

# E-FIO®SP<sup>TM</sup>

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 Cost**

Coordinate multiple pump loads to evenly distribute load and reduce wear

### **Improve Quality**

Smooth, rapid changeovers and consistent flow

### **Improve Work Enviornment**

Quiet electric motor



### Improve Your Productivity + Throughput

### **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.

#### **Quiet Electric Motor**

· Reduced noise levels



### Improved Control

### High Power Electric Drive

- High Cycle Rate
- Improved Control
- No Icing

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

### Easy to Maintain

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

### Proven Pump Technology

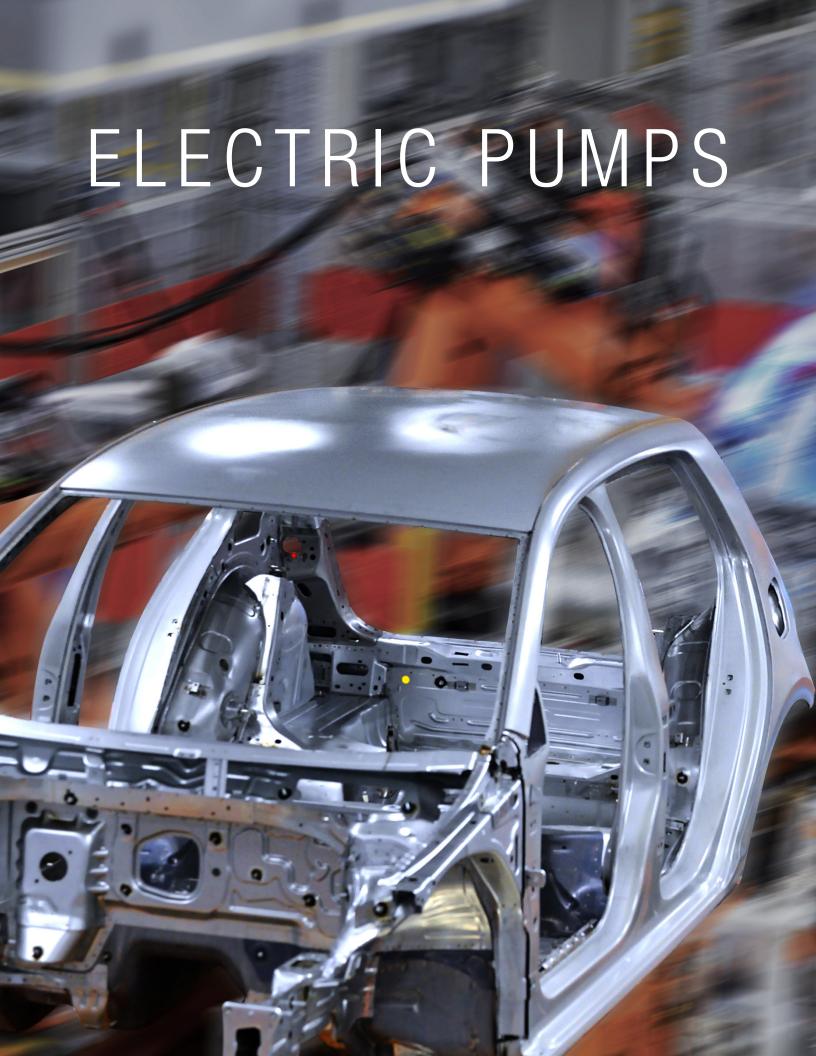
- Available with Check-Mate<sup>®</sup> or Dura-Flo<sup>®</sup> lowers
- Volumes from 100 500 cc
- Delivers fluid pressures up to 6000 psi
- Available as stand-alone pump in 20L, 30L, 60L or 200L Supply System (RAM) or 300 Gallon or 1000L UniDrum

### **Elite Construction**

For systems that need to supply highly abrasive thermal interface materials (TIMs), silicones, urethanes, and epoxies, E-Flo SP configuration options include pumps and lowers with Elite construction.

- With wear-resistant seals and surfaces, Elite Check-Mate Pumps can last 170 times longer than standard equipment.\*
- Elite Check-Mate Pumps with 100 cc lowers are proven to deliver 51,000 gallons (194,000 liters) of highly abrasive material across more than 1 million cycles.

\*Data verified when pumping representative thermal interface material (TIM) in Graco test environment



### **E-Flo SP Electric Pump Ordering Information**

Р	Pump Style Pump Type Pump Siz		ump Size	Pump Material		Pump Material		Interface and Power Options				
E	Electric	С	Check-Mate	100	100cc Check-	С	Carbon Steel	S	Severe Duty	1	None	240 VAC
	Pump				Mate				2010.0 2 4.0	2	None	480 VAC
				200	200cc Check-	S	Stainless Steel	$ _{M} $	MaxLife <sup>®</sup>	3	ADM	240 VAC
				200	Mate	١	Stailliess Steel	IVI	IVIANLITE	4	ADM	480 VAC
				250	250cc Check- Mate			Е	Elite			
				500	500cc Check- Mate							
		D	Dura-Flo	115	115cc Dura-Flo	С	Carbon Steel	S	SevereDuty			
				145	145cc Dura-Flo	С	Carbon Steel	S	SevereDuty			
				180	180cc Dura-Flo	S	Stainless Steel					
				220	220cc Dura-Flo							
				290	290cc Dura-Flo							
				430	430cc Dura-Flo							
				430	430cc Dura-Flo	S	Stainless Steel	М	MaxLife			







### **E-Flo SP Electric Pump Technical Specifications**

US	Metric		
4115 lbs	1866kg		
4.75 in	120.7mm		
180° F	82.3° C		
212° F	100° C		
167° F	75° C		
25 cycles per minute			
200-240 VAC, single phase, 50/60 Hz Transformer option available (400-480 VAC)			
20 A per phase @ full load*			
20 A maximum			
1 in. NPT, female			
1-1/2 in. NPT, female			
1 in. NPT, female			
1-1/2 in. NPT, female			
	4115 lbs 4.75 in 180° F  212° F 167° F 25 cycles per minute 200-240 VAC, single phase, 50/60 Transformer option available (400- 20 A per phase @ full load* 20 A maximum  1 in. NPT, female 1-1/2 in. NPT, female 1 in. NPT, female		

<sup>\*</sup> Full load amps with all devices operating at maximum capabilities.

		Max Working/Rui Setp		Max Deadhea	ad Pressure
Name	Lower Size	psi	bar	psi	bar
Check-Mate	100CS/CM/SS/SM	6000	414	6000	414
Check-Mate	100CE	4200	290	5500	380
Check-Mate	200CS/CM/SS/SM/CE	3220	222	4200	290
Check-Mate	250CS/CM/SS/SM	2580	178	3400	234
Check-Mate	500CS/CMSS/SM	1290	88.9	1600	110
Dura-Flo	145SS	4440	306	5600	386
Dura-Flo	180SS	3580	247	4500	310
Dura-Flo	220SS	2930	202	3700	255
Dura-Flo	290SS	2220	153	2800	193
Dura-Flo	430CS/SS/SM	1500	103	1900	131
Dura-Flo	115CS	5600	386	6000	414
Dura-Flo	145CS	4440	306	5600	386
Dura-Flo	180CS	3580	247	4500	310
Dura-Flo	220CS	2930	202	3700	255
Dura-Flo	290CS	2220	153	2800	193

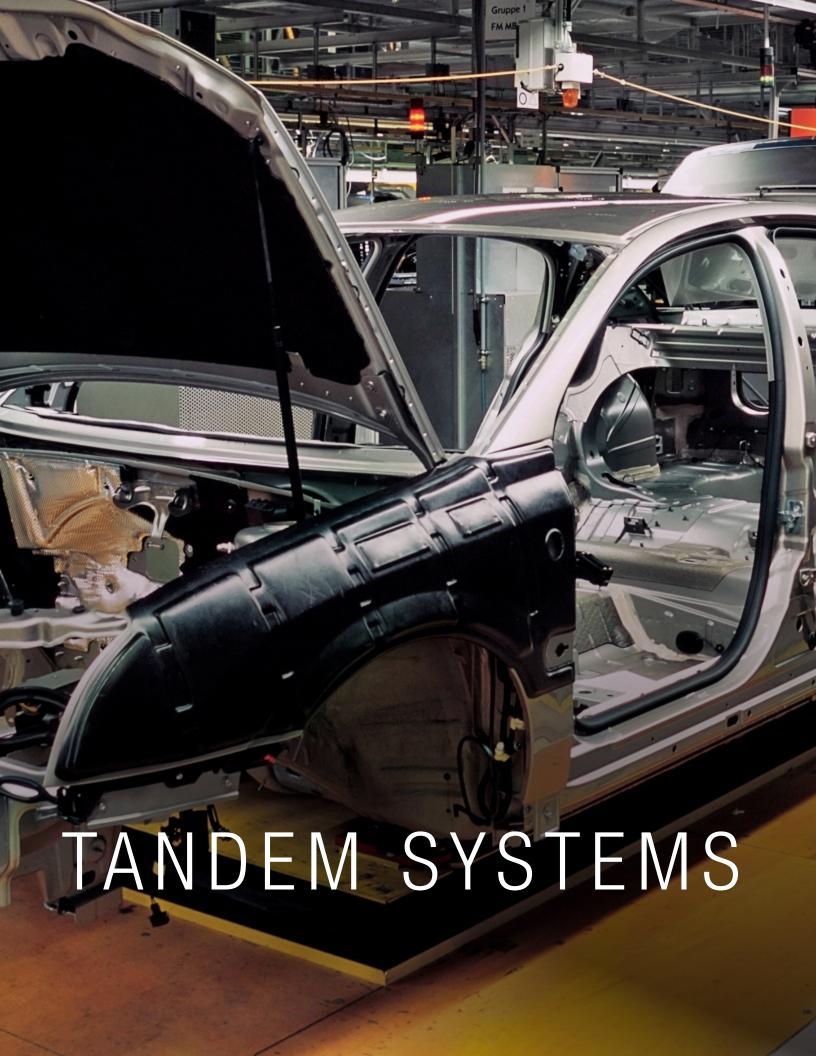
Name	Lower Size	Flow Rate (cc/min)	Flow Rate (gpm)	Outlet Fitting Size
Check-Mate	100CS/CM/SS/SM/CE	2500	0.66	1 in. NPT female
Check-Mate	200CS/CM/SS/SM/CE	5000	1.32	1 in. NPT female
Check-Mate	250CS/CM/SS/SM	6250	1.65	1 in. NPT female
Check-Mate	500CS/CM/SS/SM	12500	3.30	1-1/2 in. NPT female
Dura-Flo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



### **E-Flo SP Supply System Ordering Information**

Supply System Style		Pump Type		Ram Size			Platen and Seal Options		Interface and Power Options		
		C1	Check-Mate 100cc, CS	1	D60	1	No Platen	1	None	240 VA	
EM	Electric Supply	C2	Check-Mate 100cc, CM	2	D200	2	20I (5-gal), F, SW, CS, Nitrile	2	None	480 VA	
L1V1	System	C3	Check-Mate 100cc, SS	3	D200s	3	20I (5-gal), F, SW, CS, Polyure- thane	3	ADM	240 VA	
		C4	Check-Mate 100cc, SM			4	20I (5-gal), F, DW, CS, Nitrile	4	ADM	480 VA	
		C5	Check-Mate 200cc, CS			5	20I (5-gal), F, DW, CS, Polyure- thane				
		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	1		8	2001 (55-gal), DR, AL, EPDM				
		C9	Check-Mate 250cc, CS			9	2001 (55-gal), DR, AL, Neoprene				
		CA	Check-Mate 250cc, CM			А	2001 (55-gal), DR, AL, EPDM Hose				
		СВ	Check-Mate 250cc, SS								
		CC	Check-Mate 250cc, SM	7							
		CD	Check-Mate 500cc, CS								
		CE	Check-Mate 500cc, CM								
		CF	Check-Mate 500cc, SS								
		CG	Check-Mate 500cc, SM	1							
		CJ	Check-Mate 200cc, CS, Elite	1							
		СН	Check-Mate 100cc, CS, Elite	1							
		D1	Dura-Flo 115cc, CS	1							
		D2	Dura-Flo 145cc, CS	1							
		D3	Dura-Flo 145cc, SS	1			G	<u> </u>			
		D4	Dura-Flo 180cc, CS	7			GRANGO GRANGO				
		D5	Dura-Flo 180cc, SS						(a), (b)		
		D6	Dura-Flo 220cc, CS							22	
		D7	Dura-Flo 220cc, SS	1							
		D8	Dura-Flo 290cc, CS	1			EFFIO SP				
		D9	Dura-Flo 290cc, SS					132			
		DA	Dura-Flo 430cc, CS				T				
		DB	Dura-Flo 430cc, SS	1							
		DC	Dura-Flo 430cc, SM						7.11		

comprehensive list of available options.



### **E-Flo SP Tandem System Ordering Information**

1. Co	nfigure 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. Tar	ndem Connection Kit	Product Number	Quantity
	Select Tandem Connection Kit - 25E595 (Quantity 1)	25E595	1
3. Ac	cessories		
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. Ho	ses		
	For Check-Mate Pump Lower sizes of 100cc, 200cc, 250cc	Maximum 5,000 psi pres	sure rating
	For Check-Mate Pump Lower size of 500cc	Maximum 2,000 psi pres	sure rating
	For Dura-Flo Pump Lower sizes of 115cc, 145cc, 180cc, 200cc, 220cc, 290cc	Maximum 5,000 psi pres	sure rating
	For Dura-Flo Pump Lower size of 430cc	Maximum 2,000 psi pres	sure rating
Notes			
* Ram	s come with Empty Level Sensors already installed		



### **E-Flo SP UniDrum Ordering Information**

Part Number	Material	Pump Size	Pump Type	Voltage	Left/Right Hand Door
26D395		290cc	CS/Severe Duty	230V	Left
26D396		290cc	CS/Severe Duty	400V/Y	Left
26D397		290сс	CS/Severe Duty	480V	Left
26D392		430cc	CS/Severe Duty	230V	Left
26D393	Carbon Steel	430cc	CS/Severe Duty	400V/Y	Left
26D394	Garbon Steel	430cc	CS/Severe Duty	480V	Left
26D398		430cc	SS/MaxLife	230V	Left
26D399		430cc	SS/MaxLife	400V/Y	Left
26D400		430cc	SS/MaxLife	480V	Left
26D416		430cc	CS/Severe Duty	400V/Y	Left
26D401		430cc	SS/MaxLife	230V	Left
26D402	Stainless Steel	430cc	SS/MaxLife	400V/Y	Left
26D403		430cc	SS/MaxLife	480V	Left
26D407		290cc	CS/Severe Duty	230V	Right
26D408		290cc	CS/Severe Duty	400V/Y	Right
26D409		290сс	CS/Severe Duty	480V	Right
26D404		430cc	CS/Severe Duty	230V	Right
26D405	Carbon Steel	430cc	CS/Severe Duty	400V/Y	Right
26D406	Garbon Steer	430cc	CS/Severe Duty	480V	Right
26D410		430cc	SS/MaxLife	230V	Right
26D411		430cc	SS/MaxLife	400V/Y	Right
26D412		430cc	SS/MaxLife	480V	Right
26D417		430cc	CS/Severe Duty	400V/Y	Right
26D413		430cc	SS/MaxLife	230V	Right
26D414	Stainless Steel	430cc	SS/MaxLife	400V/Y	Right
26D415		430cc	SS/MaxLife	480V	Right

### **E-Flo SP UniDrum Ordering Information**

Part Number	Material	Pump Size	Pump Type	Voltage	Left/Right Hand Door
26D371		290cc	CS/Severe Duty	230V	Left
26D372		290cc	CS/Severe Duty	400V/Y	Left
26D373		290сс	CS/Severe Duty	480V	Left
26D368		430cc	CS/Severe Duty	230V	Left
26D369	Carbon Steel	430cc	CS/Severe Duty	400V/Y	Left
26D370		430cc	CS/Severe Duty	480V	Left
26D374		430cc	SS/MaxLife	230V	Left
26D375		430cc	SS/MaxLife	400V/Y	Left
26D376		430cc	SS/MaxLife	480V	Left
26D377		430cc	SS/MaxLife	230V	Left
26D378	Stainless Steel	430cc	SS/MaxLife	400V/Y	Left
26D379		430cc	SS/MaxLife	480V	Left
26D383		290сс	CS/Severe Duty	230V	Right
26D384		290сс	CS/Severe Duty	400V/Y	Right
26D385		290сс	CS/Severe Duty	480V	Right
26D380		430cc	CS/Severe Duty	230V	Right
26D381	Carbon Steel	430cc	CS/Severe Duty	400V/Y	Right
26D382		430cc	CS/Severe Duty	480V	Right
26D386		430cc	SS/MaxLife	230V	Right
26D387		430cc	SS/MaxLife	400V/Y	Right
26D388		430cc	SS/MaxLife	480V	Right
26D389		430cc	SS/MaxLife	230V	Right
26D390	Stainless Steel	430cc	SS/MaxLife	400V/Y	Right
26D391		430cc	SS/MaxLife	480V	Right

### **Accessories**

26D318	Kit, UniDrum, Tandem, Cables
26D425**	Kit, ADM, Light Tower, UniDrum
26D426	Kit, Communications Gateway Module, Uni- Drum, Ethernet IP
26D427	Kit, Communications Gateway Module, Uni- Drum, DeviceNet
26D428	Kit, Communications Gateway Module, Uni- Drum, ProfiNet
26D429	Kit, Communications Gateway Module, Uni- Drum, ProfiBus

<sup>\*\*</sup>You must order an ADM/Light Tower kit for one single unit, or one tandem pair system. Only one ADM/Light Tower kit is required for a tandem system.



## Graco has you covered

### **Unmatched Quality.**

Our focus on continued innovation keeps Graco Fluid Automation at the forefront of fluid handling technology. We typically reinvest three times the industry average into research and development. Our mission is to provide customers with products that result in the **lowest total cost of ownership** while maximizing product quality and business success.

### Global Presence.

With facilities located in Europe, Asia Pacific and the United States, Graco provides a personalized, **end-to-end partnership experience**. Our engineers will lead the solution planning, testing and refining of your solution in our regional labs to ultimately overseeing the product installation process.

### **Global Support.**

After installation, **in-person support** will be available from our worldwide distribution network of trained and certified distributors who offer relevant experience, product knowledge and responsive service.

There is no better reassurance than Graco technology, product innovation and the people committed to helping you succeed all day, every day.

### Contact us today!

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



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