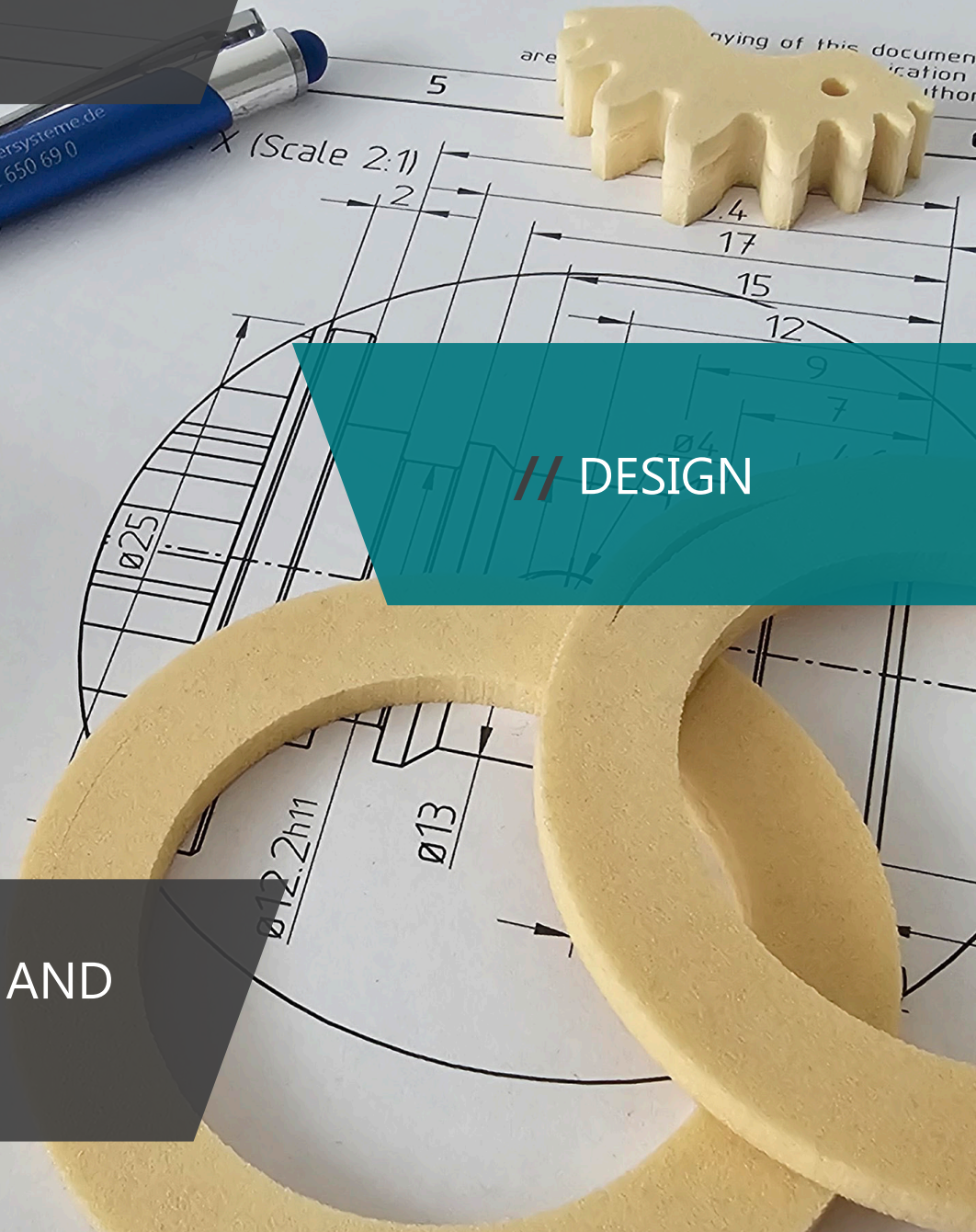




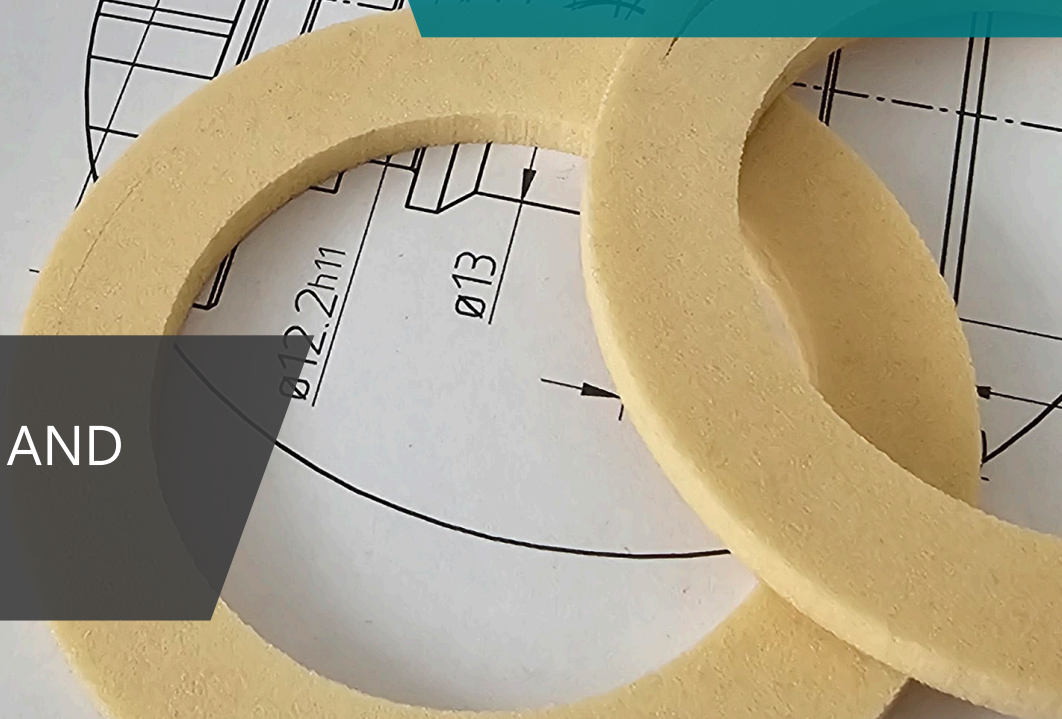
// CONCEPTION



// DESIGN



// INSTALLATION AND ASSEMBLY



DLS - your safe partner



Contact: DLS Schmiersysteme GmbH
Gewerbering 5
D- 82140 Olching

Phone: +49 8142 650 690
E-Mail: mail@dls-schmiersysteme.de
Website: www.dls-schmiersysteme.de



Table of contents

Grease lubrication

Applicators

PU-Lubrication-pinion with axis.....	9
PU-Lubrication-pinion with axis, right-angled.....	10
PU-Lubrication-pinion RH with axis, straight.....	11
PU-Lubrication-roller.....	18

Pumps

PLC 120/240 P-INT.....	23
PLC 60/120/240/480 P-MON.....	25
M125 / 250 / 500.....	27
DLS-4xx-i - Pulse-controlled single/dual circuit pump.....	29
DLS-47x - pulse controlled single circuit pump.....	31
DLS-207x - Pulse/time controlled.....	33

Distributors

Progressive distributor.....	35
Progressive distributor with circulation monitoring.....	36
DLS-Share (solenoid valve bar).....	37
DLS-flow distributor.....	38
Manifold set for Pulsarlube pumps.....	39
DLS-Dispense for DLS-207x.....	40

Lubricants for grease lubrication.....	41
---	-----------

Application examples - grease lubrication.....	49
---	-----------

Table of contents

Oil lubrication

Applicators

PU-Lubrication-sprocket simplex	59
PU-Lubrication-sprocket duplex.....	62
PU-Lubrication-sprocket triplex	65
PU-Lubrication-roller for oil.....	69
PU-Lubrication-roller for accumulating conveyor chains	73

Pumps

OL500 & MSP-OL500	77
DLS-5xx-i - pulse controlled Single/dual circuit pump	79
DLS-57x - pulse controlled single circuit pump.....	81
DLS-507x - Pulse/time controlled	83

Lubricants for oil lubrication	85
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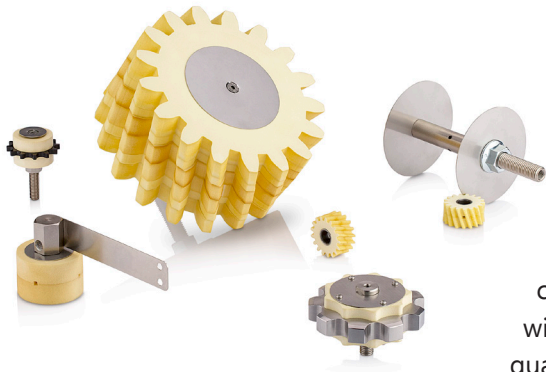
Application examples - oil lubrication	89
---	----

Accessories	92
--------------------------	----

Support	117
----------------------	-----

preventive maintenance	117
-------------------------------------	-----

Our tribological solution is accurate tailored to your requirements:



You get lubrication systems for linear guides and ball screws, as well as for open gears and chain drives of all types and sizes.

We advise you personally to work out an optimal solution for your application.

During an on-site visit, we record the general conditions and create a lubrication concept tailored to the respective parameters, without obligation. We also determine the individual lubrication quantity requirements of the individual lubrication points.

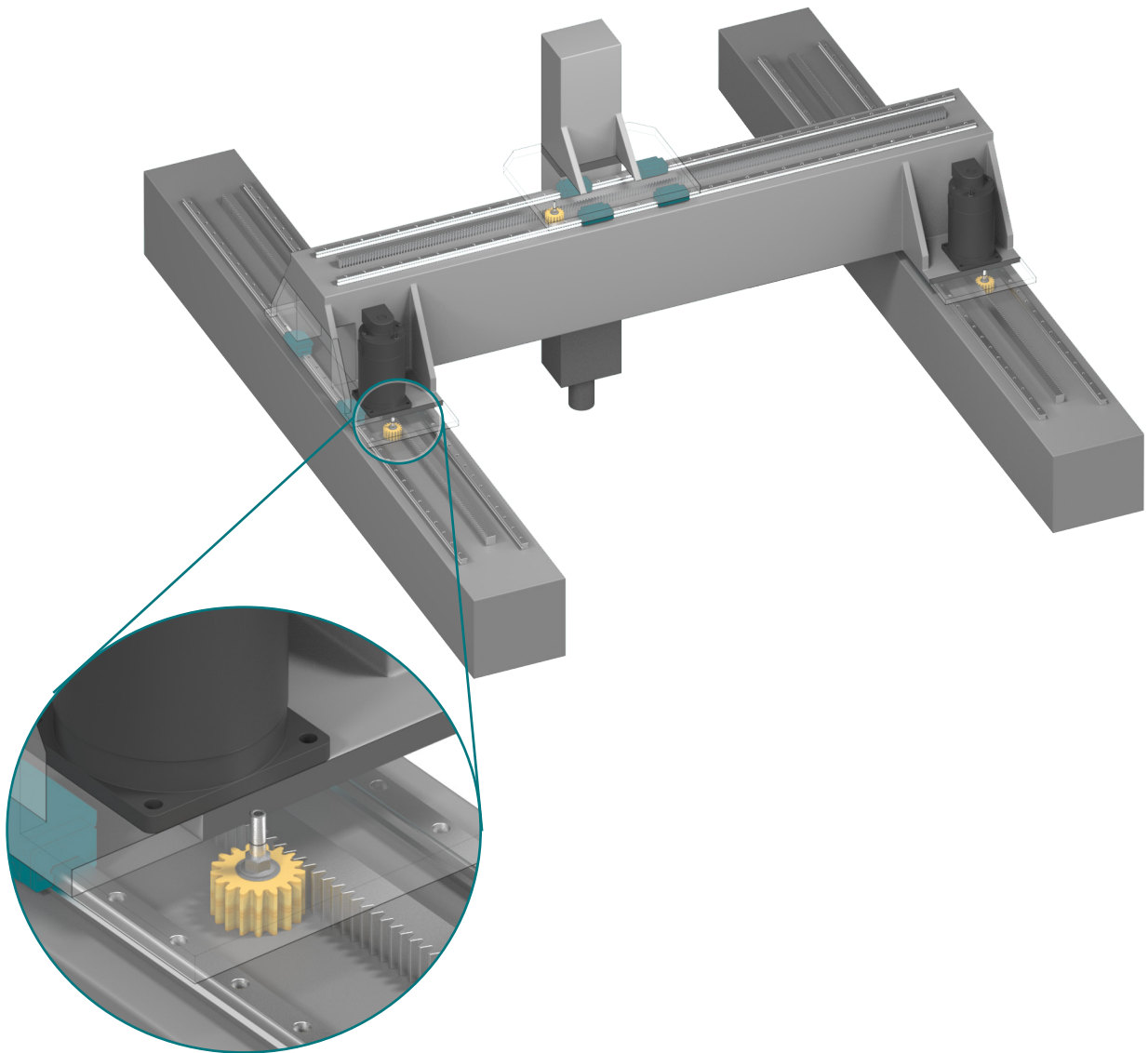
We work closely with you to implement the lubrication concept. Subsequent modifications or changes are possible for us at any time!

As a full-range supplier, we provide to you innovative, electronically controlled grease and oil lubricators, as well as lubricating gears, lubrication sprockets and extensive system accessories from stock!

Ideal for original equipment in mechanical engineering as well as for retrofitting existing systems.

**Everything reliable, competent and solid
from a single source.**



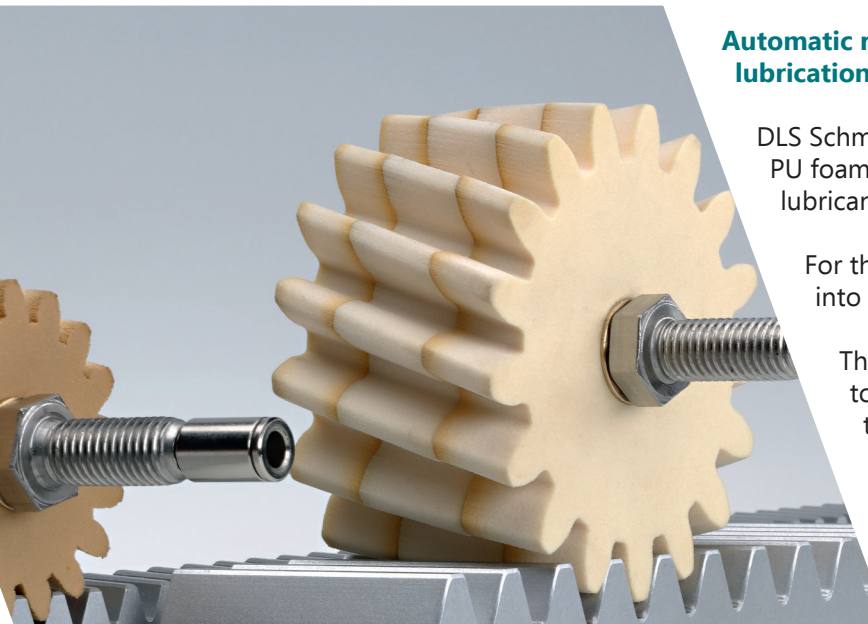


The PU-Lubrication-pinion

Lubrication of open gear drives and racks

The teeth of open drives should preferably be relubricated automatically.

- F01 only for open gears and rack and Pinion drives
- F02 for open gears, rack and Pinion drives
and linear guides in food and Pharmaceutical sector (NSF)
- F03 for open gears, rack and Pinion drives and linear guides



Automatic relubrication with polyurethane lubrication-pinions

DLS Schmiersysteme supplies lubrication gears made of PU foam for the automatic, continuous application of the lubricant.

For this purpose, a suitable lubrication gear is brought into contact with the drive gear or the rack.

The PU lubrication gear does not transmit any torque, but only transfers the lubricant to the toothing that is in contact.

The required relubrication quantities for different gears under different operating conditions can be found in the diagram below.

The prerequisite for the validity of the diagram is the use of the corresponding PU lubricating Pinion and a suitable gear lubricant such as F01, F02 or F03.

Before using for the first time, the PU lubrication pinions must be filled with a suitable lubricant.

The PU-Lubrication-pinion

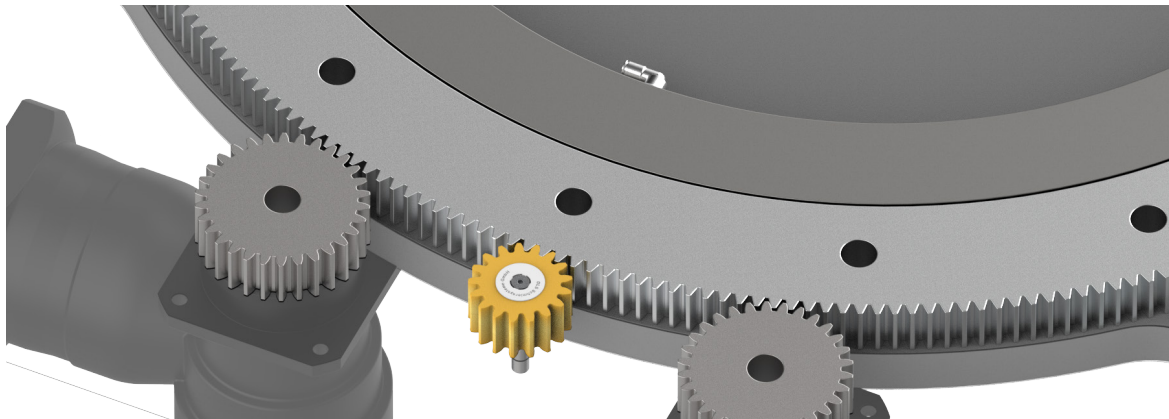
The lubrication-pinions consist of an open-cell polyurethane foam (temperature range $-40\text{ }^{\circ}\text{C}$. $+ 120\text{ }^{\circ}\text{C}$) and are composed of several segments.

For the selection, a constructive decision must be made as to whether the lubrication gear, the rack or the drive gear should be lubricated.

It is preferably attached to the drive gear.

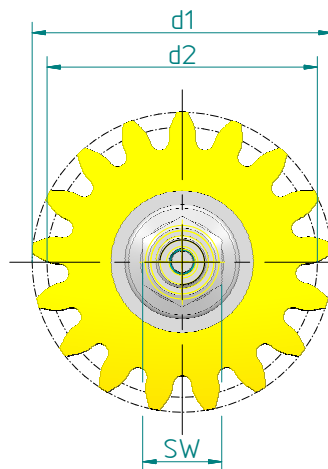
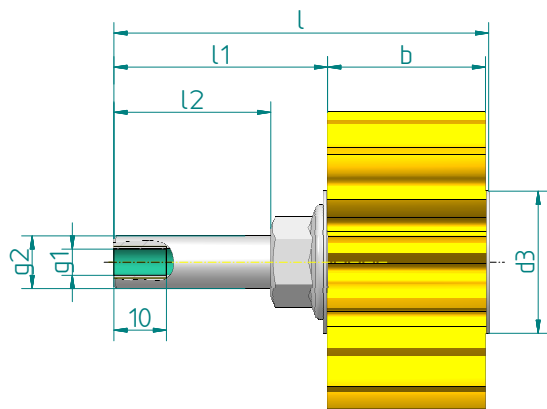
The open-cell polyurethane foam material used for the lubrication gears ensures that the teeth are optimally supplied over a very long period of time.

The material stores the lubricant and releases it again in the smallest metered quantities. Over-lubrication is avoided, as well as insufficient lubrication.



Sets

PU-Lubrication-pinion with axis, straight



Description:
 PU-Lubrication-pinion;
 straight;
 incl. sleeve bearing;
 with straight axis
 toothing according to DIN 867
 pre-oiled with oil (H1 approval)

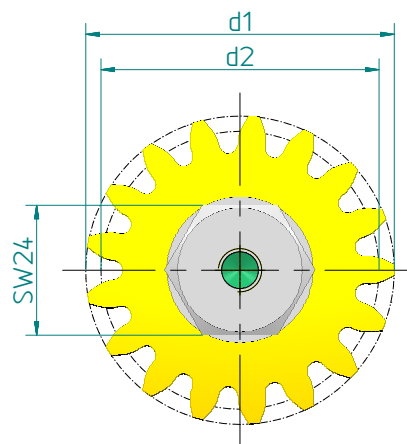
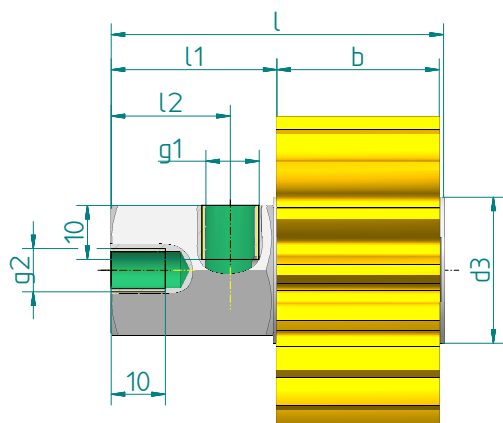
Material:
 Pinion: open-cell PU foam;
 axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	part-no.
1,5	24	15,0	39	36	60,4	44,7	34	M6	M10	27	15	150-152-421
2	17	20,0	38	34	63,9	43,2	32,5	M6	M10	27	15	150-021-721
3	17	30,0	57	51	71,2	40,5	29,8	M6	M10	27	15	150-031-721
4	17	40,0	76	68	81,2	40,5	29,8	M6	M10	27	15	150-041-721
5	17	50,0	95	85	116,4	65,7	49,5	M10x1	M16	60	24	150-051-721
6	17	60,0	114	102	126,4	65,7	49,5	M10x1	M16	60	24	150-061-721
8	17	80,0	152	136	146,4	65,7	49,5	M10x1	M16	100	24	150-081-721
10	17	100,0	190	170	166,4	65,7	49,5	M10x1	M16	100	24	150-101-721

*Alternatively also possible without H1 approval

Sets

PU-Lubrication-pinion with axis, right-angled



Description:
 PU-Lubrication-pinion;
 straight;
 incl. sleeve bearing;
 with angled axis
 toothing according to DIN 867
 pre-oiled with oil (H1 approval)

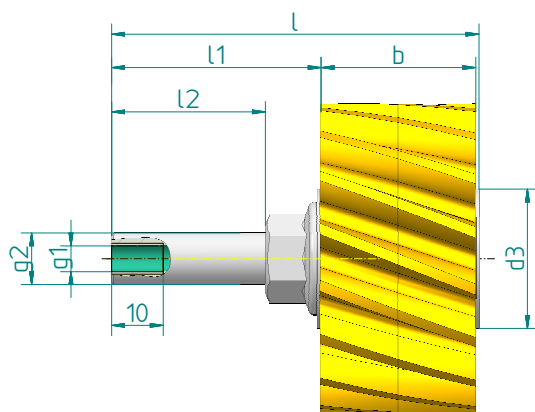
Material:
 Pinion: open-cell PU foam;
 axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	part-no.
1,5	24	15,0	39	36	46,4	30,7	22	M10x1	M8	27	24	150-152-411
2	17	20,0	38	34	51,4	30,7	22	M10x1	M8	27	24	150-021-711
3	17	30,0	57	51	61,4	30,7	22	M10x1	M8	27	24	150-031-711
4	17	40,0	76	68	71,4	30,7	22	M10x1	M8	27	24	150-041-711
5	17	50,0	95	85	81,4	30,7	22	M10x1	M8	60	24	150-051-711
6	17	60,0	114	102	91,4	30,7	22	M10x1	M8	60	24	150-061-711
8	17	80,0	152	136	111,4	30,7	22	M10x1	M8	100	24	150-081-711
10	17	100,0	190	170	131,4	30,7	22	M10x1	M8	100	24	150-101-711

*Alternatively also possible without H1 approval

Sets

PU-Lubrication-pinion RH with axis, straight



Description:

PU-Lubrication-pinion;
helical right;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

Material:

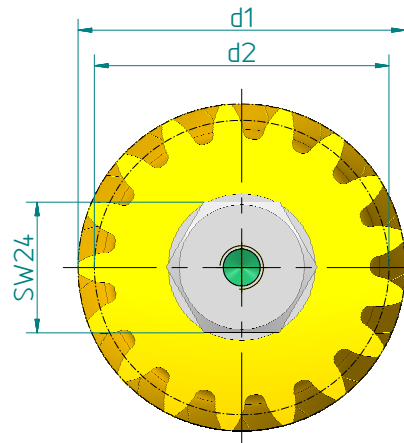
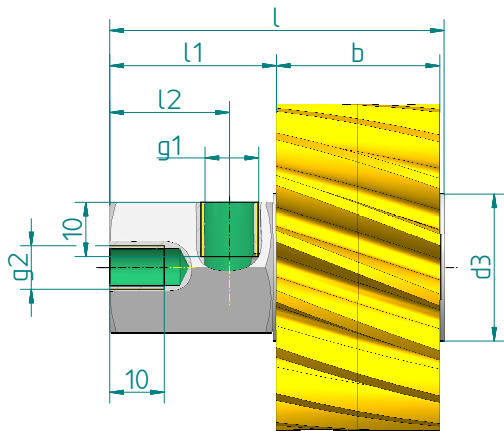
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	β	part-no.
1,5	24	15,0	41,2	38,2	60,4	44,7	34	M6	M10	27	15	19,53°	151-152-421
2	17	20,0	40,1	36,1	63,9	43,2	32,5	M6	M10	27	15	19,53°	151-021-721
3	17	30,0	60,1	54,1	71,2	40,5	29,8	M6	M10	27	15	19,53°	151-031-721
4	17	40,0	80,2	72,2	81,2	40,5	29,8	M6	M10	27	15	19,53°	151-041-721
5	17	50,0	100,2	90,2	116,4	65,7	49,5	M10x1	M16	60	24	19,53°	151-051-721
6	17	60,0	120,2	108,2	126,4	65,7	49,5	M10x1	M16	60	24	19,53°	151-061-721
8	17	80,0	160,3	144,3	146,4	65,7	49,5	M10x1	M16	100	24	19,53°	151-081-721
10	17	100,0	200,4	180,4	166,4	65,7	49,5	M10x1	M16	100	24	19,53°	151-101-721

*Alternatively also possible without H1 approval

Sets

PU-Lubrication-pinion RH with axis, right-angled



Description:

PU-Lubrication-pinion;
helical right;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

Material:

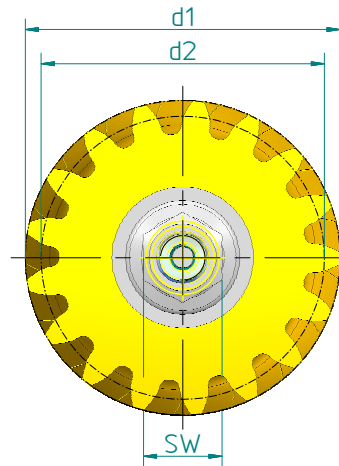
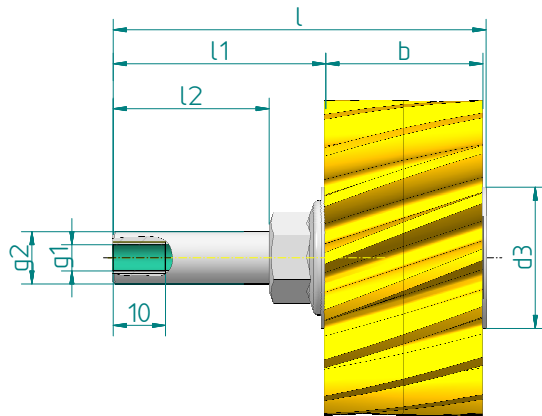
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	β	part-no.
1,5	24	15,0	41,2	38,2	46,4	30,7	22	M10x1	M8	27	15	19,53°	151-152-411
2	17	20,0	40,1	36,1	51,4	30,7	22	M10x1	M8	27	15	19,53°	151-021-711
3	17	30,0	60,1	54,1	61,4	30,7	22	M10x1	M8	27	15	19,53°	151-031-711
4	17	40,0	80,2	72,2	71,4	30,7	22	M10x1	M8	27	15	19,53°	151-041-711
5	17	50,0	100,2	90,2	81,4	30,7	22	M10x1	M8	60	24	19,53°	151-051-711
6	17	60,0	120,2	108,2	91,4	30,7	22	M10x1	M8	60	24	19,53°	151-061-711
8	17	80,0	160,3	144,3	111,4	30,7	22	M10x1	M8	100	24	19,53°	151-081-711
10	17	100,0	200,4	180,4	131,4	30,7	22	M10x1	M8	100	24	19,53°	151-101-711

*Alternatively also possible without H1 approval

Sets

PU-Lubrication-pinion LH with axis, straight



Description:

PU-Lubrication-pinion;
helical left;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

Material:

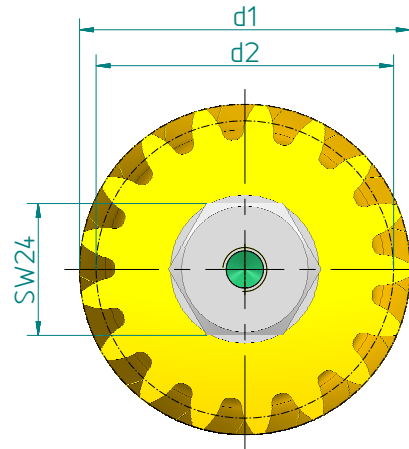
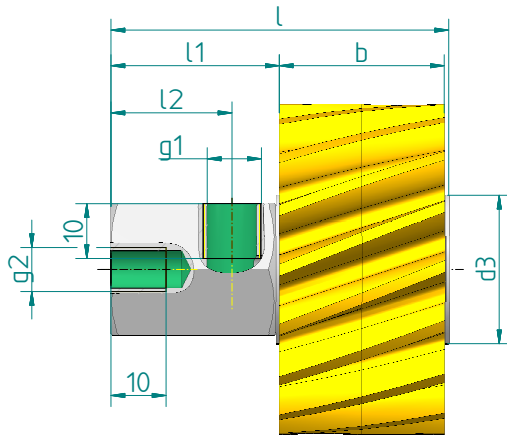
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	β	part-no.
1,5	24	15,0	41,2	38,2	60,4	44,7	34	M6	M10	27	15	19,53°	152-152-421
2	17	20,0	40,1	36,1	63,9	43,2	32,5	M6	M10	27	15	19,53°	152-021-721
3	17	30,0	60,1	54,1	71,2	40,5	29,8	M6	M10	27	15	19,53°	152-031-721
4	17	40,0	80,2	72,2	81,2	40,5	29,8	M6	M10	27	15	19,53°	152-041-721
5	17	50,0	100,2	90,2	116,4	65,7	49,5	M10x1	M16	60	24	19,53°	152-051-721
6	17	60,0	120,2	108,2	126,4	65,7	49,5	M10x1	M16	60	24	19,53°	152-061-721
8	17	80,0	160,3	144,3	146,4	65,7	49,5	M10x1	M16	100	24	19,53°	152-081-721
10	17	100,0	200,4	180,4	166,4	65,7	49,5	M10x1	M16	100	24	19,53°	152-101-721

*Alternatively also possible without H1 approval

Sets

PU-Lubrication-pinion LH with axis, right-angled



Description:

PU-Lubrication-pinion;
helical left;
incl. sleeve bearing;
with angled axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

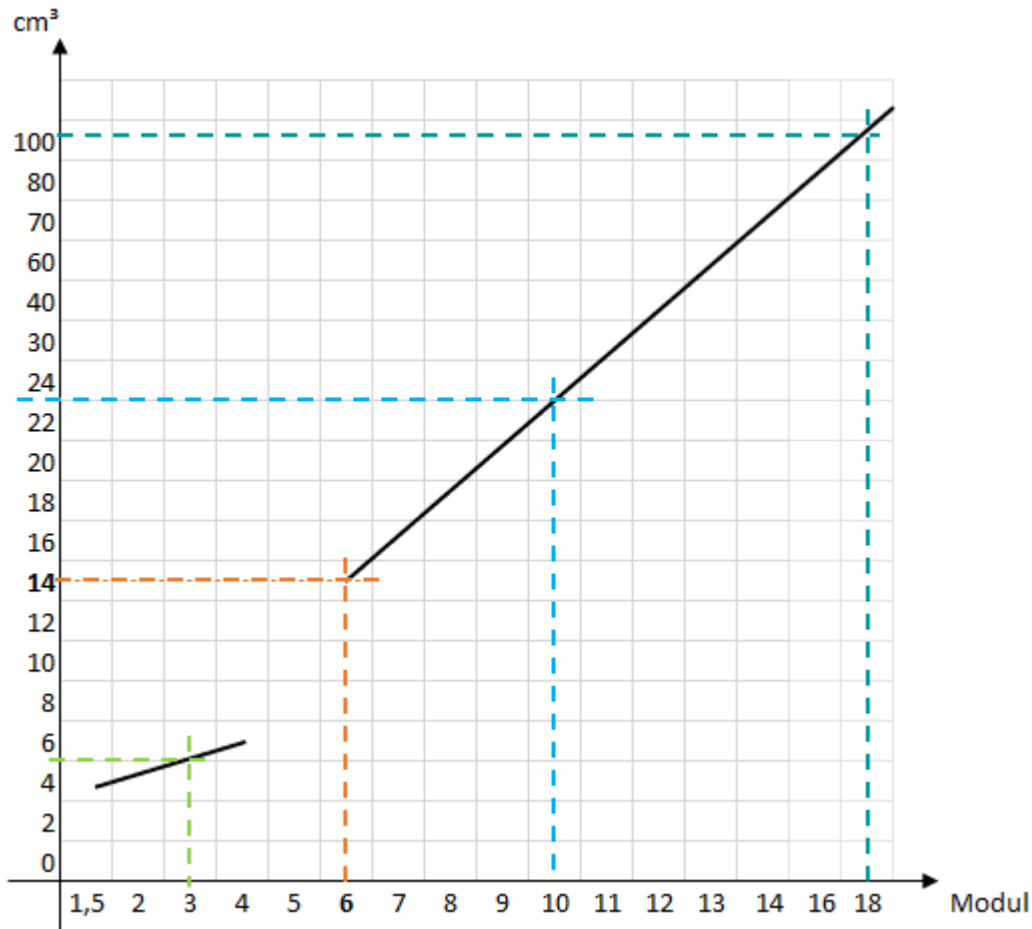
Material:

Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	β	part-no.
1,5	24	15	41,2	38,2	46,4	30,6	22	M10x1	M8	27	24	19,53°	152-152-411
2	17	20	40,1	36,1	51,4	30,6	22	M10x1	M8	27	24	19,53°	152-021-711
3	17	30	60,1	54,1	61,4	30,6	22	M10x1	M8	27	24	19,53°	152-031-711
4	17	40	80,2	72,2	71,4	30,6	22	M10x1	M8	27	24	19,53°	152-041-711
5	17	50	100,2	90,2	81,4	30,6	22	M10x1	M8	60	24	19,53°	152-051-711
6	17	60	120,2	108,2	91,4	30,6	22	M10x1	M8	60	24	19,53°	152-061-711
8	17	80	160,3	144,3	111,4	30,6	22	M10x1	M8	60	24	19,53°	152-081-711
10	17	100	200,4	180,4	131,4	30,6	22	M10x1	M8	100	24	19,53°	152-101-711

*Alternatively also possible without H1 approval

Initial greasing of PU-lubrication pinions

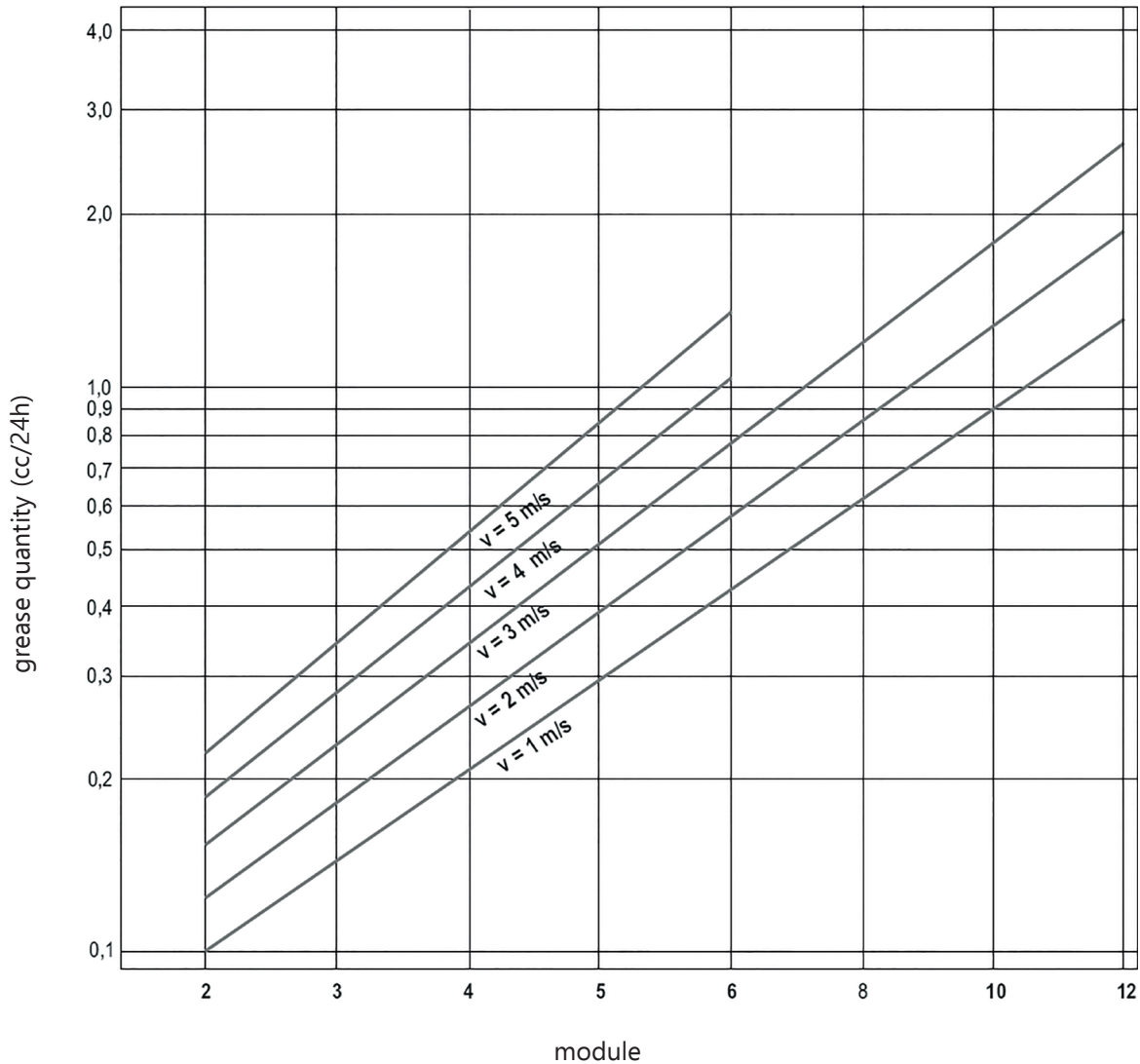


A suitable filling set for the initial greasing of the PU-lubrication pinions with lubricant can be found on page 90.

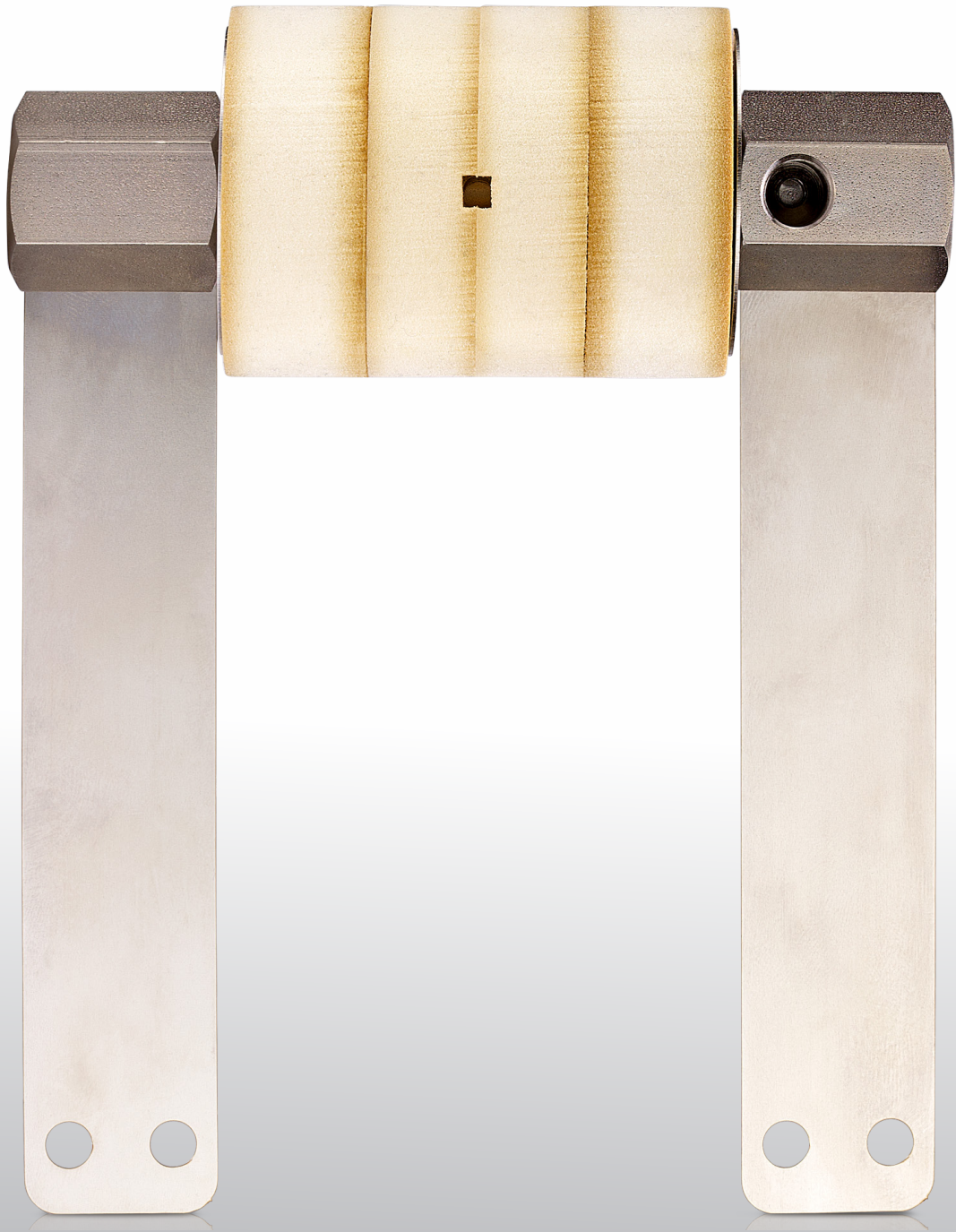
Module	1,5	2	3	4	5	6	7	8	9	10	11	12
Grease volume for initial greasing (cm ³)	4	4	5	6	12	14	17	18	20	23	24	27
Number of pump strokes with hand grease gun	11	11	14	17	34	40	49	51	57	66	69	77
Number of pump strokes with pump	27	27	33	40	80	93	113	120	133	153	160	180

The heart of every good lubrication!

Grease requirement when lubricating with PU-lubrication-pinions



*Reference values based on a maximum lift of 5 meters. For lubricant quantity recommendations suitable for your application, contact our employee at www.dls-schmiersysteme.de



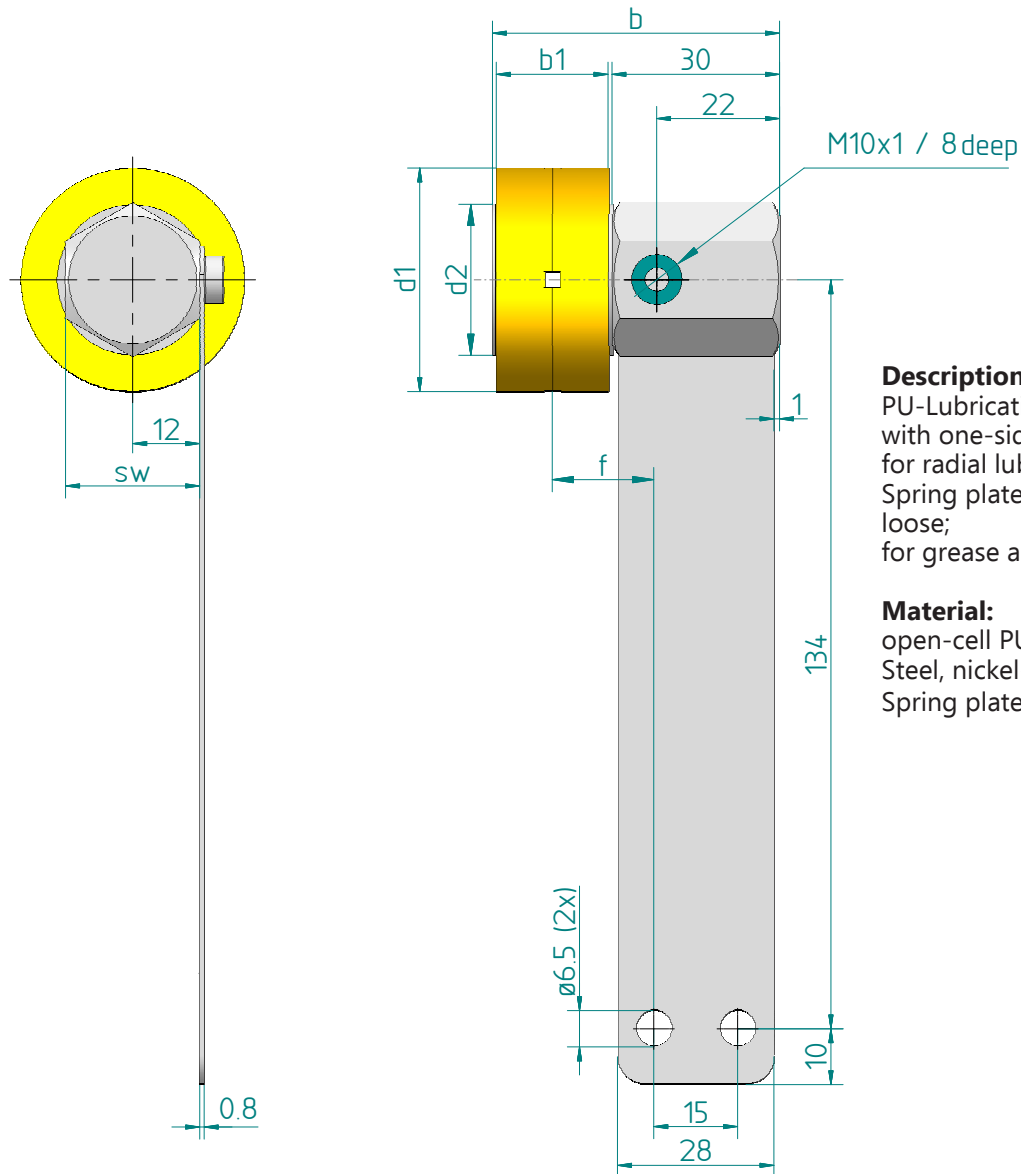
PU-Lubrication-roller

The rolls of the PU-Lubrication-roller consist of an open-cell polyurethane foam (temperature range -30 °C . +120 °C) and are composed of several segments.

They are particularly suitable for relubricating rails for guides.

- + for grease lubrication
- + grease up to NLGI class 2
- + diameter up to 600 mm
- + freely selectable contours
- + very good emergency running properties
- + covers and enclosures on request
- + the PU-Lubrication-roller are provided with grooves for grease lubrication

PU-Lubrication-roller for grease



Description:

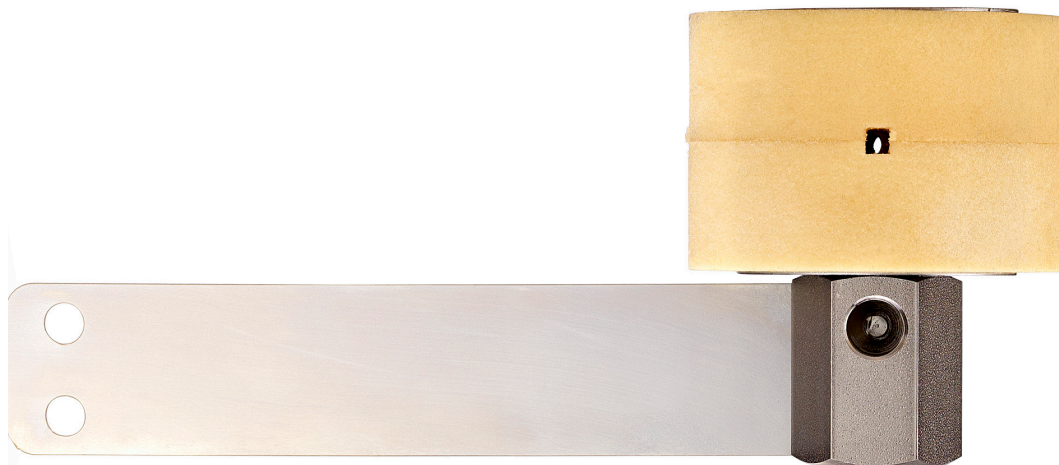
PU-Lubrication-roller; sleeve bearing;
with one-sided recording;
for radial lubricant supply;
Spring plate and screws supplied
loose;
for grease applications

Material:

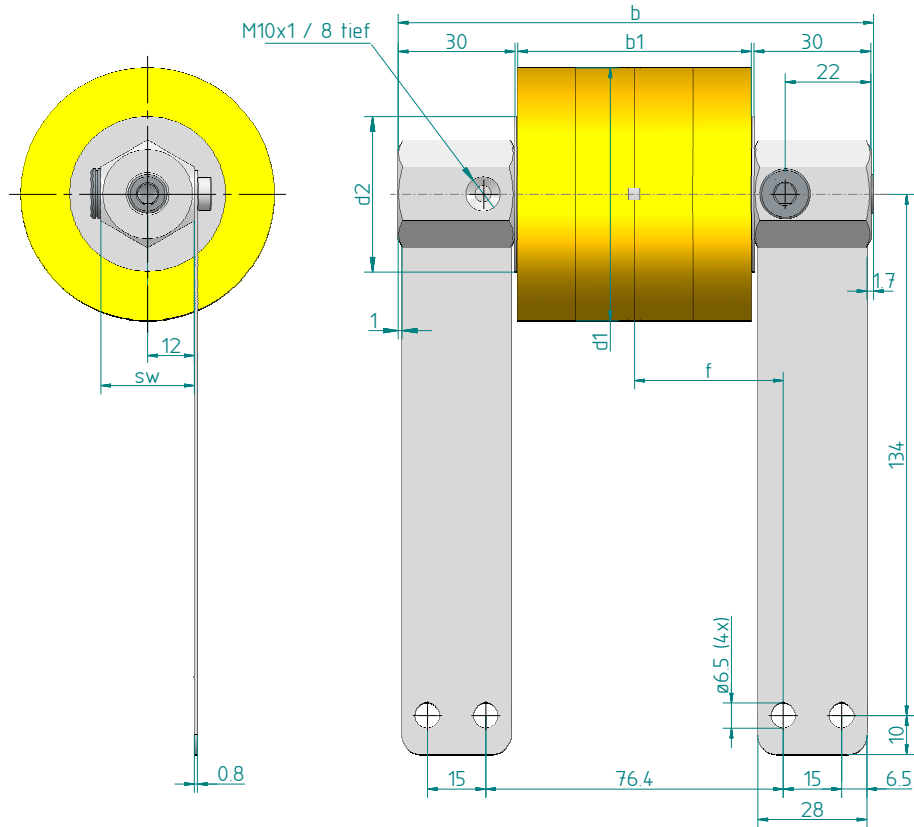
open-cell PU foam;
Steel, nickel-plated;
Spring plate in 1.4310

Single-sided

b1	d1	b	d2	g1	part-no.
20	40	51,4	27	M10x1 10mm	127-020-403
24	40	55,4	27	M10x1 10mm	127-024-403
30	40	61,4	27	M10x1 10mm	127-030-403
40	40	71,4	27	M10x1 10mm	127-040-403
45	40	76,4	27	M10x1 10mm	127-045-403
50	65	81,4	45	M10x1 10mm	127-050-653
60	65	91,4	45	M10x1 10mm	127-060-653



PU-Lubrication-roller for grease



Description:

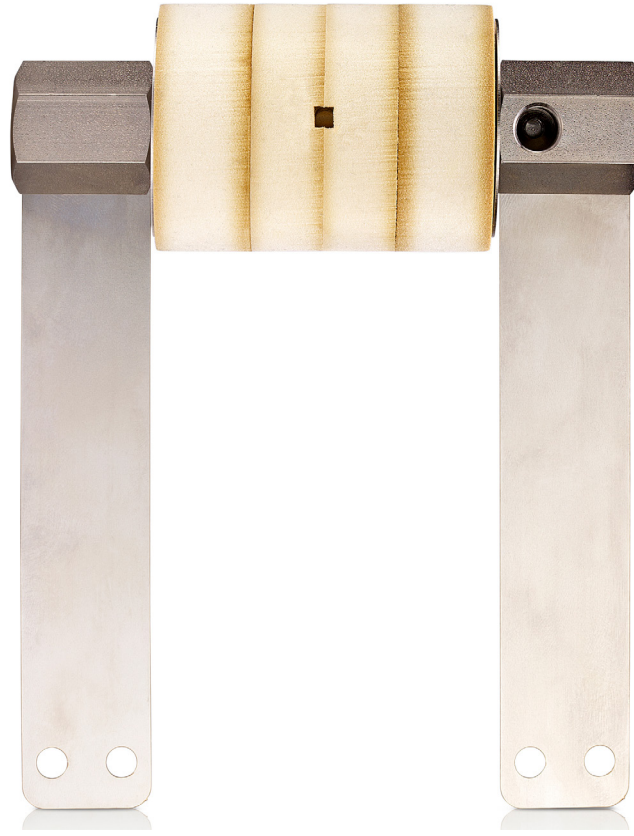
PU-Lubrication-roller; sleeve bearing; with double-sided recording;
for one-sided, radial lubricant supply;
Spring plate and screws supplied loose;
for grease applications

Material:

open-cell PU foam;
Steel, nickel-plated;
Spring plate in 1.4310

Double-sided

b1	d1	d2	b	g1	t	part-no.
60	65	40	121,4	M10x1 10 mm	0,8	127-060-654
70	65	40	131,4	M10x1 10 mm	0,8	127-070-654
80	65	40	141,4	M10x1 10 mm	0,8	127-080-654
90	65	40	151,4	M10x1 10 mm	0,8	127-090-654



PLC 120/240 P-INT

Grease Pouch Capacity: 120 / 240 cm³

Power Supply: External Power Supply

Operating Pressure: 30 ~ 60 bar

Operating Temperature: -20 °C ~ 60 °C

Dispensing Periods: Mode 1, 2, 3, . 6

Remote Installation: Max. 10m (33ft) with O.D. Ø6 tube

Multi-Point Installation: Max. 6m (20ft) with O.D. Ø6 tube
(Up to 8 lube points)

IP Code: IP65

CE: EN 61000-6-4:2007/A1:2011,
EN 61000-6-2:2005

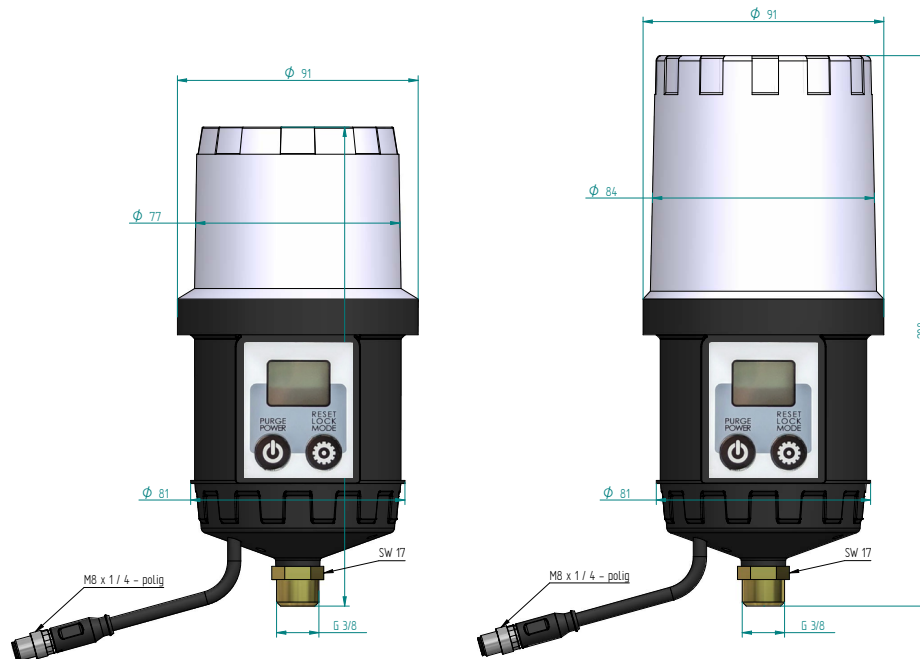
KC: MSIP-REM-KLT-PLC480



**Ideal for single or combined
relubrication of:**

- + roller bearing
- + racks / open gears
- + linear guides
- + ball swivel connector
- + ball screw

Controlled minimum quantity lubrication for grease



Typ	Outlets	Grease Pouch Capacity	Part-No.
PLC120 P-INT	1	120 cm ³	335-121-210
PLC240 P-INT	1	240 cm ³	335-251-210

If required, 2 - 8 lubrication points can be operated with the sets on page 39.

PLC 60/120/240/480 P-MON

Grease Pouch Capacity: 60 / 120 / 240 / 480 cm³

Power Supply: External Power Supply

Operating Pressure: 30 ~ 60 bar

Operating Temperature: -20 °C ~ 60 °C

Dispensing Periods: 1, 2, 3...10,11,12 Months

Remote Installation: max. 10m (33ft) with O.D. Ø6 tube

Multi-Point Installation: max. 6m (20ft) with O.D. Ø6 tube
(Up to 8 lube points)

IP Code: IP65

CE: EN 61000-6-4:2007/A1:2011,
EN 61000-6-2:2005

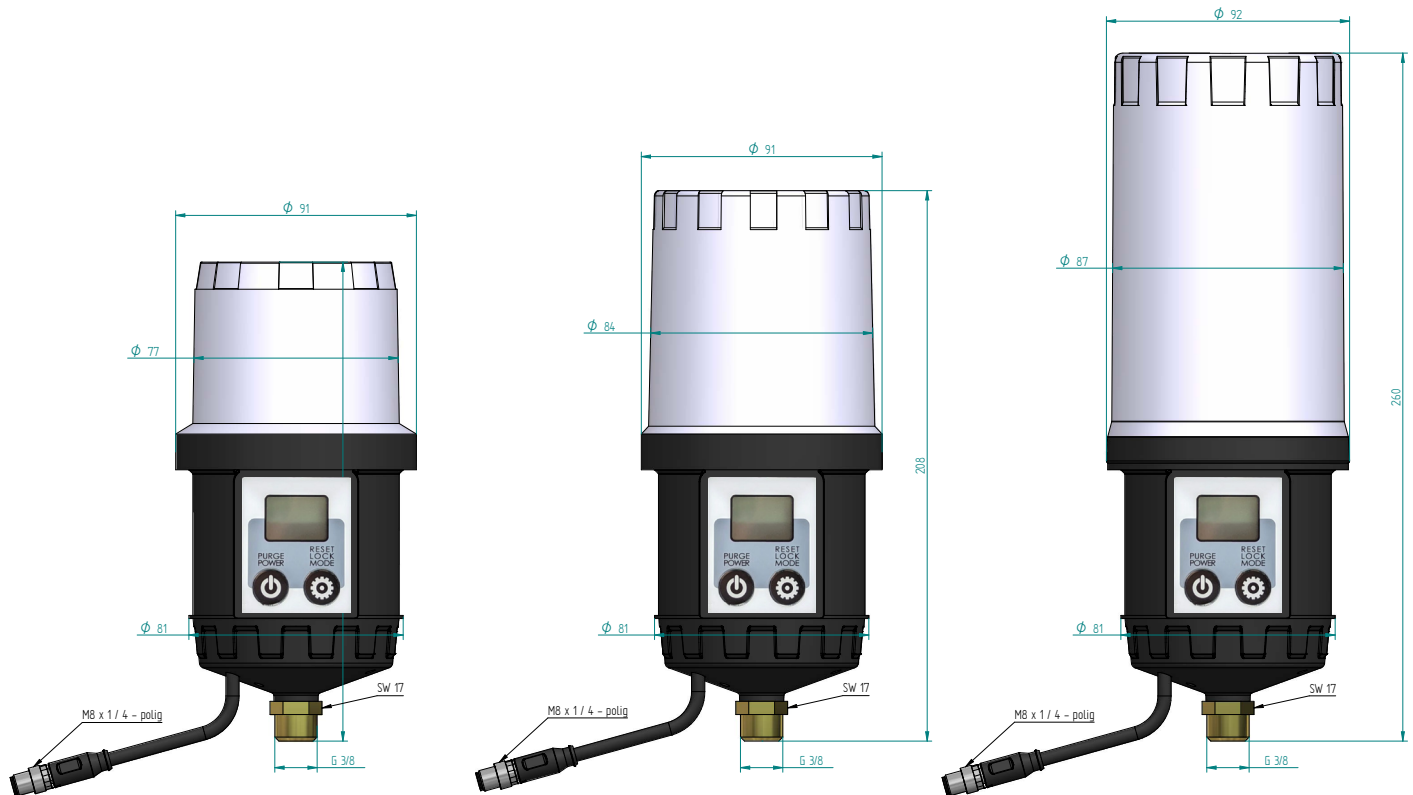
KC: MSIP-REM-KLT-PLC480



**Ideal for single or combined
relubrication of:**

- + roller bearing
- + racks / open gears
- + linear guides
- + ball swivel connector
- + ball screw

Controlled minimum quantity lubrication for grease



Typ	Outlets	Grease Pouch Capacity	Part-No.
PLC120 P-MON	1	120 cm ³	335-121-100
PLC240 P-MON	1	240 cm ³	335-251-100
PLC480 P-MON	1	480 cm ³	335-411-100

If required, 2 - 8 lubrication points can be operated with the sets on page 39.

M125 / 250 / 500

Grease Pouch Capacity: 125 / 250 / 500 cm³

Power Supply: DC 4.5V Battery Pack (interchangeable)

Operating Pressure: 30 ~ 60 bar

Operating Temperature:

Standard Alkaline Battery: -15 °C ~ 60 °C

Optional Lithium Battery: -40 °C ~ 60 °C

Dispensing Periods:

125 ml/250 ml: 1, 2, 3, 6, 12 Months & H (15 days)

500 ml: 1, 2, 4, 6, 12, 18, 24 Months & H (15 days)

Remote Installation: Max. 10m (33ft) with O.D. Ø6 tube

Multi-Point Installation: Max. 6m (20ft) with O.D. Ø6 tube
(Up to 8 lube points)

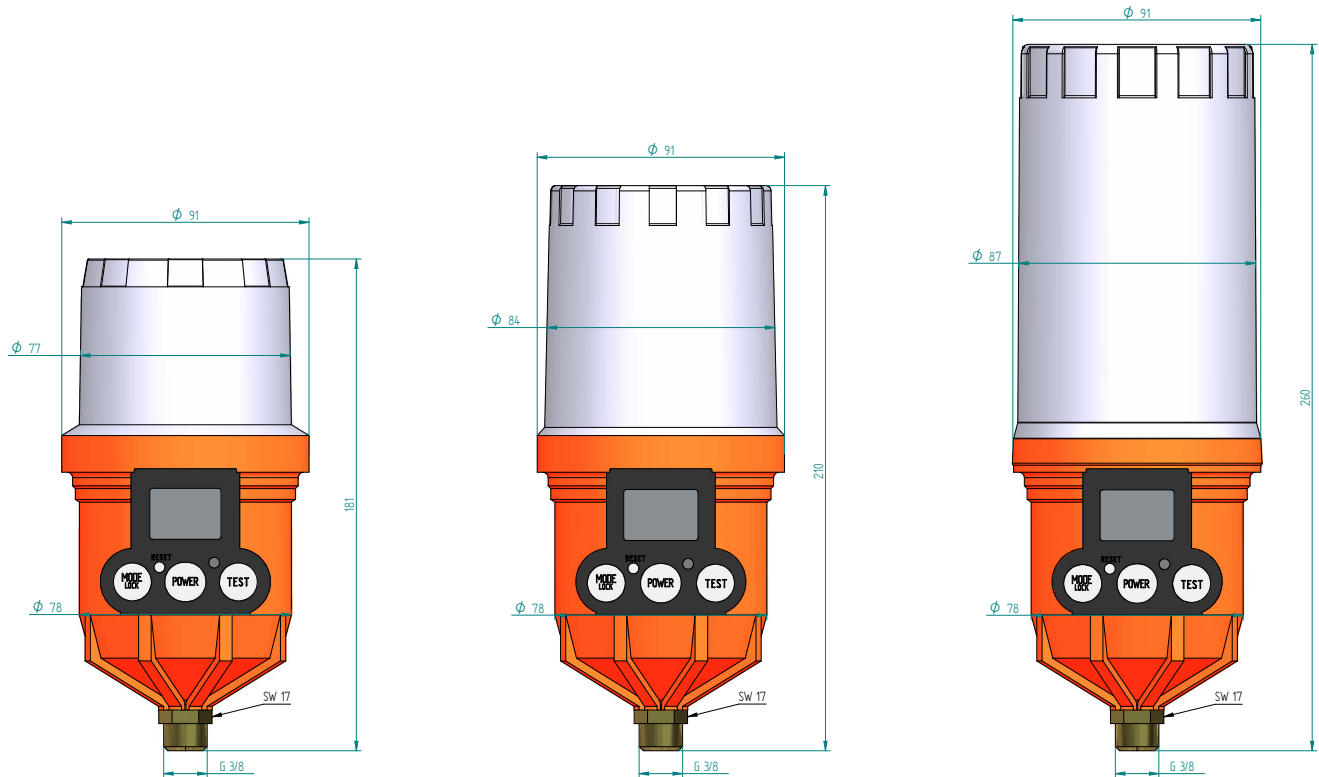
IP Code: IP54



**Ideal for single or combined
relubrication of:**

- + roller bearing
- + racks / open gears
- + linear guides
- + ball swivel connector
- + ball screw

Controlled minimum quantity lubrication for grease



Typ	Outlets	Grease Pouch Capacity	Part-No.
M125	1	125 cm ³	335-121-000
M250	1	250 cm ³	335-251-000
M500	1	500 cm ³	335-411-000

If required, 2 - 8 lubrication points can be operated with the sets on page 39.

DLS-4xx-i - Pulse-controlled single/dual circuit pump

Function:	dosing pump
Lubricant volume:	grease, depending on container
Dosing volume per stroke:	0,4 cm ³
Discharge pressure:	max. 80 bar
Lubricating medium:	grease, up to NLGI class 2, with solid parts possible oil, from operating viscosity 150 mm ² /s
Operating Temperature:	+10 °C ...+80 °C
Number of outlets:	2, 3 or 4 Outlets
Installation position:	depending on container
Control:	integrated, microelectronic
Protection class:	DIN EN 60529 IP44
Material of outer parts:	galvanized Steel aluminum plastic
Seals:	NBR / FPM / HNBR

Particularities:

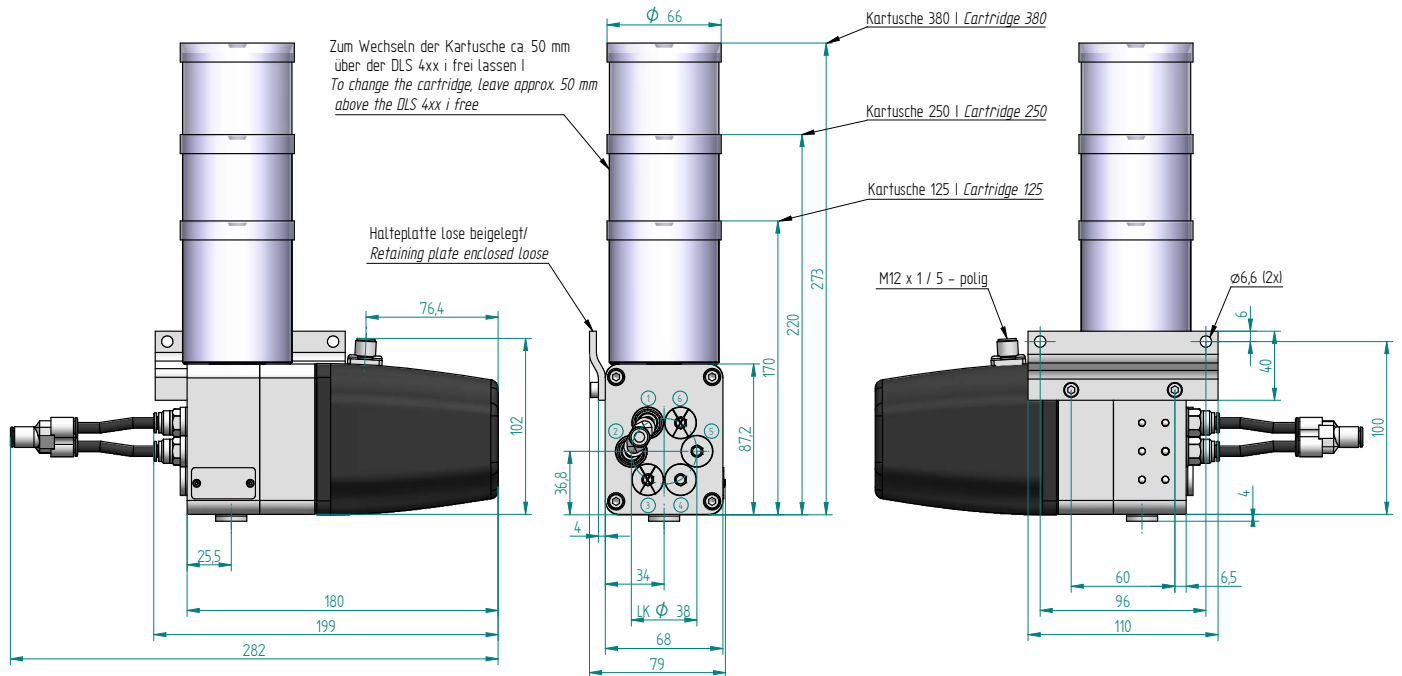
- 2 different amounts of lubricant possible
- Functional check as standard
- Level control as standard
- Cartridge control as standard
- Low power consumption
-



**Ideal for single or combined
relubrication of**

- + roller bearing
- + linear guides
- + ball screws
- + Gear racks / open gears
- + Slewing Ball Connector

Controlled minimum quantity lubrication for grease



Typ	variant	Outlets	pump body	cartridge size	Part-No.
DLS-411-i	pulse controlled	1	1	125 (160 cm ³) 250 (300 cm ³) 380 (450 cm ³)	335-411-210
DLS-412-i	pulse controlled	2	1		335-412-210
DLS-422-i	pulse controlled	1 + 1	2		335-422-210
DLS-423-i	pulse controlled	3	2		335-423-210
DLS-424-i	pulse controlled	4	2		335-424-210

DLS-47x - pulse controlled single circuit pump

Function:	dosing pump
Lubricant volume:	grease, depending on container
Dosing volume per stroke:	0,4 cm ³
Discharge pressure:	max. 80 bar
Lubricating medium:	grease, up to NLGI class 2, with solid parts possible oil, from operating viscosity 150 mm ² /s
Operating Temperature:	+10 °C ... +80 °C
Number of outlets:	up to 6 Outlets
Installation position:	depending on container
Control:	integrated, microelectronic
Protection class:	DIN EN 60529 IP44
Material of outer parts:	galvanized Steel aluminum plastic
Seals:	NBR / FPM / HNBR

Particularities:

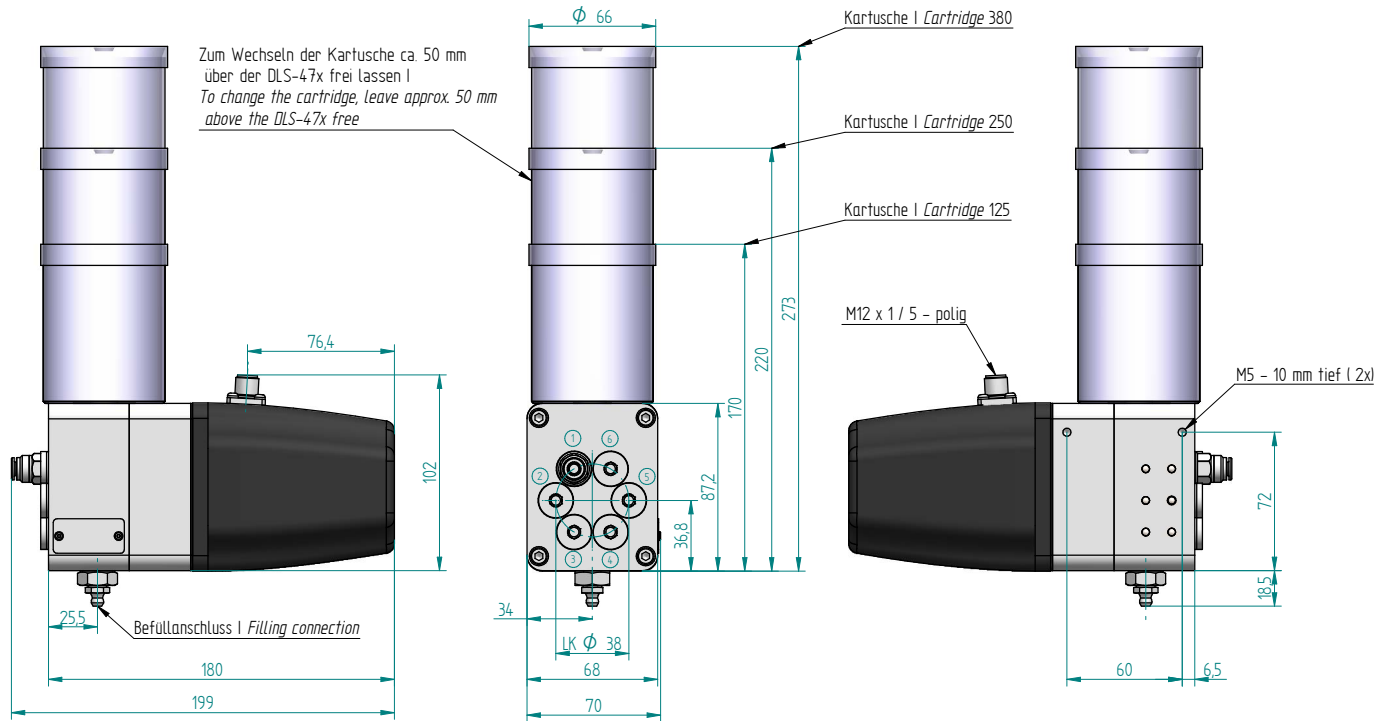
- Outlets can be closed later
- Functional check as standard
- Level control as standard
- Cartridge control as standard
- Low power consumption
- OPTIONAL: Container can be filled using a grease nipple



**Ideal for single or combined
relubrication of**

- + roller bearing
- + linear guides
- + ball screws
- + Gear racks / open gears
- + Slewing Ball Connector

Controlled minimum quantity lubrication for grease



Lubricant	Container	Pressure	Outlets	Tube connector	Filling point	Part-No.
Grease	Thread for grease cartridges 125 250 400 cm ³	80 bar	1	Tube connector, straight for tube 6	Tapered grease nipple DIN 71412	1752400081100
Grease	Lube-Shuttle Adapter	80 bar	6	Tube connector, straight for tube 6	Tapered grease nipple DIN 71412	1752401086100

Further configuration options can be found on our website at www.dls-schmiersysteme.de

DLS-207x - Pulse/time controlled

Function:	Pump unit in central lubrication systems
Lubricant volume: dosing volume	grease, 2 Liter
per pump element 04:	0,04 cm ³
per pump element 08:	0,08 cm ³
per pump element 16:	0,16 cm ³
Discharge pressure:	max. 250 bar
Lubricating medium:	grease, up to NLGI class 2, with solid parts possible oil, from operating viscosity 150 mm ² /s
Operating Temperature:	-20 °C ...+60 °C
Number of outlets:	up to 2 Outlets
Installation position:	vertical
connection voltage:	24 VDC
power:	max. 2,5 A
Speed (depending on load):	ca. 30 min ⁻¹
Protection class:	DIN EN 60529 IP55 higher IP on request
Housing:	aluminum
pump element:	Steel
container:	St / Polyamide transparent
Seals:	NBR

Particularities:

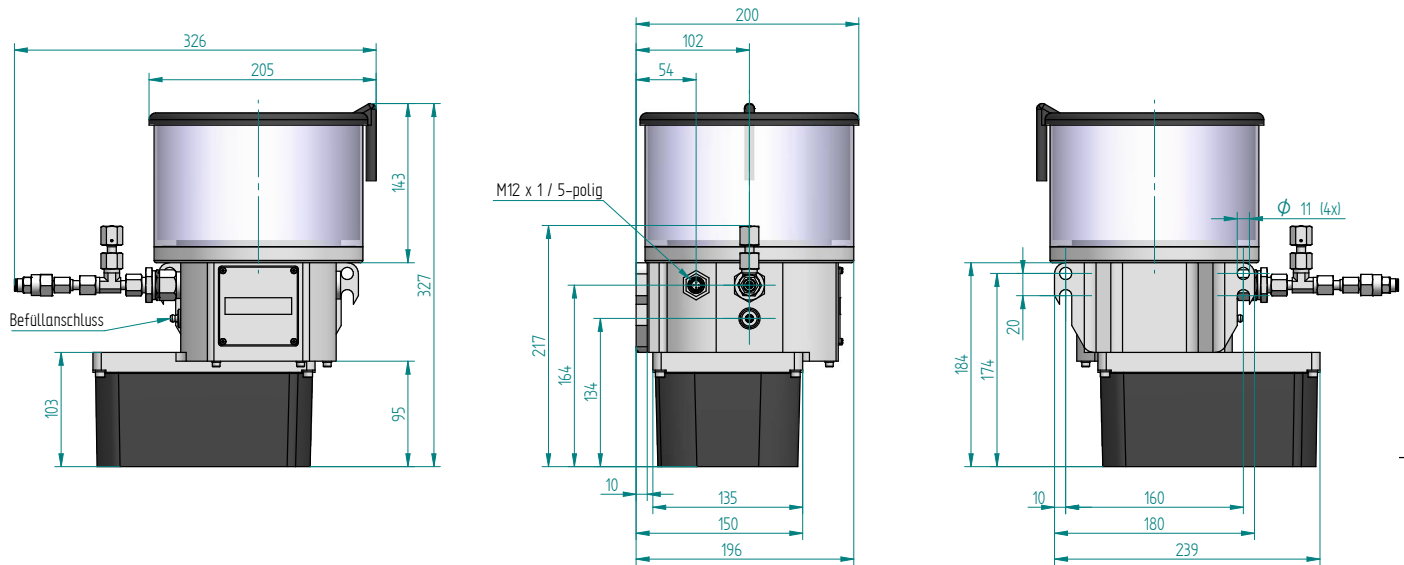
- for conveying liquid grease
- 1-2 pump outlets
- electrical control and monitoring
- with stirring without conveying function
- OPTIONAL: also available with integrated control



**Ideal for single or combined
relubrication of**

- + roller bearing
- + linear guides
- + ball screws
- + Gear racks / open gears
- + Slewing Ball Connector

Controlled minimum quantity lubrication for grease



Lubricant	Pressure	Pump element on the left	Pump element on the right	Control	Tube connector	Part-No.
Grease	70 bar	0,04 cm ³	0,04 cm ³	without	straight for tube 6	1751407040401
Grease	250 bar	no connection	0,16 cm ³	integrated	straight for tube 8	1751425001613

Further configuration options can be found on our website at www.dls-schmiersysteme.de

Progressive distributor

standard design:

- Operating pressure up to 250 bar
- Mechanically compatible with Gen. 1
- Material Steel , zinc-nickel coating
- Cascade construction possible
- Line length between pump and Distributor 10 meters

Special versions (on request):

- tube connection in different designs, straight / angled
- different dosing volumes
- Material: additional aluminum (pressure limitation 180 bar)

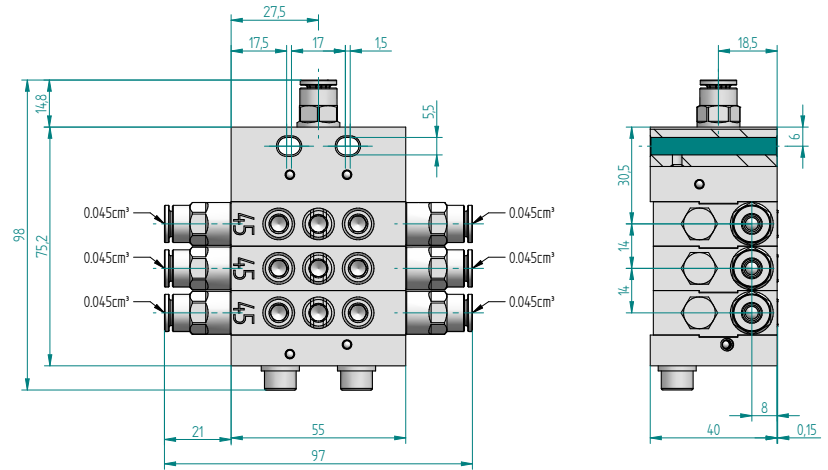


Figure: 6-way progressive distributor

Outlets	Inlet	Tube	Outlets	Tube	Part-No.
2	straight	6	straight	6	338-000-002
3	straight	6	straight	6	338-000-003
4	straight	6	straight	6	338-000-004
5	straight	6	straight	6	338-000-005
6	straight	6	straight	6	338-000-006
7	straight	6	straight	6	338-000-007
8	straight	6	straight	6	338-000-008
9	straight	6	straight	6	338-000-009
10	straight	6	straight	6	338-000-010

Notes:

- Operating temperature range: -20 °C...+80 °C (depending on the lubricant used)
- vented with test oil ISO VG46, H1 approval
- In the case of special versions, the tube connections are loosely enclosed with the progressive distributor

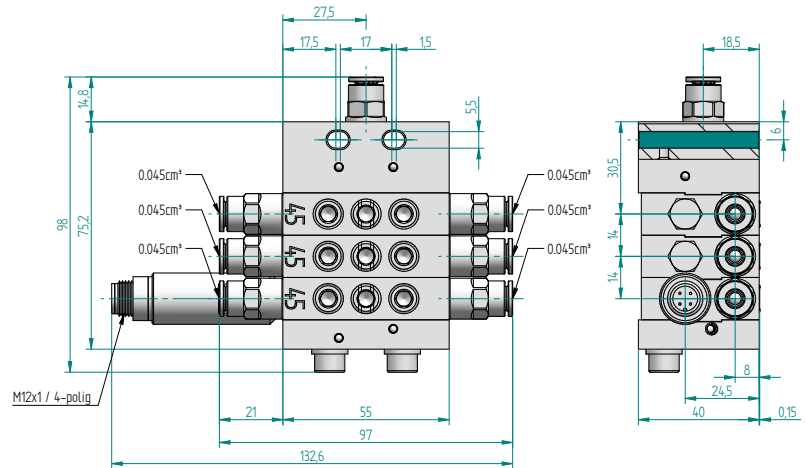
Progressive distributor with circulation monitoring

standard design:

- Operating pressure up to 250 bar
- Mechanically compatible with Gen. 1
- Material Steel , zinc-nickel coating
- Cascade construction possible
- Line length between pump and Distributor 10 meters

Special versions (on request):

- tube connection in different designs, straight / angled
- different dosing volumes
- Material: additional aluminum (pressure limitation 180 bar)

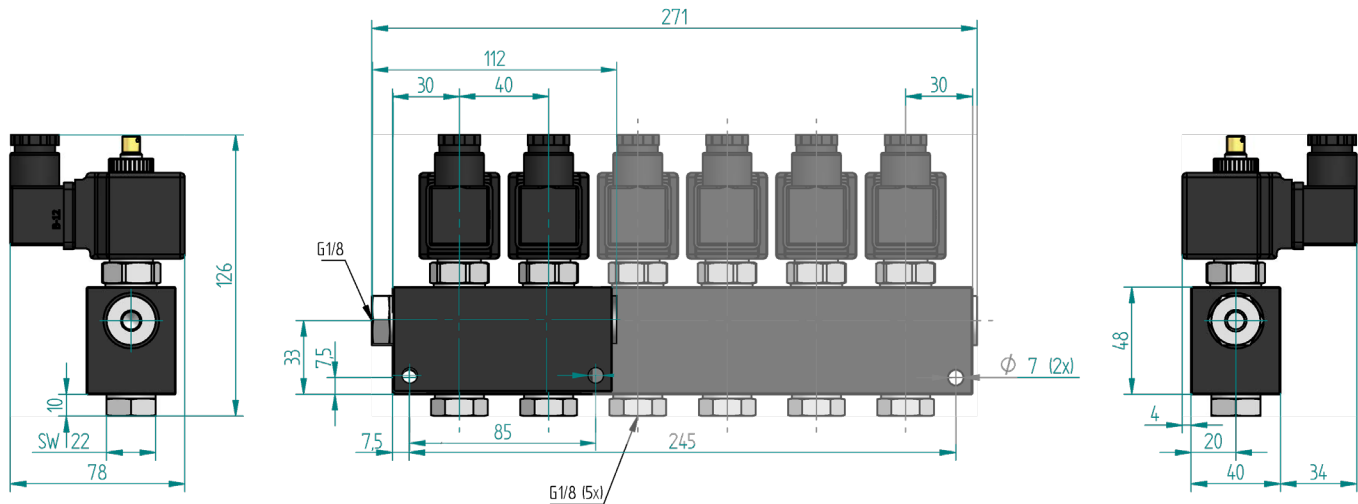


Outlets	Inlet	Tube	Outlets	Tube	Part-No.
2	straight	6	straight	6	338-010-002
3	straight	6	straight	6	338-010-003
4	straight	6	straight	6	338-010-004
5	straight	6	straight	6	338-010-005
6	straight	6	straight	6	338-010-006
7	straight	6	straight	6	338-010-007
8	straight	6	straight	6	338-010-008
9	straight	6	straight	6	338-010-009
10	straight	6	straight	6	338-010-010

Notes:

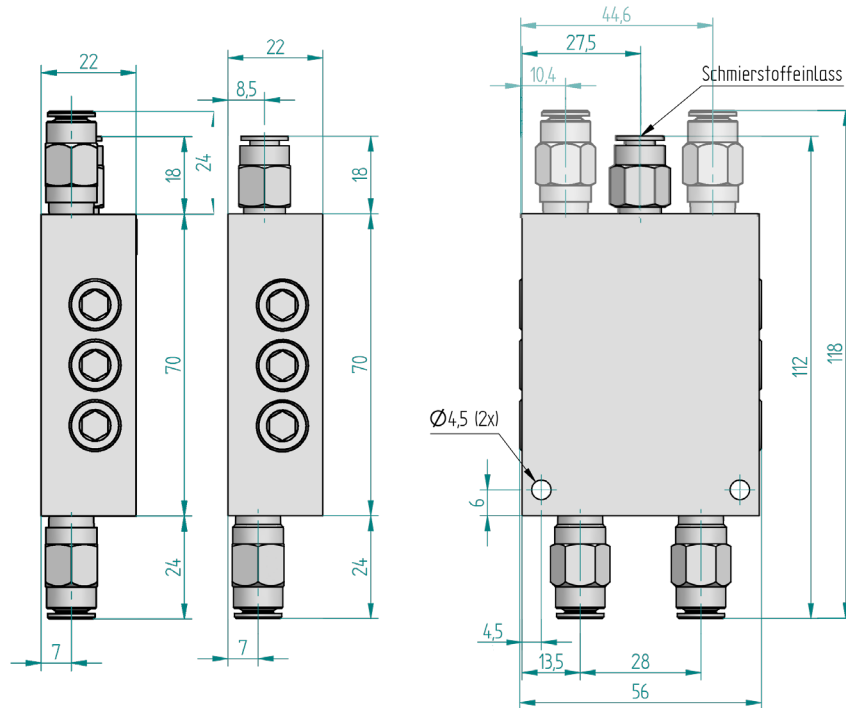
- Operating temperature range: -20 °C...+80 °C (depending on the lubricant used)
- vented with test oil ISO VG46, H1 approval
- In the case of special versions, the tube connections are loosely enclosed with the progressive distributor

DLS-Share (solenoid valve bar)



main group	tube inlet	tube outlet		Outlets
1755	0 = without tube connector	0 = without tube connector	000000	2 = 2 Outlets
		1 = mit tube connector, straight for Tube 6		3 = 3 Outlets
	1 = mit tube connector for Tube 6	2 = mit tube connector 90° for Tube 6		4 = 4 Outlets
				5 = 5 Outlets
				6 = 6 Outlets

DLS-flow distributor

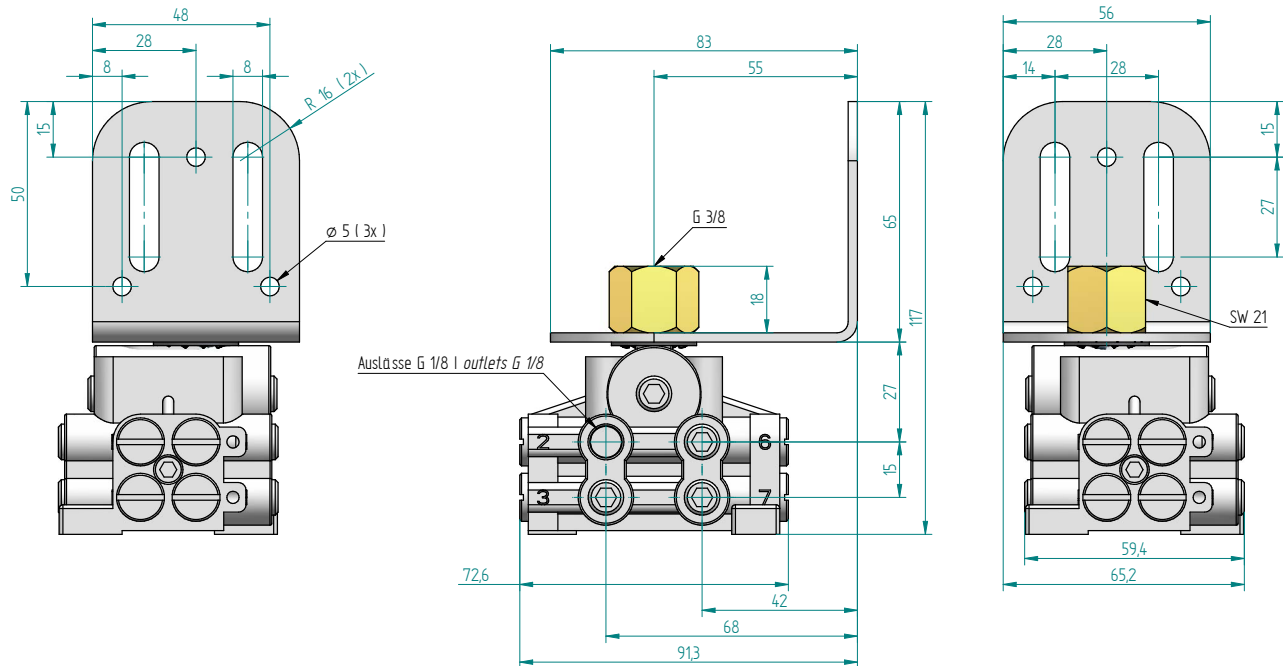


Outlets	Inlet	Tube	Outlets	Tube	Pressure	Part-No.
2	straight	6	straight	6	150	1757000060002
4	straight	6	straight	6	150	1757000060004

Notes:

- Different cable lengths after the distributor possible
- Tube connectors for tube 4 or tube 6 possible
- Upper outlets only available with 4 outlets
- The amount brought in is divided by 2 or 4 depending on the distributor

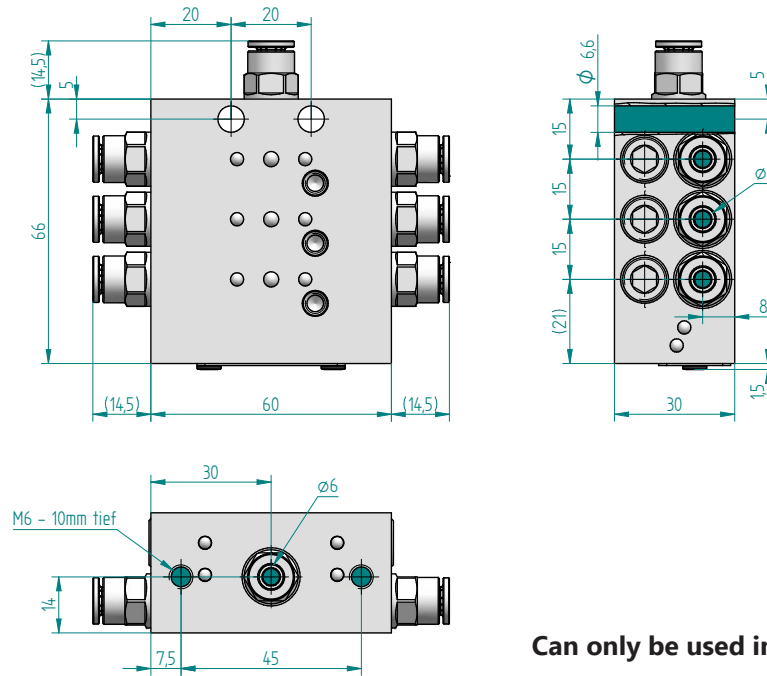
Manifold set for Pulsarlube pumps



Outlets	Distribution set consisting of:	Part-No.
2	1x reducer 3/8"F x 1/8"M 1x disc 1x mounting bracket 1x progressive distributor with 2-8 outlets	134-009-022
3		134-009-023
4		134-009-024
5		134-009-025
6		134-009-026
7		134-009-027
8		134-009-028

Pumps see pages 23 to 28 and pages 71/72.

DLS-Dispense for DLS-207x



Can only be used in connection with DLS-207x!

main group	lubricant	circulation monitoring	flow rate	connection	Material	Outlets	
1752	4 = grease	0 = no	05 = 0,05 cm ³	0 = no	00 = Steel	04 = 4 Outlets	
			09 = 0,09 cm ³			05 = 5 Outlets	
						06 = 6 Outlets	
	5 = oil	1 = yes	1 = yes	14 = 0,14 cm ³	1 = yes	10 = stain-less Steel	07 = 7 Outlets
				20 = 0,20 cm ³			08 = 8 Outlets
							09 = 9 Outlets
						10 = 10 Outlets	
						11 = 11 Outlets	
						12 = 12 Outlets	

The DLS-207x can be found on page 33/34



Kartusche / Cartridge
380 ml / ccm
Fett / Grease



Kartusche / Cartridge
120 ml / ccm
Fett / Grease



filling date:
batch no.:



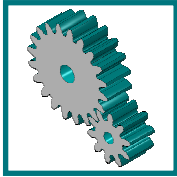
Kartusche / Cartric
250 ml / ccm
Fett / Grease



filling date :
batch no.:

Grease F01

Standard grease for open gears



Grease F01 | DIN 51825 OGP0N-30 | NLGI-class 0...1

- Based on lithium / calcium complex with high pressure additives, which are connected to the soap structure and thus have safe access to the metal surface
- Heat-resistant, has good corrosion protection properties and does not contain solid lubricants

Commitment:

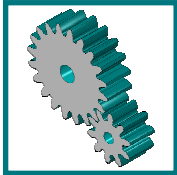
- Developed as a lubricating grease for highly loaded open gear drives
- Due to its high temperature properties, it is suitable for a wide range of applications where high temperatures are associated with extreme loads
- Can also be recommended for plain bearings / bushings

Operating temperature range -30 °C to + 150 °C

Description	Lubricant	Volume	Part-No.
Cartridge for hand press	F01	100 cm ³	000-101-215
Cartridge 125 for DLS-4xx-i	F01	160 cm ³	001-101-101
Cartridge 250 for DLS-4xx-i	F01	300 cm ³	001-101-103
Cartridge 380 for DLS-4xx-i	F01	450 cm ³	001-101-105
Grease bellow 120 for Pulsarlube pumps	F01	160 cm ³	002-101-101
Grease bellow 250 for Pulsarlube pumps	F01	300 cm ³	002-101-103
Grease bellow 400 for Pulsarlube pumps	F01	450 cm ³	002-101-105
Tin	F01	1 kg	000-101-210
Lube-Shuttle Cartridge for hand press	F01	400 cm ³	000-101-230
Hobbock	F01	18 kg	000-101-240
Tube 6x4	F01	2 m	134-023-001
Tube 6x4	F01	5 m	134-053-001
Tube 6x4	F01	10 m	134-103-001
Tube 8x5	F01	10 m	134-008-001

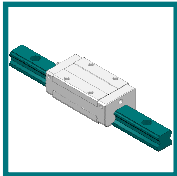
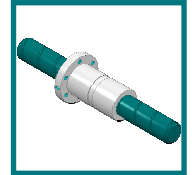
Grease F02

Standard grease with H1 approval



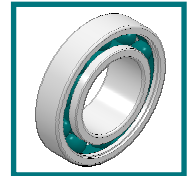
Grease F02 | DIN 51502 KP2R-25 | NLGI-class 2

- Synthetic special grease for high specific loads
- A special additive gives this special grease high thermal and oxidative stability and good corrosion and wear protection properties
- NSF / H1 approval



Commitment:

- cold, hot water and steam resistant
- high oxidation and thermal stability
- high load-bearing capacity, good wear protection
- long service life and wide service temperature range
- high lubricating effect with low friction coefficients

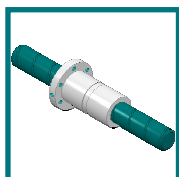


Operating temperature range -40 °C to + 140 °C

Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F02	160 cm ³	001-102-101
Cartridge 250 for DLS-4xx-i	F02	300 cm ³	001-102-103
Cartridge 380 for DLS-4xx-i	F02	450 cm ³	001-102-105
Grease bellow 120 for Pulsarlube pumps	F02	160 cm ³	002-102-101
Grease bellow 250 for Pulsarlube pumps	F02	300 cm ³	002-102-103
Grease bellow 400 for Pulsarlube pumps	F02	450 cm ³	002-102-105
Tin	F02	1 kg	000-102-210
Cartridge for hand press (DIN 1284)	F02	400 cm ³	000-102-220
Hobbock	F02	18 kg	000-102-240
Tube 6x4	F02	2 m	134-023-002
Tube 6x4	F02	5 m	134-053-002
Tube 6x4	F02	10 m	134-103-002
Tube 8x5	F02	5 m	134-008-002

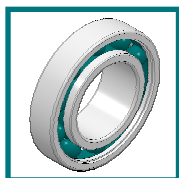
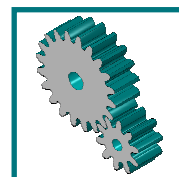
Grease F03

Linear guides & ball screw



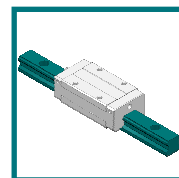
Grease F03 | DIN 51825 KP2K-20 | NLGI-class 2

- very short-fiber and homogeneous lithium saponified universal grease with a mineral oil that used for the lubrication of roller and plain bearings and can be used for medium to high loads
- very adhesive; suitable for short stroke applications
- water-resistant and anti-corrosive



Commitment:

- Lubrication of linear guides (recirculating ball guides, roller guides and Ball screws)
- Can be used together with a pinion and continuous relubrication for open gears
- Very good eligibility in relubrication facilities

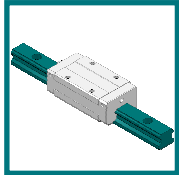


Operating temperature range -20 °C to + 120 °C

Description	Lubricant	Volume	Artikel-Nr.
Cartridge for hand press	F03	100 cm ³	000-103-215
Cartridge 125 for DLS-4xx-i	F03	160 cm ³	001-103-101
Cartridge 250 for DLS-4xx-i	F03	300 cm ³	001-103-103
Cartridge 380 for DLS-4xx-i	F03	450 cm ³	001-103-105
Grease bellow 120 for Pulsarlube pumps	F03	160 cm ³	002-103-101
Grease bellow 250 for Pulsarlube pumps	F03	300 cm ³	002-103-103
Grease bellow 400 for Pulsarlube pumps	F03	450 cm ³	002-103-105
Tin	F03	1 kg	000-103-210
Lube-Shuttle Cartridge for hand press	F03	400 cm ³	000-103-230
Hobbock	F03	18 kg	000-103-240
Tube 4x2,5	F03	5 m	102-011-013
Tube 6x4	F03	2 m	134-023-003
Tube 6x4	F03	5 m	134-053-003
Tube 6x4	F03	10 m	134-103-003
Tube 8x5	F03	10 m	134-008-003

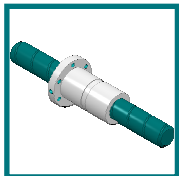
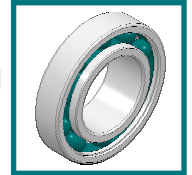
Grease F04

Special grease for bearing lubrication



Grease F04 | DIN 51502 KP2K-30 | NLGI-class 2

- Lithium-calcium saponified multi-purpose grease with a mineral oil that can be used for the lubrication of roller and slide bearings under medium loads
- Suitable for sometimes shock loads; water-resistant and anti-corrosive



Commitment:

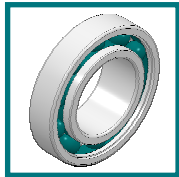
- Lubrication of ball and roller bearings; ball screw
- Can be used together with a lubrication Pinion and continuous relubrication for open gears
- Good eligibility in relubrication facilities and distributor

Operating temperature range -30 °C to + 130 °C

Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F04	160 cm ³	001-104-101
Cartridge 250 for DLS-4xx-i	F04	300 cm ³	001-104-103
Cartridge 380 for DLS-4xx-i	F04	450 cm ³	001-104-105
Grease bellow 120 for Pulsarlube pumps	F04	160 cm ³	002-104-101
Grease bellow 250 for Pulsarlube pumps	F04	300 cm ³	002-104-103
Grease bellow 400 for Pulsarlube pumps	F04	450 cm ³	002-104-105
Tin	F04	1 kg	000-104-210
Cartridge for hand press (DIN 1284)	F04	400 cm ³	000-104-220
Hobbock	F04	18 kg	000-104-240
Tube 6x4	F04	2 m	134-023-004
Tube 6x4	F04	5 m	134-053-004
Tube 6x4	F04	10 m	134-103-004
Tube 8x5	F04	10 m	134-008-004

Grease F07

High temperature-special grease for bearing



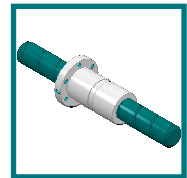
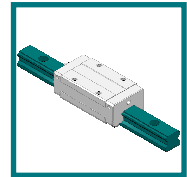
Grease F07 | DIN 51825 KPHC2P-40 | NLGI-class 2

- synthetic (polyalphaolefin) high-performance grease
- small proportions of PTFE as a solid lubricant
- large temperature range

Commitment:

- Sliding and roller bearing; KGT nuts; Recirculating ball bearings
- Pumpability in lubrication systems: -40 °C . + 80 °C

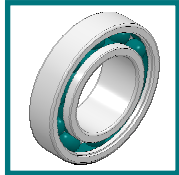
Operating temperature range: -40 °C . + 160 °C



Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F07	160 cm ³	001-107-101
Cartridge 250 for DLS-4xx-i	F07	300 cm ³	001-107-103
Cartridge 380 for DLS-4xx-i	F07	450 cm ³	001-107-105
Grease bellow 120 for Pulsarlube pumps	F07	160 cm ³	002-107-101
Grease bellow 250 for Pulsarlube pumps	F07	300 cm ³	002-107-103
Grease bellow 400 for Pulsarlube pumps	F07	450 cm ³	002-107-105
Tin	F07	1 kg	000-107-210
Cartridge for hand press (DIN 1284)	F07	400 cm ³	000-107-220
Hobbock	F07	18 kg	000-107-240
Tube 6x4	F07	5 m	134-053-007
Tube 6x4	F07	10 m	134-103-007
Tube 8x5	F07	10 m	134-008-007

Grease F09

Special grease for fast moving roller bearing



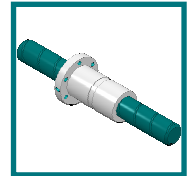
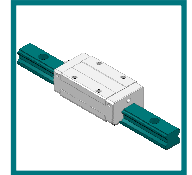
Grease F09 | DIN 51502 KP 2K-30 | NLGI-class 2

- Lithium special soap
- Mineral oil based with additives

Commitment:

- Lubrication of high-speed bearings and gears, KGT; Spindle and plain bearings
- Pumpability in lubrication systems: -10 °C . + 80 °C

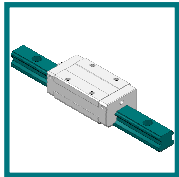
Operating temperature range -10 °C to + 80 °C



Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F09	160 cm ³	001-109-101
Cartridge 250 for DLS-4xx-i	F09	300 cm ³	001-109-103
Cartridge 380 for DLS-4xx-i	F09	450 cm ³	001-109-105
Grease bellow 120 for Pulsarlube pumps	F09	160 cm ³	002-109-101
Grease bellow 250 for Pulsarlube pumps	F09	300 cm ³	002-109-103
Grease bellow 400 for Pulsarlube pumps	F09	450 cm ³	002-109-105
Tin	F09	1 kg	000-109-210
Cartridge for hand press (DIN 1284)	F09	400 cm ³	000-109-220
Tube 6x4	F09	5 m	134-053-009
Tube 6x4	F09	10 m	134-103-009
Tube 8x5	F09	10 m	134-008-009

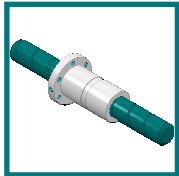
Grease F14

High-performance universal grease



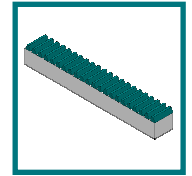
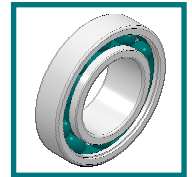
Grease F14 | GB 0 | NLGI-class 0

- Special lubricating grease based on mineral oil
- High pressure absorption capacity
- High wear protection
- Good corrosion protection properties
- Very easy to convey in lubrication systems
- High water resistance



Commitment:

- Lubrication of roller bearing, slide bearing, ball screw, linear guides
- Pumpability in lubrication systems: -25 °C . + 180 °C

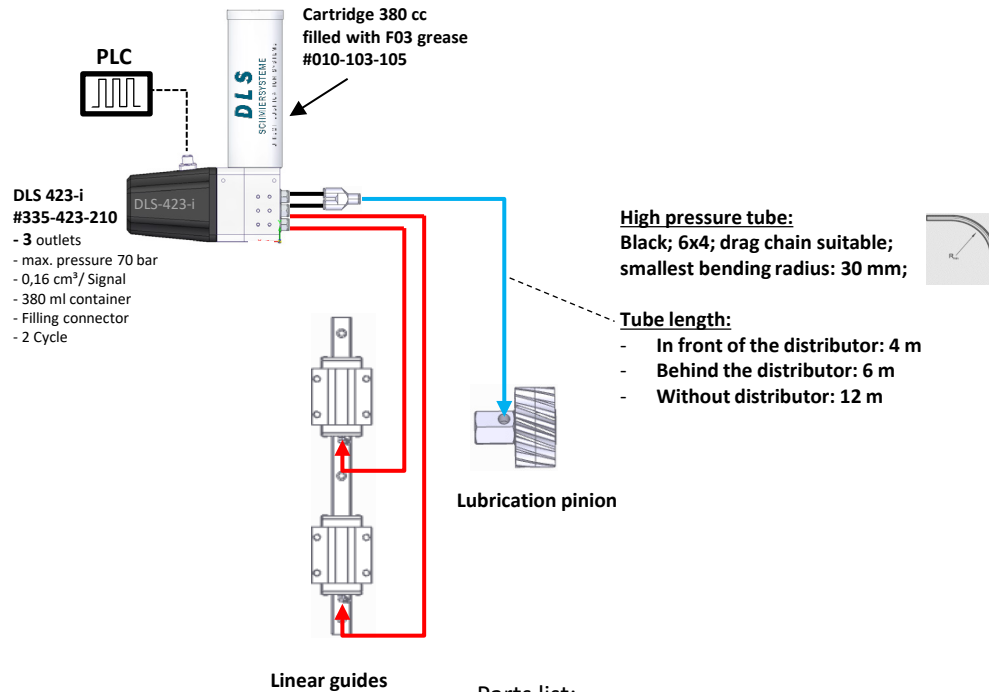
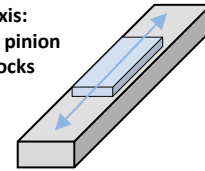


Operating temperature range -25 °C to + 180 °C

Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F14	160 cm ³	001-114-101
Cartridge 250 for DLS-4xx-i	F14	300 cm ³	001-114-103
Cartridge 380 for DLS-4xx-i	F14	450 cm ³	001-114-105
Grease bellow 120 for Pulsarlube pumps	F14	160 cm ³	002-114-101
Grease bellow 250 for Pulsarlube pumps	F14	300 cm ³	002-114-103
Grease bellow 400 for Pulsarlube pumps	F14	450 cm ³	002-114-105
Tin	F14	1 kg	000-114-210
Cartridge for Lube-Shuttle	F14	400 cm ³	000-114-230
Tube 4x2,5	F14	5 m	102-011-024
Tube 6x4	F14	2 m	134-023-014
Tube 6x4	F14	5 m	134-053-014
Tube 6x4	F14	10 m	134-103-014
Tube 8x5	F14	10 m	134-008-014

Application examples - grease lubrication

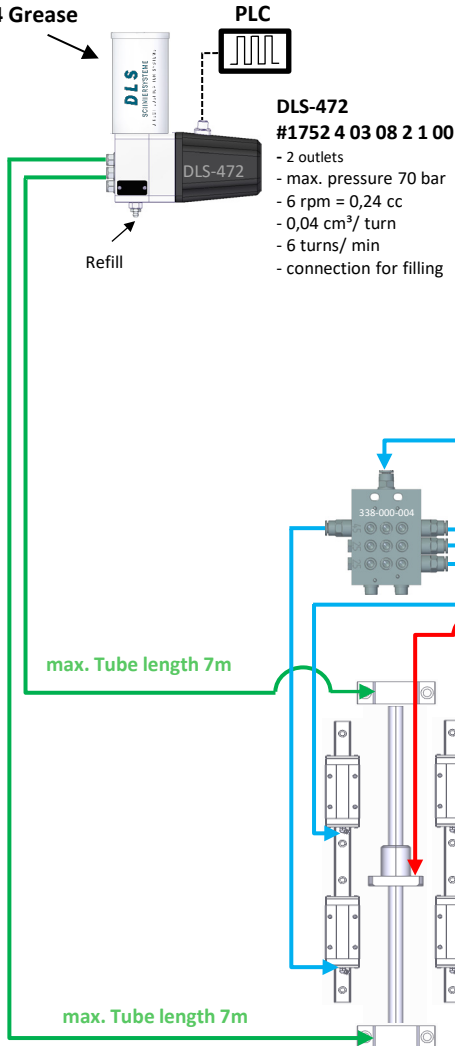
Auxiliary axis:
1 Rack and pinion
2 Linear blocks



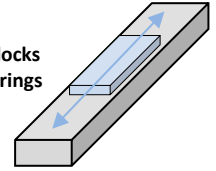
Parts list:

Part number	Item	Description	Quantity
335-423-210	DLS-423-i	Pump for linear guide blocks	1
001-103-105	F03; 380 cm ³ ;	Grease cartridge for the pump	1
000-103-230	F03; 400 cm ³ ;	For manual grease gun	1
134-003-003	6x4 (F03) 10 m	Tube prefilled with F03 grease	1
134-001-011	M6; fitting; angled;	For linear guide blocks	2
131-030-017	PU-lubrication pinion; module 3; RH;	For rack and pinion	1
133-030-001	Mounting axis; angled;	For lubrication pinion	1
134-001-002	G 1/8; fitting; angled;	For mounting axis	1

Grease cartridge 250 cc
#001-104-103
- F04 Grease

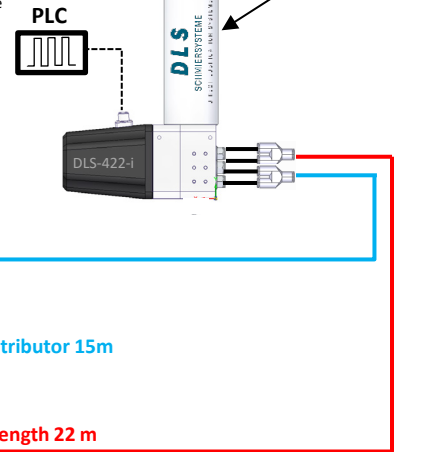


1 Ball screw
2 Linear guide blocks
2 Ball screw bearings



DLS 422-i
#335-422-210

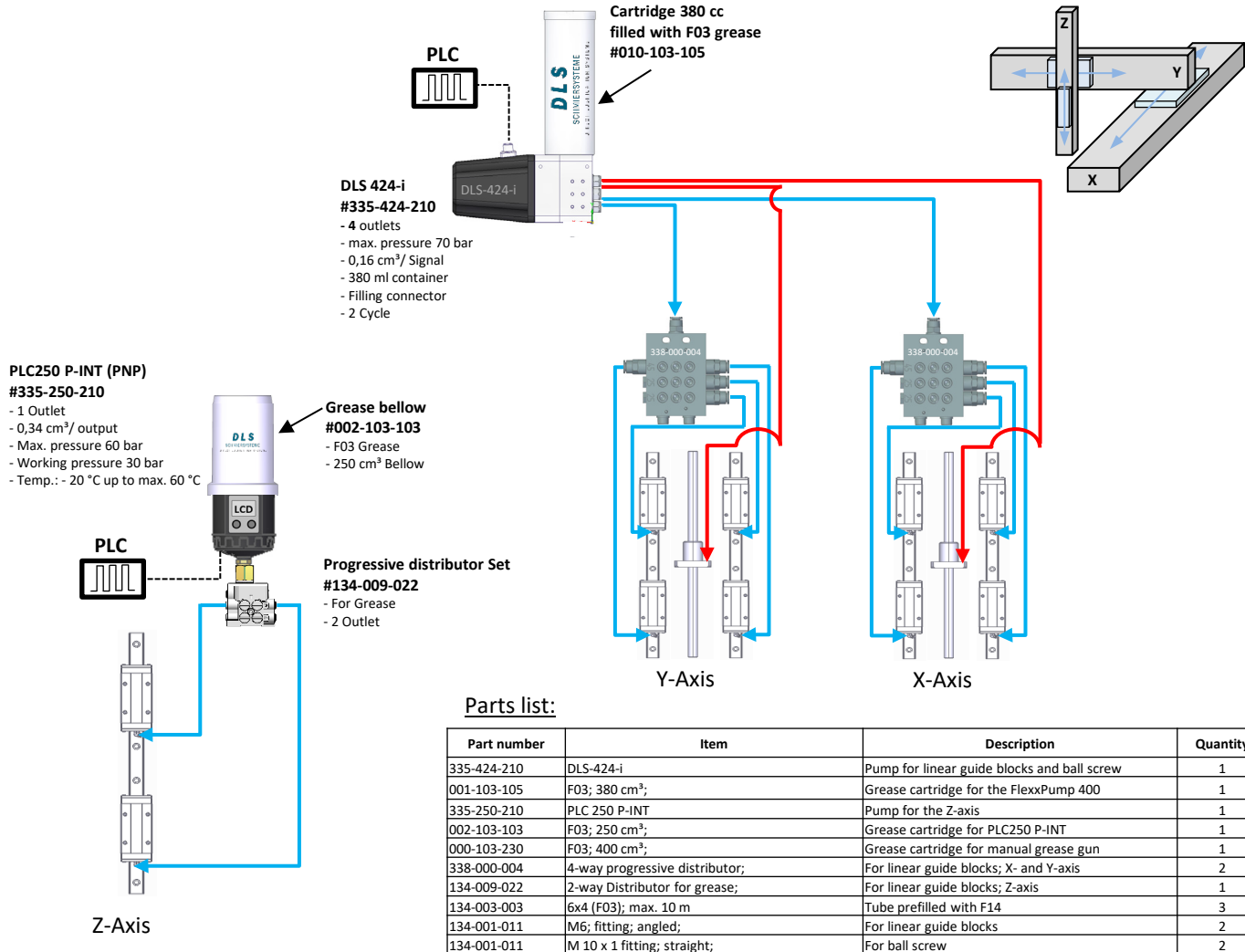
- 2 outlets
- max. pressure 70 bar
- 0,16 cm³/ Signal
- 380 ml container
- Filling connector
- 2 Cycle



Parts list:

Part number	Item	Description	Quantity
335-422-212	DLS-422-i	Pump for linear guide blocks	1
001-114-105	F14; 380 cm ³ ;	Grease cartridge for the pump	1
000-114-230	F14; 400 cm ³ ;	For manual grease gun	1
338-000-004	4-way progressive distributor	Distributor for linear blocks	1
134-003-014	6x4 (F14) 10 m	Prefilled tube	1
134-001-011	M6x0,75 fitting; angled;	For linear blocks	4
1752 4 03 08 2 1 00	DLS-472	Pump for ball screw bearings	1
001-104-103	F04; 250 cm ³ cartridge;	Grease for bearings	1
000-104-220	F04 grease cartridge;	For manual grease gun	1
134-003-004	6x4 (F04) max. 5 m	Prefilled hose	2
134-001-007	M6 fitting; angled;	For bearings	2

X-axis: 4 x linear guide blocks plus 1 ball screw
 Y-axis: 4 x linear guide blocks plus 1 ball screw
 Z-axis: 2 x linear guide blocks plus teeth blat



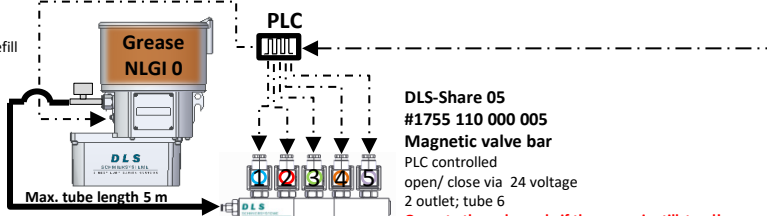
Parts list:

Part number	Item	Description	Quantity
335-424-210	DLS-424-i	Pump for linear guide blocks and ball screw	1
001-103-105	F03; 380 cm ³ ;	Grease cartridge for the FlexxPump 400	1
335-250-210	PLC 250 P-INT	Pump for the Z-axis	1
002-103-103	F03; 250 cm ³ ;	Grease cartridge for PLC250 P-INT	1
000-103-230	F03; 400 cm ³ ;	Grease cartridge for manual grease gun	1
338-000-004	4-way progressive distributor;	For linear guide blocks; X- and Y-axis	2
134-009-022	2-way Distributor for grease;	For linear guide blocks; Z-axis	1
134-003-003	6x4 (F03); max. 10 m	Tube prefilled with F14	3
134-001-011	M6; fitting; angled;	For linear guide blocks	2
134-001-011	M 10 x 1 fitting; straight;	For ball screw	2

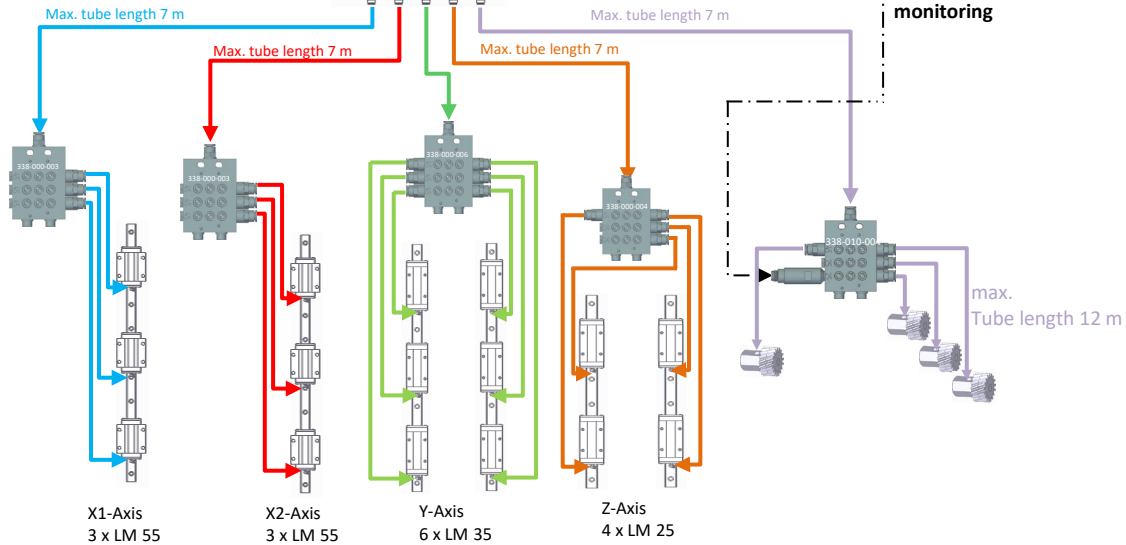
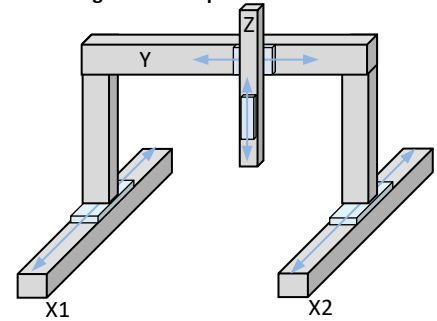
DLS-Pump-2071

#1751 4 07 04 00 0 1

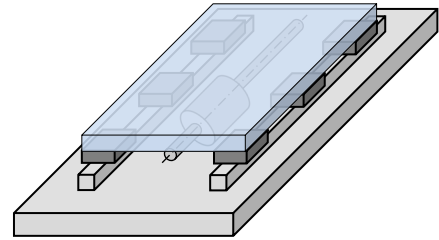
- Pressure limitation 70 bar
- 30 rpm = 1,2 cm³
- 0,04 cm³/ turn
- 2 kg container
- Connection to refill
- LUBE CARE



- X1-axis: 4 x linear guide blocks plus 1 x rack and pinion
- X2-axis: 4 x linear guide blocks plus 1 x rack and pinion
- Y-axis: 4 x linear guide blocks plus 1 x rack and pinion
- Z-axis: 4 x linear guide blocks plus 1 x ball screw

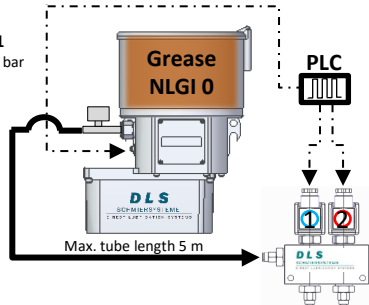


Heavy load linear table: 6 x linear guide blocks plus 1 x ball screw



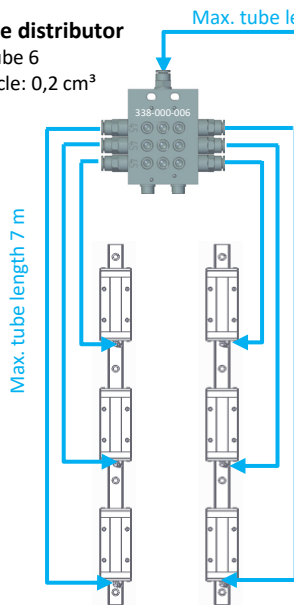
Refillable

DLS-Pump-2071
#1751 4 07 04 00 0 1
 - Pressure limitation 70 bar
 - 30 rpm = 1,2 cm³
 - 0,04 cm³/turn
 - 2 kg container
 - Connection to refill
 - LUBE CARE



DLS-Share-2
#1755 110 000 002
Magnetic valve bar
 PLC controlled
 open/ close via 24 voltage
 2 outlet; tube 6
Operate the valve only if the pump is stillstand!

Progressive distributor
 4 outlets; tube 6
 Volume/ cycle: 0,2 cm³



Linear guide block size 55

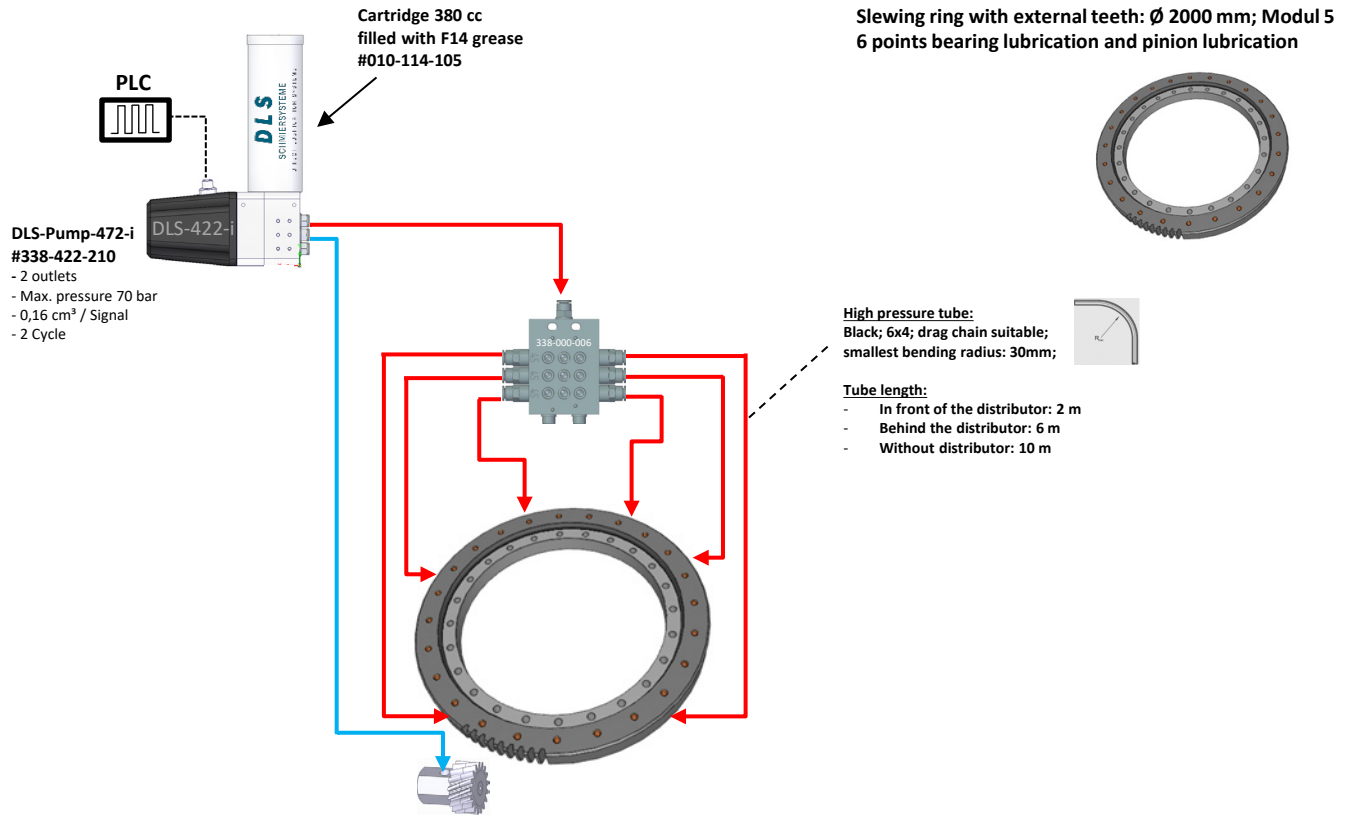
Max. tube length 4 m

Max. tube length 12 m

Ball screw size 60x20

Parts list:

Part number	Item	Description	Quantity
1751 4 07 04 00 0 1	DLS-Pump-2071	Pump	1
000-114-240	F03; Grease; 18 kg container	For Linear guide blocks and ball screw	1
000-114-230	F03 cartridge; 400 cm ³ ;	Grease for manual grease gun	1
1755 1 1 000000 2	DLS-Share; 2-way magnetic valve;	For different Grease amounts	1
338-000-006	6 way Progressive distributor	For the blocks	1
134-003-003	6x4 tube, prefilled with F03 grease; 10 m	Tube prefilled ready to use	3
134-001-012	Fitting; M6x0,75; angled;	For linear guide blocks	4
134-001-002	Fitting G1/8; angled;	For ball screw	1



Parts list:

Part number	Item	Description	Quantity
338-422-210	DLS-422-i	Pump for linear guide systems and ball screws	1
001-114-210	Grease Cartridge; 380 cm ³ ; F14	Grease container to refill the cartridge	1
134-003-014	6x4 (F14) 10 m	Tube	3
134-001-011	M6; Fitting; angeled;	For ball bearing	6
134-001-002	Fitting; G1/8;	For pinion	2
134-002-043	Filling set; 100 ml pump incl. Fitting and tube;	For lubrication pinion (don't use for DLS-Pump)	1
000-103-215	Grease cartridge; 100 ml; F14;	For Manual grease gun (don't use for DLS-Pump)	1



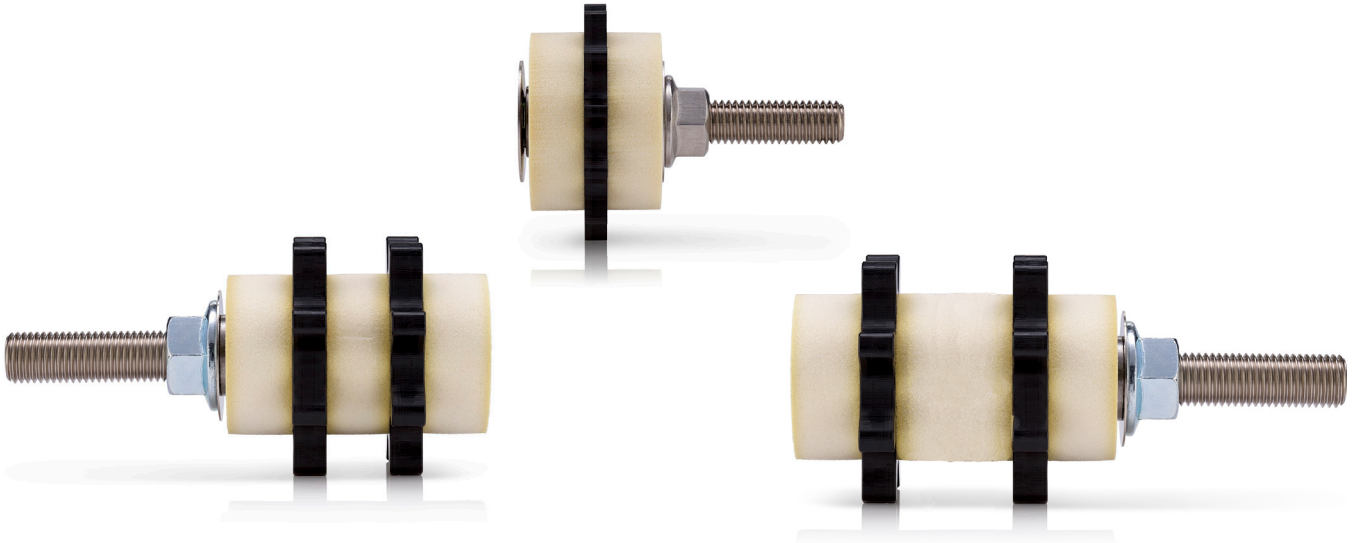
Oil lubrication is preferably used to lubricate plain and ball bearings. It is suitable for high speeds of the components to be lubricated.

In comparison to oil bath lubrication, an oil pump is integrated into this system.

This system is called automatic lubrication.

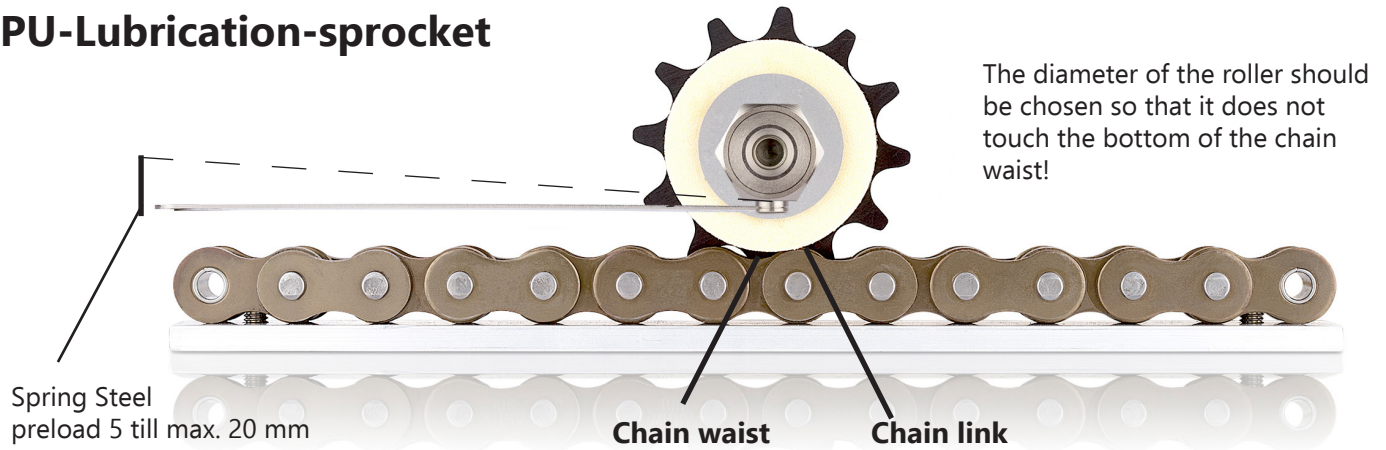
This ensures that the relevant bearing points are constantly supplied with the right lubricant and the precise quantity. However, this does not prevent the control of this system.

This type of lubrication reduces the level of contamination and extends bearing life.

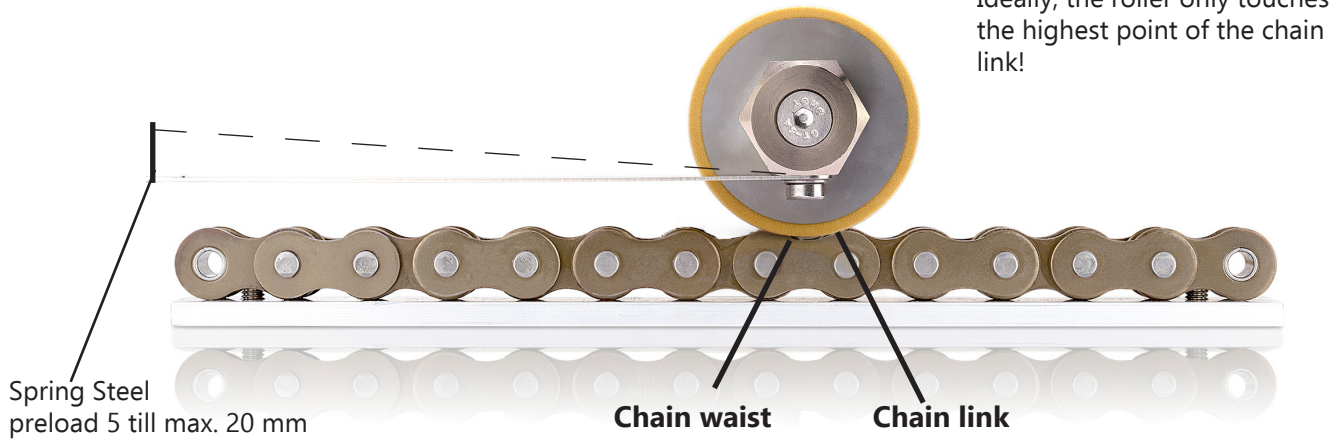


Chain Lubrication

PU-Lubrication-sprocket



PU-Lubrication-roller



PU-Lubrication-sprocket

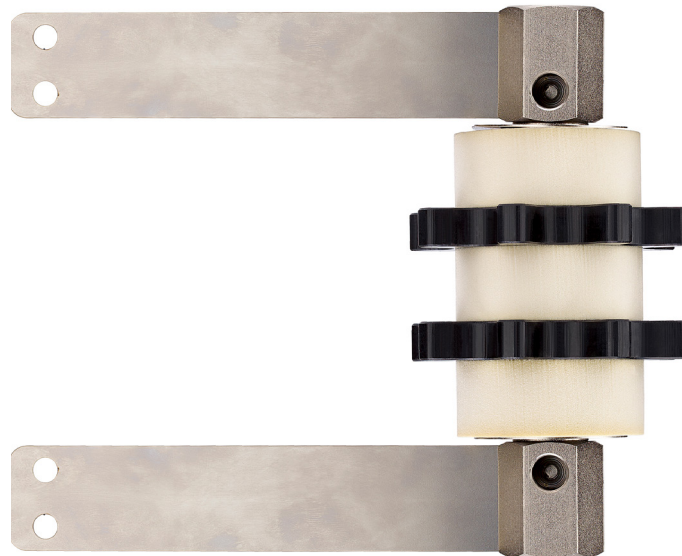
The rollers made of open-cell PU foam transfer the lubricant selectively to the surface of the link plates of roller chains. The mechanical power to drive the rollers is ensured by a low-wear plastic Pinion.

The open-cell polyurethane foam material used for the lubricating gears ensures that the chains are optimally supplied over very long periods of time.

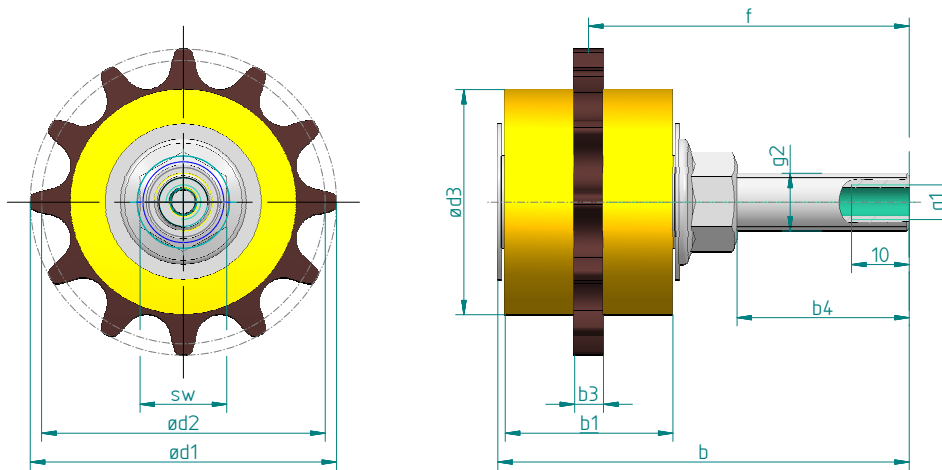
The material stores the lubricant and releases it again in very small dosages.

Over-lubrication is avoided, as is wear due to insufficient lubrication.

The PU-Lubrication-sprockets are available for simplex, duplex and triplex chains with and without spring Steel, depending on the size. The optimal contact pressure of the lubricating Pinion can be individually adjusted using a tensioning element. With the tensioning element, absorb also vibrations and shocks.



PU-Lubrication-sprocket simplex - with axis



Description:

PU-Lubrication-sprocket for simplex roller chain; mounted on straight axis; sleeve bearings;

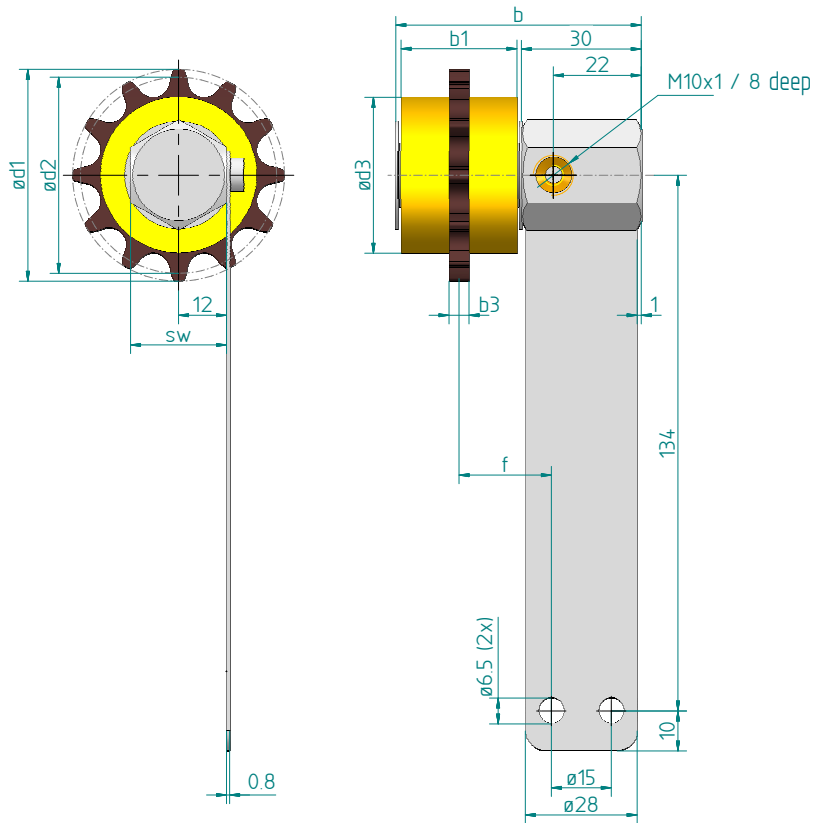
Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

mounting position:
arbitrary

DIN 8187-1/8188-1	z	b	b1	d1	d2	d3	f	b3	b4	g1	g2	sw	part-no.
08B-1	12	71,2	29	53	49,1	39	55,5	5	30,0	M6	M10	15	136-201-012
10B-1	10	71,2	29	55	51,4	39	55,5	5	30,0	M6	M10	15	136-301-010
12B-1	8	71,2	29	55	49,8	36	55,5	5	30,0	M6	M10	15	136-401-008
16B-1	8	81,2	40	75	66,4	48	60,5	10	30,0	M6	M10	15	136-501-008
20B-1	8	116,4	50	90	83,0	59	90,7	10	49,1	M10x1	M16	24	136-601-008
24B-1	10	126,4	60	138	123,3	93	95,7	20	49,1	M10x1	M16	24	136-701-010
28B-1	8	146,4	80	140	116,2	81	105,7	20	49,1	M10x1	M16	24	136-801-008
32B-1	8	146,4	80	150	132,8	93	105,7	20	49,1	M10x1	M16	24	136-901-008

PU-Lubrication-sprocket simplex - with spring Steel



Description:

PU-Lubrication-sprocket for simplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

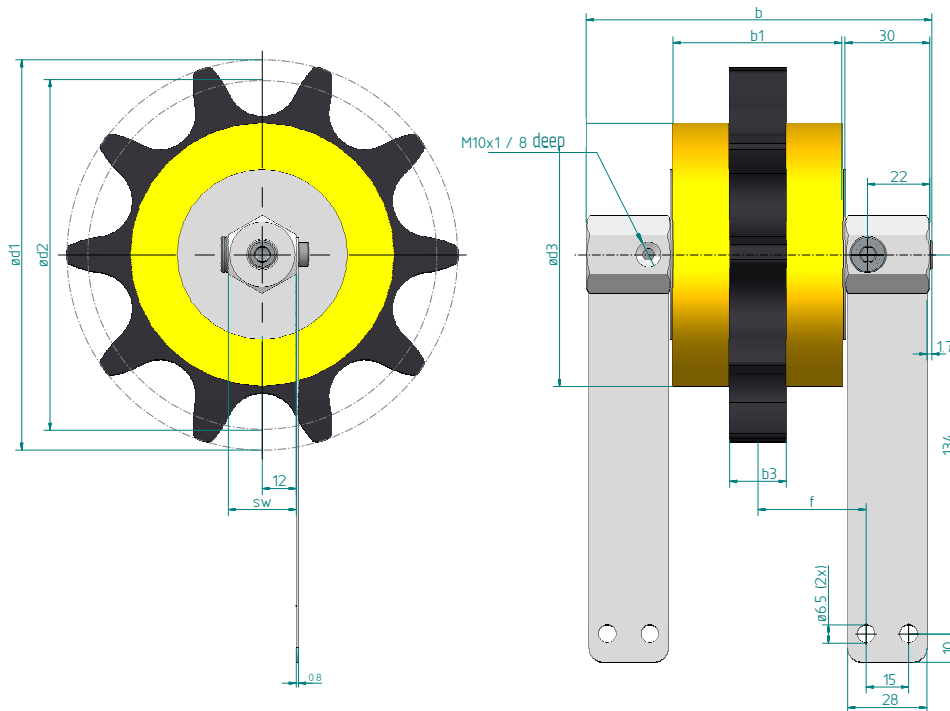
mounting position:

arbitrary

Spring Steel and screws enclosed loose.

DIN 8187-1 / 8188-1	z	b	b1	d1	d2	d3	b3	f	sw	part-no.
08B-1	12	61,4	29	53	49,1	39	5	23,2	24	136-201-112
10B-1	10	61,4	29	55	51,4	39	5	23,2	24	136-301-110
12B-1	8	61,4	29	55	49,8	36	5	23,2	24	136-401-108
16B-1	8	71,4	40	75	66,4	48	10	28,2	24	136-501-108
20B-1	8	81,4	50	90	83,0	59	10	33,2	24	136-601-108

PU-Lubrication-sprocket simplex - angled axis and double spring Steel



Description:

PU-Lubrication-sprocket for simplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

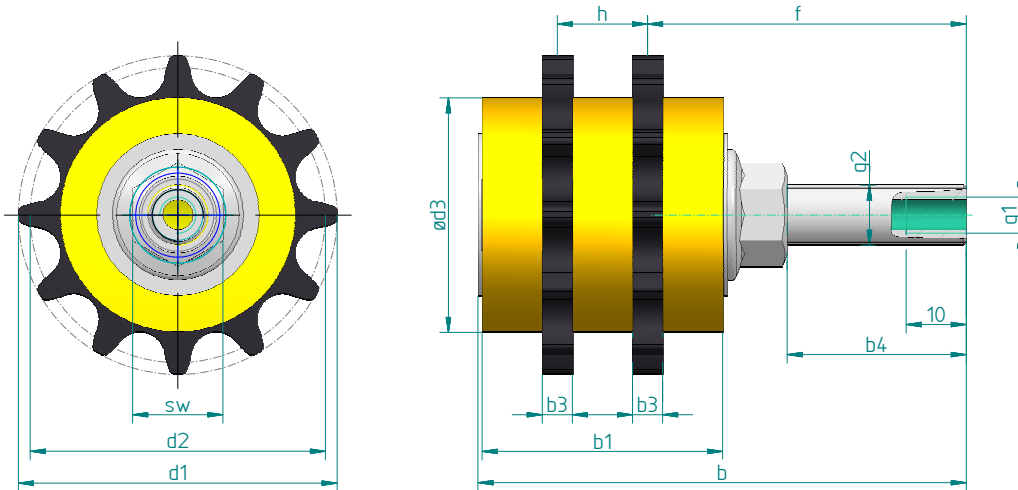
mounting position:

arbitrary

Spring Steel and screws enclosed loose.

DIN 8187-1 / 8188-1	z	b	b1	d1	d2	d3	b3	f	sw	part-no.
24B-1	10	122,1	60	138	123,3	93	20	38,2	24	136-701-110
28B-1	8	142,1	80	140	116,2	81	20	48,2	24	136-801-108
32B-1	8	142,1	80	150	132,8	93	20	48,2	24	136-901-108

PU-Lubrication-sprocket duplex - straight axis



Description:

PU-Lubrication-sprocket for duplex-roller chain; mounted on straight axis; sleeve bearings;

Material:

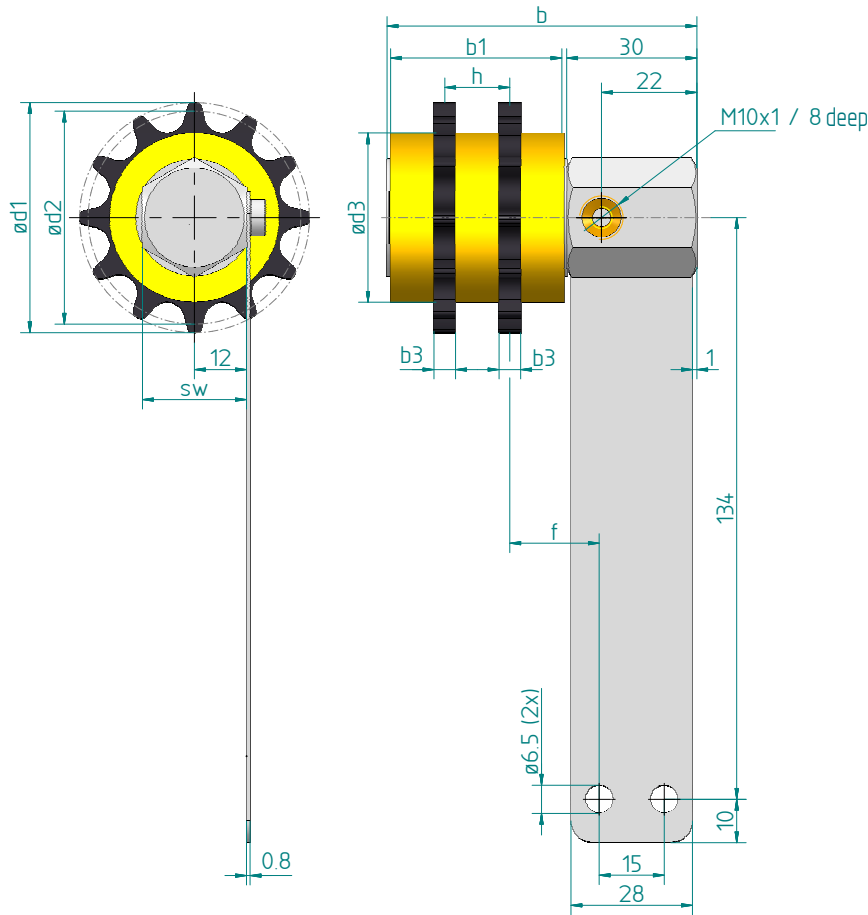
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

mounting position:

arbitrary

DIN 8187-1/8188-1	z	b	b1	d1	d2	d3	f	h	b3	b4	g1	g2	sw	part-no.
08B-2	12	81,2	40	53	49,1	39	53,0	15	5	30,0	M6	M10	15	136-202-012
10B-2	10	81,2	40	55	51,4	39	53,0	15	5	30,0	M6	M10	15	136-302-010
12B-2	8	86,2	44	55	49,8	36	55,5	15	5	30,0	M6	M10	15	136-402-008
16B-2	8	146,4	80	75	66,4	48	90,7	30	10	49,1	M10x1	M16	24	136-502-008
20B-2	8	146,4	80	90	83,0	59	90,7	30	10	49,1	M10x1	M16	24	136-602-008
24B-2	10	166,4	100	138	123,3	93	90,7	50	10	49,1	M10x1	M16	24	136-702-010
28B-2	8	196,4	130	140	116,2	81	95,7	70	10	49,1	M10x1	M16	24	136-802-008
32B-2	8	196,4	130	150	132,8	93	95,7	70	10	49,1	M10x1	M16	24	136-902-008

PU-Lubrication-sprocket duplex - angled axis and spring Steel



Description:

PU-Lubrication-sprocket for duplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

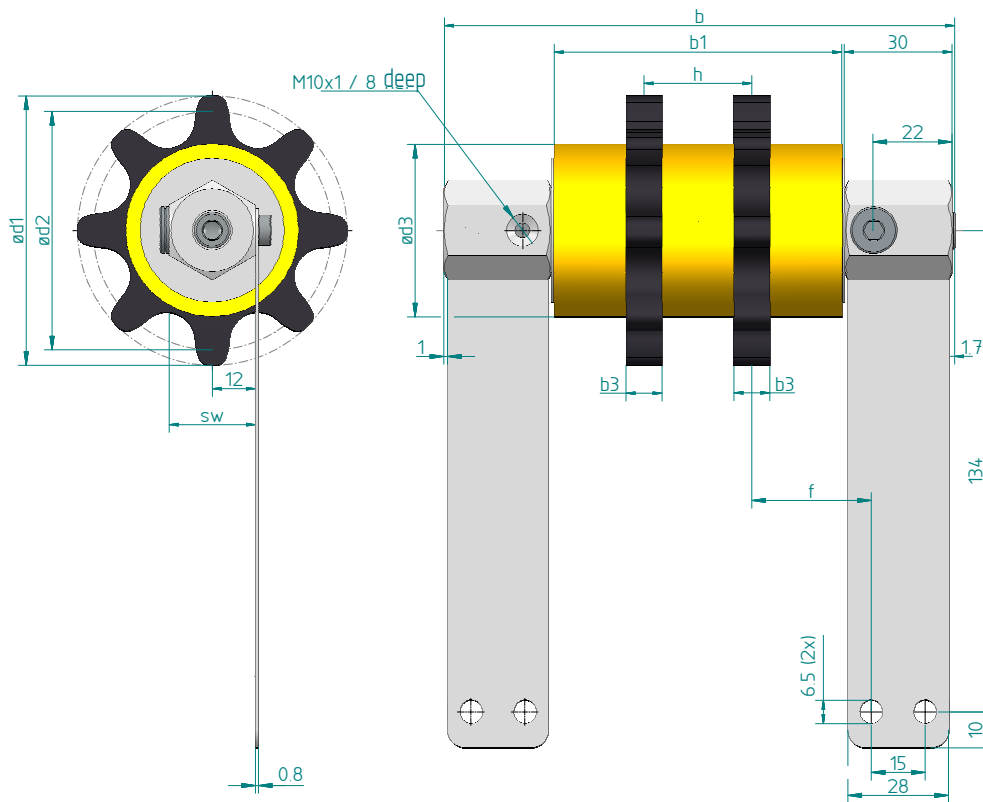
mounting position:

arbitrary

Spring Steel and screws enclosed loose.

DIN 8187-1/ 8188-1	z	b	b1	d1	d2	d3	f	h	b3	sw	part-no.
08B-2	12	71,4	40	53	49,1	39	20,7	15	5	24	136-202-112
10B-2	10	71,4	40	55	51,4	39	20,7	15	5	24	136-302-110
12B-2	8	76,4	44	55	49,8	36	23,2	15	5	24	136-402-108

PU-Lubrication-sprocket duplex - angled axis and double spring Steel



Description:

PU-Lubrication-sprocket for duplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

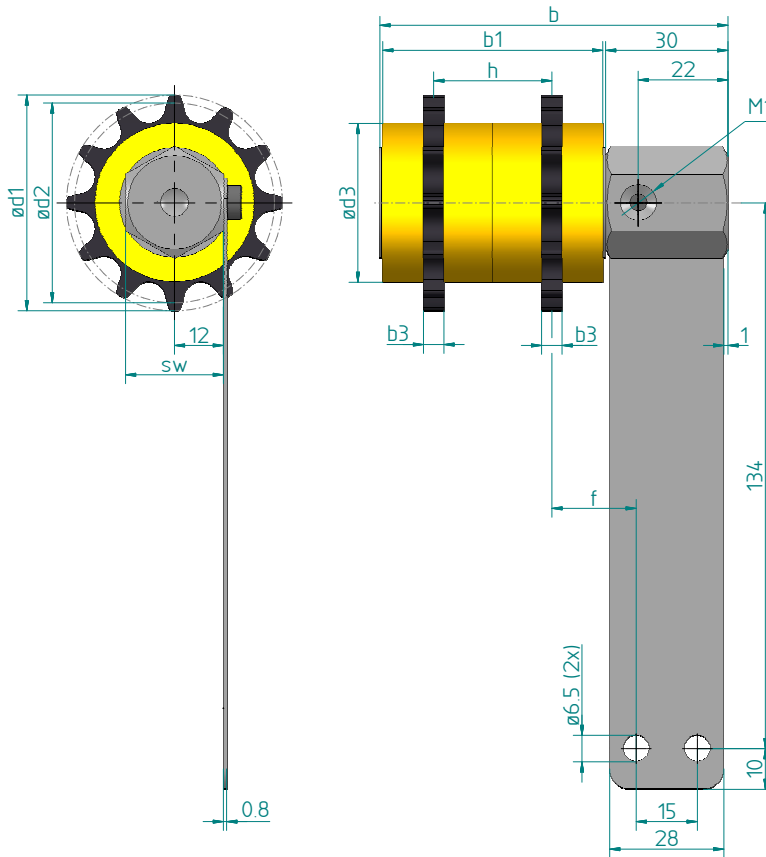
mounting position:

arbitrary

Spring Steel and screws enclosed loose.

DIN 8187-1/ 8188-1	z	b	b1	d1	d2	d3	f	h	b3	sw	part-no.
16B-2	8	142,1	80	75	66,4	48	33,2	30	10	24	136-502-108
20B-2	8	142,1	80	90	83,0	59	33,2	30	10	24	136-602-108
24B-2	10	162,1	100	138	123,3	93	33,2	50	10	24	136-702-110
28B-2	8	192,1	130	140	116,2	81	38,2	70	10	24	136-802-108
32B-2	8	192,1	130	150	132,8	93	38,2	70	10	24	136-902-108

PU-Lubrication-sprocket triplex - angled axis and spring Steel



Description:

PU-Lubrication-sprocket for triplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

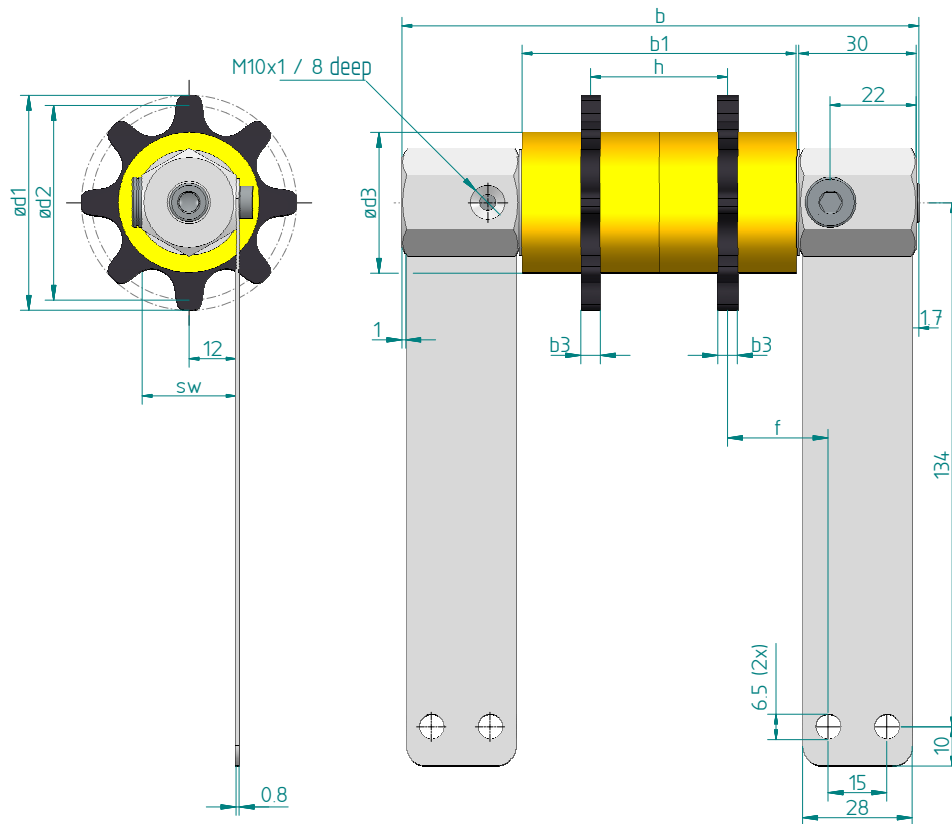
mounting position:

horizontal
(vertical mounting position on request)

Spring Steel and screws enclosed loose.

DIN 8187-1/ 8188-1	z	b	b1	d1	d2	d3	f	h	b3	sw	part-no.
08B-3	12	85,4	54	53	49,1	39	20,7	29	5	24	136-203-112
10B-3	10	91,4	59	55	51,4	39	23,2	30	5	24	136-303-110

PU-Lubrication-sprocket triplex - angled axis and double spring Steel



Description:

PU-Lubrication-sprocket for triplex-roller chain; mounted on angled axis; with spring Steel; sleeve bearings;

Material:

Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

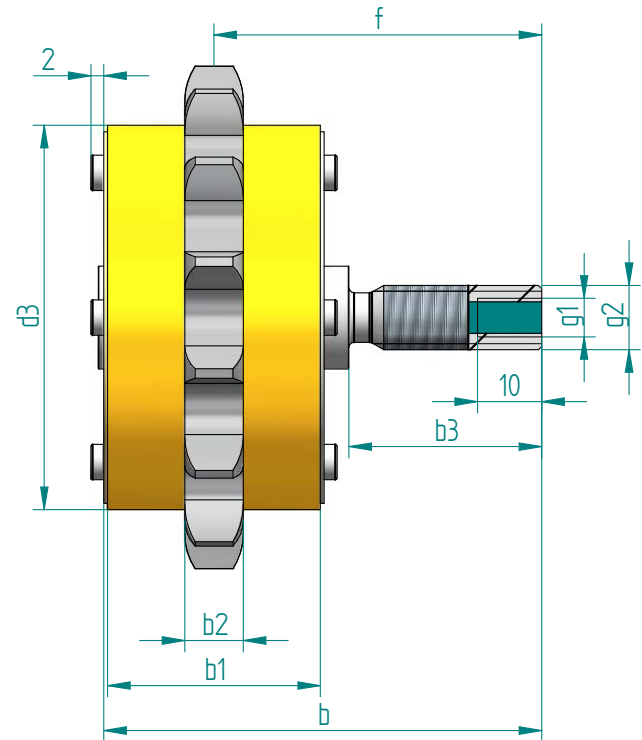
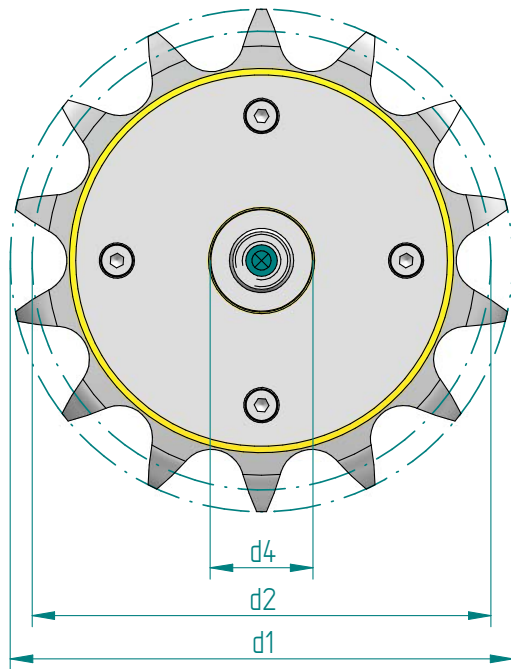
mounting position:
arbitrary

Spring Steel and screws enclosed loose.

DIN 8187-1 / 8188-1	z	b	b1	d1	d2	d3	f	h	b3	sw	part-no.
12B-3	8	132,1	70	55	49,8	36	25,7	35	5	24	136-403-108*
16B-3	8	162,1	100	75	66,4	48	28,2	60	10	24	136-503-108
20B-3	8	182,1	120	90	83,0	59	33,2	70	10	24	136-603-108
24B-3	10	212,7	150	138	123,3	93	33,5	100	10	24	136-703-110
28B-3	8	262,7	200	140	116,2	81	43,5	130	10	24	136-803-108
32B-3	8	262,7	200	150	132,8	93	43,5	130	10	24	136-903-108

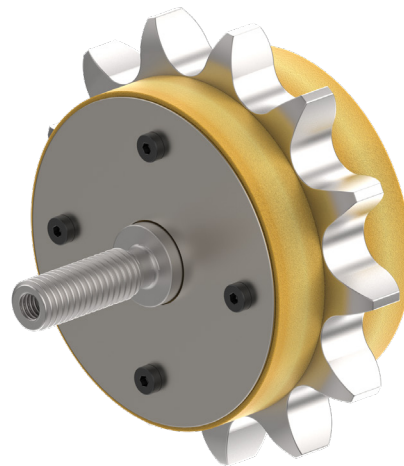
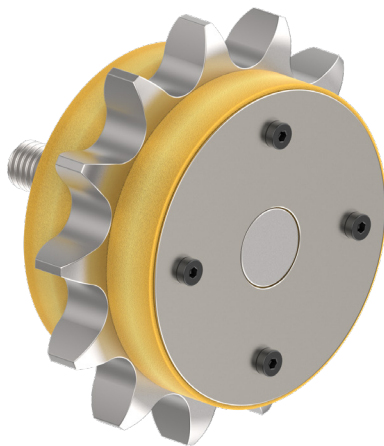
*only horizontal mounting position possible (vertical mounting position on request)

PU-Lubrication-sprocket steel

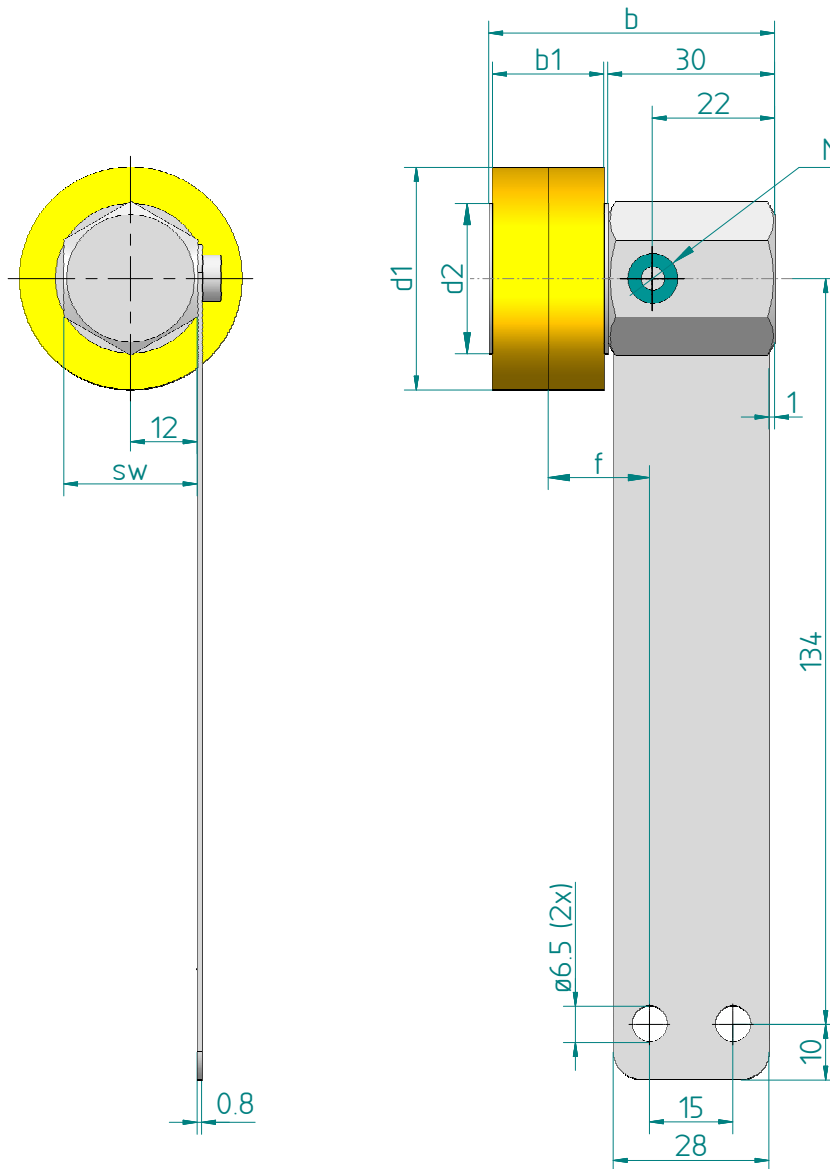


For high speeds
from 2 m/s with roller bearings

Typ	z	b	b1	d1	d2	d3	f	b3	b4	g1	g2	d4	Part-No.
10B-1	14	67,55	33,1	78,2	71,34	59,8	51	9,1	30	M6	M10	16	136-311-014
12B-1	13	69,15	35,1	87,8	79,59	66,2	51	11,1	30	M6	M10	16	136-411-013
16B-1	12	100,3	40,2	109,7	98,14	79	79,6	16,2	49,1	M10x1	M16	20	136-511-012
20B-1	13	114,2	48,5	147,7	132,67	100	89,35	18,5	49,1	M10x1	M16	25	136-611-013



PU-Lubrication-roller for oil



Description:

PU-Lubrication-roller; sleeve bearings; with one-sided recording; for radial (angled) lubricant supply; on spring Steel mounted; oil applications

Material:

Roll: open-cell PU foam;
axis: Steel, nickel-plated;
Spring Steel: 1.4310

Mounting position:

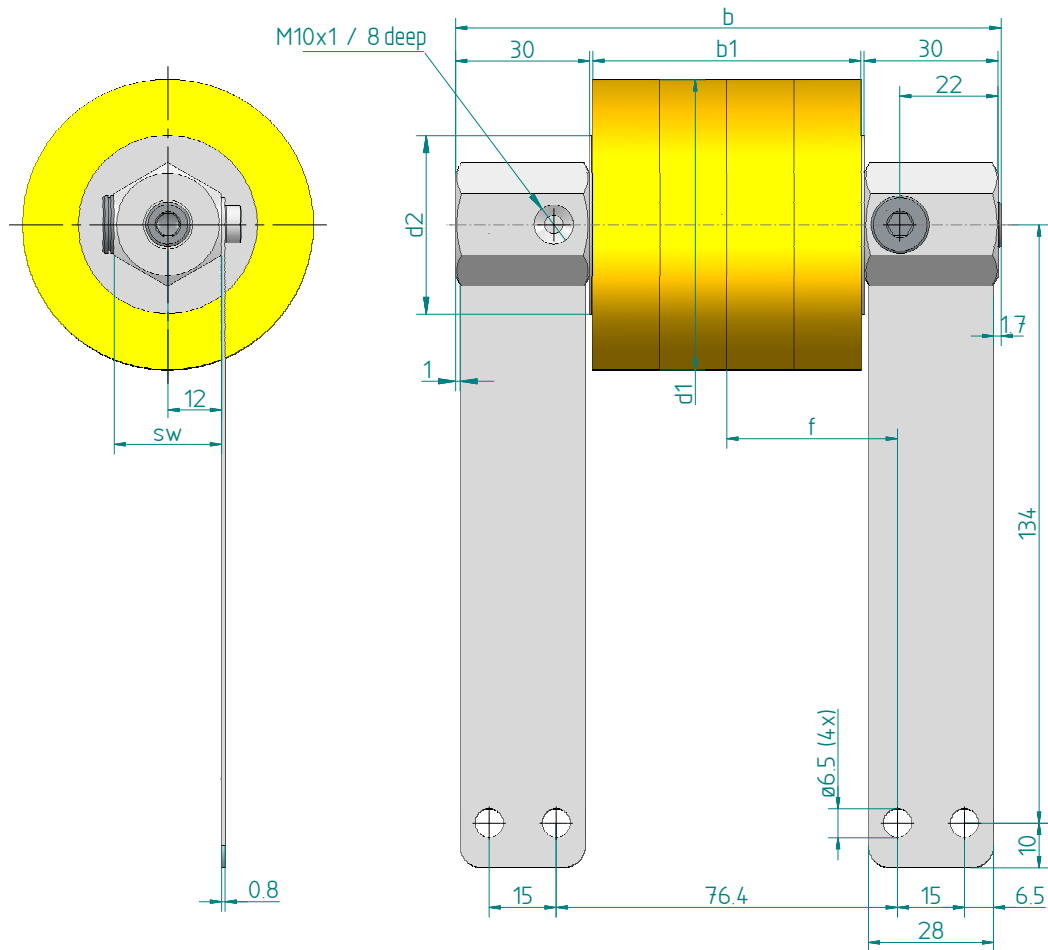
horizontal

Single-sided

b1	d1	b	d2	g1	part-no.
20	40	51,4	27	M10x1 10mm	137-020-403
24	40	55,4	27	M10x1 10mm	137-024-403
30	40	61,4	27	M10x1 10mm	137-030-403
40	40	71,4	27	M10x1 10mm	137-040-403
45	40	76,4	27	M10x1 10mm	137-045-403
50	65	81,4	45	M10x1 10mm	137-050-653
60	65	91,4	45	M10x1 10mm	137-060-653



PU-Lubrication-roller for oil



Description:

PU-Lubrication-roller; sleeve bearings; with double-sided recording; for one-sided, radial (angled) lubricant supply; on spring Steel mounted; oil applications

Material:

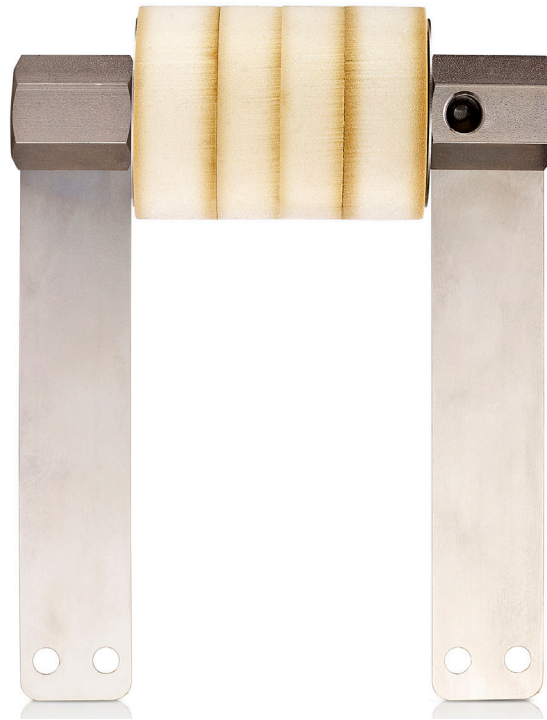
Roll: open-cell PU foam;
axis: Steel, nickel-plated;
Spring Steel: 1.4310

Mounting position:

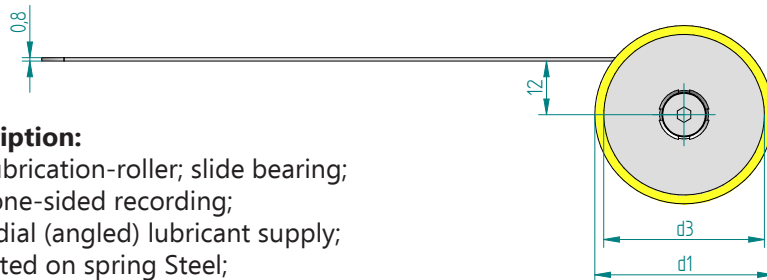
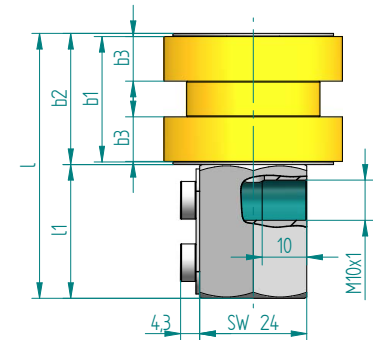
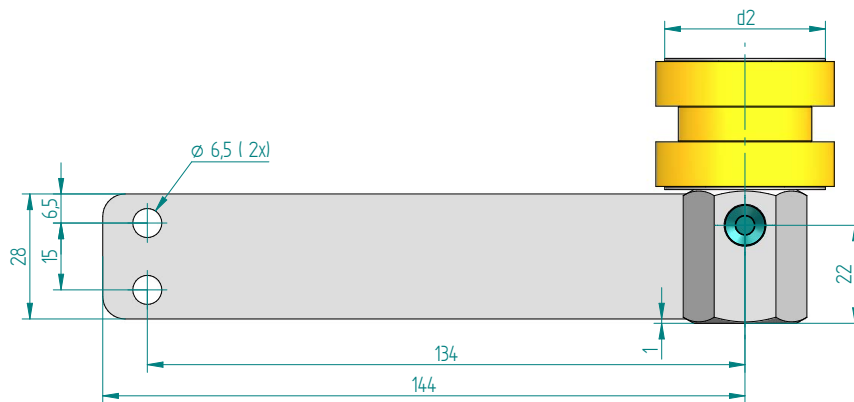
horizontal

Double-sided

b1	d1	d2	b	g1	t	part-no.
60	65	40	121,4	M10x1 10mm	0,8	137-060-654
70	65	40	131,4	M10x1 10mm	0,8	137-070-654
80	65	40	141,4	M10x1 10mm	0,8	137-080-654
90	65	40	151,4	M10x1 10mm	0,8	137-090-654



PU-Lubrication-roller for accumulating conveyor chains angled axis with spring Steel



Description:

PU-Lubrication-roller; slide bearing;
with one-sided recording;
for radial (angled) lubricant supply;
mounted on spring Steel;
Oil applications

Material:

Role: open-cell PU foam;
Axis: stainless Steel;
Spring plate: 1.4310

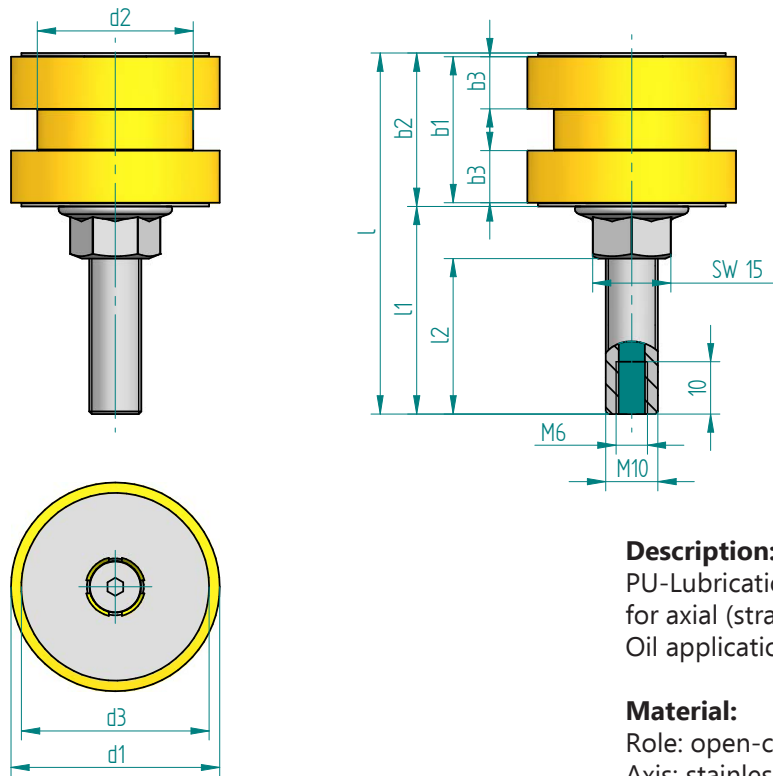
Mounting position:

horizontal

Spring Steel enclosed lose.

division	b1	b2	b3	d1	d2	d3	l	l1	part-no.
1/2"	28	29,4	10	40	29,9	36	59,4	30	137-028-403
3/4"	32	33,4	10	52	33,4	45	63,4	30	137-032-523
1"	38	39,4	10	59	33,9	45	69,4	30	137-038-593

PU-Lubrication-roller for accumulating conveyor chains straight axis



Description:

PU-Lubrication-roller; slide bearing;
for axial (straight) lubricant supply;
Oil applications

Material:

Role: open-cell PU foam;
Axis: stainless Steel;

Mounting position:

horizontal

division	b1	b2	b3	d1	d2	d3	d4	l	l1	l2	part-no.
1/2"	28	29,4	10	40	29,9	36	16	69,2	39,8	29,8	137-028-406
3/4"	32	32,2	10	52	33,4	45	28	73,2	39,8	29,8	137-032-526
1"	38	38,2	10	59	33,9	45	38,5	79,2	39,8	29,8	137-038-596

pumps for oil lubrication



pumps for oil lubrication

The pumps for oil product series is primarily designed for the oil lubrication of systems.

Our pumps are available in numerous variants, for example, you can choose between pulse or time control for the control.

The impulse control can be controlled via your machine control via PLC. The time control is autonomous. Here you can also choose between 24 V DC and battery operation.

OL500 & MSP-OL500

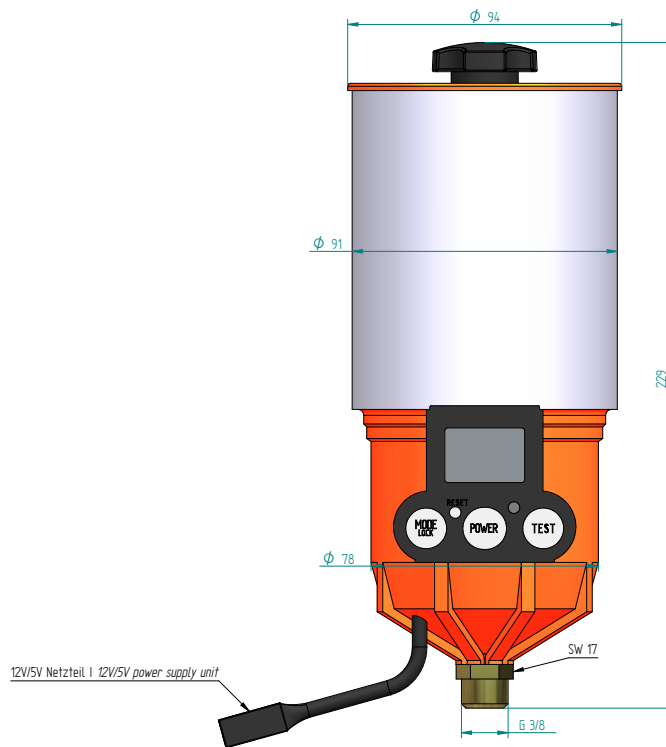
filling capacity:	500 cm ³ (refillable)
Power Supply:	DC 4.5V battery pack (interchangeable)
Operating Pressure:	10 bar
Operating Temperature:	Alkaline Batterie: -15 °C ~ 60 °C
Dispensing Periods:	
500ml:	1, 2, 4, 6, 12, 18, 24 months & H (15 days)
Remote Installation:	Max. 6m (20ft) with O.D. Ø4 tube
Multi-Point Installation:	Max. 3m (10ft) with O.D. Ø4 tube (Up to 4 lube points)
Ölviskosität:	100 ~ 10,000 cSt at 40 °C



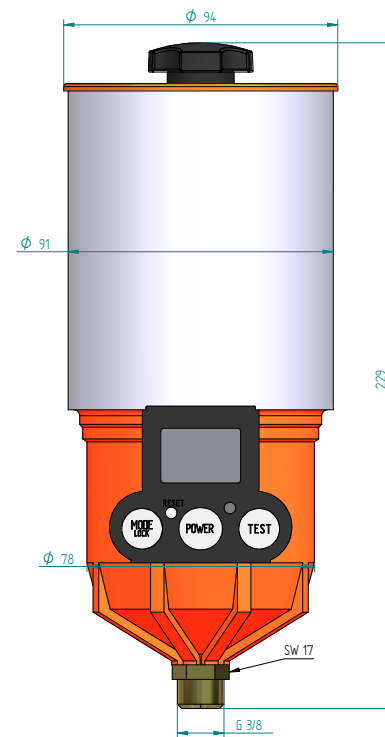
**Ideal for single or combined
relubrication of:**

- + chains
- + open gears
- + rails for rollers

Controlled minimum quantity lubrication for oil 24V DC



With external power supply + battery



battery version

Typ	Outlets	Grease Pouch Capacity	Part-No.
OL500	1	500 cm ³	335-511-000
MSP-OL500-VDC	1	500 cm ³	335-511-100

If required, 2 - 4 lubrication points can be operated with the sets on page 39

DLS-5xx-i - pulse controlled Single/dual circuit pump

Function:	dosing pump
Lubricant volume:	oil
Dosing volume per stroke:	0,4 cm ³
Discharge pressure:	max. 80 bar
Lubricating medium:	oil, from operating viscosity 150
mm ² /s	
Operating Temperature:	+10 °C ... +80 °C
Number of outlets:	up to 4 Outlets
Installation position:	vertical
Control:	integrated, microelectronic
Protection class:	DIN EN 60529 IP44
Material of outer parts:	galvanized Steel aluminum plastic
Seals:	NBR / FPM / HNBR

Particularities:

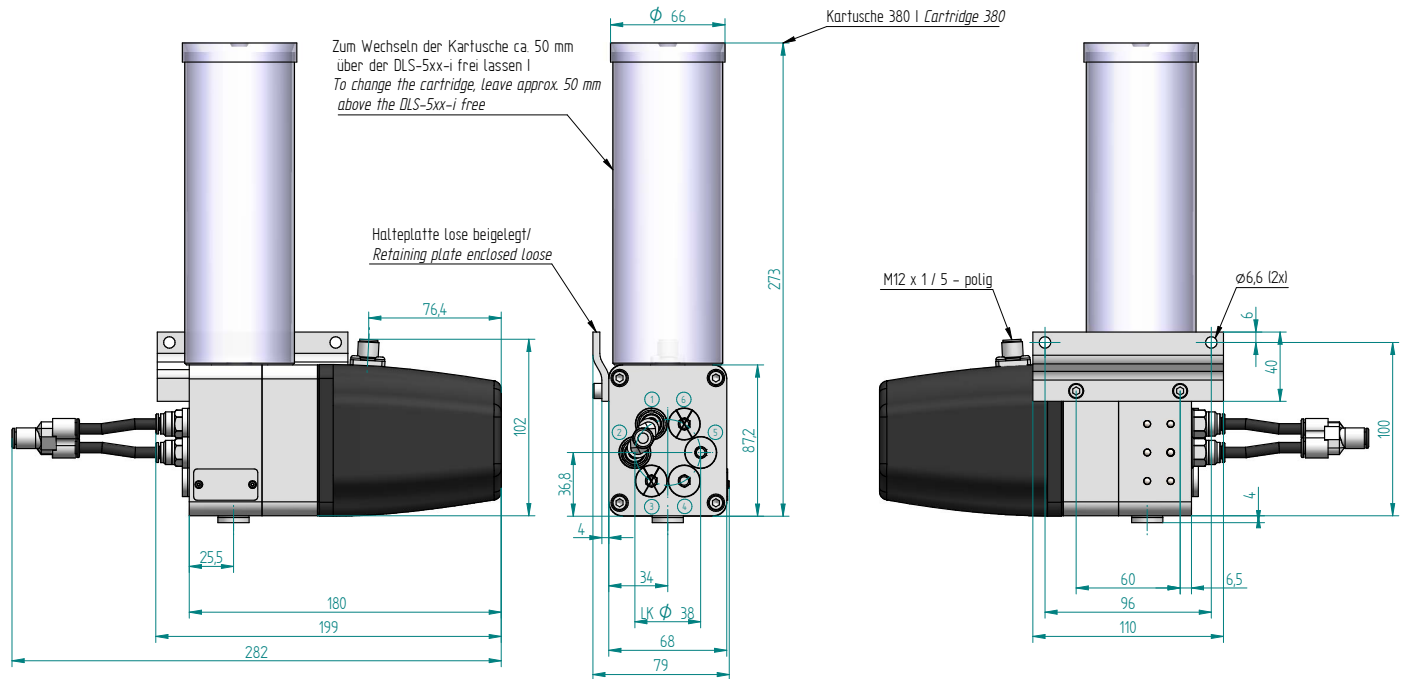
- Functional check as standard
- Level control as standard
- Cartridge control as standard
- Low power consumption
- on request: up to -25 °C
- on request: Cartridges with non-return valve



**Ideal for single or combined
relubrication of**

- + Chains
- + Racks
- + Guide rails
- + Casters

Controlled minimum quantity lubrication for grease



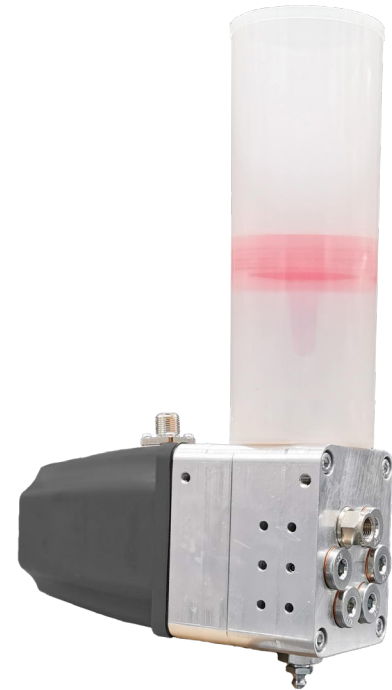
Typ	variant	Outlets	pump body	cartridge size	Part-No.
DLS-511-i	pulse controlled	1	1	380 (500 cm ³)	335-511-210
DLS-512-i	pulse controlled	2	1		335-512-210
DLS-522-i	pulse controlled	1 + 1	2		335-522-210
DLS-523-i	pulse controlled	3	2		335-523-210
DLS-524-i	pulse controlled	4	2		335-524-210

DLS-57x - pulse controlled single circuit pump

Function:	dosing pump
Lubricant volume:	oil
Dosing volume per stroke:	0,4 cm ³
Discharge pressure:	max. 80 bar
Lubricating medium:	oil, from operating viscosity 150
mm ² /s	
Operating Temperature:	+10 °C ...+80 °C
Number of outlets:	up to 6 Outlets
Installation position:	vertical
Control:	integrated, microelectronic
Protection class:	DIN EN 60529 IP44
Material of outer parts:	galvanized Steel aluminum plastic
Seals:	NBR / FPM / HNBR

Particularities:

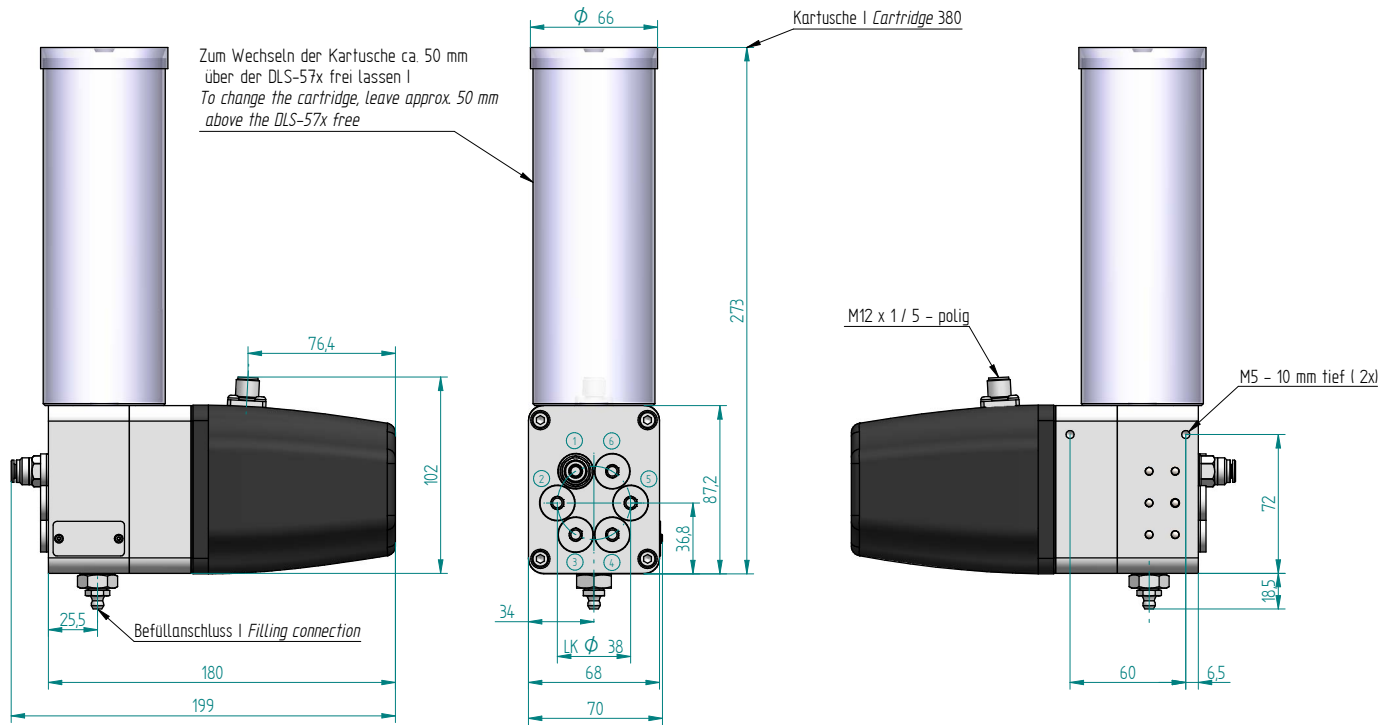
- Outlets can be closed later
- Container can be filled using a grease nipple
- Functional check as standard
- Level control as standard
- Cartridge control as standard
- Low power consumption
- on request: up to -25 °C
- on request: Cartridges with non-return valve



**Ideal for single or combined
relubrication of**

- + Chains
- + Racks
- + Guide rails
- + Casters

Controlled minimum quantity lubrication for grease



Lubricant	Container	Pressure	Outlets	Tube connector	Filling point	Part-No.
Oil	oil cartridge, Filling from above	80 bar	1	Tube connector, straight for tube 6	Blind plug	1752504081103
Oil	oil cartridge, Filling via filling connection	80 bar	1	Tube connector, straight for tube 6	Filling connec- tion B for oil	1752505081101

Further configuration options can be found on our website at www.dls-schmiersysteme.de

DLS-507x - Pulse/time controlled

Function:	Pump unit in central lubrication systems
Lubricant volume: dosing volume	oil, 2 Liter
per pump element 04:	0,04 cm ³
per pump element 08:	0,08 cm ³
per pump element 16:	0,16 cm ³
Discharge pressure:	max. 250 bar
Lubricating medium:	oil, from operating viscosity 150 mm ² /s
Operating Temperature:	-20 °C ...+60 °C
Number of outlets:	up to 2 Outlets
Installation position:	vertical
connection voltage:	24 VDC
power:	max. 2,5 A
Speed (depending on load):	ca. 30 min ⁻¹
Protection class:	DIN EN 60529 IP55 higher IP on request
Housing:	aluminum
pump element:	Steel
container:	St / Polyamide transparent
Seals:	NBR

Particularities:

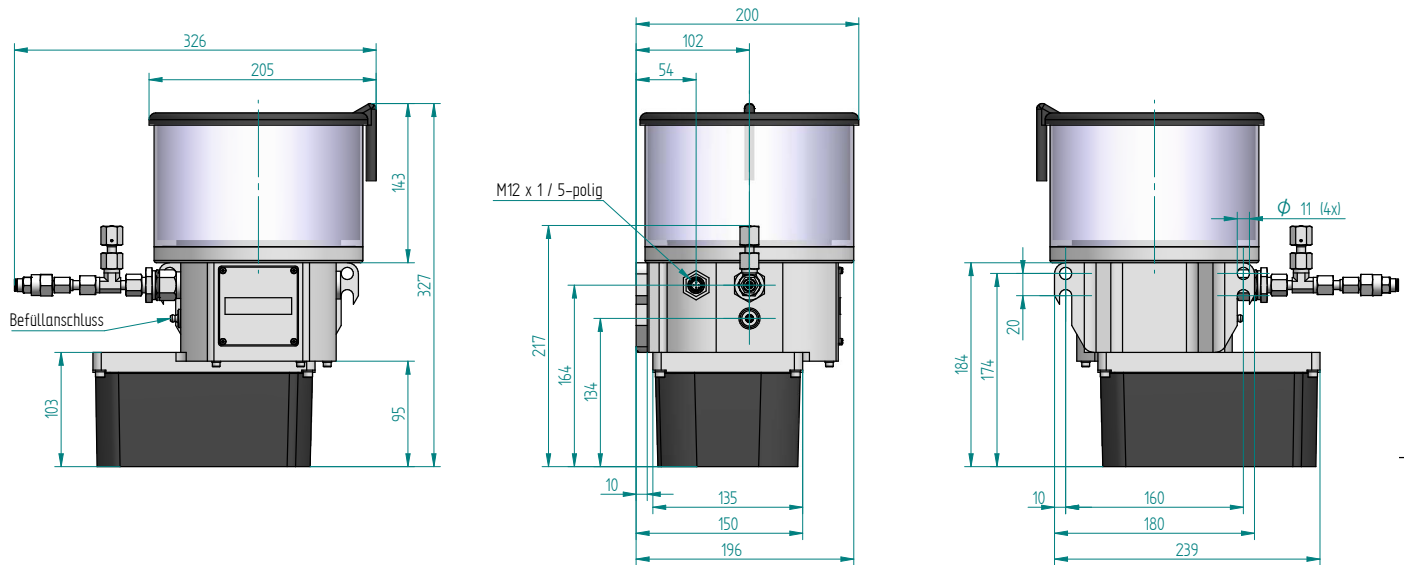
- for conveying liquid grease
- 1 or 2 pump outlets
- electrical control and monitoring
- with stirring without conveying function
- OPTIONAL: incl. integrated control



**Ideal for single or combined
relubrication of**

- + Chains
- + Racks
- + Guide rails
- + Casters

Controlled minimum quantity lubrication for grease



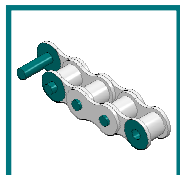
Lubricant	Pressure	Pump element on the left	Pump element on the right	Control	Tube connector	Part-No.
Oil	70 bar	0,04 cm ³	0,04 cm ³	without	straight for tube 6	1751507040401
Oil	250 bar	no connection	0,16 cm ³	integrated	straight for tube 8	1751525001613

Further configuration options can be found on our website at www.dls-schmiersysteme.de



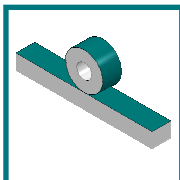
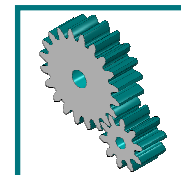
Oil OE1

Creeping oil for chains



Oil OE1

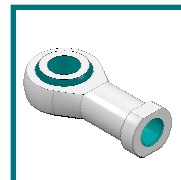
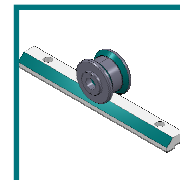
- Highly viscous, very creeping adhesive lubricant
- Synthetic white oil
- Pressure and adhesive lubricant with EP and boundary lubricating properties
- With H1 approval



Commitment:

- Lubrication of chains and plain bearings, open gear drives
- Pumpability in lubrication systems: +5 ° C . +65 ° C

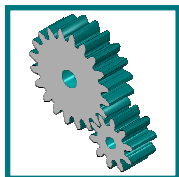
Operating temperature range: -10 ° C . +80 ° C



description	lubricant	volume	part-no.
Canister	OE1	5 Liter	000-201-503

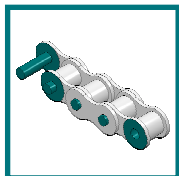
Oil OE3

Chain oil with H1 approval



Oil OE3

- Paraffin oil based lubricant
- H1 approval
- Very good wear and corrosion protection



Commitment:

- Lubrication of chains and sleeve bearings
- Pumpability in lubrication systems: + 5 °C + 80 °C

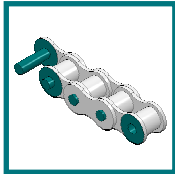
Operating temperature range: -10 ° C . +120 ° C

description	lubricant	volume	part-no.
canister	OE3	5 liter	000-201-505
canister	OE3	20 liter	000-201-507



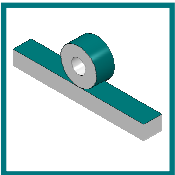
Oil OE4

Low temperature oil



Oil OE4 | H1 LFC 9022

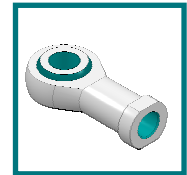
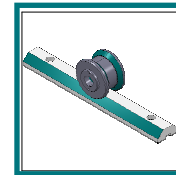
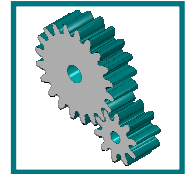
- fully synthetic poly-alpha-olefins
- Halal approval
- H1 approval



Commitment:

- Lubrication of chains, sleeve bearings and open gear drives
- Pumpability in lubrication systems: - 45 ° C . + 150 ° C

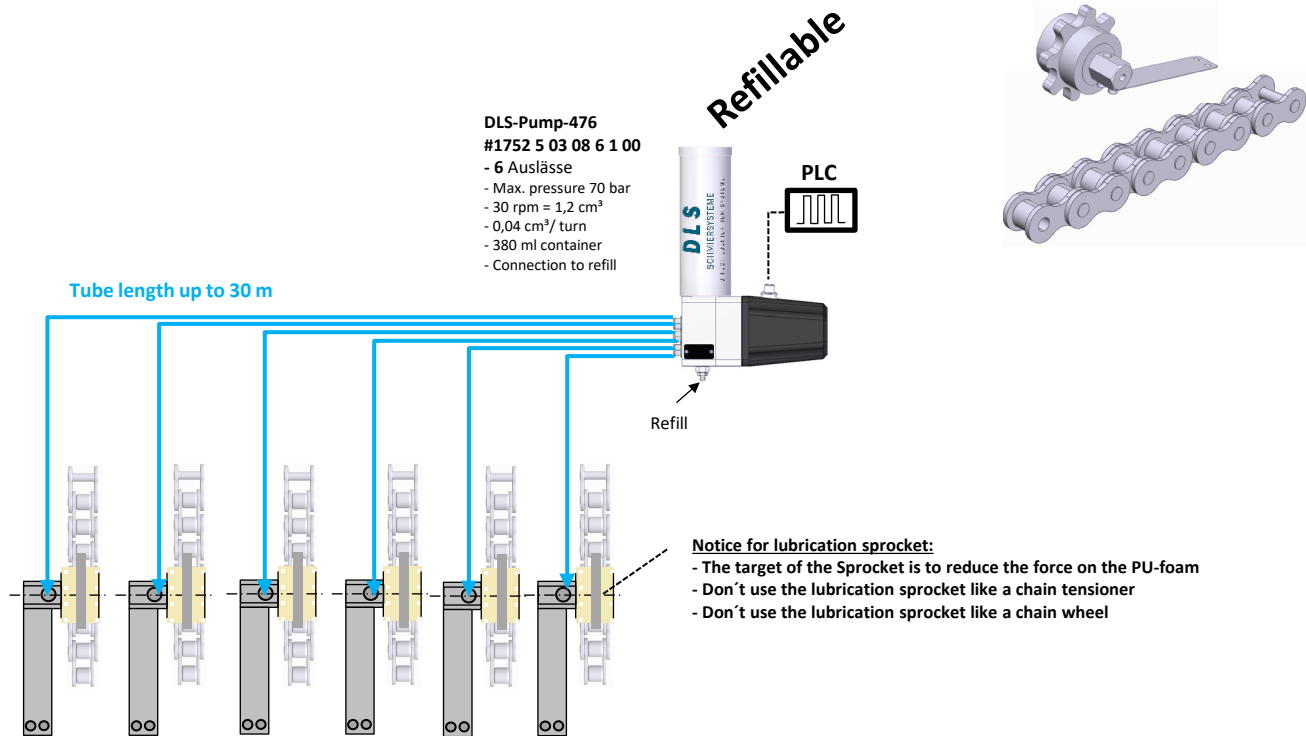
Operating temperature range: - 45 ° C . + 150 ° C



description	lubricant	volume	part-no.
tin	OE4	1 liter	000-201-508
canister	OE4	5 liter	000-201-509
canister	OE4	20 liter	000-201-510
barrel	OE4	200 liter	000-201-511

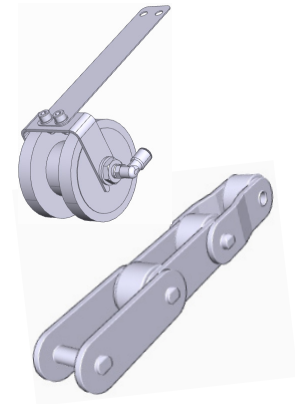
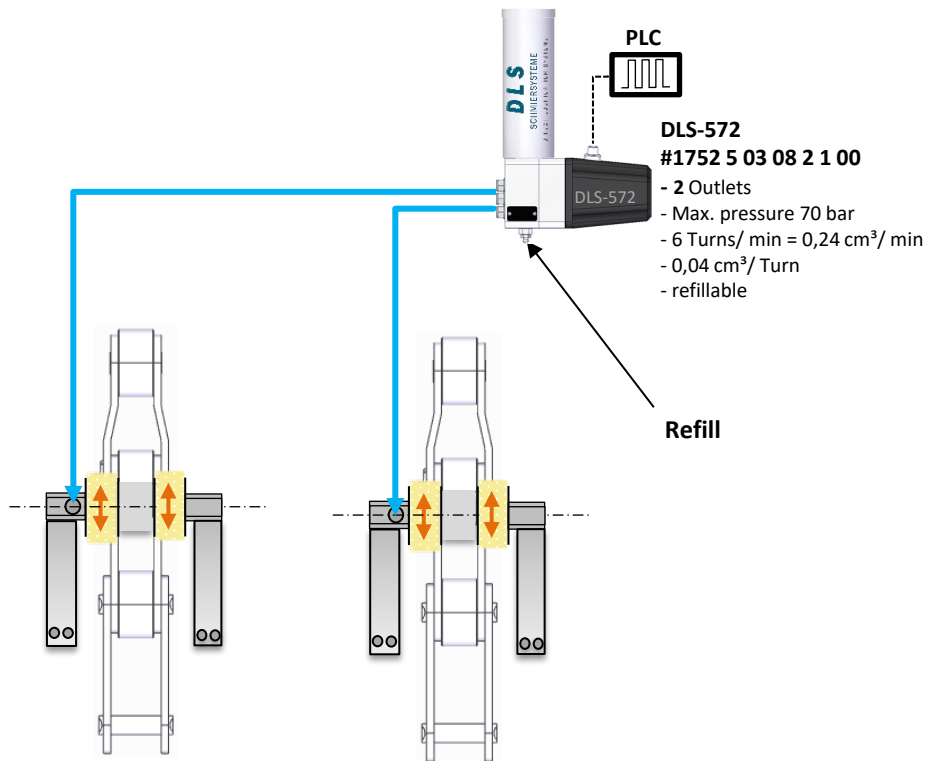


Application examples - oil lubrication



Parts list:

Part number	Item	Description	Quantity
1752 5 03 08 6 1 00	DLS-576	Oil pump	1
000-201-503	5 l container; OE1	Chain oil	1
134-004-002	6x3 tube; transparent für Öl	For oil lubrication	10
134-001-201	Fitting with back valve; angled	Connector	6
136-301-110	PU-lubrication sprocket; D=39; B=29; mounted with spring metal sheet	For B1 Chain	6



Parts list:

Part number	Item	Description	Quantity
1752 5 03 08 2 1 00	DLS-512	Oil pump	1
000-201-503	SI OE1 container;	Chain oil	1
134-004-002	6x3 tube; transparent for oil;	For oil lubrication	10
134-001-201	Tube connector with back valve; angled;	Connector	2
2003XXXXX	PU-lubrication roller with spring plate;	For hollow pin chain	2



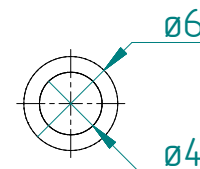
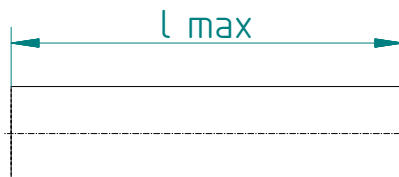
Accesories

Complete the lubrication system in your system with our accessories consisting of tubes, batteries, holders and hose connectors.

We attach great importance to only using the best products.
In this way we ensure that your system continues to run for a long time.

- + flexible
- + durable
- + high-quality
- + european manufacturing

Tubes, empty for grease



Description:

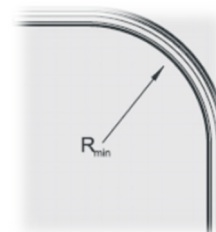
Tube empty or with lubricant pre-filled;
different lengths and diameters
max. pressure 90 bar (at 20 ° C)

Material:

PA; black



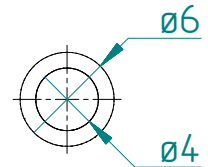
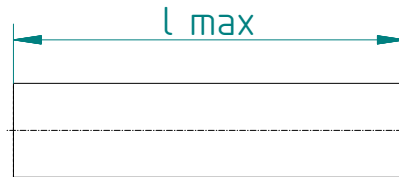
Suitable for drag chains



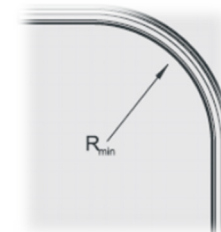
Smallest bending radius:
 $R_{\min} = 30 \text{ mm}$

Tube	d1	d2	l max.	Description	part-no.
empty	4	2,5	25 m	Tube black; Sold by the meter	134-004-003
	6	4	2,5 m	Tube black; 2,5 m length	134-024-001
	6	4	5 m	Tube black; 5 m length	134-054-001
	6	4	10 m	Tube black; 10 m length	134-104-001
	6	4	25 m	Tube black; 25 m length	134-254-001
	8	5	50 m	Tube black; Sold by the meter	134-004-005
accessories					part-no.
tube cutter					134-002-002

Tubes for oil



drag chain suitable



Smallest bending radius:
 $R_{\min} = 30 \text{ mm}$

Description:

Tube pre-filled with lubricant; (only OE1)

Material:

PA; black ; transparent only for oil

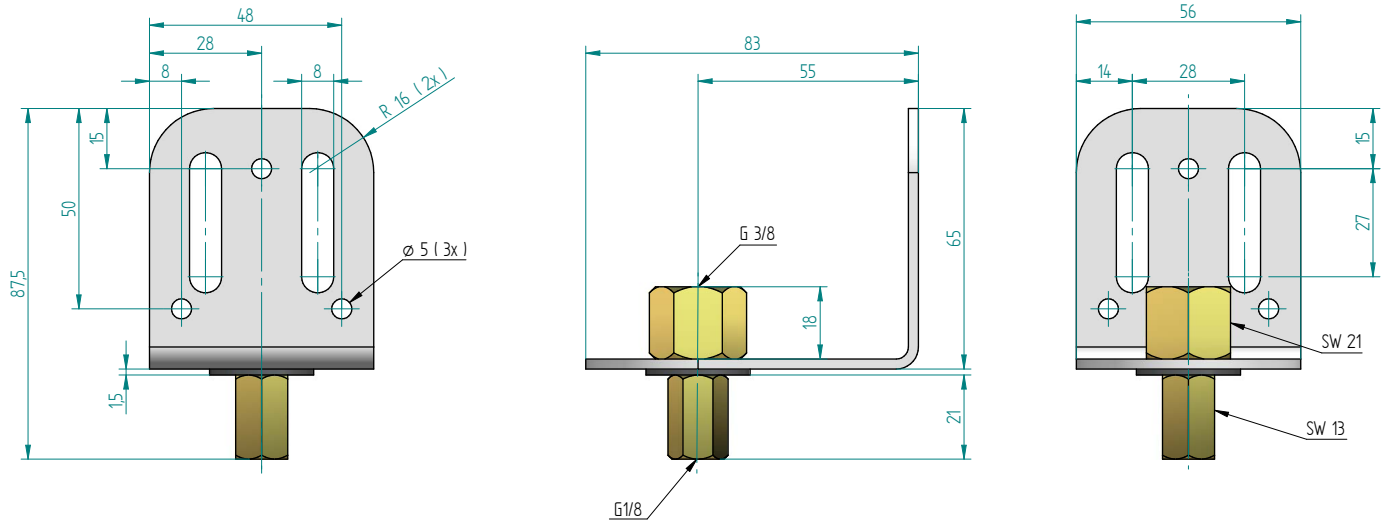
lubricant	d1	d2	l max.	good to know	part-no.
OE1	6	4	15 m	tube, black; by meter	134-003-051
empty	6	3	50 m	tube, transparent; by meter	134-004-002

notice:

tubes empty (transparent tube)

Exception: tube pre-filled with OE1 (black tube)

Accessories for Pulsarlube



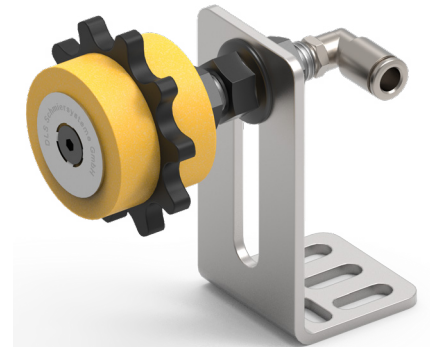
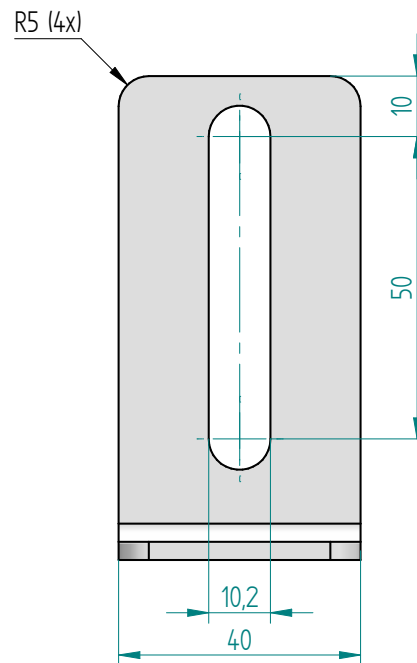
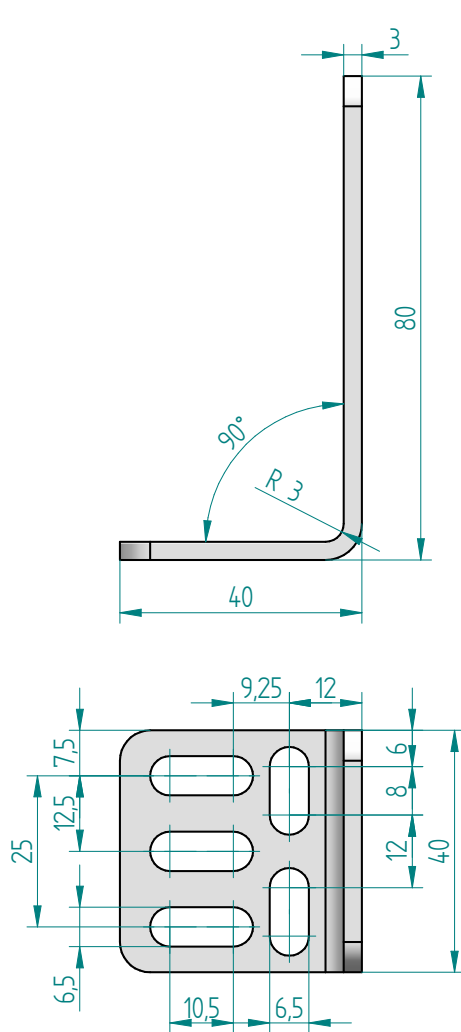
Description	Part-No.
1x sleeve 1/8"F x 1/8"F 1x reducer 1x disc 1x mounting bracket	134-009-017
sleeve 1/8"F x 1/8"F	134-009-001
reducer	134-009-002
disc	134-009-003
mounting bracket	134-009-004

Accessories for Pulsarlube



batteries	Part-No.
Standard Alkaline Battery Pack (White)	134-009-013
Lithium Battery Pack (Blue)	134-009-014
Alkaline battery pack case (white color, including all parts except alkaline battery)	134-009-015
Lithium battery pack case (blue color, including all parts except lithium battery)	134-009-016

Mounting bracket for applicators



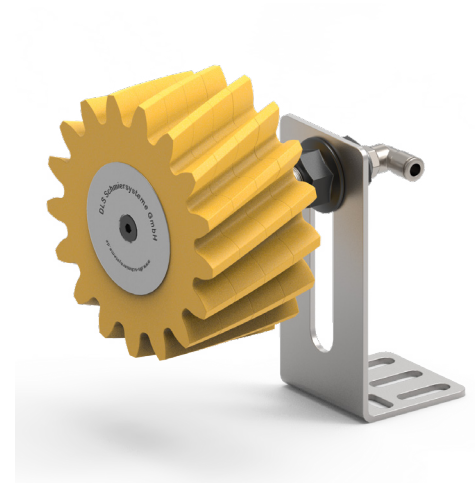
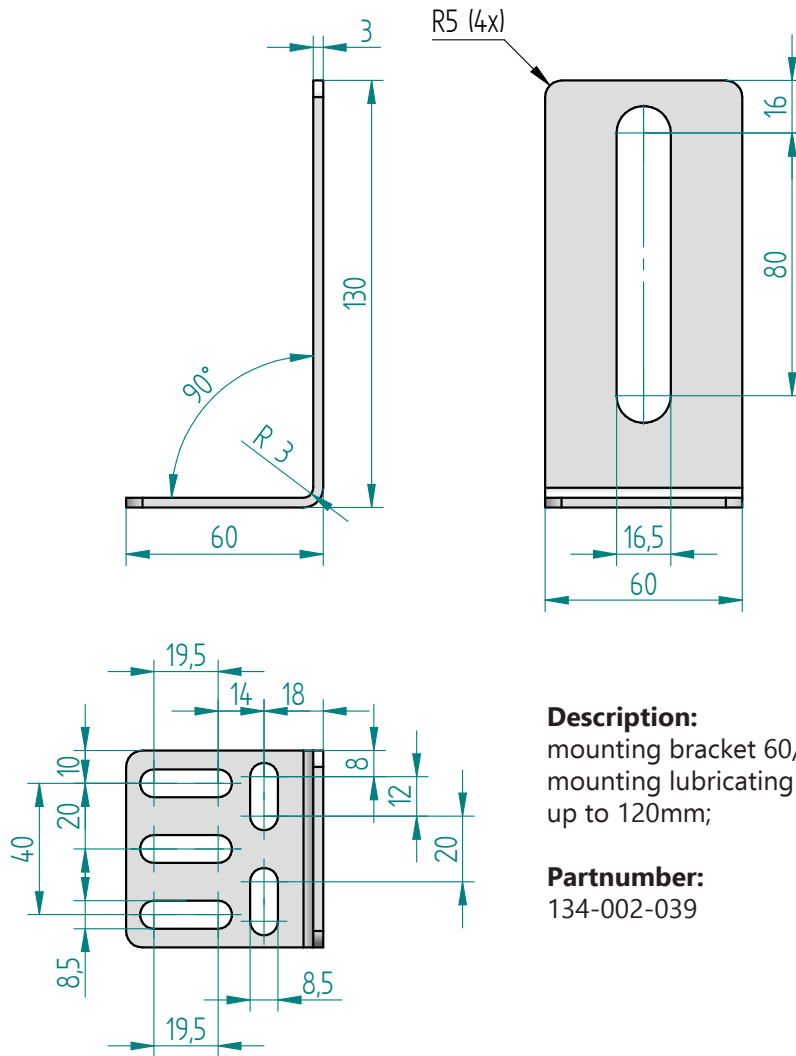
Description:

mounting bracket 40/80; Slot for M10; Material: stainless Steel; for mounting lubricating gears and lubricating rollers with a diameter of up to 80 mm;

Partnumber:

134-002-038

Mounting bracket for applicators



Description:

mounting bracket 60/130; Slot for M16; Material: stainless Steel; for mounting lubricating gears and lubricating rollers with a diameter of up to 120mm;

Partnumber:

134-002-039

Hand grease guns Self-filling for tubes



Abb.: 134-002-033



Abb.: 134-002-034

Sets for filling tubes:

With the sets offered here, you also have the option of filling tubes with diameters 6 or 8 yourself.

Filling quantity	Set content	part-no.
400 cc	1x Manual grease gun Lube Shuttle	134-002-033
	1x Tube connector; straight; thread M10x1; tube 6; sw=11; isw=4; type A; (134-000-011)	
500 cc	1x Tube connector; straight; tube 6 to tube 8; type A; max. pressure 16 bar, (134-000-105)	134-002-034
	1x Manual grease gun System-Reiner	
	1x Tube connector; straight; thread M10x1; tube 6; sw=11; isw=4; type A (134-000-011)	
	1x Tube connector; straight; tube 6 to tube 8; type A; max. pressure 16 bar, (134-000-105)	

Hand grease guns

Initial lubrication of PU-Lubrication-pinion



**100cc cartridges
filled with F01 or F03**

filling amount	set content	Part-No.
100 cm ³	Filling pump 100 cm ³ , individually	134-002-005
100 cm ³	Set for initial greasing consisting of: <ul style="list-style-type: none">- Hand grease gun for 100 cm³ cartridges- Tube connector, straight- High-pressure tube 6x4, empty	134-002-043

You will find suitable cartridges with our lubricants F01 and F03



Tube connectors

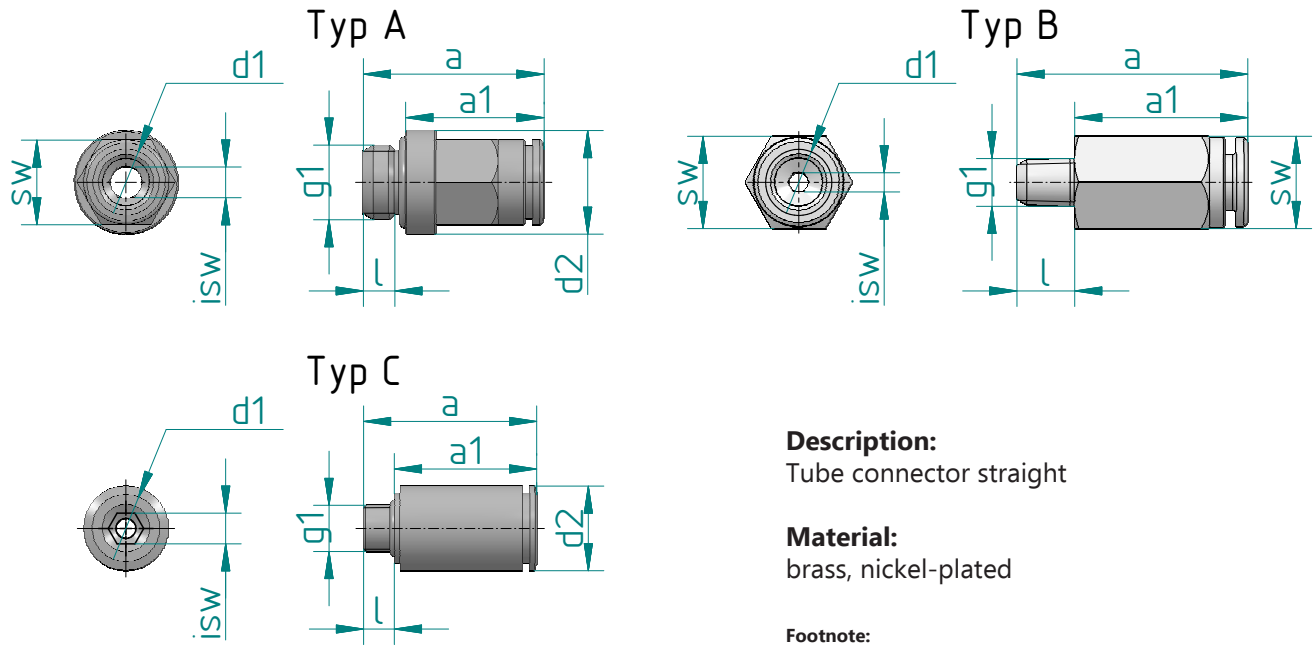
Application:

pluggable connection with the tubes

Features:

- sealing at the connection point with integrated O-rings
- easy assembly of the tubes
- all straight tube connectors with additional hexagon socket
- Further technical features can be found on the drawings at www.dls-schmiersysteme.de

Tube connectors



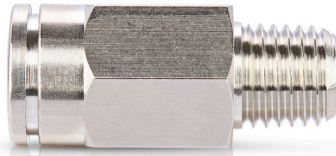
Description:
Tube connector straight

Material:
brass, nickel-plated

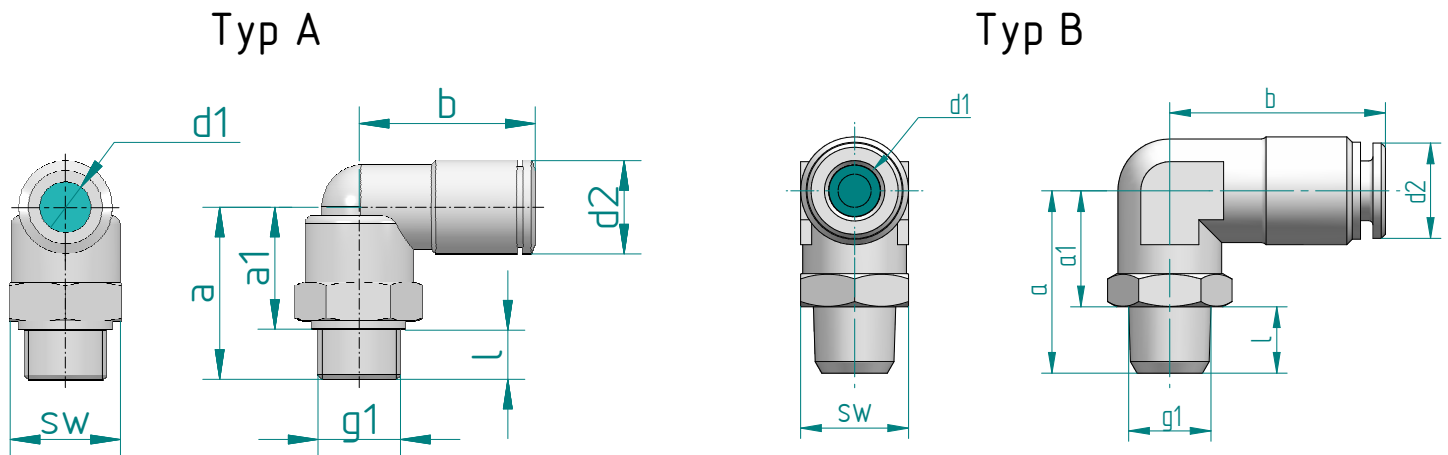
Footnote:
Type A - cylindrical thread with O-ring seal
Type B - conical thread without O-ring seal
Type C - hexagon socket

- straight version

d1	g1		Typ	d2	a	a1	l	SW	ISK	Part-No.
4	M3	DIN 13-1	C	9	21,3	16,3	5	-	1,5	134-000-017
4	M5	DIN 13-1	C	9	20,5	16,5	4	-	2,5	134-000-016
4	M6x0,75	DIN 13-2	C	8,8	20	15,5	4,5	-	2,5	134-000-009
4	M6	DIN 13-1	C	8,8	20,5	16	4,5	-	2,5	134-000-006
4	G1/8	ISO 228-1	A	13,5	19	13	6	12	2,5	134-000-012
6	M5	DIN 13-1	C	11	22	18	4	-	2,5	134-000-015
6	M6x0,75	DIN 13-2	C	11,8	22,5	18	4,5	-	2,5	134-000-010
6	M6 keg.	DIN 158-1	B	11,7	30	22,5	7,5	12	2,5	134-000-014
6	M6	DIN 13-1	C	11,8	22,5	18	4,5	-	2,5	134-000-001
6	M8x1 keg.	DIN 158-1	B	11	25,8	17,8	8	11	4	134-000-005
6	M10x1	DIN 13-3	A	13,5	21	15	6	12	4	134-000-011
6	G1/8	ISO 228-1	A	13,5	21	15	6	12	4	134-000-002
6	G1/4	ISO 228-1	A	16,4	22	15	7	15	4	134-000-004
6	R1/8 BSPT	DIN 2999	B	10,2	24,9	17	7,9	13	4	134-000-003
8	M10x1	DIN 13-2	A	13	26,5	19,5	6	13	5	134-000-019
8	G1/8	ISO 228-1	A	13	26,5	20,5	6	13	5	134-000-008
8	G1/4	ISO 228-1	A	17	23,5	17	6,5	13	6	134-000-018
8	M6	DIN 13-1	A	13	27,2	20,2	7	13	3	134-000-020



Tube connectors



Description:

Tube connector right-angled;
360° rotatable

Material:

brass, nickel-plated

Footnote:

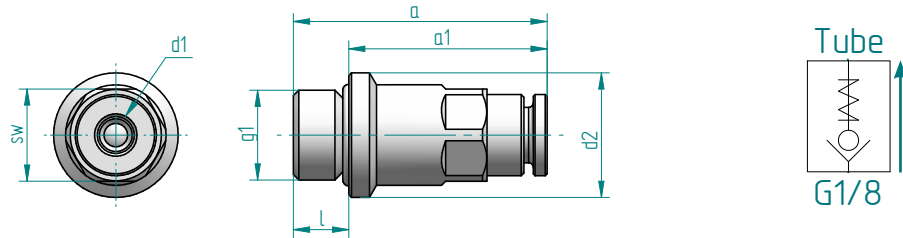
Type A - cylindrical thread with O-ring seal
Type B - conical thread without O-ring seal
Type C - hexagon socket

- right-angled version

d1	g1		Typ	d2	a	a1	b	l	SW	Part-No.
4	M3	DIN 13-1	A	9,1	16	11	18,2	5	6	134-001-021
4	M5	DIN 13-1	A	9	14,8	10,8	18	4	9	134-001-020
4	M6x0,75 k	DIN 158-1	B	9	13,5	7,5	17,5	6	8	134-001-004
4	M6x0,75	DIN 13-2	A	9	17,5	13	17,5	4,5	9	134-001-011
4	M6	DIN13-1	A	9	18	13	17,5	5	9	134-001-007
4	M10x1	DIN 13-2	A	9	20,5	14,5	17,5	6	12	134-001-005
4	G1/8	ISO 228-1	A	9	20,5	14,5	17,5	6	12	134-001-018
6	M5	DIN 13-1	A	11	14,8	10,8	21	4	9	134-001-019
6	M6	DIN 13-1	A	12,7	19	14	20	5	10	134-001-001
6	M6x0,75	DIN 13-2	A	12,7	19	14,5	20	4,5	10	134-001-012
6	M6 keg	DIN 158-1	B	12,8	25,3	19,3	22,5	6	11	134-001-014
6	M8x1 keg	DIN 158-1	B	12,7	20,5	13,5	20	7	10	134-001-010
6	M10x1	DIN 13-2	A	12,7	21	15	20	6	12	134-001-006
6	R1/8 keg.	DIN 2999-5	B	13	22	14	26	8	13	134-001-016
6	G1/8	ISO 228-1	A	12,7	21	15	20	6	12	134-001-002
6	G1/4	ISO 228-1	A	12,7	23	16	20	7	15	134-001-009
8	G1/8	ISO 228-1	A	13	20,3	14,3	24	6	13	134-001-024
8	G1/4	ISO 228-1	A	13	23,3	16,8	23,5	6,5	13	134-001-022
8	M6	DIN 13-1	A	13	19,5	14,5	23,5	5	13	134-001-025



Tube connectors with non-return valve



Description:

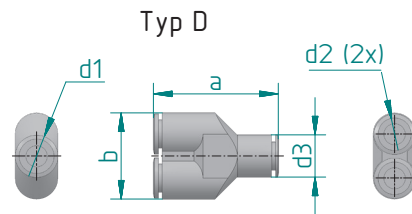
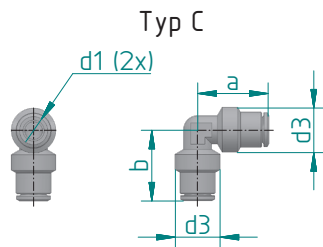
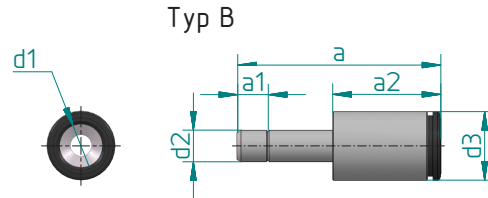
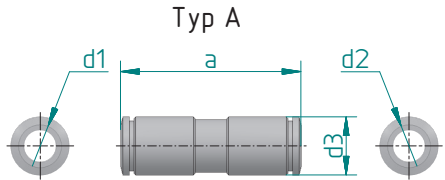
Tube connector with integrated non-return valve; straight/angled; 360° rotatable;

Material:

Nickel-plated brass; Gasket: NBR

d1	g1	d2	a	a1	b	l	sw	Part-No.
6	G1/8	13,5	27	21	-	6	12	134-000-114
4	G1/8	13,5	27,5	21,5	-	6	10	134-000-115

Connections & reductions



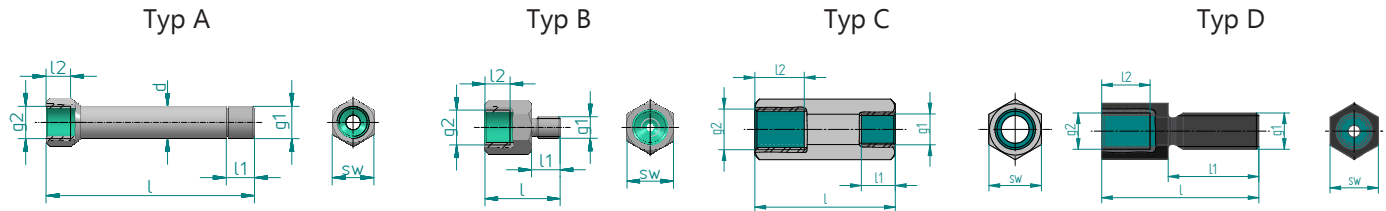
Description:
Connections and reductions;
straight or right-angled

Material:
brass, nickel-plated;

Typ	d1	d2	d3	a	a1	a2	b	Part-No.
A	4	4	9,6	29	-	--	--	134-000-111
A	6	4	11	33,5	-	--	--	134-000-106
A	6	6	12	34	-	--	--	134-000-104
A	6	8	13	39	-	--	--	134-000-105
A	8	8	13	38	-	--	--	134-000-112
B	4	6	9	30,5	5,1	12,5	--	134-000-110
B	6	4	13	36	6,3	22	--	134-000-109
B	8	6	13	38,5	11,6	20,5	--	134-000-108
C	4	4	9	17,5	-	--	17,5	134-001-106
C	6	6	12,7	20	-	--	20	134-001-104
D	6	6	12	39	-	--	24,5	134-002-000
D	8	8	14	44	--	--	28,5	134-002-023



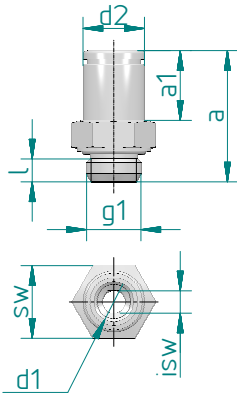
Fittings



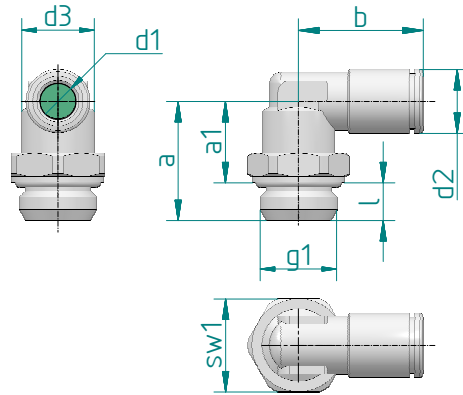
Typ	g1	g2	l	l1	l2	d	sw	material	Part-No.
A	G1/8	G1/8	50	12	13	14	17	Nickel-plated brass	134-000-703
A	G1/4	G1/4	85	11,5	10	13	17	Galvanized steel	134-000-701
A	G1/4	G1/4	104	10	10	13	17	Galvanized steel	134-000-702
A	G1/4	G1/4	122	13,5	10	14	17	Steel, nickel-plated	134-000-712
A	M6x1 (keg)	M6	57,5	7,5	8	6	9	Galvanized steel	134-000-715
C	G1/4	M10x1	45,5	11	16	-	17	stainless steel	134-000-713
B	M4	M3	16	6	6	-	6	Nickel-plated brass	134-000-707
B	M4	M6	18,5	6,5	7	-	9	Nickel-plated brass	134-000-708
B	M6	M10x1	21	8	7	-	13	stainless steel	134-000-704
B	M6	G1/8	21	8	7	-	13	Nickel-plated brass	134-000-705
B	M8	M6	19,2	11,2	7,5	-	10	Nickel-plated brass	134-000-706
B	M8	G1/4	24	10	8	-	17	Nickel-plated brass	134-000-710
B	M10x1	G1/4	24	10	8	-	17	Nickel-plated brass	134-000-711
B	G1/8	G1/4	35	7	12	13	17	Steel, nickel-plated	134-000-700
B	M6	M5	20	8	12	-	10	Stainless steel, NBR	134-000-717
B	G1/4	M16x1,5	41	8	13	20	17	stainless steel	134-000-716
C	G1/4	M10x1	74,5	11	16	-	17	stainless steel	134-000-714
D	M6x0,75	M6x0,75	26	15	8	-	8	Steel, burnished	134-000-718
D	M6x0,75	M6x0,75	21	10	8	-	8	Steel, burnished	134-000-719
D	R1/8	Rp1/8	28	13	9	-	13	Steel, burnished	134-000-720
D	R1/8	Rp1/8	35	20	9	-	13	Steel, burnished	134-000-721

Tube connectors stainless Steel

Typ A



Typ B



Description type A:

Tube connector straight
FDA-compliant

Description type B:

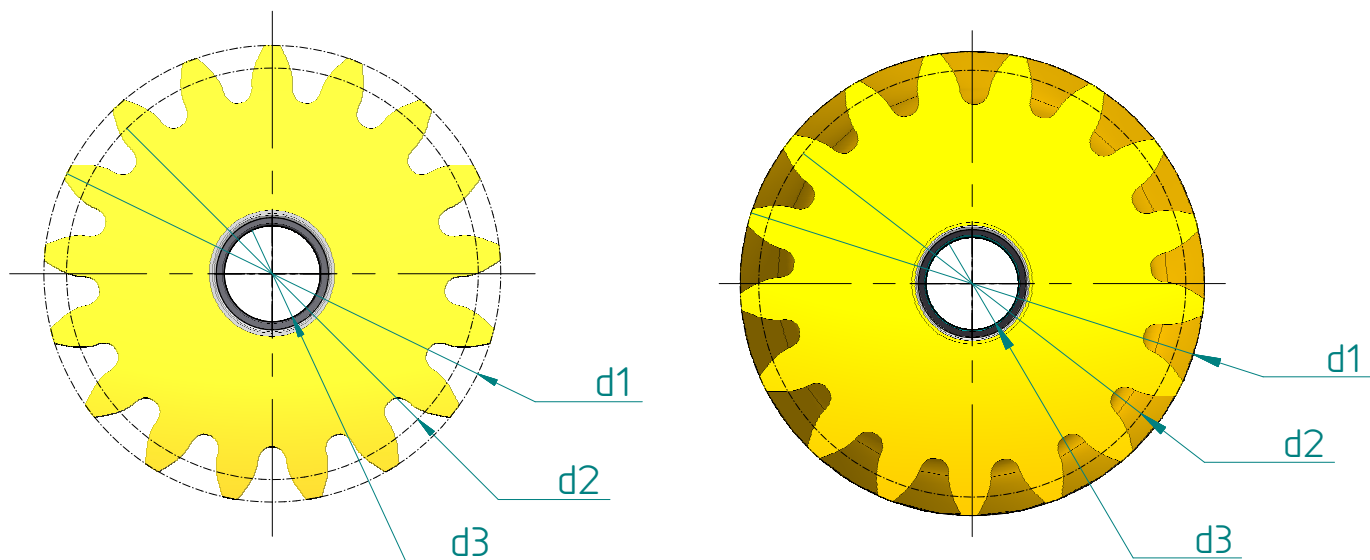
Tube connector right-angled;
360° rotatable; cylindrical thread
FDA-compliant

Material:

1.4401; Seal: FKM

type	d1	d2	a	a1	b	g1	l	sw	isw	part-no.
A	4	9	20,5	7	-	M5	4	9	-	134-000-901
A	4	9	19	9	-	G1/8	5,5	13	3	134-000-902
A	6	11	22,5	17,5	-	M5	4	-	2,5	134-000-904
A	6	11	23,5	12,5	-	G1/8	5,5	13	4	134-000-905
A	6	11	20	6	-	G1/4	6,5	16	4	134-000-906
A	8	13	26	14,5	-	G1/8	5,5	13	5	134-000-907
A	8	13	26	12	-	G1/4	6,5	16	6	134-000-908
B	4	9	14,8	10,8	18,2	M5	4	9	-	134-001-901
B	4	9	19,3	13,8	20	G1/8	5,5	13	-	134-001-902
B	4	9	20,5	14	20	G1/4	6,5	16	-	134-001-903
B	6	11	14,5	10,5	20,5	M5	4	9	-	134-001-904
B	6	11	19,3	13,8	21,5	G1/8	5,5	13	-	134-001-905
B	6	11	20,5	14	21,5	G1/4	6,5	16	-	134-001-906
B	8	13	19,3	13,8	23,5	G1/8	5,5	13	-	134-001-907
B	8	13	20,5	14	23,5	G1/4	6,5	16	-	134-001-908

PU-Lubrication-pinion



Description:

PU lubricating gear;
straight-toothed;
including sleeve and plain
bearings; Gearing according to DIN 867

Material:

Lubrication gear: open cell
PU foam;
Sleeve: stainless steel



Straight teeth and helical teeth

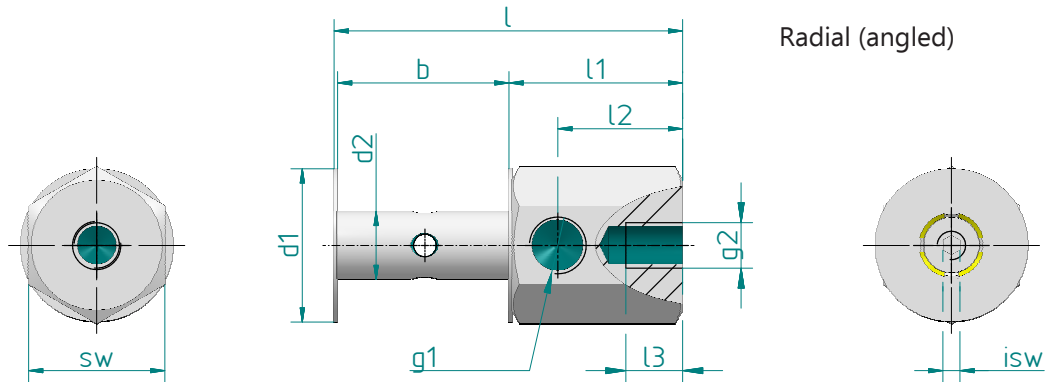
PU-lubrication pinion, straight

module	z	b	d1	d2	d3	α	flanks	Part-No.
5	17	50	95	85	20	20°	straight	230-050-017
6	17	60	114	102	20	20°	straight	230-060-017
8	17	80	152	136	20	20°	straight	230-080-017
10	17	100	190	170	20	20°	straight	230-100-017
12	8	120	120	96	20	20°	straight	230-120-008

PU-lubrication pinion, angled

module	z	b	d1	d2	d3	α	β	flanks	Part-No.
5	17	50	100,2	90,2	20	20°	19.53°	right	231-050-017
								left	232-050-017
6	17	60	120,2	108,2	20	20°	19.53°	right	231-060-017
								left	232-060-017
8	17	80	160,3	144,3	20	20°	19.53°	right	231-080-017
								left	232-080-017
10	17	100	200,4	180,4	20	20°	19.53°	right	231-100-017
								left	232-100-017
12	8	120	125,9	101,9	20	20°	19.53°	right	231-120-008
								left	232-120-008

Mounting-axis



Radial (angled)

Description:
Mounting-axis for
PU-Lubrication-pinion;

Material:
Stainless Steel

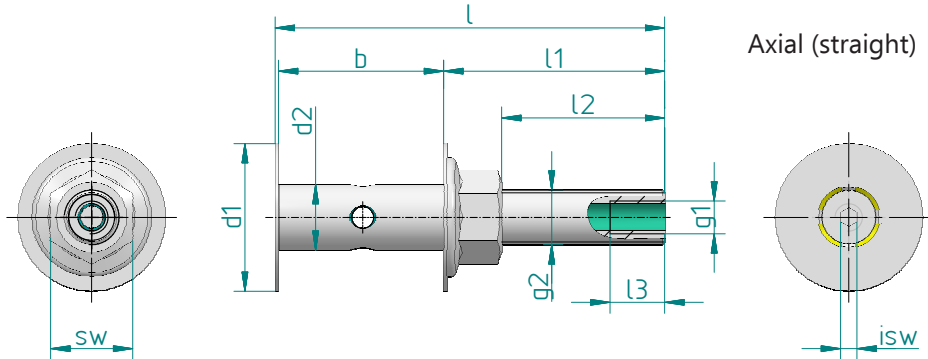
Modul	b	l	l1	l2	d1	d2	g1	g2	l3	sw	isw	Part-No.
5	50,2	81,4	30,6	22	60	20	M10x1 10 deep	M8	10	24	4	133-050-001
6	60,2	91,4	30,6	22	60	20	M10x1 10 deep	M8	10	24	4	133-060-001
8	80,2	111,4	30,6	22	100	20	M10x1 10 deep	M8	10	24	4	133-080-001
10	100,2	131,4	30,6	22	100	20	M10x1 10 deep	M8	10	24	4	133-100-001
12	120,2	151,4	30,6	22	60	20	M10x1 10 deep	M8	10	24	4	133-120-001



Radial & axial lubricant supply

Description:
Mounting-axis for
PU-Lubrication-pinion;

Material:
Stainless Steel



Modul	b	l	l1	l2	d1	d2	g1	g2	l3	sw	isw	Part-No.
5	50,2	116,4	65,6	49,5	60	20	M10x1	M16	15	24	4	133-050-002
6	60,2	126,4	65,6	49,5	60	20	M10x1	M16	15	24	4	133-060-002
8	80,2	146,4	65,6	49,5	100	20	M10x1	M16	15	24	4	133-080-002
10	100,2	166,4	65,6	49,5	100	20	M10x1	M16	15	24	4	133-100-002
12	120,2	186,4	65,6	49,5	60	20	M10x1	M16	15	24	4	133-120-002



Replacement cartridges

Grease F01 | DIN 51825 OGP0N-30 | NLGI-Klasse 0...1

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F01	250 cm ³	000-101-103
Cartridge 400 for pump 400	F01	400 cm ³	000-101-105

Grease F02 | DIN 51502 KP2R-25 | NLGI-Klasse 2

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F02	250 cm ³	000-102-103
Cartridge 400 for pump 400	F02	400 cm ³	000-102-105

Grease F03 | DIN 51825 KP2K-20 | NLGI-Klasse 2

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F03	250 cm ³	000-103-103
Cartridge 400 for pump 400	F03	400 cm ³	000-103-105

Grease F04 | DIN 51502 KP2K-30 | NLGI-Klasse 2

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F04	250 cm ³	000-104-103
Cartridge 400 for pump 400	F04	400 cm ³	000-104-105

Replacement cartridges

Grease F07 | DIN 51825 KPHC2P-40 | NLGI-Klasse 2

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F07	250 cm ³	000-107-103
Cartridge 400 for pump 400	F07	400 cm ³	000-107-105

Grease F09 | DIN 51825 KP 2K-30 | NLGI-Klasse 2

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F09	250 cm ³	000-109-103
Cartridge 400 for pump 400	F09	400 cm ³	000-109-105

Grease F14 | GB 0 | NLGI-Klasse 0

Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F14	250 cm ³	000-114-103
Cartridge 400 for pump 400	F14	400 cm ³	000-114-105

Replacement hoods + springs

Description	Volume	Part-No.
Cover 250 for pump 400 (housing only)	250 cm ³	235-200-001
Cover 400 for pump 400 (housing only)	400 cm ³	235-400-001
Pressure piston with spring		235-400-002

Support preventive maintenance

Pumps



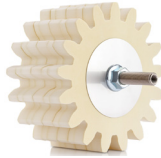
Exchange after 5 years

Tubes



Exchange after 5 years

PU-lubrication pinions



Visual check every 6 months
Exchange after 3 years, incl.
mounting axles

PU-lubrication roller



Visual check every 6 months
Exchange after 2 years

PU-lubrication sprocket



Visual check every 6 months
Exchange after 3 years

Cartridges



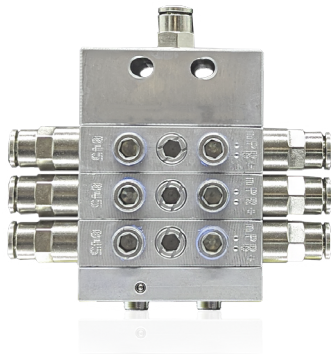
Service life max. 24 months

QuickGuide

Progressive distributor

Step 1:

Remove the transport pin

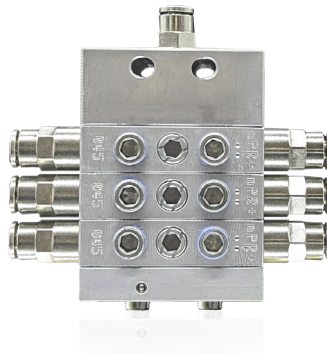


The progressive metering device is flushed, vented and checked at the factory with a „white oil“.

If necessary, the progressive distributor can be filled with the working grease before commissioning.

Step 2:

Fill the distributor

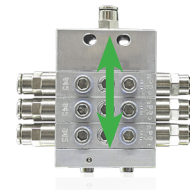


The distributor is approved up to a maximum pressure of 100 bar. DLS Lubricating Systems recommends „flushing“ the distributor with a DLS pump.

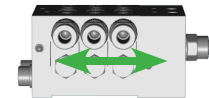
ATTENTION:
Please do not use a hand grease gun! The guarantee expires!

Step 3:

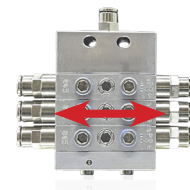
Assembly of the progressive distributor



Direction of movement of the distributor in the application okay



Direction of movement of the distributor in the application okay



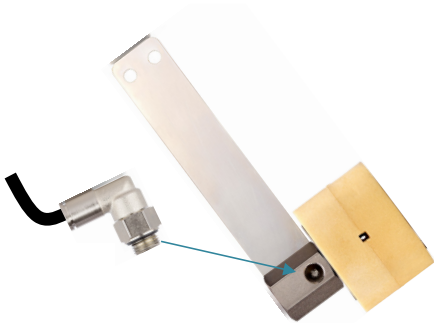
Direction of movement of the distributor in the application is **NOT** okay

QuickGuide

PU-Lubrication-roller with spring sheet

Step 1:

Upon delivery the lubrication roller are pre-assembled



Please screw the fitting into the axis. The fitting has to be ordered separately!

Install the tubing

Attention:

Cut the tube only with tube cutter. Push the tube deep (approx. 18 mm) into the fitting. Remove the tube not more than two time, otherwise you have to shorten the tube about 5mm.

If you don't cut the end, leaks are possible!

Step 2:

pre-fill the lubrication roller



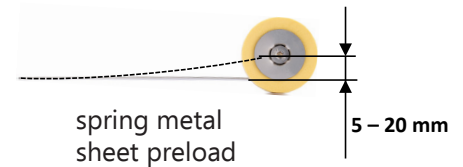
Upon delivery, the lubrication roller are not pre-filled

Recommendation: 2 min in mineral oil. Put the lubrication roller around. Let the excess oil drain off

ATTENTION: never use the rollers in dry conditions!

Step 3:

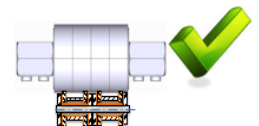
Assembly of lubrication roller



Installation details:

Make sure the roller is running parallel to the chain.

Starting with a width of around 60mm, please use double spring metal sheet!

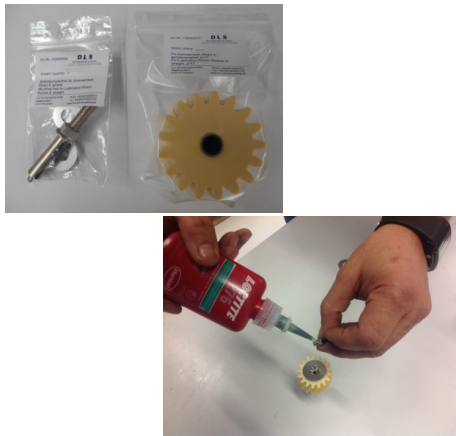


QuickGuide

PU-Lubrication-pinion

Step 1:

Assembly
lubrication-pinion on axis



The lubrication-pinion will be delivered separately from the axis.

The lubrication-pinion and the axis are not mounted!

The screw has to be glued into the axis!

Take care, there is no glue between sleeve bearing of the pinion and the axis.

The glue has to be dry out min. 7h

Step 2:

Connection with prefilled tubes



wrong!
to fast, to much grease,
no rotation of the pinion

PU-lubrication pinions must be pre-oiled or pre-greased after assembly.

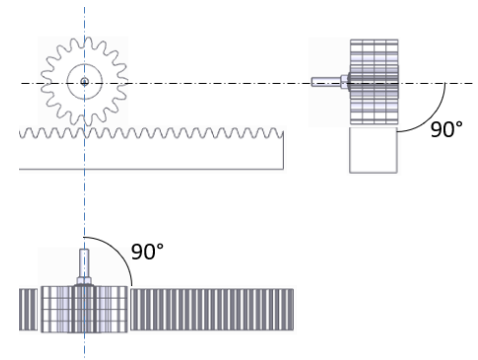
To do this, place the pinion in a mineral oil bath for approx. 10 minutes.

Then SLOWLY fill the lubricating gear with grease.

ATTENTION: Never use the pinion in dry conditions!

Step 3:

Assembly of lubrication-pinions



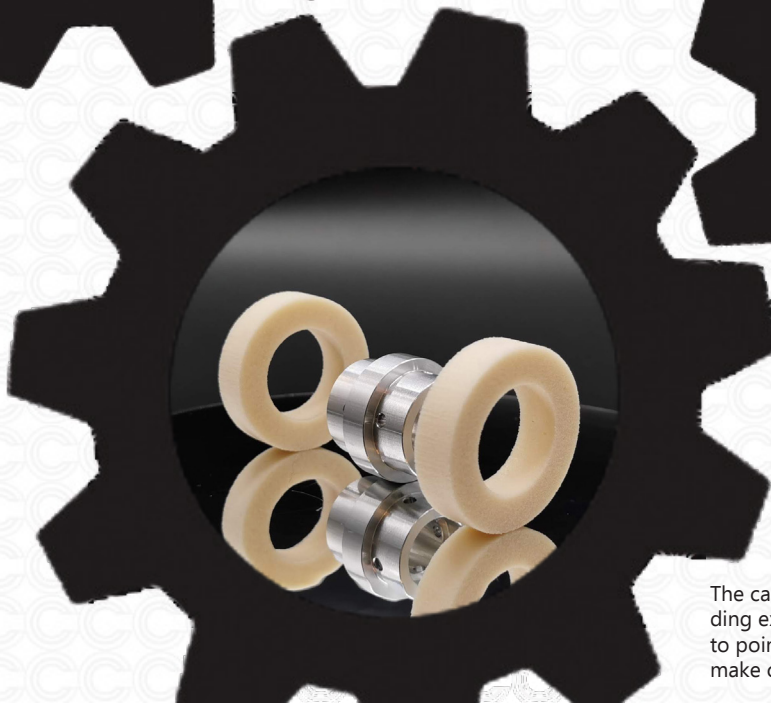
Installation details:

The lubrication-pinion has to be mounted very accurate, right angled into the moving direction.

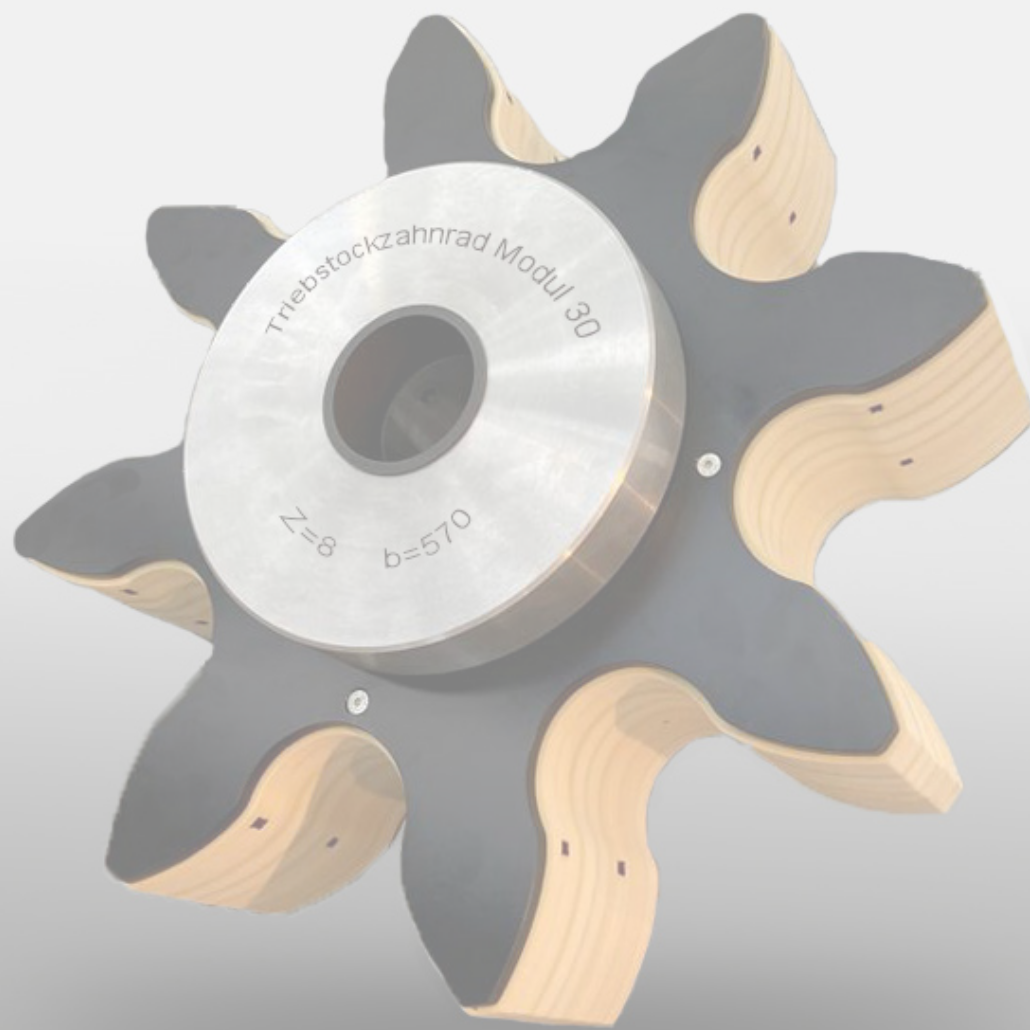
Do not mount to tight!

The pinion need clearance from 0,5 to 0,7mm!





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