

Centralized Lubrication for Commercial Vehicles



- Less downtime
- Reduced wear and tear

Why use SKF centralized lubrication?

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



A centralized lubrication system provides bearings with an automatic continuous supply of lubricant at certain intervals, and 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 downtime in terms of both machinery and personnel!
- saves as much as 40% on lubricant!
- helps to protect the environment!

The right SKF Centralized Lubrication System for every type of vehicle

(electrically or pneumatically actuated)

Lubricants		
Grease NLGI grades 000, 00	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

See the following for more specific information:

- | | |
|------------------------------------------------------|------------------------|
| “Centralized Lubrication for Farm Machinery” | See brochure 1-8055-EN |
| “Centralized Lubrication for Construction Machinery” | See brochure 1-8057-EN |
| “Centralized Lubrication for Stackers of all kinds” | See brochure 1-8059-EN |

Electric Gear Pumps KFU / KFUS

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

Various versions are available:

KFUS – with integrated control unit IG490
KFU – with external control unit IG502-2-E

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 or 00. 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 cm³.

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 unit has a microprocessor that stores all the operating states even after the power has been switched off.



KFU2-40 140 cm³/min delivery rate
 2.7-liter reservoir capacity
KFU6-20 140 cm³/min delivery rate
 6-liter reservoir capacity



Electronic control unit IG502-2-E



KFUS2-... 140 cm³/min delivery rate
 2.7-liter reservoir capacity
KFUS6-... 140 cm³/min delivery rate
 6-liter reservoir capacity



Piston distributor, group VKS02
 0.1 to 0.4 cm³ metering
 with universal quick connectors



Piston distributor, group VKS04
 0.1 to 0.4 cm³ metering
 with universal quick connectors



Piston distributor, group VKS06
 0.1 to 0.4 cm³ 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 cm³ of lubricant per stroke, enough for normally dimensioned centralized lubrication systems on trucks, buses, trailers and semitrailers. 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 or 00.

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 cm³.

The IG502-2-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.

Pneumatic Pump Unit PEF-90-S14



It is advisable to outfit trailers and semi-trailers 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.

The delivery rate amounts to 48 cm³/stroke.

VKSO piston distributors enable the distribution and metering of the lubricant. Greases of NLGI grades 000 or 00, 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.

Electric Compact Unit KFB / KFBS



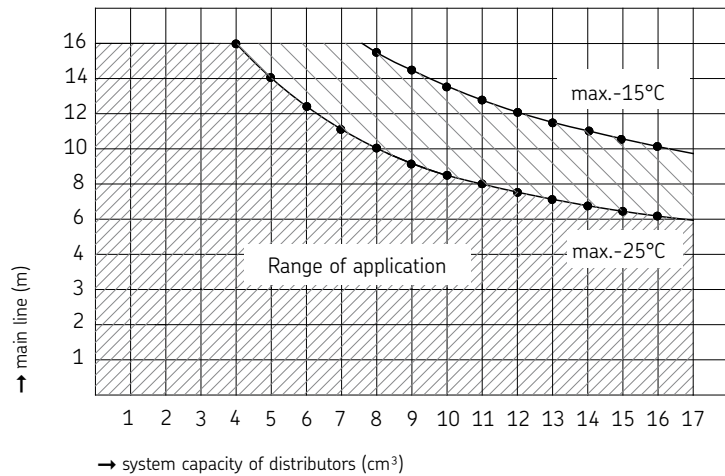
The KFB/KFBS compact unit has been especially designed to meet the demands of the new generation of trucks that use only a limited number of lubrication points. The integrated function of this new pump provides a lower cost and faster installation for these new applications and also makes it ideal for 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 or 00, including bio-degradable types, are suitable.

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

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



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 bio-degradable 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.

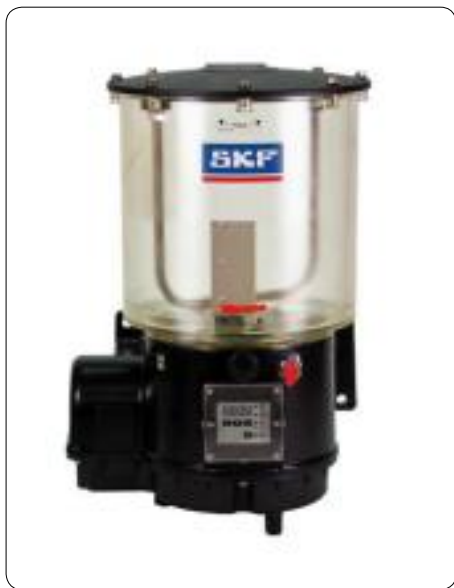
The electric drive makes this pump independent of an on-board compressed-air network.

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 cm³,
 VPKM progressive feeder: 0.04 to 0.36 cm³.

Number of maximum possible outlet ports per feeder: 20.

The control unit is installed separately in systems operated with KFG pumps. The electronic IG502-2-E control unit starts the pump after an adjustable interval. The IG502-2-E controls and monitors the running of the pump and also signals any fault with an indicator light.



KFGS3-5
 6-liter reservoir capacity



KFG1-5
 2-liter reservoir capacity



IG502-2-E
 electronic control unit

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 and quick connectors

KFA / KFAS Mini-Pump Units



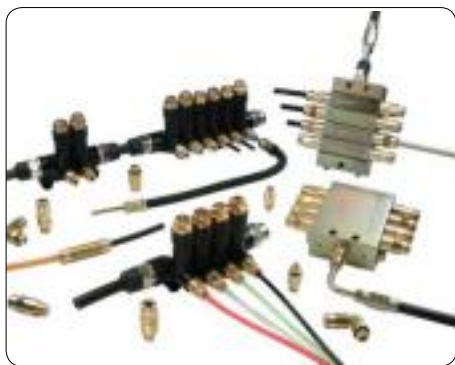
KFAS1

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. This makes sure that every lube point is supplied with an adequate amount of grease in each lubrication cycle.

Universal quick connectors for lubricant lines



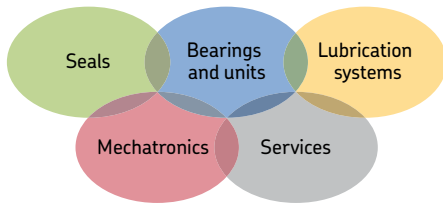
Piston distributors, progressive feeders and quick connectors

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 resulting in lower warehousing costs, simplified logistics, and no danger of mix-ups during installation

- Triple seal – no leakage, no ingress of dirt
- Easy to disconnect – saves time with modifications and repairs



The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

Further brochures:

- 1-0103-EN *Fittings and Accessories*
- 1-0107-6-EN *Accessories for Progressive Systems*
- 1-1700-2-EN *Control Units for Progressive Systems*
- 1-9201-EN *Transport of Lubricants in Centralized Lubrication Systems*
- 1-9420-EN *Single-line Systems for Commercial Vehicles*
- 1-9430-EN *Progressive Systems for Commercial Vehicles*
- 6408 EN *SKF Multilube*

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