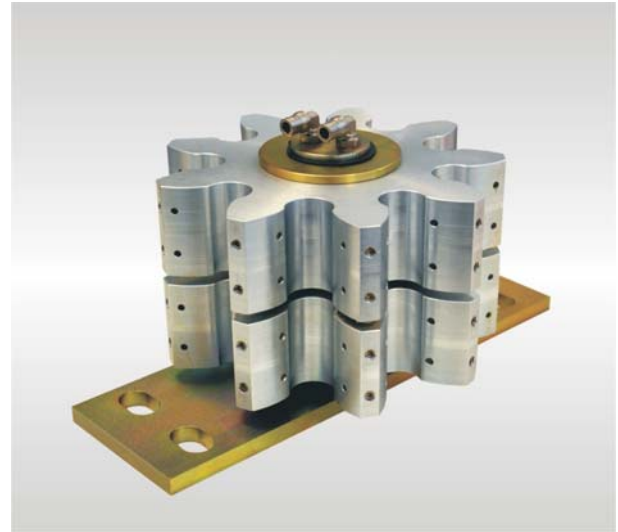


Technical data

Module: 4 - 50
Width of tooth face: variable depending on use
Design: single-piece, two-piece (see photo),
three-piece, quadripartite

Every lubrication pinion is individually supplied with lubricant at a multipart design.

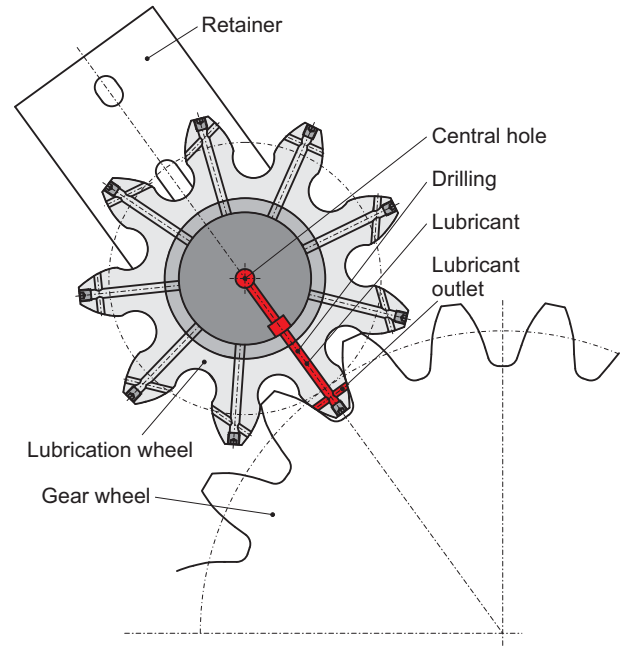
No. of teeth: 9
Lubricant: greases up to NLGI-cl. 2
Operating temperature: -20 to 70 °C
Connection: variable
Material: lubrication pinion - aluminium
retainer, shaft - steel



Lubrication pinion

Function

The lubricant is delivered by a grease pump to the central hole of the lubrication pinion's shaft. The hole has to be orientated exactly to the center of the to be lubricated wheel, so that lubricant always comes out of the tooth profile in meshing condition. The grease outlets at every tooth of the lubrication pinion are always drilled under another angle, in order that lubricant is distributed constantly onto the tooth profile of the wheel which has to be lubricated.



Modul	Tooth width (mm)	Design	Drawing*
4	40	single-piece	FAZ04670-00
5	30	single-piece	FAZ04655-00
8	35	single-piece	FAZ02587-00
10	45	single-piece	FAZ02440-01
10	80	two-piece	FAZ02440-03
10	90	two-piece	FAZ02440-02
10	100	two-piece	FAZ02440-00
10	100	two-piece	FAZ02440-04
11	140	three-piece	FAZ04021-00
12	55	single-piece	FAZ03211-02
12	80	two-piece	FAZ03211-05
12	80	single-piece	FAZ03211-15
12	100	two-piece	FAZ03211-00
12	100	two-piece	FAZ03211-03
12	100	two-piece	FAZ03211-08
12	100	single-piece	FAZ03211-12
12	112	two-piece	FAZ03211-07
12	112	two-piece	FAZ03211-09
12	112	two-piece	FAZ03211-10
12	120	two-piece	FAZ03211-06
12	120	two-piece	FAZ03211-11
14	80	single-piece	FAZ02578-00
14	110	two-piece	FAZ02578-01
14	120	two-piece	FAZ02578-03
14	132	two-piece	FAZ02578-02
16	65	two-piece	FAZ02189-06
16	75	two-piece	FAZ02189-05
16	79,5	single-piece	FAZ02189-12
16	100	single-piece	FAZ02189-14
16	112	two-piece	FAZ02189-02
16	112	two-piece	FAZ02189-03
16	112	two-piece	FAZ02189-08
16	120	two-piece	FAZ02189-04
16	120	two-piece	FAZ02189-07
16	120	two-piece	FAZ02189-09
16	120	two-piece	FAZ02189-13
16	134	two-piece	FAZ02189-11
16	140	two-piece	FAZ02189-10

Modul	Tooth width (mm)	Design	Drawing*
18	100	single-piece	FAZ02715-01
18	110	two-piece	FAZ02715-08
18	125	two-piece	FAZ02715-09
18	120	two-piece	FAZ02715-04
18	120	two-piece	FAZ02715-05
18	120	two-piece	FAZ02715-06
18	135	two-piece	FAZ02715-03
18	165	two-piece	FAZ02715-02
18	180	two-piece	FAZ02715-00
18	340	three-piece	FAZ02715-07
19	180	two-piece	FAZ03468-00
20	60	single-piece	FAZ03423-10
20	80	single-piece	FAZ03423-00
20	100	single-piece	FAZ03423-08
20	120	two-piece	FAZ03423-05
20	120	two-piece	FAZ03423-07
20	120	two-piece	FAZ03423-13
20	135	two-piece	FAZ03424-09
20	140	two-piece	FAZ03423-01
20	140	two-piece	FAZ03423-02
20	140	two-piece	FAZ03423-04
20	148	two-piece	FAZ02190-00
20	160	two-piece	FAZ03423-06
20	170	two-piece	FAZ03424-12
20	190	two-piece	FAZ03423-03
20	230	three-piece	FAZ04014-00
22	130	two-piece	FAZ03722-00
22	140	two-piece	FAZ03722-02
22	140	two-piece	FAZ03722-03
22	170	two-piece	FAZ03722-01
24	85	single-piece	FAZ02716-01
24	180	two-piece	FAZ04191-00
25	80	single-piece	FAZ02716-00
27	180	two-piece	FAZ04121-00
28	146	two-piece	FAZ03846-00
30	190	two-piece	FAZ03725-01
30	210	two-piece	FAZ03725-00
32	398	quadripartite	FAZ04024-00
36	220	two-piece	FAZ04530-00
48	215	two-piece	FAZ03707-00
50	180	two-piece	FAZ03707-02
50	340	three-piece	FAZ03707-01

* We appreciate to send you our drawings with the exact connection details on request.

Description

The lubrication pinions are mounted and delivered on a slide bearing bush, which can be installed on rigid axis.

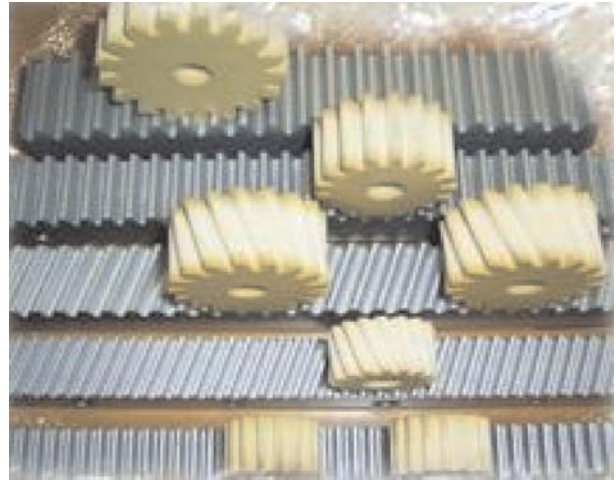
Function

The lubricant is supplied to the lubrication pinion by the drilled axis and the corresponding cross-sectional opening in the bush. Radial drillings in the segments deliver the lubricant onto the gear wheel's surface at grease version. The radial drillings in the segment can be omitted at the version with oil lubrication!

Due to the contact of the gear wheels, the lubricant is supplied onto the surfaces of gear wheels and thooted racks like with a sponge.

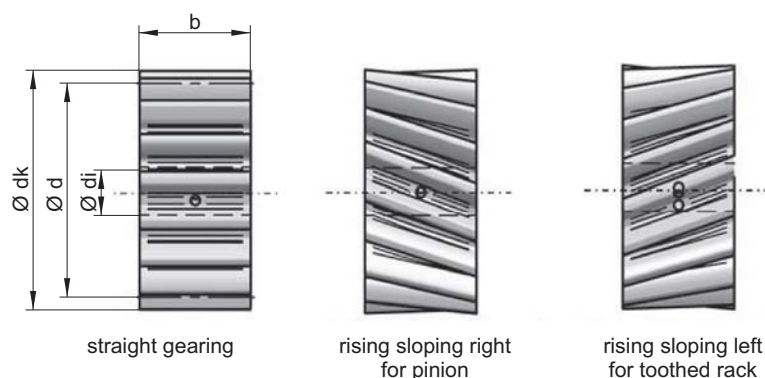
A special PU lubrication pinion, driven by the input gear or the toothed rack, stores the lubricant partly due to the used material, and applies it in the smallest proportioning onto the gearing which is in contact. An overlubrication is avoided by this. The PU lubrication pinion does not transmit power or torque.

Connecting a suitable metering device or a central lubrication system at the axis of the lubrication pinion by means of a hose or a tube, a certain complement of lubricant over a long time period is achieved. This ensures a wearfree operation of the gears over long periods.



Technical data of PU-foam

Material:	Open-cell polyurethane foam
Lubricant	oils and greases up to NLGi-cl. 2
Temperature range:	-30 to +150 °C
Speed on the surface:	max. 5 m/s
Density:	240 kg/m ³
Chemical resistance:	excellent
Wear characteristics:	excellent
Coating compatibility:	checked and authorized tempered version on request



Order-no. lube pinion	Modul	Width of teeth b (mm)	Gearing	No. of teeth	Pitch circl. d (mm)	Outside cir. dk (mm)	Drilling di (mm)
04780043	2	20	straight	17	34,0	38,0	12
04780044	2	20	slanted right	17	36,1	40,1	12
04780045	2	20	slanted left	17	36,1	40,1	12
04780046	3	30	straight	17	51,0	57,0	12
04780047	3	30	slanted right	17	54,1	60,1	12
04780048	3	30	slanted left	17	54,1	60,1	12
04780049	4	40	straight	17	68,0	76,0	12
04780050	4	40	slanted right	17	72,1	80,1	12
04780051	4	40	slanted left	17	72,1	80,1	12
04780052	5	50	straight	17	85,0	95,0	20
04780053	5	50	slanted right	17	90,1	100,1	20
04780054	5	50	slanted left	17	90,1	100,1	20
04780026	6	60	straight	17	102,0	114,0	20
04780027	6	60	slanted right	17	108,2	120,2	20
04780028	6	60	slanted left	17	108,2	120,2	20
04780055	8	80	straight	17	136,0	152,0	20
04780056	8	80	slanted right	17	144,3	160,3	20
04780057	8	80	slanted left	17	144,3	160,3	20
04780058	8	80	straight	13	104,0	120,0	20
04780059	8	80	slanted right	13	110,3	126,3	20
04780060	8	80	slanted left	13	110,3	126,3	20
04780061	10	100	straight	13	130,0	150,0	20
04780062	10	100	slanted right	13	137,9	157,9	20
04780063	10	100	slanted left	13	137,9	157,9	20
04780064	10	80	straight	13	130,0	150,0	20
04780065	10	80	slanted right	13	137,9	157,9	20
04780066	10	80	slanted left	13	137,9	157,9	20
04780069	12	120	straight	10	120,0	144,0	20

other sizes on request

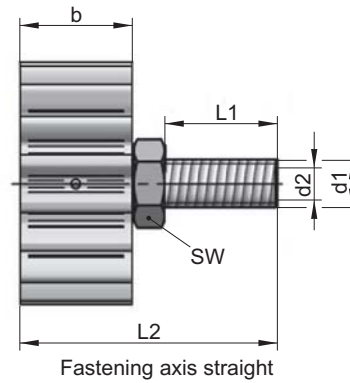
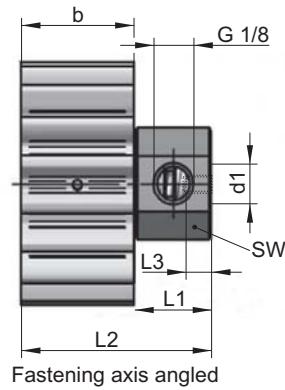
*for oil version (=no radial drillings in middle lubrication pinion segment) are marked by adding the number "1" at the order number (e.g. 047800551)

Axes that matches with the PU lubrication pinions have to be ordered separately. See next page.

If this special detail is not indicated in the order number, we delivery the grease type as standard, i.e. with radial drillings in the middle lubrication segment, as those do not affect the function when lubricating with oil.

Subject to alterations!

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Axis angled

Material: Steel, phosphatized (standard), stainless steel (A2 or A4) on request

The diameter d1 (thread M8) fastens the axis with a screw. The inserting depth is L3 (10 mm). A fitting for fastening a hose or a pipe that leads to the lubricant supply, can be screwed into the thread G 1/8 (available as accessory).

Axis straight

Material: Steel, phosphatized (standard), stainless steel A2 or A4 on request

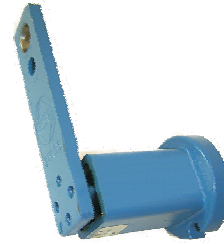
The axes can be fastened at an angle or flat steel by means of the threads M10 or M16. Straight or angled fittings can be screwed into the threads M6 or G1/8 for fastening a hose or a pipe (available as accessory).

Order-no axis	Width o. teeth b (mm)	Fastening axis	Shaft (mm)	L2 (mm)	L1 (mm)	d1 (mm)	L3 / d2 (mm)	AF (mm)
04780031	20	angled 90°	12	51	30	M8	10	24
04780032	30	angled 90°	12	61	30	M8	10	24
04780033	40	angled 90°	12	71	30	M8	10	24
04780034	50	angled 90°	20	81	30	M8	10	24
04780029	60	angled 90°	20	91	30	M8	10	24
04780035	80	angled 90°	20	111	35	M8	10	24
04780036	100	angled 90°	20	131	35	M8	10	24
04780119	120	angled 90°	20	151	35	M8	10	24
04780037	20	straight	12	61	30	M10	M6	17
04780038	30	straight	12	71	30	M10	M6	17
04780039	40	straight	12	81	30	M10	M6	17
04780040	50	straight	20	116	49	M16	G 1/8	24
04780030	60	straight	20	126	49	M16	G 1/8	24
04780041	80	straight	20	146	49	M16	G 1/8	24
04780042	100	straight	20	166	49	M16	G 1/8	24
04780120	120	straight	20	186	49	M16	G 1/8	24

other sizes on demand

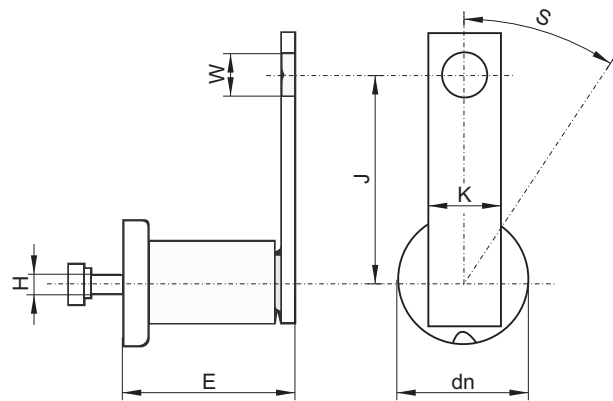
Clamping element

In order to achieve the perfect contact force that makes the plastic pinion operating in a smooth way also at higher speed, use the clamping element for adjustment.



Technical data of clamping element

Surface:	protective lacquer
Deflection:	max. 50 mm
Tension:	350 N
Weight:	0,6 kg



Order-no.	for axis	W (mm)	E (mm)	H (mm)	J (mm)	dn (mm)	K (mm)	S max. (mm)
04780072	M10	10,5	78,15	M10	100	58	30	50
04780121	M16	16,5	78,15	M10	100	58	30	50

other sizes on demand

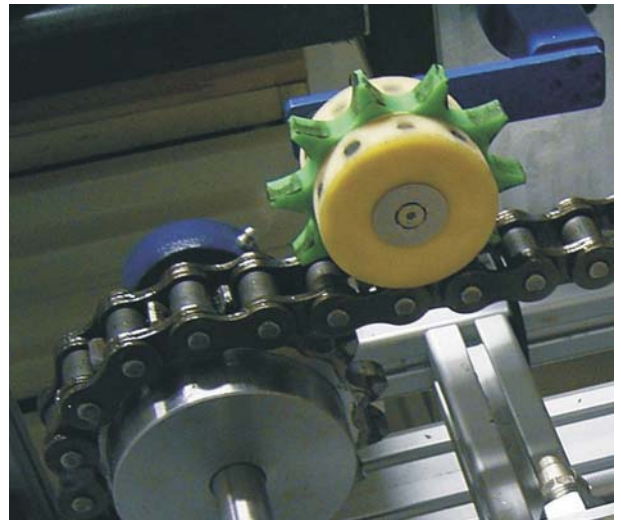
Function

An open-celled PU lubrication pinion that is driven by a wear resistant plastic pinion stores the lubricant partly due to the used material and applies it selective onto the surface of brackets and roller chains. Lubricant is supplied through the axis and the according drilling holes in the bush into the foam material.

A non-return valve is integrated in the axis that prevents an unintentional escape of lubricant.

The plastic pinion is installed parallel to the chain's running direction. Due to the plastic pinion, the optimal distance of the foam material rolls towards the link plate is adjusted. Hence slips or wear of rolls are prevented.

When connecting a suitable metering device or a central lubrication system to the pinion's axis by means of a hose or a pipe, a wearfree operation of chains over a long time is guaranteed.

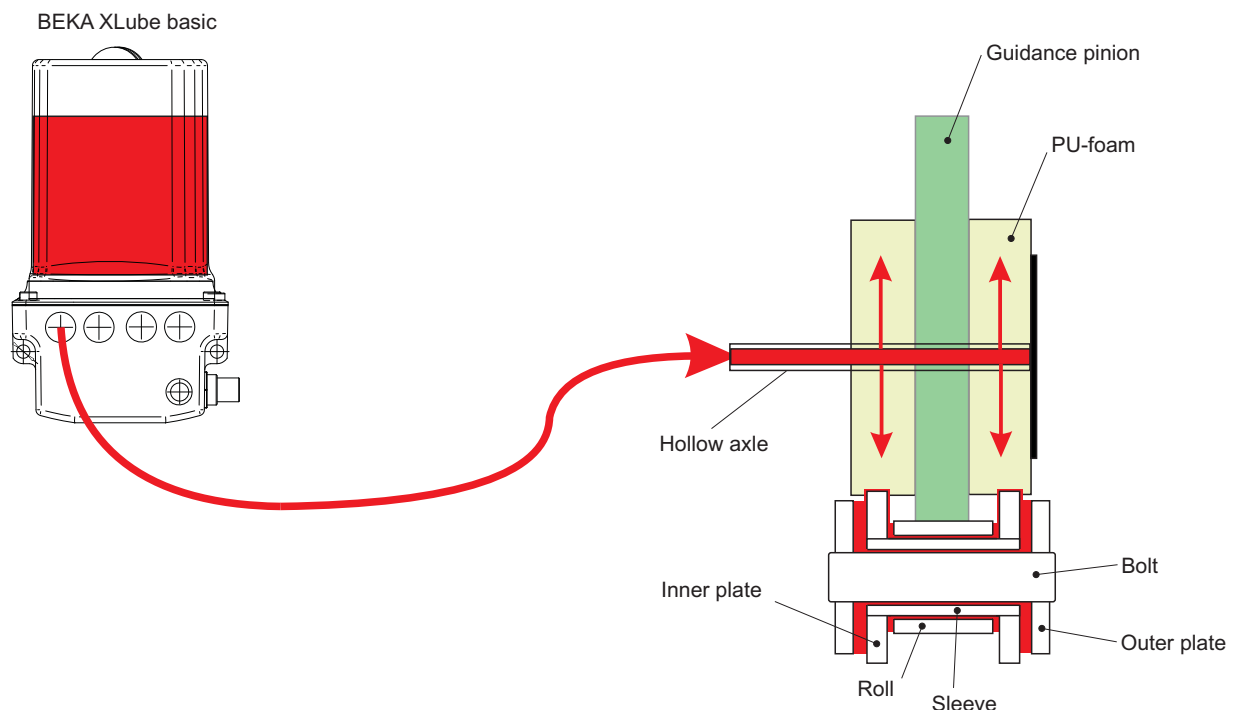


PU-lubrication pinion for chains

Technical data of PU-foam

Material:	Open-cell polyurethane foam
Lubricant:	oils and greases up to NLGI-cl. 2
Temperature range:	-30 to +150 °C
Speed on surface:	max. 5 m/s
Density:	240 kg/m ³
Chemical resistance:	excellent
Wear characteristics:	excellent
Coating compatibility:	checked and authorized tempered version on request

Schema of application



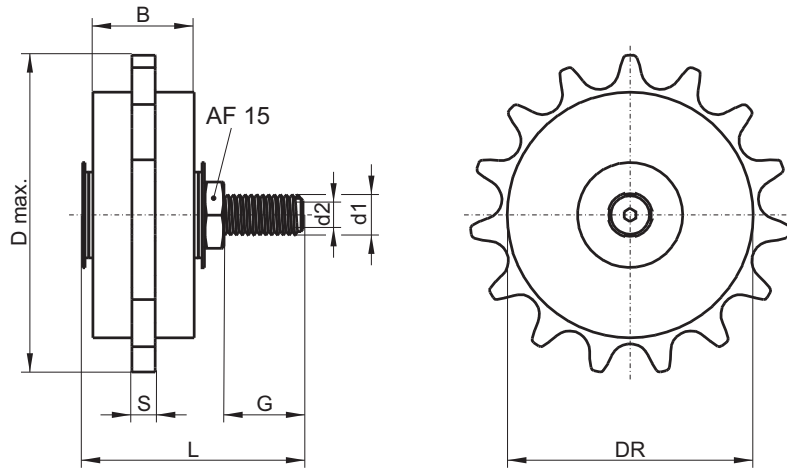
08-1-32-01 State: 01.12EN

Simplex PU-lubrication pinion for chains inkl. fastening axis

Fastening axis

Material:

steel, phosphated (standard),
stainless steel on demand A2 or A4



Order-no.	ISO-no.	p (inch)	d1 (mm)	d2 (mm)	No. of teeth	B (mm)	S (mm)	L (mm)	G (mm)	D max. (mm)	DR (mm)
04780080	08 B-1	1/2 x 5/16	M10	M6	15	29	5	71	30	66	50
04780081	10 B-1	5/8 x 3/8	M10	M6	15	29	5	71	30	82	63
04780082	12 B-1	3/4 x 7/16	M10	M6	15	29	5	71	30	86	63
04780083	16 B-1	1 x 17 mm	M10	M6	13	40	10	81	30	115	86
04780084	20 B-1	1 1/4 x 3/4	M16	G 1/8	13	50	10	116	49	145	108
04780085	24 B-1	1 1/2 x 1	M16	G 1/8	11	60	20	126	49	145	108
04780087	32 B-1	2 x 31 mm	M16	G 1/8	11	80	20	146	49	200	140

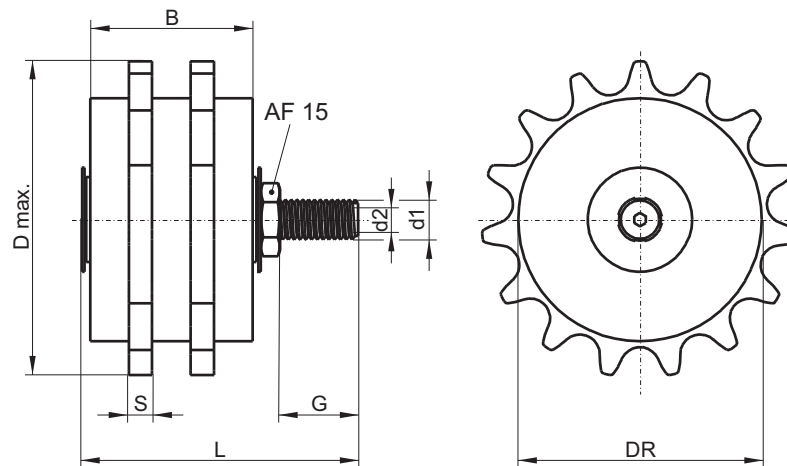
Other sizes on request

Duplex PU-lubrication pinion for chains inkl. fastening axis

Fastening axis

Material:

steel, phosphated (standard),
stainless steel on demand A2 or A4



Order-no.	ISO-no.	p (inch)	d1 (mm)	d2 (mm)	No. of teeth	B (mm)	S (mm)	L (mm)	G (mm)	D max. (mm)	DR (mm)
04780090	08 B-2	1/2 x 5/16	M10	M6	15	40	5	81	30	66	50
04780091	10 B-2	5/8 x 3/8	M10	M6	15	40	5	81	30	82	63
04780092	12 B-2	3/4 x 7/16	M16	G 1/8	15	50	5	116	49	86	63
04780093	16 B-2	1 x 17 mm	M16	G 1/8	13	80	10	146	49	115	86

Other sizes on demand

Triplex on demand

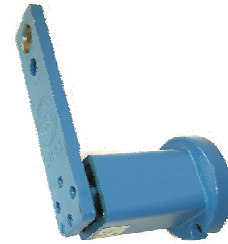
The lubrication rolls that are listed in the tables are suitable for roller chains according to DIN 8187-ISO and ASA8188-ISO.

Subject to alterations!

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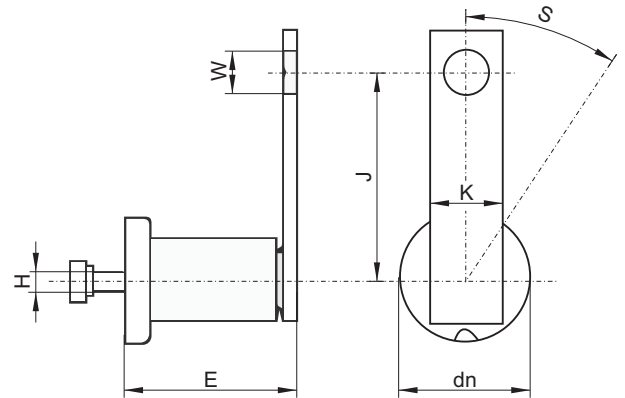
Spanner element

The optimal contact power of the plastic pinion for a smooth operation of rolls also at highest speeds can be adjusted individually with a spanner element



Technical data of tensioning element

Surface: protective lacquer
 Excursion: max. 50 mm
 Tension: 350 N
 Weight: 0,6 kg

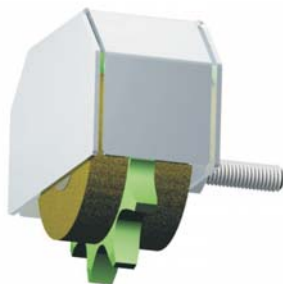


Order-no.	for axis	W (mm)	E (mm)	H (mm)	J (mm)	dn (mm)	K (mm)	S max. (mm)
04780072	M10	10,5	78,15	M10	100	58	30	50
04780121	M16	16,5	78,15	M10	100	58	30	50

other sizes on demand

Splash guard

Individual splash guard housing / coverings are recommended for a chain speed beginning at 2,5 m/s





Special lubrication systems

PU-lubrication pinion for chains

Accessory

PU-lubrication pinion for chains

08-1-32-04 State: 01.12EN

Subject to alterations!

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