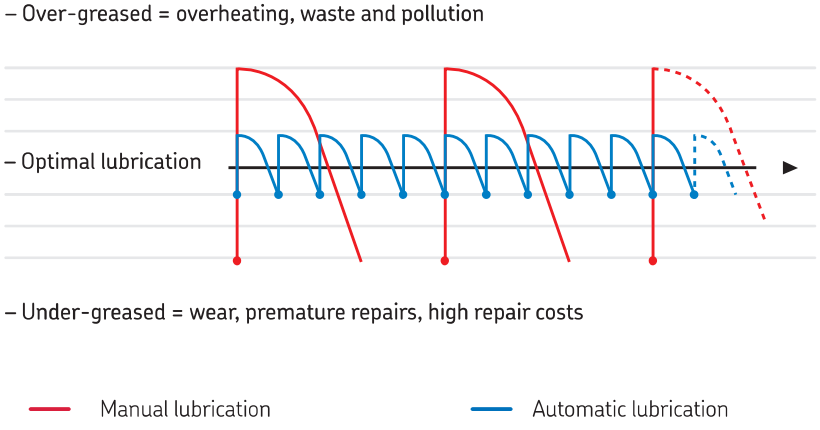
Automatic grease dispensing tools

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



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

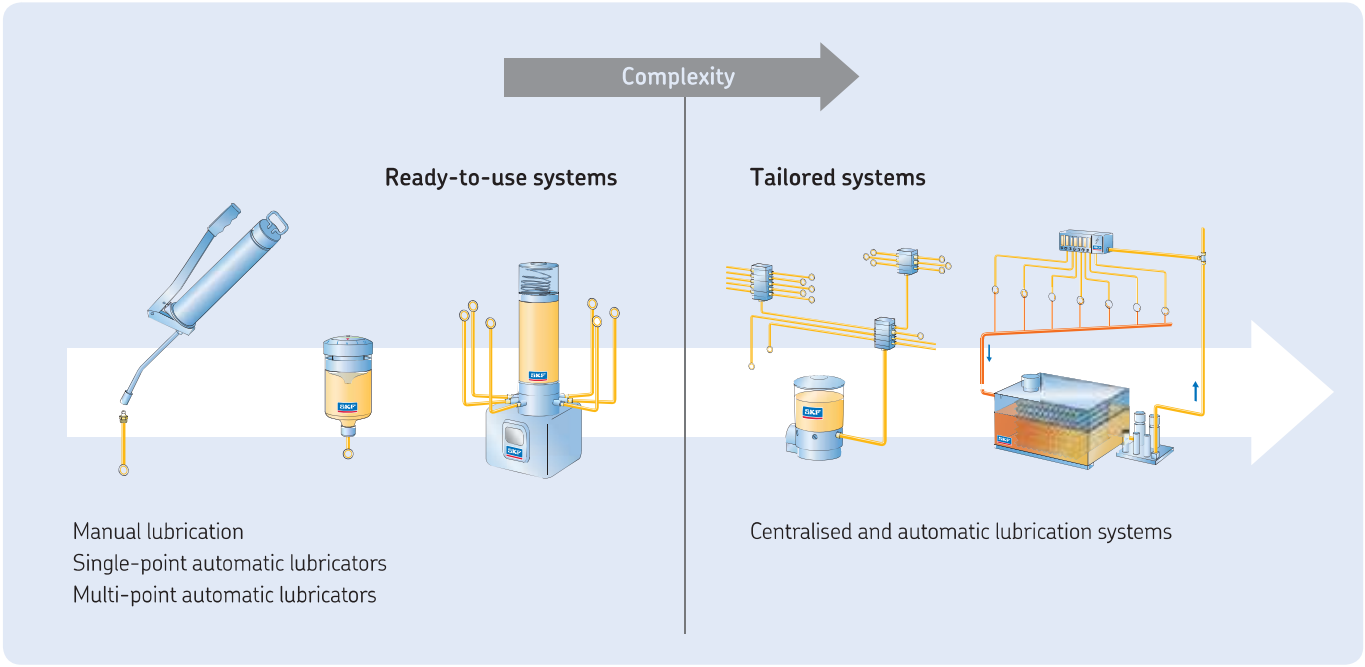
SKF has used its lubrication expertise to develop suitable lubrication systems that properly feed lubrication points, thereby creating synergy between SKF lubricants and SKF lubrication systems.

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

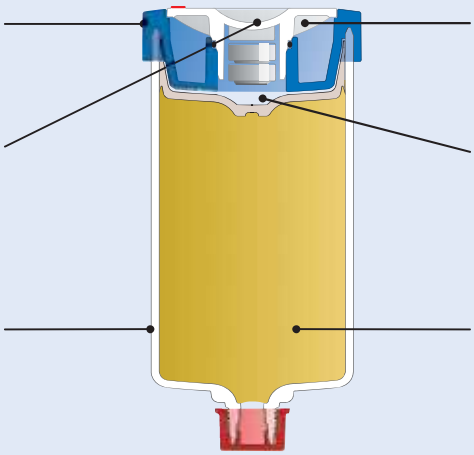
- Applications in restrictive and hazardous locations
- Bearing housing lubrication
- Electric motors
- Fans and pumps
- Conveyors
- Cranes
- Chains (oil)
- Elevators and escalators (oil)

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 – LAGD 125	 60 ml *(2 US fl. oz)* 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	R1/4
Maximum feed line length with: – grease – oil	 300 mm *(11.8 in.)* 1 500 mm *(59.1 in.)*

Intrinsically safe approval	II 1 G Ex ia IIC T6 Ga II 1 D Ex ia IIIC T85°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 visual 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	G1/4
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 101	380 ml	TLMR 101/38WA2
TLMR 201	380 ml	TLMR 201/38WA2

TLMR pump	Designation
Lubricator powered by batteries	TLMR 101
Lubricator powered by 12-24 V DC	TLMR 201

Technical data

Designation	TLMR 101 and TLMR 201
Grease capacity	120 ml *(4.1 US fl. oz)* 380 ml *(12.8 US fl. oz)*
Emptying time	User adjustable: 1,2,3,6,9,12, 18, 24 months or purge
Lowest setting – 120 ml cartridge – 380 ml cartridge	 0,16 ml *(0.005 US fl. oz)* per day 0,5 ml *(0.016 US fl. oz)* per day
Highest setting – 120 ml cartridge – 380 ml cartridge	 3,9 ml *(0.13 US fl. oz)* per day 12,5 ml *(0.42 US fl. oz)* per day
Purge	31 ml *(1 US fl. oz)* per hour
Ambient temperature range	–25 to +70 °C *(–13 to +158 °F)*
Maximum operating pressure	30 bar *(435 psi)*

Drive mechanism	Electro mechanical
Connection thread	G1/4 female
Maximum feed line length*	Up to 5 meters *(16 ft)*
LED status indicators – Green LED (every 8 sec) – Green and red LED (every 8 sec) – Red LED (every 8 sec)	 OK Almost empty Error
Protection class – DIN EN 60529 – DIN 40 050 Teil 9	 IP 67 IP 6k9k
Power – TLMR 101 – TLMR 201	 4 AA Lithium batteries 12–24 Volt DC

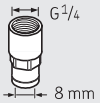
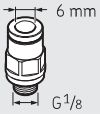
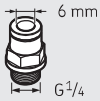
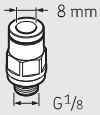
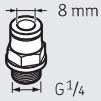
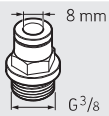
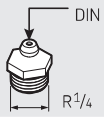
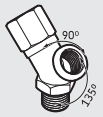
* The maximum feed line length is dependent on ambient temperature, grease type and back pressure created by the application.

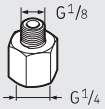
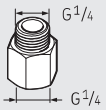
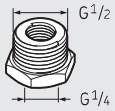
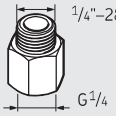
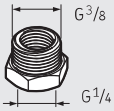
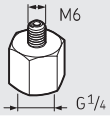
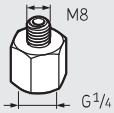
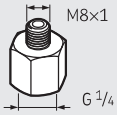
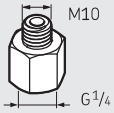
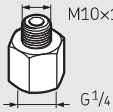
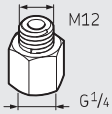
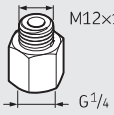
Accessories

A full range for enhanced versatility of SKF automatic lubricators

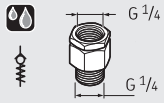
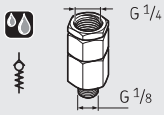
Accessories for single point automatic lubricators

Connectors

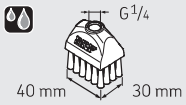
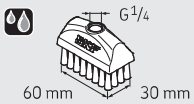
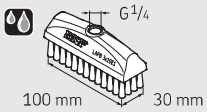
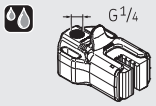
	LAPA 45	● ● ○	Angle connection 45°
	LAPA 90	● ● ○	Angle connection 90°
	LAPE 35	● ● ○	Extension 35 mm
	LAPE 50	● ● ○	Extension 50 mm
	LAPF F1/4	● ●	Tube connection female G1/4
	LAPF M 1/8 S	○	Tube connection male G1/8 for 6 × 4 tube
	LAPF M 1/4 S	○	Tube connection male G1/4 for 6 × 4 tube
	LAPF M 1/8	● ●	Tube connection male G1/8
	LAPF M 1/4	● ●	Tube connection male G1/4
	LAPF M 3/8	● ●	Tube connection male G3/8
	LAPG 1/4	● ● ○	Grease nipple G1/4
	LAPM 2	● ● ○	Y-connection

	LAPN 1/8	● ● ○	Nipple G1/4 – G1/8
	LAPN 1/4	● ● ○	Nipple G1/4 – G1/4
	LAPN 1/2	● ● ○	Nipple G1/4 – G1/2
	LAPN 1/4 UNF	● ● ○	Nipple G1/4 – 1/4 UNF
	LAPN 3/8	● ● ○	Nipple G1/4 – G3/8
	LAPN 6	● ● ○	Nipple G1/4 – M6
	LAPN 8	● ● ○	Nipple G1/4 – M8
	LAPN 8x1	● ● ○	Nipple G1/4 – M8 × 1
	LAPN 10	● ● ○	Nipple G1/4 – M10
	LAPN 10x1	● ● ○	Nipple G1/4 – M10 × 1
	LAPN 12	● ● ○	Nipple G1/4 – M12
	LAPN 12x1.5	● ● ○	Nipple G1/4 – M12 × 1,5

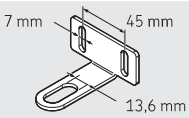
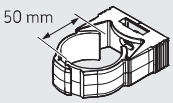
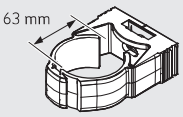
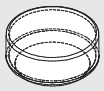
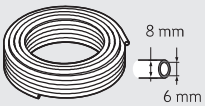
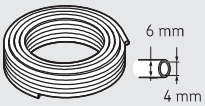
Non return valves (for oil applications)

	LAPV 1/4 ● ● ○	Non-return valve G1/4
	LAPV 1/8 ● ● ○	Non-return valve G1/8

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 cm³/day *(0.3 US fl. oz/day)*	Up to 16 cm³/day *(0.5 US fl. oz/day)*	Up to 33 cm³/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 *(¼ × 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	G¼	G⅛	G⅛
Alarms	Blocked feed lines, empty cartridge	Blocked feed lines, empty cartridge	Blocked feed lines, empty cartridge