

Centralized Lubrication Systems for Commercial Vehicles

1-8029-US

Product range



- **Less downtime**
- **Reduced wear and tear**

Quality Management
DIN EN ISO 9001:2000
Environmental Management
DIN EN ISO 14001



Why use VOGEL centralized lubrication?

Because you can save yourself a lot of trouble and costs!



A centralized lubrication system provides bearings with a continuous supply of lubricant at certain intervals, and it does so when the machinery is in operation and all the bearings are moving.

Automatic centralized lubrication

- improves the machinery's availability!
- increases bearing life at least fourfold!
- makes drastic cuts in maintenance and repair costs!
- saves expensive downtimes in terms of both machinery and personnel!
- saves as much as 40 % on lubricant!
- protects the environment!

The right VOGEL Centralized Lubrication System for every type of vehicle

- electrically or pneumatically actuated -

Lubricants		
Grease NLGI grades 000, 00, 0	Pump types KFUS2-... KFUS6-... KFU2-40 KFU6-20 PEF-90 KFB1 KFBS1	Pump types PEF-90-S..
Grease NLGI grades 1, 2	KFGS1-5 KFGS3-5 KFGS5-5 KFG1-5 KFG3-5 KFG5-5 KFA1 KFAS1	KFG1-5 KFGS1-5-S41

Please note:

- “Centralized Lubrication for Farm Machinery” See leaflet 1-8055-US
- “Centralized Lubrication for Construction Machinery” See leaflet 1-8057-US
- “Centralized Lubrication for Stackers of all kinds” See leaflet 1-8059-US

Electric Gear Pumps KFU/KFUS

These pump units are designed to supply normal as well as specially large systems.

Various versions are available:

KFUS – with integrated control unit.

KFU – with external control unit.

Units with 2.7- and 6-liter reservoirs are available to suit the system's lubricant needs and fit in with the vehicle's maintenance intervals.

The reservoir is filled with lubricant via a filler socket. That keeps dirt out during the filling process.

Appropriate lubricants are grease, including the biodegradable type, comprising NLGI grades 000, 00 or 0.

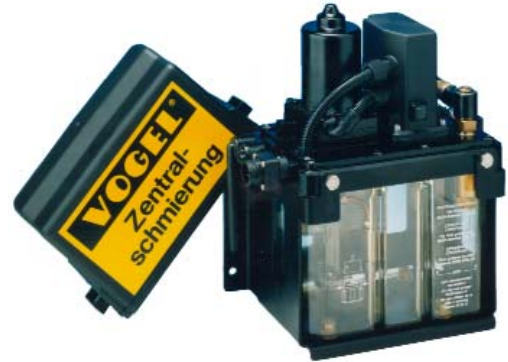
The lubricant supplied by the pump is distributed to the individual lube points independent of each other by way of 2-, 4- or 6-port piston distributors with metering rates of 0.1 to 0.4 ccm.

The gear pump is timed to run until even remote piston distributors are reliably supplied with lubricant.

In the case of the **KFUS** group the integrated control unit IG490 is available with adjustable interval time and without monitoring.

In the case of the **KFU** group the IG502-E control unit is installed separately. It controls and monitors the pump's running and also signals any malfunctions via an indicator light.

The electronic control units have a microprocessor that stores all the operating states even after the power is off.



KFUS2- ...
140 ccm/min delivery rate
2.7-liter reservoir capacity

KFUS6- ...
140 ccm/min delivery rate
6-liter reservoir capacity



KFU2-40
140 ccm/min delivery rate
2.7-liter reservoir capacity

KFU6-20
140 ccm/min delivery rate
6-liter reservoir capacity

IG502-E
electronic control unit



Piston distributor, group VKSO

2-, 4- and 6-port type, 0.1 to 0.4 ccm metering, with universal quick connectors

Pneumatic Piston Pump PEF- 90

This piston pump works with the on-board compressed air system. It is especially suitable for vehicles carrying hazardous goods.

The pump delivers a maximum of 48 ccm of lubricant per stroke, enough for normally dimensioned centralized lubrication systems on trucks, buses, trailers and semi-trailers. The pump is actuated via a solenoid valve.

The 3-liter reservoir is filled via a filler socket. That keeps dirt out during the filling process. A suitable lubricant is grease, including the biodegradable type, of NLGI grades 000, 00 or 0.

The special design of the lubricant reservoir ensures that the lubricant does not come into contact with the atmosphere. The level of lubricant is easy to check in the transparent reservoir.

The lubricant delivered by the pump is distributed to the individual lube points independent of each other by 2-, 4- or 6-port distributors at metered rates of 0.1 to 0.4 ccm.

The IG502-E electronic control unit is used for the time-dependent control and monitoring of the installation. It is equipped with a microprocessor that stores all the operating states, even after the power has been switched off. Any faults are displayed by an indicator light built into the dashboard.



PEF-90

Pneumatic Pump Unit PEF-90-S14

It is advisable to outfit trailers and semitrailers with a separate pump.

Such an autonomous system does not depend on the tractor truck's main system.

The PEF-90-S14 pneumatically actuated pump unit with an IG476-2 electronic control unit and solenoid valve – with the pump preinstalled on a mounting plate – is the best configuration for this purpose.

The delivery rate amounts to 48 ccm/stroke.

VKSO piston distributors see to the distribution and metering of the lubricant. Greases of NLGI grades 000, 00 or 0, including biodegradable kinds, are suitable for use.

The pump is actuated by a pulsed solenoid valve after the brakes are applied a certain number of times, the respective number being set with the control unit.



PEF-90-S14



IG502-E
electronic control unit



Piston distributor
group VKSO
2-port type

Electric Compact Unit KFB/KFBS

The KFB/KFBS compact unit has been especially designed to meet the demands of the new generation of trucks that use only a limited number of lubrication points. The integrated function of this new pump provides a lower cost and faster installation for these new applications and also makes it ideal for lighter vehicles including small trucks and buses.

The pumps are available in various models:

- KFBS** – with integrated control unit in pump housing,
- KFB** – with external control unit.

The lubricant reservoir is a sealed unit with overfill preventer and ventilation. The lubricant level can be seen in the reservoir's translucent material. Greases of NLGI grades 000, 00 or 0, including biodegradable types, are suitable.

The lubricant delivered by the pump is distributed to the individual lube points by VKSO series.



KFBS

Diagram: max. system capacity/max. length of main line for NLGI grades 000, 00

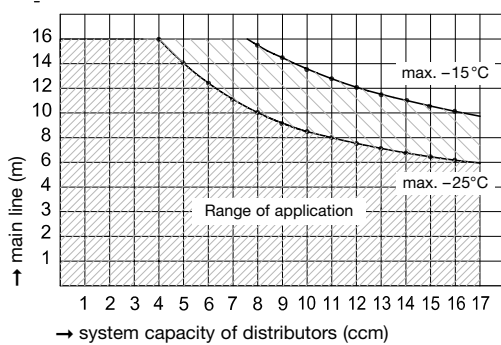
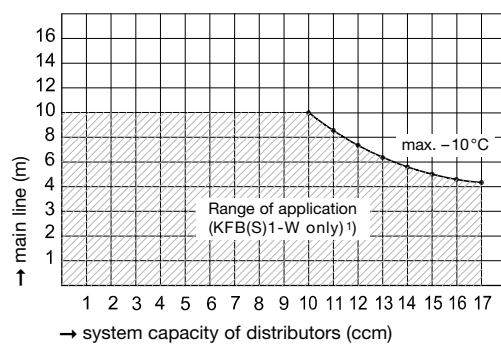


Diagram: max. system capacity/max. length of main line for NLGI grade 0



¹) Only pump units with follower plate

Electrically Driven Piston Pump KFG/KFGS

The pumps are available in various models:

- KFGS** – with integrated control unit in pump housing,
- KFG** – with external control unit.

All the components are designed to deliver grease up to NLGI grade 2, including biodegradable types.

The KFGS and KFG piston pumps are equipped with a 2-, 6- or 10-liter reservoir. The pumps can feed a maximum of approx. 100 lube points. They have as many as three outlet ports. For each outlet port there are four pump elements for different fixed quantities.

The electric drive makes this pump independent of an on-board compressed-air network.

Connected to each pump element is a progressive feeder, possibly with a subfeeder, that splits up the supply of lubricant in a predefined ratio and then feeds it to the individual lube points.

Metered quantity per cycle and outlet port:

VPBM progressive feeder: 0.13 ccm,

VPKM progressive feeder: 0.04 to 0.36 ccm.

Number of maximum possible outlet ports per feeder: 20.

The control unit is installed separately in systems operated with **KFG** pumps. The electronic IG502-E control unit starts the pump after an adjustable interval. The IG502-E controls **and monitors** the running of the pump and also signals any faults with an indicator light.

IG502-E
electronic control unit



KFGS1-5
2-liter reservoir capacity



KFG3-5
6-liter reservoir capacity

The feeder and tubing network is planned for trailer and semitrailer installations – independent of the tractor truck – and installed in the same way as for the tractor truck.

The piston pump starts with every application of the brakes and is stopped – under the control of the IG475 unit – if the brakes are applied for longer than the defined pump running time.

IG475
electronic control unit



VPBM block feeder



VPKM sectional feeder

KFA/KFAS Mini-Pump Units

The pumps come in different versions:

KFAS – with integrated control unit in the pump housing,
KFA – with external control unit.

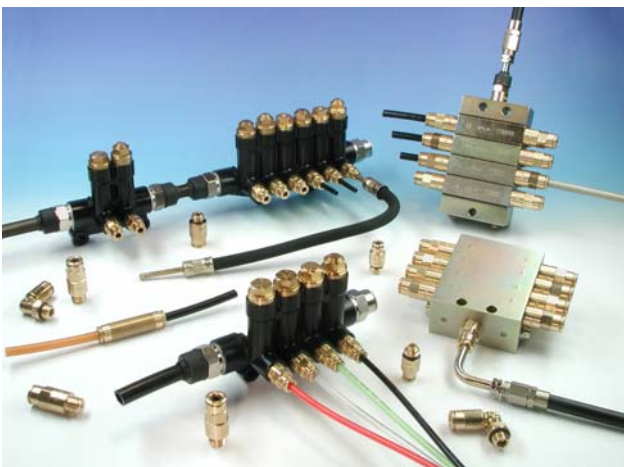
The KFA and KFAS pump units are equipped with a 1-liter reservoir and come with a maximum of 2 outlet ports for the connection of 2 independent lube circuits. A separate pump element is required for each outlet.

Three pump elements with different delivery rates are available so that the volume of grease can be adjusted to the needs of the individual circuits. That makes sure every lube point is supplied with an adequate amount of grease in each lubrication cycle.



KFAS1

Universal quick connectors for lubricant lines



Piston distributors, progressive feeders, quick connectors

The universally applicable quick connector system – for plastic, steel tubing and hoses

The advantages of plug-in connections are obvious:

- Greatly simplified installation – high cost-cutting potential
- Just one connection system for steel and plastic tubing – lower warehousing costs, simplified logistics, no danger of mix-ups during installation
- Triple seal – no leakage, no ingress of dirt
- Easy to disconnect – saves time with modifications and repairs



A brand of the SKF Group

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