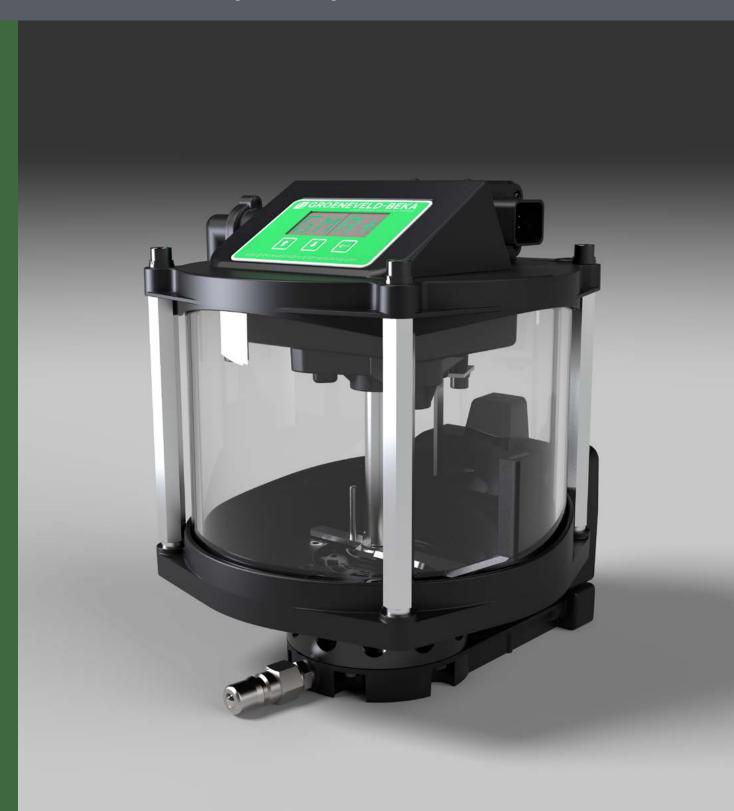


# **Groeneveld-BEKA GM**

Simple, Multiplied



## **Groeneveld-BEKA GM**

The Groeneveld-BEKA GM is the latest development in multi line technology and designed for self-install on mobile applications like trucks and trailers, small construction machinery and agricultural machines.

The Groeneveld GM has been designed for easy service and exchange of sealed for life components. Adjusting the system to the lubrication needs and upgrading the system, as well as servicing the system, will be easy due to the modular concept.

- · Modularity enables to meet customer specific requirements, from basic to high-end
- Interchangeable components make it easy to service and adjust
- Easy maintenance
- OEM quality standards, compliant with IATF & SPICE regulations
- Waterproof and corrosion resistant
- Suitable for oil SAE 80/90 up to NLGI-2 grease

## System overview

#### Top module: the top cover

The top cover comes in 2 versions, the GMA and the GMA+. The GMA is delivered without a control unit, where the GMA+ does.

The control unit allows the user to set the grease interval or the pump via the display and touch pads on the integrated PCA display

Both GMA and GMA+ versions include the gearmotor and the main connector.

#### Oil refilling inlet

At the top of the pump a refilling tube is installed to refill the reservoir with oil.

#### Central module: the reservoir

The GMA is available with different reservoir volumes: 2. 3 or 5 liters.

#### Paddle blade

The reservoir is equipped with a paddle blade which is directly connected to the gear motor. The rotation of the paddle blade minimizes air pockets and grease separation in the reservoir.

#### Lower module: the pumping element outlets

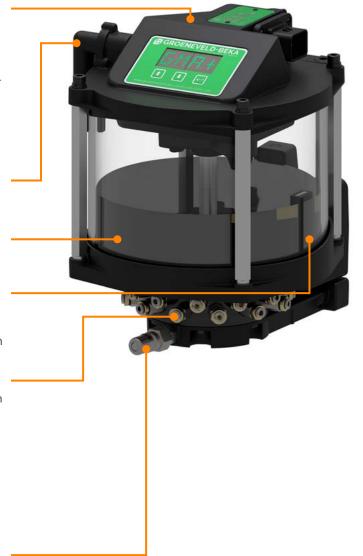
The GM is available with 3 different amount of outlets, with possibility to use up to 18, 36 or 72 outlets.

There are 6 different pumping elements with push to fit connectors available with varying outputs. The push to fit connection provides an easy installation of the lubrication lines.

If an outlet is not required, they can easily be covered with a blanking plug.

#### Grease refilling inlet

At the bottom of the pump a refilling inlet in installed to refill the reservoir with grease. This inlet avoids the possibility of air entrapment of the grease.



## Top cover

The GM is delivered with the basic GMA top module. The top module can easily be upgraded to the GMA+ module, which offers an integrated control unit.

The integrated control unit has a 4 digit display and touch pads, making it easy to program, adjust the greasing interval and check the system status. Alarms and warning messages are also showed on the display.

Both GMA and GMA+ versions include the gearmotor and therefore come in a 12V or 24V version. For applications without its own power supply a special trailer version is available which is primarily powered by the brake lights feed, and thus, will only be active during breaking, and the tail light feed.



### Reservoir

When in need of a different size of reservoir, the reservoir can be upgraded to one of the available reservoir sizes. Reservoirs are available with a 2, 3 or 5 liter capacity.

With changing the size of the reservoir, automatically the paddle blade has to be changed to suit accordingly.

## **Pumping outlets and elements**

The GM series is available with up to 18, 36 or 72 outlets. For each outlet a separate pumping element has to be used. If one of the outlets is not used, it can easily be covered by a blanking plug.

A selection of pumping elements with varying outputs are available to suit almost any need. The different elements all have their own output and are recognizable by the color ring. The maximum output pressure of each pump element is 120 bar (1740 PSI).

Each pumping element has a push fit connector to provide an easy installation of the lubrication lines.

Color	Output/stroke	Outlet size
Red	0.010 cc	
Green	0.015 cc	4 mm OD
Yellow	0.025 cc	
Blue	0.040 сс	Push type
Grey	0.060 сс	
Black	0.100 cc	





## **Technical information**

Pump type	Electric multi line pump	
Operating voltage	12V or 24V	
Maximum operating pressure	120 bar (1740 psi, 12 MPa)	
Grease class	Grease up to NLGI-2	
Reservoir capacity	2, 3 or 5 liter	
No. of outputs	18, 36 or 72	
Temperature range	-20 up to +70 °C (-4 up to 158 °F) with use of Greenlube EP-2*	
Low level sensor	Optional	
Protection class	IP54 (reservoir) IP69K (electronic compartment)	
Regulations / EMC	ECE-R10, rev. 6 Automotive directive of the United Nations ISO 13766: 2006 Earth Moving Machinery standard ISO14982: 2009 Agriculture and Forestry Machinery standard EN 12895: 2015 Industrial Truck standard EN 13309: 2010 Construction Machinery standard EN 50498: 2010 After Market Electronic Equipment in vehicles UL 778:2016 Certification	

<sup>\*</sup> Use of other greases might lead to a different temperature range



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