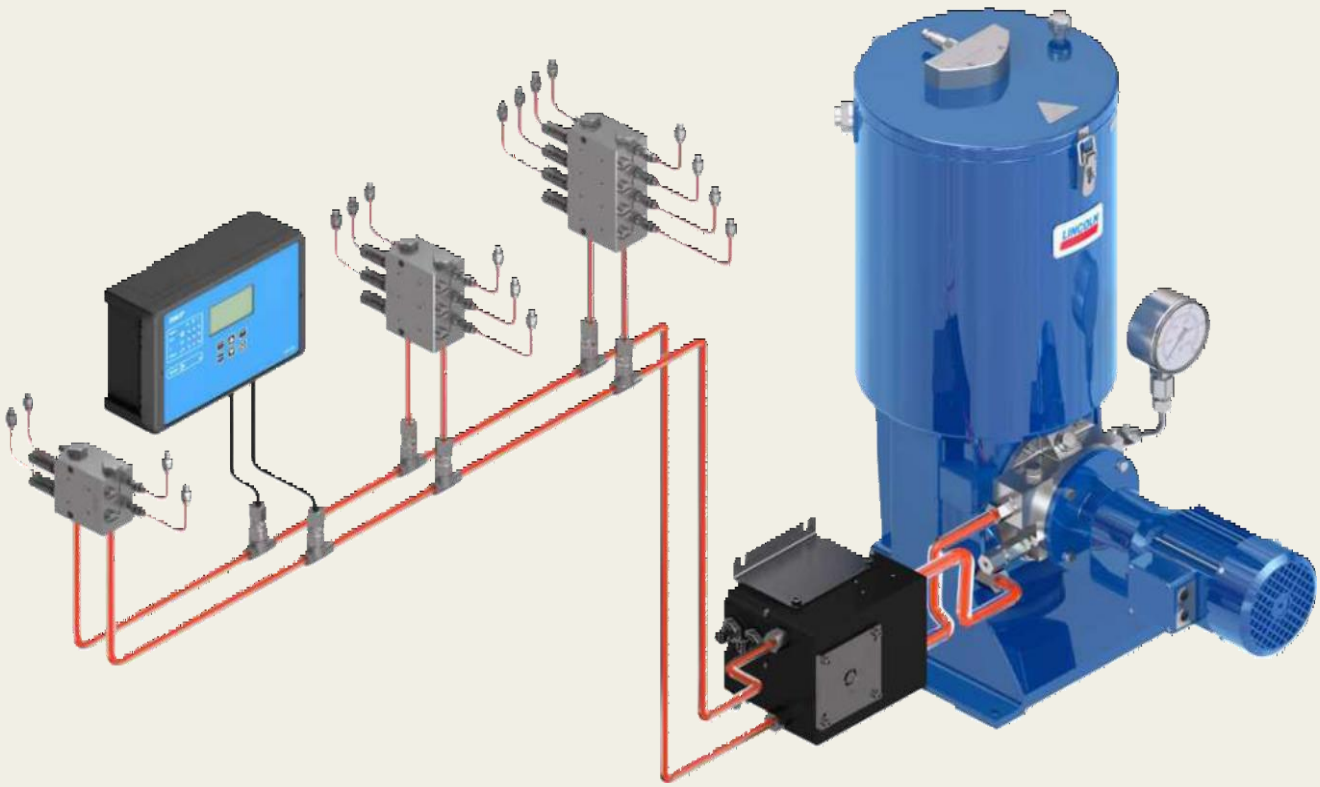
# Dual-line automatic lubrication systems

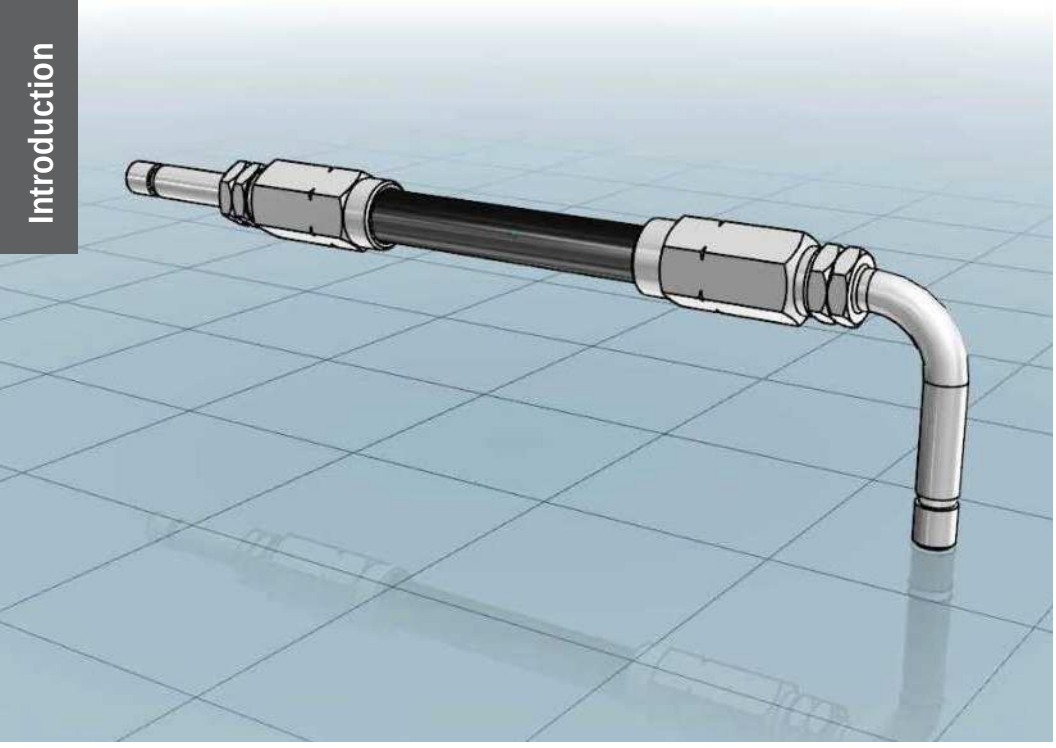
Product catalogue 2021

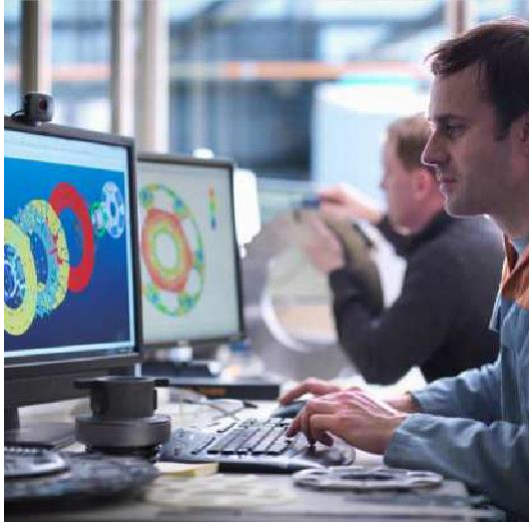


# Table of content

## Electronic part library

# CAD product data





## Find your parts online

3D CAD data, technical drawings and data sheets of SKF automatic lubrication system components are now available in native format in the online parts library In addition to enjoying easy CAD downloads, you can configure more complex lubrication system products and integrate them into your design process – completely free of charge Integrate CAD data seamlessly into your layout plans without any delay

https://skf-lubrication partcommunity com

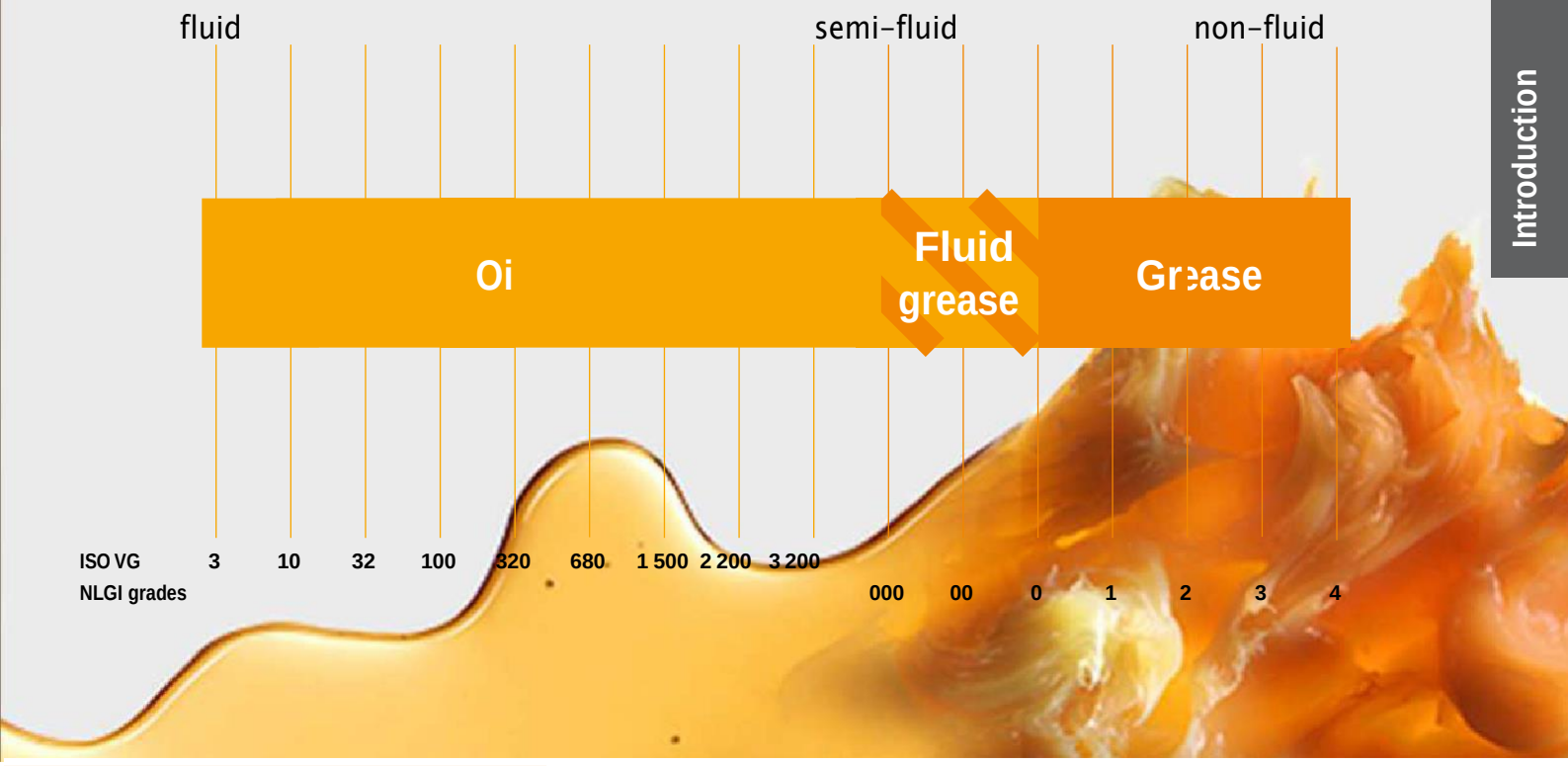
## Use the parts library app

In addition to the electronic parts library, SKF offers a mobile app that allows you to use the SKF CAD download portal for lubrication systems The LubCAD app lets you view, configure and download products and parts in the most common CAD file formats You can also download related product brochures or find an authorized distributor in your area

Apple App Store

Google Play

## Lubricants suitable for lubrication systems




### Oil and fluid grease

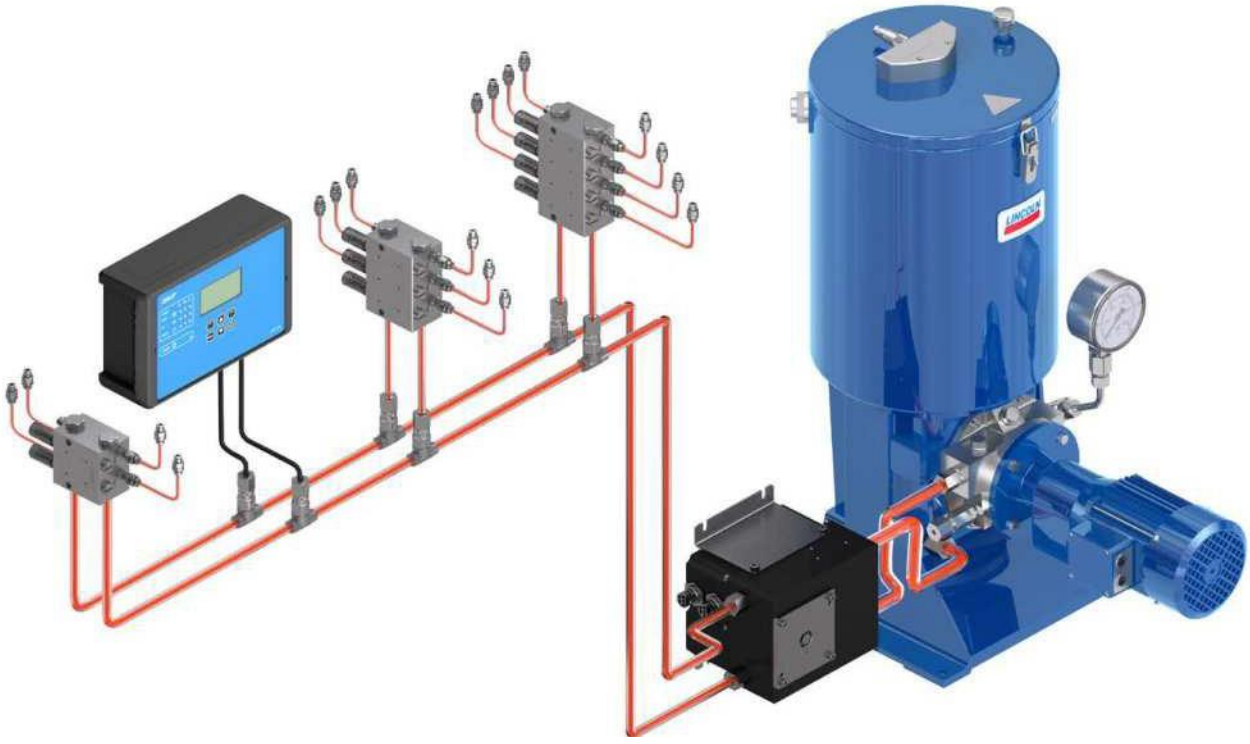
The viscosity is an expression of a fluid's internal friction Oils are classified in ISO VG viscosity classes from 2 to 3 200 NLGI grade 000, 00 and 0 greases are called fluid greases Different types of oils are available, including mineral oils, organic oils and synthetic oils A compatibility check is recommended prior to using any oil with SKF lubrication systems


### Grease

Greases are consistent lubricants (NLGI grade 1-6) They are soft to hard, triple-component mixtures of a base oil as the lubricating fluid, a thickening agent and additives In most instances, greases of NLGI grade 1 up to 3 are suitable for use in a lubrication system A compatibility check should be made prior to using any grease with SKF lubrication systems

# Dual-line lubrication systems

System video



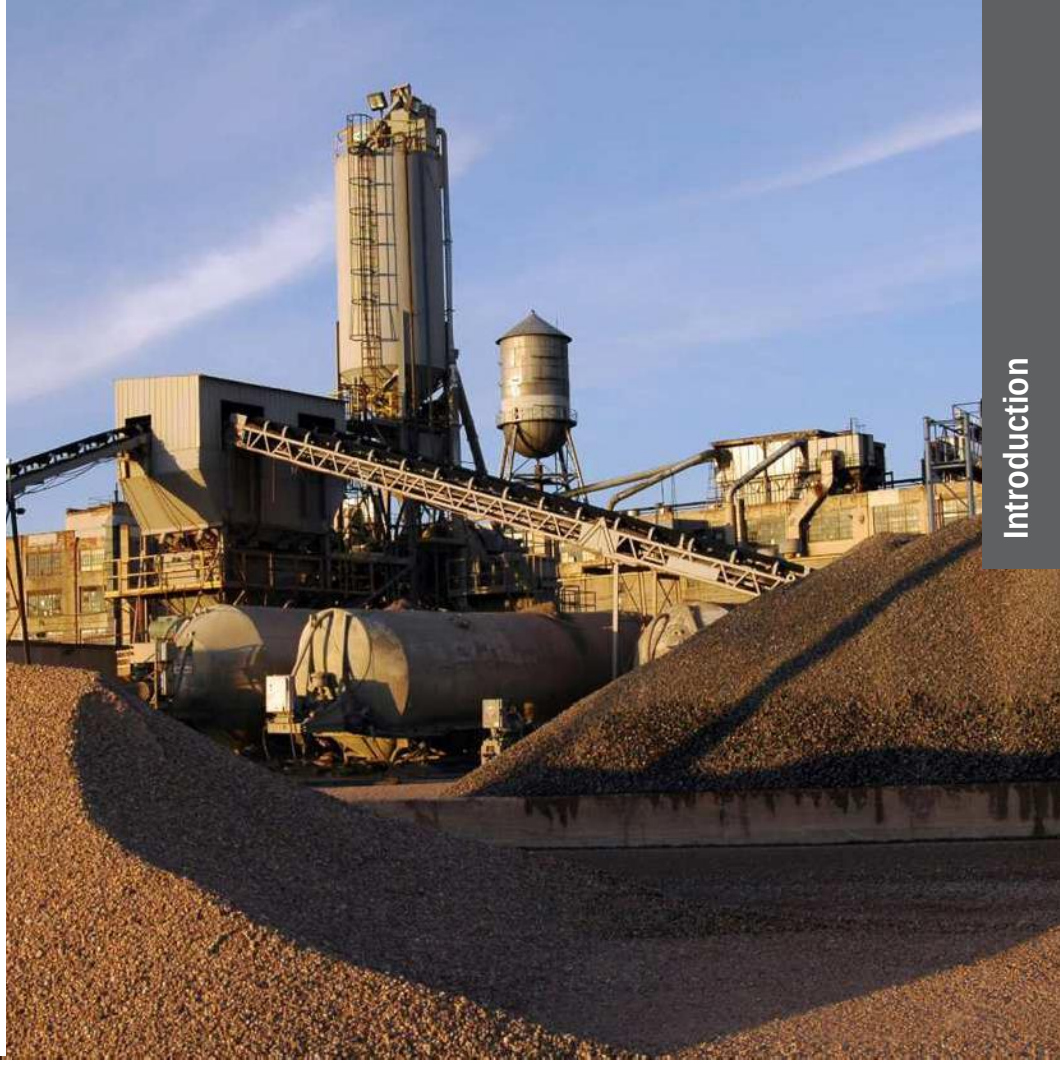
## System description

SKF dual-line systems can be used on large systems with dispersed lubrication points that require varying lubrication quantities These systems utilize two main lines that are supplied alternately with lubricant from a high-pressure pump via a change-over valve at up to 400 bar (5 800 psi) Branch lines, along the main lines, are connected with dual-line metering devices to supply a large volume of lubricant to the lubrication points Within large dual-line systems, end-of-line pressure switches are used to control and monitor the system These flexible systems are simple to design and can be extended or reduced easily by installing additional metering devices or by removing them A redesign of the system is not required Dual-line metering devices can be combined with downstream progressive metering devices to increase the total number of lubrication points receiving small lubricant amounts SKF offers dual-line systems that can dispense a precise, metered amount of lubricant to up to 2 000 lubrication points over long distances up to 120 m (131 yd) and more, depending on case values

Even if one pair of outlets becomes blocked inside one metering device, SKF dual-line systems provide sufficient lubrication for the rest of the system's lubrication points Lubricant volume can be metered individually for each pair of outlets and can be monitored visually or electrically

The function principle of the dual-line systems consists of two half-cycles In the first half-cycle, the lubricant is pumped into the main line (A) and the main line (B) is connected to the relief line The lubricant, which is conducted by the change-over valve, is supplied to the metering devices The pistons of the metering devices are moved into their adjusted end positions, thus dispensing an exact, metered quantity of grease Once all metering devices have dispensed their lubricant to the consumption point, the system is hydraulically closed, which causes the pressure in main line (A) to rise until to the preset pressure at the end-of-line pressure switch (mounted in the main lines prior the last metering device) is reached This pressure switch then signals an electric pulse to the control unit, witch turns the pump off and signals the change-over valve to relieve main line (A), and the pause time starts At this stage, half of the lubrication points in the system have been lubricated

In the second half-cycle, main line (B) is pressurized and the cycle continues as before



## Applications

SKF dual-line lubrication systems are developed for use with oil, semi-fluid grease and hard grease up to NLGI grade 2  Harder greases of NLGI grade 3 only can be used if so determined after consultation  SKF dual-line lubrication systems are suitable for a variety of applications, including heavy industry, metal working plants, pulp and paper production, mining, mineral processing, power plants, cement factories, steel works and more These reliable systems operate effectively in the harsh conditions associated with these industries, including potentially high lubrication-point back pressure, dirty, wet or humid environments and low temperatures


SKF Multilube


SKF


SKF




LINCOLN

# Overview of pump units

**Manually operated pumps**

| Product | Lubricant class | Function principle | Metering quantity max | | Reservoir | | Operation pressure max | | Page |
|---|---|---|---|---|---|---|---|---|---|
| | NLGI | | $cm^3$/stroke | *$in^3$/stroke* | l | *gal* | bar | *psi* | |
| **HJ 2** | up to 3 | Piston pump | 1 – 2 | *0.06 - 0.12* | 3 | *0.79* | 300 | *4 350* | 10 |

**Electrically operated pumps**

| Product | Lubricant class | Function principle | Metering quantity max | | Reservoir | | Operation pressure max | | Page |
|---|---|---|---|---|---|---|---|---|---|
| | NLGI | | $cm^3$/h | *$in^3$/h* | l | *gal* | bar | *psi* | |
| **Multilube** | up to 2 | Piston pump | 960 | *58.5* | 4–10 | *1.05–2.65* | 220 | *2 900* | 12 |
| **ZPU 01/02** | up to 2, 3 on request | Piston pump | 800–1 600 | *49–97.5* | 10–30 | *2.6–8* | 400 | *5 800* | 14 |
| **FK** | up to 3 | Piston pump | 740–4 440 | *45–270* | 15–60 | *4–16* | 400 | *5 800* | 16 |
| **ZPU 08/14/24** | up to 2, 3 on request | Piston pump | 8 000–24 000 | *490–1 465* | 40–100 | *10–26* | 400 | *5 800* | 18 |

| | | | | | Applicabale barrel sizes | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | $cm^3$/h | *$in^3$/h* | kg | *lb* | bar | *psi* | |
| **E-PUMP** | up to 2 | Barrel pump unit | 3 300 | *1 299* | 18, 50, 180 | *40; 120; 400* | 300 | *4 350* | 20 |

**Air - operated pumps**

| Product | Lubricant class | Function principle | Metering quantity [1] max | | Applicabale barrel sizes | | Operation pressure max | | Page |
|---|---|---|---|---|---|---|---|---|---|
| | NLGI | | $cm^3$/stroke | *$in^3$/stroke* | l | *gal* | bar | *psi* | |
| **MPB** | 1 + 2 | Piston pump for barrels | 6,1 | *0.37* | 18, 50, 180 | *40, 120, 400* | 300 | *4 350* | 22 |
| **Lubrigun** | 1 + 2 | Piston pump for barrels | 5,7 | *0.35* | 50, 180 | *120, 400* | 515 | *7 500* | 24 |
| **PowerMaster III** | 1 + 2 | Piston pump for barrels | 34–60,5 | *2.1–3.7* | 50, 180 | *120, 400* | 515 | *7 500* | 26 |

[1] Total metering quantity per time depends on air pressure, counter pressure, grease properties and ambient temperature

## Pump unit

# HJ 2

## Description

The manually operated HJ 2 pump unit was developed to provide lubricant to points that do not require continuous lubrication Comprised of two supply pistons and a 3 liter *(0.8 gal)* reservoir with an integrated stirring device, this robust pump unit operates effectively, even at low temperatures Operating pressure is 300 bar *(4 350 psi)*

## Features and benefits

- Suitable for use with dual-line or progressive systems
- Dispenses greases up to NLGI 3
- Available with left- or right-hand lever

## Applications

- Metal forming machines
- Roll straighteners
- Tyre heating presses
- Harbor cranes
- Ski lifts

**Technical data**

| | |
|---|---|
| Function principle | manually operated pump unit |
| Outlets | 1 |
| Lubricant output per stroke | 1–2 cm3, *0.06–0.12 in3* |
| Lubricant | grease: up to NLGI 3,<br>depending on operating temperature<br>oil: with a viscosity minimum<br>150 mm2/s at operating temperature |
| Operating temperature | –20 to +70 °C, *–4 to +160 °F* |
| Operating pressure | max 300 bar, *4 350 psi* |
| Hand force at max pressure | 300 N |
| Reservoir capacity | 3 l, *0.8 gal* |
| Outlet connection | G 1/4 |
| Dimensions | 410 × 135 × 393 mm<br>*16.1 × 5.5 × 15.5 in* |
| Mounting position | vertical |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Pump unit

# HJ 2

**Order information**

| Order number | Designation | Position hand lever | Outlet |
|---|---|---|---|
| **603-41200-2** | HJ 2 L-3 XYN | left | 1 |
| **603-41200-1** | HJ 2 R-3 XYN | right | 1 |

Note: for two outlet versions refer to progressive catalogue

**Check valves**

| Order number | Designation | Tube ∅ mm |
|---|---|---|
| **223-13052-1** | GERV 6-S G 1/4 AVCF | 6 |
| **223-13052-2** | GERV 8-L G 1/4 AVCF | 8 |
| **223-13052-3** | GERV 10-L G 1/4 AVCF | 10 |

Note: must be ordered wit pump

**223-13052-1**

**223-13052-2**

## Pump unit

# Multilube


## Description

The Multilube pumping unit is especially designed for heavy machines and equipments It has a very compact size, but still includes all key components and functions required for a lubrication pumping unit as control unit, pump, reservoir, directional valve and pressure monitor The Multilube pumping unit is combatible with all oil and grease metering devices used in SKF single-line, dual-line and progressive lubrication systems As one of the built-in features there is a heating device which enables also an operation in extremely cold and demanding environments Depending on application requirements, auxiliary equipment, such as sliding surface nozzles and lubrication brushes, can be used

## Features and benefits

- Durable, compact structure featuring modular design for simple installation and start up
- Two reservoir sizes available including overfill relief valve and electric low-level switch
- Double ball pumping element for operational reliability
- Filling connection equipped with filter
- External pressure relief valve
- Optional internal or external control
- Suitable for oil and grease systems

## Applications

- Paper and heavy industry
- Cranes and stackers
- Reclaimers

**Technical data**

| | |
|---|---|
| Function principle | electrically operated piston pump |
| Operating temperature | –30 to +60 °C, *–22 to +140 °F* |
| Operating pressure | max 200 bar, *2 900 psi* |
| Lubricant | grease: up to NLGI 2<br>oil: operating viscosity > 46 $mm^2/s$ |
| Metering quantity | approx 960 $cm^3/h$, *58.6 $in^3/h$* |
| Outlet connection | $G^1/_4$ |
| Electrical connections | 24 V DC; 115, 230 V AC/ 50 or 60 Hz |
| Protection class | IP 67 (IP 65 with user interface) |
| Dimensions | depending on the model<br>min 535 × 274 × 244 mm<br>max 720 × 274 × 244 mm<br>*min. 21.06 × 10.8 × 9.6 in*<br>*max. 28.35 × 10.8 × 9.6 in* |
| Reservoir capacity | 4 and 10 l, *1.05* and *2.65 gal* |
| Mounting position | horizontal and vertical |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P2 6407/2 EN**

## Pump unit

# Multilube

**Identification code** MLPI – ___ – 2 – ___ – ___ – ___

**Product series**

**MLPI** = Industrial application

**Reservoir**

**4** = 4 l, *1.06 gal*
**10** = 10 l, *2.65 gal*

**System**

**2** = DuoFlex-dual-line system

**Power supply**

**24** = 24 V DC
**115** = 115 V AC
**230** = 230 V AC

**User interface**

**IF103** = user interface
**24** = external control, control voltage 24 V DC

**Pressure control**

**PSE** = built-in pressure sensor
**EPT** = external pressure transmitter

## Pump unit

# ZPU 01/02


## Description

The ZPU 01/02 high-pressure, high-volume pumps can be used as a supply pump unit for small to midsize dual-line systems or for progressive systems Depending on the system layout, these electric pumps can supply lubricant within a 50 m (54 yd) radius at a maximum pressure of 400 bar (5 800 psi) Available with 10 or 30 l (*2.6 or 8 gal*) reservoirs, these units are compatible with oil and grease up to NLGI 2 (NLGI 3 upon request) Featuring one or two elements, the ZPU 01/02 pumps work effectively in temperatures ranging from –20 to +70 °C (*–4 to +158 °F*) thanks to the integrated stirring device

## Features and benefits

- Reliable
- Versatile
- Ultrasonic low- and high-level control options
- Free shaft end for use with other motors

## Applications

- Light to medium industrial applications
- Mixing machines
- Power plants
- Reclaimers
- Stackers

**Technical data**

| | |
|---|---|
| Function principle | electrically operated piston pump unit |
| Operating temperature | –20 to +70 °C; *–4 to +158 °F* |
| Operating pressure | M100, M490: max 350 bar, *5 075 psi*<br>M049: max 400 bar, *5 800 psi* |
| Lubricant | grease: up to NLGI 2, NLGI 3 on request<br>oil: with a viscosity of min 40 mm²/s at operating temperature |
| Metering quantity [1] | ZPU 01: 800 cm³/h, *48.8 in³/h*<br>ZPU 02: 1 600 cm³/h, *97.5 in³/h*<br>ZPU 02–M049: 3 200 cm3/h, *195.2 in³/h* |
| Reservoir capacity | 10 or 30 l, 2 6 or 8 gal |
| Main line connection [2] | model F: for tube 10 mm |
| Electrical connection | 380–420 V AC/50 Hz,<br>440–480 V AC/60 Hz |
| Protection class | IP 65 |
| Dimensions | depending on the model:<br>min 514 × 379 × 317 mm<br>max 754 × 431 × 337 mm<br>*min. 20.25 × 15 × 12.5 in*<br>*max. 29.75 × 17 × 15 in* |
| Dimensions low level sensor | 30 × 125 × 65 mm<br>*1.2 × 5 × 2.75 in* |
| Mounting position | vertical |

[1] output increase by 20% for 60 Hz applications
[2] for model E and V refer to progressive catalogue

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Pump unit

# ZPU 01/02

**Identification code** ZPU [ ] – [ ] [ ] – [ ] [ ] – F – [ ]

**Product series**

**Outlets**

**01** = 1 element
**02** = 2 elements

**Drive assemblies**

**M** = three-phase flanged motor, motor designation with extension, e g for voltage frequencies, explosion-proof design is added to the pump type code

**F** = free shaft end

**Gear ratio**

**490** = 1:490
**100** = 1:100
**049** = 1:49

**Reservoir capacity**

**10** = 10 l, *2.6 gal*
**30** = 30 l, *8 gal*

**Reservoir design**

**XYN** = reservoir without level control
**XYBU** = reservoir with low- and high-level control (ultrasonic sensor)

**Pump elements**

**F** = bracket with elements, filter block, pressure gauge and safety valve

**Extension for motor designation**

**380–420 440–480** = standard multi-range motor for 380–420 V AC/50 Hz and 440–480 V AC/60 Hz
**000** = pump without motor, with connecting flange

## Pump unit

# FK

## Description

The FK grease lubrication pump unit is suitable for use in small to midsize dual-line lubrication systems Its compact, modular construction enables it to be retrofitted from one system to another with minimal effort and expense Depending on the volume of lubricant required, this radial-piston pump unit can be equipped with up to six internal pumping elements and with optional change-over valves

Available with reservoir sizes of 15, 30 and 60 kg (*33, 66 and 132 lb*), this robust pump unit has an operating pressure of max 400 bar (*5 800 psi*)

## Features and benefits

- Positively driven pump pistons for maximum reliability
- Fill level monitoring (using ultrasonic sensors) with two adjustable switching points
- Operates effectively in temperatures ranging from -25 to +60 °C *(–13 to +140 °F)*
- Screw conveyor design permits delivery of highly viscous lubricants
- Internal pressure-regulating valve and filter
- Integrated change-over valves optional

## Applications

- Crushers
- Heavy equipment
- Rope manufacturing machinery

**Technical data**

| | |
|---|---|
| Function principle | radial piston pump unit |
| Operating temperature | -25 to +60 °C; *–13 to +140 °F*<br>with control cabinet:<br>0 to +60 °C; *+32 to +140 °F* |
| Lubricant | grease: NLGI 2 and 3<br>oil: mineral or enviromentally compatible oils from ISO VG 46,<br>operating viscosity ≥ 50 $mm^2/s$ |
| Operating pressure | max 400 bar, *max. 5 800 psi* |
| Metering quantity | see order number configurator next page |
| Reservoir | 15, 30 and 60 l; *4, 8 and 16 gal* |
| Outlet connection | G 1/2 |
| Electrical connection | motor: 230/400 V AC, 50 Hz<br>solenoid valves, sensor: 24 V DC |
| Protection class | IP 55, with control cabinet: IP 54 |
| Dimensions | depending on the model<br>598 × 335 × 990 mm<br>*23.5 × 13.2 × 39 in* |
| Mounting position | vertical |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB 3033 EN, 951-170-200-EN**

## Pump unit

# FK

**Identification code** FK [ ] – [ ] [ ] 1M 04 – [ ] – [ ] [ ] [ ] – [ ] AF 07

**Product series FK**

**Version**

**2** = Unit for dual-line centralized lubrication systems with change-over valves

**3** = Unit for dual-line centralized lubrication systems without change-over valves

**Reservoir capacity**

**15** = 15 l; *4 gal*
**30** = 30 l; *8 gal*
**60** = 60 l; *16 gal*

**Lubricant level monitoring**

**X** = without lubricant level monitoring
**U2** = Ultrasonic sensor with 2 switching points

**Drive type 1M**

**Gear ratio**

**04** = 40:1

**Delivery volume per h**

**1** = 740 cm³/h; *45 in³/h*
**2** = 1 480 cm³/h; *90 in³/h*
**3** = 2 220 cm³/h; *156 in³/h*
**4** = 2 960 cm³/h; *180 in³/h*
**5** = 3 700 cm³/h; *226 in³/h*
**6** = 4 440 cm³/h; *270 in³/h*

**Pressure-regulating valve, factory-set to**

**200** = 200 bar; *2 900 psi*
**300** = 300 bar; *4 350 psi*
**400** = 400 bar; *5 800 psi*

**Pressure gauge**

**I** = without pressure gauge
**MA** = 1 × pressure gauge
**M2** = 2 × pressure gauge

**Filler socket/Screw cap**

**0** = without filler socket
**1** = with filler socket
**2** = without filler socket, with screw cap
**3** = with filler socket and screw cap

**Version key**

**0001** = basic design
**4001** = basic design with control cabinet and control unit

**Motor data** [1)]

**AF** = motor speed 1 500 min⁻¹, rated voltage 230/400 V AC, 50 Hz

**Motor protection class**

**07** = IP 55 F as standard

1) other specifications available on request

## Pump unit

# ZPU 08/14/24

## Description

The ZPU 08/14/24 pumps are used primarily in dual-line systems or as supply pumps and have a maximum operating pressure of 400 bar (*5 800 psi*) Depending on the system layout, these electric pumps can supply lubricant at distances of up to 120 meters (*131 yd*) and more Available with a 40 or 100 l (*10 or 26 gal*) reservoir, the pressure ZPU 08/14/24 pumps come standard with a pressure relief valve, check valve, lubricant filter and a pressure gauge These robust units operate effectively at temperatures ranging from –20 to +80 °C (*–4 to +176 °F*) thanks to the integrated stirring device

## Features and benefits

- Reliable
- Simple to service
- Three options for high lubricant output
- Ultrasonic low- and high-level control options
- Built-in lubricant filter

## Applications

- Cement plants
- Steel mills
- Power plants
- Mining
- Large machines

**Technical data**

| | |
|---|---|
| Function principle | electrically operated piston pump |
| Drive speed | depending on model 60 – 180 $min^{-1}$ |
| Operating temperature | –20 to +80 °C, *–4 to +176 °F* |
| Lubricant | grease: up to NLGI 2, NLGI 3 on request<br>oil: with a viscosity of min 20 $mm^2/s$ |
| Metering quantity [1] | ZPU 08: 8 000 $cm^3/h$, *488 $in^3/h$*<br>ZPU 14: 14 000 $cm^3/h$, *855 $in^3/h$*<br>ZPU 24: 24 000 $cm^3/h$, *1 465 $in^3/h$* |
| Operating pressure | max 400 bar, *5 800 psi* |
| Reservoir capacity | 40 or 100 l, 10 or 26 gal |
| Main line connection | G 3/4 female |
| Electrical connection | 380–415V AC/50Hz,<br>420–480 V AC/60 Hz, 500 V AC/50 Hz |
| Protection class | IP 65 |
| Dimensions | depending on the model<br>min 760 × 670 × 410 mm<br>max 975 × 825 × 500 mm<br>*min. 30 × 26 × 16 in*<br>*max. 38.5 × 32.5 × 20 in* |
| Mounting position | vertical |

[1] output increase by 20% for 60 Hz applications

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Pump unit

# ZPU 08/14/24

**Identification code**

ZPU [ ] [ ] – [ ] [ ] – [ ]

**Product series**

**Metering quantity**

**08** = 8 000 cm³/h, *488 in³/h*
**14** = 14 000 cm³/h, *855 in³/h*
**24** = 24 000 cm³/h, *1 465 in³/h*

**Drive assemblies**

**F** = with free shaft end
**G** = with flanged gear motor construction IMB5
**S** = with worm gear and 3-phase motor construction IMV1
**SF** = with worm gear and shaft end, suitable for 3-phase motor construction
**S /SF** is only available for model ZPU 08

**Reservoir capacity**

**040** = 40 l, *10 gal*
**100** = 100 l, *26 gal*

**Reservoir design**

**XN** = grease reservoir, standard design
**XL** = grease reservoir with low-level control
**XB** = grease reservoir with high- and low-level control
**XYBU** = reservoir with low- and high-level control via ultrasonic sensor

**Extension for motor designation**

**380-415/440-480** = standard multi-range motor for 380–415 V AC/50 Hz, and 420–480 V AC/60 Hz
**500** = 500 V AC/50 Hz

## Pump unit

# E-PUMP

## Description

The electrical barrel pumping unit E-PUMP is a versatile barrel pump and it is especially designed for pumping oil or grease lubricants up to NLGI grade 2 into a centralized lubrication system When equipped with a change-over valve unit, as E-VALV e g or a shut-off valve as E-VALVE-S e g it can be used either in single-line, dual-line or progressive lubrication systems A complete pumping center consists of a pumping unit and a lid set EPUMP-XXX-ECO coding is referring to ECO lid sets (descending pump head with follower plate), which are suitable for greases in NLGI grades 1 and 2 while EPUMP-XXX-STA coding is referring to STA lid sets (pump head always at barrel bottom), which are suitable for oil or greases in NLGI 0, 00 and 000 classes To run E-PUMP accurately in dual-line lubrication systems an additional change-over valve needs to be implemented

## Features and benefits

- EPUMP models reflecting typical and often used barrel sizes
- Compact electrically operated pump for applications where no air supply is available
- An internal pressure control and a heating element secure the pump's function in high-pressure conditions and cold climates

## Applications

- Heavy industries (paper, steel and other process industries)
- Mining and mineral processing
- Machinery workshops
- Food and beverage
- Cement industry

**Technical data**

| | |
|---|---|
| Function principle | electrically operated pump |
| Outlets | 1 |
| Number of pump elements | 4 |
| Metering quantity | 55 g/min; *0.3880136 oz/min* |
| Operating temperature | -30 to +70 °C, *-20 to 160 °F* |
| Operating pressure | max 240 bar, *3 480 psi* |
| Lubricant | grease up to NLGI 2<br>oil up to 1 000 $mm^2/s$ |
| Supply voltage | 20-32 V DC |
| Power consumption | 150 W |
| Heater | 40W / 24V, heater resistor<br>for pump elements in ECO models |
| Display | LED's 5 yellow, 1 green, 1 red |
| Drum capacity | 18, 50 and 180 kg, *40, 120 or 400 lb*<br>drum not included |
| Pressure sensor | 50-240 bar adjustable in 25 bar steps<br>*725.1 to 3480.9 psi in 362.6 psi steps* |
| Protection class | IP 65 |
| Dimensions | depending on the model<br>min 400 × 400 × 800 mm<br>max 400 × 400 × 1 300 mm<br>*min. 15.75 × 15.75 × 31.49 in*<br>*max. 15.75 × 15.75 × 51.18 in* |
| Mounting position | vertical |

## Pump unit

# E-PUMP

**Order information**

| Order number | Designation | Lubricant | Control | Suitable barrel size | |
|---|---|---|---|---|---|
| | | | | kg | *lb* |
| **12375180** | SKF-EPUMP-1/8-ECO-24-CC | Grease up to NLGI 2 | external control unit | 18 | *40* |
| **12375100** | SKF-EPUMP-1/4-ECO-24-CC | Grease up to NLGI 2 | external control unit | 50 | *120* |
| **12375020** | SKF-EPUMP-1/1-ECO-24-CC | Grease up to NLGI 2 | external control unit | 180 | *400* |

## Accessories

**Lid sets for grease barrels**

**Lid sets for grease barrels**

| Order number | Designation | Lubricant for barrel size | | |
|---|---|---|---|---|
| | | | kg | *lb* |
| **12381280** | E-LIDSET-1/8-ECO | Grease | 18 | *40* |
| **12381285** | E-LIDSET-1/4-ECO | Grease | 50 | *120* |
| **12381290** | E-LIDSET-1/1-ECO | Grease | 180 | *400* |

## Pump unit

# MPB


## Description

The MPB pump unit is especially designed for automatic lubrication systems The unique feature in it compared to traditional air-operated barrel pump with mechanical air motor valve is its magnetically operated air motor valve This will reduce the amount of mechanical components in the air motor and also eliminates the need of lubrication in the air motor The pump is suitable for use with 18, 50 and 180 kg (40, 120 and 400 lb) lubricant barrels And when equipped with a suitable adapter MPB pump unit can also be used in lubricant bulk containers

## Features and benefits

- Lubrication-free, air motor
- Fewer mechanical components extend a service life of the air motor
- Operates effectively in wide range of temperatures
- IP 65 protection rating

## Applications

- Paper industry
- Steel industry
- Heavy industry

**Technical data**

| | |
|---|---|
| Function principle | air operated piston pump for barrels |
| Metering quantity | 850 g/min; *30 oz/min*<br>5,5 g/stroke; *0.2 oz/stroke* |
| Operating temperature | -10 to +55 °C, *14 to 131 °F* |
| Operating pressure | max 300 bar, *4 350 psi* |
| Pressure ratio | 1:65 |
| Pressure air supply | 2 to 4,5 bar, *29 to 65 psi* |
| Air consumption | max 300 l/min; 80 gal/min |
| Lubricant | grease up to NLGI 2<br>oil up to 10 000 $mm^2/s$ |
| Drum capacity | 18, 50 and 180 kg, *40, 120 or 400 lb*<br>drum not included |
| Protection class | IP 65 |
| Dimensions | depending on the model<br>min 650 × 130 × 130 mm<br>max 920 × 130 × 130 mm<br>*min. 25.6 × 5.11 × 5.11 in*<br>*max. 36.22 × 5.11 × 5.11 in* |
| Mounting position | vertical |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P8 17178 EN**

## Pump unit

# MPB

**Order information**

| Order number | Designation | Suitable barrel size | |
|---|---|---|---|
| | | kg | *lb* |
| **12381702** | SKF-MPB-PUMP-1/8 | 18 | *40* |
| **12381701** | SKF-MPB-PUMP-1/4 | 50 | *120* |
| **12381700** | SKF-MPB-PUMP-1/1 | 180 | *400* |

## Accessories

**Air regulator unit**

**Air regulator unit**

| Order number | Designation |
|---|---|
| **12382666** | MAX-V2-SET-MPB |

**Lid sets**

**Lid sets**

| Order number | Designation | Suitable barrel size | |
|---|---|---|---|
| | | kg | *lb* |
| **12381383** | MAXV2-LIDSET-1/8-ECO-MPB | 18 | *40* |
| **12381382** | MAXV2-LIDSET-1/4-ECO-MPB | 50 | *120* |
| **12381381** | MAXV2-LIDSET-1/1-ECO-MPB | 180 | *400* |
| **12381386** | MAXV2-LIDSET-1/8-STA-MPB | 18 | *40* |
| **12381385** | MAXV2-LIDSET-1/4-STA-MPB | 50 | *120* |
| **12381384** | MAXV2-LIDSET-1/1-STA-MPB | 180 | *400* |

## Pump unit

# Lubrigun

## Description

The performance-proven Lubrigun air-operated pump units are found in industrial facilities worldwide Ideal for high-pressure applications, these pumps include a powerful displacement air motor with 63,5 mm (*2.5 in*) stroke and are available for 50 kg (*120 lb*) and 180 kg (*400 lb*) drums For dual-line applications, the Lubrigun utilizes a pump hoist, return-line connection, low-level switch, maintenance unit and connection hoses

## Features and benefits

- Lightweight, zinc head casting design for corrosion resistance
- One-piece pump outlet body withstands high lubricant pressure
- Double-acting design provides high pressure and uniform delivery on both up and down strokes
- Integrated, patented muffler minimizes noise
- Pre-lubricated air motor requires no external oiler
- Pneumatically assisted mechanical air valve for positive priming
- Hardened steel plunger and bushing resist abrasion and extend pump life

## Applications

- Power plants
- Mining equipment
- Cement plants

**Technical data**

| | |
|---|---|
| Function principle | air-operated piston pump unit for barrels |
| Operating temperature | -34 to +93 °C, *-30 to +200°F* |
| Operating pressure | max 515 bar, *7 500 psi* |
| Lubricant | NLGI 1 and 2 |
| Cycles per minute [1] | max 120 |
| Metering quantity per cycle | 5,7 cm³, *0.35 in³* |
| Pressure ratio | 50:1 |
| Lubricant outlet connection | 1/4 NPTF |
| Dimensions with pump lift | 950 × 700 × 2 800 mm<br>*374 × 275 × 1 102 in* |
| Mounting position | vertical |

[1] generally approx 50 cycles/min are assumed

**Order information**

| Order number | Designation |
|---|---|
| **082054** | Lubrigun barrel pump, 180 kg, *400 lb* |
| **082050** | Lubrigun barrel pump, 50 kg, *120 lb* |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Accessories

# Lubrigun

**001709**

**Pump hoist**

| Order number | Designation |
|---|---|
| **001709** | pump hoist without pump |

### Description

Ideal for easy and clean drum change-over  Used for fast power-operated drum changing  Lifts any air-operated pump with a 60 or 200 l (15 or 55 lb) drum and lowers it into another  Can serve one or a cluster of drums from one location

**274681**

**Single-post primer**

| Order number | Designation |
|---|---|
| **274681** | single-post primer without pump |

### Description

For use with Lubrigun pumps, air-operated single-post pump hoist for 200 l (55 gal) drums performs several functions in applications of low- to medium-viscosity materials  The primer facilitates drum change-overs and includes a follower and wiper that use normal suction to help maintain pump prime The unit also includes a mounting bracket suitable for all Lubrigun pump units

## Pump unit

# PowerMaster III


## Description

Designed to fit large drums or containers, PowerMaster III pump units are ideal for lubrication systems using substantial quantities of lubricant The modular combination of various air motors with pump tubes enables optimum adaptation to lubrication system requirements The PowerMaster III is available in carbon steel to fit any drum size A complete line of priming equipment and mounting devices are offered

## Features and benefits

- Uses air motors with diameters of 76, 101, 152 and 203 mm (*3, 4, 6 or 8 in*)
- Full 152 mm (6 in) stroke for greater output per cycle
- Modular design for easy repair
- Only five moving parts and no metal-to-metal contact for longer service life
- Pump tubes provide ratios and outputs for any application
- Hydraulically operated drive motors offered for lubrication systems on hydraulic excavators
- Shovel-foot-style for high-viscosity, non-fluid materials

## Applications

- Hydraulic excavators
- Sinter plants
- Beverage bottling plants

**Technical data**

| | |
|---|---|
| Function principle | air-operated piston pump unit for barrels |
| Operating temperature | -34 to +93 °C, *-30 to +200 °F* |
| Operating pressure | max 500 bar, *7 300 psi* |
| Lubricant | NLGI 1 and 2 |
| Cycles per minute | max 70 |
| Metering quantity per cycle | 34-60,5 cm³, *2.1–3.7 in³* |
| Pressure ratio | 50:1, 75:1 (recommended for lubrication systems) |
| Lubricant outlet connection | 3/4 NPTF |
| Dimensions | 950 × 700 × 2 800 mm *374 × 275 × 1 103 in* |
| Mounting position | vertical |

**Order information**

| Order number | Designation |
|---|---|
| **002004** | PowerMaster III barrel pump with pump tube model 84997 and air motor model 84804 (ratio 75:1) |
| **084723** | PowerMaster III air motor cover kit |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB 15169 EN**

# PowerMaster III



**001709**

**Pump hoist**

| Order number | Designation |
|---|---|
| **001709** | single-post primer elevator |

## Description

This single-post elevator is ideal for quick and easy power-operated drum changes Lifts any air-operated pump from 60 and 200 l, 15 or 55 lb drum and lowers it into another Can serve one or a cluster of drums from one location

**002716**

**Single post primer**

| Order number | Designation |
|---|---|
| **002716** | single-post primer |

## Description

For use with PowerMaster III Series 2000 pumps, this air-operated, single-post pump hoist for 200 l (*55 gal)* drums performs several functions in applications of low- to medium-viscosity materials The primer facilitates drum change-overs and includes a follower and wiper that use normal suction to help maintain pump prime The unit also includes a mounting bracket for all PowerMaster III pumps

**84723**

**Air motor cover panel kit**

| Order number | Designation |
|---|---|
| **84723** | series III air motor cover panel kit |

## Description

Metal cover fits tie rods and encloses the moving plunger rod


SKF
SKF Doser monitor
A
B
SKF
BPSG-04-SS

# Overview of metering devices

**Block design metering devices**

| Product | Material housing and design | Operation pressure max | | Outlets | Metered quantity per stroke | | Page |
|---|---|---|---|---|---|---|---|
| | steel galvanized or stainless steel | bar | *psi* | | $cm^3$ | *$in^3$* | |
| **VSKH-KR** | with indicator pin, adjustable output | 400 | *5 800* | 1–8 | 0–1,5 | *0–0.09* | 30 |
| **VSKH–KRFKM** | with FKM seals | 400 | *5 800* | 1–8 | 0–1,5 | *0–0.09* | 30 |
| **VSKV–KR** | with indicator pin, adjustable output | 400 | *5 800* | 1–8 | 0–1,5 | *0–0.09* | 30 |
| **VSKV–KRFKM** | with FKM seals | 400 | *5 800* | 1–8 | 0–1,5 | *0–0.09* | 30 |
| **VSG–KR** | with indicator pin, adjustable output | 400 | *5 800* | 1–8 | 0–2,2 | *0–0.13* | 34 |
| **VSG–KRFKM** | with FKM seals | 400 | *5 800* | 1–8 | 0–2,2 | *0–0.13* | 34 |
| **VSG–KR–NP** | with piston detector | 400 | *5 800* | 1–8 | 0–2,2 | *0–0.13* | 34 |
| **VSG–KR–KA** | with adapter for limit switch | 400 | *5 800* | 2, 4, 6, 8 | 0-2,2 | *0–0.13* | 34 |
| **VSG–KR–KS** | with limit switch | 400 | *5 800* | 1–8 | 0–2,2 | *0–0.13* | 34 |
| **VSG–KR–KD, D** | with fixed metering screw | 400 | *5 800* | 1–8 | 0,55; 1,1; 1,65; 2,2 | *0.04, 0.07, 0.1, 0.13* | 34 |
| **VSL–KR** | with indicator pin, adjustable output | 400 | *5 800* | 1–8 | 0–5 | *0–0.3* | 38 |
| **VSL–KR-FKM** | with FKM seals | 400 | *5 800* | 1–8 | 0–5 | *0–0.3* | 38 |
| **VSL–KR–NP** | with piston detector | 400 | *5 800* | 1–8 | 0–5 | *0–0.3* | 38 |
| **VSL–KR–KA** | with adapter for limit switch | 400 | *5 800* | 2, 4, 6, 8 | 0-5 | *0–0.3* | 38 |
| **VSL–KR–KS** | with limit switch | 400 | *5 800* | 1–8 | 0–5 | *0–0.3* | 38 |
| **VSL–KR–KD, D** | with fixed metering screw | 400 | *5 800* | 1–8 | 1,25; 2,5; 3,75; 5 | *0.07, 0.15, 0.23, 0.3* | 38 |

**Modular design metering devices**

| Product | Material housing and design | Operation pressure max | | Outlets [1] | Metered quantity per stroke | | Page |
|---|---|---|---|---|---|---|---|
| | steel galvanized or stainless steel | bar | *psi* | | $cm^3$ | *$in^3$* | |
| **SGA** | with indicator pin, adjustable output | 250 | *3 600* | 1–12 | 0,17–4,85 | *0.01-0.29* | 42 |
| **SG** | with indicator pin, adjustable output | 250 | *3 600* | 1–12 | 4,88–98 | *0.29-5.98* | 42 |

[1] Metering device outlets 1 or 2, metering device groups up to 12 outlets (on top of base plate BPSG)

## Metering device

# VSKH / VSKV

## Description

The durable, galvanized steel VSK metering devices are designed for dual-line systems with pressures of up to 400 bar (5 800 psi) These metering devices are available with up to eight outlets, and each pair of outlets is equipped with an indicator pin for visual monitoring Also, the VSK metering devices are available with low-wear proximity switches, or piston detectors, for electrical monitoring (except VSK -D version) Additional features include rust-resistant material or rust- and acid-resistant material

## Features and benefits

- Solid-block construction for durability and error-free exchange
- Operates effectively in a wide range of temperatures
- Easy to monitor
- Available with horizontal VSKH outlets or vertical VSKV outlets for limited installation conditions
- Optional available piston detectors and limit switches

## Applications

- Cement plants
- Mining excavators
- Steel plants

**Technical data**

| | |
|---|---|
| Function principle | metering devices |
| Outlets | 1-8 |
| Operating temperature | KR:<br>max +80 °C, *+176 °F*<br>MD, KR-FKM:<br>max +120 °C, *+248 °F* |
| Operating pressure | max 400 bar, *5 800 psi* |
| Lubricant | grease up to NLGI 3,<br>oil with a viscosity of min 20 $mm^2/s$ |
| Materials | carbon steel galvanized or stainless steel |
| Metering quantity per stroke | 0-1,5 $cm^3$, *0–0.09 $in^3$*<br>or<br>fixed output Version D:<br>0,3; 0,6; 1,2; 1,5 $cm^3$<br>*0.018; 0.037; 0.073; 0.092 $in^3$*<br>order numbers on request |
| Main line connection inlet | G 1/4 |
| Outlet connection | G 1/4 |
| Dimensions | depending on the model:<br>min 124 × 52 × 57 mm<br>max 124 × 136 × 57 mm<br>*min. 4.88 × 2.05 × 2.24 in*<br>*max. 4.88 × 5.35 × 2.24 in* |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Metering device

# VSKH / VSKV

**VSKH and VSKV, with connection thread BSPP**

| Order number | | Outlets | Material | | | Indicator pin adjustable output 0–1,5 cm³ (*0–0.09 in³*) | |
|---|---|---|---|---|---|---|---|
| VSKH-KR | VSKV-KR | | Steel galvanized | Stainless steel 1 4305 / 303 | Stainless steel 1 4571 / 316 Ti | KR | FKM U-cup seal |
| **620-27438-1** | **620-27442-1** | 1 | • | – | – | • | – |
| **620-27418-1** | **620-27422-1** | 2 | • | – | – | • | – |
| **620-27439-1** | **620-27443-1** | 3 | • | – | – | • | – |
| **620-27419-1** | **620-27423-1** | 4 | • | – | – | • | – |
| **620-27440-1** | **620-27444-1** | 5 | • | – | – | • | – |
| **620-27420-1** | **620-27424-1** | 6 | • | – | – | • | – |
| **620-27441-1** | **620-27445-1** | 7 | • | – | – | • | – |
| **620-27421-1** | **620-27425-1** | 8 | • | – | – | • | – |
| **620-27488-1** | **620-27496-1** | 1 | – | • | – | • | – |
| **620-27489-1** | **620-27497-1** | 2 | – | • | – | • | – |
| **620-27490-1** | **620-27498-1** | 3 | – | • | – | • | – |
| **620-27491-1** | **620-27499-1** | 4 | – | • | – | • | – |
| **620-27492-1** | **620-27500-1** | 5 | – | • | – | • | – |
| **620-27493-1** | **620-27501-1** | 6 | – | • | – | • | – |
| **620-27494-1** | **620-27502-1** | 7 | – | • | – | • | – |
| **620-27495-1** | **620-27503-1** | 8 | – | • | – | • | – |
| **620-27766-1** | **620-27857-1** | 1 | – | – | • | • | – |
| **620-27767–1** | **620-27858-1** | 2 | – | – | • | • | – |
| **620-27768-1** | **620-27859-1** | 3 | – | – | • | • | – |
| **620-27769-1** | **620-27860-1** | 4 | – | – | • | • | – |
| **620-27770-1** | **620-27861-1** | 5 | – | – | • | • | – |
| **620-27771-1** | **620-27862-1** | 6 | – | – | • | • | – |
| **620-27772-1** | **620-27863-1** | 7 | – | – | • | • | – |
| **620-27773-1** | **620-27864-1** | 8 | – | – | • | • | – |
| **620-28409-1** | **620-28413-1** | 1 | • | – | – | • | • |
| **620-28376-1** | **620-28392-1** | 2 | • | – | – | • | • |
| **620-28410-1** | **620-28414-1** | 3 | • | – | – | • | • |
| **620-28366-1** | **620-28393-1** | 4 | • | – | – | • | • |
| **620-28411-1** | **620-28415-1** | 5 | • | – | – | • | • |
| **620-28367-1** | **620-28374-1** | 6 | • | – | – | • | • |
| **620-28412-1** | **620-28416-1** | 7 | • | – | – | • | • |
| **620-28391-1** | **620-28394-1** | 8 | • | – | – | • | • |

**VSKH–MD , with connection thread BSPP**

| Order number | Outlets | Material | | | Metering quantity max | |
|---|---|---|---|---|---|---|
| | | Metering device | Regulating sleeve | Protection cap | cm³ | *in³* |
| **620-41086-1** | 2 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41122-1** | 2 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41086-5** | 3 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41086-2** | 4 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41122-2** | 4 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41086-6** | 5 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41086-3** | 6 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41122-3** | 6 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41086-7** | 7 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41086-4** | 8 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41122-4** | 8 | steel, galvanized | brass | plastic | 1,50 | *0.09* |

## Metering device

# VSKH / VSKV

**VSKV–MD , with connection thread BSPP**

| Order number | Outlets | Material | | | Metering quantity max | |
|---|---|---|---|---|---|---|
| | | Metering device | Regulating sleeve | Protection cap | cm³ | *in³* |
| **620-41123-2** | 2 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41089-2** | 2 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41123-4** | 4 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41089-4** | 4 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41123-6** | 6 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41089-6** | 6 | steel, galvanized | brass | brass | 1,50 | *0.09* |
| **620-41123-8** | 8 | steel, galvanized | brass | plastic | 1,50 | *0.09* |
| **620-41089-8** | 8 | steel, galvanized | brass | brass | 1,50 | *0.09* |

## Accessories

**Metering screw for VSKH/VSKV**

| Order number | Output | | Material |
|---|---|---|---|
| | cm³ | *in³* | |
| **303-19351-1** | 0,30 | *0.018* | Steel |
| **303-19352-1** | 0,60 | *0.037* | Steel |
| **303-19354-1** | 1,20 | *0.073* | Steel |
| **303-19375-1** | 1,50 | *0.091* | Steel |
| **303-19356-1** | 0,30 | *0.018* | Stainless steel 1 4571/316 Ti |
| **303-19357-1** | 0,60 | *0.037* | Stainless steel 1 4571/316 Ti |
| **303-19359-1** | 1,20 | *0.073* | Stainless steel 1 4571/316 Ti |
| **303-19374-1** | 1,50 | *0.091* | Stainless steel 1 4571/316 Ti |

**Extensions for VSK, VSG and VSL**

| Order number | Model |
|---|---|
| **420-23628-1** | VSKH |
| **420-23790-1** | VSKH, 1 4305 |

## Accessories

# VSKH / VSKV

**520-33075-1**

**Magnetic indicator for VSKH/VSKV**

| Order number | Output setting | | Protection cap material |
|---|---|---|---|
| | $cm^3$ | *$in^3$* | |
| **520-33109-1** | 0,30 | *0.018* | Brass |
| **520-33110-1** | 0,60 | *0.037* | Brass |
| **520-33112-1** | 1,20 | *0.073* | Brass |
| **520-33075-1** | 1,50 | *0.091* | Brass |
| **520-33266-1** | 0,30 | *0.018* | Plastic |
| **520-33267-1** | 0,60 | *0.037* | Plastic |
| **520-33268-1** | 1,20 | *0.073* | Plastic |
| **520-33269-1** | 1,50 | *0.091* | Plastic |

**VSG4–KR with welding plate and extension**

**Welding plates for VSK, VSG and VSL**

| Order number | Model |
|---|---|
| **432-23698-1** | VSK2 |
| **432-23699-1** | VSK4 |
| **432-23700-1** | VSK6 |
| **432-23701-1** | VSK8 |
| **432-21791-1** | VSG2/VSL2 |
| **432-21792-1** | VSG4/VSL4 |
| **432-21793-1** | VSG6/VSL6 |
| **432-21794-1** | VSG8/VSL8 |

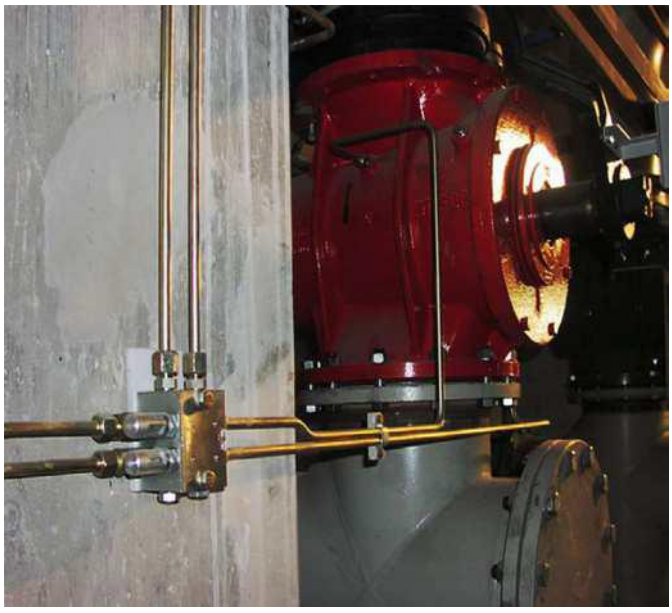
**223-13052-1**

**Check valve**

| Order number | Tube | Designation |
|---|---|---|
| | ∅ mm | |
| **223-13052-1** | 6 | GERV 6-S G 1/4 AVCF |
| **223-13052-2** | 8 | GERV 8-L G 1/4 AVCF |
| **223-13052-3** | 10 | GERV 10-L G 1/4 AVCF |

## Metering device

# VSG



## Description

The durable, galvanized steel VSG metering devices are designed for dual-line systems with pressures of up to 400 bar (5 800 psi) These metering devices are available with up to eight outlets, and each pair of outlets is equipped with an indicator pin for visual monitoring Also, the VSG metering devices are available with low-wear proximity switches, or piston detectors, for electrical monitoring (except VSG-D version) Additional features include rust-resitant material or rust- and acid-resistant material

## Features and benefits

- Easy cross-porting with external screw to combine
- Solid-block construction for durability and error-free exchange
- Operates effectively in a wide range of temperatures
- Easy to monitor

## Applications

- Steel plants
- Cement plants
- Mining excavators

**Technical data**

| | |
|---|---|
| Function principle | metering devices |
| Outlets | 1-8 |
| Operating temperature | KR- , KD, D:<br>max +80 °C, *+176 °F*<br>MD, KR-FKM:<br>max +120 °C, *+248 °F* |
| Lubricant | grease up to NLGI 3,<br>oil with a viscosity of min 20 $mm^2/s$ |
| Operating pressure | max 400 bar, *5 800 psi* |
| Materials | carbon steel galvanized or stainless steel |
| Metering quantity per stroke | 0-2,2 $cm^3$ , *0-0.13 $in^3$*<br>or fixed output Version D:<br>0,55; 1,1; 1,65; 2,2 $cm^3$,<br>*0.033; 0.067; 0.01; 0.13 $in^3$*<br>order numbers on request |
| Main line connection inlet | G $^3/_8$, $^3/_8$ NPTF |
| Outlet connection | G $^1/_4$, $^1/_4$ NPTF |
| Dimensions | min 148 × 94 × 54 mm<br>max 148 × 190 × 54 mm<br>*min. 5.83 × 3.70 × 2.13 in*<br>*max. 5.83 × 7.48 × 2.13 in* |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Metering device

# VSG

**VSG**

| Order number | | Outlets | Material | | | | Indicator pin adjustable output | |
|---|---|---|---|---|---|---|---|---|
| BSPP | NPTF | | Steel galvanized | Steel nickel-plated | Stainless steel 1 4305/303 | Stainless steel 1 4571/316Ti | KR | FKM U-cup seal |
| **620-40022-1** | **620-40022-2** | 1 | • | – | – | – | • | – |
| **620-40015-1** | **620-40015-2** | 2 | • | – | – | – | • | – |
| **620-40022-3** | **620-40022-4** | 3 | • | – | – | – | • | – |
| **620-40015-3** | **620-40015-4** | 4 | • | – | – | – | • | – |
| **620-40022-5** | **620-40022-6** | 5 | • | – | – | – | • | – |
| **620-40015-5** | **620-40015-6** | 6 | • | – | – | – | • | – |
| **620-40022-7** | **620-40022-8** | 7 | • | – | – | – | • | – |
| **620-40015-7** | **620-40015-8** | 8 | • | – | – | – | • | – |
| **620-41321-1** | **–** | 1 | – | • | – | – | • | – |
| **620-41321-2** | **–** | 2 | – | • | – | – | • | – |
| **620-41321-3** | **–** | 3 | – | • | – | – | • | – |
| **620-41321-4** | **–** | 4 | – | • | – | – | • | – |
| **620-41321-5** | **–** | 5 | – | • | – | – | • | – |
| **620-41321-6** | **–** | 6 | – | • | – | – | • | – |
| **620-41321-7** | **–** | 7 | – | • | – | – | • | – |
| **620-41321-8** | **–** | 8 | – | • | – | – | • | – |
| **620-40567-1** | **–** | 1 | – | – | • | – | • | – |
| **620-40567-2** | **–** | 2 | – | – | • | – | • | – |
| **620-40567-3** | **–** | 3 | – | – | • | – | • | – |
| **620-40567-4** | **–** | 4 | – | – | • | – | • | – |
| **620-40567-5** | **–** | 5 | – | – | • | – | • | – |
| **620-40567-6** | **–** | 6 | – | – | • | – | • | – |
| **620-40567-7** | **–** | 7 | – | – | • | – | • | – |
| **620-40567-8** | **–** | 8 | – | – | • | – | • | – |
| **620-40839-1** | **–** | 1 | – | – | – | • | • | • |
| **620-40839-2** | **–** | 2 | – | – | – | • | • | • |
| **620-40839-3** | **–** | 3 | – | – | – | • | • | • |
| **620-40839-4** | **–** | 4 | – | – | – | • | • | • |
| **620-40839-5** | **–** | 5 | – | – | – | • | • | • |
| **620-40839-6** | **–** | 6 | – | – | – | • | • | • |
| **620-40839-7** | **–** | 7 | – | – | – | • | • | • |
| **620-40839-8** | **–** | 8 | – | – | – | • | • | • |
| **620-40525-2** | **–** | 1 | • | – | – | – | • | • |
| **620-40525-1** | **–** | 2 | • | – | – | – | • | • |
| **620-40525-3** | **–** | 3 | • | – | – | – | • | • |
| **620-40525-4** | **–** | 4 | • | – | – | – | • | • |
| **620-40525-5** | **–** | 5 | • | – | – | – | • | • |
| **620-40525-6** | **–** | 6 | • | – | – | – | • | • |
| **620-40525-7** | **–** | 7 | • | – | – | – | • | • |
| **620-40525-8** | **–** | 8 | • | – | – | – | • | • |

## Metering device

# VSG

**Order numbers VSG**

| Connection thread BSPP | NPTF | Outlets | Material Steel galvanized | Indication and monitoring Indicator pin adjustable KR | Piston detector NP | Adapter for limit switch KA [1] | Limit switch KS | Indicator pin; fixed output; metering screws KD [2] | Metering screws D [2] |
|---|---|---|---|---|---|---|---|---|---|
| **620-40733-1** | – | 1 | · | · | · | – | – | – | – |
| **620-40733-2** | – | 2 | · | · | · | – | – | – | – |
| **620-40733-3** | – | 3 | · | · | · | – | – | – | – |
| **620-40733-4** | – | 4 | · | · | · | – | – | – | – |
| **620-40733-5** | – | 5 | · | · | · | – | – | – | – |
| **620-40733-6** | – | 6 | · | · | · | – | – | – | – |
| **620-40733-7** | – | 7 | · | · | · | – | – | – | – |
| **620-40733-8** | – | 8 | · | · | · | – | – | – | – |
| **620-40605-1** | – | 1 | · | · | – | · | – | – | – |
| **620-40605-2** | – | 2 | · | · | – | · | – | – | – |
| **620-40605-3** | – | 1 | · | · | – | · | – | – | – |
| **620-40605-4** | – | 4 | · | · | – | · | – | – | – |
| **620-40605-5** | – | 1 | · | · | – | · | – | – | – |
| **620-40605-6** | – | 6 | · | · | – | · | – | – | – |
| **620-40605-7** | – | 7 | · | · | – | · | – | – | – |
| **620-40605-8** | – | 8 | · | · | – | · | – | – | – |
| **620-40027-1** | **620-40027-2** | 1 | · | · | – | – | · | – | – |
| **620-40027-3** | **620-40027-4** | 2 | · | · | – | – | · | – | – |
| **620-40027-5** | **620-40027-6** | 3 | · | · | – | – | · | – | – |
| **620-40027-7** | **620-40027-8** | 4 | · | · | – | – | · | – | – |
| **620-40028-1** | **620-40028-2** | 5 | · | · | – | – | · | – | – |
| **620-40028-3** | **620-40028-4** | 6 | · | · | – | – | · | – | – |
| **620-40028-5** | **620-40028-6** | 7 | · | · | – | – | · | – | – |
| **620-40028-7** | **620-40028-8** | 8 | · | · | – | – | · | – | – |
| **620-40023-1** | **620-40023-2** | 1 | · | – | – | – | – | · | – |
| **620-40023-3** | **620-40023-4** | 2 | · | – | – | – | – | · | – |
| **620-40023-5** | **620-40023-6** | 3 | · | – | – | – | – | · | – |
| **620-40023-7** | **620-40023-8** | 4 | · | – | – | – | – | · | – |
| **620-40024-1** | **620-40024-2** | 5 | · | – | – | – | – | · | – |
| **620-40024-3** | **620-40024-4** | 6 | · | – | – | – | – | · | – |
| **620-40024-5** | **620-40024-6** | 7 | · | – | – | – | – | · | – |
| **620-40024-7** | **620-40024-8** | 8 | · | – | – | – | – | · | – |
| **620-40025-1** | **620-40025-2** | 1 | · | – | – | – | – | – | · |
| **620-40025-3** | **620-40025-4** | 2 | · | – | – | – | – | – | · |
| **620-40025-5** | **620-40025-6** | 3 | · | – | – | – | – | – | · |
| **620-40025-7** | **620-40025-8** | 4 | · | – | – | – | – | – | · |
| **620-40026-1** | **620-40026-2** | 5 | · | – | – | – | – | – | · |
| **620-40026-3** | **620-40026-4** | 6 | · | – | – | – | – | – | · |
| **620-40026-5** | **620-40026-6** | 7 | · | – | – | – | – | – | · |
| **620-40026-7** | **620-40026-8** | 8 | · | – | – | – | – | – | · |

[1] thread M12×1

[2] fixed output 0,55; 1,1; 1,65; 2,2 cm3; *0.033; 0.067; 0.01; 0.13 in3*

**Check valves**

| Order number | Tube | Designation |
|---|---|---|
| | ∅ mm | |
| **223-13052-1** | 6 | GERV 6-S G 1/4 AVCF |
| **223-13052-2** | 8 | GERV 8-L G 1/4 AVCF |
| **223-13052-3** | 10 | GERV 10-L G 1/4 AVCF |

## Metering device

# VSG

**VSG–MD , with connection thread BSPP**

| Order number | Outlets | Material | | | Metering quantity max | |
|---|---|---|---|---|---|---|
| | | Metering device | Regulating sleeve | Protection cap | cm³ | *in³* |
| **620-41081-7** | 1 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41124-1** | 1 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-4** | 2 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41124-2** | 2 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41124-3** | 3 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-8** | 3 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41081-5** | 4 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41124-4** | 4 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-6** | 6 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41124-6** | 6 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-1** | 8 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41133-1** | 1 | stainless steel, 1 4571 | stainless steel, 1 4571 | stainless steel, 1 4571 | 2,20 | *0.13* |
| **620-41133-9** | 2 | stainless steel, 1 4571 | stainless steel, 1 4571 | stainless steel, 1 4571 | 2,20 | *0.13* |
| **620-41133-3** | 3 | stainless steel, 1 4571 | stainless steel, 1 4571 | stainless steel, 1 4571 | 2,20 | *0.13* |
| **620-41133-5** | 4 | stainless steel, 1 4571 | stainless steel, 1 4571 | stainless steel, 1 4571 | 2,20 | *0.13* |
| **620-41133-7** | 6 | stainless steel, 1 4571 | stainless steel, 1 4571 | stainless steel, 1 4571 | 2,20 | *0.13* |
| **620-41124-7** | 7 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-2** | 7 | steel, galvanized | brass | brass | 2,20 | *0.13* |
| **620-41124-8** | 8 | steel, galvanized | brass | plastic | 2,20 | *0.13* |
| **620-41081-1** | 8 | steel, galvanized | brass | brass | 2,20 | *0.13* |

## Accessories

**Welding plates for VSG and VSL**

| Order number | Model |
|---|---|
| **432-21791-1** | VSG2/VSL2 |
| **432-21792-1** | VSG4/VSL4 |
| **432-21793-1** | VSG6/VSL6 |
| **432-21794-1** | VSG8/VSL8 |

**Extensions for VSG and VSL**

| Order number | Model |
|---|---|
| **420-23872-1** | VSG, 1 4305 |
| **420-22139-1** | VSG |
| **420-24832-1** | VSL |
| **420-22140-1** | VSL |

**Metering screw for VSG**

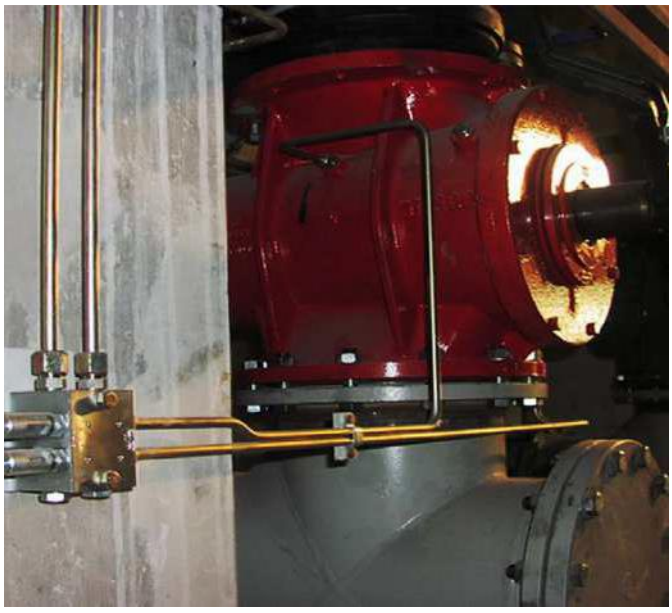
| Order number | Output | | Material |
|---|---|---|---|
| | cm³ | *in³* | |
| **303-17505-1** | 0,55 | *0.33* | steel |
| **303-17506-1** | 1,10 | *0.67* | steel |
| **303-17507-1** | 1,65 | *0.10* | steel |
| **303-17508-1** | 2,2 | *0.13* | steel |
| **303-16283-1** | 0,55 | *0.33* | stainless steel 1 4305/303 |
| **303-16698-1** | 1,10 | *0.67* | stainless steel 1 4305/303 |
| **303-16760-1** | 1,65 | *0.10* | stainless steel 1 4305/303 |
| **303-19759-1** | 2,2 | *0.13* | stainless steel 1 4305/303 |
| **303-16696-1** | 0,55 | *0.33* | stainless steel 1 4571/316Ti |
| **303-16695-1** | 1,10 | *0.67* | stainless steel 1 4571/316Ti |
| **303-16694-1** | 1,65 | *0.10* | stainless steel 1 4571/316Ti |
| **303-16224-1** | 2,2 | *0.13* | stainless steel 1 4571/316Ti |

**Magnetic indicator for VSG**

| Order number | Metering quantity | | Protection cap material |
|---|---|---|---|
| | cm³ | *in³* | |
| **520-33105-1** | 0,55 | *0.033* | brass |
| **520-33106-1** | 1,10 | *0.043* | brass |
| **520-33107-1** | 1,65 | *0.065* | brass |
| **520-33073-1** | 2,20 | *0.087* | brass |
| **520-33270-1** | 0,55 | *0.033* | plastic |
| **520-33271-1** | 1,10 | *0.043* | plastic |
| **520-33272-1** | 1,65 | *0.065* | plastic |
| **520-33273-1** | 2,20 | *0.087* | plastic |

## Metering device

# VSL



## Description

The durable, galvanized steel VSL metering devices are designed for dual-line systems with pressures of up to 400 bar (5 800 psi) These metering devices are available with up to eight outlets, and each pair of outlets is equipped with an indicator pin for visual monitoring Also, the VSL metering devices are available with low-wear proximity switches, or piston detectors, for electrical monitoring Additional features include rust-resitant material

## Features and benefits

- Easy cross-porting with external screw to combine
- Solid-block construction for durability and error-free exchange
- Operates effectively in a wide range of temperatures
- Easy to monitor

## Applications

- Steel plants
- Cement plants
- Mining excavators

**Technical data**

| | |
|---|---|
| Function principle | metering devices |
| Outlets | 2–8 |
| Operating temperature | KR, KA, KD, D:<br>max +80 °C, *+176 °F*<br>MD, KR-FKM:<br>max +120 °C, *+248 °F* |
| Lubricant | grease up to NLGI 3<br>oil with a viscosity of min 20 $mm^2/s$ |
| Operating pressure | max 400 bar, *5 800 psi* |
| Materials | steel galvanized or stainless steel<br>1 4305/303 on request |
| Metering quantity per stroke | 0–5 $cm^3$, *0–0.3 $in^3$*<br>or<br>fixed output:<br>1 25; 2,5; 3,75; 5 $cm^3$,<br>*0.076; 0.15; 0.23; 0.31 $in^3$,*<br>order number on request |
| Main line connection inlet | G $^3/_8$, $^3/_8$ NPTF |
| Outlet connection | G $^1/_4$, $^1/_4$ NPTF |
| Dimensions | min 148 × 94 × 54 mm<br>max 148 × 220 × 54 mm<br>*min. 5.83 × 3.70 × 2.13 in*<br>*max. 5.83 × 8.66 × 2.13 in* |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Metering device

# VSL

**VSL carbon steel galvanized**

| Order number BSPP | NPTF | Outlets | Material Steel galvanized | Indication and monitoring Indicator pin adjustable output KR | FKM U-cup seal | Piston detector NP | Adapter for limit switch KA [1] | Limit switch KS |
|---|---|---|---|---|---|---|---|---|
| **620-40062-1** | **620-40062-2** | 1 | · | · | – | – | – | – |
| **620-40062-3** | **620-40062-4** | 2 | · | · | – | – | – | – |
| **620-40062-5** | **620-40062-6** | 3 | · | · | – | – | – | – |
| **620-40062-7** | **620-40062-8** | 4 | · | · | – | – | – | – |
| **620-40064-1** | **620-40064-2** | 5 | · | · | – | – | – | – |
| **620-40064-3** | **620-40064-4** | 6 | · | · | – | – | – | – |
| **620-40064-5** | **620-40064-6** | 7 | · | · | – | – | – | – |
| **620-40064-7** | **620-40064-8** | 8 | · | · | – | – | – | – |
| **620-40527-1** | – | 1 | · | · | · | – | – | – |
| **620-40526-1** | **620-40937-2** | 2 | · | · | · | – | – | – |
| **620-40526-9** | – | 3 | · | · | · | – | – | – |
| **620-40526-4** | **620-40937-4** | 4 | · | · | · | – | – | – |
| **620-40526-5** | – | 5 | · | · | · | – | – | – |
| **620-40526-6** | **620-40937-6** | 6 | · | · | · | – | – | – |
| **620-40526-7** | – | 7 | · | · | · | – | – | – |
| **620-40526-8** | **620-40937-8** | 8 | · | · | • | – | – | – |
| **620-40853-1** | – | 1 | · | · | – | · | – | – |
| **620-40853-2** | – | 2 | · | · | – | · | – | – |
| **620-40853-3** | – | 3 | · | · | – | · | – | – |
| **620-40853-4** | – | 4 | · | · | – | · | – | – |
| **620-40853-6** | – | 6 | · | · | – | · | – | – |
| **620-40853-8** | – | 8 | · | · | – | • | – | – |
| **620-40637-2** | – | 2 | · | · | – | – | · | – |
| **620-40637-4** | – | 4 | · | · | – | – | · | – |
| **620-40637-6** | – | 6 | · | · | – |  | · | – |
| **620-40637-8** | – | 8 | · | · | – | – | • | – |
| **620-40068-1** | **620-40068-2** | 1 | · | · | – | – | – | · |
| **620-40068-3** | **620-40068-4** | 2 | · | · | – | – | – | · |
| **620-40068-5** | **620-40068-6** | 3 | · | · | – | – | – | · |
| **620-40068-7** | **620-40068-8** | 4 | · | · | – | – | – | · |
| **620-40069-1** | **620-40069-2** | 5 | · | · | – | – | – | · |
| **620-40069-3** | **620-40069-4** | 6 | · | · | – | – | – | · |
| **620-40069-5** | **620-40069-6** | 7 | · | · | – | – | – | · |
| **620-40069-7** | **620-40069-8** | 8 | · | · | – | – | – | · |

[1] thread M12x1

**VSL**

| Order number BSPP | NPTF | Outlets | Material Carbon steel galvanized | Indication and monitoring Indicator pin; fixed output; metering screw KD [1] | Metering screw D [1] |
|---|---|---|---|---|---|
| **620-40065-1** | **620-40065-2** | 1 | · | · | – |
| **620-40065-3** | **620-40065-4** | 2 | · | · | – |
| **620-40065-5** | **620-40065-6** | 3 | · | · | – |
| **620-40065-7** | **620-40066-8** | 4 | · | · | – |
| **620-40066-1** | **620-40066-2** | 5 | · | · | – |
| **620-40066-3** | **620-40066-4** | 6 | · | · | – |
| **620-40066-5** | **620-40066-6** | 7 | · | · | – |
| **620-40066-7** | **620-40066-8** | 8 | · | · | – |
| **620-40063-1** | **620-40063-2** | 1 | · | – | · |
| **620-40063-3** | **620-40063-4** | 2 | · | – | · |
| **620-40063-5** | **620-40063-6** | 3 | · | – | · |
| **620-40063-7** | **620-40063-8** | 4 | · | – | · |
| **620-40067-1** | **620-40067-2** | 5 | · | – | · |
| **620-40067-3** | **620-40067-4** | 6 | · | – | · |
| **620-40067-5** | **620-40067-6** | 7 | · | – | · |
| **620-40067-7** | **620-40067-8** | 8 | · | – | · |

[1] also available: 1,25; 2,5; 3,75 cm³, *0.07, 0.15, 0.228 in³*

## Metering device

# VSL

**VSL–MD , with connection thread BSPP**

| Order number | Outlets | Material | | | Metering quantity max | |
|---|---|---|---|---|---|---|
| | | Metering device | Regulating sleeve | Protection cap | cm³ | *in³* |
| **620-41125-1** | 1 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41079-6** | 1 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41079-2** | 2 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41125-2** | 2 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41125-3** | 3 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41079-7** | 3 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41079-4** | 4 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41125-4** | 4 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41125-5** | 5 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41079-8** | 5 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41079-5** | 6 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41125-6** | 6 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41125-7** | 7 | steel, galvanized | brass | plastic | 5,00 | *0.30* |
| **620-41079-9** | 7 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41079-3** | 8 | steel, galvanized | brass | brass | 5,00 | *0.30* |
| **620-41125-8** | 8 | steel, galvanized | brass | plastic | 5,00 | *0.30* |

**Metering screw for VSL**

| Order number | Metering quantity | | Material |
|---|---|---|---|
| | cm³ | *in³* | |
| **303-17509-1** | 1,25 | *0.49* | steel |
| **303-17510-1** | 2,50 | *0.98* | steel |
| **303-17511-1** | 3,75 | *1.48* | steel |
| **303-17512-1** | 5,00 | *1.97* | steel |
| **303-16106-1** | 2,50 | *0.98* | stainless steel 1 4305/303 |
| **303-19809-1** | 3,75 | *1.48* | stainless steel 1 4305/303 |
| **303-19760-1** | 5,00 | *1.97* | stainless steel 1 4305/303 |

**Extensions for VSL**

| Order number | Model |
|---|---|
| **420-24832-1** | VSL |
| **420-22140-1** | VSL |

## Accessories

# VSL

**223-13052-1**

**Check valve**

| Order number | Tube | Designation |
|---|---|---|
| | ∅ mm | |
| **223-13052-1** | 6 | GERV 6-S G 1/4 AVCF |
| **223-13052-2** | 8 | GERV 8-L G 1/4 AVCF |
| **223-13052-3** | 10 | GERV 10-L G 1/4 AVCF |

**VSG4–KR with welding plate and extension**

**Welding plate for VSG and VSL**

| Order number | Model |
|---|---|
| **432-21791-1** | VSG2/VSL2 |
| **432-21792-1** | VSG4/VSL4 |
| **432-21793-1** | VSG6/VSL6 |
| **432-21794-1** | VSG8/VSL8 |

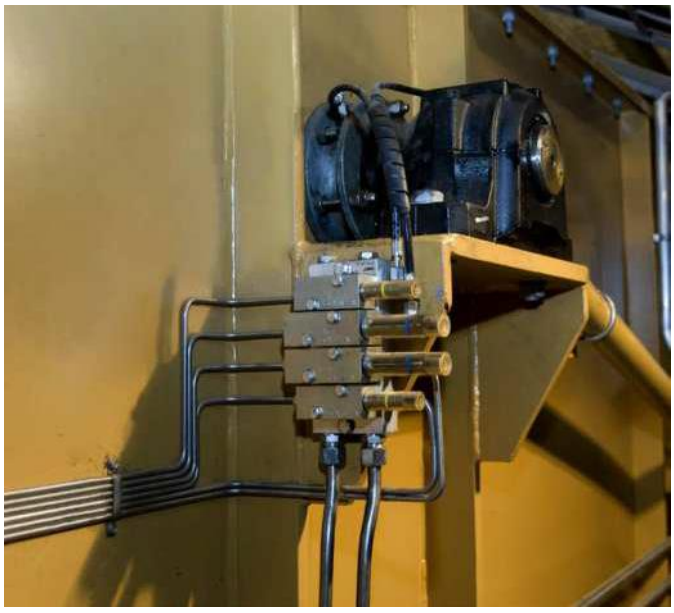
**520-33277-1**

**Magnetci indicator for VSL**

| Order number | Metering quantity | | Protection cap material |
|---|---|---|---|
| | $cm^3$ | *$in^3$* | |
| **520-33103-1** | 1,25 | *0.49* | brass |
| **520-33104-1** | 2,50 | *0.98* | brass |
| **520-33108-1** | 3,75 | *1.48* | brass |
| **520-33074-1** | 5,00 | *1.97* | brass |
| **520-33274-1** | 1,25 | *0.49* | plastic |
| **520-33275-1** | 2,50 | *0.98* | plastic |
| **520-33276-1** | 3,75 | *1.48* | plastic |
| **520-33277-1** | 5,00 | *1.97* | plastic |

## Metering device

# SGA/SG



## Description

Designed for use in dual-line lubrication systems, SGA and SG metering devices feature a modular design with separate base plate that makes system modification simple Made of zinc-coated carbon steel or stainless steel, these metering devices are installed on aluminium or stainless steel BPSG base plates Available in six basic sizes, the SGA and SG metering devices meet industrial needs ranging from small joints to large roller bearings

## Features and benefits

- Versatile and durable
- Modular units provide easy system modification and maintenance without costly piping work
- Manufactured from zinc-coated carbon steel or stainless steel AISI-316 L to resist corrosion
- Suitable for lubricants up to NLGI 2

## Applications

- Paper industry
- Steel Industry
- Heavy industry

**Technical data**

| | |
|---|---|
| Function principle | metering devices |
| Outlets | 1-12 |
| Operating temperature | -25 to +80 °C, *-13 to +176 °F* |
| Lubricant | oil and greases NLGI 000-2 |
| Operating pressure | SGA 01:<br>max 250 bar, *3 625 psi*<br>SG/SGA 1-5:<br>max 300 bar, *4 350 psi* |
| Material | carbon steel galvanized or stainless steel |
| Metering quantity per stroke | 0,15-177 cm³, *0.01-10.8 in³* |
| Outlet connection | BSPP and NPTF |
| Dimensions | min 73 × 30 × 30 mm<br>max 307 × 62 × 60 mm<br>*min. 2.87 × 1.18 × 1.18 in*<br>*max. 12.08 × 2.44 × 2.36 in* |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P8 11277 EN**

## Metering device

# SGA/SG

**Order information**

| Order number | Designation | Output per outlet | | Outlets | Material | | |
|---|---|---|---|---|---|---|---|
| | | $cm^3$/stroke | $in^3$/stroke | | Carbon steel galvanized | Stainless steel | Without mechanical indicator |
| **12387460** | SGA-011-ZN | 0,30 - 1,45 | *0.02 – 0.09* | 1 | · | – | – |
| **12387560** | SGA-11-ZN | 0,50 - 2,55 | *0.03 – 0.16* | 1 | · | – | – |
| **12387660** | SGA-21-ZN | 1,50 - 8,75 | *0.09 – 0.53* | 1 | · | – | – |
| **12388110** | SG-31-ZN [1] | 8,50 - 56,0 | *0.52 – 3.42* | 1 | · | – | – |
| **12387510** | SGA-012-ZN | 0,15 - 0,70 | *0.01 – 0.04* | 2 | · | – | – |
| **12387610** | SGA-12-ZN | 0,25 - 1,25 | *0.02 – 0.08* | 2 | · | – | – |
| **12387710** | SGA-22-ZN | 0,70 - 4,35 | *0.04 – 0.27* | 2 | · | – | – |
| **12388160** | SG-32-ZN [1] | 4,30 - 28,00 | *0.26 – 1.71* | 2 | · | – | – |
| **12386560** | SGA-011-SS | 0,30 - 1,45 | *0.02 – 0.09* | 1 | – | · | – |
| **12386660** | SGA-11-SS | 0,50 - 2,55 | *0.03 – 0.16* | 1 | – | · | – |
| **12386760** | SGA-21-SS | 1,50 - 8,75 | *0.09 – 0.53* | 1 | – | · | – |
| **12386610** | SGA-012-SS | 0,15 - 0,70 | *0.01 – 0.04* | 2 | – | · | – |
| **12386710** | SGA-12-SS | 0,25 - 1,25 | *0.02 – 0.08* | 2 | – | · | – |
| **12386810** | SGA-22-SS | 0,70 - 4,35 | *0.04 – 0.27* | 2 | – | · | – |
| **12387160** | SG-31-SS [1] | 8,5 - 56,0 | *0.297 – 1.941* | 1 | – | · | – |
| **12387260** | SG-41-SS [1] | 10,96 - 52,57 | *0.668 – 3.208* | 1 | – | · | – |
| **12387360** | SG-51-SS [1] | 48,03 - 100,45 | *2.930 – 6.129* | 1 | – | · | – |
| **12387210** | SG-32-SS [1] | 4,88 - 31,81 | *0.297 – 1.941* | 2 | – | · | – |
| **12387310** | SG-42-SS [1] | 10,96 - 52,57 | *0.668 – 3.208* | 2 | – | · | – |
| **12387410** | SG-52-SS [1] | 48,03 - 100,45 | *2.930 – 6.129* | 2 | – | · | – |
| **12387470** | SGA-011-ZN-WI [2] [3] | 0,17 - 0,79 | *0.010 – 0.048* | 1 | · | – | – |
| **12387570** | SGA-11-ZN-WI [2] [3] | 0,28 - 1,42 | *0.017 – 0.086* | 1 | · | – | – |
| **12387670** | SGA-21-ZN-WI [2] [3] | 0,80 - 4,94 | *0.048 – 0.301* | 1 | · | – | – |
| **12387520** | SGA-012-ZN-WI [2] [3] | 0,17 - 0,79 | *0.010 – 0.048* | 2 | · | – | – |
| **12387620** | SGA-12-ZN-WI [2] [3] | 0,28 - 1,42 | *0.017 – 0.086* | 2 | · | – | – |
| **12387720** | SGA-22-ZN-WI [2] [3] | 0,80 - 4,94 | *0.048 – 0.301* | 2 | · | – | – |
| **12387525** | SGA-011-ZN-NI [3] | 0,17 - 0,79 | *0.010 – 0.048* | 1 | · | – | · |
| **12387625** | SGA-11-ZN-NI [3] | 0,28 - 1,42 | *0.017 – 0.086* | 1 | · | – | · |
| **12387680** | SGA-21-ZN-NI [3] | 0,80 - 4,94 | *0.048 – 0.301* | 1 | · | – | · |
| **12387530** | SGA-012-ZN-NI [3] | 0,17 - 0,79 | *0.010 – 0.048* | 2 | · | – | · |
| **12387630** | SGA-12-ZN-NI [3] | 0,28 - 1,42 | *0.017 – 0.086* | 2 | · | – | · |
| **12387685** | SGA-22-ZN-NI [3] | 0,80 - 4,94 | *0.048 – 0.301* | 2 | · | – | · |

[1] That design requires two places on base plate

[2] In WI models there is a metal indicator pin on indicator end (pin moves out and in)

[3] In both WI and NI models there is included 3 different size of metering screws

## Accessories

# SGA/SG

**BSPG Base plates**

**BSPG Base plates**

| Order number | Designation | Connections | | Material | |
|---|---|---|---|---|---|
| | | inlet | outlet | anodized aluminium | stainless steel |
| **12383250** | BPSG-01-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12383300** | BPSG-02-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12383350** | BPSG-03-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12383400** | BPSG-04-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12383450** | BPSG-05-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12383500** | BPSG-06-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12384300** | BPSG-01-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384350** | BPSG-02-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384400** | BPSG-03-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384450** | BPSG-04-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384500** | BPSG-05-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384550** | BPSG-06-SS | BSPP 1/4 | BSPP 1/8 | – | • |
| **12384600** | BPSG-01-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12384650** | BPSG-02-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12384700** | BPSG-03-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12384750** | BPSG-04-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12384800** | BPSG-05-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12384850** | BPSG-06-SS-U | NPTF 1/4 | NPTF 1/8 | – | • |
| **12386350** | SGA-0-AL | BSPP 1/4 | BSPP 1/8 | • | – |
| **12386400** | SGA-0-SS | BSPP 1/4 | BSPP 1/8 | – | • |

## Accessories

# SGA/SG

**Doser monitor**

| Order number | Designation |
|---|---|
| **12388184** | Doser monitor SGA-2 |
| **12388188** | Doser monitor SG-3-4-5 |
| **12388192** | Doser monitor junction box |
| **12771677** | Doser monitor extension cable M 12, l= 1 m |
| **12771678** | Doser monitor extension cable M 12, l= 5 m |

## Description

Designed for use with SGA and SG metering devices in dual-line lubrication systems, this monitor senses the movement of the metering device piston The doser monitor comes complete with electrical sensors, connection cable and a junction box

## Features and benefits

- Increases metering device operation monitoring level when dosage piston movement is monitored; sensor has no contact with lubricant because of sensor adapter
- Sensor is easy to install and maintain with separate sensor adapter
- Status of monitor can be confirmed visually by LED signals
- Compatible with all SGA and SG metering devices
- IP 67 protection rating

## Applications

- Heavy industry

**Technical data**

| | |
|---|---|
| Function principle | monitoring devices |
| Operating temperature | -20 to +70 °C, *–4 to +160 °F* |
| Operating pressure | 0-250 bar, *0–3 600 psi* |
| Supply voltage | 24 (20-28) V DC |
| Output signal | potential-free relay contact |
| Connection | M 12 |
| Protection class | IP 67 |
| Dimensions | 68 × 30 × 20 mm<br>2 67 × 1 18 × 0 78 in |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P8 11277 EN**


SKF


SKF Maxilube
SET
SKF


SKF

# Overview of valves

**Change-over valves**

| Product | Function principle | Operation pressure max | | Supply voltage | | Page |
|---|---|---|---|---|---|---|
| | | bar | *psi* | V DC | V AC | |
| **DU 1** | Pressure operated change-over valve | 350 | *5 075* | – | – | 48 |
| **MP 2** | Pneumatic ally operated change-over valve | 400 | *5 800* | 24, 110 | 110, 230 | 49 |
| **E-VALV** | Electrically operated change-over valve | 300 | *4351* | 24 | – | 50 |
| **Maxilube** | Electro-pneumatically operated change-over valve | 300 | *4 350* | 24 | 115, 230 | 52 |
| **EMU 3** | Electrically operated change-over valve | 400 | *5 800* | 24 | 230 | 54 |

**Way valves**

| Product | Function principle | Operation pressure max | | Supply voltage | | Page |
|---|---|---|---|---|---|---|
| | | bar | *psi* | V DC | V AC | |
| **CLV-2** | Electro-pneumatically operated shut-off (way) valve | 300 | *4351* | 24 | 115, 230 | 56 |
| **E-VALV-S** | Electrically operated shut-off (way) valve | 300 | *4351* | 24 | 110, 230 | 58 |
| **WSE** | Electrically operated shut-off (way) valve | 400 | *5 800* | 24 | 230 | 60 |

**Valve assemblies**

| Product | Function principle | Operation pressure max | | Supply voltage | Page |
|---|---|---|---|---|---|
| | | bar | *psi* | V DC | |
| **DVA** | valve assembly | 300 | *4351* | 24 | 63 |

## Change-over valve

# DU 1

## Description

Available in pneumatic, electric or hydraulic versions, DU 1 change-over valves are designed primarily for use in dual-line lubrication systems These change-over valves alternately discharge lubricant, fed by the pump into one of the two main lines while the other line is connected to the return line connection of the pump The switching pressure is adjustable

## Features and benefits

- Reliable, even for hard grease
- Change-over process initiated automatically once preset pressure is reached
- Maximum operating pressure of 350 bar *(5 076 psi)*
- Various mounting positions
- Works effectively in temperatures ranging from -20 to +80 °C *(–4 to +176 °F)*

## Applications

- Ideal for small, electrically driven dual-line systems that requires minimal monitoring

**Technical data**

| | |
|---|---|
| Function principle | change-over valve, hydraulic, pressure operated 4/2 way valves |
| Operating temperature | -20 to +80 °C<br>*–4 to +176 °F* |
| Lubricant | grease up to NLGI 3,<br>oil with a viscosity of min 20 $mm^2/s$ |
| Flow rate | 14 $dm^3/h$, *3.7 gal/h* |
| Operating pressure | max 350 bar, *5 075 psi* |
| Change-over pressure | min 140 bar, max 350 bar,<br>*min. 2 030 psi, max. 5 075 psi* |
| Main line connection | G 1/2 female BSPP |
| Electrical connection | max 500 V, 25-60 Hz |
| Protection class | IP 67 |
| Dimensions | depending on the model<br>min 195 × 190 × 100 mm<br>max 195 × 195 × 195 mm<br>*min. 7.8 × 7.8 × 4.0 in*<br>*max. 7.8 × 7.8 × 7.8 in* |
| Mounting position | any |

**DU 1 Change-over valves mounted on a base plate**

| Order number | Designation | Description |
|---|---|---|
| **617-28683-1** | DU1-G | |
| **617-28619-1** | DU1-GK | with indicator pin |
| **617-36148-9** | DU1-GKN | with proximity switch |
| **617-28620-1** | DU1-GKS | with indicator pin and limit switch |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Change-over valve

# MP 2

## Description

Designed for use in dual-line systems, the pneumatically operated MP 2 change-over valve works like a 4/2-way valve It alternately discharges the lubricant fed by the pump into one of the main lines while the other main line is connected to the pump's return line connection

## Features and benefits

- Available in four voltages – 24 and 110 V DC, 110 and 220 V AC
- Can be used as a 3/2-way valve for grease systems
- Maximum operating pressure of 400 bar *(5 800 psi)*
- Works effectively in temperatures ranging from –20 to +70 °C *(–4 °F to +158 °F)*

## Applications

- Particularly suitable in connection with pneumatically operated pumps like PowerMaster or Lubrigun
- Bottle filling machines in food and beverage plants
- For small, medium and large dual-line systems

**Technical data**

| | |
|---|---|
| Function principle | change-over valve, hydraulic, pressure operated 4/2 way valves |
| Operating temperature | –20 to +70 °C<br>*–4 to +158 °F* |
| Lubricant | grease up to NLGI 3,<br>oil with a viscosity of min 20 $mm^2/s$ |
| Flow rate | 65 $dm^3/h$, *17 gal/h* |
| Operating pressure | max 400 bar, *5 800 psi* |
| Compressed air pressure | max 10 bar, *max. 145 psi* |
| Operating hydraulic pressure | max 69 bar, *max. 870 psi* |
| Main line connection | G 3/4 female BSPP |
| Voltage | 24 or 110 V DC, 110 or 220 V AC |
| Protection class | IP 65 |
| Dimensions | 135 × 400 × 180 mm<br>*5.4 × 16 × 7.2 in* |
| Mounting position | any |

**MP 2 Change-over valves**

| Order number | Designation | Voltage |
|---|---|---|
| **618-28965-2** | MP 2-24 V DC | 24 V DC |
| **618-28963-1** | MP 2-110 V DC | 110 V DC |
| **618-28964-2** | MP 2-110 V AC | 110 V AC |
| **618-28966-2** | MP 2-220 V AC | 220 V AC |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Change-over valve

# E-VALV


## Description

The electrically operated line valve E-VALV is a modular 3/2 valve in which each module has an internal pressure and tank connection The benefit of the modular structure is that it enables the longest possible pressure discharge time for each lubrication line in a single- or dual-line system  Several lines or channels can be installed with the same valve assembly

## Features and benefits

- Cost efficient electrically operated change-over valve
- Compact and modular design (easy reduce- or extendable)
- System performance optimizing because it enables long pressure discharge time for each lubrication line

## Applications

- General industry
- Mining industry
- Steel industry
- Food and beverage
- Cement industry

**Technical data**

| | |
|---|---|
| Function principle | electrically operated change-over valve |
| Operating temperature | -10 to +50 °C<br>*14 to +122 °F* |
| Lubricant | grease up to NLGI 2 |
| Operating pressure | max  300 bar<br>*max. 4 351 psi* |
| Available designs | 2, 4, 6, 8, 10, 12, 14 valves (for dual line) |
| Inlet and outlet connection | 12 mm or 1/2 inch pipe connection |
| Supply voltage | 24 V DC |
| Protection class | IP 67 |
| Dimensions | 59 × 100 × 230 mm<br>*2.32 × 3.93 × 9.05 in* |
| Mounting position | any |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication
**OEVL2BEN**

## Change-over valve

# E-VALV

**Order information**

| Order number [1] | Designation | Number of valves | Description | Lubricant line | Voltage |
|---|---|---|---|---|---|
| | | | | ∅ | 24 V DC |
| **12375470** | E-VALV-L2-24 | 2 | Change-over valve L2 | 12 mm | • |
| **12375475** | E-VALV-L2-24-U | 2 | Change-over valve L2 (US) | 1/2 in | • |
| **12375490** | E-VALV-L4-24 | 4 | Change-over valve L4 | 12 mm | • |
| **12375495** | E-VALV-L4-24-U | 4 | Change-over valve L4 (US) | 1/2 in | • |

[1] Futher designs available on request

## Change-over valve

# Maxilube


## Description

Maxilube change-over valve is an essential part of heavy industry dual-line systems It has proven its reliability in various applications throughout Pulp & Paper, Steel and Mining industries over past decades The Maxilube is a compact solution including the main feature as change-over valve but also often with integrated IF-105 control feature The Maxilube is an air-operated change-over valve unit and it is a vital part of dual-line pumping centre together with a barrel pump (MPB, etc ) package and a pressure air regulator But even if it is often used in dual line systems it can also be used in single line and progressive systems There are multiple control options for Maxilube unit such as the integrated control unit IF-105, an external control unit like ST-2240-LUB or control by customer's DCS There is also an option to monitor Maxilube unit with an external control box which utilizes SMS technology

## Features and benefits

- Reliable, trouble-free operation
- Suitable for lubricants up to NLGI 2
- Available with integrated control IF-105
- Compact and rugged heavy duty design
- Includes control features for spray applications

## Applications

- Heavy industry
- Pulp and paper industry
- Mining and steel industry

**Technical data**

| | |
|---|---|
| Function principle | change-over valve, electro-pneumatically operated |
| Operating temperature | 0 to +50 °C, *+32* to *+122 °F* |
| Operating pressure | max 300 bar, *4 350 psi* |
| Pressure air supply | 2,0 to 4,5 bar, *29 to 65 psi* |
| Air flow | max 300 l/min |
| Lubricant | grease: up to NLGI 2<br>oil: 5 000 mm²/s |
| Electrical connections | control voltage: 24 V DC<br>power supply: 115/230 V AC 50/60 Hz |
| Protection class | IP 65 |
| Dimensions | depending on the model<br>min 650 × 130 × 130 mm<br>max 1 020 × 130 × 130 mm<br>*min. 25.6 × 5.12 × 5.12 in*<br>*max. 40.16 × 5.12 × 5.12 in* |
| Mounting position | vertical |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB 06414/2 EN**

## Change-over valve

# Maxilube

**Identification code** MAX [ ] – 2 [ ] – [ ] – [ ] V2

**Product series**

**MAX** = Maxilube change-over valve

**Number of zones**

**1** = one zone to control
**2** = two zones to control

**Number of lines**

**2** = dual-line system

**Power supply**

**24** = 24 V control voltage if external control is used
**115** = power input 115 V
**230** = power input 230 V

**User interface**

**IF105** = user interface
**X** = external control

**Lubricant outlets**

**R** = BSPP threads
**U** = NPT-threads

**Identification of versions**

**V2** = version 2

## Optional

# SMS monitoring and control unit


### Description

SKF control centres can be equipped with a SMS connection By using this connection the Maxilube pumping unit and control centres can be controlled by SMS messages The connection is created between a GSM modem installed in the pumping or control centre and a GSM mobile phone

**SMS unit**

| Order number | Designation |
|---|---|
| **12380747** | E-SMS-C, SMS monitoring and control unit |

## Change-over valve

# EMU 3

## Description

The electrically operated EMU 3 change-over valve is designed for use with dual-line systems It is particularly suitable for extended dual-line systems in combination with pneumatically operated supply pumps with large flow rates

## Features and benefits

- Features mid position with option to relieve both main lines toward the pump reservoir during pause time
- System components are pressurized for shorter time periods and have a longer service life
- Risk of bleeding (soap and oil separation) is reduced
- Large connection thread and line distance allow larger tube diameters up to 30 mm (*1 1/4 in*)

## Applications

- Continuous casting machines in steel industry
- Bottle filling machines in food and beverage plants with a few thousand lubrication points
- Large bucket wheel excavators in mining and basic materials industry

**Technical data**

| | |
|---|---|
| Function principle | change-over valve, electrically operated 4/3 way valve |
| Operating temperature | –25 to +70 °C, *–13 to +158 °F* |
| Lubricant | grease up to NLGI 3 |
| Flow rate | max 400 l/h, *105 gal/h* |
| Operating pressure | max 400 bar, *max. 5 800 psi* |
| Main line connection | G 3/4 BSPP |
| Electrical connection | bayonet plug DIN 72585 |
| Operating voltage | 24 V DC or 230 V AC |
| Protection class | IP 65 |
| Dimensions | 220 × 238 × 180 mm<br>*8.64 × 9.35 × 7.07 in* |
| Mounting position | any |

**Order information**

| Order number | Voltage | Hydraulic connection ports |
|---|---|---|
| **EMU-03-00-0000+924** | 24 V DC | G 3/4 BSPP |
| **EMU-03-00-0000+1KF** | 230 V AC | G 3/4 BSPP |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**951-171-001 EN**

# DVA Dualset valve assembly


## Description

With the SKF Lincoln Dualset valve assembly you can easily operate an additional barrel pump next to the main pump This functionality is valuable when grease consumption is high and automatic barrel change is required Dualset provides confidence in critical applications providing redundant operation in case of pump failure

DVA can be used with all type of lubrication systems utilizing an air-operated barrel pump and control center supporting Dualset feature Besides SKF control centers like ST-1340, ST-1440, ST-1240 or ST-2240, Dualset can be controlled by customer's DCS Dualset comes with a hose kit for Maxilube / MPB pump with "plug and play" connections

## Features and benefits

- Automatic pump change while barrel empty
- Redundant operation in case of pump failure
- Can be added to many existing pumping stations
- Dualset support included on IF-105, ST-1340, ST-1440, ST-1240 and ST-2240 control units

## Applications

- Steel industry
- Pulp and paper industry
- Mining industry

**Technical data**

| | |
|---|---|
| Function principle | valve assembly for air-operated barrel pumps |
| Operating temperature | 0 to +50 °C, *–32 to +122 °F* |
| Operating pressure | max 300 bar, *max. 4 350 psi* |
| Lubrication line connections | ∅12 mm connectors acc to DIN2353 / ISO8434-1 |
| Air connection | ∅8 mm push in connectors |
| Electrical connection | bayonet plug DIN 72585 |
| Operating voltage | 24 V DC or 230 V AC |
| Protection class | IP 65 |
| Dimensions | 220 × 238 × 180 mm<br>*8.64 × 9.35 × 7.07 in* |
| Mounting position | any |

**Order information**

| Order number | Designation |
|---|---|
| **12386002** | DUALSET VALVE ASSEMBLY |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**18528 EN**

## Shut-off (way) valve

# CLV-2



## Description

In grease lubrication systems, lubrication channels connected to one pump unit are separated from each other by shut-off (way) valves CLV-2 air-operated shut-off valve can be controlled by SKF control centre or directly by the machine controls

## Features and benefits

- Very simple and reliable operation
- Low maintenance costs
- Robust design with visual indicator pin

## Applications

- Heavy industry
- Pulp and Paper industry
- Steel industry
- Mining industry

**Technical data**

| | |
|---|---|
| Function principle | electro-pneumatically operated shut-off (4/2 way) valve |
| Operating temperature | -10 to +50 °C, *14 to +122 °F* |
| Lubricant | grease up to NLGI 2 |
| Operating pressure | max 300 bar, *max. 4 351 psi* |
| Air pressure | 4-7 bar; *58 to 101 psi* |
| Lubrication line connection | G 3/4 BSPP or NPTF |
| Air connection | G 1/8 BSPP or NPTF |
| Electrical connection | MPM-712 DIN 43650-A |
| Supply voltage | 24 V DC, 115 V AC or 230 V AC |
| Protection class | IP 65 |
| Dimensions | 230 × 125 × 103 mm<br>*9.05 × 4.92 × 4.05 in* |
| Mounting position | any |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Shut-off (way) valve

# CLV-2

**Order information**

| Order number | Designation | Voltage | | |
|---|---|---|---|---|
| | | 24 V DC | 115 V AC | 230 V AC |
| **12385860** | CLV-2-24-NC shut-off valve | • | – | – |
| **12385865** | CLV-2-24-NO shut-off valve | • | – | – |
| **12385900** | CLV-2-24-NC-U shut-off valve | • | – | – |
| **12385950** | CLV-2-24-NO-U shut-off valve | • | – | – |
| **12385880** | CLV-2-230-NC shut-off valve | – | – | • |
| **12385885** | CLV-2-230-NO shut-off valve | – | – | • |
| **12385550** | CLV-2-115-NC-U shut-off valve | – | • | – |
| **12385600** | CLV-2-115-NO-U shut-off valve | – | • | – |

## Shut-off (way) valve

# E-VALV-S

## Description

The shut-off valve E-VALV-S is either 2/2- or 4/2-way valve and some models are equipped with check valves E-VALV-S consists of the valve body, an optional thrust valve and a solenoid valve, a coil, and a plug with a maintenance power reducer in 110 and 230 VDC All E-VALV-S units can be connected directly to machine control (interlocking)

## Features and benefits

- Cost efficient electrically driven shut-off valve that requires no pressurized air
- System performance optimizing because it enables long pressure discharge time for each lubrication line

## Applications

- General industry
- Mining industry
- Pulp and Paper industry
- Steel industry
- Food and beverage
- Cement industry

**Technical data**

| | |
|---|---|
| Function principle | electrically operated shut-off (way) valve |
| Operating temperature | -10 to +50 °C<br>*14 to +122 °F* |
| Lubricant | grease up to NLGI 2 |
| Operating pressure | max 300 bar<br>*max. 4 351 psi* |
| Inlet and outlet connection | 12 mm or 1/2 in pipe connection |
| Supply voltage | 24 V DC, 110 and 230 V AC |
| Protection class | IP 67 |
| Dimensions | 123 × 90 × 200 mm<br>*4.84 × 3.54 × 7.87 in* |
| Mounting position | any |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Shut-off (way) valve

# E-VALV-S

**Order information**

| Order number [1] | Designation | Description | Lubricant line | Voltage | | |
|---|---|---|---|---|---|---|
| | | | ∅ | 24 V DC | 110 V AC | 230 V AC |
| **12375780** | E-VALV-S2-NC-24 | Shut-off valve, normally (de-energized) closed | 12 mm | • | – | – |
| **12375785** | E-VALV-S2-NC-24-U | Shut-off valve, normally (de-energized) closed | 1/2 in | • | – | – |
| **12375790** | E-VALV-S2-NC-110-U | Shut-off valve, normally (de-energized) closed | 1/2 in | – | • | – |
| **12375795** | E-VALV-S2-NC-230 | Shut-off valve, normally (de-energized) closed | 12 mm | – | – | • |

[1] Futher designs available on request

## Shut-off (way) valve

# WSE

## Description

The factory-set closing of certain connection ports of the EMU 3 allows its use as a reliable and efficient shut-off or way valve
In this case, the "M" position cannot be used The designation for these way valves is WSE

## Features and benefits

- Functions reliably under harsh conditions due to an electrically operated piston slide valve
- Provides resistance against solid additives in greases
- Large connection thread and line distance allow larger tube diameters up to 30 mm (*1 1/4 in*)

## Applications

- Continuous casting machines in steel industry
- Bottle-filling machines in food and beverage plants with a few thousand lubrication points
- Large bucket wheel excavators in mining and basic materials industry

**Technical data**

| | |
|---|---|
| Function principle | change-over valve, electrically operated 4/3 way valve |
| Operating temperature | -25 to +70 °C, *–13 to +158 °F* |
| Lubricant | grease up to NLGI 3 |
| Flow rate | max 400 l/h, *105 gal/h* |
| Operating pressure | max 400 bar, *max. 5 800 psi* |
| Main line connection | G 3/4 BSPP |
| Electrical connection | bayonet plug DIN 72585 |
| Operating voltage | 24 V DC or 230 V AC |
| Protection class | IP 65 |
| Dimensions | 220 × 238 × 180 mm<br>*8.64 × 9.35 × 7.07 in* |
| Mounting position | any |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**951-171-001 EN**

## Shut-off (way) valve

# WSE

**Order information**

| Order number | Designation | Voltage | | Hydraulic connection ports |
|---|---|---|---|---|
| | | 24 V DC | 230 V AC | |
| **WSE-22-66-0000+924** | WS-E 2/2 way valve | • | – | connection ports B and R closed |
| **WSE-22-66-0000+1KF** | WS-E 2/2 way valve | – | • | connection ports B and R closed |
| **WSE-32-06-0000+924** | WS-E 3/2 way valve | • | – | connection port R closed |
| **WSE-32-06-0000+1KF** | WS-E 3/2 way valve | – | • | connection port R closed |
| **WSE-32-60-0000+924** | WS-E 3/2 way valve | • | – | connection port B closed |
| **WSE-32-60-0000+1KF** | WS-E 3/2 way valve | – | • | connection port B closed |


S13


SKF


LINCOLN

# Overview of pressure sensors

**Mechanical pressure switches**

| Product | Function principle | Operation pressure max | | Supply voltage | | Page |
|---|---|---|---|---|---|---|
| | | bar | *psi* | V DC | V AC | |
| **DSB 1** | Mechanical pressure switch | 300 | *4 350* | 36 | 30 | 64 |

**Electric pressure switches/transmitter**

| Product | Function principle | Operation pressure max | | Supply voltage | | Page |
|---|---|---|---|---|---|---|
| | | bar | *psi* | V DC | V AC | |
| **EDW** | Electric pressure switch | 600 | *8 700* | – | – | 66 |
| **DW** | Electric pressure switch | 175/400 | *2 465/5 800* | 24 | – | 67 |
| **BPSG PTA-MOD** | Electric pressure transmitter for SGA systems | 250 | *3 600* | 24 | – | 68 |
| **DDS 50/1** | Differential pressure switch | 400 | *5 800* | 24 | 400/500 | 69 |
| **DPC 1** | End-of-line pressure switch unit | 400 | *5 800* | 24 | – | 70 |

## Pressure switch

# DSB 1


## Description

Product series DSB consists of mechanical-piston pressure switches designed for use with NLGI Grade 1-2 greases The location of the actuating piston inside the pressure switch housing helps to ensure a continuous exchange of grease around the measuring point This reliably prevents the same grease from being pressurized repeatedly, which could cause lubricant soap and oil separation, also known as grease bleeding Based on the application, the pressure switch can be configured as a single or double design and with or without a measurement connector or pressure gauge The pressure switch generally is installed upstream of the last lubricant distributor

## Features and benefits

- Available in pre-adjusted versions ranging from 20 to 300 bar *(290 to 4 350 psi)*
- Prevents oil separation-related faults
- Reliable micro-switch technology with change-over contact (NO and NC)
- Includes built-in manifold for continuous lubricant flow without dead volume
- IP 65 protection rating, corrosivity category C3 or C5M

## Applications

- General industry
- Steel industry
- Wind industry
- Mining industry
- Heavy industry

**Technical data**

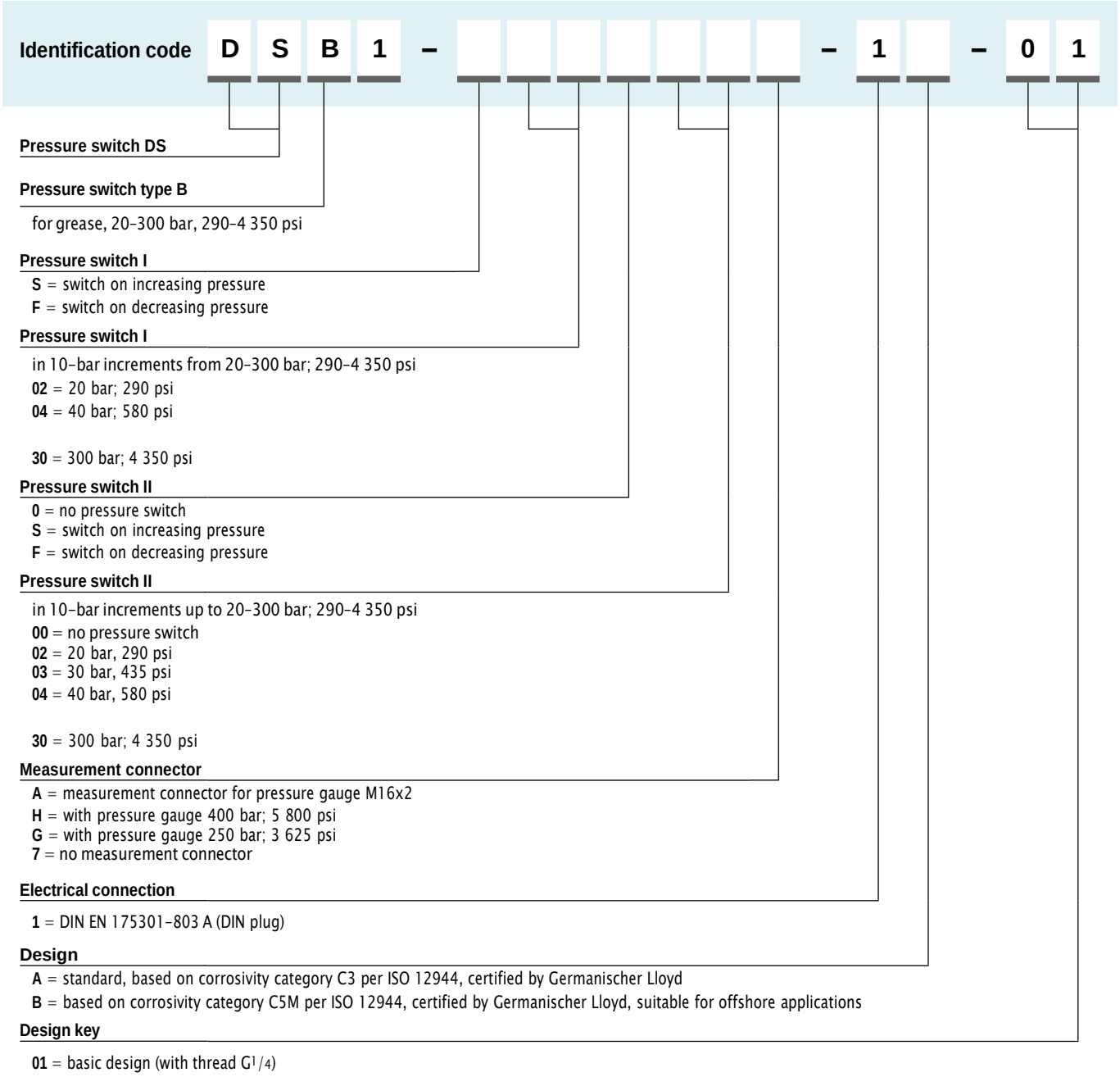
| | |
|---|---|
| Function principle | mechanical piston pressure switch |
| Operating temperature | -25 to +80 °C<br>*-13 to +132 °F* |
| Operating pressure | max 300 bar, *4 350 psi* |
| Lubricant | oil and grease NLGI 1 and 2 |
| Breaking capacity, ohm load | max 1,2 VA |
| Supply voltage | max 30 V AC/36 V DC |
| Supply current | min 1 mA, max 50 mA |
| Type of contact | change-over |
| Connection method | clamps |
| Mechanical service life | $10^5$ switching cycles |
| Housing material | aluminium, anodized |
| Contact material | silver alloy, hard gold plating |
| Connector socket 3+PE | DIN EN 175 301-803 A |
| Connection | G 1/4 |
| Dimensions | 60 × 76 × 105 mm<br>*2.36 × 3 × 4.13 in* |
| Protection class | IP 65 |
| Mounting position | any |
| Certification | Germanischer Loyd (GL) certification |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**1-1701 EN**

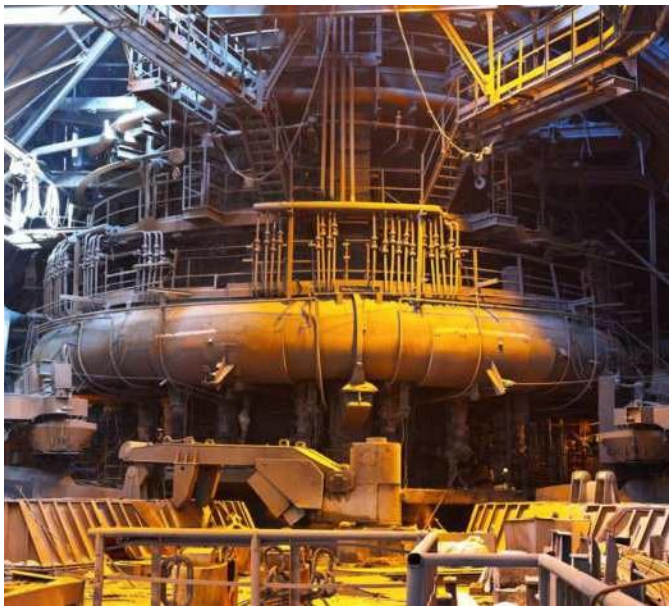
## Pressure switch

# DSB 1



## End - of - line pressure unit

# EDW



## Description

EDW end-of-line pressure switches are key components in a dual-line lubrication system Designed to monitor the system, these switches detect the pressure at the end of the respective main line and start the change-over procedure If the pressure at the end of the line is not reached within a specific period of time, a fault signal will be generated at the electronic control unit

## Features and benefits

- Controls proper functioning of the pump and change-over unit
- Monitors for leaks in the tube line system
- Available with limit switches or with electronic pressure switches with LED display
- Proven, rigid design for tough conditions

## Applications

- Large dual-line systems
- Steel mills
- Cement plants
- Minerals and mining

**Technical data**

| | |
|---|---|
| Function principle | electronic pressure switch with 4-digit 7-segment LED display |
| Operating temperature | -25 to +85 °C<br>*-13 to +185 °F* |
| Operating pressure | 0-600 bar, *0–8 700 psi* |
| Main line connection | G 1/4 male |
| Electrical connections | 4 pin plug, M 12 × 1 |
| Supply voltage | 18-36 V DC |
| Dimensions | 150 × 250 × 60 mm<br>*5.9 × 9.9 × 2.4 in* |
| Protection class | IP 67 |
| Mounting position | any |

**Order information**

| Order number | Designation |
|---|---|
| **632-36501-1** | EDW end-of-line pressure unit with limit switches and pressure gauges |
| **632-36627-3** | EDW end-of-line pressure unit with electronic pressure switches with LED display |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Electric pressure switch

# DW

## Description

Electric pressure switches are used to monitor the operating pressure of the pump They are installed at the pressure outlet of the pump and will switch off the pump if an overpressure occurs downstream in the system

## Features and benefits

- Protects the system from damage caused by overpressure
- All parameters can be set by keypad
- Adjustable keypad lock
- Rugged construction, vibration and shock-proof
- Long-term stability

## Applications

- Dual-line pumps
- Steel mills
- Cement plants
- Minerals and mining

**Technical data**

| | |
|---|---|
| Function principle | electric pressure switch |
| Operating temperature | -25 to +85 °C, *+13 to +185 °F* |
| Operating pressure | 0-600 bar, *0–8 700 psi* |
| Input data measuring range | 0-600 bar; *0–8 700 psi*<br>overload pressure: 750 bar; *10 870 psi*<br>burst pressure: 800 bar; *11 600 psi* |
| Output data | accuracy >=0,5% full scale |
| Analog output | signal 4-20 mA |
| Switching output | type PNP transistor output<br>switching current max 0,5 A |
| Supply voltage | 18-36 V DC |
| Hydraulic connection | G 1/4 |
| Protection class | IP 67 |
| Dimensions | 94 × 34 × 49 mm; *3.7 × 1.34 × 1.93 in* |
| Mounting position | any |

**Order information**

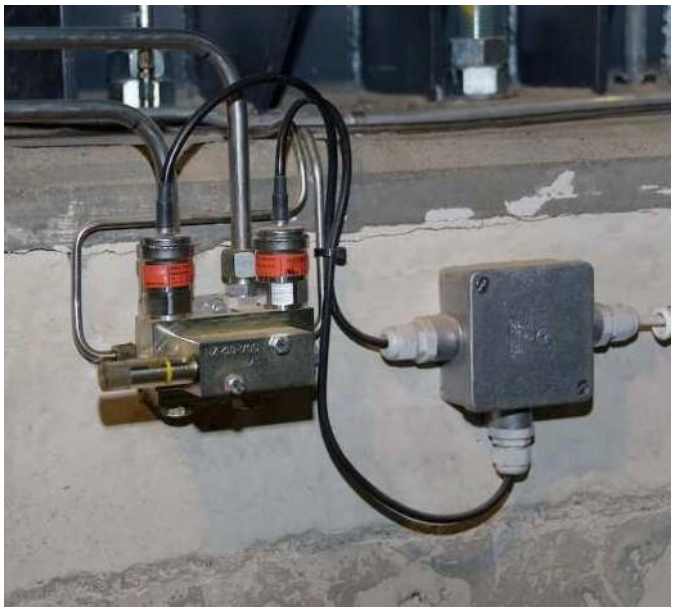
| Order number | Designation |
|---|---|
| **623-37567-1** | Electric pressure switch with transducer kit for 40 and 100 l, *10 and 26 gal*, reservoir versions, includes electronic pressure and digital display |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Pressure transmitter

# BPSG PTA-MOD



## Description

The BPSG2-PTA-MOD pressure transmitter assembly features a modular design for easy installation and service Located between the base plate and metering device, the assembly's pressure transmitters measure the pressure of passing lubricant and notify the control unit These end-of-line (main lines) pressures can also be monitored from the lubrication system's control unit

## Features and benefits

- Simple to install; no extra parts required
- Suitable for oils and greases up to NLGI Grade 2
- Helps to ensure that fresh lubricant flows through transmitters; no clogging
- Operates effectively in a wide range of temperatures
- IP 67 protection rating (for models with enclosure)

## Applications

- Paper industry
- Steel industry
- Heavy industry

**Technical data**

| | |
|---|---|
| Function principle | monitoring device |
| Operating temperature | –30 to +85 °C,<br>*–22 to +185 °F* |
| Operating pressure | 0–250 bar, *0–3 600 psi* |
| Materials | metering device:<br>carbon steel galvanized or stainless steel<br>transmitter:<br>stainless steel |
| Supply voltage | 24 (10–30) V DC |
| Output connection | 4 20 mA, 2 wire cable |
| Protection class | IP 67 |
| Dimensions | 110 × 105 × 33 mm<br>*4.33 × 4.13 × 1.29 in* |
| Mounting position | any |

**Order information**

| Order number | Designation | Carbon steel zinc coated | Stainless steel |
|---|---|---|---|
| **12385333** | BSPG2-PTA-MOD-D-ZN | • | – |
| **12385331** | BSPG2-PTA-MOD-D-SS | – | • |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P8 11277 EN**

## Differential pressure switch

# DDS 50/1


## Description

This differential pressure switch measures the difference in pressure between main feed lines 1 and 2 A signal is sent to the electrical control unit when a differential pressure of p = 50 bar is reached This non-adjustable differential pressure provides a high degree of functional reliability for dual-line systems The DDS 50/1 pressure switch is installed upstream of the lubricant metering device

## Features and benefits

- Provides fixed differential pressure; no regulating screws needed
- Reliable design for harsh environments
- Maintains system pressure on the lowest and most economical pressure level during summer and winter
- Reduces risk of grease bleeding (soap and oil separation)

## Applications

- Mining industry
- Steel industry
- Heavy industry

**Technical data**

| | |
|---|---|
| Function principle | differential pressure switch |
| Operating temperature | –25 to +80 °C, *–13 to +176 °F* |
| Operating pressure | max 400 bar, max *5 800 psi* |
| Differential pressure | 50 bar, *725 psi* |
| Supply voltage | 400 V AC |
| Nominal current | 10 A |
| Used contact | 2 closer |
| Connection method | clamps |
| Dimensions | min 215 × 80 × 59 mm<br>max 221 × 80 × 59 mm<br>*min. 8.46 × 3.15 × 2.32 in*<br>*max. 8.7 × 3.15 × 2.32 in* |
| Protection class | IP 65 |
| Mounting position | any |

**Order information**

| Order number | Designation |
|---|---|
| **24-2583-2563** | DDS 50/1 (Ui 500 V AC) |

## NOTE

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication

## Dual pressure controller

# DPC 1


## Description

The DPC 1 dual pressure controller was designed for dual-line lubrication systems that use a change-over valve controlled by an end-of-line pressure switch unit The controller increases the energy efficiency of the system by matching the operating pressure to the ambient conditions As a result, the pump motor only runs for as long as is required for pressure buildup In the case of air-operated driven pumps, compressed air is conserved The DPC 1 controller consists of a housing with integrated control electronics, an LCD and a membrane keypad For the operation, there are two pressure sensors available, which will be installed in each main line

## Features and benefits

- Monitors proper function of system with regard to pump and change-over valve and detects tube line leaks
- Self-adjusting operating pressure increases service cycle of system components
- Integrated timer enables system operation without separate controller
- Measures the absolute min and max in the main lines
- Measures the differential pressure minimum and maximum
- IP 65 protection rating and Shockproof for rigorous environments

## Applications

- Paper mills
- Steel mills
- Heavy industry
- Beverage industry

**Technical data**

| | |
|---|---|
| Function principle | end-of-line-pressure switch unit |
| Operating temperature | -25 to 70 °C<br>*–13 to +158 °F* |
| Lubricant | oil and grease |
| Operating or absolute pressure | max 400 bar, *5 800 psi* |
| Differential pressure | max 400 bar, *5 800 psi* |
| Monitoring time | 1 sec to 99 min 59 sec |
| Cycle | 1 min to 99 hh 59 min |
| Shock resistance | 20 g |
| Supply voltage | 24 V DC, ± 10% |
| Overload protection | up to 40 V |
| EMC | DIN EN 61000-6-2 and 61000-6-3 |
| Reverse polarity protection | integrated |
| Protection class | IP 65 |
| Dimensions without cable glands | 100 × 100 × 62 mm<br>*3.9 × 3.9 × 2.4 in* |
| Mounting position | any |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB 13597 EN**

## Dual pressure controller

# DPC 1

**Order information**

| Order number | Designation |
|---|---|
| **234-10723-3**<br>**234-10663-7** | DCP 1 end-of-line-pressure switch unit<br>pressure sensor<br>(two required for use with DPC 1) |

**DPC 1 accessories**

| Order number | Designation |
|---|---|
| **236-10980-3** | motor starter 1,0 A (e g for pump unit ZPU 02) |
| **236-10980-4** | motor starter 1,6 A (e g for pump unit ZPU 08) |
| **236-10980-5** | motor starter 4,0 A (e g for pump unit ZPU 24) |

[1] motor starters to operate electrically driven pumps without separate controller


LINCOLN
Time or Cycle
POWER ON
O.K./FAULT
PUMP ON
LOW LEVEL
LMC 2
MENU
RUN
ENTER
RESET
Menu < 2 s = Setup Info
Run > 2 s = Run Cycle
HL
High Level
LL
Low Level
ER
Error
LINCOLN Multi Controller


SKF


SKF


SKF
PUMP
A B C
RUN
LL
FAULT
POWER
RESET
LMC 301


SKF ST-1240

# Overview of control units

**Product finder**

| Product | Function principle | Designation | Supply voltage | | Lubrication channels | Temperature | | Page |
|---|---|---|---|---|---|---|---|---|
| | | | V DC | *VAC* | | °C | °F | |
| **LMC 2** | Electronic controller | Programmable for all kind of lubrication systems: time- or cycle- dependent lubrication, the counter for chain links | 24 | 230 | 2 | -10 to +70 | *+14 to +158* | 74 |
| **LMC 301** | Lubrication monitor controller | Can handle up to 3 pumps and various types of lubrication systems Function keys with menu display | 24 | 90-264 (47-63 Hz) | 3 | -40 to +70 | *-40 to +158* | 75 |
| **ST-1240** | Lubrication control center | Can operate 1 or 2 channels of single-line,, dual-line and progressive lubrication systems The lubrication channels can be zones, separated by shut-off valves, or complete lubrication systems with separate pumping centers and different lubricants Configuration can be set in the field by touchscreen display Pressure switches, pressure transmitters or piston detectors can be used in both channels | - | 93-132, 186-264 | 2 | 0 to +50 | *+32 to +122* | 76 |
| **ST-2240-LUB** | Lubrication control center (modular) | This modular control centre can operate 1 to 14 channels of single-line, dual-line and progressive lubrication systems Configuration can be set in the field by touchscreen display | - | 93-132, 186-264 | 1-14 | 0 to +50 | *+32 to +122* | 77 |

## Control units

# LMC 2



## Description

The LMC is a controller for the electronic management and monitoring of lubrication systems It combines the advantages of a specially developed printed circuit board (PCB) and a PLC in an economical, compact unit For dual-line systems, it controls the pump unit, change-over valve and end-of-line devices

## Features and benefits

- Integrated, flexible lubrication programmes
- 8 inputs / 5 outputs – suitable for complex lubrication systems
- Time- or cycle-dependent control of lubrication intervals
- Can be interfaced with common field bus systems

## Applications

- Lincoln and SKF single-line, dual-line, multi-line and progressive systems
- Railway lubrication and spray lubrication systems
- Food and beverage
- Chain lubrication systems like Cobra and PMA

**Technical data**

| | |
|---|---|
| Function principle | electronic controller |
| Operating temperature | -10 to +70 °C,<br>*+14 to +158 °F* |
| Inputs | max 8 digital inputs |
| Outputs | 4 relay outputs, 1 electronic |
| Supply voltage | depending on model<br>230 V AC, 24 V DC |
| Protection class | IP 54 |
| Mounting position | any |
| Dimensions | 200 × 120 × 90 mm<br>*7.9 × 4.7 × 3.5 in* |

**Order information**

| Order number | Designation |
|---|---|
| **236-10567-6** | LMC2 230 AC (230 V AC) |
| **236-10567-5** | LMC2 24 DC (24 V DC) |

For use with electric driven 3-phase pump; need to order motor starter separately

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB 14004 EN**

# LMC 301


## Description

The LMC 301 is a compact, modularly expandable control and monitoring device  The device is equipped with an LCD display and 6 functional keys for programming, parameter setting and signalization The user is guided through the setting menu Additionally, there is a simple-to-use PC software for parameter setting and diagnostics available

## Features and benefits

- Integrated, flexible lubrication programs
- Basic device with 10 digital inputs,
  of which two can be used analogously, and eight outputs
- Up to seven extension modules can be added,
  whereby each module has 10 E 8 A just like the basic device
- Three lubrication pumps can be controlled and monitored,
  each of which provides up to three lubrication circuits
- Single modules are connected by a bus interface

## Applications

- Cement industry
- Steel industry
- Mining – stationary and mobile excavators
- Food and beverage

**Technical data**

| | |
|---|---|
| Function principle | electronic controller |
| Operating temperature | V AC:<br>-10 to +50 °C, *+14 to +122 °F*<br>V DC:<br>-40 to +70 °C, *-40 to +158 °F* |
| Inputs | 10 count, short-circuit proof,<br>2 with analog |
| Outputs | 8 count, relay outputs NO-contact<br>8 A, 2 of which up to 20 A |
| Supply Voltage | depending on model<br>90-264 V AC, 24 V DC ±20% |
| Protection class | IP 65 |
| Mounting position | vertical |
| Dimensions | 270 × 170 × 90 mm<br>*10.7×6.7x 3.5 in* |

**Order information**

| Order number | Designation |
|---|---|
| **86500** | LMC 301: 24 V DC, master, incl LCD display |
| **86501** | LMC 301: 100-240 V AC, master, incl LCD display |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P2 15967/1 EN**

## Control units

# ST-1240


## Description

The ST-1240 is a two-channel lubrication control centre that supports any combination of single-line, dual-line and progressive lubrication systems The lubrication channels can be zones, separated by shut-off valves, or complete lubrication systems with separate pumping centres and varying lubricants  Configuration can be set in the field by touchscreen display

## Features and benefits

- Automatic pump change (Dualset)
- Grease spraying control with air monitoring
- IP 65 protection rating
- Compatible with SKF doser monitor
- Works with SKF online control software

**Technical data**

| | |
|---|---|
| Function principle | control center |
| Operating temperature | 0 to +50 °C, *+32 to +122 °F* |
| Lubricantion channels | 2 |
| Supply voltage | 93 to 132 V AC, 186 to 264 V AC |
| Supply voltage frequency | 47 to 63 Hz |
| Supply current | 5,4 A/115 V AC, 2,2 A/230  V AC |
| Control voltage | 24 V DC, ± 10% |
| Overload protection | automatic fuse, 6 A |
| Cable connection | screw connections for 2,5 mm² wires |
| Protection class | IP 65 |
| Interface | touchscreen display<br>RS-422 port for SKF online software |
| Dimensions without cable glands | 380 × 300 × 210 mm<br>*14.9 × 11.8 × 8.3 in* |

**Order information**

| Order number | Designation |
|---|---|
| **12380210** | ST-1240 GRAPH control centre |
| **12380220** | ST-1240-IF control centre |
| **12380747** | SMS control and monitoring module for ST-1240-IF control centre |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P8 12404/1 EN**

## Control units

# ST-2240-LUB

## Description

ST-2240-LUB-6 and ST-2240-LUB-14 lubrication control centers are suitable for use in dual-line lubrication systems, as well as single-line and progressive systems These units have a touchscreen display and are only differentiated by the cabinet size and maximum number of lubrication channels served The ST-2240-LUB-6 controls up to 6 separate lubrication channels, while ST-2240-LUB-14 controls up to 14 channels, each having independent lubrication parameters and/allows use of different lubricants if required The lubrication system is adjustable at field site by adding or reducing channel modules, and configuration can be changed in the field by the user Pressure switches and transmitters or piston detectors can be used in all channels Also the new lubricant low level ultrasonic sensor is supported

## Features and benefits

- Versatile and durable, automatic pump change (Dualset)
- Modular units provide easy system modification
- Compatible with ultrasonic low level sensor
- Grease spraying control with air monitoring
- Compatible with SKF doser monitor

**Technical data**

| | |
|---|---|
| Function principle | control center |
| Operating temperature | 0 to +50 °C, *+32 to +122 °F* |
| Lubricant channels | 1-14 |
| Supply voltage | 115/230 V AC, automatic range selection |
| Supply voltage frequency | 47 to 63 Hz |
| Control voltage | 24 V DC, ± 10 % |
| Overload protection | automatic fuse, 6 A |
| Cable connection | screw terminals for 2,5 mm² wires |
| Protection class | IP 65 |
| Interface | 5 7" TFT touch screen , 320 × 240, 64k colors, ethernet and USB port mobile app for monitoring |
| Data logging | Log files on USB memory |
| Fieldbus | ModbusTCP slave, other protocols on request |
| Alarm Outputs | relays K1 & K2: potential-free change over contact; maximum load 230 V/1 A; channel modules: potential-free contact; maximum load 50 V DC/1A |
| Dimensions | 600 × 600 × 250 mm *23.6 × 23.6 × 9.8 in* |

**Order information**

| Order number | Designation |
|---|---|
| **12380760** | ST-2240-LUB-6 control center |
| **12380765** | ST-2240-LUB-14 control center |
| **12501270** | CM channel module |

**NOTE**

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF com/lubrication:
**PUB LS/P2 17950 EN**

# Index

# Index

# Index

# Index

## Notes

## Notes

**Important information on product usage**
SKF and Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

MFP AUTOMATION ENGINEERING

**skf com | skf com/lubrication | lincolnindustrial com**



**PUB LS/P1 16132 EN** · December 2020