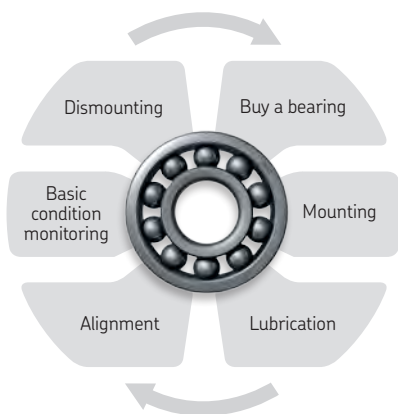


SKF Maintenance and Lubrication Products



Extending the Bearing Life Cycle

Lubricants

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Lubrication

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Lubricants

*Lubrication
management
tools*

*Automatic
lubricators*

*Manual
lubrication
tools*

*Lubrication
software*



Lubrication

Poor lubrication accounts for more than 36% of premature bearing failures

Include contamination, and this number rises to well above 50%. The importance of proper lubrication and cleanliness is self-evident in the determination of bearing life.

What the right lubrication programme can do for you



Increase

- Productivity
- Reliability
- Availability and durability
- Machine uptime
- Service intervals
- Safety
- Health
- Sustainability

Reduce

- Energy consumption due to friction
- Heat generation due to friction
- Wear due to friction
- Noise due to friction
- Downtime
- Operating expenses
- Product contamination
- Maintenance and repair costs
- Lubricant consumption
- Corrosion



From lubrication to lubrication management

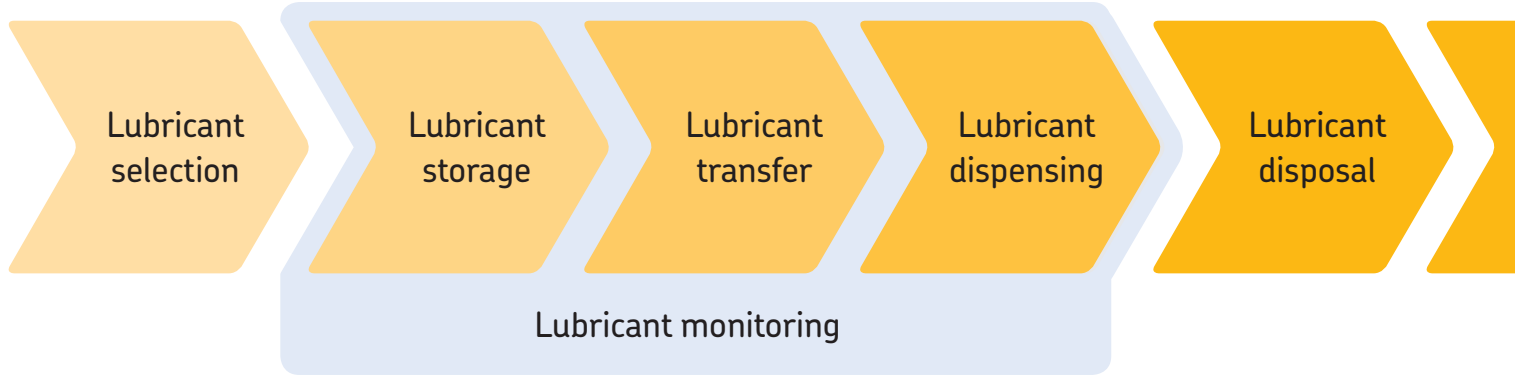


A good lubrication programme can be defined by applying the 5R approach:

“The right lubricant, in the right amount, reaches the right point at the right time using the right method”

This simple and logical approach, however, requires a detailed action plan that must include aspects as varied as:

- Logistics and supply chain
- Lubricant selection
- Lubricant storage, transfer and dispensing
- Lubrication tasks planning and scheduling
- Lubricant application procedures
- Lubricant analysis and condition monitoring
- Lubricant disposal
- Training



Selecting a suitable grease for a particular bearing is a crucial step if the bearing is to meet design expectations in its application. Use the SKF LubeSelect to select the right lubricant for your application.

During storage, maintenance and transfer steps, the lubricant can easily get contaminated due to lack of lubrication knowledge or simply lack of attention. To minimize the risks of lubricant contamination in storage and transfer, we recommend the use of the Oil storage station and Oil handling containers LAOS series. For the transfer of greases, we offer an extensive range of SKF Grease Pumps, SKF Grease Filler Pumps and SKF Bearing Packer.

For the correct lubricant dispensing, consider the range of SKF Grease Guns and SKF range of single and multi point lubricators. SKF DialSet helps you select the right lubricator settings for the application.

For the monitoring of the lubricant, SKF offers the following tools: SKF Oil Levellers, SKF Oil Check Monitor and SKF Grease Test Kit.

Lubrication management

Just as asset management takes maintenance to a higher level, a lubrication management approach allows lubrication to be seen from a wider point of view. This approach helps to effectively increase machine reliability at a lower overall cost.

SKF Lubrication Management process



- **SKF Client Needs Analysis:** Normally implies one day of assessment and provides an overview on the lubrication programme maturity
- **SKF Lubrication Audit:** Detailed assessment. Normally implies five days and provides a thorough analysis of the lubrication programme
- **Improvement proposal:** Formulation of specific activities
- **Design and implementation:** Execution of the proposed activities
- **Optimisation:** Reassessment and implementation of additional improvement proposals

SKF lubricants



SKF lubricants offer major competitive advantages:

- Designed and tested to perform under real conditions
- Product data include specific test results enabling a better selection
- Strict quality control of every production batch helps ensure consistent performance
- Quality control allows SKF to offer a five-year shelf-life* from the date of production



Production processes and raw materials greatly influence grease properties and performance. It is virtually impossible to select or compare greases based only on their composition. Therefore, performance tests are needed to provide crucial information. In over 100 years, SKF has accrued vast knowledge about the interaction of lubricants, materials and surfaces.



This knowledge has led SKF, in many cases, to set industry standards in bearing lubricant testing. Emcor, ROF, ROF+, V2F, R2F and Bequiet are just some of the multiple tests developed by SKF to assess the performance of lubricants under bearing operating conditions. Many of them are widely used by lubricant manufacturers worldwide.

SKF Engineering and Research Centre in the Netherlands

* SKF LGFP 2 food grade grease offers a two-year shelf-life from the date of production

SKF lubricant selection

Selecting a grease can be a delicate process. SKF has developed several tools in order to facilitate the selection of the most suitable lubricant. The wide range of tools available includes those from easy-to-use application driven tables to advanced software allowing for grease selection based upon detailed working conditions.

The basic bearing grease selection chart provides you with quick suggestions on the most commonly used greases in typical applications.



Basic bearing grease selection

Generally use if:

Speed = M, Temperature = M and Load = M

LGMT 2

General purpose

Unless:

Expected bearing temperature continuously >100 °C (210 °F)

LGHP 2

High temperature

Expected bearing temperature continuously >150 °C (300 °F), demands for radiation resistance

LGET 2

Extremely high temperature

Low ambient -50 °C (-60 °F), expected bearing temperature <50 °C (120 °F)

LGLT 2

Low temperature

Shock loads, heavy loads, frequent start-up / shut-down

LGEP 2

High load

Food processing industry

LGFP 2

Food processing

Biodegradable, demands for low toxicity

LGGB 2

Biodegradable

Note: – For areas with relatively high ambient temperatures, use LGMT 3 instead of LGMT 2
– For special operating conditions, refer to the SKF bearing grease selection chart

With additional information like speed, temperature, and load conditions, LubeSelect for SKF greases is the easiest way to select the right grease. For additional information, visit www.apititudeexchange.com. Additionally, the SKF bearing grease selection chart provides you with a complete overview of SKF greases. The chart includes the main selection parameters, such as temperature, speed and load, as well as basic additional performance information.



Bearing operating parameters

Temperature

L	= Low	<50 °C	(120 °F)
M	= Medium	50 to 100 °C	(120 to 230 °F)
H	= High	>100 °C	(210 °F)
EH	= Extremely high	>150 °C	(300 °F)

Load

VH	= Very high	C/P <2
H	= High	C/P ~4
M	= Medium	C/P ~8
L	= Low	C/P ≥15

C/P = Load ratio
C = basic dynamic load rating, kN
P = equivalent dynamic bearing load, kN

Speed

for ball bearings

EH	= Extremely high	n d _m over 700 000
VH	= Very high	n d _m up to 700 000
H	= High	n d _m up to 500 000
M	= Medium	n d _m up to 300 000
L	= Low	n d _m below 100 000

Speed

for roller bearings SRB/TRB/CARB

CRB

H	= High	n d _m over 210 000	n d _m over 270 000
M	= Medium	n d _m up to 210 000	n d _m up to 270 000
L	= Low	n d _m up to 75 000	n d _m up to 75 000
VL	= Very low	n d _m below 30 000	n d _m below 30 000

n d_m = rotational speed, r/min x 0,5 (D+d), mm

SKF bearing grease selection chart

Grease	Description	Application examples	Temperature range ¹⁾		Temp.	Speed
			LTL	HTPL		
LGMT 2	General purpose industrial and automotive	Automotive wheel bearings Conveyors and fans Small electric motors	-30 °C (-20 °F)	120 °C (250 °F)	M	M
LGMT 3	General purpose industrial and automotive	Bearings with d>100 mm Vertical shaft or outer bearing ring rotation Car, truck and trailer wheel bearings	-30 °C (-20 °F)	120 °C (250 °F)	M	M
LGEP 2	Extreme pressure	Forming and press section of paper mills Work roll bearings in steel industry Heavy machinery, vibrating screens	-20 °C (-5 °F)	110 °C (230 °F)	M	L to M
LGWA 2	Wide temperature ⁴⁾ , extreme pressure	Wheel bearings in cars, trailers and trucks Washing machines Electric motors	-30 °C (-20 °F)	140 °C (285 °F)	M to H	L to M
LGFP 2	Food compatible	Food processing equipment Wrapping machines Bottling machines	-20 °C (-5 °F)	110 °C (230 °F)	M	M
LGGB 2	Biodegradable, low toxicity ³⁾	Agricultural and forestry equipment Construction and earthmoving equipment Water treatment and irrigation	-40 °C (-40 °F)	90 °C (195 °F)	L to M	L to M
LGBB 2	Wind turbine blade and yaw bearing grease	Wind turbine blade and yaw slewing bearings	-40 °C (-40 °F)	120 °C (250 °F)	L to M	VL
LGLT 2	Low temperature, extremely high speed	Textile and machine tool spindles Small electric motors and robots Printing cylinders	-50 °C (-60 °F)	110 °C (230 °F)	L to M	M to EH
LGWM 1	Extreme pressure, low temperature	Main shaft of wind turbines Centralised lubrication systems Spherical roller thrust bearing applications	-30 °C (-20 °F)	110 °C (230 °F)	L to M	L to M
LGWM 2	High load, wide temperature	Main shaft of wind turbines Heavy duty off road or marine applications Snow exposed applications	-40 °C (-40 °F)	110 °C (230 °F)	L to M	L to M
LGEM 2	High viscosity plus solid lubricants	Jaw crushers Construction machinery Vibrating machinery	-20 °C (-5 °F)	120 °C (250 °F)	M	VL
LGEV 2	Extremely high viscosity with solid lubricants	Trunnion bearings Support and thrust rollers on rotary kilns and dryers Slewing ring bearings	-10 °C (15 °F)	120 °C (250 °F)	M	VL
LGHB 2	EP high viscosity, high temperature ⁵⁾	Steel on steel plain bearings Dryer section of paper mills Work roll bearings and continuous casting in steel industry Sealed spherical roller bearings up to 150 °C (300 °F)	-20 °C (-5 °F)	150 °C (300 °F)	M to H	VL to M
LGHP 2	High performance polyurea grease	Electric motors Fans, even at high speed High speed ball bearings at medium and high temperatures	-40 °C (-40 °F)	150 °C (300 °F)	M to H	M to H
LGET 2	Extreme temperature	Bakery equipment (ovens) Wafer baking machines Textile dryers	-40 °C (-40 °F)	260 °C (500 °F)	VH	L to M

1) LTL = Low Temperature Limit
HTPL = High Temperature Performance Limit
2) mm²/s at 40 °C (105 °F) = cSt.

3) LGGB 2 can withstand peak temperatures of 120 °C (250 °F)
4) LGWA 2 can withstand peak temperatures of 220 °C (430 °F)
5) LGHB 2 can withstand peak temperatures of 200 °C (390 °F)

Load	Thickener / Base Oil	NLGI	Base oil viscosity 2)	Vertical shaft	Fast outer ring rotation	Oscillating movements	Severe Vibrations	Shock load or frequent start up	Rust inhibiting properties	
L to M	Lithium soap / mineral oil	2	110	●			+		+	Wide applications greases
L to M	Lithium soap / mineral oil	3	120	+	●		+		●	
H	Lithium soap / mineral oil	2	200	●		●	+	+	+	
L to H	Lithium complex soap / mineral oil	2	185	●	●	●	●	+	+	
L to M	Aluminium complex / medical white oil	2	130	●					+	Special requirements
M to H	Lithium-calcium soap / synthetic ester oil	2	110	●		+	+	+	●	
M to H	Lithium complex soap / synthetic PAO oil	2	68			+	+	+	+	
L	Lithium soap / synthetic PAO oil	2	18	●				●	●	Low temperatures
H	Lithium soap / mineral oil	1	200			+		+	+	
L to H	Complex calcium sulphate / synthetic PAO oil / mineral oil	2	80	●	●	+	+	+	+	
H to VH	Lithium soap / mineral oil	2	500	●		+	+	+	+	High loads
H to VH	Lithium-calcium soap / mineral oil	2	1020	●		+	+	+	+	
L to VH	Complex calcium sulphate / mineral oil	2	400	●	+	+	+	+	+	High temperatures
L to M	Di-urea / mineral oil	2 to 3	96	+			●	●	+	
H to VH	PTFE / synthetic fluorinated polyether oil	2	400	●	+	+	●	●	●	

● = Suitable + = Recommended

LGMT 2

General purpose industrial and automotive

LGMT 3

General purpose industrial and automotive

LGEP 2

Extreme pressure

LGWA 2

Wide temperature, extreme pressure

LGFP 2

Food compatible

LGGB 2

Biodegradable, low toxicity

DIN 51825 code	K2K-30	K3K-30	KP2G-20	KP2N-30	K2G-20	KPE 2K-40
NLGI consistency class	2	3	2	2	2	2
Soap type	Lithium	Lithium	Lithium	Lithium complex	Aluminium complex	Lithium/calcium
Colour	Red brown	Amber	Light brown	Amber	Transparent	Off white
Base oil type	Mineral	Mineral	Mineral	Mineral	Medical white oil	Synthetic ester
Operating temperature range	-30 to +120 °C (-20 to +250 °F)	-30 to +120 °C (-20 to +250 °F)	-20 to +110 °C (-5 to +230 °F)	-30 to +140 °C (-20 to +285 °F)	-20 to +110 °C (-5 to +230 °F)	-40 to +90 °C (-40 to +195 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)	>180 °C (>355 °F)	>180 °C (>355 °F)	>250 °C (>480 °F)	>250 °C (>480 °F)	>170 °C (>340 °F)
Base oil viscosity 40 °C, mm ² /s 100 °C, mm ² /s	110 11	120-130 12	200 16	185 15	130 7,3	110 13
Penetration DIN ISO 2137 60 strokes, 10 ⁻¹ mm 100 000 strokes, 10 ⁻¹ mm	265-295 +50 max. (325 max.)	220-250 280 max.	265-295 +50 max. (325 max.)	265-295 +50 max. (325 max.)	265-295 +30 max.	265-295 +50 max. (325 max.)
Mechanical stability Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm V2F test	+50 max. 'M'	295 max. 'M'	+50 max. 'M'	+50 max. change 'M'		+70 max. (350 max.)
Corrosion protection Emcor: - standard ISO 11007 - water washout test - salt water test (100% seawater)	0-0 0-0 0-1*	0-0 0-0	0-0 0-0 1-1*	0-0 0-0*	0-0	0-0
Water resistance DIN 51 807/1, 3 hrs at 90 °C	1 max.	2 max.	1 max.	1 max.	1 max.	0 max.
Oil separation DIN 51 817, 7 days at 40 °C, static, %	1-6	1-3	2-5	1-5	1-5	0,3-3
Lubrication ability R2F, running test B at 120 °C R2F, cold chamber test, -30 °C, +20 °C	Pass, 120 °C (250 °F)	Pass 120 °C (250 °F)	Pass, 120 °C (250 °F)	Pass, 100 °C (210 °F)		Pass, 100 °C (210 °F)*
Copper corrosion DIN 51 811, 110 °C	2 max. 110 °C (265 °F)	2 max. 130 °C (265 °F)	2 max.	2 max.		
Rolling bearing grease life ROF test L ₅₀ life at 10 000 r/min., hrs		1 000 min., 130 °C (265 °F)			1 000, 110 °C (230 °F)	>300, 120 °C (250 °F)
EP performance Wear scar DIN 51350/5, 1 400 N, mm 4-ball test, welding load DIN 51350/4, N			1,4 max 2 800 min.	1,6 max. 2 600 min.	1 100 min.	1,8 max. 2 600 min.
Fretting corrosion ASTM D4170 FAFNIR test at -20 °C, +25 °C mg			5,7*			
Low temperature torque IP186, starting torque, m Nm* IP186, running torque, m Nm*	98, -30 °C (-20 °F) 58, -30 °C (-20 °F)	145, -30 °C (-20 °F) 95, -30 °C (-20 °F)	70, -20 °C (-5 °F) 45, -20 °C (-5 °F)	40, -30 °C (-20 °F) 30, -30 °C (-20 °F)	137, -30 °C (-20 °F) 51, -30 °C (-20 °F)	
Available pack sizes	35, 200 g tube 420 ml cartridge 1, 5, 18, 50, 180 kg	420 ml cartridge 0,5, 1, 5, 18, 50, 180 kg, TLMR	420 ml cartridge 1, 5, 18, 50, 180 kg TLMR	35, 200 g tube 420 ml cartridge 1, 5, 18, 50, 180 kg LAGD, TBSD, TLMR	420 ml cartridge 1, 18, 180 kg LAGD, TBSD, TLMR	420 ml cartridge 5, 18, 180 kg LAGD

* Typical value

Special requirements

Wide applications greases

LGBB 2 **LGLT 2** **LGWM 1** **LGWM 2** **LGEM 2** **LGEV 2** **LGHB 2** **LGHP 2** **LGET 2**

Wind turbine blade and yaw bearing grease Low temperature, extremely high speed Extreme pressure, low temperature High load, wide temperature High viscosity plus solid lubricants Extremely high viscosity with solid lubricants EP high viscosity, high temperature High performance polyurea grease Extreme temperature

KP2G-40	K2G-50	KP1G-30	KP2G-40	KPF2K-20	KPF2K-10	KP2N-20	K2N-40	KFK2U-40
2	2	1	1-2	2	2	2	2-3	2
Lithium complex	Lithium	Lithium	Complex calcium sulphonate	Lithium	Lithium/calcium	Complex calcium sulphonate	Di-urea	PTFE
Yellow	Beige	Brown	Yellow	Black	Black	Brown	Blue	Off white
Synthetic (PAO)	Synthetic (PAO)	Mineral	Synthetic (PAO)/Mineral	Mineral	Mineral	Mineral	Mineral	Synthetic (fluorinated polyether)
-40 to +120 °C (-40 to +250 °F)	-50 to +110 °C (-60 to +230 °F)	-30 to +110 °C (-20 to +230 °F)	-40 to +110 °C (-40 to +230 °F)	-20 to +120 °C (-5 to +250 °F)	-10 to +120 °C (15 to 250 °F)	-20 to +150 °C (-5 to +300 °F)	-40 to +150 °C (-40 to +300 °F)	-40 to +260 °C (-40 to +500 °F)
>200 °C (390 °F)	>180 °C (>355 °F)	>170 °C (>340 °F)	>300 °C (>570 °F)	>180 °C (>355 °F)	>180 °C (>355 °F)	>220 °C (>430 °F)	>240 °C (>465 °F)	>300 °C (>570 °F)
68	18 4,5	200 16	80 8,6	500 32	1 020 58	400-450 26,5	96 10,5	400 38
265-295 +50 max.	265-295 +50 max.	310-340 +50 max.	280-310 +30 max	265-295 325 max.	265-295 325 max.	265-295 -20 to +50 (325 max.)	245-275 365 max.	265-295 -
+50 max.	380 max.		+50 max.	345 max. 'M'	+50 max. 'M'	-20 to +50 change 'M'	365 max.	±30 max. 130 °C (265 °F)
0-0 0-1*	0-1	0-0 0-0	0-0 0-0 0-0	0-0 0-0	0-0 0-0*	0-0 0-0 0-0*	0-0 0-0 0-0	1-1
1 max.	1 max.	1 max.	1 max.	1 max.	1 max.	1 max.	1 max.	0 max.
4 max, 2,5*	<4	8-13	3 max.	1-5	1-5	1-3, 60 °C (140 °F)	1-5	13 max. 30 hrs 200 °C (390 °F)
			Pass, 140 °C (285 °F) Pass, Pass	Pass, 100 °C (210 °F)		Pass, 140 °C (285 °F)	Pass, 120 °C (250 °F)	
1 max. 120 °C (250 °F)	1 max. 100 °C (210 °F)	2 max. 90 °C (>195 °F)	1 max.	2 max. 100 °C (210 °F)	1 max. 100 °C (210 °F)	2 max. 150 °C (300 °F)	1 max. 150 °C (300 °F)	1
	>1 000, 20 000 r/min. 100 °C (210 °F)		1 824*, 110 °C (230 °F)			>1 000, 130 °C (265 °F)	1 000 min. 150 °C (300 °F)	>700, 5 600 r/min.* 220 °C (430 °F)
0,4* 5 500*	2 000 min.	1,8 max. 3 200 min.*	1,5 max. 4 000 min.	1,4 max. 3 000 min.	1,2 max. 3 000 min.	0,86* 4 000 min.		8 000 min.
0-1*		5,5*	1,1*, 5,2*			0*	7*	
313, -40 °C (-40 °F) 75, -40 °C (-40 °F)	32, -50 °C (-60 °F) 21, -50 °C (-60 °F)	178, 0 °C (32 °F) 103, 0 °C (32 °F)	249, -40 °C (-40 °F) 184, -40 °C (-40 °F)	160, -20 °C (-5 °F) 98, -20 °C (-5 °F)	96, -10 °C (14 °F) 66, -10 °C (14 °F)	250, -20 °C (-5 °F) 133, -20 °C (-5 °F)	1 000, -40 °C (-40 °F) 280, -40 °C (-40 °F)	
420 ml cartridge 5, 18, 180 kg	180 g tube 0,9, 25, 170 kg	420 ml cartridge 5, 50, 180 kg TLMR	420 ml cartridge 5, 18, 50, 180 kg LAGD, TLSD, TLMR	420 ml cartridge 5, 18, 180 kg LAGD, TLSD	35 g tube 420 ml cartridge 5, 18, 50, 180 kg TLMR	420 ml cartridge 5, 18, 50, 180 kg LAGD, TLSD, TLMR	420 ml cartridge 1, 5, 18, 50, 180 kg LAGD, TLSD, TLMR	50 g (25 ml) syringe 1 kg

High loads

Low temperatures

High temperatures

Bearing greases

LGMT 2

SKF General Purpose Industrial and Automotive Bearing Grease

SKF LGMT 2 is mineral oil based, lithium soap thickened grease with excellent thermal stability within its operating temperature range. This premium quality, general purpose grease is suitable for a wide range of industrial and automotive applications.

- Excellent oxidation stability
- Good mechanical stability
- Excellent water resistance and rust inhibiting properties

Typical applications:

- Agricultural equipment
- Automotive wheel bearings
- Conveyors
- Small electric motors
- Industrial fans



Technical data

Designation **LGMT 2/(pack size)**

DIN 51825 code	K2K-30
NLGI consistency class	2
Soap type	Lithium
Colour	Red brown
Base oil type	Mineral
Operating temperature range	-30 to +120 °C (-20 to +250 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)
Base oil viscosity	
40 °C, mm ² /s	110
100 °C, mm ² /s	11
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	+50 max. (325 max.)
Mechanical stability	
Roll stability,	
50 hrs at 80 °C, 10 ⁻¹ mm	+50 max.
V2F test	'M'

Corrosion protection

Emcor:	
- standard ISO 11007	0-0
- water washout test	0-0
- salt water test (100% seawater)	0-1*

Water resistance

DIN 51 807/1,	
3 hrs at 90 °C	1 max.

Oil separation

DIN 51 817,	
7 days at 40 °C, static, %	1-6

Lubrication ability

R2F,	
running test B at 120 °C	Pass

Copper corrosion

DIN 51 811, 110 °C	2 max. at 110 °C (265 °F)
--------------------	---------------------------

Available pack sizes

35, 200 g tube
420 ml cartridge
1, 5, 18, 50, 180 kg

* Typical value

LGMT 3

SKF General Purpose Industrial and Automotive Bearing Grease

SKF LGMT 3 is mineral oil based, lithium soap thickened grease. This premium quality, general purpose grease is suitable for a wide range of industrial and automotive applications requiring stiff grease.

- Excellent rust inhibiting properties
- High oxidation stability within its recommended temperature range

Typical applications:

- Bearings >100 mm (3.9 in.) shaft size
- Outer bearing ring rotation
- Vertical shaft applications
- Continuous high ambient temperatures >35 °C (95 °F)
- Propeller shafts
- Agricultural equipment
- Car, truck and trailer wheel bearings
- Large electric motors



Technical data

Designation LGMT 3/(pack size)

DIN 51825 code	K3K-30
NLGI consistency class	3
Soap type	Lithium
Colour	Amber
Base oil type	Mineral
Operating temperature range	-30 to +120 °C (-20 to +250 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)
Base oil viscosity	
40 °C, mm ² /s	120-130
100 °C, mm ² /s	12
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	220-250
100 000 strokes, 10 ⁻¹ mm	280 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	295 max.
V2F test	'M'

Corrosion protection

Emcor: - standard ISO 11007	0-0
- water washout test	0-0

Water resistance

DIN 51 807/1, 3 hrs at 90 °C	2 max.
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Oil separation

DIN 51 817, 7 days at 40 °C, static, %	1-3
-------------------------------------------	-----

Lubrication ability

R2F, running test B at 120 °C	Pass
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Copper corrosion

DIN 51 811, 110 °C	2 max. at 130 °C (265 °F)
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Rolling bearing grease life

ROF test	1 000 min. at 130 °C (265 °F)
L ₅₀ life at 10 000 r/min., hrs	

Available pack sizes

420 ml cartridge
0,5, 1, 5, 18, 50, 180 kg
TLMR

LGEP 2

SKF High Load, Extreme Pressure Bearing Grease

SKF LGEP 2 is mineral oil based, lithium soap thickened grease with extreme pressure additives. This grease provides good lubrication in general applications subjected to harsh conditions and vibrations.

- Excellent mechanical stability
- Extremely good corrosion inhibiting properties
- Excellent EP performance

Typical applications:

- Pulp and paper making machines
- Jaw crushers
- Traction motors for rail vehicles
- Dam gates
- Work roll bearings in steel industry
- Heavy machinery, vibrating screens
- Crane wheels, sheaves
- Slewing bearings



Technical data

Designation LGEP 2/(pack size)

DIN 51825 code	KP2G-20
NLGI consistency class	2
Soap type	Lithium
Colour	Light brown
Base oil type	Mineral
Operating temperature range	-20 to +110 °C (-5 to +230 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)
Base oil viscosity:	
40 °C, mm ² /s	200
100 °C, mm ² /s	16
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	+50 max. (325 max.)
Mechanical stability:	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	+50 max.
V2F test	'M'
Corrosion protection	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0
- salt water test (100% seawater)	1-1*

Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	2-5
Lubrication ability	
R2F, running test B at 120 °C	Pass
Copper corrosion	
DIN 51 811, 110 °C	2 max.
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,4 max
4-ball test, welding load DIN 51350/4, N	2 800 min.
Fretting corrosion	
ASTM D4170 (mg)	5,7*
Available pack sizes	420 ml cartridge 1, 5, 18, 50, 180 kg TLMR

* Typical value

LGWA 2

SKF High Load, Extreme Pressure, Wide Temperature Range Bearing Grease

SKF LGWA 2 is a premium quality mineral oil based, lithium complex grease with extreme pressure (EP) performance. LGWA 2 is recommended for general industrial and automotive applications, when loads or temperatures exceed the range of general purpose greases.

- Excellent lubrication at peak temperatures up to 220 °C (430 °F) for short periods
- Protection of wheel bearings operating under severe conditions
- Effective lubrication in wet conditions
- Good water and corrosion resistance
- Excellent lubrication under high loads and low speeds

Typical applications:

- Wheel bearings in cars, trailers and trucks
- Washing machines
- Fan and electric motors



Technical data

Designation **LGWA 2/(pack size)**

DIN 51825 code	KP2N-30
NLGI consistency class	2
Soap type	Lithium complex
Colour	Amber
Base oil type	Mineral
Operating temperature range	-30 to +140 °C (-20 to +285 °F)
Dropping point DIN ISO 2176	>250 °C (>480 °F)
Base oil viscosity	
40 °C, mm ² /s	185
100 °C, mm ² /s	15
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	+50 max. (325 max.)
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm V2F test	+50 max. change 'M'
Corrosion protection	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0*

Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C (210 °F)
Copper corrosion	
DIN 51 811, 110 °C	2 max.
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,6 max.
4-ball test, welding load DIN 51350/4, N	2 600 min.
Available pack sizes	35, 200 g tube 420 ml cartridge 1, 5, 18, 50, 180 kg SKF SYSTEM 24 (LAGD/TLSD), TLMR

* Typical value

LGGB 2

SKF Biodegradable Bearing Grease

SKF LGGB 2 is a biodegradable, low toxicity, synthetic ester oil based grease, using a lithium-calcium thickener. Its special formulation makes it most suitable for applications where environmental contamination is a concern.

- Compliance with current regulations on toxicity and biodegradability
- Good performance in applications with steel-on-steel spherical plain bearings, ball bearings and roller bearings
- Good low temperature start-up performance
- Good corrosion inhibiting properties
- Suitable for medium to high loads

Typical applications:

- Agricultural and forestry equipment
- Construction and earthmoving equipment
- Mining and conveying equipment
- Water treatment and irrigation
- Locks, dams, bridges
- Linkages, rod ends



Technical data

Designation	LGGB 2/(pack size)
DIN 51825 code	KPE 2K-40
NLGI consistency class	2
Soap type	Lithium/calcium
Colour	Off white
Base oil type	Synthetic ester
Operating temperature range	-40 to +90 °C (-40 to +195 °F)
Dropping point DIN ISO 2176	>170 °C (>340 °F)
Base oil viscosity	
40 °C, mm ² /s	110
100 °C, mm ² /s	13
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265–295
100 000 strokes, 10 ⁻¹ mm	+50 max. (325 max.)
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	+70 max. (350 max.)

Corrosion protection	
Emcor: – standard ISO 11007	0–0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	0 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	0,3–3
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C (210 °F)*
Rolling bearing grease life	
ROF test L ₅₀ life at 10 000 r/min., hrs	>300 at 120 °C (250 °F)
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,8 max.
4–ball test, welding load DIN 51350/4, N	2 600 min.
Available pack sizes	420 ml cartridge 5, 18, 180 kg SKF SYSTEM 24 (LAGD)

* Typical value

LGBB 2

SKF Wind Turbine Blade and Yaw Bearing Grease

SKF LGBB 2 is a lithium complex/synthetic PAO oil based grease specially designed for extreme conditions involving very low speeds, high loads, low temperatures and oscillating conditions. This grease provides proper lubrication whether the turbine is operating or in stand-still mode, installed onshore, offshore, or in cold climate areas.

- Excellent false brinelling protection
- Excellent performance under high loads
- Excellent performance at low temperature starting torque
- Good pumpability down to low temperatures
- Excellent water resistance
- Excellent corrosion protection
- High thermal and mechanical stability

Typical applications:

- Wind turbine blade and yaw bearing applications



Technical data

Designation LGBB 2/(pack size)

DIN 51825 code	KP2G-40
NLGI consistency class	2
Soap type	Lithium complex
Colour	Yellow
Base oil type	Synthetic (PAO)
Operating temperature range	-40 to +120 °C (-40 to +250 °F)
Dropping point DIN ISO 2176	>200 °C (390 °F)
Base oil viscosity 40 °C, mm ² /s	68
Penetration DIN ISO 2137 60 strokes, 10 ⁻¹ mm 100 000 strokes, 10 ⁻¹ mm	265-295 +50 max.
Mechanical stability Roll stability, 50h at 80 °C, 10 ⁻¹ mm	+50 max.
Corrosion protection Emcor: - Standard ISO 11007 - Salt water test (100% sea water)	0-0 0-1*

Water resistance DIN 51 807/1, 3 hours at 90 °C	1 max.
Oil separation DIN 51817, 7 days at 40 °C, static, %	4 max, 2.5*
Copper corrosion DIN 51 811, 120 °C	1 max.
EP performances Wear scar DIN 51350/5, 1400 N, mm 4-ball test, welding load DIN 51350/4, N	0.4 * 5 500 *
Rolling bearing lubrication ability Fe8, DIN 51819, 80 kN, 80 °C, C/P 1.8, 500 h	pass
False brinelling resistance ASTM D4170 FAFNIR test, mg	0-1*
Available pack sizes	420 ml cartridge 5, 18, 180 kg

* Typical value

LGLT 2

SKF Low Temperature, Extremely High Speed Bearing Grease

SKF LGLT 2 is a fully synthetic oil based grease using lithium soap. Its unique thickener technology and low viscosity oil (PAO) provide excellent lubrication performances at low temperatures $-50\text{ }^{\circ}\text{C}$ ($-60\text{ }^{\circ}\text{F}$) and extremely high speeds (n_{d_m} values of $1,6 \times 10^6$ can be reached).

- Low friction torque
- Quiet running
- Extremely good oxidation stability and resistance to water

Typical applications:

- Textile spinning spindles
- Machine tool spindles
- Instruments and control equipment
- Small electric motors used in medical and dental equipment
- In-line skates
- Printing cylinders
- Robots



Technical data

Designation	LGLT 2/(pack size)	
DIN 51825 code	K2G-50	
NLGI consistency class	2	
Soap type	Lithium	
Colour	Beige	
Base oil type	Synthetic (PAO)	
Operating temperature range	-50 to $+110\text{ }^{\circ}\text{C}$ (-60 to $+230\text{ }^{\circ}\text{F}$)	
Dropping point DIN ISO 2176	$>180\text{ }^{\circ}\text{C}$ ($>355\text{ }^{\circ}\text{F}$)	
Base oil viscosity		
40 $^{\circ}\text{C}$, mm^2/s	18	
100 $^{\circ}\text{C}$, mm^2/s	4,5	
Penetration DIN ISO 2137		
60 strokes, 10^{-1} mm	265–295	
100 000 strokes, 10^{-1} mm	$+50$ max.	
Mechanical stability		
Roll stability, 50 hrs at $80\text{ }^{\circ}\text{C}$, 10^{-1} mm	380 max.	
Corrosion protection	Emcor: – standard ISO 11007	0–1
Water resistance	DIN 51 807/1, 3 hrs at $90\text{ }^{\circ}\text{C}$	1 max.
Oil separation	DIN 51 817, 7 days at $40\text{ }^{\circ}\text{C}$, static, %	<4
Copper corrosion	DIN 51 811, $110\text{ }^{\circ}\text{C}$	1 max. at $100\text{ }^{\circ}\text{C}$ ($210\text{ }^{\circ}\text{F}$)
Rolling bearing grease life	ROF test	$>1\ 000$,
	L_{50} life at 10 000 r/min., hrs	20 000 r/min. at $100\text{ }^{\circ}\text{C}$ ($210\text{ }^{\circ}\text{F}$)
EP performance	4–ball test, welding load DIN 51350/4, N	2 000 min.
Available pack sizes	180 g tube 0,9, 25, 170 kg	

LGWM 1

SKF Extreme Pressure Low Temperature Bearing Grease

SKF LGWM 1 is a low consistency mineral oil based grease, using a lithium soap and containing extreme pressure additives. It is extremely suitable for the lubrication of bearings operating under both radial and axial loads.

- Good oil film formation at low temperatures down to $-30\text{ }^{\circ}\text{C}$ ($-20\text{ }^{\circ}\text{F}$)
- Good pumpability down to low temperatures
- Good corrosion protection
- Good water resistance

Typical applications:

- Wind turbine main shafts
- Screw conveyors
- Centralised lubrication systems
- Spherical roller thrust bearing applications



Technical data

Designation **LGWM 1/(pack size)**

DIN 51825 code	KP1G-30
NLGI consistency class	1
Soap type	Lithium
Colour	Brown
Base oil type	Mineral
Operating temperature range	-30 to $+110\text{ }^{\circ}\text{C}$ (-20 to $+230\text{ }^{\circ}\text{F}$)
Dropping point DIN ISO 2176	$>170\text{ }^{\circ}\text{C}$ ($>340\text{ }^{\circ}\text{F}$)
Base oil viscosity	
40 $^{\circ}\text{C}$, mm^2/s	200
100 $^{\circ}\text{C}$, mm^2/s	16
Penetration DIN ISO 2137	
60 strokes, 10^{-1} mm	310-340
100 000 strokes, 10^{-1} mm	+50 max.
Corrosion protection:	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0

Water resistance	
DIN 51 807/1, 3 hrs at $90\text{ }^{\circ}\text{C}$	1 max.
Oil separation	
DIN 51 817, 7 days at $40\text{ }^{\circ}\text{C}$, static, %	8-13
Copper corrosion	
DIN 51 811, $110\text{ }^{\circ}\text{C}$	2 max. at $90\text{ }^{\circ}\text{C}$ ($>195\text{ }^{\circ}\text{F}$)
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,8 max.
4-ball test, welding load DIN 51350/4, N	3 200 min.*
Fretting corrosion	
ASTM D4170 (mg)	5,5*
Available pack sizes	420 ml cartridge 5, 50, 180 kg TLMR

* Typical value

LGWM 2

SKF High Load, Wide Temperature Bearing Grease

SKF LGWM 2 is a synthetic-mineral oil based grease using the latest complex calcium sulphonate thickener technology. It is suitable for applications subjected to high loads, wet environments and fluctuating temperatures.

- Excellent corrosion protection
- Excellent mechanical stability
- Excellent high load lubricating capacity
- Good false brinelling protection
- Good pumpability down to low temperatures

Typical applications:

- Wind turbine mains shafts
- Heavy duty off road applications
- Snow exposed applications
- Marine and offshore applications
- Spherical roller thrust bearing applications



Technical data

Designation **LGWM 2/(pack size)**

DIN 51825 code	KP2G-40
NLGI consistency class	1-2
Soap type	Complex calcium sulphonate
Colour	Yellow
Base oil type	Synthetic (PAO)/ Mineral
Operating temperature range	-40 to +110 °C (-40 to +230 °F)
Dropping point DIN ISO 2176	>300 °C (>570 °F)
Base oil viscosity	
40 °C, mm ² /s	80
100 °C, mm ² /s	8,6
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	280-310
100 000 strokes, 10 ⁻¹ mm	+30 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	+50 max.
Corrosion protection	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0
- salt water test (100% seawater)	0-0

Water resistance

DIN 51 807/1,
3 hrs at 90 °C 1 max.

Oil separation

DIN 51 817,
7 days at 40 °C, static, % 3 max.

Lubrication ability

R2F, running test B at 120 °C Pass at 140 °C (285 °F)
R2F, Cold chamber test (+20 °C) Pass
R2F, Cold chamber test (-30 °C) Pass

Copper corrosion

DIN 51 811, 110 °C 1 max.

Rolling bearing grease life

ROF test
L₅₀ life at 10 000 r/min., hrs 1 824* at 110 °C (230 °F)

EP performance

Wear scar DIN 51350/5, 1 400 N, mm 1,5 max.
4-ball test, welding load DIN 51350/4, N 4 000 min.

Fretting corrosion

ASTM D4170 FAFNIR test at +25 °C, mg 5,2*
ASTM D4170 FAFNIR test at -20 °C, mg 1,1*

Available pack sizes

420 ml cartridge
5, 18, 50, 180 kg
SKF SYSTEM 24
(LAGD/TLSD), TLMR

* Typical value

LGEM 2

SKF High Viscosity Bearing Grease with Solid Lubricants

SKF LGEM 2 is a high viscosity, mineral oil based grease using a lithium soap. Its content of molybdenum disulphide and graphite provides extra protection for harsh applications subjected to high loads, heavy vibrations and slow rotations.

- High oxidation stability
- Molybdenum disulphide and graphite provide lubrication even if the oil film breaks down

Typical applications:

- Rolling element bearings running at low speed and very high loads
- Jaw crushers
- Track laying machines
- Lift mast wheels
- Building machines such as mechanical rams, crane arms and crane hooks



Technical data

Designation **LGEM 2/(pack size)**

DIN 51825 code	KPF2K-20
NLGI consistency class	2
Soap type	Lithium
Colour	Black
Base oil type	Mineral
Operating temperature range	-20 to +120 °C (-5 to +250 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)
Base oil viscosity	
40 °C, mm ² /s	500
100 °C, mm ² /s	32
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	325 max.
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	345 max.
V2F test	'M'

Corrosion protection	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-5
Lubrication ability	
R2F, running test B at 120 °C	Pass at 100 °C (210 °F)
Copper corrosion	
DIN 51 811, 110 °C	2 max. at 100 °C (210 °F)
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,4 max.
4-ball test, welding load DIN 51350/4, N	3 000 min.
Available pack sizes	420 ml cartridge 5, 18, 180 kg SKF SYSTEM 24 (LAGD/TLSD)

LGEV 2

SKF Extremely High Viscosity Bearing Grease with Solid Lubricants

SKF LGEV 2 is a mineral oil based grease, using a lithium-calcium soap. Its high content of molybdenum disulphide and graphite, in conjunction with an extremely high viscosity oil, provide outstanding protection under the harshest conditions involving high loads, slow rotations and severe vibrations.

- Extremely suitable for lubricating large sized spherical roller bearings subject to high loads and slow rotations, a situation where microslip is likely to occur
- Extremely mechanically stable providing good water resistance and corrosion protection

Typical applications:

- Trunnion bearings on rotating drums
- Support and thrust rollers on rotary kilns and dryers
- Bucket wheel excavators
- Slewing ring bearings
- High pressure roller mills
- Crushers



Technical data

Designation	LGEV 2/(pack size)
DIN 51825 code	KPF2K-10
NLGI consistency class	2
Soap type	Lithium/calcium
Colour	Black
Base oil type	Mineral
Operating temperature range	-10 to +120 °C (15 to 250 °F)
Dropping point DIN ISO 2176	>180 °C (>355 °F)
Base oil viscosity	
40 °C, mm ² /s	1 020
100 °C, mm ² /s	58
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265–295
100 000 strokes, 10 ⁻¹ mm	325 max.
Mechanical stability	
Roll stability, 72 hrs at 100 °C, 10 ⁻¹ mm	+50 max.
V2F test	'M'

Corrosion protection	
Emcor: – standard ISO 11007	0–0
– water washout test	0–0*
– salt water test (100% seawater)	0–0*
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1–5
Copper corrosion	
DIN 51 811, 110 °C	1 max. at 100 °C (210 °F)
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	1,2 max.
4–ball test, welding load DIN 51350/4	3 000 min.
Available pack sizes	35 g tube 420 ml cartridge 5, 18, 50, 180 kg TLMR

* Typical value

LGHB 2

SKF High Load, High Temperature, High Viscosity Bearing Grease

SKF LGHB 2 is a high viscosity, mineral oil based grease, using the latest complex calcium-sulphonate soap technology. Formulated to withstand high temperatures and extreme loads, it is suitable for a wide range of applications, especially in the cement, mining and metals segments. This grease contains no additives and the extreme pressure properties arise from the soap structure.

- Excellent anti-oxidation and anti-corrosion properties
- Excellent performance in applications running at high loads
- Withstands peak temperatures of 200 °C (390 °F)

Typical applications:

- Steel on steel plain bearings
- Pulp and paper making machines
- Asphalt vibrating screens
- Continuous casting machines
- Sealed spherical roller bearings operating up to 150 °C (300 °F)
- Work roll bearings in steel industry
- Mast rollers of fork lift trucks



Technical data

Designation **LGHB 2/(pack size)**

DIN 51825 code	KP2N-20
NLGI consistency class	2
Soap type	Complex calcium sulphonate
Colour	Brown
Base oil type	Mineral
Operating temperature range	-20 to +150 °C (-5 to +300 °F)
Dropping point DIN ISO 2176	>220 °C (>430 °F)
Base oil viscosity	
40 °C, mm ² /s	400-450
100 °C, mm ² /s	26,5
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	-20 to +50 (325 max.)
Mechanical stability	
Roll stability, 72 hrs at 100 °C, 10 ⁻¹ mm V2F test	-20 to +50 change 'M'
Corrosion protection	
Emcor: - standard ISO 11007	0-0
- water washout test	0-0
- salt water test (100% seawater)	0-0*

Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-3 at 60 °C (140 °F)
Lubrication ability	
R2F, running test B at 120 °C	Pass at 140 °C (285 °F)
Copper corrosion	
DIN 51 811, 110 °C	2 max. at 150 °C (300 °F)
Rolling bearing grease life	
ROF test	
L ₅₀ life at 10 000 r/min., hrs	>1 000 at 130 °C (265 °F)
EP performance	
Wear scar DIN 51350/5, 1 400 N, mm	0,86*
4-ball test, welding load DIN 51350/4, N	4 000 min.
Fretting corrosion	
ASTM D4170 (mg)	0*
Available pack sizes	420 ml cartridge 5, 18, 50, 180 kg SKF SYSTEM 24 (LAGD/TLSD), TLMR

* Typical value

LGHP 2

SKF High Performance, High Temperature Bearing Grease

SKF LGHP 2 is a premium quality mineral oil based grease, using a modern Polyurea (di-urea) thickener. It is suitable for electric motors and similar applications.

- Extremely long life at high temperatures
- Wide temperature range
- Excellent corrosion protection
- High thermal and mechanical stability
- Good start-up performance at low temperatures
- Compatibility with common polyurea and lithium thickened greases
- Low noise properties

Typical applications:

- Electric motors: Small, medium and large
- Industrial fans, including high speed fans
- Water pumps
- Rolling bearings in textile, paper processing and drying machines
- Applications with medium and high speed ball (and roller) bearings operating at medium and high temperatures
- Clutch release bearings
- Vertical shaft applications
- Kiln trucks and rollers



Technical data

Designation	LGHP 2/(pack size)	
DIN 51825 code	K2N-40	
NLGI consistency class	2-3	
Soap type	Di-urea	
Colour	Blue	
Base oil type	Mineral	
Operating temperature range	-40 to +150 °C (-40 to +300 °F)	
Dropping point DIN ISO 2176	>240 °C (>465 °F)	
Base oil viscosity	40 °C, mm ² /s	96
	100 °C, mm ² /s	10,5
Penetration DIN ISO 2137	60 strokes, 10 ⁻¹ mm	245-275
	100 000 strokes, 10 ⁻¹ mm	365 max.
	Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	365 max.	
Corrosion protection	Emcor: - standard ISO 11007	0-0
	- water washout test	0-0
	- salt water test (100% seawater)	0-0
	Water resistance	DIN 51 807/1, 3 hrs at 90 °C
Oil separation	DIN 51 817, 7 days at 40 °C, static, %	1-5
	Lubrication ability	R2F, running test B at 120 °C
Copper corrosion	DIN 51 811, 110 °C	1 max. at 150 °C (300 °F)
	Rolling bearing grease life	ROF test
L ₅₀ life at 10 000 r/min., hrs		at 150 °C (300 °F)
Fretting corrosion	ASTM D4170 (mg)	7*
Available pack sizes	420 ml cartridge 1, 5, 18, 50, 180 kg SKF SYSTEM 24 (LAGD/TLSD), TLMR	

* Typical value

LGET 2

SKF Extreme Temperature, Extreme Condition Bearing Grease

SKF LGET 2 is a synthetic fluorinated oil based grease, using a PTFE thickener. It is especially suitable for applications at extremely high temperatures from 200 °C (390 °F) up to 260 °C (500 °F).

- Long life in aggressive environments such as very reactive areas with a presence of high purity gaseous oxygen and hexane
- Excellent oxidation resistance
- Good corrosion resistance
- Excellent water and steam resistance

Typical applications:

- Bakery equipment (ovens)
- Kiln truck wheels
- Load rollers in copying machines
- Wafer baking machines
- Textile dryers
- Film stretching tenders
- Electric motors running at extreme temperatures
- Emergency / hot fans
- Vacuum pumps



Important note:

LGET 2 is a fluorinated grease and is not compatible with other greases, oils and preservatives. Therefore, very thorough cleaning of bearings and systems is essential before applying fresh grease (except when reapplying LGET 2).

Technical data

Designation LGET 2/(pack size)

DIN 51825 code	KFK2U-40
NLGI consistency class	2
Soap type	PTFE
Colour	Off white
Base oil type	Synthetic (fluorinated polyether)
Operating temperature range	-40 to +260 °C (-40 to +500 °F)
Dropping point DIN ISO 2176	>300 °C (>570 °F)
Base oil viscosity	
40 °C, mm ² /s	400
100 °C, mm ² /s	38
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265–295
Mechanical stability	
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	±30 max. 130 °C (265 °F)

Corrosion protection	
Emcor: – standard ISO 11007	1–1
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	0 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	13 max. 30 hrs at 200 °C (390 °F)
Copper corrosion	
DIN 51 811, 110 °C	1
Rolling bearing grease life	
ROF test	>700, 5 600 r/min.*
L ₅₀ life at 10 000 r/min., hrs	at 220 °C (430 °F)
EP performance	
4–ball test, welding load DIN 51350/4, N	8 000 min.
Available pack sizes	50 g (25 ml) syringe 1 kg

* Typical value

SKF Food Grade Lubricants

LGFP 2

General purpose food grade grease

SKF LGFP 2 is a clean, non-toxic bearing grease, which is based on medical white oil using an aluminium complex soap.

- High resistance to water
- Excellent grease life
- Excellent corrosion resistance
- An essentially neutral pH value
- NSF H1 registered and Halal and Kosher certified

Applications

- Multi-pack cassette bearings
- Wrapping machines
- Conveyor bearings
- Bottling machines



Ordering details

Pack sizes	LGFP 2
420 ml cartridge	LGFP 2/0.4
1 kg can	LGFP 2/1
18 kg can	LGFP 2/18
180 kg can	LGFP 2/180
SKF SYSTEM 24 / LAGD 60 ml	LAGD 60/FP2

Pack sizes	LGFP 2
SKF SYSTEM 24 / LAGD 125 ml	LAGD 125/FP2
SKF SYSTEM 24 / TLSD 125 ml	TLSD 125/FP2
SKF SYSTEM 24 / TLSD 250 ml	TLSD 250/FP2
TLMR 120 ml	LGFP 2/MR120
TLMR 380 ml	LGFP 2/MR380

Technical data

Designation	LGFP 2/(pack size)
NLGI consistency class	2
DIN 51825 code	K2G-20
Appearance	Transparent
Soap type	Aluminium complex
Base oil type	Medical white oil
Operating temperature range	-20 to +110 °C (-5 to +230 °F)
Dropping point DIN ISO 2176	>250 °C (>480 °F)
Base oil viscosity	
40 °C, mm ² /s	130
100 °C, mm ² /s	7,3
Penetration DIN ISO 2137	
60 strokes, 10 ⁻¹ mm	265-295
100 000 strokes, 10 ⁻¹ mm	+30 max.

Corrosion protection	
Emcor: - standard ISO 11007	0-0
Water resistance	
DIN 51 807/1, 3 hrs at 90 °C	1 max.
Oil separation	
DIN 51 817, 7 days at 40 °C, static, %	1-5
Rolling bearing grease life	
ROF test	
L ₅₀ life at 10 000 r/min., hrs	1 000 at 110 °C (230 °F)
EP performance	
4-ball test, welding load DIN 51350/4, N	1 100 min.
Shelf life	2 years
NSF Reg. No.	128004

LGFS 00

General purpose food grade grease

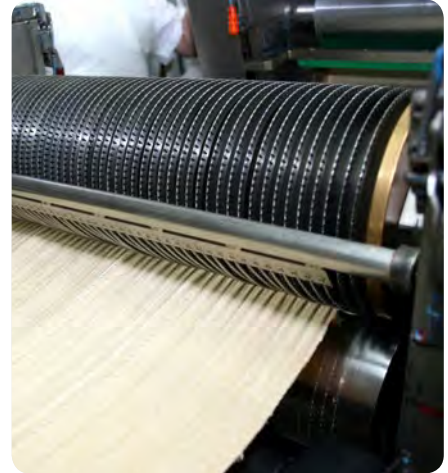
SKF LGFS 00 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications where vegetarian and nut-free food is produced.

- LGFS 00 does not contain any natural products derived from animals, GMO's and nuts
- It does not promote the growth of bacteria and fungal organisms
- NSF H1 registered and Halal and Kosher certified

Applications

Enclosed industrial gearboxes and automatic, centralized lubrication systems such as those used for:

- Packaging
- Cutting/forming knives
- Conveyers



Ordering details

Pack sizes	LGFS 00
19 kg can	LGFS 00/19

Technical data

Designation	LGFS 00/(pack size)
NLGI number, DIN 51818	00
Classification, DIN 51502	GP HC 00 G-40
Classification, ISO 6743-9	L-XEBEB 00
Appearance	White semi-fluid
Type of thickener	Aluminium complex
Base oil type	Synthetic (PAO)
Operating temperatures range	-45 to +100 °C (-49 to +212 °F) peak up to 120 °C (248 °F)

Dropping Point ISO 2176	>200 °C (>392 °F)
Penetration ISO 2137 25 °C, 10 ⁻¹ mm	400-430
Base oil viscosity ISO 3104 40 °C, mm ² /s	220
100 °C, mm ² /s	25
Shelf life	2 years
NSF Reg. No.	149602

LGFD 2

High load food grade grease

SKF LGFD 2 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications experiencing high loads.

- Excellent oxidation and mechanical stability
- Excellent water and corrosion resistance
- Excellent adhesive properties
- NSF H1 registered and Halal and Kosher certified

Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for the machines used in:

- Packaging
- Bottling
- Wrapping
- Conveyers



Ordering details

Pack sizes	LGFD 2
400 ml cartridge	LGFD 2/0.4
19 kg can	LGFD 2/19

Technical data

Designation	LGFD 2/(pack size)
NLGI number, DIN 51818	2
Classification, DIN 51502	KP HC 2 K-30
Classification, ISO 6743-9	L-XCCEB 2
Appearance	White smooth paste
Type of thickener	Aluminium complex
Base oil type	Synthetic (PAO)
Operating temperatures range	-35 to +120 °C (-31 to +248 °F) peak up to 140 °C (284 °F)

Dropping Point ISO 2176	>240 °C (>464 °F)
Penetration ISO 2137 25 °C, 10 ⁻¹ mm	265-295
Base oil viscosity ISO 3104 40 °C, mm ² /s	220
100 °C, mm ² /s	25
Shelf life	2 years
NSF Reg. No.	149601

LGFC 1

Low temperature food grade grease

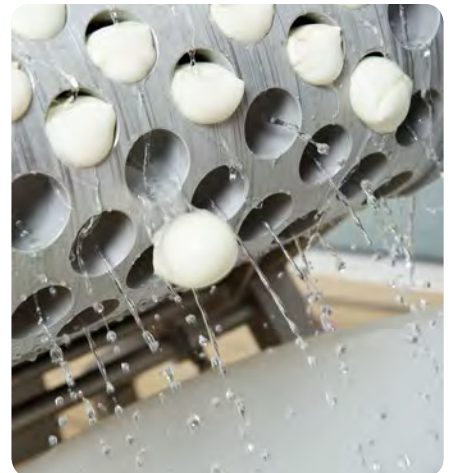
SKF LGFC 1 is a premium synthetic base oil and Aluminium complex thickened grease suitable for applications experiencing low temperatures.

- Excellent low temperature performance
- Excellent water and corrosion resistance
- Excellent adhesive properties
- NSF H1 registered and Halal and Kosher certified

Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for machines used in:

- Freezers
- Cooling processes



Ordering details

Pack sizes	LGFC 1
400 ml cartridge	LGFC 1/0.4
19 kg can	LGFC 1/19

Technical data

Designation	LGFC 1/(pack size)
NLGI number, DIN 51818	1
Classification, DIN 51502	KHC 1 E-50
Classification, ISO 6743-9	L-XEBEA 1
Appearance	Pale yellow, smooth paste
Type of thickener	Aluminium complex
Base oil type	Synthetic (PAO)
Operating temperatures range	-50 to +100 °C (-58 to +212 °F) peak up to 110 °C (230 °F)
Dropping Point ISO 2176	>200 °C (>392 °F)

Penetration ISO 2137 25 °C, 10 ⁻¹ mm	310-340
Base oil viscosity ISO 3104 -30 °C, mm ² /s	960
+40 °C, mm ² /s	20
+100 °C, mm ² /s (calculated)	4.8
Flow pressure -25 °C, mbar	300
-35 °C, mbar	475
Shelf life	2 years
NSF Reg. No.	149603

LGFT 2

High temperature food grade grease

SKF LGFT 2 is a premium synthetic base oil and inorganically thickened¹ grease suitable for applications experiencing high temperatures.

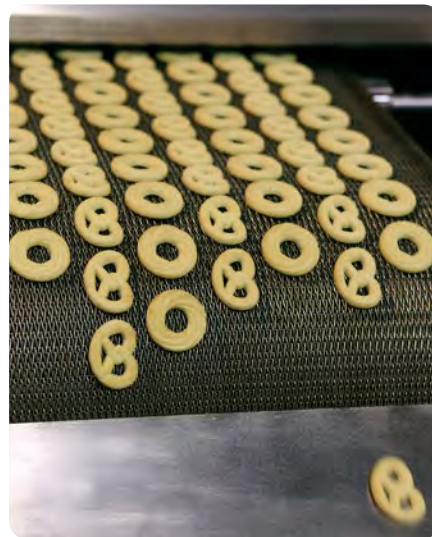
- Excellent high temperature performance
- Excellent water and corrosion resistance
- Excellent adhesive properties
- NSF H1 registered and Halal and Kosher certified

Applications

Lubrication of bearings, joints, linkages and slides in F&B industry, for the machines used in:

- Ovens
- Other bakery equipment

¹ LGFT 2 is based on an inorganic thickener and should therefore not be mixed with most greases based on other type of thickeners.



Ordering details

Pack sizes	LGFT 2
400 ml cartridge	LGFT 2/0.4
19 kg can	LGFT 2/19

Technical data

Designation	LGFT 2/(pack size)
NLGI number, DIN 51818	2
Classification, DIN 51502	KP HC 2 S-30
Classification, ISO 6743-9	L-XCGEA 2
Appearance	Beige, smooth paste
Type of thickener	Inorganic
Base oil type	Synthetic (PAO)
Operating temperatures range	-30 to +200 °C (-22 to +392 °F) peak up to 220 °C (428 °F)

Dropping Point ISO 2176	None
Penetration ISO 2137 25 °C, 10 ⁻¹ mm	265-295
Base oil viscosity ISO 3104 40 °C, mm ² /s	400
100 °C, mm ² /s	40
200 °C, mm ² /s (calculated)	6
Shelf life	2 years
NSF Reg. No.	149604

LFFH 46

Food grade hydraulic oil

LFFH 68

SKF LFFH 46 and LFFH 68 are synthetic hydraulic fluids suitable for lubrication of machinery used in the food industry.

- Excellent anti-wear performance
- Excellent water separation properties
- Excellent protection against corrosion
- NSF H1 registered and Halal and Kosher certified

Applications

- Hydraulic systems
- Hydrostatic gears
- Circulating oil systems



Ordering details

Pack sizes	LFFH 46	LFFH 68
22 l can	LFFH 46/22	LFFH 68/22
205 l can	LFFH 46/205	LFFH 68/205

Technical data

Designation	LFFH 46/(pack size)	LFFH 68/(pack size)
Appearance	Yellowish	Yellowish
Base oil type	Synthetic	Synthetic
Base oil viscosity ISO 3104		
40 °C, mm ² /s	46	68
100 °C, mm ² /s	7.9	10.9
Density ISO 12185		
15 °C, kg/m ³	836	843
Flash point DIN/EN/ISO 2592 COC	248 °C	258 °C
Pourpoint ISO 3016	<-60 °C	<-60 °C
FZG-Test A/8.3/90 Failure Load Stage DIN 51354-2	12	>12
Viscosity Index DIN ISO 2909	142	143
Shelf life	2 years	2 years
NSF Reg. No.	149599	149600

LFFG 220

Food grade gear oil

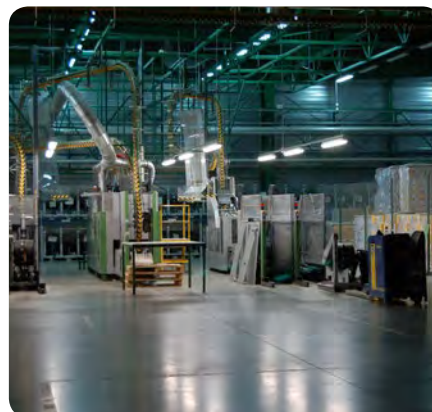
LFFG 320

SKF LFFG 220 and LFFG 320 are synthetic gear oils suitable for lubrication of machinery used in the food industry.

- Excellent EP properties
- High viscosity index resulting in minimum variation of viscosity with change of temperature
- Excellent protection against corrosion
- NSF H1 registered and Halal and Kosher certified

Applications

- Enclosed gear boxes
- Packaging
- Conveyers



Ordering details

Pack sizes	LFFG 220	LFFG 320
22 l can	LFFG 220/22	LFFG 320/22
205 l can	LFFG 220/205	LFFG 320/205

Technical data

Designation	LFFG 220/(pack size)	LFFG 320/(pack size)
Appearance	Pale yellow	Pale yellow
Base oil type	Synthetic	Synthetic
Base oil viscosity ISO 3104		
40 °C, mm ² /s	220	320
100 °C, mm ² /s	25	33.4
Density ISO 12185		
15 °C, kg/m ³	847	852
Flash point DIN/EN/ISO 2592 COC	276 °C	278 °C
Pourpoint ISO 3016	-48 °C	-45 °C
FZG-Test A/8.3/90 Failure Load Stage DIN 51354-2	>12	>12
Viscosity Index DIN ISO 2909	143	147
Shelf life	2 years	2 years
NSF Reg. No.	149597	149598

LFFM 80

Food grade chain oil

LHFP 150

Our food grade chain oil range is specifically developed for food and beverage applications where high temperature, high humidity and low temperatures are critical factors to consider in the selection of the correct oil.

LFFT 220

LFFM 80 - High moisture chain oil LFFM 80 exhibits particularly good performance in high moisture environments such as in proofers and pasta driers as well as in applications where condensation might occur. This low viscosity semi-synthetic base oil prevents residue build-up on the chains and offers good wear and corrosion protection.

LHFP 150 - General purpose chain oil LHFP 150 excels in low to elevated temperature applications such as in confectionery industries and fruit and vegetable processing. The formulation is based on a synthetic oil and the product provides good corrosion and wear protection together with good aging and oxidation stability.

LFFT 220 - High temperature performance chain oil LFFT 220 is mainly for use in bakery ovens or other equipment subjected to high temperatures. It provides good wear protection and low evaporation losses at elevated temperatures along with excellent oxidation resistance due to its formulation and synthetic base.



Ordering details

Pack sizes	LFFM 80	LHFP 150	LFFT 220
5 l can	LFFM 80/5	LHFP 150/5	LFFT 220/5
SKF SYSTEM 24 / LAGD 125 ml	LAGD 125/FFM80	LAGD 125/HFP15	LAGD 125/FFT22

Technical data

Designation	LFFM 80	LHFP 150	LFFT 220
Appearance	White	Colourless	Yellow
Base oil type	Semi synthetic (mineral/ester)	Synthetic ester	Synthetic ester
Specific gravity	0.89	0.85	0.95
Operating temperature range	-30 to +120 °C (-22 to +248 °F)	-30 to +120 °C (-22 to +248 °F)	0 to 250 °C (32 to 482 °F)
Base oil viscosity:			
40 °C, mm ² /s	approx. 80	ISO VG 150	ISO VG 220
100 °C, mm ² /s	approx. 10	approx. 19	approx. 17
Flash point	>200 °C (>392 °F)	>200 °C (>392 °F)	>250 °C (>482 °F)
NSF Reg. No.	146767	136858	146768

LDS 1

Food grade dry film lubricant

SKF Dry Film Lubricant LDS 1 has been specially developed for automatic lubrication of plastic flat top chain conveyors in the beverage processing industry. It adheres very well to all treated surfaces and has outstanding properties. The lubricant consists of synthetic oil and is doped with PTFE solid lubricant.

- Cost savings by eliminating high volume of water and soluble lubricant.
- Improved operator safety by reducing slip hazards.
- Quality of packaging is maintained by elimination of moisture.
- Reduced risk of product contamination by minimising microbiological growth.
- Enhanced line efficiency by avoiding replacement costs and associated unplanned production stops.
- Reduced cleaning costs.

Applications

- Conveyors in bottling lines using PET, carton, glass or can packages.



Ordering details

Pack sizes

5 l can

LDS 1

LDS 1/5

Technical data

Designation	LDS 1
Composition	Mineral oils, hydrocarbons, additives, PTFE
Appearance	White
Operating temperature range	-5 to +60 °C (25 to 140 °F)
Viscosity at 40 °C (104 °F)	ca. 28 mm ² /s
Pour point	<0 °C
Density 25 °C (77 °F)	ca. 841 kg/m ³

Flash point of the preparation	ca. 100 °C (210 °F)
Flash point after evaporation of the solvent	>170 °C (340 °F)
NSF Reg. No.	139739

Special lubricants

LESA 2

SKF Energy Efficient (E2) bearing greases

LEGE 2

Spherical roller bearings - SKF LESA 2 grease combines a fully synthetic polyalphaolefine (PAO) base oil with a unique lithium soap thickener. This premium quality, low friction grease has been specially developed for SKF Energy Efficient spherical roller bearings.

All ball bearings - SKF LEGE 2 grease combines a fully synthetic ester oil with a unique lithium soap thickener. This premium quality, low friction grease has been specially developed for SKF Energy efficient ball bearings.



- Low friction torque.
- Low level of power loss.
- Quiet running behavior.
- Extremely good oxidation stability.
- Wide temperature range.



Technical data

Designation	LESA 2/(pack size)	LEGE 2/(pack size)
DIN 51825 code	KP2G-50	K2N-50
NLGI consistency class	2	2-3
Soap type	Lithium	Lithium
Colour	Beige	Light brown
Base oil type	PAO	Ester
Operating temperature range	-50 to +110 °C (-60 to +230 °F)	-50 to +150 °C (-58 to +302 °F)
Dropping point DIN ISO 2176	180 min. (356 min.)	> 185 °C (365 °F)
Base oil viscosity		
40 °C, mm ² /s	18	25
100 °C, mm ² /s	4,5	4,9
Penetration DIN ISO 2137		
60 strokes, 10 ⁻¹ mm	265-295	240-270
100 000 strokes, 10 ⁻¹ mm	+50 max. (325 max.)	330 max.
Mechanical stability		
Roll stability, 50 hrs at 80 °C, 10 ⁻¹ mm	380 max.	310
Corrosion protection		
SKF Emcor standard ISO 11007	0-1	0-0
SKF Emcor 0,5% salt water	-	0-0
Water resistance		
DIN 51 807/1, 3 hrs at 90 °C	1 max.	0
Oil separation		
DIN 51 817, 7 days at 40 °C, static, %	<4	-
Copper corrosion		
DIN 51 811 at 110 °C	1 max. 100 °C (210 °F)	-
ISO 2160 at 140 °C	-	1b
Rolling bearing grease life		
ROF test, L ₅₀ life at 10 000 r/min, hrs	-	>1 000 at 150 °C (302 °F)
ROF test, L ₅₀ life at 20 000 r/min, hrs	>1 000 at 110 °C (230 °F)	-
EP performance		
4-ball test, welding load DIN 51350/4, N	2 000 min.	-
Available pack sizes	420 ml cartridge, 1, 5, 18 kg can	420 ml cartridge, 1 kg can

LMCG 1

Grid and gear coupling grease

LMCG 1 is a polyethylene thickened and mineral oil based grease which also uses a lithium complex thickening technology. The grease is formulated to withstand high centrifugal forces and high-torque applications for grid and gear (flexible) couplings even where severe shock loadings, misalignment and vibration occur.

- Excellent resistance to oil separation
- High acceleration and high operating speeds
- Excellent high-torque lubrication
- High corrosion protection
- Exceeds AGMA Type CG-1 and AGMA Type CG-2 requirements



Applications

- Grid and gear couplings
- Flexible heavy duty grid and gear coupling

LGLS 0

Low temperature chassis grease

SKF LGLS 0 is a semi-fluid chassis grease that has been developed to be used via lubrication systems under low to medium temperatures. Its anhydrous calcium thickener, combined with a high base oil viscosity, offers excellent water resistance and stickiness to surfaces as well as very good anti-wear properties.

- Excellent pumpability at low to medium temperatures.
- Excellent water resistance and corrosion protection.
- Excellent anti-wear properties.
- Excellent adhesion to surfaces.



Technical data

Designation	LMCG 1/(pack size)	LGLS 0/(pack size)
DIN 51825 code	G0G1G-0	KP0G-40
NLGI consistency class	1	0
Soap type	Polyethylene	Anhydrous calcium
Colour	Brown	Red
Base oil type	Mineral	Mineral oil & polymers
Operating temperature range	0 to 120 °C (32 to 248 °F)	-40 to +100 °C (-40 to +212 °F)
Dropping point DIN ISO 2176	210 °C (410 °F)	>120 °C (>248 °F)
Base oil viscosity		
40 °C, mm ² /s	670	1 370
100 °C, mm ² /s	34	96
Penetration DIN ISO 2137		
60 strokes, 10 ⁻¹ mm	310-340	355-385
Corrosion protection		
SKF Emcor standard ISO 11007	0-0	0-0
Salt water test (100% seawater)	2-2	-
Water wash-out test, ISO 11009	-	<10%
Flow pressure at -40 °C	-	<1 400 mbar
EP performance		
Wear scar DIN 51350/5, 1 400 N, mm	0,5 max.	-
4-ball test, welding load DIN 51350/4	3 200 N*	3 200 N
Available pack sizes	35 g tube, 420 ml cartridge, 2, 18, 50 kg can	18 kg can

* Typical value

LHMT 68

SKF Chain Oil

LHHT 265

Designed to fulfill the requirements of most industrial chain applications

LHMT 68 - SKF LHMT 68 is ideal for medium temperatures and dusty environments like those of cement and material handling industries, where a high penetration and light film are required.

LHHT 265 - SKF LHHT 265 synthetic oil is ideal for high load and/or high temperature conditions, like those found in the pulp and paper and textile industries. It doesn't form any residue at high temperatures and it is neutral towards seals and polymers.

- Increase chain life and re-lubrication interval
- Reduce oil consumption and energy consumption

Applications

- Conveyor chains
- Drive chains
- Lift chains



Ordering details

Chain oil	LHMT 68	LHHT 265
Description	Medium temperature oil	High temperature oil
Can 5 liter	LHMT 68/5	LHHT 265/5

SKF SYSTEM 24

LAGD series	Unit 60 ml Unit 125 ml	LAGD 60/HMT68* LAGD 125/HMT68*	- LAGD 125/HHT26*
TLSD series	Complete unit 122 ml Complete unit 250 ml Refill set 122 ml Refill set 250 ml	TLSD 125/HMT68 TLSD 250/HMT68 LHMT 68/EML125 LHMT 68/EML250	TLSD 125/HHT26 TLSD 250/HHT26 LHHT 265/EML12 LHHT 265/EML25

* Includes non-return valve

Technical data

Designation	LHMT 68	LHHT 265
Description	Medium temperature oil	High temperature oil
Specific gravity	0.85	0.92
Colour	Yellowish brown	Yellow orange
Base oil type	Mineral	Synthetic ester
Operating temperature range	-15 to +90 °C (5 to 194 °F)	Up to 250 °C (482 °F)
Base oil viscosity: 40 °C, mm ² /s 100 °C, mm ² /s	ISO VG 68 approx. 9	approx. 265 approx. 30
Flash point	>200 °C (392 °F)	approx. 260 °C (500 °F)
Pour point	<-15 °C (5 °F)	n/a

Technical data

Understanding grease technical data

Some basic knowledge is required to understand the technical data so that you can select the proper grease. This is an excerpt of the main terms mentioned in SKF grease technical data.

Consistency

A measure of the stiffness of a grease. A proper consistency must ensure that the grease stays in the bearing without generating too much friction. It is classified according to a scale developed by the NLGI (National Lubricating Grease Institute). The softer the grease, the lower the number. Grease for bearings are typically NLGI 1, 2 or 3. The test measures how deep a cone falls into a grease sample in tenths of mm.

Classification of greases by NLGI consistency number

NLGI number	ASTM worked penetration (10 ⁻¹ mm)	Appearance at room temperature
000	445–475	very fluid
00	400–430	fluid
0	355–385	semi-fluid
1	310–340	very soft
2	265–295	soft
3	220–250	medium hard
4	175–205	hard
5	130–160	very hard
6	85–115	extremely hard

Temperature range

Comprehends the suitable working range of the grease. It goes between the low temperature limit (LTL) and the high temperature performance limit (HTPL). LTL is defined as the lowest temperature at which the grease will allow the bearing to be started up without difficulty. Below this limit, starvation will occur and cause a failure. Above HTPL, the grease will degrade in an uncontrolled way so that grease life cannot be determined accurately.

Dropping point

Temperature at which a grease sample, when heated, will begin to flow through an opening according to DIN ISO 2176. It is important to understand that this point is considered to have limited significance for performance of the grease as it is always far above HTPL.

Viscosity

A measure of a fluid's resistance to flow. For lubricants, a proper viscosity must guarantee an adequate separation between surfaces without causing too much friction. According to ISO standards, it is measured at 40 °C (105 °F), as viscosity changes with temperature. Values at 100 °C (210 °F) allow calculation of the viscosity index, e.g. how much the viscosity will decrease when temperature rises.

Mechanical stability

The consistency of bearing greases should not significantly change during its working life. Three main tests are normally used to analyse this behaviour:

- **Prolonged penetration**

The grease sample is subjected to 100 000 strokes in a device called a grease worker. Then, the penetration is measured. The difference against penetration at 60 strokes is reported as the change in 10⁻¹ mm.

- **Roll stability**

A grease sample is placed in a cylinder with a roller inside. The cylinder is then rotated for 72 or 100 hours at 80 or 100 °C (175 or 210 °F) (the standard test demands just 2 hours at room temperature). At the end of the test period, once the cylinder has cooled to room temperature, the penetration of the grease is measured and the change in consistency is reported in 10⁻¹ mm.

- **V2F test**

A railway axlebox is subjected to vibration shocks of 1 Hz from a bouncing hammer producing an acceleration level between 12–15 g. After 72 hours at 500 r/min., the grease leaked from the housing through the labyrinth seal is collected in a tray. If it weighs less than 50 g, a rating of 'm' is granted, otherwise it is rated as 'fail'. Afterwards, the test is continued for another 72 hours at 1 000 r/min. If less than 150 grams of grease leaked after completion of both tests, then a rating of 'M' is given.



Roll stability test rig



V2F grease test rig



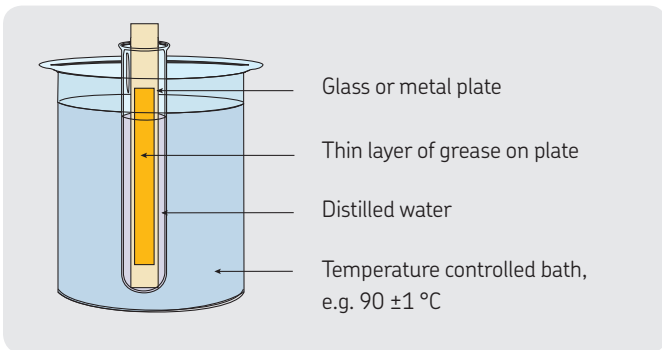
Emcor grease test rig

Corrosion protection

Corrosive environments demand special properties for rolling bearing greases. During the Emcor test, bearings are lubricated with a mixture of grease and distilled water. At the end of the test, a value between 0 (no corrosion) and 5 (very severe corrosion) is given. Salt water, instead of distilled water or continuous water flow (washout test), can be used to make the test more severe.

Water resistance

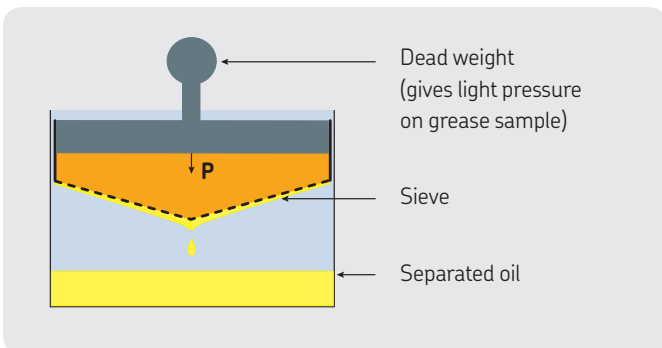
A glass strip is coated with the candidate grease, which is placed into a water-filled test tube. The test tube is immersed in a water bath for three hours at a specified test temperature. The change in the grease is visually evaluated and reported as a value between 0 (no change) and 3 (major change) along with the test temperature.



Water resistance test

Oil separation

Lubricating greases release oil when stored for long periods of time or when used in bearings as a function of temperature. The degree of oil separation will depend upon the thickener, base oil and manufacturing method. In the test, a cup is filled with a given quantity of grease (and is weighed before the test) and a 100 gram weight is placed on top of the grease. The complete unit is placed into an oven at 40 °C (105 °F) for one week. At the end of the week, the amount of oil which has leaked through the sieve, is weighed and reported as a percentage of weight loss.



Oil separation test



R2F grease test rig

Lubrication ability

The R2F test assesses the high temperature performance and lubricating ability of a grease. A shaft with two spherical roller bearings in their respective housings is driven by an electric motor. The bearings are run under load, the speed may be varied and heat can be applied. The test method is carried out under two different conditions after which the wear of the rollers and the cage is measured. Test A is conducted at ambient temperature and a “pass” rating means that the grease can be used to lubricate large bearings at normal operating temperatures and also in low vibrating applications. Test B runs at 120 °C (250 °F) and a “pass” rating indicates suitability for large bearings at high temperatures.

Copper corrosion

Lubricating greases should protect copper alloys used in bearings from corrosive attack while in service. To assess these properties, a copper strip is immersed in the grease sample and placed in an oven. The strip is then cleaned and the degradation is observed. The result is rated by a numerical system and a rating above 2 indicates poor protection.

Rolling bearing grease life

The ROF and ROF+ tests determine the grease life and its high temperature performance limit (HTPL). Ten deep groove ball bearings are fitted into five housings and filled with a given quantity of grease. The test is undertaken at a pre-determined speed and temperature. Axial and radial loads are applied and the bearings run to failure. The time to failure is recorded in hours and a Weibull life calculation is made to establish the grease life. This information can then be used to determine re-lubrication intervals in an application.



ROF+ grease test rig

Extreme pressure (EP) performance

The 4-ball weld load test rig uses three steel balls held in a cup. A fourth ball is rotated against the three balls at a given speed. A starting load is applied and increased at pre-determined intervals until the rotating ball seizes and welds to the stationary balls. Values above 2 600 N are typically expected in EP grease. Under the 4-ball wear scar test, SKF applies 1 400 N (standard test uses 400 N) on the fourth ball during 1 minute. The wear on the three balls is measured and values below 2 mm are considered as appropriate values for EP greases.

Fretting corrosion

Vibrating or oscillating conditions are typical causes for fretting corrosion. Under the FAFNIR test, two thrust ball bearings are loaded and subjected to oscillation. The wear on each bearing is then measured. A wear below 7 mg indicates good fretting protection.

Thickener compatibility chart

	Lithium	Calcium	Sodium	Lithium complex	Calcium complex	Sodium complex	Barium complex	Aluminium complex	Clay (Bentonite)	Common polyurea*	Calcium sulphonate complex
Lithium	+	●	-	+	-	●	●	-	●	●	+
Calcium	●	+	●	+	-	●	●	-	●	●	+
Sodium	-	●	+	●	●	+	+	-	●	●	-
Lithium complex	+	+	●	+	+	●	●	+	-	-	+
Calcium complex	-	-	●	+	+	●	-	●	●	+	+
Sodium complex	●	●	+	●	●	+	+	-	-	●	●
Barium complex	●	●	+	●	-	+	+	+	●	●	●
Aluminium complex	-	-	-	+	●	-	+	+	-	●	-
Clay (Bentonite)	●	●	●	-	●	-	●	-	+	●	-
Common polyurea*	●	●	●	-	+	●	●	●	●	+	+
Calcium sulphonate complex	+	+	-	+	+	●	●	-	-	+	+

+ = Compatible
 ● = Test required
 - = Incompatible

* SKF high performance, high temperature bearing grease LGHP 2 is not a common polyurea type grease. It is a di-urea bearing grease, which has successfully been tested for compatibility with lithium and lithium complex thickened greases i.e. LGHP 2 is compatible with such greases.

Base oil compatibility chart

	Mineral/PAO	Ester	Polyglycol	Silicone: Methyl	Silicone: Phenyl	Polyphenylether	PFPE
Mineral/PAO	+	+	-	-	+	●	-
Ester	+	+	+	-	+	●	-
Polyglycol	-	+	+	-	-	-	-
Silicone: methyl	-	-	-	+	+	-	-
Silicone: phenyl	+	+	-	+	+	+	-
Polyphenyl-ether	●	●	-	-	+	+	-
PFPE	-	-	-	-	-	-	+

+ = Compatible ● = Test required - = Incompatible

Storage tools

Modernise your oil storage and handling practices

Oil storage station

Oil storage station is an integrated solution designed to minimize the chances for lubricating oils to get cross contaminated or contaminated during storage and transfer. It is a customized solution helping to help ensure clean, organized, safe and reliable lubricant identification, storage and transfer. It consists of the tailor-made set of colour-coded tanks, pumps, hose reels, filters and additional lubricant handling equipment and tools.

Features

- Choice of four aluminized steel tank sizes: 113, 246, 454 and 908 litre (30, 65, 120 and 240 US gal)
- Scalable and configurable – scale system to accommodate the number of lubricants required for storage and dispensing
- Choice of 10 tank colours
- Spill control – all systems come standard with integrated spill pans for SPCC compliance and overall environmental protection
- Fire suppression – includes MSHA-CFR30 – rated flame resistant fire suppression hoses as standard with optional fusible link tank isolation valves and auto-shut off taps
- Filtration – all systems come with fluid filtration capability with a choice of micron ratings and also desiccant air breathers
- Accommodates lubricants up to ISO VG 680
- All systems ship in fully assembled pods – for efficient freight and rapid on-site installation
- Transport – all systems have integrated spill transport pallets for easy forklift and hand truck access for freight and workplace mobility
- Power – all systems come standard with 110V single phase TEFC motors and can be configured for other power supplies as required



Standard model

- Best practice contamination control
- Very space efficient
- Easy relocation around the plant
- One pump and filter per tank
- Pressurized dispensing



Superior model

- Excellent contamination control
- Instant lube room
- Premium ergonomic dispensing and working surfaces
- Integrated parts and tool storage
- Electrical and mechanical protection systems
- One pump and filter per tank
- Pressurized dispensing
- Numerous upgrade options



Optimum cleanliness when filling your grease guns

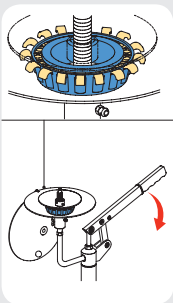
SKF Grease Filler Pumps LAGF series

Best lubrication practices say that each type of grease requires an individual grease gun and the refilling has to be a clean process. SKF Grease Filler Pumps are designed to help achieve this goal.

- Quick filling: low pressure high stroke volume
- Easy installation: all necessary items are included
- Reliable: tested and approved for all SKF greases
- Appropriate as a complement for SKF Bearing Packer VKN 550

Technical data

Designation	LAGF 18	LAGF 50
Maximum pressure	30 bar (430 psi)	30 bar (430 psi)
Volume/stroke	approx. 45 cm ³ (1.5 US fl. oz)	approx. 45 cm ³ (1.5 US fl. oz)
Suitable drum dimensions: inside diameter maximum inside height	265–285 mm (10.4–11.2 in.) 420 mm (16.5 in.)	350–385 mm (13.8–15.2 in.) 675 mm (26.6 in.)
Weight	5 kg (11 lb)	7 kg (15 lb)



Contamination free grease filling

SKF Bearing Packer VKN 550

The sturdy and easy-to-use SKF Bearing Packer VKN 550 is designed to completely fill open bearings such as tapered roller bearings. They can be used with a standard grease gun, air-operated grease pump or grease filler pump.

- Flushes the grease right between the rolling elements
- Closed system: the cover lid prevents ingress of dirt

Note: Most suitable in conjunction with SKF Grease Filler Pumps LAGF Series



Technical data

Designation	VKN 550
Bearing range: inner diameter (d)	19 to 120 mm (0.7 to 4.7 in.)
outer diameter (D)	max. 200 mm (7.9 in.)

Transfer tools



TLRC



TLRS

A smarter way to handle your hoses

Hose reels TLRC & TLRS series

Hoses are required anywhere flexible ways of conveying fluids are required. However, their flexible nature make them difficult to keep tidy and untangled. Hose reels are designed to help solve that problem.

Features

- High quality materials consistent with application demands. From lightweight (composite) versions for medium duty applications (TLRC series) to very robust for the most demanding applications (TLRS series)
- A thorough cleaning process prior to an individual coating process, along with a long life swivel design help to maximise service life
- The declutching shaft and the enclosed drive mechanism prevent reverse winding and protect the system against the environment
- Unlike many hose reels on the market, the TLRS series has a strong welded pedestal. This construction is designed and built for heavy duty applications

Benefits

- Reduce the risk of accidents due to tripping or from vehicles running over exposed hoses
- Increase lifetime of hoses
- Minimise leakages
- Promote tidiness and cleanliness
- Save time when using hoses

Applications

- Lubricants storage rooms
- Assembly stations and factories in general
- Pneumatic tools
- Automotive service centres and tire stores
- Fire brigades and Service trucks
- Maintenance and administrative buildings

Technical data

Designation	Pressure		Max. temp.		Hose I.D.		Hose length		M(G) Outlet	F(G) Inlet	Hose colour	Application
	bar	psi	°C	°F	mm	in.	m	ft	in.	in.		
TLRC 15AW	21	300	65	150	10	3/8	15	50	1/4	1/2	Red	Low pressure air/water
TLRC 15AW/W	21	300	65	150	13	1/2	15	50	1/2	1/2	Red	Low pressure air/water
TLRS 15AW	21	300	65	150	10	3/8	15	50	1/4	1/2	Red	Low pressure air/water
TLRS 22AW	21	300	65	150	10	3/8	22	72	1/4	1/2	Red	Low pressure air/water
TLRS 15AW/W	21	300	65	150	13	1/2	15	50	3/8	1/2	Red	Low pressure air/water
TLRS 15H	138	2 000	99	210	13	1/2	15	50	1/2	1/2	Black	Medium pressure oil
TLRS 8G	400	5 800	99	210	6	1/4	8	25	1/4	1/4	Black	High pressure grease

Manual grease dispensing tools



A basic element of lubrication plans






The main pitfall of manual lubrication is ensuring accuracy and top cleanliness. Lubricant film in the application can be over 40 times thinner than the smallest visible particle. The SKF range of manual lubrication tools is designed to help you with the storage, handling, dosing and supplying of lubricants for your machinery in a clean and easy way.

A comprehensive range to meet your needs

SKF Grease Guns

SKF Grease Guns are suitable for agricultural, industrial, automotive and construction industries amongst others. Except for the SKF LAGP 400, which is designed for emptying cartridges only, all of them are equipped with a grease filling fitting. This fitting enables the use of SKF Grease Filler Pumps to refill the guns with loose grease, thus keeping contaminants out of the grease.

Selection chart and technical data – SKF Grease Guns

						
Designation	LAGP 400	TLGH 1	1077600	1077600/SET	LAGH 400	LAGG 400B and LAGG 400B/US
Drive	Manual	Manual	Manual	Manual	Manual One hand	Battery LAGG 400B (230 V charger) LAGG 400B/US (110 V charger)
Maximum pressure		400 bar (5 800 psi)	400 bar (5 800 psi)	400 bar (5 800 psi)	300 bar (4 350 psi)	400 bar (5 800 psi) Min. burst pressure: 800 bar (11 600 psi)
Volume per stroke	20 cm ³ (1.2 in. ³)	Approx. 0,9 cm ³ (0.05 in. ³)	Approx. 1,5 cm ³ (0.09 in. ³)	Approx. 1,5 cm ³ (0.09 in. ³)	Approx. 0,8 cm ³ (0.05 in. ³)	Approx. 400 g (0.9 lb)/10 min
Weight	0,35 kg (12 oz)	1,5 kg (3.3 lb)	1,5 kg (3.3 lb)	Complete: 2,4 kg (5.3 lb)	1,2 kg (2.6 lb)	Grease gun including battery 3,1 kg (6,8 lb)
Reservoir	Suitable for the SKF grease cartridges.	Loose grease (ca. 500 cm ³) or grease cartridges.	Loose grease (ca. 500 cm ³) or grease cartridges.	Loose grease (ca. 500 cm ³) or grease cartridges.	Loose grease (ca. 500 cm ³) or grease cartridges.	Loose grease (ca. 500 cm ³) or grease cartridges.
Discharge pipe length	–	175 mm (6.9 in.)	175 mm (6.9 in.)	175 mm (6.9 in.)	300 mm (12 in.)	750 mm (29.5 in.)
Accessories	–	1077601	1077601	1077601	1077601	–
Notes	Three spout caps included		1077600 H: 300 mm (12 in.)	Set includes: Extension pipe, Snap-on high pressure hose, Snap-on extension pipe with cardan nozzle, Snap-on extension pipe for flat-head grease fittings (Ø16 mm), Female and pointed nozzle		Supplied with carrying strap. Operating temperature range: –15 to +50 °C (5 to 120 °F)

Note: 1077601: Flexible 500 mm (19.7 in.) long pressure hose with hydraulic gripping nozzle.



Accurate grease quantity measurement

SKF Grease Meter LAGM 1000E

The amount delivered per stroke by grease guns depends on many variables. It is generally difficult to supply an accurate quantity of grease when manually lubricating bearings. The right amount of grease, however, is critical for the bearings' service life, as over- or under-greasing can result in machine breakdown. Although a common practice is to weigh the grease per stroke, this procedure does not consider the backpressure, the ongoing wear inside the grease gun or any other variables.

The SKF Grease Meter LAGM 1000E accurately measures grease discharge in volume or weight in metric (cm³ or g) or US units (US fl. oz or oz), making conversion calculations unnecessary.

- Suitable for most NLGI 0-3 greases
- A rubber sleeve protects the electronics in case of impact and is also oil and grease resistant
- The backlit LCD displays large and clear-to-read digits
- Maximum pressure of 700 bar (10 000 psi)
- Small, compact and lightweight design
- Corrosion-free aluminium housing
- Fits with all SKF grease guns



Technical data

Designation	LAGM 1000E
Housing material	Aluminium, anodised
Weight	0,3 kg (0.66 lb)
IP rating	IP 67
Suitable greases	NLGI 0 to NLGI 3
Maximum operating pressure	700 bar (10 000 psi)
Maximum grease flow	1 000 cm ³ /min (34 US fl. oz/min)
Thread connections	M10x1
Display	Lit LCD (4 digits / 9 mm)
Accuracy	±3% from 0 to 300 bar ±5% from 300 to 700 bar
Selectable units	cm ³ , g, US fl. oz or oz
Display lamp auto switch off	15 seconds after last pulse
Battery type	1 × 1,5 V AA Alkaline
Unit auto switch off	Programmable



Renew or upgrade your equipment

SKF Grease Nozzles LAGS 8

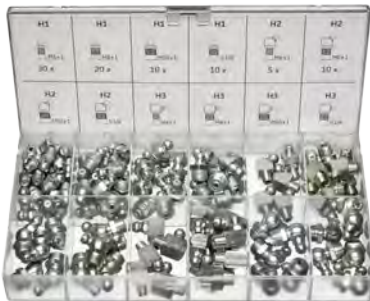
The SKF Grease Nozzles LAGS 8 kit provides practical accessories for daily lubrication, such as connectors, couplings and nozzles that are most widely used in the industry.

Technical data

Designation	LAGS 8
Maximum working pressure	400 bar (5 800 psi)
Minimum burst pressure	800 bar (11 600 psi)
Carrying case dimensions	530 x 85 x 180 mm (20.9 x 3.4 x 7.0 in.)

Kit contents

Straight pipe 180 mm and nozzle (DIN 71412)	1x
Hose with nozzle (DIN 71412)	1x
Tube with nozzle for button head grease fittings (DIN 3404)	1x
Tube with nozzle for Flush type grease fittings and plastic transparent cover (DIN 3405)	1x
Grease fitting M10x1-G ¹ / ₈	1x
Grease fitting M10x1-1 ¹ / ₈ -27NPS	1x
Nozzle (DIN 71412)	2x



The link to your lubrication points

SKF Grease Nipples LAGN 120

The LAGN 120 grease fitting kit contains a full range of 120 standardised conical grease fittings made of precision steel, zinc plated, hardened and blue chromated.

Technical data

Designation	LAGN 120
Maximum working pressure	400 bar (5 800 psi)
Minimum burst pressure	800 bar (11 600 psi)

Kit contents

Grease fitting type	Quantity	Grease fitting type	Quantity
M6x1 straight	30x	M10x1 45°	5x
M8x1 straight	20x	G ¹ / ₈ 45°	5x
M10x1 straight	10x	M6x1 90°	5x
G ¹ / ₈ straight	10x	M8x1 90°	10x
M6x1 45°	5x	M10x1 90°	5x
M8x1 45°	10x	G ¹ / ₈ 90°	5x



Proper identification of your lubrication points

SKF Grease fitting caps and tags TLAC 50

In conjunction with the SKF Lubrication Planner software, grease fitting caps and tags offer a complete solution to protect lubrication fittings from external contamination and simultaneously allow for proper identification.



Technical data

Description	Value
Label dimensions	45 × 21 mm (1.8 × 0.8 in.)
Material	LLDP + 25% EVA
Temperature range	from -20 to +80 °C (-5 to +175 °F)
Suitable for grease fitting sizes	G ¹ / ₄ , G ¹ / ₈ , M6, M8, M10 and grease fitting head

Kits contents

Kit designation	Description
TLAC 50/B	50 blue caps and tags + 2 printable stickers sheets
TLAC 50/Y	50 yellow caps and tags + 2 printable stickers sheets
TLAC 50/R	50 red caps and tags + 2 printable stickers sheets
TLAC 50/G	50 green caps and tags + 2 printable stickers sheets
TLAC 50/Z	50 black caps and tags + 2 printable stickers sheets
TLAT 10	10 printable stickers sheets



Skin protection when handling grease

SKF Disposable Grease Resistant Gloves TMBA G11D

SKF TMBA G11D gloves are specially designed to protect skin when working with lubricants. The gloves are packed in a handy box containing 25 pairs.

- Non-powdered nitrile rubber gloves
- Tight fitting for precision wear
- Excellent resistance against lubricants
- Non-allergenic

Technical data

Designation	TMBA G11D
Pack size	25 pairs
Size	9
Colour	blue



For high volume requirements

SKF Grease Pumps LAGG series

SKF manual and air-operated grease pumps are designed to supply large amounts of grease. This is useful when large housings have to be filled or when numerous points have to be lubricated. They are also suitable for topping up centralised lubrication systems reservoirs.

- Full range: pumps available for 18, 50 or 180 kg (39, 110 or 400 lb) grease drums
- High pressure: maximum of 420 bar (6 090 psi) for air-driven models
- Reliable: tested and approved for SKF greases
- Easy and ready to install
- 3,5 m (11.5 ft) of tubing included



LAGG 18M

LAGG 18AE

LAGG 50AE

LAGG 180AE

LAGT 180

Technical data

Designation	LAGG 18M	LAGG 18AE	LAGG 50AE	LAGG 180AE	LAGT 180
Description	Grease pump for 18 kg (39.6 lb) drums	Mobile grease pump for 18 kg (39.6 lb) drums	Grease pump for 50 kg (110 lb) drums	Grease pump for 180 kg (396 lb) drums	Trolley for drums up to 200 kg (440 lb)
Power source	Manual	Air-pressure	Air-pressure	Air-pressure	n.a.
Max. pressure	500 bar (7 250 psi)	420 bar (6 090 psi)	420 bar (6 090 psi)	420 bar (6 090 psi)	n.a.
Suitable drum	265–285 mm (10.4–11.2 in.)	265–285 mm (10.4–11.2 in.)	350–385 mm (13.8–15.2 in.)	550–590 mm (21.7–23.2 in.)	n.a.
Mobility	Stationary	Trolley included	Stationary	Stationary	Trolley
Maximum flow rate	1,6 cm ³ /stroke (0.05 US fl. oz)	200 cm ³ /min. (6.8 US fl. oz)	200 cm ³ /min. (6.8 US fl. oz)	200 cm ³ /min. (6.8 US fl. oz)	–
Suitable grease NLGI class	000–2	0–2	0–2	0–2	–

Automatic grease dispensing tools

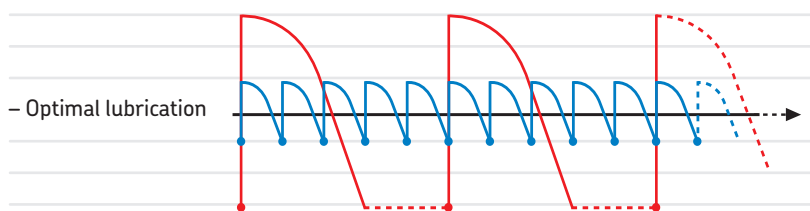
Improve cleanliness, accuracy, safety and reliability

Performing manual relubrication tasks can be a major challenge for lubrication technicians if the appropriate tools, practices and knowledge are not employed. Reliability can also be affected by under- or over-greasing and contamination. Automatic lubrication provides small quantities of clean lubricant on a regular basis, thus improving bearing performance. Additional benefits include increased safety and time savings for lubrication technicians.

Main benefits of automatic lubrication

Reduce the risks of failure

– Over-greased = overheating, waste and pollution



– Under-greased = wear, premature repairs, high repair costs

— Manual lubrication — Automatic lubrication

What automatic lubrication can do for you



Optimisation of:

- Machine performance
- Quantities and frequencies
- Accuracy
- Safety
- Time consumption

Minimisation of:

- Lubricant consumption
- Spillage
- Contamination risk
- Human errors
- Failures



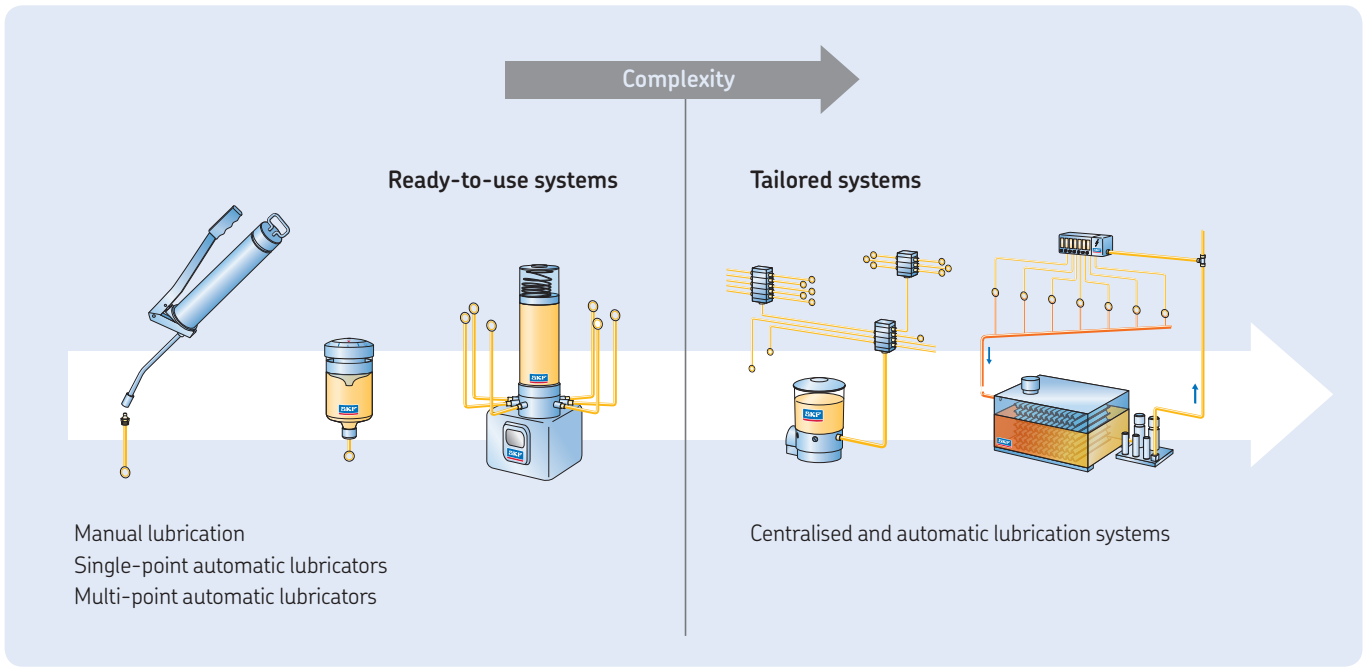
SKF has used its lubrication expertise to develop suitable lubrication systems that properly feed lubrication points, thereby creating synergy between SKF lubricants and SKF lubrication systems.

The SKF lubrication systems portfolio provides a comprehensive range of products from user friendly and cost-effective single point automatic lubricators to complete centralised lubrication systems engineered for specific application(s).

The whole range of products is built so that every new product offers:

- Further installation distance from the lubrication point: important for reduced spaces or high vibrations
- Enhanced monitoring/control possibilities: highly valuable for critical applications that deserve constant monitoring or machine steering
- Multiple points: when several lubrication points have similar conditions, multipoint lubricators provide an ideal solution

Overview of lubrication methods



Selection chart – Automatic lubricators

SKF SYSTEM 24



SKF SYSTEM 24



Designation	SKF LAGD series	SKF TLSD series	SKF TLMR series	LAGD 400	LAGD 1000
Number of points	1	1	1	1 to 8	6 to 20
Container capacity	60 ml (2 US fl. oz) and 125 ml (4.2 US fl. oz)	125 ml (4.2 US fl. oz) and 250 ml (8.5 US fl. oz)	120 ml (4.1 US fl. oz) and 380 ml (12.8 US fl. oz)	400 ml (13.5 US fl. oz)	1 000 ml (33.8 US fl. oz)
Power Supply	Electrochemical gas generation	Batteries	Battery/DC	DC/AC	DC/AC
Maximum feed line	<0,3 m (0.1 ft)	<3 m (10 ft)	5 m (16 ft)	5 m (16 ft)	6 m (19.7 ft)
Temperature range	-20 to +60 °C (-5 to +140 °F)*	0 to 50 °C (32 to 120 °F)	-25 to +70 °C (-13 to +158 °F)	0 to 50 °C (30 to 120 °F)	DC: -25 to +75 °C (-15 to +165 °F) AC: -25 to +60 °C (-15 to +140 °F)
Reusable	Disposable	Replaceable container	Replaceable container	Replaceable 400 g cartridges / Refillable	Refillable
Monitoring	Piston displacement	LEDS	LEDS	On site / remote	On site / remote
IP rating	IP 68	IP 65	IP 67	IP 54	IP 65
Available lubricants	SKF greases and oils assortment Special fillings on request	SKF greases and oils assortment Special fillings on request	SKF greases and oils assortment	A cartridge of SKF LGMT 2 is provided. NLGI 1, 2 and 3 grease are suitable	NLGI 000 to NLGI 2

* If the ambient temperature is constant between 40 and 60 °C (105 and 140 °F), do not select dispense rate of more than 6 months for optimum performance.

SKF SYSTEM 24

Gas driven single point automatic lubricators

SKF LAGD series

The units are supplied ready-to-use straight from the box and filled with a wide range of high performance SKF lubricants. Tool-free activation and time-setting allow easy and accurate adjustment of lubrication flow.

- Flexible dispense rate from 1 to 12 months
- Stoppable or adjustable if required
- Intrinsic safety rating: ATEX approved for zone 0
- Transparent lubricant container allows visual inspection of dispense rate
- Compact size, permits installation in restrictive areas
- Greases and chain oils available

Typical applications

- Applications in restrictive and hazardous locations
- Bearing housing lubrication
- Electric motors
- Fans and pumps
- Conveyors
- Cranes
- Chains (oil)
- Elevators and escalators (oil)

SKF DialSet helps to calculate the correct dispense rate.



Easy-grip top-cover

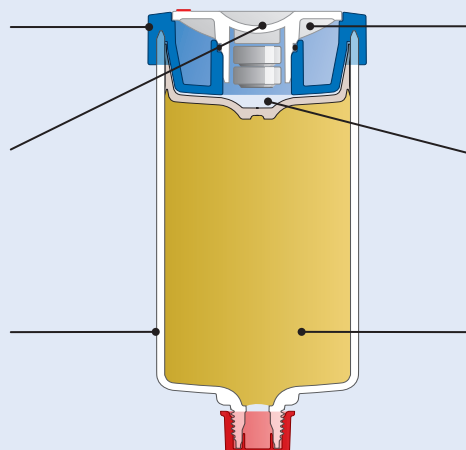
Specially designed top ring for an optimum grip

Gas cell

Detachable batteries for an environmentally friendly disposal

Lubricant container

Transparent lubricant container allows visual inspection of dispense rate



Toolless dial

Allows easy and accurate adjustment of flow rate

Piston

Special piston shape helps ensure optimum emptying of lubricator

SKF Lubricants

Filled with high quality SKF lubricants



60 ml unit

Ordering details

Grease	LGWA 2	LGEM 2	LGGB 2	LGHB 2	LGHP 2	LGFP 2	LGWM 2
Description	Multi-purpose EP type grease	High loads, slow rotations	Biodegradable	High temperature & loads, plain bearings	High performance polyurea	Food processing industry	High load, wide temperature
Unit 60 ml	LAGD 60/WA2	LAGD 60/EM2	–	LAGD 60/HB2	LAGD 60/HP2	LAGD 60/FP2	–
Unit 125 ml	LAGD 125/WA2	LAGD 125/EM2	LAGD 125/GB2	LAGD 125/HB2	LAGD 125/HP2	LAGD 125/FP2	LAGD 125/WM2

Chain oils	LHMT 68	LHHT 265	LFFM 80	LHFP 150	LFFT 220	–
Description	Medium temperature oil	High temperature oil	Food grade (NSF H1) oil	Food grade (NSF H1) oil	Food grade (NSF H1) oil	Empty unit suitable for oil filling only
Unit 60 ml	LAGD 60/HMT68*					
Unit 125 ml	LAGD 125/HMT68*	LAGD 125/HHT26*	LAGD 125/FFM80*	LAGD 125/HFP15*	LAGD 125/FFT22*	LAGD 125/U*

* Includes non-return valve

Technical data

Designation	LAGD 60 and LAGD 125
Grease capacity	
– LAGD 60	60 ml (2 US fl. oz)
– LAGD 125	125 ml (4.2 US fl. oz)
Nominal emptying time	Adjustable; 1–12 months
Ambient temperature range	
– LAGD 60/.. and LAGD 125/..	–20 to +60 °C (–5 to +140 °F)
Maximum operating pressure	5 bar (75 psi) (at start-up)
Drive mechanism	Gas cell producing inert gas
Connection thread	R ³ / ₄
Maximum feed line length with:	
– grease	300 mm (11.8 in.)
– oil	1 500 mm (59.1 in.)

Intrinsically safe approval	II 1 G Ex ia IICT6 Ga II 1 D Ex ia IICT85°C Da I M1 Ex ia I Ma
EC Type Examination Certificate	Kema 07ATEX0132 X
Protection class	IP 68
Recommended storage temperature	20 °C (70 °F)
Storage life of lubricator	2 years
Weight	LAGD 125 approx 200 g (7.1 oz) LAGD 60 approx 130 g (4.6 oz) Lubricant included

Note: For optimum performance, SKF SYSTEM 24 LAGD units filled with LGHP 2 should not be exposed to ambient temperatures over 40 °C (105 °F), or have a time setting longer than 6 months. For custom fillings, contact your SKF authorised distributor.

SKF SYSTEM 24



Electro-mechanical single point automatic lubricators

SKF TLSD series

The SKF TLSD series is the first choice when a simple and reliable automatic lubricator is required under variable temperatures, or when the application conditions (such as vibration, limited space or hazardous environments) require a remote mounting.

- Filled with SKF Lubricants especially developed for bearing applications
- Temperature independent dispense rate
- Maximum discharge pressure of 5 bar over the whole dispensing period
- Dispense rate available in various settings
- Transparent reservoir allows visual inspection
- Red-yellow-green LEDs indicate the lubricator's status
- Refill sets include battery pack
- Special product version offering for cold conditions
- Supplied with support flange for enhanced sturdiness
- Suitable for both direct and remote installation

Typical applications

- Critical applications where extreme reliability and additional monitoring is required
- Applications in restrictive and hazardous locations
- Applications requiring high volumes of lubricant

SKF DialSet helps to calculate the correct dispense rate.



- A** The unit can be programmed to dispense lubricant in 1, 2, 3, 4, 6, 8, 9, 10 and 12 month settings.
- B** The same drive unit can be used with both cartridge versions by simply adjusting the 125/250 ml switch.
- C** Traffic light LEDs are visible from all sides because of the presence of dual LEDs on the sides of the lubricator. The meaning of the lights is as follows:
 - Green light: The lubricator is properly functioning.
 - Yellow light: The lubricator is still functioning, but soon same action will be required. Yellow light serves as a pre-warning light.
 - Red light: The lubricator stopped operating.

Ordering details ¹⁾

Grease	LGWA 2	LGEM 2	LGHB 2	LGHP 2	LGFP 2	LGWM 2
Description	High load, extreme pressure, wide temperature range	High viscosity bearing grease with solid lubricants	High load, high temperature, high viscosity	High performance, high temperature	Food compatible NSF H1 certified	High loads, wide temperature
Complete unit 125	TLSD 125/WA2	TLSD 125/EM2	TLSD 125/HB2	TLSD 125/HP2	TLSD 125/FP2	TLSD 125C/WM2 ²⁾
Complete unit 250	TLSD 250/WA2	TLSD 250/EM2	TLSD 250/HB2	TLSD 250/HP2	TLSD 250/FP2	TLSD 250C/WM2 ²⁾
Refill set 125	LGWA 2/SD125	LGEM 2/SD125	LGHB 2/SD125	LGHP 2/SD125	LGFP 2/SD125	LGWM 2/SD125C ²⁾
Refill set 250	LGWA 2/SD250	LGEM 2/SD250	LGHB 2/SD250	LGHP 2/SD250	LGFP 2/SD250	LGWM 2/SD250C ²⁾

Chain oils	LHMT 68	LHHT 265	LHFP 150
Description	Medium temperature oil	High temperature oil	Food compatible, NSF H1 approved oil
Complete unit 125	TLSD 125/HMT68	–	TLSD 125/HFP15
Complete unit 250	TLSD 250/HMT68	–	TLSD 250/HFP15
Refill set 125	LHMT 68/SD125	LHHT 265/SD125	LHFP 150/SD125
Refill set 250	LHMT 68/SD250	LHHT 265/SD250	LHFP 150/SD250

Technical data

Designation TLSD 125 and TLSD 250

Grease capacity	
– TLSD 125	125 ml (4.2 US fl. oz)
– TLSD 250	250 ml (8.5 US fl. oz)
Emptying time	User adjustable: 1, 2, 3, 4, 6, 8, 9, 10 and 12 months
Lowest grease purge	
– TLSD 125	0,3 ml (0.01 US fl. oz) per day
– TLSD 250	0,7 ml (0.02 US fl. oz) per day
Highest grease purge	
– TLSD 125	4,1 ml (0.13 US fl. oz) per day
– TLSD 250	8,3 ml (0.28 US fl. oz) per day
Ambient temperature range	
– TLSD 1-BAT	0 to 50 °C (30 to 120 °F)
– TLSD 1-BATC	–10 to +50 °C (15 to 120 °F)
Maximum operating pressure	5 bar (75 psi)
Drive mechanism	Electro mechanical
Connection thread	G ¹ / ₄
Maximum feed line length with:	
– grease	Up to 3 meters (10 ft) ³⁾
– oil	Up to 5 meters (16 ft)

LED status indicators	
– Green led (each 30 sec)	OK
– Yellow led (each 30 sec)	Pre warning, low battery power
– Yellow led (each 5 sec)	Pre warning, high back pressure
– Red led (each 5 sec)	Warning, stopped on error
– Red led (each 2 sec)	Warning, empty cartridge
Protection class assembled lubricator	IP 65
Battery pack	
– TLSD 1-BAT	4,5 V 2,7 Ah/Alkaline manganese
– TLSD 1-BATC	4,5 V 2,9 Ah/Lithium-Iron Disulfide
Recommended storage temperature	20 °C (70 °F)
Storage life of lubricator	3 years ⁴⁾ (2 years for LGFP 2 and Oils)
Total weight (incl. packaging)	
– TLSD 125	635 g (22.5 oz)
– TLSD 250	800 g (28.2 oz)

1) TLSD lubricator and SD refill sets are not for offer/sale/use in Germany, France or United States.

2) Special version for low temperatures.

3) The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.

4) Maximum storage life is 3 years from production date, which is printed on the side of the canister. The canister and battery pack may be used at 12 month setting even if activated 3 years from production date.

Electro-mechanical single point automatic lubricators

SKF TLMR series

The SKF Automatic Lubricant Dispenser – TLMR – is a single point automatic lubricator designed to supply grease to a single lubrication point. With a relatively high pressure of 30 bars, this lubricator can operate at long distances providing optimum results with difficult-to-reach and unsafe lubrication locations. With a wide temperature range and robust design, the TLMR lubricator is suitable for operating conditions with various levels of temperature and vibration.

- Filled with high quality SKF greases
- Temperature independent dispense rate
- Maximum discharge pressure of 30 bar over the whole dispensing period
- Available in two versions: TLMR 101 powered by batteries (standard Lithium AA type) and TLMR 201 powered by 12–24 V DC
- Available with non-refillable cartridges in two sizes: 120 and 380 ml

Typical applications

- Applications requiring high lubricant consumption
- Applications experiencing high vibration in operation
- Excellent water and dust protection makes TLMR suitable for general machinery applications and food processing machinery
- Excellent high temperature performance makes TLMR suitable for engine rooms and hot fan applications
- Excellent low temperature performance makes TLMR suitable for wind turbine applications

SKF DialSet helps to calculate the correct dispense rate.



A special bracket makes TLMR easy to mount onto a surface



The cartridges are easily replaceable



Ordering details

Grease	Description	TLMR 101 refill sets (cartridge and battery)		TLMR 201 cartridges	
		120 ml	380 ml	120 ml	380 ml
LGWA 2	High load, extreme pressure, wide temperature range bearing grease	LGWA 2/MR120B	LGWA 2/MR380B	LGWA 2/MR120	LGWA 2/MR380
LGEV 2	Extremely high viscosity bearing grease with solid lubricants	–	LGEV 2/MR380B	–	LGEV 2/MR380
LGHB 2	High load, high temperature, high viscosity bearing grease	–	LGHB 2/MR380B	–	LGHB 2/MR380
LGHP 2	High performance, high temperature bearing grease	–	LGHP 2/MR380B	–	LGHP 2/MR380
LGFP 2	Food compatible bearing grease NSF H1 certified	LGFP 2/MR120B	LGFP 2/MR380B	LGFP 2/MR120	LGFP 2/MR380
LGWM 1	Extreme pressure, low temperature	–	LGWM 1/MR380B	–	LGWM 1/MR380
LGWM 2	High load, wide temperature range bearing grease	–	LGWM 2/MR380B	–	LGWM 2/MR380
LGEP 2	Extreme pressure bearing grease	–	LGEP 2/MR380B	–	LGEP 2/MR380
LGMT 3	All purpose industrial and automotive grease	–	LGMT 3/MR380B	–	LGMT 3/MR380

Complete set		Designation	TLMR pump		Designation
TLMR 101	380 ml	TLMR 101/38WA2	Lubricator powered by batteries		TLMR 101
TLMR 201	380 ml	TLMR 201/38WA2	Lubricator powered by 12–24 V DC		TLMR 201

Technical data

Designation	TLMR 101 and TLMR 201	Drive mechanism	Electro mechanical
Grease capacity	120 ml (4.1 US fl. oz) 380 ml (12.8 US fl. oz)	Connection thread	G ¹ / ₄ female
Emptying time	User adjustable: 1,2,3,6,9,12, 18, 24 months or purge	Maximum feed line length*	Up to 5 meters (16 ft)
Lowest setting		LED status indicators	
– 120 ml cartridge	0,16 ml (0.005 US fl. oz) per day	– Green LED (every 8 sec)	OK
– 380 ml cartridge	0,5 ml (0.016 US fl. oz) per day	– Green and red LED (every 8 sec)	Almost empty
Highest setting		– Red LED (every 8 sec)	Error
– 120 ml cartridge	3,9 ml (0.13 US fl. oz) per day	Protection class	
– 380 ml cartridge	12,5 ml (0.42 US fl. oz) per day	– DIN EN 60529	IP 67
Purge	31 ml (1 US fl. oz) per hour	– DIN 40 050 Teil 9	IP 6k9k
Ambient temperature range	–25 to +70 °C (–13 to +158 °F)	Power	
Maximum operating pressure	30 bar (435 psi)	– TLMR 101	4 AA Lithium batteries
		– TLMR 201	12–24 Volt DC

* The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.

Accessories


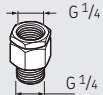

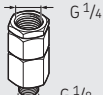
A full range for enhanced versatility of SKF automatic lubricators

Accessories for single point automatic lubricators


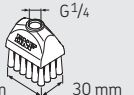

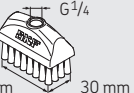

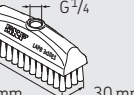

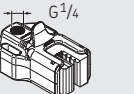
Connectors

	LAPA 45 ● ● ○	Angle connection 45°		LAPN 1/8 ● ● ○	Nipple G ^{1/8} – G ^{1/4}
	LAPA 90 ● ● ○	Angle connection 90°		LAPN 1/4 ● ● ○	Nipple G ^{1/4} – G ^{1/4}
	LAPE 35 ● ● ○	Extension 35 mm		LAPN 1/2 ● ● ○	Nipple G ^{1/4} – G ^{1/2}
	LAPE 50 ● ● ○	Extension 50 mm		LAPN 1/4 UNF ● ● ○	Nipple G ^{1/4} – 1/4 UNF
	LAPF F 1/4 ● ●	Tube connection female G ^{1/4}		LAPN 3/8 ● ● ○	Nipple G ^{1/4} – G ^{3/8}
	LAPF M 1/8 S ○	Tube connection male G ^{1/8} for 6 x 4 tube		LAPN 6 ● ● ○	Nipple G ^{1/4} – M6
	LAPF M 1/4 S ○	Tube connection male G ^{1/4} for 6 x 4 tube		LAPN 8 ● ● ○	Nipple G ^{1/4} – M8
	LAPF M 1/8 ● ●	Tube connection male G ^{1/8}		LAPN 8x1 ● ● ○	Nipple G ^{1/4} – M8 x 1
	LAPF M 1/4 ● ●	Tube connection male G ^{1/4}		LAPN 10 ● ● ○	Nipple G ^{1/4} – M10
	LAPF M 3/8 ● ●	Tube connection male G ^{3/8}		LAPN 10x1 ● ● ○	Nipple G ^{1/4} – M10 x 1
	LAPG 1/4 ● ● ○	Grease nipple G ^{1/4}		LAPN 12 ● ● ○	Nipple G ^{1/4} – M12
	LAPM 2 ● ● ○	Y-connection		LAPN 12x1.5 ● ● ○	Nipple G ^{1/4} – M12 x 1,5

Non return valves (for oil applications)

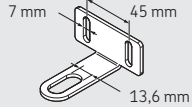
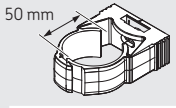
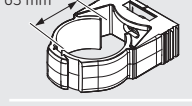


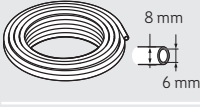
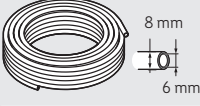
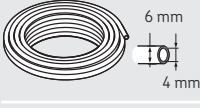
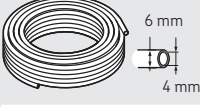


		LAPV 1/4	Non-return valve G ^{1/4}
		LAPV 1/8	Non-return valve G ^{1/8}

Brushes (for oil applications)

		LAPB 3x4E1	Brush 30 × 40 mm
		LAPB 3x7E1	Brush 30 × 60 mm
		LAPB 3x10E1	Brush 30 × 100 mm
		LAPB 5-16E1	Elevator brush, 5–16 mm gap



Mounting and protecting devices & extras

	LAPC 13	Bracket
	LAPC 50	Clamp
	LAPC 63	Clamp
	LAPP 4	Protection base
	LAPP 6	Protection cap
	LAPT 1000	Flexible tube, 1 000 mm long, 8 × 6 mm
	LAPT 5000	Flexible tube, 5 000 mm long, 8 × 6 mm
	LAPT 1000S	Flexible tube, 1 000 mm long, 6 × 4 mm
	LAPT 5000S	Flexible tube, 5 000 mm long, 6 × 4 mm
	TLSD 1-BAT	Battery pack
	TLSD 1-BATC	Lithium battery pack

- SKF LAGD Series
- SKF TLSD Series
- SKF TLMR Series

SKF MultiPoint Automatic Lubricator



Ready-to-use centralised lubrication systems

SKF LAGD 400 and LAGD 1000

SKF MultiPoint Lubricators are designed to simultaneously feed several points. They are often the most user-friendly and cost-effective option when longer distances, high flow, or enhanced monitoring features are required.

These ready-to-use centralised lubrication systems can be installed without any additional assistance and require no special training to be configured.



- Easy to install and use
- Transparent reservoir allows visual inspection
- Refillable through grease fitting
- Alarm function for blocked feed lines (except on LAGD 1000/B - battery version), and empty reservoir
- Machine steering (i.e. lubricator only operates while machine is running)
- Electronic setting and read-out of control parameters

Typical applications

- Series of lubrication points with similar requirements
- Components requiring large amounts of grease
- Critical applications requiring continuous monitoring or machine steering

SKF DialSet helps to calculate the correct dispense rate.

Technical data



Designation	LAGD 400	LAGD 1000/DC	LAGD 1000/AC
Number of outlets	1 to 8	10 to 20	10 to 20
Max. length of pipes	5 m (16 ft.)	6 m (19.7 ft.)	6 m (19.7 ft.)
Flow rate	Up to 10 cm ³ /day (0.3 US fl. oz/day)	Up to 16 cm ³ /day (0.5 US fl. oz/day)	Up to 33 cm ³ /day (1.1 US fl. oz/day)
Reservoir capacity	0.4 litre (13.5 US fl. oz)	1 litre (33.8 US fl. oz)	1 litre (33.8 US fl. oz)
Tubing	6 × 1.5 mm (1/4 × 0.06 in.) 20 m (65 ft.) and fittings included	6 × 1.25 mm (0.05 in.) 50 m (164 ft.) and fittings included	6 × 1.25 mm (0.05 in.) 50 m (164 ft.) and fittings included
Greases	NLGI 1, 2 and 3	Up to NLGI grade 2 Flow pressure <700 mbar	Up to NLGI grade 2 Flow pressure <700 mbar
Permissible operating temperature	0 to 50 °C (30 to 120 °F)	-25 to +75 °C (-15 to +165 °F)	-25 to +60 °C (-15 to +140 °F)
Max. operating pressure	40 bar (600 psi)	150 bar (2 175 psi)	150 bar (2 175 psi)
IP Rating	IP54	IP65	IP65
Rated voltage	110–240 V AC, 50–60 Hz or 24 V DC	24 V DC	110–240 V 50/60 Hz
Connection thread	G ¹ / ₄	G ¹ / ₈	G ¹ / ₈
Alarms	Blocked feed lines, empty cartridge	Blocked feed lines, empty cartridge	Blocked feed lines, empty cartridge

Oil inspection & dispensing



Automatic adjustment for optimal lubricating oil level

SKF Oil Levellers LAHD series

SKF LAHD 500 and LAHD 1000 oil levellers are designed to automatically compensate oil evaporation and leakages under running conditions. This helps in maintaining the correct oil level within a bearing housing, gear box, crankcase, or similar oil bath application. The SKF LAHD series optimises machine performance and increases their service life. Furthermore, they enhance the possibility of an accurate visual inspection of the oil level.

- Optimally maintained oil level
- Extended inspection interval
- Easy visual inspection
- Compensation for evaporation losses

Typical applications

- Oil lubricated bearing housings
- Gear boxes
- Crankcases



Technical data

Designation LAHD 500 / LAHD 1000

Reservoir volume

– LAHD 500 500 ml (17 US fl. oz)
– LAHD 1000 1 000 ml (34 US fl. oz)

Boundary dimensions

– LAHD 500 Ø91 mm × 290 mm high (3.6 × 11.4 in.)
– LAHD 1000 Ø122 mm × 290 mm high (4.8 × 11.4 in.)

Allowed temperature range

–20 to +70 °C (–5 to +158 °F)

Length of connecting tube

600 mm (23.5 in.)

Connection thread

G¹/₂

Suitable oil types

Mineral and synthetic oils





A proper solution for oil handling

Oil handling containers LAOS series

LAOS series is comprised of an extensive assortment of drums and dispensing lids ideal for the storage and administration of fluids and oil lubricants. The lids are available in ten different colours to fit colour coded identification systems.

- Enables easier, safer and cleaner lubrication
- Allows for accurate oil consumption control
- Improves health and safety due to oil spillage minimisation
- Heat and chemically resistant
- Drum and lid threads provide tight, quick and easy assembly
- Quick closing spouts
- Vacuum valve for enhanced spilling control



Mini spout

Ideal where the reservoirs to be filled have small filling holes. Outlet diameter is approx. 7 mm (0.28 in.)



Stretch spout

Ideal for precise pouring tasks and difficult to access points. The 12 mm (0.48 in.) outlet is ideal for viscosities up to ISO VG 220.



Stumpy spout

Due to the wide opening of 25 mm (1 in.), ideal for high viscosities and/or when a high flow is required.



Utility lid

Two main uses: Quick pouring if necessary and assembly of pump onto a 3, 5 or 10 L drum (0.8, 1.3 or 2.6 US Gal).



Storage lid

Useful for storage or transportation of oils.



Contents label

For proper marking of drum contents

LAOS series lids

Colour	Mini spout	Stretch spout	Stumpy spout	Utility lid	Storage lid	Contents label
Tan	LAOS 09057	LAOS 09682	LAOS 09705	LAOS 09668	LAOS 09644	LAOS 06919
Grey	LAOS 09064	LAOS 09699	LAOS 09712	LAOS 09675	LAOS 09651	LAOS 06964
Orange	LAOS 09088	LAOS 09798	LAOS 09729	LAOS 09866	LAOS 09934	LAOS 06940
Black	LAOS 09095	LAOS 09804	LAOS 09736	LAOS 09873	LAOS 09941	LAOS 06995
Dark green	LAOS 09101	LAOS 09811	LAOS 09743	LAOS 09880	LAOS 09958	LAOS 06971
Green	LAOS 09118	LAOS 09828	LAOS 09750	LAOS 09897	LAOS 09965	LAOS 06957
Blue	LAOS 09125	LAOS 09835	LAOS 09767	LAOS 09903	LAOS 09972	LAOS 06988
Red	LAOS 09132	LAOS 09842	LAOS 09774	LAOS 09910	LAOS 09989	LAOS 06926
Purple	LAOS 09071	LAOS 09392	LAOS 09388	LAOS 09408	LAOS 09415	LAOS 06933
Yellow	LAOS 09194	LAOS 62437	LAOS 64936	LAOS 62451	LAOS 62475	LAOS 06902



Drums

Designed with wide necks and a standard thread size. Fits any LAOS lid. Available in 5 different sizes.



Pumps

Standard pump suitable for viscosities up to ISO VG 460. High flow (approx. 14 strokes per litre/US quart). High viscosity pump for viscosities up to ISO VG 680. High efficiency with approx. 12 strokes per litre/US quart. As a protection against airborne contaminants during the pumping process, a 10 micron breather is available. For both pumps an anti-drip long discharge hose of 1.5m (4.9 ft) and reducer nozzles are available.



Hose extensions

Designed to extend the reach of the lids. Two different versions available for stumpy and stretch lids. The stretch version's length can be adjusted by removing the fitting and cutting it down to the desired size.

LAOS series drums, pumps and spouts

Drums		Pumps		Hose extensions	
LAOS 09224	1,5 litre drum (0.4 US gal)	LAOS 62568	High viscosity pump (to fit LAOS utility lids)	LAOS 67265	Stumpy spout hose extension
LAOS 63571	2 litre drum (0.5 US gal)	LAOS 09423	Breather for high viscosity pump	LAOS 62499	Stretch spout hose extension
LAOS 63595	3 litre drum (0.8 US gal)	LAOS 62567	Standard Pump (to fit LAOS utility lids)		
LAOS 63618	5 litre drum (1.3 US gal)	LAOS 09422	Pump reducer nozzle		
LAOS 66251	10 litre drum (2.6 US gal)				



Lubrication analysis tools

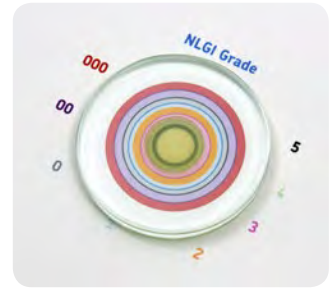
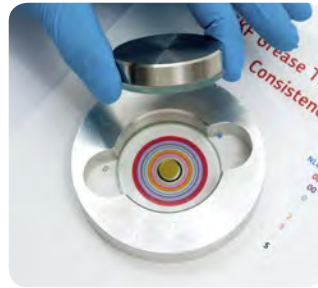
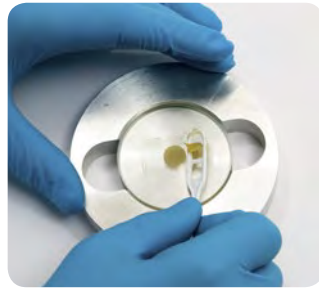


Portable grease analysis kit for field use SKF Grease Test Kit TKG1

Lubricant analysis is a vital part of a predictive maintenance strategy. Until recently, however, oils were almost always analysed despite the fact that around 80% of bearings are lubricated with grease. Tribology expertise and years of research have allowed SKF to develop a complete methodology to assess grease condition.

- Extremely useful in field decision-making processes
- Allows adjustment of grease relubrication intervals according to real conditions
- Grease can be evaluated to detect possible unacceptable deviations from batch to batch
- Allows verification of the suitability of certain greases in specific applications
- Helps in the prevention of damage due to underperforming lubricant greases
- Provides more information on root cause analysis
- Requires no special training to perform the tests
- Requires no harmful chemicals
- Small sample sizes required. Only 0,5 g of grease is needed to perform all the tests

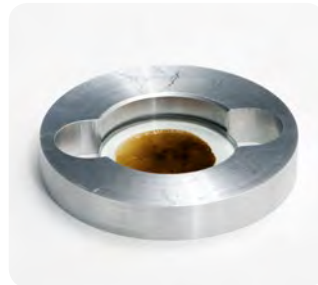
Consistency test (Patent applied for)



Oil bleeding characteristics



Contamination evaluation



Technical data

Designation	TKGT 1		
Parts	Components	Quantity	Specifications
Sampling tools	Sampling syringe	1	Polypropylene
	Sampling tube	1	PTFE, length approx. 1 m
	Permanent marker	1	Black
	Sampling containers	10	35 ml polyethylene
	Gloves	10 pairs	Grease resistant nitrile (synthetic rubber), powder free, size XL, colour blue
	Disposable spatulas	1	Set of 25
	250 mm stainless steel spatula	1	Stainless steel
	150 mm stainless steel spatula	1	Stainless steel
	Scissors	1	Stainless steel
Consistency test	Housing	1	Aluminium
	Weight	1	Stainless steel
	Mask	1	Plexiglas
	Glass plates	4	
Oil bleeding test	USB heater	1	2,5 W-5 V
	USB/220/110 V adaptor	1	Universal (EU, US, UK, Australia) to USB
	Paper pack	1	Contains 50 sheets
	Ruler	1	Aluminium graduated 0,5 mm
Contamination test	Pocket microscope	1	60-100x with light
	Batteries	2	AAA
Carrying case	CD	1	Contains instructions for use, report template, and consistency test scale
	Carrying case	1	Dimensions: 463 × 373 × 108 mm (18.2 × 14.7 × 4.25 in.)



Quick detection of oil condition changes

SKF Oil Check Monitor TMEH 1

The SKF TMEH 1 measures the changes in dielectric constant of an oil sample. By comparing measurements obtained from used and fresh samples of the same oil, the degree of change in the condition of the oil is established.

Dielectric change is directly related to the oil's degradation and contamination level. The monitor allows tracking of mechanical wear and of any loss of the oil's lubricating properties.

- Hand-held and user friendly
- Numerical readout to facilitate trending
- Can store calibration (good oil) in its memory
- Shows changes in oil condition affected by such things as:
 - Water content
 - Fuel contamination
 - Metallic content
 - Oxidation



Note

The SKF Oil Check Monitor is not an analytical instrument. It is an instrument to only detect changes in the oil condition. The visual and numerical read-outs are merely a guide to enable trending of the comparative readings of a good oil to a used oil of the same type and brand. Do not rely solely on numerical readings.

Technical data

Designation	TMEH 1
Suitable oil types	mineral and synthetic oils
Repeatability	±5%
Readout	green/red grading + numerical value (-999 to +999)
Battery	9 V Alkaline type IEC 6LR61
Battery lifetime	>150 hours or 3 000 tests
Product dimensions	250 × 32 × 95 mm (9.8 × 1.3 × 3.7 in.)
Carrying case dimensions	530 × 85 × 180 mm (20.9 × 3.4 × 7.0 in.)

Lubrication software

For access or download: www.skf.com/lubrication or www.mapro.skf.com



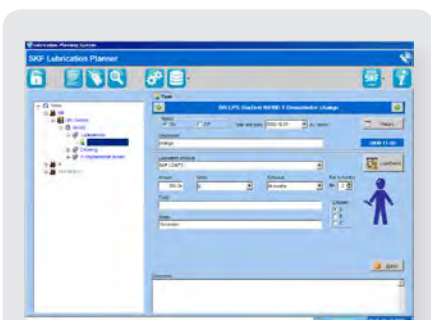
LubeSelect for SKF greases

Advanced tool for grease selection and relubrication calculation

LubeSelect for SKF greases

Selecting a suitable grease for a particular bearing is a crucial step if the bearing is to meet design expectations in its application. SKF knowledge about bearing lubrication has been encapsulated into a computer program that can be consulted at www.skf.com/lubrication

LubeSelect for SKF greases provides you a user friendly tool to select the right grease and suggest frequency and quantity, while taking into account the particular conditions of your application. General guidelines for typical greases for different applications are also available.



SKF Lubrication Planner

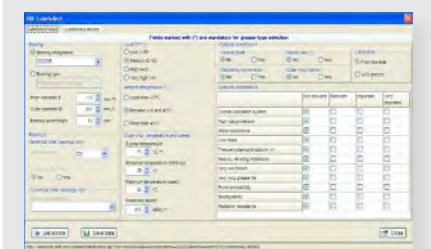
A user friendly tool to administer your lubrication plan

SKF Lubrication Planner

The SKF Lubrication Planner has been developed to help in the administration of a lubrication plan, thereby bridging the gap between the need for a software platform vs. administration by a simple spreadsheet.

- Establish a mapping of lubrication points
- Create a colour coded identification system
- Get expert advice on grease selection
- Calculate relubrication quantities and intervals
- Discover the benefits of dynamic route planning
- Get expert advice on best lubrication procedures
- Keep the history of performed lubrication tasks per point

SKF Lubrication Planner is available in several languages. Register and download it for free at www.skf.com/lubrication





Stand-alone program



Online program

DialSet for smartphones



Quick tool for relubrication calculation

SKF DialSet

SKF DialSet has been designed to help you to set up your SKF automatic lubricators. After selecting the criteria and grease appropriate for your application, the program provides you with the correct settings for your SKF automatic lubricators. It also provides a quick and simple tool for relubrication intervals and quantity calculations.

- Allows quick calculation of the relubrication intervals based on the operating conditions of your application
- Calculations are based on SKF lubrication theories
- Calculated lubrication intervals depend on the properties of the selected grease, thereby minimising the risk of under- or overlubrication and optimising grease consumption
- Calculations take into account SKF automatic lubrication systems, grease dispense rates, thus facilitating the selection of the correct lubricator setting
- Recommended grease quantity depends on the grease replenishment position; side or W33 for optimum grease consumption
- Includes a complete list of the SKF SYSTEM 24 accessories

DialSet stand-alone

The stand-alone version of DialSet is available in 11 languages: English, French, German, Italian, Spanish, Swedish, Portuguese, Russian, Chinese, Japanese and Thai. The program is suitable for PC's working with MS Windows XP and later. Download it from skf.com/lubrication

DialSet online

DialSet is also available online in English language. The program is accessible free-of-charge from mapro.skf.com/dialset

DialSet for smartphones

For smartphones, apps are available in English for iPhone and Android.



