Run Smoothly with SKF

Automatic centralized lubrication systems for commercial vehicles of all kinds
Continuous lubrication for long-term usage
For commercial vehicles of all kinds such as farm and construction machinery, stackers, carriers, trucks, truck tractors, trailers, and semitrailers

SKF provides mobility
As one of the world’s leading companies, we develop, manufacture, and distribute customer-specific system solutions and services from the areas of competence of rolling bearings and rolling bearing units, seals, mechatronics, and linear systems, as well as lubrication systems. We thereby help increase durability and productivity – even on heavy equipment.

SKF offers a solution perfectly matched to the application for every lubrication task on commercial vehicles. The range extends from applications such as chain lubrication to fully automated centralized lubrication systems that supply all relevant bearings with the exact amount of the right lubricant required. The portfolio also includes manual lubricating aids for small machines or attachments.

Under harsh operating conditions
Commercial vehicles such as construction and farm machinery, stackers, trucks, truck tractors, and semitrailers are subject to extreme conditions during daily use: moisture, heat, cold, dirt, dust, and high and irregular loads. However, this is exactly where the systems have to work reliably when they’re needed – after all, they are used to earn money. Downtime means effort and costs time and money.

For smooth operation, the loaded bearings, bolts, and shafts have to be supplied with lubricants on a regular basis. SKF centralized lubrication systems ensure that the lubricant always reaches the right locations at the amount and at the right time – reliably, with precise electronic control, and precisely metered.

This gives you the best vehicle performance while minimizing wear on your equipment and systems. This significantly extends the service life of your commercial vehicles and avoids time-consuming and costly maintenance.
It’s this easy

Only automated lubrication systems can reliably guarantee lubricant supply to all the connected components. The sophisticated centralized lubrication systems from SKF deliver the desired amount of the right lubricant at the specified times.

**SKF MonoFlex**
**single-line centralized lubrication systems**
The lubricant is conveyed via a central main line to the lubricant distributors, where it is metered and delivered to the individual lubrication points simultaneously. In this parallel system, the individual lubricant quantity per lubrication point can be adjusted at any time using different metering nipples. Entire distributors can even be added to or removed from the main line.

Benefits:
- Suitable for almost all lubricants
- Easy system expansion
- System does not fail completely if a lubrication point clogs
- Support for integrated control unit

**SKF ProFlex**
**progressive centralized lubrication systems**
A pump conveys the lubricant to the distributor, which supplies the connected lubrication points with the set amount of lubricant successively, i.e., progressively, via the individual outlets. A secondary feeder can be attached at each feeder outlet to supply further outlets with smaller quantities of lubricant. The system can be monitored by simply checking the movement of a single metering piston. This allows for very easy identification of any malfunctions.

Benefits:
- Easy system monitoring by series connection of metering pistons
- Continuous delivery of lubricant
- Simple system blockage control
- Support for integrated control unit

**SKF centralized lubrications systems provided** make a significant contribution to preventing system downtime, unscheduled machine stops, and interruptions in production.

Your benefits for more productivity:
- Increased machine availability
- Reduced unplanned downtime
- Increased cost-effectiveness

Your benefits for maintenance:
- Minimized unplanned downtime
- Increased reliability
- Reduced repair costs
- Reduced costs through automation
- Avoid inadequate and excessive lubrication
- Reduced costs for equipment and special greases
- Extended maintenance intervals

Your benefits for more safety:
- Elimination of manual lubrication at dangerous, difficult-to-access points
- Less contamination of the surrounding area by lubricant reduces the risk of slipping

Your benefits for more environmental protection:
- Reduced energy use through reduced friction
- Reduced environmental impact due to more efficient use of lubricating greases
- Compatible with biodegradable greases
Serve your customers reliably with SKF

Stackers, reach stackers, and other lifters and conveyors are preferred in goods handling at ports and airports, at freight terminals, and in production. Production areas and customers want reliable and just-in-time supplies, so the equipment lifts heavy loads precisely and transports it safely and efficiently.

They can only reliably perform this task if all required components such as the lift arms, steering knuckle pins, and steering axles are continuously supplied with lubricant.

Here you can rely on SKF’s expertise. SKF offers the right solution for adequate lubrication with low lubricant consumption so the lubrication points are always supplied and the grease is optimally distributed at the friction point.

Using a centralized lubrication system increases the service life of your equipment by up to four times compared to manual lubrication.

Harvest worry-free with SKF

Farm machinery such as tractors, combines, root lifters, corn choppers, and balers are subjected to wind and the weather. Rocks, dust, disturbed ground, or sticky sap can be a problem for bearings and quickly bring the machine to a stop.

So that your farm machinery is best prepared for these applications on meadows and fields, SKF centralized lubrications offer extremely sturdy components such as the electrically operated KFG and KFA piston pumps so you can harvest reliably.

For chain drives often employed on agricultural equipment and machinery, SKF offers specialized systems that apply lubricant directly to the chain link using brushes or droppers, which reduces friction.

The right solution for every application

With SKF centralized lubrication systems, use your capacities even more efficiently and reliably.
Reliable when it counts

The transport and traffic volume on European streets continue to rise. Every day, you put your buses and trucks on the road so your passengers and goods arrive punctually. The time factor determines profitability: failures and downtime are expensive and bring the process to a standstill. As a partner to the automotive industry, SKF develops innovative ideas on how you can make your fleet even more reliable.

Or you can use our expertise for your powerful and efficient waste disposal system: garbage trucks, sweepers, pump trucks, bucket loaders, and hook-lift trucks have to lift extreme loads and withstand a wide range of motions every day that put heavy strain on the bearings. Acting prudently means planning for the future and securing major benefits by using a centralized lubrication system. Profit from our years of experience. Our experts will be happy to advise you.

Automatically better with SKF

Construction machines must be in top shape so they can reliably achieve high productivity any time of year and in all climates. Friction wear, corrosion, dust, and dirt particles cause significant damage to the mechanical components of these machines.

The solution: perfectly tailored centralized lubrication systems from SKF. Use our expertise – for your delivery performance and your productivity.

For special applications such as crushers and hammers, we offer special lubrication solutions that are appropriately tailored to the machinery and operating conditions.

Manual lubricating aids or piston pumps with lubricant cartridges and connected by a block feeder are suitable for small machinery or vehicles with few lubrication points.
The right component for each system

High-quality components to optimize machine performance pay off for you and your customers.

**Pump units**

Electrically or pneumatically operated pistons and gear pumps are used in centralized lubrication systems for commercial vehicles. Special designs are actuated mechanically or hydraulically.

Gear pumps are characterized by their high reliability and high delivery rate. Their advantages are especially clear when using fluid greases. With an SKF gear pump, all lubrication points are supplied with lubricant simultaneously within a few minutes. They are used in SKF MonoFlex single-line centralized lubrication systems.

Even difficult greases are no problem for piston pumps, as they can feed even Grade 2 greases continuously. The pump’s pressure adapts constantly to the requirements of the system, ensuring optimal supply of all lubrication points. Piston pumps are used in SKF ProFlex progressive centralized lubrication systems.

**KFB/KFBS compact pump units**

Electrically operated gear pump units for oil and fluid greases of NLGI Grades 000, 00, and 0 for use in single-line centralized lubrication systems

**Technical features:**
- Reservoir capacity: 1 l
- Number of outlets: 1
- Delivery volume: 50 cm³/min
- Operating pressure: 38 bar
- Operating temperature: -25 to +75°C

**Benefits:**
- Compact pump unit
- Already integrated in the unit:
  - Pressure relief valve
  - Pressure regulating valve
- Fill level monitoring:
  - Visual
  - Electrical as option
- Optional with integrated control
- Optional with pre-assembled lubrication distributor of VN series

**KFU/KFUS pump units**

Electrically operated gear pump units for fluid greases of NLGI Grades 000, 00, and 0 for use in single-line centralized lubrication systems

**Technical features:**
- Reservoir capacities: 2, 7 or 6 l
- Number of outlets: 1
- Delivery volume: 140 cm³/min
- Operating pressure: 38 bar
- Operating temperature: -25 to +75°C
- Operating voltage: 12 or 24 V DC

**Benefits:**
- Supply up to 25 lubrication points with just one pump unit, even at significant distance
- Optional with integrated control

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- Study components – specially for the tough conditions in modern commercial vehicles
- Suitable for all common lubricants
- Reservoir capacities from 1 to 20 liters
- Optimal lubricant metering due to modular distributor system
PEF-90 pump units
Pneumatically operated piston pump units for oil and fluid greases of NLGI Grades 000, 00, and 0 for use in single-line centralized lubrication systems

**Technical features:**
- Reservoir capacity: 3 l
- Number of outlets: 1
- Delivery volume: 48 cm³/ stroke
- Operating pressure: 22–50 bar
- Ambient temperature: -25 to +80°C

**Benefits:**
- Driven by on-board compressed air system
- Optional with integrated control

KFA/KFAS mini-pump units
Electrically operated piston pump units for NLGI Grade 2 greases for use in progressive centralized lubrication systems

**Technical features:**
- Reservoir capacity: 1 l
- Number of outlets: 1–2
- Delivery rate: 1.0 : 1.5 : 2.0 cm³/ min
- Pressure: max. 300 bar
- Operating temperature: -25 to +75°C

**Benefits:**
- Compact and reliable
- Optional with integrated control

KFG/KFGS piston pump units
Electrically operated piston pump units for NLGI Grade 2 greases for use in progressive centralized lubrication systems

**Technical features:**
- Reservoir capacities: 2–20 kg
- Number of outlets: 1–3
- Delivery rate: 0.8–2.5 cm³/ min
- Pressure: max. 300 bar
- Operating temperature: -25 to +75°C

**Benefits:**
- Supply up to 100 lubrication points
- Reliable operation even at low temperatures
- Control unit with memory and system monitoring function
- Optional fill level monitoring and integrated control unit
Exact metering for each lubrication point

SKF lubricant distributors are high-precision components. They are available in special material designs for various ambient conditions.

**Single-line distributor**

Single-line distributors receive lubricant for the system from a common main line. As soon as all distributors are filled with lubricant, they pass it simultaneously to the connected lubrication points in the premetered quantity.

**VN series**

*Technical features:*
- Fluid grease NLGI Grades 000, 00
- Number of outlets: 2; 4; 6
- Delivery volume per outlet: 0,05–1,0 cm³
- Max. pressure: 80 bar
- Material: Zinc die-cast, lacquered

*Benefits:*
- Easy adjustment of metering by replacing the metering nipples
- Visual function monitoring

**VR series**

*Technical features:*
- Fluid grease and grease up to NLGI Grade 2
- Number of outlets: 1–12
- Delivery volume per outlet and cycle: 0,1–1,3 cm³
- Max. pressure: 315 bar
- Material: Anodized aluminum

*Benefits:*
- Innovative, extremely compact design
- High pressure resistance
- Each lubrication point can be visually monitored via an indicator pin.

**Progressive feeders**

Progressive feeders are utilized in block or modular design, especially for grease lubrication in off-road machinery. Both types function according to the same principle and are available in various designs.

**VP, VPB, VPK series**

*Technical features:*
- Oil and grease up to NLGI Grade 2
- Number of outlets: 6–20
- Delivery volume per outlet and cycle: 0,05–1,2 cm³
- Max. pressure: 300 bar
- Material: Galvanized steel

*Benefits:*
- Sturdy
- Easy to install
- Function monitoring possible both electrically and visually
Pressure switch for SKF MonoFlex
The pressure switch is used in single-line centralized lubrication systems. After the metering is complete and the pre-set pressure has been reached, the pressure switch installed at the end of the line system sends a signal to the system’s central control unit. After the pre-set delay time, the power supply to the pump unit is cut off, and pressure in the lubrication system is relieved via the pressure relief valve. The system is then ready for the next lubrication cycle.

Piston detector for SKF ProFlex
The piston detector mounted on the progressive feeder monitors the feeder function and passes on the individual feeder strokes to the downstream monitoring system. Visual monitoring is enabled by cycle indicators or blockage indicators.

Universal control unit
The control and monitoring systems evaluate the received signals and report them to the operator. This ensures that the fill level in the lubricant reservoirs, the pressure in the line systems, and proper function of the feeders can be checked at any time. Depending on the lubrication system and the pump unit employed, the control units are integrated in the pump or separately connected to the system.

Information in Detail
All status variables from the machine under control anytime and anywhere.
Your satisfaction is paramount at SKF
For us, service means satisfying our customers in all respects – before and after the purchase of a centralized lubrication system.

Find out more about SKF solutions
The SKF media library in the Knowledge Center at www.skf.com is the best source of information about SKF publications. The publications are available for download as PDF and can be found by browsing or using the search function. The brochures relevant to your commercial vehicle application are listed on the opposite page. You can download these in the media library.

(http://skf.com · skf.com/lubrication)

Design in 3D and electronic CAD product catalog
Our engineers work with the latest software and design the products in 3D. You can integrate the CAD data seamlessly into your layout plans. 3D CAD data is available in native format in our online product catalog, which is based on the eCATALOGsolutions technology by CADENAS GmbH. You can configure your products online from the centralized lubrication area and integrate them into your design process free of charge.

(http://skf-lubrication.partcommunity.com)

Retrofitting centralized lubrication systems
System downtime is more than just a hassle. It becomes even more problematic when costs for maintenance and repair become unwieldy. It is for that reason that we also offer on-site professional retrofitting of a centralized lubrication system at your location. If you like, we can also assume responsibility in addition for maintenance and repair during ongoing operations.

Procurement logistics and synchronized production
We can tailor our logistics processes to the requirements of our customers. For example, using synchronized electronic KANBAN systems with RFID, we enable an inventory-free supply for manufacturing and assembly that is synchronized with production.

As a result, run-through times and the total outlays are optimized and the risk of loss and damage is reduced. This results in optimum Supply Chain Management.
Find out more about SKF lubrication solutions

The table below provides an overview of lubrication products and solutions from SKF for the commercial vehicles as well as publications containing additional information.

<table>
<thead>
<tr>
<th>Product</th>
<th>Lubricant</th>
<th>Lubrication system</th>
<th>Application</th>
<th>Publication No.</th>
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<tr>
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<td>Fluid grease</td>
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<td>SKF MonoFlex</td>
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<td>Pressure switches</td>
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<td>Additional system components</td>
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<td>Accessories for Progressive Systems</td>
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<td>Overview brochures</td>
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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.