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**Lubrication systems  
for screw jack  
equipment**



**Essential for  
your machine.**

## **“Proper” lubrication**

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Unfortunately, the issue of lubrication is often neglected in design and as a result unsuitable grease is frequently used in operation.

This can have disastrous consequences for screw jacks in particular, as they usually have to move heavy loads at relatively low speeds.

We have studied this problem in depth and added the lubricants that are ideally suited to these requirements to our range.

The automatic lubricators reliably grease the lubricating points, thus keeping manual lubrication to a minimum.

*Peter Gridling, Sales Manager at ZIMM, Austria*



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Lubricants

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Z-LUB  
MEMOLUB<sup>®</sup>

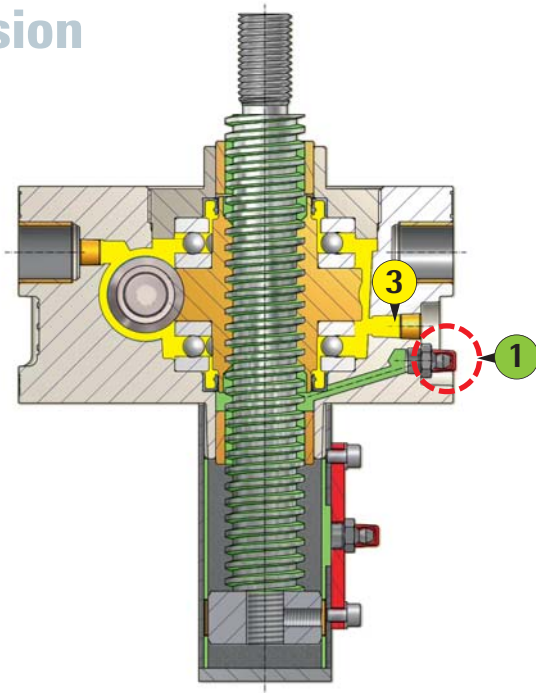
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Lubricator

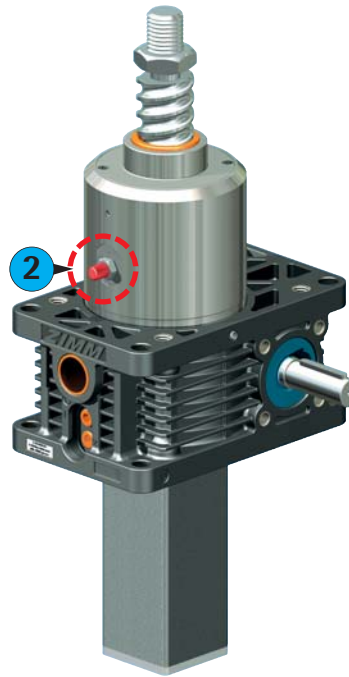
**3**

Lubrication on screw jacks

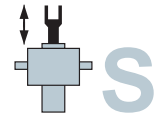
S version



Trapezoidal screw Tr

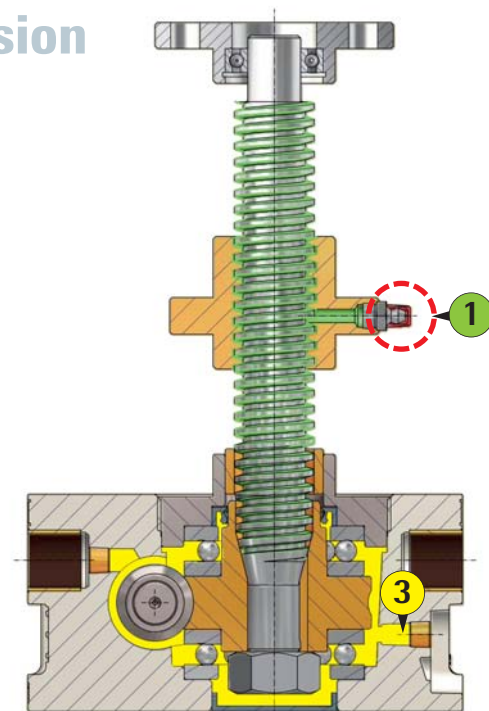


Ball screw KGT

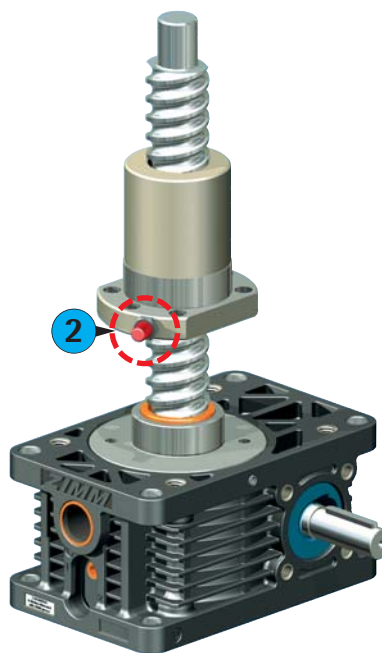


**i** INNOVATION:  
Screw lubrication during operation provides optimum grease distribution.

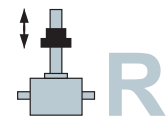
R version



Trapezoidal screw Tr



Ball screw KGT



## Lubrication on screw jacks

### 1 Trapezoidal screw Tr

Inspect the trapezoidal screw regularly and regrease it depending on the operating cycle. Use the grease that we recommend. These greases are ideally matched to the operating requirements of our screw jack systems.



#### Interval:

Trapezoidal screw jacks need to be lubricated regularly. The lubrication interval depends on the application.

Keep an eye on the grease levels on the leadscrew and determine the interval accordingly.

Procedure	Interval
Leadscrew relubrication	Before commissioning
	After approx. 50 strokes
	At least every 500 double strokes
Leadscrew cleaning and fresh lubrication	If dirty
	At least once yearly if used rarely

#### Quantities for greasing new trapezoidal screw spindles Tr:

Tr Ø (mm)	16	18	20	30	40	50	55	60	80	100	120	140	160
Quantity (ml/m)	24	27	30	45	60	75	83	90	120	150	180	210	240

When relubricating, use less grease.

### 2 Ball screw KGT

Lubricate the ball screw KGT every 300 hours of effective operation. For heavy-duty systems every 100 hours.



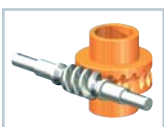
Procedure	Interval
Leadscrew relubrication	After commissioning
	For heavy loads: after 100 hours (effective)
	For normal to light loads: after 300 hours (effective)
Leadscrew cleaning and fresh lubrication	If dirty

#### Quantities:

approx. 1 ml per 10 mm screw diameter (e.g. KGT ball screw 40 = 4 ml)

### 3 Screw jacks

The screw jack is sealed and is filled with high-performance synthetic grease (screw jacks from Z-250 are oil-filled). The screw jack is lubricated for life in normal operation.





## Lubricants for screws



Use the right lubricant for a long service life!

These lubricants have been carefully selected to suit the screw jack requirements. Caution should be exercised when using other greases!

A "good" grease may not always be the "right" grease.

What matters is whether it meets the respective requirements.

### Trapezoidal screw spindle Tr



Standard grease up to size 150 kN:



Part no.:

Castrol Tribol GR 4020/460-2 PD,  
400 ml cartridge

Standard grease from size 250 kN:



Part no.:

Castrol Tribol GR 3020/1000-2 PD,  
400 ml cartridge

### Ball screw KGT



Standard grease:



Part no.:

Castrol Tribol GR 4747/220-2 HT,  
400 ml cartridge

## Special applications



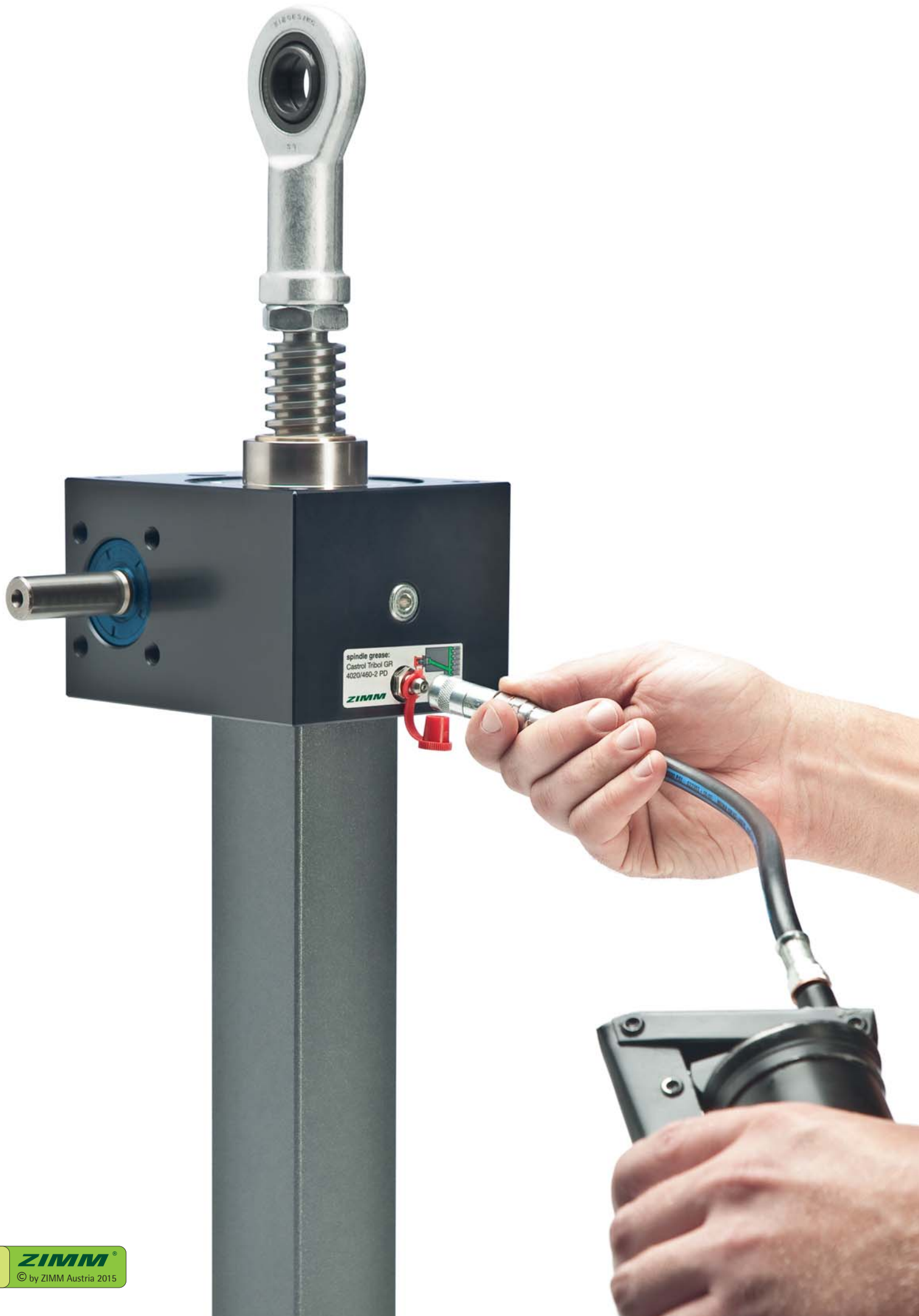
As well as the standard greases we also offer greases for special applications and conditions:

- High temperature/high duty cycle
- Low temperature
- Heavy duty
- Food industry
- Clean room
- Vacuum, etc.

Most greases are available ex stock. The exact application and the load cycles are important for choosing the right grease.

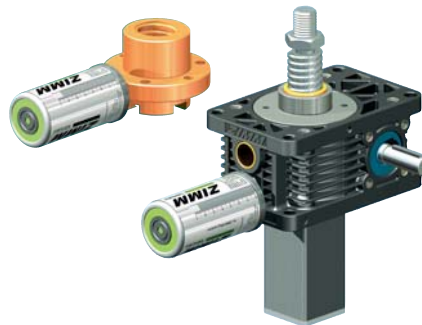
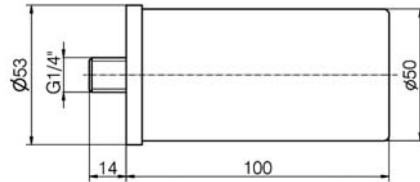
We recommend you complete the enquiry checklist in the screw jack XII catalogue (section 7) and return it to us.







## Lubricator Z-LUB



The ZIMM lubricator Z-LUB continuously supplies the screw with lubricant. The Z-LUB is activated when the run-time is set (1 to 12 months at 20°C) (gas generation cell). The fill level is visible at all times in the transparent housing.

Metering time:	1 to 12 months, infinitely adjustable
Volume:	125ml
Operating temperature:	+5°C to +55°C (Standard grease, mineral) with synthetic greases down to -20°C
Thread:	G1/4"
Greases:	ZIMM screw greases

**i** When installing the system, all tubes and bores should be pre-filled with grease. A 400 ml cartridge filled with the same grease should be ordered for this purpose.

Connections	Part no.
Plug G 1/8" external thread (AG), for hose Ø8	LUB-Anschl G1/8 AG Ø8
Plug G 1/4" external thread (AG), for hose Ø8	LUB-Anschl G1/4 AG Ø8
Plug on Z-LUB, G 1/4" internal thread (IG), for hose Ø8	LUB-Anschl G1/4 IG Ø8
Connecting hose PU transparent, Ø8x1 <sup>1)</sup>	LUB-Schlauch 8/6 PU
Reducer 1/4" to 1/8"	LUB-Reduzier G1/4"-G1/8"
Retaining clamp for Z-LUB Ø50 mm	Z-LUB HS Ø50

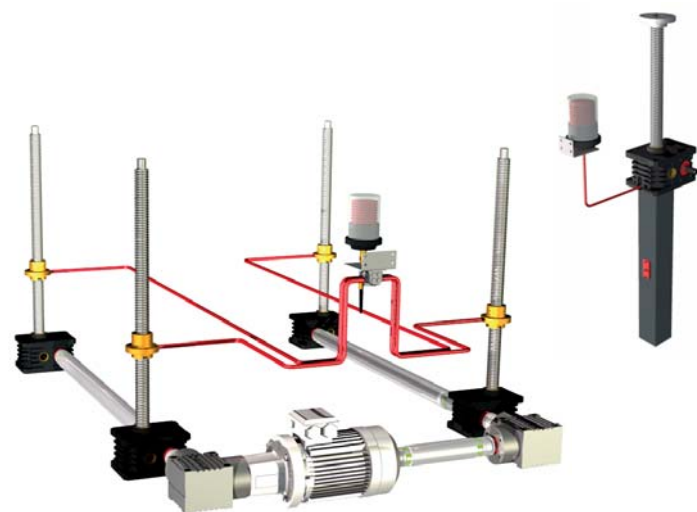
<sup>1)</sup>When remote mounting, tubes should be kept as short as possible (e.g. 200 mm, max. 500 mm)

**Ordering example:**

Z-LUB, ZIMM lubricator  
Filling:  
Castrol Tribol GR 4020/460-2 PD



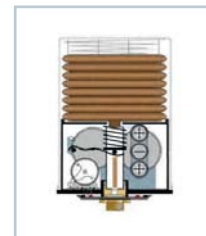
## MEMOLUB® lubricator

**Description**

The electromechanical MEMOLUB® is an automatic, refillable lubrication system.

**How it works**

The MEMOLUB® operates electromechanically with a motor, screw jack, compression spring and a delivery piston. The lubricating impulses are "programmed" by the time rings (by PLC in PLC model).

**Application**

Automatic and reliable lubrication for screws. Single or multiple lubrication of up to eight lubricating points using progressive plunger metering device.

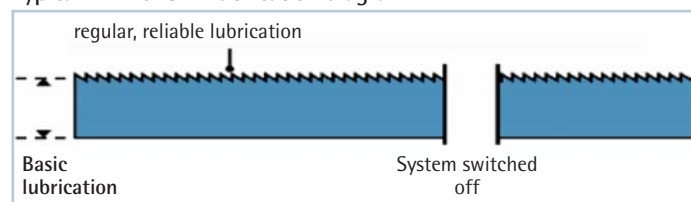
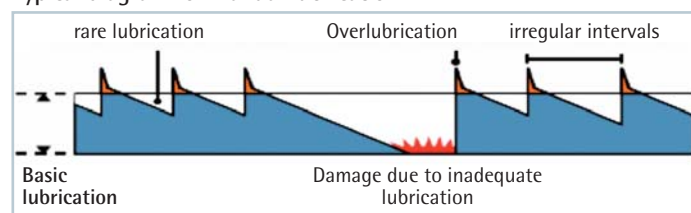
**Features**

- failsafe, time-based lubrication
- no regular, manual lubrication required
- no machine downtime for lubrication
- clean and easy to refill by changing the cartridge

**Specifications, technical data**

Metering time:	0.5 to 24 months
Volume:	240 ml (MEGA type)
Operating temperature:	-15°C* to +50°C
Feed pressure:	25 bar
Connection thread:	R 1/4"
max. pipe length:	8 m, with 2 m splitter per output (up to 4 m - test)
Installation position:	any
Protection class:	IP66
Weight:	0.6 kg

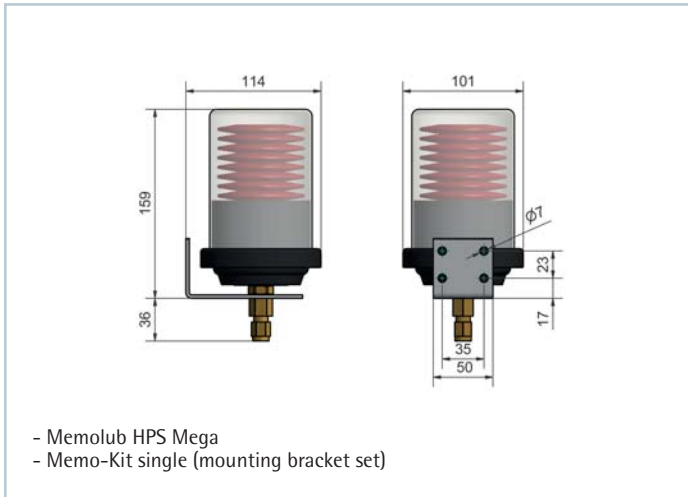
\*down to -25°C permitted, with limited function and using LiPo batteries

**Typical MEMOLUB® lubrication diagram****Typical diagram for manual lubrication****Comparison**

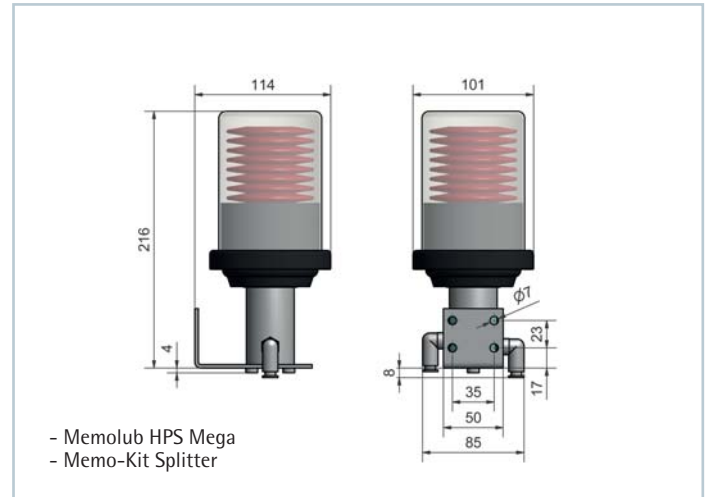
	HPS (= standard)	EPS (on request)	PLC (on request)
Supply voltage	Battery operation 3x 1.5V	Machine control 24V DC	PLC 24V DC
Break (e.g. holiday)	Unscrew 1 revolution	Disconnect voltage	PLC - no signal
Reactivation	Screw in again	Apply voltage	PLC signals
Features	Universal system with battery set, stand-alone and simple, most commonly used	Can be controlled individually during downtime, safe supply voltage even in prolonged low temperatures	Precision control by PLC

## MEMOLUB® lubricator

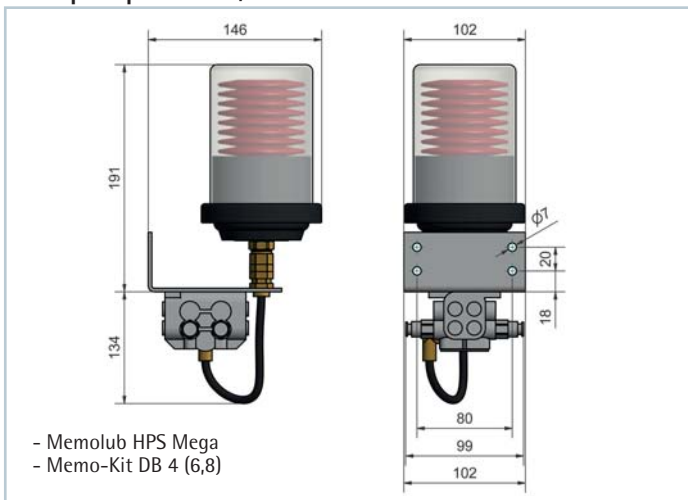
## Single-spot lubrication



## Double splitter-MEMO



## Multiple splitter x4, x6 or x8



## "MEMO" settings

Time setting (months)	Lubrication cycles per day (0.64 ml)	Daily lubricant quantity (ml)	Time rings (red white black)
0.5	24x	15,1	RWB
1	12x	7,6	RW
3	4x	2,5	RB
6	2x	1,3	R
8	1.5x	1	BW
12	1x	0,6	W
24 <sup>3)</sup>	0.5x	0,3	B

<sup>3)</sup>EPS and PLC only (not HPS due to battery life)



Lubricator, distributor etc.	Part no.
Memolub HPS Mega <sup>1)</sup>	Memolub HPS Mega
Memolub EPS Mega <sup>2)</sup>	Memolub EPS Mega
Memolub PLC Mega <sup>2)</sup>	Memolub PLC Mega
Mounting bracket set for hose Ø8	Memo-Kit single
Splitter MEMO double, set with angle	Memo-Kit Splitter
Splitter x4, set with angle	Memo-Kit DB 4
Splitter x6, set with angle	Memo-Kit DB 6
Splitter x8, set with angle	Memo-Kit DB 8

<sup>1)</sup>without grease cartridge, without battery set    <sup>2)</sup>without grease cartridge

Connections	Part no.
Plug G 1/8" AG, for hose Ø8	LUB-Anschl G1/8 AG Ø8
Plug G 1/4" AG, for hose Ø8	LUB-Anschl G1/4 AG Ø8
Plug 90°, rotating G 1/4", Ø8	LUB-Anschl 90° 1/4" Ø8
Connecting hose PU transparent, Ø8x1	LUB-Schlauch 8/6 PU
Reducer G1/4" to G1/8"	LUB-Reduzier G1/4"-G1/8"
Extension 42 mm, G1/8"	LUB-Verläng B1/8" L42
Extension 51 mm, G1/4"	LUB-Verläng B1/4" L51

Consumables	Part no.
Battery set <sup>4)</sup>	Memolub battery
Grease cartridge 240 ml: Tribol GR 4020/460-2 PD	Memo-Fett GR 4020/460-2 PD
Grease cartridge 240 ml: Tribol GR 3020/1000-2 PD	Memo-Fett GR 3020/1000-2 PD
Grease cartridge 240 ml: Tribol GR XT 2 HT	Memo-Fett GR XT 2 HT

<sup>4)</sup>with HPS: batteries must always be changed when cartridge is changed!



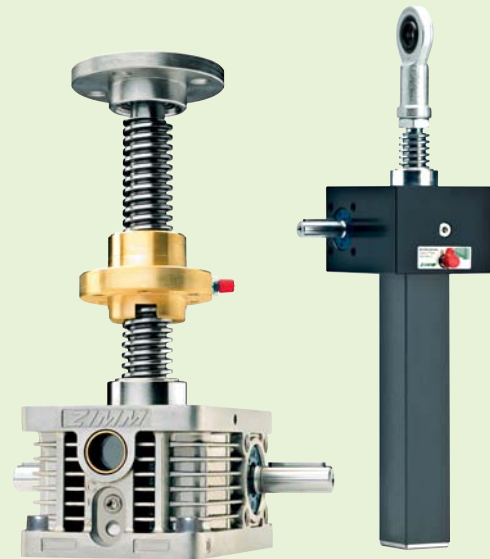
When installing the system, all tubes and bores should be pre-filled with grease. A 400 ml cartridge filled with the same grease should be ordered for this purpose.

## ZIMM – screw jacks Z series and GSZ series

A screw jack gearbox is an electromechanical drive and is used where weights have to be very accurately controlled and carefully positioned.

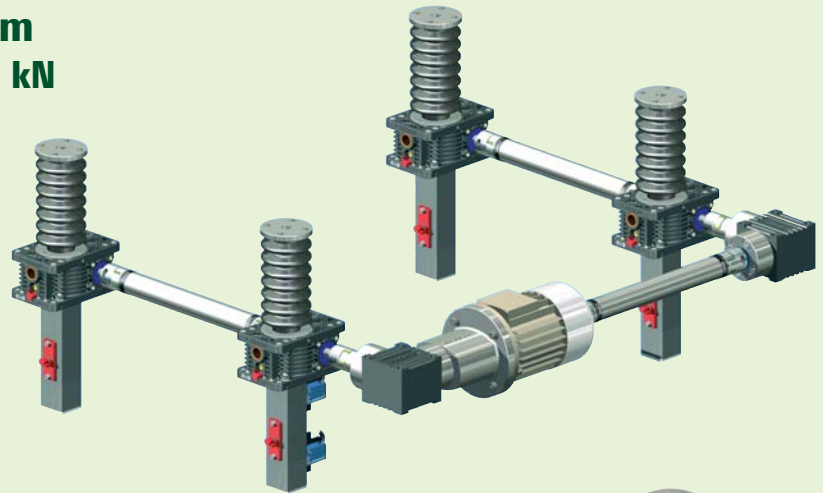
### Some areas of use

- Assembly lines of practically every renowned motor manufacturer
- Elevating platforms and aircraft manufacture assembly and maintenance
- Production lines:
  - for flat screen manufacture
  - for production of plastic profiles for the window industry
  - for the manufacture of sheet steel and steel profiles, insulated glass for fleece materials, hygiene products and insulation material
- Packing machines
- Drinks bottle filling and labelling plants
- Paper processing plants
- Food processing industry



## ZIMM – building block system Sizes ranging from 2.5 kN to 1000 kN

- Screw jacks with trapezoidal and ball screws
- Safety nuts
- Bevel gearboxes
- Three phase AC motors and motor flanges
- Limit switches and rotary pulse encoders
- Couplings and connecting shafts
- Attachments (fork heads, ball heads, pivot bearing heads, clamping flanges, opposed bearing plates, etc.)
- Protective covers (bellows, spiral springs)
- Pivot bearing plates and pivot mounts



### - Ball screw version

Loads from 5 kN to 1000 kN  
Diameter 16 to 160 mm  
Leads from 5 to 80 mm  
Stroke speeds from 1 to 125 mm/s with high loads  
Low power consumption

### - Catalogue available in:

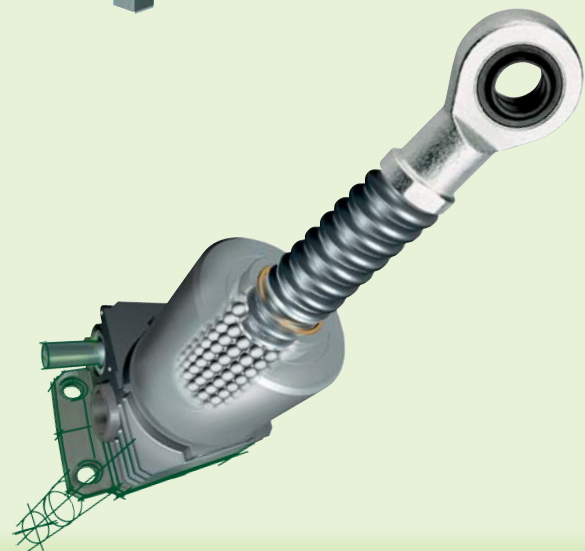
German | English | French | Italian | Spanish | Polish  
Korean | Chinese

### - CAD product configurator

CAD-Download: [www.zimm.eu](http://www.zimm.eu)

### - Visit us at our website

[www.zimm.eu](http://www.zimm.eu)



**ZIMM**<sup>®</sup> Austria  
Screw Jack Systems

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