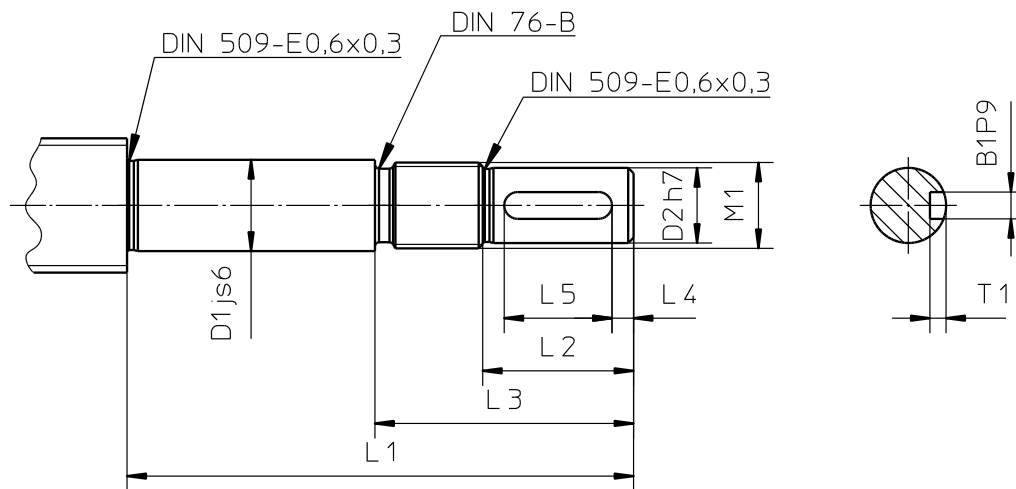


Standard end machining for floating bearings and fixed bearings

The bearing arrangement and hence also the spindle end is a significant factor for the quality of the ball screw. This applies particularly in respect of torsional vibration and buckling characteristics of the drive. We list below our standard ends for our ball screws. In some cases these are turned directly on to the end of the ball screw spindle (form A); or if a larger spindle diameter is required are also bonded on using a modern high-strength adhesive process (form B). Customer-specific shaft ends to the customer's drawing are available on request.

Standard spindle end Form A

Spindle end is annealed, shaft end is turned

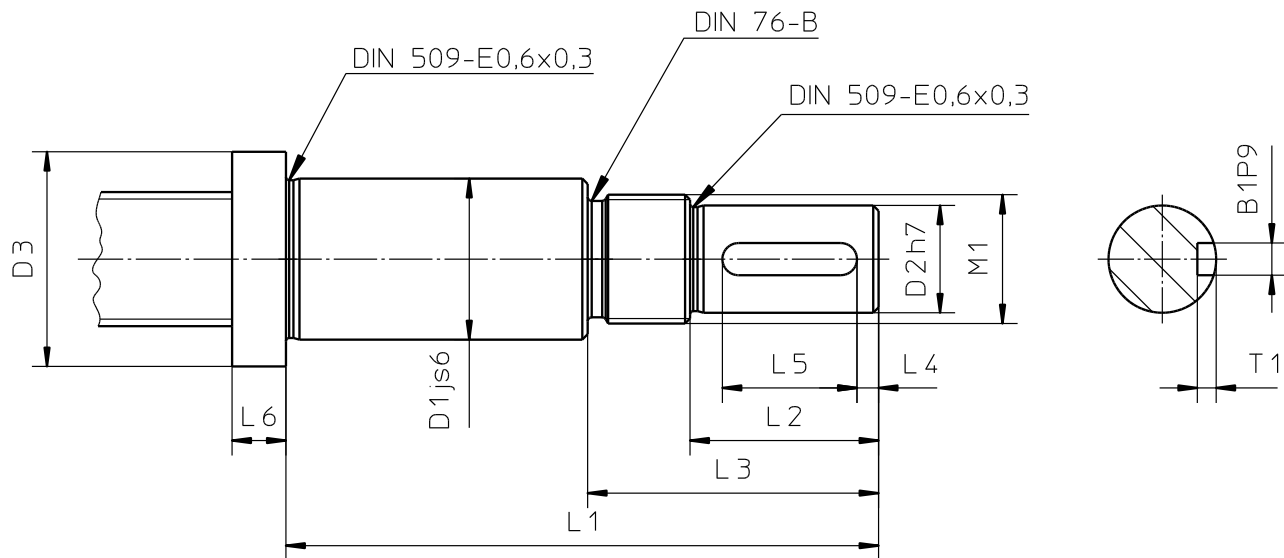


Spindle nominal-Ø	D1	D2	M1	L1	L2	L3	L4	L5	B1	T1
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
20	15	12	14x1.5	76	24	42	3	14	4	2.5
	15	12	14x1.5	78	24	41	3	14	4	2.5
	17	14	16x1.5	94	28	48	4	20	5	3.0
25	17	14	16x1.5	94	28	48	4	20	5	3.0
	20	16	18x1.5	104	30	50	4	20	5	3.0
32	25	20	24x1.5	110	33	52	4	25	6	3.5
	25	20	24x1.5	116	31	53	4	25	6	3.5

(Shaft ends with non-standard parameters or to customer's drawing on request.)

Standard spindle end Form B

The spindle end is bonded to the spindle with a high-strength adhesive joint



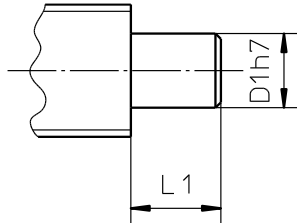
Spindle nominal-Ø	D1	D2	D3	M1	L1	L2	L3	L4	L5	L6	B1	T1
[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
12 *	10	8	14	10x1	67	20	32	3	14	3	2	1.2
16 *	15	12	20	14x1.5	69	20	36	3	14	16	4	2.5
	25	14	28	24x1.5	89	30	50	4	20	4	5	3.0
20	25	16	32	24x1.5	104	30	50	4	20	12	5	3.0
25	30	20	40	24x1.5	110	35	54	4	25	10	6	3.5
32 *	30	24	40	28x1.5	126	51	74	5	30	9	8	4.0
	40	24	50	35x1.5	134	41	67	5	30	12	8	4.0

* The stub end is machined prior to bonding to the spindle.

(Shaft ends with non-standard parameters or to customer's drawing on request.)

Standard spindle end Form C

Spindle end is annealed, shaft end is turned

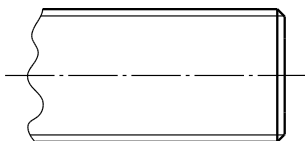


Spindle nominal-Ø	D1	L1
[mm]	[mm]	[mm]
12	5	7.0
16	8	9.0
20	12	9.5
	15	13.0
25	15	14.0
32	15	14.0
	25	17.0

(Shaft ends with non-standard parameters or to customer's drawing on request.)

Standard spindle end Form X

Separated and chamfered



Standard spindle end Form G

Spindle end separated and annealed to length