



# 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

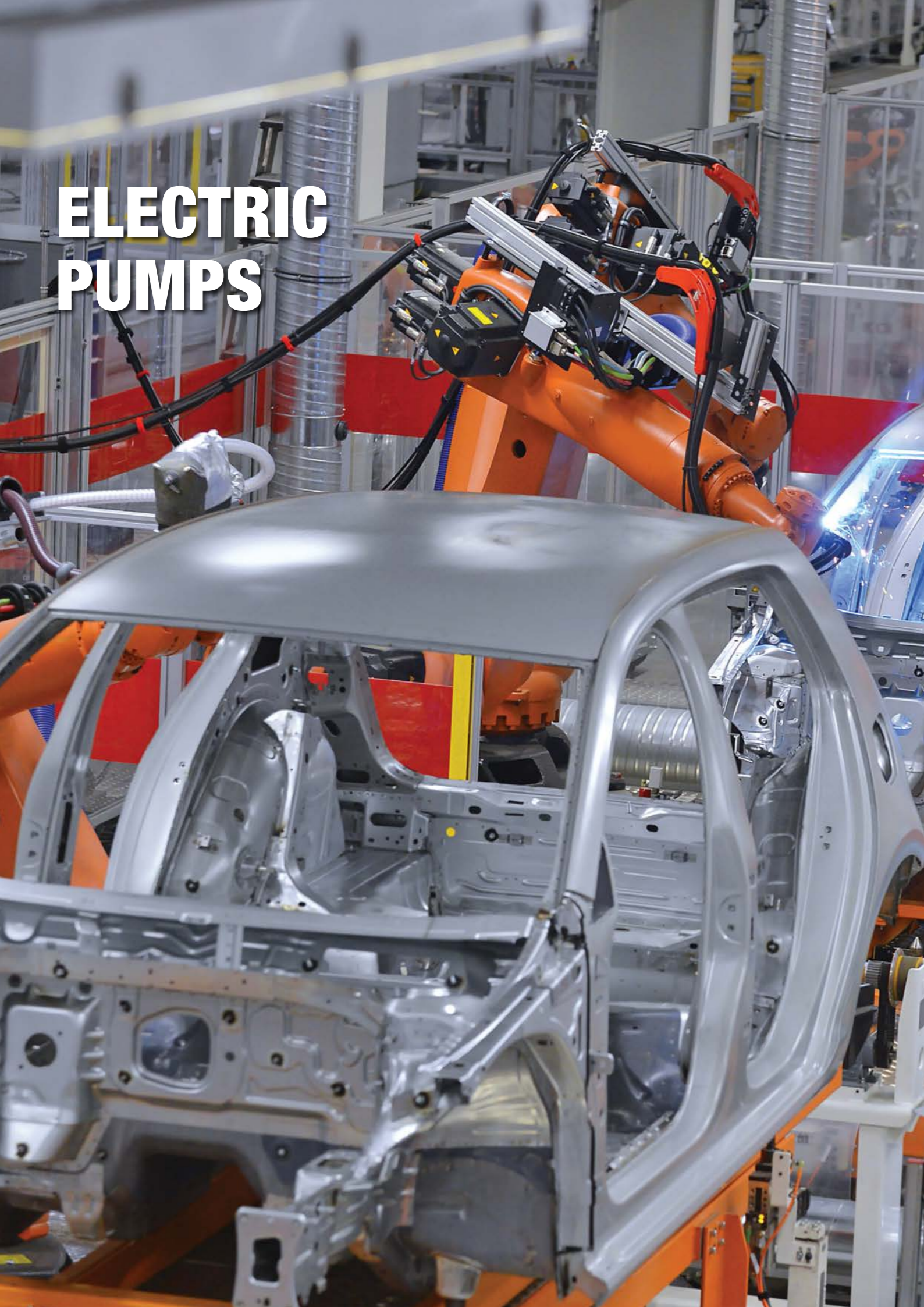
- Available with Check-Mate® or Dura-flo® lowers
- Volumes from 100 - 500 cc
- Delivers fluid pressures up to 414 bar (6000 psi)
- Available as stand-alone pump in 20L, 30L, 60L or 200L Supply System (RAM) or 300 Gallon or 1000L UniDrum

## 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



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 Severe Duty	1 None 240 VAC	
				2 None 480 VAC				
			200	200cc Check-Mate	S Stainless Steel	M Max Life	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 Severe Duty	
					145	145cc Dura-Flo	C Carbon Steel	S Severe Duty
				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	M Max Life			

# E-FLO SP ELECTRIC PUMP TECHNICAL SPECIFICATIONS

MODEL	US	METRIC
Driver Thrust	4,840 lbs	21.5 kN, 2.2 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 - Transformer option available (400-480 VAC)	
Driver peak input amperage	20 A per phase @ full load*	
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-Flo 115, 145, 180, 220, 290	1 in. NPT, female	
Dura-Flo 430	1-1/2 in. NPT, female	

\* Full load amps with all devices operating at maximum capabilities.

NAME	LOWER SIZE	PUMP WORKING (STALL) PRESSURE			MAX DYNAMIC (RUN) PRESSURE		
		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
Check-Mate	500CS/CM/SS/SM	1600	110	11.0	1487	103	10.3
Dura-Flo	145SS	5600	386	38.6	5204	359	35.9
Dura-Flo	180SS	4500	310	31.0	4164	287	28.7
Dura-Flo	220SS	3700	255	25.5	3470	239	23.9
Dura-Flo	290SS	2800	193	19.3	2602	179	17.9
Dura-Flo	430CS/SS/SM	1900	131	13.1	1735	120	12.0
Dura-Flo	115CS	6000	414	41.4	6000	414	41.4
Dura-Flo	145CS	5600	386	38.6	5204	359	35.9
Dura-Flo	180CS	4500	310	31.0	4164	287	28.7
Dura-Flo	220CS	3700	255	25.5	3470	239	23.9
Dura-Flo	290CS	2800	193	19.3	2602	179	17.9

NAME	LOWER SIZE	FLOW RATE (CC/MIN)	FLOW RATE (GPM)	OUTLET FITTING SIZE
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
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	550	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



# 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 20l (5-gal), F, SW, CS, Nitrile	2 None 480 VAC
	C3	Check-Mate 100cc, SS	3 D200s	3 20l (5-gal), F, SW, CS, Polyurethane	3 ADM 240 VAC
	C4	Check-Mate 100cc, SM		4 20l (5-gal), F, DW, CS, Nitrile	4 ADM 480 VAC
	C5	Check-Mate 200cc, CS		5 20l (5-gal), F, DW, CS, Polyurethane	
	C6	Check-Mate 200cc, CM		6 20l (5-gal), F, SW, SS, PTFE Coated	
	C7	Check-Mate 200cc, SS		7 200l (55-gal), DR, PTFE Coated AL, EPDM	
	C8	Check-Mate 200cc, SM		8 200l (55-gal), DR, AL, EPDM	
	C9	Check-Mate 250cc, CS		9 200l (55-gal), DR, AL, Neoprene	
	CA	Check-Mate 250cc, CM		A 200l (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			
	CJ	Check-Mate 200 cc, SS, Elite			
	CH	Check-Mate 100 cc, SS, Elite			
	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.

# E-FLO SP SUPPLY SYSTEM TECHNICAL SPECIFICATIONS

MODEL	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 <sup>W</sup>	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*	
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-Flo 115, 145, 180, 220, 290	1 in. NPT, female	
Dura-Flo 430	1-1/2 in. NPT, female	

\* Full load amps with all devices operating at maximum capabilities.

	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
	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
	Check-Mate	500CS/CM/SS/SM	1600	110	11.0	1487	103	10.3
	Dura-Flo	145SS	5600	386	38.6	5204	359	35.9
	Dura-Flo	180SS	4500	310	31.0	4164	287	28.7
	Dura-Flo	220SS	3700	255	25.5	3470	239	23.9
	Dura-Flo	290SS	2800	193	19.3	2602	179	17.9
	Dura-Flo	430CS/SS/SM	1900	131	13.1	1735	120	12.0
	Dura-Flo	115CS	6000	414	41.4	6000	414	41.4
	Dura-Flo	145CS	5600	386	38.6	5204	359	35.9
	Dura-Flo	180CS	4500	310	31.0	4164	287	28.7
	Dura-Flo	220CS	3700	255	25.5	3470	239	23.9
	Dura-Flo	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-Flo	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	550	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



## TANDEM SYSTEMS

### 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

Select Tandem Connection Kit - 25E595 (Quantity 1)

PRODUCT NUMBER	QUANTITY
25E595	1

### 3. ACCESSORIES

#### 3.A Depressurization/Recirculation Kit

For Carbon Steel Pump Lower

Product Number	Quantity
25E618	2
25E619	2

For Stainless Steel Pump Lower

#### 3.B Fluid Filter Kit

25E620	1
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#### 3.C Extension Cables for Fluid Filter Monitoring Pressure Transducers

1 meter

124943	2
122497	2
124409	2
17H363	2
17H364	2

2 meters

3 meters

7.5 meters

16 meters

#### 3.D Low Level Sensor Kit

25E447	2
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### 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

\* Rams come with Empty Level Sensors already installed.

# E-FLO SP UNIDRUM TECHNICAL SPECIFICATIONS

MODEL	US	METRIC
Driver Thrust	4,840 lbs	21.5 kN, 2.2 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	240 V, 400 VY, 480 V, 3-phase, 50/60 Hz	
Driver peak input amperage	20 A per phase @ full load	
Input current	20 A maximum	
Full load amperage	240 V	20 A
	400 V	35 A
	480 V	10 A
Input current	20 A maximum	
Fluid Outlet Size - all pump materials		
Dura-Flo 290	1 in. NPT, female	
Dura-Flo 430	1-1/2 in. NPT, female	

# E-FLO SP UNIDRUM ORDERING INFORMATION

1000 LITER UNIT	PART NUMBER	MATERIAL	PUMP SIZE	PUMP TYPE	VOLTAGE	LEF/RIGHT HAND DOOR
	26D395	Carbon Steel	290cc	CS/Severe Duty	230V	Left
	26D396		290cc	CS/Severe Duty	400V/Y	Left
	26D397		290cc	CS/Severe Duty	480V	Left
	26D392		430cc	CS/Severe Duty	230V	Left
	26D393		430cc	CS/Severe Duty	400V/Y	Left
	26D394		430cc	CS/Severe Duty	480V	Left
	26D398		430cc	SS/Max Life	230V	Left
	26D399		430cc	SS/Max Life	400V/Y	Left
	26D400		430cc	SS/Max Life	480V	Left
	26D416	Stainless Steel	430cc	CS/Severe Duty	400V/Y	Left
	26D401		430cc	SS/Max Life	230V	Left
	26D402		430cc	SS/Max Life	400V/Y	Left
	26D403		430cc	SS/Max Life	480V	Left
	26D407		290cc	CS/Severe Duty	230V	Right
	26D408		290cc	CS/Severe Duty	400V/Y	Right
	26D409		290cc	CS/Severe Duty	480V	Right
	26D404		430cc	CS/Severe Duty	230V	Right
	26D405		430cc	CS/Severe Duty	400V/Y	Right
	26D406	430cc	CS/Severe Duty	480V	Right	
26D410	Carbon Steel	430cc	SS/Max Life	230V	Right	
26D411		430cc	SS/Max Life	400V/Y	Right	
26D412		430cc	SS/Max Life	480V	Right	
26D417		430cc	CS/Severe Duty	400V/Y	Right	
26D413		430cc	SS/Max Life	230V	Right	
26D414		430cc	SS/Max Life	400V/Y	Right	
26D415		430cc	SS/Max Life	480V	Right	
26D414		Stainless Steel	430cc	SS/Max Life	400V/Y	Right
26D415			430cc	SS/Max Life	480V	Right

# UNIDRUM SYSTEMS







## OUR BRAND PROMISE TO YOU

Since 1926, **innovation**, **quality** and **A+ Service** have been at the centre of Graco.

### Experience Innovation

Our focus on innovation results in products and equipment that lead the industry with technologically-advanced features, pioneering design, high performance and unparalleled reliability. In short, innovation is how you get better products!

### Building Quality

You're investing in high-quality products built to last for years of reliable service. Moreover, we partner with our customers to better understand how you're deploying our products in the field, then use your experiences to improve performance and durability.



### A+ service, every time

You'll see A+ Service in action when you contact any of our support services options no matter where you are in the world. We'll listen to your situation and work methodically to resolve it as quickly as we can. We are guided by a mindset of integrity and a customer service view centred on collaboration and relationships, not transactions.



We're here to answer questions and help address your needs:

[www.graco.com/contact](http://www.graco.com/contact)

Graco is certified ISO 9001.

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