



AUTOMOTIVE

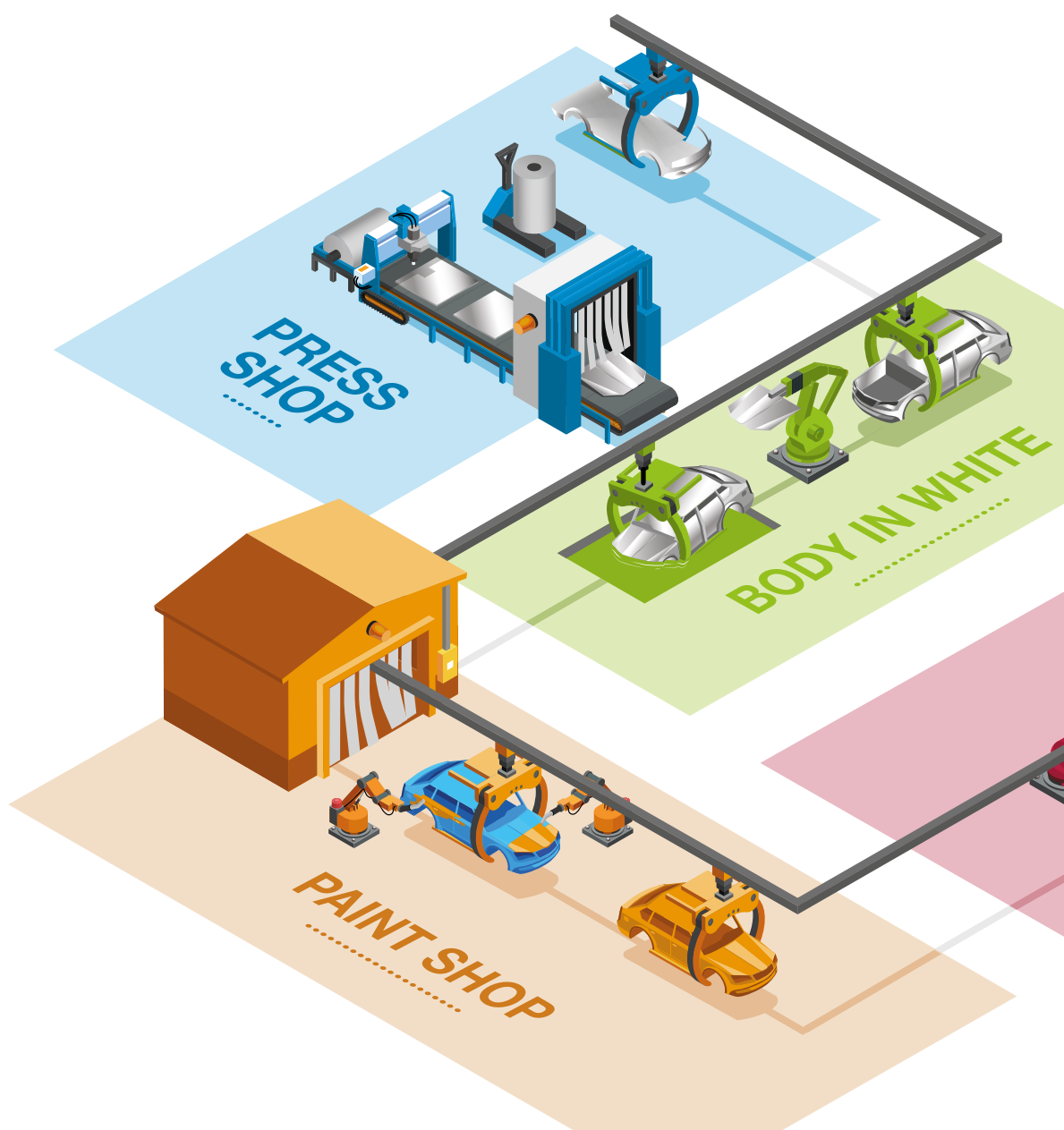
Automotive fluid handling solutions

from start to finish

From metal sheet to finished car, fluid handling plays an important role in the automotive production process. Whether it's fluid transfer, lubrication, bonding, sealing or painting; Graco has a solution that will fit your needs

Why partner with Graco?

- Years of expertise in creating high quality products for fluid handling applications, including a wide range of ATEX-approved equipment
- Constantly investing in innovative equipment to boost your production and reduce your energy consumption
- A global presence with local experts that can provide swift and detailed service and support



1

PRESS SHOP

Automatic lubrication 6-7

2

BODY IN WHITE

Bonding and Anti-flutter 10-11

Sound deadening 12

Pretreatment / Cathodic electro-coating 13

4

POWERTRAIN

Gasketing 28

Oil dispense solutions 29

Automatic lubrication 30-31

3

PAINT SHOP

Sealing, Sound deadening and NVH 16-17

Anti-chip 18-19

Paint supply and Circulation pumps 20-21

Spray booth - 2K mixing and spraying 22

Spray guns 23

Cavity wax injection 24-25

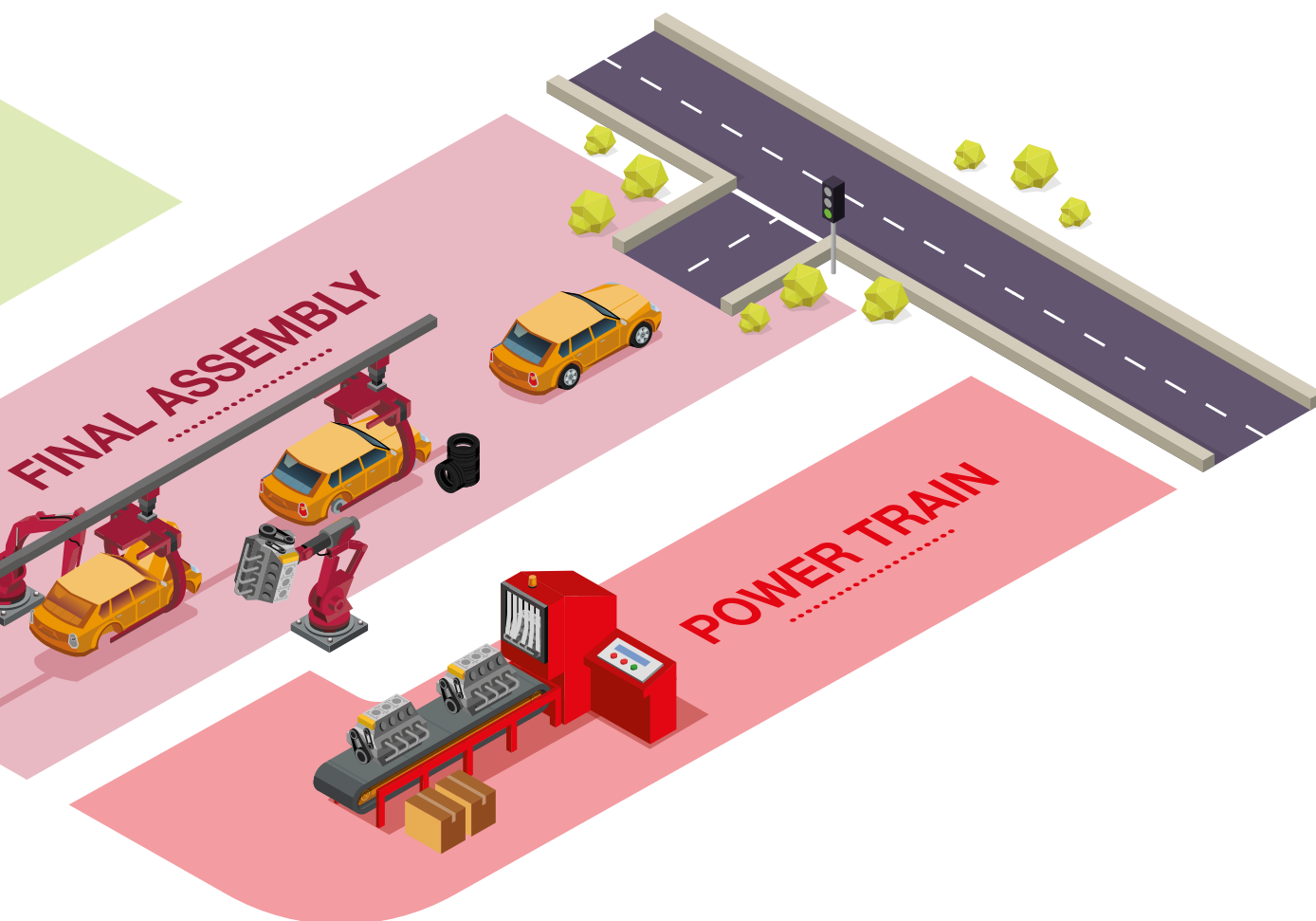
5

FINAL ASSEMBLY

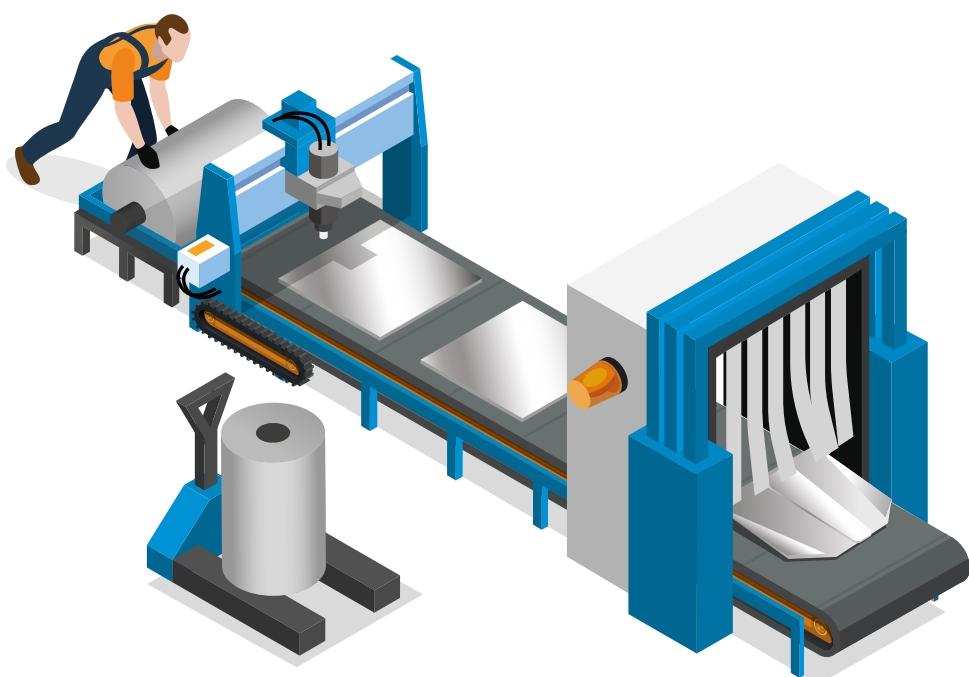
Bonding, Sealing and Glazing 34-35

Spot repair 36-37

Oil dispense solutions 38-39



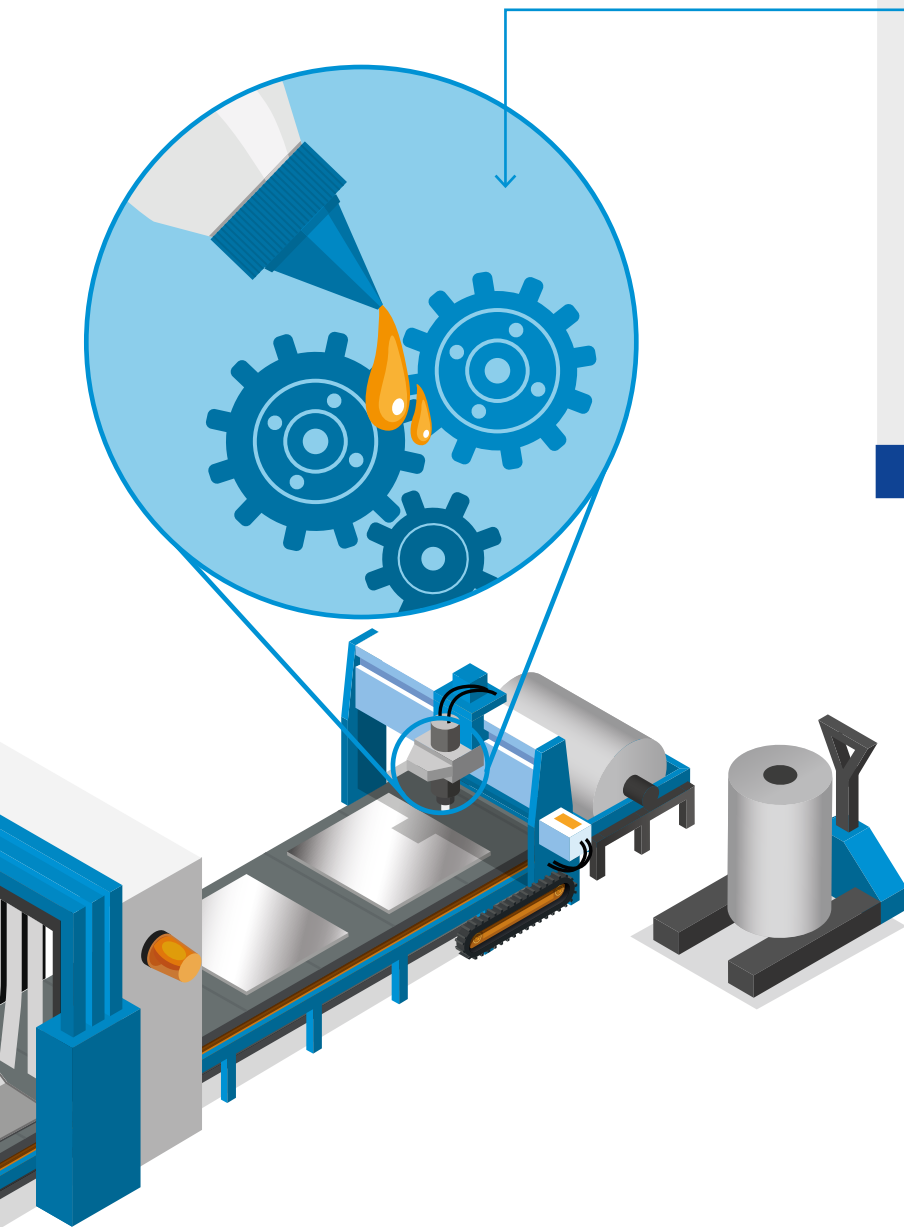
1. Press shop



Automatic lubrication

With a Graco automatic lubrication system, maintenance of your equipment is easy. A central pump is located at a convenient, accessible location and delivers lubricants in small metered amounts to ensure your machinery is lubricated when it's needed most – while it's working.

P. 6-7



Automatic lubrication

EASY MAINTENANCE WITH AUTOMATIC LUBRICATION

Automatic lubrication results in:

Main components for automatic lubrication

1. Pump and Reservoir: stores and provides the lubricant to the system.
2. Dividers: dispenses the right amount of lubricant to the application points.

INJECTOR BASED SYSTEMS

Pumps



Lube Pro Series

Self-venting pneumatic lubrication pumps where high output and fast lube cycle rates are required.

- ▶ High-strength, shatter resistant reservoir
- ▶ Easy to install - No external vent valve or pressure switch needed
- ▶ Easy installed into existing air line
- ▶ Pressure ratio up to 26:1

Injectors



GL-Series

High performance grease injectors for automatic machine lubrication.

- ▶ Accurate, reliable and adjustable lubrication for each lube point
- ▶ Long life seal technology to keep your machine running longer
- ▶ Large selection available in carbon or stainless steel
- ▶ Easy to design, set up and operate
- ▶ Flexible to use - easily add or subtract injectors for any lube system

Controllers



GLC 2200/4400

External multi-purpose controller for maximum precision & productivity.

- ▶ Customise your lubrication time, pressure, cycle counts and machine counts for maximum control
- ▶ Special operation modes save setup and inspection time
- ▶ Rugged and weatherproof, meeting stringent IP 69K protection requirements



INCREASE

- ▶ Productivity
- ▶ Reliability
- ▶ Availability
- ▶ Safety
- ▶ Durability



DECREASE

- ▶ Heat generation
- ▶ Wear and noise
- ▶ Downtime and operating costs
- ▶ Product contamination and corrosion
- ▶ Maintenance
- ▶ Lubricant consumption

SERIES PROGRESSIVE SYSTEMS

Pumps



G-Series

Versatile Design Helps Solve Today's Automatic Lubrication Challenges.

- ▶ Corrosion-resistant, tested and certified for IP69K to perform in the harshest environments
- ▶ Wide range of options to meet your desired lubrication solution (reservoir size, motor & control options)
- ▶ Optional Data Management System to track the events of the pump, to identify and proof incorrect handling
- ▶ Rugged, cost-effective pump for easy lube system set-up, operation and troubleshooting

Dividers



Modular Series Progressive Dividers

Keeps machines running at peak performance.

- ▶ Minimise labour cost & maximize your uptime with the quick change valve sections
- ▶ Can be easily accessorised with magnetic and electronic proximity switch cycle indicators to provide optimal precision feedback & monitoring

Controllers

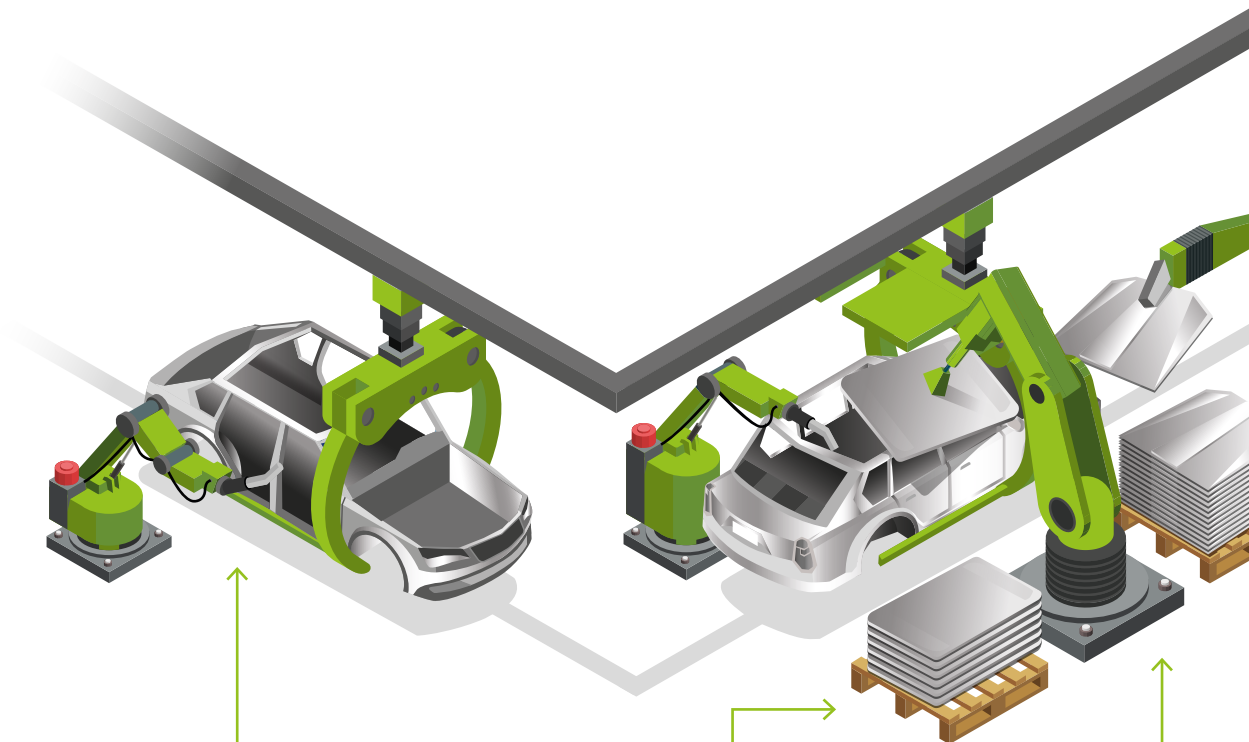


GLC 2200/4400

External multi-purpose controller for maximum precision & productivity.

- ▶ Customise your lubrication time, pressure, cycle counts and machine counts for maximum control
- ▶ Special operation modes save setup and inspection time
- ▶ Rugged and weatherproof, meeting stringent IP 69K protection requirements

2. Body in white



Bonding and Anti-flutter

Graco offers pumping and metering systems for manual applications or for automated installations, where it can be easily linked to any robot.

This offers a perfect solution for metal bonding or for applying anti-flutter materials, which are used for hood, tailgate, door and other sub-assemblies.

P. 10-11



Pretreatment/Cathodic electro-coating

For those lower volume fluid transfer tasks, Graco can offer a range of drum pumps, diaphragm or peristaltic pumps with material options that can accommodate aggressive chemicals, sludge and fluids.

P. 13

Sound deadening

Controlling vehicle interior noise levels and vibrations is important. A quiet car ride impacts upon the consumer's perception of quality and influences purchasing decisions.

That's why Graco has affordable and high quality equipment solutions for dispensing sealants and sound-deadening foams that will exceed the consumer's expectations of what a refined car ride should be.

P. 12

Bonding and Anti-flutter

1K MATERIAL SUPPLY

Ambient



Pneumatic supply system

The Graco supply systems are suitable for booster and pumping applications for a wide range of ambient materials.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 60 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, an lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Electric supply system

The electric supply system offers the same reliability, combined with better control and significant energy savings.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 19 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, an lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L

Material up to 70°C



Warm melt

The Warm Melt Supply System ensures consistent processes with accurate temperature control.

- ▶ Choice of drum sizes up to 200L
- ▶ Intuitive, easy-to-use interface
- ▶ Configurable to fit your application
- ▶ Up to 6 heat zones
- ▶ Modular approach provides easy plug-in installation



Hot Melt Material up to 204°C

Therm-o-Flo®

The Therm-O-Flo is a hot melt system which has advanced temperature control capability, that virtually eliminates overheated material and reduces material degradation.

- ▶ Choice of drum sizes up to 200L
- ▶ Continuous flow rate up to 5kg/min
- ▶ Up to 14 heat zones
- ▶ Modular approach provides easy plug-in control
- ▶ Stores historical data for all jobs

1K METERING

Dosing and Flow Control



PCF

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

2K METERING & DISPENSE

Fixed Ratio



HFR™

The HFR is a fixed ratio system that can meter and mix low to high viscosity materials for on-ratio dispensing.

- ▶ Mixing ratio from 1:1 to 32:1
- ▶ Offers continuous flow for bead shot, pour and spray applications (manual or automatic)
- ▶ A range of material supply options available for tanks and drums, including agitation
- ▶ Available for ambient or heated dispense applications
- ▶ Interchangeable pumps can accommodate future ratio changes
- ▶ Stores historical data for all jobs

Sound deadening

1K MATERIAL SUPPLY

Ambient



Pneumatic supply system

The Graco supply systems are suitable for booster and pumping applications for a wide range of ambient materials.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 60 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, an lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Electric supply system

The electric supply system offers the same reliability, combined with better control and significant energy savings.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 19 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, an lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L

1K METERING

Dosing and Flow Control



PCF

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

2K METERING AND DISPENSE

Fixed Ratio



HFR™ - NVH

The HFR-NVH is a fixed ratio system for heated NVH acoustic foam that accurately mixes and dispenses for manual and automatic applications.

- ▶ Pre-conditioned (heated) material supply tanks
- ▶ Interchangeable pumps can accommodate future ratio changes
- ▶ Stores historical data for all jobs

Pretreatment / Cathodic electro-coating

AIR-OPERATED

Double Diaphragm Pump



Husky™

Husky is an air-operated double diaphragm pump, ideal for fluid transfer applications, commonly used for tank and drum refilling.

- ▶ Max output: 1135 lpm
- ▶ Pressure Ratio 1:1 or 2:1
- ▶ Low air consumption
- ▶ Longer-lasting diaphragms
- ▶ Option to add DataTrak

Piston/Barrel Pump or Drum



T1, T2 and Monarch

A complete range of air-operated drum transfer pumps for 20 – 200 liter drums.

- ▶ High flow, low pressure applications
- ▶ Pressure ratio from 1:1 to 5:1
- ▶ Suction lance or direct drum fitting
- ▶ Carbon or stainless steel range

ELECTRIC

Double Diaphragm Pump



Husky™ E-Series

The Husky e-series is an electric double diaphragm pump that combines all the benefits of a pneumatic double diaphragm pump while helping you reduce your energy consumption. Commonly used for tank and drum refilling.

- ▶ Max output: 150 lpm
- ▶ Pressure ratio: 1:1
- ▶ Can stall under pressure without additional pressure valves
- ▶ Metering and batching at 1% accuracy
- ▶ Can run dry
- ▶ Self-Priming

Peristaltic Pump

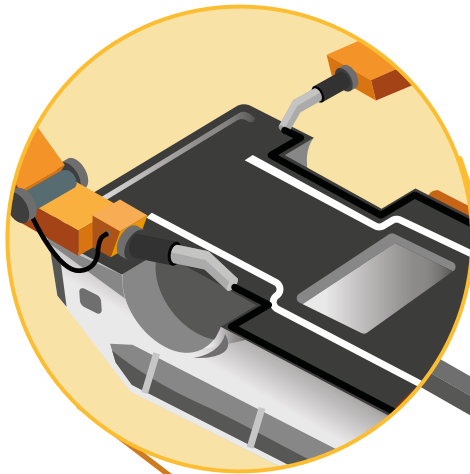


SoloTech

The Solotech electric peristaltic pump range can handle a variety of chemicals.

- ▶ Output ranges up to 60 lpm
- ▶ Pressure range up to 8,6 bar
- ▶ 4 hose types available to handle most common chemicals
- ▶ Single roller 360 degree rotation gives high displacement per/revolution
- ▶ Lower operational speed = less wear/ lower maintenance
- ▶ 3 gearbox/motor speed choices to suit your application
- ▶ VFD (Variable Frequency Drive) options available (AC Motor)
- ▶ DC version uses 1 gearbox
- ▶ Can stall under pressure

3. Paint shop



Paint supply and Circulation pumps

The heart of every paint shop is the mixing room and its paint supply systems having the ability to deliver correct volume/pressure paint to the spray booths.

P. 20-21

Sealing, Sound deadening and NVH

Water ingress, corrosion protection and sound-deadening NVH need an optimised and repeatable process within the paint shop. Graco has a range of sealer pumps, metering systems and applicators for manual and automatic processes, whatever size of material delivery containers you may have.

P. 16-17

Anti-chip

Special coatings for stonechip (anti-chip) protection on the vehicle in 'high risk' areas of the body often need local low-volume paint supply systems, sometimes only feeding 1 or 2 spray stations.

P. 18-19

Cavity wax injection

Graco can pump meter and apply water and solvent based protective wax coatings from low to high viscosity with even abrasive properties.

P. 24-25

Spray guns

With a wide choice of applicators, Graco is offering spray guns for all types of installation, both for spray booths equipped with automatic robots and for manual painting. Improve your productivity and quality with our range of electrostatic guns.

P. 23

Spray booth - 2K mixing and spraying

With the automotive industry moving towards higher performance coatings, there is a growing need to mix and spray 2k primers, base and clear coats accurately.

Graco offers a range of 2 & 3K mixing equipment, complemented by a professional range of air and electrostatic spray guns.

P. 22

Sealing, Sound deadening and NVH

1K MATERIAL SUPPLY

Medium to High Pressure



Pneumatic supply system

The Graco supply systems are suitable for booster and pumping applications for a wide range of ambient materials.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 60 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Electric supply system

The electric supply system offers the same reliability, combined with better control and significant energy savings.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 19 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L

TOTE MATERIAL SUPPLY

Bulk/ Low Pressure



Husky™ Diaphragm Pump

The Husky is available in 2 inch and 3 inch diaphragm pumps for unloading road delivery tankers, transferring from tank to tank, and priming high pressured supply pumps.

- ▶ Excellent self-priming capability
- ▶ High volume flow rates (Max. output 1135 liters/minute)
- ▶ Available in many materials like polypropylene, stainless steel, PVDF or aluminum

TOTE MATERIAL SUPPLY

Medium to High Pressure



Uni-Drum

Uni-Drum is used for pumping medium to high viscosity sealants from 1000L or 1200L Totes.

- ▶ Uses 4 pneumatic cylinders to achieve smooth operation and to prevent jamming
- ▶ Improved material savings
- ▶ Available with single or twin supply pumps
- ▶ Can be used as stand alone or tandem
- ▶ Compatible with both pneumatic and electric supply pumps

1K METERING**Dosing and Flow Control****PCF**

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

2K METERING AND DISPENSE**Fixed Ratio****HFR™ - NVH**

The HFR-NVH is a fixed ratio system for heated NVH acoustic foam that accurately mixes and dispenses for manual and automatic applications.

- ▶ Pre-conditioned (heated) material supply tanks
- ▶ Interchangeable pumps can accommodate future ratio changes
- ▶ Stores historical data for all jobs

Anti-chip

PAINT SUPPLY

Single Spray Station



Pressure Pot

Suitable for local supply to individual spray stations.

- ▶ Max working pressure 7 bar
- ▶ Available from 7 – 19 liters capacity
- ▶ Available for single or twin gun supply
- ▶ Ideal for low volume, low pressure supply system
- ▶ Accurate pressure control at low pressures
- ▶ Pulse-free fluid delivery
- ▶ Aluminum or stainless steel design
- ▶ Available with fluid regulators and agitators



Local Circulation

Merkur™

Piston pump with long-lasting durability. Suitable for local supply of multiple spray stations.

- ▶ Max output @ 60 cpm: 9 lpm
- ▶ Pressure Ratio: 10:1 – 48:1
- ▶ Delivers a consistent, high quality finish
- ▶ Easy to flush
- ▶ Sprays a wide variety of material viscosities

MANUAL SPRAY

Air-Spray Gun



AirPro™

The AirPro air spray gun delivers exceptional spray performance while addressing your environmental and operator concerns.

- ▶ Compliant atomization
- ▶ Even material distribution through the spray pattern for optimum coverage
- ▶ Improved transfer efficiency and uniform air flow through reduced air consumption
- ▶ Enhanced atomization through material-specific aircaps



Paint supply and Circulation pumps

PAINT TRANSFER

Air-Operated



Husky™

Husky is an air operated double diaphragm pump, ideal for fluid transfer applications, commonly used for tank and drum refilling.

- ▶ Max output: 1135 lpm
- ▶ Pressure Ratio 1:1
- ▶ Low air consumption
- ▶ Superior diaphragms lifetime
- ▶ Option to add DataTrak

Electric



Husky™ E-Series

The Husky e-series is an electric double diaphragm pump that combines all the benefits of a pneumatic double diaphragm pump while helping you reduce your energy consumption. Commonly used for tank and drum refilling.

- ▶ Max output: 150 lpm
- ▶ Pressure ratio: 1:1
- ▶ Can stall under pressure without additional pressure valves
- ▶ Metering and batching at 1% accuracy
- ▶ Can run dry
- ▶ Self-Priming
- ▶ ATEX-version available

PAINT SUPPLY

Air-Operated



Triton™

Diaphragm supply pump with low pulsation and low shear. This makes the pump ideal for low-pressure spray applications that require a perfect finish.

- ▶ Max output: 32 lpm
- ▶ Pressure ratio: 1:1
- ▶ Saves material and time during flushing, priming and colour changes
- ▶ Pumps a wide variety of material viscosities

PAINT TRANSFER/SUPPLY

Air-Operated



Endura-Flo™

Medium to high pressure diaphragm pumps with low pulsation and low shear used on small paint supply or circulation systems. Can be used for piggable systems.

- ▶ Max output: 7 lpm
- ▶ Pressure ratio: 4:1
- ▶ Direct access to critical components for easy maintenance and fast repair
- ▶ Durable and easy to flush diaphragm
- ▶ Soft start for piggable systems
- ▶ Mountable 360°
- ▶ Upgradable with DataTrak

PAINT SUPPLY AND CIRCULATIONS

Air-Operated

**E-Flo™ DC**

Medium to high flow electric piston pump for the main paint circulation systems.

- ▶ Max output: 40lpm
- ▶ Maximum working pressure: 27 bar
- ▶ Pressure or flow control
- ▶ Stalls under pressure
- ▶ Quiet electric motor
- ▶ Plug & play (no VFD)
- ▶ 2-ball lower for paint supply applications
- ▶ 4-ball lower for paint circulation applications
- ▶ Sealed 4-ball lower available for abrasive materials
- ▶ Low maintenance
- ▶ Compact footprint

Air-Operated

**President**

Medium flow piston pump used in small paint circulation systems.

- ▶ Max output: 13 lpm
- ▶ Pressure ratio: 3:1 – 30:1
- ▶ Reliable low maintenance air motor
- ▶ Positive displacement, 2-ball design will provide a uniform and easily controlled delivery
- ▶ Low shear

**High-Flo™**

High flow piston pump for main paint circulating systems.

- ▶ Max output: 80 lpm
- ▶ Max pressure ratio: 6:1
- ▶ Rugged body armor, built to handle the toughest applications
- ▶ Modular design for easier maintenance
- ▶ Integrated air control
- ▶ Optional DataTrak

Hydraulic

**Viscount™**

High flow hydraulic piston pump for main paint circulating systems.

- ▶ Max output 80 lpm
- ▶ Max working pressure: 32 bar
- ▶ Low operating cost
- ▶ No icing
- ▶ Field proven pump that will provide a reliable performance

Spray booth - 2K mixing and spraying

UP TO 3 COLOURS

Easy



ProMix™ 2KE

An easy-to-use mixing and dosing unit for up to 3 colours and 1 catalyst.

- ▶ Easy-to-use, compact entry-level proportioner
- ▶ Meter and pump version
- ▶ USB reporting

UP TO 30 COLOURS

Advanced



ProMix™ 2KS/3KS

The 2KS/3KS can handle up to 30 colours, 4 catalysts and provides advanced reporting capabilities.

- ▶ Sequential and dynamic dosing
- ▶ Upgradable to 3K
- ▶ Modular design
- ▶ Flow control



Expert

ProMix™ PD2K

When frequent daily colour changes occur or when working with short pot life materials.

- ▶ Mix close to the gun – reduces solvent usage up to 80%
- ▶ Instant colour change
- ▶ Up to 30 colours and 4 catalysts with 2 or 4 dosing pumps
- ▶ Modular design
- ▶ Pressure or Flow control

Spray guns

MANUAL GUNS

Air-Spray



AirPro™

The AirPro air spray gun delivers exceptional spray performance while addressing your environmental and operator concerns.

- ▶ Compliant atomization
- ▶ Even material distribution through the spray pattern for optimum coverage
- ▶ Improved transfer efficiency and uniform air flow through reduced air consumption
- ▶ Enhanced atomization through material-specific aircaps

Electrostatic



Pro Xp™

The electrostatic air spray gun that delivers an excellent transfer efficiency and finish quality.

- ▶ Powerful, small and light
- ▶ Internal power supply, so no heavy cords to carry
- ▶ Easy integration in your spraybooth
- ▶ Choose between Standard, High Conductivity and kV Booster
- ▶ Available with Smart Controls

AUTOMATIC GUNS

Air-Spray



AirPro™ Auto

An automatic applicator that is lightweight, compact, and will provide a consistent spray pattern for a high quality finish.

- ▶ Models available with a fluid control knob
- ▶ Stainless steel construction handles the toughest coatings, from acid to waterborne
- ▶ Indexing aircap provides fast and accurate positioning in either the vertical or horizontal position
- ▶ Lightweight and compact rounded gun design

Electrostatic



Pro Xpc™ Auto

A compact and lightweight automatic electrostatic air spray gun. Ideal for small spaces and robots/fixtures with lower payloads.

- ▶ Designed for efficient system integration
- ▶ System integration with manifold options to mount to a robot, reciprocator or fixed
- ▶ PLC Integration possible

Cavity wax injection

TOTE WAX SUPPLY

Bulk/ Low Pressure



Husky™ Diaphragm Pump

The Husky is available in 2 inch and 3 inch diaphragm pumps for unloading road delivery tankers, transferring from tank to tank and priming high pressured supply pumps.

- ▶ Excellent self priming capability
- ▶ High volume flow rates (Max. output 1135 liters/minute)
- ▶ Available in many materials like polypropylene, stainless steel, PVDF or aluminum

1K WAX SUPPLY

Low to Medium Pressure



President

Suitable for low viscosity materials. Available in 2 or 4-ball options with carbon or stainless steel fluid sections.

- ▶ 2-ball pressure ratio of 23:1 & 46:1 (stainless steel)
- ▶ 4-ball pressure ratio 5:1 & 10:1 (carbon and stainless steel)
- ▶ Ideal for low to medium pressure at low flow rates
- ▶ 4-ball design available with open or closed up throat seal design

Medium to High Pressure

Pneumatic supply system

The Graco supply systems are suitable for booster and pumping applications for a wide range of ambient materials.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 60 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Electric supply system

The electric supply system offers the same reliability combined with better control and significant energy savings.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps

- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 19 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L

TOTE MATERIAL SUPPLY**Bulk/ Medium to High Pressure****Uni-Drum**

Uni-Drum is used for pumping medium to high viscosity sealants from 1000L or 1200L Totes.

- ▶ Uses 4 pneumatic cylinders to achieve smooth operation and prevent jamming
- ▶ Improved material savings
- ▶ Available with single or twin supply pumps
- ▶ Can be used as stand alone or tandem
- ▶ Compatible with both pneumatic and electric supply pumps

1K METERING**Dosing and Flow Control****PCF**

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

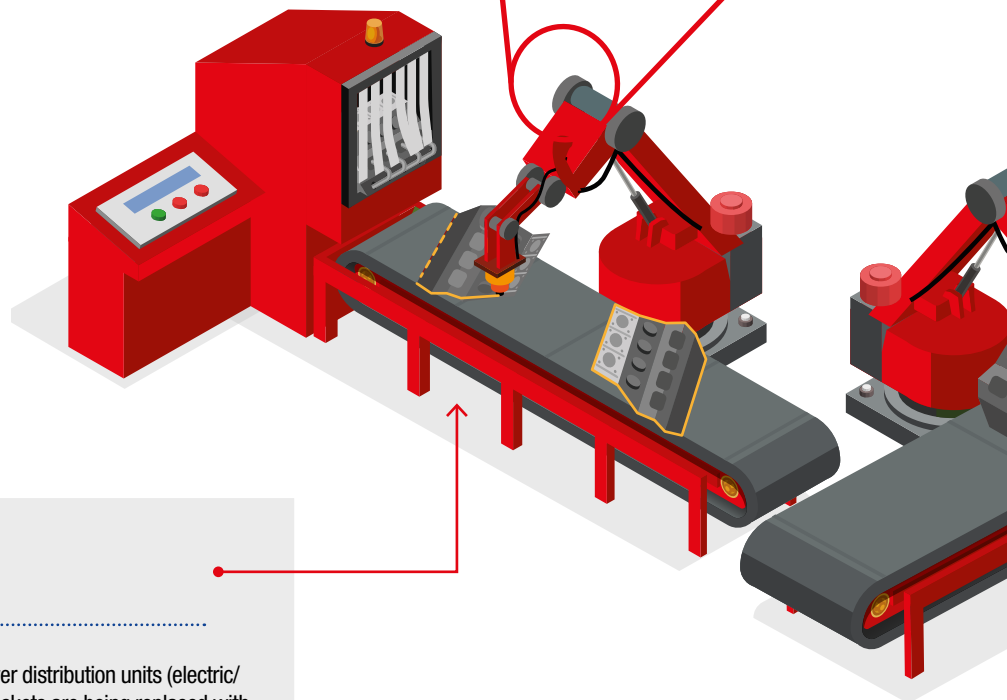
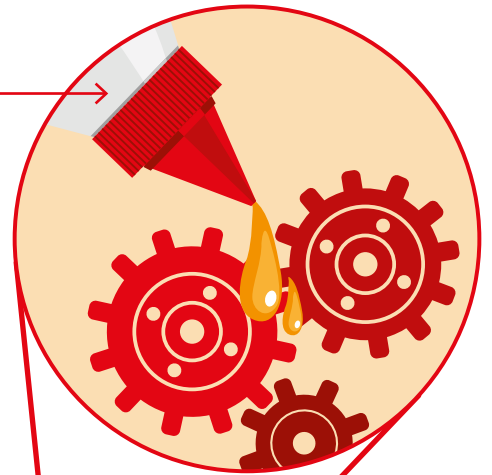
4. Powertrain



Automatic lubrication

With a Graco automatic lubrication system, maintenance of your equipment is easy. A central pump is located at a convenient, accessible location and delivers lubricants in small metered amounts to ensure your machinery is lubricated when it's needed most – while it's working.

P. 30-31

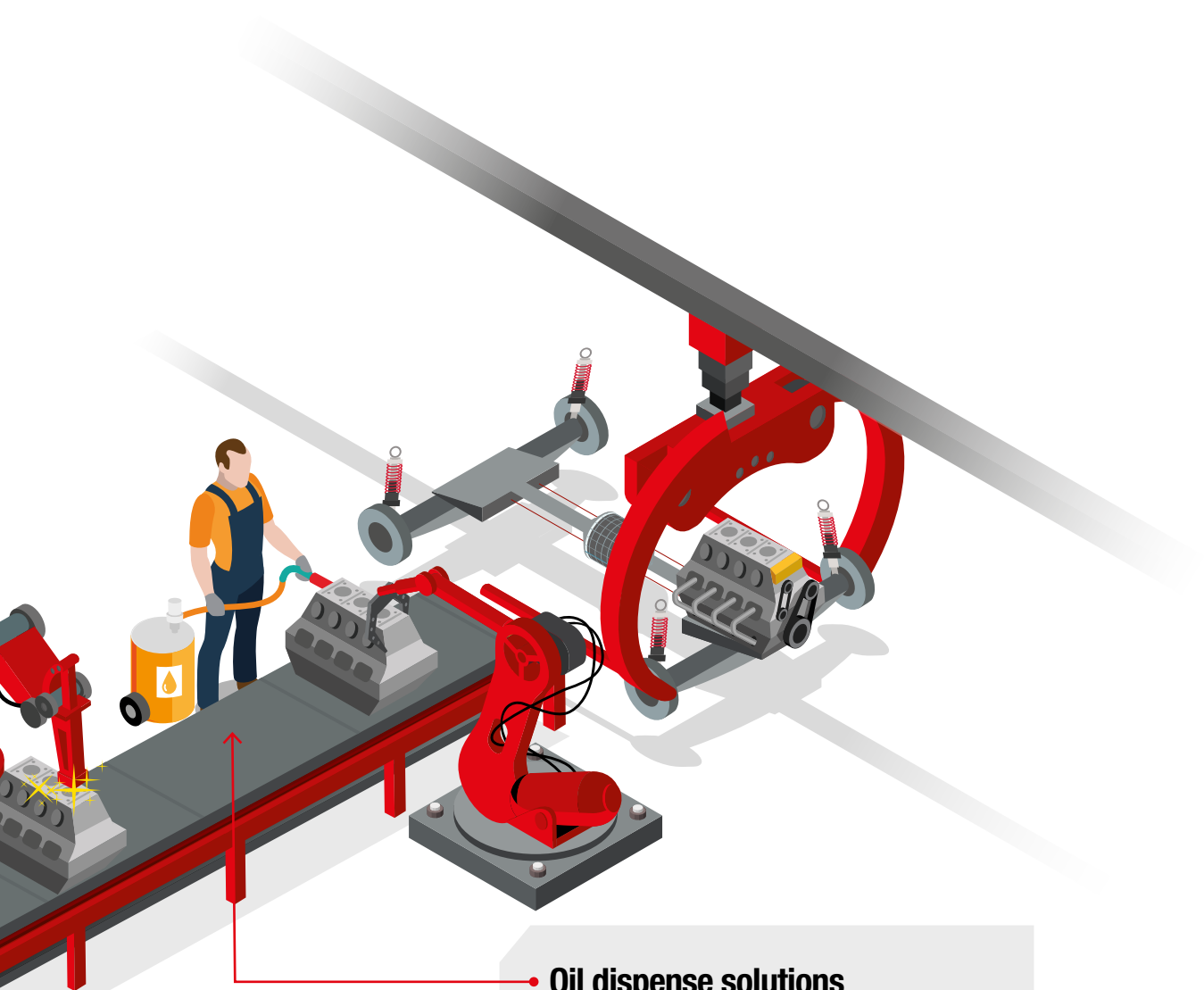


Gasketing

For engine, gearbox and power distribution units (electric/hybrid vehicles) traditional gaskets are being replaced with high performance silicone bead gaskets applied by robots.

Graco has equipment solutions for pumping medium to high viscosity products and accurate variable flow control systems essential for robotic applications.

P. 28



Oil dispense solutions

Lubrication equipment, specifically developed for use in the Automotive industry, to transfer, dispense and monitor bulk lubricants and related fluids.

P. 29

Gasketing

1K MATERIAL SUPPLY

Ambient



Check-Mate

Check-Mate is ideal for pumping medium to high viscosity and abrasive materials.

- ▶ Stainless or carbon steel options
- ▶ Available as stand alone, with elevator or ram

- ▶ Pressure ratio from 5:1 to 85:1
- ▶ Choice of drum sizes up to 200L
- ▶ Minimises left-over materials and reduces waste
- ▶ High quality, durable parts
- ▶ Optional Data-Track records material usage and flow
- ▶ Electrical versions available

Material up to 70°C



Warm melt

The Warm Melt Supply System ensures consistent processes with accurate temperature control.

- ▶ Choice of drum sizes up to 200L
- ▶ Intuitive, easy-to-use interface
- ▶ Configurable to fit your application
- ▶ Up to 6 heat zones
- ▶ Modular approach provides easy plug-in installation

1K METERING

Dosing and Flow Control



PCF

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

2K METERING & DISPENSE

Fixed Ratio



HFR™

The HFR is a fixed ratio system that can meter and mix low to high viscosity materials for on-ratio dispensing.

- ▶ Mixing ratio from 1:1 to 32:1
- ▶ Offers continuous flow for bead shot, pour and spray applications (manual or automatic)

- ▶ A range of material supply options available for tanks and drums, including agitation
- ▶ Available for ambient or heated dispense applications
- ▶ Interchangeable pumps can accommodate future ratio changes
- ▶ Stores historical data for all jobs

Oil dispense solutions

OIL DISPENSE

Pumps



Fire-Ball™

Air-powered piston pumps designed for medium volume, high pressure oil and grease transfer.

- ▶ High quality, corrosion-resistant design
- ▶ Available in 5:1 for oil and 15:1 & 50:1 for grease
- ▶ Handles up to 11lpm
- ▶ Unmatched reliability and durability
- ▶ Few moving parts translates into low maintenance and low cost of ownership
- ▶ Category leading 7-year warranty

Control Valves and Meters



Standard Duty Series

Manual & preset dispense meters designed for dispensing motor oils, AFT, gear lube and anti-freeze.

- ▶ Suitable for both in- and outdoor use
- ▶ Multiple extensions available
- ▶ 103 bar- handles up to 53 lpm
- ▶ Familiar locking trigger latch
- ▶ 3 default presets available to allow quick dispense of common volumes
- ▶ Category leading 5-year warranty



Hose Reels

Standard Duty Series

Professional level hose reels designed for frequent, everyday use in a wide variety of applications.

- ▶ Handles hose lengths up to 20m
- ▶ Enclosed for safety and protection
- ▶ Flexible mounting options: wall or ceiling
- ▶ Compact design fits in small spaces
- ▶ Open swivel ports ensure high fluid flow with minimal pressure loss
- ▶ Category leading 7-year warranty

FLUID MONITORING

Total Fluid Management System™



Matrix®

Optimal control over your fluid inventory and service operations to help you reduce costs and increase your profitability.

- ▶ Because Matrix is wireless, it's easier, less costly and less labour-intensive to install than wired systems

- ▶ Matrix components communicate with each other wirelessly and capture real-time data to make sure fluids are tracked and accounted for
- ▶ Easily retrofit and add on to your existing lubrication equipment
- ▶ Easily add components as your business grows

Automatic lubrication

EASY MAINTENANCE WITH AUTOMATIC LUBRICATION

Automatic lubrication results in:

Main components for automatic lubrication

1. Pump and Reservoir: stores and provides the lubricant to the system.
2. Dividers: dispenses the right amount of lubricant to the application points.

INJECTOR BASED SYSTEMS

Pumps



Lube Pro Series

Self-venting pneumatic lubrication pumps, where high output and fast lube cycle rates are required.

- ▶ High-strength, shatter resistant reservoir
- ▶ Easy to install - No external vent valve or pressure switch needed
- ▶ Easy installed into existing air line
- ▶ Pressure ratio up to 26:1

Injectors



GL-Series

High performance grease injectors for automatic machine lubrication.

- ▶ Accurate, reliable and adjustable lubrication for each lube point
- ▶ Long life seal technology to keep your machine running longer
- ▶ Large selection available in carbon or stainless steel
- ▶ Easy to design, set up and operate
- ▶ Flexible to use - easily add or subtract injectors for any lube system

Controllers



GLC 2200/4400

External multi-purpose controller for maximum precision & productivity.

- ▶ Customise your lubrication time, pressure, cycle counts and machine counts for maximum control
- ▶ Special operation modes save setup and inspection time
- ▶ Rugged and weatherproof, meeting stringent IP 69K protection requirements



INCREASE

- ▶ Productivity
- ▶ Reliability
- ▶ Availability
- ▶ Safety
- ▶ Durability



DECREASE

- ▶ Heat generation
- ▶ Wear and noise
- ▶ Downtime and operating costs
- ▶ Product contamination and corrosion
- ▶ Maintenance
- ▶ Lubricant consumption

SERIES PROGRESSIVE SYSTEMS

Pumps

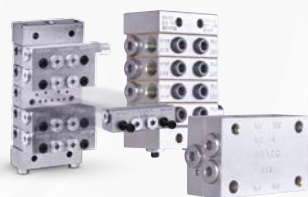


G-Series

Versatile Design Helps Solve Today's Automatic Lubrication Challenges.

- ▶ Corrosion resistant, tested and certified for IP69K to perform in the harshest environments
- ▶ Wide range of options to meet your desired lubrication solution (reservoir size, motor & control options)
- ▶ Optional Data Management System to track the events of the pump to identify and proof incorrect handling
- ▶ Rugged, cost-effective pump for easy lube system set-up, operation and troubleshooting

Dividers



Modular Series Progressive Dividers

Keeps machines running at peak performance.

- ▶ Minimise labour cost & maximize your uptime with the quick change valve sections
- ▶ Can be easily accessorized with magnetic and electronic proximity switch cycle indicators to provide optimal precision feedback & monitoring

Controllers

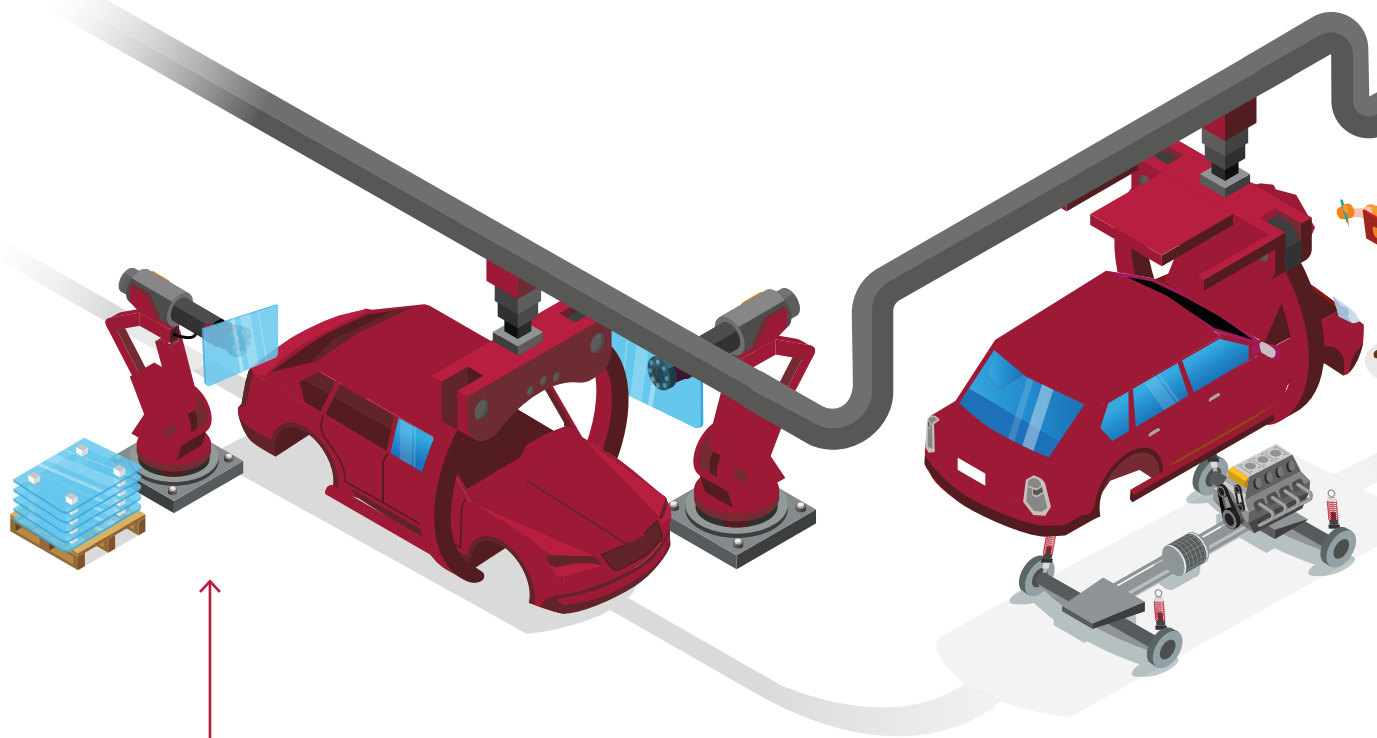


GLC 2200/4400

External multi-purpose controller for maximum precision & productivity.

- ▶ Customise your lubrication time, pressure, cycle counts and machine counts for maximum control
- ▶ Special operation modes save setup and inspection time
- ▶ Rugged and weatherproof, meeting stringent IP 69K protection requirements

5. Final assembly



Bonding, Sealing and Glazing

Adhesive assembly is the future for high speed and energy efficient production of vehicles. Whether glazing panoramic roofs, headlining, door pads, trim and spoiler assembly, there is a need to heat, pump and/or apply adhesives.

Graco has a long term track record for reliable high performance equipment to handle low to high viscosity adhesives.

P. 34-35

Spot repair

Local paint supply solutions for 1K paints & 2K lacquers are complemented with a selection of high quality air spray guns, hoses and flow regulators.

P. 36-37



Oil dispense solutions

Lubrication equipment, specifically developed for use in the Automotive industry, to transfer, dispense and monitor bulk lubricants and related fluids.

P. 38-39

Bonding, Sealing and Glazing

1K WAX SUPPLY

Low to Medium Pressure



President

Suitable for low viscosity materials. Available in 2 or 4-ball options with carbon or stainless steel fluid sections.

- ▶ 2-ball pressure ratio of 23:1 & 46:1 (stainless steel)
- ▶ 4-ball pressure ratio 5:1 & 10:1 (carbon and stainless steel)
- ▶ Ideal for low to medium pressure at low flow rates
- ▶ 4-ball design available with open or closed up throat seal design

1K MATERIAL SUPPLY

Medium to High Pressure



Pneumatic supply system

The Graco supply systems are suitable for booster and pumping applications for a wide range of ambient materials.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps
- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 60 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Electric supply system

The electric supply system offers the same reliability combined with better control and significant energy savings.

- ▶ Stainless or carbon steel options
- ▶ 2-ball or priming piston lower pumps
- ▶ Maximum working pressure: 510 bar
- ▶ Maximum flow: 19 liters/min
- ▶ Improved serviceability with fewer parts, faster repairs, and lower ownership costs
- ▶ Max. Life option available for abrasive materials and prolonged life
- ▶ Optional DataTrak records material usage and flow
- ▶ Choice of drum sizes up to 200L



Hot Melt Material up to 204°C

Therm-o-Flo®

The Therm-O-Flo is a hot melt system which has advanced temperature control capability, that virtually eliminates overheated material and reduces material degradation.

- ▶ Choice of drum sizes up to 200L
- ▶ Continuous flow rate up to 5kg/min
- ▶ Up to 14 heat zones
- ▶ Modular approach provides easy plug-in control

1K METERING**Dosing and Flow Control****PCF**

The PCF is a metering system that dispenses a precise, continuous flow of single component sealants or adhesives. It can be used in conjunction with a material supply system and robotics platform.

- ▶ Automatically adjusts to compensate changes in material temperature/viscosity
- ▶ Adjusts dispense rate according to robot speed
- ▶ Continuous flow: From 6cc to 22500 cc/min
- ▶ Available for PROFIBUS, PROFINET, Devicenet, EtherNet/IP and Discrete I/O
- ▶ Stores historical data for all jobs

2K METERING AND DISPENSE**Variable Ratio****Exactablend SB**

The Exactablend SB is a variable ratio system, that provides accurate on-ratio mixing from medium to high viscosity materials.

- ▶ Variable ratio from 1:1 to 20:1
- ▶ Smooth pump changeover delivers consistent flow
- ▶ Mixing at the gun and base purging provides significant material savings

Spot repair

PAINT SUPPLY

Single Spray Station



Pressure Pot

Suitable for local supply to individual spray stations.

- ▶ Max working pressure 7 bar
- ▶ Available from 7 – 19 liters capacity
- ▶ Available for single or twin gun supply
- ▶ Ideal for low volume, low pressure supply system
- ▶ Accurate pressure control at low pressures
- ▶ Pulse-free fluid delivery
- ▶ Aluminum or stainless steel design
- ▶ Available with fluid regulators and agitators

Local Circulation



Triton™

Diaphragm supply pump with low pulsation and low shear. This makes this pump ideal for low pressure spray applications that require a perfect finish.

- ▶ Max fluid flow at 212 cpm: 32 lpm
- ▶ Pressure Ratio: 1:1
- ▶ Supplies up to 35% extra air flow to the gun for superior atomization
- ▶ Saves material and time during flushing, priming and colour changes
- ▶ Delivers a consistent spray pattern and uniform film thickness
- ▶ Sprays a wide variety of material viscosities

MANUAL SPRAY

Air-Spray



AirPro™

The AirPro air spray gun delivers exceptional spray performance while addressing your environmental and operator concerns.

- ▶ Compliant atomization
- ▶ Even material distribution through the spray pattern for optimum coverage
- ▶ Improved transfer efficiency and uniform air flow through reduced air consumption
- ▶ Enhanced atomization through material-specific aircaps

UP TO 3 COLOURS

Easy

**ProMix™ 2KE**

An easy to use mixing and dosing unit for up to 3 colours and 1 catalyst.

- ▶ Easy to use, compact entry-level proportioner
- ▶ Meter and pump version
- ▶ USB reporting

UP TO 30 COLOURS

Advanced

**ProMix™ 2KS/3KS**

The 2KS/3KS can handle up to 30 colours, 4 catalysts and provides advanced reporting capabilities.

- ▶ Sequential and dynamic dosing
- ▶ Upgradable to 3K
- ▶ Modular design
- ▶ Flow control



Expert

ProMix™ PD2K

When frequent daily colour changes occur or when working with short pot life materials.

- ▶ Mix close to the gun – reduces solvent usage up to 80%
- ▶ Instant colour change
- ▶ Up to 30 colours and 4 catalysts with 2 or 4 dosing pumps
- ▶ Modular design
- ▶ Pressure or Flow control

Oil dispense solutions

OIL DISPENSE

Pumps



Fire-Ball™

Air-powered piston pumps designed for medium volume, high pressure oil and grease transfer.

- ▶ High quality, corrosion-resistant design
- ▶ Available in 5:1 for oil and 15:1 & 50:1 for grease
- ▶ Handles up to 11lpm
- ▶ Unmatched reliability and durability
- ▶ Few moving parts translates into low maintenance and low cost of ownership
- ▶ Category leading 7-year warranty

Control Valves and Meters



Standard Duty Series

Manual & preset dispense meters designed for dispensing motor oils, AFT, gear lube and anti-freeze.

- ▶ Suitable for both in- and outdoor use
- ▶ Multiple extensions available
- ▶ 103 bar- handles up to 53 lpm
- ▶ Familiar locking trigger latch
- ▶ 3 default presets available to allow quick dispense of common volumes
- ▶ Category leading 5-year warranty



Hose Reels

Standard Duty Series

Professional level hose reels designed for frequent, everyday use in a wide variety of applications.

- ▶ Handles hose lengths up to 20m
- ▶ Enclosed for safety and protection
- ▶ Flexible mounting options: wall or ceiling
- ▶ Compact design fits in small spaces
- ▶ Open swivel ports ensure high fluid flow with minimal pressure loss
- ▶ Category leading 7-year warranty

FLUID MONITORING

Total Fluid Management System™



Matrix®

Optimal control over your fluid inventory and service operations to help you reduce costs and increase your profitability.

- ▶ Because Matrix is wireless, it's easier, less costly and less labour-intensive to install than wired systems
- ▶ Matrix components communicate with each other wirelessly and capture real-time data to make sure fluids are tracked and accounted for
- ▶ Easily retrofit and add on to your existing lubrication equipment
- ▶ Easily add components as your business grows

FLUID MONITORING

Advanced Controls and Integration Possibilities

**ProDispense™**

Electronic preset dispense system for accurate and quick dispensing of preset amounts of fluids.

- ▶ Easily connects to PLC and barcode scanners
- ▶ Local or integrated control
- ▶ Consistent fluid dispense
- ▶ Reporting capability tracks volume and usage
- ▶ Manual or automatic dispense

ABOUT GRACO

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings. The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

GRACO HEADQUARTERS

► **WORLDWIDE HEADQUARTER**

Graco Inc.

8th – 11th Avenue N.E.
Minneapolis, M.N. 55413
United States of America
Tel: +1 612 623 6000

► **EMEA HEADQUARTER**

Graco Distribution BVBA

Industrieterrein Oude Bunders
Slakweidestraat 31
3630 Maasmechelen, Belgium
Tel: +32 89 770 700

► **ASIA PACIFIC HEADQUARTER**

Graco Hong Kong Ltd

Shanghai Representative Office
Building 7
1029 Zongshan Road South
Huangpu District
Shanghai 200011
The People's Republic of China
Tel: +86 21 649 50088

► **SOUTH AND CENTRAL AMERICA HEADQUARTER**

Graco Uruguay - Montevideo

GFEC Uruguay Free – Zone
WTC Free Zone
Dr. Luis Bonavita 1294
Office 1504
Montevideo, Uruguay 11300
Tel: +598 2626 3111

Discover your Solution
 **graco.com/automotive**