



With over thirty years of experience manufacturing precision ball screws, Nook Industries has expanded the PowerTrac™ offering to include metric ball screws providing design engineers a globally accepted product. Metric ball screws are available in many diameters, leads, and pitches.

The metric ball screws are available with internal, low profile external or external return guide ball nuts in more than 25 sizes. Several Nook metric products are available with preloaded ball nut systems. See the metric ball screw product technical data pages 155-173 for additional detail.

METRIC BALL SCREW AND NUT TECHNICAL DATA



MRT and PMT BALL SCREWS

These screw assemblies are similar in construction and materials to PowerTrac™ Inch Ball Screws and Nuts.

MRT Standard lead accuracy:

±100µm / 300mm

PMT Standard lead accuracy:

±25µm / 300mm

Temperature Range:

For standard applications: -20° to +80° C

Wipers: Plastic



CARRY™ BALL SCREWS

PowerTrac™ Carry™ Metric Rolled Ball Screws are hardworking and durable. Designed for applications which require predictable life while moving a load with high efficiency and duty cycle. These screws are economical and maintain lead accuracy that is appropriate for most industrial applications.

Made of hardened alloy PowerTrac™ Carry™ ball screws are matched with a range of durable ball nuts with either external low-profile returns or internal returns. Their compact shape enhances the inherent advantages of ball screw design.

Standard lead accuracy: is ±100µm / 300mm
±50µm / 300mm available on request.

Temperature Range:

For standard applications: -20° to +80° C

Wipers: Plastic or brush

CARRY™ BALL NUTS

TYPE Z:

Internal Return or Low-Profile
External Return

TYPE FG:

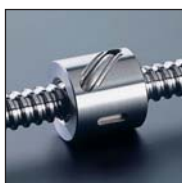
Internal Return or Low-Profile
External Return

TYPE FB:

Internal Return or Low-Profile
External Return

16x50:

Internal
Return



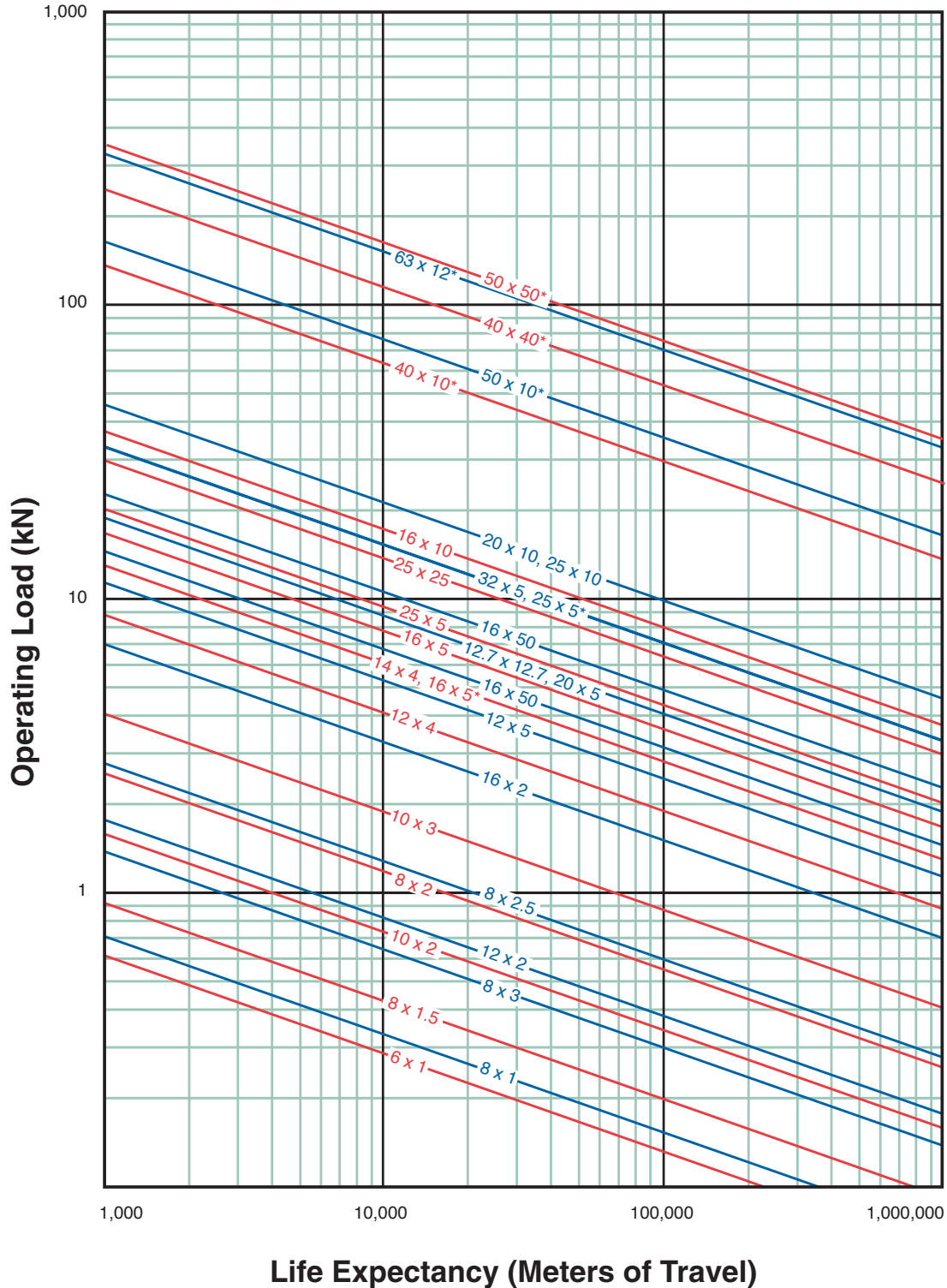
TO USE THIS CHART:

1) Determine required Life
(in meters of travel)
at equivalent operating load.

2) Find point at which load and life
requirement intersect.

3) Select ball nut to the right or above
the intersect point.

NOTE: IF USING A BALL SCREW
WITHOUT LUBRICANT
DE-RATE LIFE BY 90%



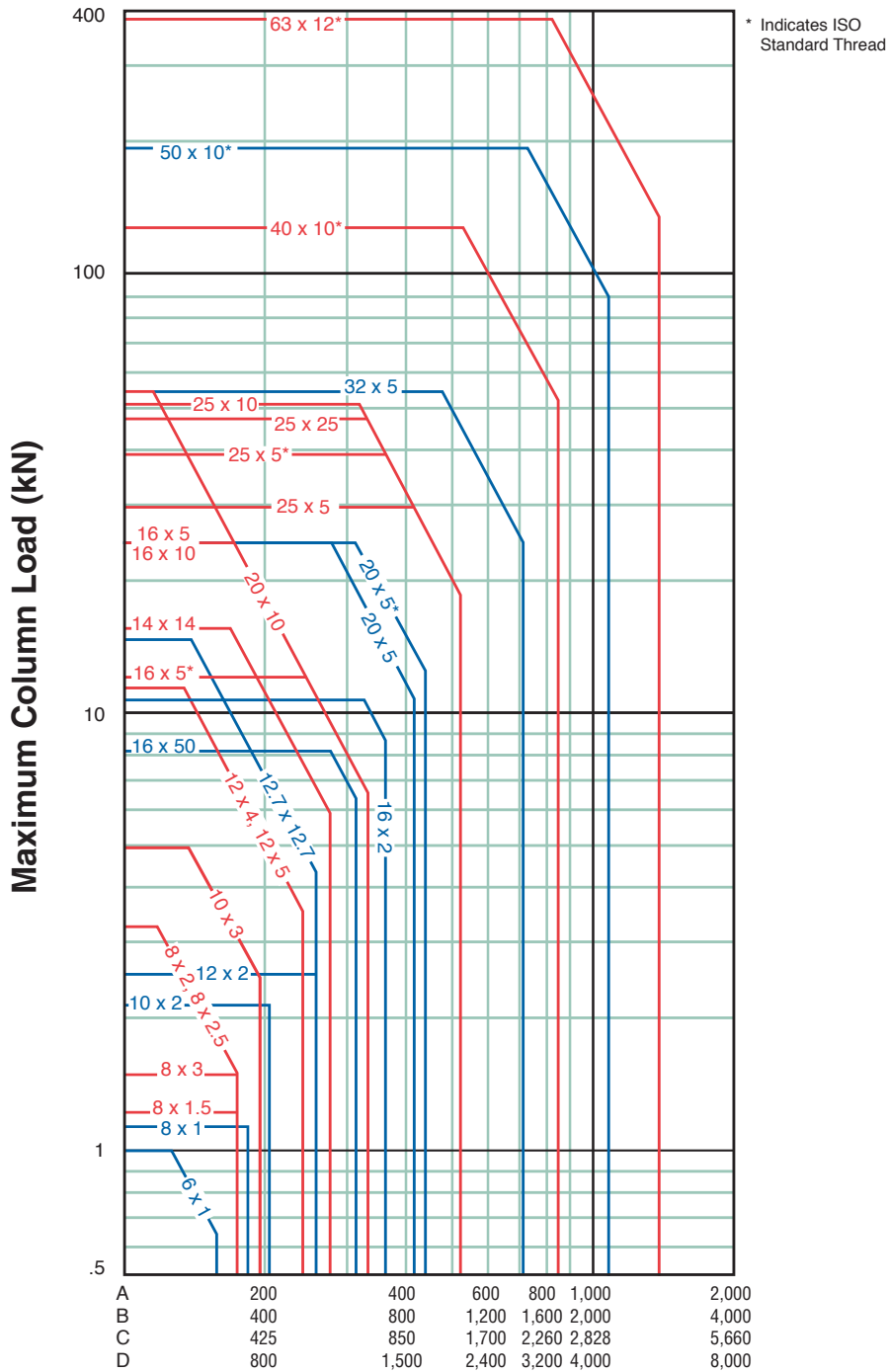
* Indicates ISO
Standard Thread

METRIC BALL SCREW AND NUT TECHNICAL DATA



Use this chart to verify the screw selected has sufficient column strength for your load.

TO USE THIS CHART: find a point at which the maximum length between bearing and load intersects the maximum load. Be sure the screw selected is above and to the right of that point.



Maximum Length Between Bearings (mm)

See Page 87 for Reference Description on "A-B-C-D" end fixity.

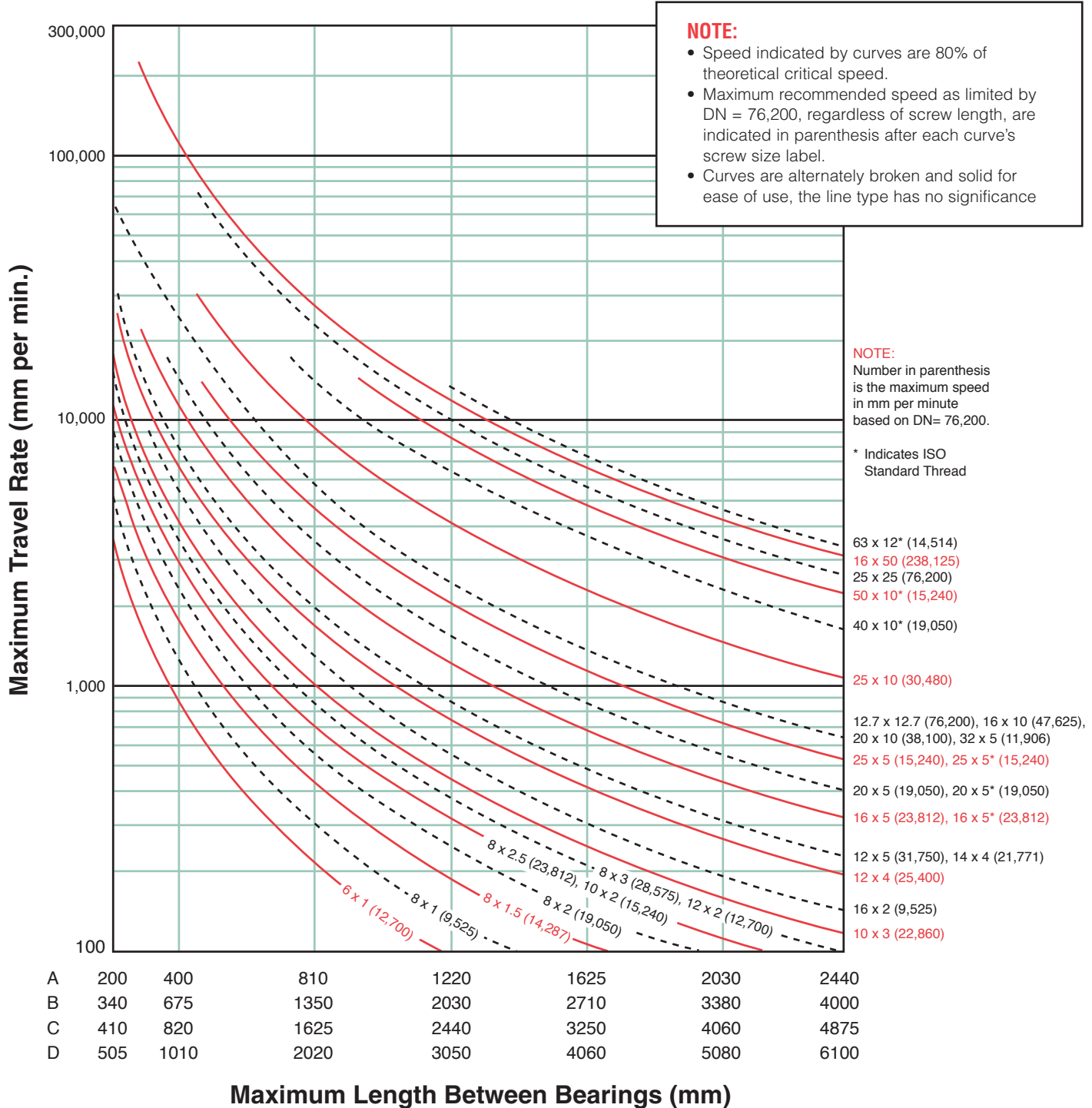
Metric to Inch Conversions:

1 Newton = .224 lbf 1mm = 0.039 in. 1 N•m = 8.85 in.-lb.

METRIC BALL SCREW AND NUT TECHNICAL DATA

TO USE THIS CHART:

- 1) Determine maximum travel rate required.
- 2) Determine screw length "L".
- 3) Find point at which travel rate and screw length intersect.
Select a screw above and to the right of that point.



See Page 87 for Reference Description on "A-B-C-D" end fixity.

Metric to Inch Conversions:

1 Newton = .224 lbf 1mm = 0.039 in. 1 N•m = 8.85 in.-lb.

ECS-16020 - RA / EK / 4N / 1063 / ECN-16020-RBU / S

METRIC BALL SCREW AND NUT TECHNICAL DATA

BALL SCREW

Carry Part#	Dia. x Lead	Thread Form Codes	Carry Part#	Dia. x Lead	Part#	Dia. x Lead
ECS-06010	= 6 x 1	ECS-14040	= 14 x 4	MRT 16x5	= 16 x 5	
ECS-08010	= 8 x 1	ECS-16020	= 16 x 2	MRT 20x5	= 20 x 5	
ECS-08015	= 8 x 1.5	ECS-16050	= 16 x 5	MRT 25x5	= 25 x 5	
ECS-08020	= 8 x 2	ECS-16100	= 16 x 10	MRT 40x10	= 40 x 10	
ECS-08025	= 8 x 2.5	ECS-16500	= 16 x 50	MRT 50x10	= 50 x 10	
ECS-08030	= 8 x 3	ECS-20050	= 20 x 5	MRT 63x12	= 63 x 12	
ECS-10020	= 10 x 2	ECS-20010	= 20 x 10	PMT 16x5	= 16 x 5	
ECS-10030	= 10 x 3	ECS-25050	= 25 x 5	PMT 20x5	= 20 x 5	
ECS-12020	= 12 x 2	ECS-25100	= 25 x 10	PMT 25x5	= 25 x 5	
ECS-12040	= 12 x 4	ECS-25250	= 25 x 25	PMT 40x10	= 40 x 10	
ECS-12050	= 12 x 5	ECS-32050	= 32 x 5	PMT 50x10	= 50 x 10	
ECS-12120	= 12.7 x 12.7			PMT 63x12	= 63 x 12	

MATERIAL

THREAD	RA	MATERIAL
R = Right Hand		A = Alloy Steel - Rolled
L = Left Hand		B = Alloy Steel - Precision Rolled
		S = Stainless Steel - Rolled

NOTE: Not all materials/threads are available for all sizes.

FIRST END CONFIGURATION

EZZE-MOUNT™ / End Machining

(see page 214 & 212)

- 1 = Type 1
- 2 = Type 2
- 3 = Type 3
- 4 = Type 4

B = Universal Double Bearing Support End Cap Facing Screw Thread

C = Universal Single Bearing Support

D = Flanged Single Bearing Support Flange Facing Screw Thread

E = Universal Double Bearing Support End Cap Facing Away From Screw Thread

F = Flanged Double Bearing Support Flange Facing Screw Thread

G = Flanged Single Bearing Support Flange Facing Away From Screw Thread

H = Flanged Double Bearing Support Flange Facing Away From Screw Thread

U = Universal Double Bearing Support with Motor Mount (see page 217)

Y = Flanged Double Bearing Support with Motor Mount (see page 218)

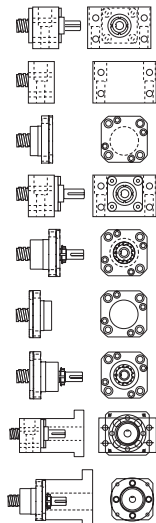
00 = No End Machining (Screw will be cut to desired length).

XX = Custom Machining (Print or specified data must be provided).

EK = Universal Double Bearing Support, with Keyway

Shaft Extension
(see page 212)

- K** = Shaft Extension with Keyway
- L** = Shaft Extension without Keyway
- N** = No Shaft Extension



NOTE: Both Ends must be specified.

Single Bearing Supports are used in conjunction with Type 1N end machining.

Double Bearing Supports are used in conjunction with Type 3K, 3L, or 3N end machining.

SECOND END CONFIGURATION

Refer to the First End Configuration section above.

NOTE: Both Ends must be specified.

OVER - ALL - LENGTH (OAL)

Length in mm.

TRAVEL NUT

CARRY NUT

ECN - 16020 - R B U

Nut Thread Code

MATERIAL

- R** = Right Hand Alloy
- L** = Left Hand Alloy
- S** = Right Hand Stainless Steel
- M** = Left Hand Stainless Steel

- N** = No Wiper
- U** = With Wiper

NUT STYLE

- Z** = Type Z Nut
- H** = 16 x 50 Nut

- A** = Type FB Round Flange
- B** = Type FB Standard Flange
- C** = Type FB "D" Flange
- G** = Type FG

- K** = Type FB Round Flange High Load
- J** = Type FB Standard Flange High Load
- L** = Type FB "D" Flange High Load
- D** = Type FG High Load

MRT or PMT NUT

Use standard part number found in the Technical Data Section for Metric Ball Screws.

Example:
MBN 10206 = 16 x 5 MRT Nut

Nut will be installed with flange or threaded end toward first end designation. 00000 = No Nut

MODIFIER LIST

F (Optional for MRT and PMT Screws Only)

- F** = Round Flange

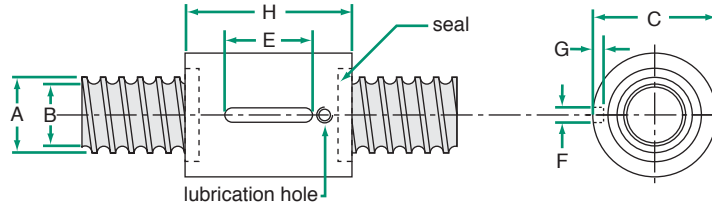
S or M Required

- S** = Standard, no additional description required
- M** = Modified, additional description required

6mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut



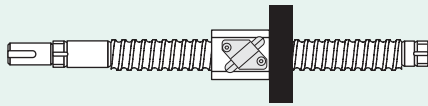
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (Ca)	Static (C0a)
6 x 1	RH	ECS-06010-RA	6.0	5.0	196	ECN-06010-□Zn	12	14	8	2	1.0	0.03	—	Internal	8	0.178	600	1000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

END MACHINING

Machining for Nook standard ends or custom requirement available.



See page 212 for complete product details.

LUBRICANT

Prolong ball screw and nut performance with this special lubricant.



E-900 12oz. Spray or 32oz. Liquid
See page 95 for complete product details.

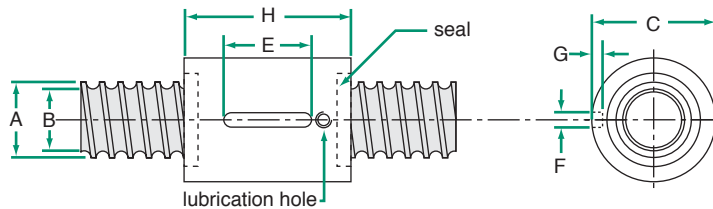


METRIC BALL SCREW AND NUT TECHNICAL DATA

8mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

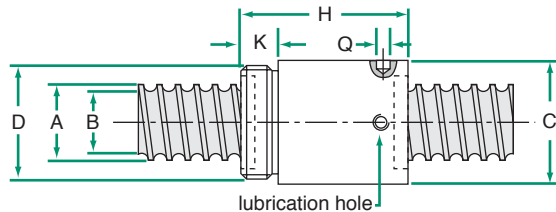


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
8 x 1	RH	ECS-08010-RA	8.0	7.0	357	ECN-08010-RZN	14	14	8	2	1.2	0.03	—	Internal	9	0.178	700	1200
8 x 1.5	RH	ECS-08015-R□	8.0	6.7	322	ECN-08015-□ZLN	14	14	8	2	1.2	0.04	—	Internal	17	0.254	800	1300
8 x 2	RH	ECS-08020-RA	8.0	6.5	295	ECN-08020-RZN	16	14	8	2	1.2	0.06	—	External	18	0.356	2000	3200
8 x 2.5	RH	ECS-08025-R□	8.0	6.6	335	ECN-08025-RZN	18	16	10	3	2.0	0.06	—	External	22	0.432	2000	3200
8 x 3	RH	ECS-08030-RA	8.0	6.7	352	ECN-08030-RZN	14	12	8	2	1.2	0.05	—	Internal	16	0.533	950	1500

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut



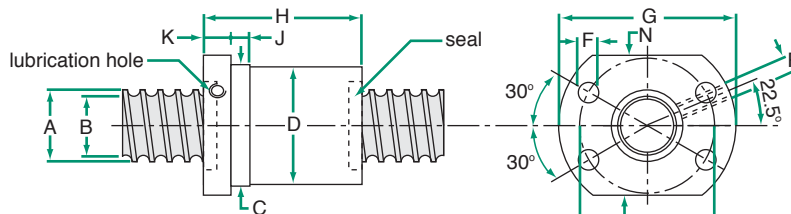
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
8 x 1.5	RH	ECS-08015-R□	8.0	6.7	322	ECN-08015-□GN	16	M14x1	22	8	2.5	0.04	—	Internal	25	0.254	800	1300
8 x 2.5	RH	ECS-08025-R□	8.0	6.6	335	ECN-08025-□GN	17.5	M15x1	24	8	2.5	0.06	—	External	35	0.432	2000	3200
8 x 3	RH	ECS-08030-RA	8.0	6.7	352	ECN-08030-RGN	16	M14x1	22	8	2.5	0.05	—	Internal	25	0.533	950	150

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

† Left hand screw not available in stainless steel

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
8 x 2	RH	ECS-08020-RA	8.1	6.5	295	ECN-08020-RBU	16	15.5	22	3.4	28	25	4	6	19	∅4	0.06	Plastic	External	33	0.356	2000	3200

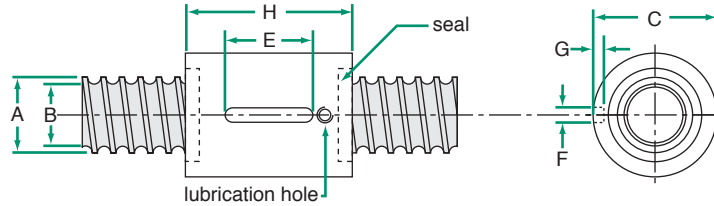
*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

METRIC BALL SCREW AND NUT TECHNICAL DATA

10mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut



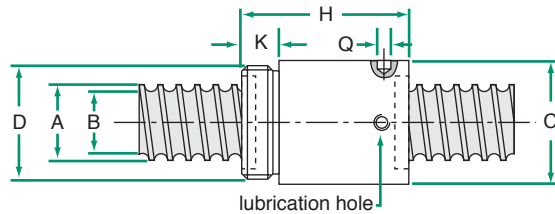
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
10 x 2	RH	ECS-10020-RA	9.7	8.2	494	ECN-10020-RZN	18	14	10	3	1.2	0.06	—	Internal	15	0.356	1250	2100
10 x 3	RH,LH†	ECS-10030-□□	9.9	7.8	494	ECN-10030-□ZU	22	24	10	3	2.0	0.06	Plastic	External	46	0.541	2800	5000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

† Left hand screw not available in stainless steel

Carry Type FG Ball Nut



dimensions in mm

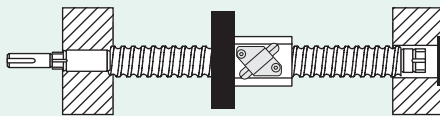
SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
10 x 2	RH	ECS-10020-RA	9.7	8.2	494	ECN-10020-RGN	18	M16x1	22	8	2.5	0.06	—	Internal	23	0.356	1250	2100
10 x 2	RH	ECS-10020-RA	9.7	8.2	494	ECN-10020-RDN	19.5	M17x1	22	7	2.5	0.06	—	Internal	23	0.356	1700	2800
10 x 3	RH,LH†	ECS-10030-□□	9.9	7.8	494	ECN-10030-□GU	21	M18x1	29	9	3	0.06	Plastic	External	44	0.533	2800	5000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

† Left hand screw not available in stainless steel

BALL SCREW ASSEMBLIES

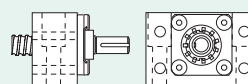
These assemblies are shipped with screw, nut, flange, and bearing supports.



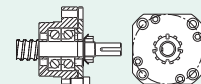
See page 145 for complete product details.

EZZE-MOUNT™ END BEARING SUPPORTS

A convenient solution for mounting ball screw assemblies.



Single or Double Bearing
Universal Mount



Single or Double Bearing
Flange Mount

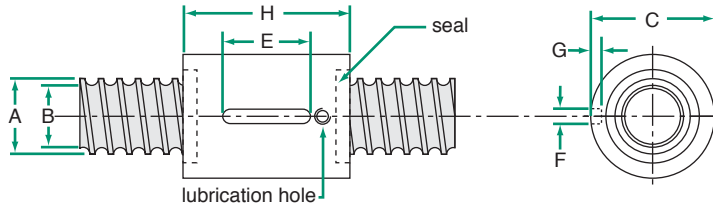
See page 214 for complete product details.

METRIC BALL SCREW AND NUT TECHNICAL DATA

12mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

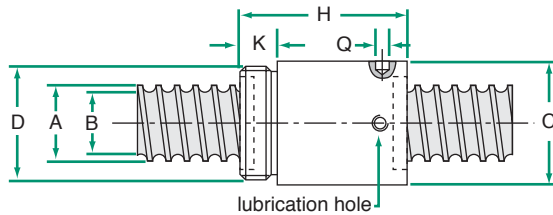


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
12 x 2	RH	ECS-12020-RA	12.0	10.6	750	ECN-12020-RZN	20	15	10	3	1.2	0.06	—	Internal	19	0.356	1380	2500
12 x 4	RH	ECS-12040-R□	12.0	9.8	739	ECN-12040-□ZN	26	24	10	3	1.8	0.07	—	External	68	0.711	5500	11000
12 x 4	RH	ECS-12040-R□	12.0	9.8	739	ECN-12040-□ZU	26	32	10	3	1.8	0.07	Plastic	External	70	0.711	5500	11000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut

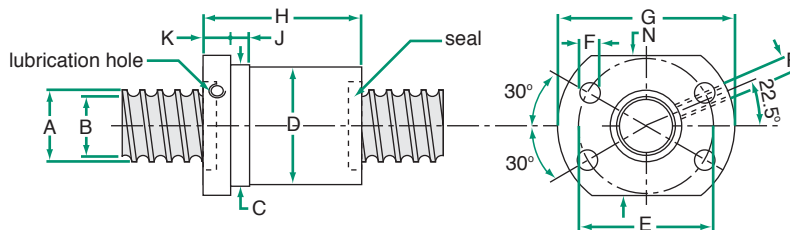


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
12 x 2	RH	ECS-12020-RA	12.0	10.6	750	ECN-12020-RGN	20	M18x1	23	8	2.5	0.06	—	Internal	24	0.356	1380	2500
12 x 4	RH	ECS-12040-R□	12.0	9.8	739	ECN-12040-□GN	26	M20x1	32	8	2.5	0.07	—	External	83	0.711	5500	11000
12 x 4	RH	ECS-12040-R□	12.0	9.8	739	ECN-12040-□GU	26	M20x1	34	10	2.5	0.07	Plastic	External	84	0.711	5500	11000
12 x 5	RH	ECS-12050-R□	12.0	9.5	737	ECN-12050-□G□	26	M20x1	37	8	2.5	0.07	Plastic	External	87	0.889	6600	12000
12.7 x 12.7	RH	ECS-12120-R□	13.1	10.3	880	ECN-12120-□G□	29.5	M25x1.5	50	12	3	0.07	Brush	External	134	2.235	8000	15500

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
12 x 4	RH	ECS-12040-R□	12.0	9.8	739	ECN-12040-□BU	26	25.5	32	4.5	39.5	36	5	8	28	M5	0.07	Plastic	External	126	0.711	5500	11000
12 x 5	RH	ECS-12050-R□	12.0	9.5	737	ECN-12050-□BU	26	25.5	32	4.5	39.5	40	5	7	28	M5	0.07	Plastic	External	126	0.889	6600	12000

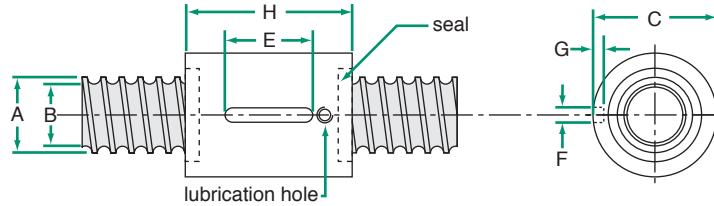
*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

METRIC BALL SCREW AND NUT TECHNICAL DATA

14mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

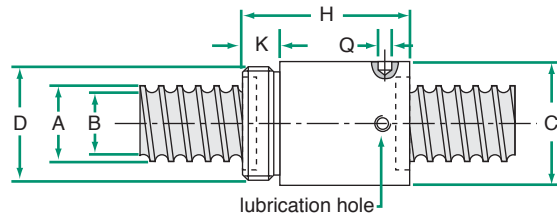


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
14 x 4	RH,LH	ECS-14040-□A	14.0	11.5	986	ECN-14040-□ZN	29	24	16	4	2.5	0.07	—	External	79	0.711	8100	16000
14 x 4	RH,LH	ECS-14040-□A	14.0	11.5	986	ECN-14040-□ZU	29	32	16	4	2.5	0.07	Plastic	External	82	0.711	8100	16000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut

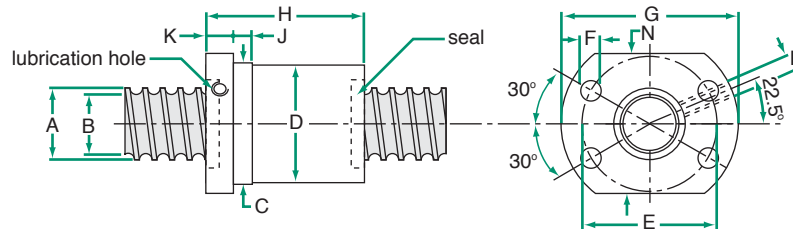


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
14 x 4	RH,LH	ECS-14040-□A	14.0	11.5	986	ECN-14040-□GN	29	M22x1.5	32	8	3	0.07	—	External	97	0.711	8100	16000
14 x 4	RH,LH	ECS-14040-□A	14.0	11.5	986	ECN-14040-□GU	29	M22x1.5	38	8	3	0.07	Plastic	External	111	0.711	8100	16000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
14 x 4	RH,LH	ECS-14040-□A	14.0	11.5	986	ECN-14040-□BU	29	28.8	38	5.5	48	40	6	8	36	M5	0.07	Plastic	External	175	0.711	8100	16000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

METRIC BALL SCREW AND NUT TECHNICAL DATA

16x5 MRT

LEAD ACCURACY: ±100µm/300mm

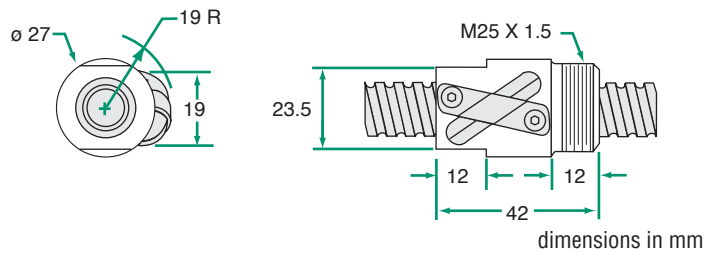
Single Start

- 16.0** Ball Circle Diameter
- 5.0** Lead
- 12.9** Root Diameter
- 3.175** Nominal Ball Diameter
- 1222** Screw Mass (g/m)

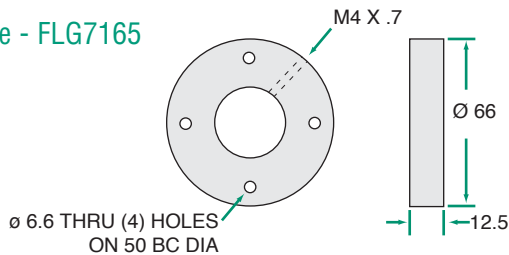
Available Screw Length	PART NUMBERS
	RH
up to 7 M	16x5MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MBN Single Circuit Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	7.6
Static Load C_{0a} (kN)	12.4
Torque to Raise 1 kN (N·m)	.88
Nut Weight (g)	123
Ball Nut Number	MBN10436
Flange Part Number	FLG7165
Wiper Kit Part Number	—



Flange - FLG7165



METRIC BALL SCREW AND NUT TECHNICAL DATA

16x5 PMT

LEAD ACCURACY: ±25µm/300mm

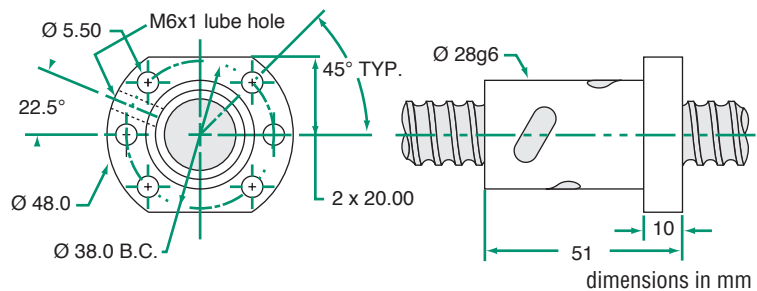
Single Start

- 16.0** Ball Circle Diameter
- 5.0** Lead
- 12.9** Root Diameter
- 3.175** Nominal Ball Diameter
- 1222** Screw Mass (g/m)

Available Screw Length	PART NUMBERS
	RH
up to 7 M	16x5PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MPN Preloaded Flanged Internal Return Ball Nut

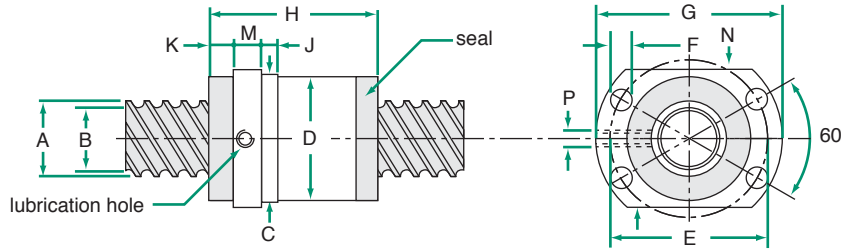
PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	5.7
Static Load C_{0a} (kN)	8.6
Torque to Raise 1 kN (N·m)	.88
Nut Weight (g)	190
Spring Rate (kN/µm)	.22
Ball Nut Number	MPN10331
Flange	INTEGRAL
Wiper Type	ELASTOMER



16mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type 16 x 50 Ball Nut



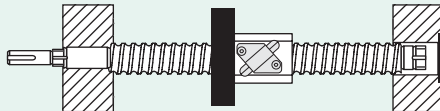
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	M	N	P	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
16 x 50	RH	ECS-16500-RA	15.8	10.6	1250	ECN-16500-RHU	34	33.5	45	5.4	54	46	5	10	10	36	M6	Plastic	Internal	236	8.839	4500	10000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

BALL SCREW ASSEMBLIES

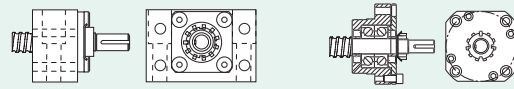
These assemblies are shipped with screw, nut, flange, and bearing supports.



See page 145 for complete product details.

EZZE-MOUNT™ END BEARING SUPPORTS

A convenient solution for mounting ball screw assemblies.



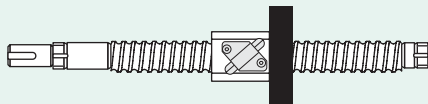
Single or Double Bearing
Universal Mount

Single or Double Bearing
Flange Mount

See page 214 for complete product details.

END MACHINING

Machining for Nook standard ends or custom requirement available.



See page 212 for complete product details.

LUBRICANT

Prolong ball screw and nut performance with this special lubricant.



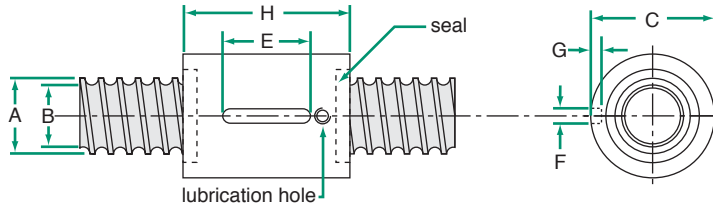
E-900 12oz. Spray or 32oz. Liquid
See page 95 for complete product details.



16mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

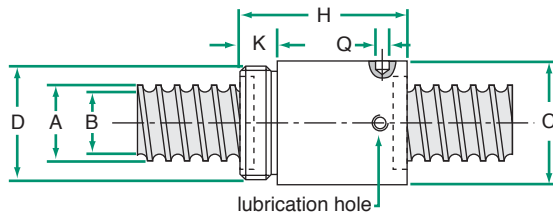


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
16 x 5	RH	ECS-16050-R□	15.7	13.0	1251	ECN-16050-□ZU	30	43	16	4	2.5	0.07	Plastic	Internal	113	0.889	9700	22000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut



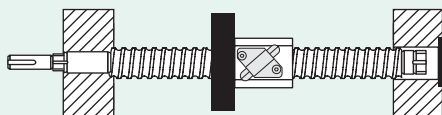
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
16 x 2	RH	ECS-16020-RA	16.0	14.5	1416	ECN-16020-RGU	30	M26x1.5	28	12	3.5	0.06	Plastic	External	76	0.356	2500	5500
16 x 5	RH	ECS-16050-R□	15.7	13.0	1251	ECN-16050-□GU	30.2	M26x1.5	50	12	3.5	0.07	Plastic	Internal	123	0.889	9700	22000
16 x 5	RH	ECS-16050-R□	15.7	13.0	1251	ECN-16050-□DN	32	M26x1.5	42	12	4	0.07	—	External	144	0.889	12000	25000
16 x 5	RH	ECS-16050-R□	15.7	13.0	1251	ECN-16020-□DU	32	M26x1.5	47	12	4	0.07	Plastic	External	164	0.889	12000	25000
16 x 10	RH	ECS-16100-RA	15.7	13.0	1251	ECN-16100-RGN	32	M26x1.5	47	12	4	0.07	—	External	165	1.778	17000	25000
16 x 10	RH	ECS-16100-RA	15.7	13.0	1251	ECN-16100-RGU	32	M26x1.5	52	12	4	0.07	Plastic	External	184	1.788	17000	25000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

BALL SCREW ASSEMBLIES

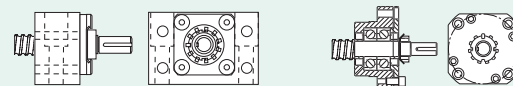
These assemblies are shipped with screw, nut, flange, and bearing supports.



See page 145 for complete product details.

EZZE-MOUNT™ END BEARING SUPPORTS

A convenient solution for mounting ball screw assemblies.



Single or Double Bearing
Universal Mount

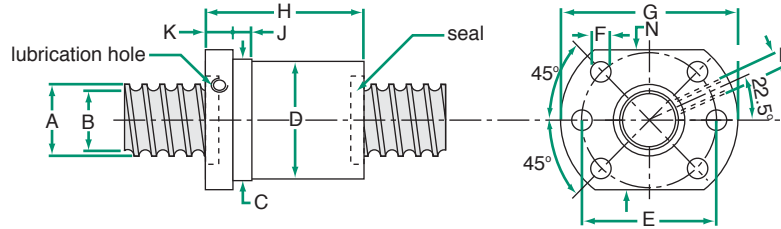
Single or Double Bearing
Flange Mount

See page 214 for complete product details.

16mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type FB Ball Nut



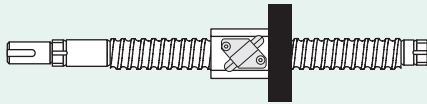
dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
16 x 2	RH	ECS-16020-RA	16.0	14.5	1416	ECN-16020-RBU	30	29.5	38	5.5	48	45	6	10	40	M6	0.06	Plastic	External	225	0.356	4500	11000
16 x 5	RH	ECS-16050-R□	15.7	13.0	1251	ECN-16050-□BU	28	27.8	38	5.5	48	45	6	10	40	M6	0.07	Plastic	Internal	160	0.889	9700	22000
16 x 10	RH	ECS-16100-RA	15.7	13.0	1251	ECN-16100-RBU	32	31.5	43	6.6	54	52	6	12	44	M6	0.07	Plastic	External	281	1.778	17000	25000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

END MACHINING

Machining for Nook standard ends or custom requirement available.



See page 212 for complete product details.

LUBRICANT

Prolong ball screw and nut performance with this special lubricant.



E-900 12oz. Spray or 32oz. Liquid
See page 95 for complete product details.



METRIC BALL SCREW AND NUT TECHNICAL DATA

20x5 MRT

LEAD ACCURACY: ±100µm/300mm

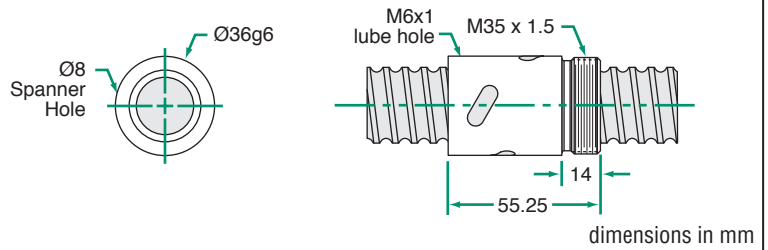
Single Start

- 20.71** Ball Circle Diameter
- 5** Lead
- 17.5** Root Diameter
- 3.175** Nominal Ball Diameter
- 2,170** Screw Mass (g/m)

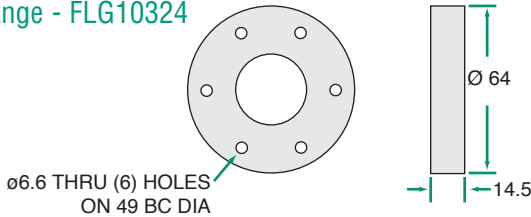
Available Screw Length	PART NUMBERS
	RH
up to 7 M	20x5MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	13
Static Load C_{0a} (kN)	24.4
Torque to Raise 1 kN (N·m)	.88
Nut Weight (g)	238
Ball Nut Number	MBN10295
Flange Part Number	FLG10324
Wiper Type	ELASTOMER



Flange - FLG10324



METRIC BALL SCREW AND NUT TECHNICAL DATA

20x5 PMT

LEAD ACCURACY: ±25µm/300mm

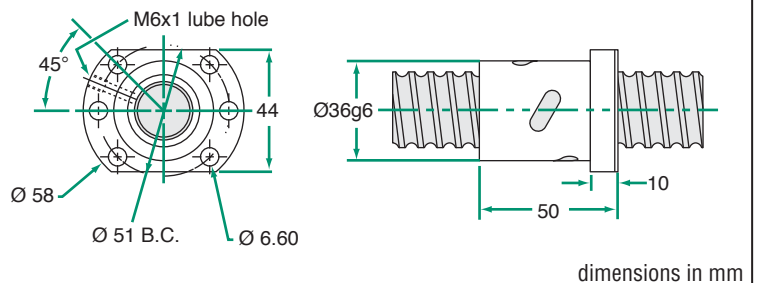
Single Start

- 20.71** Ball Circle Diameter
- 5** Lead
- 17.5** Root Diameter
- 3.175** Nominal Ball Diameter
- 2,170** Screw Mass (g/m)

Available Screw Length	PART NUMBERS
	RH
up to 7 M	20x5PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MPN Preloaded Flanged Internal Return Ball Nut

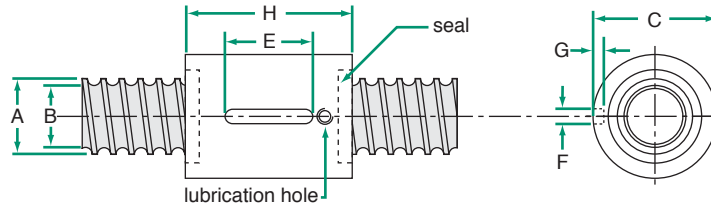
PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	7.2
Static Load C_{0a} (kN)	12.2
Torque to Raise 1 kN (N·m)	.88
Nut Weight (g)	307
Spring Rate (kN/µm)	.28
Ball Nut Number	MPN10332
Flange	INTEGRAL
Wiper Type	ELASTOMER



20mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

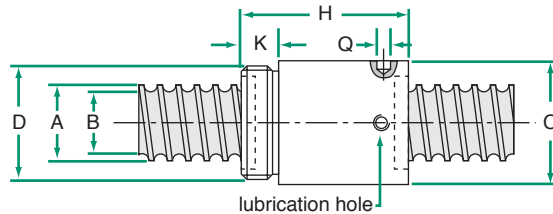


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
20 x 5	RH,LH	ECS-20050-□A	19.5	16.5	2014	ECN-20050-□ZU	33	45	20	4	2.5	0.07	Plastic	Internal	131	0.889	10800	25000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut

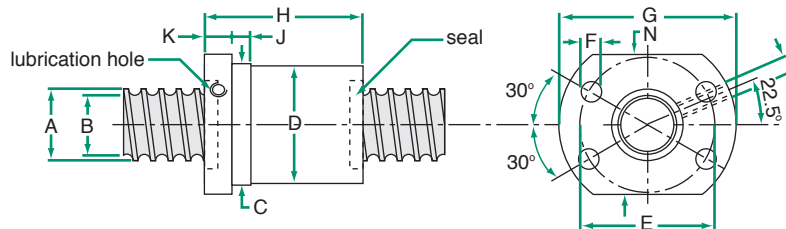


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
20 x 5	RH,LH	ECS-20050-□A	19.5	16.5	2014	ECN-20050-□GU	32.2	M30x1.5	47	12	4	0.07	Plastic	Internal	120	0.889	10800	25000
20 x 10	RH	ECS-20010-□A	19.5	16.5	2014	ECN-20010-RG□	38	M35x1.5	58	19	4	0.07	Brush	External	250	1.778	21000	54000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})					
20 x 5	RH,LH	ECS-20050-□A	19.5	16.5	2014	ECN-20050-□BU	36	35.5	47	6.6	58	50	10	10	44	M6	0.07	Plastic	Internal	283	0.889	10800	25000
20 x 10	RH	ECS-20010-RA	19.5	16.5	2014	ECN-20010-RBU	38	37.5	50	6.6	62	55	7	10	48	M6	0.07	Brush	Internal	250	1.778	21000	51000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

METRIC BALL SCREW AND NUT TECHNICAL DATA

25x5 MRT

LEAD ACCURACY: ±100µm/300mm

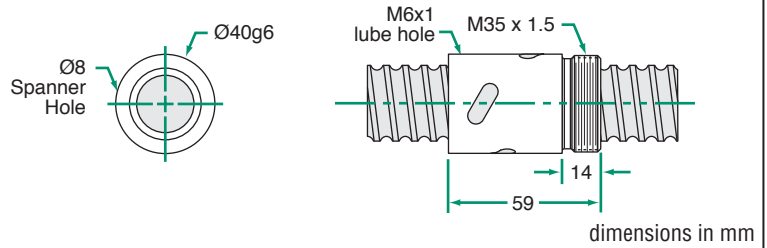
Single Start

- 25.75** Ball Circle Diameter
- 5** Lead
- 22.6** Root Diameter
- 3.175** Nominal Ball Diameter
- 3,452** Screw Mass (g/m)

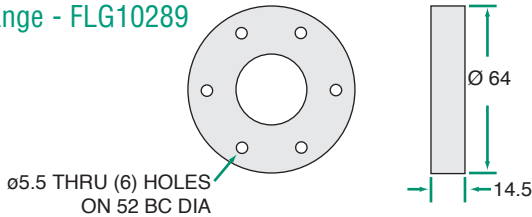
Available Screw Length	PART NUMBERS
	RH
up to 7 M	25x5MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	18.5
Static Load C_{0a} (kN)	39.4
Torque to Raise 1 kN (N·m)	.88
Nut Weight (g)	280
Ball Nut Number	MBN10281
Flange Part Number	FLG10289
Wiper Type	ELASTOMER



Flange - FLG10289



METRIC BALL SCREW AND NUT TECHNICAL DATA

25x5 PMT

LEAD ACCURACY: ±25µm/300mm

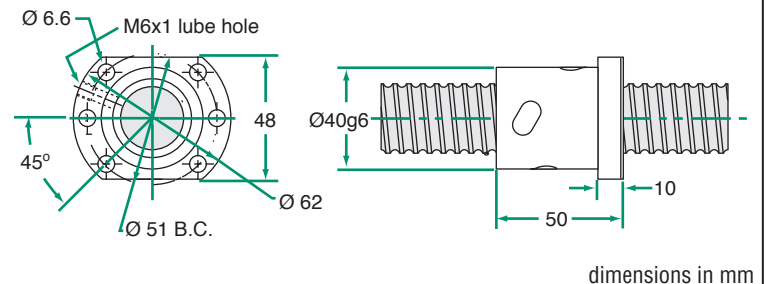
Single Start

- 25.75** Ball Circle Diameter
- 5** Lead
- 22.6** Root Diameter
- 3.175** Nominal Ball Diameter
- 3,452** Screw Mass (g/m)

Available Screw Length	PART NUMBERS
	RH
up to 7 M	25x5PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MPN Preloaded Flanged Internal Return Ball Nut

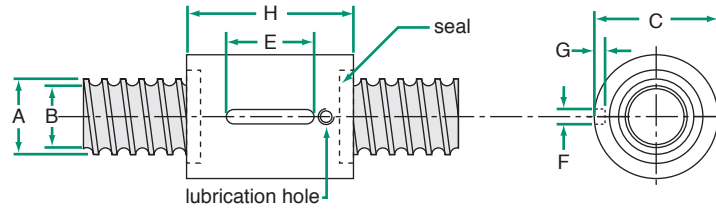
PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	8.4
Static Load C_{0a} (kN)	15.7
Torque to Raise kN (N·m)	.88
Spring Rate (kN/µm)	.35
Nut Weight (g)	340
Ball Nut Number	MPN10333
Flange	INTEGRAL
Wiper Type	ELASTOMER



LEAD ACCURACY: ±100µm/300mm

25mm Carry™ METRIC THREAD

Carry Type Z Ball Nut

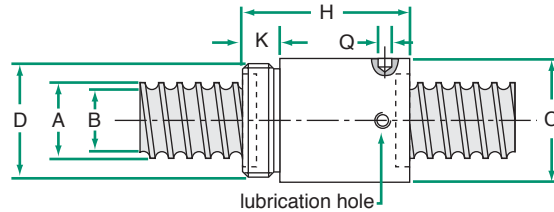


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
25 x 5	RH	ECS-25050-RA	24.6	21.5	2400	ECN-25050-RZU	38	50	20	4	2.5	0.07	Plastic	Internal	165	0.889	11700	30000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut

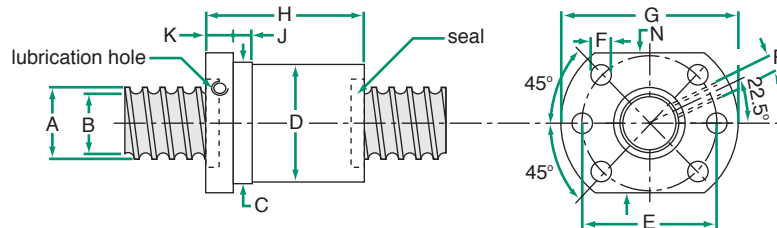


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
25 x 5	RH	ECS-25050-RA	24.6	21.5	2400	ECN-25050-RGU	40	M38x1.5	57	12	4	0.07	Plastic	Internal	227	0.889	11700	30000
25 x 10	RH	ECS-25100-RA	24.8	21.8	2400	ECN-25100-RG□	43	M40x1.5	58	19	4	0.07	Brush	External	300	1.778	21000	51000
25 x 25	RH	ECS-25250-RA	24.5	21.2	3348	ECN-25250-RGU	44	M40x1.5	72	20	4	0.08	Brush	External	420	2.235	10000	24000
25 x 25	RH	ECS-25250-RA	24.5	21.2	3348	ECN-25250-RDU	44	M40x1.5	72	20	4	0.08	Brush	External	444	2.235	20000	48000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
25 x 5 †	RH	ECS-25050-RA	24.6	21.5	2400	ECN-25050-RBU	40	39.5	51	6.6	62	50	10	10	48	M6	0.07	Plastic	Internal	292	0.889	11700	30000
25 x 5 †	RH	ECS-25050-RA	24.6	21.5	2400	ECN-25050-RJU	40	39.5	51	6.6	62	55	10	10	48	M6	0.07	Plastic	Internal	309	0.889	14000	35000
25 x 10 †	RH	ECS-25100-RA	24.8	21.9	2400	ECN-25100-RBU	43	42.5	55	6.6	65	55	7	10	50	M6	0.07	Brush	External	440	1.778	21000	54000
25 x 25 †	RH	ECS-25250-RA	24.5	21.2	3348	ECN-25250-RBU	44	43.5	56	6.6	70	67	10	12	52	M6	0.08	Brush	External	500	4.420	10000	24000

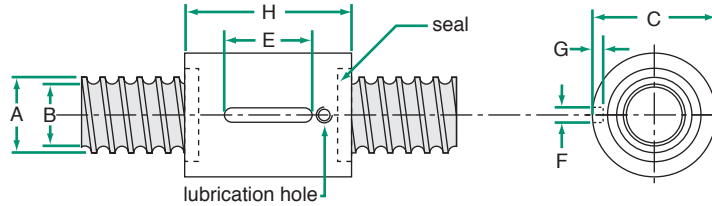
*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

† This size only available with nut styles: B, A and C ‡ This size available with nut styles: J, K, and L

32mm Carry™ METRIC THREAD

LEAD ACCURACY: ±100µm/300mm

Carry Type Z Ball Nut

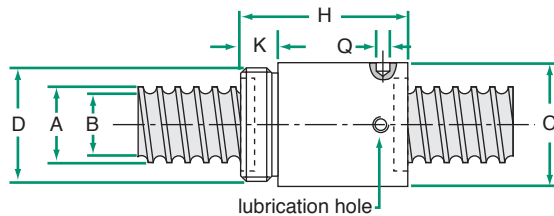


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	H	E	F	G	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
32 x 5	RH	ECS-32050-RA	29.6	26.6	5660	ECN-32050-RZU	48	48	20	5	3.0	0.07	Plastic	Internal	258	0.889	19000	54000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FG Ball Nut

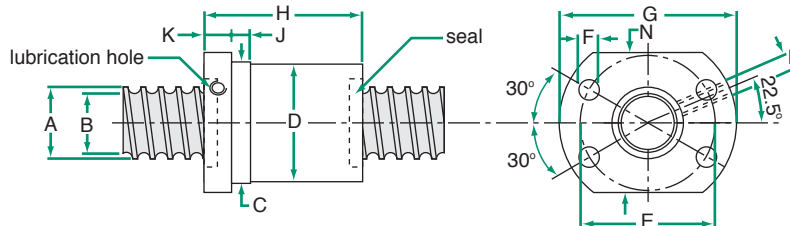


dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS												
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	H	K	Q	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																	Dyn. (C _a)	Static (C _{0a})
32 x 5	RH	ECS-32050-RA	29.6	26.6	5660	ECN-32050-RGU	52	M48x1.5	55	15	4	0.07	Plastic	Internal	381	0.889	19000	54000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

Carry Type FB Ball Nut



dimensions in mm

SCREW SPECIFICATIONS						NUT SPECIFICATIONS																	
dia x lead	helix	reference number*	A	B root dia	wgt. (g/m)	part number	C	D	E	F	G	H	J	K	N	P	lash	wiper**	ball return location	wgt. (g)	torque to raise 1 kN (N·m)	load rating (N)	
																						Dyn. (C _a)	Static (C _{0a})
32 x 5	RH	ECS-32050-RA	29.6	26.6	5660	ECN-32050-R□U	50	49.5	65	9.0	80	57	10	12	62	M6	0.07	Plastic	Internal	560	0.889	19000	54000

*Lengths available up to 3,000 mm. See page 154 and 174 to complete reference number **All nuts with wiper feature an M5 lubrication hole.

METRIC BALL SCREW AND NUT TECHNICAL DATA

Available Screw Length	PART NUMBERS
	RH
up to 7 M	40x10MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

40x10 MRT

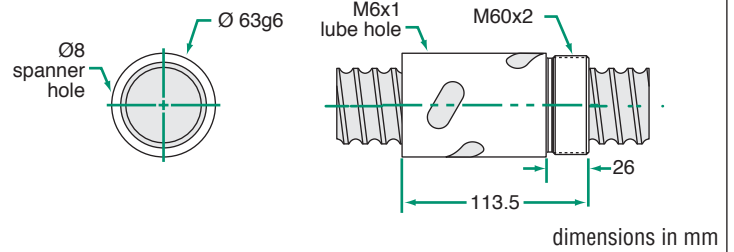
LEAD ACCURACY: ±100µm/300mm

Single Start

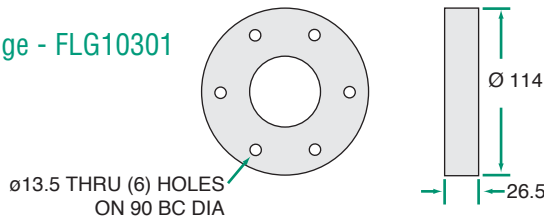
- 42.1** Ball Circle Diameter
- 10** Lead
- 34.79** Root Diameter
- 7.144** Nominal Ball Diameter
- 8,566** Screw Mass (g/m)

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	62.5
Static Load C_{0a} (kN)	136.2
Torque to Raise 1 kN (N·m)	1.778
Nut Weight (g)	1177
Ball Nut Number	MBN10291
Flange Part Number	FLG10301
Wiper Type	ELASTOMER



Flange - FLG10301



Available Screw Length	PART NUMBERS
	RH
up to 7 M	40x10PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

40x10 PMT

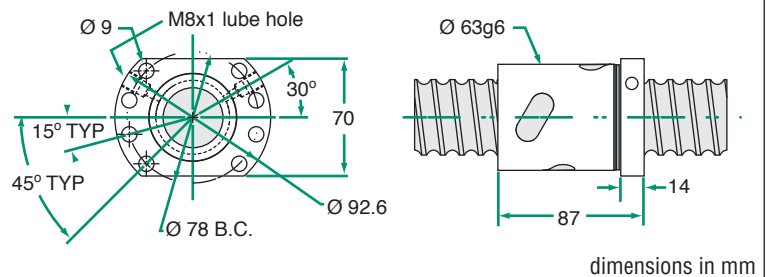
LEAD ACCURACY: ±25µm/300mm

Single Start

- 42.1** Ball Circle Diameter
- 10** Lead
- 34.79** Root Diameter
- 7.144** Nominal Ball Diameter
- 8,566** Screw Mass (g/m)

MPN Preloaded Flanged Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	28.4
Static Load C_{0a} (kN)	54.5
Torque to Raise 1 kN (N·m)	1.778
Nut Weight (g)	1182
Spring Rate (kN/µm)	.55
Ball Nut Number	MPN10305
Flange	INTEGRAL
Wiper Type	ELASTOMER



40x40 MRT

LEAD ACCURACY: ±100µm/300mm

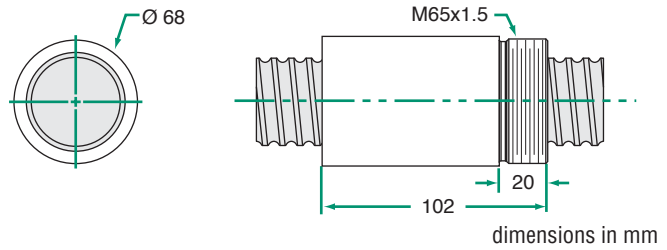
Single Start

- 40.28** Ball Circle Diameter
- 40** Lead
- 33.79** Root Diameter
- 6.35** Nominal Ball Diameter
- 8,315** Screw Mass (g/m)

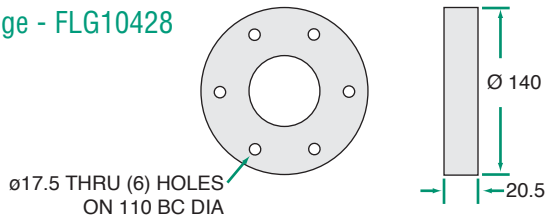
Available Screw Length	PART NUMBERS
	RH
up to 7 M	40x40 MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	75.30
Static Load C_{0a} (kN)	121.40
Torque to Raise 1 kN (N-m)	7.08
Nut Weight (g)	1.800
Ball Nut Number	MBN10427
Flange Part Number	FLG10428
Wiper Type	PLASTIC



Flange - FLG10428



METRIC BALL SCREW AND NUT TECHNICAL DATA

40x40 MRT

LEAD ACCURACY: ±100µm/300mm

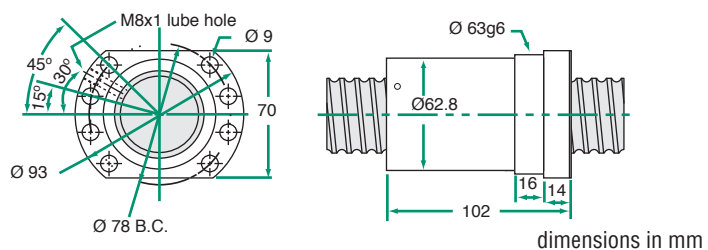
Single Start

- 40.28** Ball Circle Diameter
- 40** Lead
- 33.79** Root Diameter
- 6.35** Nominal Ball Diameter
- 8,315** Screw Mass (g/m)

Available Screw Length	PART NUMBERS
	RH
up to 7 M	40x40 MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MPN Internal Return Ball Nut with Integral Flange

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	75.30
Static Load C_{0a} (kN)	121.40
Torque to Raise 1 kN (N-m)	7.08
Nut Weight (g)	1.560
Ball Nut Number	MPN10429
Flange	INTEGRAL
Wiper Type	PLASTIC



Available Screw Length	PART NUMBERS
	RH
up to 7 M	50x10MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

50x10 MRT

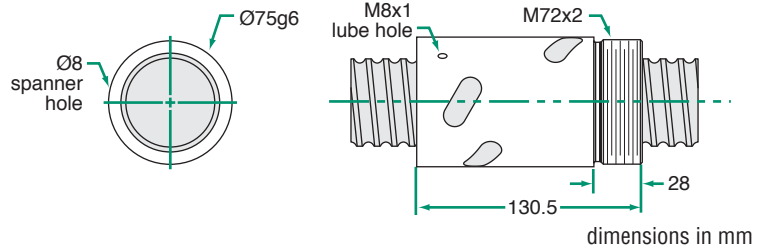
LEAD ACCURACY: ±100µm/300mm

Single Start

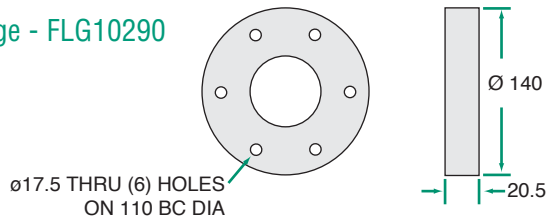
- 51.7** Ball Circle Diameter
- 10** Lead
- 45.2** Root Diameter
- 6.35** Nominal Ball Diameter
- 13,880** Screw Mass (g/m)

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	75.5
Static Load C_{0a} (kN)	189.3
Torque to Raise 1 kN (N·m)	1.778
Nut Weight (g)	1952
Ball Nut Number	MBN10285
Flange Part Number	FLG10290
Wiper Type	ELASTOMER



Flange - FLG10290



Available Screw Length	PART NUMBERS
	RH
up to 7 M	50x10PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

50x10 PMT

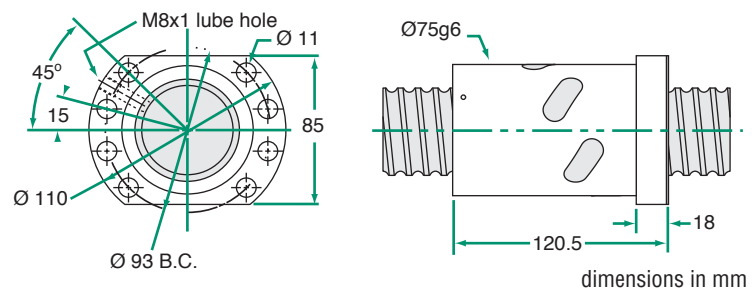
LEAD ACCURACY: ±25µm/300mm

Single Start

- 51.7** Ball Circle Diameter
- 10** Lead
- 45.2** Root Diameter
- 6.35** Nominal Ball Diameter
- 13,880** Screw Mass (g/m)

MPN Preloaded Flanged Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	41.6
Static Load C_{0a} (kN)	94.6
Torque to Raise 1 kN (N·m)	1.778
Nut Weight (g)	2328
Spring Rate (kN/µm)	.97
Ball Nut Number	MPN10334
Flange	INTEGRAL
Wiper Type	ELASTOMER



50x50 MRT

LEAD ACCURACY: ±100µm/300mm

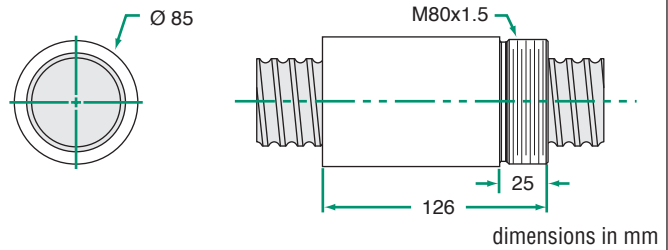
Single Start

- 49.50** Ball Circle Diameter
- 50** Lead
- 43.02** Root Diameter
- 6.35** Nominal Ball Diameter
- 13,900** Screw Mass (g/m)

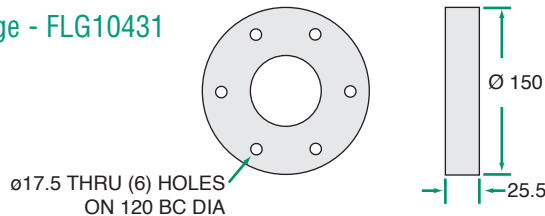
Available Screw Length	PART NUMBERS
	RH
up to 7 M	50x50 MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MBN Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	92.60
Static Load C_{0a} (kN)	152.40
Torque to Raise 1 kN (N-m)	7.08
Nut Weight (g)	3400
Ball Nut Number	MBN10430
Flange Part Number	FLG10431
Wiper Type	PLASTIC



Flange - FLG10431



METRIC BALL SCREW AND NUT TECHNICAL DATA

50x50 MRT

LEAD ACCURACY: ±100µm/300mm

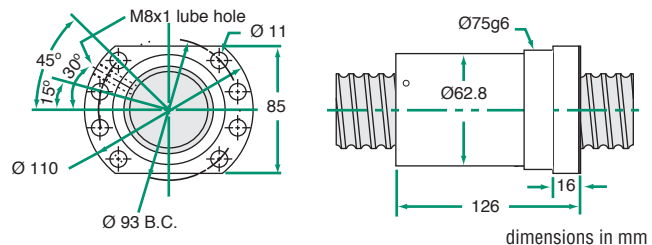
Single Start

- 49.50** Ball Circle Diameter
- 50** Lead
- 43.02** Root Diameter
- 6.35** Nominal Ball Diameter
- 13,900** Screw Mass (g/m)

Available Screw Length	PART NUMBERS
	RH
up to 7 M	50x50 MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

MPN Preloaded Flanged Internal Return Ball Nut

PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	92.60
Static Load C_{0a} (kN)	152.40
Torque to Raise 1 kN (N-m)	7.08
Nut Weight (g)	2950
Ball Nut Number	MPN10432
Flange	INTEGRAL
Wiper Type	PLASTIC



Available Screw Length	PART NUMBERS
	RH
up to 7 M	63x12MRT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

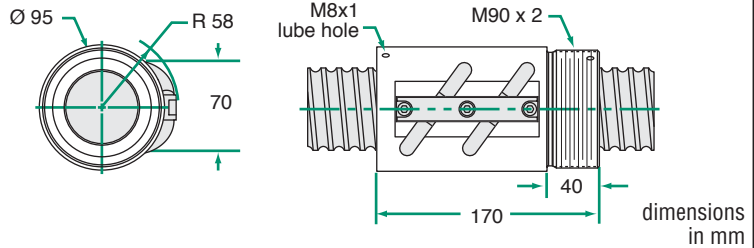
63x12 MRT

LEAD ACCURACY: ±100µm/300mm

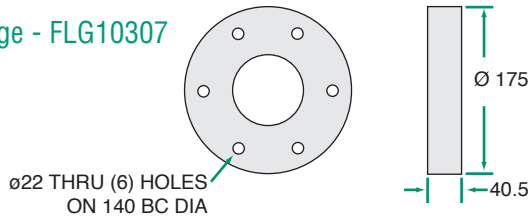
Single Start

- 65.1** Ball Circle Diameter
- 12** Lead
- 56.98** Root Diameter
- 7.94** Nominal Ball Diameter
- 22,046** Screw Mass (g/m)

MBN Double Circuit Ball Nut	
PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	140
Static Load C_{oa} (kN)	386
Torque to Raise kN (N-m)	2.124
Nut Weight (g)	4451
Ball Nut Number	MBN10297
Flange Part Number	FLG10307
Wiper Kit Part Number	—



Flange - FLG10307



Available Screw Length	PART NUMBERS
	RH
up to 7 M	63x12PMT
Custom cut lengths available up to 7M. For longer lengths contact customer service.	

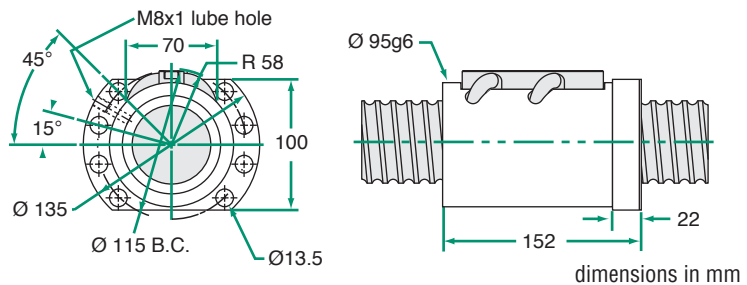
63x12 PMT

LEAD ACCURACY: ±25µm/300mm

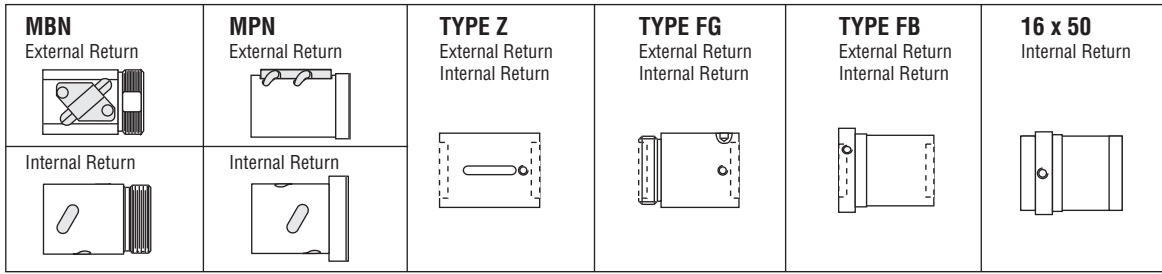
Single Start

- 65.1** Ball Circle Diameter
- 12** Lead
- 56.98** Root Diameter
- 7.94** Nominal Ball Diameter
- 22,046** Screw Mass (g/m)

MPN Preloaded Flanged Ball Nut	
PRODUCT SPECIFICATIONS	RH
Dynamic Load C_a (kN)	76.91
Static Load C_{oa} (kN)	193
Torque to Raise kN (N-m)	2.124
Nut Weight (g)	4915
Spring Rate (kN/µm)	1.52
Ball Nut Number	MPN10335
Flange	INTEGRAL
Wiper Type	—



METRIC BALL SCREW AND NUT TECHNICAL DATA



METRIC BALL SCREW AND NUT TECHNICAL DATA

SCREW SELECTION										NUT SELECTION																Page Ref		
DIA x LEAD	Root Dia. (mm)	MRT RH	* PMT RH	CARRY				LOAD RATING (N)		Torque To Raise 1kN(N·m)	MBN	MPN	Z				FG				FB				16 x 50			
				Alloy		SS		Dynamic C _a	Static C _{oa}		Alloy	MPN	Alloy		SS		Alloy		SS		Alloy		SS					
				RH	LH	RH	LH				RH	RH	RH	LH	RH	LH	RH	LH	RH	LH	RH	LH	RH	LH				
6 x 1	5.0			●				600	1,000	0.178			●	●														155
8 x 1	7.0			●				700	1,200	0.178			●															156
8 x 1.5	6.7			●		●		800	1,300	0.254			●	●		●	●											156
8 x 2	6.5			●				2,000	3,200	0.356			●								●	●						156
8 x 2.5	6.6			●		●		2,000	3,200	0.432			●			●	●											156
8 x 3	6.7			●				950	1,500	0.533			●			●												156
10 x 2	8.2			●				1,250	2,100	0.356			●			●												157
10 x 3	7.8			●	●	●		2,800	5,000	0.541			●	●		●	●	●										157
12 x 2	10.6			●				1,380	2,500	0.356			●			●												158
12 x 4	9.8			●		●		5,500	11,000	0.711			●			●	●				●							158
12 x 5	9.5			●		●		6,600	12,000	0.889			●			●	●				●							158
12.7 x 12.7	10.3			●				8,000	15,500	2.235			●			●												158
14 x 4	11.5			●	●			8,100	16,000	0.711			●	●		●	●				●	●						159
16 x 2	14.5			●				2,500	5,500	0.356			●			●					●							162
16 x 5	12.9	●	●					7,600	12,400	0.880	●	●				●												160
16 x 5	13.0			●				9,700	22,000	0.889			●			●					●							162
16 x 10	13.0			●				17,000	25,000	1.778			●			●					●							162
16 x 50	10.6			●				4,500	10,000	8.839			●												●			161
20 x 5	17.5	●	●					13,000	24,400	0.880	●	●				●												164
20 x 5	16.5			●	●			10,800	25,000	0.889			●	●		●	●				●	●						165
20 x 10	16.5			●				21,000	51,000	1.778			●			●					●							165
25 x 5	22.6	●	●					18,500	39,400	0.880	●	●				●												166
25 x 5	21.5			●				11,700	30,000	0.889			●			●					●							167
25 x 10	21.8			●				21,000	51,000	1.778			●			●					●							167
25 x 25	21.2			●				10,000	24,000	4.420			●			●					●							167
32 x 5	26.6			●				19,000	54,000	0.889			●			●					●							168
40 x 10	34.79	●	●					62,500	136,200	1.778	●	●				●												169
40 x 40	33.79	●						75,300	121,400	7.08	●	●				●												170
50 x 10	45.2	●	●					75,500	189,300	1.778	●	●				●												171
50 x 50	43.02	●						92,600	152,400	7.08	●	●				●												172
63 x 12	56.98	●	●					140,000	386,000	2.124	●	●				●												173

*PMT load rating is different from MRT, see previous pages for specific nut load ratings.