



The choice between different types of lead screws and lead screw nuts available is generally made after taking into account the following factors.

Choice of the screw

Working environment

For work environments where there are no particular corrosive or oxidising agents our steel (L1320 and L1321) lead screws can be used.

Where these conditions are not met, we recommend using our stainless steel screws (L1322 and L1323) which are particularly suitable in the following cases:

- With a relative humidity of 70-80% and above.
- Immersed in water (including sea water).
- In the presence of particular corrosive agents such as chlorides. In case of highly corrosive agents please contact our Technical Department.
- In the food industry or pharmaceutical industry, where they are used with stainless steel or bronze nuts.
- Where the lead screws cannot be reached for lubrication. In particular, for lubricating "maintenance free" fittings they are coupled with plastic nuts.
- Where working temperatures are relatively high (above 200°C) - because stainless steel has a structure that is more suited to higher temperatures.

Backdrive

Irreversibility defines how much the nut can "backdrive" down the lead screw. If a nut cannot backdrive down the screw then it is irreversible. This is especially important if the lead screw and nut are being used in a vertical application i.e. in this situation no backdrive is normally acceptable.

Lead screws with a lead angle of $<2^\circ$ are completely irreversible i.e., they cannot backdrive.

Lead screws with a lead angle $>5^\circ$ but $<6^\circ$ still have a good degree of irreversibility and may in some instances exhibit some backdrive.

Lead screws with a lead angle $>6^\circ$ have zero irreversibility, therefore the nut may backdrive down the lead screw with little or no load applied.

This is important to know in vertical applications.

Choice of the nut

Working environment

Our bronze and stainless steel 303 lead screw nuts, are resistant to standard oxidizing agents that occur in various applications.

Where corrosive agents are present, please contact our Technical Department for advice.

In applications where the presence of added lubricant (grease or oil) is not allowed we recommend the use of self-lubricating plastic nuts.

The use of plastics can however be limited by the specific working conditions, therefore please consult our Technical Department should you wish. This is because plastics have excellent self-lubrication features, but at the same time have restrictions on the working temperature or moisture absorption problems, (as well as some mechanical properties that may not be suitable for the intended use).



Single start and double start

Pitch

The axial distance between threads. Pitch is equal to the lead in a single start screw.

Lead

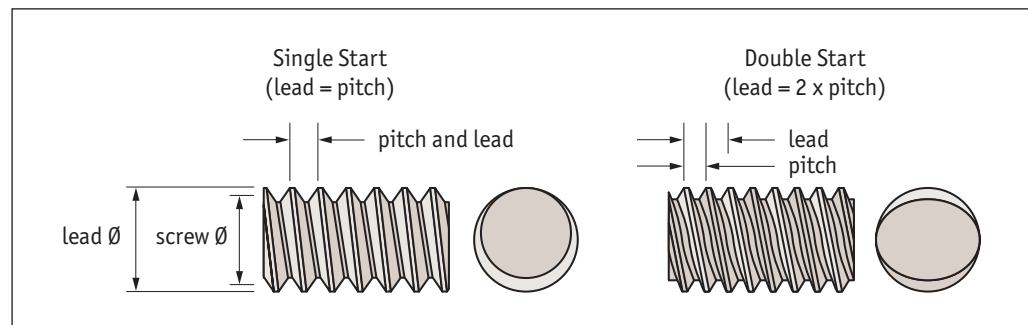
The axial distance the nut advances in one revolution of the screw. The lead is equal to the pitch times the number of starts.

$$\text{Lead} = \text{Pitch} \times \text{No. of starts}$$

For example: A 10mm diameter lead screw has a pitch of 2mm. On a single start lead screw the lead is also 2mm. On a twin start lead screw the lead is 4mm.

Screw starts

The number of independent threads on the screw shaft, example one or two.



Straightness

Automation Components lead screws are produced with controlled straightness.

Screw straightness is checked by measuring the variation of the deflection f , when the screw is supported at the ends on two fixed points and slightly rotated.

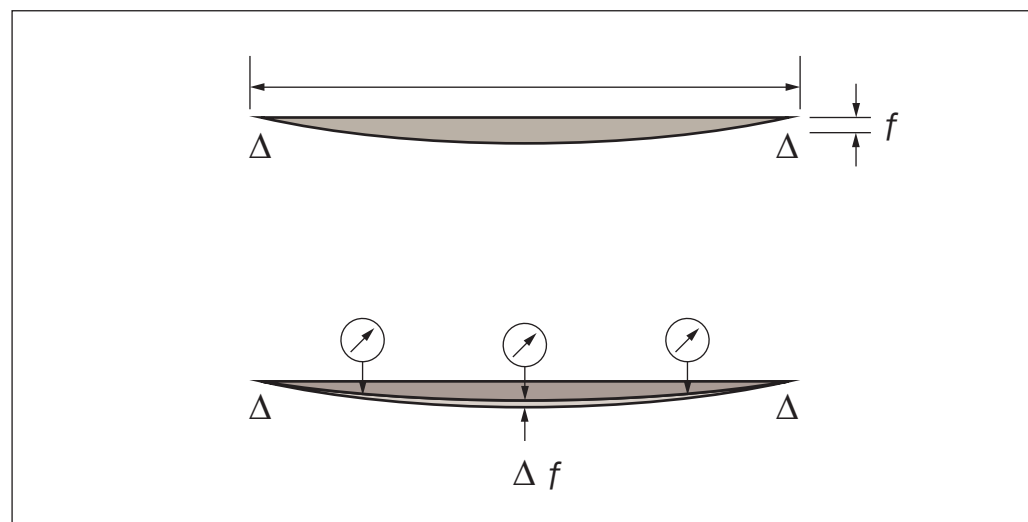
For example, the screw L1320.R30-06 has a straightness of 0.2 mm over 300 mm.

This means that a screw 30x6 300 mm long resting on two fixed points at the ends and rotated slightly displays a camber variation Δf less than 0.2 mm at all points on the screw.

Straightness

Δf = lead screw weight camber.

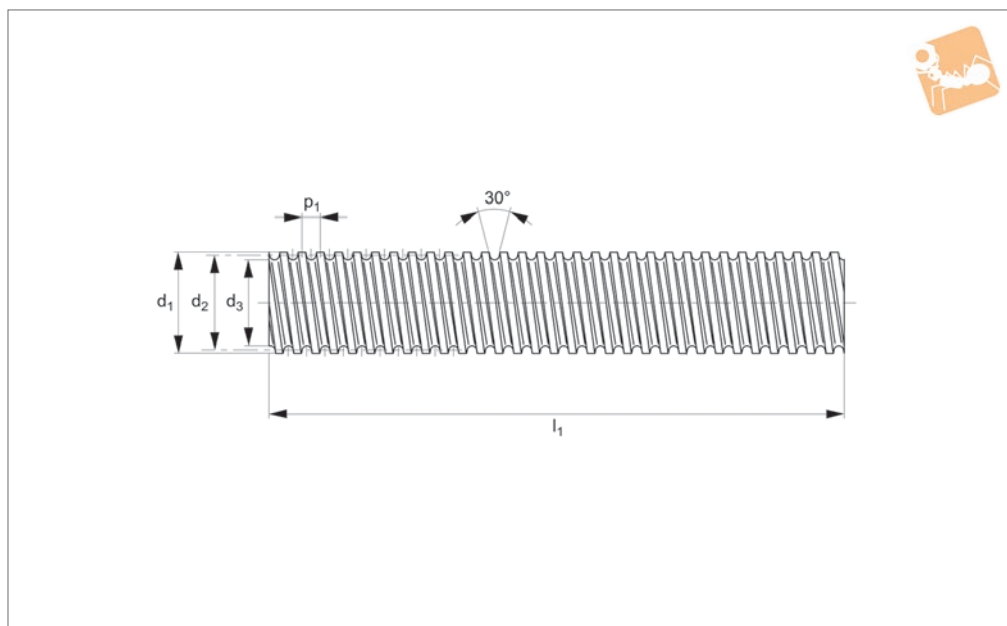
Good screw straightness gives operation with load always centred on the axis, hence uniform distribution of surface contact pressure between screw and nut. This allows smooth running and a regular rotation.





Steel Lead Screws right hand thread

Lead Screws & Nuts



L1320

LEAD SCREWS & NUTS

Material

Rolled trapezoidal thread, steel EN 10083-2 (C35, DIN 1.0501) or (C45, DIN 1.0503). Manufactured to ISO 2901/2903 (DIN 103). Surface hardness approx. 250HB.

Select a suitable lead screw nut (part nos. L1330 to L1343) to suit the lead screw - the most popular nuts are the flanged, bronze nuts part no. L1331. Single start lead screws are less expensive than twin start lead screws.

see part no. L1321.
For stainless steel right hand lead screws see part no. L1322.
Cutting to required length and machining of ends - on request.
Lead screw lengths of up to 6 metres can be provided for a diameter >30mm.

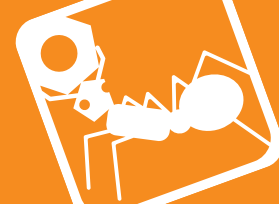
Technical Notes

'Lead' refers to the distance that a nut will travel for a complete revolution of the screw.

Tips

These are the standard right hand thread lead screws - for left hand thread versions

Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1320.R08-015-1.0	TR8x1.5	1	8	1.5	1.5	7.013	7.183	5.763	7.200	1000	3°50'	0.20	0.5	0.311
L1320.R08-015-1.5	TR8x1.5	1	8	1.5	1.5	7.013	7.183	5.763	7.200	1500	3°50'	0.20	0.5	0.466
L1320.R08-015-2.0	TR8x1.5	1	8	1.5	1.5	7.013	7.183	5.763	7.200	2000	3°50'	0.20	0.5	0.622
L1320.R08-015-3.0	TR8x1.5	1	8	1.5	1.5	7.013	7.183	5.763	7.200	3000	3°50'	0.20	0.5	0.933
L1320.R10-02-1.0	TR10x2	1	10	2	2	8.739	8.929	6.891	7.500	1000	4°07'	0.2	0.5	0.48
L1320.R10-02-1.5	TR10x2	1	10	2	2	8.739	8.929	6.891	7.500	1500	4°07'	0.2	0.5	0.72
L1320.R10-02-2.0	TR10x2	1	10	2	2	8.739	8.929	6.891	7.500	2000	4°07'	0.2	0.5	0.96
L1320.R10-02-3.0	TR10x2	1	10	2	2	8.739	8.929	6.891	7.500	3000	4°07'	0.2	0.5	1.44
L1320.R10-04-1.0	TR10x4	2	10	4	2	8.716	8.929	7.685	7.500	1000	8°12'	0.3	0.5	0.48
L1320.R10-04-1.5	TR10x4	2	10	4	2	8.716	8.929	9.685	7.500	1500	8°12'	0.3	0.5	0.72
L1320.R10-04-2.0	TR10x4	2	10	4	2	8.716	8.929	9.685	7.500	2000	8°12'	0.3	0.5	0.96
L1320.R10-04-3.0	TR10x4	2	10	4	2	8.716	8.929	9.685	7.500	3000	8°12'	0.3	0.5	1.44
L1320.R12-03-1.0	TR12x3	1	12	3	3	10.191	10.415	7.685	8.500	1000	5°17'	0.2	0.5	0.65
L1320.R12-03-1.5	TR12x3	1	12	3	3	10.191	10.415	7.685	8.500	1500	5°17'	0.2	0.5	0.97
L1320.R12-03-2.0	TR12x3	1	12	3	3	10.191	10.415	7.685	8.500	2000	5°17'	0.2	0.5	1.30
L1320.R12-03-3.0	TR12x3	1	12	3	3	10.191	10.415	7.685	8.500	3000	5°17'	0.2	0.5	1.95
L1320.R12-06-1.0	TR12x6	2	12	6	3	10.164	10.415	7.685	8.500	1000	10°30'	0.3	0.5	0.65
L1320.R12-06-1.5	TR12x6	2	12	6	3	10.164	10.415	7.685	8.500	1500	10°30'	0.3	0.5	0.97
L1320.R12-06-2.0	TR12x6	2	12	6	3	10.164	10.415	7.685	8.500	2000	10°30'	0.3	0.5	1.30
L1320.R12-06-3.0	TR12x6	2	12	6	3	10.164	10.415	7.685	8.500	3000	10°30'	0.3	0.5	1.95
L1320.R14-03-1.0	TR14x3	1	14	3	3	12.191	12.415	9.685	10.500	1000	4°26'	0.2	0.5	0.93
L1320.R14-03-1.5	TR14x3	1	14	3	3	12.191	12.415	9.685	10.500	1500	4°26'	0.2	0.5	1.39
L1320.R14-03-2.0	TR14x3	1	14	3	3	12.191	12.415	9.685	10.500	2000	4°26'	0.2	0.5	1.86
L1320.R14-03-3.0	TR14x3	1	14	3	3	12.191	12.415	9.685	10.500	3000	4°26'	0.2	0.5	2.79
L1320.R14-06-1.0	TR14x6	2	14	6	3	12.164	12.415	9.685	10.500	1000	8°49'	0.3	0.5	0.93



Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1320.R14-06-1.5	TR14x6	2	14	6	3	12,164	12,415	9,685	10,500	1500	8°49'	0,3	0,5	1,39
L1320.R14-06-2.0	TR14x6	2	14	6	3	12,164	12,415	9,685	10,500	2000	8°49'	0,3	0,5	1,86
L1320.R14-06-3.0	TR14x6	2	14	6	3	12,164	12,415	9,685	10,500	3000	8°49'	0,3	0,5	2,79
L1320.R16-04-1.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1000	5°16'	0,05	0,5	1,17
L1320.R16-04-1.5	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1500	5°16'	0,05	0,5	1,75
L1320.R16-04-2.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	2000	5°16'	0,05	0,5	2,34
L1320.R16-04-3.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	3000	5°16'	0,05	0,5	3,51
L1320.R16-08-1.0	TR16x8	2	16	8	4	13,608	13,905	10,474	11,500	1000	10°29'	0,1	0,5	1,17
L1320.R16-08-1.5	TR16x8	2	16	8	4	13,608	13,905	10,474	11,500	1500	10°29'	0,1	0,5	1,75
L1320.R16-08-2.0	TR16x8	2	16	8	4	13,608	13,905	10,474	11,500	2000	10°29'	0,1	0,5	2,34
L1320.R16-08-3.0	TR16x8	2	16	8	4	13,608	13,905	10,474	11,500	3000	10°29'	0,1	0,5	3,51
L1320.R18-04-1.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1000	4°36'	0,05	0,5	1,52
L1320.R18-04-1.5	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1500	4°36'	0,05	0,5	2,28
L1320.R18-04-2.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	2000	4°36'	0,05	0,5	3,04
L1320.R18-04-3.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	3000	4°36'	0,05	0,5	4,56
L1320.R18-08-1.0	TR18x8	2	18	8	4	15,608	15,905	12,474	13,500	1000	9°20'	0,1	0,5	1,52
L1320.R18-08-1.5	TR18x8	2	18	8	4	15,608	15,905	12,474	13,500	1500	9°20'	0,1	0,5	2,28
L1320.R18-08-2.0	TR18x8	2	18	8	4	15,608	15,905	12,474	13,500	2000	9°20'	0,1	0,5	3,04
L1320.R18-08-3.0	TR18x8	2	18	8	4	15,608	15,905	12,474	13,500	3000	9°20'	0,1	0,5	4,56
L1320.R20-04-1.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1000	4°05'	0,05	0,5	1,94
L1320.R20-04-1.5	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1500	4°05'	0,05	0,5	2,91
L1320.R20-04-2.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	2000	4°05'	0,05	0,5	3,88
L1320.R20-04-3.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	3000	4°05'	0,05	0,5	5,82
L1320.R20-08-1.0	TR20x8	2	20	8	4	17,608	17,905	14,474	15,500	1000	8°09'	0,1	0,5	1,94
L1320.R20-08-1.5	TR20x8	2	20	8	4	17,608	17,905	14,474	15,500	1500	8°09'	0,1	0,5	2,91
L1320.R20-08-2.0	TR20x8	2	20	8	4	17,608	17,905	14,474	15,500	2000	8°09'	0,1	0,5	3,88
L1320.R20-08-3.0	TR20x8	2	20	8	4	17,608	17,905	14,474	15,500	3000	8°09'	0,1	0,5	5,82
L1320.R22-05-1.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1000	4°43'	0,05	0,2	2,29
L1320.R22-05-1.5	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1500	4°43'	0,05	0,2	3,43
L1320.R22-05-2.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	2000	4°43'	0,05	0,2	4,58
L1320.R22-05-3.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	3000	4°43'	0,05	0,2	6,87
L1320.R22-10-1.0	TR22x10	2	22	10	5	19,058	19,394	15,294	16,500	1000	9°23'	0,2	0,3	2,29
L1320.R22-10-1.5	TR22x10	2	22	10	5	19,058	19,394	15,294	16,500	1500	9°23'	0,2	0,3	3,43
L1320.R22-10-2.0	TR22x10	2	22	10	5	19,058	19,394	15,294	16,500	2000	9°23'	0,2	0,3	4,58
L1320.R22-10-3.0	TR22x10	2	22	10	5	19,058	19,394	15,294	16,500	3000	9°23'	0,2	0,3	6,87
L1320.R24-05-1.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1000	4°17'	0,05	0,2	2,78
L1320.R24-05-1.5	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1500	4°17'	0,05	0,2	4,17
L1320.R24-05-2.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	2000	4°17'	0,05	0,2	5,56
L1320.R24-05-3.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	3000	4°17'	0,05	0,2	8,34
L1320.R24-10-1.0	TR24x10	2	24	10	5	21,058	21,394	17,269	18,500	1000	8°31'	0,2	0,3	2,78
L1320.R24-10-1.5	TR24x10	2	24	10	5	21,094	21,394	17,269	18,500	1500	8°31'	0,2	0,3	4,17
L1320.R24-10-2.0	TR24x10	2	24	10	5	21,094	21,394	17,269	18,500	2000	8°31'	0,2	0,3	5,56
L1320.R24-10-3.0	TR24x10	2	24	10	5	21,094	21,394	17,269	18,500	3000	8°31'	0,2	0,3	8,34
L1320.R26-05-1.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	1000	3°55'	0,05	0,2	3,32
L1320.R26-05-1.5	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	1500	3°55'	0,05	0,2	4,98
L1320.R26-05-2.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	2000	3°55'	0,05	0,2	6,64
L1320.R26-05-3.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	13000	3°55'	0,05	0,2	9,96
L1320.R26-10-1.0	TR26x10	2	26	10	5	23,058	23,394	19,269	20,500	1000	7°48'	0,2	0,3	3,32
L1320.R26-10-1.5	TR26x10	2	26	10	5	23,094	23,394	19,269	20,500	1500	7°48'	0,2	0,3	4,98
L1320.R26-10-2.0	TR26x10	2	26	10	5	23,094	23,394	19,269	20,500	2000	7°48'	0,2	0,3	6,64
L1320.R26-10-3.0	TR26x10	2	26	10	5	23,094	23,394	19,269	20,500	3000	7°48'	0,2	0,3	9,96
L1320.R28-05-1.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1000	3°36'	0,05	0,2	3,90
L1320.R28-05-1.5	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1500	3°36'	0,05	0,2	5,85
L1320.R28-05-2.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	2000	3°36'	0,05	0,2	7,8
L1320.R28-05-3.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	3000	3°36'	0,05	0,2	11,7
L1320.R28-10-1.0	TR28x10	2	28	10	5	25,058	25,394	21,269	22,500	1000	7°12'	0,2	0,3	3,90
L1320.R28-10-1.5	TR28x10	2	28	10	5	25,094	25,394	21,269	22,500	1500	7°12'	0,2	0,3	5,85
L1320.R28-10-2.0	TR28x10	2	28	10	5	25,094	25,394	21,269	22,500	2000	7°12'	0,2	0,3	7,80
L1320.R28-10-3.0	TR28x10	2	28	10	5	25,094	25,394	21,269	22,500	3000	7°12'	0,2	0,3	11,7
L1320.R30-06-1.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1000	4°05'	0,07	0,2	4,35
L1320.R30-06-1.5	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1500	4°05'	0,07	0,2	6,52
L1320.R30-06-2.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	2000	4°05'	0,07	0,2	8,70
L1320.R30-06-3.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	3000	4°05'	0,07	0,2	13,05
L1320.R30-12-1.0	TR30x12	2	30	12	6	26,058	26,882	21,563	23,000	1000	8°08'	0,2	0,3	4,35
L1320.R30-12-1.5	TR30x12	2	30	12	6	26,547	26,882	21,563	23,000	1500	8°08'	0,2	0,3	6,52
L1320.R30-12-2.0	TR30x12	2	30	12	6	26,547	26,882	21,563	23,000	2000	8°08'	0,2	0,3	8,70



Steel Lead Screws right hand thread

Lead Screws & Nuts

Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1320.R30-12-3.0	TR30x12	2	30	12	6	26,547	26,882	21,563	23,000	3000	8°08'	0,2	0,3	13,05
L1320.R32-06-1.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1000	3°48'	0,07	0,2	5,03
L1320.R32-06-1.5	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1500	3°48'	0,07	0,2	7,54
L1320.R32-06-2.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	2000	3°48'	0,07	0,2	10,06
L1320.R32-06-3.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	3000	3°48'	0,07	0,2	15,09
L1320.R32-12-1.0	TR32x12	2	32	12	6	28,507	28,882	23,563	25,000	1000	7°34'	0,2	0,3	5,03
L1320.R32-12-1.5	TR32x12	2	32	12	6	28,547	28,882	23,563	25,000	1500	7°34'	0,2	0,3	7,54
L1320.R32-12-2.0	TR32x12	2	32	12	6	28,547	28,882	23,563	25,000	2000	7°34'	0,2	0,3	10,06
L1320.R32-12-3.0	TR32x12	2	32	12	6	28,547	28,882	23,563	25,000	3000	7°34'	0,2	0,3	15,09
L1320.R36-06-1.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1000	3°20'	0,07	0,2	6,54
L1320.R36-06-1.5	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1500	3°20'	0,07	0,2	9,81
L1320.R36-06-2.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	2000	3°20'	0,07	0,2	13,08
L1320.R36-06-3.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	3000	3°20'	0,07	0,2	19,62
L1320.R36-12-1.0	TR36x12	2	36	12	6	32,507	32,882	27,563	29,000	1000	6°39'	0,2	0,3	6,54
L1320.R36-12-1.5	TR36x12	2	36	12	6	32,547	32,882	27,563	29,000	1500	6°39'	0,2	0,3	9,81
L1320.R36-12-2.0	TR36x12	2	36	12	6	32,547	32,882	27,563	29,000	2000	6°39'	0,2	0,3	13,08
L1320.R36-12-3.0	TR36x12	2	36	12	6	32,547	32,882	27,563	29,000	3000	6°39'	0,2	0,3	19,62
L1320.R40-07-1.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1000	3°31'	0,08	0,2	7,98
L1320.R40-07-1.5	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1500	3°31'	0,08	0,2	11,97
L1320.R40-07-2.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	2000	3°31'	0,08	0,2	15,96
L1320.R40-07-3.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	3000	3°31'	0,08	0,2	23,94
L1320.R40-14-1.0	TR40x14	2	40	14	7	35,977	36,375	30,381	32,000	1000	7°01'	0,2	0,3	7,98
L1320.R40-14-1.5	TR40x14	2	40	14	7	36,020	36,375	30,381	32,000	1500	7°01'	0,2	0,3	11,97
L1320.R40-14-2.0	TR40x14	2	40	14	7	36,020	36,375	30,381	32,000	2000	7°01'	0,2	0,3	15,96
L1320.R40-14-3.0	TR40x14	2	40	14	7	36,020	36,375	30,381	32,000	3000	7°01'	0,2	0,3	23,94
L1320.R44-07-1.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	1000	3°10'	0,08	0,2	9,85
L1320.R44-07-1.5	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	1500	3°10'	0,08	0,2	14,78
L1320.R44-07-2.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	2000	3°10'	0,08	0,2	19,70
L1320.R44-07-3.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	3000	3°10'	0,08	0,2	29,55
L1320.R44-14-1.0	TR44x14	2	44	14	7	39,977	40,375	34,381	36,000	1000	6°20'	0,2	0,3	9,85
L1320.R44-14-1.5	TR44x14	2	44	14	7	39,977	40,375	34,381	36,000	1500	6°20'	0,2	0,3	14,78
L1320.R44-14-2.0	TR44x14	2	44	14	7	39,977	40,375	34,381	36,000	2000	6°20'	0,2	0,3	19,70
L1320.R44-14-3.0	TR44x14	2	44	14	7	39,977	40,375	34,381	36,000	3000	6°20'	0,2	0,3	29,55
L1320.R50-08-1.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1000	3°11'	0,1	0,2	12,69
L1320.R50-08-1.5	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1500	3°11'	0,1	0,2	19,03
L1320.R50-08-2.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	2000	3°11'	0,1	0,2	25,38
L1320.R50-08-3.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	3000	3°11'	0,1	0,2	38,07
L1320.R55-09-1.0	TR55x9	1	55	9	9	49,935	50,360	42,979	45,000	1000	3°16'	0,1	0,2	15,40
L1320.R55-09-1.5	TR55x9	1	55	9	9	49,935	50,360	42,979	45,000	1500	3°16'	0,1	0,2	23,10
L1320.R55-09-2.0	TR55x9	1	55	9	9	49,935	50,360	42,979	45,000	2000	3°16'	0,1	0,2	30,80
L1320.R55-09-3.0	TR55x9	1	55	9	9	49,935	50,360	42,979	45,000	3000	3°16'	0,1	0,2	46,20
L1320.R60-09-1.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1000	2°58'	0,1	0,2	18,49
L1320.R60-09-1.5	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1500	2°58'	0,1	0,2	27,73
L1320.R60-09-2.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	2000	2°58'	0,1	0,2	36,98
L1320.R60-09-3.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	3000	2°58'	0,1	0,2	55,47
L1320.R70-10-1.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1000	2°49'	0,1	0,4	25,62
L1320.R70-10-1.5	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1500	2°49'	0,1	0,4	38,43
L1320.R70-10-2.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	2000	2°49'	0,1	0,4	51,24
L1320.R70-10-3.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	3000	2°49'	0,1	0,4	76,86
L1320.R80-10-1.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	1000	2°27'	0,1	0,4	34,18
L1320.R80-10-1.5	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	1500	2°27'	0,1	0,4	51,27
L1320.R80-10-2.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	2000	2°27'	0,1	0,4	68,36
L1320.R80-10-3.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	3000	2°27'	0,1	0,4	102,54
L1320.R90-12-1.0	TR90x12	1	90	12	12	83,365	83,840	74,446	77,000	1000	2°36'	0,2	0,5	43,00
L1320.R90-12-1.5	TR90x12	1	90	12	12	83,365	83,840	74,446	77,000	1500	2°36'	0,2	0,5	64,50
L1320.R90-12-2.0	TR90x12	1	90	12	12	83,365	83,840	74,446	77,000	2000	2°36'	0,2	0,5	86,00
L1320.R90-12-3.0	TR90x12	1	90	12	12	83,365	83,840	74,446	77,000	3000	2°36'	0,2	0,5	129,00
L1320.R95-16-1.0	TR95x16	1	95	16	16	86,250	86,810	73,710	77,000	1000	3°22'	0,2	1,0	45,60
L1320.R95-16-1.5	TR95x16	1	95	16	16	86,250	86,810	73,710	77,000	1500	3°22'	0,2	1,0	68,40
L1320.R95-16-2.0	TR95x16	1	95	16	16	86,250	86,810	73,710	77,000	2000	3°22'	0,2	1,0	91,20
L1320.R95-16-3.0	TR95x16	1	95	16	16	86,250	86,810	73,710	77,000	3000	3°22'	0,2	1,0	136,80
L1320.R100-16-1.0	TR100x16	1	100	16	16	91,250	91,810	78,710	82,000	1000	3°11'	0,2	1,0	51,00
L1320.R100-16-1.5	TR100x16	1	100	16	16	91,250	91,810	78,710	82,000	1500	3°11'	0,2	1,0	76,50
L1320.R100-16-2.0	TR100x16	1	100	16	16	91,250	91,810	78,710	82,000	2000	3°11'	0,2	1,0	102,00
L1320.R100-16-3.0	TR100x16	1	100	16	16	91,250	91,810	78,710	82,000	3000	3°11'	0,2	1,0	153,00
L1320.R120-16-1.0	TR120x16	1	120	16	16	111,25	111,81	98,710	102,00	1000	2°36'	0,2	1,0	76,00

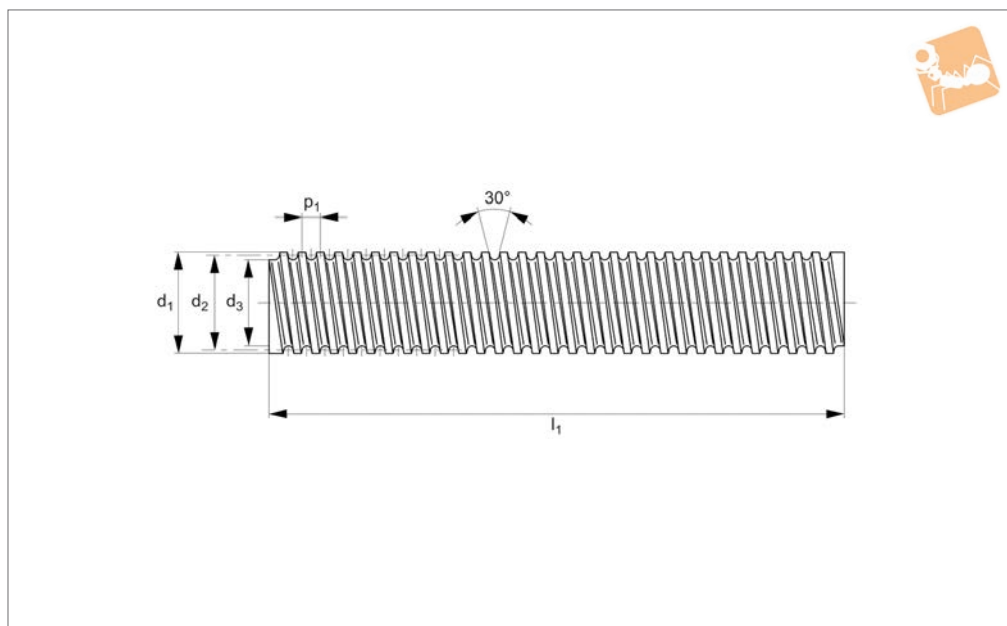


Order No.	Size	No. of starts	d_1 tol. 7e	Lead	p_1	d_2 tol. 7e min.	d_2 tol. 7e max.	d_3 tol. 7h min.	d_3 tol. 7h max.	l_1	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1320.R120-16-1.5	TR120x16	1	120	16	16	111,25	111,81	98,710	102,00	1500	2°36'	0,2	1,0	114,00
L1320.R120-16-2.0	TR120x16	1	120	16	16	111,25	111,81	98,710	102,00	2000	2°36'	0,2	1,0	152,00
L1320.R120-16-3.0	TR120x16	1	120	16	16	111,25	111,81	98,710	102,00	3000	2°36'	0,2	1,0	228,00



Steel Lead Screws left hand thread

Lead Screws & Nuts



L1321

LEAD SCREWS & NUTS

Material

Rolled trapezoidal thread, steel EN 10083-2 (C35, DIN 1.0501) or (C45, DIN 1.0503). Manufactured to ISO 2901/2903 (DIN 103). Surface hardness approx. 250HB.

Technical Notes

'Lead' refers to the distance that a nut will travel for a complete revolution of the screw.

Select a suitable lead screw nut (part nos. L1330 to L1343) to suit the lead screw - the most popular nuts are the flanged, bronze nuts part no. L1331. Single start lead screws are less expensive than twin start lead screws.

Tips

These are left hand thread lead screws - for the standard right hand threads see part

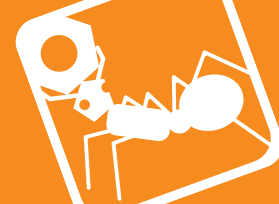
no. L1320.

For stainless steel left hand lead screws see part no. L1323.

Cutting to required length and machining of ends - on request.

Lead screw lengths of up to 6 metres can be provided for a diameter >30mm.

Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1321.L10-02-1.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	1000	4°07'	0,2	0.5	0,48
L1321.L10-02-1.5	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	1500	4°07'	0,2	0.5	0,72
L1321.L10-02-2.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	2000	4°07'	0,2	0.5	0,96
L1321.L10-02-3.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	3000	4°07'	0,2	0.5	1,44
L1321.L12-03-1.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1000	5°17'	0,2	0.5	0,65
L1321.L12-03-1.5	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1500	5°17'	0,2	0.5	0,97
L1321.L12-03-2.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	2000	5°17'	0,2	0.5	1,30
L1321.L12-03-3.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	3000	5°17'	0,2	0.5	1,95
L1321.L14-03-1.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	1000	4°26'	0,2	0.5	0,93
L1321.L14-03-1.5	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	1500	4°26'	0,2	0.5	1,39
L1321.L14-03-2.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	2000	4°26'	0,2	0.5	1,86
L1321.L14-03-3.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	3000	4°26'	0,2	0.5	2,79
L1321.L16-04-1.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1000	5°16'	0,05	0.5	1,17
L1321.L16-04-1.5	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1500	5°16'	0,05	0.5	1,75
L1321.L16-04-2.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	2000	5°16'	0,05	0.5	2,34
L1321.L16-04-3.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	3000	5°16'	0,05	0.5	3,51
L1321.L18-04-1.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1000	4°36'	0,05	0.5	1,52
L1321.L18-04-1.5	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1500	4°36'	0,05	0.5	2,28
L1321.L18-04-2.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	2000	4°36'	0,05	0.5	3,04
L1321.L18-04-3.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	3000	4°36'	0,05	0.5	4,56
L1321.L20-04-1.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1000	4°05'	0,05	0.5	1,94
L1321.L20-04-1.5	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1500	4°05'	0,05	0.5	2,91
L1321.L20-04-2.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	2000	4°05'	0,05	0.5	3,88
L1321.L20-04-3.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	3000	4°05'	0,05	0.5	5,82
L1321.L22-05-1.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1000	4°43'	0,05	0.2	2,29



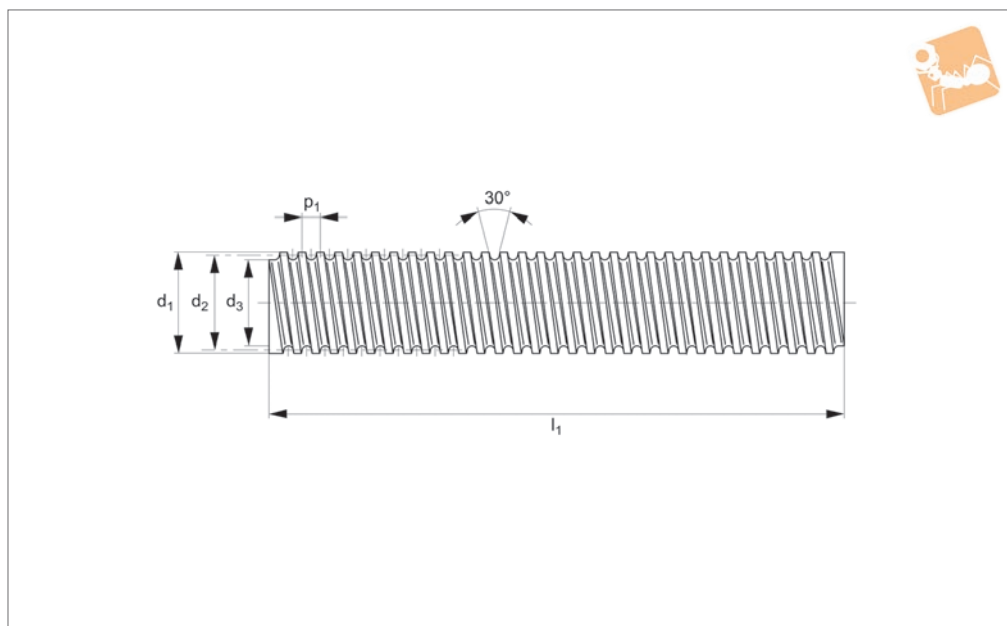
Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1321.L22-05-1.5	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1500	4°43'	0,05	0.2	3,43
L1321.L22-05-2.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	2000	4°43'	0,05	0.2	4,58
L1321.L22-05-3.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	3000	4°43'	0,05	0.2	6,87
L1321.L24-05-1.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1000	4°17'	0,05	0.2	2,78
L1321.L24-05-1.5	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1500	4°17'	0,05	0.2	4,17
L1321.L24-05-2.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	2000	4°17'	0,05	0.2	5,56
L1321.L24-05-3.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	3000	4°17'	0,05	0.2	8,34
L1321.L26-05-1.0	TR26x5	1	26	5	5	23,094	23,394	19,269	25,500	1000	3°55'	0,05	0.2	3,32
L1321.L26-05-1.5	TR26x5	1	26	5	5	23,094	23,394	19,269	25,500	1500	3°55'	0,05	0.2	4,98
L1321.L26-05-2.0	TR26x5	1	26	5	5	23,094	23,394	19,269	25,500	2000	3°55'	0,05	0.2	6,64
L1321.L26-05-3.0	TR26x5	1	26	5	5	23,094	23,394	19,269	25,500	3000	3°55'	0,05	0.2	9,96
L1321.L28-05-1.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1000	3°36'	0,05	0.2	3,90
L1321.L28-05-1.5	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1500	3°36'	0,05	0.2	5,85
L1321.L28-05-2.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	2000	3°36'	0,05	0.2	7,80
L1321.L28-05-3.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	3000	3°36'	0,05	0.2	11,7
L1321.L30-06-1.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1000	4°05'	0,07	0.2	4,35
L1321.L30-06-1.5	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1500	4°05'	0,07	0.2	6,52
L1321.L30-06-2.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	2000	4°05'	0,07	0.2	8,70
L1321.L30-06-3.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	3000	4°05'	0,07	0.2	13,05
L1321.L32-06-1.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1000	3°48'	0,07	0.2	5,03
L1321.L32-06-1.5	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1500	3°48'	0,07	0.2	7,54
L1321.L32-06-2.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	2000	3°48'	0,07	0.2	10,06
L1321.L32-06-3.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	3000	3°48'	0,07	0.2	15,09
L1321.L36-06-1.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1000	3°20'	0,07	0.2	6,54
L1321.L36-06-1.5	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1500	3°20'	0,07	0.2	9,81
L1321.L36-06-2.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	2000	3°20'	0,07	0.2	13,08
L1321.L36-06-3.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	3000	3°20'	0,07	0.2	19,62
L1321.L40-07-1.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1000	3°31'	0,08	0.2	7,98
L1321.L40-07-1.5	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1500	3°31'	0,08	0.2	11,97
L1321.L40-07-2.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	2000	3°31'	0,08	0.2	15,96
L1321.L40-07-3.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	3000	3°31'	0,08	0.2	23,94
L1321.L44-07-1.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	1000	3°10'	0,08	0.2	9,58
L1321.L44-07-1.5	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	1500	3°10'	0,08	0.2	14,37
L1321.L44-07-2.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	2000	3°10'	0,08	0.2	19,16
L1321.L44-07-3.0	TR44x7	1	44	7	7	40,020	40,375	34,381	36,000	3000	3°10'	0,08	0.2	28,74
L1321.L50-08-1.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1000	3°11'	0,1	0.2	12,69
L1321.L50-08-1.5	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1500	3°11'	0,1	0.2	19,03
L1321.L50-08-2.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	2000	3°11'	0,1	0.2	25,38
L1321.L50-08-3.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	3000	3°11'	0,1	0.2	38,07
L1321.L60-09-1.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1000	2°58'	0,1	0.2	18,49
L1321.L60-09-1.5	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1500	2°58'	0,1	0.2	27,73
L1321.L60-09-2.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	2000	2°58'	0,1	0.2	36,98
L1321.L60-09-3.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	3000	2°58'	0,1	0.2	55,47
L1321.L70-10-1.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1000	2°49'	0,1	0.4	25,62
L1321.L70-10-1.5	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1500	2°49'	0,1	0.4	38,43
L1321.L70-10-2.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	2000	2°49'	0,1	0.4	51,24
L1321.L70-10-3.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	3000	2°49'	0,1	0.4	76,86
L1321.L80-10-1.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	1000	2°27'	0,1	0.4	34,18
L1321.L80-10-1.5	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	1500	2°27'	0,1	0.4	51,27
L1321.L80-10-2.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	2000	2°27'	0,1	0.4	68,36
L1321.L80-10-3.0	TR80x10	1	80	10	10	74,425	74,850	66,819	69,000	3000	2°27'	0,1	0.4	102,54



Stainless Lead Screws

right hand thread

Lead Screws & Nuts



L1322

LEAD SCREWS & NUTS

Material

Rolled trapezoidal thread, stainless steel (AISI 316L, A4). Resistant to nearly all types of corrosion (can be used in a wet or corrosive environment). Manufactured to ISO 2901/2093, DIN103. Surface hardness approx. 280HB.

travel for a complete revolution of the screw.

Select a suitable lead screw nut (part nos. L1330 to L1343) to suit the lead screw - the most popular nuts are the flanged, bronze nuts part no. L1331.

For left hand stainless steel threads see part no. L1323.

Cutting to required length and machining of ends - on request.

Lead screw lengths of up to 6 metres can be provided for a diameter >30mm.

Technical Notes

,Lead' refers to the distance that a nut will

Tips

Right hand thread lead screws are standard.

Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1322.R10-02-1.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	1000	4°07'	0,3	1,5	0,48
L1322.R10-02-1.5	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	1500	4°07'	0,3	1,5	0,72
L1322.R10-02-2.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	2000	4°07'	0,3	1,5	0,96
L1322.R10-02-3.0	TR10x2	1	10	2	2	8,739	8,929	6,891	7,500	3000	4°07'	0,3	1,5	1,44
L1322.R12-03-1.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1000	5°17'	0,3	1,5	0,65
L1322.R12-03-1.5	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1500	5°17'	0,3	1,5	0,97
L1322.R12-03-2.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	2000	5°17'	0,3	1,5	1,30
L1322.R12-03-3.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	3000	5°17'	0,3	1,5	1,95
L1322.R14-03-1.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	1000	4°26'	0,3	1,5	0,93
L1322.R14-03-1.5	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	1500	4°26'	0,3	1,5	1,39
L1322.R14-03-2.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	2000	4°26'	0,3	1,5	1,86
L1322.R14-03-3.0	TR14x3	1	14	3	3	12,191	12,415	9,685	10,500	3000	4°26'	0,3	1,5	2,79
L1322.R16-04-1.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1000	5°16'	0,1	1,5	1,17
L1322.R16-04-1.5	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1500	5°16'	0,1	1,5	1,75
L1322.R16-04-2.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	2000	5°16'	0,1	1,5	2,34
L1322.R16-04-3.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	3000	5°16'	0,1	1,5	3,51
L1322.R18-04-1.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1000	4°36'	0,1	1,5	1,52
L1322.R18-04-1.5	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	1500	4°36'	0,1	1,5	2,28
L1322.R18-04-2.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	2000	4°36'	0,1	1,5	3,04
L1322.R18-04-3.0	TR18x4	1	18	4	4	15,640	15,905	12,474	13,500	3000	4°36'	0,1	1,5	4,56
L1322.R20-04-1.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1000	4°05'	0,1	1,5	1,94
L1322.R20-04-1.5	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1500	4°05'	0,1	1,5	2,91
L1322.R20-04-2.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	2000	4°05'	0,1	1,5	3,88
L1322.R20-04-3.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	3000	4°05'	0,1	1,5	5,82
L1322.R22-05-1.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1000	4°43'	0,1	1,5	2,29



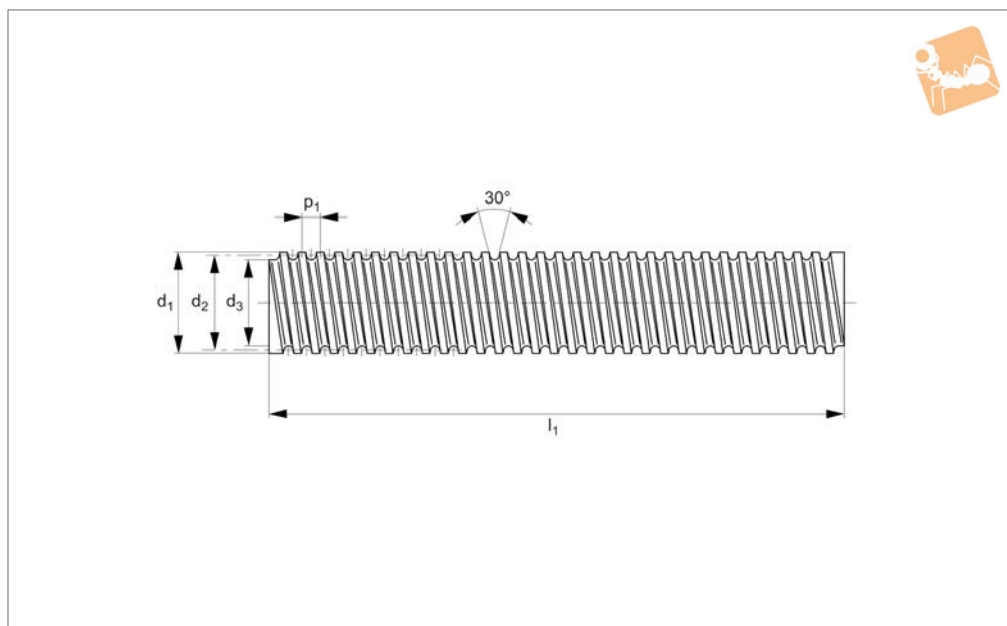
Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1322.R22-05-1.5	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	1500	4°43'	0.1	1.5	3,43
L1322.R22-05-2.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	2000	4°43'	0.1	1.5	4,58
L1322.R22-05-3.0	TR22x5	1	22	5	5	19,114	19,394	15,294	16,500	3000	4°43'	0.1	1.5	6,87
L1322.R24-05-1.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1000	4°17'	0.1	1.5	2,78
L1322.R24-05-1.5	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1500	4°17'	0.1	1.5	4,17
L1322.R24-05-2.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	2000	4°17'	0.1	1.5	5,56
L1322.R24-05-3.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	3000	4°17'	0.1	1.5	8,34
L1322.R26-05-1.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	1000	3°55'	0.1	1.5	3,32
L1322.R26-05-1.5	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	1500	3°55'	0.1	1.5	4,98
L1322.R26-05-2.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	2000	3°55'	0.1	1.5	6,64
L1322.R26-05-3.0	TR26x5	1	26	5	5	23,094	23,394	19,269	20,500	3000	3°55'	0.1	1.5	9,96
L1322.R28-05-1.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1000	3°36'	0.1	1.5	3,90
L1322.R28-05-1.5	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	1500	3°36'	0.1	1.5	5,85
L1322.R28-05-2.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	2000	3°36'	0.1	1.5	7,80
L1322.R28-05-3.0	TR28x5	1	28	5	5	25,094	25,394	21,269	22,500	3000	3°36'	0.1	1.5	11,7
L1322.R30-06-1.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1000	4°05'	0.1	1.5	4,35
L1322.R30-06-1.5	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1500	4°05'	0.1	1.5	6,52
L1322.R30-06-2.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	2000	4°05'	0.1	1.5	8,70
L1322.R30-06-3.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	3000	4°05'	0.1	1.5	13,05
L1322.R32-06-1.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1000	3°48'	0.1	1.5	5,03
L1322.R32-06-1.5	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1500	3°48'	0.1	1.5	7,54
L1322.R32-06-2.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	2000	3°48'	0.1	1.5	10,06
L1322.R32-06-3.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	3000	3°48'	0.1	1.5	15,09
L1322.R36-06-1.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1000	3°20'	0.1	1.5	6,54
L1322.R36-06-1.5	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1500	3°20'	0.1	1.5	9,81
L1322.R36-06-2.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	2000	3°20'	0.1	1.5	13,08
L1322.R36-06-3.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	3000	3°20'	0.1	1.5	19,62
L1322.R40-07-1.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1000	3°31'	0.015	1.5	7,98
L1322.R40-07-1.5	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1500	3°31'	0.015	1.5	11,97
L1322.R40-07-2.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	2000	3°31'	0.015	1.5	15,96
L1322.R40-07-3.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	3000	3°31'	0.015	1.5	23,94
L1322.R50-08-1.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1000	3°11'	0.015	0.2	12,69
L1322.R50-08-1.5	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	1500	3°11'	0.015	0.2	19,03
L1322.R50-08-2.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	2000	3°11'	0.015	0.2	25,38
L1322.R50-08-3.0	TR50x8	1	50	8	8	45,468	45,868	39,168	41,000	3000	3°11'	0.015	0.2	38,07
L1322.R60-09-1.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1000	2°58'	0.015	0.2	18,49
L1322.R60-09-1.5	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1500	2°58'	0.015	0.2	27,73
L1322.R60-09-2.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	2000	2°58'	0.015	0.2	36,98
L1322.R60-09-3.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	3000	2°58'	0.015	0.2	55,47
L1322.R70-10-1.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1000	2°49'	0.015	0.2	25,62
L1322.R70-10-1.5	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1500	2°49'	0.015	0.2	38,43
L1322.R70-10-2.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	2000	2°49'	0.015	0.2	51,24
L1322.R70-10-3.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	3000	2°49'	0.015	0.2	76,86



Stainless Lead Screws

left hand thread

Lead Screws & Nuts



L1323

LEAD SCREWS & NUTS

Material

Rolled trapezoidal thread, stainless steel (AISI 316L, A4). Resistant to nearly all types of corrosion (can be used in a wet or corrosive environment). Manufactured to ISO 2901/2093, DIN103. Surface hardness approx. 280HB.

travel for a complete revolution of the screw.

Select a suitable lead screw nut (part nos. L1330 to L1343) to suit the lead screw - the most popular nuts are the flanged, bronze nuts part no. L1331.

lead screws.

For the standard right hand threads in stainless steel see part no. L1322.

Cutting to required length and machining of ends - on request.

Lead screw lengths of up to 6 metres can be provided for a diameter >30mm.

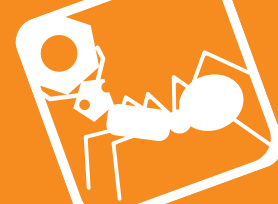
Technical Notes

,Lead' refers to the distance that a nut will

Tips

These are stainless steel left hand thread

Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1323.L12-03-1.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1000	5°17'	0,3	0,5	0,65
L1323.L12-03-1.5	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	1500	5°17'	0,3	0,5	0,97
L1323.L12-03-2.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	2000	5°17'	0,3	0,5	1,30
L1323.L12-03-3.0	TR12x3	1	12	3	3	10,191	10,415	7,685	8,500	3000	5°17'	0,3	0,5	1,95
L1323.L16-04-1.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1000	5°16'	0,2	0,1	1,17
L1323.L16-04-1.5	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	1500	5°16'	0,2	0,1	1,75
L1323.L16-04-2.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	2000	5°16'	0,2	0,1	2,34
L1323.L16-04-3.0	TR16x4	1	16	4	4	13,640	13,905	10,474	11,500	3000	5°16'	0,2	0,1	3,51
L1323.L20-04-1.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1000	4°05'	0,2	0,1	1,94
L1323.L20-04-1.5	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	1500	4°05'	0,2	0,1	2,91
L1323.L20-04-2.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	2000	4°05'	0,2	0,1	3,88
L1323.L20-04-3.0	TR20x4	1	20	4	4	17,640	17,905	14,474	15,500	3000	4°05'	0,2	0,1	5,82
L1323.L24-05-1.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1000	4°17'	0,5	0,1	2,78
L1323.L24-05-1.5	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	1500	4°17'	0,5	0,1	4,17
L1323.L24-05-2.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	2000	4°17'	0,5	0,1	5,56
L1323.L24-05-3.0	TR24x5	1	24	5	5	21,094	21,394	17,269	18,500	3000	4°17'	0,5	0,1	8,34
L1323.L30-06-1.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1000	4°05'	0,5	0,1	4,35
L1323.L30-06-1.5	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	1500	4°05'	0,5	0,1	6,52
L1323.L30-06-2.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	2000	4°05'	0,5	0,1	8,70
L1323.L30-06-3.0	TR30x6	1	30	6	6	26,547	26,882	21,563	23,000	3000	4°05'	0,5	0,1	13,05
L1323.L32-06-1.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1000	3°48'	0,5	0,1	5,03
L1323.L32-06-1.5	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	1500	3°48'	0,5	0,1	7,54
L1323.L32-06-2.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	2000	3°48'	0,5	0,1	10,06
L1323.L32-06-3.0	TR32x6	1	32	6	6	28,547	28,882	23,563	25,000	3000	3°48'	0,5	0,1	15,09
L1323.L36-06-1.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1000	3°20'	0,5	0,1	6,54
L1323.L36-06-1.5	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	1500	3°20'	0,5	0,1	9,81

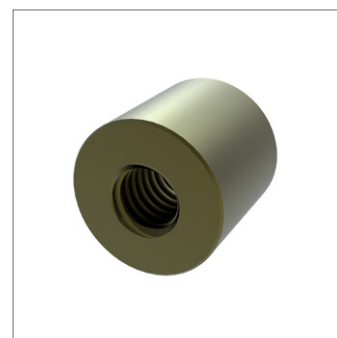
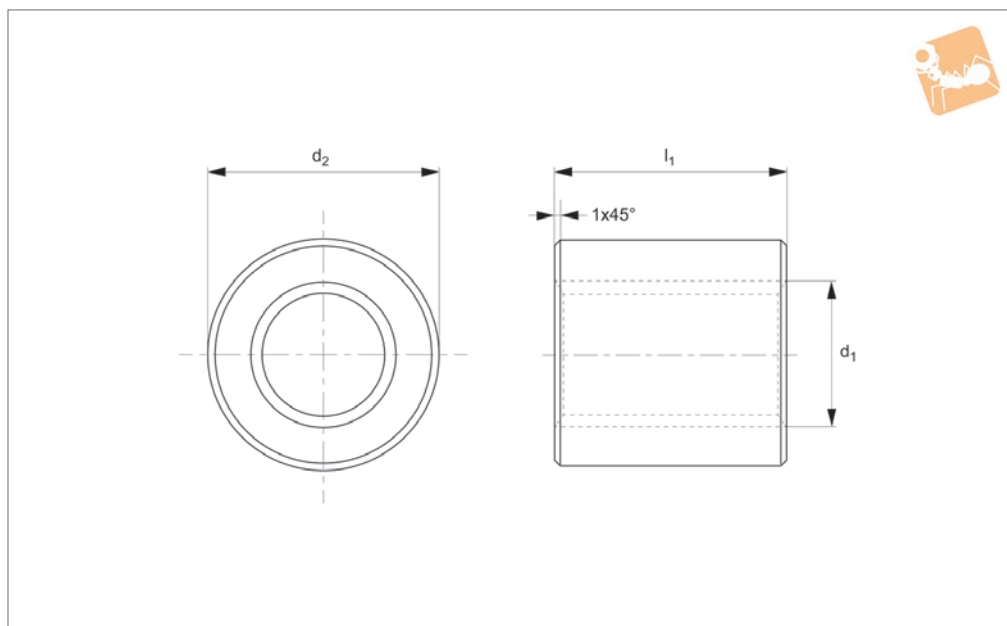


Order No.	Size	No. of starts	d ₁ tol. 7e	Lead	p ₁	d ₂ tol. 7e min.	d ₂ tol. 7e max.	d ₃ tol. 7h min.	d ₃ tol. 7h max.	l ₁	Lead angle	Pitch accuracy mm/300mm	Straightness mm/300mm	Weight kg
L1323.L36-06-2.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	2000	3°20'	0,5	0,1	13,08
L1323.L36-06-3.0	TR36x6	1	36	6	6	32,547	32,882	27,563	29,000	3000	3°20'	0,5	0,1	19,62
L1323.L40-07-1.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1000	3°31'	0,5	0,15	7,98
L1323.L40-07-1.5	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	1500	3°31'	0,5	0,15	11,97
L1323.L40-07-2.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	2000	3°31'	0,5	0,15	15,96
L1323.L40-07-3.0	TR40x7	1	40	7	7	36,020	36,375	30,381	32,000	3000	3°31'	0,5	0,15	23,94
L1323.L60-09-1.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1000	2°58'	0,05	0,15	18,49
L1323.L60-09-1.5	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	1500	2°58'	0,05	0,15	27,73
L1323.L60-09-2.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	2000	2°58'	0,05	0,15	36,98
L1323.L60-09-3.0	TR60x9	1	60	9	9	54,935	55,360	47,979	50,000	3000	2°58'	0,05	0,15	55,47
L1323.L70-10-1.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1000	2°49'	0,05	0,15	25,62
L1323.L70-10-1.5	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	1500	2°49'	0,05	0,15	38,43
L1323.L70-10-2.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	2000	2°49'	0,05	0,15	51,24
L1323.L70-10-3.0	TR70x10	1	70	10	10	64,425	64,850	56,819	59,000	3000	2°49'	0,05	0,15	76,86



Cylindrical Bronze Nuts for lead screws

Lead Screws & Nuts



L1330

LEAD SCREWS & NUTS

Material

Bronze (CuSn7ZnPb). To ISO 2901/2903 and DIN 103.

Technical Notes

For manual or powered applications at low

and medium rotation and under loads.

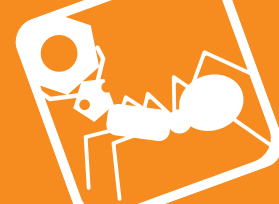
Tips

Standard nuts are right hand thread, single starts.

For use with steel or stainless steel lead

screws, L1320, L1321, L1322, and L1323.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h10	l ₁	Weight kg
L1330.R08-015	TR8x1.5	1	8	1.5	Right	150	18	16	0.029
L1330.R10-02	TR10x 2	1	10	2	Right	200	22	20	0.053
L1330.R10-04	TR10x 4	2	10	4	Right	200	22	20	0.053
L1330.R12-03	TR12x 3	1	12	3	Right	280	26	24	0.083
L1330.R12-06	TR12x 6	2	12	6	Right	280	26	24	0.083
L1330.R14-03	TR14x 3	1	14	3	Right	380	30	28	0.135
L1330.R14-06	TR14x 6	2	14	6	Right	380	30	28	0.135
L1330.R16-04	TR16x 4	1	16	4	Right	490	36	32	0.232
L1330.R16-08	TR16x 8	2	16	8	Right	490	36	32	0.232
L1330.R18-04	TR18x 4	1	18	4	Right	630	40	36	0.320
L1330.R18-08	TR18x 8	2	18	8	Right	630	40	36	0.320
L1330.R20-04	TR20x 4	1	20	4	Right	790	45	40	0.455
L1330.R20-08	TR20x 8	2	20	8	Right	790	45	40	0.455
L1330.R22-05	TR22x 5	1	22	5	Right	940	45	44	0.480
L1330.R22-10	TR22x10	2	22	10	Right	940	45	44	0.480
L1330.R24-05	TR24x 5	1	24	5	Right	1130	50	48	0.656
L1330.R24-10	TR24x10	2	24	10	Right	1130	50	48	0.656
L1330.R26-05	TR26x 5	1	26	5	Right	1340	50	52	0.670
L1330.R28-05	TR28x 5	1	28	5	Right	2400	60	56	1.102
L1330.R28-10	TR28x10	2	28	10	Right	1570	60	56	1.102
L1330.R30-06	TR30x 6	1	30	6	Right	1780	60	60	1.140
L1330.R30-12	TR30x12	2	30	12	Right	1780	60	60	1.140
L1330.R32-06	TR32x 6	1	32	6	Right	1910	60	64	1.177
L1330.R32-12	TR32x12	2	32	12	Right	1910	60	64	1.177
L1330.R36-06	TR36x 6	1	36	6	Right	2610	75	72	2.189
L1330.R36-12	TR36x12	2	36	12	Right	2610	75	72	2.189
L1330.R40-07	TR40x 7	1	40	7	Right	3210	80	80	2.725
L1330.R40-14	TR40x14	2	40	14	Right	3210	80	80	2.725
L1330.R44-07	TR44x 7	1	44	7	Right	3920	80	88	2.815
L1330.R50-08	TR50x 8	1	50	8	Right	5060	90	100	4.014
L1330.R60-09	TR60x 9	1	60	9	Right	7320	100	120	5.150
L1330.R70-10	TR70x10	1	70	10	Right	10000	110	140	7.805

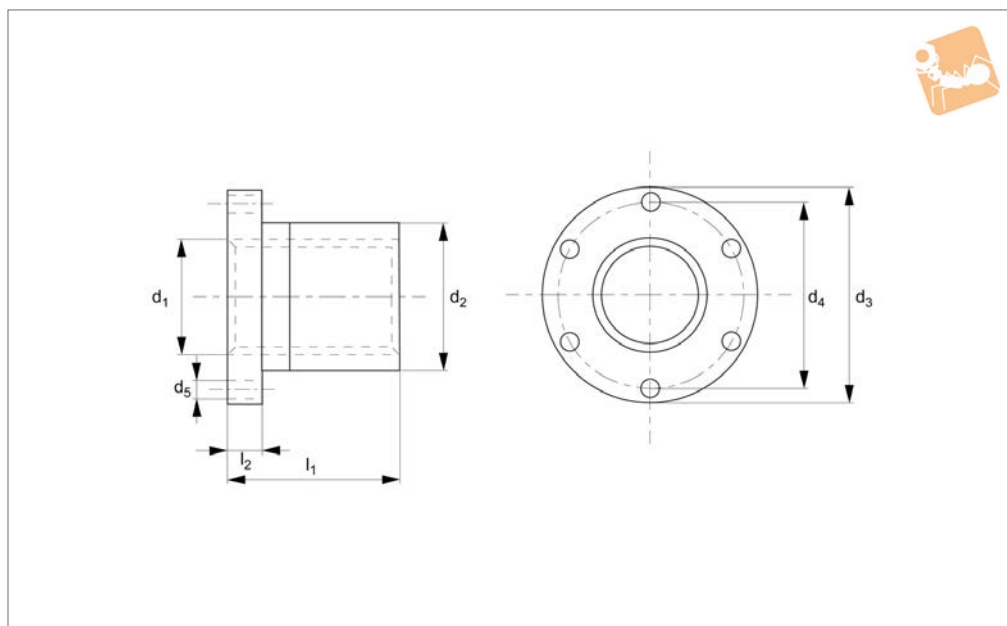


Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h10	l ₁	Weight kg
L1330.R80-10	TR80x10	1	80	10	Right	12950	120	160	9.800
L1330.L10-02	TR10x 2	1	10	2	Left	200	22	20	0.053
L1330.L12-03	TR12x 3	1	12	3	Left	280	26	24	0.083
L1330.L14-03	TR14x 3	1	14	3	Left	380	30	28	0.136
L1330.L16-04	TR16x 4	1	16	4	Left	490	36	32	0.232
L1330.L18-04	TR18x 4	1	18	4	Left	630	40	36	0.320
L1330.L20-04	TR20x 4	1	20	4	Left	790	45	40	0.455
L1330.L22-05	TR22x 5	1	22	5	Left	940	45	44	0.480
L1330.L24-05	TR24x 5	1	24	5	Left	1130	50	48	0.656
L1330.L26-05	TR26x 5	1	26	5	Left	1340	50	52	0.670
L1330.L28-05	TR28x 5	1	28	5	Left	2400	60	56	1.102
L1330.L30-06	TR30x 6	1	30	6	Left	1780	60	60	1.140
L1330.L32-06	TR32x 6	1	32	6	Left	1910	60	64	1.177
L1330.L36-06	TR36x 6	1	36	6	Left	2610	75	72	2.189
L1330.L40-07	TR40x 7	1	40	7	Left	3210	80	80	2.725
L1330.L44-07	TR44x 7	1	44	7	Left	3920	80	88	2.815
L1330.L50-08	TR50x 8	1	50	8	Left	5060	90	100	4.014
L1330.L60-09	TR60x 9	1	60	9	Left	7320	100	120	5.150
L1330.L70-10	TR70x10	1	70	10	Left	10000	110	140	7.805
L1330.L80-10	TR80x10	1	80	10	Left	12950	120	160	9.800



Flanged Bronze Nuts for lead screws

Lead Screws & Nuts



L1331

LEAD SCREWS & NUTS

Material
Bronze (CuSn7ZnPb).

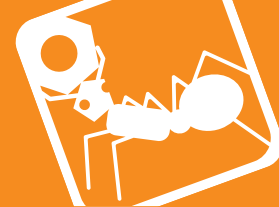
medium/low rotation speeds under load.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Technical Notes
For manual or powered applications at

Tips
Standard nuts are right hand thread, single starts.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread hand	Contact surface mm ²	d ₂ tol. h9	d ₃ tol. h11	d ₄	d ₅	l ₁ ±0.2	l ₂ +0.15 -0.0	Weight kg
L1331.R08-015	TR8x1.5	1	8	1.5	Right	170	18	35	26	6	20	7	0.135
L1331.R10-02	TR10x 2	1	10	2	Right	250	25	42	34	5	25	10	0.164
L1331.R10-04	TR10x 4	2	10	4	Right	250	25	42	34	5	25	10	0.164
L1331.R12-03	TR12x 3	1	12	3	Right	400	28	48	38	6	35	12	0.266
L1331.R12-06	TR12x 6	2	12	6	Right	400	28	48	38	6	35	12	0.266
L1331.R14-03	TR14x 3	1	14	3	Right	460	28	48	38	6	35	12	0.258
L1331.R14-06	TR14x 6	2	14	6	Right	460	28	48	38	6	35	12	0.258
L1331.R16-04	TR16x 4	1	16	4	Right	530	28	48	38	6	35	12	0.244
L1331.R16-08	TR16x 8	2	16	8	Right	530	28	48	38	6	35	12	0.244
L1331.R18-04	TR18x 4	1	18	4	Right	610	28	48	38	6	35	12	0.228
L1331.R18-08	TR18x 8	2	18	8	Right	610	28	48	38	6	35	12	0.228
L1331.R20-04	TR20x 4	1	20	4	Right	870	32	55	45	7	44	12	0.346
L1331.R20-08	TR20x 8	2	20	8	Right	870	32	55	45	7	44	12	0.346
L1331.R22-05	TR22x 5	1	22	5	Right	1030	32	55	45	7	44	12	0.322
L1331.R22-10	TR22x10	2	22	10	Right	1030	32	55	45	7	44	12	0.322
L1331.R24-05	TR24x 5	1	24	5	Right	1040	32	55	45	7	44	12	0.304
L1331.R24-10	TR24x10	2	24	10	Right	1040	32	55	45	7	44	12	0.304
L1331.R26-05	TR26x 5	1	26	5	Right	1280	38	62	50	7	46	14	0.474
L1331.R26-10	TR26x10	2	26	10	Right	1280	38	62	50	7	46	14	0.474
L1331.R28-05	TR28x 5	1	28	5	Right	1200	38	62	50	7	46	14	0.442
L1331.R28-10	TR28x10	2	28	10	Right	1200	38	62	50	7	46	14	0.442
L1331.R30-06	TR30x 6	1	30	6	Right	1370	38	62	50	7	46	14	0.408
L1331.R30-12	TR30x12	2	30	12	Right	1370	38	62	50	7	46	14	0.408
L1331.R32-06	TR32x 6	1	32	6	Right	1710	45	70	58	7	54	16	0.706
L1331.R32-12	TR32x12	2	32	12	Right	1710	45	70	58	7	54	16	0.706
L1331.R36-06	TR36x 6	1	36	6	Right	1950	45	70	58	7	54	16	0.606
L1331.R36-12	TR36x12	2	36	12	Right	1950	45	70	58	7	54	16	0.606
L1331.R40-07	TR40x 7	1	40	7	Right	2650	63	95	78	9	66	16	1.700
L1331.R40-14	TR40x14	2	40	14	Right	2650	63	95	78	9	66	16	1.700
L1331.R44-07	TR44x 7	1	44	7	Right	2940	63	95	78	9	66	16	1.524
L1331.R50-08	TR50x 8	1	50	8	Right	4540	72	110	90	11	75	18	2.324
L1331.R60-09	TR60x 9	1	60	9	Right	5490	88	130	110	13	90	20	3.942
L1331.R70-10	TR70x10	1	70	10	Right	7500	95	140	120	13	105	22	4.465
L1331.L10-02	TR10x 2	1	10	2	Left	250	25	42	34	5	25	10	0.164

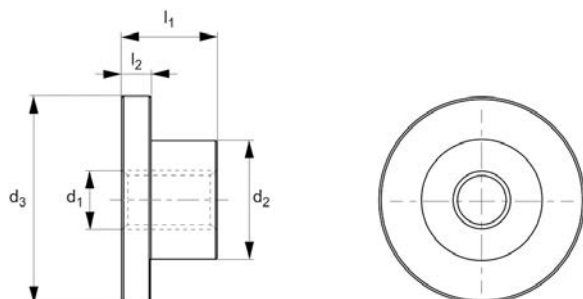


Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread hand	Contact surface mm ²	d ₂ tol. h9	d ₃ tol. h11	d ₄	d ₅	l ₁ ±0.2	l ₂ +0.15/-0.0	Weight kg
L1331.L12-03	TR12x 3	1	12	3	Left	400	28	48	38	6	35	12	0.266
L1331.L14-03	TR14x 3	1	14	3	Left	460	28	48	38	6	35	12	0.258
L1331.L16-04	TR16x 4	1	16	4	Left	530	28	48	38	6	35	12	0.244
L1331.L18-04	TR18x 4	1	18	4	Left	610	28	48	38	6	35	12	0.228
L1331.L20-04	TR20x 4	1	20	4	Left	870	32	55	45	7	44	12	0.346
L1331.L22-05	TR22x 5	1	22	5	Left	1030	32	55	45	7	44	12	0.322
L1331.L24-05	TR24x 5	1	24	5	Left	1040	32	55	45	7	44	12	0.304
L1331.L26-05	TR26x 5	1	26	5	Left	1280	38	62	50	7	46	14	0.474
L1331.L28-05	TR28x 5	1	28	5	Left	1200	38	62	50	7	46	14	0.442
L1331.L30-06	TR30x 6	1	30	6	Left	1370	38	62	50	7	46	14	0.408
L1331.L32-06	TR32x 6	1	32	6	Left	1710	45	70	58	7	54	16	0.706
L1331.L36-06	TR36x 6	1	36	6	Left	1950	45	70	58	7	54	16	0.606
L1331.L40-07	TR40x 7	1	40	7	Left	2650	63	95	78	9	66	16	1.700
L1331.L44-07	TR44x 7	1	44	7	Left	2940	63	95	78	9	66	16	1.524
L1331.L50-08	TR50x 8	1	50	8	Left	4540	72	110	90	11	75	18	2.324
L1331.L60-09	TR60x 9	1	60	9	Left	5490	88	130	110	13	90	20	3.942
L1331.L70-10	TR70x10	1	70	10	Left	7500	95	140	120	13	105	22	4.465



Plain Flanged Bronze Nuts for lead screws

Lead Screws & Nuts



L1332

LEAD SCREWS & NUTS

Material
Bronze (CuSn7ZnPb).

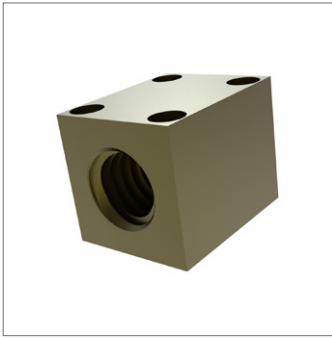
medium/low rotation speeds under load.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

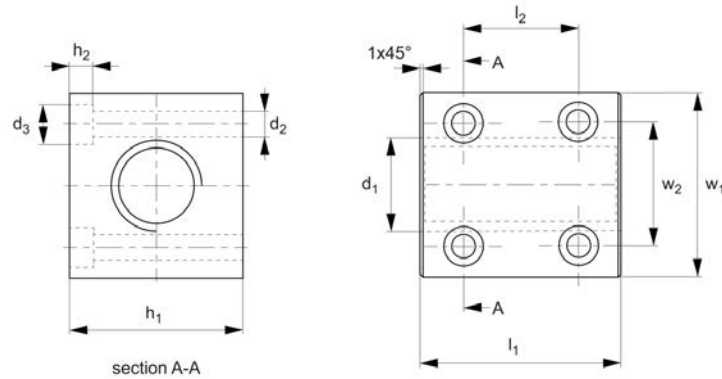
Technical Notes
For manual or powered applications at

Tips
Standard nuts are right hand thread, single starts.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h11	d ₃ tol. h9	l ₁	l ₂	Weight kg
L1332.R10-02	TR10x 2	1	10	2	Right	150	20	35	15	6	0.068
L1332.R10-04	TR10x 2	2	10	4	Right	150	20	35	15	6	0.068
L1332.R12-03	TR12x 3	1	12	3	Right	228	24	42	20	7	0.120
L1332.R12-06	TR12x 6	2	12	6	Right	262	24	42	20	7	0.120
L1332.R14-03	TR14x 3	1	14	3	Right	315	30	52	24	10	0.260
L1332.R16-04	TR16x 4	1	16	4	Right	363	30	52	24	10	0.250
L1332.R16-08	TR16x 8	2	16	8	Right	363	30	52	24	12	0.250
L1332.R20-04	TR20x 4	1	20	4	Right	514	38	62	26	11	0.400
L1332.R20-08	TR20x 8	2	20	8	Right	514	38	62	26	12	0.400
L1332.R24-05	TR24x 5	1	24	5	Right	780	50	77	33	13	0.750
L1332.R24-10	TR24x10	2	24	10	Right	780	50	77	33	12	0.750
L1332.R30-06	TR30x 6	1	30	6	Right	1430	58	90	48	15	1.400
L1332.R30-12	TR30x12	2	30	12	Right	1430	58	90	48	14	1.400
L1332.R36-06	TR36x 6	1	36	6	Right	2166	80	115	60	20	3.200
L1332.R36-12	TR36x12	2	36	12	Right	2166	80	115	60	16	3.200
L1332.R40-07	TR40x 7	1	40	7	Right	2610	80	140	65	20	4.100
L1332.R40-14	TR40x14	2	40	14	Right	2610	80	140	65	16	4.100
L1332.R50-08	TR50x 8	1	50	8	Right	4237	90	170	70	20	5.900
L1332.L10-02	TR10x2	1	10	2	Left	150	20	35	15	6	0.068
L1332.L12-03	TR12x3	1	12	3	Left	228	24	42	20	7	0.120
L1332.L14-03	TR14x3	1	14	3	Left	315	30	52	24	10	0.260
L1332.L16-04	TR16x4	1	16	4	Left	363	30	52	24	10	0.250
L1332.L20-04	TR20x4	1	20	4	Left	514	38	62	26	11	0.400
L1332.L24-05	TR24x5	1	24	5	Left	780	50	77	33	13	0.750
L1332.L30-06	TR30x6	1	30	6	Left	1430	58	90	48	15	1.400
L1332.L36-06	TR36x6	1	36	6	Left	2166	80	115	60	20	3.200
L1332.L40-07	TR40x7	1	40	7	Left	2610	80	140	65	20	4.100
L1332.L50-08	TR50x8	1	50	8	Left	4237	90	170	70	20	5.900



L1334



Material
Bronze (CuSn7ZnPb).

Technical Notes
Suitable for movements with medium duty

loads.

Tips
Standard nuts are right hand thread, single starts.

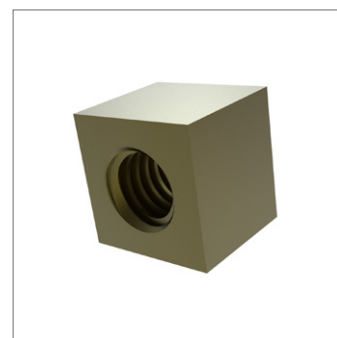
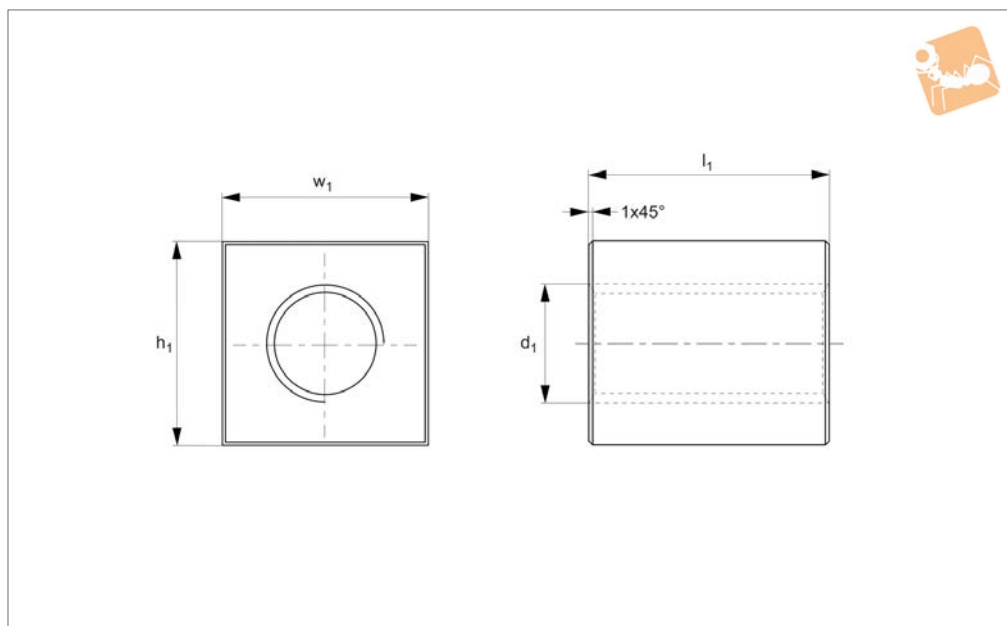
For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.
*Special M8 fixing screw with a reduced head diameter.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂	d ₃	h ₁ & w ₁ tol. h9	h ₂	l ₁ +0.0 -0.2	l ₂	w ₂	For screw	Weight kg
L1334.R16-04	TR16x4	1	16	4	Right	770	5	9,5	35	5,2	40	26	24	M 5	0,34
L1334.R20-04	TR20x4	1	20	4	Right	1412	6	10,0	40	6,5	50	38	28	M 6	0,57
L1334.R30-06	TR30x6	1	30	6	Right	2544	6	10,0	50	6,5	60	49	38	M 6	0,98
L1334.R40-07	TR40x7	1	40	7	Right	4013	8*	9,9*	60	8,5	75	55	49	M 8*	1,60
L1334.L16-04	TR16x4	1	16	4	Left	770	5	9,5	35	5,2	40	26	24	M 5	0,34
L1334.L20-04	TR20x4	1	20	4	Left	1412	6	10,0	40	6,5	50	38	28	M 6	0,57
L1334.L30-06	TR30x6	1	30	6	Left	2544	6	10,0	50	6,5	60	49	38	M 6	0,98
L1334.L40-07	TR40x7	1	40	7	Left	4013	8*	9,9*	60	8,5	75	55	49	M 8*	1,60



Square Brass Nuts for lead screws

Lead Screws & Nuts



L1335

LEAD SCREWS & NUTS

Material

Brass (EN 12164, CW614N-M).

Tips

Standard nuts are right hand thread.
For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Technical Notes

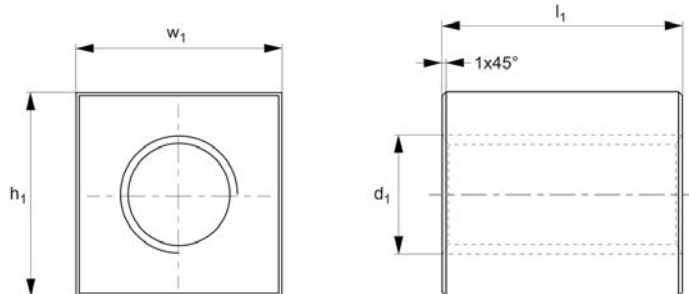
Used for fairly light loads.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	h ₁ & w ₁ tol. h11	l ₁ +0.0 -0.2	Weight kg
L1335.R12-03	TR12x3	1	12	3	Right	411	25	25	0.11
L1335.R16-04	TR16x4	1	16	4	Right	770	30	35	0.21
L1335.R18-04	TR18x4	1	18	4	Right	1131	35	45	0.38
L1335.R20-04	TR20x4	1	20	4	Right	1412	40	50	0.55
L1335.R30-06	TR30x6	1	30	6	Right	2544	50	60	0.95
L1335.R36-06	TR36x6	1	36	6	Right	3630	60	70	1.56
L1335.R40-07	TR40x7	1	40	7	Right	4013	60	70	1.46
L1335.L12-03	TR12x3	1	12	3	Left	411	25	25	0.11
L1335.L16-04	TR16x4	1	16	4	Left	770	30	35	0.21
L1335.L18-04	TR18x4	1	18	4	Left	1131	35	45	0.38
L1335.L20-04	TR20x4	1	20	4	Left	1412	40	50	0.55
L1335.L30-06	TR30x6	1	30	6	Left	2554	50	60	0.95
L1335.L36-06	TR32x6	1	36	6	Left	3630	60	70	1.56
L1335.L40-07	TR40x7	1	40	7	Left	4013	60	70	1.46





L1336



Material

Steel (11SMnPb37). Manufactured to ISO 2901/2903 (DIN 103).

Technical Notes

Used for low rotation speeds, manual

control, for clamping or locking functions and for receiving dead weights. The use of steel to steel contact surface is not suitable for motorised motion.

Tips

Standard nuts are right hand thread, single starts.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

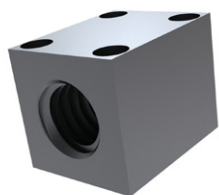
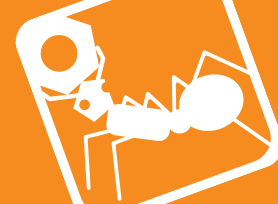
Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	h ₁ & w ₁ tol. h11	l ₁ +0.0 -0.2	Weight kg
L1336.R10-02	TR10x 2	1	10	2	Right	150	17	15	0.027
L1336.R10-04	TR10x 4	2	10	4	Right	150	17	15	0.027
L1336.R12-03	TR12x 3	1	12	3	Right	210	25	18	0.076
L1336.R12-06	TR12x 6	2	12	6	Right	210	25	18	0.076
L1336.R14-03	TR14x 3	1	14	3	Right	285	25	20	0.079
L1336.R14-06	TR14x 6	2	14	6	Right	285	25	20	0.079
L1336.R16-04	TR16x 4	1	16	4	Right	770	28	24	0.199
L1336.R16-08	TR16x 8	2	16	8	Right	365	28	24	0.119
L1336.R18-04	TR18x 4	1	18	4	Right	1131	30	28	0.353
L1336.R18-08	TR18x 8	2	18	8	Right	470	30	28	0.154
L1336.R20-04	TR20x 4	1	20	4	Right	1412	35	30	0.517
L1336.R20-08	TR20x 8	2	20	8	Right	590	35	30	0.259
L1336.R22-05	TR22x 5	1	22	5	Right	700	35	33	0.240
L1336.R22-10	TR22x10	2	22	10	Right	700	35	33	0.240
L1336.R24-05	TR24x 5	1	24	5	Right	845	40	36	0.354
L1336.R24-10	TR24x19	2	24	10	Right	845	40	36	0.354
L1336.R26-05	TR26x 5	1	26	5	Right	1005	40	39	0.363
L1336.R26-10	TR26x10	2	26	10	Right	1005	40	39	0.363
L1336.R28-05	TR28x 5	1	28	5	Right	1175	45	42	0.506
L1336.R28-10	TR28x10	2	28	10	Right	1175	45	42	0.506
L1336.R30-06	TR30x 6	1	30	6	Right	2544	45	45	0.877
L1336.R30-12	TR30x12	2	30	12	Right	1335	45	45	0.513
L1336.R32-06	TR32x 6	1	32	6	Right	1430	55	48	0.891
L1336.R32-12	TR32x12	2	32	12	Right	1430	55	48	0.891
L1336.R36-06	TR36x 6	1	36	6	Right	3630	60	54	1.465
L1336.R36-12	TR36x12	2	36	12	Right	1950	60	54	1.163
L1336.R40-07	TR40x 7	1	40	7	Right	4013	60	60	1.347
L1336.R40-14	TR40x14	2	40	14	Right	2400	60	60	1.216
L1336.R44-07	TR44x 7	1	44	7	Right	2940	65	66	1.538
L1336.L10-02	TR10x2	1	10	2	Left	150	17	15	0.027
L1336.L12-03	TR12x3	1	12	3	Left	739	25	18	0.123
L1336.L14-03	TR14x3	1	14	3	Left	285	25	20	0.079



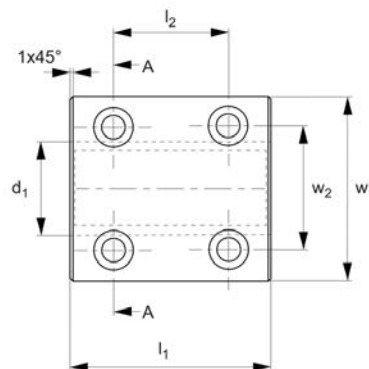
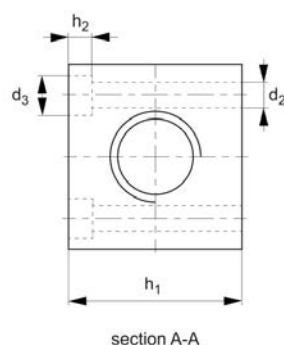
Square Steel Nuts for lead screws

Lead Screws & Nuts

Order No.	Size	No. of starts	d_1 tol. 7H	Lead	Thread direction	Contact surface mm ²	h_1 & w_1 tol. h11	l_1 +0.0 -0.2	Weight kg
L1336.L16-04	TR16x4	1	16	4	Left	770	28	24	0.199
L1336.L18-04	TR18x4	1	18	4	Left	1131	30	28	0.353
L1336.L20-04	TR20x4	1	20	4	Left	1412	35	30	0.517
L1336.L22-05	TR22x5	1	22	5	Left	700	35	33	0.240
L1336.L24-05	TR24x5	1	24	5	Left	845	40	36	0.354
L1336.L26-05	TR26x5	1	26	5	Left	1005	40	39	0.363
L1336.L28-05	TR28x5	1	28	5	Left	1175	45	42	0.506
L1336.L30-06	TR30x6	1	30	6	Left	2544	45	45	0.877
L1336.L32-06	TR32x6	1	32	6	Left	1430	55	48	0.891
L1336.L36-06	TR36x6	1	36	6	Left	1950	60	54	1.163
L1336.L40-07	TR40x7	1	40	7	Left	4013	60	60	1.347
L1336.L44-07	TR44x7	1	44	7	Left	2940	65	66	1.538



L1337



Material

Steel (EN 10277-3, 11SMnPb37).

Technical Notes

Used as a fixing nut or for manual movements where the load is not important, as the steel to steel coupling used for moving

under heavy loads tends to seize.

The use of steel/steel contact surface is not suitable for motorised motion.

Tips

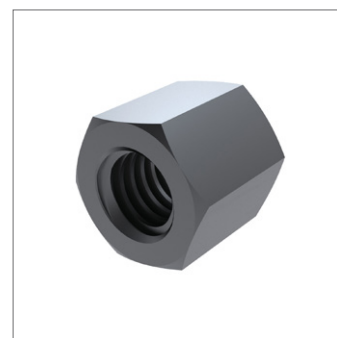
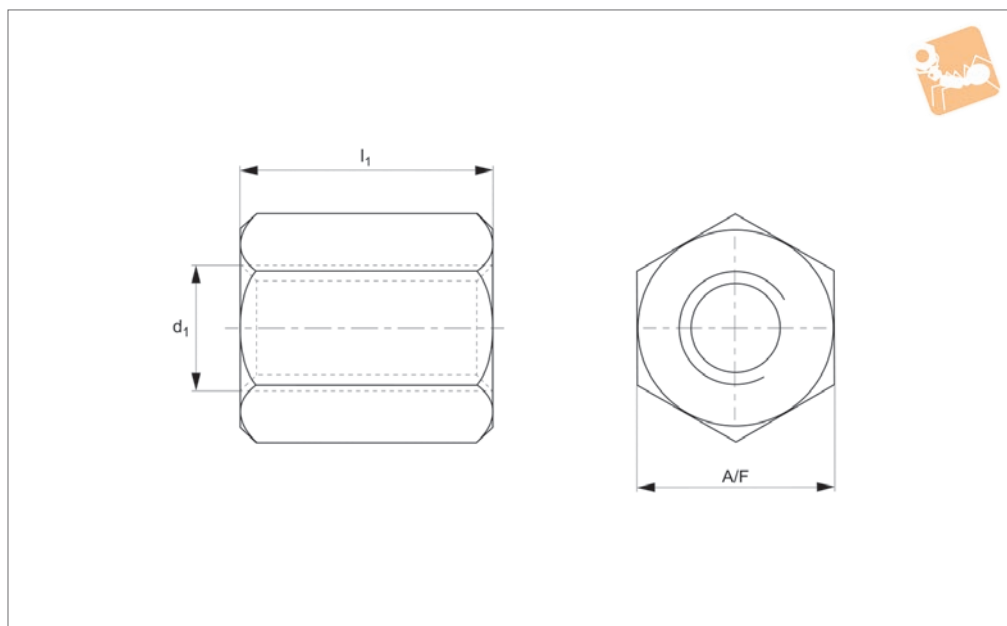
Standard nuts are right hand thread.

For use with steel or stainless steel lead

screws, L1320 and L1322.

*Special M8 fixing screw with a reduced head diameter.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂	d ₃	h ₁ & w ₁ tol. h1 l	h ₂	l ₁ +0.0 -0.2	l ₂	w ₂	Weight kg
L1337.R12-03	TR12x3	1	12	3	Right	739	4	7,0	25	4,2	30	20	17	0,123
L1337.R16-04	TR16x4	1	16	4	Right	770	5	9,5	35	5,2	40	24	21	0,199
L1337.R18-04	TR18x4	1	18	4	Right	1131	6	10,0	35	6,5	45	26	24	0,353
L1337.R20-04	TR20x4	1	20	4	Right	1412	6	10,0	40	6,5	50	38	28	0,517
L1337.R30-06	TR30x6	1	30	6	Right	2544	6	10,0	50	6,5	60	48	38	0,877
L1337.R40-07	TR40x7	1	40	7	Right	4013	8*	9,9*	60	8,5	70	55	49	1,347
L1337.R50-08	TR50x8	1	50	8	Right	6502	8*	9,9*	70	8,5	90	70	60	2,183
L1337.R60-09	TR60x9	1	60	9	Right	8718	8*	9,9*	80	8,5	100	80	69	2,990
L1337.L12-03	TR12x3	1	12	3	Left	739	4	7,0	25	4,2	30	20	17	0,123
L1337.L16-04	TR16x4	1	16	4	Left	770	5	9,5	35	5,2	40	24	21	0,199
L1337.L18-04	TR18x4	1	18	4	Left	1131	6	10,0	35	6,5	45	26	24	0,353
L1337.L20-04	TR20x4	1	20	4	Left	1412	6	10,0	40	6,5	50	38	28	0,517
L1337.L30-06	TR30x6	1	30	6	Left	2544	6	10,0	50	6,5	60	48	38	0,877
L1337.L40-07	TR40x7	1	40	7	Left	4013	8*	9,9*	60	8,5	70	55	49	1,347
L1337.L50-08	TR50x8	1	50	8	Left	6502	8*	9,9*	70	8,5	90	70	60	2,183
L1337.L60-09	TR60x9	1	60	9	Left	8718	8*	9,9*	80	8,5	100	80	69	2,990



L1338

Material

Steel (EN10277-3, 11SMnPb37). Manufactured to ISO 2901/2903 (DIN103).

Technical Notes

Used for low rotation speeds, manual

control, for clamping or locking functions and for receiving dead weights.

The use of steel to steel contact surface is not suitable for motorised motion.

Tips

Standard nuts are right hand thread, single starts.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	A/F tol. h11	l ₁ +0.0 -0.2	Weight kg
L1338.R08-015	TR8x1.5	1	8	1.5	Right	100	15	12	0.014
L1338.R10-02	TR10x 2	1	10	2	Right	150	17	15	0.022
L1338.R10-04	TR10x 4	2	10	4	Right	150	17	15	0.022
L1338.R12-03	TR12x 3	1	12	3	Right	210	19	18	0.032
L1338.R12-06	TR12x 6	2	12	6	Right	210	19	18	0.032
L1338.R14-03	TR14x 3	1	14	3	Right	285	22	21	0.049
L1338.R14-06	TR14x 6	2	14	6	Right	285	22	21	0.049
L1338.R16-04	TR16x 4	1	16	4	Right	365	24	24	0.065
L1338.R16-08	TR16x 8	2	16	8	Right	365	24	24	0.065
L1338.R18-04	TR18x 4	1	18	4	Right	470	27	27	0.091
L1338.R18-08	TR18x 8	2	18	8	Right	470	27	27	0.091
L1338.R20-04	TR20x 4	1	20	4	Right	590	30	30	0.124
L1338.R20-08	TR20x 8	2	20	8	Right	590	30	30	0.124
L1338.R22-05	TR22x 5	1	22	5	Right	700	30	33	0.125
L1338.R22-10	TR22x10	2	22	5	Right	700	30	33	0.125
L1338.R24-05	TR24x 5	1	24	5	Right	845	36	36	0.219
L1338.R24-10	TR24x10	2	24	10	Right	845	36	36	0.219
L1338.R26-05	TR26x 5	1	26	5	Right	1005	36	39	0.216
L1338.R26-10	TR26x10	2	26	10	Right	1005	36	39	0.216
L1338.R28-05	TR28x 5	1	28	5	Right	1175	41	42	0.318
L1338.R28-10	TR28x10	2	28	5	Right	1175	41	42	0.318
L1338.R30-06	TR30x 6	1	30	6	Right	1335	46	45	0.445
L1338.R30-12	TR30x12	2	30	12	Right	1335	55	54	0.445
L1338.R32-06	TR32x 6	1	32	6	Right	1430	50	48	0.567
L1338.R32-12	TR32x12	2	32	6	Right	1430	50	48	0.567
L1338.R36-06	TR36x 6	1	36	6	Right	1950	55	54	0.708
L1338.R36-12	TR36x12	2	36	12	Right	1950	55	54	0.708
L1338.R40-07	TR40x 7	1	40	7	Right	2400	60	60	0.893
L1338.R40-14	TR40x14	2	40	14	Right	2400	60	60	0.893
L1338.R44-07	TR44x 7	1	44	7	Right	2940	65	66	1.538
L1338.R50-08	TR50x 8	1	50	8	Right	3790	75	75	1.889
L1338.R60-09	TR60x 9	1	60	9	Right	5490	90	90	3.227

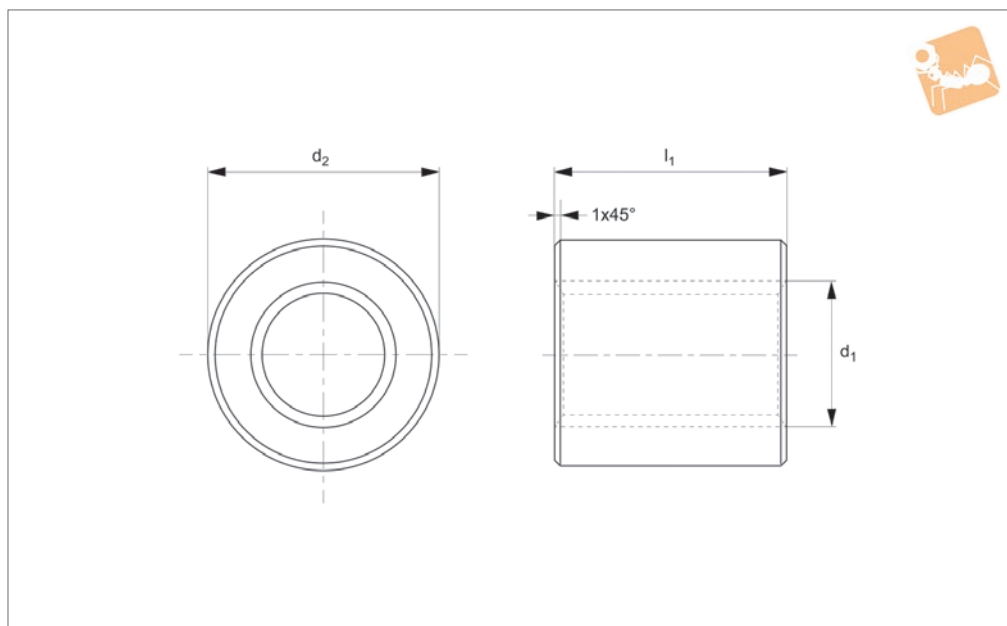


Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	A/F tol. h11	l ₁ +0.0 -0.2	Weight kg
L1338.L10-02	TR10x2	1	10	2	Left	150	17	15	0.022
L1338.L12-03	TR12x3	1	12	3	Left	210	19	18	0.032
L1338.L14-03	TR14x3	1	14	3	Left	285	22	21	0.049
L1338.L16-04	TR16x4	1	16	4	Left	365	24	24	0.065
L1338.L18-04	TR18x4	1	18	4	Left	470	27	27	0.091
L1338.L20-04	TR20x4	1	20	4	Left	590	30	30	0.124
L1338.L22-05	TR22x5	1	22	5	Left	700	30	33	0.125
L1338.L24-05	TR24x5	1	24	5	Left	845	36	36	0.219
L1338.L26-05	TR26x5	1	26	5	Left	1005	36	39	0.216
L1338.L28-05	TR28x5	1	28	5	Left	1175	41	42	0.318
L1338.L30-06	TR30x6	1	30	6	Left	1335	46	45	0.445
L1338.L32-06	TR32x6	1	32	6	Left	1430	50	48	0.567
L1338.L36-06	TR36x6	1	36	6	Left	1950	55	54	0.708
L1338.L40-07	TR40x7	1	40	7	Left	2400	60	60	0.893
L1338.L44-07	TR44x7	1	44	7	Left	2940	65	66	1.538
L1338.L50-08	TR50x8	1	50	8	Left	3790	75	75	1.889
L1338.L60-09	TR60x9	1	60	9	Left	5490	90	90	3.227



Cylindrical Steel Nuts for lead screws

Lead Screws & Nuts



L1339

LEAD SCREWS & NUTS

Material

Steel (EN10277-3, 11SMnPb37). Manufactured to ISO2901/2903 (DIN 103).

control, for clamping or locking functions and for receiving dead weights.

The use of steel to steel contact surface is not suitable for motorised motion.

starts.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

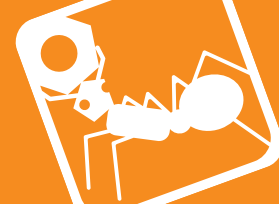
Technical Notes

Used for low rotation speeds, manual

Tips

Standard nuts are right hand thread, single

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread hand	Contact surface mm ²	d ₂ tol. h10	l ₁ +0.0]-0.1	Weight kg
L1339.R08-015	TR8x1.5	1	8	1.5	Right	100	18	12	0.016
L1339.R10-02	TR10x 2	1	10	2	Right	150	22	15	0.04
L1339.R10-04	TR10x 4	2	10	4	Right	150	22	15	0.04
L1339.R12-03	TR12x 3	1	12	3	Right	210	26	18	0.06
L1339.R12-06	TR12x 6	2	12	6	Right	210	26	18	0.06
L1339.R14-03	TR14x 3	1	14	3	Right	285	30	21	0.09
L1339.R14-06	TR14x 6	2	14	6	Right	285	30	21	0.09
L1339.R16-04	TR16x 4	1	16	4	Right	365	36	24	0.16
L1339.R16-08	TR16x 8	2	16	8	Right	365	36	24	0.16
L1339.R18-04	TR18x 4	1	18	4	Right	470	40	27	0.22
L1339.R18-08	TR18x 8	2	18	8	Right	470	40	27	0.22
L1339.R20-04	TR20x 4	1	20	4	Right	590	45	30	0.31
L1339.R20-08	TR20x 8	2	20	8	Right	590	45	30	0.31
L1339.R22-05	TR22x 5	1	22	5	Right	700	45	33	0.32
L1339.R22-10	TR22x10	2	22	10	Right	700	45	33	0.32
L1339.R24-05	TR24x 5	1	24	5	Right	845	50	36	0.44
L1339.R24-10	TR24x10	2	24	10	Right	845	50	36	0.44
L1339.R26-05	TR26x 5	1	26	5	Right	1005	50	39	0.45
L1339.R26-10	TR26x10	2	26	10	Right	1005	50	39	0.45
L1339.R28-05	TR28x 5	1	28	5	Right	1175	60	42	0.75
L1339.R28-10	TR28x10	2	28	10	Right	1175	60	42	0.75
L1339.R30-06	TR30x 6	1	30	6	Right	1335	60	45	0.77
L1339.R30-12	TR30x12	2	30	12	Right	1335	60	45	0.77
L1339.R32-06	TR32x 6	1	32	6	Right	1430	60	48	0.79
L1339.R32-12	TR32x12	2	32	12	Right	1430	60	48	0.79
L1339.R36-06	TR36x 6	1	36	6	Right	1950	75	54	1.48
L1339.R36-12	TR36x12	2	36	12	Right	1950	75	54	1.49
L1339.R40-07	TR40x 7	1	40	7	Right	2400	80	60	1.83
L1339.R40-14	TR40x14	2	40	14	Right	2400	80	60	1.83
L1339.R44-07	TR44x 7	1	44	7	Right	2940	80	66	1.89
L1339.R50-08	TR50x 8	1	50	8	Right	3790	90	75	2.69

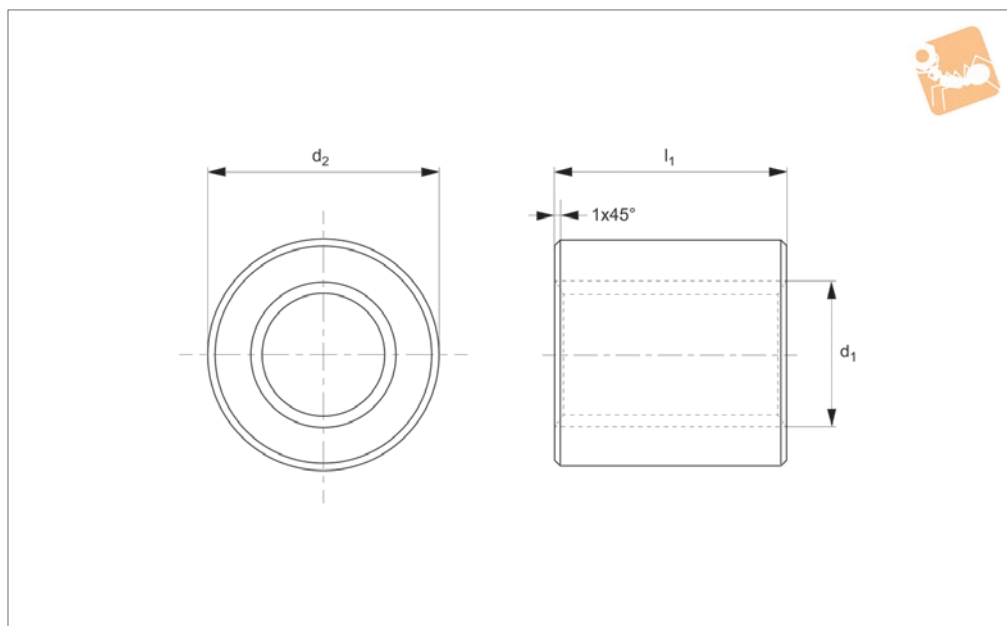


Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread hand	Contact surface mm ²	d ₂ tol. h10	l ₁ +0.0 -0.1	Weight kg
L1339.R60-09	TR60x 9	1	60	9	Right	5490	100	90	3.87
L1339.R70-10	TR70x10	1	70	10	Right	7140	110	100	5.12
L1339.R80-10	TR80x10	1	80	10	Right	8900	120	110	6.00
L1339.L10-02	TR10x 2	1	10	2	Left	150	22	15	0.04
L1339.L12-03	TR12x 3	1	12	3	Left	210	26	18	0.06
L1339.L14-03	TR14x 3	1	14	3	Left	210	30	21	0.09
L1339.L16-04	TR16x 4	1	16	4	Left	365	36	24	0.16
L1339.L18-04	TR18x 4	1	18	4	Left	470	40	27	0.22
L1339.L20-04	TR20x 4	1	20	4	Left	590	45	30	0.31
L1339.L22-05	TR22x 5	1	22	5	Left	700	45	33	0.32
L1339.L24-05	TR24x 5	1	24	5	Left	845	50	36	0.44
L1339.L26-05	TR26x 5	1	26	5	Left	1005	50	39	0.45
L1339.L28-05	TR28x 5	1	28	5	Left	1175	60	42	0.75
L1339.L30-06	TR30x 6	1	30	6	Left	1335	60	45	0.77
L1339.L32-06	TR32x 6	1	32	6	Left	1430	60	48	0.79
L1339.L36-06	TR36x 6	1	36	6	Left	1950	75	54	1.48
L1339.L40-07	TR40x 7	1	40	7	Left	2400	80	60	1.83
L1339.L44-07	TR44x 7	1	44	7	Left	2940	80	66	1.88
L1339.L50-08	TR50x 8	1	50	8	Left	3790	90	75	2.69
L1339.L60-09	TR60x 9	1	60	9	Left	5490	100	90	3.87
L1339.L70-10	TR70x10	1	70	10	Left	7140	110	100	5.12
L1339.L80-10	TR80x10	1	80	10	Left	8900	120	110	6.00



Long Cylindrical Steel Nuts for lead screws

Lead Screws & Nuts



L1340

LEAD SCREWS & NUTS

Material

Steel (EN10277-3, 11SMnPb37). Manufactured to ISO2901/2903 (DIN 103).

Technical Notes

Used for low rotation speeds, manual

control, for clamping or locking functions and for receiving dead weights.

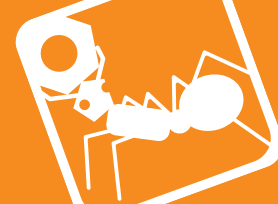
The use of steel to steel contact surface is not suitable for motorised motion.

Tips

Standard nuts are right hand thread, single starts.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h10	l ₁ +0.0 -0.1	Weight kg
L1340.R10-02	TR10x 2	1	10	2	Right	150	22	20	0.05
L1340.R10-04	TR10x 4	2	10	4	Right	150	22	20	0.05
L1340.R12-03	TR12x 3	1	12	3	Right	210	26	24	0.07
L1340.R12-06	TR12x 6	2	12	6	Right	210	26	24	0.07
L1340.R14-03	TR14x 3	1	14	3	Right	285	30	28	0.12
L1340.R14-06	TR14x 6	2	14	6	Right	285	30	28	0.12
L1340.R16-04	TR16x 4	1	16	4	Right	365	36	32	0.21
L1340.R16-08	TR16x 8	2	16	8	Right	365	36	32	0.21
L1340.R18-04	TR18x 4	1	18	4	Right	470	40	36	0.29
L1340.R18-08	TR18x 8	2	18	8	Right	470	40	36	0.29
L1340.R20-04	TR20x 4	1	20	4	Right	590	45	40	0.41
L1340.R20-08	TR20x 8	2	20	8	Right	590	45	40	0.41
L1340.R22-05	TR22x 5	1	22	5	Right	700	45	44	0.43
L1340.R22-10	TR22x10	2	22	10	Right	700	45	44	0.43
L1340.R24-05	TR24x 5	1	24	5	Right	845	50	48	0.59
L1340.R24-10	TR24x10	2	24	10	Right	845	50	48	0.59
L1340.R26-05	TR26x 5	1	26	5	Right	1005	50	52	0.60
L1340.R26-10	TR26x10	2	26	10	Right	1005	50	52	0.60
L1340.R28-05	TR28x 5	1	28	5	Right	1175	60	56	0.98
L1340.R30-06	TR30x 6	1	30	6	Right	1335	60	60	1.02
L1340.R30-12	TR30x12	2	30	12	Right	1335	60	60	1.02
L1340.R32-06	TR32x 6	1	32	6	Right	1430	60	64	1.05
L1340.R32-12	TR32x12	2	32	12	Right	1430	60	64	1.05
L1340.R36-06	TR36x 6	1	36	6	Right	1950	75	72	1.96
L1340.R36-12	TR36x12	2	36	12	Right	1950	75	72	1.96
L1340.R40-07	TR40x 7	1	40	7	Right	2400	80	80	2.43
L1340.R40-14	TR40x14	2	40	14	Right	2400	80	80	2.43
L1340.R44-07	TR44x 7	1	44	7	Right	2940	80	88	2.51
L1340.L10-02	TR10x2	1	10	2	Left	150	22	20	0.05
L1340.L12-03	TR12x3	1	12	3	Left	210	26	24	0.07
L1340.L14-03	TR14x3	1	14	3	Left	285	30	28	0.12
L1340.L16-04	TR16x4	1	16	4	Left	365	36	32	0.21

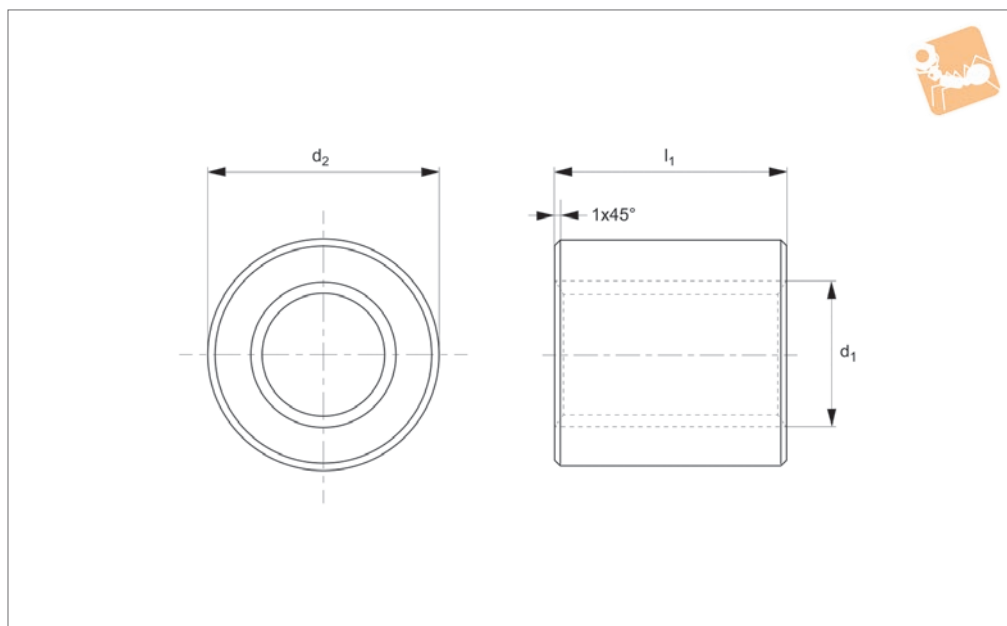


Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h10	l ₁ +0.0 -0.1	Weight kg
L1340.L18-04	TR18x4	1	18	4	Left	470	40	36	0.29
L1340.L20-04	TR20x4	1	20	4	Left	590	45	40	0.41
L1340.L22-05	TR22x5	1	22	5	Left	700	45	44	0.43
L1340.L24-05	TR24x5	1	24	5	Left	845	50	48	0.59
L1340.L26-05	TR26x5	1	26	5	Left	1005	50	52	0.60
L1340.L28-05	TR28x5	1	28	5	Left	1175	60	56	0.98
L1340.L30-06	TR30x6	1	30	6	Left	1335	60	60	1.02
L1340.L32-06	TR32x6	1	32	6	Left	1430	60	64	1.05
L1340.L36-06	TR36x6	1	36	6	Left	1950	75	72	1.96
L1340.L40-07	TR40x7	1	40	7	Left	2400	80	80	2.43
L1340.L44-07	TR44x7	1	44	7	Left	2940	80	88	2.51



Cylindrical Stainless Steel Nuts for lead screws

Lead Screws & Nuts



L1341

LEAD SCREWS & NUTS

Material

Stainless steel (AISI 303).

chemicals.

nos. L1322 and L1323.

Technical Notes

Especially suitable to withstand corrosive

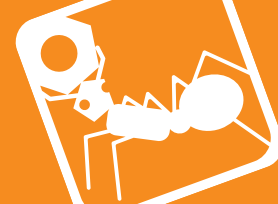
Tips

Standard nuts are right hand thread.

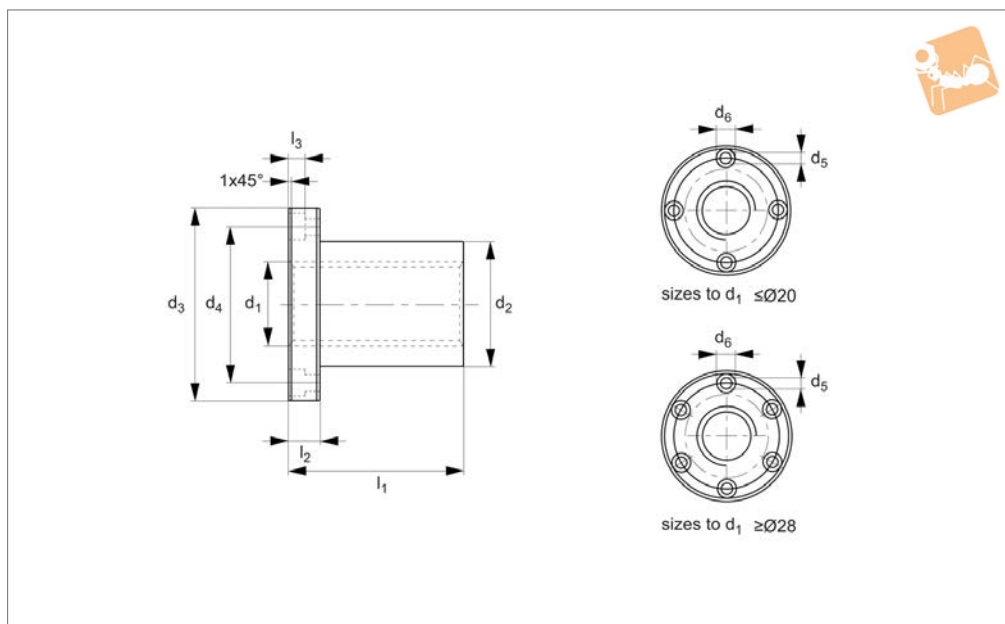
For use with stainless steel lead screws

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h11	l ₁ +0.0 -0.2	Weight kg
L1341.R12-03	TR12x3	1	12	3	Right	297	26	18	0.060
L1341.R16-04	TR16x4	1	16	4	Right	528	36	24	0.157
L1341.R20-04	TR20x4	1	20	4	Right	847	45	30	0.305
L1341.R24-05	TR24x5	1	24	5	Right	1215	50	36	0.436
L1341.R30-06	TR30x6	1	30	6	Right	1908	60	45	0.766
L1341.R36-06	TR36x6	1	36	6	Right	2799	75	54	1.462
L1341.R40-07	TR40x7	1	40	7	Right	3440	80	60	1.808
L1341.R50-08	TR50x8	1	50	8	Right	5418	90	75	2.653
L1341.L12-03	TR12x3	1	12	3	Left	297	26	18	0.060
L1341.L16-04	TR16x4	1	16	4	Left	528	36	24	0.157
L1341.L20-04	TR20x4	1	20	4	Left	847	45	30	0.305
L1341.L24-05	TR24x5	1	24	5	Left	1215	50	36	0.436
L1341.L30-06	TR30x6	1	30	6	Left	1908	60	45	0.766
L1341.L36-06	TR36x6	1	36	6	Left	2799	75	54	1.462
L1341.L40-07	TR40x7	1	40	7	Left	3440	80	60	1.808
L1341.L50-08	TR50x8	1	50	8	Left	5418	90	75	2.653





L1342



Material

Plastic (PA6.6 & MoS₂).

Technical Notes

This nut type is made of a very wear resi-

stant, self-lubricating plastic.

The extra length of these lead screw nuts (three x nominal thread $\varnothing$) greatly reduces wear.

Tips

Standard nuts are right hand thread.

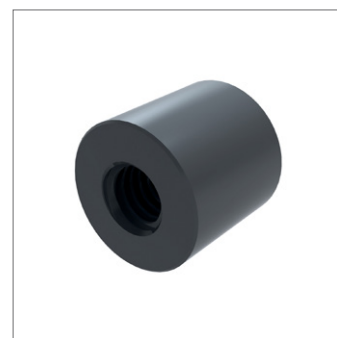
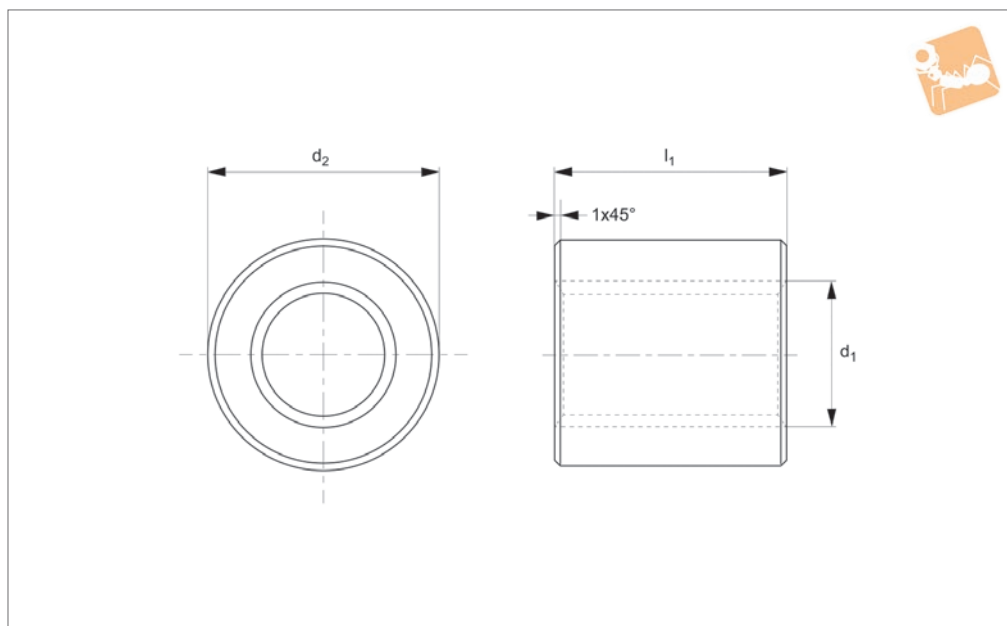
For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Order No.	Size	No. of starts	d_1 tol. 7H	Lead	Thread hand	Contact surface mm ²	d_2 +0.0 -0.3	d_3 +0.0 -0.1	d_4	d_5	d_6	l_1	l_2	l_3	Weight kg
L1342.R12-03	TR12x 3	1	12	3	Right	594	18	37	26	4,5	7,5	36	12	4,2	0,02
L1342.R16-04	TR16x 4	1	16	4	Right	1056	22	45	32	5,5	9,5	48	16	5,2	0,03
L1342.R20-04	TR20x 4	1	20	4	Right	1696	30	52	40	5,5	9,5	60	20	5,2	0,06
L1342.R20-08	TR20x 8	2	20	8	Right	1696	30	52	40	5,5	9,5	60	20	5,2	0,06
L1342.R28-05	TR28x 5	1	28	5	Right	3600	40	68	53	6,5	11,0	90	30	6,5	0,14
L1342.R28-10	TR28x10	2	28	10	Right	3600	40	68	53	6,5	11,0	90	30	6,5	0,14
L1342.R30-06	TR30x 6	1	30	6	Right	3816	40	68	53	6,5	11,0	90	30	6,5	0,13
L1342.R40-07	TR40x 7	1	40	7	Right	6880	55	84	68	8,5	14,0	120	40	8,5	0,29
L1342.R50-08	TR50x 8	1	50	8	Right	10840	65	100	80	10,5	17,0	150	50	10,5	0,48
L1342.L12-03	TR12x3	1	12	3	Left	594	18	37	26	4,5	7,5	36	12	4,2	0,02
L1342.L16-04	TR16x4	1	16	4	Left	1056	22	45	32	5,5	9,5	48	16	5,2	0,03
L1342.L20-04	TR20x4	1	20	4	Left	1696	30	52	40	5,5	9,5	60	20	5,2	0,06
L1342.L28-05	TR28x5	1	28	5	Left	3600	40	68	53	6,5	11,0	90	30	6,5	0,14
L1342.L30-06	TR30x6	1	30	6	Left	3816	40	68	53	6,5	11,0	90	30	6,5	0,13
L1342.L40-07	TR40x7	1	40	7	Left	6880	55	84	68	8,5	14,0	120	40	8,5	0,29
L1342.L50-08	TR50x8	1	50	8	Left	10840	65	100	80	10,5	17,0	150	50	10,5	0,48



Cylindrical Nylon Nuts

Lead Screws & Nuts



L1343

LEAD SCREWS & NUTS

Material

Nylon (PA 6.6).

Technical Notes

For manual or powered control and medium/high speeds under moderate

loads. Low sound levels.

Can be used without lubrication but this reduces service life.

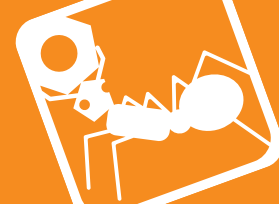
Tips

Standard nuts are right hand thread, single

starts.

For use with steel or stainless steel lead screws, L1320, L1321, L1322, and L1323.

Order No.	Size	No. of starts	d ₁ tol. 7H	Lead	Thread direction	Contact surface mm ²	d ₂ tol. h10	l ₁ +0.0 -0.1	Weight kg
L1343.R08-015	TR8x1.5	1	8	1.5	Right	150	18	16	0.005
L1343.R10-02	TR10x 2	1	10	2	Right	200	22	20	0.010
L1343.R10-04	TR10x 4	2	10	4	Right	200	22	20	0.010
L1343.R12-03	TR12x 3	1	12	3	Right	280	26	24	0.012
L1343.R12-06	TR12x 6	2	12	6	Right	280	26	24	0.012
L1343.R16-04	TR16x 4	1	16	4	Right	490	36	32	0.032
L1343.R16-08	TR16x 8	2	16	8	Right	490	36	32	0.032
L1343.R20-04	TR20x 4	1	20	4	Right	790	45	40	0.060
L1343.R20-08	TR20x 8	2	20	8	Right	790	45	40	0.060
L1343.R24-05	TR24x 5	1	24	5	Right	1130	50	48	0.088
L1343.R24-10	TR24x10	2	24	10	Right	1130	50	48	0.088
L1343.R30-06	TR30x 6	1	30	6	Right	1780	60	60	0.150
L1343.R30-12	TR30x12	2	30	12	Right	1780	60	60	0.150
L1343.R36-06	TR36x 6	1	36	6	Right	2160	75	72	0.300
L1343.R36-12	TR36x12	2	36	12	Right	2160	75	72	0.300
L1343.R40-07	TR40x 7	1	40	7	Right	3210	80	80	0.370
L1343.R40-14	TR40x14	2	40	14	Right	3210	80	80	0.370
L1343.L10-02	TR10x2	1	10	2	Left	200	22	20	0.010
L1343.L12-03	TR12x3	1	12	3	Left	280	26	24	0.012
L1343.L16-04	TR16x4	1	16	4	Left	490	36	32	0.032
L1343.L20-04	TR20x4	1	20	4	Left	790	45	40	0.060
L1343.L24-05	TR24x5	1	24	5	Left	1130	50	48	0.088
L1343.L30-06	TR30x6	1	30	6	Left	1780	60	60	0.150
L1343.L36-06	TR36x6	1	36	6	Left	2160	75	72	0.300
L1343.L40-07	TR40x7	1	40	7	Left	3210	80	80	0.370



To select the correct size of lead screw and nut to use, please take into consideration the following three points:

1. The size required to minimise the wear of the nut due to friction.
2. The maximum load the screw can take before it bends.
3. The maximum rpm the screw can run at before it begins to vibrate.

Finding a size to minimise the wear of a nut

Due to friction between the lead screw and nut, some of the power put into the lead screw is lost as heat. The solution is to limit the contact surface area between the lead screw and nut as this will help reduce the amount of friction and wear on the nut.

Lead screws are used to convert rotary motion into linear motion.

The efficiency of a lead screw and nut is defined as the amount of power you get from the nut in relation to the amount of power you put into the lead screw to begin with.

For example, P_t (the power you put into the screw) divided by P_u (the power you get from the nut) = the efficiency.

The efficiency depends on the friction between the contact surfaces of the lead screw and nut, and the lead angle of the thread.

The speed the nut moves along the lead screw must also be taken into consideration in order to limit the amount of friction in the system.

Please see the formulae on the next page which help in calculating the speeds in your application.

Calculation of the Contact Surface Pressure p

The contact surface pressure p is calculated using the following formula.

$$p = \frac{F}{A_t}$$

F = Axial Force (N)

A_t = Contact Surface Area (mm^2)

For standard nuts each A_t value has been listed in the product tables



Calculating of the sliding speed V_{st}

The sliding speed is the result of the speed at which the nut moves and the friction.

Calculating the sliding speed helps you to calculate the required rpm of a screw if you know what speed the nut must move at, or help to calculate how fast the nut will move if you know the rpm of the screw.

You must first find the sliding speed of your lead screw and nut using one of the below formulae and then use this to calculate either rpm or output speed of the nut.

The sliding speed is calculated using one of the following formulae.

If the rpm of the screw has already been defined:

$$V_{st} = \frac{n \cdot P}{1000 \cdot \sin \alpha}$$

V_{st} = sliding speed on mean diameter (m/min)

n = rpm

P = thread pitch (mm)

α = thread helix angle

If you have already established at which speed the nut must move:

$$V_{st} = \frac{V_{tr}}{\sin \alpha}$$

V_{st} = sliding speed on mean diameter (m/min)

V_{tr} = motion speed (m/min)

α = thread helix angle

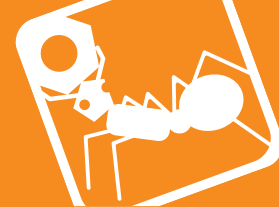
Please note that the rpm and the speed at which the nut moves are bounded as follows:

$$n \text{ (rpm)} = \frac{1000 \cdot V_{tr}}{P}$$

n = rpm

V_{tr} = speed at which the nut moves (m/min)

P = thread pitch (mm)



The critical rpm is the speed at which screw vibration begins to appear. This rpm speed must never be reached because the vibrations cause serious operating issues. The critical rpm depends on lead screw diameter, how the ends of the lead screw are supported, the free length (lg), and how accurately the lead screw is assembled.

For values shown in the following graphs assume a minimum safety factor for assembly accuracy as per the following chart.

Assembly accuracy coefficient

Assembly accuracy	Conditions	Safety coefficient
Good assembly accuracy: Nut alignment to screw within 0,05mm	Assembly to which the bearing mounts are assembled CNC machined very accurately.	1,3 – 1,6
Average assembly accuracy: Nut alignment to screw within 0,10mm	Bearing mounts installed onto assembly that has not been CNC machined, alignments accurately checked after mounting.	1,7 – 2,5
Low assembly accuracy: Nut alignment to screw within 0,25mm	Bearing mounts installed onto assembly that has not been CNC machined and alignment is not checked accurately.	2,6 – 4,5

Example

To find the critical rpm of a lead screw 40 mm diameter with 7 mm lead, 3 metres long with end support configuration double bearing one end, single bearing the other end (see graph 3) with average assembly accuracy.

Critical rpm graph 3 gives the critical rotation speed of 1000 rpm.

From the assembly accuracy coefficient chart we take the maximum value for the safety coefficient = 2,5

We can calculate the acceptable working speed at a maximum rpm of

$$N_{\max} = 1000/2,5 = 400 \text{ rpm}$$



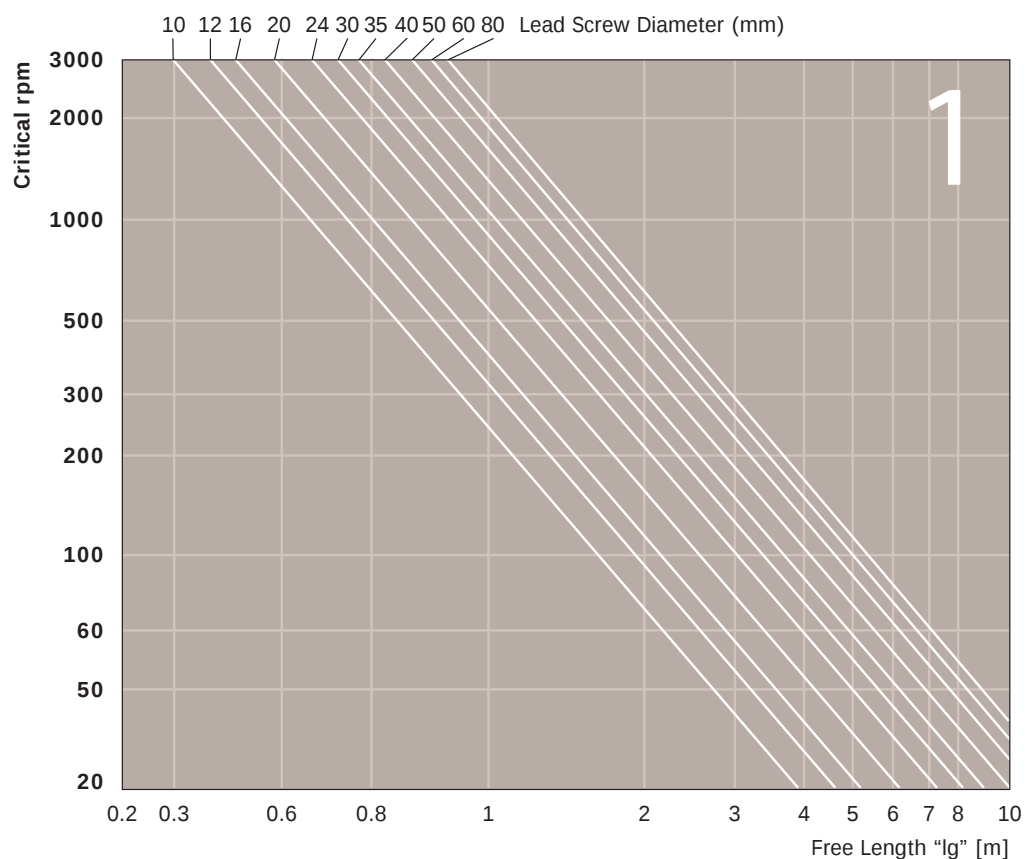
Lead Screws

Critical RPM

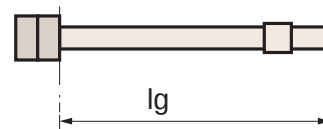


Lead Screws

Critical RPM - Graph 1

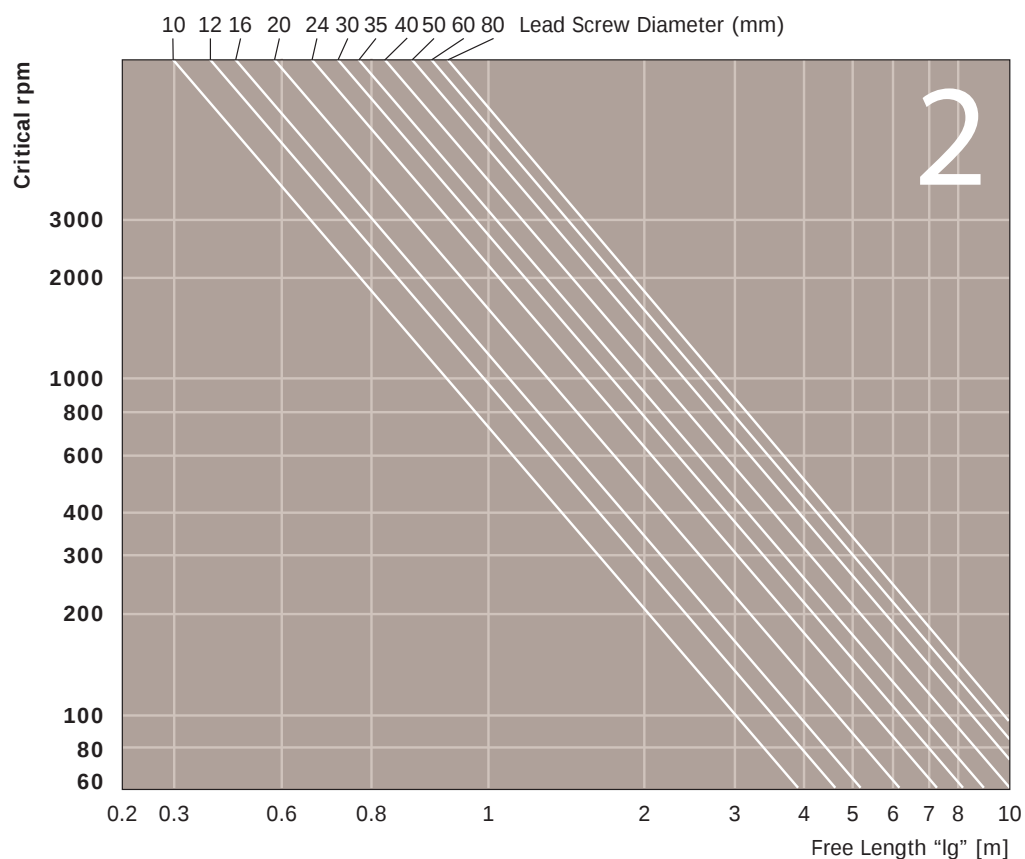


Supported one end only by double bearing

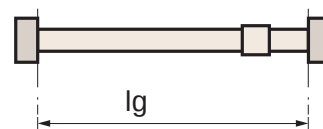


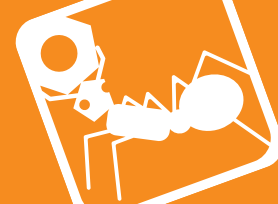
LEAD SCREWS & NUTS

Critical RPM - Graph 2



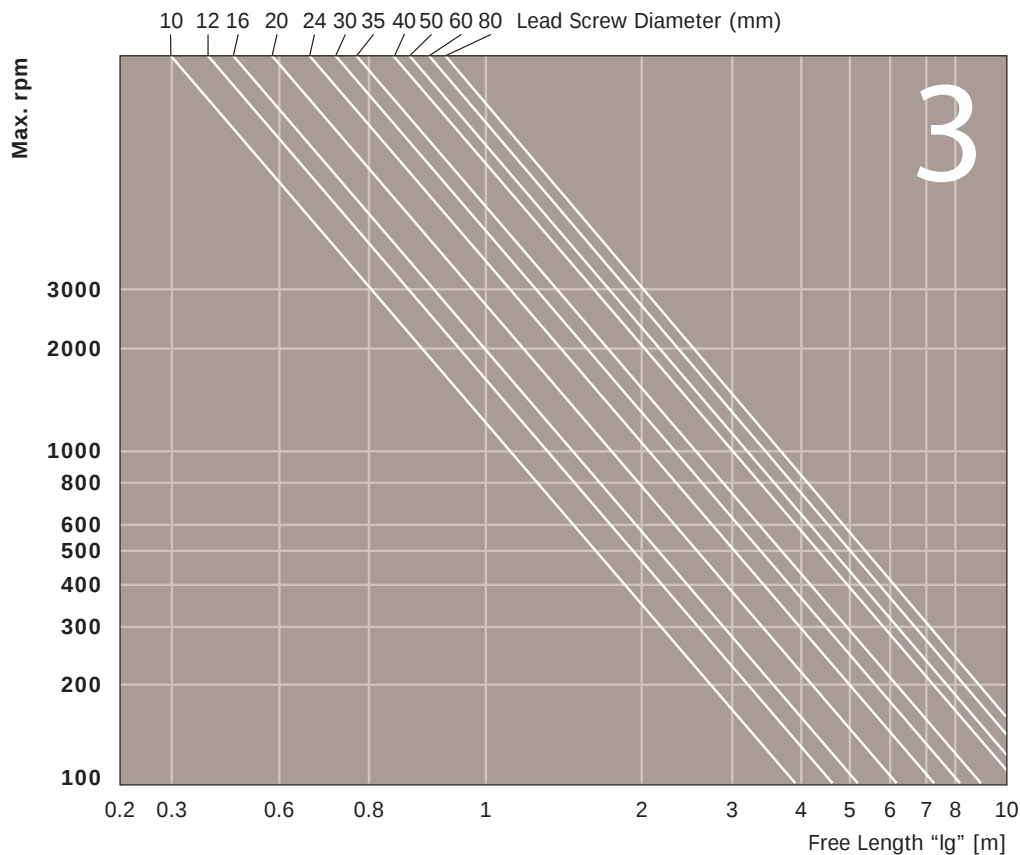
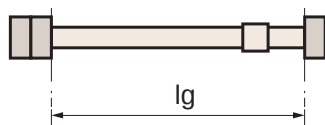
Supported each end by single bearings





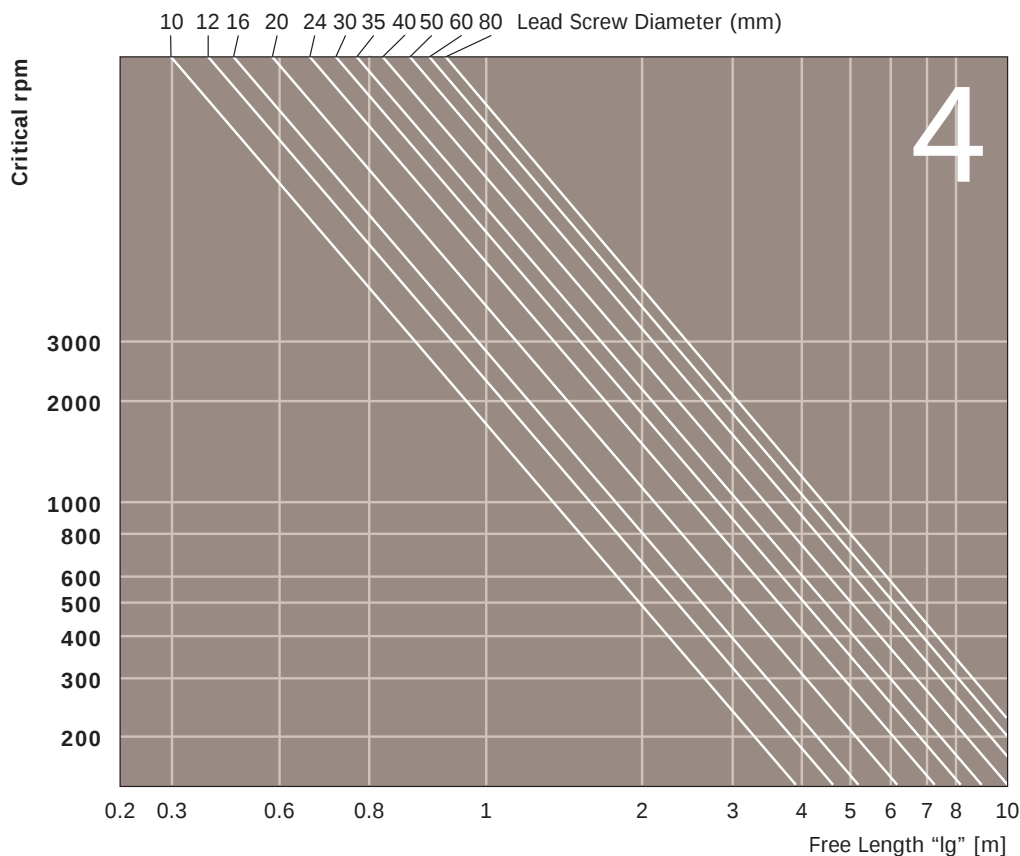
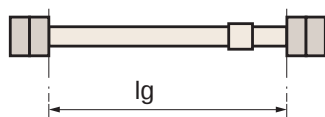
Critical RPM Graph 3

Supported each end. Double bearing one end, single bearing the other end



Critical RPM Graph 4

Supported by double bearings each end





Efficiency

The numerical efficiency values of each limit are shown in the table 'Trapezoidal Lead Screw and Nut Specifications'.

The larger the lead angle of a lead screw, the greater the efficiency is for the lead screw.

It is therefore recommended, where possible, to use a lead screw with a lead angle as high as possible.

The lead angle for each size of screw can also be found in the trapezoidal lead screw and nut specifications table. To help reduce friction as far as possible, we make precision rolled trapezoidal lead screws with minimal roughness on the side of the threads, always less than $1\mu\text{ Ra}$ (usually 0.2 to 0.7μ).

For applications where low friction is important, we also make wear resistant self lubricating flanged plastic nuts. The friction factor of these is 0.1 with the initial breakaway friction factor being 0.15 .

$$\eta = \frac{1 - f \cdot \tan \alpha}{1 + \frac{f}{\tan \alpha}}$$

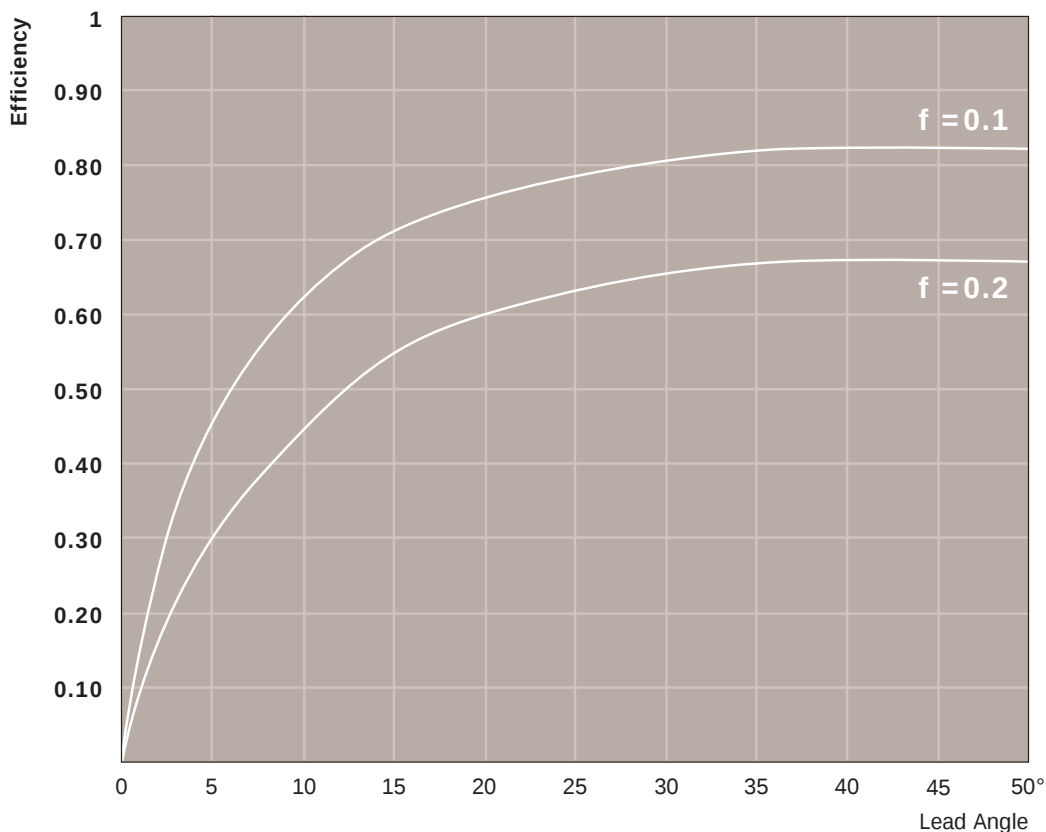
η = efficiency

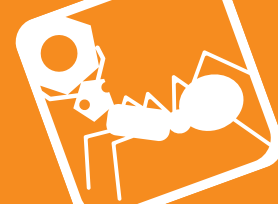
f = dynamic friction factor between screw and nut materials

α = lead angle of threads

The numerical efficiency values of each limit are shown in the 'Trapezoidal Lead Screw and Nut Specifications' table.

Efficiency





Diameter x lead	Lead angle	Max. efficiency η $f=0.1^*$	Min. efficiency η $f=0.2^*$	Moment of inertia mm^4	Radial play between screw and nut min.	Radial play between screw and nut max.	Axial play between screw and nut min.	Axial play between screw and nut max.
10 x 2	4°02'	0,41	0,26	131	0,071	0,511	0,019	0,137
10 x 4	8°03'	0,58	0,40	131	0,071	0,511	0,019	0,137
12 x 3	5°12'	0,47	0,31	215	0,085	0,609	0,023	0,163
12 x 6	10°19'	0,63	0,46	215	0,085	0,609	0,023	0,163
14 x 3	4°22'	0,43	0,27	518	0,085	0,609	0,023	0,163
14 x 6	8°41'	0,59	0,42	518	0,085	0,609	0,023	0,163
16 x 4	5°12'	0,47	0,31	738	0,095	0,715	0,025	0,192
16 x 8	10°19'	0,63	0,46	738	0,095	0,715	0,025	0,192
18 x 4	4°33'	0,44	0,28	1434	0,095	0,715	0,025	0,192
18 x 8	9°02'	0,60	0,43	1434	0,095	0,715	0,025	0,192
20 x 4	4°03'	0,41	0,26	2534	0,095	0,715	0,025	0,192
20 x 8	8°03'	0,58	0,40	2534	0,095	0,715	0,025	0,192
22 x 5	4°40'	0,45	0,28	3232	0,106	0,761	0,028	0,204
22 x 10	9°16'	0,61	0,43	3232	0,106	0,761	0,028	0,204
24 x 5	4°14'	0,42	0,27	5175	0,106	0,806	0,028	0,216
24 x 10	8°25'	0,59	0,41	5175	0,106	0,806	0,028	0,216
26 x 5	3°52'	0,40	0,25	7884	0,106	0,806	0,028	0,216
26 x 10	7°42'	0,57	0,39	7884	0,106	0,806	0,028	0,216
28 x 5	3°34'	0,38	0,23	11539	0,106	0,806	0,028	0,216
28 x 10	7°07'	0,55	0,37	11539	0,106	0,806	0,028	0,216
30 x 6	4°03'	0,41	0,26	13650	0,118	0,903	0,032	0,242
30 x 12	8°03'	0,58	0,40	13650	0,118	0,903	0,032	0,242
32 x 6	3°46'	0,39	0,24	17580	0,118	0,903	0,032	0,242
32 x 12	7°30'	0,56	0,38	17580	0,118	0,903	0,032	0,242
36 x 6	3°19'	0,36	0,22	34540	0,118	0,903	0,032	0,242
36 x 12	6°36'	0,53	0,36	34540	0,118	0,903	0,032	0,242
40 x 7	3°30'	0,38	0,23	51030	0,125	0,955	0,033	0,256
40 x 14	6°58'	0,54	0,37	51030	0,125	0,955	0,033	0,256
44 x 7	3°09'	0,35	0,21	81820	0,125	0,955	0,033	0,256
50 x 8	3°10'	0,35	0,21	136900	0,132	1,062	0,035	0,285
55 x 9	3°15'	0,36	0,22	189550	0,140	1,125	0,038	0,301
60 x 9	2°57'	0,34	0,20	302600	0,140	1,125	0,038	0,301
70 x 10	2°48'	0,33	0,19	587500	0,150	1,135	0,040	0,304
80 x 10	2°26'	0,30	0,17	1069000	0,150	1,135	0,040	0,304
90 x 12	2°36'	0,31	0,18	1658000	0,170	1,295	0,046	0,347
95 x 16	3°21'	0,37	0,22	1647000	0,190	1,500	0,051	0,402
100 x 16	3°10'	0,35	0,21	2124000	0,190	1,500	0,051	0,402
120 x 16	2°36'	0,31	0,16	5130000	0,190	1,500	0,051	0,402

* Please refer to page 248 for more information on the efficiency.

Diameter x lead	Lead accuracy $\mu/300\text{mm}$	Straightness mm/μ
10 x 2 to 20 x 4	0,1	0,5/300
22 x 5 to 60 x 9	0,1	0,2/300
70 x 10 to 80 x 10	0,1	0,4/300
90 x 12	0,2	0,5/300
95 x 16 to 120 x 16	0,2	1,0/300



$$h_1 = 0,5 P$$

$$h_3 = h_4 = h_1 + x = 0,5 P + x$$

$$z = 0,25 P = h_1/2$$

$$d_3 = d - 2 h_3$$

$$d_2 = D_2 = d - 2 z = d - 0,5 P$$

$$D_2 = d + 2 x$$

P = thread pitch

d_1 = nominal thread diameter

d_3 = core thread diameter

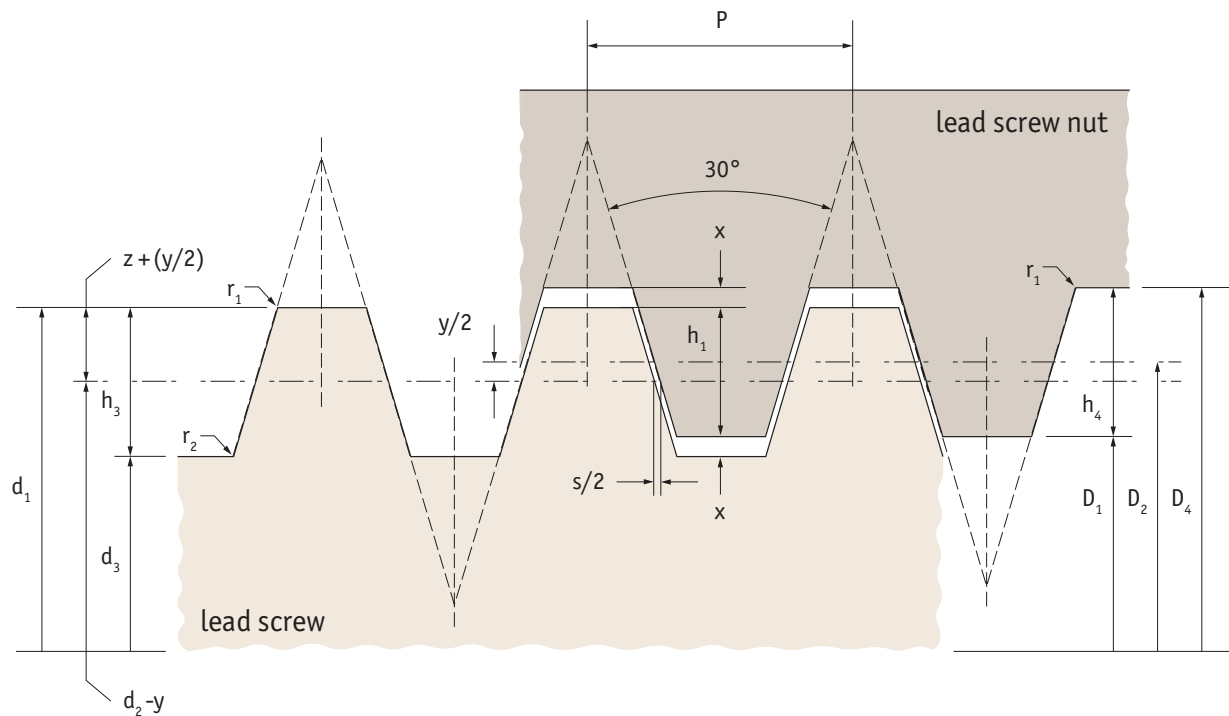
x = bottom play

y = top deviation for screw

s = 0,26795 y

$r_1 \text{ max.} = 0,5 x$

$r_2 \text{ max.} = x$



Reversibility/backdrive

No backdrive where lead angle $< 2^\circ 30'$.

At angles up to $5-6^\circ$ there is a low potential of system backdrive.

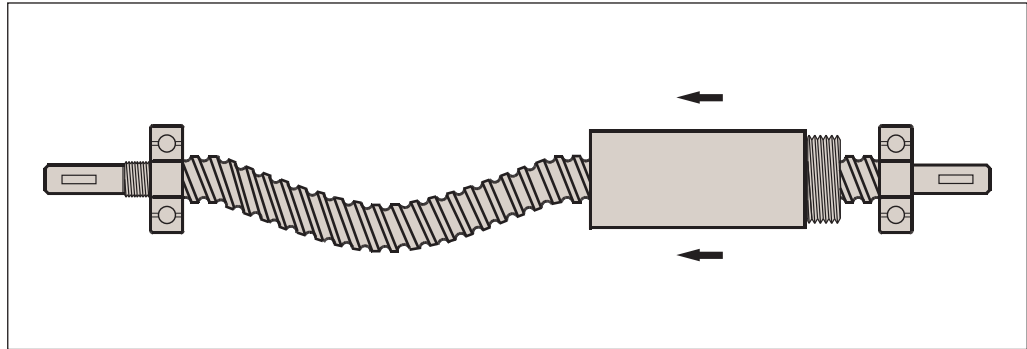
Backdrive is important in vertical applications.



Maximum compression load

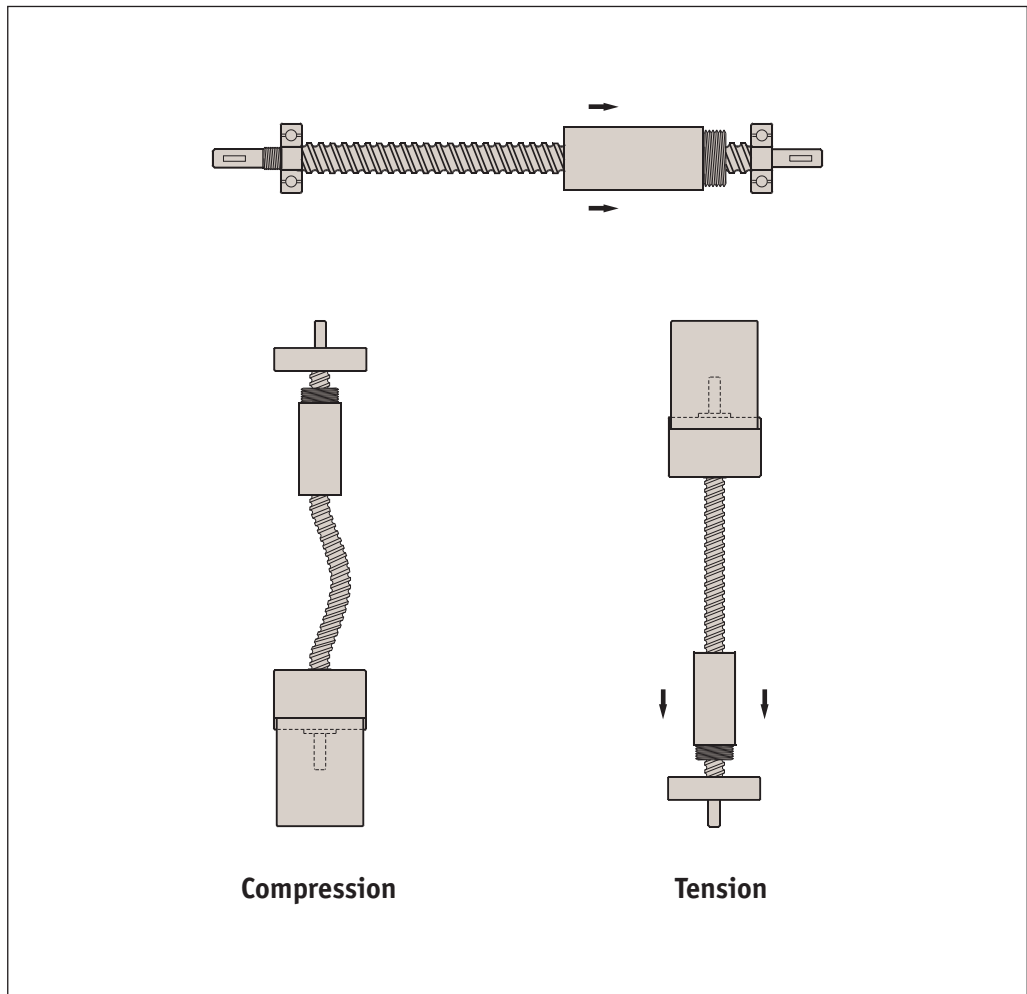
The load acting upon a nut that would tend to compress or buckle the screw. Also referred to as column loading, this rating is effected by the load, support type, screw diameter, and length between the load point and support housing.

Normally, a screw also experiences a tension load (a force which attempts to stretch the screw). For vertical applications, it is better to configure the screw assembly so that the screw is in tension, and not in compression. To find maximum compression load a screw can take, please refer to critical axial load technical pages.



Tension loading

The load acting upon a nut that would tend to stretch the screw. The maximum tension load of a screw assembly is the load rating of the nut. For vertical applications, it is better to configure the ball screw assembly so that the screw is in tension and not in compression.



Compression

Tension



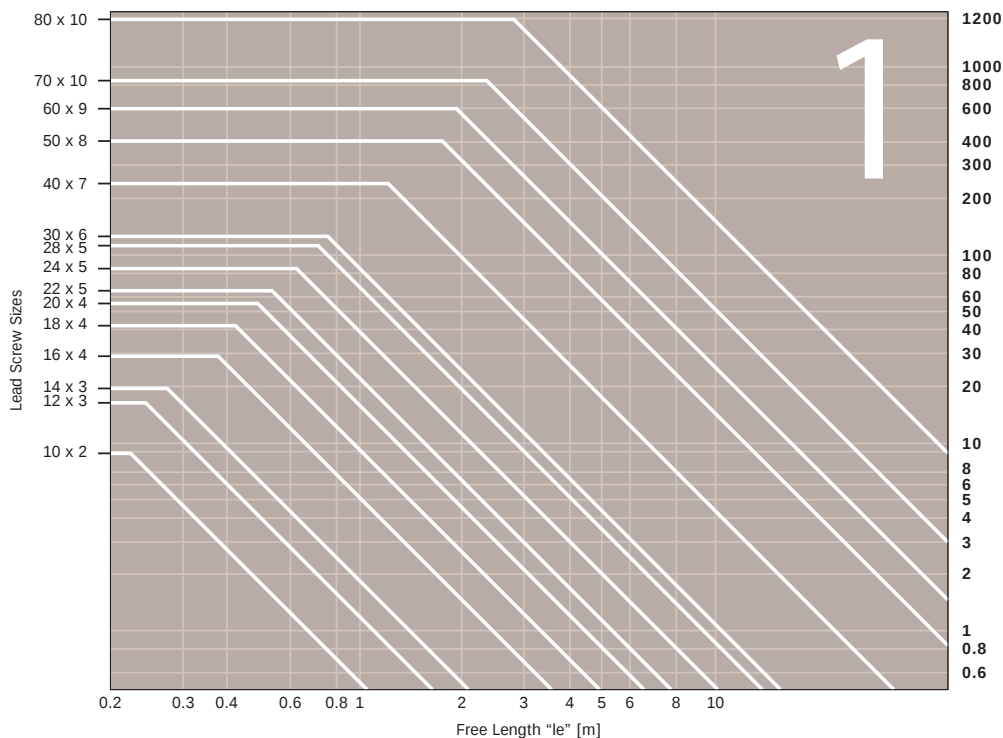
Lead Screws

Critical axial load - Peak load

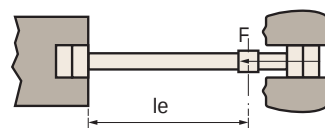
Lead Screws

When choosing a lead screw you need to consider the critical axial load to avoid the screw bending under excessive loads. This is the buckling load. This is important where the end screws are being used in compression. The critical axial load depends on the core diameter of the lead screw (d_o), how the lead screw is supported at each end, and the free length of screw (l_e). In the graphs below, please allow a minimum safety factor of > 2 .

Critical axial load - Double bearings



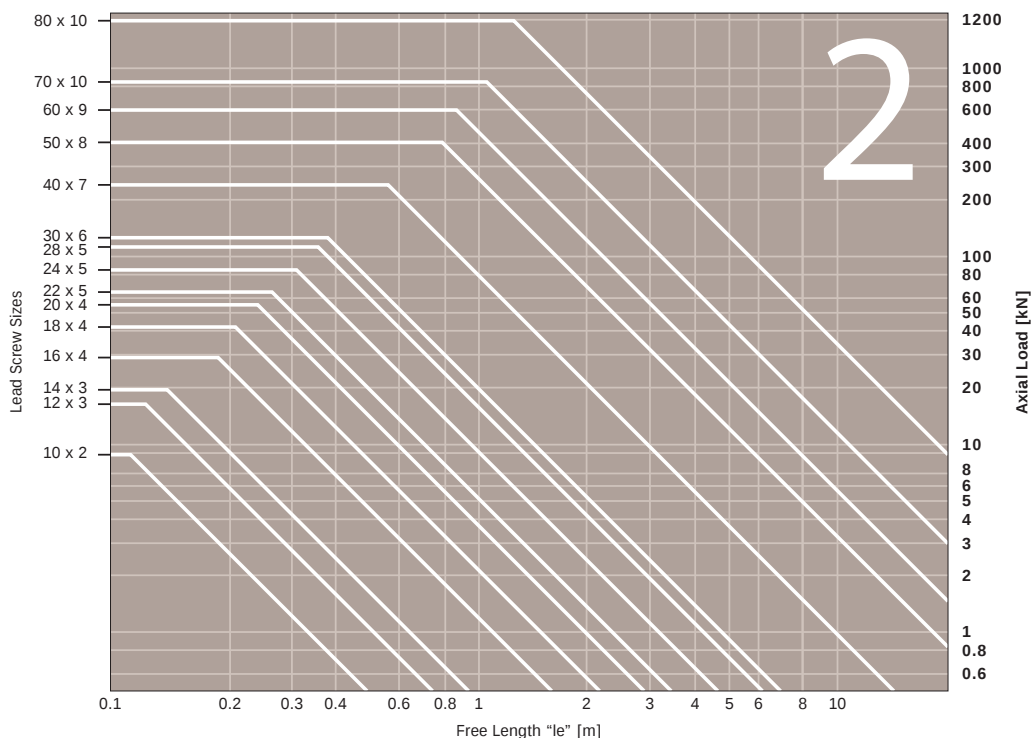
Supported each end by double bearings



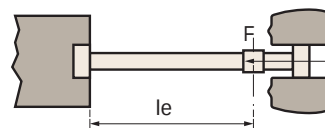
Example

Find the allowable axial load of a 30x6 screw 3000mm long with constraint conditions as in drawing 1. From the accompanying graph take $F_{max}=11\text{kN}$ with safety factor of 2 and assume $F_{all} = 11/2=5,5\text{kN}$.

Critical axial load - Single bearings

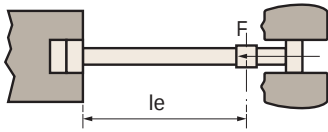


Supported each end by single bearings

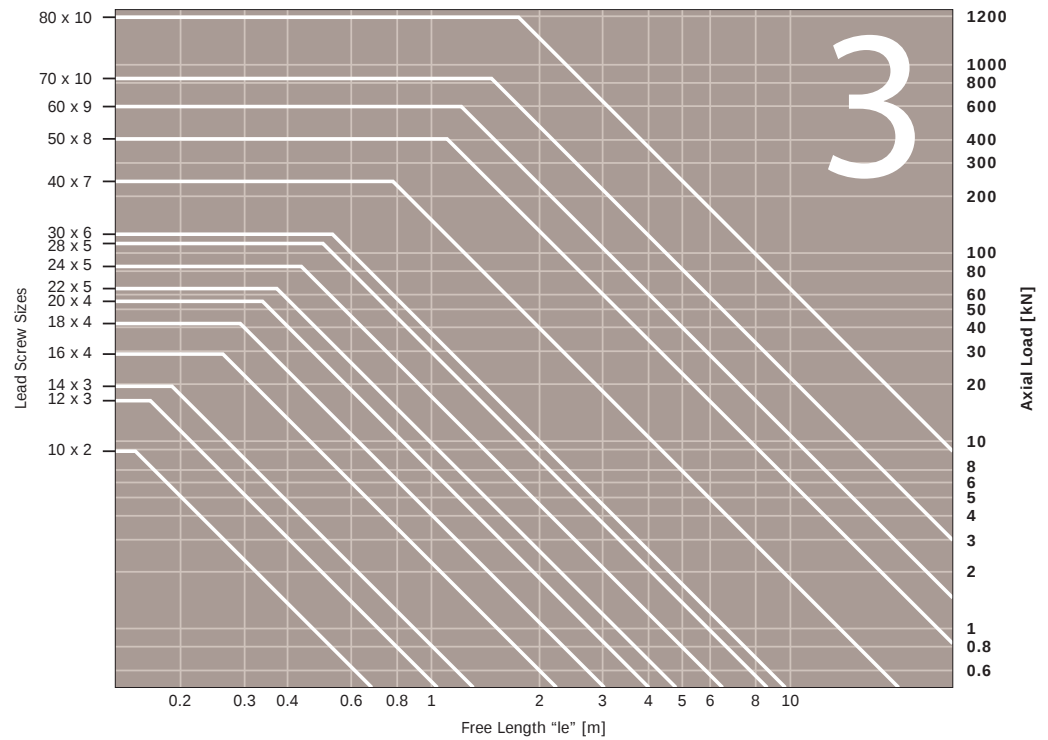




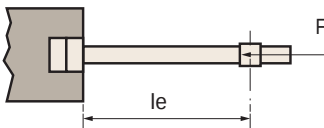
Supported each end.
Double bearings one end,
single bearing the other end



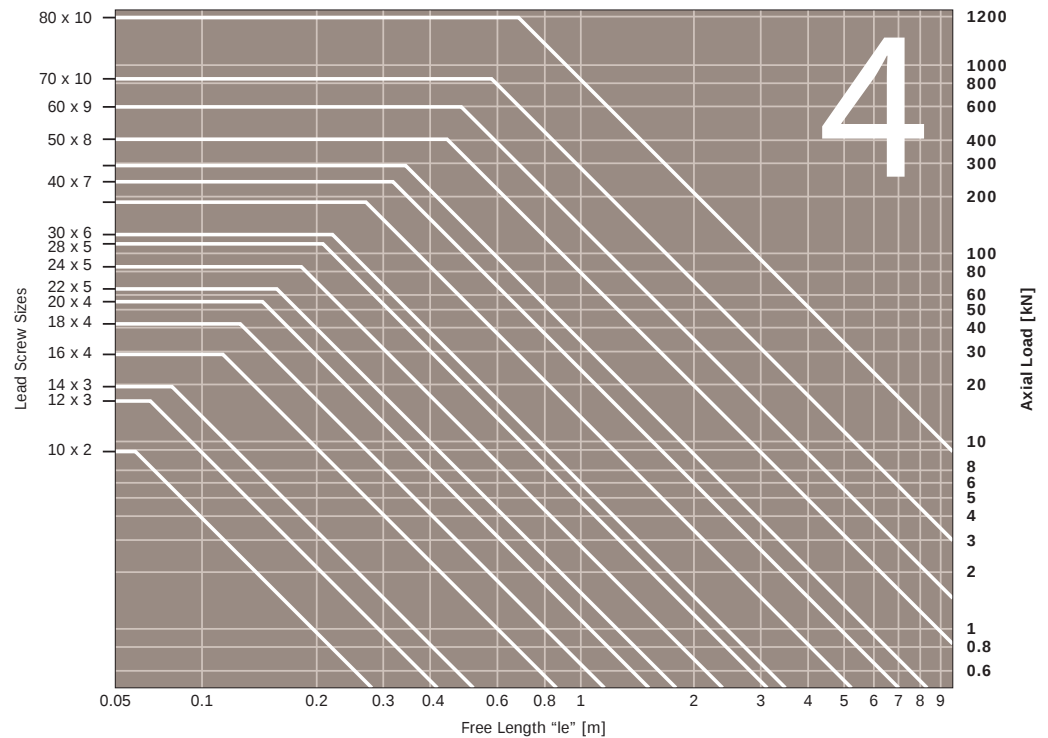
Critical axial load- Double/single bearings



Supported one end only by
double bearing



Critical axial load- Double bearing one end





Torque

The torque necessary to move a screw and nut system is calculated from the following equation.

$$C = \frac{F \cdot P}{2\pi \cdot n \cdot 1000}$$

C = torque (input) (Nm)

F = axial force on nut (N)

P = true lead of screw (mm)

η = efficiency (assume efficiency with first breakaway friction factor $f = 0.2$)

Example

Find the torque required to move a 30x6 lead screw and nut

Resistant axial force = 10.000 N

$\eta = 0.26$

Screw lead = 6 mm

$$\text{Torque} = \frac{F \cdot P}{2\pi \cdot n \cdot 1000} = \frac{10.000 \text{ (N)} \cdot 6 \text{ (mm)}}{2 \cdot \pi \cdot 0.26 \cdot 1000} = 36.7 \text{ Nm}$$

The torque value however does not consider the efficiency of mechanical parts moving together with the screw system, such as bearings, belts or other transmission components.

In a planning project phase, an increase between the 20% and 30% of the theoretical value is recommended. If electric motors with low static torque are used assume another increase of 50% to find nominal torque.

$$C = 36.7 \text{ (Nm)} \cdot 1.3 \cdot 1.5 = 71.6 \text{ Nm}$$

Power

The power necessary to move a trapezoidal screw and nut system is calculated from the following equation.

$$P = \frac{C \cdot n}{9550}$$

9550 is a constant

P = power (kW)

C = torque (Nm)

n = rpm

Example of calculation

Calculate the power necessary to move the screw 30 x 6 in the above example at 600 rpm

$$P = \frac{C \cdot n}{9550} = \frac{71.6 \text{ (Nm)} \cdot 600 \text{ (rpm)}}{9550} = 4.5 \text{ kW}$$

This is the minimum power necessary to move the system



General considerations for bronze nuts

In all three situations described, the wear of the nut is affected by the lubrication used during operation and as such, giving accurate figures for the life expectancy of the nut is impossible.

Extra care must be taken when the temperature of the application is above +140°/150°C, as such temperatures can damage lubricants and as a consequence, cause the nut to wear quicker. In these situations we recommend the use of lubricants designed for high temperatures.

Safety factor for the forces of inertia f_i

During the selection process we must also check that the inertia forces present during acceleration and deceleration are relatively low so that the value of $p \bullet Vst$ remains within the controlled limits. Whereas this calculation is difficult, in the presence of a non-uniform movement or under great variations, safety factors reported in the chart below must be considered.

Safety factors with respect to the forces of inertia

Load type	f_i
Loads with constant acc. / dec. controlled	from 1,00 to 0,50
Loads with constant start and stop at tear	from 0,50 to 0,33
Loads and speed greatly variable	from 0,33 to 0,25
Loads in presence of shocks and vibrations	from 0,25 to 0,17

The coefficient f_i is used to correct the value of $(p \bullet Vst)_{max}$ derived from the 'Sliding Condition for Bronze' graph, considering the maximum allowable sliding speed in relation to the contact surface in working conditions. Working area limits (A, B or C) must be taken into consideration.

To calculate the admissible $p \bullet Vst$ of the nut in working conditions the following must be used

$$p \bullet Vst_{am} = (p \bullet Vst)_{max} \bullet f_i$$

Example of calculation with bronze nut

Selecting a bronze nut which must operate continuously and remain within the maximum limit value of $p \bullet Vst = 21$ (Area A), with good lubrication. Constant axial load without relevant variations, with forces of inertia limited by controlled acceleration/deceleration.

Axial Load $F = 1200N$ (1Kg $f=9,81N$)
 Constant motion speed $Vtr = 2,8m/min$
 Evaluation of $p \bullet Vst$ using nut L1331.R30-06
 (bronze flanged nut with thread Tr 30x6 1 start, right)

$$P = \frac{F}{At} = \frac{1200 (N)}{1370 (mm^2)} = 0,87 N/mm^2$$

F = Axial Force (N)

At = Contact Surface Area (mm^2).

For standard nuts each At value is listed in the product tables.



Lead Screws

Choosing a nut size

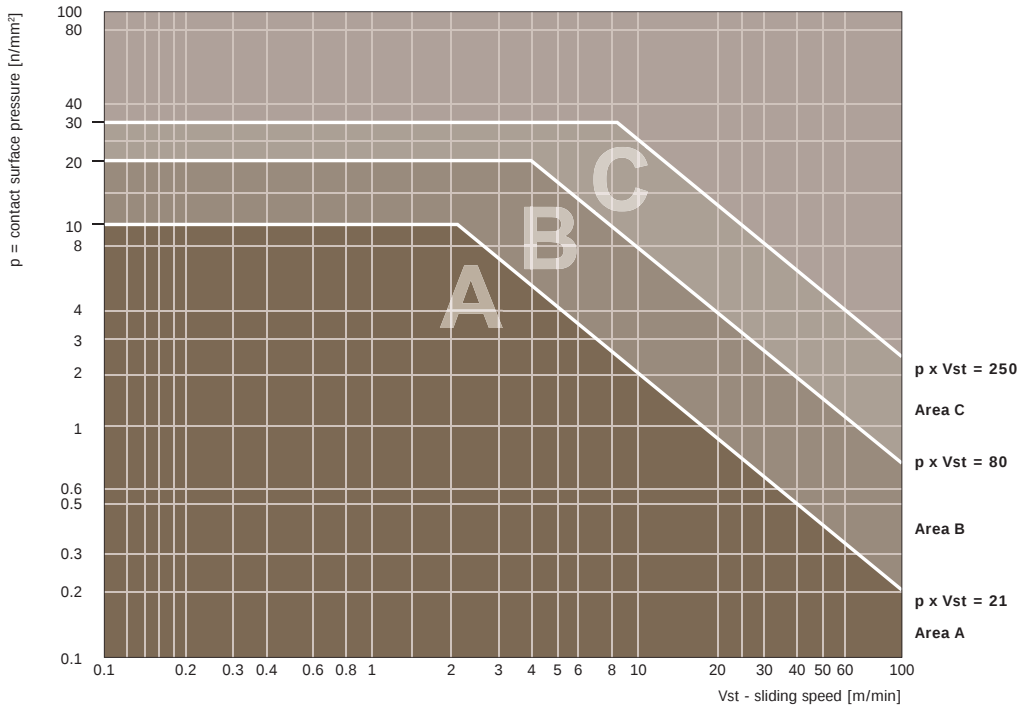
Lead Screws

Lead Screws from Automation Components

Bronze nut sizing

When using a bronze nut, calculate the sliding speed and use the graph below to see if it is suitable. The graph has three areas each characterised by certain working conditions. These figures are evaluations obtained from the results of experiments we have carried out. Good lubrication is always required, if little or no lubrication is used the working conditions may vary greatly.

Sliding condition for bronze.



Area A Area A is enclosed by the limit $p \cdot Vst = 21$ (N/mm² • m/min)

These are the best operating conditions.

Continuous operation is possible as the amount of friction produced within these limits $p \cdot Vst$ is pretty low. Therefore the life of the nut is very good.

Area B Area B is enclosed by the limit $p \cdot Vst = 80$ (N/mm² • m/min)

These operating conditions are more severe. Constant lubrication is required to help prevent wear of the nut and improve its lifetime.

Continuous operation is possible for limited periods only as the amount of friction produces overheating of the nut. Although lubrication helps reduce heat, the life of the nut is limited.

Area C Area C is enclosed by the limit $p \cdot Vst = 250$ (N/mm² • m/min)

In this area, the operating conditions are very severe.

Continuous operation is not possible.

Even with good lubrication the amount of friction and heat produced causes rapid wear of the nut.



The sliding speed is calculated using formulae:

$$V_{st} = \frac{V_{tr}}{\sin \alpha} = \frac{2.8 \text{ m/min}}{\sin 4^{\circ}03'}$$

$$V_{st} \cong 39,84 \text{ m/min}$$

V_{tr} = motion speed (m/min) α = thread helix angle

The value $p \bullet V_{st}$ is:

$$p \bullet V_{st} = 0,87 \text{ N/mm}^2 \bullet 39,84 \text{ m/min} \cong 34,66 \text{ N/mm}^2 \bullet \text{m/min}$$

In order to remain within the continuous working conditions, corrected by the safety factor f_i from the table, in this case =0,77, the maximum allowable value of $p \bullet V_{st}$ is:

$$p \bullet V_{st \text{ am}} = (p \bullet V_{st})_{\max} \bullet f_i = 21 \bullet 0,77 \text{ N/mm}^2 \bullet \text{m/min}$$

$$p \bullet V_{st \text{ am}} = 16,15 \text{ N/mm}^2 \bullet \text{m/min}$$

As the maximum allowable value of $p \bullet V_{st}$ is lower than the value obtained with a nut L1331.R30-06, we shall try using a nut L1335.R36-06 (square bronze nut with 36x6 thread)

The contact surface pressure is:

$$p = \frac{F}{A_t} = \frac{1200 \text{ (N)}}{3630 \text{ (mm}^2\text{)}} = 0,33 \text{ N/mm}^2$$

F = Axial Force (N)

A_t = Contact Surface Area (mm²)

The sliding speed remains the same as the previous calculation

$$V_{st} = 39,84 \text{ N/mm}^2$$

The value of $p \bullet V_{st}$ is now:

$$p \bullet V_{st} = 0,33 \text{ N/mm}^2 \bullet 39,84 \text{ m/min} \cong 13,15 \text{ N/mm}^2 \bullet \text{m/min}$$

The value obtained is now lower than the allowable one, therefore the L1335.R36-06 will be suitable.



Lead Screws

Plastic nut selection

Lead Screws

In applications where low noise is important or where lubrication is not allowed (grease or oil), self lubricating plastic nuts are recommended. The use of plastics is very constrained by the actual working conditions, we suggest discussing the application with our technical department and not relying on a choice based only on intuition. This is because plastic materials have good features such as low friction and self-lubrication, but at the same time limitations caused by operating temperatures, hygroscopic problems, or certain mechanical features that may not be suitable for the intended use. An advanced study of the application in this case is therefore required in order to obtain optimum performance.

Regarding the plastic nuts, the study of the product $p \bullet V_{st}$ allows you to draw a chart which shows a curve that limits the values of $p \bullet V_{st}$ within which we have a gentle flow of the surfaces in contact with limited wearing of the nut and constant in time. Operating outside the limit drawn on the chart is not possible as in this case as the nut would wear quickly.

Cylindrical Nut L1343

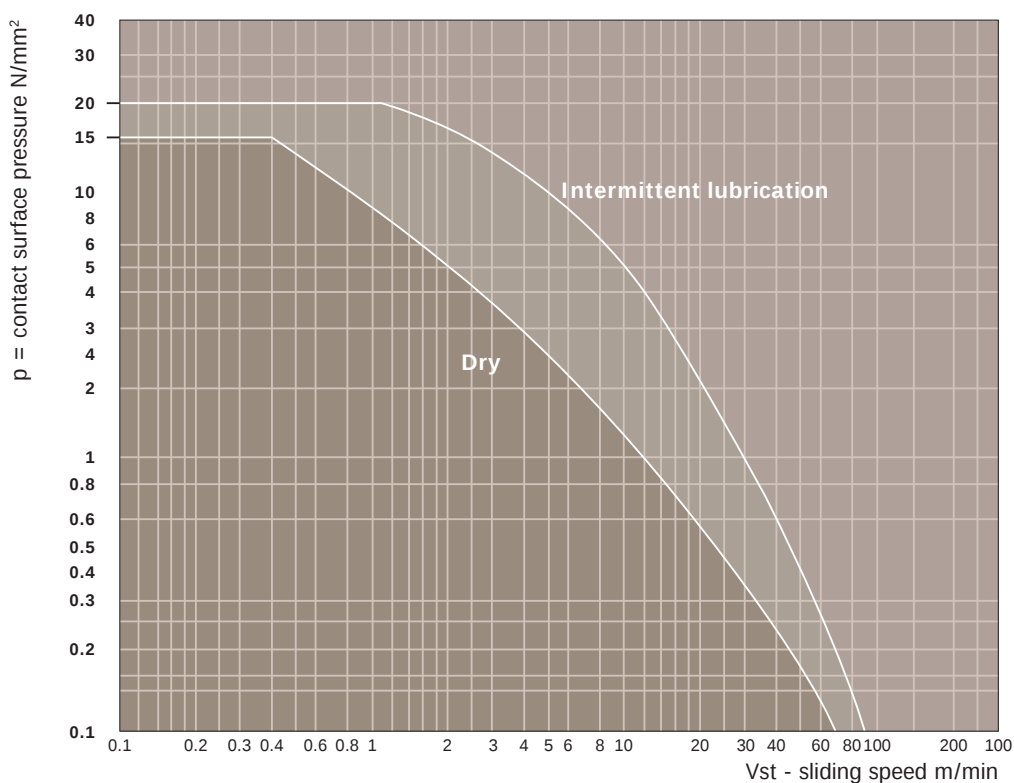
The graph below shows the limit of $p \bullet V_{st}$ of the cylindrical nut L1343. As this plastic is resistant to wear but not self-lubricating, the following limits have been shown when the nut is dry, and when it is lubricated intermittently.

Sliding condition for nuts L1343

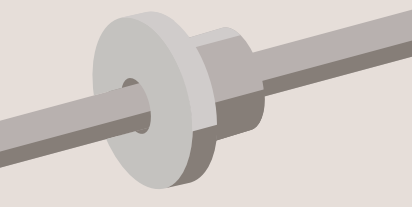
Test conditions:

- Continuous operation.
- Temperature 23°C.
- Relative humidity approx 50%.

Recommended Speeds



Lead Screws from Automation Components



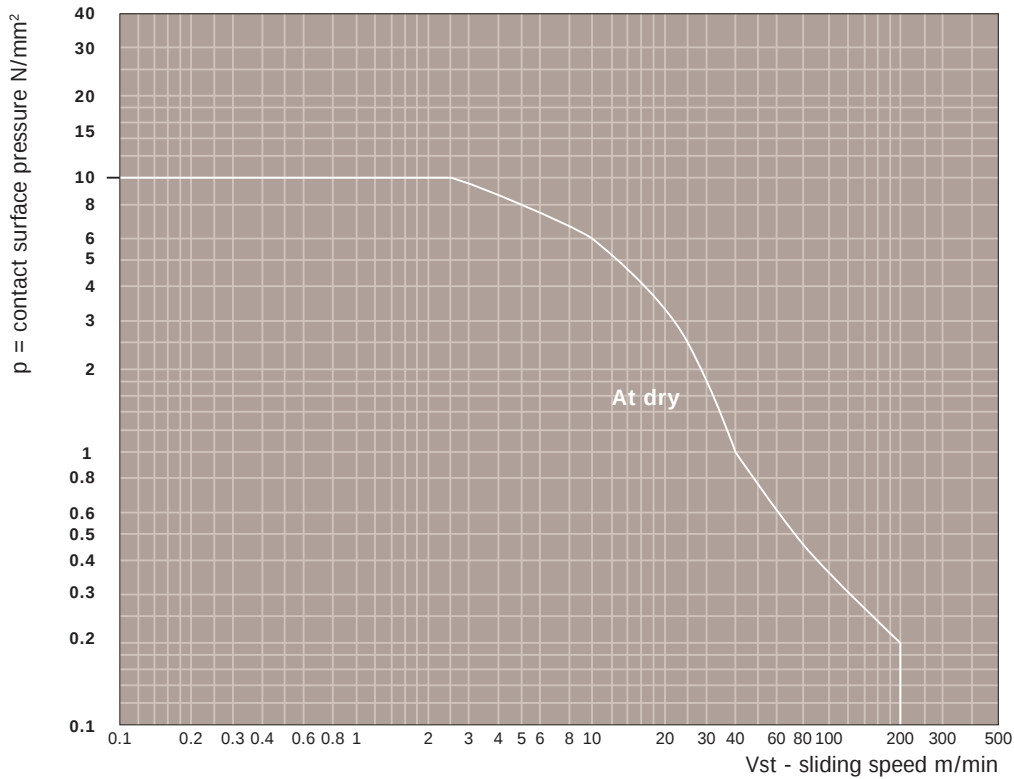
Lead Screws

Self-lubricating plastic flanged nut L1342



The graph below shows the limit of $p \bullet V_{st}$ of nut L1342. The plastic used for the L1342 features a strong resistance to wear and complete self-lubricating properties.

Prior to using the L1342, please read the previous pages.



Sliding conditions for self-lubricating plastic nuts L1342

Test conditions:

- Continuous operation.
- Temperature 23°C.
- Relative humidity approx 50% with no lubrication.

Lead Screws from Automotion Components



Technical Information

Lead screws supporting rail systems

Lead Screws

Compact rail

Advantages

Easy to install. Allows for some misalignment at installation. Compact system, small footprint compared to other rail systems. Preload adjustable by hand.

Disadvantages

Although it can take very large loads it cannot take anywhere near as much load as the linear guideways rail system.



X Rail

Advantages

Cheaper alternative to the compact rail. Use of T and U rails allows for misalignment at installation. Preload adjustable by hand.

Available in AISI 316L stainless steel suitable for use in applications requiring a high level of corrosion resistance, including sea water.

Disadvantages

Cannot take as much load as other systems. Not suitable for moment loads.



Linear guideways

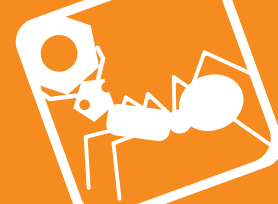
Advantages

Can take extremely high loads including moment loads. Very smooth in operation.

Disadvantages

Must be aligned very accurately which costs time and money preparing the mounting surface properly.





Shafts + bearings

Advantages

Available in a range of materials and sizes. A length of shaft bar is typically cheaper than the cost of an equivalent size precision linear rail.

Disadvantages

A larger diameter shaft would be required when there are long lengths and high loads involved compared with the size of an equivalent shaft support rail you would need. This is because they would only be supported at the ends and the shaft ends could bend in the middle if the diameter was too small.



Shaft support rail

Advantages

Shaft support rail systems have a shaft support along the full length so are less likely to flex.

Disadvantages

Similar to linear guideways, must be aligned very accurately otherwise any mis-alignment may cause the system to 'snatch'.





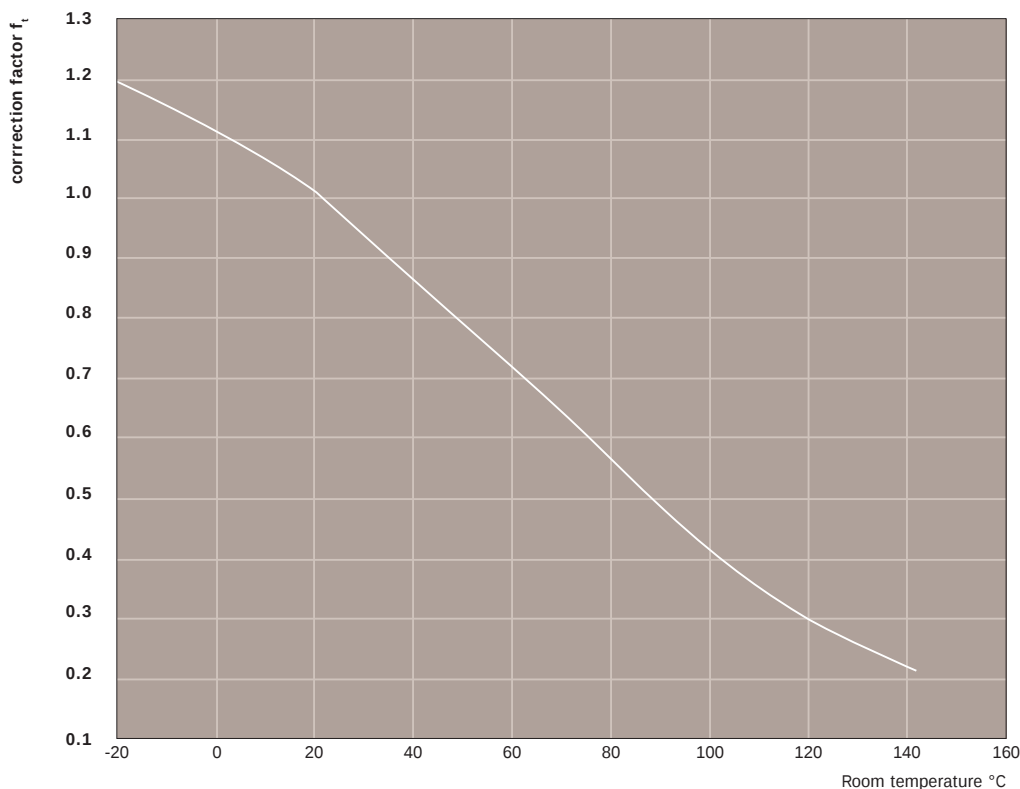
Safety factor or the forces of inertia f_i

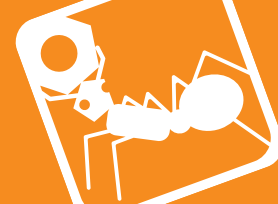
During the selection process check that the inertia forces present during acceleration and deceleration are relatively low so that the value of $p \bullet V_{st}$ remains within the required controlled limits. Whereas this calculation is difficult, in the presence of a non-uniform movement or under great variations a safety factor in the chart below must be applied.

Load type	f_i
Loads with constant ramps of acc. / dec. controlled	from 1,00 to 0,50
Loads with constant start and stops	from 0,50 to 0,33
Loads and speed greatly variable	from 0,33 to 0,25
Loads in presence of shocks and vibrations	from 0,25 to 0,17

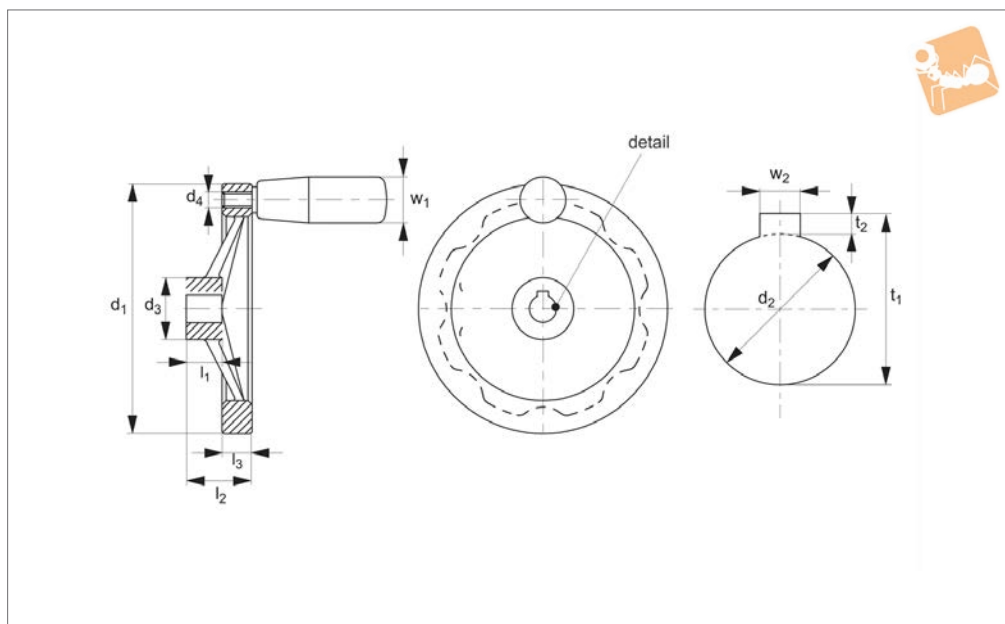
Correction factor for working environment temperature

Using plastic nuts L1343 or L1342, the value of $p \bullet V_{st}$ must be corrected in relation to the working temperature. Plastic becomes softer at higher temperature and can handle less load. At lower temperatures, it becomes harder and takes heavier loads. Correction factor f_t is shown in the graph below.





L1458



Material

Aluminium mould casting. Handle duro-plast DF 31 black.

Hub machined; rim turned and mirror-finished on all sides, non-machined surfaces cleanly blasted.

For corresponding handle details see no. rotating handle.

Technical Notes

There are gripping indentations on the rear sides.

The non-machined, raw surfaces are blasted; together with the mirror-polished rim these handwheels are therefore showing a finish which in most cases does not require additional lacquering.

Temperature range up to 110°C. Also available in black plastic coated - on request.

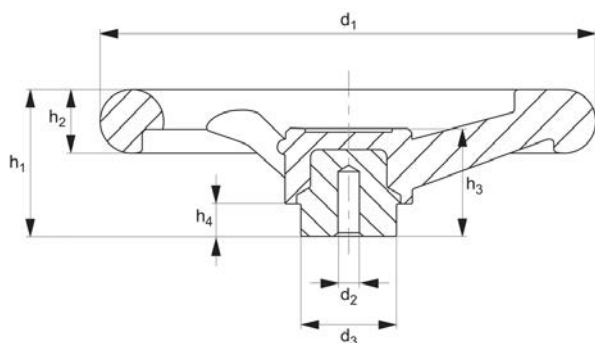
For keyways information (dim. t_1 and b_3) to DIN 6885.

Order No.	Finish	Bore dia.	d_1	d_2 tol. H7 Small	d_2 tol. H7 Large	d_3	d_4	l_1	l_2 $\approx$	l_3	w_1	Weight g
L1458.080-C	W/o Keyway, With Handle	d2 Large	80	10	12	26	M 6	16	26	13.0	18	160
L1458.100-C	W/o Keyway, With Handle	d2 Large	100	10	12	28	M 6	17	30	14.0	21	255
L1458.125-C	W/o Keyway, With Handle	d2 Large	125	12	14	31	M 8	18	33	15.0	23	390
L1458.140-C	W/o Keyway, With Handle	d2 Large	140	14	16	36	M 8	19	36	16.5	23	510
L1458.160-C	W/o Keyway, With Handle	d2 Large	160	14	16	36	M10	20	39	18.0	26	675
L1458.200-C	W/o Keyway, With Handle	d2 Large	200	18	20	42	M10	24	45	20.5	26	995
L1458.250-C	W/o Keyway, With Handle	d2 Large	250	22	26	48	M10	28	51	23.0	28	1625
L1458.080-D	With Keyway, With Handle	d2 Large	80	10	12	26	M 6	16	26	13.0	18	160
L1458.100-D	With Keyway, With Handle	d2 Large	100	10	12	28	M 6	17	30	14.0	21	255
L1458.125-D	With Keyway, With Handle	d2 Large	125	12	14	31	M 8	18	33	15.0	23	390
L1458.140-D	With Keyway, With Handle	d2 Large	140	14	16	36	M 8	19	36	16.5	23	510
L1458.160-D	With Keyway, With Handle	d2 Large	160	14	16	36	M10	20	39	18.0	26	675
L1458.200-D	With Keyway, With Handle	d2 Large	200	18	20	42	M10	24	45	20.5	26	995
L1458.250-D	With Keyway, With Handle	d2 Large	250	22	26	48	M10	28	51	23.0	28	1625



Three Spoked Handwheels

Lead Screws & Nuts



L1459

LEAD SCREWS & NUTS

Material

Standard: Duroplast, black. Zinc plated steel hub.

Reinforced: Duroplast with glass fibre

beads of increased strength, black zinc plated steel hub.

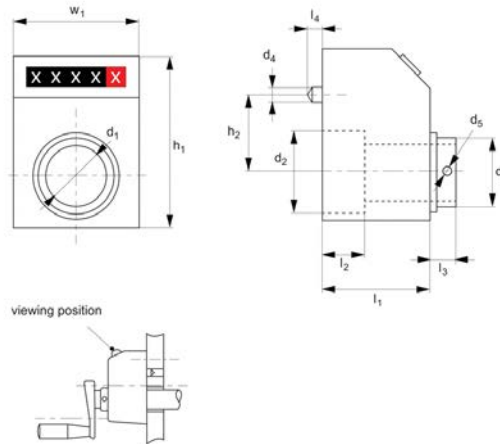
Technical Notes

The pilot hole allows various sizes of holes, keyways etc. to be machined into the boss.

Order No.	d ₁	d ₃	Weight g
L1459.100-A	100	24	159
L1459.125-A	125	24	240
L1459.150-A	150	32	380
L1459.175-A	175	40	603
L1459.200-A	200	40	736
L1459.250-A	250	48	1200
L1459.300-A	300	58	2032
L1459.100-B	100	24	162
L1459.125-B	125	24	260
L1459.175-B	175	40	611
L1459.200-B	200	40	761



L1470



Material

Black thermoplastic, burnished steel bushing.

Technical Notes

Max. temperature +70°C.

Other ratios and spacers available on request. Different location of position indicator on counter available on request. Four digit readout, red indicates decimals.

Tips

Clockwise rotation: part numbers end with -C.

Anti-Clockwise rotation: part numbers end with -A.

Order No.	Ratio	Pitch	Counter after one revolution	d ₁ tol. H7	d ₂	d ₃	d ₄	d ₅	l ₁
L1470.005-C	1:05	0.5	0005	14	26	20	6	M4	24
L1470.010-C	1:10	1.0	0010	14	26	20	6	M4	24
L1470.015-C	1:15	1.5	0015	14	26	20	6	M4	24
L1470.020-C	1:20	2.0	0020	14	26	20	6	M4	24
L1470.025-C	1:25	2.5	0025	14	26	20	6	M4	24
L1470.030-C	1:30	3.0	0030	14	26	20	6	M4	24
L1470.040-C	1:40	4.0	0040	14	26	20	6	M4	24
L1470.050-C	1:50	5.0	0050	14	26	20	6	M4	24
L1470.060-C	1:60	6.0	0060	14	26	20	6	M4	24
L1470.100-C	1:100	10.0	0100	14	26	20	6	M4	24
L1470.005-A	1:05	0.5	0005	14	26	20	6	M4	24
L1470.010-A	1:10	1.0	0010	14	26	20	6	M4	24
L1470.015-A	1:15	1.5	0015	14	26	20	6	M4	24
L1470.020-A	1:20	2.0	0020	14	26	20	6	M4	24
L1470.025-A	1:25	2.5	0025	14	26	20	6	M4	24
L1470.030-A	1:30	3.0	0030	14	26	20	6	M4	24
L1470.040-A	1:40	4.0	0040	14	26	20	6	M4	24
L1470.050-A	1:50	5.0	0050	14	26	20	6	M4	24
L1470.060-A	1:60	6.0	0060	14	26	20	6	M4	24
L1470.100-A	1:100	10.0	0100	14	26	20	6	M4	24

Order No.	l ₂	l ₃	w ₁	h ₁	h ₂	h ₃	Speed rpm max.	Revolution
L1470.005-C	7.5	6.5	33	45	16.5	22	500	Clockwise
L1470.010-C	7.5	6.5	33	45	16.5	22	300	Clockwise
L1470.015-C	7.5	6.5	33	45	16.5	22	300	Clockwise
L1470.020-C	7.5	6.5	33	45	16.5	22	300	Clockwise
L1470.025-C	7.5	6.5	33	45	16.5	22	300	Clockwise
L1470.030-C	7.5	6.5	33	45	16.5	22	300	Clockwise
L1470.040-C	7.5	6.5	33	45	16.5	22	200	Clockwise
L1470.050-C	7.5	6.5	33	45	16.5	22	200	Clockwise



Position Counters

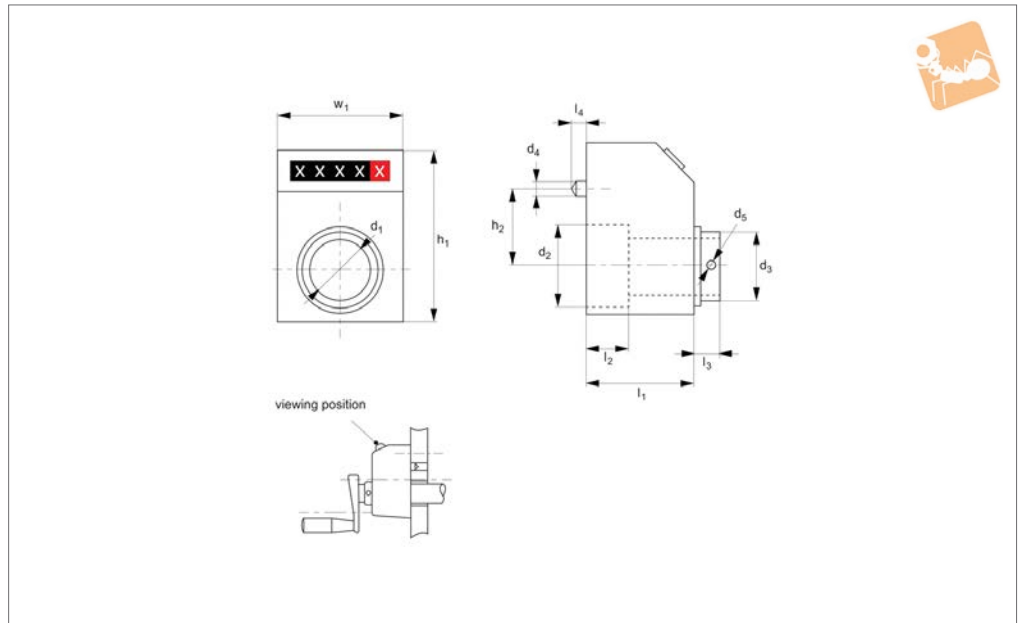
4 digit display

Lead Screws & Nuts

Order No.	l_2	l_3	w_1	h_1	h_2	h_3	Speed rpm max.	Revolution
L1470.060-C	7.5	6.5	33	45	16.5	22	200	Clockwise
L1470.100-C	7.5	6.5	33	45	16.5	22	150	Clockwise
L1470.005-A	7.5	6.5	33	45	16.5	22	500	Anti-clockwise
L1470.010-A	7.5	6.5	33	45	16.5	22	300	Anti-clockwise
L1470.015-A	7.5	6.5	33	45	16.5	22	300	Anti-clockwise
L1470.020-A	7.5	6.5	33	45	16.5	22	300	Anti-clockwise
L1470.025-A	7.5	6.5	33	45	16.5	22	300	Anti-clockwise
L1470.030-A	7.5	6.5	33	45	16.5	22	300	Anti-clockwise
L1470.040-A	7.5	6.5	33	45	16.5	22	200	Anti-clockwise
L1470.050-A	7.5	6.5	33	45	16.5	22	200	Anti-clockwise
L1470.060-A	7.5	6.5	33	45	16.5	22	200	Anti-clockwise
L1470.100-A	7.5	6.5	33	45	16.5	22	150	Anti-clockwise



L1472



Material

Black thermoplastic, burnished steel bushing.

Technical Notes

Max. temperature +70°C.

Other ratios and spacers available on request. Different location of position indicator on counter available on request. Five digit readout, red indicates decimals.

Tips

Clockwise rotation: part numbers end with -C.

Anti-Clockwise rotation: part numbers end with -A.

Order No.	Ratio	Pitch	Counter after one revolution	d ₁ tol. H7	d ₂	d ₃	d ₄	d ₅	l ₁
L1472.005-C	1:05	0.5	00005	20	40	27	6	M5	42
L1472.015-C	1:15	1.5	00015	20	40	27	6	M5	42
L1472.020-C	1:20	2.0	00020	20	40	27	6	M5	42
L1472.025-C	1:25	2.5	00025	20	40	27	6	M5	42
L1472.030-C	1:30	3.0	00030	20	40	27	6	M5	42
L1472.040-C	1:40	4.0	00040	20	40	27	6	M5	42
L1472.100-C	1:100	10.0	00100	20	40	27	6	M5	42
L1472.120-C	1:120	12.0	00120	20	40	27	6	M5	42
L1472.005-A	1:05	0.5	00005	20	40	27	6	M5	42
L1472.010-A	1:10	1.0	00010	20	40	27	6	M5	42
L1472.015-A	1:15	1.5	00015	20	40	27	6	M5	42
L1472.020-A	1:20	2.0	00020	20	40	27	6	M5	42
L1472.025-A	1:25	2.5	00025	20	40	27	6	M5	42
L1472.030-A	1:30	3.0	00030	20	40	27	6	M5	42
L1472.040-A	1:40	4.0	00040	20	40	27	6	M5	42
L1472.050-A	1:50	5.0	00050	20	40	27	6	M5	42
L1472.060-A	1:60	6.0	00060	20	40	27	6	M5	42
L1472.100-A	1:100	10.0	00100	20	40	27	6	M5	42
L1472.120-A	1:120	12.0	00120	20	40	27	6	M5	42

Order No.	l ₂	l ₃	l ₄	w ₁	h ₁	h ₂	Speed rpm max.	Revolution
L1472.005-C	16.5	10	6	49	67	30	500	Clockwise
L1472.015-C	16.5	10	6	49	67	30	300	Clockwise
L1472.020-C	16.5	10	6	49	67	30	300	Clockwise
L1472.025-C	16.5	10	6	49	67	30	300	Clockwise
L1472.030-C	16.5	10	6	49	67	30	300	Clockwise
L1472.040-C	16.5	10	6	49	67	30	200	Clockwise
L1472.100-C	16.5	10	6	49	67	30	150	Clockwise
L1472.120-C	16.5	10	6	49	67	30	150	Clockwise
L1472.005-A	16.5	10	6	49	67	30	500	Anti-clockwise



Position Counters

5 digit display

Lead Screws & Nuts

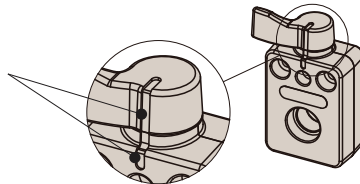
Order No.	l_2	l_3	l_4	w_1	h_1	h_2	Speed rpm max.	Revolution
L1472.010-A	16.5	10	6	49	67	30	300	Anti-clockwise
L1472.015-A	16.5	10	6	49	67	30	300	Anti-clockwise
L1472.020-A	16.5	10	6	49	67	30	300	Anti-clock wise
L1472.025-A	16.5	10	6	49	67	30	300	Anti-clockwise
L1472.030-A	16.5	10	6	49	67	30	300	Anti-clockwise
L1472.040-A	16.5	10	6	49	67	30	200	Anti-clockwise
L1472.050-A	16.5	10	6	49	67	30	200	Anti-clockwise
L1472.060-A	16.5	10	6	49	67	30	200	Anti-clockwise
L1472.100-A	16.5	10	6	49	67	30	150	Anti-clockwise
L1472.120-A	16.5	10	6	49	67	30	150	Anti-clockwise



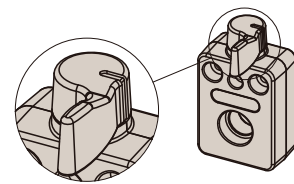
Features

- One-touch spindle locks enable quick and secure locking of shafts with one click of the knob.
- When the one-touch spindle lock is operated, the knob clicks and the shaft is locked with a steady force. This provides reliable locking of shafts.
- The knob position and the indication line clearly indicate lock/unlock position.

The indication line aligns when one-touch spindle lock is locked



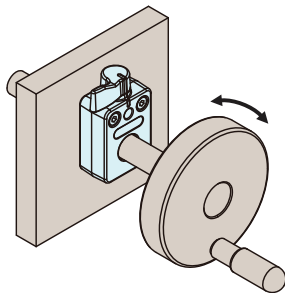
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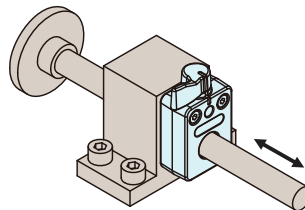
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How to use

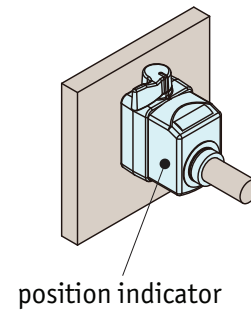
For locking of spindles



For locking of sliding shafts



Can be used with position indicators

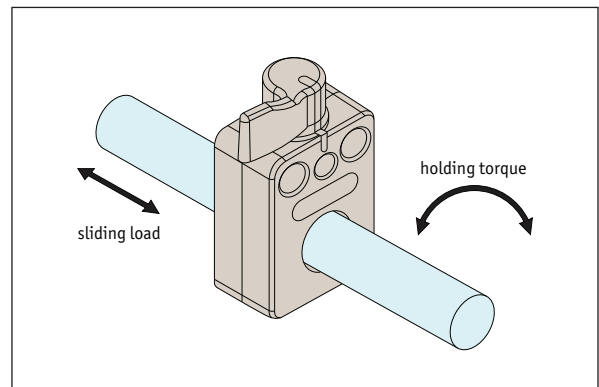


position indicator

Technical Information

One-touch spindle locks can fix both revolving and sliding of shafts.

Part Numbers	Max. holding torque (N•m)	Max. sliding load (N)
L1480.008-040	3	400
L1480.010-040		
L1480.012-040	4	
L1480.014-040		500
L1480.012-050	5	
L1480.015-050		
L1480.016-050	6	
L1480.020-050		



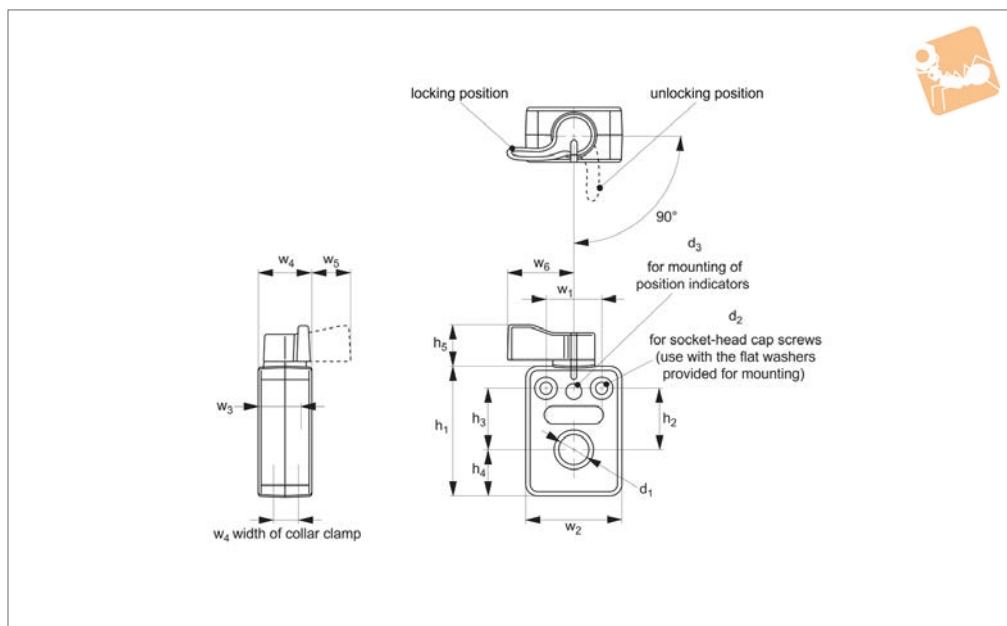
Note: The above information is for cold finished hardened steel shafts with a h7 tolerance.



Sliding Clamps - for Solid Round Bar

quarter turn lock- l-handle grip - polyamide

Lead Screws & Nuts



L1480

LEAD SCREWS & NUTS

Material

Housing: Polyamide (glass-fibre reinforced)

Boss: Polyamide (glass-fibre reinforced)

Base: Polyamide (glass-fibre reinforced)

Insert: Stainless steel

Technical Notes

It has teeth inside and it engages at every 7.2° (=360°/ 50).

pulls the spindle by the inner spring with 70N force to prevent chattering of the spindle. Note: The spindle should be fully inserted into the knob for 25mm.

Order No.	Handle	d ₁ for shaft dia. tol. h7	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄	Weight g
L1480.008-040	Orange	8	M 4	6	48.5	23.5	22	17	50
L1480.010-040	Orange	10	M 4	6	48.5	23.5	22	17	50
L1480.012-040	Orange	12	M 4	6	48.5	23.5	22	17	50
L1480.014-040	Orange	14	M 4	6	48.5	23.5	22	17	50
L1480.012-050	Orange	12	M 5	6	69.0	17.0	30	26	100
L1480.015-050	Orange	15	M 5	6	69.0	17.0	30	26	100
L1480.016-050	Orange	16	M 5	6	69.0	17.0	30	26	100
L1480.020-050	Orange	20	M 5	6	69.0	17.0	30	26	100

Order No.	h ₅	w ₁	w ₂	w ₃	w ₄	w ₅	w ₆	Allowable holding torque Nm max.	Allowable sliding torque Nm max.
L1480.008-040	15.5	21	36	14.0	20	15	25	3	400
L1480.010-040	15.5	21	36	14.0	20	15	25	3	400
L1480.012-040	15.5	21	36	14.0	20	15	25	4	400
L1480.014-040	15.5	21	36	14.0	20	15	25	4	400
L1480.012-050	15.5	34	51	12.5	20	15	25	5	500
L1480.015-050	15.5	34	51	12.5	20	15	25	5	500
L1480.016-050	15.5	34	51	12.5	20	15	25	6	500
L1480.020-050	15.5	34	51	12.5	20	15	25	6	500



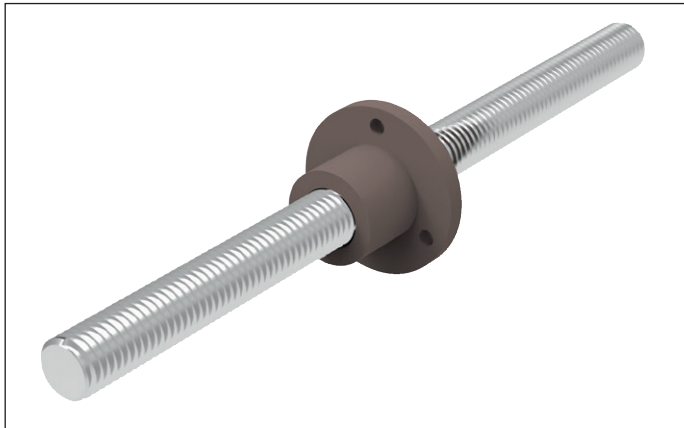
Automotion
AN ESSentra COMPANY

0333 207 4498

sales@automotioncomponents.co.uk



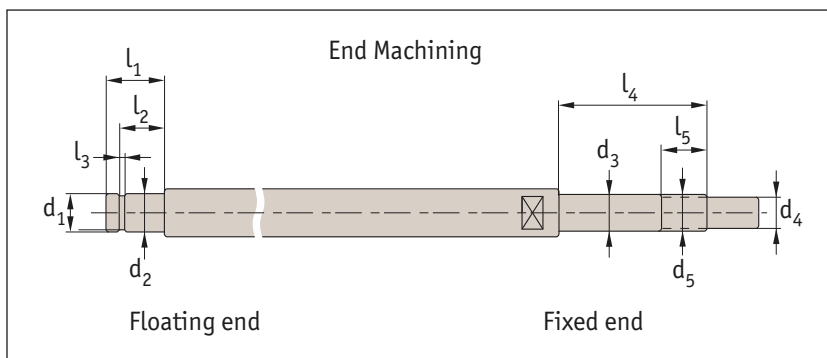
- Select the relevant size lead screw diameter and load required.



- These are precision, high helix lead screws from stainless steel (304 grade)
- We can cut length to suit and/or machine the ends to your requirements
- They have an accumulative lead error of $\pm 0.20/300\text{mm}$ (C10 grade)
- The actual clearance depends on the nut selected L1350 standard flanged nut or L1351 anti-backlash nut
- Nuts are very smooth running with little friction. They are made from plastic resin (PPS).
- The anti-backlash nuts are longer than the standard length nuts as they incorporate a spring pushing the two halves of the unit apart.

Lead screw Ø	Lead (distance travelled per revolution)														
	1	2	4	5	6	8	9	10	12	15	18	20	24	30	36
4	●	●													
6	●	●					●				●				
8	●	●							●				●		
10		●			●			●		●				●	
12		●	●			●			●		●				●
15				●				●				●			
20								●				●			

End machining to suit miniature bearing support units

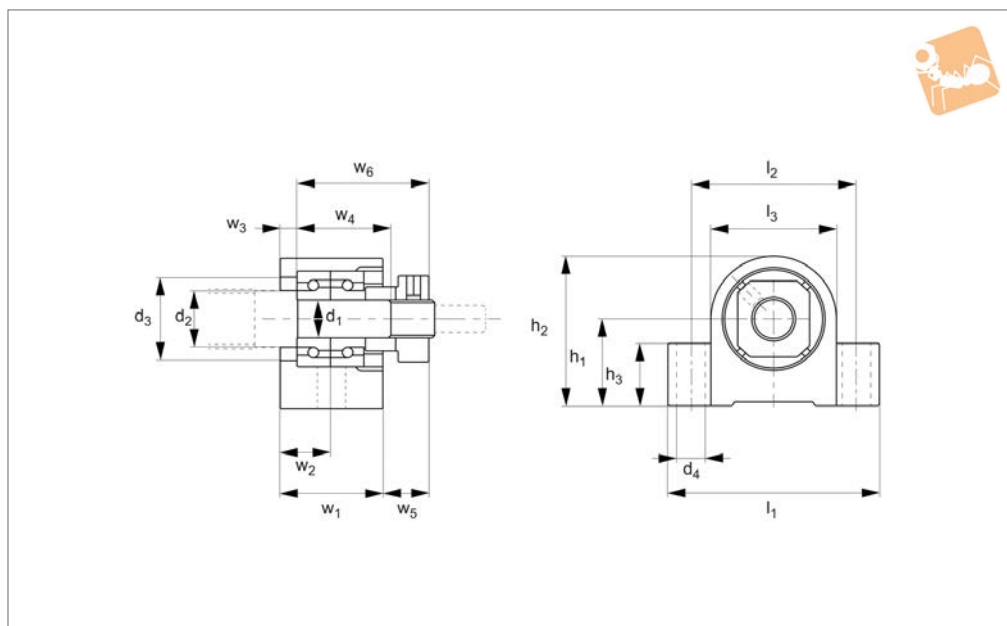


Screw Ø	Type	Floating	Fixed	d ₁	d ₂	l ₁	l ₂	l ₃	d ₃	d ₄	l ₄	l ₅	d ₅ x p
4	Pillow	L1355.030	L1353.030	2	1,59	5	4	0,5	+0,05	3	17,5	6,5	M3x0,5
4	Flanged	L1356.030	L1354.030										
6	Pillow	L1355.040	L1353.040	3	2,73	5,5	4,5	0	0,5	4	18,5	7	M4x0,5
6	Flanged	L1356.040	L1354.040										
6	Pillow	L1355.050	L1353.050	4	3,73	6,5	5,5	0,5	0	5	19,5	7	M5x0,5
6	Flanged	L1356.050	L1354.050										
8	Pillow	L1355.060	L1353.060	6	5,7	8	6,8	+0,1	0,8	6	23	7	M6x0,75
8	Flanged	L1356.060	L1354.060										
10	Pillow	L1355.080	L1353.080	6	5,7	8	6,8	0	0,8	8	27	8,5	M8x1,0
10	Flanged	L1356.080	L1354.080										



Miniature Fixed Support Units for miniature lead screws

Lead Screws & Nuts



L1353

LEAD SCREWS & NUTS

Technical Notes

Generally used with small diameter lead screws - see technical pages for lead screw core diameters and end machining

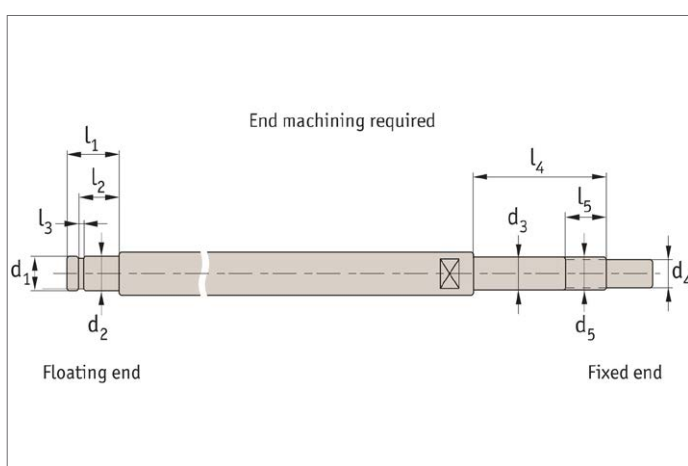
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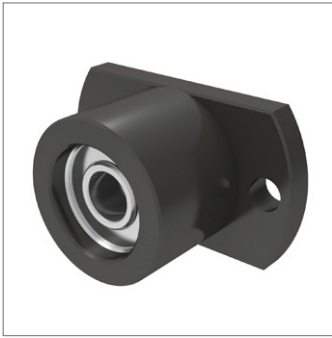
Use with floating support unit (L1355). For required end machining of the lead screws see technical pages.

Tips

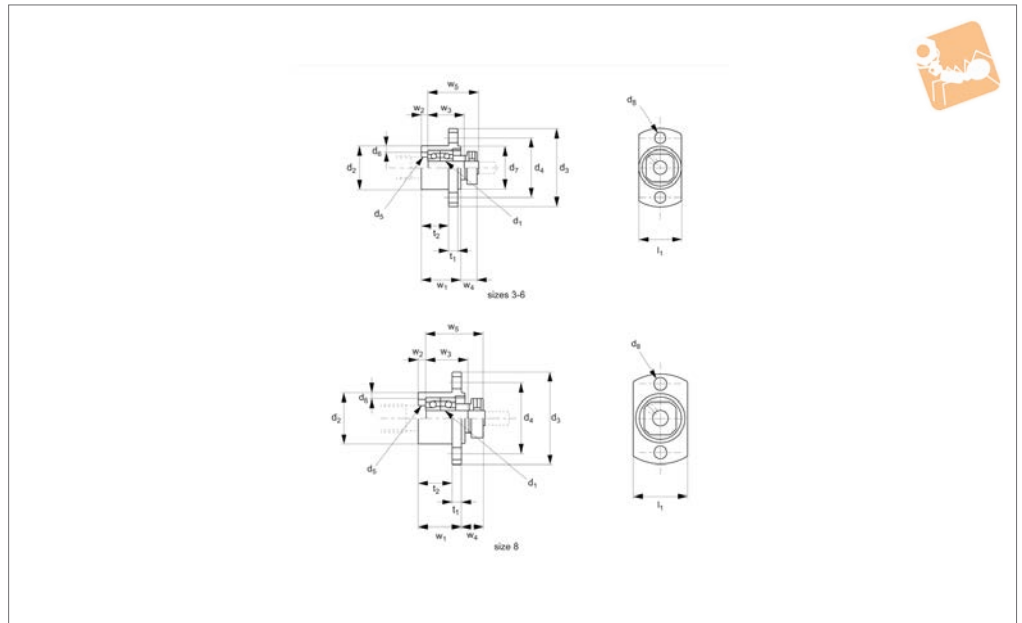
End machining of lead screws on request.

Order No.	d ₁	$\begin{matrix} h_1 \\ +0/-0.03 \end{matrix}$	d ₂	d ₃	d ₄	h ₂	h ₃	l ₁	l ₂	l ₃	w ₁	w ₂	w ₃	w ₄	w ₅	w ₆
L1353.030	3	9	4.3	7.3	3.5	14.5	5	24.0	18	11	12.5	6.25	1.5	11.0	5.5	16.5
L1353.040	4	10	6.0	9.5	3.5	17.0	6	27.0	21	14	14.0	7.0	2.0	11.5	5.5	17.5
L1353.050	5	11	8.0	11.5	4.5	19.5	6	30.5	23	17	15.0	7.5	2.0	12.5	5.5	18.5
L1353.060	6	13	9.5	13.3	5.5	22.5	8	35.0	26	19	17.0	8.5	2.5	16.0	7.5	22.0
L1353.080	8	17	11.5	16.5	5.6	29.0	12	41.0	32	24	20.0	10.0	3.0	18.5	9.0	26.0





L1354



Technical Notes

Generally used with small diameter lead screws - see technical pages for lead screw core diameters and end machining

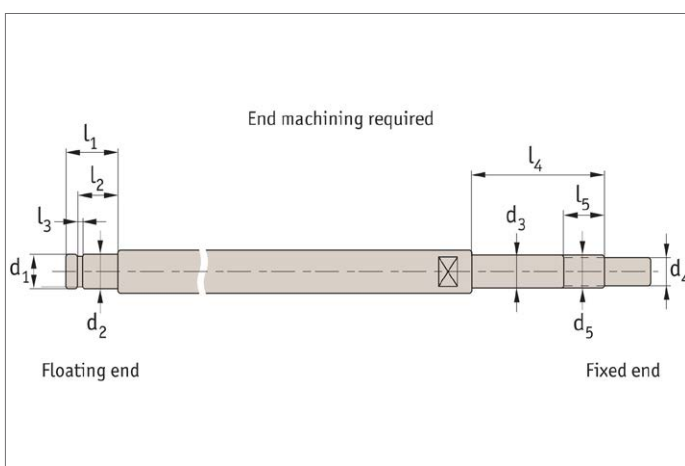
required.

Use with floating support unit (L1356). For required end machining of the lead screws see technical pages.

Tips

End machining of lead screws on request.

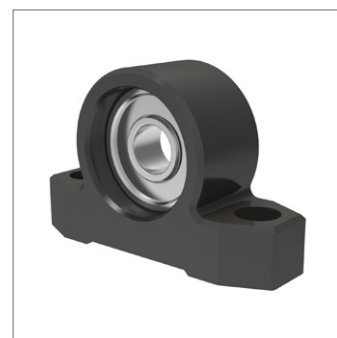
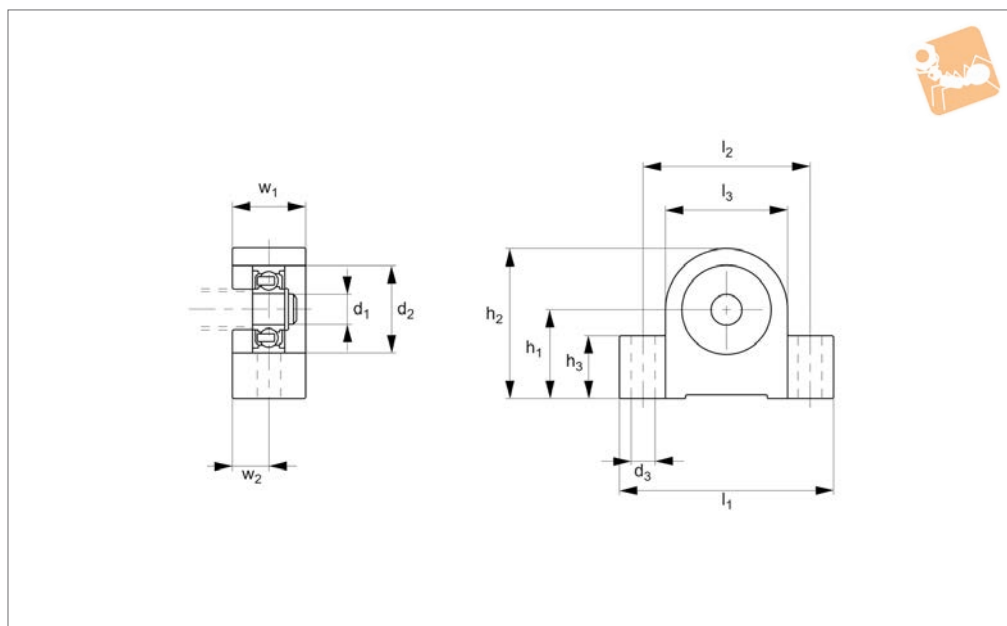
Order No.	d ₁	d ₂ -0.007/-0.020	d ₃	d ₄	d ₅	d ₆	d ₇	d ₈	l ₁	t ₁	t ₂	w ₁	w ₂	w ₃	w ₄	w ₅
L1354.030	3	11	23	17	4.3	7.3	11.0	3.5	11	3	7.5	12.5	1.5	11.0	5.5	16.5
L1354.040	4	14	26	20	6.0	9.5	14.0	3.5	14	3	8.5	13.5	1.5	11.5	5.5	1.5
L1354.050	5	17	29	23	8.0	11.5	17.0	3.5	17	3	10.0	15.0	2.0	12.5	5.5	18.5
L1354.060	6	19	34	26	9.5	13.3	18.5	4.5	19	4	12.0	17.0	2.5	16.	7.5	22.0
L1354.080	8	24	39	31	11.5	16.5	-	4.5	24	4	16.0	20.0	3.0	18.5	9.0	26.0





Miniature Floating Support Units for miniature lead screws

Lead Screws & Nuts



L1355

LEAD SCREWS & NUTS

Technical Notes

Generally used with small diameter lead screws - see technical pages for lead screw core diameters and end machining

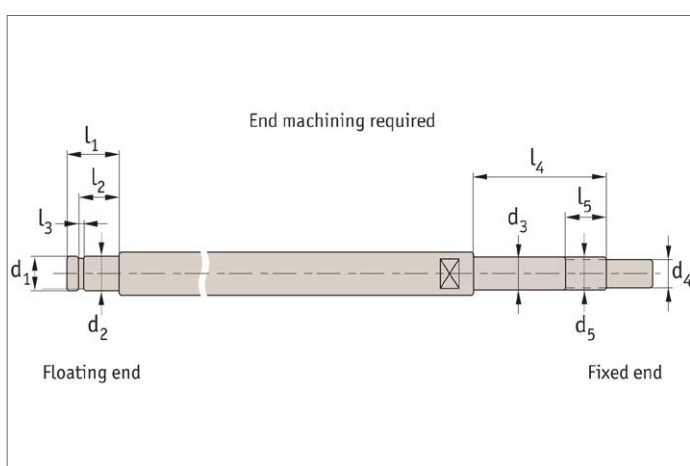
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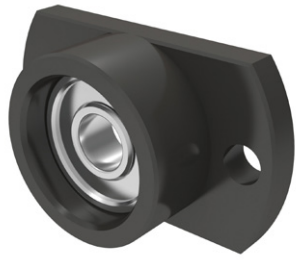
Use with fixed support unit (L1353). For required end machining of the lead screws see technical pages.

Tips

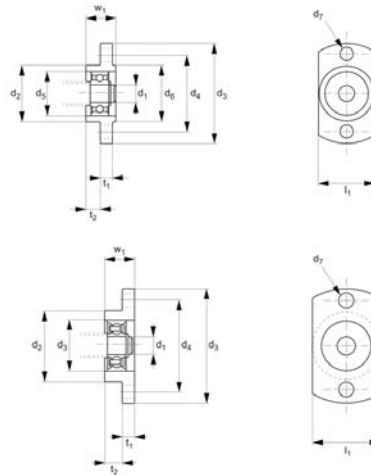
End machining of lead screws on request.

Order No.	d_1	h_1 $+0 -0.03$	d_2	d_3	h_2	h_3	l_1	l_2	l_3	w_1	w_2
L1355.030	2	9	7	3.5	14.5	5	24.0	18	11	8	4
L1355.040	3	10	10	3.5	17.0	6	27.0	21	14	10	5
L1355.050	4	11	13	4.5	19.5	6	30.5	23	17	10	5
L1355.060	6	13	15	5.5	22.5	8	35.0	26	19	12	6
L1355.080	6	17	17	5.5	29.0	12	41.0	32	24	14	7





L1356



Technical Notes

Generally used with small diameter lead screws - see technical pages for lead screw core diameters and end machining

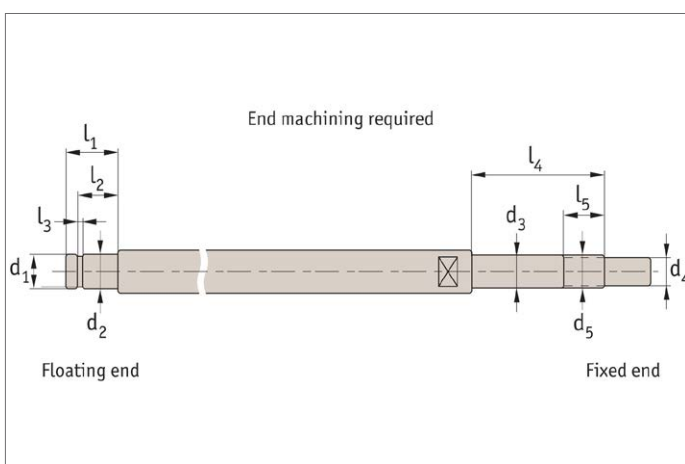
required.

Use with fixed support unit (L1354). For required end machining of the lead screws see technical pages.

Tips

End machining of lead screws on request.

Order No.	d_1	d_2 -0.007/-0.020	d_3	d_4	d_5	d_6	d_7	l_1	t_1	t_2	w_1
L1356.030	2	11	23	17	7	11.0	3.5	11	3	3	8
L1356.040	3	14	26	20	10	14.0	3.5	14	3	5	10
L1356.050	4	17	29	23	13	17.0	3.5	17	3	5	10
L1356.060	6	19	34	26	15	18.5	4.5	19	4	5	10
L1356.080	6	24	39	31	17	-	4.5	24	4	6	10



Precision lead screws

The high lead thread form maximises linear motion and minimises shaft rotation. The close tolerance, free running nuts are individually matched to their lead screws and are ideal for miniature applications requiring rotary to linear, or linear to rotary actuation.

Anti-backlash nuts

For applications requiring precision positioning there is now a newly patented Anti-backlash nut. This device, consisting of only three components, utilises the constant force of a compression spring to push two halves apart. This action eliminates any play (backlash) which exists between the internal thread of the nut and the external screw thread.

To ensure accuracy and repeatability the nut can be fine tuned through the use of many available spring constants, to meet any preload design requirements.

Lead screw specification	High precision lead screw
Lead error	±0,2mm/300mm
Repeatability	0,01mm
Straightness	0,03mm/100mm
Backlash	0,08mm (zero when using anti-backlash nut)
Temperature range	-30°C to +90°C

Design considerations

Critical speed

The critical speed of a lead screw is the maximum speed (rpm) before the screw will become dynamically unstable. This results when the forced frequency of the rotating screw corresponds to its natural frequency. Its value is dependent on the length of the screw, the diameter of the thread, and the support configuration. The critical speed value is governed by the following equation.

$$\text{Critical screw speed (RPM)} = K \times C \times 10^6 \times (d/L^2)$$

Where;

K = End support factor

0,36 one end fixed, other free

1,00 simple supports both ends

1,47 one end fixed, one simple

2,23 both ends fixed

C = Material factor

4,5 for Stainless Steel screws

1,6 for Aluminium screws

d = Root diameter of the screws

L = Length between bearing supports



Load

In order to properly incorporate a lead screw into a design, load requirements must be taken into account. These numbers are based on the shear of the nuts and does not take shaft buckling into account. Wherever possible, nuts should be positioned so as to be put in tension, pulling the load. This eliminates the need for buckling considerations.

Listed below are some helpful formulae to assist in proper lead screw selection.

$$\text{Critical load (N)} = K \times C \times 10^6 \times (d^4/D^2)$$

Where;

K = End support factor

0,25 one end fixed, other free
(figure 1)

1,00 simple supports both ends
(figure 2)

2,00 one end fixed, one simple
(figure 3)

4,00 both ends fixed (figure 4)

C = Material factor

13,4 for Stainless Steel screws

4,8 for Aluminium screws

d = Root diameter of the screws

D = Length between bearing supports

$$\text{Torque to move a load (T)} = F \times L/2 \times \pi \times E$$

Where;

F = Load

L = Lead

E = Efficiency (see product pages)

End fixing configurations

Figure 1



Double bearing,
one end only

Figure 3



Double bearing one end,
single bearing other end

Figure 2



Single bearing both ends

Figure 4



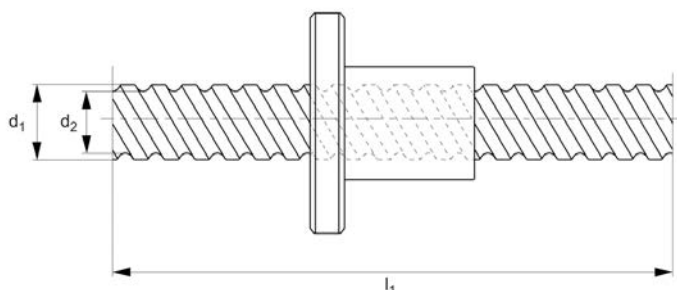
Double bearing both ends



High Helix Lead Screws - Stainless

lead screw only (to suit L1350 nuts)

Lead Screws & Nuts



L1349

LEAD SCREWS & NUTS

Material

Stainless steel screw (SUS 304).

Technical Notes

High precision.

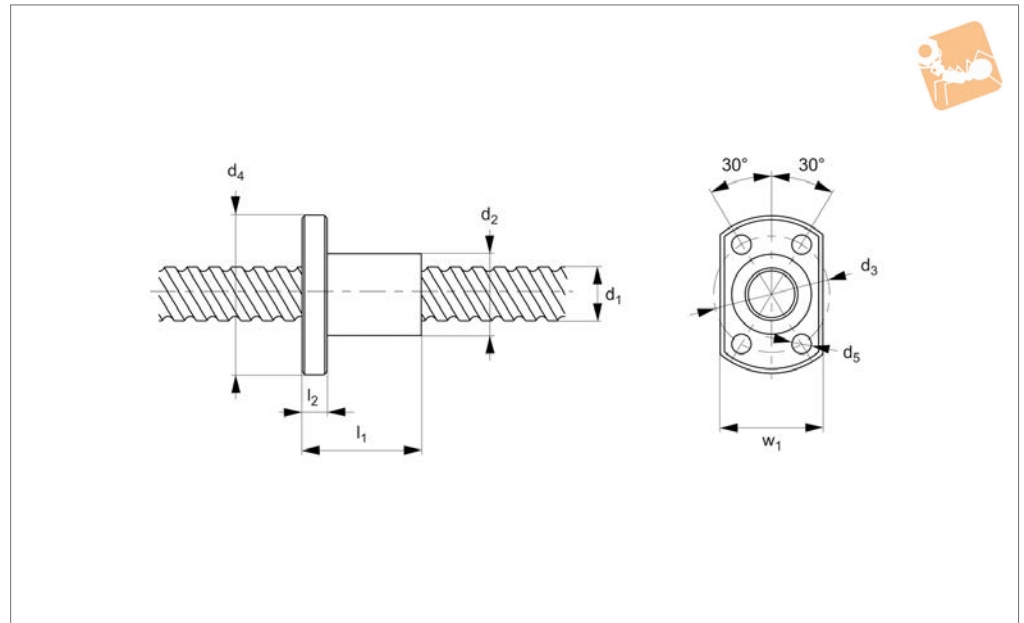
The 'lead' refers to the distance the nut will travel for one complete revolution of the thread. L1350.

Order corresponding lead screw- see part

Order No.	Lead	d ₁	l ₁	d ₂ core
L1349.04-01-0.2	1	4	200	3.3
L1349.04-02-0.2	2	4	200	3.3
L1349.06-01-0.3	1	6	300	5.3
L1349.06-02-0.3	2	6	300	5.3
L1349.06-09-0.3	9	6	300	5.4
L1349.06-18-0.3	18	6	300	5.6
L1349.08-01-0.3	1	8	300	7.3
L1349.08-02-0.3	2	8	300	6.6
L1349.08-12-0.4	12	8	400	6.7
L1349.08-24-0.4	24	8	400	7.5
L1349.10-02-0.3	2	10	300	8.6
L1349.10-06-1.0	6	10	1000	8.0
L1349.10-10-1.0	10	10	1000	8.0
L1349.10-15-0.5	15	10	450	8.4
L1349.10-30-0.5	30	10	450	8.9
L1349.12-02-0.3	2	12	300	10.6
L1349.12-04-1.0	4	12	1000	10.0
L1349.12-08-1.0	8	12	1000	9.8
L1349.12-12-1.0	12	12	1000	10.3
L1349.12-18-0.5	18	12	500	10.6
L1349.12-36-0.5	36	12	500	10.9
L1349.15-05-2.0	5	15	2000	12.2
L1349.15-10-2.0	10	15	2000	12.3
L1349.15-20-2.0	20	15	2000	12.6
L1349.20-10-2.0	10	20	2000	17.5
L1349.20-20-2.0	20	20	2000	17.6



L1350



Material

Resin nut (PPS), to suit lead screw L1349.

Technical Notes

High precision.

The 'lead' refers to the distance the nut will travel for one complete revolution of the thread.

Tight axial clearance.

Order corresponding nut - see part L1349.

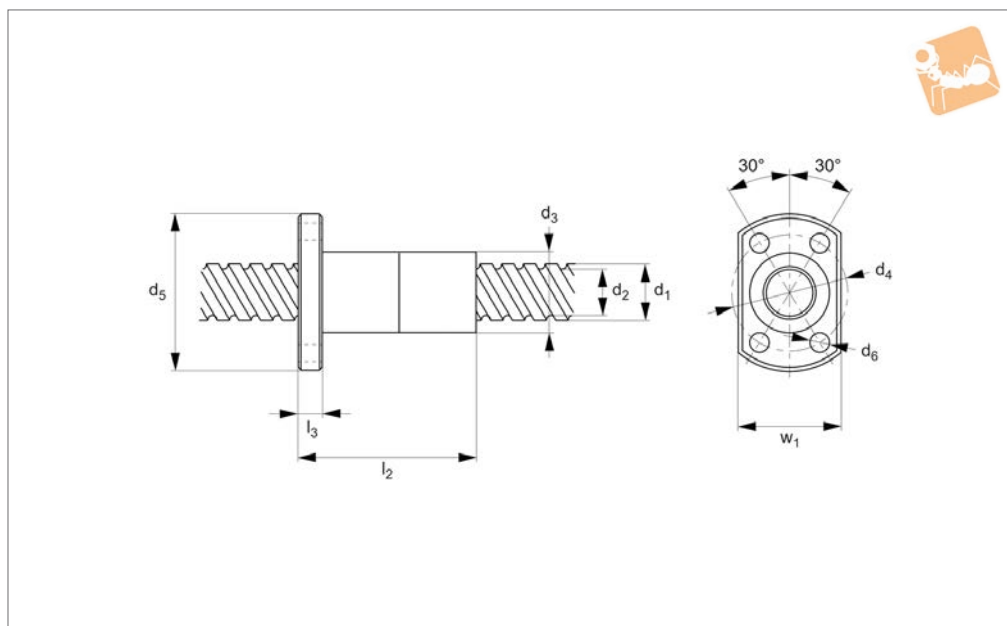
Order No.	Lead	d ₁ nom.	l ₁	w ₁	l ₂	d ₂	d ₃ pcd	d ₄	d ₅	Axial clearance µm	Thrust load N max.	rpm max.	Torque screw to Nm
L1350.04-01	1	4	11.5	15	3.5	10	15	23	2.9	50	50	2000	0.25
L1350.04-02	2	4	11.5	15	3.5	10	15	23	2.9	50	60	2000	0.25
L1350.06-01	1	6	14.5	17	3.5	12	18	26	3.4	50	120	2000	0.60
L1350.06-02	2	6	14.5	17	3.5	12	18	26	3.4	50	60	2000	0.60
L1350.06-09	9	6	14.5	17	3.5	12	18	26	3.4	100	90	2000	0.60
L1350.06-18	18	6	14.5	17	3.5	12	18	26	3.4	100	70	2000	0.60
L1350.08-01	1	8	18.0	18	4.0	14	21	29	4.5	50	200	2000	0.60
L1350.08-02	2	8	18.0	18	4.0	14	21	29	4.5	50	290	2000	0.60
L1350.08-12	12	8	18.0	18	4.0	14	21	29	4.5	100	210	2000	0.60
L1350.08-24	24	8	18.0	18	4.0	14	21	29	4.5	100	210	2000	0.60
L1350.10-02	2	10	22.0	22	5.0	16	24	33	4.5	50	460	1500	0.80
L1350.10-06	6	10	22.0	22	5.0	16	24	33	4.5	100	370	1500	0.80
L1350.10-10	10	10	22.0	22	5.0	16	24	33	4.5	100	250	1500	0.80
L1350.10-15	15	10	22.0	22	5.0	16	24	33	4.5	100	410	1500	0.80
L1350.10-30	30	10	22.0	22	5.0	16	24	33	4.5	100	410	1500	0.80
L1350.12-02	2	12	25.0	25	5.0	18	26	35	4.5	50	660	1000	0.80
L1350.12-04	4	12	25.0	25	5.0	18	26	35	4.5	100	620	1000	0.80
L1350.12-08	8	12	25.0	25	5.0	18	26	35	4.5	100	820	1000	0.80
L1350.12-12	12	12	25.0	25	5.0	18	26	35	4.5	100	470	1000	0.80
L1350.12-18	18	12	25.0	25	5.0	18	26	35	4.5	100	750	1000	0.80
L1350.12-36	36	12	25.0	25	5.0	18	26	35	4.5	100	540	1000	0.80
L1350.15-05	5	15	30.0	30	6.0	24	33	42	4.5	100	890	800	0.80
L1350.15-10	10	15	30.0	30	6.0	24	33	42	4.5	100	1040	800	0.80
L1350.15-20	20	15	30.0	30	6.0	24	33	42	4.5	100	1100	800	0.80
L1350.20-10	10	20	36.0	36	7.0	30	40	50	5.5	100	1240	600	1.0
L1350.20-20	20	20	36.0	36	7.0	30	40	50	5.5	100	1420	600	1.0



Anti-backlash High Helix Lead Screws

full assembly

Lead Screws & Nuts



L1351

LEAD SCREWS & NUTS

Material

Stainless steel screw (SUS 304),
resin nut (PPS).

Technical Notes

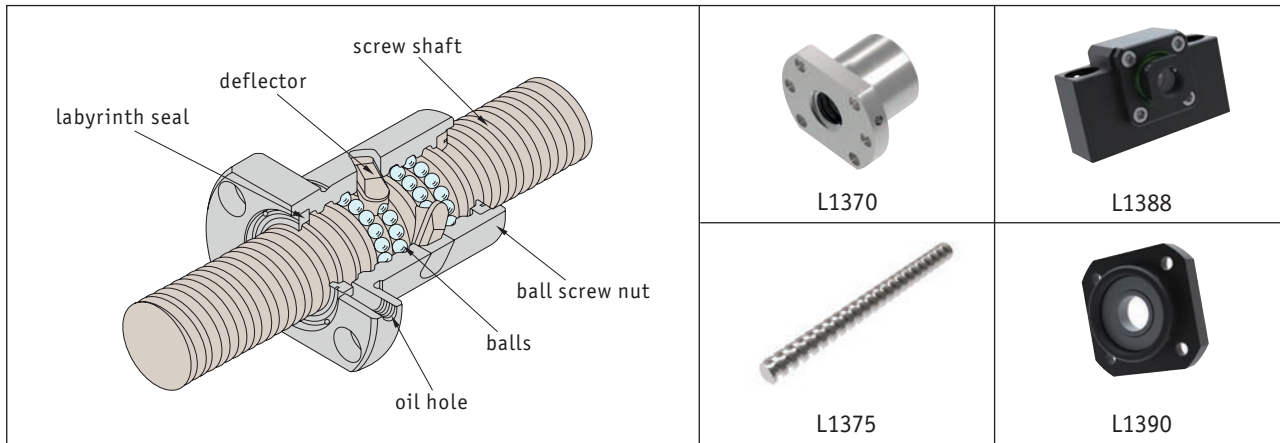
High precision. No backlash.

The 'lead' refers to the distance the nut will
travel for one complete revolution of the
thread.

Nut fitted to screw, to ensure anti-backlash
- unlike L1349 and L1350 which can be

ordered separately.

Order No.	Lead	d ₁ nom.	l ₁	w ₁	l ₂	d ₂ core	d ₃	d ₄ pcd	d ₅	d ₆	l ₃	Axial clearance µm	Thrust load N max.	rpm max.	Torque screw to Nm
L1351.04-01-0.2	1	4	200	15	17,5	3,3	10	15	23	2,9	3,5	50	50	2000	0,25
L1351.04-02-0.2	2	4	200	15	17,5	3,3	10	15	23	2,9	3,5	50	60	2000	0,25
L1351.06-01-0.3	1	6	300	17	23,5	5,3	12	18	26	3,4	3,5	50	120	2000	0,6
L1351.06-02-0.3	2	6	300	17	23,5	5,3	12	18	26	3,4	3,5	50	60	2000	0,6
L1351.06-09-0.3	9	6	300	17	23,5	5,4	12	18	26	3,4	3,5	100	90	2000	0,6
L1351.06-18-0.3	18	6	300	17	23,5	5,6	12	18	26	3,4	3,5	100	70	2000	0,6
L1351.08-01-0.3	1	8	300	18	29,0	7,3	14	21	29	4,5	4,0	50	200	2000	0,6
L1351.08-02-0.3	2	8	300	18	29,0	6,6	14	21	29	4,5	4,0	50	290	2000	0,6
L1351.08-12-0.4	12	8	400	18	29,0	6,7	14	21	29	4,5	4,0	100	210	2000	0,6
L1351.08-24-0.4	24	8	400	18	29,0	7,5	14	21	29	4,5	4,0	100	210	2000	0,6
L1351.10-02-0.3	2	10	300	21	35,0	8,6	16	24	33	4,5	5,0	50	460	1500	0,8
L1351.10-06-1.0	6	10	1000	21	35,0	8,0	16	24	33	4,5	5,0	100	370	1500	0,8
L1351.10-10-1.0	10	10	1000	21	35,0	8,0	16	24	33	4,5	5,0	100	250	1500	0,8
L1351.10-15-0.5	15	10	450	21	35,0	8,4	16	24	33	4,5	5,0	100	410	1500	0,8
L1351.10-30-0.5	30	10	450	21	35,0	8,9	16	24	33	4,5	5,0	100	410	1500	0,8
L1351.12-02-0.3	2	12	300	22	40,0	10,6	18	26	35	4,5	5,0	50	660	1000	0,8
L1351.12-04-1.0	4	12	1000	22	40,0	10,0	18	26	35	4,5	5,0	100	620	1000	0,8
L1351.12-08-1.0	8	12	1000	22	40,0	9,8	18	26	35	4,5	5,0	100	820	1000	0,8
L1351.12-12-1.0	12	12	1000	22	40,0	10,3	18	26	35	4,5	5,0	100	470	1000	0,8
L1351.12-18-0.5	18	12	500	22	40,0	10,6	18	26	35	4,5	5,0	100	750	1000	0,8
L1351.12-36-0.5	36	12	500	22	40,0	10,9	18	26	35	4,5	5,0	100	540	1000	0,8
L1351.15-05-2.0	5	15	2000	27	48,0	12,2	24	33	42	4,5	6,0	100	890	800	0,8
L1351.15-10-2.0	10	15	2000	27	48,0	12,3	24	33	42	4,5	6,0	100	1040	800	0,8
L1351.15-20-2.0	20	15	2000	27	48,0	12,6	24	33	42	4,5	6,0	100	1100	800	0,8
L1351.20-10-2.0	10	20	2000	32	57,0	17,5	30	40	50	5,5	7,0	100	1240	600	1,0
L1351.20-20-2.0	20	20	2000	32	57,0	17,6	30	40	50	5,5	7,0	100	1420	600	1,0



Standard ball screws



Miniature ball screws



Rolled ball screws

	Pitch (travel per revolution)						
Ø	5	10	16	20	25	40	50
16	●	●	●				
20	●	●		●			
25	●	●			●		
32	●	●		●			
40	●	●		●		●	
50		●		●			●
63		●		●			
80		●		●			

Miniature ball screws

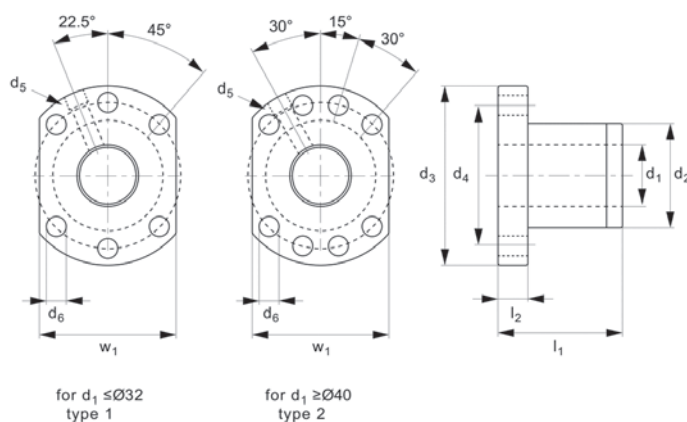
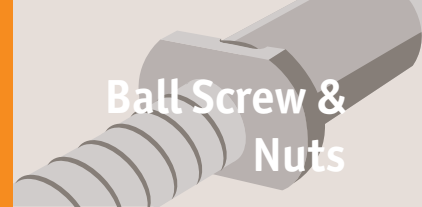
	Pitch (travel per revolution)					
Ø	1	2	2.5	4	5	Nut
6	●					flanged
8	●	●	●			flanged
10		●		●		flanged/cylinder
12		●		●	●	flanged/cylinder
14		●				flanged/cylinder



Flanged Ball Nuts

DIN 69051, form B

Ball Screw & Nuts



L1370

BALL SCREW & NUTS

Material

Steel (16MnCr5 or 100Cr6), with Vulkollan seals.

Technical Notes

To DIN 69051 form B.

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

For easy mounting of the ball screw nuts see the nut bracket - part L1377.

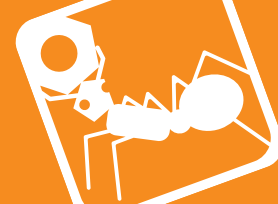
For miniature ball screws Ø6 to Ø14 see part no. L1379.

Important Notes

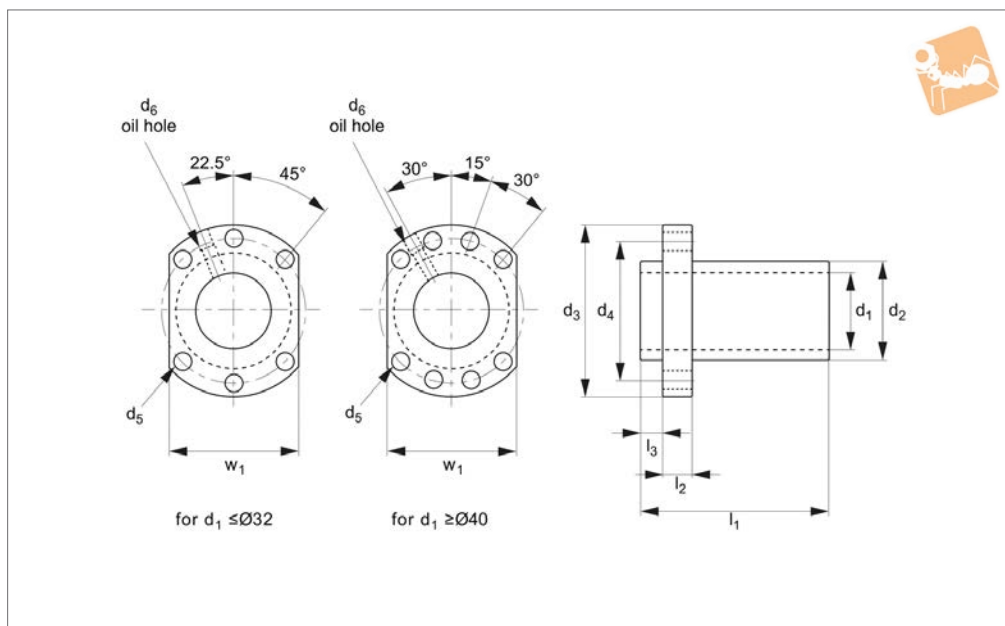
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	Type	d ₂ tol. G6	d ₃ ±0.15	d ₄ ±0.15	d ₅ for	d ₆	l ₁	l ₂	w ₁ ±0.15	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1370.16-05	16	5	Type 1	28	48	38	M 6	5,5	45	10	40	3,175	13,53	29,92	314
L1370.16-10	16	10	Type 1	28	48	38	M 6	5,5	57	10	40	3,175	10,82	23,55	255
L1370.20-05	20	5	Type 1	36	58	47	M 6	6,6	51	10	44	3,175	15,21	38,00	382
L1370.25-05	25	5	Type 1	40	62	51	M 6	6,6	51	10	48	3,175	16,91	48,09	441
L1370.25-10	25	10	Type 1	40	62	51	M 6	6,6	80	12	48	4,762	28,96	71,54	490
L1370.32-05	32	5	Type 1	50	80	65	M 6	9,0	52	12	62	3,175	18,85	62,21	529
L1370.32-10	32	10	Type 1	50	80	65	M 6	9,0	85	12	62	6,350	47,12	119,72	598
L1370.40-05	40	5	Type 2	63	93	78	M 8	9,0	55	14	70	3,175	20,69	78,34	617
L1370.40-10	40	10	Type 2	63	93	78	M 8	9,0	88	14	70	6,340	52,95	152,00	715
L1370.50-10	50	10	Type 2	75	110	93	M 8	11,0	88	16	85	6,350	58,88	192,35	833
L1370.63-10	63	10	Type 2	90	125	108	M 8	11,0	93	18	95	6,350	65,89	248,68	970
L1370.80-10	80	10	Type 2	105	145	125	M 8	13,5	93	20	110	6,350	72,04	313,36	1068





L1372



Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

Produced to DIN 69051 form B.

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

For miniature ball screws Ø6 to Ø14 see part no. L1379.

Important Notes

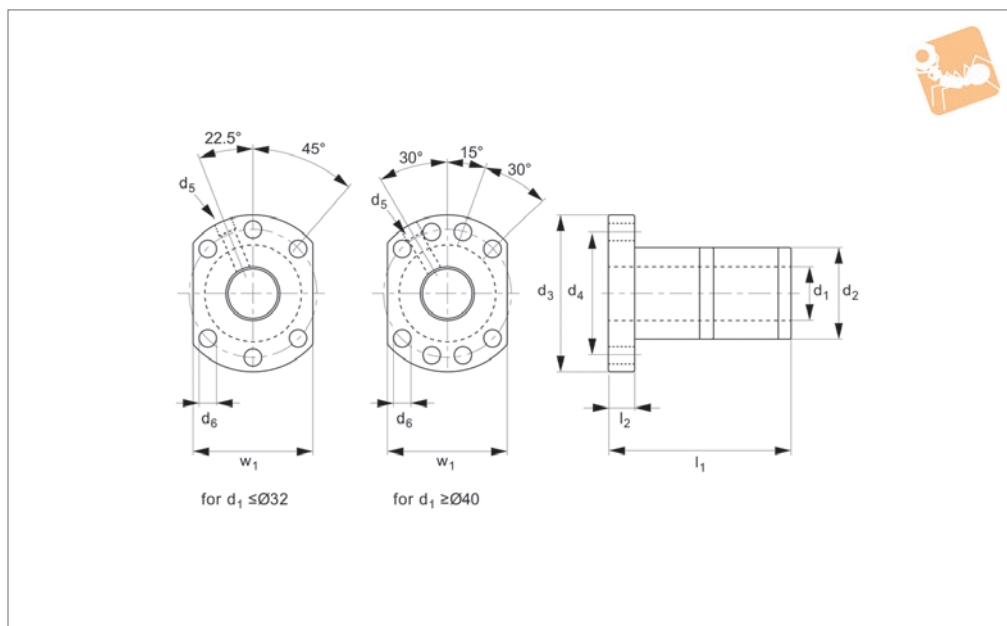
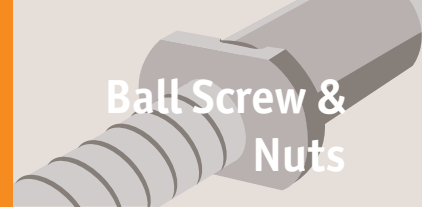
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d_1 for screw	Pitch	d_2 tol. G6	d_3	d_4	d_5	d_6	l_1	l_2	l_3	w_1	Ball dia.	Dyn. load C kN max.	Static load C_0 kN max.	Stiffness N/μm
L1372.16-16-1.8	15	16	28	48	38	5.5	M 6	43	10	5.0	40	2.78	5.41	11.15	14
L1372.16-16-2.8	15	16	28	48	38	5.5	M 6	59	10	5.0	40	2.78	7.92	17.34	22
L1372.16-20-1.8	15	20	28	48	38	5.5	M 6	50	10	5.0	40	2.78	5.43	11.47	14
L1372.20-10-3.8	20	10	36	58	47	6.6	M 6	52	10	7.0	44	3.18	14.86	37.58	40
L1372.20-20-1.8	20	20	36	58	47	6.6	M 6	52	10	7.0	44	3.18	7.49	17.24	19
L1372.20-20-2.8	20	20	36	58	47	6.6	M 6	72	10	7.0	44	3.18	10.96	26.81	29
L1372.25-25-1.8	25	25	40	62	51	6.6	M 6	60	12	7.0	48	3.18	8.26	21.56	22
L1372.25-25-2.8	25	25	40	62	51	6.6	M 6	85	12	7.0	48	3.18	12.08	33.54	34
L1372.32-20-2.8	31	20	50	80	65	9.0	M 6	72	12	9.0	62	3.97	18.70	53.76	43
L1372.32-32-1.8	31	32	50	80	65	9.0	M 6	78	12	9.0	62	3.97	12.32	33.59	27
L1372.32-32-2.8	31	32	50	80	65	9.0	M 6	110	12	9.0	62	3.97	18.02	52.25	42
L1372.40-20-2.8	38	20	63	93	78	9.0	M 8	78	14	9.0	70	6.35	38.82	105.07	54
L1372.40-40-1.8	38	40	63	93	78	9.0	M 8	96	14	9.0	70	6.35	25.35	65.19	34
L1372.40-40-2.8	38	40	63	93	78	9.0	M 8	136	14	9.0	70	6.35	37.06	101.41	52
L1372.50-20-3.8	48	20	75	110	93	11.0	M 8	98	18	10.5	85	6.35	56.37	181.27	87
L1372.50-50-1.8	48	50	75	110	93	11.0	M 8	117	18	10.5	85	6.35	28.89	85.79	42
L1372.50-50-2.8	48	50	75	110	93	11.0	M 8	167	18	10.5	85	6.35	42.24	133.46	65



Flanged Double Ball Nuts

Ball Screw & Nuts



L1371

BALL SCREW & NUTS

Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

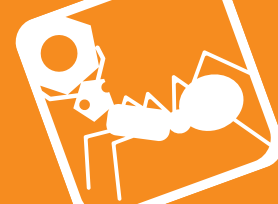
For miniature ball screws Ø6 to Ø14 see part no. L1379.

Important Notes

Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	d ₂ tol. G6	d ₃	d ₄	d ₅ for	d ₆	l ₁	l ₂	w ₁ ±0.15	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1371.16-05	16	5	28	48	38	M 6	5.5	100	10	40	3.175	13.53	29.93	431
L1371.20-05	20	5	36	58	47	M 6	6.6	85	10	44	3.175	15.21	38.00	519
L1371.25-05	25	5	40	62	51	M 6	6.6	86	10	48	3.175	16.91	48.09	608
L1371.25-10	25	10	40	62	51	M 6	6.6	130	12	48	4.762	28.96	71.54	657
L1371.32-05	32	5	50	80	65	M 6	9.0	87	12	62	3.175	18.85	62.21	725
L1371.32-10	32	10	50	80	65	M 6	9.0	145	12	62	6.350	47.12	119.72	804
L1371.40-05	40	5	63	93	78	M 8	9.0	90	14	70	3.175	20.69	78.34	853
L1371.40-10	40	10	63	93	78	M 8	9.0	148	14	70	6.350	52.95	152.00	970
L1371.50-10	50	10	75	110	93	M 8	11.0	148	16	85	6.350	58.88	192.35	1147
L1371.63-10	63	10	90	125	108	M 8	11.0	153	18	95	6.350	65.89	248.68	1362
L1371.80-10	80	10	105	145	125	M 8	13.5	153	20	110	6.350	72.04	313.36	1529





When selecting a ball screw some of the main factors to consider are:

- Maximum required travel speed
- Maximum axial compression (buckling load)
- Method of support of the ball screws
- Type of unit required, flanged, cylindrical etc.

In general it is best to support the ball screws with our ball screw support units (L1388 to L1406) with a fixed end (generally where the motor is mounted) and a floating (support) end. The support units are selected to suit the loads likely to be required, the size of the ball screw (especially its core diameter) and the type of mounting required. Details of the machining required for each end of the ball screw are shown in the bearing mounts technical section.

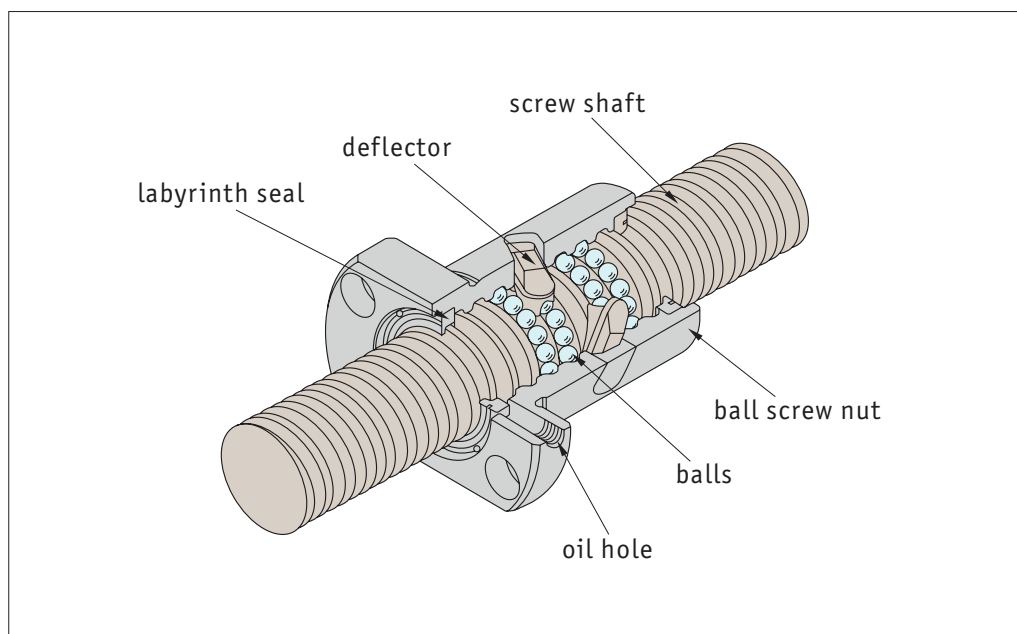
The data table for the ball screws show the diameter, the lead of the ball screw (i.e. how far the nut travels for one complete revolution of the screw) as well as the mass moment of inertia (also known as the rotational moment of inertia) - this is the extent to which an object resists rotational acceleration about its axis.

Maximum speeds and buckling load data are shown in the technical pages.

When using a ball screw the ambient temperature should not exceed +80°C.

During assembly, the parallel alignment of the guides should be ensure.

The details on the concentricity of the ball nuts to the ball screws are shown on the technical pages. For linear guideways for use with ball screws please see our part numbers L1016 etc.



Lubrication - the ball screws must be adequately lubricated. This is dependent on load, speed, motion sequence and temperature. Do not use lubricants containing Mo/SO or graphite.



Ball Screws

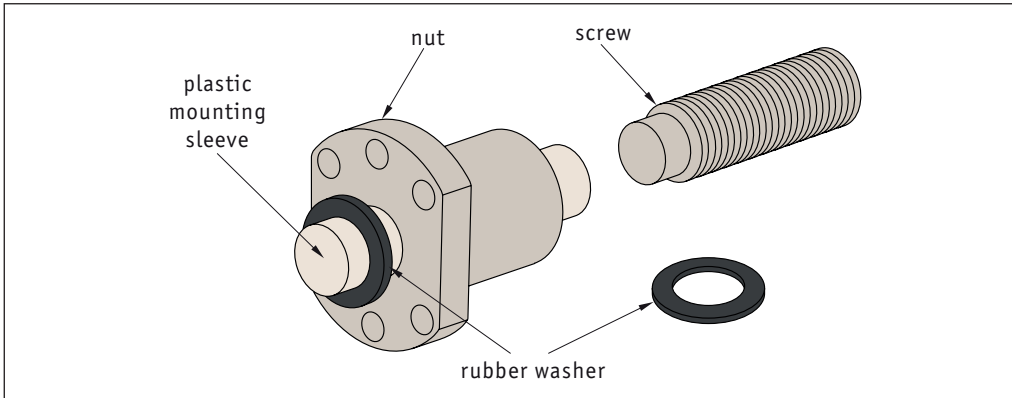
Care instructions



In general, the ball nut is already on the ball screw and should not be removed. If you need to machine the ball screw, then the plastic mounting sleeve should be used to retain the ball bearings whilst the nut is removed.

Mounting the nut on the screw

Sometimes ball screws are delivered with a separate ball nut. When mounting the nut on to the screw take care as if done incorrectly the ball bearings may come off the ball nut.



Ball nuts should be mounted only with the help of a plastic mounting sleeve (delivered with the nut). The start of the thread should be aligned so that the seal and the internal parts of the nut are not damaged.

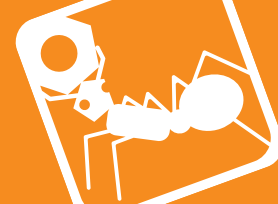
1. Remove the rubber washer from one side of the sleeve. Push on the nut with the sleeve on the end of the screw. Press the sleeve against the start of the screw thread.
2. Screw the nut onto the thread using a slight axial pressure, then screw the nut on for its entire length.
3. Remove the mounting sleeve only when the nut is completely threaded on to the screw.
4. Lock the nut on to the screw (to prevent any unscrewing) using an O ring or similar - whilst installing the system.

If the balls do unfortunately escape...

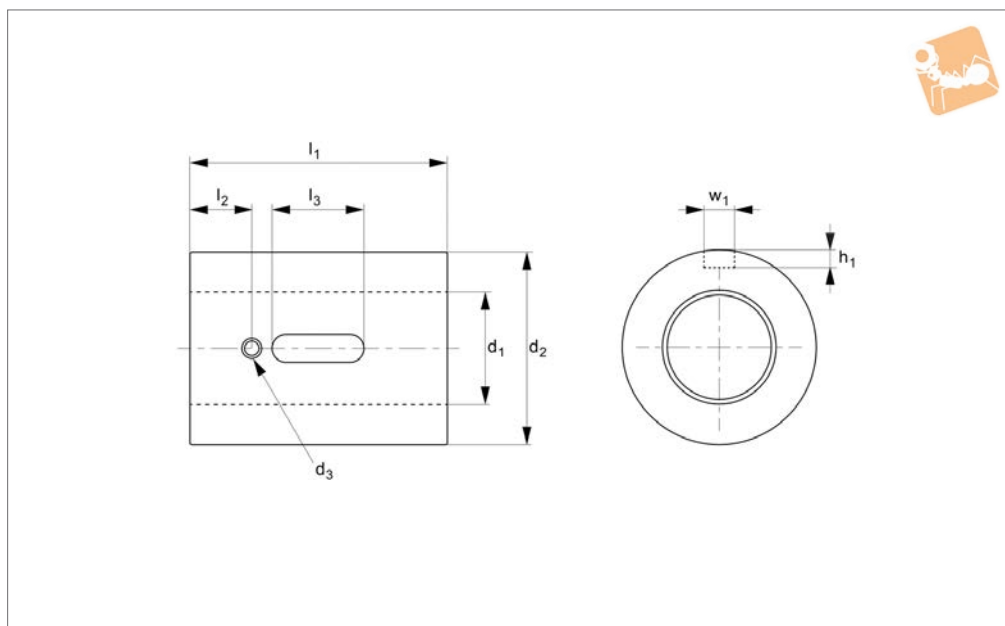
1. Pick them up (the nut is only compatible with the original balls). The load capacity can still be achieved if one or two balls are missing.
2. Carefully clean all parts, use the sleeve as a mounting jig and replace the balls.
3. Start with the lowest circuit. Insert the balls into the nut circuit - the sleeve prevents the balls from falling out again.
4. Do not place the balls in the empty circuit located between the two deflectors.

If you have any technical queries please call **0333 207 4498**.

Ball Screws from Automation Components



L1373



Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

For miniature ball screws Ø6 to Ø14 see part no. L1379.

Important Notes

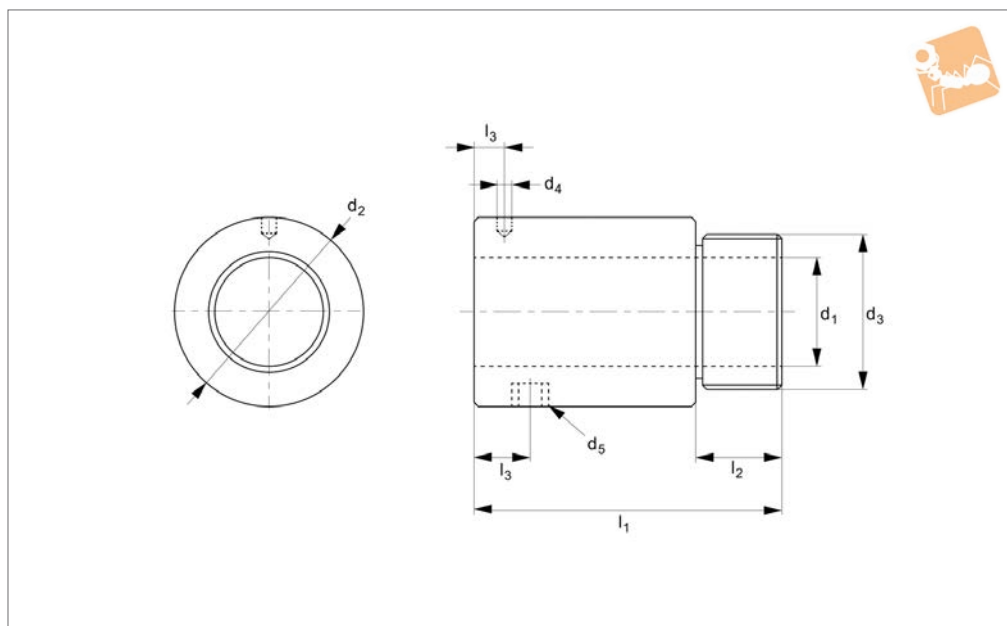
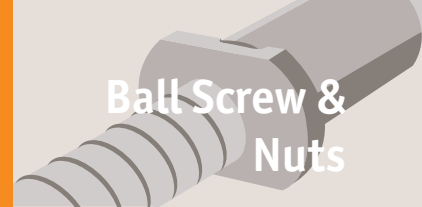
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	d ₂ tol. G6	d ₃	h ₁ ±0.05	l ₁	l ₂	l ₃	w ₁	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1373.016-05	16	5	30	3.5	3	45	9	20	5	3,175	13.53	29.93	324
L1373.020-05	20	5	34	3.5	3	45	9	20	5	3,175	15.21	38.00	382
L1373.025-05	25	5	40	3.5	3	45	9	20	5	3,175	16.91	48.09	441
L1373.025-10	25	10	46	3.5	3	85	13	30	5	4,762	28.97	71.54	500
L1373.032-05	32	5	46	3.5	3	45	9	20	5	3,175	18.84	62.20	510
L1373.032-10	32	10	54	3.5	3	85	13	30	5	6,350	47.12	119.72	608
L1373.040-05	40	5	56	3.5	3	45	9	20	5	3,175	20.69	78.33	579
L1373.040-10	40	10	62	3.5	3	85	13	30	5	6,350	52.95	152.00	706



Cylindrical Ball Nuts with thread

Ball Screw & Nuts



L1374

BALL SCREW & NUTS

Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

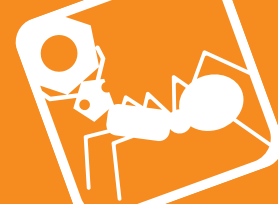
For miniature ball screws Ø6 to Ø14 see part no. L1379.

Important Notes

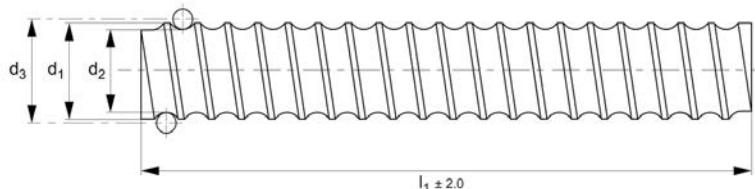
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	d ₂ tol. G6	d ₃	d ₄	d ₅	l ₁ ±0.15	l ₂	l ₃	l ₄	No. of circuits	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1374.16-05	16	5	32,5	M26x1,5P	3,0		42	12	19,25		3x1	3,175	10,56	22,44	245
L1374.16-10	16	10	32,0	M26x1,5P	4,0	M 4	50	12	3,00	3	2x1	3,175	6,61	11,09	245
L1374.20-05	20	5	38,0	M35x1,5P	3,0		45	15	20,30		3x1	3,175	11,87	28,49	294
L1374.25-05	25	5	43,0	M40x1,5P	3,0	M 6	69	19	32,11	8	4x1	3,175	16,90	48,08	363
L1374.25-10	25	10	43,0	M40x1,5P	6,0	M 6	84	19	8,00	8	4x1	3,175	28,96	71,53	363





L1375.16



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5 or 10mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 3000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Important Notes

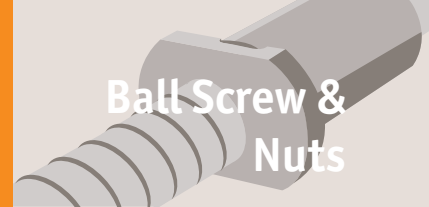
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.16-05-0500	16x 5	5	16	13.90	17.08	500	4,45x10 ⁻⁵	0.71
L1375.16-05-0600	16x 5	5	16	13.90	17.08	600	4,45x10 ⁻⁵	0.85
L1375.16-05-0800	16x 5	5	16	13.90	17.08	800	4,45x10 ⁻⁵	1.13
L1375.16-05-1000	16x 5	5	16	13.90	17.08	1000	4,45x10 ⁻⁵	1.41
L1375.16-05-1500	16x 5	5	16	13.90	17.08	1500	4,45x10 ⁻⁵	2.12
L1375.16-05-2000	16x 5	5	16	13.90	17.08	2000	4,45x10 ⁻⁵	2.82
L1375.16-05-2500	16x 5	5	16	13.90	17.08	2500	4,45x10 ⁻⁵	3.53
L1375.16-05-3000	16x 5	5	16	13.90	17.08	3000	4,45x10 ⁻⁵	4.23
L1375.16-10-0500	16x10	10	16	12.90	17.08	500	4,36x10 ⁻⁵	0.73
L1375.16-10-0600	16x10	10	16	12.90	17.08	600	4,36x10 ⁻⁵	0.88
L1375.16-10-0800	16x10	10	16	12.90	17.08	800	4,36x10 ⁻⁵	1.17
L1375.16-10-1000	16x10	10	16	12.90	17.08	1000	4,36x10 ⁻⁵	1.46
L1375.16-10-1500	16x10	10	16	12.90	17.08	1500	4,36x10 ⁻⁵	2.19
L1375.16-10-2000	16x10	10	16	12.90	17.08	2000	4,36x10 ⁻⁵	2.92
L1375.16-10-2500	16x10	10	16	12.90	17.08	2500	4,36x10 ⁻⁵	3.65
L1375.16-10-3000	16x10	10	16	12.90	17.08	3000	4,36x10 ⁻⁵	4.38
L1375.16-16-0500	16x16	16	16	12.90	17.08	500	4,36x10 ⁻⁵	0.73
L1375.16-16-0600	16x16	16	16	12.90	17.08	600	4,36x10 ⁻⁵	0.88
L1375.16-16-0800	16x16	16	16	12.90	17.08	800	4,36x10 ⁻⁵	1.17
L1375.16-16-1000	16x16	16	16	12.90	17.08	1000	4,36x10 ⁻⁵	1.46
L1375.16-16-1500	16x16	16	16	12.90	17.08	1500	4,36x10 ⁻⁵	2.19
L1375.16-16-2000	16x16	16	16	12.90	17.08	2000	4,36x10 ⁻⁵	2.92
L1375.16-16-2500	16x16	16	16	12.90	17.08	2500	4,36x10 ⁻⁵	3.65
L1375.16-16-3000	16x16	16	16	12.90	17.08	3000	4,36x10 ⁻⁵	4.38
L1375.16-20-0500	16x20	20	16	12.90	17.08	500	4,36x10 ⁻⁵	0.73
L1375.16-20-0600	16x20	20	16	12.90	17.08	600	4,36x10 ⁻⁵	0.88
L1375.16-20-0800	16x20	20	16	12.90	17.08	800	4,36x10 ⁻⁵	1.17
L1375.16-20-1000	16x20	20	16	12.90	17.08	1000	4,36x10 ⁻⁵	1.46
L1375.16-20-1500	16x20	20	16	12.90	17.08	1500	4,36x10 ⁻⁵	2.19
L1375.16-20-2000	16x20	20	16	12.90	17.08	2000	4,36x10 ⁻⁵	2.92

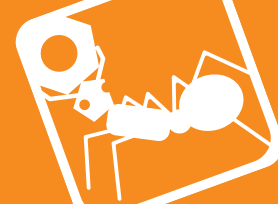


Ø 16 Ball Screws rolled

Ball Screw & Nuts

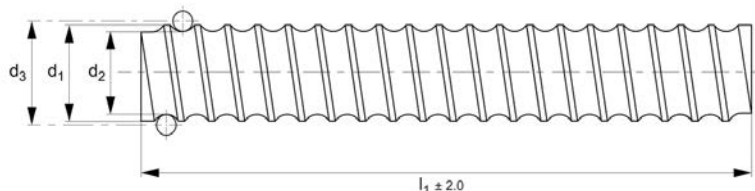


Order No.	Screw dia. x lead	Lead	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.16-20-2500	16x20	20	16	12.90	17.08	2500	4,36x10 ⁻⁵	3.65
L1375.16-20-3000	16x20	20	16	12.90	17.08	3000	4,36x10 ⁻⁵	4.38
L1375.16-32-0500	16x32	32	16	12.90	17.08	500	4,36x10 ⁻⁵	0.73
L1375.16-32-0600	16x32	32	16	12.90	17.08	600	4,36x10 ⁻⁵	0.88
L1375.16-32-0800	16x32	32	16	12.90	17.08	800	4,36x10 ⁻⁵	1.17
L1375.16-32-1000	16x32	32	16	12.90	17.08	1000	4,36x10 ⁻⁵	1.46
L1375.16-32-1500	16x32	32	16	12.90	17.08	1500	4,36x10 ⁻⁵	2.19
L1375.16-32-2000	16x32	32	16	12.90	17.08	2000	4,36x10 ⁻⁵	2.92
L1375.16-32-2500	16x32	32	16	12.90	17.08	2500	4,36x10 ⁻⁵	3.65
L1375.16-32-3000	16x32	32	16	12.90	17.08	3000	4,36x10 ⁻⁵	4.38



L1375.20

BALL SCREW & NUTS



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5,20 or 50mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 3000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for 5mm pitch.

Important Notes

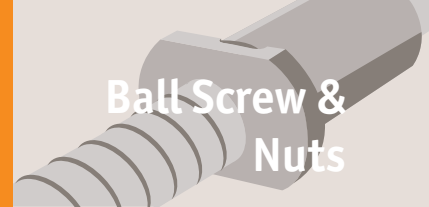
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead w ₁	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.20-05-0500	20x 5	5	20	17.9	21.08	500	1,12x10 ⁻⁴	1.18
L1375.20-05-0600	20x 5	5	20	17.9	21.08	600	1,12x10 ⁻⁴	1.41
L1375.20-05-0800	20x 5	5	20	17.9	21.08	800	1,12x10 ⁻⁴	1.88
L1375.20-05-1000	20x 5	5	20	17.9	21.08	1000	1,12x10 ⁻⁴	2.35
L1375.20-05-1500	20x 5	5	20	17.9	21.08	1500	1,12x10 ⁻⁴	3.53
L1375.20-05-2000	20x 5	5	20	17.9	21.08	2000	1,12x10 ⁻⁴	4.70
L1375.20-05-2500	20x 5	5	20	17.9	21.08	2500	1,12x10 ⁻⁴	5.88
L1375.20-05-3000	20x 5	5	20	17.9	21.08	3000	1,12x10 ⁻⁴	7.05
L1375.20-10-0500	20x10	10	10	17.9	21.08	500	1,18x10 ⁻⁴	1.21
L1375.20-10-0600	20x10	10	10	17.9	21.08	600	1,18x10 ⁻⁴	1.45
L1375.20-10-0800	20x10	10	10	17.9	21.08	800	1,18x10 ⁻⁴	1.93
L1375.20-10-1000	20x10	10	10	17.9	21.08	1000	1,18x10 ⁻⁴	2.41
L1375.20-10-1500	20x10	10	10	17.9	21.08	1500	1,18x10 ⁻⁴	3.62
L1375.20-10-2000	20x10	10	10	17.9	21.08	2000	1,18x10 ⁻⁴	4.82
L1375.20-10-2500	20x10	10	10	17.9	21.08	2500	1,18x10 ⁻⁴	6.03
L1375.20-10-3000	20x10	10	10	17.9	21.08	3000	1,18x10 ⁻⁴	7.23
L1375.20-20-0500	20x20	20	20	17.6	20.76	500	1,00x10 ⁻⁴	1.11
L1375.20-20-0600	20x20	20	20	17.6	20.76	600	1,00x10 ⁻⁴	1.33
L1375.20-20-0800	20x20	20	20	17.6	20.76	800	1,00x10 ⁻⁴	1.77
L1375.20-20-1000	20x20	20	20	17.6	20.76	1000	1,00x10 ⁻⁴	2.21
L1375.20-20-1500	20x20	20	20	17.6	20.76	1500	1,00x10 ⁻⁴	3.32
L1375.20-20-2000	20x20	20	20	17.6	20.76	2000	1,00x10 ⁻⁴	4.42
L1375.20-20-2500	20x20	20	20	17.6	20.76	2500	1,00x10 ⁻⁴	5.53
L1375.20-20-3000	20x20	20	20	17.6	20.76	3000	1,00x10 ⁻⁴	6.63
L1375.20-40-0500	20x40	40	20	17.6	20.76	500	1,00x10 ⁻⁴	1.11
L1375.20-40-0600	20x40	40	20	17.6	20.76	600	1,00x10 ⁻⁴	1.33
L1375.20-40-0800	20x40	40	20	17.6	20.76	800	1,00x10 ⁻⁴	1.77
L1375.20-40-1000	20x40	40	20	17.6	20.76	1000	1,00x10 ⁻⁴	2.21
L1375.20-40-1500	20x40	40	20	17.6	20.76	1500	1,00x10 ⁻⁴	3.32

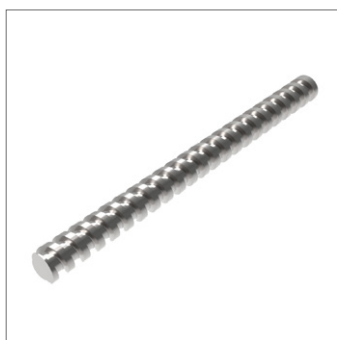
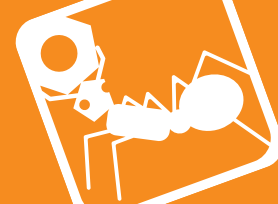


Ø 20 Ball Screws rolled

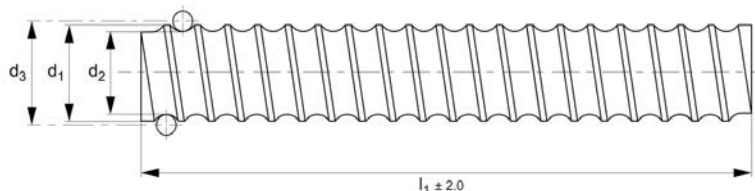


Ball Screw & Nuts

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $\text{kg}\cdot\text{m}^2$	Weight kg
L1375.20-40-2000	20x40	40	20	17.6	20.76	2000	$1,00 \times 10^{-4}$	4.42
L1375.20-40-2500	20x40	40	20	17.6	20.76	2500	$1,00 \times 10^{-4}$	5.53
L1375.20-40-3000	20x40	40	20	17.6	20.76	3000	$1,00 \times 10^{-4}$	6.63



L1375.25



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 2mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead w ₁	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.25-05-0500	25x 5	5	25	22.9	26.08	500	2,62x10 ⁻⁴	1.80
L1375.25-05-0600	25x 5	5	25	22.9	26.08	600	2,62x10 ⁻⁴	2.15
L1375.25-05-0800	25x 5	5	25	22.9	26.08	800	2,62x10 ⁻⁴	2.87
L1375.25-05-1000	25x 5	5	25	22.9	26.08	1000	2,62x10 ⁻⁴	3.59
L1375.25-05-1500	25x 5	5	25	22.9	26.08	1500	2,62x10 ⁻⁴	5.39
L1375.25-05-2000	25x 5	5	25	22.9	26.08	2000	2,62x10 ⁻⁴	7.18
L1375.25-05-2500	25x 5	5	25	22.9	26.08	2500	2,62x10 ⁻⁴	8.98
L1375.25-05-3000	25x 5	5	25	22.9	26.08	3000	2,62x10 ⁻⁴	10.77
L1375.25-05-3500	25x 5	5	25	22.9	26.08	3500	2,62x10 ⁻⁴	2.87
L1375.25-05-4000	25x 5	5	25	22.9	26.08	4000	2,62x10 ⁻⁴	3.59
L1375.25-05-4500	25x 5	5	25	22.9	26.08	4500	2,62x10 ⁻⁴	5.39
L1375.25-05-5000	25x 5	5	25	22.9	26.08	5000	2,62x10 ⁻⁴	7.18
L1375.25-05-5500	25x 5	5	25	22.9	26.08	5500	2,62x10 ⁻⁴	8.98
L1375.25-05-6000	25x 5	5	25	22.9	26.08	6000	2,62x10 ⁻⁴	10.77
L1375.25-10-0500	25x10	10	25	20.8	27.15	500	2,94x10 ⁻⁴	1.91
L1375.25-10-0600	25x10	10	25	20.8	27.15	600	2,94x10 ⁻⁴	2.29
L1375.25-10-0800	25x10	10	25	20.8	27.15	800	2,94x10 ⁻⁴	3.05
L1375.25-10-1000	25x10	10	25	20.8	27.15	1000	2,94x10 ⁻⁴	3.81
L1375.25-10-1500	25x10	10	25	20.8	27.15	1500	2,94x10 ⁻⁴	5.72
L1375.25-10-2000	25x10	10	25	20.8	27.15	2000	2,94x10 ⁻⁴	7.62
L1375.25-10-2500	25x10	10	25	20.8	27.15	2500	2,94x10 ⁻⁴	9.53
L1375.25-10-3000	25x10	10	25	20.8	27.15	3000	2,94x10 ⁻⁴	11.43
L1375.25-10-3500	25x10	10	25	22.9	26.08	3500	2,62x10 ⁻⁴	2.87
L1375.25-10-4000	25x10	10	25	22.9	26.08	4000	2,62x10 ⁻⁴	3.59
L1375.25-10-4500	25x10	10	25	22.9	26.08	4500	2,62x10 ⁻⁴	5.39
L1375.25-10-5000	25x10	10	25	22.9	26.08	5000	2,62x10 ⁻⁴	7.18
L1375.25-10-5500	25x10	10	25	22.9	26.08	5500	2,62x10 ⁻⁴	8.98
L1375.25-10-6000	25x10	10	25	22.9	26.08	6000	2,62x10 ⁻⁴	10.77
L1375.25-25-0500	25x25	25	25	22.9	26.09	500	2,60x10 ⁻⁴	1.82
L1375.25-25-0600	25x25	25	25	22.9	26.09	600	2,60x10 ⁻⁴	2.18

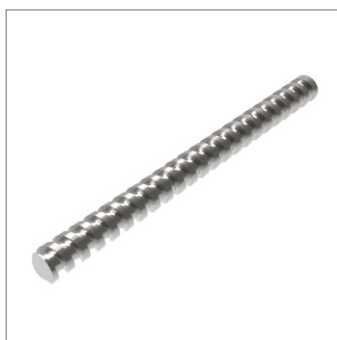
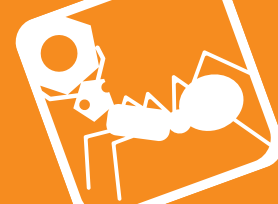


Ø 25 Ball Screws rolled

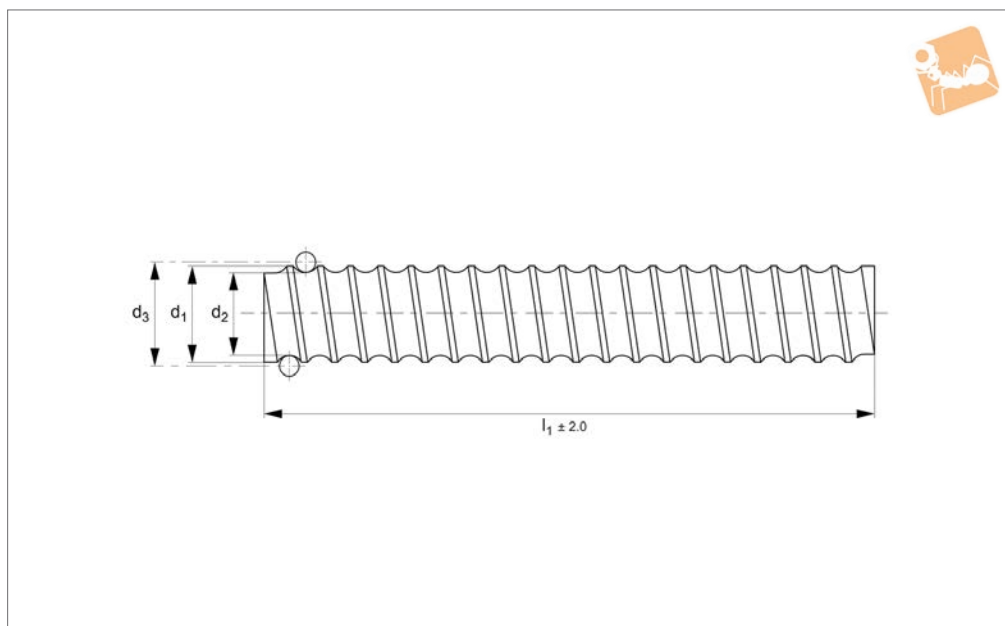
Ball Screw & Nuts

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $\text{kg}\cdot\text{m}^2$	Weight kg
L1375.25-25-0800	25x25	25	25	22.9	26.09	800	$2,60 \times 10^{-4}$	2.91
L1375.25-25-1000	25x25	25	25	22.9	26.09	1000	$2,60 \times 10^{-4}$	3.64
L1375.25-25-1500	25x25	25	25	22.9	26.09	1500	$2,60 \times 10^{-4}$	5.46
L1375.25-25-2000	25x25	25	25	22.9	26.09	2000	$2,60 \times 10^{-4}$	7.28
L1375.25-25-2500	25x25	25	25	22.9	26.09	2500	$2,60 \times 10^{-4}$	9.10
L1375.25-25-3000	25x25	25	25	22.9	26.09	3000	$2,60 \times 10^{-4}$	10.92
L1375.25-25-3500	25x25	25	25	22.9	26.08	3500	$2,62 \times 10^{-4}$	2.87
L1375.25-25-4000	25x25	25	25	22.9	26.08	4000	$2,62 \times 10^{-4}$	3.59
L1375.25-25-4500	25x25	25	25	22.9	26.08	4500	$2,62 \times 10^{-4}$	5.39
L1375.25-25-5000	25x25	25	25	22.9	26.08	5000	$2,62 \times 10^{-4}$	7.18
L1375.25-25-5500	25x25	25	25	22.9	26.08	5500	$2,62 \times 10^{-4}$	8.98
L1375.25-25-6000	25x25	25	25	22.9	26.08	6000	$2,62 \times 10^{-4}$	10.77
L1375.25-50-0500	25x50	50	25	22.9	26.09	500	$2,60 \times 10^{-4}$	1.82
L1375.25-50-0600	25x50	50	25	22.9	26.09	600	$2,60 \times 10^{-4}$	2.18
L1375.25-50-0800	25x50	50	25	22.9	26.09	800	$2,60 \times 10^{-4}$	2.91
L1375.25-50-1000	25x50	50	25	22.9	26.09	1000	$2,60 \times 10^{-4}$	3.64
L1375.25-50-1500	25x50	50	25	22.9	26.09	1500	$2,60 \times 10^{-4}$	5.46
L1375.25-50-2000	25x50	50	25	22.9	26.09	2000	$2,60 \times 10^{-4}$	7.28
L1375.25-50-2500	25x50	50	25	22.9	26.09	2500	$2,60 \times 10^{-4}$	9.10
L1375.25-50-3000	25x50	50	25	22.9	26.09	3000	$2,60 \times 10^{-4}$	10.92
L1375.25-50-3500	25x50	50	25	22.9	26.08	3500	$2,62 \times 10^{-4}$	2.87
L1375.25-50-4000	25x50	50	25	22.9	26.08	4000	$2,62 \times 10^{-4}$	3.59
L1375.25-50-4500	25x50	50	25	22.9	26.08	4500	$2,62 \times 10^{-4}$	5.39
L1375.25-50-5000	25x50	50	25	22.9	26.08	5000	$2,62 \times 10^{-4}$	7.18
L1375.25-50-5500	25x50	50	25	22.9	26.08	5500	$2,62 \times 10^{-4}$	8.98
L1375.25-50-6000	25x50	50	25	22.9	26.08	6000	$2,62 \times 10^{-4}$	10.77

BALL SCREW & NUTS



L1375.32



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10, 20 or 40mm lead.

Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for

5mm pitch.

Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

d3 = pitch diameter.

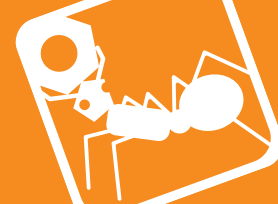
Order No.	Screw dia. x lead	Lead w ₁	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.32-05-0500	32x 5	5	32	29.90	33.08	500	7,25x10 ⁻⁴	2.99
L1375.32-05-0600	32x 5	5	32	29.90	33.08	600	7,25x10 ⁻⁴	3.59
L1375.32-05-0800	32x 5	5	32	29.90	33.08	800	7,25x10 ⁻⁴	4.78
L1375.32-05-1000	32x 5	5	32	29.90	33.08	1000	7,25x10 ⁻⁴	5.98
L1375.32-05-1500	32x 5	5	32	29.90	33.08	1500	7,25x10 ⁻⁴	8.97
L1375.32-05-2000	32x 5	5	32	29.90	33.08	2000	7,25x10 ⁻⁴	11.96
L1375.32-05-2500	32x 5	5	32	29.90	33.08	2500	7,25x10 ⁻⁴	14.95
L1375.32-05-3000	32x 5	5	32	29.90	33.08	3000	7,25x10 ⁻⁴	17.94
L1375.32-05-3500	32x 5	5	32	29.90	33.08	3500	7,25x10 ⁻⁴	4.78
L1375.32-05-4000	32x 5	5	32	29.90	33.08	4000	7,25x10 ⁻⁴	5.98
L1375.32-05-4500	32x 5	5	32	29.90	33.08	4500	7,25x10 ⁻⁴	8.97
L1375.32-05-5000	32x 5	5	32	29.90	33.08	5000	7,25x10 ⁻⁴	11.96
L1375.32-05-5500	32x 5	5	32	29.90	33.08	5500	7,25x10 ⁻⁴	14.95
L1375.32-05-6000	32x 5	5	32	29.90	33.08	6000	7,25x10 ⁻⁴	14.95
L1375.32-10-0500	32x10	10	32	27.80	34.15	500	7,69x10 ⁻⁴	3.08
L1375.32-10-0600	32x10	10	32	27.80	34.15	600	7,69x10 ⁻⁴	3.70
L1375.32-10-0800	32x10	10	32	27.80	34.15	800	7,69x10 ⁻⁴	4.93
L1375.32-10-1000	32x10	10	32	27.80	34.15	1000	7,69x10 ⁻⁴	6.16
L1375.32-10-1500	32x10	10	32	27.80	34.15	1500	7,69x10 ⁻⁴	9.24
L1375.32-10-2000	32x10	10	32	27.80	34.15	2000	7,69x10 ⁻⁴	12.32
L1375.32-10-2500	32x10	10	32	27.80	34.15	2500	7,69x10 ⁻⁴	15.40
L1375.32-10-3000	32x10	10	32	27.80	34.15	3000	7,69x10 ⁻⁴	18.48
L1375.32-10-3500	32x10	10	32	29.90	33.08	3500	7,25x10 ⁻⁴	4.78
L1375.32-10-4000	32x10	10	32	29.90	33.08	4000	7,25x10 ⁻⁴	5.98
L1375.32-10-4500	32x10	10	32	29.90	33.08	4500	7,25x10 ⁻⁴	8.97
L1375.32-10-5000	32x10	10	32	29.90	33.08	5000	7,25x10 ⁻⁴	11.96
L1375.32-10-5500	32x10	10	32	29.90	33.08	5500	7,25x10 ⁻⁴	14.95
L1375.32-10-6000	32x10	10	32	29.90	33.08	6000	7,25x10 ⁻⁴	14.95
L1375.32-20-0500	32x20	20	32	29.38	33.35	500	7,76x10 ⁻⁴	3.19



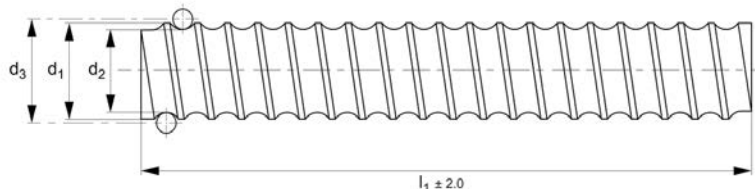
Ø 32 Ball Screws rolled

Ball Screw & Nuts

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $kg \cdot m^2$	Weight kg
L1375.32-20-0600	32x20	20	32	29.38	33.35	600	$7,76 \times 10^{-4}$	3.82
L1375.32-20-0800	32x20	20	32	29.38	33.35	800	$7,76 \times 10^{-4}$	5.10
L1375.32-20-1000	32x20	20	32	29.38	33.35	1000	$7,76 \times 10^{-4}$	6.37
L1375.32-20-1500	32x20	20	32	29.38	33.35	1500	$7,76 \times 10^{-4}$	9.56
L1375.32-20-2000	32x20	20	32	29.38	33.35	2000	$7,76 \times 10^{-4}$	12.74
L1375.32-20-2500	32x20	20	32	29.38	33.35	2500	$7,76 \times 10^{-4}$	15.93
L1375.32-20-3000	32x20	20	32	29.38	33.35	3000	$7,76 \times 10^{-4}$	19.11
L1375.32-20-3500	32x20	20	32	29.90	33.08	3500	$7,25 \times 10^{-4}$	4.78
L1375.32-20-4000	32x20	20	32	29.90	33.08	4000	$7,25 \times 10^{-4}$	5.98
L1375.32-20-4500	32x20	20	32	29.90	33.08	4500	$7,25 \times 10^{-4}$	8.97
L1375.32-20-5000	32x20	20	32	29.90	33.08	5000	$7,25 \times 10^{-4}$	11.96
L1375.32-20-5500	32x20	20	32	29.90	33.08	5500	$7,25 \times 10^{-4}$	14.95
L1375.32-20-6000	32x20	20	32	29.90	33.08	6000	$7,25 \times 10^{-4}$	14.95
L1375.32-32-0500	32x32	32	32	28.40	32.35	500	$6,89 \times 10^{-4}$	2.91
L1375.32-32-0600	32x32	32	32	28.40	32.35	600	$6,89 \times 10^{-4}$	3.49
L1375.32-32-0800	32x32	32	32	28.40	32.35	800	$6,89 \times 10^{-4}$	4.65
L1375.32-32-1000	32x32	32	32	28.40	32.35	1000	$6,89 \times 10^{-4}$	5.81
L1375.32-32-1500	32x32	32	32	28.40	32.35	1500	$6,89 \times 10^{-4}$	8.72
L1375.32-32-2000	32x32	32	32	28.40	32.35	2000	$6,89 \times 10^{-4}$	11.62
L1375.32-32-2500	32x32	32	32	28.40	32.35	2500	$6,89 \times 10^{-4}$	14.53
L1375.32-32-3000	32x32	32	32	28.40	32.35	3000	$6,89 \times 10^{-4}$	17.43
L1375.32-32-3500	32x32	32	32	28.40	32.35	3500	$6,89 \times 10^{-4}$	4.65
L1375.32-32-4000	32x32	32	32	28.40	32.35	4000	$6,89 \times 10^{-4}$	5.81
L1375.32-32-4500	32x32	32	32	28.40	32.35	4500	$6,89 \times 10^{-4}$	8.72
L1375.32-32-5000	32x32	32	32	28.40	32.35	5000	$6,89 \times 10^{-4}$	11.62
L1375.32-32-5500	32x32	32	32	28.40	32.35	5500	$6,89 \times 10^{-4}$	14.53
L1375.32-32-6000	32x32	32	32	28.40	32.35	6000	$6,89 \times 10^{-4}$	17.43
L1375.32-64-0500	32x64	64	32	28.40	32.35	500	$6,89 \times 10^{-4}$	2.91
L1375.32-64-0600	32x64	64	32	28.40	32.35	600	$6,89 \times 10^{-4}$	3.49
L1375.32-64-0800	32x64	64	32	28.40	32.35	800	$6,89 \times 10^{-4}$	4.65
L1375.32-64-1000	32x64	64	32	28.40	32.35	1000	$6,89 \times 10^{-4}$	5.81
L1375.32-64-1500	32x64	64	32	28.40	32.35	1500	$6,89 \times 10^{-4}$	8.72
L1375.32-64-2000	32x64	64	32	28.40	32.35	2000	$6,89 \times 10^{-4}$	11.62
L1375.32-64-2500	32x64	64	32	28.40	32.35	2500	$6,89 \times 10^{-4}$	14.53
L1375.32-64-3000	32x64	64	32	28.40	32.35	3000	$6,89 \times 10^{-4}$	17.43
L1375.32-64-3500	32x64	64	32	28.40	32.35	3500	$6,89 \times 10^{-4}$	4.65
L1375.32-64-4000	32x64	64	32	28.40	32.35	4000	$6,89 \times 10^{-4}$	5.81
L1375.32-64-4500	32x64	64	32	28.40	32.35	4500	$6,89 \times 10^{-4}$	8.72
L1375.32-64-5000	32x64	64	32	28.40	32.35	5000	$6,89 \times 10^{-4}$	11.62
L1375.32-64-5500	32x64	64	32	28.40	32.35	5500	$6,89 \times 10^{-4}$	14.53
L1375.32-64-6000	32x64	64	32	28.40	32.35	6000	$6,89 \times 10^{-4}$	17.43



L1375.40



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 20mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

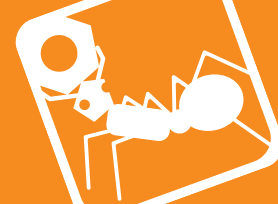
Order No.	Screw dia. x lead	Lead w ₁	d ₁	d ₂	d ₃	l ₁	Mass moment of inertia kg·m ²	Weight kg
L1375.40-05-0500	40x 5	5	40	37.9	41.08	500	1,81x10 ⁻³	4.72
L1375.40-05-0600	40x 5	5	40	37.9	41.08	600	1,81x10 ⁻³	5.66
L1375.40-05-0800	40x 5	5	40	37.9	41.08	800	1,81x10 ⁻³	7.55
L1375.40-05-1000	40x 5	5	40	37.9	41.08	1000	1,81x10 ⁻³	9.44
L1375.40-05-1500	40x 5	5	40	37.9	41.08	1500	1,81x10 ⁻³	14.16
L1375.40-05-2000	40x 5	5	40	37.9	41.08	2000	1,81x10 ⁻³	18.88
L1375.40-05-2500	40x 5	5	40	37.9	41.08	2500	1,81x10 ⁻³	23.60
L1375.40-05-3000	40x 5	5	40	37.9	41.08	3000	1,81x10 ⁻³	28.32
L1375.40-05-3500	40x 5	5	40	37.9	41.08	3500	1,81x10 ⁻³	7.55
L1375.40-05-4000	40x 5	5	40	37.9	41.08	4000	1,81x10 ⁻³	9.44
L1375.40-05-4500	40x 5	5	40	37.9	41.08	4500	1,81x10 ⁻³	14.16
L1375.40-05-5000	40x 5	5	40	37.9	41.08	5000	1,81x10 ⁻³	18.88
L1375.40-05-5500	40x 5	5	40	37.9	41.08	5500	1,81x10 ⁻³	23.60
L1375.40-05-6000	40x 5	5	40	37.9	41.08	6000	1,81x10 ⁻³	28.32
L1375.40-10-0500	40x10	10	40	35.8	42.15	500	1,66x10 ⁻³	4.51
L1375.40-10-0600	40x10	10	40	35.8	42.15	600	1,66x10 ⁻³	5.41
L1375.40-10-0800	40x10	10	40	35.8	42.15	800	1,66x10 ⁻³	7.22
L1375.40-10-1000	40x10	10	40	35.8	42.15	1000	1,66x10 ⁻³	9.02
L1375.40-10-1500	40x10	10	40	35.8	42.15	1500	1,66x10 ⁻³	13.53
L1375.40-10-2000	40x10	10	40	35.8	42.15	2000	1,66x10 ⁻³	18.04
L1375.40-10-2500	40x10	10	40	35.8	42.15	2500	1,66x10 ⁻³	22.55
L1375.40-10-3000	40x10	10	40	35.8	42.15	3000	1,66x10 ⁻³	27.06
L1375.40-10-3500	40x10	10	40	37.9	42.15	3500	1,81x10 ⁻³	7.55
L1375.40-10-4000	40x10	10	40	37.9	42.15	4000	1,81x10 ⁻³	9.44
L1375.40-10-4500	40x10	10	40	37.9	42.15	4500	1,81x10 ⁻³	14.16
L1375.40-10-5000	40x10	10	40	37.9	42.15	5000	1,81x10 ⁻³	18.88
L1375.40-10-5500	40x10	10	40	37.9	42.15	5500	1,81x10 ⁻³	23.60
L1375.40-10-6000	40x10	10	40	37.9	42.15	6000	1,81x10 ⁻³	28.32
L1375.40-20-0500	40x20	20	40	35.8	42.15	500	1,66x10 ⁻³	4.51
L1375.40-20-0600	40x20	20	40	35.8	42.15	600	1,66x10 ⁻³	5.41



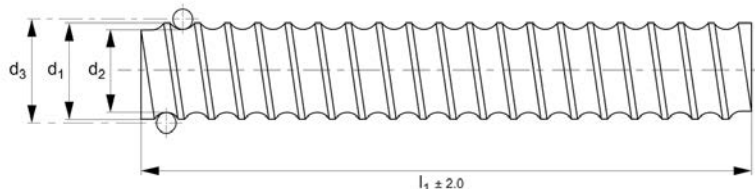
Ø 40 Ball Screws rolled

Ball Screw & Nuts

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $\text{kg} \cdot \text{m}^2$	Weight kg
L1375.40-20-0800	40x20	20	40	35.8	42.15	800	$1,66 \times 10^{-3}$	7.22
L1375.40-20-1000	40x20	20	40	35.8	42.15	1000	$1,66 \times 10^{-3}$	9.02
L1375.40-20-1500	40x20	20	40	35.8	42.15	1500	$1,66 \times 10^{-3}$	13.53
L1375.40-20-2000	40x20	20	40	35.8	42.15	2000	$1,66 \times 10^{-3}$	18.04
L1375.40-20-2500	40x20	20	40	35.8	42.15	2500	$1,66 \times 10^{-3}$	22.55
L1375.40-20-3000	40x20	20	40	35.8	42.15	3000	$1,66 \times 10^{-3}$	27.06
L1375.40-20-3500	40x20	20	40	37.9	41.08	3500	$1,81 \times 10^{-3}$	7.55
L1375.40-20-4000	40x20	20	40	37.9	41.08	4000	$1,81 \times 10^{-3}$	9.44
L1375.40-20-4500	40x20	20	40	37.9	41.08	4500	$1,81 \times 10^{-3}$	14.16
L1375.40-20-5000	40x20	20	40	37.9	41.08	5000	$1,81 \times 10^{-3}$	18.88
L1375.40-20-5500	40x20	20	40	37.9	41.08	5500	$1,81 \times 10^{-3}$	23.60
L1375.40-20-6000	40x20	20	40	37.9	41.08	6000	$1,81 \times 10^{-3}$	28.32
L1375.40-40-0500	40x40	40	40	33.2	39.52	500	$1,43 \times 10^{-3}$	4.15
L1375.40-40-0600	40x40	40	40	33.2	39.52	600	$1,43 \times 10^{-3}$	4.97
L1375.40-40-0800	40x40	40	40	33.2	39.52	800	$1,43 \times 10^{-3}$	6.63
L1375.40-40-1000	40x40	40	40	33.2	39.52	1000	$1,43 \times 10^{-3}$	8.29
L1375.40-40-1500	40x40	40	40	33.2	39.52	1500	$1,43 \times 10^{-3}$	12.44
L1375.40-40-2000	40x40	40	40	33.2	39.52	2000	$1,43 \times 10^{-3}$	16.58
L1375.40-40-2500	40x40	40	40	33.2	39.52	2500	$1,43 \times 10^{-3}$	20.73
L1375.40-40-3000	40x40	40	40	33.2	39.52	3000	$1,43 \times 10^{-3}$	24.87
L1375.40-40-3500	40x40	40	40	37.9	41.08	3500	$1,81 \times 10^{-3}$	7.55
L1375.40-40-4000	40x40	40	40	37.9	41.08	4000	$1,81 \times 10^{-3}$	9.44
L1375.40-40-4500	40x40	40	40	37.9	41.08	4500	$1,81 \times 10^{-3}$	14.16
L1375.40-40-5000	40x40	40	40	37.9	41.08	5000	$1,81 \times 10^{-3}$	18.88
L1375.40-40-5500	40x40	40	40	37.9	41.08	5500	$1,81 \times 10^{-3}$	23.60
L1375.40-40-6000	40x40	40	40	37.9	41.08	6000	$1,81 \times 10^{-3}$	28.32
L1375.40-80-0500	40x80	80	40	33.2	39.52	500	$1,43 \times 10^{-3}$	4.15
L1375.40-80-0600	40x80	80	40	33.2	39.52	600	$1,43 \times 10^{-3}$	4.97
L1375.40-80-0800	40x80	80	40	33.2	39.52	800	$1,43 \times 10^{-3}$	6.63
L1375.40-80-1000	40x80	80	40	33.2	39.52	1000	$1,43 \times 10^{-3}$	8.29
L1375.40-80-1500	40x80	80	40	33.2	39.52	1500	$1,43 \times 10^{-3}$	12.44
L1375.40-80-2000	40x80	80	40	33.2	39.52	2000	$1,43 \times 10^{-3}$	16.58
L1375.40-80-2500	40x80	80	40	33.2	39.52	2500	$1,43 \times 10^{-3}$	20.73
L1375.40-80-3000	40x80	80	40	33.2	39.52	3000	$1,43 \times 10^{-3}$	24.87
L1375.40-80-3500	40x80	80	40	37.9	41.08	3500	$1,81 \times 10^{-3}$	7.55
L1375.40-80-4000	40x80	80	40	37.9	41.08	4000	$1,81 \times 10^{-3}$	9.44
L1375.40-80-4500	40x80	80	40	37.9	41.08	4500	$1,81 \times 10^{-3}$	14.16
L1375.40-80-5000	40x80	80	40	37.9	41.08	5000	$1,81 \times 10^{-3}$	18.88
L1375.40-80-5500	40x80	80	40	37.9	41.08	5500	$1,81 \times 10^{-3}$	23.60
L1375.40-80-6000	40x80	80	40	37.9	41.08	6000	$1,81 \times 10^{-3}$	28.32



L1375.50



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 10 or 20mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6000mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Important Notes

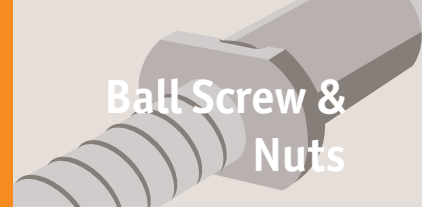
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $kg \cdot m^2$	Weight kg
L1375.50-05-0500	50x05	05	50	45.80	52.15	500	$4,19 \times 10^{-3}$	7.18
L1375.50-05-0600	50x05	05	50	45.80	52.15	600	$4,19 \times 10^{-3}$	8.61
L1375.50-05-0800	50x05	05	50	45.80	52.15	800	$4,19 \times 10^{-3}$	11.48
L1375.50-05-1000	50x05	05	50	45.80	52.15	1000	$4,19 \times 10^{-3}$	14.35
L1375.50-05-1500	50x05	05	50	45.80	52.15	1500	$4,19 \times 10^{-3}$	21.53
L1375.50-05-2000	50x05	05	50	45.80	52.15	2000	$4,19 \times 10^{-3}$	28.70
L1375.50-05-2500	50x05	05	50	45.80	52.15	2500	$4,19 \times 10^{-3}$	35.88
L1375.50-05-3000	50x05	05	50	45.80	52.15	3000	$4,19 \times 10^{-3}$	43.05
L1375.50-05-3500	50x05	05	50	45.80	52.15	3500	$4,19 \times 10^{-3}$	11.48
L1375.50-05-4000	50x05	05	50	45.80	52.15	4000	$4,19 \times 10^{-3}$	14.35
L1375.50-05-4500	50x05	05	50	45.80	52.15	4500	$4,19 \times 10^{-3}$	21.53
L1375.50-05-5000	50x05	05	50	45.80	52.15	5000	$4,19 \times 10^{-3}$	28.70
L1375.50-05-5500	50x05	05	50	45.80	52.15	5500	$4,19 \times 10^{-3}$	35.88
L1375.50-05-6000	50x05	05	50	45.80	52.15	6000	$4,19 \times 10^{-3}$	43.05
L1375.50-10-0500	50x10	10	50	45.80	52.15	500	$4,19 \times 10^{-3}$	7.18
L1375.50-10-0600	50x10	10	50	45.80	52.15	600	$4,19 \times 10^{-3}$	8.61
L1375.50-10-0800	50x10	10	50	45.80	52.15	800	$4,19 \times 10^{-3}$	11.48
L1375.50-10-1000	50x10	10	50	45.80	52.15	1000	$4,19 \times 10^{-3}$	14.35
L1375.50-10-1500	50x10	10	50	45.80	52.15	1500	$4,19 \times 10^{-3}$	21.53
L1375.50-10-2000	50x10	10	50	45.80	52.15	2000	$4,19 \times 10^{-3}$	28.70
L1375.50-10-2500	50x10	10	50	45.80	52.15	2500	$4,19 \times 10^{-3}$	35.88
L1375.50-10-3000	50x10	10	50	45.80	52.15	3000	$4,19 \times 10^{-3}$	43.05
L1375.50-10-3500	50x10	10	50	45.80	52.15	3500	$4,19 \times 10^{-3}$	11.48
L1375.50-10-4000	50x10	10	50	45.80	52.15	4000	$4,19 \times 10^{-3}$	14.35
L1375.50-10-4500	50x10	10	50	45.80	52.15	4500	$4,19 \times 10^{-3}$	21.53
L1375.50-10-5000	50x10	10	50	45.80	52.15	5000	$4,19 \times 10^{-3}$	28.70
L1375.50-10-5500	50x10	10	50	45.80	52.15	5500	$4,19 \times 10^{-3}$	35.88
L1375.50-10-6000	50x10	10	50	45.80	52.15	6000	$4,19 \times 10^{-3}$	43.05
L1375.50-20-0500	50x20	20	50	44.05	53.58	500	$4,45 \times 10^{-3}$	7.41
L1375.50-20-0600	50x20	20	50	44.05	53.58	600	$4,45 \times 10^{-3}$	8.89

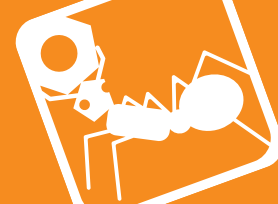


Ø 50 Ball Screws rolled

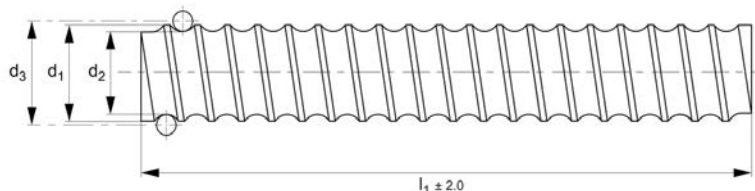
Ball Screw & Nuts



Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $kg \cdot m^2$	Weight kg
L1375.50-20-0800	50x20	20	50	44.05	53.58	800	$4,45 \times 10^{-3}$	11.86
L1375.50-20-1000	50x20	20	50	44.05	53.58	1000	$4,45 \times 10^{-3}$	14.82
L1375.50-20-1500	50x20	20	50	44.05	53.58	1500	$4,45 \times 10^{-3}$	22.23
L1375.50-20-2000	50x20	20	50	44.05	53.58	2000	$4,45 \times 10^{-3}$	29.64
L1375.50-20-2500	50x20	20	50	44.05	53.58	2500	$4,45 \times 10^{-3}$	37.05
L1375.50-20-3000	50x20	20	50	44.05	53.58	3000	$4,45 \times 10^{-3}$	44.46
L1375.50-20-3500	50x20	20	50	44.05	53.58	3500	$4,45 \times 10^{-3}$	11.86
L1375.50-20-4000	50x20	20	50	44.05	53.58	4000	$4,45 \times 10^{-3}$	14.82
L1375.50-20-4500	50x20	20	50	44.05	53.58	4500	$4,45 \times 10^{-3}$	22.23
L1375.50-20-5000	50x20	20	50	44.05	53.58	5000	$4,45 \times 10^{-3}$	29.64
L1375.50-20-5500	50x20	20	50	44.05	53.58	5500	$4,45 \times 10^{-3}$	37.05
L1375.50-20-6000	50x20	20	50	44.05	53.58	6000	$4,45 \times 10^{-3}$	44.46
L1375.50-50-0500	50x50	50	50	44.05	53.58	500	$4,45 \times 10^{-3}$	7.30
L1375.50-50-0600	50x50	50	50	44.05	53.58	600	$4,45 \times 10^{-3}$	8.76
L1375.50-50-0800	50x50	50	50	44.05	53.58	800	$4,45 \times 10^{-3}$	11.68
L1375.50-50-1000	50x50	50	50	44.05	53.58	1000	$4,45 \times 10^{-3}$	14.59
L1375.50-50-1500	50x50	50	50	44.05	53.58	1500	$4,45 \times 10^{-3}$	21.89
L1375.50-50-2000	50x50	50	50	44.05	53.58	2000	$4,45 \times 10^{-3}$	29.18
L1375.50-50-2500	50x50	50	50	44.05	53.58	2500	$4,45 \times 10^{-3}$	36.48
L1375.50-50-3000	50x50	50	50	44.05	53.58	3000	$4,45 \times 10^{-3}$	43.77
L1375.50-50-3500	50x50	50	50	44.05	53.58	3500	$4,45 \times 10^{-3}$	11.68
L1375.50-50-4000	50x50	50	50	44.05	53.58	4000	$4,45 \times 10^{-3}$	14.59
L1375.50-50-4500	50x50	50	50	44.05	53.58	4500	$4,45 \times 10^{-3}$	21.89
L1375.50-50-5000	50x50	50	50	44.05	53.58	5000	$4,45 \times 10^{-3}$	29.18
L1375.50-50-5500	50x50	50	50	44.05	53.58	5500	$4,45 \times 10^{-3}$	36.48
L1375.50-50-6000	50x50	50	50	44.05	53.58	6000	$4,45 \times 10^{-3}$	43.77
L1375.50-100-0500	50x100	100	50	44.05	53.58	500	$4,45 \times 10^{-3}$	7.30
L1375.50-100-0600	50x100	100	50	44.05	53.58	600	$4,45 \times 10^{-3}$	8.76
L1375.50-100-0800	50x100	100	50	44.05	53.58	800	$4,45 \times 10^{-3}$	11.68
L1375.50-100-1000	50x100	100	50	44.05	53.58	1000	$4,45 \times 10^{-3}$	14.59
L1375.50-100-1500	50x100	100	50	44.05	53.58	1500	$4,45 \times 10^{-3}$	21.89
L1375.50-100-2000	50x100	100	50	44.05	53.58	2000	$4,45 \times 10^{-3}$	29.18
L1375.50-100-2500	50x100	100	50	44.05	53.58	2500	$4,45 \times 10^{-3}$	36.48
L1375.50-100-3000	50x100	100	50	44.05	53.58	3000	$4,45 \times 10^{-3}$	43.77
L1375.50-100-3500	50x100	100	50	44.05	53.58	3500	$4,45 \times 10^{-3}$	11.68
L1375.50-100-4000	50x100	100	50	44.05	53.58	4000	$4,45 \times 10^{-3}$	14.59
L1375.50-100-4500	50x100	100	50	44.05	53.58	4500	$4,45 \times 10^{-3}$	21.89
L1375.50-100-5000	50x100	100	50	44.05	53.58	5000	$4,45 \times 10^{-3}$	29.18
L1375.50-100-5500	50x100	100	50	44.05	53.58	5500	$4,45 \times 10^{-3}$	36.48
L1375.50-100-6000	50x100	100	50	44.05	53.58	6000	$4,45 \times 10^{-3}$	43.77



L1375.80



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 10mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6500mm available.

For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Important Notes

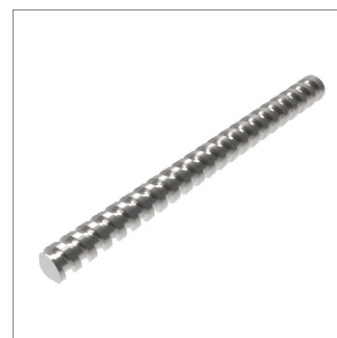
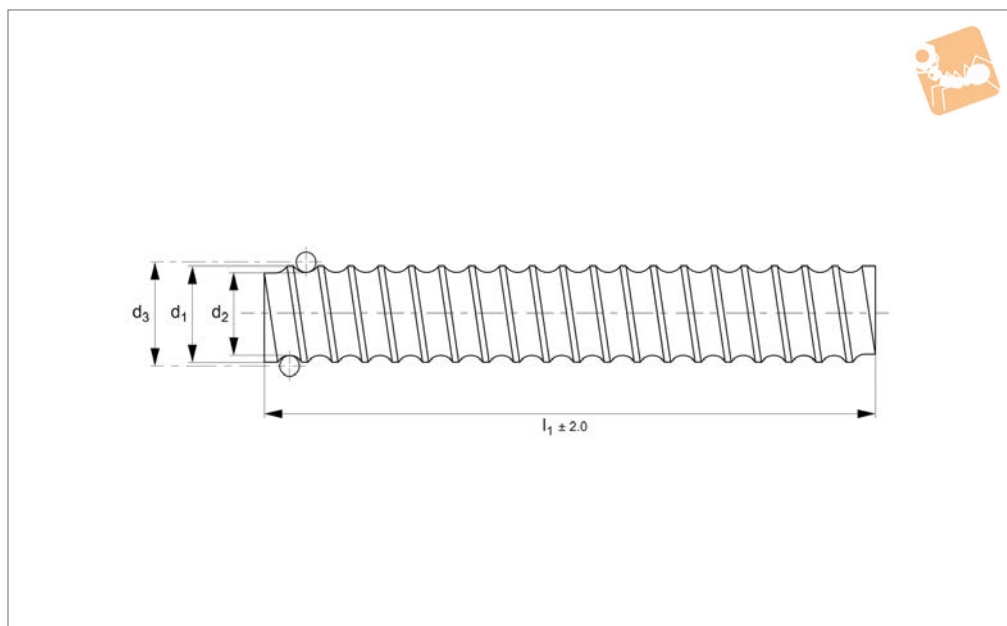
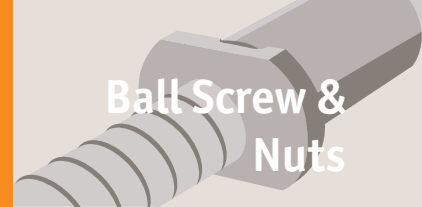
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia $\text{kg}\cdot\text{m}^2$	Weight kg
L1375.80-10-0500	80x10	10	80	75.8	82.15	500	2.89×10^{-2}	18.88
L1375.80-10-0600	80x10	10	80	75.8	82.15	600	2.89×10^{-2}	22.66
L1375.80-10-0700	80x10	10	80	75.8	82.15	700	2.89×10^{-2}	26.43
L1375.80-10-0800	80x10	10	80	75.8	82.15	800	2.89×10^{-2}	30.21
L1375.80-10-1000	80x10	10	80	75.8	82.15	1000	2.89×10^{-2}	37.76
L1375.80-10-1500	80x10	10	80	75.8	82.15	1500	2.89×10^{-2}	56.64
L1375.80-10-2000	80x10	10	80	75.8	82.15	2000	2.89×10^{-2}	75.52
L1375.80-10-2500	80x10	10	80	75.8	82.15	2500	2.89×10^{-2}	94.40
L1375.80-10-3000	80x10	10	80	75.8	82.15	3000	2.89×10^{-2}	113.28
L1375.80-10-3500	80x10	10	80	75.8	82.15	3500	2.89×10^{-2}	30.21
L1375.80-10-4000	80x10	10	80	75.8	82.15	4000	2.89×10^{-2}	37.76
L1375.80-10-4500	80x10	10	80	75.8	82.15	4500	2.89×10^{-2}	56.64
L1375.80-10-5000	80x10	10	80	75.8	82.15	5000	2.89×10^{-2}	75.52
L1375.80-10-5500	80x10	10	80	75.8	82.15	5500	2.89×10^{-2}	94.40
L1375.80-10-6000	80x10	10	80	75.8	82.15	6000	2.89×10^{-2}	113.28
L1375.80-10-6500	80x10	10	80	75.8	82.15	6500	2.89×10^{-2}	113.28



Ø 63 Ball Screws rolled

Ball Screw & Nuts



L1375.63

BALL SCREW & NUTS

Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 10mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum

of 6000mm available.

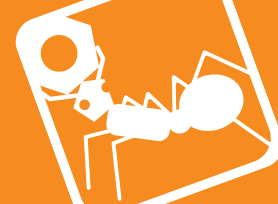
For ball screw nuts see parts L1370-L1374 & L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

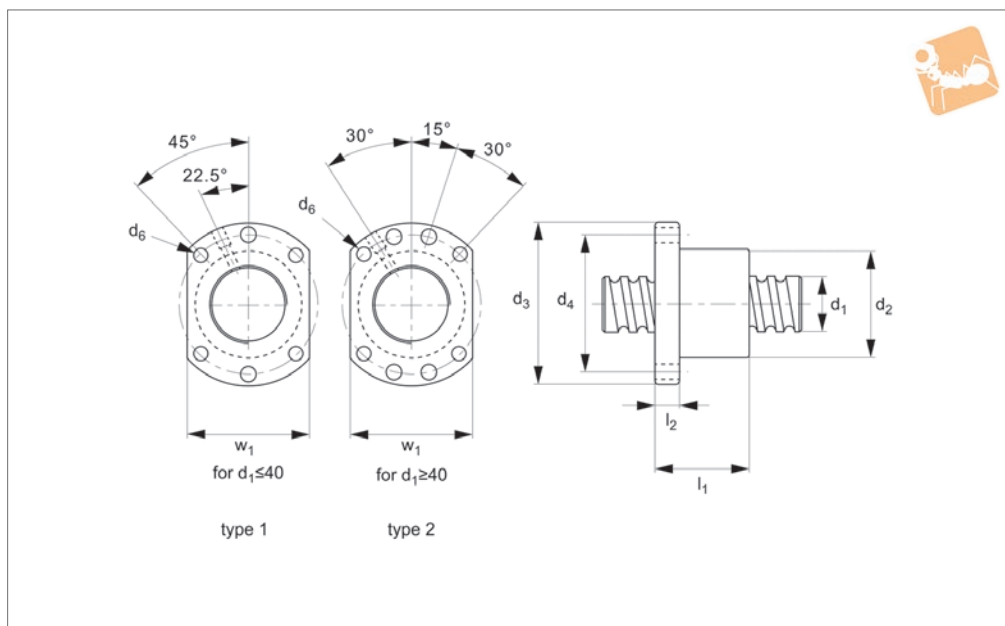
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead w_1	d_1	d_2	d_3	l_1	Mass moment of inertia kg·m ²	Weight kg
L1375.63-10-0500	63x10	10	63	58.8	65.15	500	$1,09 \times 10^{-2}$	11.56
L1375.63-10-0600	63x10	10	63	58.8	65.15	600	$1,09 \times 10^{-2}$	13.87
L1375.63-10-0700	63x10	10	63	58.8	65.15	700	$1,09 \times 10^{-2}$	16.18
L1375.63-10-0800	63x10	10	63	58.8	65.15	800	$1,09 \times 10^{-2}$	18.50
L1375.63-10-1000	63x10	10	63	58.8	65.15	1000	$1,09 \times 10^{-2}$	23.12
L1375.63-10-1500	63x10	10	63	58.8	65.15	1500	$1,09 \times 10^{-2}$	34.68
L1375.63-10-2000	63x10	10	63	58.8	65.15	2000	$1,09 \times 10^{-2}$	46.24
L1375.63-10-2500	63x10	10	63	58.8	65.15	2500	$1,09 \times 10^{-2}$	57.80
L1375.63-10-3000	63x10	10	63	58.8	65.15	3000	$1,09 \times 10^{-2}$	69.36
L1375.63-10-3500	63x10	10	63	58.8	65.15	3500	$1,09 \times 10^{-2}$	18.50
L1375.63-10-4000	63x10	10	63	58.8	65.15	4000	$1,09 \times 10^{-2}$	23.12
L1375.63-10-4500	63x10	10	63	58.8	65.15	4500	$1,09 \times 10^{-2}$	34.68
L1375.63-10-5000	63x10	10	63	58.8	65.15	5000	$1,09 \times 10^{-2}$	46.24
L1375.63-10-5500	63x10	10	63	58.8	65.15	5500	$1,09 \times 10^{-2}$	57.80
L1375.63-10-6000	63x10	10	63	58.8	65.15	6000	$1,09 \times 10^{-2}$	69.36
L1375.63-10-6500	63x10	10	63	58.8	65.15	6500	$1,09 \times 10^{-2}$	69.36



L1377



Material

Black chrome steel (16MnCr5 or 100Cr6), with Vulkolan seals. Precision class C7.

Technical Notes

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load. For axial run-out, concentricity and paral-

lelism figures see technical pages. With lubrication and fixing holes. For use with ball screws no. L1377. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a protective effect against corrosion. Layer thickness 2-10µm.

Tips

For easy mounting of the ball screw nuts

see the nut bracket - part L1377.

Important Notes

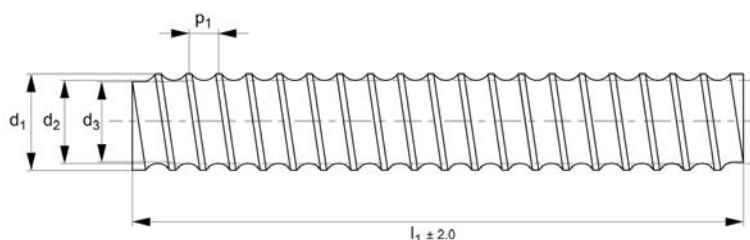
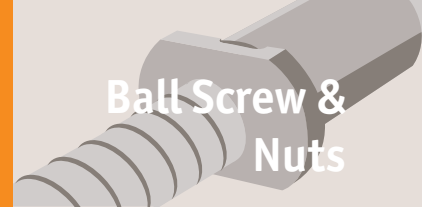
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	Type	Pitch	d ₁ for screw	l ₁	l ₂	d ₂ tol. G6	d ₃ ±0.15	d ₄ ±0.15	d ₅ for	d ₆	w ₁ ±0.15	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.
L1377.16-05	Type 1	5	16	45	10	28	48	38	M 6	5.5	40	3.175	13.53	29.92
L1377.20-05	Type 1	5	20	51	10	36	58	47	M 6	6.6	44	3.175	15.21	38.00
L1377.25-05	Type 1	5	25	51	10	40	62	51	M 6	6.6	48	3.175	16.91	48.09
L1377.25-10	Type 1	10	25	80	12	40	62	51	M 6	6.6	48	4.762	28.96	71.54
L1377.32-05	Type 1	5	32	52	12	50	80	65	M 6	9.0	62	3.175	18.85	62.21
L1377.32-10	Type 1	10	32	85	12	50	80	65	M 6	9.0	62	6.350	47.12	119.72
L1377.40-05	Type 2	5	40	55	14	63	93	78	M 8	9.0	70	3.175	20.69	78.34
L1377.40-10	Type 2	10	40	88	14	63	93	78	M 8	9.0	70	6.340	52.95	152.00



Ø 16 Ball Screws- Anti Corrosion rolled

Ball Screw & Nuts



L1377.16

BALL SCREW & NUTS

Material

Black chrome steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5 or 10mm lead. Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see part L1377.

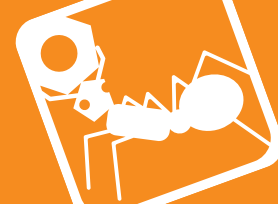
For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a protective effect against corrosion. Layer

thickness 2 μ m to 10 μ m.

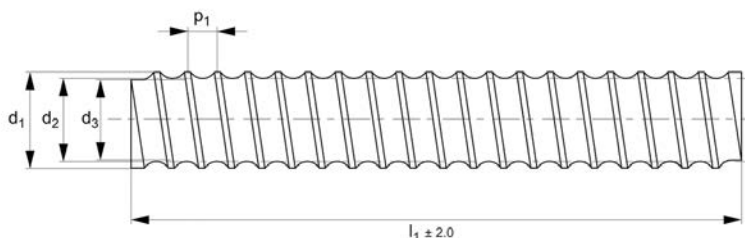
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

Order No.	Screw dia. x lead	d ₁	l ₁	d ₂	d ₃	Lead w ₁	Mass moment of inertia kg·m ²	Weight kg
L1377.16-05-0500	16x 5	17.08	500	16	13.9	5	4,45x10 ⁻⁵	0.71
L1377.16-05-0600	16x 5	17.08	600	16	13.9	5	4,45x10 ⁻⁵	0.845
L1377.16-05-0800	16x 5	17.08	800	16	13.9	5	4,45x10 ⁻⁵	1.13
L1377.16-05-1000	16x 5	17.08	1000	16	13.9	5	4,45x10 ⁻⁵	1.41
L1377.16-05-1500	16x 5	17.08	1500	16	13.9	5	4,45x10 ⁻⁵	2.12
L1377.16-05-2000	16x 5	17.08	2000	16	13.9	5	4,45x10 ⁻⁵	2.82
L1377.16-05-2500	16x 5	17.08	2500	16	13.9	5	4,45x10 ⁻⁵	3.53
L1377.16-05-3000	16x 5	17.08	3000	16	13.9	5	4,45x10 ⁻⁵	4.23



L1377.20



Material

Black chrome steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5,20 or 50mm lead. Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available. For ball screw nuts see part L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for 5mm pitch. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a protective effect against corrosion. Layer

thickness 2 μ m to 10 μ m.

Important Notes

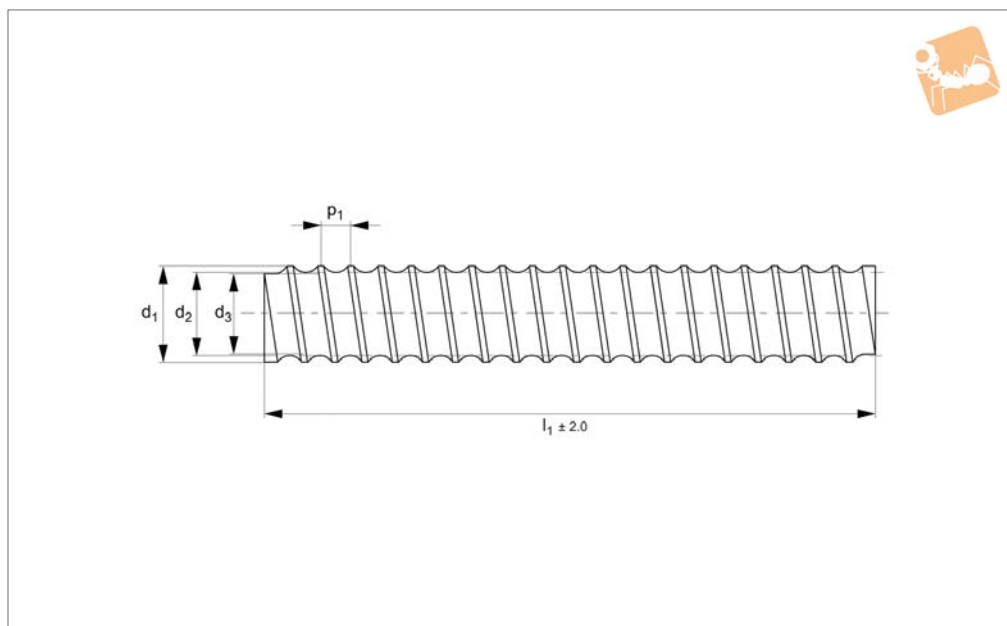
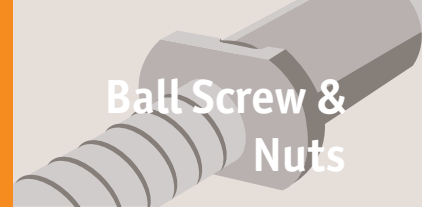
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

Order No.	Screw dia. x lead	d ₁	l ₁	d ₂	d ₃	Lead w ₁	Mass moment of inertia kg·m ²	Weight kg
L1377.20-05-0500	20x 5	21.08	500	20	17.9	5	1,12x10 ⁻⁴	1.18
L1377.20-05-0600	20x 5	21.08	600	20	17.9	5	1,12x10 ⁻⁴	1.41
L1377.20-05-0800	20x 5	21.08	800	20	17.9	5	1,12x10 ⁻⁴	1.88
L1377.20-05-1000	20x 5	21.08	1000	20	17.9	5	1,12x10 ⁻⁴	2.35
L1377.20-05-1500	20x 5	21.08	1500	20	17.9	5	1,12x10 ⁻⁴	3.53
L1377.20-05-2000	20x 5	21.08	2000	20	17.9	5	1,12x10 ⁻⁴	4.70
L1377.20-05-2500	20x 5	21.08	2500	20	17.9	5	1,12x10 ⁻⁴	5.88
L1377.20-05-3000	20x 5	21.08	3000	20	17.9	5	1,12x10 ⁻⁴	7.05



Ø 25 Ball Screws - Anti Corrosion rolled

Ball Screw & Nuts



L1377.25

BALL SCREW & NUTS

Material

Black chrome steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 2mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see part L1377.

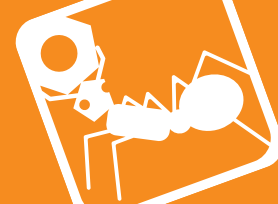
For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a protective effect against corrosion. Layer

thickness 2 μ m to 10 μ m.

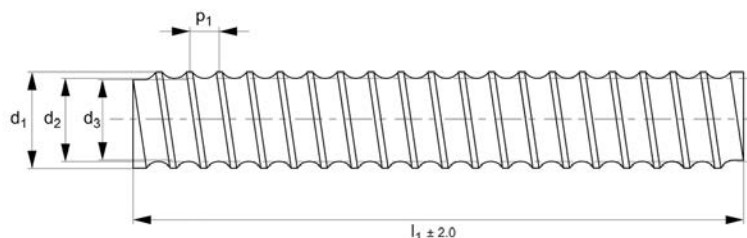
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

Order No.	Screw dia. x lead	d ₁	l ₁	d ₂	d ₃	Lead w ₁	Mass moment of inertia kg·m ²	Weight kg
L1377.25-05-0500	25x 5	26.08	500	25	22.9	5	2,62x10 ⁻⁴	1.80
L1377.25-05-0600	25x 5	26.08	600	25	22.9	5	2,62x10 ⁻⁴	2.15
L1377.25-05-0800	25x 5	26.08	800	25	22.9	5	2,62x10 ⁻⁴	2.87
L1377.25-05-1000	25x 5	26.08	1000	25	22.9	5	2,62x10 ⁻⁴	3.59
L1377.25-05-1500	25x 5	26.08	1500	25	22.9	5	2,62x10 ⁻⁴	5.39
L1377.25-05-2000	25x 5	26.08	2000	25	22.9	5	2,62x10 ⁻⁴	7.18
L1377.25-05-2500	25x 5	26.08	2500	25	22.9	5	2,62x10 ⁻⁴	8.98
L1377.25-05-3000	25x 5	26.08	3000	25	22.9	5	2,62x10 ⁻⁴	10.77
L1377.25-05-3500	25x 5	26.08	3500	25	22.9	5	2,62x10 ⁻⁴	2.87
L1377.25-05-4000	25x 5	26.08	4000	25	22.9	5	2,62x10 ⁻⁴	3.59
L1377.25-05-4500	25x 5	26.08	4500	25	22.9	5	2,62x10 ⁻⁴	5.39
L1377.25-05-5000	25x 5	26.08	5000	25	22.9	5	2,62x10 ⁻⁴	7.18
L1377.25-05-5500	25x 5	26.08	5500	25	22.9	5	2,62x10 ⁻⁴	8.98
L1377.25-05-6000	25x 5	26.08	6000	25	22.9	5	2,62x10 ⁻⁴	10.77
L1377.25-10-0500	25x10	27.15	500	25	20.8	10	2,94x10 ⁻⁴	1.91
L1377.25-10-0600	25x10	27.15	600	25	20.8	10	2,94x10 ⁻⁴	2.29
L1377.25-10-0800	25x10	27.15	800	25	20.8	10	2,94x10 ⁻⁴	3.05
L1377.25-10-1000	25x10	27.15	1000	25	20.8	10	2,94x10 ⁻⁴	3.81
L1377.25-10-1500	25x10	27.15	1500	25	20.8	10	2,94x10 ⁻⁴	5.72
L1377.25-10-2000	25x10	27.15	2000	25	20.8	10	2,94x10 ⁻⁴	7.62
L1377.25-10-2500	25x10	27.15	2500	25	20.8	10	2,94x10 ⁻⁴	9.53
L1377.25-10-3000	25x10	27.15	3000	25	20.8	10	2,94x10 ⁻⁴	11.43
L1377.25-10-3500	25x10	26.08	3500	25	22.9	10	2,62x10 ⁻⁴	2.87
L1377.25-10-4000	25x10	26.08	4000	25	22.9	10	2,62x10 ⁻⁴	3.59
L1377.25-10-4500	25x10	26.08	4500	25	22.9	10	2,62x10 ⁻⁴	5.39
L1377.25-10-5000	25x10	26.08	5000	25	22.9	10	2,62x10 ⁻⁴	7.18
L1377.25-10-5500	25x10	26.08	5500	25	22.9	10	2,62x10 ⁻⁴	8.98
L1377.25-10-6000	25x10	26.08	6000	25	22.9	10	2,62x10 ⁻⁴	10.77



L1377.32



Material

Black chrome steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10, 20 or 40mm lead.

Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see part L1377.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for 5mm pitch. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a

protective effect against corrosion. Layer thickness 2 μ m to 10 μ m.

Important Notes

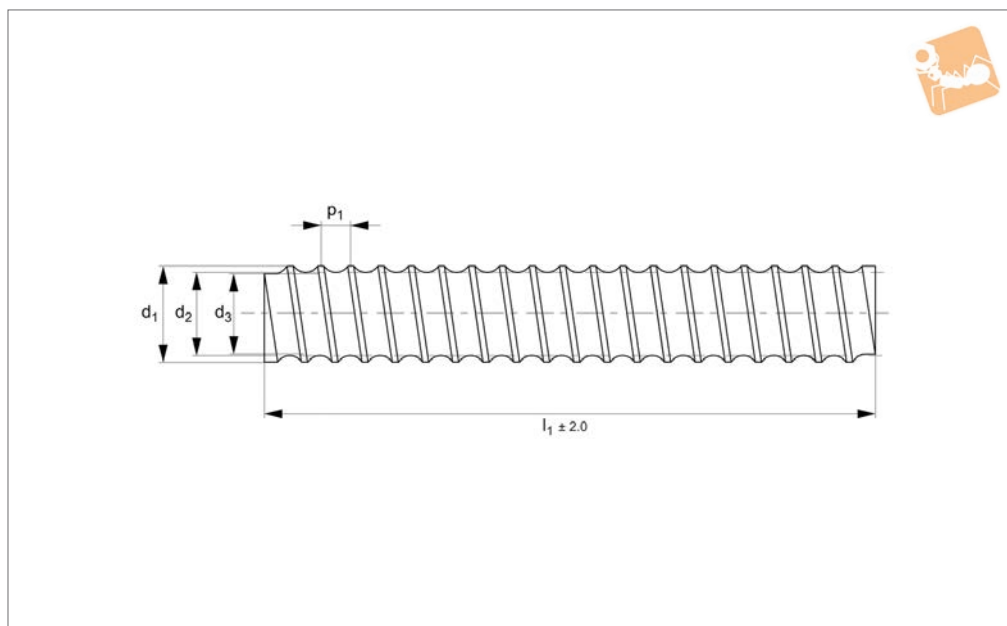
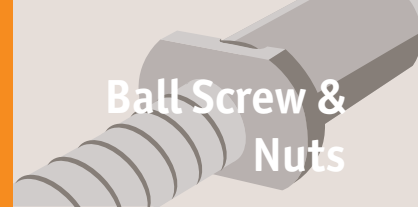
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

Order No.	Screw dia. x lead	d ₁	l ₁	d ₂	d ₃	Lead w ₁	Mass moment of inertia kg·m ²	Weight kg
L1377.32-05-0500	32x 5	33.08	500	32	29.9	5	7,25x10 ⁻⁴	2.99
L1377.32-05-0600	32x 5	33.08	600	32	29.9	5	7,25x10 ⁻⁴	3.59
L1377.32-05-0800	32x 5	33.08	800	32	29.9	5	7,25x10 ⁻⁴	4.78
L1377.32-05-1000	32x 5	33.08	1000	32	29.9	5	7,25x10 ⁻⁴	5.98
L1377.32-05-1500	32x 5	33.08	1500	32	29.9	5	7,25x10 ⁻⁴	8.97
L1377.32-05-2000	32x 5	33.08	2000	32	29.9	5	7,25x10 ⁻⁴	11.96
L1377.32-05-2500	32x 5	33.08	2500	32	29.9	5	7,25x10 ⁻⁴	14.95
L1377.32-05-3000	32x 5	33.08	3000	32	29.9	5	7,25x10 ⁻⁴	17.94
L1377.32-05-3500	32x 5	33.08	3500	32	29.9	5	7,25x10 ⁻⁴	4.78
L1377.32-05-4000	32x 5	33.08	4000	32	29.9	5	7,25x10 ⁻⁴	5.98
L1377.32-05-4500	32x 5	33.08	4500	32	29.9	5	7,25x10 ⁻⁴	8.97
L1377.32-05-5000	32x 5	33.08	5000	32	29.9	5	7,25x10 ⁻⁴	11.96
L1377.32-05-5500	32x 5	33.08	5500	32	29.9	5	7,25x10 ⁻⁴	14.95
L1377.32-05-6000	32x 5	33.08	6000	32	29.9	5	7,25x10 ⁻⁴	14.95
L1377.32-10-0500	32x10	34.15	500	32	27.8	10	7,69x10 ⁻⁴	3.08
L1377.32-10-0600	32x10	34.15	600	32	27.8	10	7,69x10 ⁻⁴	3.70
L1377.32-10-0800	32x10	34.15	800	32	27.8	10	7,69x10 ⁻⁴	4.93
L1377.32-10-1000	32x10	34.15	1000	32	27.8	10	7,69x10 ⁻⁴	6.16
L1377.32-10-1500	32x10	34.15	1500	32	27.8	10	7,69x10 ⁻⁴	9.24
L1377.32-10-2000	32x10	34.15	2000	32	27.8	10	7,69x10 ⁻⁴	12.32
L1377.32-10-2500	32x10	34.15	2500	32	27.8	10	7,69x10 ⁻⁴	15.40
L1377.32-10-3000	32x10	34.15	3000	32	27.8	10	7,69x10 ⁻⁴	18.48
L1377.32-10-3500	32x10	33.08	3500	32	29.9	10	7,25x10 ⁻⁴	4.78
L1377.32-10-4000	32x10	33.08	4000	32	29.9	10	7,25x10 ⁻⁴	5.98
L1377.32-10-4500	32x10	33.08	4500	32	29.9	10	7,25x10 ⁻⁴	8.97
L1377.32-10-5000	32x10	33.08	5000	32	29.9	10	7,25x10 ⁻⁴	11.96
L1377.32-10-5500	32x10	33.08	5500	32	29.9	10	7,25x10 ⁻⁴	14.95
L1377.32-10-6000	32x10	33.08	6000	32	29.9	10	7,25x10 ⁻⁴	14.95



Ø 40Ø Ball Screws - Anti Corrosion rolled

Ball Screw & Nuts



L1377.40

BALL SCREW & NUTS

Material

Black chrome steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 20mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see part L1377.

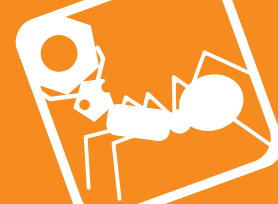
For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request. Anti corrosion finish consists of a thin layer of black chrome and produces good resistance to wear, and a protective effect against corrosion. Layer

thickness 2 μ m to 10 μ m.

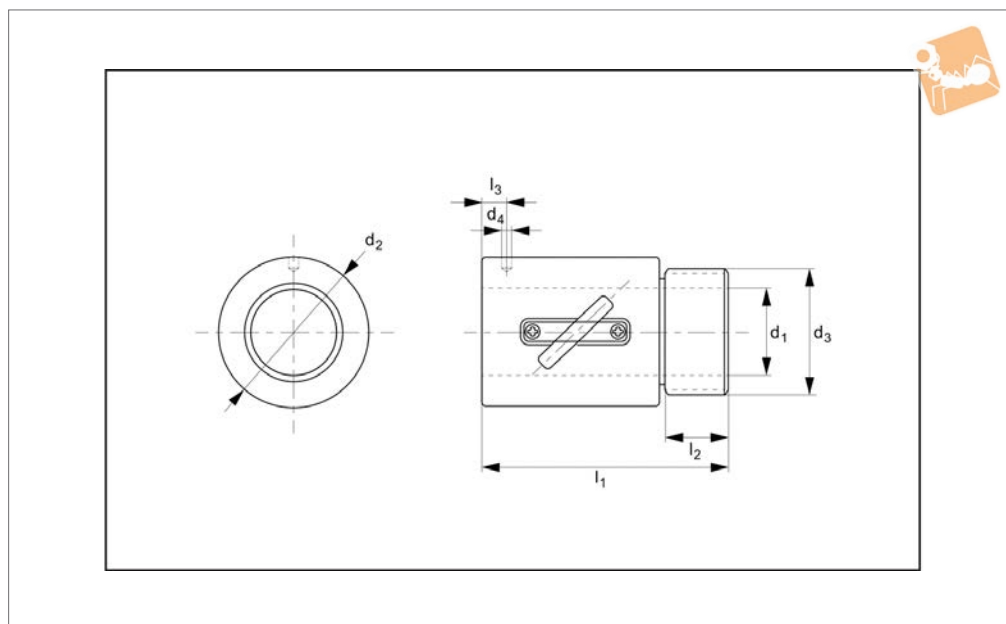
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

Order No.	Screw dia. x lead	d ₁	l ₁	d ₂	d ₃	Lead w ₁	Mass moment of inertia kg·m ²	Weight kg
L1377.40-05-0500	40x 5	41.08	500	40	37.9	5	1,81x10 ⁻³	4.72
L1377.40-05-0600	40x 5	41.08	600	40	37.9	5	1,81x10 ⁻³	5.66
L1377.40-05-0800	40x 5	41.08	800	40	37.9	5	1,81x10 ⁻³	7.55
L1377.40-05-1000	40x 5	41.08	1000	40	37.9	5	1,81x10 ⁻³	9.44
L1377.40-05-1500	40x 5	41.08	1500	40	37.9	5	1,81x10 ⁻³	14.16
L1377.40-05-2000	40x 5	41.08	2000	40	37.9	5	1,81x10 ⁻³	18.88
L1377.40-05-2500	40x 5	41.08	2500	40	37.9	5	1,81x10 ⁻³	23.60
L1377.40-05-3000	40x 5	41.08	3000	40	37.9	5	1,81x10 ⁻³	28.32
L1377.40-05-3500	40x 5	41.08	3500	40	37.9	5	1,81x10 ⁻³	7.55
L1377.40-05-4000	40x 5	41.08	4000	40	37.9	5	1,81x10 ⁻³	9.44
L1377.40-05-4500	40x 5	41.08	4500	40	37.9	5	1,81x10 ⁻³	14.16
L1377.40-05-5000	40x 5	41.08	5000	40	37.9	5	1,81x10 ⁻³	18.88
L1377.40-05-5500	40x 5	41.08	5500	40	37.9	5	1,81x10 ⁻³	23.60
L1377.40-05-6000	40x 5	41.08	6000	40	37.9	5	1,81x10 ⁻³	28.32
L1377.40-10-0500	40x10	42.15	500	40	35.8	10	1,66x10 ⁻³	4.51
L1377.40-10-0600	40x10	42.15	600	40	35.8	10	1,66x10 ⁻³	5.41
L1377.40-10-0800	40x10	42.15	800	40	35.8	10	1,66x10 ⁻³	7.22
L1377.40-10-1000	40x10	42.15	1000	40	35.8	10	1,66x10 ⁻³	9.02
L1377.40-10-1500	40x10	42.15	1500	40	35.8	10	1,66x10 ⁻³	13.53
L1377.40-10-2000	40x10	42.15	2000	40	35.8	10	1,66x10 ⁻³	18.04
L1377.40-10-2500	40x10	42.15	2500	40	35.8	10	1,66x10 ⁻³	22.55
L1377.40-10-3000	40x10	42.15	3000	40	35.8	10	1,66x10 ⁻³	27.06
L1377.40-10-3500	40x10	41.08	3500	40	37.9	10	1,81x10 ⁻³	7.55
L1377.40-10-4000	40x10	41.08	4000	40	37.9	10	1,81x10 ⁻³	9.44
L1377.40-10-4500	40x10	41.08	4500	40	37.9	10	1,81x10 ⁻³	14.16
L1377.40-10-5000	40x10	41.08	5000	40	37.9	10	1,81x10 ⁻³	18.88
L1377.40-10-5500	40x10	41.08	5500	40	37.9	10	1,81x10 ⁻³	23.60
L1377.40-10-6000	40x10	41.08	6000	40	37.9	10	1,81x10 ⁻³	28.32



L1379.C



Material

Steel body (16MnCr5), balls (100Cr6) and polyurethane (Vulkolan) seals.

Technical Notes

Axial clearance 0,05mm.

Preload max. 5% of dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

For use with miniature ball screws L1379.

Tips

Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw

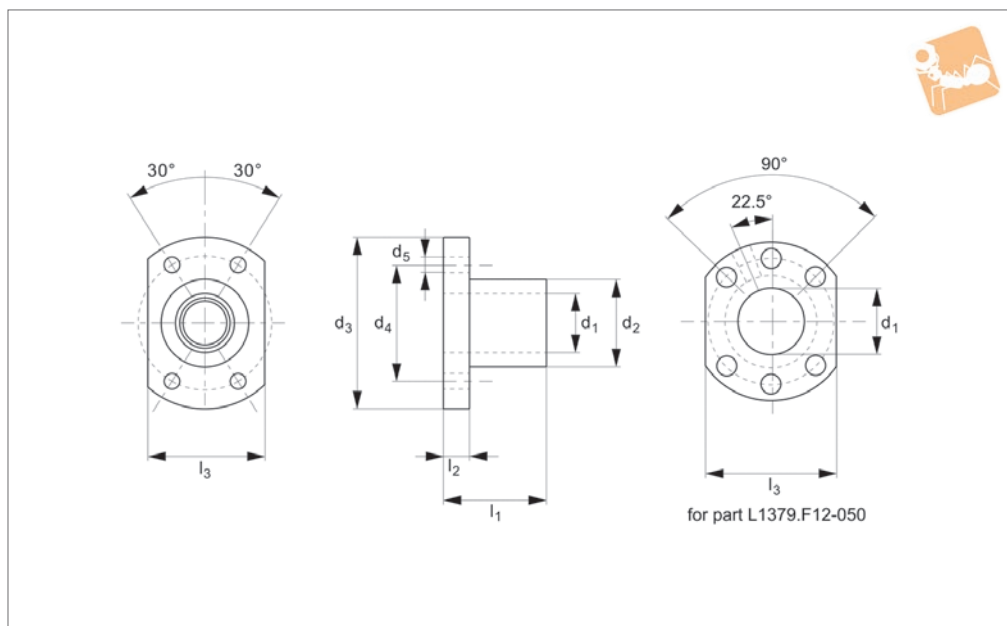
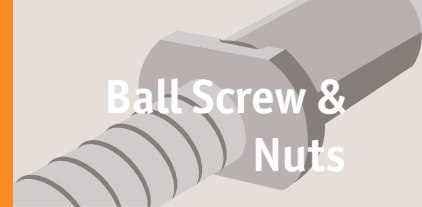
and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	d ₂ tol. G6	d ₃	d ₄	l ₁ ±0.15	l ₂	l ₃	No. of circuits	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1379.C08-250	8	2,5	17,5	M15x1,0P	3,0	23,5	7,5	10,0	2,5x1	1,2	1,85	3,73	167
L1379.C10-020	10	2,0	19,5	M17x1,0P	3,2	22,0	7,5	3,0	3,5x1	1,2	2,72	6,51	167
L1379.C10-040	10	4,0	25,0	M20x1,0P	3,0	34,0	10,0	3,0	2,5x1	2,0	3,92	7,39	137
L1379.C12-040	12	4,0	25,5	M20x1,0P	3,0	34,0	10,0	13,0	3,5x1	2,5	7,88	16,16	226
L1379.C12-050	12	5,0	25,5	M20x1,0P	3,0	39,0	10,0	16,3	3,5x1	2,5	7,85	16,11	235
L1379.C14-040	14	4,0	32,1	M25x1,5P	3,0	35,0	10,0	11,0	3,0x1	2,5	7.33	15.77	235



Miniature Flanged Ball Nut

Ball Screw & Nuts



L1379.F

BALL SCREW & NUTS

Material

Steel body (16MnCr5), balls (100Cr6) and polyurethane (Vulkolan) seals.

Technical Notes

Axial clearance 0,05mm.

Preload max. 5% of dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

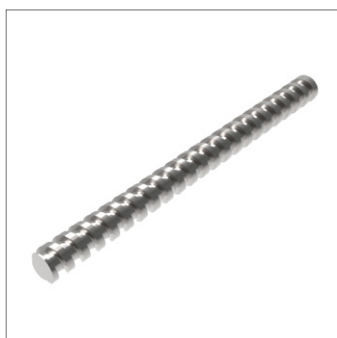
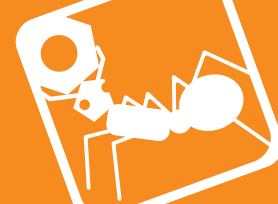
For use with miniature ball screws L1379.06- L1379.14.

Tips

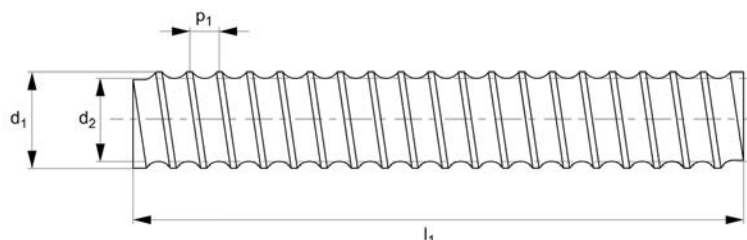
Fit ball nut to screw using the sleeve

provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d ₁ for screw	Pitch	d ₂ tol. G6	d ₃	d ₄	d ₅	l ₁	l ₂	l ₃ ±0.10	No. of circuits	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1379.F06-010	6	1.0	12	24	18	3.4	15	3.5	16	3	0.8	1.09	2.19	88
L1379.F08-010	8	1.0	14	27	21	3.4	16	4.0	18	4	0.8	1.58	3.95	137
L1379.F08-020	8	2.0	14	27	21	3.4	16	4.0	18	3	1.2	2.17	4.49	127
L1379.F08-025	8	2.5	16	29	23	3.4	26	4.0	20	3	1.2	2.17	4.49	127
L1379.F10-020	10	2.0	18	35	27	4.5	28	5.0	22	3	1.2	2.38	5.58	147
L1379.F10-040	10	4.0	26	46	36	4.5	34	10.0	28	3	2.0	4.59	8.88	167
L1379.F12-020	12	2.0	20	37	29	4.5	28	5.0	24	4	1.2	3.17	8.88	216
L1379.F12-050	12	5.0	22	37	29	4.5	39	8.0	24	3	2.5	6.61	12.9	186
L1379.F14-020	14	2.0	21	40	31	5.5	23	6.0	26	4	1.2	3.48	10.3	235



L1379.06



Material

Steel (Cf53 or C55R), hardened, rust proof chrome plated (X90CrMoV5).

Technical Notes

Tolerance T7 - 50µ/300mm.

For ball screw nuts L1379.F (flanged) and L1379.C (cylindrical).

For end machining of ball screws to suit miniature or standard ball screw support units please see technical pages.

We provide a service to cut and machine ball screws as required.

Chrome plating for use in food industry etc. contains 98% pure chromium.

Tips

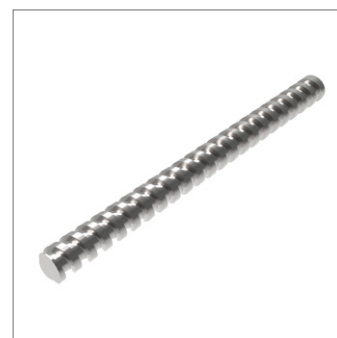
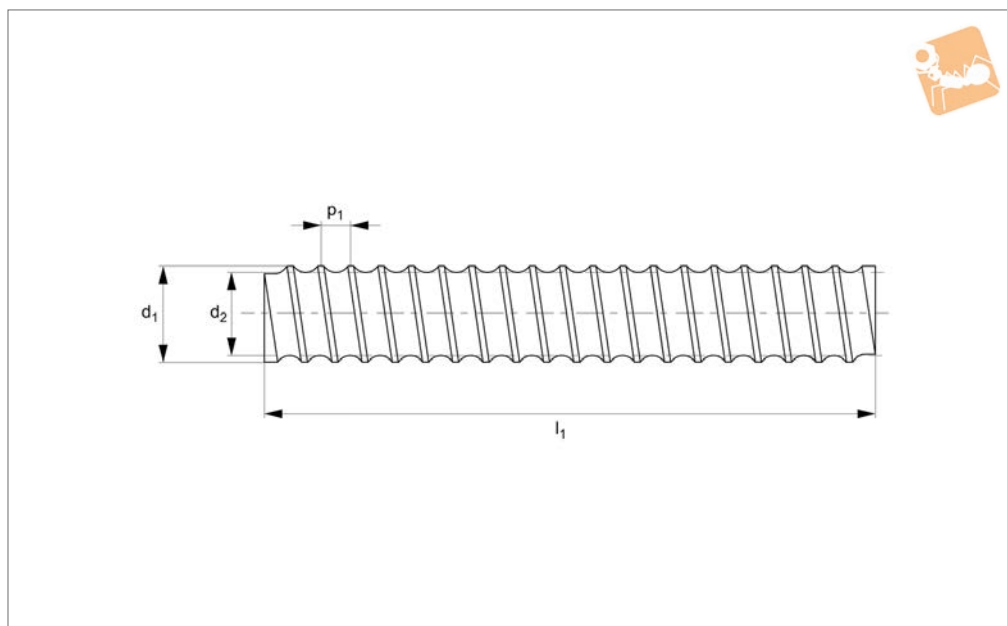
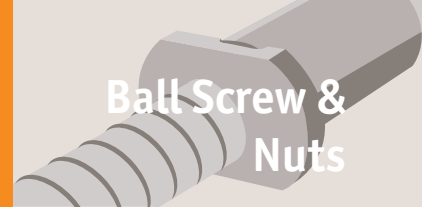
Do not remove the ball nut from the sleeve that it comes with prior to installation - the balls come free rendering the ball nut unusable. Offer up the ball nut still on it's mounting sleeve to the ball screw and screw carefully on.

Order No.	d ₁	d ₂ core dia.	l ₁	Lead w ₁	Mass moment of inertia kg·m ²	Screw dia. x lead	Weight kg
L1379.06-10-0100	6	5.47	100	1	0,83x10 ⁻⁷	6x1	0.02
L1379.06-10-0200	6	5.47	200	1	0,83x10 ⁻⁷	6x1	0.04
L1379.06-10-0300	6	5.47	300	1	0,83x10 ⁻⁷	6x1	0.06
L1379.06-10-0400	6	5.47	400	1	0,83x10 ⁻⁷	6x1	0.08
L1379.06-10-0500	6	5.47	500	1	0,83x10 ⁻⁷	6x1	0.10
L1379.06-10-0600	6	5.47	600	1	0,83x10 ⁻⁷	6x1	0.12
L1379.06-10-0700	6	5.47	700	1	0,83x10 ⁻⁷	6x1	0.14
L1379.06-10-0800	6	5.47	800	1	0,83x10 ⁻⁷	6x1	0.16
L1379.06-10-0900	6	5.47	900	1	0,83x10 ⁻⁷	6x1	0.18
L1379.06-10-1000	6	5.47	1000	1	0,83x10 ⁻⁷	6x1	0.18



Ø 8 Miniature Rolled Ball Screws steel

Ball Screw & Nuts



L1379.08

BALL SCREW & NUTS

Material

Steel (Cf53 or C55R), hardened, rust proof chrome plated (X90CrMoV5).

Technical Notes

Tolerance T7 - 50µ/300mm.

For ball screw nuts L1379.F (flanged) and L1379.C (cylindrical).

For end machining of ball screws to suit miniature or standard ball screw support units please see technical pages.

We provide a service to cut and machine ball screws as required.

Chrome plating for use in food industry etc. contains 98% pure chromium.

Tips

Do not remove the ball nut from the sleeve that it comes with prior to installation - the balls come free rendering the ball nut unusable. Offer up the ball nut still on it's mounting sleeve to the ball screw and screw carefully on.

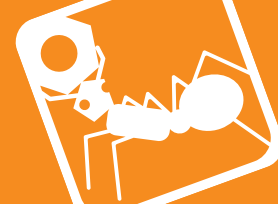
Order No.	d ₁	d ₂ core dia.	l ₁	Lead w ₁	Mass moment of inertia kg·m ²	Screw dia. x lead	Weight kg
L1379.08-10-0100	8	7.40	100	1.0	2,67x10 ⁻⁶	8x1,0	0.04
L1379.08-10-0200	8	7.40	200	1.0	2,67x10 ⁻⁶	8x1,0	0.07
L1379.08-10-0300	8	7.40	300	1.0	2,67x10 ⁻⁶	8x1,0	0.11
L1379.08-10-0400	8	7.40	400	1.0	2,67x10 ⁻⁶	8x1,0	0.14
L1379.08-10-0500	8	7.40	500	1.0	2,67x10 ⁻⁶	8x1,0	0.18
L1379.08-10-0600	8	7.40	600	1.0	2,67x10 ⁻⁶	8x1,0	0.22
L1379.08-10-0700	8	7.40	700	1.0	2,67x10 ⁻⁶	8x1,0	0.25
L1379.08-10-0800	8	7.40	800	1.0	2,67x10 ⁻⁶	8x1,0	0.29
L1379.08-10-0900	8	7.40	900	1.0	2,67x10 ⁻⁶	8x1,0	0.32
L1379.08-10-1000	8	7.40	1000	1.0	2,67x10 ⁻⁶	8x1,0	0.36
L1379.08-20-0100	8	7.21	100	2.0	2,71x10 ⁻⁶	8x2,0	0.04
L1379.08-20-0200	8	7.21	200	2.0	2,71x10 ⁻⁶	8x2,0	0.07
L1379.08-20-0300	8	7.21	300	2.0	2,71x10 ⁻⁶	8x2,0	0.11
L1379.08-20-0400	8	7.21	400	2.0	2,71x10 ⁻⁶	8x2,0	0.14
L1379.08-20-0500	8	7.21	500	2.0	2,71x10 ⁻⁶	8x2,0	0.18
L1379.08-20-0600	8	7.21	600	2.0	2,71x10 ⁻⁶	8x2,0	0.22
L1379.08-20-0700	8	7.21	700	2.0	2,71x10 ⁻⁶	8x2,0	0.25
L1379.08-20-0800	8	7.21	800	2.0	2,71x10 ⁻⁶	8x2,0	0.29
L1379.08-20-0900	8	7.21	900	2.0	2,71x10 ⁻⁶	8x2,0	0.32
L1379.08-20-1000	8	7.21	1000	2.0	2,71x10 ⁻⁶	8x2,0	0.36
L1379.08-25-0100	8	7.21	100	2.5	2,80x10 ⁻⁶	8x2,5	0.04
L1379.08-25-0200	8	7.21	200	2.5	2,80x10 ⁻⁶	8x2,5	0.07
L1379.08-25-0300	8	7.21	300	2.5	2,80x10 ⁻⁶	8x2,5	0.11
L1379.08-25-0400	8	7.21	400	2.5	2,80x10 ⁻⁶	8x2,5	0.15
L1379.08-25-0500	8	7.21	500	2.5	2,80x10 ⁻⁶	8x2,5	0.18
L1379.08-25-0600	8	7.21	600	2.5	2,80x10 ⁻⁶	8x2,5	0.22
L1379.08-25-0700	8	7.21	700	2.5	2,80x10 ⁻⁶	8x2,5	0.26
L1379.08-25-0800	8	7.21	800	2.5	2,80x10 ⁻⁶	8x2,5	0.27
L1379.08-25-0900	8	7.21	900	2.5	2,80x10 ⁻⁶	8x2,5	0.33
L1379.08-25-1000	8	7.21	1000	2.5	2,80x10 ⁻⁶	8x2,5	0.37



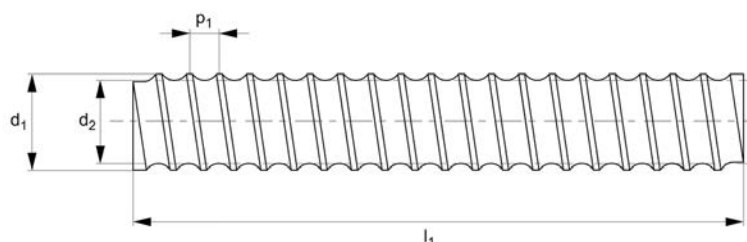
Automotion
AN ESSENTIA COMPANY

0333 207 4498

sales@automotioncomponents.co.uk 101



L1379.10



Material

Steel (Cf53 or C55R), hardened, rust proof chrome plated (X90CrMoV5).

Technical Notes

Tolerance T7 - 50μ/300mm.

For ball screw nuts see parts L1379.F and L1379.C.

For end machining of ball screws to suit miniature or standard ball screw support units please see technical pages.

We provide a service to cut and machine ball screws as required.

Chrome plating for use in food industry etc. contains 98% pure chromium.

Tips

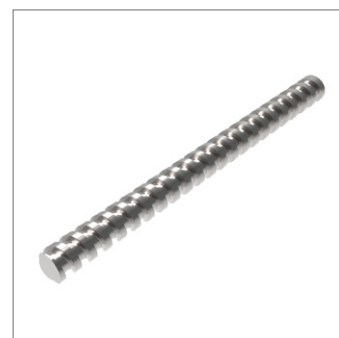
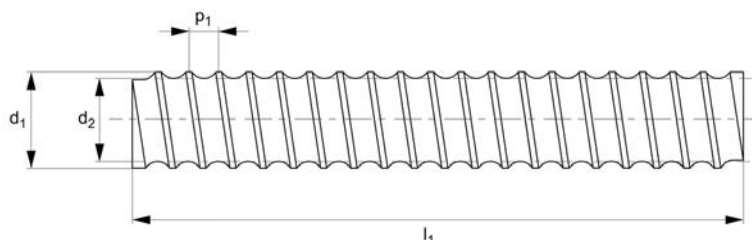
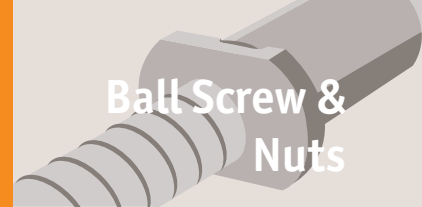
Do not remove the ball nut from the sleeve that it comes with prior to installation - the balls come free rendering the ball nut unusable. Offer up the ball nut still on it's mounting sleeve to the ball screw and screw carefully on.

Order No.	d ₁	d ₂ core dia.	l ₁	Lead w ₁	Mass moment of inertia kg·m ²	Screw dia. x lead	Weight kg
L1379.10-20-0100	10	9.21	100	2	5,11x10 ⁻⁶	10x2	0.06
L1379.10-20-0200	10	9.21	200	2	5,11x10 ⁻⁶	10x2	0.12
L1379.10-20-0300	10	9.21	300	2	5,11x10 ⁻⁶	10x2	0.17
L1379.10-20-0400	10	9.21	400	2	5,11x10 ⁻⁶	10x2	0.23
L1379.10-20-0500	10	9.21	500	2	5,11x10 ⁻⁶	10x2	0.29
L1379.10-20-0600	10	9.21	600	2	5,11x10 ⁻⁶	10x2	0.35
L1379.10-20-0700	10	9.21	700	2	5,11x10 ⁻⁶	10x2	0.41
L1379.10-20-0800	10	9.21	800	2	5,11x10 ⁻⁶	10x2	0.46
L1379.10-20-0900	10	9.21	900	2	5,11x10 ⁻⁶	10x2	0.52
L1379.10-20-1000	10	9.21	1000	2	5,11x10 ⁻⁶	10x2	0.58
L1379.10-40-0100	10	8.68	100	4	6,53x10 ⁻⁶	10x4	0.06
L1379.10-40-0200	10	8.68	200	4	6,53x10 ⁻⁶	10x4	0.11
L1379.10-40-0300	10	8.68	300	4	6,53x10 ⁻⁶	10x4	0.17
L1379.10-40-0400	10	8.68	400	4	6,53x10 ⁻⁶	10x4	0.23
L1379.10-40-0500	10	8.68	500	4	6,53x10 ⁻⁶	10x4	0.28
L1379.10-40-0600	10	8.68	600	4	6,53x10 ⁻⁶	10x4	0.34
L1379.10-40-0700	10	8.68	700	4	6,53x10 ⁻⁶	10x4	0.40
L1379.10-40-0800	10	8.68	800	4	6,53x10 ⁻⁶	10x4	0.46
L1379.10-40-0900	10	8.68	900	4	6,53x10 ⁻⁶	10x4	0.51
L1379.10-40-1000	10	8.68	1000	4	6,53x10 ⁻⁶	10x4	0.57



Ø12 Miniature Rolled Ball Screws

Ball Screw & Nuts



L1379.12

BALL SCREW & NUTS

Material

Steel (Cf53 or C55R), hardened, rust proof chrome plated (X90CrMoV5).

Technical Notes

Tolerance T7 - 50µ/300mm.

For ball screw nuts see parts L1379.F and L1379.C.

For end machining of ball screws to suit miniature or standard ball screw support units please see technical pages.

We provide a service to cut and machine ball screws as required.

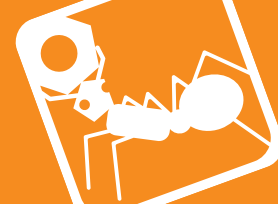
Chrome plating for use in food industry etc. contains 98% pure chromium.

Tips

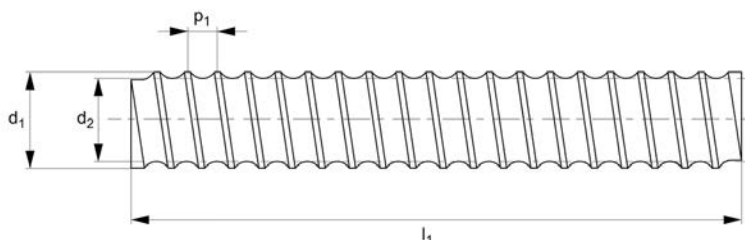
Do not remove the ball nut from the sleeve that it comes with prior to installation - the balls come free rendering the ball nut unusable. Offer up the ball nut still on it's mounting sleeve to the ball screw and screw carefully on.

Order No.	d ₁	d ₂ core dia.	l ₁	Lead w ₁	Mass moment of inertia kg·m ²	Screw dia. x lead	Weight kg
L1379.12-20-0100	12	11.21	100	2	1,07x10 ⁻⁵	12x2	0.06
L1379.12-20-0200	12	11.21	200	2	1,07x10 ⁻⁵	12x2	0.12
L1379.12-20-0300	12	11.21	300	2	1,07x10 ⁻⁵	12x2	0.19
L1379.12-20-0400	12	11.21	400	2	1,07x10 ⁻⁵	12x2	0.25
L1379.12-20-0500	12	11.21	500	2	1,07x10 ⁻⁵	12x2	0.31
L1379.12-20-0600	12	11.21	600	2	1,07x10 ⁻⁵	12x2	0.37
L1379.12-20-0700	12	11.21	700	2	1,07x10 ⁻⁵	12x2	0.43
L1379.12-20-0800	12	11.21	800	2	1,07x10 ⁻⁵	12x2	0.50
L1379.12-20-0900	12	11.21	900	2	1,07x10 ⁻⁵	12x2	0.56
L1379.12-20-1000	12	11.21	1000	2	1,07x10 ⁻⁵	12x2	0.62
L1379.12-40-0100	12	9.80	100	4	1,51x10 ⁻⁵	12x4	0.09
L1379.12-40-0200	12	9.80	200	4	1,51x10 ⁻⁵	12x4	0.17
L1379.12-40-0300	12	9.80	300	4	1,51x10 ⁻⁵	12x4	0.26
L1379.12-40-0400	12	9.80	400	4	1,51x10 ⁻⁵	12x4	0.35
L1379.12-40-0500	12	9.80	500	4	1,51x10 ⁻⁵	12x4	0.43
L1379.12-40-0600	12	9.80	600	4	1,51x10 ⁻⁵	12x4	0.52
L1379.12-40-0700	12	9.80	700	4	1,51x10 ⁻⁵	12x4	0.61
L1379.12-40-0800	12	9.80	800	4	1,51x10 ⁻⁵	12x4	0.69
L1379.12-40-0900	12	9.80	900	4	1,51x10 ⁻⁵	12x4	0.77
L1379.12-40-1000	12	9.80	1000	4	1,51x10 ⁻⁵	12x4	0.86
L1379.12-50-0100	12	9.80	100	5	7,64x10 ⁻⁶	12x5	0.09
L1379.12-50-0200	12	9.80	200	5	7,64x10 ⁻⁶	12x5	0.16
L1379.12-50-0300	12	9.80	300	5	7,64x10 ⁻⁶	12x5	0.23
L1379.12-50-0400	12	9.80	400	5	7,64x10 ⁻⁶	12x5	0.31
L1379.12-50-0500	12	9.80	500	5	7,64x10 ⁻⁶	12x5	0.39
L1379.12-50-0600	12	9.80	600	5	7,64x10 ⁻⁶	12x5	0.47
L1379.12-50-0700	12	9.80	700	5	7,64x10 ⁻⁶	12x5	0.55
L1379.12-50-0800	12	9.80	800	5	7,64x10 ⁻⁶	12x5	0.62
L1379.12-50-0900	12	9.80	900	5	7,64x10 ⁻⁶	12x5	0.70
L1379.12-50-1000	12	9.80	1000	5	7,64x10 ⁻⁶	12x5	0.78





L1379.14



Material

Steel (Cf53 or C55R), hardened, rust proof chrome plated (X90CrMoV5).

Technical Notes

Tolerance T7 - 50µ/300mm.

For ball screw nuts L1379.F (flanged) and L1379.C (cylindrical).

For end machining of ball screws to suit miniature or standard ball screw support units please see technical pages.

We provide a service to cut and machine ball screws as required.

Chrome plating for use in food industry etc. contains 98% pure chromium.

Tips

Do not remove the ball nut from the sleeve that it comes with prior to installation - the balls come free rendering the ball nut unusable. Offer up the ball nut still on it's mounting sleeve to the ball screw and screw carefully on.

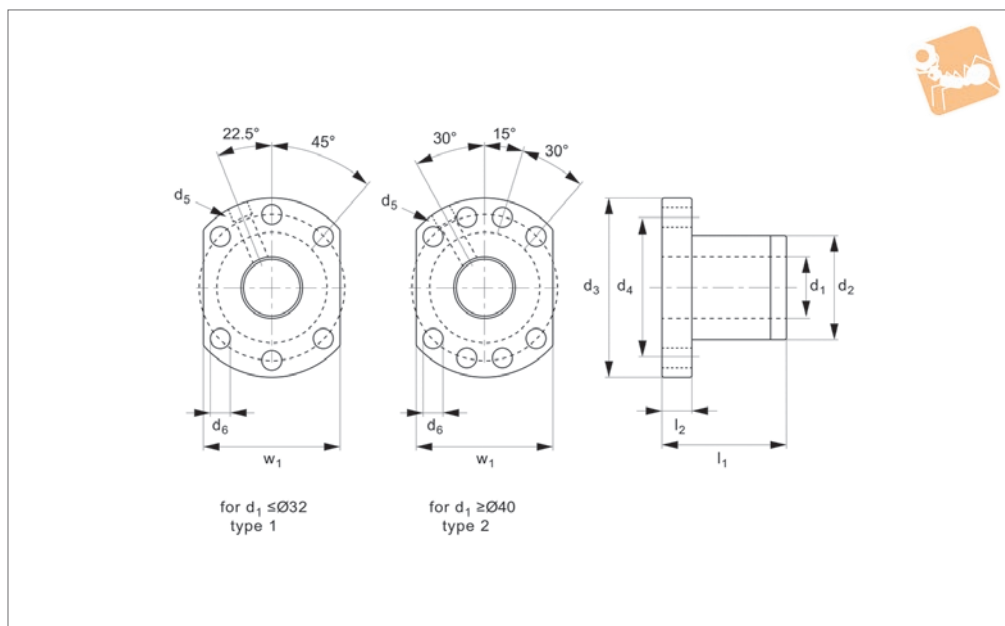
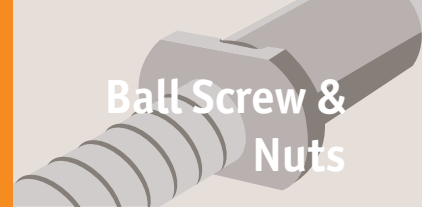
Order No.	d ₁	d ₂ core dia.	l ₁	Lead w ₁	Mass moment of inertia kg·m ²	Size dia. x lead	Weight kg
L1379.14-20-0100	14	13.21	100	2	2,01x10 ⁻⁵	14x2	0.08
L1379.14-20-0200	14	13.21	200	2	2,01x10 ⁻⁵	14x2	0.17
L1379.14-20-0300	14	13.21	300	2	2,01x10 ⁻⁵	14x2	0.26
L1379.14-20-0400	14	13.21	400	2	2,01x10 ⁻⁵	14x2	0.34
L1379.14-20-0500	14	13.21	500	2	2,01x10 ⁻⁵	14x2	0.46
L1379.14-20-0600	14	13.21	600	2	2,01x10 ⁻⁵	14x2	0.51
L1379.14-20-0700	14	13.21	700	2	2,01x10 ⁻⁵	14x2	0.60
L1379.14-20-0800	14	13.21	800	2	2,01x10 ⁻⁵	14x2	0.68
L1379.14-20-0900	14	13.21	900	2	2,01x10 ⁻⁵	14x2	0.77
L1379.14-20-1000	14	13.21	1000	2	2,01x10 ⁻⁵	14x2	0.85



Left Hand Flanged Ball Nuts

DIN 69051, form B

Ball Screw & Nuts



L1370.L

BALL SCREW & NUTS

Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

To DIN 69051 form B.

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

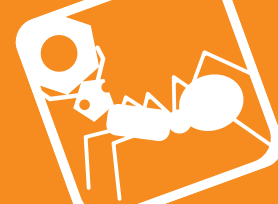
For easy mounting of the ball screw nuts see the nut bracket - part L1377.

For miniature ball screws Ø6 to Ø14 see part no. L1379.

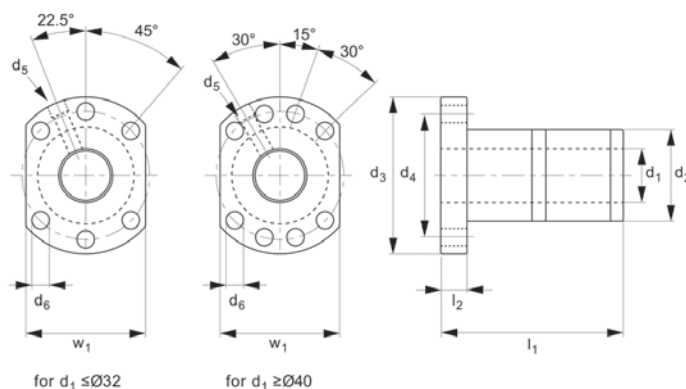
Important Notes

Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	Lead	d ₁ for screw	Type	l ₁	d ₂ tol. G6	d ₃ ±0.15	d ₄ ±0.15	d ₅ for	d ₆	l ₂	w ₁ ±0.15	Ball dia.	Dyn. load C kN max.	Static load C ₀ kN max.	Stiffness N/μm
L1370.16L-05	5	16	Type 1	45	28	48	38	M 6	5,5	10	40	3,175	13,53	29,92	314
L1370.16L-10	10	16	Type 1	57	28	48	38	M 6	5,5	10	40	3,175	10,82	23,55	255
L1370.20L-05	5	20	Type 1	51	36	58	47	M 6	6,6	10	44	3,175	15,21	38,00	382
L1370.25L-05	5	25	Type 1	51	40	62	51	M 6	6,6	10	48	3,175	16,91	48,09	441
L1370.25L-10	10	25	Type 1	80	40	62	51	M 6	6,6	12	48	4,762	28,96	71,54	490
L1370.32L-05	5	32	Type 1	52	50	80	65	M 6	9,0	12	62	3,175	18,85	62,21	529
L1370.32L-10	10	32	Type 1	85	50	80	65	M 6	9,0	12	62	6,350	47,12	119,72	598
L1370.40L-05	5	40	Type 2	55	63	93	78	M 8	9,0	14	70	3,175	20,69	78,34	617
L1370.40L-10	10	40	Type 2	88	63	93	78	M 8	9,0	14	70	6,340	52,95	152,00	715
L1370.50L-10	10	50	Type 2	88	75	110	93	M 8	11,0	16	85	6,350	58,88	192,35	833
L1370.63L-10	10	63	Type 2	93	90	125	108	M 8	11,0	18	95	6,350	65,89	248,68	970
L1370.80L-10	10	80	Type 2	93	105	145	125	M 8	13,5	20	110	6,350	72,04	313,36	1068



L1371.L



Material

Steel (16MnCr5 or 100Cr6), with Vulkolan seals.

Technical Notes

Axial play for 5mm pitch = 0,05mm; for 10mm pitch = 0,10mm; for multi-starts = 0,20mm.

Preload max. 5% of max. dynamic load.

For axial run-out, concentricity and parallelism figures see technical pages.

With lubrication and fixing holes.

For use with ball screws no. L1375.

Tips

For miniature ball screws $\varnothing 6$ to $\varnothing 14$ see part no. L1379.

Important Notes

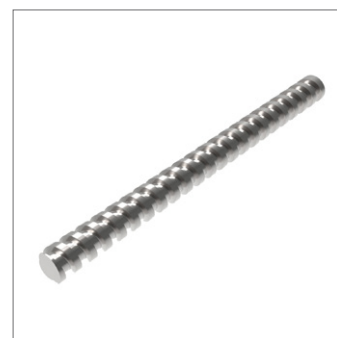
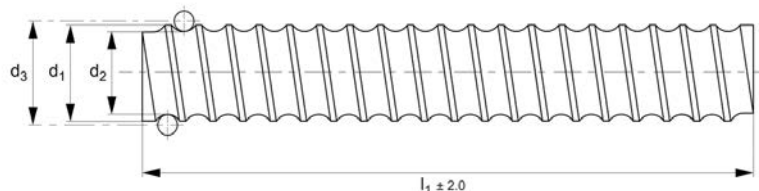
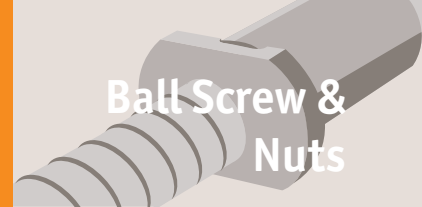
Fit ball nut to screw using the sleeve provided. Offer up the ball nut to the screw and slide carefully on. Do not remove the ball nut from the sleeve provided - the ball bearings can come loose rendering the ball nut unusable.

Order No.	d_1 for screw	Pitch	l_1	d_2 tol. G6	d_3	d_4	d_5 for	d_6	l_2	w_1 ± 0.15	Ball dia.	Dyn. load C kN max.	Static load C_0 kN max.	Stiffness N/ μ m
L1371.16L-05	16	5	100	28	48	38	M 6	5.5	10	40	3.175	13.53	29.93	431
L1371.20L-05	20	5	101	36	55	47	M 6	7.0	10	44	3.175	15.21	38.00	519
L1371.25L-05	25	5	101	40	62	51	M 6	7.0	10	48	3.175	16.91	48.09	608
L1371.32L-05	32	5	102	50	70	65	M 6	7.0	12	62	3.175	18.85	62.21	725
L1371.32L-10	32	10	162	50	80	65	M 8	7.0	12	62	6.350	47.12	119.72	804
L1371.40L-05	40	5	105	63	80	78	M 6	7.0	14	70	3.175	20.69	78.34	853
L1371.40L-10	40	10	165	63	95	78	M 8	9.0	14	70	6.350	52.92	152.00	970
L1371.50L-10	50	10	171	75	110	93	M 8	11.0	16	85	6.350	58.88	192.35	1147



Left Hand Ø16 Ball Screws rolled

Ball Screw & Nuts



L1375.16L

BALL SCREW & NUTS

Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5 or 10mm lead. Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 3000mm available.

For ball screw nuts see parts L1370.L& L1371.L - these are left hand nuts. For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Tips

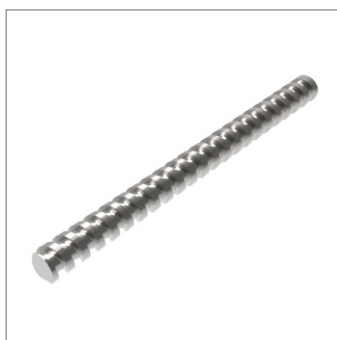
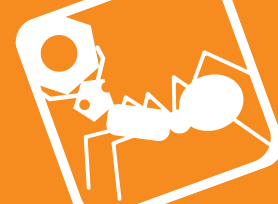
These are non-standard left hand thread

ball screws.

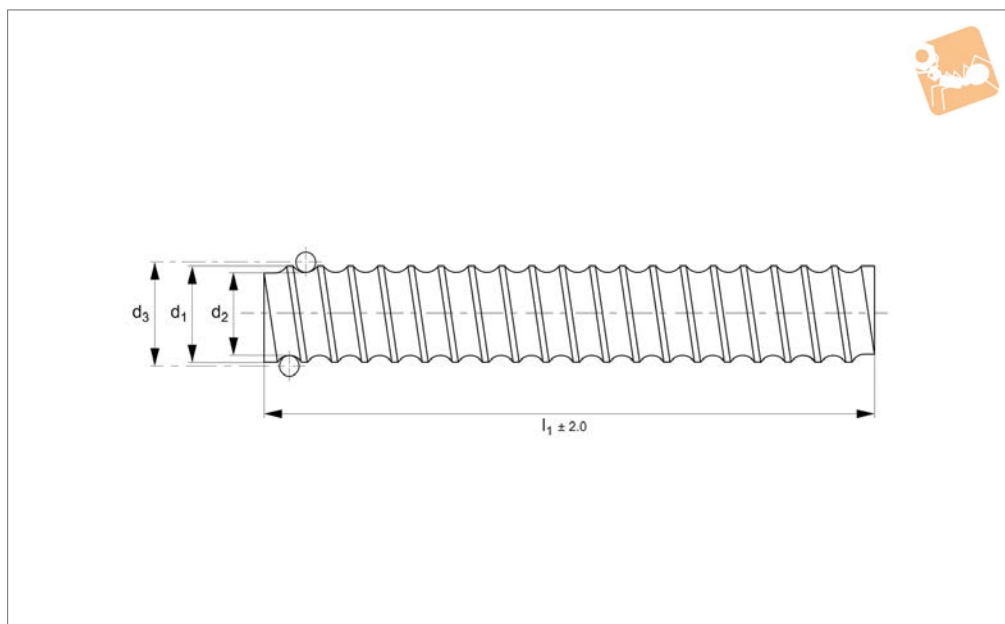
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable. d3 = pitch diameter.

Order No.	Screw dia. x lead	Lead	d ₁	l ₁	d ₂	d ₃	Mass moment of inertia kg·m ²	Weight kg
L1375.16L-05-0500	16x 5	5	16	500	13.90	17.08	4,45x10 ⁻⁵	0.71
L1375.16L-05-0600	16x 5	5	16	600	13.90	17.08	4,45x10 ⁻⁵	0.85
L1375.16L-05-0800	16x 5	5	16	800	13.90	17.08	4,45x10 ⁻⁵	1.13
L1375.16L-05-1000	16x 5	5	16	1000	13.90	17.08	4,45x10 ⁻⁵	1.41
L1375.16L-05-1500	16x 5	5	16	1500	13.90	17.08	4,45x10 ⁻⁵	2.12
L1375.16L-05-2000	16x 5	5	16	2000	13.90	17.08	4,45x10 ⁻⁵	2.82
L1375.16L-05-2500	16x 5	5	16	2500	13.90	17.08	4,45x10 ⁻⁵	3.53
L1375.16L-05-3000	16x 5	5	16	3000	13.90	17.08	4,45x10 ⁻⁵	4.23



L1375.20L



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5,20 or 50mm lead. Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 3000mm available. For ball screw nuts see parts L1370.L &

L1371.L - these are left hand nuts.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for 5mm pitch.

Tips

These are non-standard left hand thread

ball screws.

Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

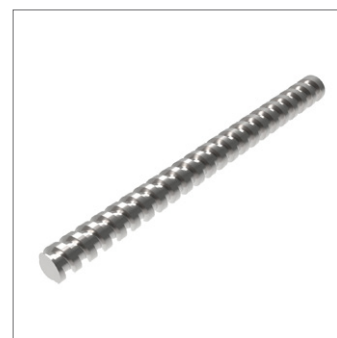
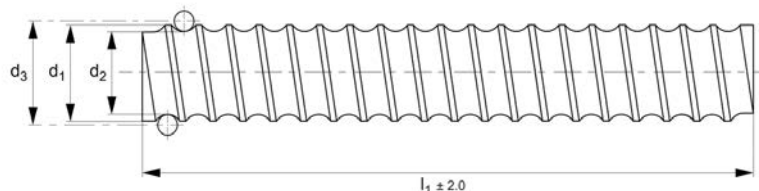
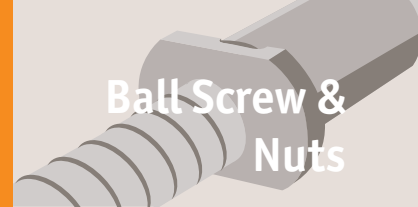
d3 = pitch diameter.

Order No.	Screw dia. x lead	d ₁	l ₁	Lead w ₁	d ₂	d ₃	Mass moment of inertia kg·m ²	Weight kg
L1375.20L-05-0500	20x 5	20	500	5	17.09	21.08	1,12x10 ⁻⁴	1.18
L1375.20L-05-0600	20x 5	20	600	5	17.09	21.08	1,12x10 ⁻⁴	1.41
L1375.20L-05-0800	20x 5	20	800	5	17.09	21.08	1,12x10 ⁻⁴	1.88
L1375.20L-05-1000	20x 5	20	1000	5	17.09	21.08	1,12x10 ⁻⁴	2.35
L1375.20L-05-1500	20x 5	20	1500	5	17.09	21.08	1,12x10 ⁻⁴	3.53
L1375.20L-05-2000	20x 5	20	2000	5	17.09	21.08	1,12x10 ⁻⁴	4.70
L1375.20L-05-2500	20x 5	20	2500	5	17.09	21.08	1,12x10 ⁻⁴	5.88
L1375.20L-05-3000	20x 5	20	3000	5	17.09	21.08	1,12x10 ⁻⁴	7.05



Left Hand Ø 25 Ball Screws rolled

Ball Screw & Nuts



L1375.25L

BALL SCREW & NUTS

Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 2mm lead. Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see parts L1370.L & L1371.L - these are left hand nuts. For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Tips

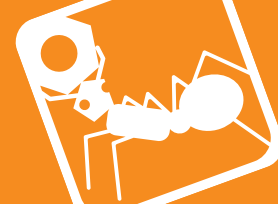
These are non-standard left hand thread

ball screws.

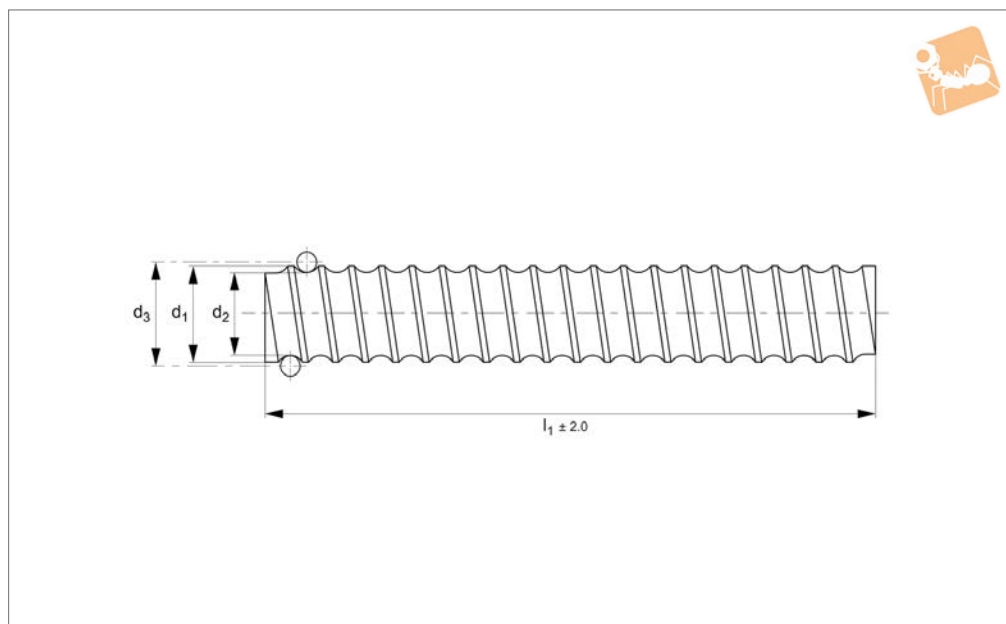
Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable. d3 = pitch diameter.

Order No.	Screw dia. x lead	d ₁	l ₁	Lead w ₁	d ₂	d ₃	Mass moment of inertia kg·m ²	Weight kg
L1375.25L-05-0500	25x 5	25	500	5	22.9	26.08	2,62x10 ⁻⁴	1.80
L1375.25L-05-0600	25x 5	25	600	5	22.9	26.08	2,62x10 ⁻⁴	2.15
L1375.25L-05-0800	25x 5	25	800	5	22.9	26.08	2,62x10 ⁻⁴	2.87
L1375.25L-05-1000	25x 5	25	1000	5	22.9	26.08	2,62x10 ⁻⁴	3.59
L1375.25L-05-1500	25x 5	25	1500	5	22.9	26.08	2,62x10 ⁻⁴	5.39
L1375.25L-05-2000	25x 5	25	2000	5	22.9	26.08	2,62x10 ⁻⁴	7.18
L1375.25L-05-2500	25x 5	25	2500	5	22.9	26.08	2,62x10 ⁻⁴	8.98
L1375.25L-05-3000	25x 5	25	3000	5	22.9	26.08	2,62x10 ⁻⁴	10.77
L1375.25L-05-3500	25x 5	25	3500	5	22.9	26.08	2,62x10 ⁻⁴	2.87
L1375.25L-05-4000	25x 5	25	4000	5	22.9	26.08	2,62x10 ⁻⁴	3.59
L1375.25L-05-4500	25x 5	25	4500	5	22.9	26.08	2,62x10 ⁻⁴	5.39
L1375.25L-05-5000	25x 5	25	5000	5	22.9	26.08	2,62x10 ⁻⁴	7.18
L1375.25L-05-5500	25x 5	25	5500	5	22.9	26.08	2,62x10 ⁻⁴	8.98
L1375.25L-05-6000	25x 5	25	6000	5	22.9	26.08	2,62x10 ⁻⁴	10.77
L1375.25L-10-0500	25x10	25	500	10	22.9	26.08	2,62x10 ⁻⁴	1.80
L1375.25L-10-0600	25x10	25	600	10	22.9	26.08	2,62x10 ⁻⁴	2.15
L1375.25L-10-0800	25x10	25	800	10	22.9	26.08	2,62x10 ⁻⁴	2.87
L1375.25L-10-1000	25x10	25	1000	10	22.9	26.08	2,62x10 ⁻⁴	3.59
L1375.25L-10-1500	25x10	25	1500	10	22.9	26.08	2,62x10 ⁻⁴	5.39
L1375.25L-10-2000	25x10	25	2000	10	22.9	26.08	2,62x10 ⁻⁴	7.18
L1375.25L-10-2500	25x10	25	2500	10	22.9	26.08	2,62x10 ⁻⁴	8.98
L1375.25L-10-3000	25x10	25	3000	10	22.9	26.08	2,62x10 ⁻⁴	10.77
L1375.25L-10-3500	25x10	25	3500	10	22.9	26.08	2,62x10 ⁻⁴	2.87
L1375.25L-10-4000	25x10	25	4000	10	22.9	26.08	2,62x10 ⁻⁴	3.59
L1375.25L-10-4500	25x10	25	4500	10	22.9	26.08	2,62x10 ⁻⁴	5.39
L1375.25L-10-5000	25x10	25	5000	10	22.9	26.08	2,62x10 ⁻⁴	7.18
L1375.25L-10-5500	25x10	25	5500	10	22.9	26.08	2,62x10 ⁻⁴	8.98
L1375.25L-10-6000	25x10	25	6000	10	22.9	26.08	2,62x10 ⁻⁴	10.77



L1375.32L



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10, 20 or 40mm lead.

Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see parts L1370.L &

L1371.L - these are left hand nuts.

For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Also available as a left hand thread for 5mm pitch.

Tips

These are non-standard left hand thread ball screws.

Important Notes

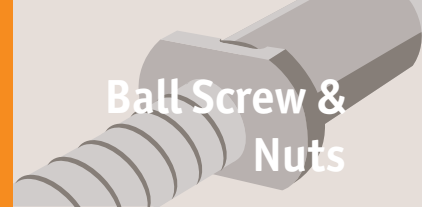
Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.

d3 = pitch diameter.

Order No.	Screw dia. x lead	d ₁	l ₁	Lead w ₁	d ₂	d ₃	Mass moment of inertia kg·m ²	Weight kg
L1375.32L-05-0500	32x 5	32	500	5	29.9	33.08	7,25x10 ⁻⁴	2.99
L1375.32L-05-0600	32x 5	32	600	5	29.9	33.08	7,25x10 ⁻⁴	3.59
L1375.32L-05-0800	32x 5	32	800	5	29.9	33.08	7,25x10 ⁻⁴	4.78
L1375.32L-05-1000	32x 5	32	1000	5	29.9	33.08	7,25x10 ⁻⁴	5.98
L1375.32L-05-1500	32x 5	32	1500	5	29.9	33.08	7,25x10 ⁻⁴	8.97
L1375.32L-05-2000	32x 5	32	2000	5	29.9	33.08	7,25x10 ⁻⁴	11.96
L1375.32L-05-2500	32x 5	32	2500	5	29.9	33.08	7,25x10 ⁻⁴	14.95
L1375.32L-05-3000	32x 5	32	3000	5	29.9	33.08	7,25x10 ⁻⁴	17.94
L1375.32L-05-3500	32x 5	32	3500	5	29.9	33.08	7,25x10 ⁻⁴	4.78
L1375.32L-05-4000	32x 5	32	4000	5	29.9	33.08	7,25x10 ⁻⁴	5.98
L1375.32L-05-4500	32x 5	32	3500	5	29.9	33.08	7,25x10 ⁻⁴	8.97
L1375.32L-05-5000	32x 5	32	4000	5	29.9	33.08	7,25x10 ⁻⁴	11.96
L1375.32L-05-5500	32x 5	32	4500	5	29.9	33.08	7,25x10 ⁻⁴	14.95
L1375.32L-05-6000	32x 5	32	6000	5	29.9	33.08	7,25x10 ⁻⁴	17.94
L1375.32L-10-0500	32x10	32	500	10	29.9	34.15	7,69x10 ⁻⁴	3.08
L1375.32L-10-0600	32x10	32	600	10	29.9	34.15	7,69x10 ⁻⁴	3.70
L1375.32L-10-0800	32x10	32	800	10	29.9	34.15	7,69x10 ⁻⁴	4.93
L1375.32L-10-1000	32x10	32	1000	10	29.9	34.15	7,69x10 ⁻⁴	6.16
L1375.32L-10-1500	32x10	32	1500	10	29.9	34.15	7,69x10 ⁻⁴	9.24
L1375.32L-10-2000	32x10	32	2000	10	29.9	34.15	7,69x10 ⁻⁴	12.32
L1375.32L-10-2500	32x10	32	2500	10	29.9	34.15	7,69x10 ⁻⁴	15.40
L1375.32L-10-3000	32x10	32	3000	10	29.9	34.15	7,69x10 ⁻⁴	18.48
L1375.32L-10-3500	32x10	32	3500	10	29.9	33.08	7,25x10 ⁻⁴	4.78
L1375.32L-10-4000	32x10	32	4000	10	29.9	33.08	7,25x10 ⁻⁴	5.98
L1375.32L-10-4500	32x10	32	4500	10	29.9	33.08	7,25x10 ⁻⁴	8.97
L1375.32L-10-5000	32x10	32	5000	10	29.9	33.08	7,25x10 ⁻⁴	11.96

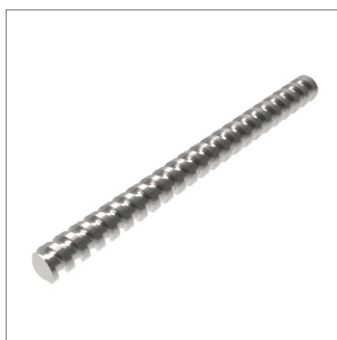
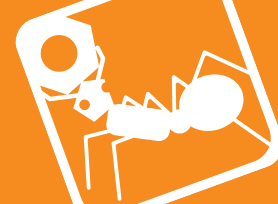


Left Hand Ø 32 Ball Screws rolled

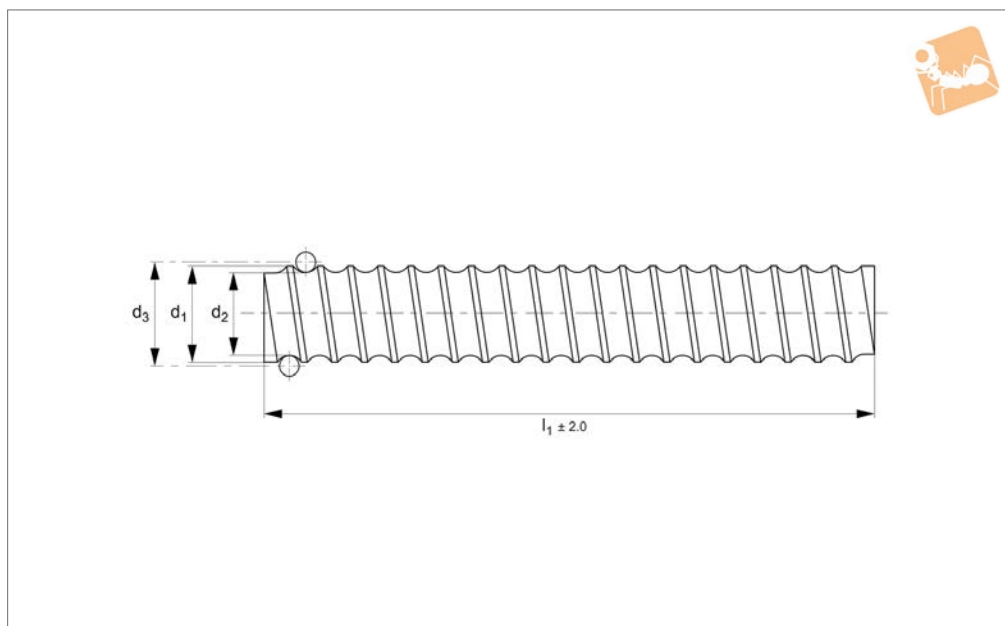


Ball Screw & Nuts

Order No.	Screw dia. x lead	d_1	l_1	Lead w_1	d_2	d_3	Mass moment of inertia $\text{kg} \cdot \text{m}^2$	Weight kg
L1375.32L-10-5500	32x10	32	5500	10	29.9	33.08	$7,25 \times 10^{-4}$	14.95
L1375.32L-10-6000	32x10	32	6000	10	29.9	33.08	$7,25 \times 10^{-4}$	17.94



L1375.40L



Material

Steel (CF53 or C55R), induction hardened to 60 HRC ± 2 , polished.

Technical Notes

Gothic profile with a 5, 10 or 20mm lead.
Tolerance T7 - 50 μ /300mm. Shorter lengths or longer lengths up to a maximum of 6000mm available.

For ball screw nuts see parts L1370.L & L1371.L - these are left hand nuts.
For end screw machining to suit ball screw support units see relevant ball screw supports (L1388-L1406). End machining on request.

Tips

These are non-standard left hand thread

ball screws.

Important Notes

Ensure the ball nut can be fitted to the ball screw after machining. Do not remove the ball nut from the sleeve prior to installation - the balls come free rendering the ball nut unusable.
d3 = pitch diameter.

Order No.	Screw dia. x lead	d ₁	l ₁	Lead w ₁	d ₂	d ₃	Mass moment of inertia kg·m ²	Weight kg
L1375.40L-05-0500	40x 5	40	500	5	37.9	41.08	1,81x10 ⁻³	4.72
L1375.40L-05-0600	40x 5	40	600	5	37.9	41.08	1,81x10 ⁻³	5.66
L1375.40L-05-0800	40x 5	40	800	5	37.9	41.08	1,81x10 ⁻³	7.55
L1375.40L-05-1000	40x 5	40	1000	5	37.9	41.08	1,81x10 ⁻³	9.44
L1375.40L-05-1500	40x 5	40	1500	5	37.9	41.08	1,81x10 ⁻³	14.16
L1375.40L-05-2000	40x 5	40	2000	5	37.9	41.08	1,81x10 ⁻³	18.88
L1375.40L-05-2500	40x 5	40	2500	5	37.9	41.08	1,81x10 ⁻³	23.60
L1375.40L-05-3000	40x 5	40	3000	5	37.9	41.08	1,81x10 ⁻³	28.32
L1375.40L-05-3500	40x 5	40	3500	5	37.9	41.08	1,81x10 ⁻³	7.55
L1375.40L-05-4000	40x 5	40	4000	5	37.9	41.08	1,81x10 ⁻³	9.44
L1375.40L-05-4500	40x 5	40	4500	5	37.9	41.08	1,81x10 ⁻³	14.16
L1375.40L-05-5000	40x 5	40	5000	5	37.9	41.08	1,81x10 ⁻³	18.88
L1375.40L-05-5500	40x 5	40	5500	5	37.9	41.08	1,81x10 ⁻³	23.60
L1375.40L-05-6000	40x 5	40	6000	5	37.9	41.08	1,81x10 ⁻³	28.32
L1375.40L-10-0500	40x10	40	500	10	35.8	42.15	1,66x10 ⁻³	4.51
L1375.40L-10-0600	40x10	40	600	10	35.8	42.15	1,66x10 ⁻³	5.41
L1375.40L-10-0800	40x10	40	800	10	35.8	42.15	1,66x10 ⁻³	7.22
L1375.40L-10-1000	40x10	40	1000	10	35.8	42.15	1,66x10 ⁻³	9.02
L1375.40L-10-1500	40x10	40	1500	10	35.8	42.15	1,66x10 ⁻³	13.53
L1375.40L-10-2000	40x10	40	2000	10	35.8	42.15	1,66x10 ⁻³	18.04
L1375.40L-10-2500	40x10	40	2500	10	35.8	42.15	1,66x10 ⁻³	22.55
L1375.40L-10-3000	40x10	40	3000	10	35.8	42.15	1,66x10 ⁻³	27.06
L1375.40L-10-3500	40x10	40	3500	10	37.9	41.08	1,81x10 ⁻³	7.55
L1375.40L-10-4000	40x10	40	4000	10	37.9	41.08	1,81x10 ⁻³	9.44
L1375.40L-10-4500	40x10	40	4500	10	37.9	41.08	1,81x10 ⁻³	14.16
L1375.40L-10-5000	40x10	40	5000	10	37.9	41.08	1,81x10 ⁻³	18.88
L1375.40L-10-5500	40x10	40	5500	10	37.9	41.08	1,81x10 ⁻³	23.60
L1375.40L-10-6000	40x10	40	6000	10	37.9	41.08	1,81x10 ⁻³	28.32



Technical Information

Bearing supports units overview



Bearing Supports from Automation Components

BEARING SUPPORTS

Fixed mounts

L1388.AK



L1390.FK



L1392.BK



L1394.EK



L1400.FKA



L1402.LK



Floating mounts

L1389.AF



L1391.FF



L1393.BF



L1395.EF



L1403.LF



Other Mounts

L1405.WBK

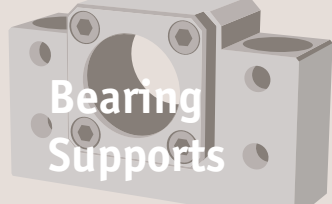


L1406.SBK



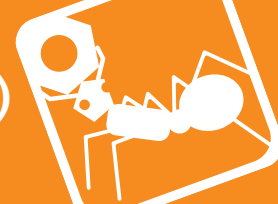
L1408.MBA





Bearing Supports

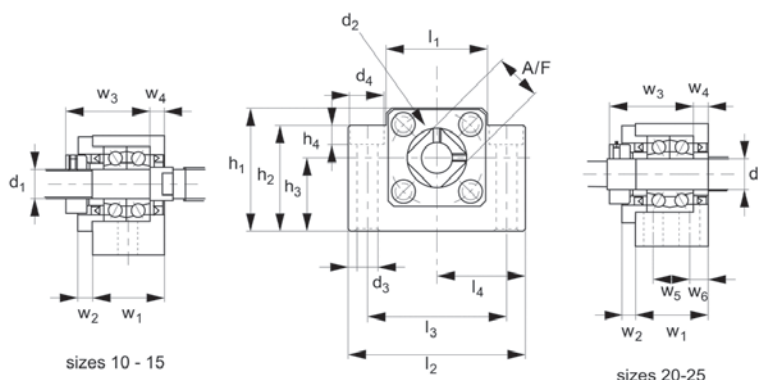
Fixed Rectangular Support Units (AK) for ball & lead screws



BEARING SUPPORTS



L1388



Material

Steel with black oxide finish.

Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a maximum axial clearance of 18μ.

For dimensions to machine the ends of the screws see technical pages.

Tips

Electroless nickel plated versions of these

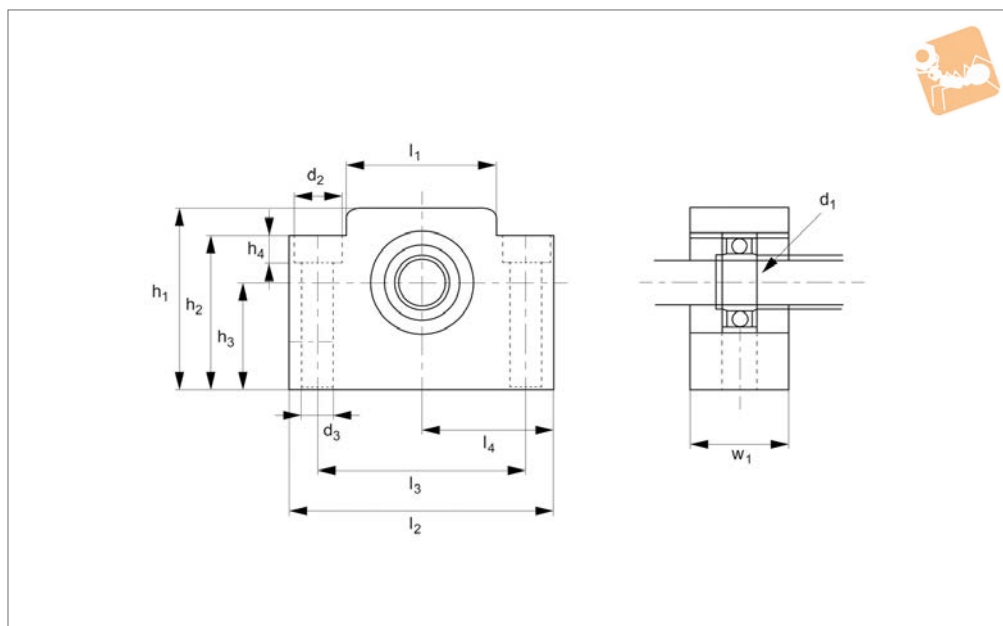
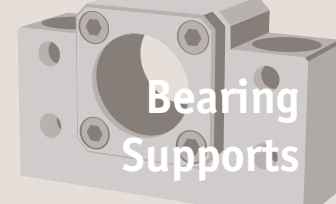
bearing mounts are available for clean room and other applications. **For lead screw sizes up to 80 and ball screw sizes up to 63 see part no. L1392.**

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d_1	d_2	d_3	d_4	h_1	h_2	h_3 ± 0.02	h_4	l_1	l_2
L1388.AK10	14 - 16	12	10	M3	9	14.0	43	35	25	11	36	70
L1388.AK12	18 - 20	14 - 16	12	M4	9	14.0	43	35	25	11	36	70
L1388.AK15	22 - 24	20	15	M4	11	17.0	49	40	30	15	41	80
L1388.AK20	26 - 32	25 - 28	20	M4	11	17.0	58	45	30	15	56	95
L1388.AK25	36	32 - 36	25	M5	11	7.8	68	25	35	8	66	105

Order No.	l_3	l_4 ± 0.02	w_1	w_2	w_3	w_4	w_5	w_6	A/F	Axial load kgf max.	rpm max.	Static load kgf max.
L1388.AK10	52	35.0	24	6	29.5	6	-	-	16	195	24000	530
L1388.AK12	52	35.0	24	6	29.5	6	-	-	19	217	22000	610
L1388.AK15	60	40.0	25	6	36.0	5	-	-	22	240	19000	700
L1388.AK20	75	47.5	42	10	50.0	10	22	10	30	587	13000	1690
L1388.AK25	85	52.5	48	12	56.0	14	30	9	35	709	12000	2090



Floating Rectangular Support Units for ball & lead screws



L1389

BEARING SUPPORTS

Material

Steel with black oxide finish.
Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18 μ .
For dimensions to machine the ends of the screws see technical pages.

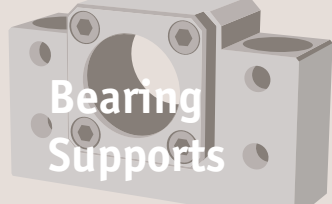
Tips

Electroless nickel plated versions of these

bearing mounts are available for clean room and other applications. **For lead screw sizes up to 80 and ball screw sizes up to 63 see part no. L1393.**

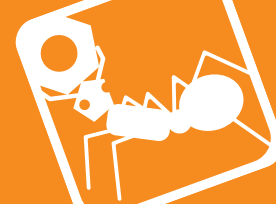
Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁	d ₂	d ₃	h ₁	h ₂	h ₃ ± 0.02	h ₄
L1389.AF10	12	10	8	14	11	43	35	25	11
L1389.AF12	14 - 16	12	10	14	11	43	35	25	11
L1389.AF15	22 - 24	20	15	14	11	49	40	30	11
L1389.AF20	26 - 32	25 - 28	20	14	11	58	45	30	15
L1389.AF25	36	32 - 36	25	14	11	68	25	35	-

Order No.	l ₁	l ₂	l ₃	l ₄ ± 0.02	w ₁	Axial load kgf max.	rpm max.	Static load kgf max.
L1389.AF10	36	70	52	35.0	20	195	24000	530
L1389.AF12	36	70	52	35.0	20	217	22000	610
L1389.AF15	41	80	60	40.0	20	240	19000	700
L1389.AF20	56	95	75	47.5	26	587	13000	1690
L1389.AF25	66	105	85	52.5	30	820	8500	1920

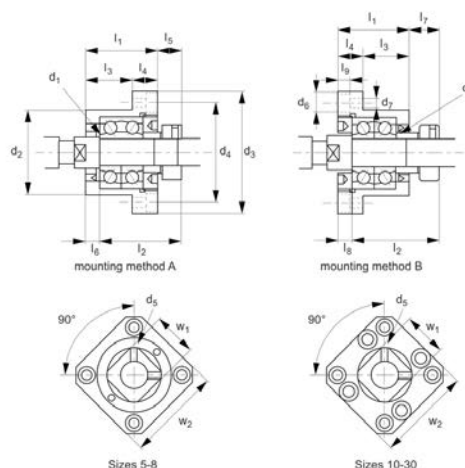


Bearing Supports

Fixed Round Support Units (FK) for ball & lead screws



L1390



Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

For dimensions to machine the ends of the screws see technical pages.

Tips

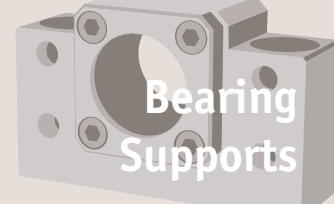
Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁	d ₂ tol. g6	d ₃	d ₄	d ₅	d ₆	d ₇	l ₁	l ₂	l ₃
L1390.FK05		6	5	20	34	26	M3	6,5	3,4	16,5	18,5	10,5
L1390.FK06	10	8	6	22	36	28	M3	6,5	3,4	20,0	22,0	13,0
L1390.FK08	12	10	8	28	43	35	M3	6,5	3,4	23,0	26,0	14,0
L1390.FK10	14 - 16	12	10	34	52	42	M3	8,0	4,5	27,0	29,5	17,0
L1390.FK12	18 - 20	14 - 16	12	36	54	44	M4	8,0	4,5	27,0	29,5	17,0
L1390.FK15	22 - 24	20	15	40	63	50	M4	9,5	5,5	32,0	36,0	17,0
L1390.FK17	24	20 - 25	17	50	77	62	M4	11,0	6,6	45,0	47,0	23,0
L1390.FK20	26 - 32	25 - 28	20	57	85	70	M4	11,0	6,6	52,0	50,0	30,0
L1390.FK25	36	32 - 36	25	63	98	80	M5	15,0	9,0	57,0	60,0	30,0
L1390.FK30	40	40 - 45	30	75	117	95	M6	17,5	11,0	62,0	61,0	32,0

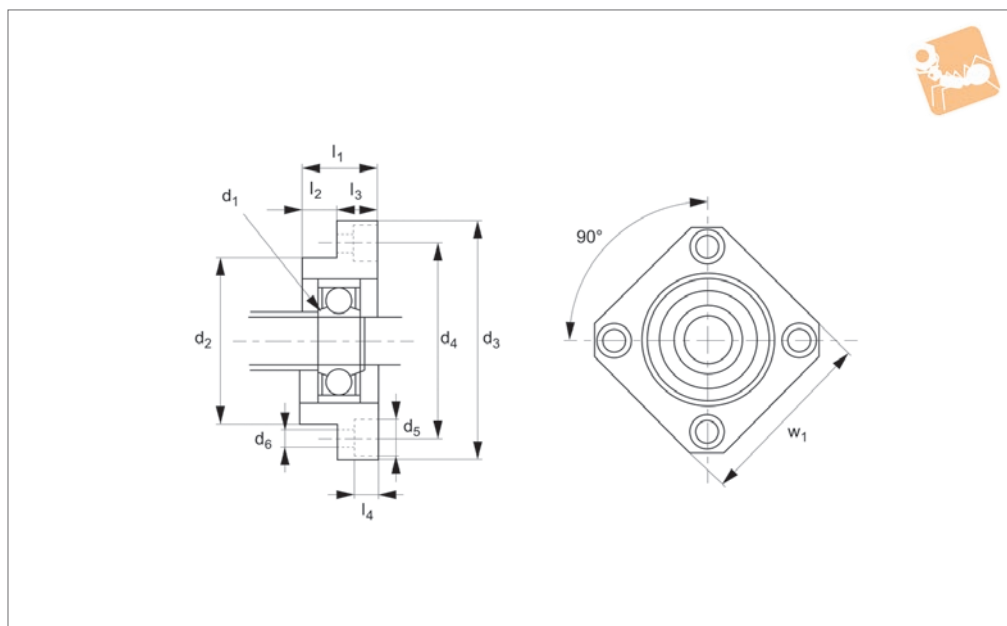
Order No.	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	w ₁	w ₂	Axial load kgf	rpm	Static load kgf
L1390.FK05	6	5.5	3.5	3.0	5.0	4	11	26	74	52800	200
L1390.FK06	7	5.5	3.5	4.5	6.5	4	12	28	74	52800	200
L1390.FK08	9	7.0	4.0	5.0	7.0	4	14	35	103	40000	280
L1390.FK10	10	7.5	5.0	8.5	6.0	4	16	42	195	24000	530
L1390.FK12	10	7.5	5.0	8.5	6.0	4	19	44	217	22000	610
L1390.FK15	15	10.0	6.0	12.0	8.0	6	22	52	240	19000	700
L1390.FK17	22	11.0	9.0	14.0	12.0	10	24	61	413	16000	1220
L1390.FK20	22	8.0	10.0	12.0	14.0	10	30	68	587	13000	1690
L1390.FK25	27	13.0	10.0	20.0	17.0	13	35	79	709	12000	2090
L1390.FK30	30	11.0	12.0	17.0	18.0	15	40	93	939	10000	3000



Floating Round Support Units (FF) for ball & lead screws



Bearing
Supports



L1391

BEARING SUPPORTS

Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

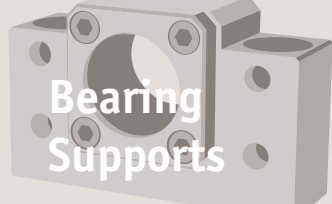
For dimensions to machine the ends of the screws see technical pages.

Tips

Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

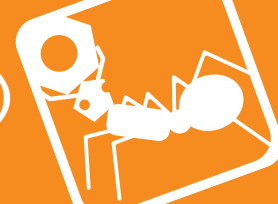
Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. H7	d ₂ tol. g6	d ₃	d ₄	d ₅	d ₆	l ₁
L1391.FF06	10	8	6	22	36	28	6.5	3.4	10
L1391.FF10	12	10	8	28	43	35	6.5	3.4	12
L1391.FF12	14 - 16	12	10	34	52	42	8.0	4.5	15
L1391.FF15	22 - 24	20	15	40	63	50	9.5	5.5	17
L1391.FF17	24	20 - 25	17	50	77	62	11.0	6.6	20
L1391.FF20	24	20 - 25	20	57	85	70	11.0	6.6	20
L1391.FF25	36	32 - 36	25	63	98	80	14.0	9.0	24
L1391.FF30	40	40 - 45	30	75	117	95	17.0	11.0	27

Order No.	l ₂	l ₃	l ₄	w ₁	Axial load kgf max.	rpm max.	Static load kgf max.
L1391.FF06	4	6	4.0	28	74	2	200
L1391.FF10	5	7	4.0	35	608ZZ	530	195
L1391.FF12	8	7	4.0	42	6000ZZ	610	214
L1391.FF15	8	9	5.5	52	6002ZZ	400	240
L1391.FF17	9	11	6.5	61	413	16000	1220
L1391.FF20	9	11	6.5	68	587	13000	1690
L1391.FF25	10	14	8.5	79	709	12000	2090
L1391.FF30	9	18	11.0	93	1082	7100	2760



Bearing Supports

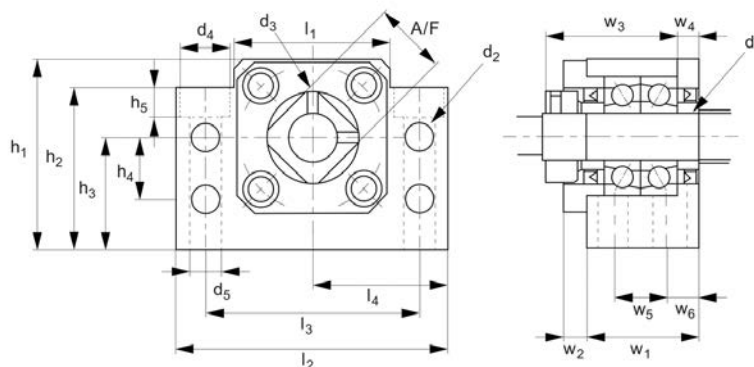
Fixed Rectangular Support Units (BK) for ball & lead screws



BEARING SUPPORTS



L1392



Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

For dimensions to machine the ends of the screws see technical pages.

Tips

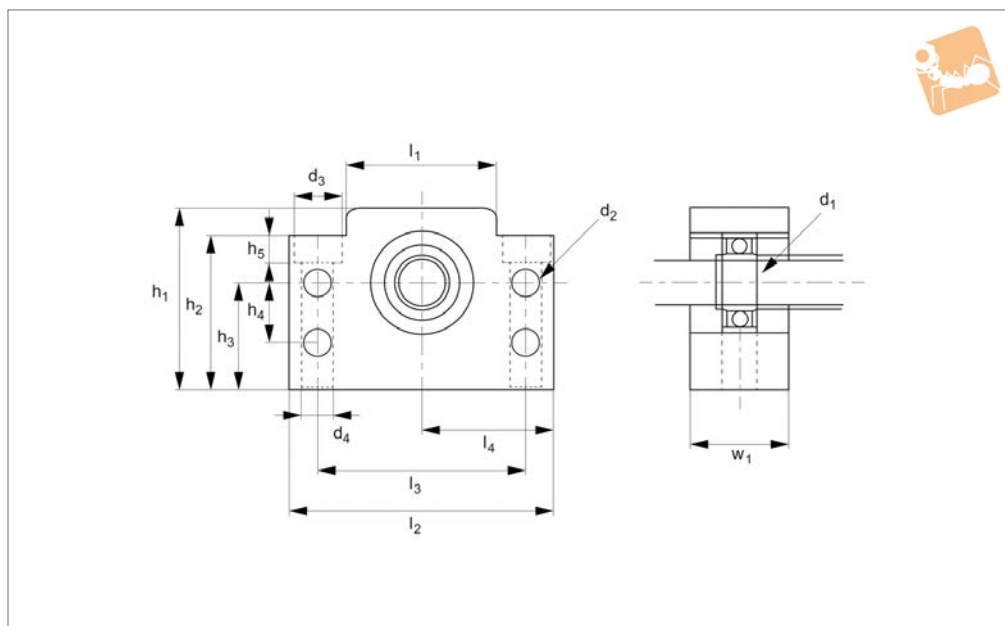
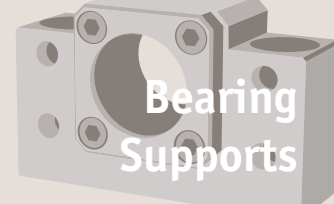
Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. H7	d ₂	d ₃	d ₄	d ₅	h ₁	h ₂	h ₃ ±0.02	h ₄	h ₅	l ₁	l ₂
L1392.BK10	14 - 16	12	10	5.5	M3	10.8	6.6	39	32.5	22	15	5.0	34	60
L1392.BK12	18 - 20	14 - 16	12	5.5	M4	10.8	6.6	43	32.5	25	18	5.0	34	60
L1392.BK15	22 - 24	20	15	5.5	M4	11.0	6.6	48	38.0	28	18	6.5	40	70
L1392.BK17	24	20 - 25	17	6.6	M4	14.0	9.0	64	55.0	39	28	8.5	50	86
L1392.BK20	26 - 32	25 - 28	20	6.6	M4	14.0	9.0	60	50.0	34	22	8.5	52	88
L1392.BK25	36	32 - 36	25	9.0	M5	17.5	11.0	80	70.0	48	33	11.0	64	106
L1392.BK30	40	40 - 45	30	11.0	M6	20.0	14.0	89	78.0	51	33	13.0	76	128
L1392.BK35	44 - 50	50	35	11.0	M8	20.0	14.0	96	79.0	52	35	13.0	88	140
L1392.BK40	55 - 80	63	40	14.0	M8	26.0	18.0	110	90.0	60	37	17.5	100	160

Order No.	l ₃	l ₄ ±0.02	w ₁	w ₂	w ₃	w ₄	w ₅	w ₆	A/F	Axial load kgf max.	rpm max.	Static load kgf max.
L1392.BK10	46	30	25	5	29	5	13	6	16	195	24000	530
L1392.BK12	46	30	25	5	29	5	13	6	19	217	22000	610
L1392.BK15	54	35	27	6	32	6	15	6	22	240	19000	700
L1392.BK17	68	43	35	9	44	7	19	8	24	413	16000	1220
L1392.BK20	70	44	35	8	43	8	19	8	30	428	15000	1340
L1392.BK25	85	53	42	12	54	9	22	10	35	709	12000	2090
L1392.BK30	102	64	45	14	61	9	23	11	40	939	10000	3000
L1392.BK35	114	70	50	14	67	12	26	12	50	1466	6000	3750
L1392.BK40	130	80	61	18	76	15	33	14	60	1834	5300	4700



Floating Rectangular Support Units for ball & lead screws



L1393

BEARING SUPPORTS

Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

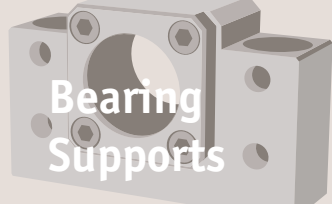
For dimensions to machine the ends of the screws see technical pages.

Tips

Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

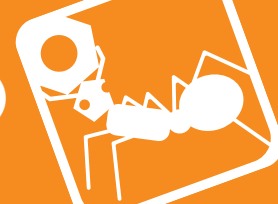
Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. h7	d ₂	d ₃	d ₄	h ₁	h ₂	h ₃ ±0.02	h ₄	h ₅
L1393.BF10	12	10	8	5.5	10.8	6.6	39	32.5	22	15	5.0
L1393.BF12	14 - 16	12	10	5.5	10.8	6.6	43	32.5	25	18	5.0
L1393.BF15	22 - 24	20	15	5.5	11.0	6.6	48	38.0	28	18	6.5
L1393.BF17	24	20 - 25	17	6.6	14.0	9.0	64	55.0	39	28	8.5
L1393.BF20	26 - 32	25 - 28	20	6.6	14.0	9.0	60	50.0	34	22	8.5
L1393.BF25	36	32 - 36	25	9.0	17.5	11.0	80	70.0	48	33	11.0
L1393.BF30	40	40 - 45	30	11.0	20.0	14.0	89	78.0	51	33	13.0
L1393.BF35	44 - 50	50	35	11.0	20.0	14.0	96	79.0	52	35	13.0
L1393.BF40	55 - 80	63	40	14.0	26.0	18.0	110	90.0	60	37	17.5

Order No.	l ₁	l ₂	l ₃	l ₄ ±0.02	w ₁	Axial load kgf max.	rpm max.	Static load kgf max.
L1393.BF10	34	60	46	30	20	195	24000	530
L1393.BF12	34	60	46	30	20	217	22000	610
L1393.BF15	40	70	54	35	20	240	19000	700
L1393.BF17	50	86	68	43	23	413	16000	1220
L1393.BF20	52	88	70	44	26	428	15000	1340
L1393.BF25	64	106	85	53	30	709	12000	2090
L1393.BF30	76	128	102	64	32	1082	7100	2760
L1393.BF35	88	140	114	70	32	1466	6000	3750
L1393.BF40	100	160	130	80	37	1834	5300	4700



Bearing Supports

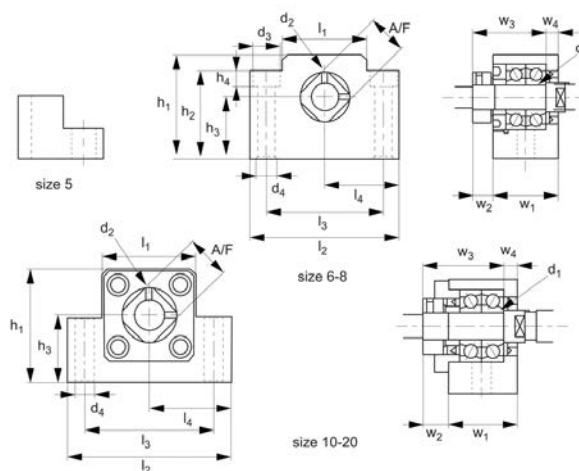
Fixed Rectangular Support Units (EK) for ball & lead screws



BEARING SUPPORTS



L1394



Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

For dimensions to machine the ends of the screws see technical pages.

Tips

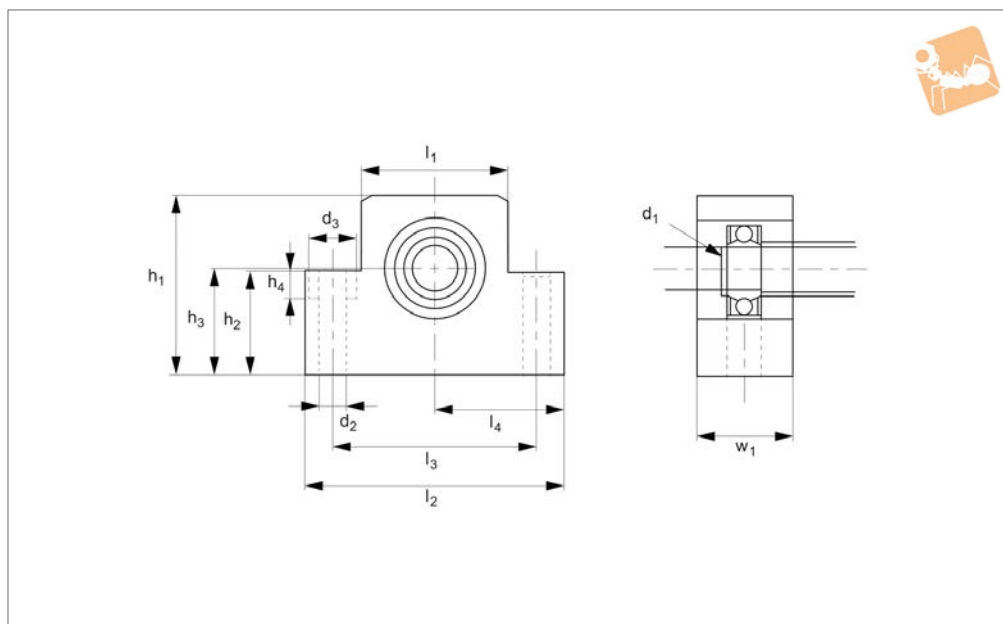
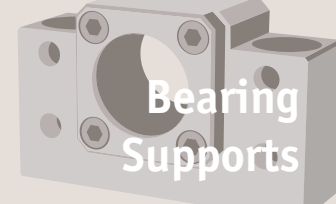
Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. H7	d ₂	d ₃	d ₄	h ₁	h ₂	h ₃ ±0.02	h ₄	l ₁	l ₂	l ₃
L1394.EK05	-	6	5	M3	-	4.5	21	8	11	-	20	36	28
L1394.EK06	10	8	6	M3	9.5	5.5	25	20	13	11	18	42	30
L1394.EK08	12	10	8	M3	11.0	6.5	32	26	17	12	25	52	38
L1394.EK10	14 - 16	12	10	M3	-	9.0	43	24	25	-	36	70	52
L1394.EK12	18 - 20	14 - 16	12	M4	-	9.0	43	24	25	-	36	70	52
L1394.EK15	22 - 24	20	15	M4	-	11.0	49	25	30	-	41	80	60
L1394.EK20	26 - 32	25 - 28	20	M4	-	11.0	58	25	30	-	56	95	75

Order No.	l ₄ ±0.02	w ₁	w ₂	w ₃	w ₄	A/F	Axial load kgf max.	rpm max.	Static load kgf max.
L1394.EK05	18.0	16.5	5.5	18.5	3.5	11	74	52800	200
L1394.EK06	21.0	20.0	5.5	22.0	3.5	12	74	52800	200
L1394.EK08	26.0	23.0	7.0	26.0	4.0	14	103	4000	280
L1394.EK10	35.0	24.0	6.0	29.5	6.0	16	195	24000	530
L1394.EK12	35.0	24.0	6.0	29.5	6.0	19	217	22000	610
L1394.EK15	40.0	25.0	6.0	36.0	5.0	22	240	19000	700
L1394.EK20	47.5	20.0	10.0	50.0	10.0	30	587	13000	1690



Floating Rectangular Support Units for ball & lead screws



L1395

BEARING SUPPORTS

Material

Steel with black oxide finish. Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 18μ.

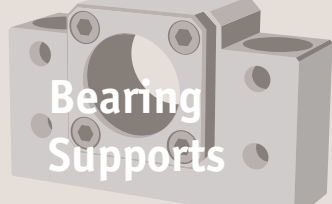
For dimensions to machine the ends of the screws see technical pages.

Tips

Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

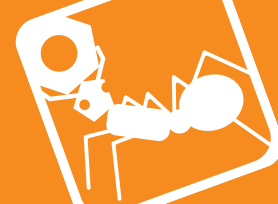
Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. h7	d ₂	d ₃	h ₁	h ₂	h ₃ ±0.02	h ₄	l ₁
L1395.EF06	10	8	6	5.5	9.5	25	20	13	11	18
L1395.EF08	10	8	6	6.6	11.0	32	26	17	12	25
L1395.EF10	12	10	8	9.0	-	43	24	25	-	36
L1395.EF12	14 - 16	12	10	9.0	-	43	24	25	-	36
L1395.EF15	22 - 24	20	15	9.0	-	49	25	30	-	41
L1395.EF20	26 - 32	25 - 28	20	11.0	-	58	25	30	-	56

Order No.	l ₂	l ₃	l ₄ ±0.02	w ₁	Axial load kgf max.	rpm max.	Static load kgf max.
L1395.EF06	42	30	21.0	12	74	52800	200
L1395.EF08	52	38	26.0	14	103	40000	280
L1395.EF10	70	52	35.0	20	195	24000	530
L1395.EF12	70	52	35.0	20	217	22000	610
L1395.EF15	80	60	40.0	20	240	19000	700
L1395.EF20	95	75	47.5	26	587	13000	1690

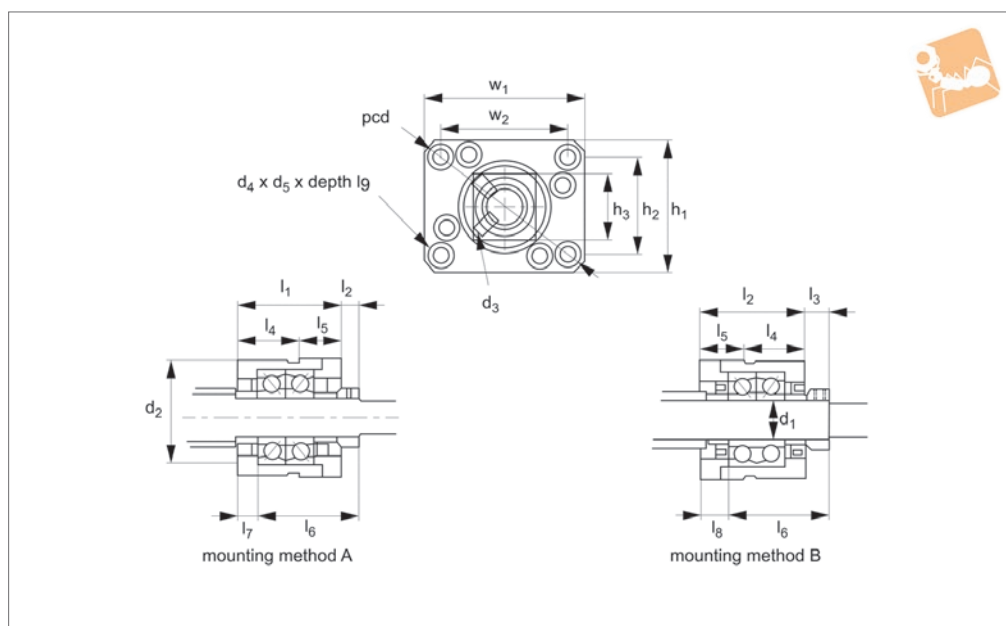


Bearing Supports

Fixed Round Support Units (FKA) for ball & lead screws



L1400



Material

Steel with black oxide finish.
Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 0,018mm.

For dimensions to machine the ends of the screws to see technical pages.

Tips

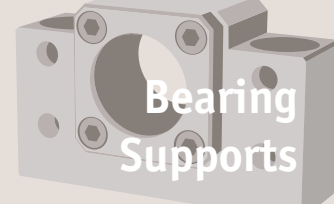
Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. H7	d ₂ tol. g6	d ₃	d ₄	d ₅	h ₁	h ₂	h ₃	l ₁
L1400.FKA06	10	8	6	28	M3	6.5	3.4	30	20.93	12	20
L1400.FKA08	12	10	8	28	M3	6.5	3.4	30	20.93	14	23
L1400.FKA10	14 - 16	12	10	36	M3	8.0	4.5	39	27.39	16	27
L1400.FKA12	18 - 20	14 - 16	12	36	M4	8.0	4.5	39	27.39	19	27
L1400.FKA15	22 - 24	20	15	40	M4	9.5	5.5	43	30.78	22	32
L1400.FKA20	26 - 32	25 - 28	20	57	M4	11.0	6.6	59	44.33	30	52

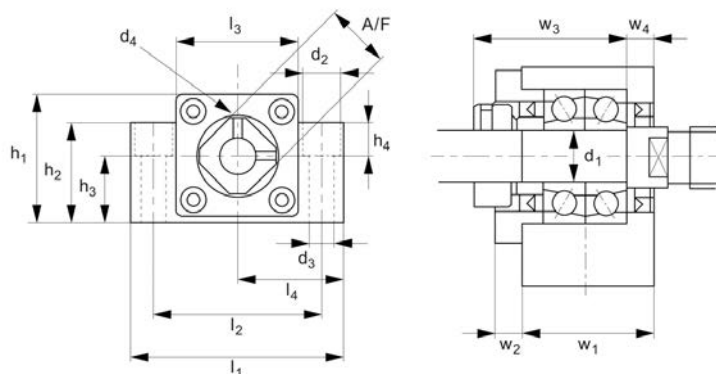
Order No.	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	w ₁	w ₂	Axial load kgf max.	pcd	rpm max.	Static load kgf max.
L1400.FKA06	5.5	6.5	13	7	22.0	3.5	4.5	4	36	26.79	74	44	52800	200
L1400.FKA08	7.0	8.0	14	9	26.0	4.0	5.0	4	36	26.79	103	44	40000	280
L1400.FKA10	7.5	8.5	17	10	29.5	5.0	6.0	4	48	35.70	195	56	24000	530
L1400.FKA12	7.5	8.5	17	10	29.5	5.0	6.0	4	48	35.70	217	56	22000	210
L1400.FKA15	10.0	12.0	17	15	36.0	6.0	8.0	6	56	39.40	240	65	19000	700
L1400.FKA20	8.0	12.0	30	22	50.0	10.0	14.0	10	72	56.74	587	86	13000	1690



Fixed Rectangular Support Units (LK) for ball & lead screws



Bearing
Supports



L1402

BEARING SUPPORTS

Material

Steel with black oxide finish.
Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 0,018mm.

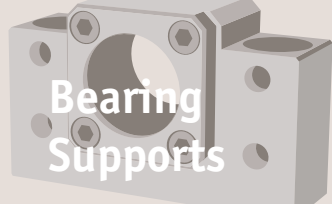
For dimensions to machine the ends of the screws to see technical pages.

Tips

Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

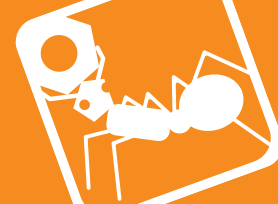
Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. H7	d ₂	d ₃	d ₄	h ₁	h ₂	h ₃ ±0.02	h ₄
L1402.LK08	12	10	8	14	9	M3	31	25.5	15.5	12.5
L1402.LK10	14 - 16	12	10	14	9	M3	38	30.0	20.0	10.0
L1402.LK12	18 - 20	14 - 16	12	14	9	M4	38	30.0	20.0	10.0
L1402.LK15	26 - 32	20	15	17	11	M4	41	32.0	22.0	13.0

Order No.	l ₁	l ₂	l ₃	l ₄	w ₁	w ₂	w ₃	w ₄ ±0.02	A/F	Axial load kgf max.	rpm max.	Static load kgf max.
L1402.LK08	62	46	30	31	22.5	-	26.0	3.5	14	103	40000	280
L1402.LK10	70	52	36	35	24.0	6	29.5	6.0	16	195	24000	530
L1402.LK12	70	52	36	35	24.0	6	29.5	6.0	19	217	22000	610
L1402.LK15	80	60	41	40	25.0	6	36.0	10.0	22	240	19000	700

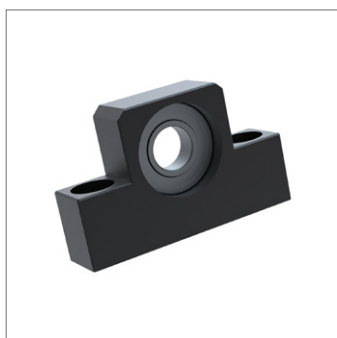


Bearing Supports

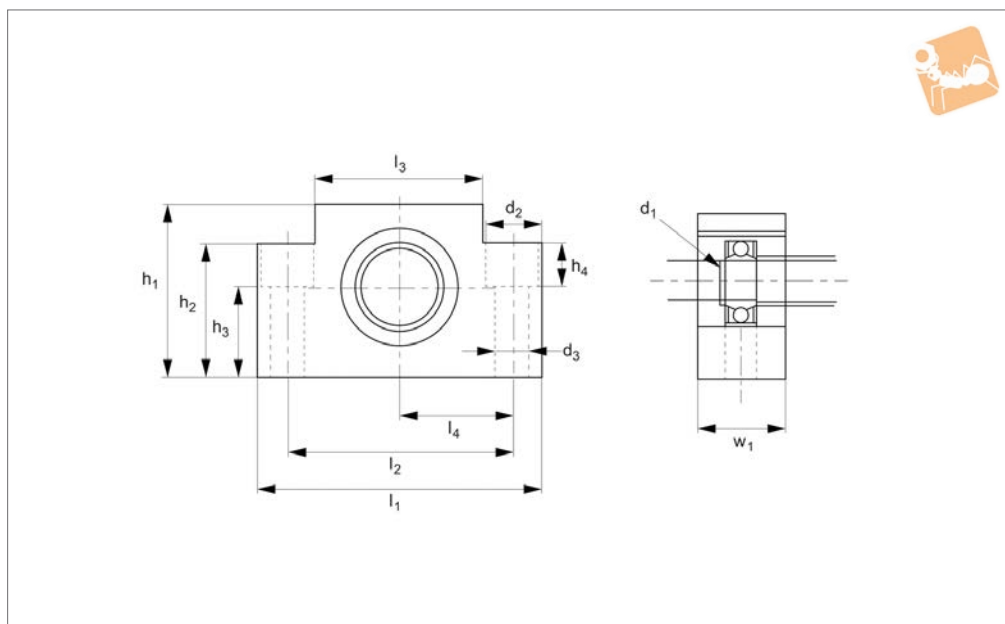
Floating Low Profile Support Units for ball & lead screws



BEARING SUPPORTS



L1403



Material

Steel with black oxide finish.
Bearings, sealed and lubricated for life.

Technical Notes

Standard units are suitable for ball screws

and lead screws to C5/C7 accuracy grade.

The bearings are not preloaded and have a max. axial clearance of 0,018mm.

For dimensions to machine the ends of the screw to see technical pages.

Tips

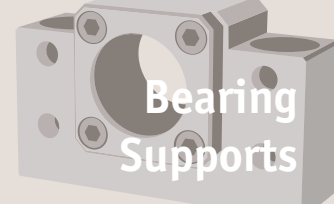
Electroless nickel plated versions of these bearing mounts are available for clean room and other applications.

Order No.	For lead screw o.d dia.	For ball screw o.d dia.	d ₁ tol. h7	d ₂	d ₃	h ₁	h ₂	h ₃ ±0.02
L1403.LF08	12	10	8	14	6.6	31	25.5	15.5
L1403.LF12	14 - 16	12	10	14	9.0	38	30.0	20.0
L1403.LF15	22 - 24	20	15	14	9.0	41	32.0	22.0

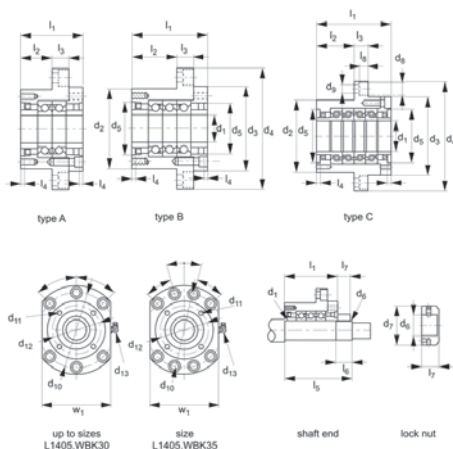
Order No.	h ₄	l ₁	l ₂	l ₃	l ₄ ±0.02	w ₁	Axial load kgf max.	rpm max.	Static load kgf max.
L1403.LF08	12.5	62	46	30	31	16	103	40000	S 06280
L1403.LF12	10.0	70	52	36	35	20	217	22000	610
L1403.LF15	11.0	80	60	41	40	20	240	19000	S 17005



Heavy Load Support Units (WBK) for ball & lead screws



Bearing
Supports



L1405

BEARING SUPPORTS

Material

Steel with black oxide finish.
Bearings, sealed and lubricated for life.

Technical Notes

These supports come with a pair of duplex

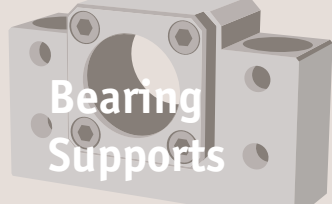
angular contact bearings (type A), three
angular bearings (type B), or four angular
contact bearings (type C), for a true fixed
support.

For dimensions to machine the ends of the

screw to see technical pages.

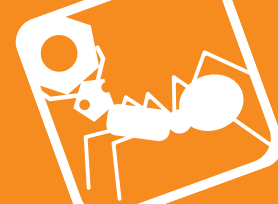
Order No.	Type	d ₁ tol. H7	d ₂ tol. g6	d ₃	d ₄	d ₅ tol. H5	d ₆	d ₇	d ₈	d ₉	d ₁₀	d ₁₁	d ₁₂	d ₁₃	Weight kg
L1405.WBK17-A	A	17	70	72	106	45	M17 x 1,0	37	14	9	88	M5	58	M6*	1.2
L1405.WBK20-A	A	20	70	72	106	45	M20 x 1,0	40	14	9	88	M5	58	M6*	1.2
L1405.WBK25-A	A	25	85	90	130	57	M25 x 1,5	45	17	11	110	M6	70	M6	2.3
L1405.WBK25-B	B	25	85	90	130	57	M25 x 1,5	45	17	11	110	M6	70	M6	3.1
L1405.WBK25-C	C	25	85	90	130	57	M25 x 1,5	45	17	11	110	M6	70	M6	3.4
L1405.WBK30-A	A	30	85	90	130	57	M30 x 1,5	50	17	11	110	M6	70	M6	3.0
L1405.WBK30-B	B	30	85	90	130	57	M30 x 1,5	50	17	11	110	M6	70	M6	3.0
L1405.WBK30-C	C	30	85	90	130	57	M30 x 1,5	50	17	11	110	M6	70	M6	3.3
L1405.WBK35-A	A	35	95	102	142	69	M35 x 1,5	55	17	11	110	M6	80	M6	3.4
L1405.WBK35-B	B	35	95	102	142	69	M35 x 1,5	55	17	11	110	M6	80	M6	3.4
L1405.WBK35-C	C	35	95	102	142	69	M35 x 1,5	55	17	11	110	M6	80	M6	4.3

Order No.	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	w	Dynamic load kgf	Axial load kgf	Preload kgf	Rigidity kgf/cm	Starting torque kgf/cm
L1405.WBK17-A	60	32	15	3	81	23	18	8.5	80	2240	2710	220	75	1,0 - 1,9
L1405.WBK20-A	60	32	15	3	81	23	18	8.5	80	2240	2710	220	75	1,0 - 1,9
L1405.WBK25-A	66	33	18	4	89	26	20	11.0	100	2910	4150	320	100	1,6 - 2,9
L1405.WBK25-B	81	48	18	4	104	26	20	11.0	100	4700	8300	440	150	2,2 - 4,0
L1405.WBK25-C	96	48	18	4	119	26	20	11.0	100	4700	8300	640	200	2,8 - 5,0
L1405.WBK30-A	66	33	18	4	89	26	20	11.0	100	2980	4400	340	105	1,7 - 3,0
L1405.WBK30-B	81	48	18	4	104	26	20	11.0	100	4850	8800	460	155	2,2 - 4,0
L1405.WBK30-C	96	48	18	4	119	26	20	11.0	100	4850	8800	680	205	2,9 - 5,2
L1405.WBK35-A	66	33	18	4	92	30	22	11.0	106	3150	5100	390	120	1,9 - 3,5
L1405.WBK35-B	81	48	18	4	107	30	22	11.0	106	5150	10200	530	175	2,5 - 4,6
L1405.WBK35-C	96	48	18	4	122	30	22	11.0	106	5150	10200	780	240	3,3 - 6,0



Bearing Supports

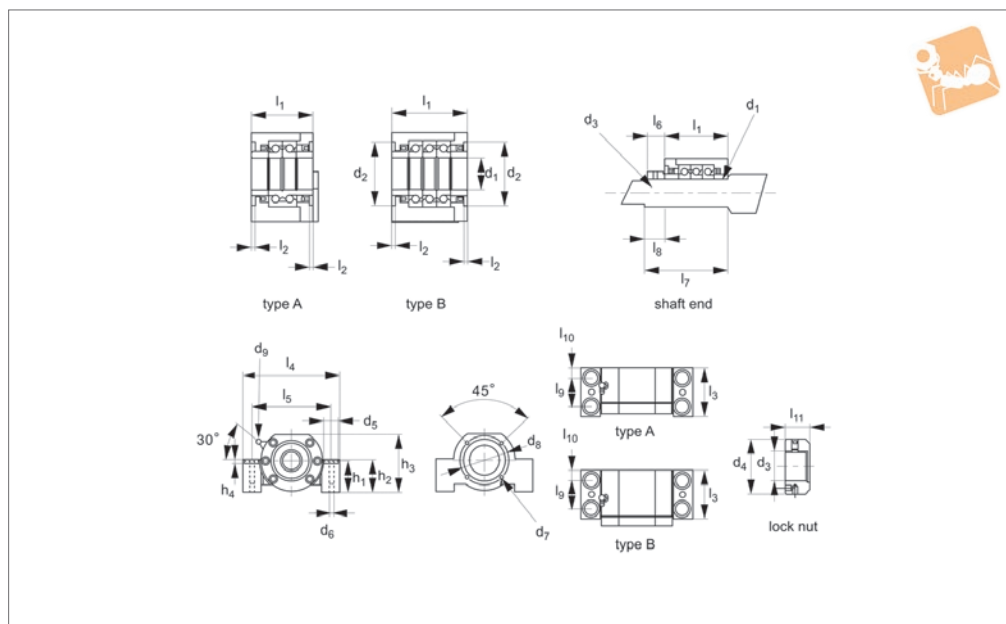
Heavy Load Support Units (SBK) for ball & lead screws



BEARING SUPPORTS



L1406



Material

Steel with black oxide finish.

Technical Notes

These supports come with a pair of duplex

angular contact bearings (type A), three angular bearings (type B), for a true fixed support.

For dimensions to machine the ends of the

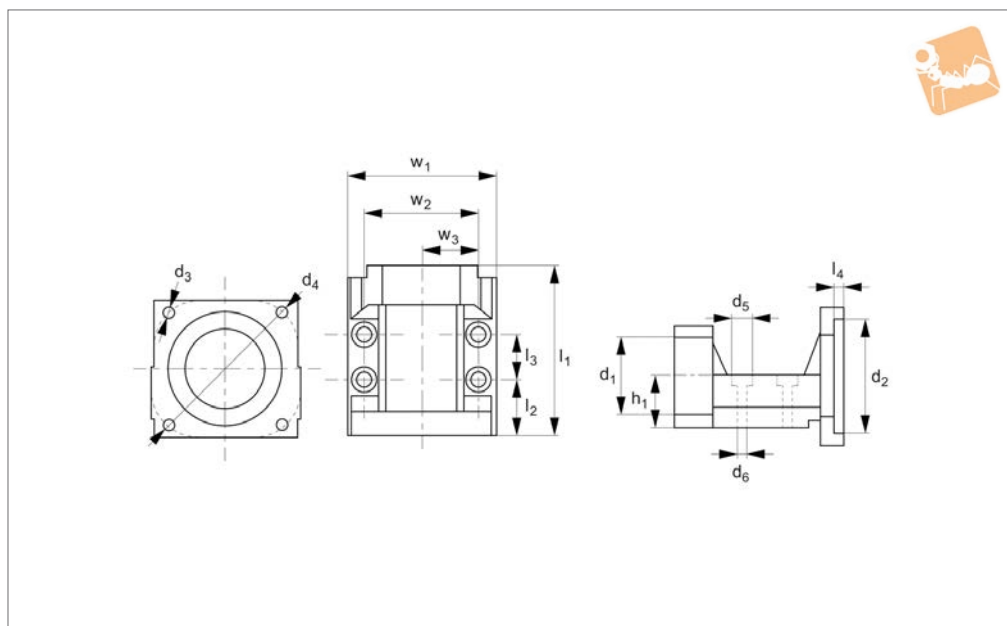
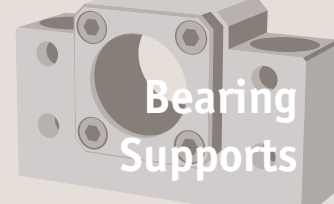
screw to see technical pages.

Order No.	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	d ₇	d ₈	d ₉	h ₁	h ₂	h ₃	h ₄	l ₁	l ₁₀
L1406.SBK25-A	25	57	M25 x 1,5	45	26	18	M6	70	M6	51	53	89	2	66	15,5
L1406.SBK25-B	25	57	M25 x 1,5	45	26	18	M6	70	M6	51	53	89	2	81	15,5
L1406.SBK30-A	30	57	M30 x 1,5	50	26	18	M6	70	M6	51	53	89	2	66	15,5
L1406.SBK30-B	30	57	M30 x 1,5	50	26	18	M6	70	M6	51	53	89	2	81	15,5
L1406.SBK35-A	35	69	M35 x 1,5	55	26	18	M6	80	M6	52	54	96	2	66	15,5
L1406.SBK35-B	35	69	M35 x 1,5	55	26	18	M6	80	M6	52	54	96	2	81	15,5
L1406.SBK40-A	40	69	M40 x 1,5	60	26	18	M6	80	M6	52	54	96	2	66	15,5
L1406.SBK40-B	40	69	M40 x 1,5	60	26	18	M6	80	M6	52	54	96	2	81	15,5

Order No.	l ₁₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇	l ₈	l ₉	Dynamic load kgf	Axial load kgf	Preload kgf	Rigidity kgf/cm	Torque kgf/cm
L1406.SBK25-A	20	4	71	160	130	18	89	26	40	2910	4150	320	100	1,6 - 2,9
L1406.SBK25-B	20	4	71	160	130	18	104	26	40	4700	8300	440	150	2,2 - 4,0
L1406.SBK30-A	20	4	71	160	130	18	89	26	40	2980	4400	340	105	1,7 - 3,0
L1406.SBK30-B	20	4	71	160	130	18	104	26	40	4850	8800	460	155	2,2 - 4,0
L1406.SBK35-A	22	4	71	160	130	18	92	30	40	3150	5100	390	120	1,9 - 3,5
L1406.SBK35-B	22	4	71	160	130	18	107	30	40	5150	10200	530	175	2,5 - 4,6
L1406.SBK40-A	22	4	71	160	130	18	92	30	40	3250	5300	400	125	2,0 - 3,7
L1406.SBK40-B	22	4	71	160	130	18	107	30	40	5250	10600	540	185	2,6 - 4,8



Motor Bracket (MBA) for ball & lead screws



L1408

BEARING SUPPORTS

Material

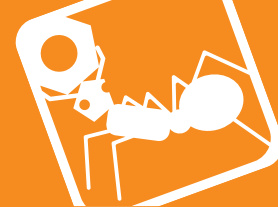
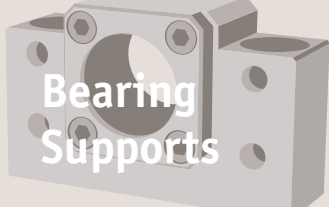
Steel with black oxide finish.

This provides a quick and easy solution to combine a motor with the fixed bearing unit.

Technical Notes

Parallelism between the two faces is 0.02.

Order No.	d ₁ tol. H7	d ₂ tol. H7	d ₃	d ₄	d ₅	d ₆	h ₁ ±0.02	l ₁	l ₂	l ₃	l ₄	w ₁	w ₂	w ₃	Compatible support unit
L1408.MBA06A	28	30.0	M3	45.0	9.5	5.5	17	61	19	20	4	52	41	26.0	L1400.FKA06
L1408.MBA08A	28	30.0	M4	46.0	9.5	5.5	17	61	19	20	4	52	41	26.0	L1400.FKA08
L1408.MBA10A	34	30.0	M3	45.0	11.0	6.6	22	74	24	20	4	65	50	32.5	L1390.FK10
L1408.MBA10B	34	30.0	M4	46.0	11.0	6.6	22	74	24	20	4	65	50	32.5	L1390.FK10
L1408.MBA10C	34	38.1	M4	66.7	11.0	6.6	22	74	24	20	4	65	50	32.5	L1390.FK10
L1408.MBA10D	34	50.0	M5	70.0	11.0	6.6	22	74	24	20	4	65	50	32.5	L1390.FK10
L1408.MBA10E	34	50.0	M4	70.0	11.0	6.6	22	74	24	20	4	65	50	32.5	L1390.FK10
L1408.MBA12A	36	30.0	M3	45.0	11.0	6.6	25	74	24	20	4	65	50	32.5	L1390.FK12
L1408.MBA12B	36	30.0	M4	46.0	11.0	6.6	25	74	24	20	4	65	50	32.5	L1390.FK12
L1408.MBA12C	36	38.1	M4	66.7	11.0	6.6	25	74	24	20	4	65	50	32.5	L1390.FK12
L1408.MBA12D	36	50.0	M5	70.0	11.0	6.6	25	74	24	20	4	65	50	32.5	L1390.FK12
L1408.MBA12E	36	50.0	M4	70.0	11.0	6.6	25	74	24	20	4	65	50	32.5	L1390.FK12
L1408.MBA15A	40	38.1	M4	66.7	11.0	6.6	28	82	24	28	4	70	55	35.0	L1390.FK15
L1408.MBA15B	40	50.0	M5	70.0	14.0	6.6	28	82	24	28	4	70	55	35.0	L1390.FK15
L1408.MBA15C	40	50.0	M4	70.0	14.0	6.6	28	82	24	28	4	70	55	35.0	L1390.FK15
L1408.MBA15D	40	73.0	M6	98.4	14.0	8.5	28	92	29	28	6	88	70	44.0	L1390.FK15
L1408.MBA15E	40	70.0	M6	90.0	14.0	8.5	28	92	29	28	6	88	70	44.0	L1390.FK15
L1408.MBA15F	40	70.0	M5	90.0	14.0	8.5	28	92	29	42	6	88	70	44.0	L1390.FK15
L1408.MBA20A	57	50.0	M5	70.0	14.0	8.5	34	113	29	42	4	88	70	44.0	L1400.FKA20
L1408.MBA20B	57	50.0	M4	70.0	14.0	8.5	34	113	29	42	4	88	70	44.0	L1400.FKA20
L1408.MBA20C	57	73.0	M6	98.4	14.0	8.5	34	113	29	42	6	88	70	44.0	L1400.FKA20
L1408.MBA20D	57	70.0	M6	90.0	14.0	8.5	34	113	29	42	6	88	70	44.0	L1400.FKA20
L1408.MBA20E	57	70.0	M5	90.0	14.0	8.5	34	113	29	42	6	88	70	44.0	L1400.FKA20



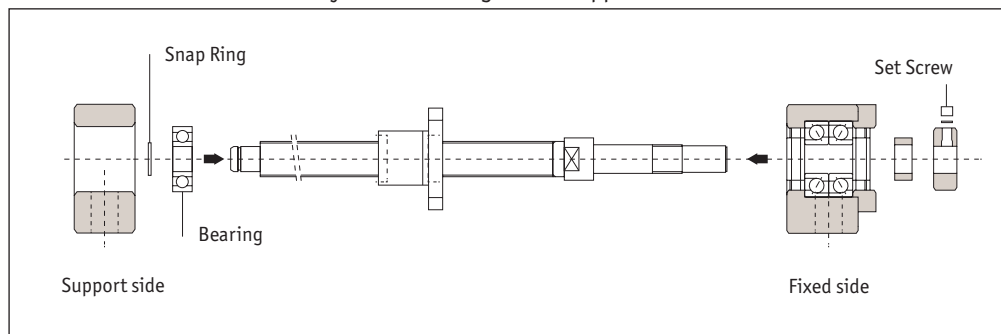
Notes

When inserting the screw shaft to the support unit, take care not to let the oil seal lip turn upward.

When securing the set piece with a hexagonal socket head set screw, apply an adhesive to the hexagonal socket head set screw before tightening it in order to prevent the screw from loosening. If planning to use the product in a harsh environment, it is also necessary to take measures to prevent other components/parts from loosening. Contact our Technical Department for details.

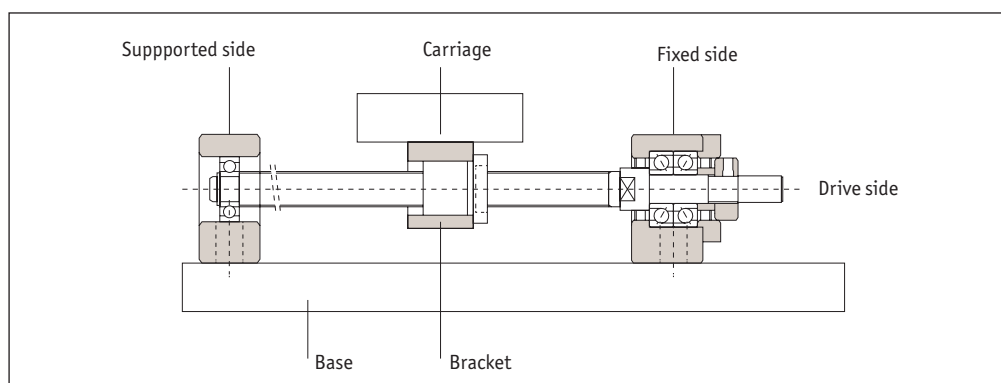
Installing the support unit

1. Install the fixed side support unit to the screw shaft.
2. After inserting the fixed side support unit, secure the lock nut using the fastening set piece and the hexagonal socket head set screw.
3. Attach the support side bearing to the screw shaft and secure the bearing using the snap ring, and then install the assembly to the housing on the supported side.



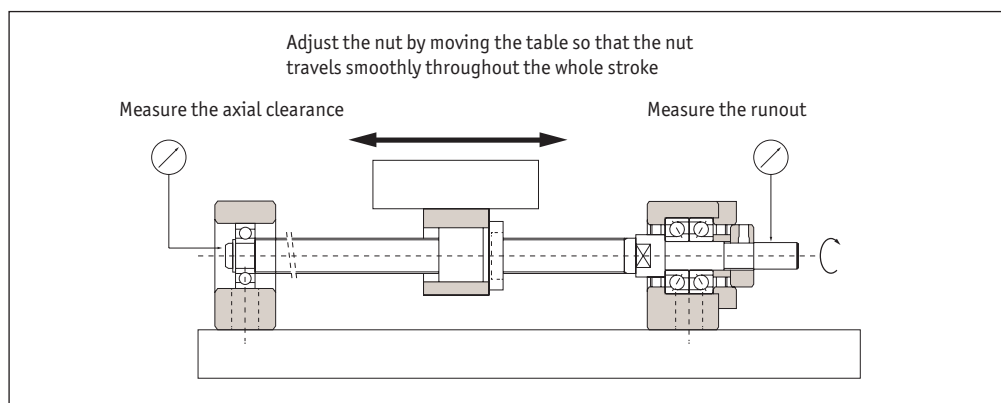
Installation onto the table and the base

1. If using a bracket when mounting the ball screw nut to the carriage, insert the nut into the bracket and temporarily fasten it.
2. Temporarily fasten the fixed side support unit to the base. In doing so, press the table toward the fixed side support unit to align the axial centre, and adjust the carriage so that it can travel freely.
3. Press the carriage toward the fixed side support unit to align the axial centre. Make the adjustment by reciprocating the table several times so that the nut travels slowly over the whole stroke, and temporarily secure the support unit to the base.



Checking the accuracy and fully fastening the support unit

1. While checking the runout of the ball screw shaft end and the axial clearance using a dial gauge, fully fasten the ball screw nut, the nut bracket, the fixed side support unit and the support side unit, in this order.





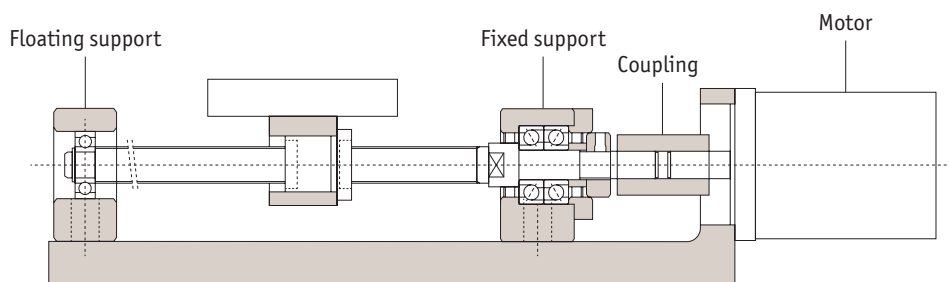
Technical Information

Bearing supports units assembly

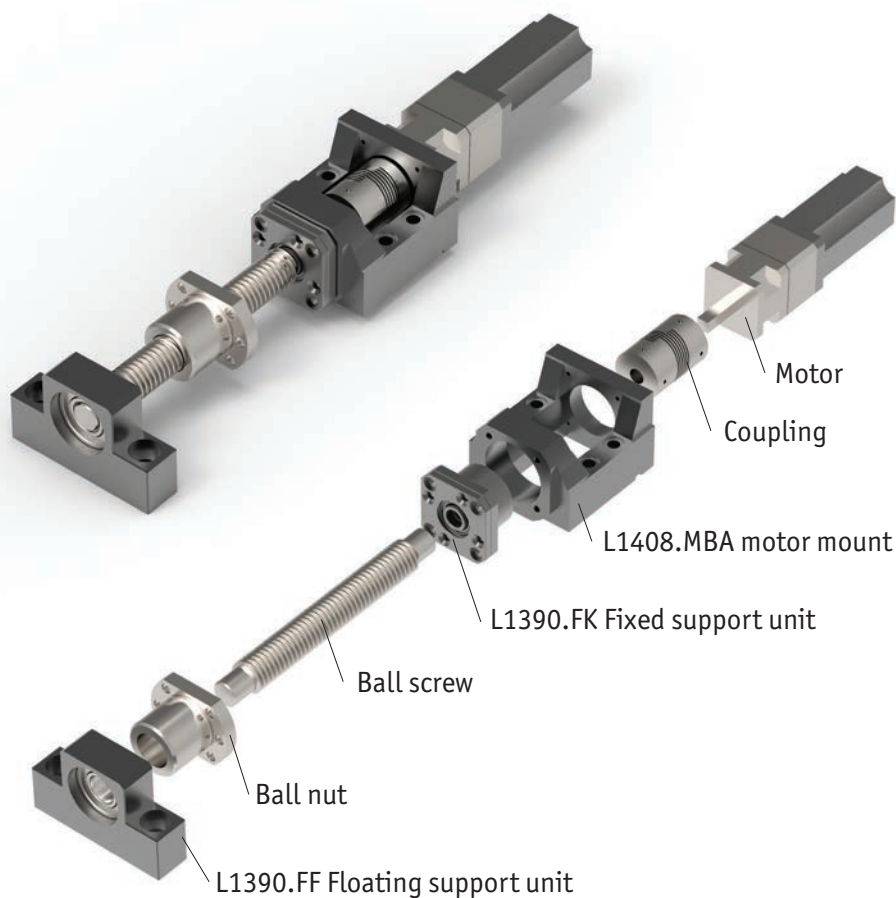


Connection with motor

1. Mount motor bracket to the base.
2. Connect the motor and the ball screw using a coupling (make sure the mounting accuracy is maintained).
3. Mount motor bracket to the base.



The fixed support unit is always positioned at the end where the motor/handwheel is.



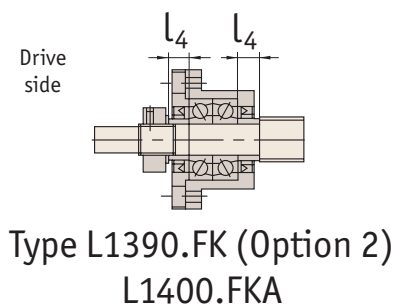
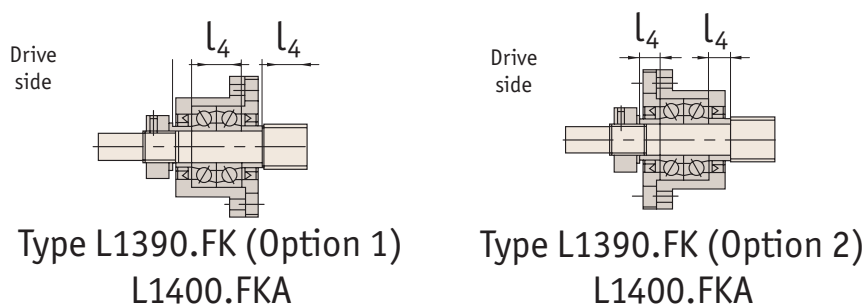
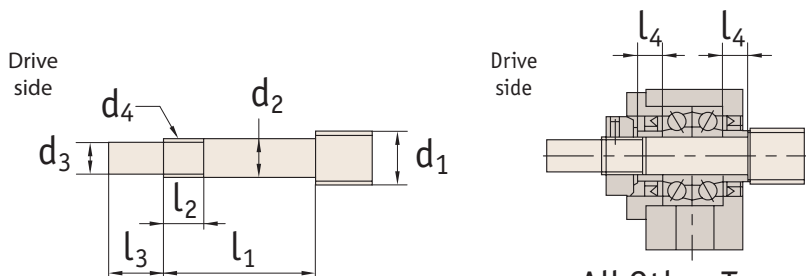
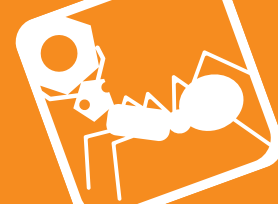
Bearing Supports from Automation Components

BEARING SUPPORTS



Technical Information

Fixed side for unit types; FK, EK, AK, FKA and LK

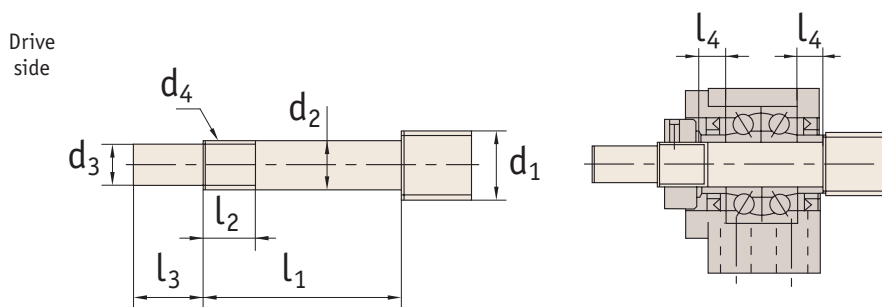


Part no.					Thread ø	Shaft support ø					For thread		
FK	EK	AK	FKA	LK	d ₁	d ₂		h ₇	l ₁	l ₃	d ₄	l ₂	l ₄
L1390.FK05	L1394.EK05	-	-	-	8	5	-0,008 -0,015	4	23	6	M5x0,5	7	3,5
L1390.FK06	L1394.EK06	-	-	-	8	6	-0,008 -0,015	4	28	8	M6x0,75	8	5,0
L1390.FK08	L1394.EK08	-	L1400.FKA08	L1402.LK08	10/12	8	-0,008 -0,015	6	32	9	M8x1,0	10	5,5
L1390.FK10	L1394.EK10	L1388.AK10	L1400.FKA10	L1402.LK08	12/14/15	10	-0,008 -0,015	8	35	15	M10x1,0	12	5,5
L1390.FK12	L1394.EK12	L1388.AK12	L1400.FKA12	L1402.LK08	14/15/16	12	-0,008 -0,015	10	35	15	M12x1,0	12	5,5
L1390.FK15	L1394.EK15	L1388.AK15	L1400.FKA15	L1402.LK08	18/20	15	-0,008 -0,017	12	48	20	M15x1,0	13	10,0
L1390.FK17	-	-	-	-	20/25	17	-0,008 -0,017	15	59	23	M17x1,0	17	10,0
L1390.FK20	L1394.EK20	L1388.AK20	L1400.FKA20	-	25/28/30	20	-0,008 -0,017	17	63	25	M20x1,0	15	11,0
L1390.FK25	-	-	-	-	30/32/36	25	-0,008 -0,017	20	76	30	M25x1,5	20	14,0
L1390.FK30	-	-	-	-	36/40	30	-0,008 -0,018	25	73	38	M30x1,5	25	9,0



Technical Information

Fixed side for unit type L1392.BK

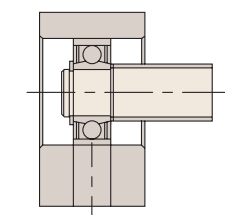
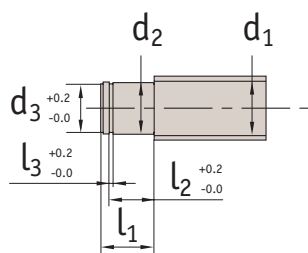
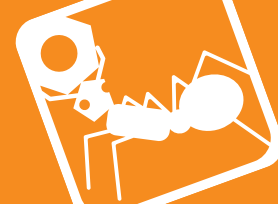


Part sno.	Thread ϕ	Shaft support ϕ					Thread		
BK	d_1	d_2		d_3	l_1	l_3	d_4	l_2	l_4
L1392.BK10	12/14/15	10	-0,008 -0,015	8	36	15	M10x1,0	12	5,5
L1392.BK12	14/15/16	12	-0,008 -0,015	10	36	15	M12x1,0	12	5,5
L1392.BK15	18/20	15	-0,008 -0,017	12	40	20	M15x1,0	12	6,0
L1392.BK17	20/25	17	-0,008 -0,017	15	53	23	M17x1,0	17	7,0
L1392.BK20	25/28	20	-0,008 -0,017	17	53	25	M20x1,0	15	8,0
L1392.BK25	32/36	25	-0,008 -0,017	20	66	30	M25x1,5	20	9,0
L1392.BK30	36/40	30	-0,008 -0,018	25	73	38	M30x1,5	25	9,0
L1392.BK35	45	35	-0,008 -0,018	30	82	45	M35x1,5	26	12,0
L1392.BK40	50	40	-0,008 -0,018	35	94	50	M40x1,5	30	15,0

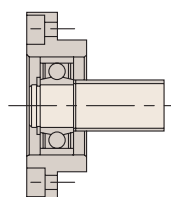


Technical Information

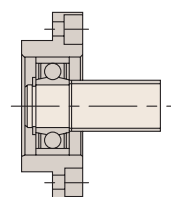
Floating side for unit type; FF, EF, BF, AF and LF



All Other Types



Type L1391.FF (Option 1)



Type L1391.FF (Option 2)

Part no.					Thread ø	Shaft support ø					
FF	EF	BF	AF	LF	d ₁	d ₂		l ₁	d ₃	l ₂	l ₃
L1391.FF06	L1395.EF06	-	-	-	8	6	-0,008 -0,015	9	5,7	6,8	0,80
-	L1395.EF08	-	-	L1403.LF08	10	6	-0,008 -0,015	9	5,7	6,8	0,80
L1391.FF10	L1395.EF10	L1393.BF10	L1389.AF10	-	12/14/15	8	-0,008 -0,015	10	7,6	7,9	0,90
L1391.FF12	L1395.EF12	L1393.BF12	L1389.AF12	L1403.LF12	14/15/16	10	-0,008 -0,015	11	9,6	9,15	1,15
L1391.FF15	L1395.EF15	L1393.BF15	L1389.AF15	L1403.LF15	18/20	15	-0,008 -0,017	13	14,3	10,15	1,15
L1391.FF17	-	L1393.BF17	-	-	20/25	17	-0,008 -0,017	16	16,2	13,15	1,15
L1391.FF20	L1395.EF20	(L1393.BF20)	L1389.AF20	-	25/28/30	20	-0,008 -0,017	19 (16*)	19,0	15,35 (13,15)	1,35
L1391.FF25	-	L1393.BF25	L1389.AF25	-	30/32/36	25	-0,008 -0,017	20	23,9	16,35	1,35
L1391.FF30	-	L1393.BF30	L1389.AF30	-	36/40	30	-0,008 -0,018	21	28,6	17,75	1,75
-	-	L1393.BF35	-	-	40/45	35	-0,008 -0,018	22	33,0	18,75	1,75
-	-	L1393.BF40	-	-	50	40	-0,008 -0,018	23	38,0	19,95	1,95

*applies to L1393.BF20 only.