

AUTOMATIC LUBRICATION EQUIPMENT PRODUCT GUIDE

MINING, CONSTRUCTION & INDUSTRIAL APPLICATIONS



Automatic Lubrication Equipment Buyer's Guide Fluid Handling Equipment for Industrial and Commercial Applications Construction | Fleets and Transportation | Industrial | Mining | Energy | Agriculture

REFER TO THE ALE BUYER'S GUIDE (340821) FOR COMPLETE RANGE

FOR MORE INFORMATION ON GRACO PRODUCTS AND MANUALS PLEASE VISIT
WWW.GRACO.COM OR CONTACT CUSTOMER SERVICE 03 9468 8500 - CSAUSTRALIA@GRACO.COM

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AUTOMATIC LUBRICATION

SYSTEM SELECTOR

LUBRICATION PUMPS











ELECTRIC DYNA-STAR®

AUTOMATIC LUBRICATION 3



WHEEL **LOADERS**

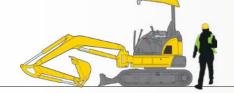








EXCAVATORS









HAUL **TRUCKS**

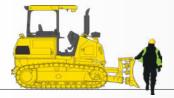








DOZERS





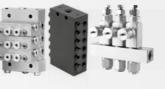


RECOMMENDED METERING















RECOMMENDED CONTROLLERS





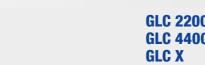




























YELLOW IRON KIT SELECTOR

	GRACO HOME HOMEOWNER CONTRACTOR IND	USTRIAL, MANUFACTURING & PROCES	SING FOR	DISTRIBUTORS	O NORTH AMERICA/ENGLISH	4
	GRACO VEHICLE SERVICE & HEAVY EQUIPME	NT			SEARCH Q CONTACT US	i
	PRODUCTS ARTICLES & SOLUTIONS HOW TO BUY OW	NER SUPPORT				
	Vehicle Service & Heavy Equipment > How to flay > Tools > Yellow for Kit Set	inc for				
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	G-SERIES/CSP OFF-ROAD KITS	-		Sin na		
The same of		Tallen - 9		1		
	Park Alexander			No.		
	YELLOW IRON KIT	SELECTO	R	-		
-	Graco Automatic Lubrication builds on our trusted brand name – one sign	igularly focused on providing advan	nced gr	65 6	11 0	
	technologies, including pumps, meters, controllers and accessories, to a need it most. Our systems can even capture critical data that can be use makers. As a fesult, our comprehensive automatic lubrication offering fe	d to simplify other tasks for key de	cision	Safety and		
18 No. 27	reliability	atures market leading illinovation a				
	THIS SELECTOR IDENTIFIE	C KITC AND				
	THE INSTALLATION MANUA					
	EQUIPMENT MANUFACTURER. Manufacturer Not Listed?				PI -	
	EQUIPMENT TYPE		_2			
	Wheel Loader		٠			
	MODEL NUMBER ①			(2)	00	
	980		Ф			
	SYSTEM MONITORING ①			JMP KIT		
	Yes		- 23	C132		
	PUMP RESERVOIR SIZE ③ 8 Liter			6C126		
	PUMP CONTROL TYPE			ANUAL NUME	BER	
	G3 Standard 24VDC / GLC2200 Controller		\$ 33	3518		
	The automatic lubrication system design described in the installation manual is based upon			DOWNLOAD	MANUAL	
	representative equipment models. Models may vary slightly depending on series and year. Additional hose, fittings, and valve outlet doubling plugs are supplied with the system to mo-			your Wheel Loade	er is equipped with dual bell-	
	system based on your model's specific configuration. Always refer to the OEM's manuals for	details on lubrication intervals.	crar	nks an extra buck	et link guard (part # 26C157) is e ordered in addition to the	
				e Kit.		
	See how Graco's G3 automatic lubrication system cuts grease	NEED MORE	INFO	RMATI	ON?	
	usage in half, reduces downtime and keeps recycling plant running.	CONTACT O				
	G3 Off-Road Auto Lube Install at Oxford R	FIRST NAME*	LAST NAME		Australia V	
		STATE/PROVINCE*	EMAIL*		PHONE	
		- State/Province - V			• 0412 345 678	
	6 = 100 × 010 Y	COMPANY NAME*				
	G3 OFF-ROAD AUTO LUBE INSTALL					
•3	AT OXFORD RECYCLING	Yes, I'm interested in receiving products and other Graco no		s on customer st	ories, tips and tricks, new	
		Your privacy is very important		Il not sell your inf	ormation to other companies.	
		However, to best serve your ne partners. For details, view our l		nation may be sh	ared with Graco's distributor	
		SEND				

Graco mobile equipment kits provide the latest technology from Graco, including the G-Series pumps, solid-state proximity switches, CSP divider valves, and hoses and fittings. Each kit will include all of the components necessary for model-specific customisations.

In order to eliminate system design and streamline the sales process, we have created a quick-to-spec, quick-to-quote and quick-to-sell solution. Scan the QR code below or visit

www.graco.com/offroadselector to find an automatic lubrication kit for your piece of heavy equipment.



PUMPS

G-SERIES PUMP COMPARISON GUIDE







G1 Pump



G3 Pump

	•	•	•
Reservoir	0.5 and 1 L Include stir paddle and follower plate	2, 4 and 8 L Include stir paddle; follower plate available	2, 4, 8, 12 and 16 L Include stir paddle; follower plate available
Fluids	Grease up to NLGI #2	Oil, Grease up to NLGI #2	Oil, Grease up to NLGI #2
Power Source	12 VDC or 24 VDC	90-230 VAC, 12 VDC or 24 VDC	90-230 VAC, 12 VDC or 24 VDC
Control	Standard and Controller	Standard and Plus	Standard, Pro, SP, Max
Control Features	One controller with 2 options: Time-Based: 1 to 30 min on time in 1-min increments 15 min to 99 hr off time in 15-min increments up to 1 hr and then 1-hr increments from 1 to 99 hr Manual run Pin code Low-level alert and alarm shutdown Pre-lube Cycle-Based: 1 to 99 cycles 15 min to 99 hr off time in 15-min increments up to 1 hr and then 1-hr increments from 1 to 99 hr Manual run Pin code Low-level alert and alarm shutdown Pre-lube	Plus controller: 1 to 30 min on time in 1-min increments 1 to 24 hr off time in 1-hr increments Manual run Pin code Low-level shut down	Pro and Max controllers: 1 sec to 30 min on time 1 min to 99 hr 59 min off time Manual run Pin code Low-level alert and alarm shutdown Machine count Pre-lube 1 to 3 monitoring inputs for cycle or pressure* DMS* *Max controller only SP controller: 1 to 99 cycles 15 min to 8 hr off time in 15-min increments 1 input for cycle Manual run Pin code Low-level alert and alarm shutdown Pre-lube
Power Cord	CPC; sold separately	DIN or CPC; sold separately	DIN or CPC; included
Pump Element	2 maximum; 1 factory-installed	1 maximum; 1 factory-installed	3 maximum; 1 factory-installed
Output Per Pump	0.18 in3 (3 cm3) / min	0.25 in3 (4 cm3) / min	0.25 in3 (4 cm3) / min
Maximum Working Pressure	4,100 psi (28 MPa, 280 bar)	5,100 psi (35 MPa, 352 bar)	5,100 psi (35 MPa, 352 bar)
Metering Device	Series Progressive	Series Progressive	Series Progressive or Single Line Parallel (with addition of a G3 Vent Valve)
Monitoring	Controller can monitor 1 zone for cycles	None	SP controller can monitor 1 sensor for cycles; Max controller can monitor up to 3 independent sensors for cycles or pressure
Proximity or Cycle Switch Type	PNP	Pump has no cycle input	PNP or NPN
Electric Motor	Inline gear box	Load minimising drive with offset cam design	Load minimising drive with offset cam design
Accessories	Uses most G3 accessories including pressure relief, power cables, high flow fill stud, 5-gallon fill pump	Uses most G3 accessories including pressure relief, power cables, high-flow fill stud, 5-gallon fill pump	See G3 Accessories in ALE Buyer's Guide https://www.graco.com/content/dam/graco/led/literature/catalogs/340821/340821EN-AE.pdf

G-MINI ELECTRIC LUBRICATION PUMPS

Small size. Big value. Huge impact.

Make the most of your space, budget and machines. The new full-featured G-Mini offers reliable lubrication in a small footprint to fit more types of machines. Use it to simplify everyday maintenance, extend life cycles and optimise uptime. It's rugged and tough, perfect for handling the 24/7 rigors of any job, big or small. Best of all, it comes with a modest price tag — boosting your productivity and profitability.

MAX FILL

Follower Plate and Stir Paddle

This unique combination combats oil separation while ensuring the pump element "loading chamber" is always full.

Patent-Pending Heater Option

Built-in heater option automatically turns on at 23°F (-5°C), allowing NLGI #2 grease to pump down to -40°F (-40°C).

M12 Input

M12 cycle or proximity switch input standard on all pumps with a controller.

5-Wire CPC Power Cable

Multifunction cable supplies power to the pump, pairs with a remote manual run button, and provides low level or cycle fault output.



Comes in both 0.5 liter and 1 liter sizes.

Up to Two Pump Elements

0.18 in3/min (3 cm3/min) 4,100 psi (280 bar)

Optional Controller

NO CONTROLLER: Pair with either an external controller or a PLC. CONTROLLER: Easy-to-program controller can be utilised for both time-based and cycle-based systems and provides low-level alert and alarm.

Rugged Construction

Designed to withstand the harshest of environments; IP69K rated.

TECHNICAL SPECIFICATIONS

Power source	12 VDC or 24 VDC
Fluids handled	Grease NLGI 000 to #2
System	Pump to point or series progressive
Operating temperature	-40°F to 158°F (-40°C to 70°C)
Reservoir size	0.5 L / 1 L
Control option	No control, controller (time or cycle)
Pump elements	Up to 2
Output pressure	4,100 psi (280 bar)
Pump output	0.18 in3/min (3 cm3/min)
Pump outlet	1/4-18 NPSF, mates with 1/4-18 NPT male fittings
Protection grade	IP69K
Instruction manual	3A6714

G-MINI

ELECTRIC LUBRICATION PUMPS

TYPICAL APPLICATIONS

- Wind energy
- Industrial
- Off-road mobile equipment
- On-road mobile equipment

ORDERING INFORMATION

G-MIni Pumps

G-Mini pumps do not come with power cables. See Accessories below for power cable options.

Controller Option	Voltage	Reservoir Size	Heater	Part Number	Part Description
	12V	0.5L	No	25R809	0.5 Liter, 12 Volt G-Mini Pump
No Controller	120	1L	No	25R802	1 Liter, 12 Volt G-Mini Pump
NO CONTROLLE	24V	0.5L	No	25R807	0.5 Liter, 24 Volt G-Mini Pump
	Z4V	1L	No	25R800	1 Liter, 24 Volt G-Mini Pump
		0.5L	No	25R810	0.5 Liter, 12 Volt G-Mini Pump with Controller
	12V		No	25R803	1 Liter, 12 Volt G-Mini Pump with Controller
Controller		1L	Yes	25R806	1 Liter, 12 Volt G-Mini Pump with Controller and Heater
Controller		0.5L	No	25R808	0.5 Liter, 24 Volt G-Mini Pump with Controller
	24V		No	25R801	1 Liter, 24 Volt G-Mini Pump with Controller
		1L	Yes	25R804	1 Liter, 24 Volt G-Mini Pump with Controller and Heater

Accessori	es					
127783*	3-Wire CPC Power Cable					
127780*	5-Wire CPC Power Cable					
25C981	12V Manual Run Button (5-Wire CPC power cable required)					
25C982	24V Manual Run Button (5-Wire CPC power cable required)					
26C825	Direct Mount CSP Bracket (allows for drop-in replacement of competition)					
26C826	Universal Mounting Bracket (allows for drop-in replacement of competition)					
17L879	Graco CSP Solid State Proximity Switch (DC PNP)					
17R703	1 ft Proximity Switch Cable, M12 female straight to M12 male straight cable					
26A910	4,000 PSI Pressure Relief Kit (1/4 NPT to 1/8 NPT reducer bushing, 1/8 NPT branch T-fitting, 4,000 PSI Pressure Relief Valve)					
25N827	Pump Element Kit (add a second pump element or replace existing)					

^{*}G-Mini pumps do not come with power cables. Power cables needed for installation.



25R802



25R803

G1™ ELECTRIC LUBRICATION PUMPS



G1 Plus

Built-in controller with selectable pump on/pump off timer comes with local manual run and password protection. Optional low level sensing and shut-down available, as well as remote manual run when adding the 5 wire CPC cable and remote push button accessories.

		., .,	Reservoir Size				Follower	Remote Manual		Power	
		Voltage	2 liter	4 liter	8 liter	Wiper Arm	Plate	Run/Monitor Light*	Low Level	Connection	
		12 VDC	94G003	94G004	94G005	•		•	•	5 Wire CPC	
catio	Grease		94G015	94G016	94G017	•		•	•	5 Wire CPC	
Application	Gre	24 VDC	94G024	94G025	94G026	•				DIN	
4			94G027	94G028	94G029	•			•	DIN	

^{*}Remote Manual Run and External Low Level indication require a 5 wire cable with CPC connector and a Remote Manual Run/Monitoring Light Device to provide external low level indication. Choose part number 571030 for 12 VDC pumps or 571031 for 24 VDC pumps.

G1 Plus Power Cables (sold separately)

Part Number	Description	Length				
127783	3 wire with CPC connector	15 ft (4.6 m)				
127780	5 wire with CPC connector	15 ft (4.6 m)				
127781	5 wire with CPC connector	20 ft (6.1 m)				
127782	5 wire with CPC connector	30 ft (9.1 m)				
16U790 DIN connector		15 ft (4.6 m)				



Versatile Design Helps Solve Today's Lubrication Challenges

Temperature changes, changing grease types and challenging installation requirements are no problem for the G3 electric lubrication pump. With its flexible design, including adjustable pump elements and an ability to work with both injector-based and series progressive systems, G3 is a rugged, cost-effective pump designed to serve multiple markets and applications.

G3™

ELECTRIC LUBRICATION PUMPS



G3™ **ELECTRIC LUBRICATION PUMPS**

G3™ **ELECTRIC LUBRICATION PUMPS**

If You're Not Using Graco G3™ Pumps, You're Not Maximising Your Profits.

Two Reservoir Types

Stirring paddle with wiper arm to keep material from separating. Follower plate available for extreme angle installations.

Power Choices

Connect to DC (12 or 24V) and AC (90-240V) power sources with CPC or DIN-style connectors for easy, no hassle installations.

Vent Valve Output

Combine Max controller with a vent valve for injector-based systems.

Four Controller Options

Choose from Standard, Pro, SP and Max controller options – buy only what you need for your application.

Multiple Reservoir Sizes

Choice of 2, 4, 8, 12 or 16 liter U.V. resistant, high-impact reservoirs for oil and grease to meet the needs of your equipment.

Three Pump Elements

G3 comes standard with one adjustable pump element installed - add up to two more for higher output on large projects.

Multiple Cycle and Pressure Inputs

Mix and match up to three cycle and pressure switches for custom installations and feedback.

Machine Count Input

Machine count input to manage equipment with unpredictable lubrication requirements.

Data Management System (DMS)

- Simple data transfer to your PC via USB flash drive for further analysis using Excel® or Notepad®
- Provides performance history for lube system events, such as cycle detection, error logs and allows a quick check of lubrication performance to meet your system requirements
- Preferred lube cycle program can be stored and transferred to other G3 pumps in your fleet for quick and accurate repeatability
- Provides you the comfort and security in knowing your pump is being properly maintained and your lube system is protecting your valuable



+ ⊗ **↓ ↑** ⊗ **→**

Auto-Fill Shutoff (AFSO)

- Available on G3 Standard, Pro and Max
- Eliminates Over- or Under-Filling
- · Completely fill the reservoir every time while avoiding costly spills
- Does not require power to operate
- · Complies with stringent mining regulations where a system must be powered down during fluid refilling
- Compatible with fast-fill-equipped lubrication trucks
- · Reservoir Full Visual Indication
- · Valve Plate activates a poppet valve, which cuts off grease flow into the reservoir

Standard, Pro, SP and Max

Choose the level of control you need for your series progressive or injector based applications.



G3 Standard

- No internal controller use with separate or existing machine control for a low cost solution
- Capable of sending a low level signal to your external controller or PLC



G3 Pro

- Built-in controller with selectable pump on/pump off timer
- · Low level indicator provides low warning and shut-down
- Manual run initiates lube cycle on-demand (remote option also available)
- Password protection safeguards settings
- Pre-lube function can initiate lube cycle on start-up



G3 SP

- Simple programming and valuable system feedback
- Low level indicator provides low warning and shut-down
- Only programming requirements are number of cycles and off time between lube events
- Manual run initiates lube cycle on-demand (remote option also available)
- Password protection safeguards settings
- Pre-lube function can initiate lube cycle on start-up



G3 Max

- Built-in controller with selectable pump on/pump off timer
- · Low level indicator provides low warning and shut-down
- Manual run initiates lube cycle on-demand (remote option
- Password protection safeguards
- Pre-lube function can initiate lube cycle on start-up
- Up to three pressure or cycle switch inputs to ensure proper lubrication cycles
- Mix/match cycle and pressure switches for custom installations and feedback
- Machine count input ideally suited for inconsistently used equipment
- Fault indication to external alarms
- Optional Data Management System[™] (DMS)

TECHNICAL SPECIFICATIONS

Maximum Working Pressure 5,100 psi (352 bar) Power 12 VDC, 24 VDC, 90-240 VAC Operating -40 to 158°F (-40 to 70°C) Temperature depending on lubricant used Reservoir Size 2, 4, 8, 12, or 16 Lite Adjustable Pump Output Per Element Per Minute (2 cm³, 3 cm³, 4 cm³ Lube Type Oil or Grease up to NLGI #2 Certifications/Ratings (*Conforms to UL 73, certified to CSA 22.2 No. 68-09) Instruction Standard - 332291 / Pro - 332298 manuals SP - 3A4676 / Max - 332305			
Power 12 VDC, 24 VDC, 90-240 VAC Operating -40 to 158°F (-40 to 70°C) Temperature depending on lubricant used Reservoir Size 2, 4, 8, 12, or 16 Litel Adjustable Pump Output Per Element Per Minute 0.12 in³, 0.18 in³, 0.25 in² (2 cm³, 3 cm³, 4 cm³) Lube Type 0il or Grease up to NLGI #2 Certifications/Ratings CE, ETL*, IP69k (*Conforms to UL 73, certified to CSA 22.2 No. 68-09) Instruction Standard - 332291 / Pro - 332298			5,100 psi (352 bar
Temperature depending on lubricant used Reservoir Size 2, 4, 8, 12, or 16 Liter Adjustable Pump Output Per Element Per Minute 0.12 in³, 0.18 in³, 0.25 in² (2 cm³, 3 cm³, 4 cm³) Lube Type Oil or Grease up to NLGI #2 Certifications/Ratings CE, ETL*, IP69k (*Conforms to UL 73, certified to CSA 22.2 No. 68-09) Instruction Standard - 332291 / Pro - 332298	Power		
Adjustable Pump Output Per Element Per Minute Lube Type Oil or Grease up to NLGI #2 Certifications/Ratings CE, ETL*, IP69k (*Conforms to UL 73, certified to CSA 22.2 No. 68-09) Instruction Standard - 332291 / Pro - 332298			•
Per Element Per Minute (2 cm³, 3 cm³, 4 cm³ Lube Type Oil or Grease up to NLGI #2 Certifications/Ratings CE, ETL*, IP69k (*Conforms to UL 73, certified to CSA 22.2 No. 68-09) Instruction Standard - 332291 / Pro - 332298	Reservoir Size		2, 4, 8, 12, or 16 Lite
Certifications/Ratings CE, ETL*, IP69k (*Conforms to UL 73, certified to CSA 22.2 No. 68-09 Instruction Standard - 332291 / Pro - 332298			· · · · · · · · · · · · · · · · · · ·
(*Conforms to UL 73, certified to CSA 22.2 No. 68-09 Instruction Standard - 332291 / Pro - 332298	Lube Type		Oil or Grease up to NLGI #2
	Certifications/Rati	ngs	(*Conforms to UL 73, certified
		Sta	





- 1 Easy-to-read LED display
- (2) Clearly identified pump on/off indication
- Monitoring of up to three independent zones
- 4 Programmable machine count feature
- 6 Alarm signal of lube system shutdown
- 9 Pre-lube capability 10 Easy-to-use

lube system shutdown

7 Low level indication

Password protected

access to control

- navigation keys

ELECTRIC LUBRICATION PUMPS

G3™ **ELECTRIC LUBRICATION PUMPS**



G3 Standard

Comes standard with no controller for use with separate or existing machine control for a low cost solution. Some models capable of sending a low level signal to your external controller or PLC.

		Voltago	Reserv	oir Size	Wiper	Follower	External	Power Connection
		Voltage	4 liter	8 liter	Arm	Plate	Low Level	Power Connection
Application	ease	24 VDC	96G048	96G049	•		•	CPC
Applic	Gre	24 VDC	96G184	96G189	•		• DIN	DIN



G3 Pro

Built-in controller with selectable pump on/pump off timer comes with local manual run and password protection with pre-lube function to initiate lube cycle on start-up. Optional low level sensing, warning and shut-down alarm available as well as remote manual run.

		Voltago	Reserv	oir Size	M12 Connection	Wiper	Low	Power Connection
		Voltage	4 liter	8 liter	for Remote*	Arm	Level	Fower Connection
		24 VDC	96G068	96G069	•	•	•	CPC
Application	Grease	24 VDG	96G149	96G150		•	•	5 Wire CPC**
Applic	Gre	90-240 VAC	96G139	96G140		•		DIN
		30-240 VAC	96G075	96G076		•	•	DIN

^{**63} Pro pumps with the 5 Wire CPC power connection are compatible with a Remote Manual Run/Monitoring Light Device to provide external low level indication. Choose part number 571030 for 12 VDC pumps or 571031 for 24 VDC pumps.



G3 SP (Series Progressive)

The G3 SP (Series Progressive) combines the robust, proven design of our G-Series pumps with simple programming and valuable system feedback. The only programming requirements are number of cycles and off time between lube events.

		Valtaga	Reservoir Size						Power Connection
		Voltage	2 liter	4 liter	8 liter	12 liter	Arm Level		rower Guillection
uo		12 VDC	96G221	96G222	-	-	•	•	5 Wire CPC [†]
Application	Grease	24 VDC	96G223	96G224	96G225	96G226	•	•	5 Wire CPC [†]
Ap		90-240 VAC	96G227	96G228	-	-	•		DIN

Note: G3 SP pumps for use in series progressive systems only and require proximity switch with M12 connection



G3 Max (With Data Management)

Built-in controller with selectable pump on/pump off timer has low level warning and shut-down alarm or set up faults to an external alarm. Comes with manual run and password protection with pre-lube function to initiate lube cycle on start-up. Mix and match up to three cycle and pressure switches for custom installations and feedback. Machine count input is ideally suited for inconsistently used equipment. Optional Data Management System™ (DMS) uses a common USB port to quickly configure, store and transfer error log history to Excel® or Notepad® for longer equipment life and performance.

	Voltage		Reservoir Size		oir Size	Number of Cycle/ Machin					Wiper Follower		Low	Low Power
voitage		4 liter	8 liter	Pressure Input	Count	Valve Output*	Output**	for Remote***	Arm	Plate	Level	Connection		
	_		12 VDC	96G099	96G100	1-2	•	•	•	•	•		•	DIN
	Application	Grease	24 VDC	96G111	96G112	1-2	•	•	•	•	•		•	DIN
•	Ap	0	90-240 VAC	96G126	96G127	1-2	•	•	•	•	•		•	DIN

^{*}If not connected, use part number 16T854 to cover the Vent Valve Output and maintain IP69K rating

^{***}G3 Max pumps with the M12 connection for Remote Manual Run/Monitoring Light use the kit with the connecting cable to provide external fault indication. Choose part number 571032 for 12 VDC pumps or 571033 for 24 VDC and AC pumps.



G3 Pumps with Auto-Fill Shutoff

Versatile line of G3 Pumps (Standard, Pro. and Max) offered with a factory installed Auto-Fill Shutoff (AFSO). The AFSO feature automatically shuts off lubricant flow from a fill pump to the G3 reservoir once the G3 reservoir is full. The G3 AFSO is based on the same design concept as the Auto-Fill Shutoff offered in conjunction with the robust Electric Dyna-Star product line. Eliminate the need to climb up on equipment to refill an empty reservoir by adding Remote Fill Manifold 77X542 to your system at ground level.

G3 AUTO-FILL SHUTOFF FIELD CONVERSION KITS

571286	G3 AFSO 4L Field Conversion Kit				
571287	G3 AFSO 8L Field Conversion Kit				
571288	G3 AFSO 12L Field Conversion Kit				
571289	G3 AFSO 16L Field Conversion Kit				



^{**}The DIN Alarm Output is a dry contact relay which opens or closes when a fault is detected. This relay acts as a switch but supplies no power. It requires external power to energise the circuit when closed. If not connected, use part number 24P731 to cover the DIN connector and maintain IP69K rating.

ORDERING INFORMATION - ACCESSORIES

G3 Injector Pump Pre-assembled Modules	8 Liter	16 Liter
G3 Injector Pump Pre-assembled Module: 24V, Max, 5 Pin CPC (Alarm, Manual Run, Low Level in the CPC), 2 Pump Elements, Union Kit, Vent Valve, Pressure Switch, Pressure Gage.	17J999	17N926
G3 and G1 Accessories		

G3™

ELECTRIC LUBRICATION PUMPS

G1/G3 Pump element – same adjustability as the pump included with G3 pumps.

G3 Pump Output Union Kits – pump element(s) sold separately.

Three (3) Pumps	Two (2) Pumps - Left and Right	Description
571026 571063		For systems without a direct-mount vent valve installed on the first pump outlet.
24P295	24P296	For systems with a direct-mount vent valve installed on the first pump outlet.

Each G3 includes one pump element when it ships. Add one or two more (p/n 571041) and the appropriate union kit if needed for your application.

Relief valve options for G-series pumps

Outlet	Thread			
NPT BSPP		Description		
571028* 571071		Adjustable return-to-reservoir pressure relief kit – 500 to 3,500 psi (35 to 241 bar).		
571058* 571070		Pressure relief-to-atmosphere kit – requires one of the following six pressure relief valves:		
563156*		Pressure relief valve – 750 psi (52 bar)		
563157*		Pressure relief valve – 1,000 psi (69 bar)		
563	158*	Pressure relief valve – 1,500 psi (103 bar)		
563159*		Pressure relief valve – 2,000 psi (138 bar)		
563160*		Pressure relief valve – 2,500 psi (172 bar)		
563	161*	Pressure relief valve – 3,000 psi (207 bar)		

G1/G3 Remote Manual Run/Monitoring Lig					
10.1/00	041/20*				

12 VDC	24 VDC*	M12 Cable included?
571032	571033	Yes. 16.5 ft (5 m). Use with pumps that have M12 input for manual run.

^{*24} VDC is also used with AC powered G-Series pumps.

G1/G3 Mounting Bracket Options						
125910	G3 pump mounting L-bracket					

G1/G3 Protective	Front Cover Kits	
571036	Black	

571255 Clear

G1/G3 Reservoir Filling Accessories

Remote-fill port manifold with vent – for use with reservoirs that have AFSO. Pressure Switches - use to read pressure in an injector-based system. After injectors dispense, controller or G3 Max will trigger pump shut down and vent.

Part Number	Voltage and Switch Type	Pressure Setting Range	Porting	Electrical Connector	Notes
24K414	10-32 VDC, PNP	set: 290 to 580 PSI (20 to 40 bar) reset: 175 to 5,685 PSI (12 to 392 bar)	1/4 NPT male	M12 male	Dual pressure setting adjustments. M12 connection makes it easy to wire to a G3 Max.

Other wiring accessories for G-series pumps - use with a G3 Max, G3 SP or G-Mini when connecting directly to the pump, when LED cycle indication is not required.

Part Number 1st connection		2nd connection	Length	Notes
126331	M12 female, straight	Flying leads	16.5 ft (5 m)	Requires 124594 when used with G3 Max/SP or G-Mini
124300	M12 male, straight	Flying leads	16.5 ft (5 m)	Accessory cable – add 124301 when connecting to an M12 sensor.
124333	M12 female, straight	M12 male, straight	16.5 ft (5 m)	Accessory cable

VENT VALVE ORDERING INFORMATION

Direct-Mount Vent Valves for G3 Pumps

G3 pump vent valve kits include adjustable pressure relief, 500-3,500 psi (35-241 bar), and mount directly to a G3 pump.

Normally Closed Vent Valves for use with G3 Max pumps							
Voltage	NPT version	Power cable					
12 VDC	571169	Included					
24 VDC	571170	Included					
AC pumps	571170	Included					

G3 Max AC pumps are 24 VDC internally, so they use 24 VDC accessories, including the vent valve and pressure sensors.

Right-Sized Solution

The Graco Compact Dyna-Star automatic lubrication system delivers high-capacity flow, robust durability and innovative control in a smaller footprint to extend uptime for today's toughest earth-moving machines and users in the harshest environments.

Rugged Durability

Metal construction ensures trustworthy operation in the most extreme environments.

Integrated Auto-Fill Shut-Off

Option enables single-person, powered-down, ground-level refills, without the need to climb or worry about spills.

Smart Power Train

24 VDC, brushless motor and zeromaintenance gear drive deliver lubricants on time, even at -40° F (-40° C).

Intelligent Monitoring

Optional pressure and lubricant level sensors provide useful system information in real time.

Compact Power

Fits easily in space-limited applications; powerful enough to keep up with aggressive lubrication interval.



TECHNICAL SPECIFICATIONS

Maximum Working Pressure	3,500 psi (241 bar)
Operating Temperature	-40 to 149° F (-40 to 65° C)
Reservoir Size	12 liter, 20 liter and 60lb
Maximum Flow Output Rate	4.5 in ³ /min (74 cm ³ /min)
Lube Type	Oil and grease up to NLGI #2
Certifications/Ratings	IP69K
Manual	3A6941

TYPICAL APPLICATIONS

- Aggregates
- Mining
- Construction
- Hydraulic Fracturing Units

ORDERING INFORMATION CD -Χ **Pump Description** Code Description 1 12 L / 35 lb bucket length, 24 VDC 2 20 L reservoir length, 24 VDC 3 60 pound reservoir length, 24 VDC, Metering System Feedback Code Description O Series progressive, no vent-valve, no pressure feedback (plugged outlet) 1 Vent-valve, no pressure feedback (plugged outlet) 2 Vent-valve, pressure switch 3 Vent-valve, pressure-reporting transducer Reservoir Code Description 0 No reservoir, bare pump 12 L steel reservoir, follower plate 20 L steel reservoir, follower plate

Reservoir Accessories

3 35 lb plastic bucket kit

Code Description

0 Bare pump or bucket kit (no reservoir)

4 12 L steel reservoir, no follower plate

20 L steel reservoir, no follower plate

7 60 pound steel reservoir, no follower plate

6 60 pound steel reservoir, follower plate

- 1 Low-level switch
- 2 Level-reporting transducer
- 3 Auto-fill shut-off and low-level switch
- 4 Auto-fill shut-off and level-reporting transducer



ORDERING INFORMATION

CDS Accessories					
26A883	GLC X to CDS 3 ft (1 m) cable				
26A884	CDS extension cable, 12-wire, 20 ft (6 m) with flying leads				
26A889	12-pin DT female CDS mating connector kit				
25R001	12 liter reservoir wall mount bracket				
25R318	12 and 20 liter Mounting bracket for GLC X, Red Alert filter, 3- and 5-section MSP assemblies or 3- and 5-bank GL-1 series injectors				
25U220	60 pound Mounting bracket for GLC X, Red Alert filter, 3- and 5-section MSP assemblies or 3- and 5-bank GL-1 series injectors				

Pair with the GLC X Controller and Auto Lube App Drive More Productivity

The powerful, easy-to-use Graco GLC X automatic lubrication controller captures more information so operators, technicians and managers can make faster, smarter decisions. Paired with the intuitive Auto Lube app, users can monitor system performance and make adjustments with incredible speed, precision and freedom from their personal mobile device.



Easy-to-Read Screen

High-contrast screen features text codes, faults and other data clearly in any ambient light without distracting operators.

Real-Time System Reporting

Program and display a wide range of customisable functions – including lubrication intervals, pressure limits, lubricant levels and more.

Smart Device and Mobile App

With the Auto Lube app, monitor lubrication levels, configure settings, track system history and share important diagnostics.

ORDERING INFORMATION

GLC X Controller				
26A855	GLC X controller with 20 ft (6 m) cable			
26A814	GLC X controller			
26A882	GLC X wiring harness, 12-wire, 20 ft (6 m) with flying leads			





M23 Connector

Saves installation time.

Adjustable Motor and Amp Control

Make adjustments with the turn of a dial. LED status lights.

Mechanical Auto-Fill Shutoff

Shuts off the fill pump for clean, trouble-free refilling without electronics.

Strong 12 Gauge Steel Reservoir

Available in 60 lb (27 kg) or 90 lb (41 kg) reservoirs. Matches common bolt pattern.

Tube-In-Tube

Provides simple and direct venting and filling to the foot of the pump.

Remote Fill Manifold

Enables clean and efficient ground-level filling up to 5,000 psi (344 bar).



ORDERING INFORMATION

Stand Alor	Stand Alone Pumps					
77X000	24 VDC HP stand-alone pump for 35 or 60 pound reservoir					
77X001	24 VDC HP stand-alone pump with tube-in-tube for 35 or 60 pound reservoir					
77X002	24 VDC HP stand-alone pump with tube-in-tube for 90 or 120 pound reservoir					
77X003	24 VDC HP stand-alone pump with tube-in-tube for 400 pound reservoir					
77X014	24 VDC HF stand-alone pump for 35 or 60 pound reservoir					
77X015	24 VDC HF stand-alone pump for 120 pound reservoir					
77X016	24 VDC HF stand-alone pump for 400 pound reservoir					
Custom Ta	nk Injector Kits					
77X011	24 VDC HP pump and vent valve with tube-in-tube for 35 or 60 pound reservoir					
77X012	24 VDC HP pump and vent valve with tube-in-tube for 90 or 120 pound reservoir					
77X013	24 VDC HP pump and vent valve with tube-in-tube for 400 pound reservoir					
System In:	System Installation Kits					

ELECTRIC DYNA-STAR

(EDS)

77X960	24 VDC HP pump with auto-fill shutoff and low-level monitor, GLC2200 controller, wiring harness, low-level sensor cable, power cable, pressure switch, and remote fill manifold for 60 pound reservoir
77X990	24 VDC HP pump with auto-fill shutoff and low-level monitor, GLC2200 controller, wiring harness, low-

Part	Reserv	oir Size	Vent	Dip	Low Level	Follower	Low Level	Auto-Fill	
Number	60 lb	90 lb	Valve	Stick	Stick 77X522 (DIN)		17L372 (M12)	Shut Off	
77X102	•		•					•	
77X103		•	•					•	
77X202	•		•				•	•	
77X203		•	•				•	•	

Accessories

77X500	Follower plate for Graco 60 pound and 90 pound Graco tank for tube-in-tube
77X510	Follower plate for 35 pound bucket with and without tube-in-tube
247701	Follower plate for 120 pound drum without tube-in-tube
77X511	Follower plate for 120 pound drum with tube-in-tube
247702	Follower plate for 400 pound drum without tube-in-tube
77X512	Follower plate for 400 pound drum with for tube-in-tube
77X513	Cover, cylinder, tie-rods and base to convert 60 pound length to 35 pound bucket
77X514	Cover for 120 pound drum
77X515	Cover for 400 pound drum
77X521	Auto-fill shutoff (AFSO) – diaphragm, plate, valve, coupler, and pipes
77X522	Low level kit sight glass, electric low level switch, and cable (requires follower plate 77X500)
77X523	400 micron inline filter, maximum 5,000 psi (344 bar) inlet pressure (replacement filter 77X541)
17L366	Red alert filter with 380µm, 36 in² steel mesh filter (replacement filter 129031)
24R952	Red alert filter with reservoir mounting kit (includes 17L366)
16V678	Red alert filter mounting bracket
77X524	110-230 VAC to 24 VDC converter box
77X540	24 VDC electric vent valve with pressure relief
77X542	Remote-fill port manifold with vent
77X543	HF manifold with 4,000 psi pressure relief
77X544	HP manifold with 5,000 psi pressure relief
77X545	Power cable for series progressive systems, M23 connector, 15 ft (4.6 m)
77X546	Power cable for injector systems, M23 connector, 15 ft (4.6 m)
115124	Pressure switch – pressure adjustment visible in window
24N180	Pressure switch, 1/4 in BSPP inlet, DIN 43650 connector (1 NO/1 NC), 7,250 psi (500 bar)
24N181	Pressure switch, 1/4 in NPT(F) inlet, DIN 43650 connector (1 NO/1 NC), 7,250 psi (500 bar)





ELECTRIC DYNA-STAR INJECTOR SYSTEM INSTALLATION KIT ORDERING INFORMATION

	77X960	77X990
EDS HP Pump with auto-fill shutoff and low-level monitor	77X202 (60 pound reservoir)	77X203 (90 pound reservoir)
GL C2200 Controller	24N	468
GLC2200 wiring harness	24P	314
Low-level sensor cable	129	072
EDS pump power cable	77X	546
Pressure switch	24N	181
Remote fill manifold	77X	542

Refer to www.graco.com or the Graco Automatic Lubrication Equipment Buyer's Guide for additional configurations and accessories.

ORDERING INFORMATION

Dyna-Star	10:1 Modules And Kits
24Y407	Dyna-Star 10:1 90 lb pump kit – injector – mechanical AFSO
24Y408	Dyna-Star 10:1 60 lb pump kit – injector – mechanical AFSO
247574	Dyna-Star 10:1 60 lb (27 kg) pump module – injector – overall height 35.15 in (842 mm). Includes pump (247540), reservoir assembly (247575), hydraulic control assembly (247538) and vent valve assembly (243170). Fully assembled.
247706	Dyna-Star 10:1 60 lb (27 kg) pump kit – divider valve – overall height 35.15 in (842 mm). Includes pump (247540), reservoir assembly (247575) and hydraulic control assembly (247538). Not assembled.
247444	Dyna-Star 10:1 90 lb (41 kg) pump module – injector – overall height 42.75 in (1086 mm). Includes pump (247443), reservoir assembly (241486), hydraulic control assembly (247538) and vent valve assembly (243170). Fully assembled.
247707	Dyna-Star 10:1 90 lb (41 kg) pump kit – divider valve – overall height 42.75 in (1086 mm). Includes pump (247443), reservoir assembly (241486) and hydraulic control assembly (247538). Not assembled.
247902	Pressure relief kit for 247706 and 247707
312349	Manual for 247574, 247706, 247444, 247707

Dyna-Star 10:1 Refinery Drum And Custom Tank Applications									
Description	Refinery D	rums	Custom Ta	Custom Tank Applications					
Weight lbs (kg)	120 (55)	400 (180)	60 (27)	60 (27)	120 (55)	120 (55)	400 (180)	400 (180)	
Divider Valve (DV) or Injector Based	DV	DV	Injector	DV	Injector	DV	Injector	DV	
Pump	247443	247450	247540	247540	247443	247443	247450	247450	
Hydraulic Control*	247705	247705	247538	247538	247538	247538	247538	247538	
Vent Valve	-	-	243170	-	243170	-	243170	-	
Cover	247703	247704	-	-	-	-			
Pump Gasket	15M442	15M442	15M442	15M442	15M442	15M442	15M442	15M442	
Custom Tank Kit**	_	_	247970	_	247456	_	247457	_	

 $^{^{\}star}$ Hydraulic control assembly (247705) includes longer hoses to enable remote mounting.

^{**}Kits include pump (247540, 247443 or 247450), hydraulic control assembly (247538), vent valve (243170), and pump gasket (15M442).

Dyna-Star	Dyna-Star 10:1 Module Accessories				
243170	Vent valve				
247538	Hydraulic control module				
247700	Follower plate for 60 lb (27 kg) and 90 lb (41 kg) modules				
244023	Level indicator for 60 lb (27 kg) and 90 lb (41 kg) modules [†]				
115124	Pressure switch				
247575	Reservoir – 60 lb (27 kg)				
241486	Reservoir – 90 lb (41 kg)				
†Doguiroo fol	lawer plate, order with part number 247700				

[†]Requires follower plate, order with part number 247700.

Fireball 300 And Dyna-Star 5:1 Modules and Accessories					
300, 50:1 90 lb (41 kg) pump module. Includes pump (239887), reservoir assembly 5), and vent valve assembly (241572)					
300, 50:1 60 lb (27 kg) pump module. Includes pump (239877), reservoir assembly 5), and vent valve assembly (241572)					
r plate (fits 241573 and 25D096)					
tar 5:1 90 lb (41 kg) pump module. Includes pump (224751), reservoir assembly (241486), c control assembly (243501), and vent valve assembly (243170)					
r plate (fits 243159)					
r pla					



247574



241573



- 1 Upper King Pins
- 8 Spring Hangers
- Lower King Pins
 Hood Pins
- Olutch Pedal
- 10 Clutch Cross Shafts
- 3 Spring Pins
- Clutch Throw Out
- 4 Drag Links
- Bearing
- 5 Tie Rod Ends
- 5th Wheel Plate
- 6 Slack Adjusters
- 5th Wheel Pivots
- S-Cams
- Pump
- Right Front Module
- 15 Left Front Module
- Rear Module
- 16 5th Wheel Module

Electric Grease Jockey® Manifolds

Grease Jockey modular design makes it easy to add or subtract lube points and commonise service parts across your fleet. Modules hold up to 6 or 12 lubrication point meters.

Updated for NLGI #2 Grease

Multiple Mounting and Plumbing Options

Same Pre-Charged, Colour Coded Lines and End-Point Fittings

12-Port And 6-Port Options

ELECTRIC GREASE JOCKEY PUMP PACKAGES

	Package Number	25C990	25C991	25C992	25C993
Package Includes	Pump	24Z764	24Z959	24Z660	24Z958
	Power	12V	24V	12V	24V
	Data Management System	-	-	Yes	Yes
	Power Cable	129644	129644	127782	127782
	Manual Run Button	-	-	25C981	25C982

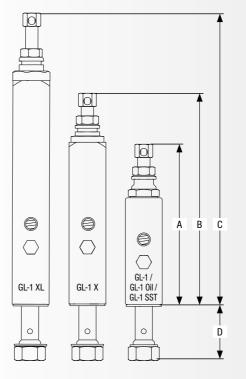
ELECTRIC GREASE JOCKEY									
		Truck v	Truck with Greaseable Spring Pins		Truck with Sealed Spring Pins (non-greaseable)				
		Drum Brakes		Disc Brakes	Drum Brakes		Disc Brakes		
SY	STEM INSTALLATION KITS	6 x 4 Tandem Axle	4 x 2 Single Axle	DISC Brakes	6 x 4 Tandem Axle	4 x 2 Single Axle	DISC DI ares		
		32 Point / 4 Module Kit	28 Point / 3 Module Kit	20 Point / 3 Module Kit	26 Point / 4 Module Kit	22 Point / 3 Module Kit	14 Point / 3 Module Kit		
Package Number		25C971	25C972	25C973	25C974	25C975	25C976		
12 VDC Grease Jockey pump			25C990		25C990				
	18 ft mainline section/installable end kit		17S970			17S970			
	12 ft mainline section/installable end kit		17\$969		17\$969				
	6 ft mainline section/installable end kit (qty)	17S968 (2)	17S968 (1)	17S968 (1)	17S968 (2)	17S968 (1)	17S968 (1)		
	Mainline tee (qty)	129759 (3)	129759 (2)	129759 (2)	129759 (3)	129759 (2)	129759 (2)		
	Mainline elbow (2)	129755		129755					
Ides	Front left meter module	25C854	25C854	25C857	25C858	25C858	25C849		
Package Includes	Front right meter module	25C859	25C859	25C850	25C851	25C851	25C852		
kage	5th wheel meter module	25C853	25C855	25C853	25C853	250855	25C853		
Pacl	Rear axle meter module	25C856	250655	-	25C856	200000	-		
	3/16 in to 1/8 NPT elbows, 10-Pack (qty)	25C977 (3)	25C977 (3)	25C977 (2)	25C977 (3)	25C977 (2)	25C977		
	3/16 in to 1/8 NPT straights, 10-Pack		25C978		25C978				
	1/4-28 SAE to 1/8 NPT(F), 5-Pack		25C979		25C979				
	Mounting bracket		25T767		25T767				
	Zip ties, 100-count		17K063		17K063				
	Zip ties, looped, 10-count (qty)	25C980 (3)	25C980 (2)	25C980 (1)	25C980 (3)	25C980 (2)	25C980 (1)		
	1/4-28 SAE to 1/8 NPT(F), 5-Pack Mounting bracket Zip ties, 100-count	25C980 (3)	25C979 25T767 17K063	25C980 (1)	250980 (3)	25C979 25T767 17K063	25098		

METERING

GL-1™ INJECTORS

Graco quality provides consistent performance in rugged environments.

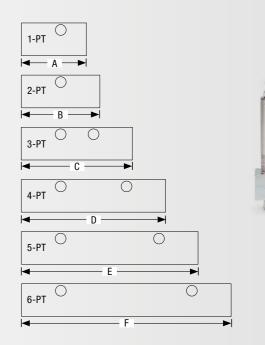




GL-1 Injector Dimensions

ORDERING INFORMATION

Α	5.3 in (13.46 cm)
В	6.9 in (17.53 cm)
С	9.5 in (24.13 cm)
D	1.7 in (4.32 cm)



GL-1 Manifold Dimensions

Α	2.5 in (6.35 cm)
В	3.0 in (7.62 cm)
С	4.2 in (10.67 cm)
D	5.5 in (13.97 cm)
E	6.7 in (17.02 cm)
F	8.0 in (20.32 cm)

GL-1 SST

GL-1 X

GL-1 XL

GL-1 Oil





GL-1 Injectors and Manifold Assemblies					
GL-1 one point assembly	114901	25T641	-	24X801	24X811
GL-1 two point assembly	114902	25T642	-	24X802	24X812
GL-1 three point assembly	114903	25T643	-	24X803	24X813
GL-1 four point assembly	114904	25T644	-	24X804	24X814
GL-1 five point assembly	114905	25T645	-	24X805	24X815
GL-1 six point assembly	117206	25T646	-	24X806	24X816
GL-1 single replacement injector (no manifold)	114909	25T649	25N109	24X807	24X817

GL-1 single replacement injector (no manifold)	114909	25T649	25N109	24X807	24X817
GL-1 Bare Injector Manifolds (no injectors included)					
One bank GL-1 manifold	114911	114911	25N101	114911	114911
Two bank GL-1 manifold	114912	114912	25N102	114912	114912
Three bank GL-1 manifold	114913	114913	25N103	114913	114913
Four bank GL-1 manifold	114914	114914	25N104	114914	114914
Five bank GL-1 manifold	114915	114915	25N105	114915	114915
Six bank GL-1 manifold	118206	118206	25N106	118206	118206

METERING

Features and Benefits

- Accurate, reliable and adjustable lubrication for each lube point. Systems are easy to design, fast to set up and allow you to add or subtract lube points without having to redesign your lubrication system
- Versatile high performance works with oil and grease grades to NLGI #2
- All injectors come standard with fluoroelastomer seals for use with synthetic lubricants and high temperature applications – up to 350°F (176°C)

Typical Applications

• In-plant machinery, mobile equipment and anywhere adjustable lubrication output is desired

Typical Fluids Handled

• Oil (10 weight minimum) and grease up to NLGI #2



24A923

TECHNICAL SPECIFICATIONS -

	GL-32 Grease Injectors	GL-43 Oil Injectors
Maximum Operating Pressure	3,500 psi (241 bar)	1,000 psi (69 bar)
Minimum Operating Pressure	1,200 psi (83 bar)	750 psi (52 bar)
Typical Operating Pressure	1,500 psi (103 bar)	850 psi (59 bar)
Reset Pressure	200 psi (13.7 bar)	150 psi (10 bar)
Output Volume Per Cycle (adjustable)	0.001 to 0.008 in ³	(0.02 to 0.13 cm ³)
Maximum Temperature Rating	350°F	(176°C)
Cycle Indication	Visua	al pin
Instruction Manual	313	798

ORDERING INFORMATION -		GL-32 Grea	GL-43 Oil Injectors			
		Carbon Steel	304 Stainless	Carbon Steel		
	Stand-Alone Injector, 1/4 NPT male inlet, 1/8 in OD tube outlet	24A919*	24E389*	24E240*		
	Replacement Injector for manifolds, 1/8 in OD tube outlet	24A920*	24E390*	24E245*		
	1-Injector Manifold, 1/4 NPT female inlet, 1/8 in OD tube outlet	24A921	24E391	24E241		
rting	2-Injector Manifold, 1/4 NPT female inlet, 1/8 in OD tube outlet	24A922	24E392	24E242		
	3-Injector Manifold, 1/4 NPT female inlet, 1/8 in OD tube outlet	24A923	24E393	24E243		
	4-Injector Manifold, 1/4 NPT female inlet, 1/8 in OD tube outlet	24A924	24E394	24E244		
Port	Replacement Injector for manifolds, 6 mm OD tube outlet	24F508*	24F550*	24F543*		
	1-Injector Manifold, 1/8 BSPP female inlet, 6 mm OD tube outlet	24F509	24F551	24F544		
	2-Injector Manifold, 1/8 BSPP female inlet, 6 mm OD tube outlet	24F510	24F552	24F545		
	3-Injector Manifold, 1/8 BSPP female inlet, 6 mm OD tube outlet	24F511	24F553	24F546		
	4-Injector Manifold, 1/8 BSPP female inlet, 6 mm OD tube outlet	24F512	24F554	24F548		
	Repair/Overhaul Kit	24B360	24F944	24F201		

SINGLE LINE PARALLEL

GL-32™ AND GL-43™ INJECTORS

*Must be ordered in quantities of five.

		GL-32, GL-33, GL-42 and GL-43 Outlet Fitt	
		Carbon Steel	Stainless Steel
	JIC-4 male	17B168	17B169
	1/8 in OD tube	24B677	24F943
ō	1/8 in OD Push-to-Connect	17B879	17B880
Porting	1/8 in NPT female	17B780	17B781
	4 mm OD tube	24F513	24F555
	6 mm OD tube	24F514	24F556
	Closure Plug	17B782	17B783

Accessori	Accessories				
24W495	Manual grease fitting adapter – compatible with 1/8 in OD tube outlet only				
17B785	Measuring chamber vinyl cap				

Features and Benefits

- Adjustable output volumes to custom fit the system for each lube point
- Convenient top-mounted cycle pin indicator provides quick, at-a-glance confirmation that the injector is functioning properly
- Hex head adjustment for easy turning from most any orientation

Typical Applications

• Rugged, medium-pressure metering system for pumping grease; ideal for heavier-duty applications such as mobile mining vehicles, milling, cement batch plants or material processing equipment.

Typical Fluids Handled

• Grease up to NLGI #2

TECHNICAL SPECIFICATIONS

Reset Pressure	600 psi (41 bar)
Maximum Pressure	3,500 psi (241 bar)
Suggested Operating Pressure	2,500 psi (172 bar)
Minimum Operating Pressure	1,000 psi (69 bar)
Output Range	0.05 to 0.5 in3 (0.82 to 8.2 cm3)
Number of Adjustment Turns	14
Cycle Indicator	Visual



24A918

ORDERING INFORMATION

GL Injectors and Accessories				
24A918	GL-11 injector			
24B359	GL-11 injector repair kit			
17Y511	GL-11 zerk and cap kit (5 pack)			

Compact Series Progressive (CSP) valve with broad market versatility. Combine with fieldproven Graco pumps for a complete system solution.

1/8" NPT or BSPP Inlet

Built-in Durability

Zinc iron plating stands up to harsh environments.

TYPICAL FLUIDS HANDLED

• Oil or grease grades up to NLGI #2

25E935 Acrylic CSP Demo Kit

TECHNICAL SPECIFICATIONS

Maximum Pressure, psi (bar)	5,076 (350)
Output Single Outlet, in3 (cm3)	0.012 in3 (.20 cm3)
Cycle Indication	Electronic proximity switch, magnetic visual indicator
Max Operating Temperature	212°F (100°C)
Material	Carbon alloy steel with zinc iron plating

ORDERING INFORMATION	NPT	BSPP
CSP Valves without Indicator		
6 outlet, 1/8 in inlet	24Z486	24Z477
8 outlet, 1/8 in inlet	24Z487	24Z478
10 outlet, 1/8 in inlet	24Z488	24Z479
12 outlet, 1/8 in inlet	24Z489	24Z480
14 outlet, 1/8 in inlet	24Z490	24Z481
16 outlet, 1/8 in inlet	24Z491	24Z482
18 outlet, 1/8 in inlet	24Z492	24Z483
20 outlet, 1/8 in inlet	24Z493	24Z484
22 outlet, 1/8 in inlet	24Z494	24Z485
CSP Valves with Indicator		
6 outlet, 1/8 in inlet	24Z504	24Z495
8 outlet, 1/8 in inlet	24Z505	24Z496
10 outlet, 1/8 in inlet	24Z506	24Z497
12 outlet, 1/8 in inlet	24Z507	24Z498
14 outlet, 1/8 in inlet	24Z508	24Z499
16 outlet, 1/8 in inlet	24Z509	24Z500
18 outlet, 1/8 in inlet	24Z510	24Z501
20 outlet, 1/8 in inlet	24Z511	24Z502
22 outlet, 1/8 in inlet	24Z512	24Z503

Variety of Configurations

6 to 22 outlets, available with or without indicators.

High Output Pressure

Maximum working pressure of 5,076 psi (350 bar).

Output to Meet Your Needs

0.012 in3 (0.2 cc)/stroke output with the ability to double-up outlets if greater output is required.

ODDEDING INFORMATION

	RING INFORMATION
	Ish-to-Connect (PTC) Fittings 1/8 in ID hose only
17L441	1/4 in stud PTC, M10, CSP outlet
17L458	6 mm stud PTC, M10, CSP outlet. Refer to page 100 for mating 6 mm hose studs and hose.
25M496	90 degree 1/4 in field-installable stud
25M497	Straight 1/4 in field-installable stud
17L442	1/4 in stud PTC with male 1/8 in NPT, inlet or LP
17L547	1/4 in stud PTC with male 1/4 in NPT, pump outlet
-	e Push-To-Connect (PTC) Fittings 1/4 in OD nylon tube
17L440	1/4 in OD nylon tube PTC, M10, CSP outlet
17L652	90 degree 1/4 in OD nylon tube PTC, male 1/8 in NPT, inlet or LP
17L653	Straight 1/4 in OD nylon tube PTC, male 1/8 in NPT, inlet or LP
CSP Outle	t Fittings
25M498	1/8 in NPT female with check, M10
25M499	1/4 in compression with check, M10
17L550	6 mm stud compression, M10, CSP outlet. Refer to page 100 for mating 6 mm hose studs and hose
Doubling I	Plug
17L651	Doubling plug
Proximity	Switch
17L879	CSP – DC PNP, Solid state, 10-36 VDC, M12 connection
Weld Stud	Accessories
25N730	CSP weld bar kit
26A478	Weld stud kit
26A479	Weld stud template
1/4 in ID H	loses and Accessories
128572	Hose, 1/4 in ID, 2,750 PSI, 100 ft, braided with polyurethane cover
128573	Hose, 1/4 in ID, 2,750 PSI, 125 ft, braided with polyurethane cover
128582	Hose guard, 1/2 in ID, 100 ft
128563	Field-installable swivel hose end fitting, 1/4 in ID hose, #4 JIC, SAE 7/16-20 female
128564	Field-installable swivel hose end fitting, 1/4 in ID Hose, 1/4 in NPT male
128565	Field-installable swivel hose end fitting, 1/4 in ID Hose, 1/8 in NPT male
1/8 in ID F	oses and Accessories
128570	Hose, 1/8 in ID, 3,000 PSI, 200 ft, braided with polyurethane cover
128571	Hose, 1/8 in ID, 3,000 PSI, 400 ft, braided with polyurethane cover
128579	Hose guard, 3/8 in ID, 160 ft
128580	Hose guard, 3/8 in ID, 320 ft
128561	Field-installable swivel hose end fitting, 1/8 in ID hose, #4 JIC, SAE 7/16-20 female
128562	Field-installable swivel hose end fitting, 1/8 in ID hose, 1/8 in NPT male
1/4 in OD	Tubing and Accessories
127555	Tubing, 1/4 in 0D, 625 PSI, 100 ft
127552	1/4 in tube x 1/4 in NPT straight compression fitting
555726	1/4 in tube x 1/4 in NPT elbow compression fitting
127553	1/4 in tube x 1/8 in NPT straight compression fitting







FEATURES AND BENEFITS

The Trabon MSP Series sets the industry standard for quality, reliability, and ease of use features. It was the original modular-style series progressive divider valve-and is still the best!

- Quick change valve sections can be removed from the base assembly without disturbing any lube lines-minimising labor cost and maximising your machine uptime
- Accessories such as magnetic and electronic proximity switch cycle indicators provide positive assurance of a successful lube event
- Alternate outlet on face of valves can be fitted with optional performance indicators, taking the guesswork out of troubleshooting
- Built-in outlet check valves ensure accurate lube delivery, every time

TYPICAL APPLICATIONS

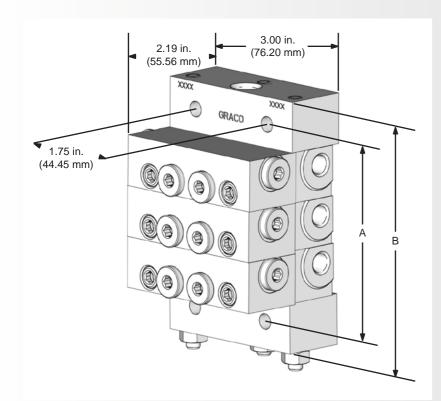
• Mobile, industrial, food and beverage, wind, and many more

TYPICAL FLUIDS HANDLED

• Oil or Grease up to NLGI #2

TECHNICAL SPECIFICATIONS

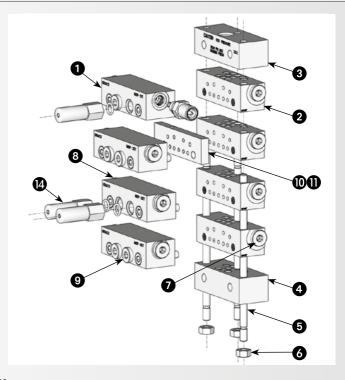
Material	Plated Steel
Maximum Pressure	3,500 psi (241 bar)
Max Operating Temperature	350°F (176 °C)
Max Cycle Rate with Cycle Pin	60 cycles/minute
Max Cycle Rate without Cycle Pin	200 cycles/minute





Number of	Dimensions (for reference only)			
Valve Sections	A	В		
3	3.6 in (91.4 mm)	4.6 in (116.8 mm)		
4	4.5 in (114.3 mm	5.0 in (127.0 mm)		
5	5.4 in (137.2 mm)	6.4 in (162.6 mm)		
6	6.3 in (160.0 mm)	7.4 in (188.0 mm)		
7	7.3 in (185.4 mm)	8.3 in (210.8 mm)		
8	8.2 in (208.3 mm)	9.2 in (233.7 mm)		

Easily configure the MSP Divider Valve system using the following item selection chart.



Note: Not shown in diagram - Bypass Block (562660), Cycle Indicators and Proximity Switches (refer to specific product pages), and Mounting Brackets (see page 66).

ORDERING INFORMATION

Item	Outlet	Doggrintian	Output Per Outlet,	Part Number			
iteiii	Outlet	Description	in³ (cm³)	Standard Section	With Cycle Pin – Right	With Cycle Pin – Left	
		MSP-5S	0.010 (0.16)	562711			
		MSP-10S	0.020 (0.33)	562712	N/	Ά	
		MSP-15S	0.030 (0.49)	562713			
	Cinalo	MSP-20S	0.040 (0.66)	562714	562729	562734	
	Single	MSP-25S	0.050 (0.82)	562715	562730	562735	
		MSP-30S	0.060 (0.98)	562716	562731	562736	
		MSP-35S	0.070 (1.15)	562717	562732	562737	
		MSP-40S	0.080 (1.31)	562718	562733	562738	
1		MSP-5T	0.005 (0.08)	562720			
		MSP-10T	0.010 (0.16)	562721	N/	'A	
		MSP-15T	0.015 (0.26)	562722			
	Tourism	MSP-20T	0.020 (0.33)	562723	562739	562744	
	Twin	MSP-25T	0.025 (0.41)	562724	562740	562745	
		MSP-30T	0.030 (0.49)	562725	562741	562746	
		MSP-35T	0.035 (0.57)	562726	562742	562747	
		MSP-40T	0.040 (0.66)	562727	562743	562748	

Pre-Configured MSP Base Plate Assemblies

Includes inlets, intermediate base plate sections, end section, tie rods, and nuts.

Itom	Maximum Number	Number of	Part Number		Dimensions (for reference only)	
Item	of Outlets	Valve Sections	NPSF	BSPP	А	В
	6	3	24G485	24N915	3.6 in (91.4 mm)	4.6 in (116.8 mm)
2/3/4/5/6	8	4	24G486	24N916	4.5 in (114.3 mm	5.0 in (127.0 mm)
	10	5	24G487	24N917	5.4 in (137.2 mm)	6.4 in (162.6 mm)
	12	6	24G488	24N918	6.3 in (160.0 mm)	7.4 in (188.0 mm)
	14	7	24G489	24N919	7.3 in (185.4 mm)	8.3 in (210.8 mm)
	16	8	24G490	24N920	8.2 in (208.3 mm)	9.2 in (233.7 mm)

TRABON MSP DIVIDER VALVE (MSP)

CONTROLLERS

GLC 2200

ORDERING INFORMATION

Build Your Own MSP Base Plate Assemblies						
Item	Component	Description	Part Number			Note
Item	Component	Description	NPSF	BSPP	SAE	Note
2	Intermediate base plate	Single section	563425	563447	563451	
3	Inlet options	Standard	560919	560936	560943	
3	Additional specialty inlets available	With bleed ports	563421		563422	Must be ordered in multiples of 5
4	End agetion entions	Standard		563424		manapioc or o
4	End section options	With alternate inlet port plug		563279		
		3-section		557731		
		4-section		557732		
		5-section		557733		
		6-section		557734		
5	Tie rods (3 required)	7-section		557735		3 tie rods and tie rod
		8-section		557736		nuts required for assembly
		9-section		557738		
		10-section		557739		
		11-section		557740		
6	Tie rod nuts (3 required)	Tie rod nuts		556371		

Pipe, Pisto	Pipe, Piston Enclosure, and Indicator Port Plugs						
Item	Component	Part Number			Note		
		NPSF	BSPP	SAE	Note		
7	Outlet Port Plug	557349 (NPT)	558799	567251 (with o-ring)	1 outlet port plug is required for each "S" valve section		
8	Piston Enclosure Plug with o-ring		567251				
9	Indicator Port Plug with o-ring		16U217				

Item	Component	Description	Part Number	Note	
			Right	563469	1 outlet port plug is required for
10	Crossport Bar	Left	563470	each crossport bar	
	orosoport Bui	Right and Left	563471	2 outlet port plugs are required fo each double crossport bar	
11	Singling Bar	Converts a "T" valve to an "S" valve	563472		
12	Bypass Block	MSP Bypass Section	562660		
		Magnetic Visual Cycle Indicator	563251		
	Cycle Indicators and Proximity Switches	SPDT Cycle Switch, provides electrical signal to controller or PLC	563272		
		SPDT Cycle Switch, provides electrical signal to controller or PLC - Moisture Resistant	563273		
		6 Digit Mechanical Cycle Counter	563444		
		Proximity Switches	See <u>US BUYER'S GUIDE</u>		
		Reset Indicator	See <u>US BUYER'S GUIDE</u>		
		Automatic Relief Indicator	See <u>US BUYER'S GUIDE</u>		
14	Performance Indicators	Rupture to Atmosphere Indicator	See <u>US BUYER'S GUIDE</u>		
		Pressure Switches	See <u>US BUYER'S GUIDE</u>		
		Broken Line Indicator	See <u>US BUYER'S GUIDE</u>		
15	Mounting Brackets	Choose from universal, top, or side mounting	See US BUYER'S GUIDE		

FEATURES AND BENEFITS

- Easy to mount without having to open up the control box
- LEDs let you know what your system is doing at a glance
- Easy to read digital display makes it simple to program and monitor your equipment
- In-cab visual and audible alarms let the operator know your equipment needs attention.

 Or set up a remote alarm to alert service or maintenance staff
- Simple icon based push buttons make programming easy
- Colour coded wiring harness with flying leads and easy to follow wiring diagrams makes installations efficient

AVAILABLE INPUTS

- Pressure/cycle switch
- Low level switch

AVAILABLE OUTPUTS

- Pump power control
- External alarms-both low level and pressure/cycle faults

TYPICAL APPLICATIONS

• Heavy construction, mining, other mobile on-road and off-road equipment

TECHNICAL SPECIFICATIONS

Height	5.53 in (140 mm)
Width	2.75 in (70 mm)
Depth	1.38 in (35 mm)
Protection Grade	IP54
Operating Temperature	-40°F to 176°F (-40°C to 80°C)
Standards	CE Marked
Power Source DC	9 - 30 VDC
Manual	3A2960A

ORDERING INFORMATION

GLC 2200		
24N468	GLC 2200 controller	
24P314	GLC 2200 wiring harness – 5 feet (150 cm) with flying leads	
24W981	GLC 2200 wiring harness – 10 feet (300 cm) with flying leads	
24P686	GLC 2200 connector (1) and pins (12)	
24P687	GLC 2200 connectors (5) and pins (60)	
16T671	Crimper	
24X606	Mounting bracket kit	
17G007	Yellow iron mounting bracket with slide adjustment	



Drive More Productivity

The powerful, easy-to-use Graco GLC X automatic lubrication controller captures more information so operators, technicians and managers can make faster, smarter decisions. Paired with the intuitive Auto Lube app, users can monitor system performance and make adjustments with incredible speed, precision and freedom from their personal mobile device.



Indoor/Outdoor Mountable (IP69K)

Designed to withstand all the elements, including high-pressure washes and inclement weather encountered at the harshest and dirtiest sites.

Easy-to-Read Screen

High-contrast screen features text codes, faults and other data clearly in any ambient light without distracting operators.

Real-Time System Reporting

Program and display a wide range of customisable functions – including lubrication intervals, pressure limits, lubricant levels and

Smart Device and Mobile App

With the Auto Lube™ app, monitor lubrication levels, configure settings, track history and share important diagnostics.



Universal Compatibility

One controller for all your lubrication systems simplifies training and inventory.

Quick Technical Information Access

Easily scan this QR code for access to manuals, guides, video tutorials and more.



Active Current Protection

9-30 VDC, 10 amp continuous power supply protects grease pumps from overcurrent and entire system from misfires, electrical shorts and surges.

TYPICAL APPLICATIONS

• Heavy construction, mining, other mobile on-road and off-road equipment

TECHNICAL SPECIFICATIONS

Inputs/Outputs	4/2
Power Source	9-30 VDC
Modes	Pressure / Cycle / Timer
Dimensions	3.62 in (92 mm) wide x 6.66 in (169 mm) high x 1.98 in (50 mm) deep
Operating Temperature	-22°F to 158°F (-30°C to 70°C)
Protection Grade	IP69K
Manual	3A7031

ORDERING INFORMATION

Controllers		
26A855	GLC X controller with 20 ft (6 m) cable	
26A814	GLC X controller	
Accessories		
26A853	GLC X pump simulator	
26A882	GLC X 20 ft (6 m) cable	
26A883	GLC X to Compact Dyna-Star® 3 ft (1 m) cable	
26A888	14-pin mating connector kit	

Productivity Leads to Profitability

Help your crews work faster and minimise downtime by simplifying their everyday lubrication tasks. Designed for today's modern personal mobile device user, the **Graco Auto Lube App** is intuitive and easy to learn for users in the field. They can view historical performance charts, access support and share information with a tap or swipe.



Control Lubrication Profile Configurations

- Customise profiles for equipment and end users
- Quickly and easily assign a Lube Profile Configuration with a GLCX Controller



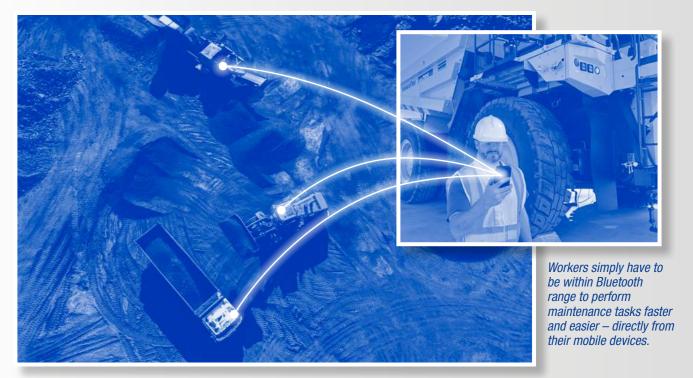
Manage Devices

- · Connect via Bluetooth to get instant status
- Review last-known state on any historical device



Communicate in Real Time

- See, control, check and clear
- Complete a manual run
- Review and share system history





Download the **Graco Auto Lube** app from Google Play or the App Store (iOS) and perform all controller functions from the convenience of a smartphone or tablet.





GRACO'S GOT 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 lubrication 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.



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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.

HOLD FAST FLUID POWER

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