SKF Automatic Lubricators

SKF delivers the optimum amount of high quality lubricant precisely when you want it, exactly where you need it

Being the world's leading bearing manufacturer, SKF knows lubrication. To achieve optimum machine reliability, correct lubrication is of paramount importance. In general, more than one-third of all your bearing failures can be traced to lubrication-related errors. Common problems include contamination, the wrong grease for the application and too much or not enough grease.

At SKF we believe that only the right amount of the best quality lubricant should be delivered to the exact lubrication point precisely when it is needed. This philosophy has led us to develop world –class single and multipoint automatic lubricators and lubricants.

By incorporating advanced technology in our products, utilizing our years of experience in rolling bearing operation and by listening carefully to our customer needs we are able to offer you unique SKF solutions for your lubrication needs.

Our wide range of highly reliable, safe and easy to use products are designed and developed specially to increase machinery uptime whilst reducing operating costs. In addition by using SKF lubricators, only the required amount of lubricant is used, thus creating less waste and saving on resources.

Operator safety is enhanced by replacing outmoded manual lubrication practices with advanced automatic lubrication methods. Operators are no longer exposed to often hot and hazardous working environments, as automatic lubricators are designed for these conditions and do not require constant operator supervision. Using SKF lubricators contribute to cleaner workspaces and less hazardous working environments usually caused by oil and grease spillage.

SKF Automatic Lubricators:

- Delivering the right grease at the right time at the right point
- Highly reliable and advanced solutions
- Developed utilizing our years of experience in bearing technology
- Available with a wide range of high quality SKF lubricants

Programmable to your needs

- Easy to install
- Suitable for use in a wide range of operating conditions
- Complete products, ready-to-install straight out of the box

Use of SKF lubricants and automatic lubricators result in:

- Reduced bearing damage
- Savings on operating costs
- Increased machinery service life
- Reduced energy consumption
- Safe and clean workplaces

SKF SYSTEM 24

Reliable gas driven single point automatic lubricator

The SKF SYSTEM 24 LAGD Series are gas driven single point automatic lubricators. With millions in operation globally, you too can experience trouble-free lubrication practices with this reliable and easy to install solution. Once attached to a lubrication point, the unit will dispense lubricant at a preset rate for a period of up to one year.
The unique gas driven mechanism and dispense accuracy delivers for you the optimum amount of high quality lubricant precisely when you want it, exactly where you need it.

- Very easy to install
- Available in two sizes:
  125 ml (LAGD 125) and 60 ml (LAGD 60)
- Flexible time setting period ranging
  between 1 and 12 months
- Supplied with high quality SKF greases and oils
- Wide operating temperature range
- Suitable for use in a wide range of applications
- ATEX approved for use in potentially explosive
  atmospheres (According to EC directive 94/9/EC)

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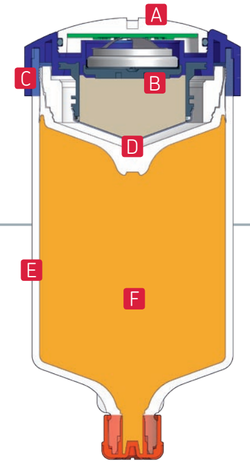

A Time setting slot
Allows easy installation and accurate adjustment of lubrication flow

B Gas cell
Generates pressure to enable lubricant dispensing

C Easy-grip top-cover
Facilitates easy and quick fitting

D Piston
Special piston shape helps ensure optimum emptying of lubricator

E Lubricant container
Transparent lubricant container allows visual inspection of dispense rate

F SKF Lubricant
Filled with a wide range of high quality SKF lubricants

SKF SYSTEM 24

Robust, re-usable electromechanical driven single point automatic lubricator

The SKF SYSTEM 24 LAGE series are single point automatic lubricators operating by an electro mechanical drive unit. The robust design incorporates a reusable drive unit and a replaceable lubricant canister, making this your long-term cost effective solution. Thanks to the remote mounting capability, the lubricator is the perfect solution for hazardous high temperature environments and applications with high vibration levels. You can easily install the unit and select periods of up to 12 months. The unit will dispense the lubricant at a constant 5 bar pressure for the chosen period.

- Full two year warranty on drive units
- Easy activation and adjustable settings of 1,3,6,9, and 12 months
- Remote mounting up to (3 meters for grease and 5 meters for oil filled units)
- Supplied with high quality SKF grease and oil
- Dispense rate is independent of temperature

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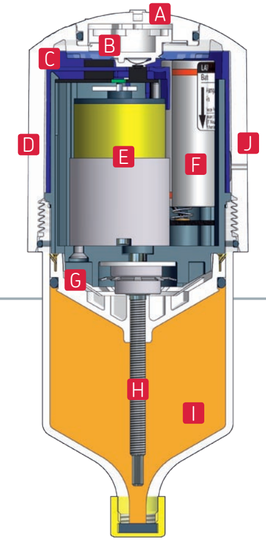

A B On/off knob and time setting dial
Enables easy activation and dial setting

C LED status indicators
Helps verify operating status

D Drive cover
Easily removable, seals and helps prevent ingress of dirt and moisture

E Electric motor and gearbox
Helps enable constant discharge pressure

F Battery pack

G Piston
Special piston shape helps ensure optimum emptying of lubricator

H Spindle
Rotates to drive piston, enabling lubricant to be dispensed

I Lubricant canister
Filled with high quality SKF lubricant

J Anti-vacuum membrane
Helps prevent vacuum forming

SKF MultiPoint

Compact, automatic lubricator for up to 8 points

SKF MultiPoint LAGD 400 is a user-friendly and cost-effective automatic lubricator suitable to lubricate up to eight grease points. Its compact design, combined with the flexibility of an electronic control system, makes it an excellent solution for a longer bearing service life and increased uptime of machinery. Being a do-it-yourself lubrication system, you can easily install the lubricator without the assistance of a costly lubrication service company and/or special training. Once you set the correct grease dispense rate for the application, using the SKF DialSet software included, it will keep all points lubricated simultaneously, delivering the optimum amount of grease. The unit uses standard SKF grease cartridges (420 ml) or you can refill it yourself.

- Complete, ready to use, do-it-yourself centralised lubrication system
- Up to 8 feed lines
- Long feed lines (maximum up to 5 m / 16 ft)
- Electronic setting and read-out of control parameters
- Alarm function for blocked feed lines and empty cartridge
- Dual AC and DC voltage for use globally
- Machine steering (i.e. lubricator only operates while machine is running)
- High-pressure capability (40 bar / 600 psi)
- Tested and approved with all current SKF greases

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SKF MultiPoint

Advanced automatic lubrication system for up to 20 points

SKF MultiPoint LAGD 1000 is a reliable centralized lubrication system that allows up to 20 lubrication points to be lubricated. The unit is supplied as a complete solution ready for installation, including SKF DialSet software to determine the correct grease dispense rate. You can install it almost anywhere without assistance and the extensive programming gives you the flexibility to suit almost all applications. It's sturdy and robust design combined with different alarm functions gives you the assurance that your machine gets the optimum lubrication.

- Robust and easy-to-use
- Complete unit in the box
- Up to 20 feed lines
- Long feed lines (maximum up to 6 m / 20 ft)
- Alarm function for blocked feed lines and empty container
- AC, DC and battery powered versions available for use almost anywhere
- Suitable for most greases from NLGI 000 to 2
- Refillable 1 litre (33.8 USfl.oz) grease container

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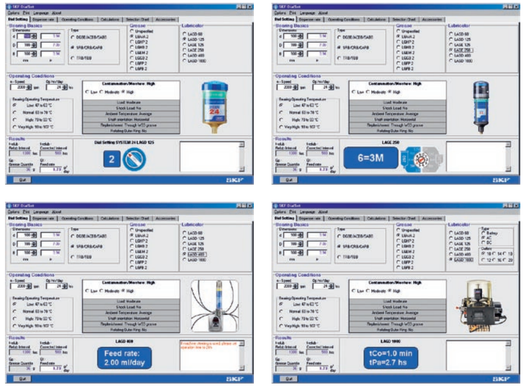
DialSet 4.0

SKF Re-lubrication Calculation Program

Accurate calculation of re-lubrication intervals

DialSet is a calculation program, which easily calculates re-lubrication intervals settings. After selecting the criteria and grease relevant to your application, the program provides you with the correct settings for your SKF automatic lubricators.

- Selecting the operating conditions of your application, vertical shaft, outer ring rotation and shock loads, allows accurate calculation of the re-lubrication intervals
- Calculations are based on SKF lubrication theories
- Calculated lubrication interval depends on the properties of the selected grease, minimising the risk of under or over-lubrication and optimising grease consumption
- Calculations are based on SKF automatic lubrication systems grease dispense rates, allowing the recommendation 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 family accessories



DialSet 4.0 on CD-ROM

DialSet 4.0 is available on CD-ROM with calculation in 10 languages: English, French, German, Italian, Spanish, Swedish, Portuguese, Russian, Chinese and Thai. The program is suitable for PC's working with MS Windows 98 and later. This CD-ROM can be ordered from SKF under designation MP3506.

DialSet 4.0 for PDA/PPC

If you own a PDA or a PPC, you can now calculate the correct re-lubrication intervals on-site. From www.mapro.skf.com you can now download, free-of-charge, the PDA/PPC version of SKF's re-lubrication calculation program DialSet 4.0 in English language.

DialSet 4.0 online

In addition to the downloadable PDA/PPC and the CD-ROM version, SKF also offers you DialSet 4.0 online in English language. The program is accessible free-of-charge from www.mapro.skf.com. After filling in your application's conditions, calculations are made online and the program provides you with a printable re-lubrication interval recommendation.

Other SKF lubrication equipment

To help you ensure correct lubrication practices as well as enhancing your operator's safety we also offer a wide range of tools and accessories such as grease guns, pumps, fillers, gloves and trolleys. Using the correct tools result in elimination of contamination risks as well as spillage. Our accessories are specially designed to be used in combination with our lubricators and lubricants.

For more SKF lubrication equipment: www.skf.com/lubrication

1. SKF One Hand Operated Grease Gun **2.** SKF Oil Check Monitor **3.** SKF Disposable Grease Resistant Gloves **4-5.** Special accessories for SKF SYSTEM 24 oil lubrication **6.** SKF Battery Driven Grease Gun **7.** SKF Grease Gun **8.** SKF Grease Meter **9.** SKF Bearing Packer **10.** SKF Grease Filler Pumps **11.** SKF Lubrication accessory sets **12.** SKF Grease Pumps **13.** SKF Grease Packer **14.** SKF Oil Leveller

SKF lubricants

The perfect solution for every application

SKF automatic lubricators are supplied with and compatible with a wide range of SKF lubricants

SKF offers a wide range of high quality grease for bearing lubrication. Each grease type is specially formulated to suit the respective field of application. Bearing applications have wide variations of operating conditions and correct lubrication calls for matching the grease precisely to the application.

Selection criteria for correct lubricant include bearing type and size, temperatures, speeds and loads, as well as the desired service life and re-lubrication intervals. In addition, SKF offers a range of chain oils to suit the need of most chain applications in industrial environments.

For more information:
www.mapro.skf.com and www.skf.com/lubrication

LGMT 2	General purpose industrial and automotive grease
LGMT 3	General purpose industrial and automotive grease
LGEP 2	Extreme pressure grease
LGFP 2	Food compatible grease

LGEM 2	High viscosity plus solid lubricants grease
LGEV 2	Extremely high viscosity with solid lubricants grease
LGLT 2	Low temperature, extremely high speed grease
LGGB 2	Green biodegradable, low toxicity grease

LGWM 1	Extreme pressure, low temperature grease
LGWM 2	High load, wide temperature grease
LGWA 2	Wide temperature, extreme pressure grease
LGHB 2	EP high viscosity, high temperature grease
LGHP 2	High performance polyurea grease

LGET 2	Extreme temperature grease
LHHT 265	High temperature chain oil
LHMT 68	Medium temperature chain oil
LHFP 150	Food compatible chain oil

Lubricator selection chart

	SKF SYSTEM 24 Single point lubricators LAGD	LAGE	SKF MultiPoint Multi point lubricators LAGD 400	LAGD 1000
No of lubrication points	1	1	Up to 8	Up to 20
Power source	Gas cell	Battery pack	AC/DC	AC/DC/Battery
Operating temp range (°C)	–20 to +60	0 (–10 peak) to +50	0 to +50	AC: –25 to 60 DC: –25 to 75 Battery: –10 to 60
Discharge rate (months)	1 - 12	1,3,6,9 or 12	Variable	Variable
Max discharge pressure	5 bar at start up	5 bar continuous	40 bar continuous	150 bar continuous
Constant pressure available over total dispense period	2 bar	5 bar	40 bar	150 bar
Temperature influence on discharge rate	Yes	No	No	No
Lubricant container capacity	60/125 ml	122/250 ml	400 ml	1 000 ml
Max. Remote mounting	0,3 m grease 1,5 m oil	3 m grease 5 m oil	5 m	6 m
Re-usable	No	Yes	Yes	Yes
Function monitoring	No	Yes	Yes	Yes
Use in explosive atmospheres	Yes	No	No	No

Technical data LAGD series

Grease capacity	**LAGD 60** **60 ml (2,03 fl oz. US)** **LAGD 125** **125 ml (4,25 fl oz. US)**
Nominal emptying time	Adjustable; 1 – 12 months
Ambient temperature range LAGD 60/.. and LAGD 125/.. LAGD 125/F..	 –20 to 60 °C (–5 to 140 °F) –20 to 55 °C (–5 to 131 °F)
Maximum operating pressure	5 bar (75 psi) (at start-up)
Drive mechanism	Gas cell producing inert gas
Connection thread	R 1/4
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 IIC T6 II 1 D Ex iaD 20 T85°C I M1 Ex ia I
EC Type Examination Certificate LAGD 60/.. and LAGD 125/.. LAGD 125/F..	 Kema 04ATEX1275 X Issue 2 Kema 07ATEX0132 X
Protection class	IP 68
Recommended storage temperature	20 °C (70 °F)
Storage life of lubricator	2 years
Total weight:	- LAGD 125 Approx 200 g (7,1 oz) - LAGD 60 Approx 130 g (4,6 oz) Lubricant included

Technical data LAGE series

Grease capacity	**LAGE 125** **122 ml (4,1 fl. oz US)** **LAGE 250** **250 ml (8,5 fl. oz US)**
Emptying time	User adjustable: 1, 3, 6, 9 and 12 months
Ambient temperature range	0 °C (-10°C peak) to 50 °C (32 °F (14 °F peak) to 122 °F)
Maximum operating pressure	5 bar (75 psi)
Drive mechanism	Electro mechanical
Connection thread	R 1/4
Maximum feed line length with:	- Grease Up to 3 meters (10 ft) * - Oil Up to 5 meters (16 ft)
LED status indicators	operating, purging lubricant, empty, malfunction
UL certification	UL listed T code 59°C - Category BAYZ – 92UM Lubricant dispensing equipment for use in hazardous locations Class I, Division II, Group A, B, C, D Class II, Division II, Group F &G Class III
Protection class assembled lubricator	IP 65
Battery pack	4,5V 2,7 Ah - Alkaline manganese
Recommended storage temperature	20 °C (70 °F)
Storage life of lubricator	3 years ** (2 years for LGFP 2 and Oils)
Total weight:	- LAGE 125 635 g (22,5 oz) - LAGE 250 800 g (28,2 oz)

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

** *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 even at 12 months setting if activated 3 years from production date.*

SKF SYSTEM 24, LAGD and LAGE ordering overview

Designation SKF grease	Description	Lubricator type LAGD 60/..	LAGD 125/..	LAGE 125/..	LAGE 250/..	Refill set LAGE 125	Refill set LAGE 250
LGWA 2	Wide temperature, extreme pressure	LAGD 60/WA2	LAGD 125/WA2	LAGE 125/WA2	LAGE 250/WA2	LGWA 2/EML125	LGWA 2/EML250
LGEM 2	High viscosity plus solid lubricants	-	LAGD 125/EM2	LAGE 125/EM2	LAGE 250/EM2	LGEM 2/EML125	LGEM 2/EML250
LGHB 2	EP high viscosity, high temperature	-	LAGD 125/HB2	LAGE 125/HB2	LAGE 250/HB2	LGHB 2/EML125	LGHB 2/EML250
LGHP 2	High performance polyurea	-	LAGD 125/HP2	LAGE 125/HP2	LAGE 250/HP2	LGHP 2/EML125	LGHP 2/EML250
LGFP 2	Food compatible	-	LAGD 125/FFP2	LAGE 125/FP2	LAGE 250/FP2	LGFP 2/EML125	LGFP 2/EML250
LGWM 2	High load, wide temperature	-	LAGD 125/WM2	LAGE 125/WM2	LAGE 250/WM2	LGWM 2/EML125	LGWM 2/EML250
LGGB 2	Green biodegradable, low toxicity	-	LAGD 125/GB2	-	-	-	-

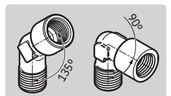
SKF SYSTEM 24, LAGD and LAGE ordering overview

Designation SKF oil	Description	Lubricator type LAGD 60/..	LAGD 125/..	LAGE 125/..	LAGE 250/.. Refill set	LAGE 125 Refill set	LAGE 250
LHMT 68	Medium temperature oil	LAGD 60/HMT68	LAGD 125/HMT68	LAGE 125/HMT68	LAGE 250/HMT68	LHMT 68/EML125	LHMT 68/EML250
LHFP 150	Food compatible NSF H1 oil	-	LAGD 125/FHF15	LAGE 125/HFP15	LAGE 250/HFP15	LHFP 150/EML12	LHFP 150/EML25
LHHT 265	High temperature oil	-	LAGD 125/HHT26	LAGE 125/HHT26	LAGE 250/HHT26	LHHT 265/EML12	LHHT 265/EML25
Empty	Empty unit suitable for oil filling	-	LAGD 125/FU	-	-	-	-

Accessories ordering details

Designation	Description	Designation	Description	Designation	Description
LAPA 45	Angle connection 45°	LAPF M1/8	Tube connection male G 1/8	LAPN 10	Nipple G 1/4 – M10
LAPA 90	Angle connection 90°	LAPF M3/8	Tube connection male G 3/8	LAPN 10x1	Nipple G 1/4 – M10 × 1
LAPB 3x4E1 *	Brush 30 × 40 mm	LAPG 1/4	Grease nipple G 1/4	LAPN 12	Nipple G 1/4 – M12
LAPB 3x7E1 *	Brush 30 × 60 mm	LAPM 2	Y-connection	LAPN 12x1.5	Nipple G 1/4 – M12 × 1,5
LAPB 3x10E1 *	Brush 30 × 100 mm	LAPM 4 **	Manifold (4 to 1)	LAPP 2E **	Protection base
LAPB 5-16E *	Elevator brush, 5 – 16 mm gap	LAPN 1/8	Nipple G 1/4 – G 1/8	LAPP 3E **	Protection cover
LAPB D2 *	Brush round Ø 20 mm	LAPN 1/2	Nipple G 1/4 – G 1/2	LAPP 63 ***	Support flange
LAPC 13	Bracket	LAPN 1/4	Nipple G 1/4 – G 1/4	LAPP 63V ***	Support flange with non-return valve
LAPC 50 **	Clamp	LAPN 1/4UNF	Nipple G 1/4 – 1/4 UNF	LAPT 1000	Flexible tube, 1 000 mm long, 8 × 6 mm
LAPC 63 ***	Clamp	LAPN 3/8	Nipple G 1/4 – G 3/8	LAPT 5000 ***	Flexible tube, 5 000 mm long, 8 × 6 mm
LAPE 35	Extension 35 mm	LAPN 6	Nipple G 1/4 – M6	LAPV 1/4	Non return valve G 1/4
LAPE 50	Extension 50 mm	LAPN 8	Nipple G 1/4 – M8	LAPV 1/8	Non return valve G 1/8
LAPF F1/4	Tube connection female G 1/4	LAPN 8x1	Nipple G 1/4 – M8 × 1	LAGE 1-BAT ***	Battery pack
LAPF M1/4	Tube connection male G 1/4				

* *Suitable for use with oil filled SKF SYSTEM 24 LAGD and LAGE units only*
** *Suitable for use with LAGD 60 and LAGD 125 SKF SYSTEM 24 only*
*** *Suitable for use with LAGE 125 and LAGE 250 SKF SYSTEM 24 only*



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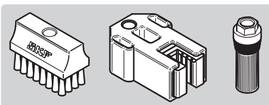
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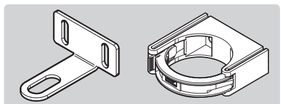
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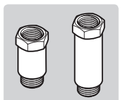
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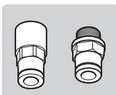
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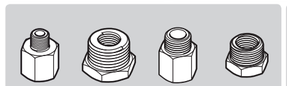
LAPG

LAPM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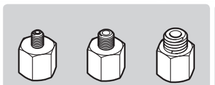
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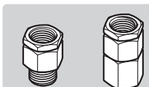
LAPP


LAPT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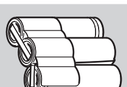

LAGE 1-BAT

Technical data LAGD 400

Designation	LAGD 400		
Content	8–outlet lubricator 20 m tubing Quick connectors for application side 2 Y–connectors LGMT 2/0.4 grease cartridge SKF's DialSet program	Volume	0,1 – 10 cm³/day (0.003 – 0.35 US fl. oz/day) per outlet approx 0,6 – 65 g/week (0.02 – 2.3 oz/week)
Number of feed lines	1 – 8	Power	110–240V AC, 50–60Hz or 24V DC
Maximum pressure	40 bar (600 psi)	Alarms	Blocked feed lines, empty cartridge; internal and external
Suitable grease	NLGI 1, 2 and 3	External steering	External relay steering
Maximum length of feed–lines	5 m (16 ft)	IP rating	54
Ambient temperature	0 – 50 °C (32 – 120 °F)	Lubrication tubes	20 m (65 ft), Nylon, 6 × 1,5 mm (1/4 × 0.06 in)
Drive mechanism	Electro–mechanical	Connection thread	G 1/4
		Height	530 mm (21 in)

Technical data LAGD 1000

Designation	LAGD 1000/B	LAGD 1000/DC	LAGD 1000/AC
Max. operating pressure	150 bars (2 175 psi)	150 bars (2 175 psi)	150 bars (2 175 psi)
Permissible operating temperature	–10 to 60 °C (14 to 140 °F)	–25 to 75 °C (–13 to 167 °F)	–25 to 60 °C (–13 to 140 °F)
Number of outlets	6 to 12	10 to 20	10 to 20
Max. length of pipes	6 m (19.7 ft)	6 m (19.7 ft)	6 m (19.7 ft)
Tubing	6 x 1,25 mm (0.05 in)	6 x 1,25 mm (0.05 in)	6 x 1,25 mm (0.05 in)
Output of pump element	1 cm³/min (0.061 in³/min)	2 cm³/min (0.122 in³/min)	2 cm³/min (0.122 in³/min)
Reservoir capacity	1 litre (33.8 US fl. oz)	1 litre (33.8 US fl. oz)	1 litre (33.8 US fl. oz)
Greases	up to NLGI grade 2 Flow pressure < 300 mbar	up to NLGI grade 2 Flow pressure < 700 mbar	up to NLGI grade 2 Flow pressure < 700 mbar
Weight	5,8 kg (12.8 lbs)	3,7 kg (8.2 lbs)	4,8 kg (10.6 lbs)
System of protection	IP65	IP65	IP65
Electrical specifications			
Power connection	n/a	DIN EN 175 301-803, plug supplied	DIN EN 175 301-803, plug supplied
Rated voltage	18V	24V DC	110 - 240V 50/60 Hz
Power consumption	16 Ah	n/a	n/a
Battery type	alkaline	n/a	n/a
Type power input at 20 °C (68 °F) and max. operating pressure		0,5 A	1,3A / 110V 0,4A / 230V
Battery pack life	12 months or 1 lubricator filling (which ever comes first), when installed by end of the battery pack expiry date.		

Proven success

No matter where you are, the process you have, the cost involved, we always have a cost-effective way to increase your lubrication reliability.

1 HVAC - North America
SKF SYSTEM 24 LAGE 125 installed on belt driven fan

2 Pulp and paper - Perú
Remote installation of SKF SYSTEM 24 LAGE 125 on a yankee press roll in a paper mill

3 Pulp and paper - Venezuela
Wood chip conveyer using SKF SYSTEM 24 LAGE 125
Pulp mill application using SKF SYSTEM 24 LAGE 125

4 Steel industry - Germany
Electric motor in a shelling pump
Installation of SKF SYSTEM 24 LAGD 125 lubricator

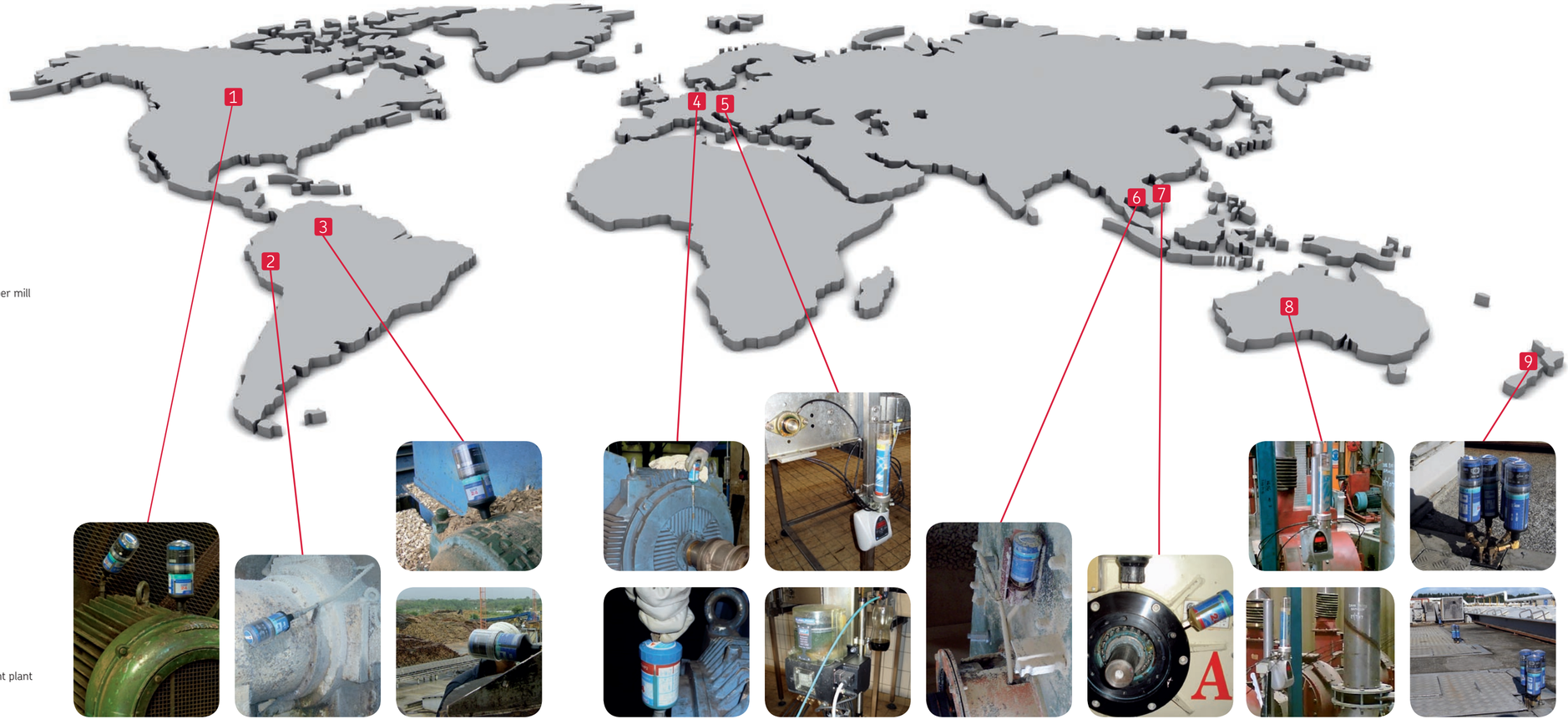
5 Food and beverage - Austria
SKF MultiPoint LAGD 1000 installed at a bottling plant
SKF MultiPoint LAGD 400 installed on conveyors in a bottling plant

6 Mining and construction - Thailand
Vibrating screen with SKF SYSTEM 24 LAGD 125

7 Metals industry - Vietnam
Hammer mill with SKF SYSTEM 24 LAGD 125 installed

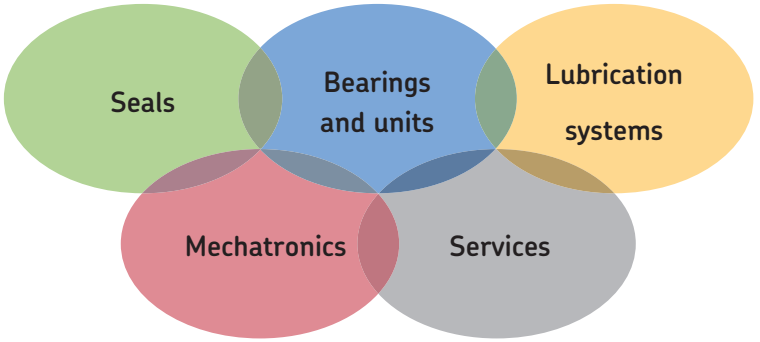
8 Pulp and paper - Australia
SKF MultiPoint LAGD 400 installed on fan applications in hygiene products plant

9 Water treatment - New Zealand
Remote grouping of SKF SYSTEM 24 LAGE lubricators at a waste water treatment plant



The Power of Knowledge Enginering

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



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