

## Groeneveld-BEKA GP

Modular and flexible, suitable for every need



## Groeneveld-BEKA GP

The Groeneveld-BEKA GP series is a new developed modular progressive lubrication system, combining a single pump concept with different reservoir types and sizes. The GP series is designed for progressive lubrication on mobile applications like tippers, mobile cranes, garbage trucks, compact construction equipment, agricultural machines, telehandlers and reachstackers. The pump is easy to adjust and adaptable to the lubrication needs of the machine.

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

- Interchangeable components make it easy to service and adjust
- Easy maintenance
- OEM quality standards, compliant with IATF & SPICE regulations
- Suitable for greases up to NLGI-2, including biodegradable greases

### Modular system

The GP series consists of 3 interchangeable modules, a top, central and lower module. All modules are easy to maintain, replace or upgrade.

#### Top module: the reservoir

The GP series is available with 3 different kind of reservoirs and different volumes. All reservoirs are interchangeable and can easily be placed on the central module.

#### Central module: the drive unit

The GP series comes with 2 different drive units, a 12V and a 24V version.

#### Grease outlets

The GP series has a maximum of 3 grease outlets with each a separate piston with direct delivery to the main line. Two outlets are plugged as a standard.

The standard piston has an output of 2.5 cc/min. Optionally a larger piston with an adjustable output from 2 up to 4 cc/min can be installed. The pistons are easily exchangeable.

The option for 3 different outlets makes it easier to lubricate different greasing points on complex machinery.

#### Lower module

The lower module is available in two options, the GPA and the GPA+. The GPA is delivered without a control unit as a standard.

The co-molded gasket and self-holding screws in the bottom cover make the GP series easy to assemble and service without the risk of parts getting lost.



## Reservoir types

There are 3 different kind of interchangeable reservoir types to adjust the system to the lubrication needs of the machine.



### Paddle reservoir

The paddle reservoir is installed on the GP series as a standard and is equipped with a paddle blade. The rotation of the paddle blade minimizes air pockets and grease separation in the reservoir and dispense the grease to the pistons.

The paddle reservoir is available in 2.5, 5 and 8 liter.



### Follower plate reservoir

When in need of reservoir with a follower plate, the standard paddle blade reservoir can be replaced. The follower plate reservoir makes it possible to use the GP series on static and rotating applications.

The follower plate helps compress the grease as it is used to prevent air pockets forming, ageing of the grease as well as oxidation from air or water. This also makes the follower plate reservoir suitable to use with biodegradable greases.

Another advantage of the follower plate is that all the grease in the reservoir is used and the reservoir wall remains clean, allowing you to check the grease level visually.

The follower plate reservoir is available in 3, 5 and 8 liter.



### Cartridge reservoir

The cartridge version reservoir is equipped with a unique 3 liter grease cartridge. This capacity meets the lubrication needs and service interval of most modern compact to mid-size machines.

The grease cartridge makes exchanging of the grease cartridge easy and ensures that the correct grease is used. Since the grease is in a cartridge it is protected from ageing as well as oxidation from air or water, which also makes this system extremely suitable to use with biodegradable greases.

The cartridge is delivered with NLGI-2 grease as a standard, but can be filled with other greases on request.

## Lower module

The GP series is delivered with the GPA lower module, without an integrated control unit. The lower module can easily be upgraded to the GPA+ lower module, which offers an integrated control unit.

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



GPA lower module



GPA+ lower module

## Working principle



The GP system consists of a pump with grease reservoir and up to 3 internal grease pistons. Two pistons are plugged as a standard. Optionally the system can be controlled with a single block switch.

When the pump is activated, grease is pumped through the pump elements. The pistons transfer the grease to the progressive distributors. The progressive distributors supply the exact amount of grease to each of the lubrication points.

## Technical information

|                             |                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pump type                   | Electric piston progressive pump                                                                                                                                                                                                                                                                                                                                       |
| Reservoir types and volumes | Standard: Paddle version, 2.5, 5 or 8 liter<br>Optional: Follower version, 3, 5 or 8 liter<br>Optional: Cartridge version, 3 liter                                                                                                                                                                                                                                     |
| No. of outputs              | Max. of 3 outlets, 2 plugged as a standard                                                                                                                                                                                                                                                                                                                             |
| Piston                      | Standard: 2 cc/min ø6<br>Optional: 2-4 cc/min ø8 adjustable outlet                                                                                                                                                                                                                                                                                                     |
| Relieve valve               | Internal                                                                                                                                                                                                                                                                                                                                                               |
| Maximum operating pressure  | 250 bar (3625 psi)                                                                                                                                                                                                                                                                                                                                                     |
| Grease class                | Grease up to NLGI-2<br>Biodegradable greases only to be used in follower plate or cartridge reservoir                                                                                                                                                                                                                                                                  |
| Temperature range           | -20 up to +70 °C (-4 up to 158 °F)                                                                                                                                                                                                                                                                                                                                     |
| Supply voltage              | 12 or 24 Vdc                                                                                                                                                                                                                                                                                                                                                           |
| Protection class            | IP54 (reservoir)<br>IP69K (electronic compartment)                                                                                                                                                                                                                                                                                                                     |
| Regulations / EMC           | ECE-R10, rev. 6 Automotive directive of the United Nations<br>ISO 13766: 2006 Earth Moving Machinery standard<br>ISO14982: 2009 Agriculture and Forestry Machinery standard<br>EN 12895: 2015 Industrial Truck standard<br>EN 13309: 2010 Construction Machinery standard<br>EN 50498: 2010 After Market Electronic Equipment in vehicles<br>UL 778:2016 Certification |