

***Power Transmission***



***Ballscrews***

***Ultra Speed Line***

***Diameter 16 - 63 mm***



## Ball Return for High Speed Applications

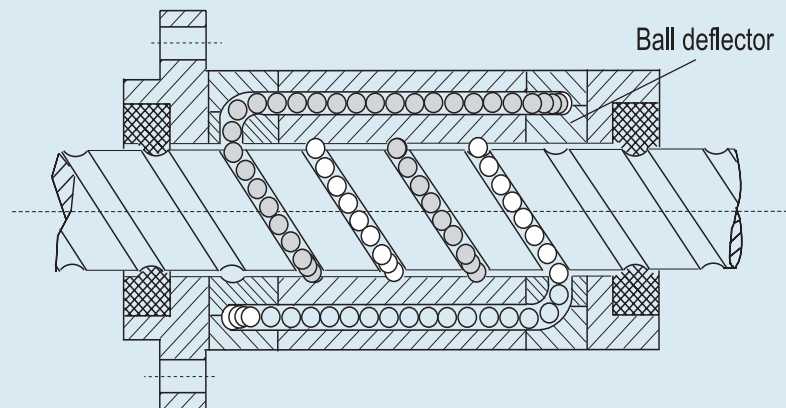
The new ball return further expands the extensive range of **Steinmeyer** ballscrews. It uses ball deflectors guiding the balls into a return channel spanning the whole nut length, thus forming a ball circuit consisting of several turns.

The ball deflectors used are designed for guiding balls on a tangential path away from the screw. The two-piece deflectors are made from precision milled steel and use a complex geometry that minimizes friction to an extent that allows much higher speeds with yet less wear than conventional external ball returns. Noise and vibration levels are reduced considerably, and life is increased.

Through an increased number of load carrying balls the load capacity and rigidity is increased over conventional designs, with yet more compact nut dimensions.

As a standard, **Steinmeyer** Ultraspeed ballnuts have two-start threads. Their unique design allows for two-point contact preload with pitch offset within a single nut. This enables even more space saving design. See fig. 1.

fig. 1



Specifications are subject to change without notice.

With the issue of this catalog, all previous Miniature Ball Screw catalogs will be void.

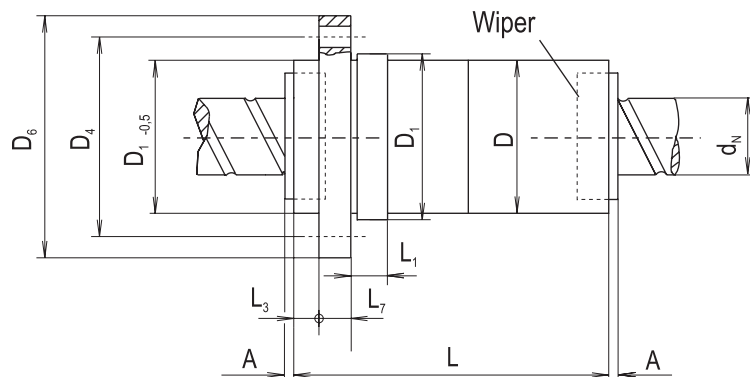
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## Nominal Diameter 16 - 63 mm



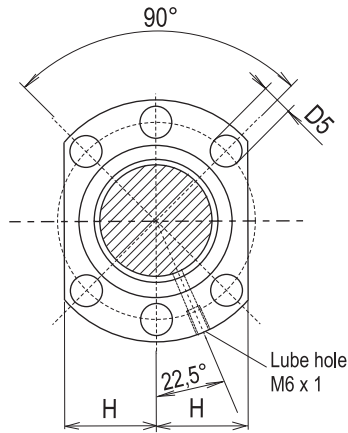
Series	Size	Lead P	Nom. Dia- meter $d_N$ [mm]	Turns i [mm]	Ball Dia- meter [mm]	Load Capacity Dyn. $C_a$ [kN]	Load Capacity Stat. $C_{0a}$ [kN]	Rigidity <sup>1)</sup> $R_{Nu,ar}$ [N/ $\mu$ m]
<b>3526</b>	10.16.3,5.2*	<b>10</b>	<b>16</b>	2+2	3.5	6.4	10.0	160
	10.16.3,5.3*	<b>10</b>	<b>16</b>	3+3	3.5	9.9	14.9	240
<b>3526</b>	20.20.3,5.2	<b>20</b>	<b>20</b>	2+2	3.5	7.1	12.7	130
	20.20.3,5.3	<b>20</b>	<b>20</b>	3+3	3.5	11.0	19.0	200
<b>3526</b>	20.25.3,5.2	<b>20</b>	<b>25</b>	2+2	3.5	8.2	16.7	200
	20.25.3,5.3	<b>20</b>	<b>25</b>	3+3	3.5	12.8	25.0	300
	25.25.3,5.2	<b>25</b>	<b>25</b>	2+2	3.5	8.1	16.4	160
<b>3526</b>	20.32.6.3*	<b>20</b>	<b>32</b>	3+3	6	29.4	54.0	460
	20.32.6.4*	<b>20</b>	<b>32</b>	4+4	6	39.3	72.0	610
	30.32.6.2*	<b>30</b>	<b>32</b>	2+2	6	18.4	35.2	220
<b>3526</b>	20.40.6.3	<b>20</b>	<b>40</b>	3+3	6	32.9	68.2	610
	20.40.6.5	<b>20</b>	<b>40</b>	5+5	6	54.6	113.6	1000
	25.40.6.3	<b>25</b>	<b>40</b>	3+3	6	32.6	67.7	540
	25.40.6.4	<b>25</b>	<b>40</b>	4+4	6	43.6	90.3	720
	40.40.6.3	<b>40</b>	<b>40</b>	3+3	6	31.4	65.8	390
<b>3526</b>	25.50.7,5.4*	<b>25</b>	<b>50</b>	4+4	7.5	65.7	142.1	1000
	30.50.6.4	<b>30</b>	<b>50</b>	4+4	6	48.1	113.3	880
	30.50.7,5.4*	<b>30</b>	<b>50</b>	4+4	7.5	65.3	141.3	920
<b>3526</b>	40.63.7,5.2	<b>40</b>	<b>63</b>	2+2	7.5	34.5	88.3	520
	40.63.7,5.3	40	63	3+3	7.5	53.6	132.5	790

\* Dimensions not in compliance with DIN 69051

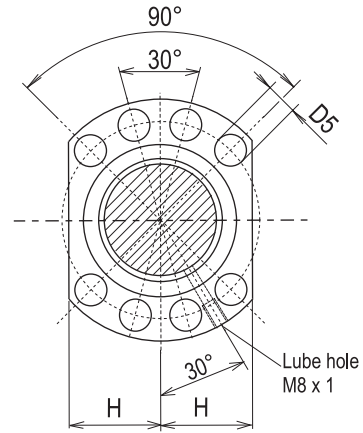
1) Rigidity values quoted for preload setting of .1 \*  $C_a$

**Series 3526:**  
**Standard Execution**  
**Large Lead (two start)**

Nominal Diameter 16 - 32 mm



Nominal Diameter 40 - 63 mm



LF	D <sub>1</sub> g6	L <sub>1</sub>	D <sub>4</sub>	D <sub>5</sub>	D <sub>6</sub>	L <sub>7</sub>	L <sub>3</sub>	H	A
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
55	32	16	42	5.5	52	10	6	22	0
65	32	16	42	5.5	52	10	6	22	0
75	36	16	47	6.6	58	10	7	22	0
95	36	16	47	6.6	58	10	7	22	0
75	40	16	51	6.6	62	10	7	24	0
95	40	16	51	6.6	62	10	7	24	0
85	40	16	51	6.6	62	10	7	24	2x5
103	56	16	71	9	86	12	7	34	0
123	56	16	71	9	86	12	7	34	0
100	56	16	71	9	86	12	7	34	2x5
105	63	16	78	9	93	14	7	35	0
145	63	16	78	9	93	14	7	35	0
115	63	16	78	9	93	14	7	35	2x5
140	63	16	78	9	93	14	7	35	2x5
160	63	16	78	9	93	14	7	35	2x5
145	82	16	108	11	125	18	7	47.5	2x5
165	75	16	93	11	110	16	7	42.5	2x5
165	82	16	108	11	125	18	7	47.5	2x5
130	95	25	115	13.5	135	20	7	50	2x5
170	95	25	115	13.5	135	20	7	50	2x5



## High Performance Setting Standards

UltraSpeed ballnuts by **Steinmeyer** are a further step towards even higher performance of ballscrew drives. They offer largely increased high-speed capabilities through optimized ball guidance with precision milled ball deflectors. **Steinmeyer** did an extensive research on the basics of ball guidance and is proud to offer the latest in ballscrew design now. **Steinmeyer** UltraSpeed nuts offer the highest speed rating available throughout the industry. At the same time, our sophisticated design allows for even more compact nuts - a truly big step.

The Attention to the basic principles of ballscrew design, combined with our experience and manufacturing capabilities led to a new product that is setting standards for high speed applications. At the same time, we can make this technology available at very competitive cost.

**Steinmeyer** UltraSpeed ballscrews allow speed of up to and beyond  $DN = 160,000$ .

Through advanced thread grinding technology we make lead /diameter ratios of 0.5:1 to 1:1 available. Combined with the high speed rating, linear velocities of 4,000 inches per minute are possible, at accelerations of 2g's and higher. This was previously seen at the exclusive domain of linear direct drives.

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