

Precision Plus Ground Ball Screws — Metric Series



Precision Plus Ground Ball Screw Assemblies are our highest precision product, with standard lead accuracies of 12 microns/300mm. These ball screw assemblies feature our FL-style ball nut, precisely preloaded to customer specifications. This unique nut design provides high repeatability and high stiffness for the most demanding ball screw applications. Each nut comes standard with an integral plastic wiper to protect against chips and other debris. Precision Plus Ground Ball Screws are ideal for applications requiring high repeatability and high stiffness (e.g., high precision machine tool).

Need a quote or have a question about an application?
Contact us in North America at:

Phone: 540-633-3400

Fax: 540-639-4162

Email: contactus@danahermotion.com

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Standard Lead Accuracy: $\pm 12\mu\text{m}/300\text{mm}$

Flanged ball nut and screw assembly, offering the highest level of accuracy, repeatability and stiffness.



FL Style Nut

Internal Return Flanged Ball Nut and Screw

- Excellent accuracy, repeatability and stiffness
- Features Z0 Type preload (range from 2% to 13%, to customer specification)
- Nut stiffness based on 10% preload ($F = 10\% \times \text{Cam}$)
- Integral wiper and flange included as standard
- Additional sizes available in diameters up to 200mm. Contact us for more details.

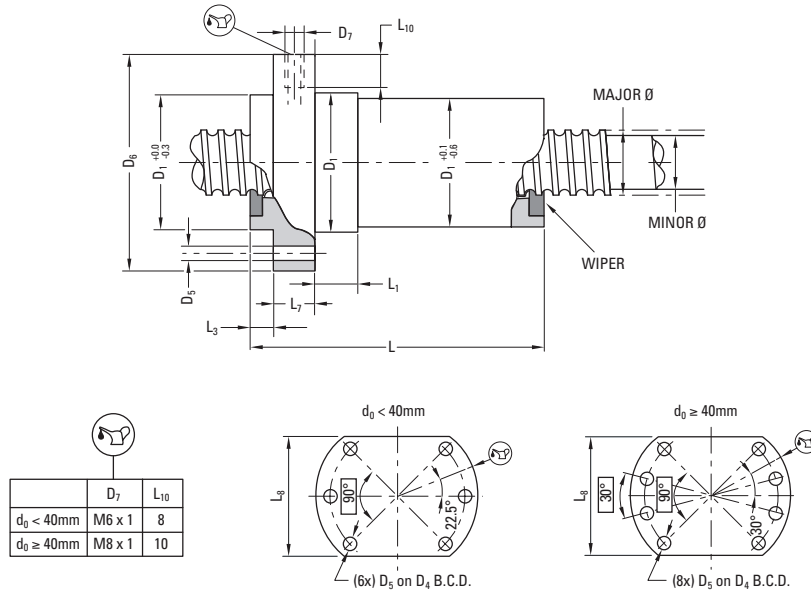
Nominal Diameter (size)	Lead	Nut Type	Ball Screw and Nut Assembly P/N ^{(1) (2)}	Performance Data							Screw Specifications ⁽³⁾			
				Dynamic Load Capacity (C_{am})		Static Load Capacity (C_o)		Minimum Stiffness	Max. Axial Backlash	No. of Loaded Turns	Major Diameter	Minor Diameter	Max. Length	Screw Weight
				(kN)	(lbf)	(kN)	(lbf)	(mm)	(mm)	(turns)	(mm)	(mm)	(mm)	(kg/m)
16	5	FL	7832835	6.7	1,506	7.2	1,619	0.16	0.00	2 + 2	15.6	12.7	600	1.2
20	5	FL	7832838	11.5	2,585	15.5	3,485	0.30	0.00	3 + 3	19.6	16.7	4000	2.0
25	5	FL	7832841	12.6	2,833	19.1	4,294	0.38	0.00	3 + 3	24.5	21.7	5000	3.3
32	5	FL	7832862	19.3	4,339	36.4	8,183	0.60	0.00	4 + 4	31.6	28.7	6000	5.6
32	10	FL	7832844	26.4	5,935	39.0	8,768	0.49	0.00	3 + 3	31.6	27.1	6000	5.3
40	5	FL	7832847	26.3	5,912	59.2	13,309	0.89	0.00	5 + 5	39.6	36.7	6000	9.0
40	10	FL	7832850	64.9	14,590	109.0	24,504	0.94	0.00	4 + 4	39.6	34.0	6000	8.3
50	10	FL	7832853	69.0	15,511	142.2	31,966	1.18	0.00	5 + 5	49.5	43.0	6000	13.5
63	10	FL	7832856	93.8	21,087	229.7	51,639	1.74	0.00	5 + 5	62.5	56.9	6000	22.0
80	10	FL	7832859	121.9	27,404	375.0	84,303	2.45	0.00	6 + 6	79.5	73.9	6000	36.4

(1) End Blocks can be sold together as assemblies or separately as components (preloaded ball nuts sold only as an assembly).

(2) All ball screws and nuts are right-hand thread.

(3) Dimensional information on bearing supports and standard end machining is available on page 148.

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Nominal Diameter (size)	Lead	Nut Specifications (mm)										Nut Weight (kg)	Ball Diameter (mm)
		D ₁	D ₄	D ₅	D ₆	L	L ₁	L ₃	L ₇	L ₈			
(mm)	(mm)	g6		H13	h13				h13	h13			
16	5	28.0	38.0	5.5	48.0	55.0	10.0	5.5	10.0	40.0	0.3	3.500	
20	5	36.0	47.0	6.6	58.0	68.5	10.0	5.5	10.0	44.0	0.4	3.500	
25	5	40.0	51.0	6.6	62.0	69.5	10.0	6.0	10.0	48.0	0.4	3.500	
32	5	50.0	65.0	9.0	80.0	83.0	12.0	6.0	12.0	62.0	0.7	3.500	
32	10	50.0	65.0	9.0	80.0	105.5	12.0	6.0	12.0	62.0	0.8	3.500	
40	5	63.0	78.0	9.0	93.0	97.0	14.0	7.0	14.0	70.0	1.3	3.500	
40	10	63.0	78.0	9.0	93.0	142.0	14.0	7.0	14.0	70.0	1.5	7.144	
50	10	75.0	93.0	11.0	110.0	144.0	16.0	7.0	16.0	85.0	2.2	7.144	
63	10	90.0	108.0	11.0	125.0	166.0	18.0	7.0	18.0	95.0	3.3	7.144	
80	10	105.0	125.0	13.5	145.0	192.0	20.0	9.0	20.0	110.0	4.3	7.144	