SS							
		CC	Check-Mate 250cc, SM							
		CD	Check-Mate 500cc, CS							
		CE	Check-Mate 500cc, CM							
		CF	Check-Mate 500cc, SS							
		CG	Check-Mate 500cc, SM							
		D1	Dura-Flo 115cc, CS							
		D2	Dura-Flo 145cc, CS							
		D3	Dura-Flo 145cc, SS							
		D4	Dura-Flo 180cc, CS							
		D5	Dura-Flo 180cc, SS							
		D6	Dura-Flo 220cc, CS							
		D7	Dura-Flo 220cc, SS							
		D8	Dura-Flo 290cc, CS							
		D9	Dura-Flo 290cc, SS							
		DA	Dura-Flo 430cc, CS							
		DB	Dura-Flo 430cc, SS							
		DC	Dura-Flo 430cc, SM							



Not all supply system configurations are listed. Please contact your Graco representative for a comprehensive list of available options.

** Dura-Flo supply systems can be made available on request. Please contact your Graco representative.*

E-Flo SP Supply System

Technical Specifications Information

	US	Metric
Driver Thrust	4,840 lbs	21.5 kN, 2.200 kg
Stroke Length	4.75 in.	120.7 mm
Maximum fluid operating temperature	180° F	82.3° C
Maximum driver cycle rate	25 cycles per minute	
Driver line voltage rating	200-240 VAC, single phase, 50/60 Hz	
Driver peak input amperage	20 A per phase @ Full load amps with all devices operating at maximum capabilities.	
Air inlet size (supply system)	3/4 npt(f)	
Ambient operating temperature range (supply system)	32-120°F	0-49°C
Fluid Outlet Size - all pump materials		
Check-Mate 100, 200, 250	1 in. NPT, female	
Check-Mate 500	1-1/2 in. NPT, female	
Dura-Flow 115, 145, 180, 220, 290	1 in. NPT, female	
Dura-Flow 430	1-1/2 in. NPT, female	

	Name	Lower Size	Pump Working (Stall) Pressure			Max Dynamic (Run) Pressure		
			psi	bar	MPa	psi	bar	MPa
System Pressure	Check-Mate	100CS/CM/SS/SM	6000	414	41.4	6000	414	41.4
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	Dura-Flow	290SS	2800	193	19.3	2602	179	17.9
	Dura-Flow	430CS/SS/SM	1900	131	13.1	1735	120	12.0
	Dura-Flow	115CS	6000	414	41.4	6000	414	41.4
	Dura-Flow	145CS	5600	386	38.6	5204	359	35.9
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	Dura-Flow	115CS	2875	0.76	1 in. NPT female
	Dura-Flow	145CS	3625	0.96	1 in. NPT female
	Dura-Flow	180CS	4500	1.19	1 in. NPT female
	Dura-Flow	220CS	5500	1.45	1 in. NPT female
	Dura-Flow	290CS	7250	1.92	1 in. NPT female



TANDEM SYSTEMS

E-Flo SP Tandem System Ordering Information

1. Configure Supply Systems			
1.A	Supply System "A"		
	Select system A with an ADM		
1.B	Supply System "B"		
	Select system B without an ADM		
2. Tandem Connection Kit		Product Number	Quantity
	Select Tandem Connection Kit - 25E595 (Quantity 1)	25E595	1
3. Accessories			
3.A	Depressurization/Recirculation Kit	Product Number	Quantity
	For Carbon Steel Pump Lowers	25E618	2
	For Stainless Steel Pump Lowers	25E619	2
3.B	Fluid Filter Kit	25E620	1
3.C	Extension Cables for Fluid Filter Monitoring Pressure Transducers		
	1 meter	124943	2
	2 meters	122497	2
	3 meters	124409	2
	7.5 meters	17H363	2
	16 meters	17H364	2
3.D	Low Level Sensor Kit	25E447	2
4. Hoses			
	For Check-Mate Pump Lower sizes of 100cc, 200cc, 250cc	Maximum 345 Bar (5,000 psi) pressure rating	
	For Check-Mate Pump Lower size of 500cc	Maximum 138 Bar (2,000 psi) pressure rating	
	For Dura-Flo Pump Lower sizes of 115cc, 145cc, 180cc, 200cc, 220cc, 290cc	Maximum 345 Bar (5,000 psi) pressure rating	
	For Dura-Flo Pump Lower size of 430cc	Maximum 138 Bar (2,000 psi) pressure rating	
Notes			
<p>* One ADM can control up to 3 Tandem Systems. ** Rams come with Empty Level Sensors already installed</p>			



ABOUT GRACO

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

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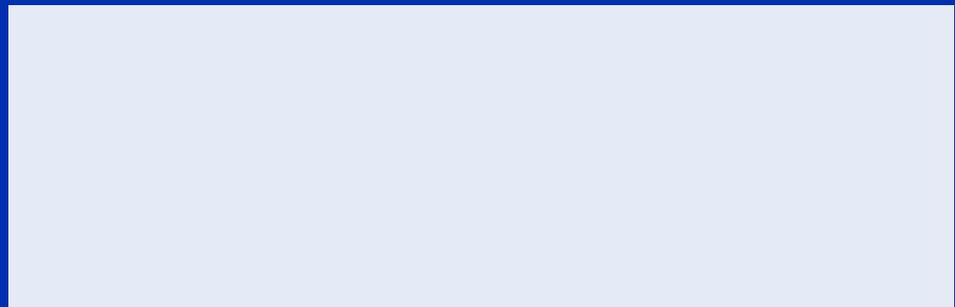
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All written and visual data contained in this document is based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Graco is certified ISO 9001.



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