Mini piston pump unit

SKF Compact Greaser (ETP)

For fluid grease and grease NLGI grade 0 to 2

- The economical solution for the lubrication of linear guides, robots, rolling bearings and high-speed spindle bearings
- Ideal, economical alternative when no centralized lubrication system is available
- Three possible dosages: 10, 15 and 20 mm³
- As many as five lube points are automatically supplied with lubricant
- Dependable protection against deficient lubrication
- Low maintenance and operating costs
- Available with optional fill level monitoring
SKF Compact Greaser – ETP

Effective protection against deficient lubrication

Exact metering of lubricant quantities resulting in an economic and ecological payoff.

A Compact Greaser is the ideal alternative when it comes to the lubrication of linear guides, robots and rolling bearings on machinery and equipment for which a centralized lubrication system would have been too expensive, thus making it necessary to fall back on solutions with high operating costs.

Compared with simple lubricating equipment or manual lubrication, as is often the case in practice, the Compact Greaser assures effective and lasting protection against deficient lubrication.

The Quiet Compact Greaser automatically supplies up to five lube points with lubricant, thus assuring in many cases dependable operation of guides and/or bearings for their entire life cycle.

The Quiet Compact Greaser also has a lot to offer from a financial and ecological point of view. Low maintenance and operating costs on the one hand combined with a frugal use of resources on the other thanks to variable lube cycles and exact metering of the lubricant quantities required.

In many cases the Compact Greaser is also used in grease lubrication systems. Thanks to its low metering volumes it is also used with appropriate grease for the lubrication of spindle bearings.

Simple installation and connection to the machine’s control system

Thanks to its small dimensions and low weight – the easy-to-handle Compact Greaser weighs only 410 grams with a full cartridge – the Compact Greaser is easy to install, even in cramped and complicated conditions.

Its maximum power consumption amounts to 24 W, so the Compact Greaser – like a solenoid valve – can be operated directly by the SPC, namely without a separate power pack or additional circuit breaker. This is where it reveals its superiority over simple lubricators that are not connected to the machine’s control system and thus go on lubricating even during operating breaks. That leads to higher lubrication costs, unnecessary stress on the environment and damage to bearing seals.

The Compact Greaser is designed for NLGI grade 0 to 2 grease and permits metering rates of 10, 15 or 20 mm³ per stroke. The number of outlet ports and the metering rates are flexible and can be specified when an order is placed, thus making it possible to find a customized lubrication solution. A bayonet lock makes it easy to replace the lubricator’s grease cartridge.

CAUTION

The important information on product usage located on the back cover applies to all systems described in this brochure.
SKF Compact Greaser – ETP

Technical data

The Compact Greaser is available with a monitoring system which monitors whether the metering pulse and fill level fall below minimum. The dynamics are shown in the figure to the right.

**Technical data**

<table>
<thead>
<tr>
<th>Metering volume/outlet</th>
<th>15 mm³/stroke = B (standard)</th>
<th>10 mm³/stroke = C</th>
<th>20 mm³/stroke = A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of outlets</td>
<td>2, 3, 4 or 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. back pressure</td>
<td>25 bar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight with full cartridge</td>
<td>360 g (without monitoring)</td>
<td>410 g (with monitoring)</td>
<td></td>
</tr>
<tr>
<td>Operating voltage</td>
<td>24 V DC ±10% (+924)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact time</td>
<td>7 min</td>
<td></td>
<td></td>
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<tr>
<td>Min. interval time</td>
<td>30 min</td>
<td></td>
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</tr>
<tr>
<td>Power input</td>
<td>24 W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. starting current</td>
<td>1 A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating temperature</td>
<td>+15 to 40 °C</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Type of enclosure acc. EN 60529** .................................. IP55 with mounted socket
Lubricant ........................................ Grease, NLGI grades 0 to 2
(NLGI grade 3 on request)

**Electrical connection**
- **Without monitoring**
  - Electrical connection ............ DIN EN 175301-803-A
- **With monitoring**
  - Electrical connection ............ M12×1

**Level- and stroke indication**
- Max. switching current .......... 0.5 A
- Max. breaking capacity .......... 10 VA

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**Please note!**
During the assembly and approval test of grease filled cartridge the compact greaser has been vented. But considering the physical feature of grease, air particles are unavoidable in the microstructure of grease and can affect the accuracy of grease metering. The metering volume also depends on the grease type applied, its viscosity and ambient temperature. The given metering volumes are the average values based on the SKF standard grease by measuring over 10 strokes. A deviation of the metering volume is possible in individual case. For certain applications the customer-specified grease must be tested before ordering.
SKF Compact Greaser – ETP

Dimensions

ETP5 without level indication

1) Ports tapped for solderless tube connection, tube diam. 2.5 × 0.5, max. length 1.5 m
2) 3 Mounting screws M4 (WAF7)

Pay attention to correct polarity! No function if polarity is reversed!

Legend
L+ – Potential supply voltage (machine’s main switch ON)
M – Potential supply voltage (OV, GND)
X1 Plug connector supply voltage to DIN EN 175301-803-A
F Fuse
2) External control unit; relay contact “pump ON”
3) PIN not used

Dimensions:
- ETP5 without level indication
  - Diameter: Ø60 mm
  - Height: 83 mm
  - Length: 58 mm

Legend:
- X1: Plug connector supply voltage to DIN EN 175301-803-A
- F: 1.6 A Fuse
- L+: Potential supply voltage (machine’s main switch ON)
- M: Potential supply voltage (OV, GND)
- 2) External control unit; relay contact “pump ON”
- 3) PIN not used

Applications:
- Vertical installation for grease cartridge changes

Note:
- Reservoir under spring load!
SKF Compact Greaser – ETP

Dimensions

1) Ports tapped for solderless tube connection, tube diam. 2.5 × 0.5, max. length 1.5 m
2) 3 Mounting screws M4 (WAF7)

Legend

- L* – Potential supply voltage (machine’s main switch ON)
- M – Potential supply voltage (0V, GND)
- X1 Plug connector supply voltage M12×1
- F Fuse
- 11) External control unit; relay contact “pump ON”
- 12) PIN not used
- 13) Contact scheme: filled reservoir (maximum)
- 14) Contact scheme: not actuated (rest position)

Pay attention to correct polarity!
No function if polarity is reversed!
## SKF Compact Greaser – ETP

### Configurator

<table>
<thead>
<tr>
<th>Order key</th>
<th>E</th>
<th>T</th>
<th>P</th>
<th>–</th>
<th>–</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>+</th>
<th>9</th>
<th>2</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>Products series</td>
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<td>ETP = Electro-thermic Pumpe</td>
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<td>2 = 2 outlets (1/3)</td>
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<td>3 = 3 outlets (1/3/4)</td>
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<td>5 = 5 outlets (1/2/3/4/5)</td>
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<tr>
<td>WZ = Indication for level- and stroke</td>
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<td>No entry = without monitoring</td>
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<tr>
<td>Metering volume</td>
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<td>A = 20 mm³ / stroke</td>
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<tr>
<td>B = 15 mm³ / stroke</td>
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<td>C = 10 mm³ / stroke</td>
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<td>X = closed</td>
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<tr>
<td>Filling</td>
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<tr>
<td>B = SKF LGMT 2 (rolling bearing grease)</td>
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<tr>
<td>C = SKF LGGB 2 (biodegradable grease)</td>
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<tr>
<td>D = SKF LGFP 2 (food-compatible bearing grease)</td>
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<tr>
<td>Z = Grease on customer request (Minimum order 20 pieces) The desired lubricant has to be provided by customer.</td>
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<tr>
<td>Voltage key</td>
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<tr>
<td>924 = 24 V DC</td>
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</tbody>
</table>

1) → see below
2) Equation for ordering Compact Greaser ETPxxx-xxxxx-Z with lubricant according to customer specification: 1+(number of Compact Greasers ordered)/2, e.g., an order for 50 pieces of Compact Greasers requires 26 pieces of 400 g cartridges: 1+(50/2) = 26 pieces.

### Order example: ETP4WZ-BBCBX-B+924

- Product series ETP
- 4 outlets
- Indication for level- and stroke
- Outlet 1 = 15 mm³ / stroke
- Outlet 2 = 15 mm³ / stroke
- Outlet 3 = 10 mm³ / stroke
- Outlet 4 = 15 mm³ / stroke
- Outlet 5 = closed
- filling with LGMT 2 rolling bearing grease
- 24 V DC operating voltage

### Accessories

#### Grease cartridge

**Order key**

<table>
<thead>
<tr>
<th>F</th>
<th>K</th>
<th>0</th>
<th>0</th>
<th>8</th>
<th>–</th>
</tr>
</thead>
</table>

**Product series**

FK008 = Grease cartridge 80 cm³

**Lubricant**

B = SKF LGMT 2 (rolling bearing grease)
C = SKF LGGB 2 (biodegradable grease)
D = SKF LGFP 2 (food-compatible bearing grease)
Z = Grease on customer request (Minimum order 20 pieces)

The desired lubricant has to be provided by customer.1) 2)

**Order example**

FK008-B

- Grease cartridge, 80 cm³
- filling with LGMT 2 rolling bearing grease

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1) The requested lubricant must be supplied in 400 g standard cartridges (DIN 1284). For venting and the testing procedure, the number of supplied 400 g cartridges must be calculated using the equation for ordering the Compact Greaser or the grease cartridge. The safety data sheet must be enclosed with the lubricant shipment. The order number and the marking “Lubricant for ETP filling” must be indicated on the outer packaging so that it can be allocated.

2) Equation for ordering grease cartridge FK008-Z with lubricant according to customer specification: 1+(number of grease cartridges ordered)/4, e.g., an order for 50 pieces of grease cartridges requires 14 pieces of 400 g cartridges. 1+(50/4) = 14 pieces.
Accessories

Electric plug-and-socket connectors

<table>
<thead>
<tr>
<th>Fig.</th>
<th>Description</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Socket, diameter of cable 6–10 mm</td>
<td>179-990-033</td>
</tr>
<tr>
<td>A</td>
<td>Socket, diameter of cable 4,5–7 mm</td>
<td>179-990-147</td>
</tr>
<tr>
<td>B</td>
<td>Socket M12×1 straight</td>
<td>179-990-371</td>
</tr>
<tr>
<td>C</td>
<td>Socket M12×1 straight, with integrally extruded line (5 m, 3x0.25 mm²)</td>
<td>179-990-381</td>
</tr>
<tr>
<td>D</td>
<td>Socket M12×1 angled</td>
<td>179-990-372</td>
</tr>
<tr>
<td>E</td>
<td>Socket M12×1 angled, with integrally extruded line (5 m, 3x0.25 mm²)</td>
<td>179-990-382</td>
</tr>
</tbody>
</table>

See also brochure 1-1730-EN

Pipelines and main line connectors

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
<th>Ø d1</th>
<th>Order No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Washer</td>
<td>M6</td>
<td>DIN7603-A6×10-CU</td>
</tr>
<tr>
<td>2</td>
<td>Connector</td>
<td>M6</td>
<td>402-004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M6×0,75</td>
<td>402-003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M8×1</td>
<td>402-006</td>
</tr>
<tr>
<td>2a</td>
<td>Conical connector</td>
<td>M6×0,75</td>
<td>402-003K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M8×1</td>
<td>402-006K</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M10×1</td>
<td>402-008K</td>
</tr>
<tr>
<td>2b</td>
<td>Banjo fitting, not lockable</td>
<td>M6</td>
<td>502-161</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M6×0,75</td>
<td>502-101</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M8×1</td>
<td>502-102</td>
</tr>
<tr>
<td>2c</td>
<td>Banjo fitting</td>
<td>M6</td>
<td>502-206K</td>
</tr>
<tr>
<td>3</td>
<td>Reinforcing socket</td>
<td>402-603</td>
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</tr>
<tr>
<td>4</td>
<td>Tapered sleeve</td>
<td>402-611</td>
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<tr>
<td>5</td>
<td>Socket union</td>
<td>402-612</td>
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<tr>
<td>6</td>
<td>Plastic pipeline</td>
<td>WVN715-R02.5×0.5</td>
<td></td>
</tr>
</tbody>
</table>

See also brochure 1-0103-EN

Note
While mounting the lubrication line, fitting must be fixed by an adequate tool to avoid distortion of the SKF Compact Greaser.
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.

Further brochures

1-0103-EN  Fittings and Accessories
1-1730-EN  Electric Plug-and-Socket Connectors
1-9201-EN  Transport of Lubricants in Centralized Lubrication Systems

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