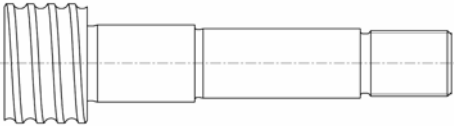
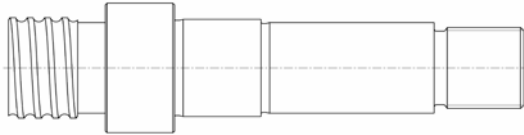
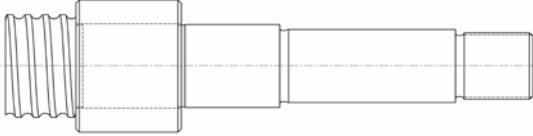
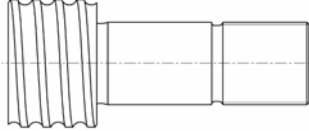

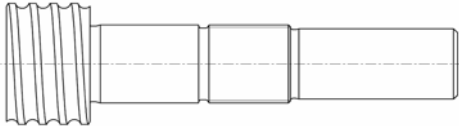
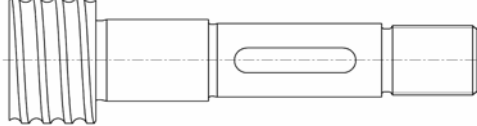
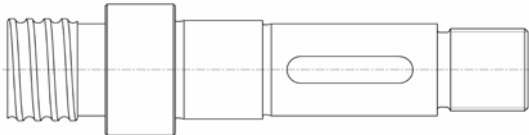
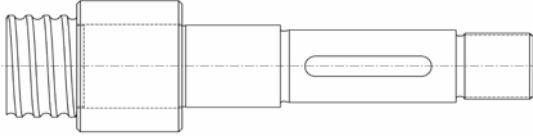


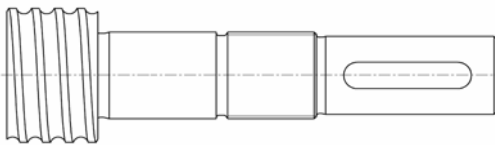


## Not usable length of the spindle $L_{s2}$

Caused e.g. by rotational bearings, spindle end form and excess travel.

Form	Figure
11	
13	
15	
51	
55	
81	

Form	Figure
12	
14	
16	
53	
57	
82	

## Not usable length of the spindle $L_{S2}$

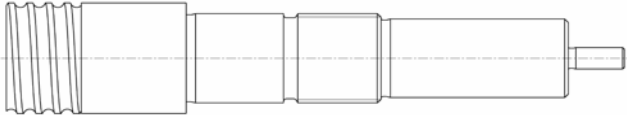
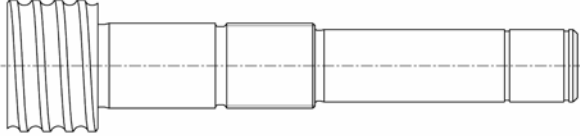
Caused e.g. by rotational bearings, spindle end form and excess travel.

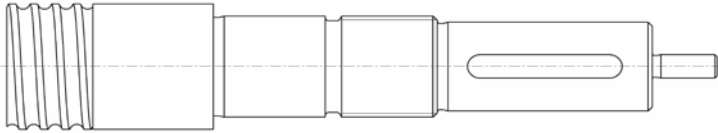
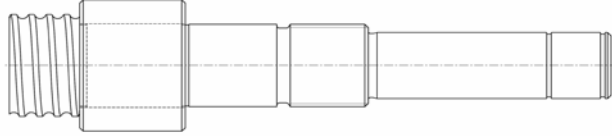
Form	Figure
83	
85	
87	
91	
93	
95	

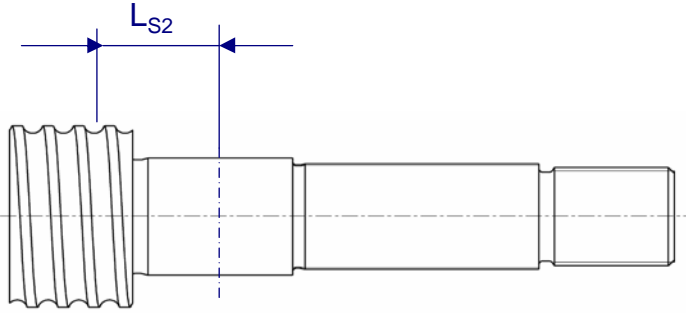
Form	Figure
84	
86	
88	
92	
94	
96	

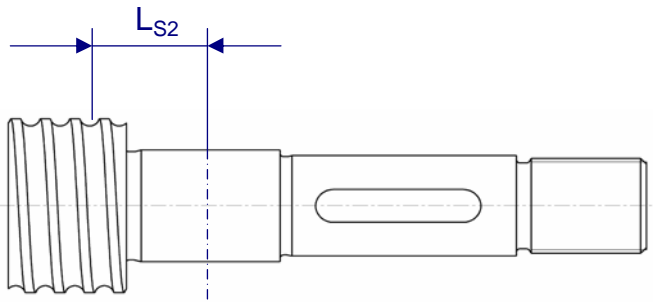
Not usable length of the spindle  $L_{S2}$

Caused e.g. by rotational bearings, spindle end form and excess travel.

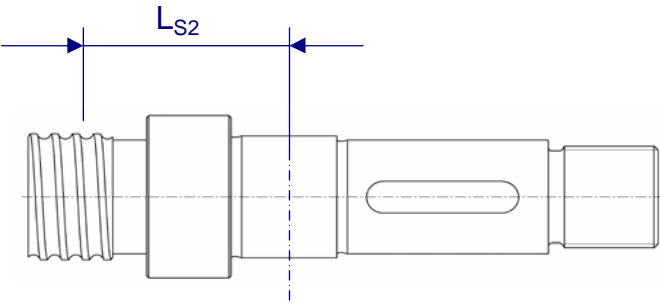
Form	Figure
97	
101	

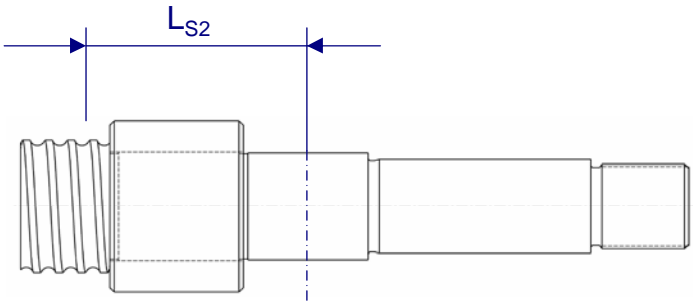
Form	Figure
98	
105	

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
11		100	16	5/10/16	29.0
		120	20	5/20/40	51.5
		170	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		250	40	10/12/16/20/40	67.0
		300	40	5	52.5
		301	50	10/12/16/20/40	77.0
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0

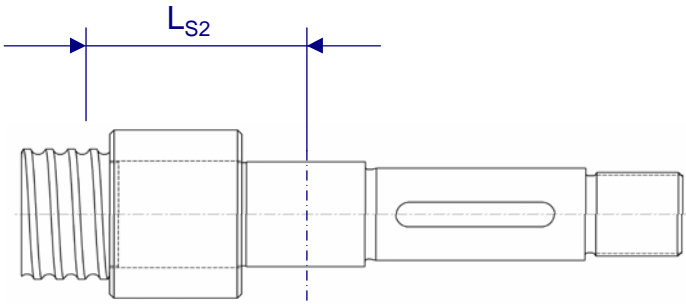
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
12		100	16	5/10/16	29,0
		120	20	5/20/40	51.5
		170	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		250	40	10/12/16/20/40	67.0
		300	40	5	52.5
		301	50	10/12/16/20/40	77.0
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0

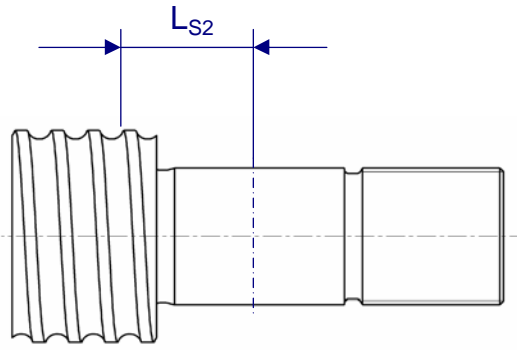
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
13		080	8	2,5	47.0
		120	12	5/10	54.5
		170	16	5/10/16	54.5
		200	20	5/20	76.0
		250	25	5/10/25	76.0
		300	32	5/10/20/32	80.5
		400	40	5/10/12/16/20/40	90.0
		500	50	5/10/12/16/20/40	104.0
		600	63	10/20/40	104.5

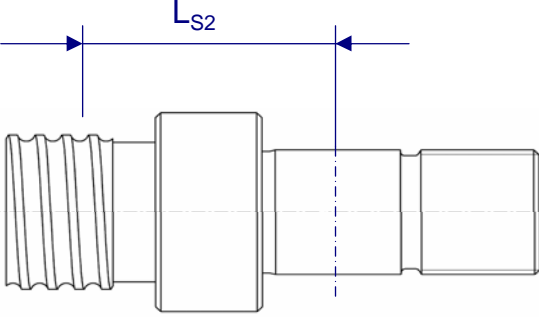
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
14		080	8	2,5	47.0
		120	12	5/10	54.5
		170	16	5/10/16	54.5
		200	20	5/20	76.0
		250	25	5/10/25	76.0
		300	32	5/10/20/32	80.5
		400	40	5/10/12/16/20/40	90.0
		500	50	5/10/12/16/20/40	104.0
		600	63	10/20/40	104.5

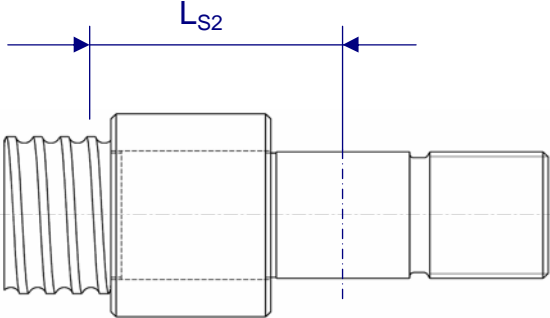
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
15		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5/20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	84.0
		300	40	5/10/12/16/20/40	87.5
		400	50	5/10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10/20	131.5

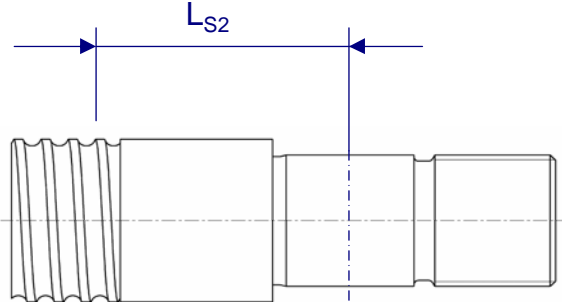


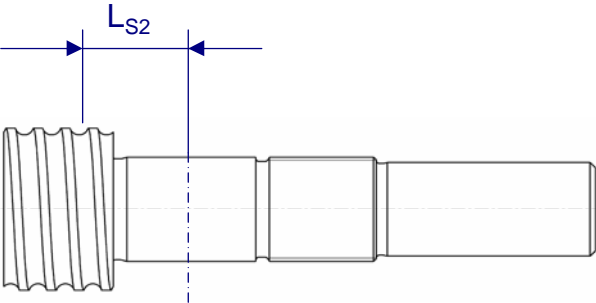
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
16		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5/20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	84.0
		300	40	5/10/12/16/20/40	87.5
		400	50	5/10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10/20	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
51		060	12	2/5/10	27.0
		061	12	5/10	26.8
		100	16	5/10/16	29.0
		101	16	5/10/16	29.5
		120	20	5/20/40	51.5
		121	20	5/20	51.5
		170	25	5/10/25	51.5
		171	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		201	32	5/10/20/32	53.0
		209	32	10/20/32	78.5
		250	40	10/12/16/20/40	67.0
		300	40	5/10/12/16/20/40	52.5
		301	50	10/12/16/20/40	77.0
		302	40	5/10/12/16/20/40	52.5
		309	40	10/20/40	81.5
		350	50	5	66.0
		359	50	10/20/40	104.5
		400	63	10/20/40	72.0
		409	63	10/20/40	123.5
		500	80	10/20	76.0
		600	80	10/20	71.5

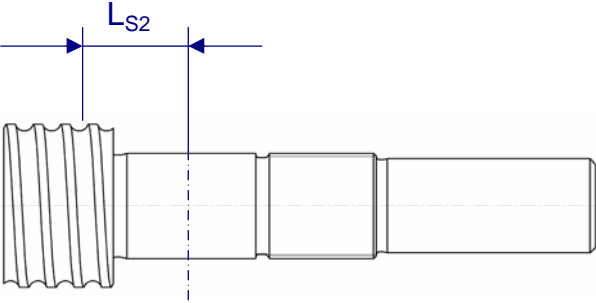
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
53		060	8	2,5	45.0
		120	12	5/10	54.5
		170	16	5/10/16	54.5
		200	20	5/20	76.0
		250	25	5/10/25	76.0
		300	32	5/10/20/32	80.5
		400	40	5/10/12/16/20/40	90.0
		500	50	5/10/12/16/20/40	104.0
		600	63	10/20/40	104.5

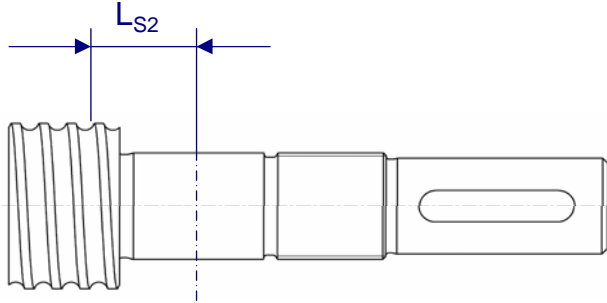
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
55		060	8	2,5	32.0
		080	12	5/10	39.0
		120	16	5/10/16	46.5
		121	16	5/10/16	41.5
		150	20	5/20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5/10/12/16/20/40	87.5
		400	50	5/10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10/20	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
57		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5	71.5
		151	20	20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5	87.5
		301	40	10/12/16/20/40	87.5
		400	50	5	117.0
		401	50	10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10	131.5
		601	80	20	131.5
		602	80	20/30/40	131.5

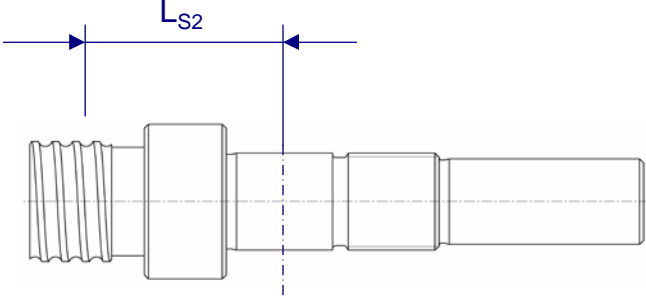
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
81		060	12	2/5/10	27.0
		061	12	2/5/10	25.0
		080	12	5/10	26.8
		081	12	5/10	26.5
		100	16	5/10/16	29.0
		101	16	5/10/16	29.5
		102	16	5/10/16	29.5
		120	20	5/20/40	51.5
		121	20	5/20	51.5
		122	20	5	48.5
		150	25	5/10/25	51.5
		151	25	5/10	49.5
		170	25	5/10/25	51.5
		171	25	5/10/25	51.5
		172	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		201	32	5/10/20/32	53.0
		202	32	5/10/20/32	53.0
		203	32	5/10/20/32	53.0
		204	32	5/10	52.5
		250	40	10/12/16/20/40	67.0
		251	40	10/12/16/20/40	67.0

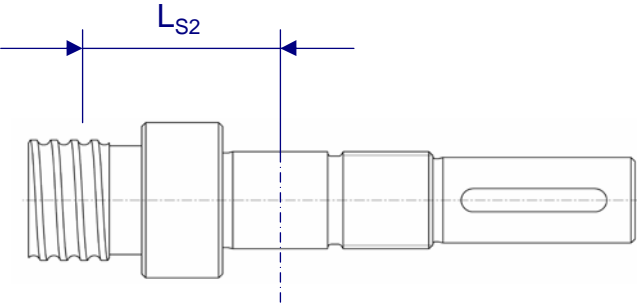
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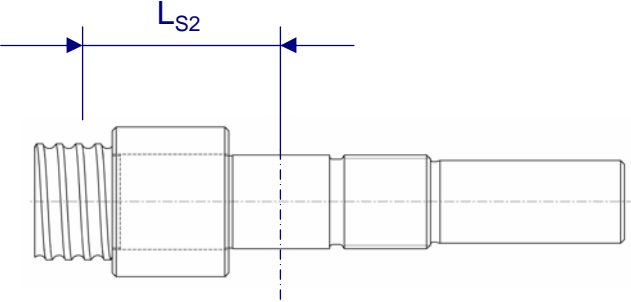
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
81		300	40	5/10/12/16/20/40	52.5
		301	40	5/10/12/16/20/40	52.5
		302	50	10/12/16/20/40	77.0
		304	40	5/10/12/16/20/40	52.5
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0
		600	80	10/20	71.5

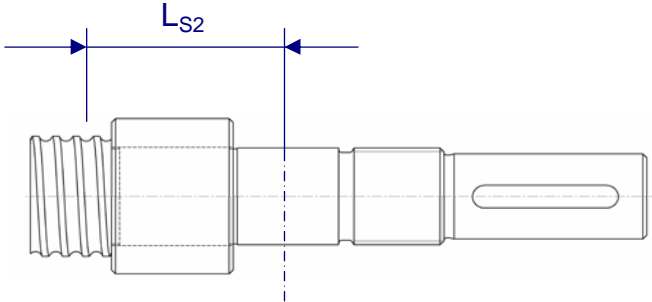
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
82		100	16	5/10/16	29.0
		101	16	5/10/16	29.5
		120	20	5/20/40	51.5
		121	20	5/20	51.5
		150	25	5/10/25	51.5
		170	25	5/10/25	51.5
		171	25	5/10/25	51.5
		172	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		201	32	5/10/20/32	53.0
		202	32	5/10/20/32	53.0
		203	32	5/10/20/32	53.0
		250	40	10/12/16/20/40	67.0
		251	40	10/12/16/20/40	67.0
		300	40	5/10/12/16/20/40	52.5
		301	40	5/10/12/16/20/40	52.5
		302	50	10/12/16/20/40	77.0
		303	40	5/10/12/16/20/40	52.5
		304	40	5/10/12/16/20/40	52.5
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0
		600	80	10/20	71.5

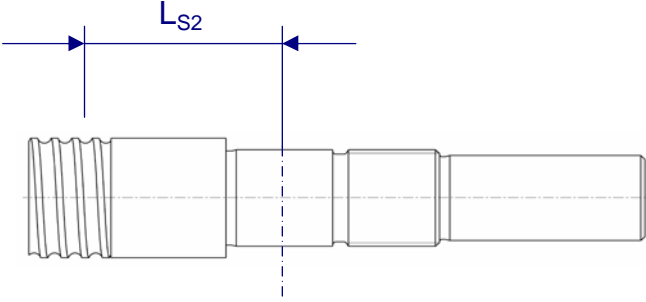


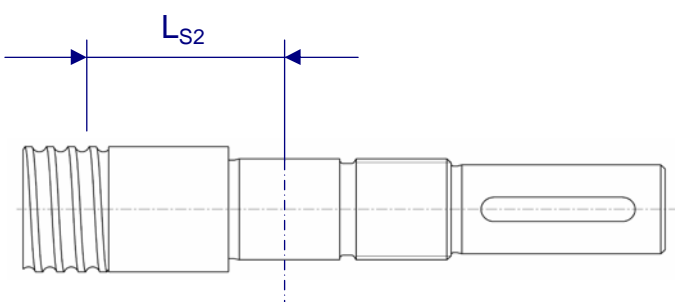
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
83		060	6	alle	45.0
		061	6	1/2	43.0
		060	8	alle	45.0
		062	8	1	43.0
		063	8	2	43.0
		064	8	2,5	43.0
		120	12	alle	54.5
		121	12	5/10	51.5
		122	16	5/10	51.5
		170	16	alle	54.5
		200	20	alle	76.0
		250	25	alle	76.0
		300	32	alle	80.5
		400	40	alle	90.0
		500	50	alle	104.0
		600	63	alle	104.5

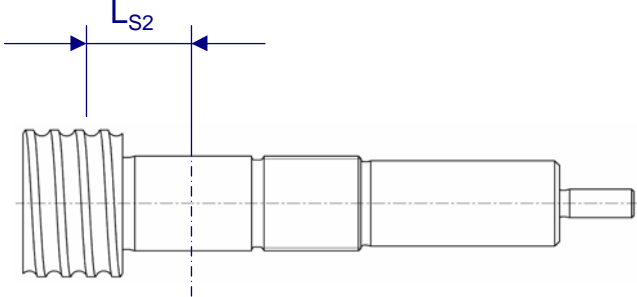
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
84		060	6	alle	45.0
		061	6	1/2	43.0
		060	8	alle	45.0
		062	8	1	43.0
		063	8	2	43.0
		064	8	2,5	43.0
		120	12	alle	54.5
		121	12	5/10	51.5
		122	16	5/10	51.5
		170	16	alle	54.5
		200	20	alle	76.0
		250	25	alle	76,0
		300	32	alle	80.5
		400	40	alle	90.0
		500	50	alle	104.0
		600	63	alle	104.5

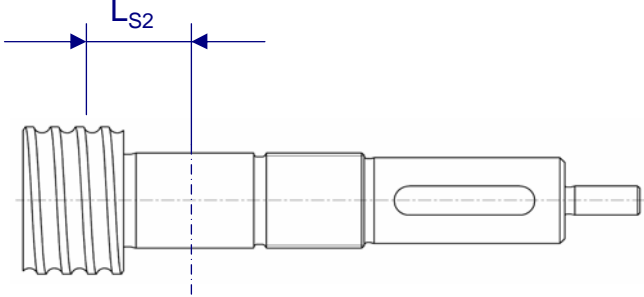
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
85		060	8	2,5	32.0
		080	12	5/10	39.0
		120	16	5/10/16	46.5
		121	16	5/10/16	41.5
		122	16	5/10/16	41.5
		123	16	5/10/16	41.5
		150	20	5/20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5/10/12/16/20/40	87.5
		400	50	5/10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10/20	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
86		080	12	alle	39.0
		120	16	alle	46.5
		121	16	alle	41.5
		122	16	alle	41.5
		123	16	alle	41.5
		150	20	alle	71.5
		200	25	alle	78.0
		250	32	alle	83.0
		300	40	alle	87.5
		400	50	alle	117.0
		500	63	alle	126.0
		600	80	alle	131.5

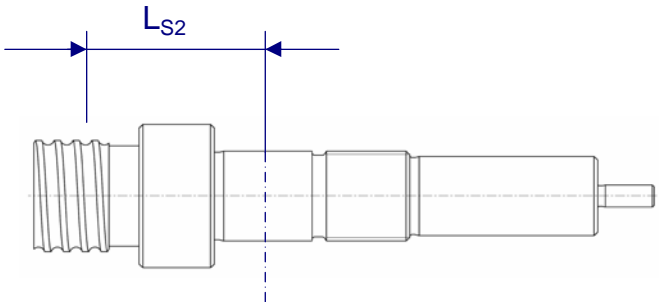
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
87		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5	71.5
		151	20	20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5	87.5
		301	40	10/12/16/20/40	87.5
		400	50	5	117.0
		401	50	10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10	131.5
		601	80	20	131.5
		602	80	20/30/40	131.5

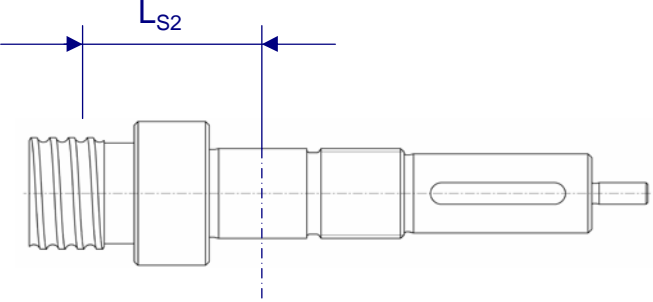
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
88		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5	71.5
		151	20	20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5	87.5
		301	40	10/12/16/20/40	87.5
		400	50	5	117.0
		401	50	10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10	131.5
		601	80	20	131.5
		602	80	20/30/40	131.5

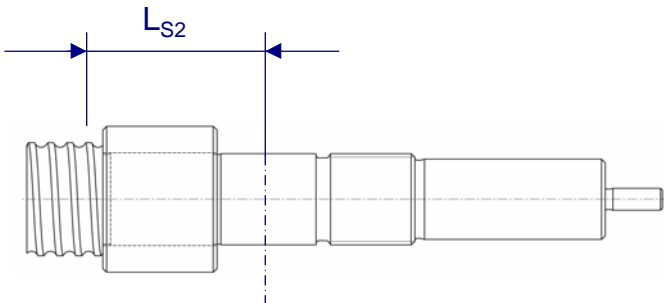
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
91		060	12	2/5/10	27.0
		100	16	5/10/16	29.0
		120	20	5/20/40	51.5
		170	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		250	40	10/12/16/20/40	67.0
		300	40	5/10/12/16/20/40	52.5
		301	50	10/12/16/20/40	77.0
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0
		600	80	10/20	71.5

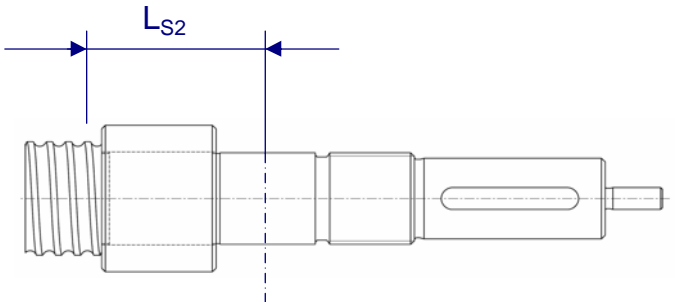
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
92		100	16	5/10/16	29.0
		120	20	5/20/40	51.5
		150	25	5/10/25	51.5
		170	25	5/10/25	51.5
		200	32	5/10/20/32	53.0
		250	40	10/12/16/20/40	67.0
		300	40	5/10/12/16/20/40	52.5
		301	50	10/12/16/20/40	77.0
		350	50	5	66.0
		400	63	10/20/40	72.0
		500	80	10/20	76.0
		600	80	10/20	71.5

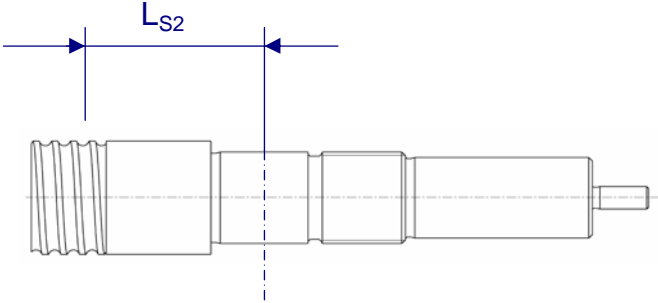


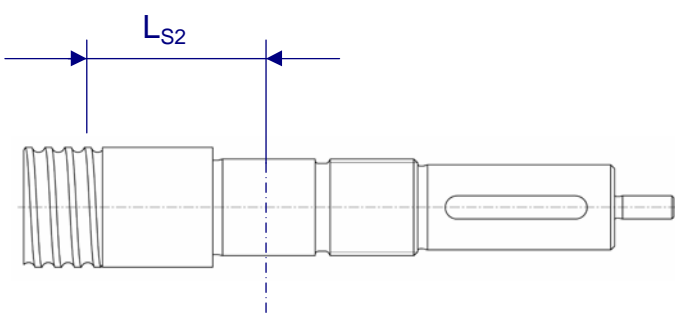
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
93		060	8	alle	45.0
		120	12	alle	54.5
		170	16	alle	54.5
		200	20	alle	76.0
		250	25	alle	76.0
		300	32	alle	80.5
		400	40	alle	90.0
		500	50	alle	104.0
		600	63	alle	104.5

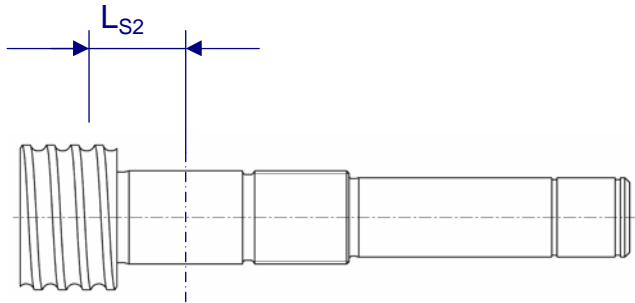
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
94		120	12	alle	54.5
		170	16	alle	54.5
		200	20	alle	76.0
		250	25	alle	76.0
		300	32	alle	80.5
		400	40	alle	90.0
		500	50	alle	104.0
		600	63	alle	104.5

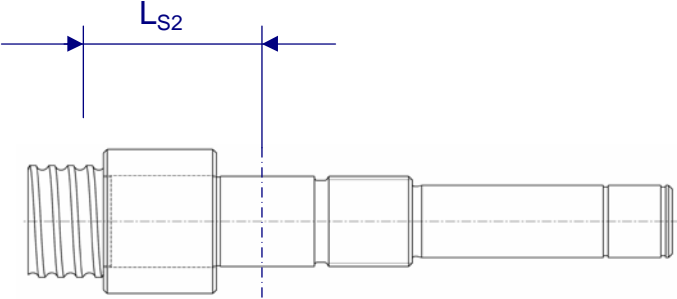
Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
95		060	8	2,5	32.0
		080	12	5/10	39,0
		120	16	5/10/16	46.5
		150	20	5/20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5/10/12/16/20/40	87.5
		400	50	5/10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10/20	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
96		080	12	alle	39.0
		120	16	alle	46.5
		150	20	alle	71.5
		200	25	alle	78.0
		250	32	alle	83.0
		300	40	alle	87.5
		400	50	alle	117.0
		500	63	alle	126.0
		600	80	alle	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
97		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5	71.5
		151	20	20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5	87.5
		301	40	10/12/16/20/40	87.5
		400	50	5	117.0
		401	50	10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10	131.5
		601	80	20	131.5
		602	80	20/30/40	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
98		080	12	5/10	39.0
		120	16	5/10/16	46.5
		150	20	5	71.5
		151	20	20	71.5
		200	25	5/10/25	78.0
		250	32	5/10/20/32	83.0
		300	40	5	87.5
		301	40	10/12/16/20/40	87.5
		400	50	5	117.0
		401	50	10/12/16/20/40	117.0
		500	63	10/20/40	126.0
		600	80	10	131.5
		601	80	20	131.5
		602	80	20/30/40	131.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread $L_{S2}$ [mm]
			$d_0$ [mm]	P [mm]	
101		120	20	5/20	51.5
		121	20	5/20	51.5
		122	25	5/10/25	51.5

Form	Figure	Version	Dimensions		Distance centre of rotation bearing to usable thread L <sub>S2</sub> [mm]
			d <sub>0</sub> [mm]	P [mm]	
105		120	16	5/10/16	41.5
		121	16	5/10/16	41.5
		122	16	5/10/16	41.5
		123	16	5/10/16	41.5