

## Technical Data Sheet

### Product description

FlexxGear lubrication gears are modularly constructed from profiled segmental discs. These individual segments are made of special polymer foam with an open-cell structure, and they can act as a lubricant storage. Lubricant is supplied via the axis of the lubrication gear and it travels radially outward through the channels between the segments and to the tooth root and tooth flanks of the lubrication gears.

The lubricant is delivered to the open gearing in small, precisely dosed quantities. A homogeneous, thin lubricant film is formed, which has the following advantages:

- Avoidance of premature wear due to insufficient lubrication.
- Avoidance of overlubrication
- Significant reduction of old grease and the associated excessive contamination of the environment

### Technical data

Available module sizes	M2 up to M10	
Operating temperature	min.	- 30 °C
	max.	+ 140 °C
max. velocity	5 m/s	
	> 2 m/s use spray protection	
Material segment discs	Special polymer foam	
Material density	240 kg/m <sup>3</sup>	
Lubricants	Grease	up to NLGI 3
	Oil	up to 30.000 mm <sup>2</sup> /s (40 °C)
Chemical resistance	very good	
Wear characteristics	very good	
Paint compatibility	tested and approved	
Silicone-free	tested and approved	
Hub	plain bearing and sealed	

### Custom solutions available

In addition to the standard range, TriboServ offers straight and helical lubrication gears in customized configurations. These differ in helix angle, number of teeth or module.

### Intended use

The lubrication gears are designed for lubrication of open gears.



Figure 1: FlexxGear with straight axis



Figure 2: FlexxGear with angled axis

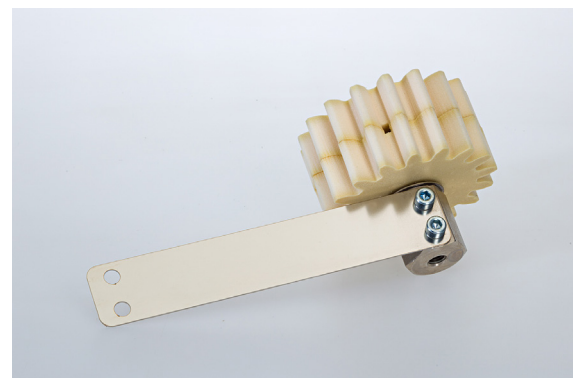
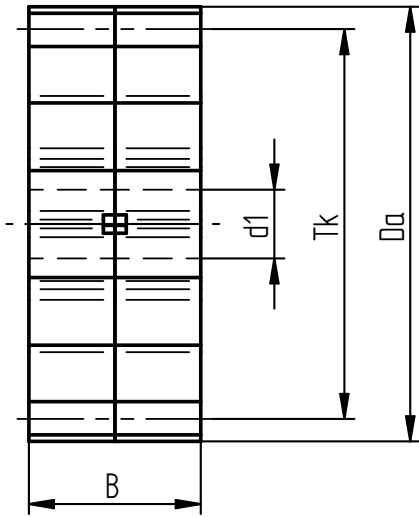
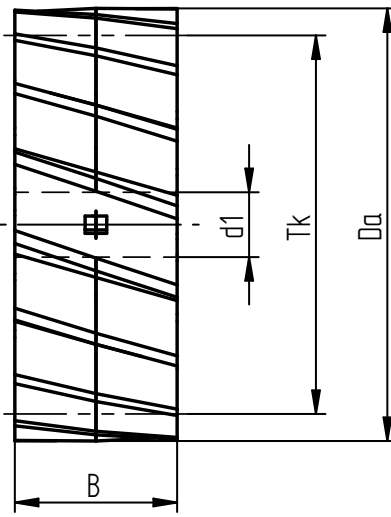


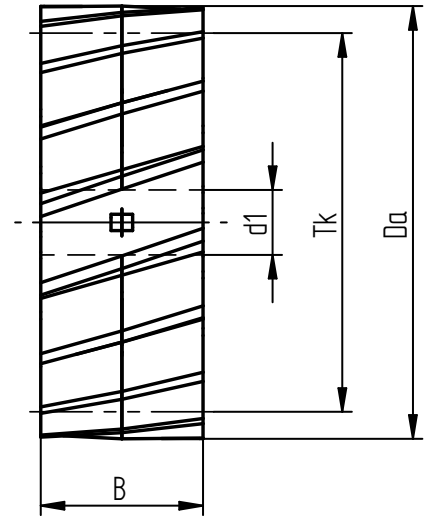
Figure 3: FlexxGear with angled axis and spring plate



FlexxGear straight toothed



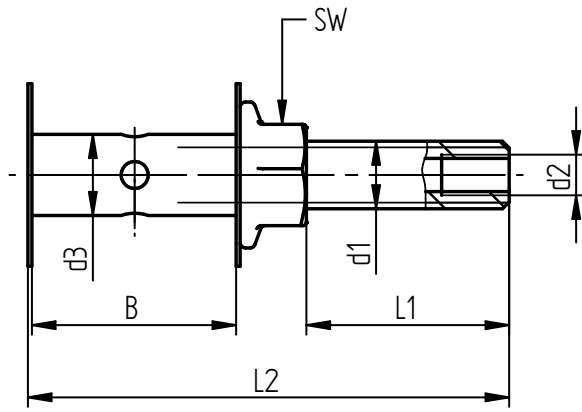
FlexxGear helical-right toothed



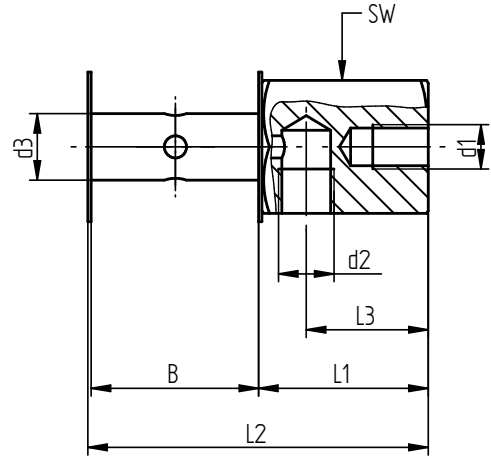
FlexxGear helical-left toothed

### FlexxGear Standard product range

TriboServ Item-Nr.	Module [mm]	Width [mm]	Helix angle left/right 19,5°	Number of teeth Z	Outer diameter $D_a$ [mm]	Diameter $d_1$ [mm]	Pitch circle diameter $T_k$ [mm]
702030	2	20	straight	17	38	12	34
702021	3	30	straight	17	57	12	51
702063	4	40	straight	17	76	12	68
201706	5	50	straight	17	95	20	85
204186	6	60	straight	17	114	20	102
702078	8	80	straight	17	152	20	136
700342	10	100	straight	13	150	20	130
702014	2	20	helical-right	17	40,1	12	36,1
702070	3	30	helical-right	17	60,1	12	54,1
702071	4	40	helical-right	17	80,1	12	72,1
702074	5	50	helical-right	17	100,2	20	90,2
702076	6	60	helical-right	17	120,2	20	108,2
700580	8	80	helical-right	17	160,3	20	144,3
701119	10	100	helical-right	17	200,4	20	180,4
702069	2	20	helical-left	17	40,1	12	36,1
702018	3	30	helical-left	17	60,1	12	54,1
702020	4	40	helical-left	17	80,1	12	72,1
702073	5	50	helical-left	17	100,2	20	90,2
702075	6	60	helical-left	17	120,2	20	108,2
702077	8	80	helical-left	17	160,3	20	144,3
204192	10	100	helical-left	17	200,4	20	180,4



Type A: FlexxGear mounting axis straight



Type B: FlexxGear mounting axis angled

### FlexxGear mounting axes standard product range

TriboServ Item-Nr.	Type	Outer diameter $d_3$ [mm]	Gear width B [mm]	Length $L_1$ [mm]	Length $L_2$ [mm]	Length $L_3$ [mm]	Thread $d_1$ Type B: Depth [mm]	Thread $d_2$ Type A + B: Depth [mm]	Wrench size SW
702 015	A	12	20	30	61,2	-	M10	M6 - 10	SW 15
700 492	A	12	24	30	65,2	-	M10	M6 - 10	SW 15
702 031	A	12	30	30	71,2	-	M10	M6 - 10	SW 15
702 062	A	12	40	30	81,2	-	M10	M6 - 10	SW 15
702 083	A	20	50	49,1	116,4	-	M16	M10x1 - 10	SW 24
702 024	A	20	60	49,1	126,4	-	M16	M10x1 - 10	SW 24
702 013	A	20	80	49,1	146,4	-	M16	M10x1 - 10	SW 24
702 082	B	12	20	30,6	51,4	22	M8 - 10	M10x1 - 8	SW 24
700 493	B	12	24	30,6	55,4	22	M8 - 10	M10x1 - 8	SW 24
702 017	B	12	30	30,6	61,4	22	M8 - 10	M10x1 - 8	SW 24
702 019	B	12	40	30,6	71,4	22	M8 - 10	M10x1 - 8	SW 24
702 084	B	20	50	30,6	81,4	22	M8 - 10	M10x1 - 8	SW 24
702 085	B	20	60	30,6	91,4	22	M8 - 10	M10x1 - 8	SW 24
702 087	B	20	80	30,6	111,4	22	M8 - 10	M10x1 - 8	SW 24

### Material

FlexxGear Mounting axle	Steel, nickel-plated
Rectangular cavity	Steel, nickel-plated
Threaded bolt	Steel, nickel-plated
Discs	V2A
Screws	V2A

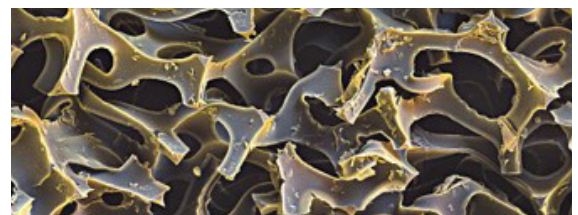


Figure 4: Microscope image special polymer foam

### Please visit [www.triboserv.com](http://www.triboserv.com) for available Accessories

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