
DLS
SCHMIERSYSTEME
DIRECT LUBRICATION SYSTEMS

Revision: 07.2023

DLS stands for .

Helmut Feicht:

..Customer orientation and service friendliness!

Reiner Hochholzer:

..Operational safety and durability!

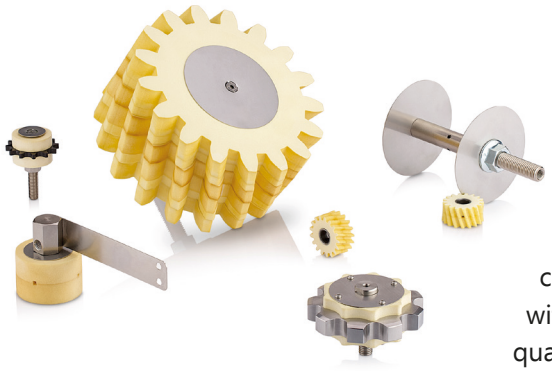
Contact: DLS Schmiersysteme GmbH
Gewerbering 5
D- 82140 Olching

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

Table of contents

Table of contents

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.

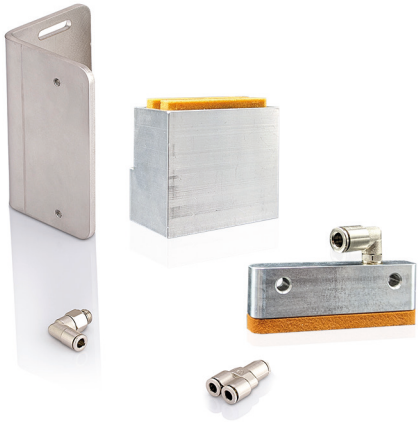
During on on-site visit, we record the general conditions and create a lubrication concept tailored to the respective parameters, without obligation. We also determine the individual lubrication quantity requirements of the individual lubrication points.

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 for retrofitting existing systems.

Everything reliable, competent and solid from a single source.



Roadmap to optimal lubrication

your application

Grease lubrication

Oil lubrication
from page 53

applicators
from page 9

pump
from page 23

distributor
from page 35

Lubricants
from page 41

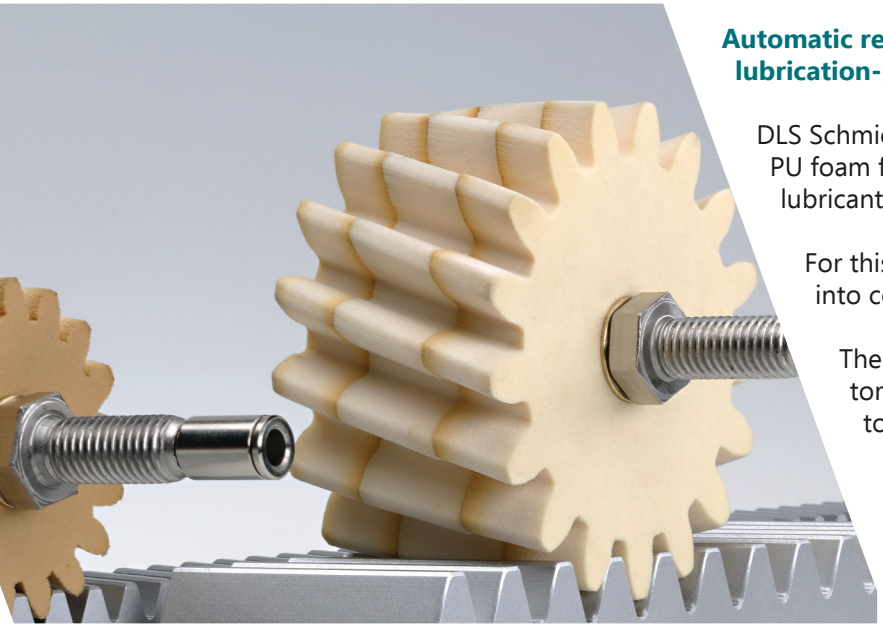
Accesories
from page 83

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

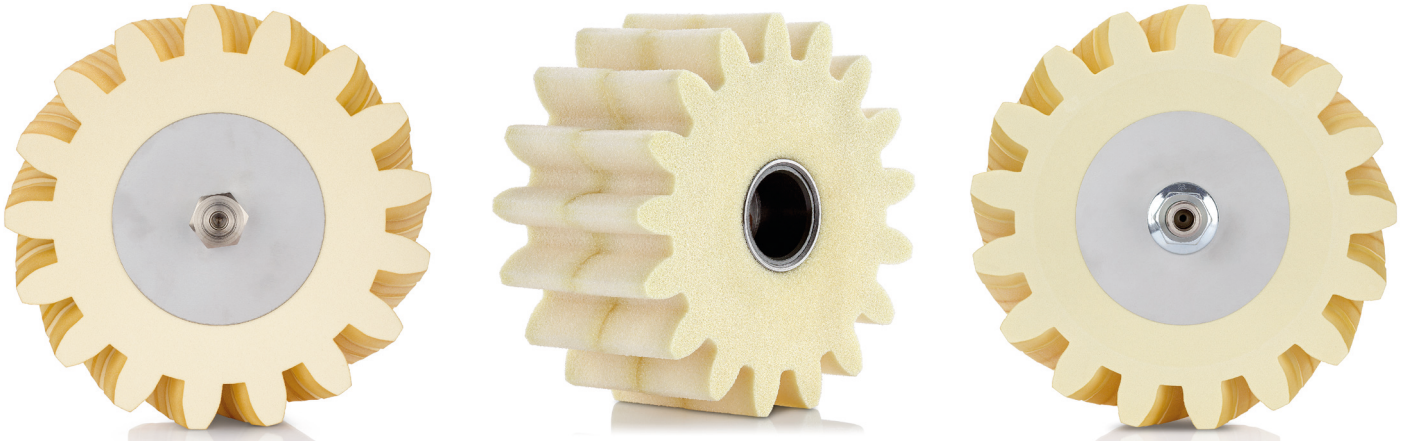
The lubrication-pinions consist of an open-cell polyurethane foam
(temperature range -40 °C . + 120 °C) and are composed of several segments.

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

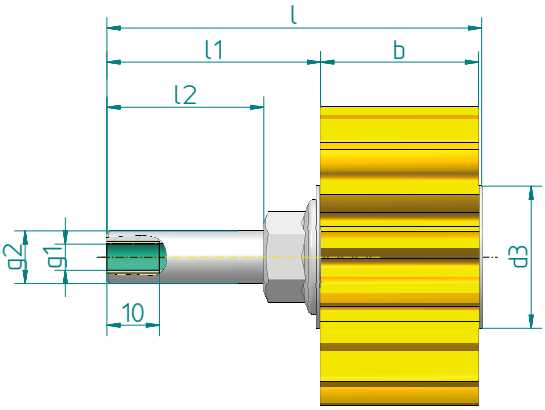
It is preferably attached to the drive gear.

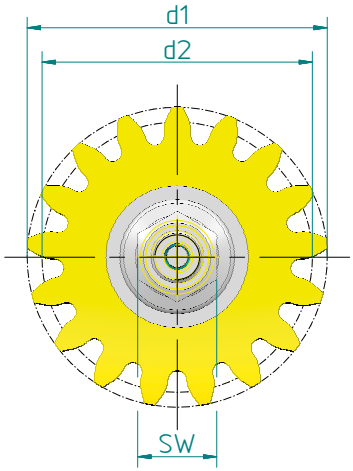
The open-cell polyurethane foam material used for the lubrication gears ensures that the teeth are optimally supplied over a very long period of time.

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





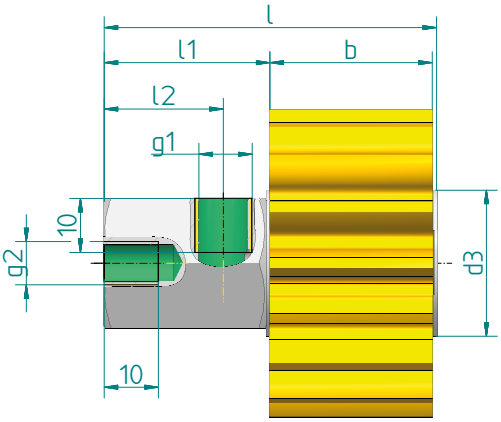
Description:
PU-Lubrication-pinion;
straight;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

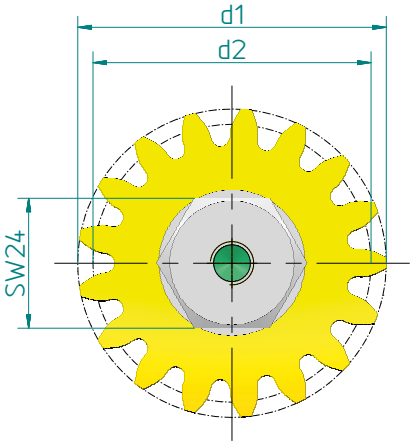
Material:
Pinion: open-cell PU foam;
axis: stainless Steel

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





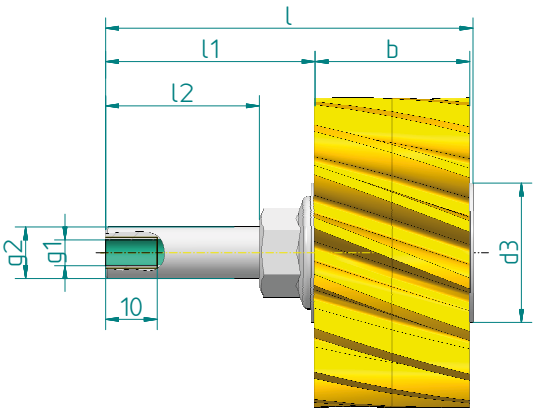
Description:
PU-Lubrication-pinion;
straight;
incl. sleeve bearing;
with angled axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

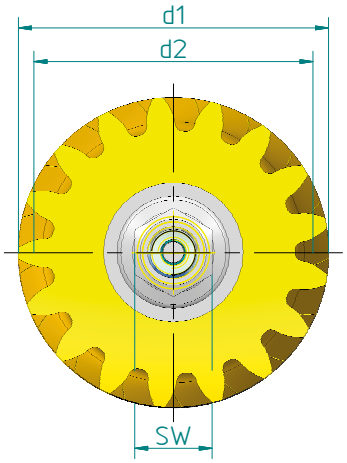
Material:
Pinion: open-cell PU foam;
axis: stainless Steel

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





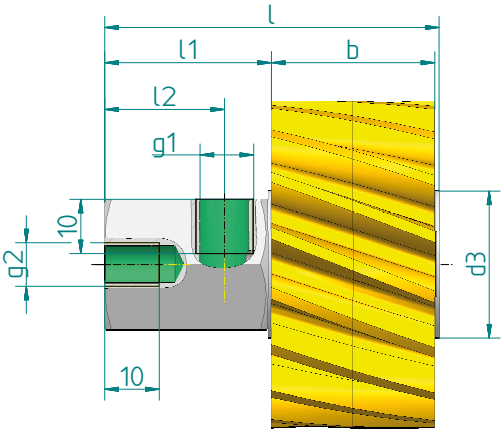
Description:
PU-Lubrication-pinion;
helical right;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

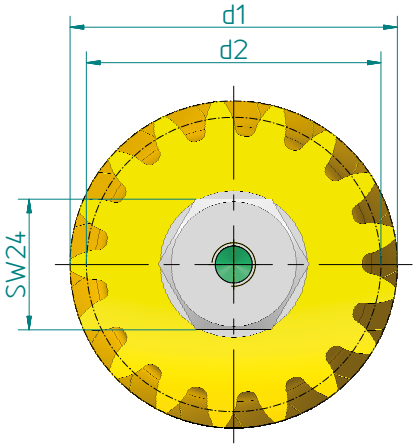
Material:
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	ß	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





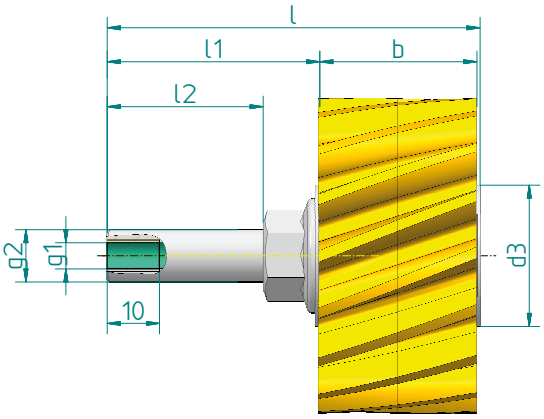
Description:
PU-Lubrication-pinion;
helical right;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

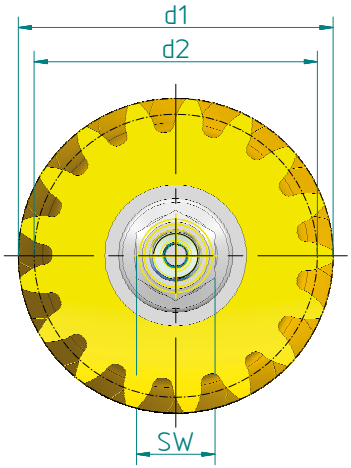
Material:
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	ß	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





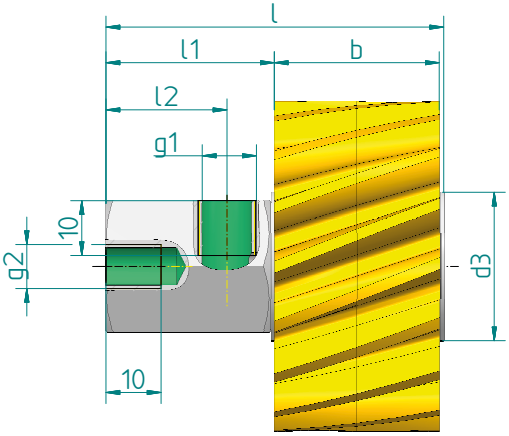
Description:
PU-Lubrication-pinion;
helical left;
incl. sleeve bearing;
with straight axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

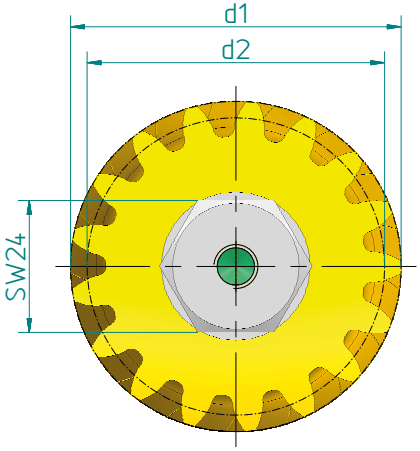
Material:
Pinion: open-cell PU foam;
axis: stainless Steel

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	ß	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





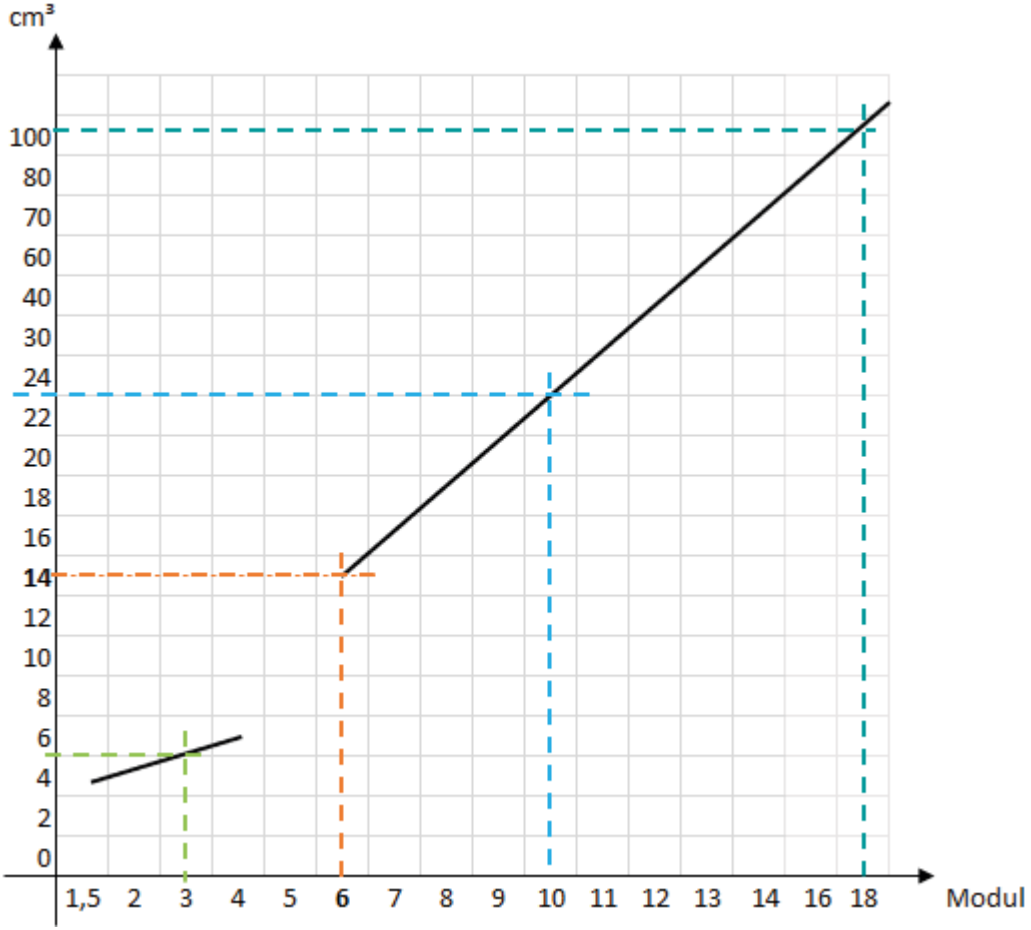
Description:
PU-Lubrication-pinion;
helical left;
incl. sleeve bearing;
with angled axis
toothing according to DIN 867
pre-oiled with oil (H1 approval)

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

module	z	b	d1	d2	l	l1	l2	g1	g2	d3	sw	ß	part-no.
1,5	24	15	41,2	38,2	46,4	30,6	22	M10x1	M8	27	24	19°31‘42‘‘	152-152-411
2	17	20	40,1	36,1	51,4	30,6	22	M10x1	M8	27	24	19°31‘42‘‘	152-021-711
3	17	30	60,1	54,1	61,4	30,6	22	M10x1	M8	27	24	19°31‘42‘‘	152-031-711
4	17	40	80,2	72,2	71,4	30,6	22	M10x1	M8	27	24	19°31‘42‘‘	152-041-711
5	17	50	100,2	90,2	81,4	30,6	22	M10x1	M8	60	24	19°31‘42‘‘	152-051-711
6	17	60	120,2	108,2	91,4	30,6	22	M10x1	M8	60	24	19°31‘42‘‘	152-061-711
8	17	80	160,3	144,3	111,4	30,6	22	M10x1	M8	60	24	19°31‘42‘‘	152-081-711
10	17	100	200,4	180,4	131,4	30,6	22	M10x1	M8	100	24	19°31‘42‘‘	152-101-711

*Alternatively also possible without H1 approval

Initial greasing of PU-lubrication pinions

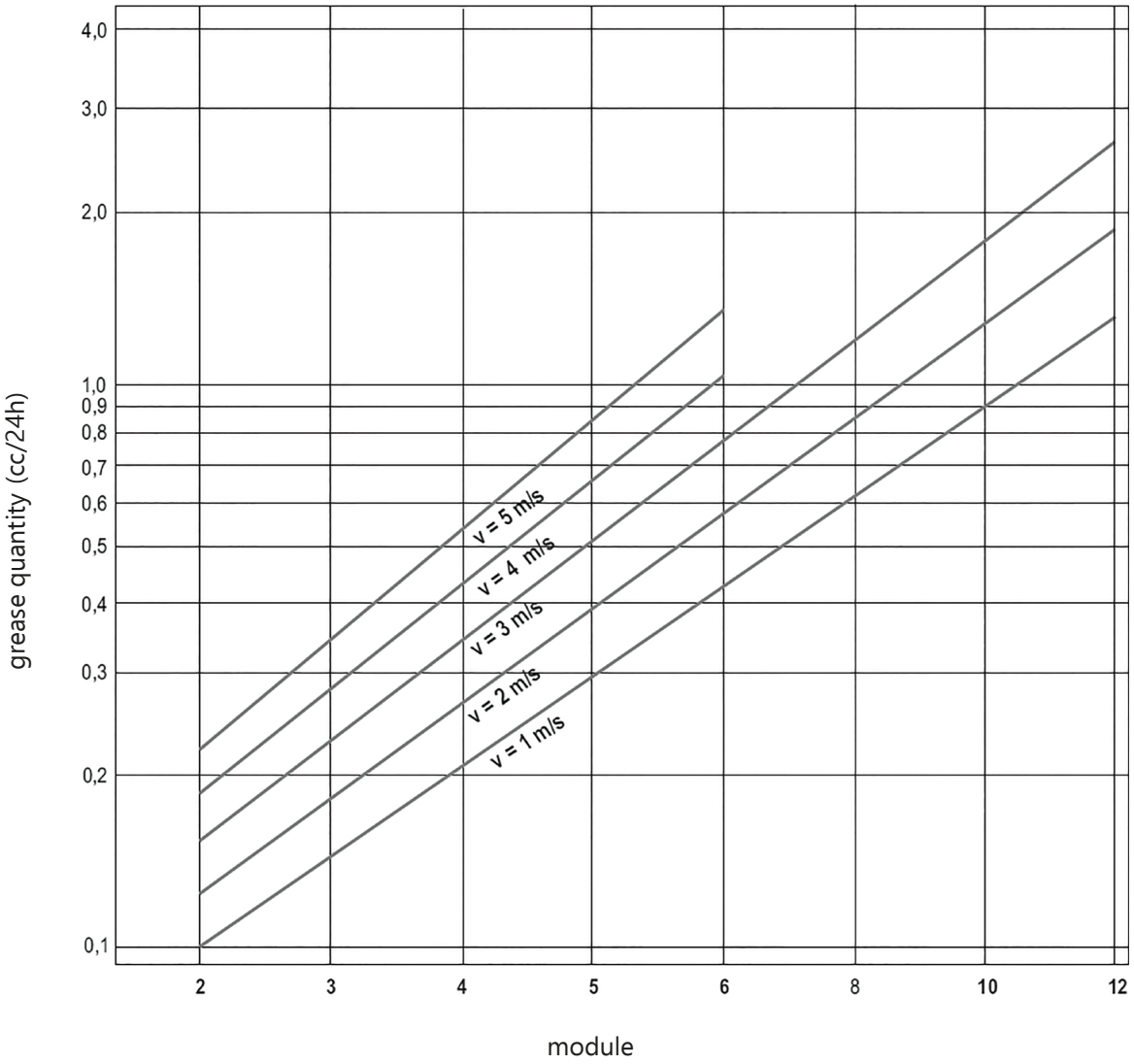


A suitable filling set for the initial greasing of the PU-lubrication pinions with lubricant can be found on page 90.

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



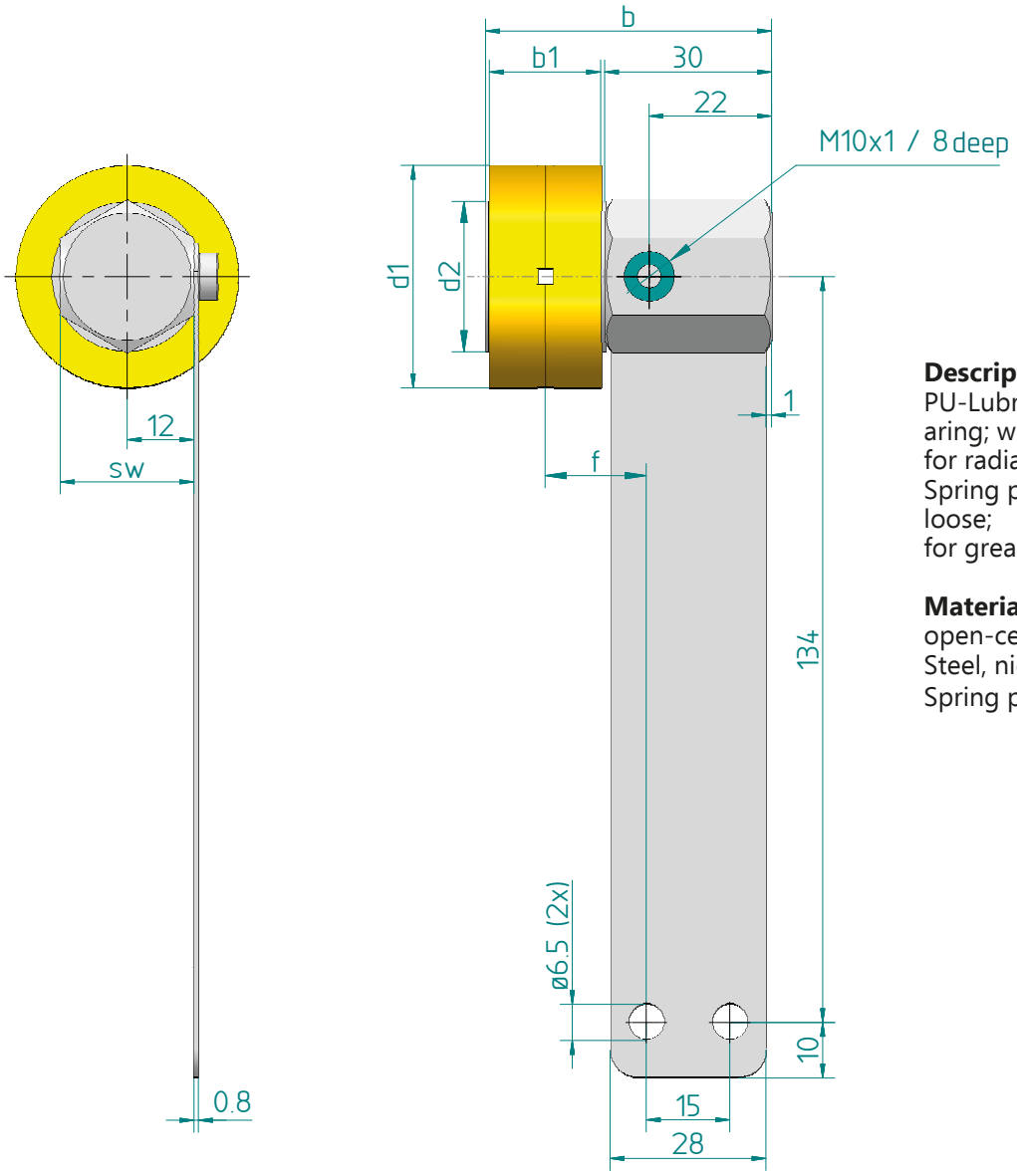
PU-Lubrication-roller

The rolls of the PU-Lubrication-roller consist of on 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



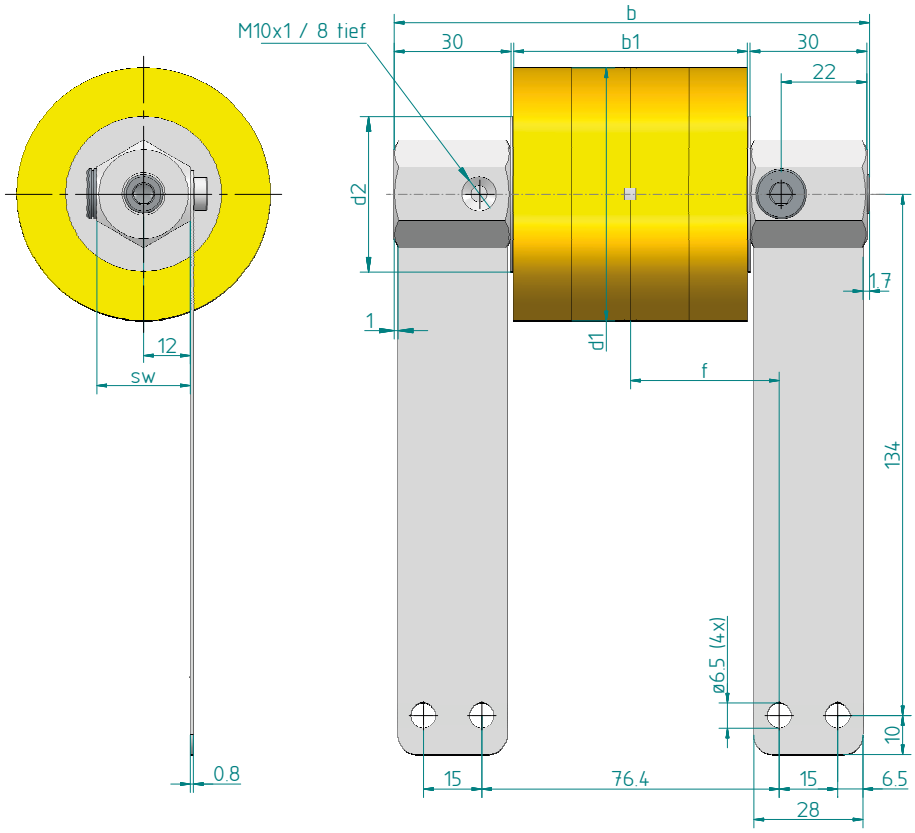
Description:
PU-Lubrication-roller; sleeve bearing; with one-sided recording;
for radial lubricant supply;
Spring plate and screws supplied loose;
for grease applications

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

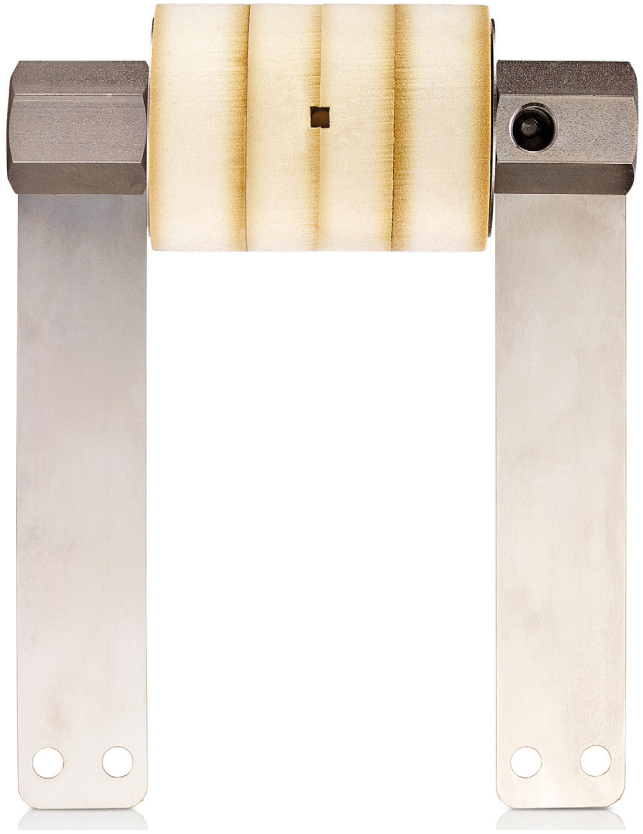


Description:
PU-Lubrication-roller; sleeve bearing; with double-sided recording;
for one-sided, radial lubricant supply;
Spring plate and screws supplied loose;
for grease applications

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



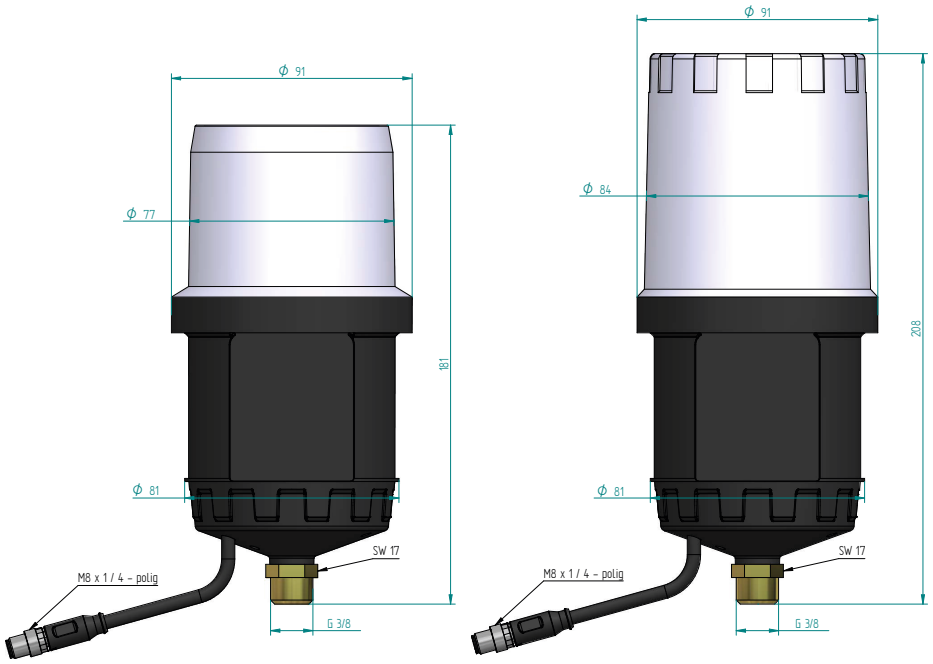
PLC 120/240 P-INT

Grease Pouch Capacity:	120 / 240 cm^3
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.

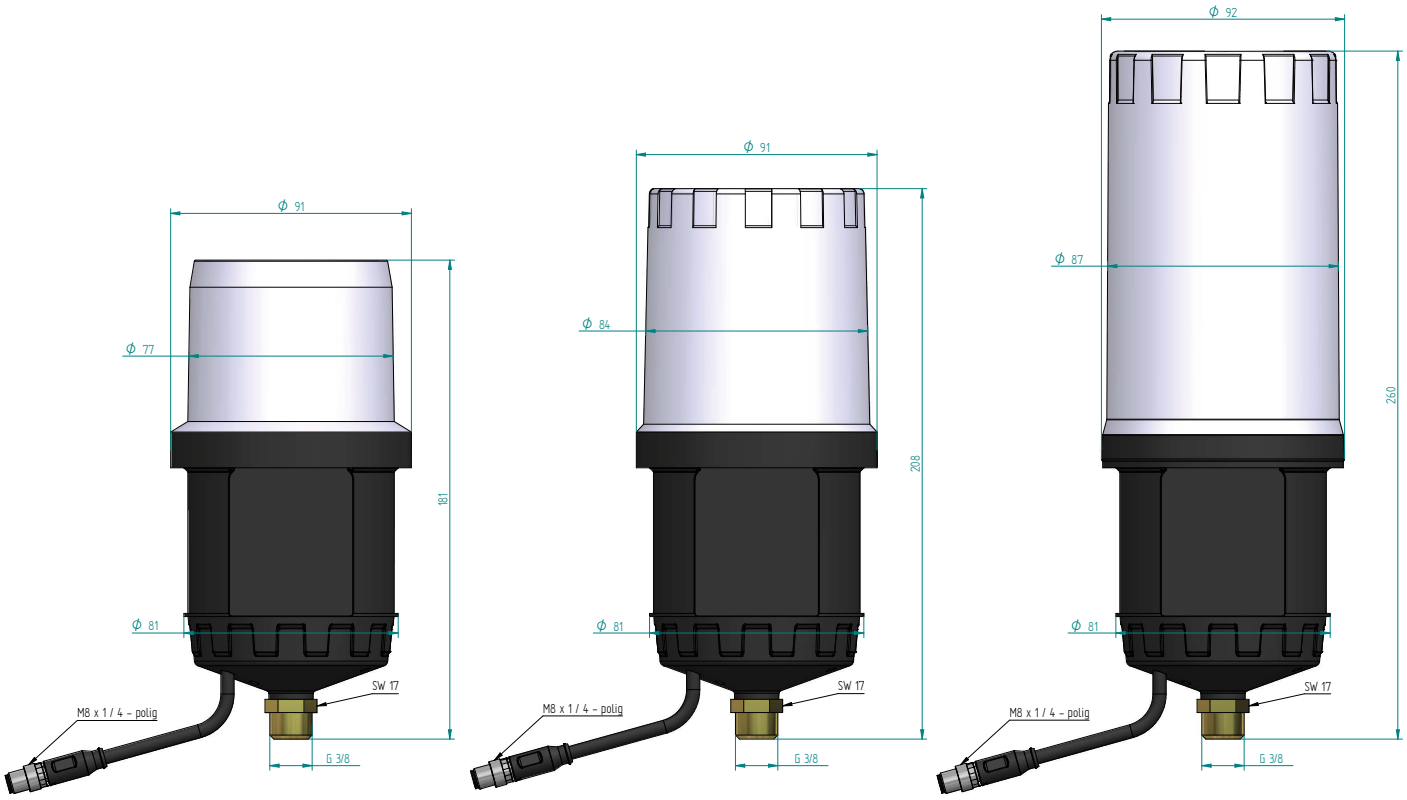
PLC 60/120/240/480 P-MON

Grease Pouch Capacity:	60 / 120 / 240 / 480 cm^3
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 cm^3

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

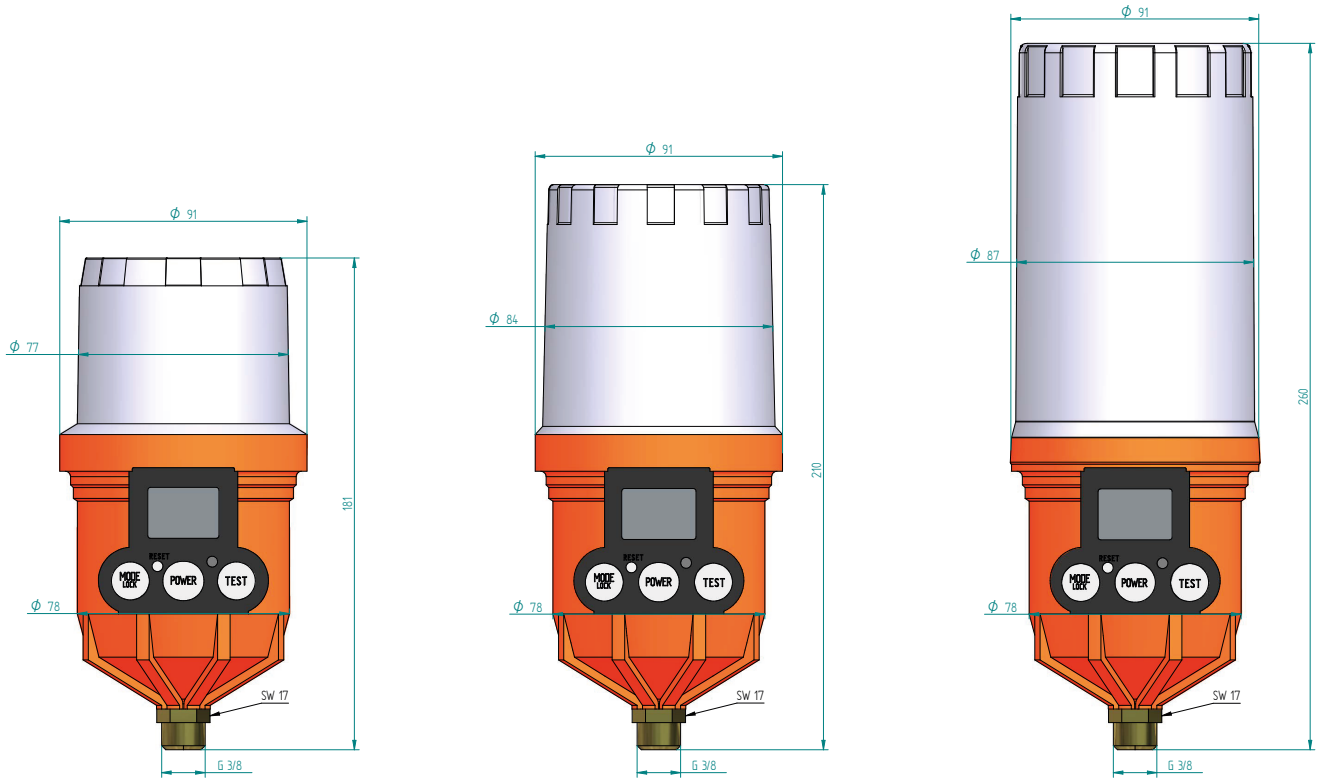
Multi-Point Installation: Max. 6m (20ft) with O.D. Ø6 tube (Up to 8 lube points)

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

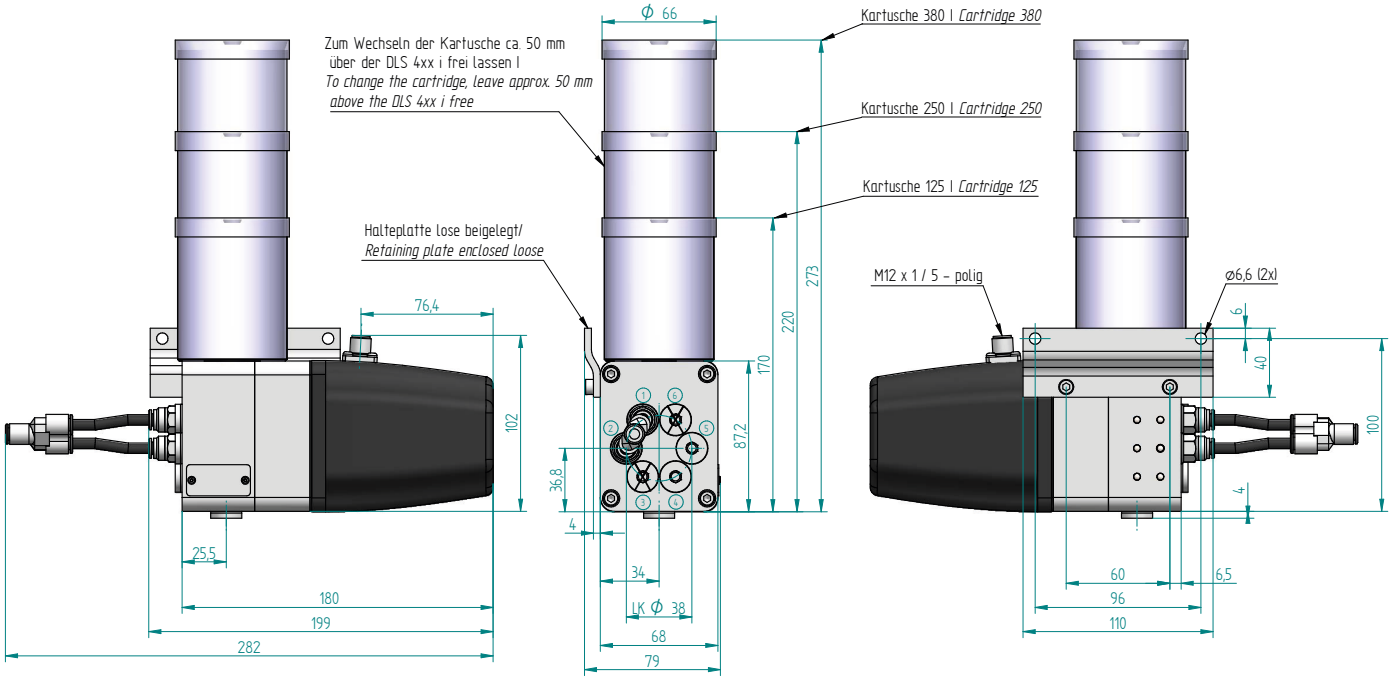
Particularities:

- 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 cm³) 250 (300 cm³) 380 (450 cm³)	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

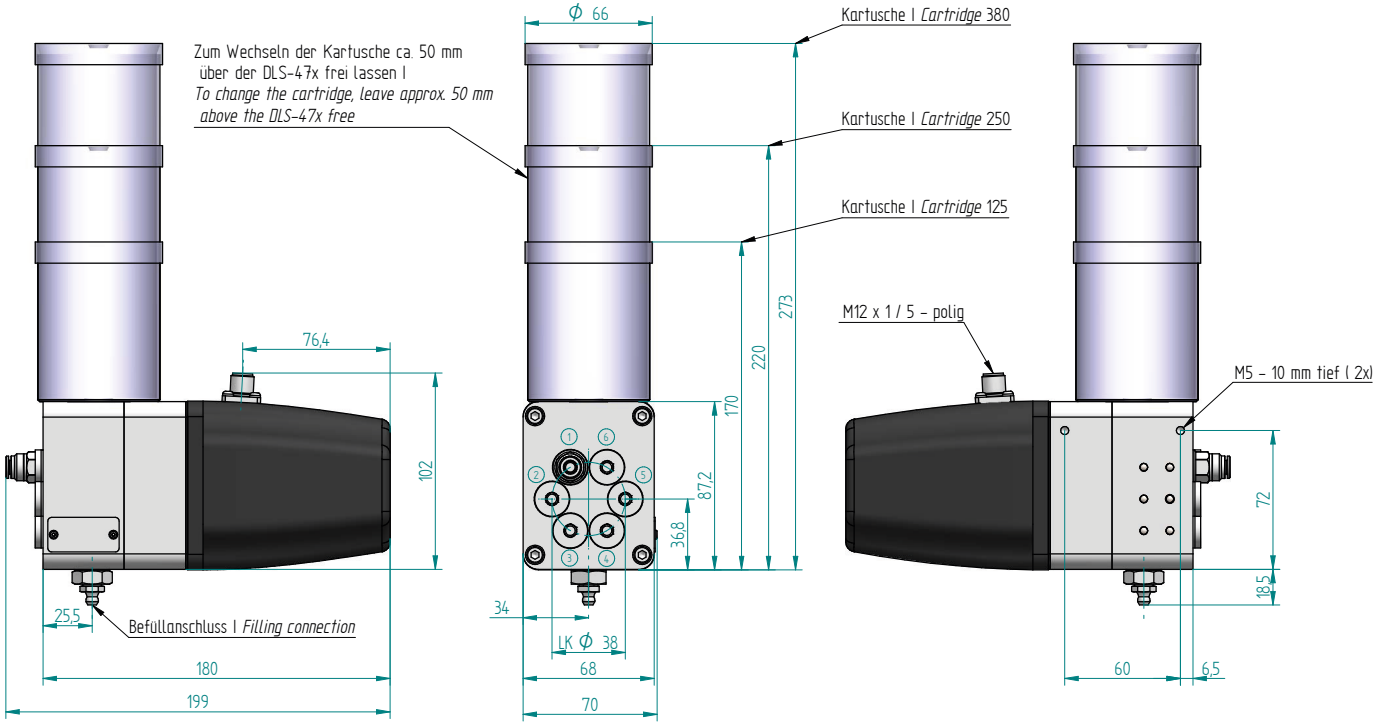
Particularities:

- 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



Article number key:

main group	lubricant	container size	pressure	Outlets	tube connection	filling connection
1751	4 = grease	01 = 125 cm³	08 = 80 bar	1 = 1 outlet	0 = without tube connector	00 = grease
		02 = 250 cm³		2 = 2 Outlets	1 = tube connector, straight tube 6	
		03 = 380 cm³		3 = 3 Outlets	2 = tube connector, straight tube 4	01 = filling connection B
	5 = oil	04 = Lube-Shuttle		4 = 4 Outlets		
		05 = DIN 1284		5 = 5 Outlets	3 = tube connector, straight tube 8	02 = filling connection C
		06 = System Reiner		6 = 6 Outlets		

DLS-207x - Pulse/time controlled

Function:	Pump unit in central lubrication systems
Lubricant volume:	grease, 2 Liter
dosing volume	
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

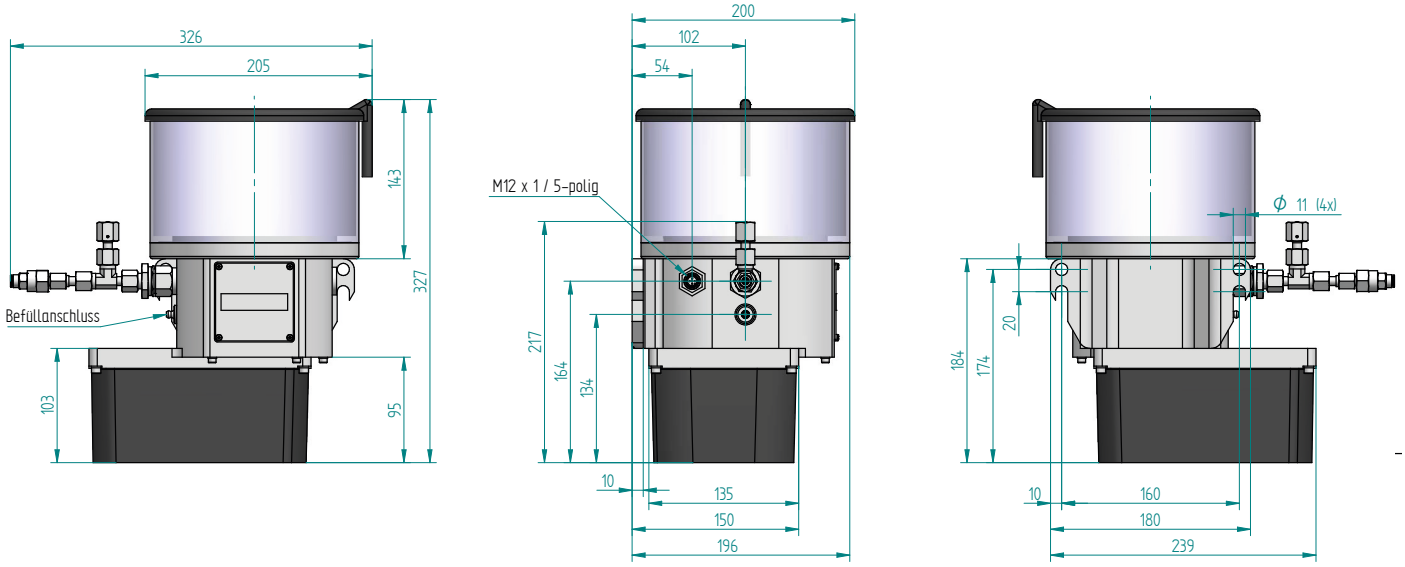
Particularities:

- 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



Article number key:

main group	lubricant	pressure	pump element left	pump element right	Control	connection
1752	4 = grease	07 = 70 bar	00 = without tube connector	00 = without tube connector	0 = no	0 = without tube connector
		15 = 150 bar	04 = 0,04 cm^3 connection	04 = 0,04 cm^3 connection		
	5 = oil	25 = 250 bar	08 = 0,08 cm^3 connection	08 = 0,08 cm^3 connection	1 = yes	1 = tube connector, tube 6
			16 = 0,16 cm^3 connection	16 = 0,16 cm^3 connection		

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)

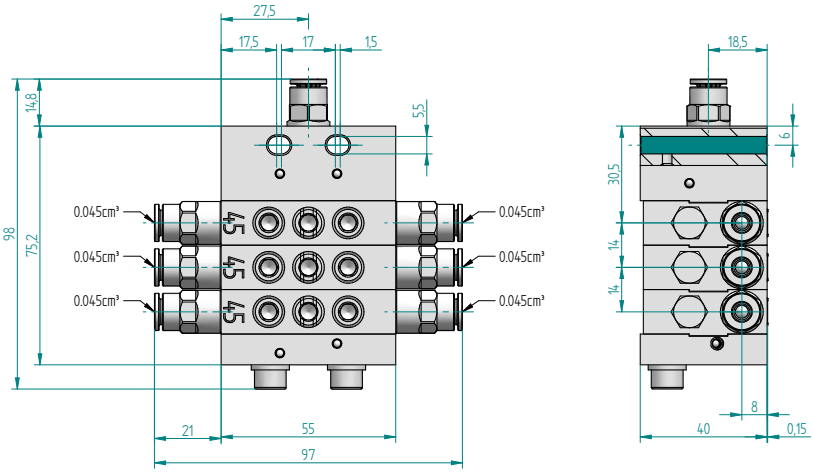


Figure: 6-way progressive distributor

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

This accessory can be used for both grease and oil lubrication.

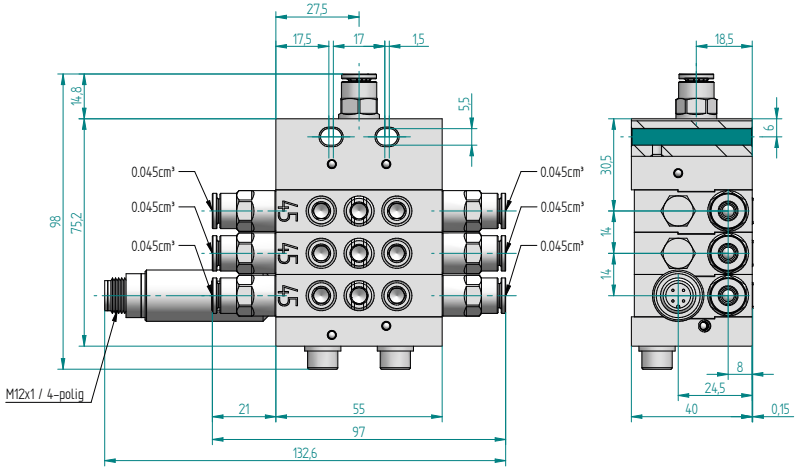
Progressive distributor with circulation monitoring

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)



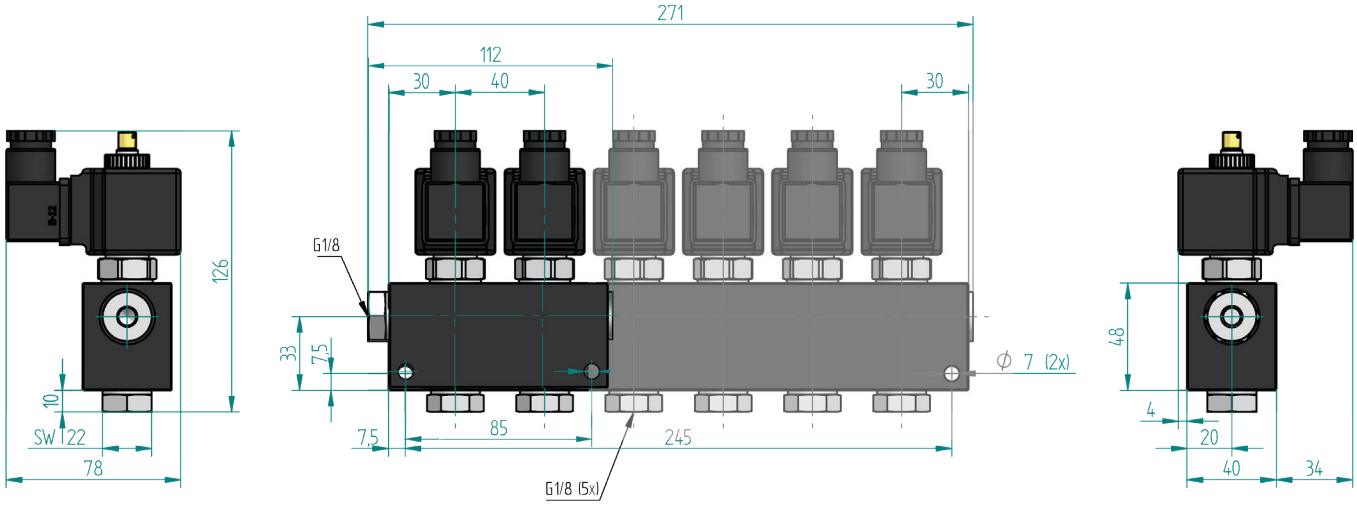
Outlets	Inlet	Tube	Outlets	Tube	Part-No.
2	straight	6	straight	6	338-010-002
3	straight	6	straight	6	338-010-003
4	straight	6	straight	6	338-010-004
5	straight	6	straight	6	338-010-005
6	straight	6	straight	6	338-010-006
7	straight	6	straight	6	338-010-007
8	straight	6	straight	6	338-010-008
9	straight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

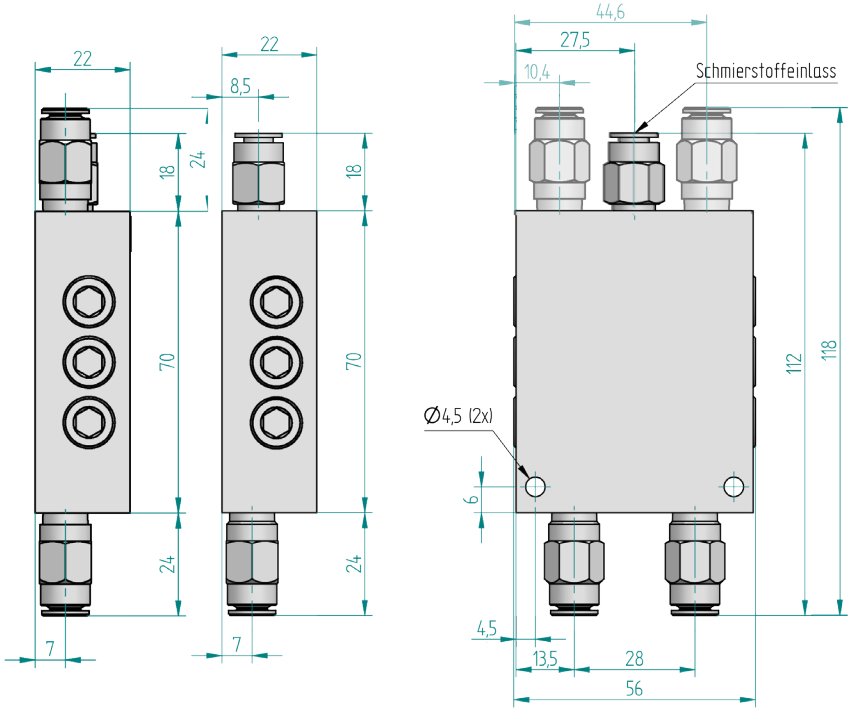
This accessory can be used for both grease and oil lubrication.

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
				3 = 3 Outlets
		1 = mit tube connector, straight for Tube 6		4 = 4 Outlets
	1 = mit tube connector for Tube 6			5 = 5 Outlets
		2 = mit tube connector 90° for Tube 6		6 = 6 Outlets

DLS-flow distributor

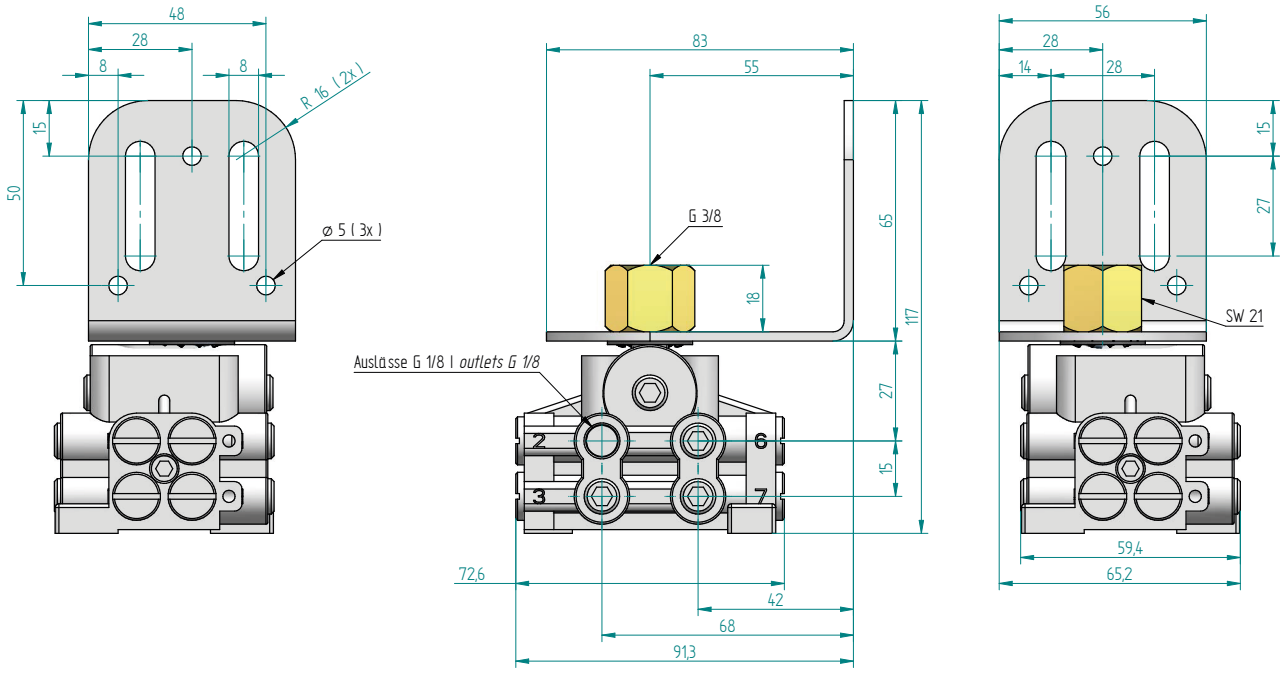


Outlets	Inlet	Tube	Outlets	Tube	Pressure	Part-No.
2	straight	6	straight	6	150	1757000060002
4	straight	6	straight	6	150	1757000060004

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

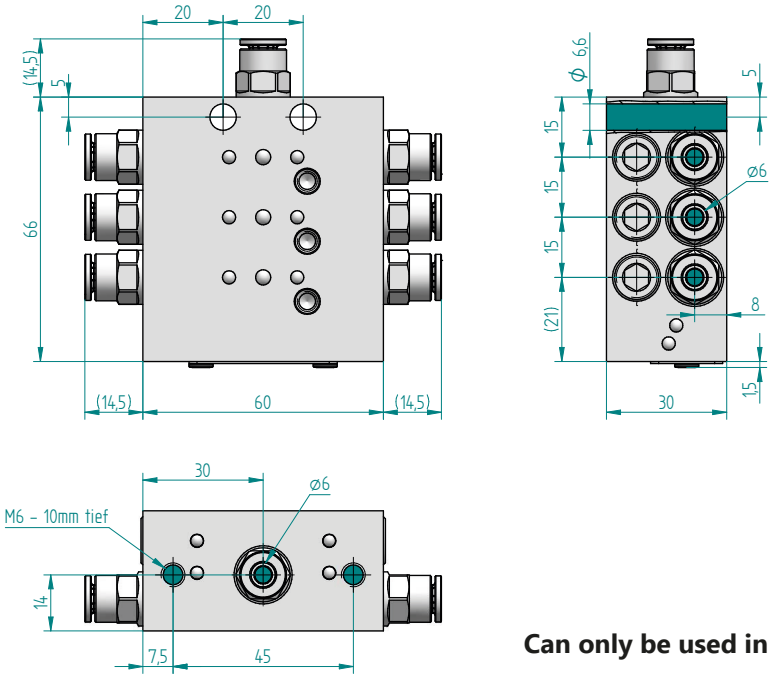
Manifold set for Pulsarlube pumps



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

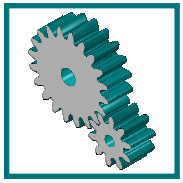


Can only be used in connection with DLS-207x!

main group	lubricant	circulation monitoring	flow rate	connection	Material	Outlets
1752	4 = grease	0 = no	05 = 0,05 cm³	0 = no	00 = Steel	04 = 4 Outlets
						05 = 5 Outlets
			09 = 0,09 cm³			06 = 6 Outlets
						07 = 7 Outlets
						08 = 8 Outlets
	5 = oil	1 = yes	14 = 0,14 cm³	1 = yes	10 = stain-less Steel	09 = 9 Outlets
						10 = 10 Outlets
			20 = 0,20 cm³			11 = 11 Outlets
						12 = 12 Outlets

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

Grease F01
Standard grease for open gears



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

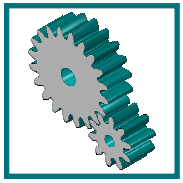
- Based on lithium / calcium complex with high pressure additives, which are connected to the soap structure and thus have safe access to the metal surface
- Heat-resistant, has good corrosion protection properties and does not contain solid lubricants

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

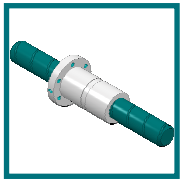
Operating temperature range -30 °C to + 150 °C

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

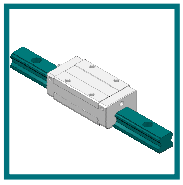
Grease F02
Standard grease with H1 approval



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

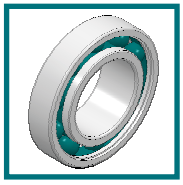


- Synthetic special grease for high specific loads
- A special additive gives this special grease high thermal and oxidative stability and good corrosion and wear protection properties
- NSF / H1 approval



Commitment:

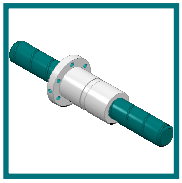
- cold, hot water and steam resistant
- high oxidation and thermal stability
- high load-bearing capacity, good wear protection
- long service life and wide service temperature range
- high lubricating effect with low friction coefficients

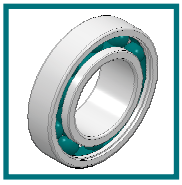


Operating temperature range -40 °C to + 140 °C

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

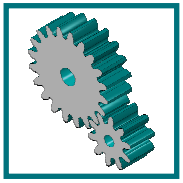
Grease F03
Linear guides & ball screw

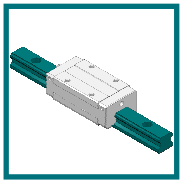




Grease F03 | DIN 51825 KP2K-20 | NLGI-class 2

- 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



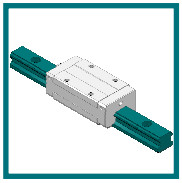


Commitment:
- Lubrication of linear guides (recirculating ball guides, roller guides and Ball screws)
- Can be used together with a pinion and continuous relubrication for open gears
- Very good eligibility in relubrication facilities

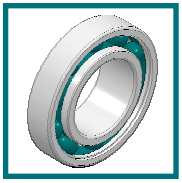
Operating temperature range -20 °C to + 120 °C

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

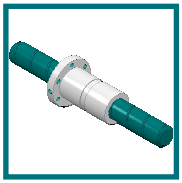
Grease F04
Special grease for bearing lubrication



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



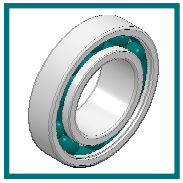
Commitment:

- 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

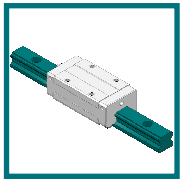
Operating temperature range -30 °C to + 130 °C

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

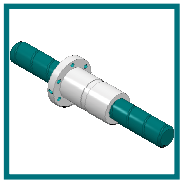


Grease F07 | DIN 51825 KPHC2P-40 | NLGI-class 2



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

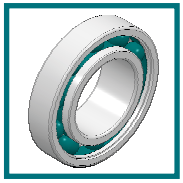
Commitment:
- Sliding and roller bearing; KGT nuts; Recirculating ball bearings
- Pumpability in lubrication systems: -40 °C . + 80 °C



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



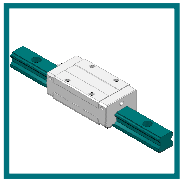
Grease F09 | DIN 51502 KP 2K-30 | NLGI-class 2

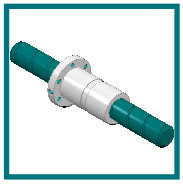
- Lithium special soap
- Mineral oil based with additives

Commitment:

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

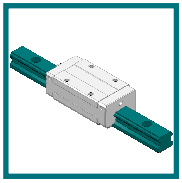
Operating temperature range -10 °C to + 80 °C

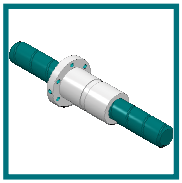




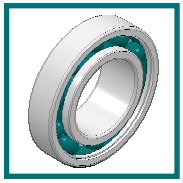
Description	Lubricant	Volume	Artikel-Nr.
Cartridge 125 for DLS-4xx-i	F09	160 cm^3	001-109-101
Cartridge 250 for DLS-4xx-i	F09	300 cm^3	001-109-103
Cartridge 380 for DLS-4xx-i	F09	450 cm^3	001-109-105
Grease bellow 120 for Pulsarlube pumps	F09	160 cm^3	002-109-101
Grease bellow 250 for Pulsarlube pumps	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

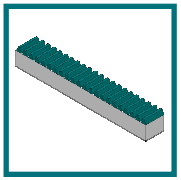
Grease F14
High-performance universal grease





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

Roadmap to optimal lubrication

your application

Grease lubrication
from page 5

Oil lubrication

applicators
from page 53

pumps
from page 71

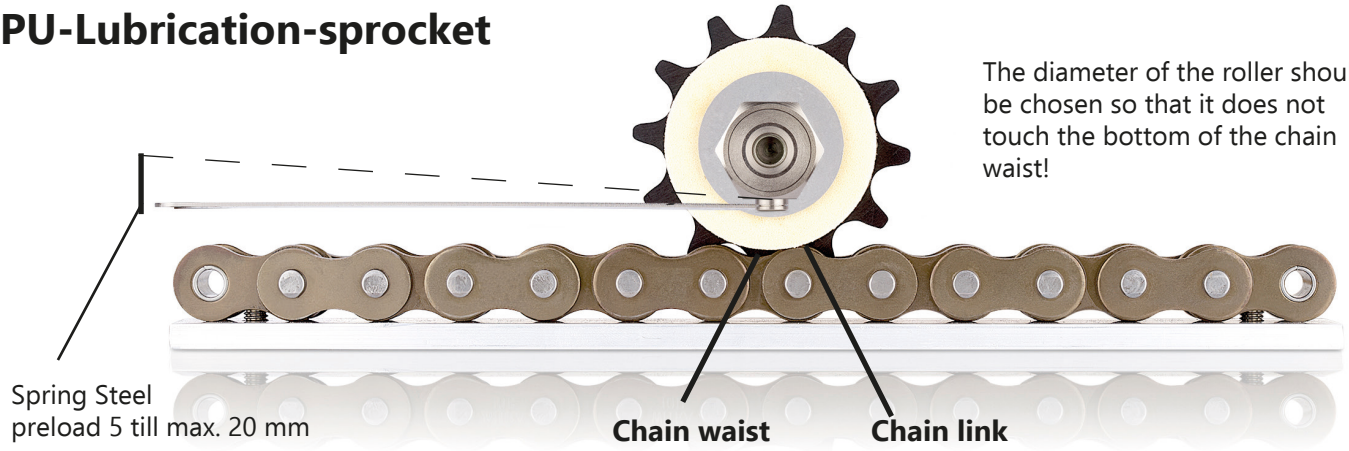
distributor
from page 35

Accesories
from page 83

oils
from page 79

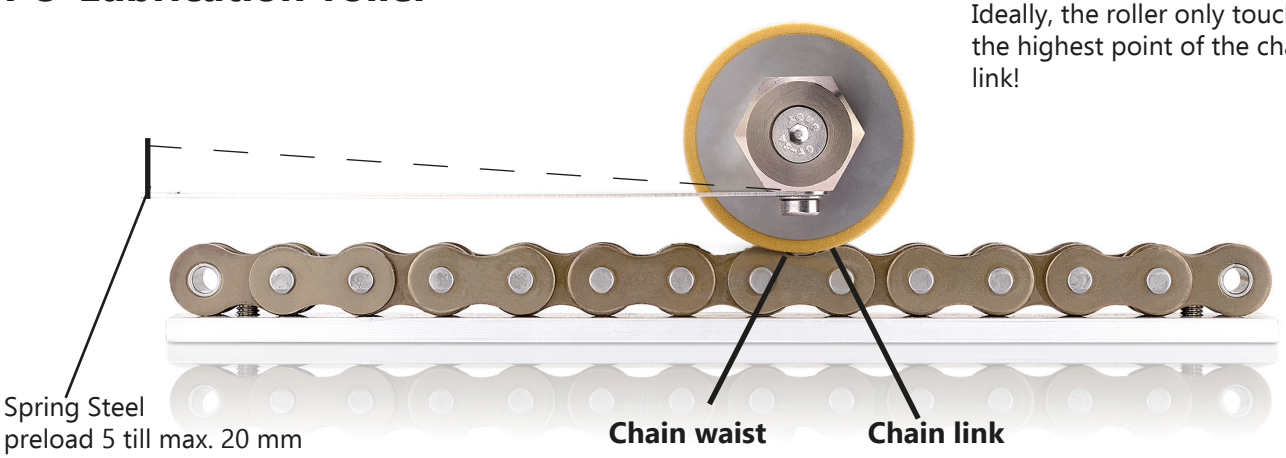
Chain Lubrication

PU-Lubrication-sprocket



The diameter of the roller should be chosen so that it does not touch the bottom of the chain waist!

PU-Lubrication-roller



Ideally, the roller only touches the highest point of the chain link!

PU-Lubrication-sprocket

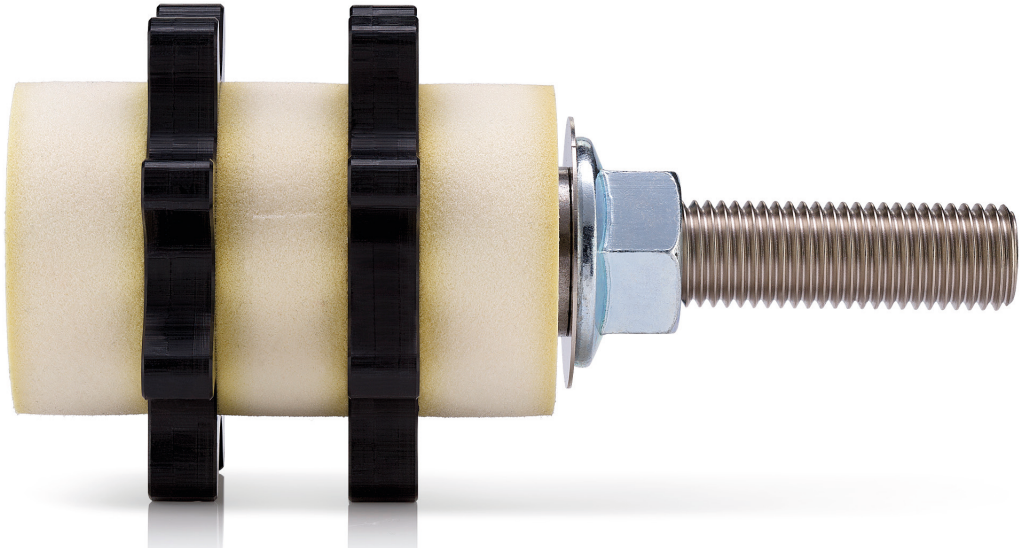
The rollers made of open-cell PU foam transfer the lubricant selectively to the surface of the link plates of roller chains. The mechanical power to drive the rollers is ensured by a low-wear plastic Pinion.

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

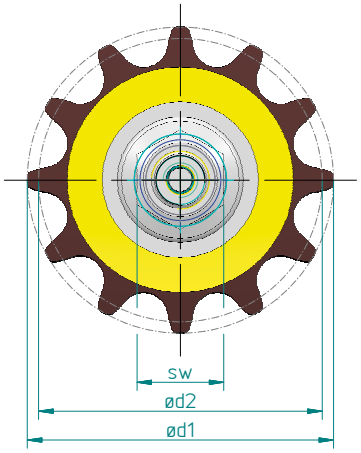
The material stores the lubricant and releases it again in very small dosages.

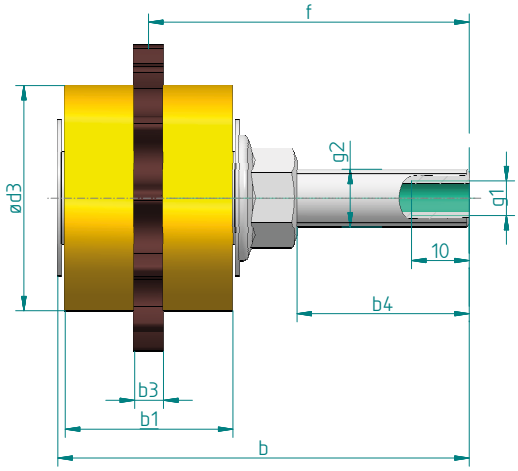
Over-lubrication is avoided, as is wear due to insufficient lubrication.

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





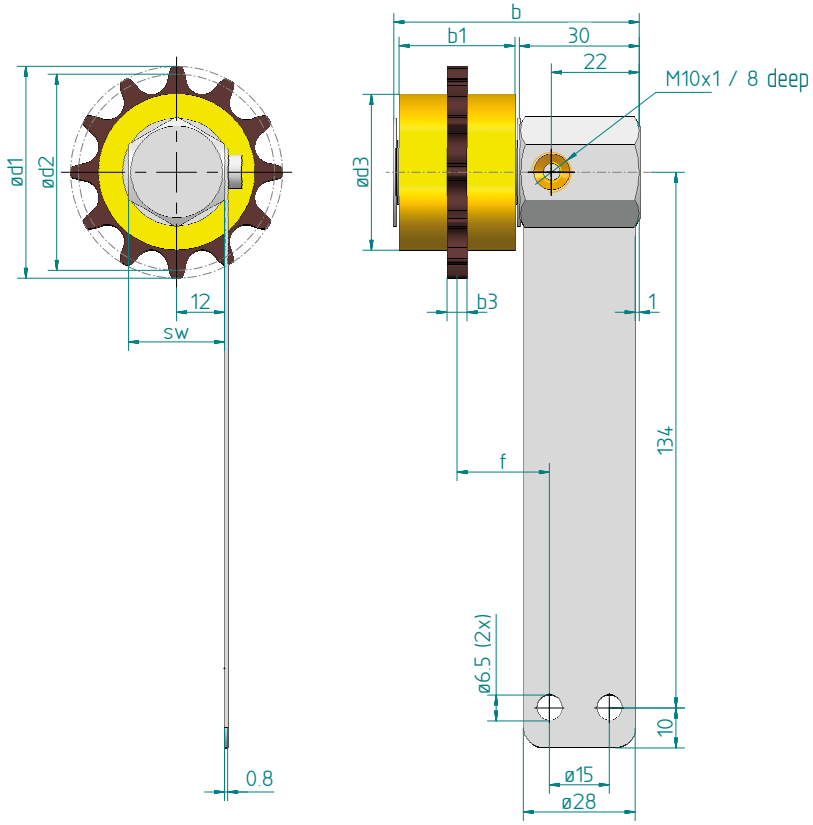
Description:
PU-Lubrication-sprocket for simplex roller chain;
mounted on straight axis;
sleeve bearings;

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;

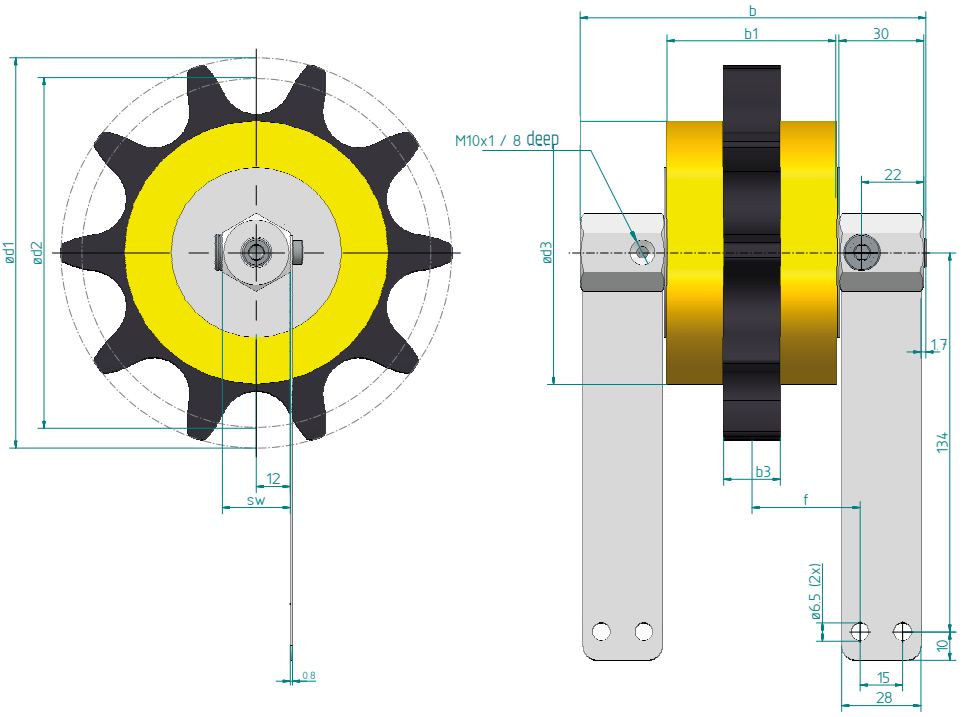
Material:
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

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;

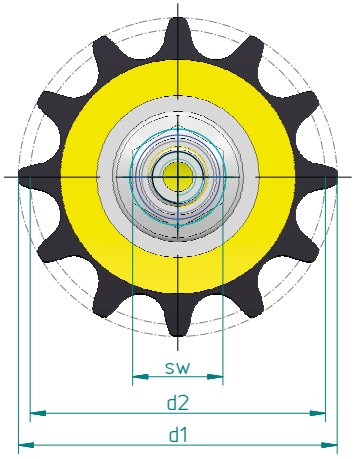
Material:
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

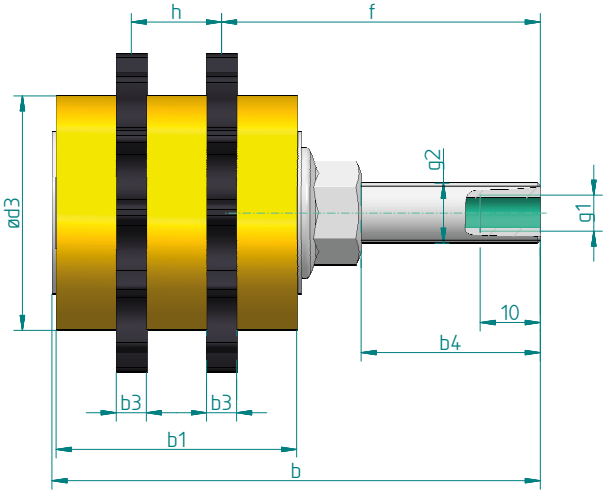
mounting position:
arbitrary

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





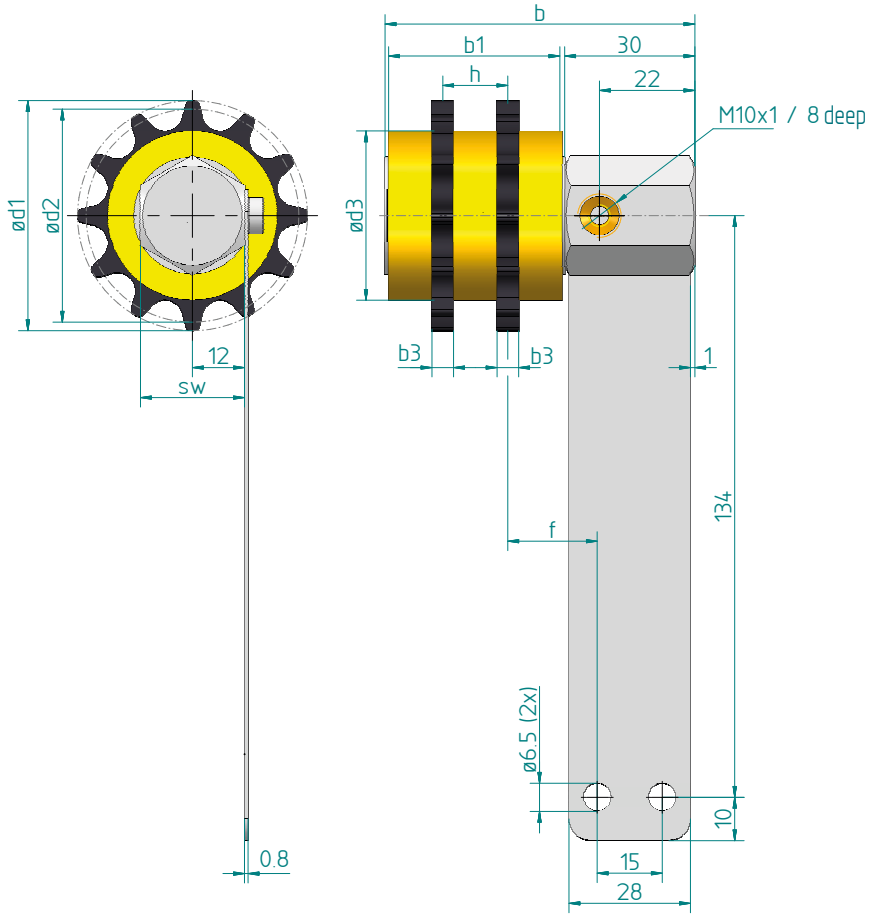
Description:
PU-Lubrication-sprocket for duplex-roller chain;
mounted on straight axis;
sleeve bearings;

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;

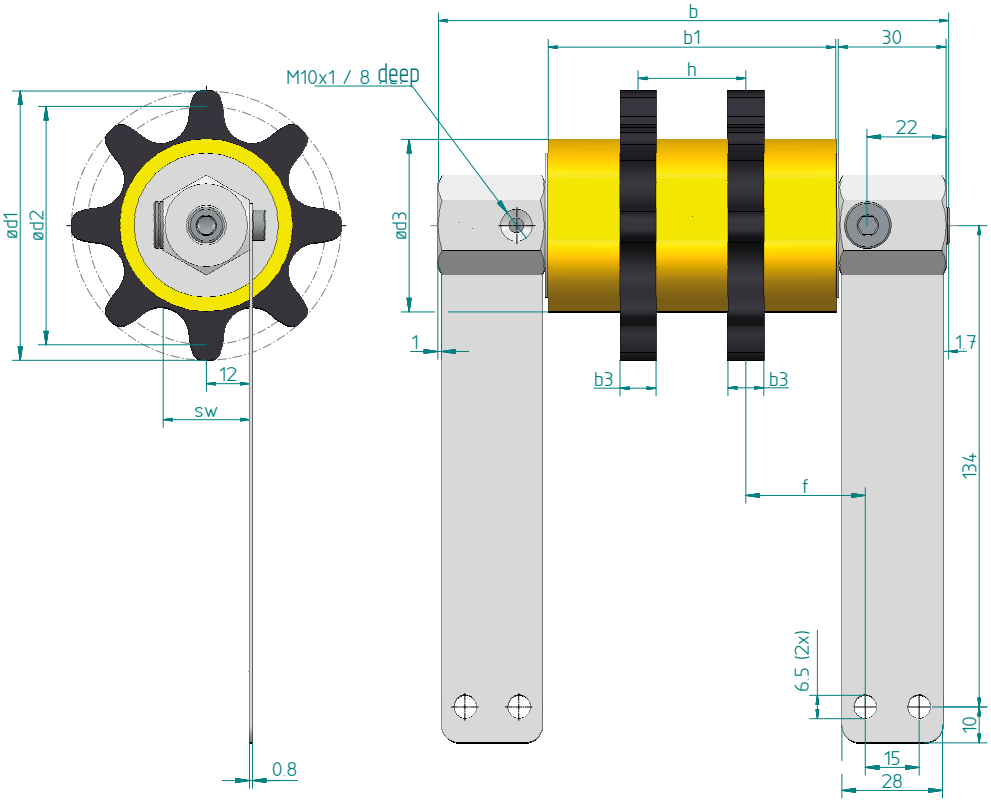
Material:
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

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;

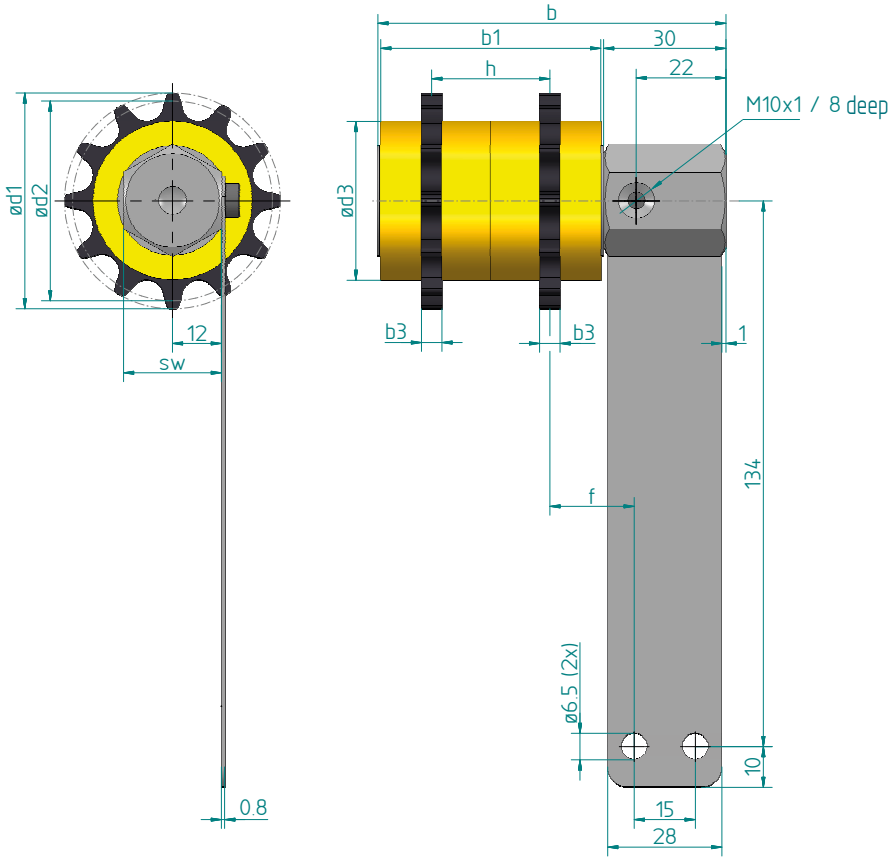
Material:
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

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;

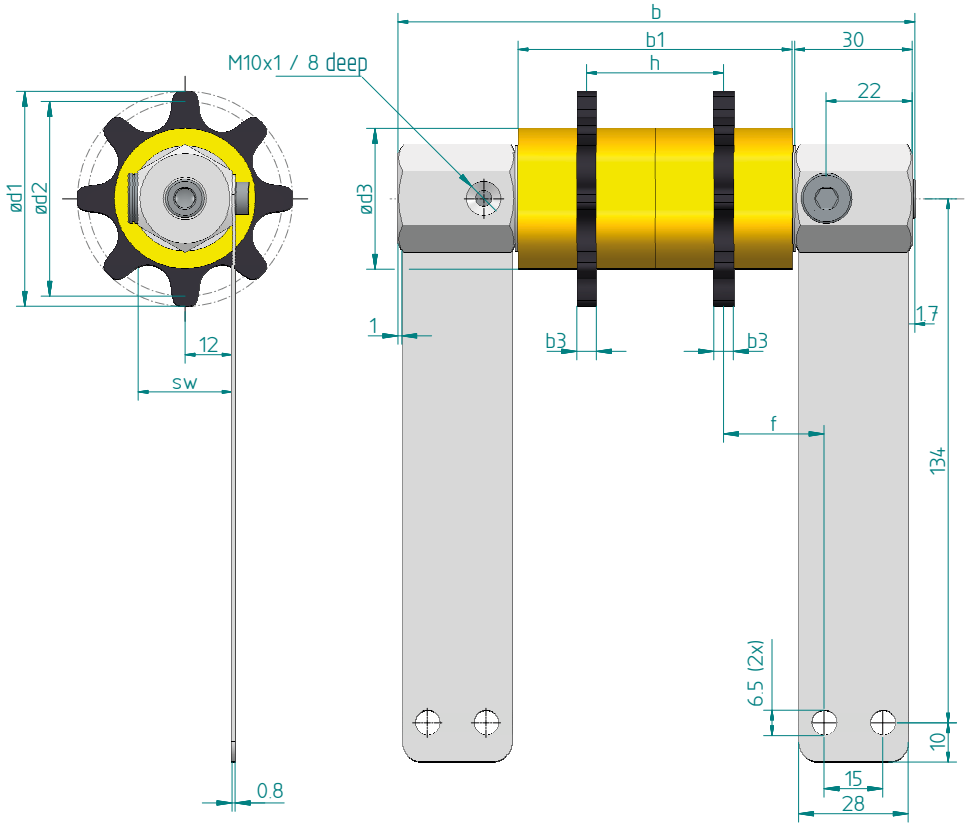
Material:
Sprocket: PA;
Axis: nickel plated Steel;
Roll: PU-foam;

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;

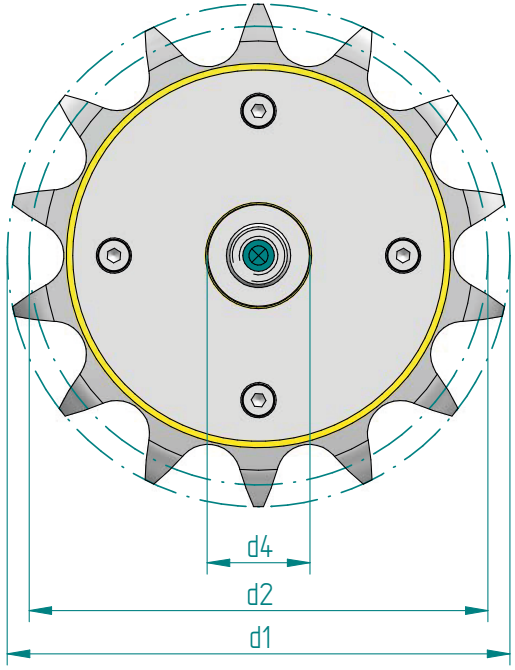
mounting position:
arbitrary

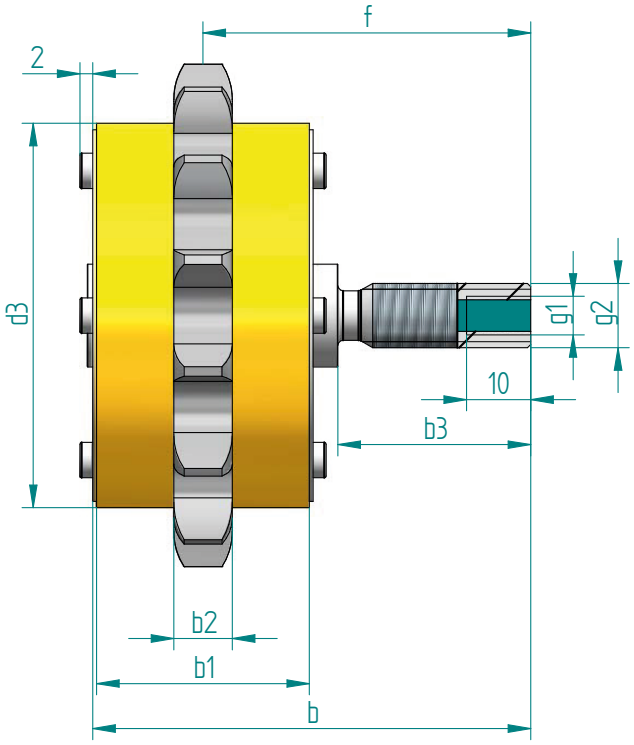
Spring Steel and screws enclosed loose.

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)

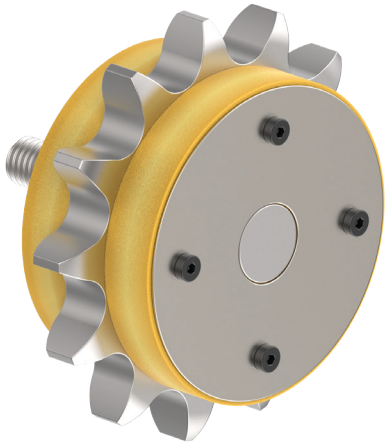
PU-Lubrication-sprocket Steel

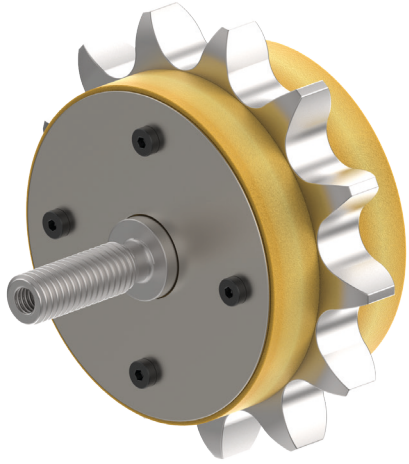




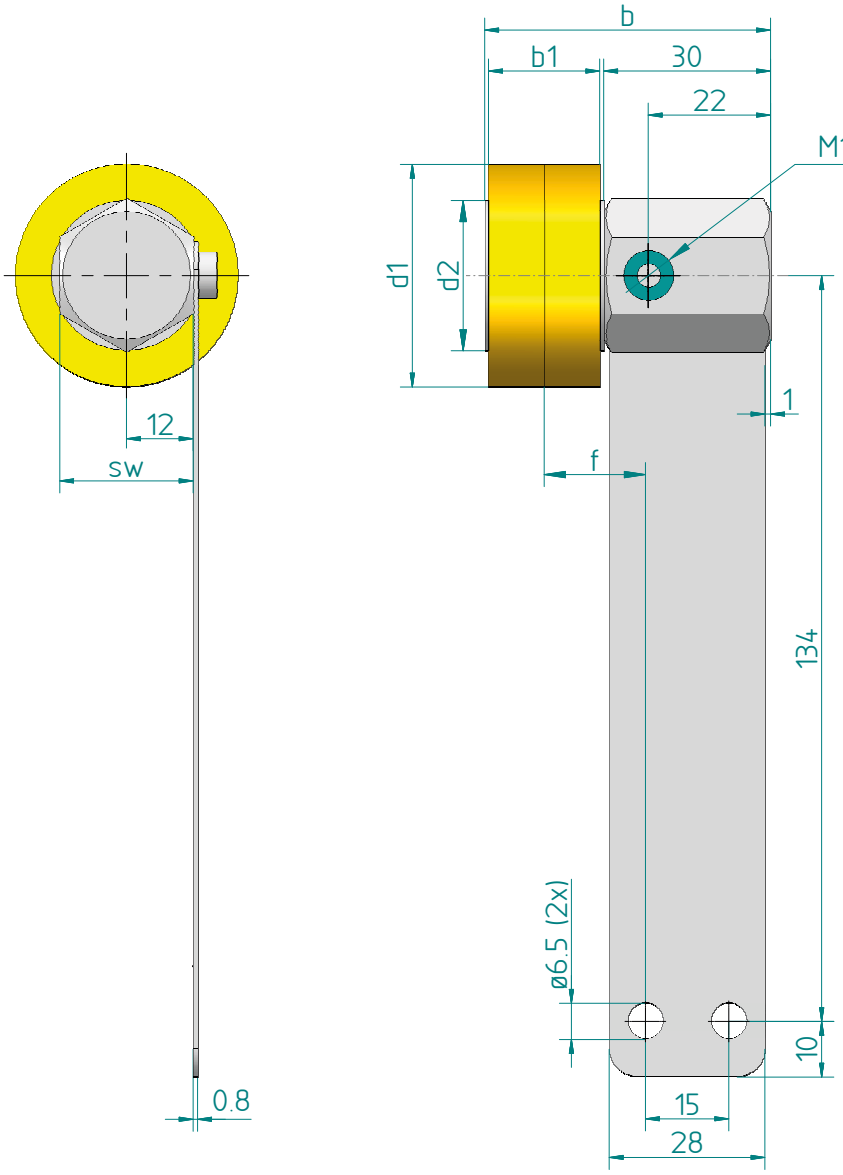
Für hohe Geschwindigkeiten ab 2 m/s mit roller bearing

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

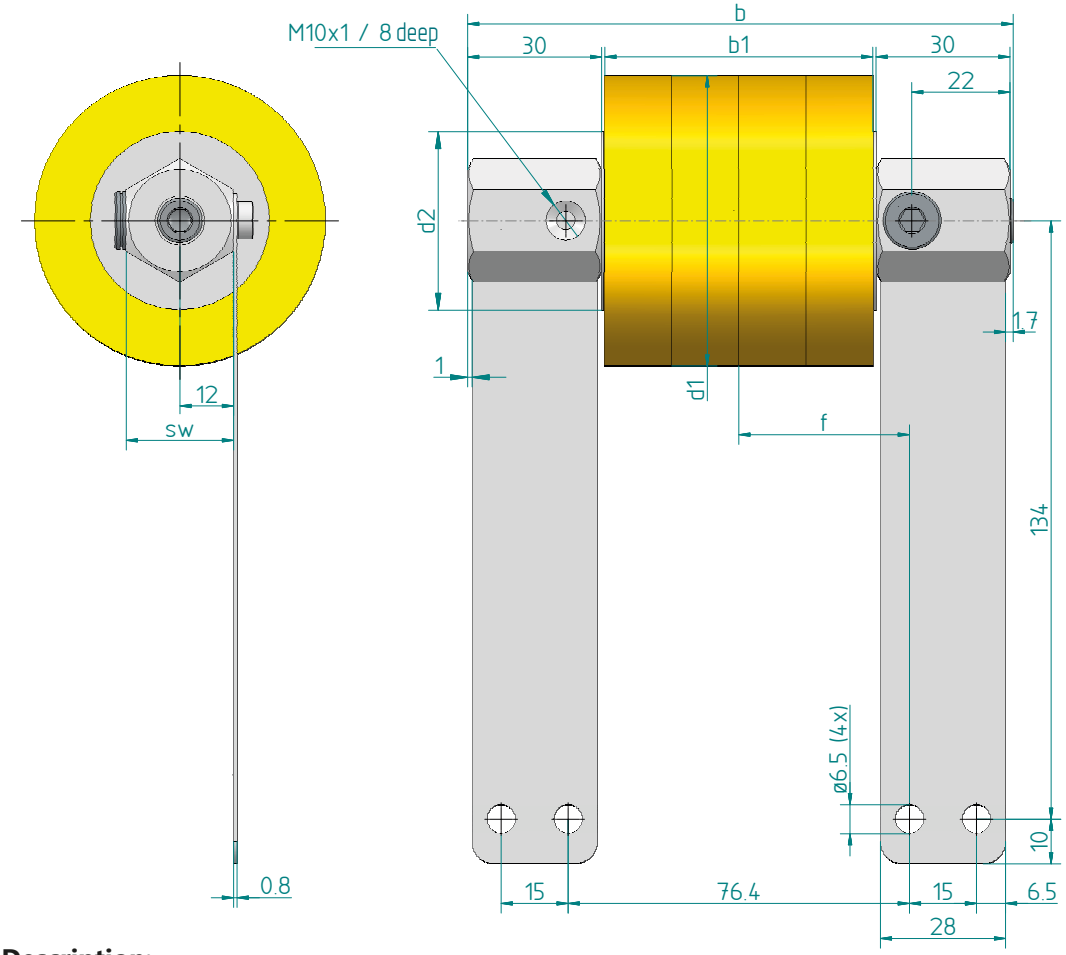
Material:
Roll: open-cell PU foam;
axis: Steel, nickel-plated;
Spring Steel: 1.4310

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



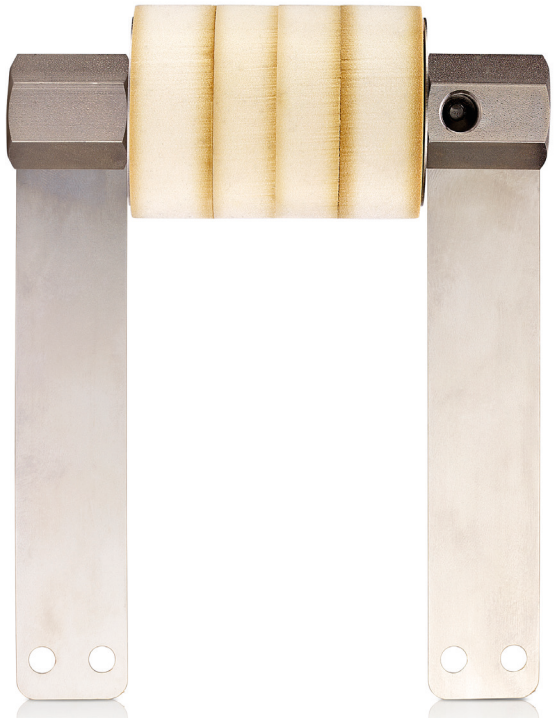
Description:
PU-Lubrication-roller; sleeve bearings; with double-sided recording; for one-sided, radial (angled) lubricant supply; on spring Steel mounted; oil applications

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

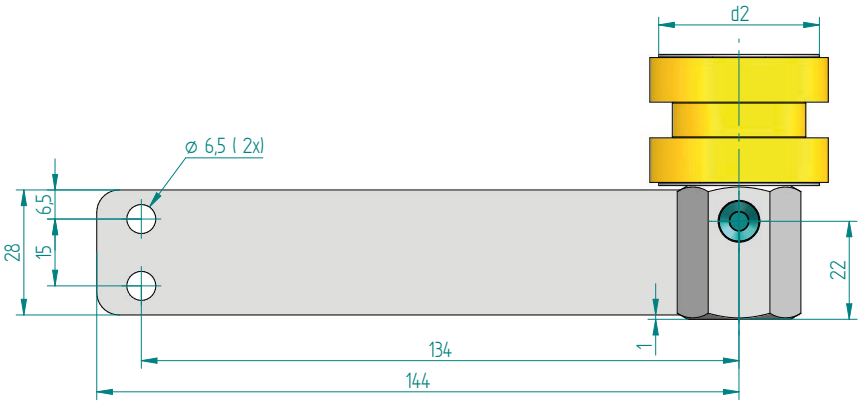
Mounting position:
horizontal

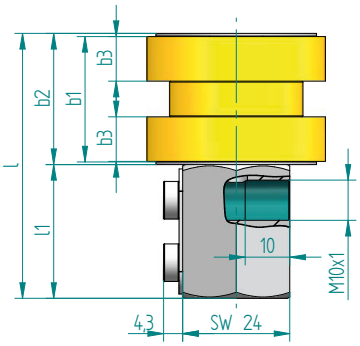
Double-sided

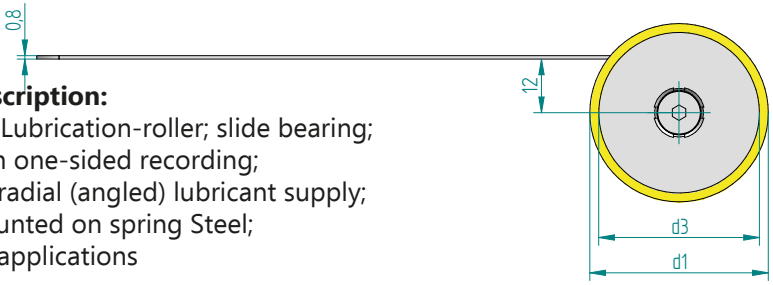
b1	d1	d2	b	g1	t	part-no.
60	65	40	121,4	M10x1 10mm	0,8	137-060-654
70	65	40	131,4	M10x1 10mm	0,8	137-070-654
80	65	40	141,4	M10x1 10mm	0,8	137-080-654
90	65	40	151,4	M10x1 10mm	0,8	137-090-654



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

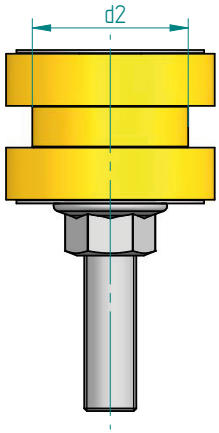
Material:
Role: open-cell PU foam;
Axis: stainless Steel;
Spring plate: 1.4310

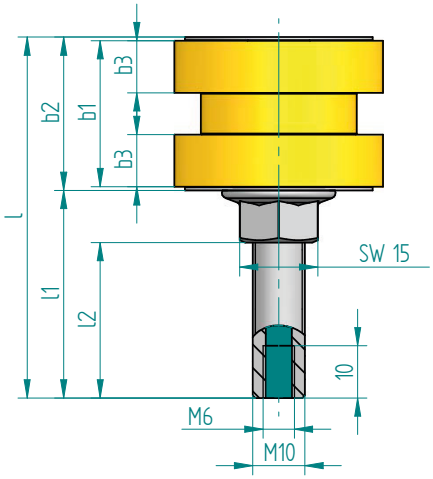
Mounting position:
horizontal

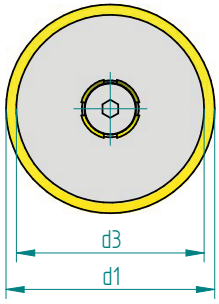
Spring Steel enclosed lose.

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	l	l1	l2	part-no.
1/2"	28	29,4	10	40	29,9	36	69,2	39,8	29,8	137-028-406
3/4"	32	32,2	10	52	33,4	45	73,2	39,8	29,8	137-032-526
1"	38	38,2	10	59	33,9	45	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.

The relubrication device is a German development and is produced exclusively in Germany.

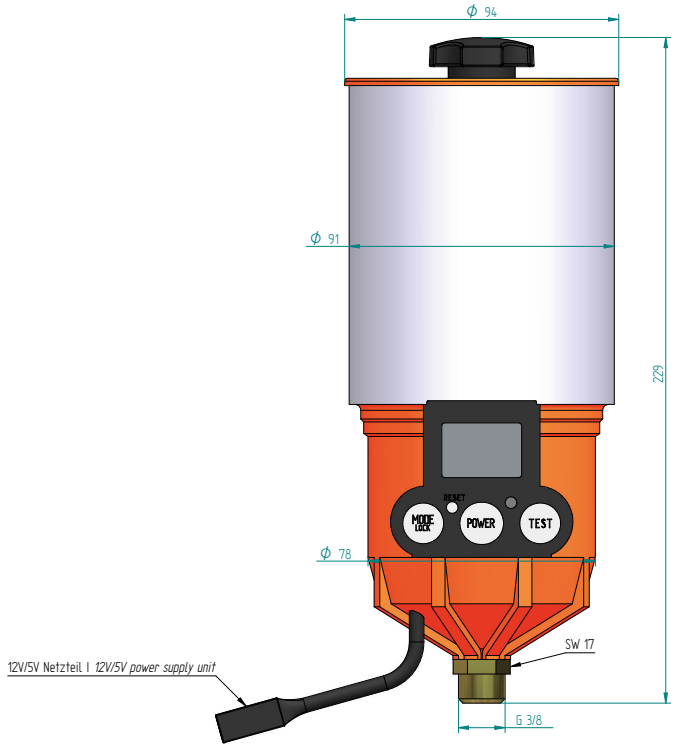
OL500 & MSP-OL500

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

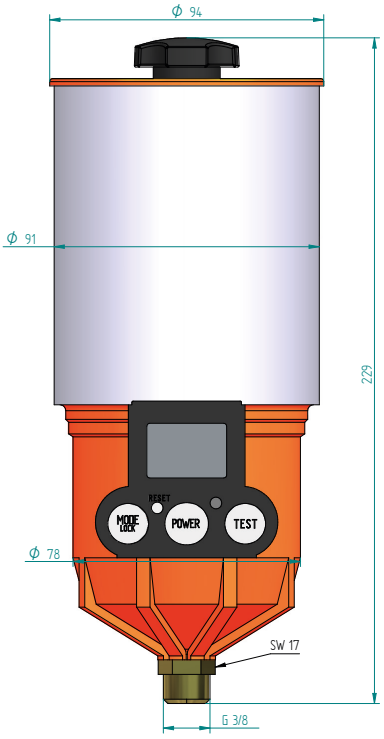
Ideal for single or combined relubrication of:

+ 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

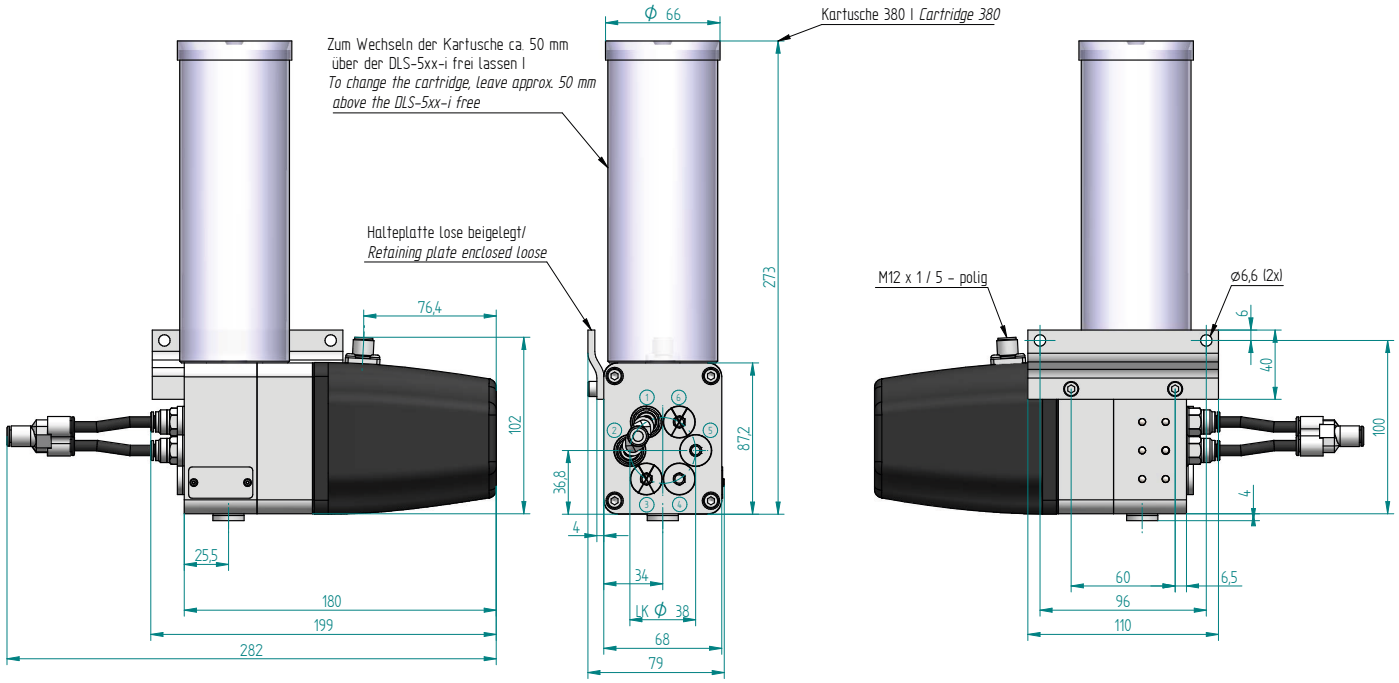
Particularities:

- 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 cm³)	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

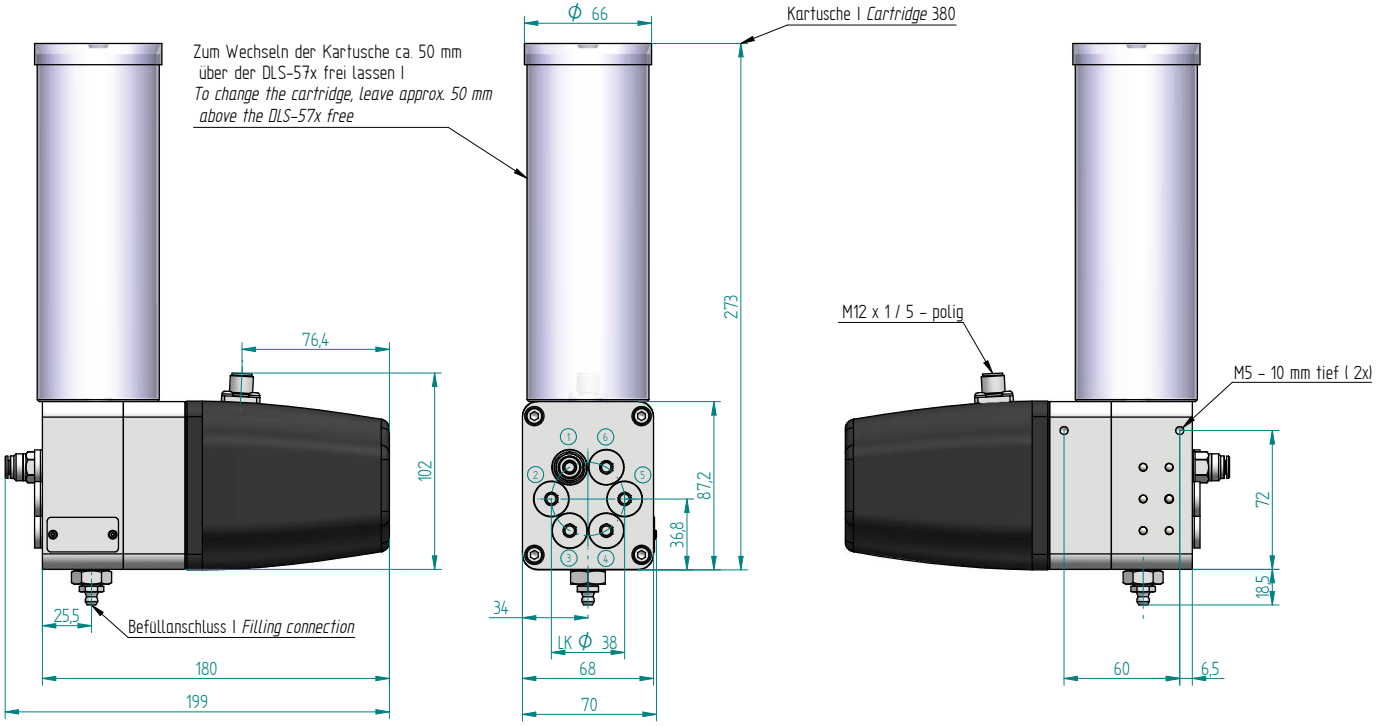
Particularities:

- 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



Article number key:

main group	lubricant	container size	pressure	Outlets	tube connection	filling connection oil
1751	4 = grease	01 = 125 cm³	08 = 80 bar	1 = 1 outlet	0 = without tube connector	00 = grease
		02 = 250 cm³		2 = 2 Outlets	1 = tube connector, straight tube 6	
		03 = 380 cm³		3 = 3 Outlets	2 = tube connector, straight tube 4	01 = filling connection B
	5 = oil	04 = Lube-Shuttle		4 = 4 Outlets		
		05 = DIN 1284		5 = 5 Outlets	3 = tube connector, straight tube 8	02 = filling connection C
		06 = System Reiner		6 = 6 Outlets		

DLS-507x - Pulse/time controlled

Function:	Pump unit in central lubrication systems
Lubricant volume:	oil, 2 Liter
dosing volume	
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

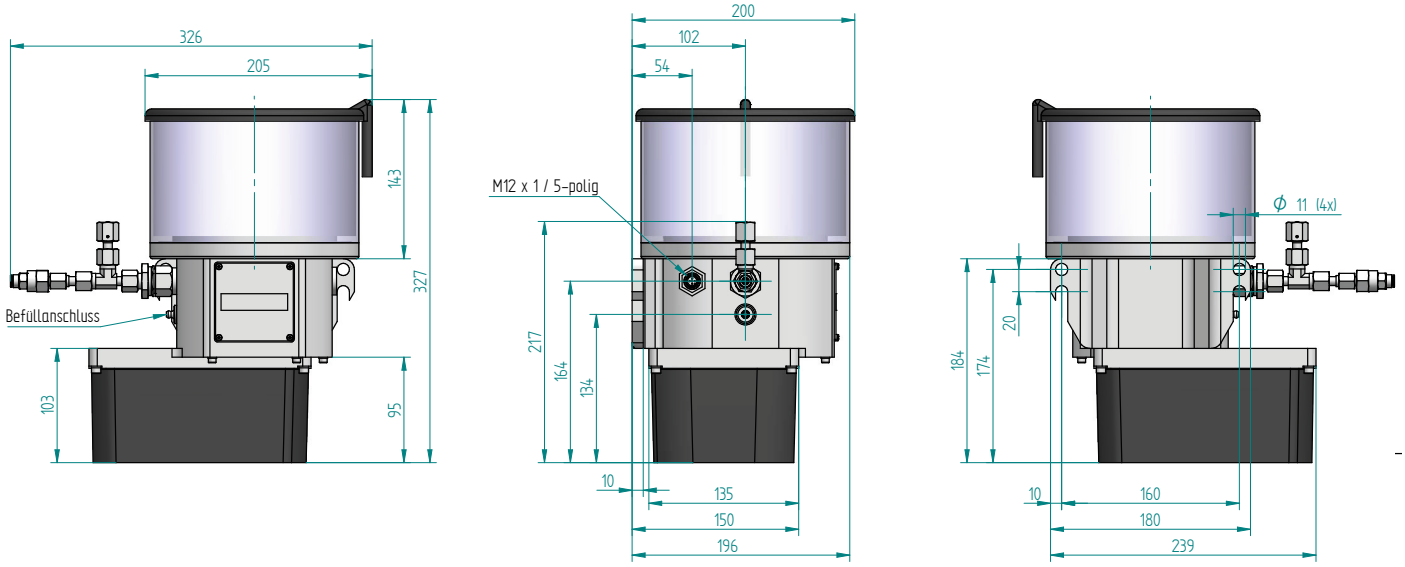
Particularities:

- 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

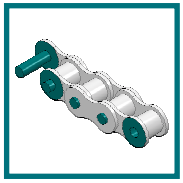
Controlled minimum quantity lubrication for grease



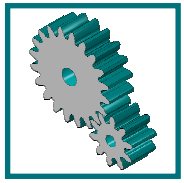
Article number key:

main group	lubricant	pressure	pump element left	pump element right	Control	connection
1752	4 = grease	07 = 70 bar	00 = without tube connector	00 = without tube connector	0 = no	0 = without tube connector
		15 = 150 bar	04 = 0,04 cm^3 connection	04 = 0,04 cm^3 connection		
	5 = oil	25 = 250 bar	08 = 0,08 cm^3 connection	08 = 0,08 cm^3 connection	1 = yes	1 = tube connector, tube 6
			16 = 0,16 cm^3 connection	16 = 0,16 cm^3 connection		

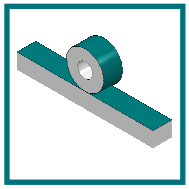
Oil OE1
Creeping oil for chains



Oil OE1

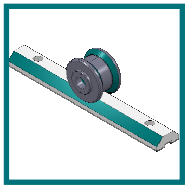


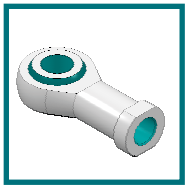
- Highly viscous, very creeping adhesive lubricant
- Synthetic white oil
- Pressure and adhesive lubricant with EP and boundary lubricating properties
- With H1 approval



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

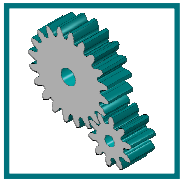
Operating temperature range: -10 ° C . +80 ° C





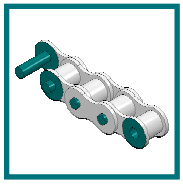
description	lubricant	volume	part-no.
Canister	OE1	5 Liter	000-201-503

Oil OE3
Chain oil with H1 approval



Oil OE3

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



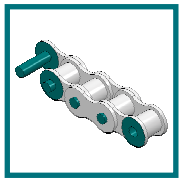
Commitment:

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

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

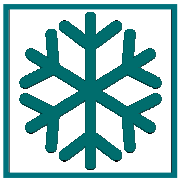
description	lubricant	volume	part-no.
canister	OE3	5 liter	000-201-505
canister	OE3	20 liter	000-201-507

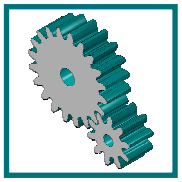
Oil OE4
Low temperature oil

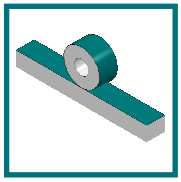


Oil OE4 | H1 LFC 9022

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



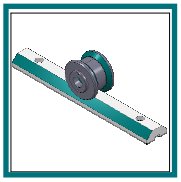


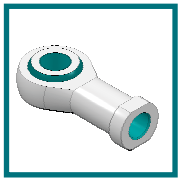


Commitment:

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

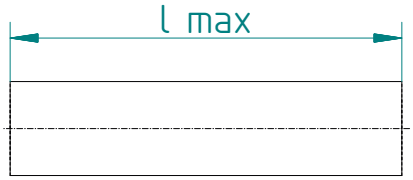
Operating temperature range: - 45 ° C . + 150 ° C

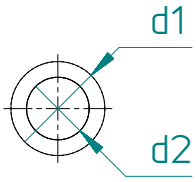




description	lubricant	volume	part-no.
tin	OE4	1 liter	000-201-508
canister	OE4	5 liter	000-201-509
canister	OE4	20 liter	000-201-510
barrel	OE4	200 liter	000-201-511

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

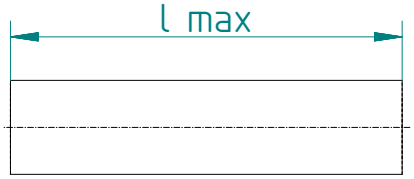
Suitable for drag chains

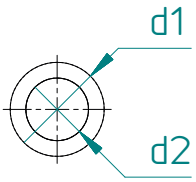
Smallest bending radius:
R_{min}=30 mm

tube	d1	d2	l max.	description	part-no.
empty	4	2,5	25 m	tube black; by meter	134-004-003
	6	4	50 m	tube black; by meter	134-004-001
	8	5	50 m	tube black; by meter	134-004-005

accessories	part-no.
tube cutter	134-002-002

Tubes
for oil





Description:
Tube pre-filled with lubricant; (only OE1)

Material:
PA; black ; transparent only for oil

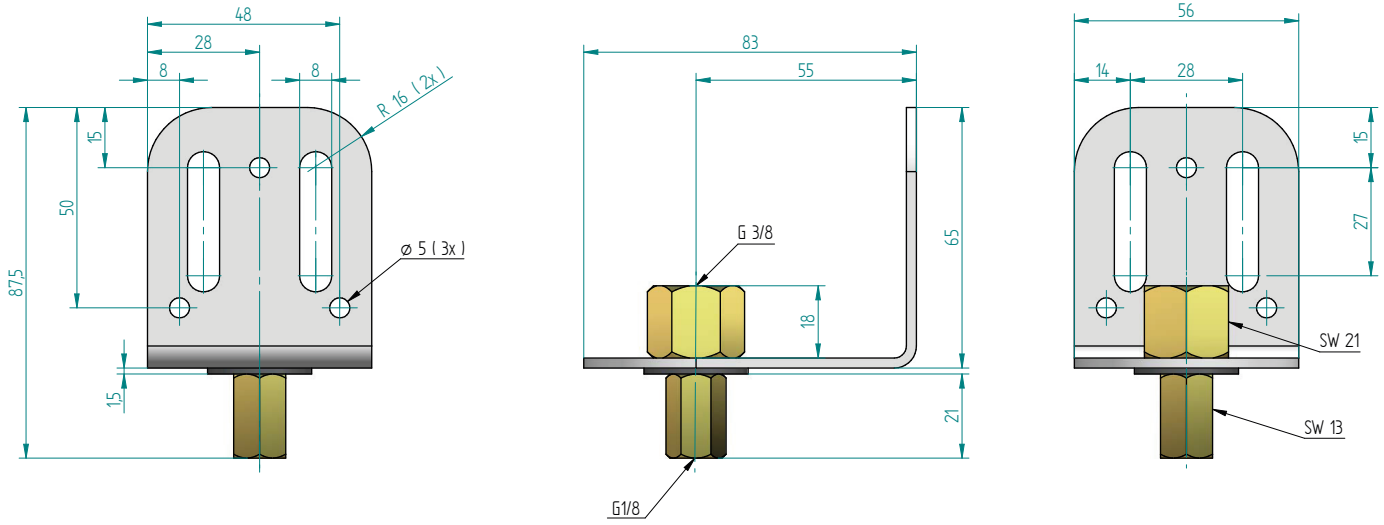
drag chain suitable

Smallest bending radius:
R_{min}=30 mm

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

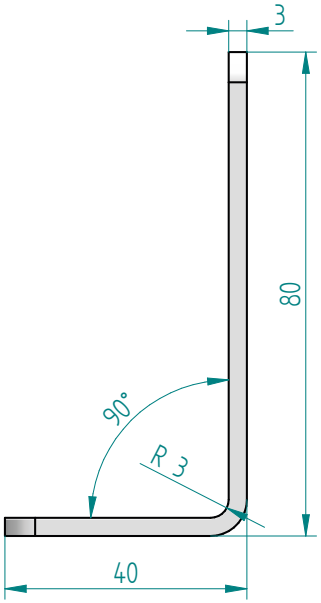


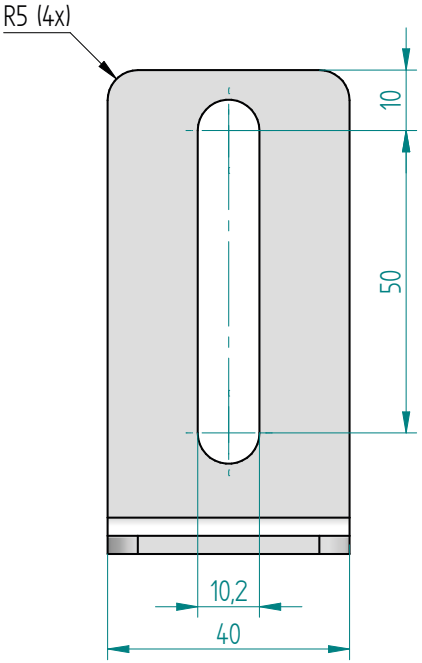
Description	Part-No.
1x sleeve 1/8"F x 1/8"F 1x reducer 1x disc 1x mounting bracket	134-009-017
sleeve 1/8"F x 1/8"F	134-009-001
reducer	134-009-002
disc	134-009-003
mounting bracket	134-009-004

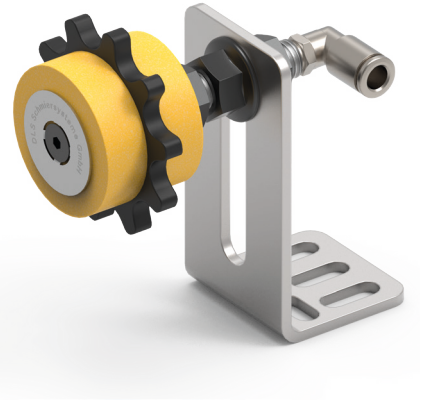
Accessories for Pulsarlube

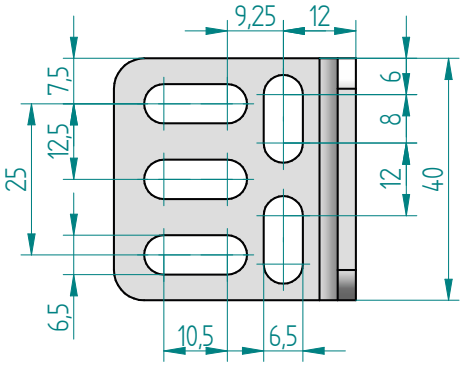
batteries	Part-No.
Standard Alkaline Battery Pack (White)	134-009-013
Lithium Battery Pack (Blue)	134-009-014
Alkaline battery pack case (white color, including all parts except alkaline battery)	134-009-015
Lithium battery pack case (blue color, including all parts except lithium battery)	134-009-016

Mounting bracket for applicators





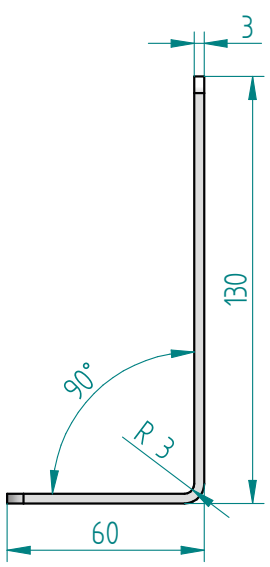


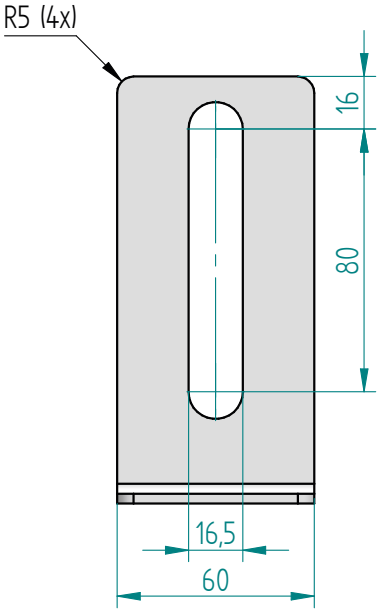


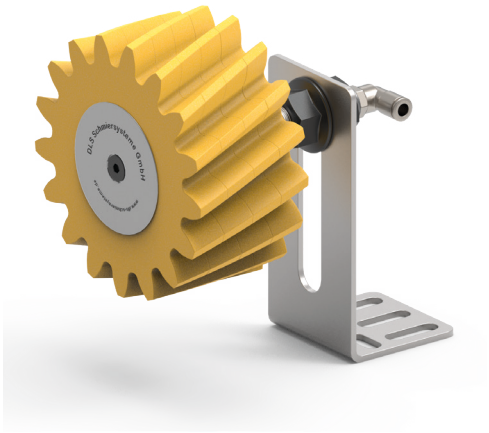
Description:
mounting bracket 40/80; Slot for M10; Material: stainless Steel; for mounting lubricating gears and lubricating rollers with a diameter of up to 80 mm;

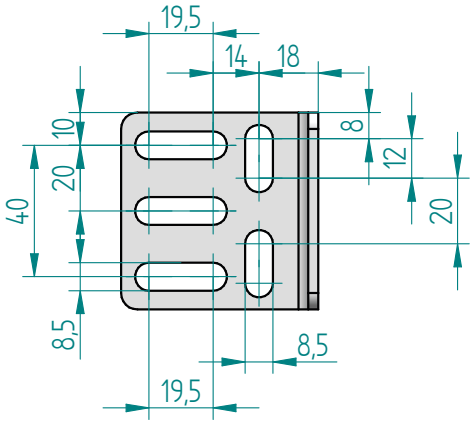
Partnumber:
134-002-038

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)	
	1x	Tube connector; straight; tube 6 to tube 8; type A; max. pressure 16 bar, (134-000-105)	
500 cc	1x	Manual grease gun System-Reiner	134-002-034
	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: - Hand grease gun for 100 cm^3 cartridges - Tube connector, straight - High-pressure tube 6x4, empty	134-002-043

You will find suitable cartridges with our lubricants F01 and F03

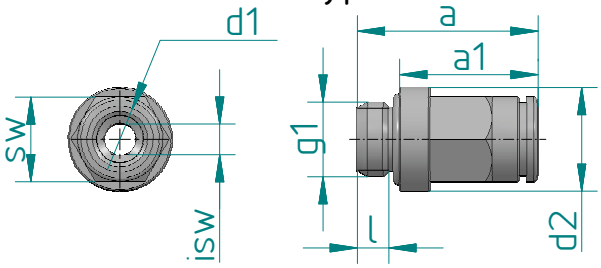
Tube connectors

Application:
pluggable connection with the tubes

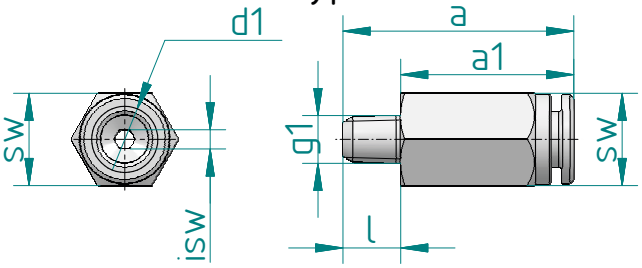
Features:
- sealing at the connection point with integrated O-rings
- easy assembly of the tubes
- all straight tube connectors with additional hexagon socket
- Further technical features can be found on the drawings at www.dls-schmiersysteme.de

Tube connectors

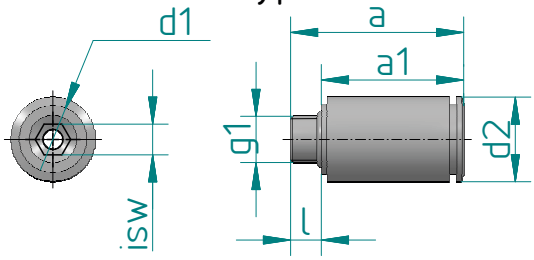
Typ A



Typ B



Typ C

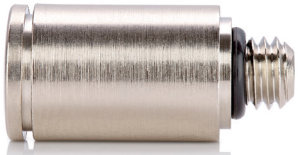


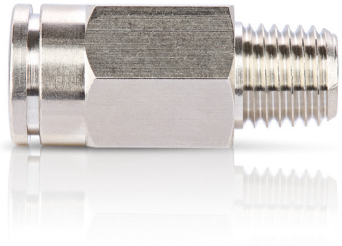
Description:
Tube connector straight

Material:
brass, nickel-plated

- straight version

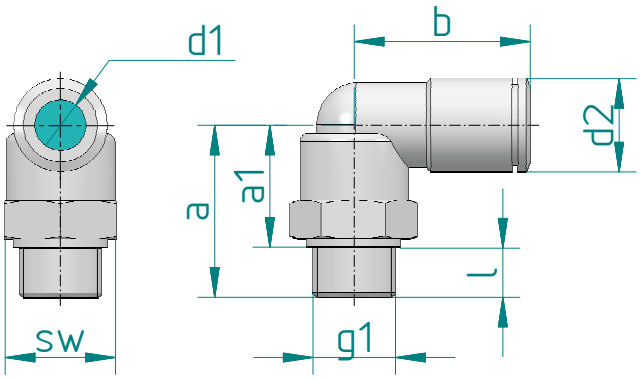
d1	g1		Typ	d2	a	a1	l	SW	ISK	Part-No.
4	M3	DIN 13-1	C	9	21,3	16,3	5	-	1,5	134-000-017
4	M5	DIN 13-1	C	9	20,5	16,5	4	-	2,5	134-000-016
4	M6x0,75	DIN 13-2	C	8,8	20	15,5	4,5	-	2,5	134-000-009
4	M6	DIN 13-1	C	8,8	20,5	16	4,5	-	2,5	134-000-006
4	G1/8	ISO 228-1	A	13,5	19	13	6	12	2,5	134-000-012
6	M5	DIN 13-1	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	11,5	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	24	18	6	11	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	17	24	16	8	11	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	19,5	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	2,2	7	13	3	134-000-020



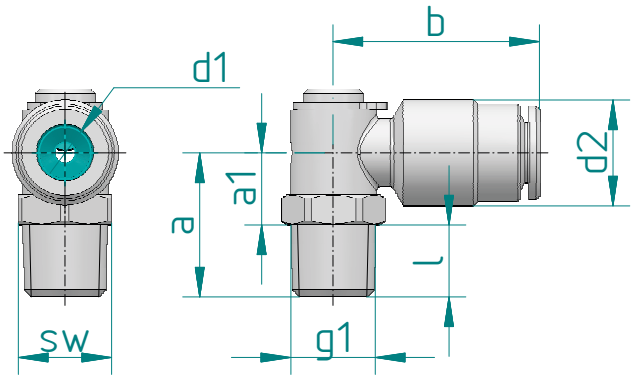


Tube connectors

Typ A



Typ B



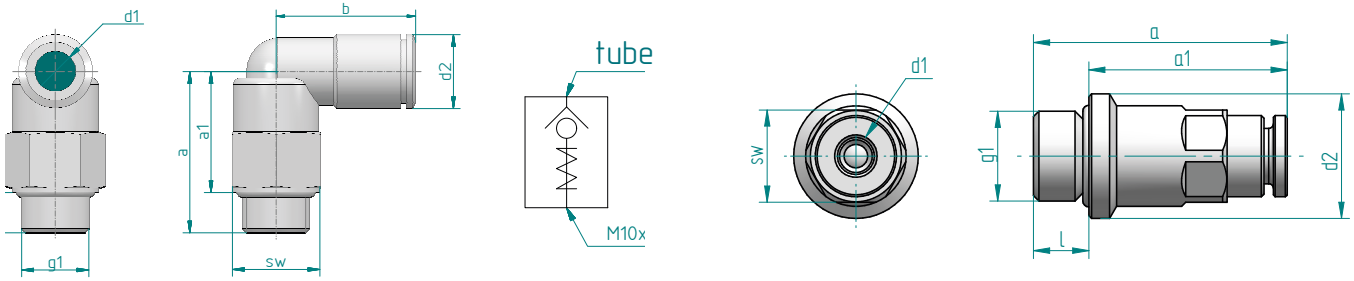
Description:
Tube connector right-angled;
360° rotatable

Material:
brass, nickel-plated

- 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	A	9	13,5	7,5	17,5	6	8	134-001-004
4	M6x0,75	DIN 13-2	A	9	15,8	10,8	18	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	14	20	6	13	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	A	11	25,3	19,3	22,5	6	11	134-001-014
6	M8x1 keg	DIN 158-1	B	11	17,8	11	17,2	6,8	9	134-001-010
6	M10x1	DIN 13-2	A	11	20,3	14,4	20,8	5,9	13	134-001-006
6	R1/8 keg.	DIN 2999-5	B	12,5	17	8,5	24,3	8,5	11	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	11	24	16	21,5	8	13	134-001-009
8	M10x1	DIN 13-2	A	13	24,5	18,5	23,5	6	13	134-001-023
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



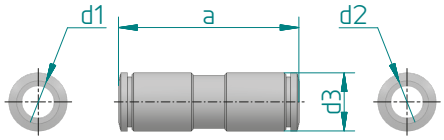
Description:
Tube connector with integrated non-return valve; straight/angled; 360° rotatable;

Material:
Nickel-plated brass; Gasket: NBR

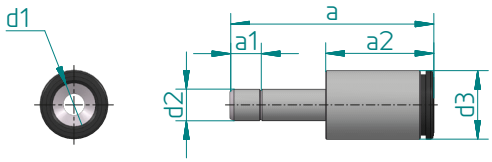
d1	g1	d2	a	a1	b	l	sw	Part-No.
4	M10x1	9	24,4	18,4	20	6	13	134-001-200
6	M10x1	11	24,4	18,4	21,5	6	13	134-001-201
6	G1/8	13,5	27	21	-	6	12	134-000-114
4	G1/8	13,5	27,5	21,5	-	6	12	134-000-115

Connections & reductions

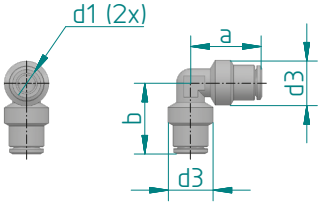
Typ A



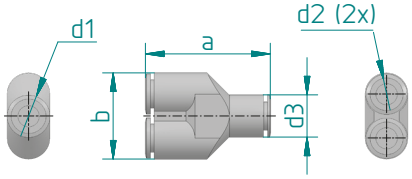
Typ B



Typ C



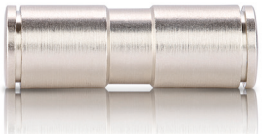
Typ D



Description:
Connections and reductions;
straight or right-angled

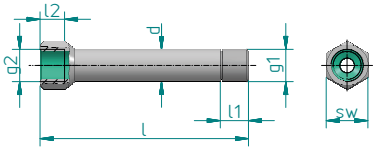
Material:
brass, nickel-plated;

Typ	d1	d2	d3	a	a1	a2	b	Part-No.
A	4	4	9	32	-	--	--	134-000-111
A	6	4	11	33,5	-	--	--	134-000-106
A	6	6	11	34	-	--	--	134-000-104
A	6	8	13	39	-	--	--	134-000-105
A	8	8	13	39	-	--	--	134-000-112
B	4	6	9	30,5	5,1	12,5	--	134-000-110
B	6,1	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	11,5	20	-	--	20	134-001-104
D	6	6	11,9	39	-	--	24,5	134-002-000
D	8	8	13,5	37,9	--	--	28,5	134-002-023

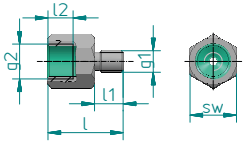


Fittings

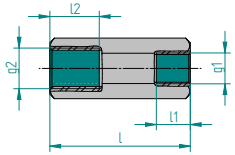
Typ A



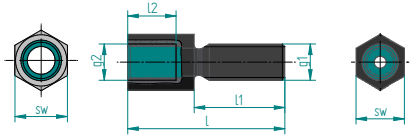
Typ B



Typ C



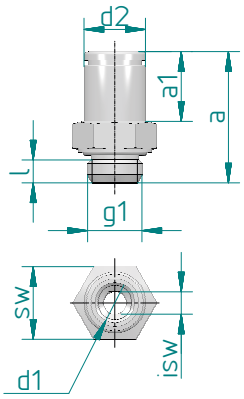
Typ D



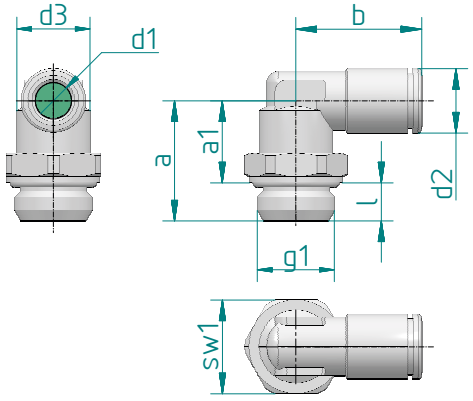
Typ	g1	g2	l	l1	l2	d	sw	material	Part-No.
A	G1/8	G1/8	50	12	15	14	17	Nickel-plated brass	134-000-703
A	G1/4	G1/4	85	11,5	10	13	17	Galvanized Steel	134-000-701
A	G1/4	G1/4	104	11,5	10	13	17	Galvanized Steel	134-000-702
A	G1/4	G1/4	122	13,5	10	14	17	Steel, nickel-plated	134-000-712
A	M6x1 (keg)	M6	57,5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

Tube connectors stainless Steel

Typ A



Typ B



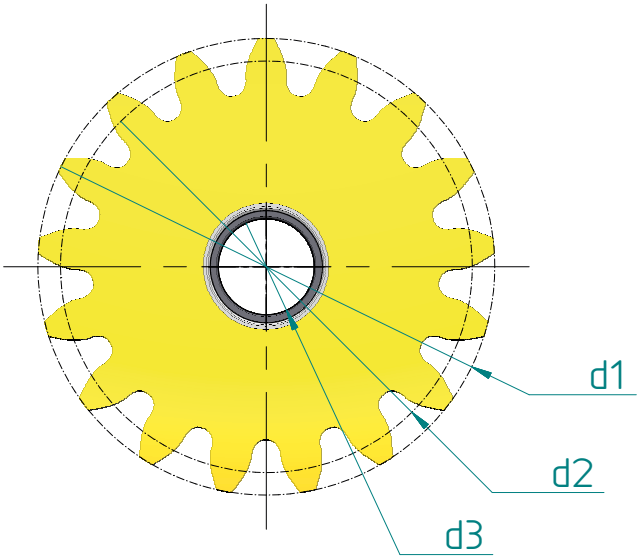
Description type A:
Tube connector straight
FDA-compliant

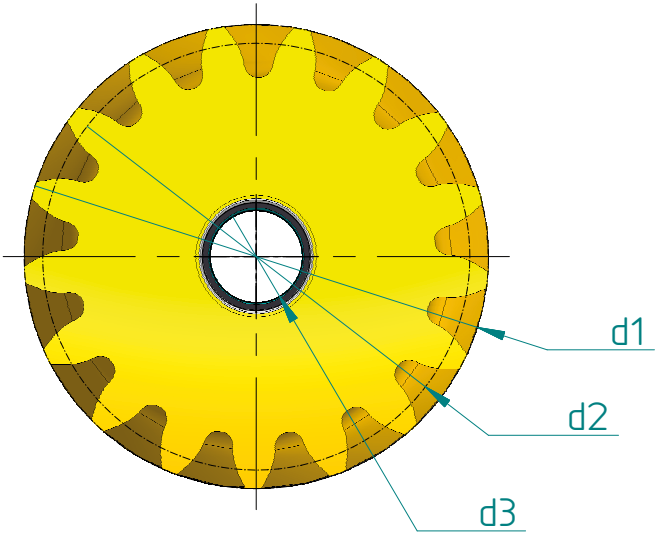
Description type B:
Tube connector right-angled;
360° rotatable; cylindrical thread
FDA-compliant

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	2,5	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	13,5	-	G1/4	6,5	16	4	134-000-906
A	8	13	26	21,5	-	G1/8	5,5	13	5	134-000-907
A	8	13	26	20,5	-	G1/4	6,5	13	5	134-000-908
B	4	9	14,8	10,8	18,2	M5	4	13		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	17,6	13,6	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	14,6	23,5	G1/8	4,7	13		134-001-907
B	8	13	20,5	14	23,5	G1/4	6,5	16		134-001-908

PU-Lubrication-pinion





PU-lubrication pinion, straight

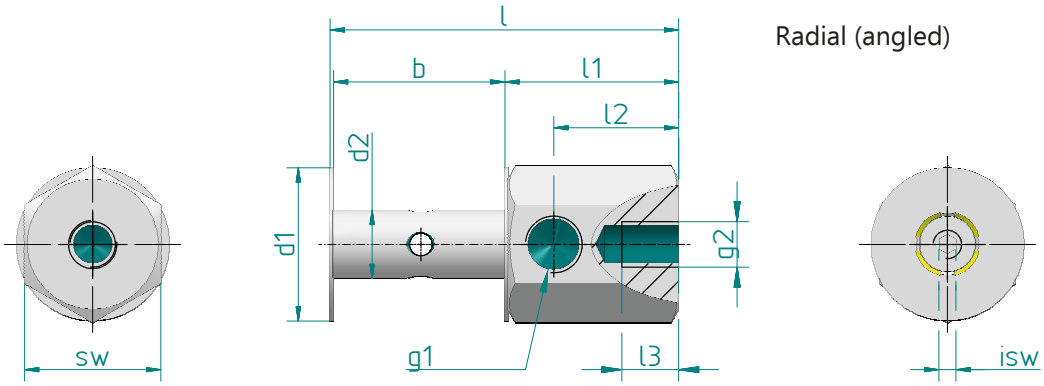
module	z	b	d1	d2	d3	α	flanks	Part-No.
5	17	50	95	85	20	20°	straight	230-050-017
6	17	60	114	102	20	20°	straight	230-060-017
8	17	80	152	136	20	20°	straight	230-080-017
10	17	100	190	170	20	20°	straight	230-100-017
12	8	120	120	96	20	20°	straight	230-120-008

PU-lubrication pinion, angled

module	z	b	d1	d2	d3	α	ß	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

*Modules 1.5 - 4 can be ordered individually on request.

Mounting-axis



Radial (angled)

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

Material:
Stainless Steel

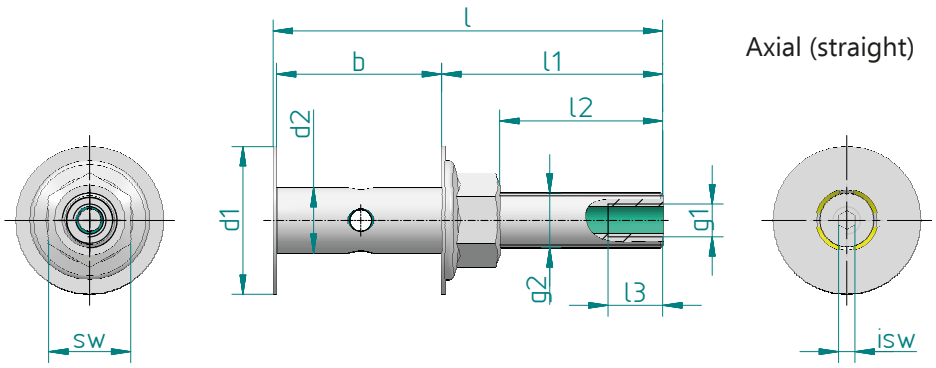
Modul	b	l	l1	l2	d1	d2	g1	g2	l3	sw	isw	Part-No.
5	50,2	81,4	30,6	22	60	20	M10x1 10 deep	M8	10	24	4	133-050-001
6	60,2	91,4	30,6	22	60	20	M10x1 10 deep	M8	10	24	4	133-060-001
8	80,2	111,4	30,6	22	100	20	M10x1 10 deep	M8	10	24	4	133-080-001
10	100,2	131,4	30,6	22	100	20	M10x1 10 deep	M8	10	24	4	133-100-001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

*Modules 1.5 - 4 can be ordered individually on request.

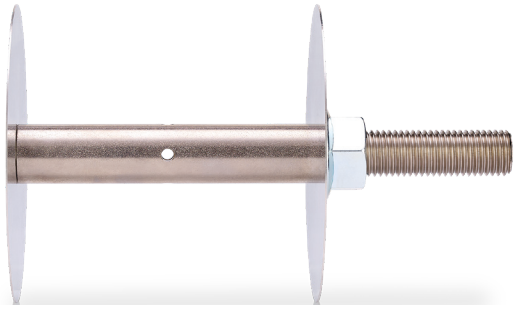
Radial & axial lubricant supply

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



*Modules 1.5 - 4 can be ordered individually on request.

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

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

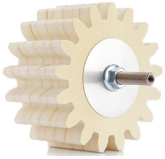
Description	lubricant	Volume	Part-No.
Cartridge 250 for pump 400	F09	250 cm^3	000-109-103
Cartridge 400 for pump 400	F09	400 cm^3	000-109-105

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

Other cartridge sizes are available on request.
Note: If you are interested in an adapter for use with our new pumps, please contact us!
Only as a spare part for replacing existing systems/machines

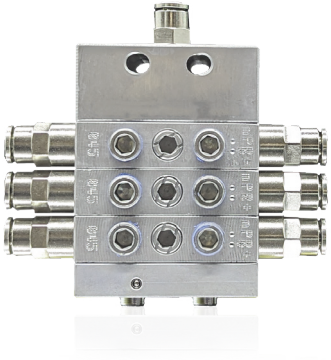
Support
preventive maintenance

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

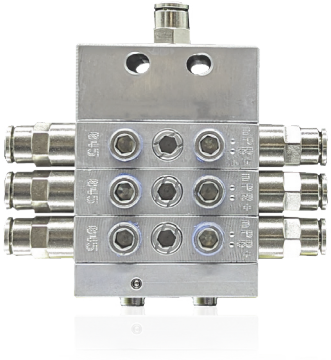


The progressive metering device is flushed, vented and checked at the factory with a **„white oil“**.

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

Step 2:

Fill the distributor

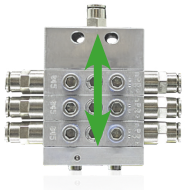


The distributor is approved up to a maximum pressure of 100 bar. DLS Lubricating Systems recommends „flushing“ the distributor with a DLS pump.

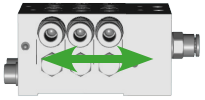
ATTENTION:
Please do not use a hand grease gun! The guarantee expires!

Step 3:

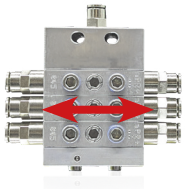
Assembly of the progressive distributor



Direction of movement of the distributor in the application okay



Direction of movement of the distributor in the application okay

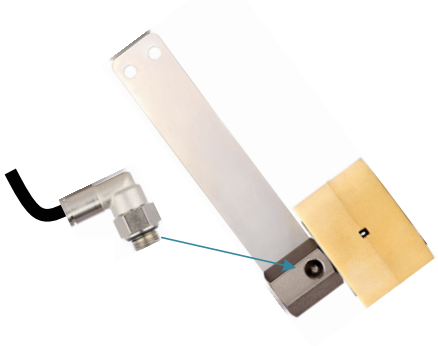


Direction of movement of the distributor in the application is **NOT** okay

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!

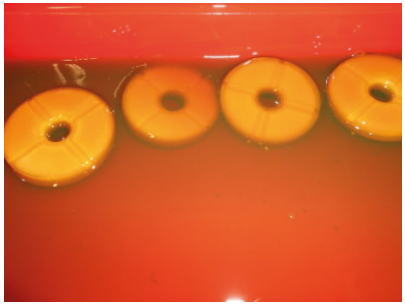
Install the tubing

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



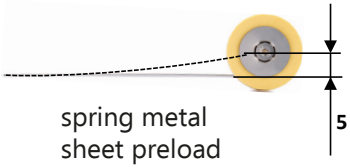
Upon delivery, the lubrication roller are not pre-filled

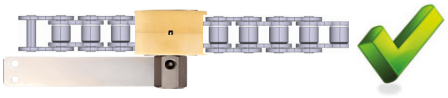
Recommendation: 2 min in mineral oil.
Put the lubrication roller around
Let the excess oil drain off

ATTENTION: never use the rollers in dry conditions!

Step 3:

Assembly of lubrication roller

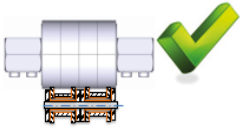




Installation details:

Make sure the roller is running parallel to the chain.

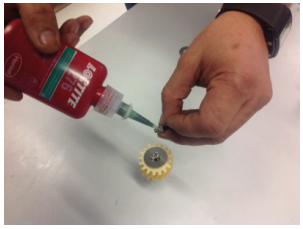
Starting with a width of around 60mm, please use double spring metal sheet!



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!

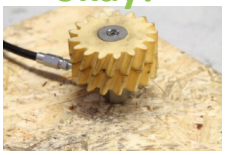
The screw has to be glued into the axis!
Take care, there is no glue between sleeve bearing of the pinion and the axis.

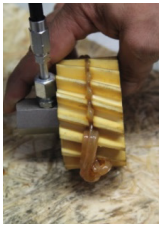
The glue has to be dry out min. 7h

Step 2:

Connection with prefilled tubes

okay!





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

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

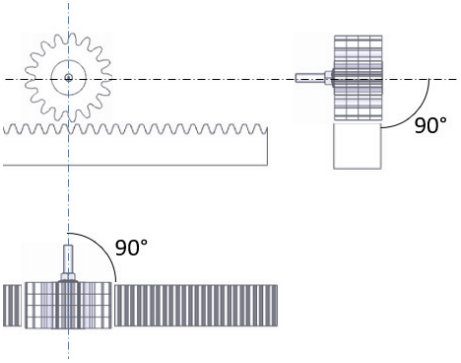
To do this, place the pinion in a mineral oil bath for approx. 10 minutes.

Then SLOWLY fill the lubricating gear with grease.

ATTENTION: Never use the pinion in dry conditions!

Step 3:

Assembly of lubrication-pinions



<u>Installation details:</u>

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!

Partner

AUSTRIA

Graessner GmbH
Hirschstettner Str. 19/O/B0103
1220 Wien

www.graessner.at

BELGIUM & NETHERLANDS

Vansichen Lineairtechniek bvba
Herkenrodesingel 4 bus 3
3500 Hasselt

www.vansichen.be

CZECH & SLOVAK REPUBLIC

HIWIN s.r.o.
Medkova 888/11
672 00 Brno

www.hiwin.cz

BULGARIA

Pro Chema Ltd.
Complex Chayka, bl. 196
Office 4
9010 Varna

www.prochemaltd.com

FRANCE

REDEX-ANDANTEX S.A.
BP79 Zone Industrielle
45210 Ferrieres

www.redex-andantex.com

NETHERLANDS

Stamhuis Lineairtechniek B.V.
Weteringstraat 11
7391 TX Twello

www.stamhuislineair.nl

SWITZERLAND

Hiwin (Schweiz) GmbH
Eichwiesstraße 20
8645 Jona

www.hiwin.ch

INDONESIA

PT. Versada Tiga Sentosa
Ruko Roxy Blok A No. 1
Ji. Mh. Thamrin
Lippo Cikarang
17550 Bekasi

ENGLAND

WMH Transmissions Ltd.
2 Centurion Way | Centurion Park
Tamworth/Staffs B77 5PN

www.wmh-trans.co.uk

SPAIN

GAMB S.L.
Rosa de Luxemburg 14-3A
08960 Sant Just Desvern
Barcelona

www.gamb.com.es

FINLAND / NORWAY

Movetec Oy Ab
Suokalliontie 9
01740 Vantaa

www.movetec.fi

ITALY

WMH Latsch S.r.l.
Marktstraße 47
39021 Laces/Bz.

www.wmh.it

Partner

ITALY

Romani Components Srl.
Via De Gasperi 146
20017 Rho Milano

www.romanicomponents.it

SLOVENIA

Haberkorn Ulmer d.o.o.
Vodovodna ulica 27
2000 Maribor

www.ulmer.si

SWEDEN

JT Pipeline AB
Nätrabölen 221
893 91 Bjästa

www.jtpipeline.se

INDIA

PRO Minerals Private Limited
Village - Basantpur, Thesil;
Jhumpura
758034 Dis. Keonjhar

CHINA

Qingdao Hopf Trading Co.Ltd.
Room2061; No.8 YingFeng Road,
SiFang District
266044 Qingdao

www.hopf-spn.com

TAIWAN

Güdel Lineartec
Hsin-Chu Industrial Park
No.99, An-Chai 8th St.
30352 Hu-Ko, Hsin-Chu

www.gudel.com

JAPAN

S & F Inc.
2-1-13 Higashikamata
Ohta-Ku
Tokyo 144-0031

www.sandfinc.co.jp

KOREA

Yejoon MTS
#508, Mecha Zone, SK Techo Park
77-1; Seongsan-Do
641-465 Changwon-City

AUSTRALIA

Industrial Dynamics Pty. Ltd.
36 Taunton Drive, Cheltenham
3192 Melbourne

www.industrialdynamics.com.au

USA

Andantex USA, Inc.
1705 Valley Road
NJ 07712 Wanamassa

www.andantex.com

MEXICO

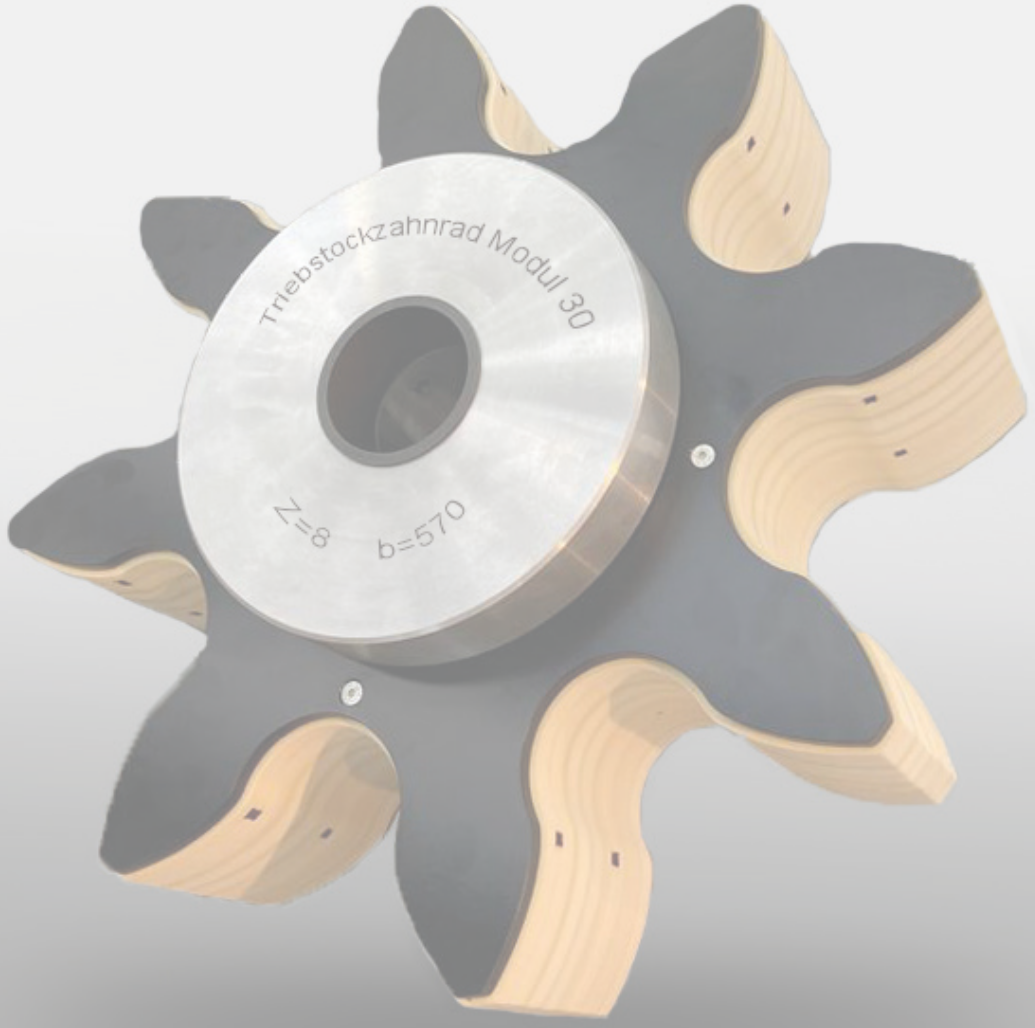
Interlub, S.A. de C.V.
Lateral Sur Periférico Norte 559
Parque Industrial Belenes Norte
45150 Guadalajara, Jalisco

www.interlub.com

BRAZIL

Clisol Products LTDA. (MATRIZ)
Avenida do Algodao 316
Loteamento Industrial Salto Grande
13.474-780 Americana-SP

www.clisol.com.br


Triebstockzahnrad Modul 30
Z=8
b=570