



# E-Flo<sup>®</sup> DC

Dual Control Electric Pumps



PROVEN QUALITY. LEADING TECHNOLOGY.

# Single Pump. Dual Control.

Constant pressure when you want it. Constant flow when you need it. **Pressure Mode** allows you to maintain a constant fluid pressure while changing speeds to meet changing demands. This allows the circulated paint to run at slower speeds to extend the life of the paint. **Flow Mode** maintains constant paint velocity.

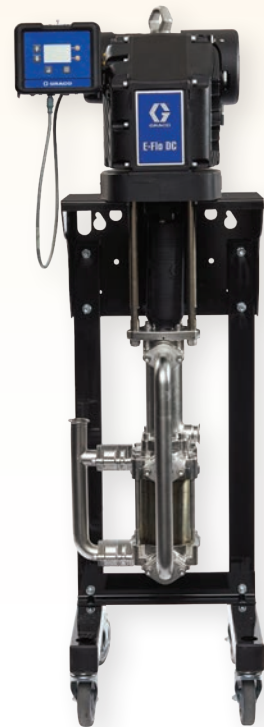


## E-Flo DC Circulation Pumps

Graco's original 4-ball circulation pump is ideal for small to medium circulation systems. Outputs up to 2500 cc per cycle.

Unlike competitive pumps that are linked and controlled together, Graco's lowers operate independently. This allows the pump to adjust to varying pressure and flow rate demands thousands of times per second. Each pump can also run alone to keep production running if maintenance is required.

Outputs up to 5000 cc per cycle.



## E-Flo DC Supply Pumps

Our 2-ball supply pump is for applications requiring high pressure, up to 3000 psi (206 bar). Plus the minimal pulsation at changeover provides a more consistent finish.



# Make the Switch to Savings!

Tap into the energy savings and advanced features of Graco's electric motor. It's easier than you think to make the switch.

## Save Energy

### 5x More Efficient

Electric motor means big savings when compared to similar-sized pneumatic motors – helping lower your energy bill and saving you money.

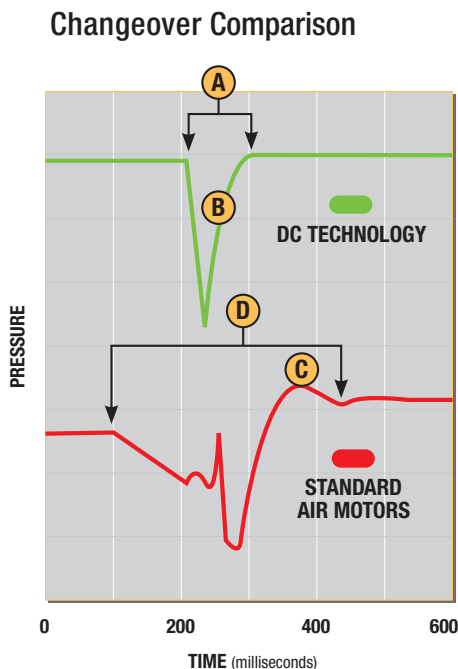
## Outperform

### Gain More Control

Advanced Control Module allows you to easily integrate the pump into a PLC network for even greater control and visibility.

### Improve Quality

Dual Control (DC) technology gives you less pulsation and smooth, rapid changeovers – for better, more consistent finishes.



- A** Less than 0.09 second changeover
- B** Quick changeover and recovery with less pulsation
- C** Pressure spike at changeover
- D** Longer changeover causing pulsation

## Improve Productivity

### Spend Less Time Training

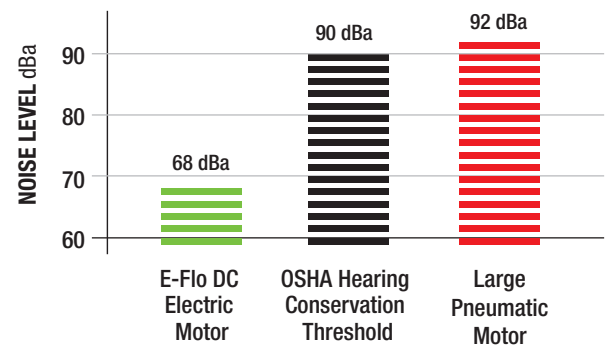
Electric pump functionality, with the simplicity of a pneumatic pump, makes it easy for anyone to operate.

### Stay Up and Running Longer

Increased reliability means you'll spend less time maintaining and more time up and running.

### Better Working Environment

Quiet electric motor means happier operators and better results. Exceeds OSHA sound regulations and **over 20 dbA's quieter** compared to similar-sized pneumatic motors.



*Note: All pressures 100 psi*

## Boost Your Profits

### Prevent Material Loss

Integrated runaway protection protects your pump from premature wear and prevents costly material loss.

### Eliminate Costly Rework

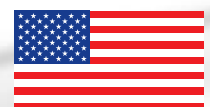
Electric motor eliminates icing – giving you smoother pump operation and better finished product.

### Lower Cost of Ownership

Use less energy and spend less on maintenance costs with the field-proven reliability of Graco's 2- and 4-ball pumps.

### Choose Power

Select single phase 220 V or 3-phase 380-480 V Input power.



Made in the USA

# Boost Your Bottom Line

## with Energy Savings and Advanced Pump Control

### Advanced Motor with Control Module

Efficient and smart, the E-Flo DC with Advanced Control Module gives you additional control of pump performance and allows you to manage several pumps from a single module.

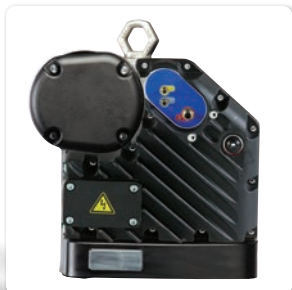


### Control Module

- Integrate the pump easily into a PLC Network for better visibility and control outside of the hazardous area
- Configure different operating profiles of pump
- Mount directly on pump motor or remotely on nearby wall
- Up to two pressure transducers can be added for greater control
- Connect pneumatic BPR controller to automate an “off-production” profile for even greater energy savings
- Password protect pump settings to protect against unauthorized access

### Direct PLC Control

- Connect Eflo-DC directly to a PLC via 4-20 mA signal with the fiber to serial converter to allow basic automation without a local pump controller



### Simple to Install

Basic installation requires only a single-phase 220 V, 50/60 Hz power or 3-phase 380 – 480 V 50/60 Hz power

**No VFD's Required.**

### Basic Motor

Operator-friendly control knobs have clear symbols making it easy to adjust pump settings. Gives you local control at the pump and runaway protection.



# Choose the Right Pump for You!

## How to Select Your E-Flo DC Pump



### Pump Selections

Refer to the **Pump Selection Table** on the next page to answer the following questions:

**Lower Size** – Based on desired pressure and flow rates, what size lower is required?

Circulation Pumps: 750 cc, 1000 cc, 1500 cc, 2000 cc, 2500 cc, 3000 cc, 4000 cc, or 5000 cc

Supply Pumps: 145 cc, 180 cc, 220 cc or 290 cc

**Motor Size & Controls** – What motor size and control type would you like on the motor? 1 or 2 hp, Basic or Advanced? What approvals are required?

**Lower, Fittings and Packings** – What lower material, type of fitting and packings are required on the lower?

**Mount** – How would you like to mount the pump? Choose either Stand Mount, Wall Mount Bracket or None.



### Control Module & Cable

If **Basic** motor control is desired, your pump selection is complete. Refer to the Pump Selection Table on the next page for your part number.

If **Advanced** motor is desired, a Control Module and cable will be required. You can mount the controller on the pump or on a nearby wall and connect it to the pump with the appropriate CAN cable selected from the table.

**High flow rate circulation pumps (2X) include the Control Module and CAN Cable. No additional equipment is required.**

Part Number	Description
24P822	Control Module Kit (220v)
17V232	Control Module Kit (480v)
16P911	3 ft (1 m) CAN Cable
16P912	25 ft (8 m) CAN Cable
16M173	100 ft Fiber Cable
17B160	320 ft (room) Fiber Cable

# E-Flo DC Circulation Pump Selection

## Part Number Matrix

Electric	Circulation Pump	Lower Size	Motor Size, Controls & Approvals	Pump Type/Fittings	Mount	
E = Electric	C=Circulation	1 = 750 cc	1 = 1 hp Motor, Basic Controls, ATEX/FM/IECEX	A = 1 hp Motor 480 V, Basic Controls, ATEX/FM/IECEX	4 = Sealed SST Lower, Ultralife Rod, Ultralife Cylinder, Tri-Clamp Fittings	0 = No Stand
		2 = 1000 cc	2 = 1 hp Motor, Advanced Controls, ATEX/FM/IECEX	B = 1 hp Motor 480V, Advanced Controls, ATEX/FM/IECEX	5 = Open Wet Cup SST Lower, Ultralife Rod, Ultralife Cylinder, NPT Fittings	1 = Stand
		3 = 1500 cc	3 = 2 hp Motor, Basic Controls, ATEX/FM/IECEX	C = 2 hp Motor 480V, Basic Controls, ATEX/FM/IECEX	6 = Open Wet Cup SST Lower, Ultralife Rod, Ultralife Cylinder, Tri-Clamp Fittings	2 = Wall Mount Bracket
		4 = 2000 cc	4 = 2 hp Motor, Advanced Controls, ATEX/FM/IECEX	D = 2 hp Motor 480V, Advanced Controls, ATEX/FM/IECEX	7 = Sealed SST Lower, Ultralife Rod, Ceramic Cylinder, Tri-Clamp Fittings, Active Surge Tank	
		5 = 3000 cc	5 = 1 hp Motor, Basic Controls, ATEX/IECEX/TIIS/KCS	E = 1 hp Motor 480V, Basic Controls, ATEX/IECEX/TIIS/KCS		
		6 = 4000 cc	6 = 1 hp Motor, Advanced Controls, ATEX/IECEX/TIIS/KCS	F = 1 hp Motor 480V, Advanced Controls, ATEX/IECEX/TIIS/KCS		
		7 = 2500 cc	7 = 2 hp Motor, Basic Controls, ATEX/IECEX/TIIS/KCS	G = 2 hp Motor 480V, Basic Controls, ATEX/IECEX/TIIS/KCS		
		8 = 5000 cc	8 = 2 hp Motor, Advanced Controls, ATEX/IECEX/TIIS/KCS	H = 2 hp Motor 480V, Advanced Controls, ATEX/IECEX/TIIS/KCS		
			9 = 2 x 2 hp Motor, Advanced Controls, ATEX/FM/IECEX	J = 2 x 2 hp Motor 480V, Advanced Controls, ATEX/FM/IECEX		
			0 = 2 x 2 hp Motor, Advanced Controls, ATEX/IECEX/TIIS/KCS	K = 2 x 2 hp Motor 480V, Advanced Controls, ATEX/IECEX/TIIS/KCS		

continued on next page

# E-Flo DC Circulation Pump Selection

## Pump Specifications

Model	750	1000	1500	2000	2500	5000	2000x2	3000x2	4000x2
Output per Cycle	750cc	1000cc	1500cc	2000cc	2500cc	5000cc	2000cc	3000 cc	4000 cc
Max Working Pressure 220V psi (bar)	285 (19.7)	1HP: 210 (14.5) 2HP: 380 (27.6)	285 (20.6)	210 (14.5)	----	----	380 (27.6)	285 (20.6)	210 (14.5)
Max Working Pressure psi (bar) 3-Phase	356 (24.5)	1HP: 260 (17.9) 2HP: 475 (32.8)	356 (24.5)	260 (17.9)	210 (14.5)	210 (14.5)	475 (32.8)	356 (24.5)	260 (17.9)
Max Flow @ 20 cpm gpm (lpm)	4.00 (15)	5.25 (20)	8.00 (30)	10.50 (40)	13.2 (50)	26.4 (100)	10.50 (40)	15.90 (60)	21.10 (80)

## Ordering Information

Motor Size & Controls		Voltage	Approvals	Lower Type/Fittings									Mount			Output per Cycle								
Motor Size	Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / IECEx / TIS / KCS	Enclosed Stainless, NPT	Enclosed Stainless, Tri-Clamp	Enclosed Maxlife, Tri-Clamp	Sealed Stainless, Tri-Clamp	Open Stainless, NPT	Open Stainless, Tri-Clamp	Sealed Stainless, Tri-Clamp Active Surge Tank	No Stand	Stand	Wall Mount Bracket	750 cc	1000 cc	1500 cc	2000 cc	2500 cc	3000 cc	4000 cc	5000 cc
1 hp	•		•		•					•				•			EC1140	EC2140						
1 hp	•		•		•					•					•		EC1141	EC2141						
1 hp	•		•		•					•						•	EC1142	EC2142						
1 hp		•	•		•					•				•			EC1240	EC2240						
1 hp		•	•		•					•					•		EC1241	EC2241						
1 hp		•	•		•					•					•		EC1242	EC2242						
1 hp	•		•			•				•				•			EC1540	EC2540						
1 hp	•		•			•				•					•		EC1541	EC2541						
1 hp	•		•			•				•					•		EC1542	EC2542						
1 hp		•	•			•				•				•			EC1640	EC2640						
1 hp		•	•			•				•					•		EC1641	EC2641						
1 hp		•	•			•				•					•		EC1642	EC2642						
1 hp	•			•	•					•				•			EC1A40	EC2A40						
1 hp	•			•	•					•					•		EC1A41	EC2A41						
1 hp	•			•	•					•					•		EC1A42	EC2A42						
1 hp		•		•	•					•				•			EC1B40	EC2B40						
1 hp		•		•	•					•					•		EC1B41	EC2B41						
1 hp		•		•	•					•					•		EC1B42	EC2B42						
1 hp	•			•		•				•				•			EC1E40	EC2E40						
1 hp	•			•		•				•					•		EC1E41	EC2E41						
1 hp	•			•		•				•					•		EC1E42	EC2E42						
1 hp		•		•		•				•				•			EC1F40	EC2F40						
1 hp		•		•		•				•					•		EC1F41	EC2F41						
1 hp		•		•		•				•					•		EC1F42	EC2F42						
1 hp	•		•		•					•				•			EC1150	EC2150						
1 hp	•		•		•					•					•		EC1151	EC2151						
1 hp	•		•		•					•					•		EC1152	EC2152						
1 hp		•	•		•					•				•			EC1250	EC2250						
1 hp		•	•		•					•					•		EC1251	EC2251						
1 hp		•	•		•					•					•		EC1252	EC2252						
1 hp	•		•		•					•				•			EC1550	EC2550						
1 hp	•		•		•					•					•		EC1551	EC2551						
1 hp	•		•		•					•					•		EC1552	EC2552						
1 hp		•	•		•					•				•			EC1650	EC2650						
1 hp		•	•		•					•					•		EC1651	EC2651						
1 hp		•	•		•					•					•		EC1652	EC2652						

Motor Size & Controls			Voltage	Approvals	Lower Type/Fittings								Mount			Output per Cycle								
Motor Size	Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / IECEx / TIS / KCS	Enclosed Stainless, NPT	Enclosed Stainless, Tri-Clamp	Enclosed Maxlife, Tri-Clamp	Sealed Stainless, Tri-Clamp	Open Stainless, NPT	Open Stainless, Tri-Clamp	Sealed Stainless, Tri-Clamp Active Surge Tank	No Stand	Stand	Wall Mount Bracket	750 cc	1000 cc	1500 cc	2000 cc	2500 cc	3000 cc	4000 cc	5000 cc
1 hp	•			•	•						•			•			EC1A50	EC2A50						
1 hp	•			•	•						•				•		EC1A51	EC2A51						
1 hp	•			•	•						•					•	EC1A52	EC2A52						
1 hp		•		•	•						•						EC1B50	EC2B50						
1 hp		•		•	•						•						EC1B51	EC2B51						
1 hp		•		•	•						•						EC1B52	EC2B52						
1 hp	•			•		•					•				•		EC1E50	EC2E50						
1 hp	•			•		•					•					•	EC1E51	EC2E51						
1 hp	•			•		•					•						EC1E52	EC2E52						
1 hp		•		•		•					•				•		EC1F50	EC2F50						
1 hp		•		•		•					•						EC1F51	EC2F51						
1 hp		•		•		•					•						EC1F52	EC2F52						
1 hp	•		•	•								•					EC1160	EC2160						
1 hp	•		•	•								•					EC1161	EC2161						
1 hp	•		•	•								•					EC1162	EC2162						
1 hp		•	•	•								•					EC1260	EC2260						
1 hp		•	•	•								•					EC1261	EC2261						
1 hp		•	•	•								•					EC1262	EC2262						
1 hp	•		•	•		•						•					EC1560	EC2560						
1 hp	•		•	•		•						•					EC1561	EC2561						
1 hp	•		•	•		•						•					EC1562	EC2562						
1 hp		•	•	•		•						•					EC1660	EC2660						
1 hp		•	•	•		•						•					EC1661	EC2661						
1 hp		•	•	•		•						•					EC1662	EC2662						
1 hp	•			•	•							•					EC1A60	EC2A60						
1 hp	•			•	•							•					EC1A61	EC2A61						
1 hp	•			•	•							•					EC1A62	EC2A62						
1 hp		•		•	•							•					EC1B60	EC2B60						
1 hp		•		•	•							•					EC1B61	EC2B61						
1 hp		•		•	•							•					EC1B62	EC2B62						
1 hp	•			•		•						•					EC1E60	EC2E60						
1 hp	•			•		•						•					EC1E61	EC2E61						
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1 hp		•		•		•						•					EC1F60	EC2F60						
1 hp		•		•		•						•					EC1F61	EC2F61						
1 hp		•		•		•						•					EC1F62	EC2F62						
1 hp	•		•	•								•					EC1171	EC2171						
1 hp	•		•	•								•					EC1172	EC2172						
1 hp		•	•	•								•					EC1271	EC2171						
1 hp		•	•	•								•					EC1272	EC2272						
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1 hp		•	•	•		•						•					EC1671	EC2671						
1 hp		•	•	•		•						•					EC1672	EC2672						
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1 hp	•			•	•							•					EC1A72	EC2A72						
1 hp		•		•	•							•					EC1B71	EC2B71						
1 hp		•		•	•							•					EC1B72	EC2B72						
2 hp	•		•	•						•								EC2340	EC3340	EC4340				
2 hp	•		•	•						•								EC2341	EC3341	EC4341				
2 hp	•		•	•						•								EC2342	EC3342	EC4342				
2 hp		•	•	•						•								EC2440	EC3440	EC4440				
2 hp		•	•	•						•								EC2441	EC3441	EC4441				

Motor Size & Controls		Voltage		Approvals		Lower Type/Fittings							Mount			Output per Cycle								
Motor Size	Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / IECEx / TIS / KCS	Enclosed Stainless, NPT	Enclosed Stainless, Tri-Clamp	Enclosed Maxlife, Tri-Clamp	Sealed Stainless, Tri-Clamp	Open Stainless, NPT	Open Stainless, Tri-Clamp	Sealed Stainless, Tri-Clamp Active Surge Tank	No Stand	Stand	Wall Mount Bracket	750 cc	1000 cc	1500 cc	2000 cc	2500 cc	3000 cc	4000 cc	5000 cc
2 hp		•	•		•				•						•			EC2442	EC3442	EC4442				
2 hp	•		•		•					•				•				EC2350	EC3350	EC4350				
2 hp	•		•		•					•					•			EC2351	EC3351	EC4351				
2 hp	•		•		•					•						•		EC2352	EC3352	EC4352				
2 hp		•	•		•					•				•				EC2450	EC3450	EC4450				
2 hp		•	•		•					•					•			EC2451	EC3451	EC4451				
2 hp		•	•		•					•						•		EC2452	EC3452	EC4452				
2 hp	•		•		•							•						EC2360	EC3360	EC4360				
2 hp	•		•		•							•				•		EC2361	EC3361	EC4361				
2 hp	•		•		•							•				•		EC2362	EC3362	EC4362				
2 hp		•	•		•							•						EC2460	EC3460	EC4460				
2 hp		•	•		•							•						EC2461	EC3461	EC4461				
2 hp		•	•		•							•						EC2462	EC3462	EC4462				
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2 hp	•		•		•				•					•				EC2740	EC3740	EC4740				
2 hp	•		•		•				•					•				EC2741	EC3741	EC4741				
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2 hp		•	•		•							•						EC2840	EC3840	EC4840				
2 hp		•	•		•							•				•		EC2841	EC3841	EC4841				
2 hp		•	•		•							•						EC2842	EC3842	EC4842				
2 hp	•		•		•					•				•				EC2750	EC3750	EC4750				
2 hp	•		•		•					•				•				EC2751	EC3751	EC4751				
2 hp	•		•		•					•				•				EC2752	EC3752	EC4752				
2 hp		•	•		•							•						EC2850	EC3850	EC4850				
2 hp		•	•		•							•						EC2851	EC3851	EC4851				
2 hp		•	•		•							•						EC2852	EC3852	EC4852				
2 hp	•		•		•							•						EC2760	EC3760	EC4760				
2 hp	•		•		•							•						EC2761	EC3761	EC4761				
2 hp	•		•		•							•						EC2762	EC3762	EC4762				
2 hp		•	•		•							•						EC2860	EC3860	EC4860				
2 hp		•	•		•							•						EC2861	EC3861	EC4861				
2 hp		•	•		•							•						EC2862	EC3862	EC4862				
2 hp	•		•		•							•						EC2771	EC3771	EC4771				
2 hp	•		•		•							•						EC2772	EC3772	EC4772				
2 hp		•	•		•							•						EC2871	EC3871	EC4871				
2 hp		•	•		•							•						EC2872	EC3872	EC4872				
2 hp	•		•	•	•				•					•				EC2C40	EC3C40	EC4C40	EC7C40			
2 hp	•		•	•	•				•					•				EC2C41	EC3C41	EC4C41	EC7C41			
2 hp	•		•	•	•				•					•				EC2C42	EC3C42	EC4C42	EC7C42			
2 hp		•	•	•	•				•					•				EC2D40	EC3D40	EC4D40	EC7D40			
2 hp		•	•	•	•				•					•				EC2D41	EC3D41	EC4D41	EC7D41			
2 hp		•	•	•	•				•					•				EC2D42	EC3D42	EC4D42	EC7D42			
2 hp	•		•	•	•				•					•				EC2C50	EC3C50	EC4C50				
2 hp	•		•	•	•				•					•				EC2C51	EC3C51	EC4C51				
2 hp	•		•	•	•				•					•				EC2C52	EC3C52	EC4C52				
2 hp		•	•	•	•				•					•				EC2D50	EC3D50	EC4D50				
2 hp		•	•	•	•				•					•				EC2D51	EC3D51	EC4D51				
2 hp		•	•	•	•				•					•				EC2D52	EC3D52	EC4D52				
2 hp	•		•	•	•				•					•				EC2C60	EC3C60	EC4C60				
2 hp	•		•	•	•				•					•				EC2C61	EC3C61	EC4C61				



Motor Size & Controls		Voltage	Approvals	Lower Type/Fittings									Mount			Output per Cycle								
Motor Size	Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / TIIS / KCS	Enclosed Stainless, NPT	Enclosed Stainless, Tri-Clamp	Enclosed Maxlife, Tri-Clamp	Sealed Stainless, Tri-Clamp	Open Stainless, NPT	Open Stainless, Tri-Clamp	Sealed Stainless, Tri-Clamp Active Surge Tank	No Stand	Stand	Wall Mount Bracket	750 cc	1000 cc	1500 cc	2000 cc	2500 cc	3000 cc	4000 cc	5000 cc
2 hp	•			•	•							•			•		EC2C62	EC3C62	EC4C62					
2 hp		•		•	•							•		•			EC2D60	EC3D60	EC4D60					
2 hp		•		•	•							•			•		EC2D61	EC3D61	EC4D61					
2 hp		•		•	•							•			•		EC2D62	EC3D62	EC4D62					
2 hp	•			•	•								•			•	EC2C71	EC3C71	EC4C71					
2 hp	•			•	•								•			•	EC2C72	EC3C72	EC4C72					
2 hp		•		•	•								•			•	EC2D71	EC3D71	EC4D71					
2 hp		•		•	•								•			•	EC2D72	EC3D72	EC4D72					
2 hp	•			•	•							•		•			EC2G40	EC3G40	EC4G40					
2 hp	•			•	•							•			•		EC2G41	EC3G41	EC4G41					
2 hp	•			•	•							•			•		EC2G42	EC3G42	EC4G42					
2 hp		•		•	•							•				•	EC2H40	EC3H40	EC4H40					
2 hp		•		•	•							•			•		EC2H41	EC3H41	EC4H41					
2 hp		•		•	•							•			•		EC2H42	EC3H42	EC4H42					
2 hp	•			•	•							•		•			EC2G50	EC3G50	EC4G50					
2 hp	•			•	•							•			•		EC2G51	EC3G51	EC4G51					
2 hp	•			•	•							•			•		EC2G52	EC3G52	EC4G52					
2 hp		•		•	•							•			•		EC2H50	EC3H50	EC4H50					
2 hp		•		•	•							•			•		EC2H51	EC3H51	EC4H51					
2 hp		•		•	•							•			•		EC2H52	EC3H52	EC4H52					
2 hp	•			•	•							•		•			EC2G60	EC3G60	EC4G60					
2 hp	•			•	•							•			•		EC2G61	EC3G61	EC4G61					
2 hp	•			•	•							•			•		EC2G62	EC3G62	EC4G62					EC8J41
2 hp		•		•	•							•			•		EC2H60	EC3H60	EC4H60					
2 hp		•		•	•							•			•		EC2H61	EC3H61	EC4H61					
2 hp		•		•	•							•			•		EC2H62	EC3H62	EC4H62					EC8K41
2 x 2 hp		•	•		•			•							•				EC4921		EC5921	EC6921		
2 x 2 hp		•	•		•				•						•				EC4931		EC5931	EC6931		
2 x 2 hp		•	•		•					•					•				EC4941		EC5941	EC6941		
2 x 2 hp		•	•		•						•				•				EC4951		EC5951	EC6951		
2 x 2 hp		•	•		•							•			•				EC4961		EC5961	EC6961		
2 x 2 hp		•	•		•			•							•				EC4021		EC5021	EC6021		
2 x 2 hp		•	•		•				•						•				EC4031		EC5031	EC6031		
2 x 2 hp		•	•		•					•					•				EC4041		EC5041	EC6041		
2 x 2 hp		•	•		•						•				•				EC4051		EC5051	EC6051		
2 x 2 hp		•	•		•							•			•				EC4061		EC5061	EC6061		
2 x 2 hp		•		•	•			•							•				EC4J21		EC5J21	EC6J21		
2 x 2 hp		•		•	•				•						•				EC4J31		EC5J31	EC6J31		
2 x 2 hp		•		•	•					•					•				EC4J41		EC5J41	EC6J41		
2 x 2 hp		•		•	•						•				•				EC4J51		EC5J51	EC6J51		
2 x 2 hp		•		•	•							•			•				EC4J61		EC5J61	EC6J61		
2 x 2 hp		•		•	•			•							•				EC4K21		EC5K21	EC6K21		
2 x 2 hp		•		•	•				•						•				EC4K31		EC5K31	EC6K31		
2 x 2 hp		•		•	•					•					•				EC4K41		EC5K41	EC6K41		
2 x 2 hp		•		•	•						•				•				EC4K51		EC5K51	EC6K51		
2 x 2 hp		•		•	•							•			•				EC4K61		EC5K61	EC6K61		

# E-Flo DC Supply Pump Selection

## Part Number Matrix

Electric	Supply Pump	Lower Size	Motor Size, Controls & Approvals		Pump Type /Fittings	Mount
E = Electric	S = Supply	7 = 145 cc	3 = 2 hp Motor, Basic Controls, ATEX/FM/IECEx	C = 2 hp Motor 480V, Basic Controls, ATEX/FM/IECEx	4 = Xtreme/3 Xtreme, 2 Leather	0 = No Stand
		8 = 180 cc	4 = 2 hp Motor, Advanced Controls, ATEX/FM/IECEx	D = 2 hp Motor 480V, Advanced Controls, ATEX/FM/IECEx	5 = DuraFlo/4 Leather, 1 PTFE	1 = Stand
		9 = 220 cc	7 = 2 hp Motor, Basic Controls, ATEX/IECEx/TTIS/KCS	G = 2 hp Motor 480V, Basic Controls, ATEX/IECEx/TTIS/KCS	6 = DuraFlo/Leather, PTFE	2 = Wall Mount Bracket
		0 = 290 cc	8 = 2 hp Motor, Advanced Controls, ATEX/IECEx/TTIS/KCS	H = 2 hp Motor 480V, Advanced Controls, ATEX/IECEx/TTIS/KCS		

## Pump Specifications

Model	290	220	180	145
Output per Cycle	290cc	220cc	180cc	145cc
Maximum Working Pressure psi (bar)	1520 (105)	2030 (140)	2430 (168)	3040 (210)
Output at 20 CPM gpm (lpm)	1.53 (5.8)	1.16 (4.4)	0.95 (3.6)	0.77 (2.9)
Pump Manual	333389	333389	333389	333389
Motor Manual	3A2526	3A2526	3A2526	3A2526
Control Module Manual	3A2527	3A2527	3A2527	3A2527

## Ordering Information

Motor Controls		Voltage		Approvals		Lower Material		Packings		Mount			Ratio			
Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / IECEx / TTIS / KCS	DuraFlo (SST)	Xtreme (CS)	3 XTREME / 2 LEATHER	4 LEATHER / 1 PTFE	No Stand	Stand	Wall Mount Bracket	290 cc	220cc	180cc	145 cc
•		•		•			•	•		•			ES0340	ES9340	ES8340	
•		•		•			•	•			•		ES0341	ES9341	ES8341	
•		•		•			•	•				•	ES0342	ES9342	ES8342	
•		•		•		•			•	•			ES0350	ES9350	ES8350	ES7360
•		•		•		•			•		•		ES0351	ES9351	ES8351	ES7361
•		•		•		•			•			•	ES0352	ES9352	ES8352	ES7362
	•	•		•		•			•	•			ES0450	ES9450	ES8450	ES7460
	•	•		•		•			•		•		ES0451	ES9451	ES8451	ES7461
	•	•		•		•			•			•	ES0452	ES9452	ES8452	ES7462
•		•		•		•		•		•			ES0740	ES9740	ES8740	
•		•		•		•		•			•		ES0741	ES9741	ES8741	
•		•		•		•		•				•	ES0742	ES9742	ES8742	
•		•		•		•			•	•			ES0750	ES9750	ES8750	ES7760
•		•		•		•			•		•		ES0751	ES9751	ES8751	ES7761
•		•		•		•			•			•	ES0752	ES9752	ES8752	ES7762
	•	•		•		•			•	•			ES0850	ES9950	ES8850	ES7860
	•	•		•		•			•		•		ES0851	ES9951	ES8851	ES7861
	•	•		•		•			•			•	ES0852	ES9852	ES8852	ES7862
•		•		•		•		•		•			ES0C40	ES9C40	ES8C40	
•		•		•		•		•			•		ES0C41	ES9C41	ES8C41	
•		•		•		•		•				•	ES0C42	ES9C42	ES8C42	
•		•		•		•			•	•			ES0C50	ES9C50	ES8C50	ES7C60
•		•		•		•			•		•		ES0C51	ES9C51	ES8C51	ES7C61
•		•		•		•			•			•	ES0C52	ES9C52	ES8C52	ES7C62
	•	•		•		•			•	•			ES0D50	ES9D50	ES8D50	ES7D60
	•	•		•		•			•		•		ES0D51	ES9D51	ES8D51	ES7D61
	•	•		•		•			•			•	ES0D52	ES9D52	ES8D52	ES7D62
•		•		•		•		•		•			ES0G40	ES9G40	ES8G40	
•		•		•		•		•			•		ES0G41	ES9G41	ES8G41	
•		•		•		•		•				•	ES0G42	ES9G42	ES8G42	

Motor Controls		Voltage		Approvals		Lower Material		Packings		Mount			Ratio			
Basic Controls	Advanced Controls	240 VAC Single Phase	380-480 VAC 3 Phase	ATEX / FM / IECEx	ATEX / IECEx / TIIS / KCS	DuraFlo (SST)	Xtreme (GS)	3 XTREME / 2 LEATHER	4 LEATHER / 1 PTFE	No Stand	Stand	Wall Mount Bracket	290 cc	220cc	180cc	145 cc
•			•		•	•			•	•			ES0G50	ES9G50	ES8G50	ES7G60
•			•		•	•			•		•		ES0G51	ES9G51	ES8G51	ES7G61
•			•		•	•			•			•	ES0G52	ES9G52	ES8G52	ES7G62
	•		•		•	•			•	•			ES0H50	ES9950	ES8H50	ES7H60
	•		•		•	•			•		•		ES0H51	ES9951	ES8H51	ES7H61
	•		•		•	•			•			•	ES0H52	ES9H52	ES8H52	ES7H62

## STEP 3 Accessories

### Control Module Accessories

Part Number	Description	Comments
24R050	Pressure Transducer, NPT	Up to two pressure transducers can be connected to one Control Module. Cable length: 4.5 ft (1.4 m)
24X089	Pressure Transducer, Inline Tri-clamp	Up to two pressure transducers can be connected to one Control Module. Cable length: 4.5 ft (1.4 m)
16V103	Transducer Extension Cable	For extending length of pressure transducer. Length: 6.5 ft (2 m)
24V001	Pneumatic BPR Control System	For use when implementing an "off-production" or "sleep" profile with the Control Module
16U729	Run/Stop Switch	Additional, separate switch for running and stopping the pump
16M172	50 ft (15 m) Fiber Optic Cable	Used for communicating outside of a hazardous area
16M173	100 ft (30 m) Fiber Optic Cable	Used for communicating outside of a hazardous area
17B160	330 ft (100 m) Fiber Optic Cable	Used for communicating outside of a hazardous area
24R086	Fiber/Serial Converter	For converting Fiber Optic Cable to RS485/Modbus RTU Serial. Located outside of the hazardous area.
15V331	Ethernet IP Gateway Assembly	For interfacing with a PLC network. Located outside of the hazardous area.

### Motors

Part Number		Description	Approvals
220V	340-480V		
EM0011	EM1011	1 hp Motor, Basic Controls	ATEX / FM / IECEx
EM0012	EM1012	1 hp Motor, Advanced Controls	ATEX / FM / IECEx
EM0013	EM1013	1 hp Motor, Basic Controls	ATEX / IECEx / TIIS / KCS
EM0014	EM1014	1 hp Motor, Advanced Controls	ATEX / IECEx / TIIS / KCS
EM0021	EM1021	2 hp Motor, Basic Controls	ATEX / FM / IECEx
EM0022	EM1022	2 hp Motor, Advanced Controls	ATEX / FM / IECEx
EM0023	EM1023	2 hp Motor, Basic Controls	ATEX / IECEx / TIIS / KCS
EM0024	EM1024	2 hp Motor, Advanced Controls	ATEX / IECEx / TIIS / KCS
EM0025*	EM1025*	2 hp Motor (for "2X" E-Flo DC 2000-4000cc Circulation Pumps), Advanced Controls	ATEX / FM / IECEx
EM0026*	EM1026*	2 hp Motor (for "2X" E-Flo DC 2000-4000cc Circulation Pumps), Advanced Controls	ATEX / IECEx / TIIS / KCS

\*System requires two motors

### Back Pressure Regulators

Part Number	Description
288117	Pneumatic BPR (20 gpm, 300 psi max fluid pressure, 1-1/4 npt)
288311	Pneumatic BPR (20 gpm, 300 psi max fluid pressure, 1-1/2 npt)
288262	Pneumatic BPR (20 gpm, 300 psi max fluid pressure, 2 in Tri-Clamp)

### Other Accessories

Part Number	Description
255143	Wall Mount Bracket
253692	Floor Stand
24R101	Basic Controls Securing Kit

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

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