

Inch Series Ball Screws

Precision Rolled Screws — Product Availability⁽¹⁾, Accuracy and Axial Play



Screw Diameter	Accuracy	Max. Axial Backlash (Non-preloaded) ⁽²⁾
0.375" to 4.000"	± 0.004 in/ft	0.002 to 0.015"

Inch											
	0.125	0.200	0.250	0.413	0.473	0.500	0.660	1.000	1.500	1.875	2.000
0.375	●										
0.500		●				●					
0.631		●						●			
0.750		●				●					
0.875		●									
1.000			●			●		●			
1.150		●									
1.171				●							
1.500			●		●	●		●		●	●
2.000						●		●			
2.250						●		●			
2.500			●			●		●			
3.000							●		●		
4.000								●			

(1) Additional sizes are available. Contact customer service for more details.

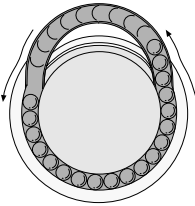
(2) Standard lash dependent on ball diameter. See page 171 as reference. Consult factory for special requirements.



Product Overview

Tangential Ball Return

A unique Thomson feature which minimizes recirculated bearing ball deflection, for smoother and quieter operation. The tangential circuit consists of a pick-up deflector finger and modified return tube which allows the bearing balls to enter and exit the load carrying portion of the ball screw circuit in a straight path. Standard on ball bearing screws with up to 10,000 pound dynamic load capabilities.



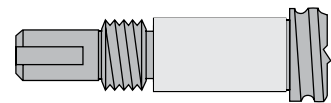
Load Locking Spring

The load locking spring is a coil turned into the inactive portion of the nut and conforms to the ball tract. In normal operation, the spring is inactive and not in contact with the screw. In the event the ball bearings are lost from the nut, the load locking spring will not allow the load carrying nut to free-fall down the screw.

End Journals and Bearing Supports

To assist the designer, standard end journals and bearing supports are included in this catalog. Ball screw assemblies, complete with end journals and bearing supports, may be ordered through a local Thomson distributor or directly from the factory.

Thomson welcomes the opportunity to custom machine end journals to unique customer designs.



Lube Holes

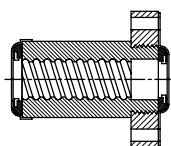
A standard 1/8-27 NPT tapped hole on ball nuts with a dynamic load capacity of 10,000 pounds or more provides easy access for continuing lubrication.

Coating

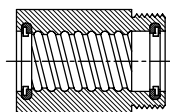
Our catalog standard ball screws feature a high luster polished and oiled finish, which provides superior surface finish, smoother operation, and a high quality look and feel which is consistent across our entire product line. Additional ball screw coatings (thin dense chrome, black oxide, manganese phosphate) are available upon request.

Wiper Kit

Wipers can increase the life and long-term performance of ball bearing screws by preventing most dirt and other foreign matter from entering the ball nut. Wipers are attached via two methods: Type A attaches directly to the ball nut body and flange; and Type B installs into the ends of the ball nut with easy-to-install snap rings kits. See our installation section on page 217 for more details.



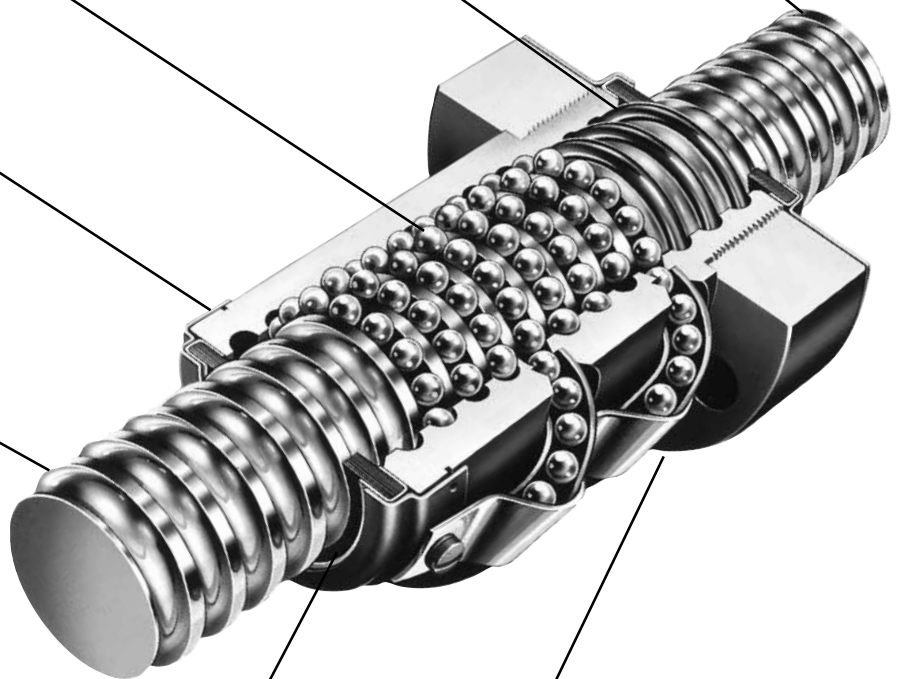
Type A



Type B

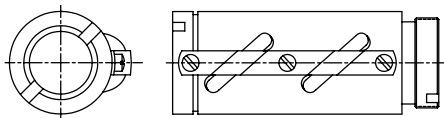
Flanges

Standard flanges are offered for all ball nuts. Flanges provide an easy, low cost method to mount the load square and concentric to the ball screw.



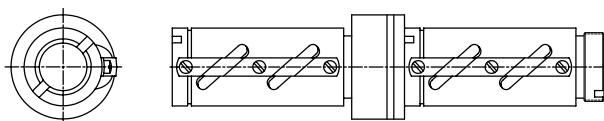
Product Overview

Standard Non-Preloaded Ball Nuts



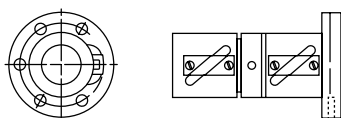
Standard Non-Preloaded Ball Nuts are a flexible, economical solution for use in industrial, transport grade applications. Both round and square models are available, with flange and wiper kits as accessories. Non-Preloaded Ball Nuts come standard with black-oxide coating (thin dense chrome is available upon request).

Preloaded Ball Nuts



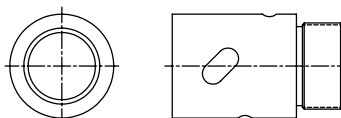
Preloaded Ball Nuts should be considered to eliminate backlash and increase system stiffness in applications where multi-directional positional accuracy and repeatability are required. Preloaded Ball Nuts consist of two non-preloaded ball nuts (round or square) joined by an adjustable preload package with springs. This design allows ease of setup and adjust of preload based on application requirements.

Preloaded Ball Nuts with Integral Flange



Preloaded Ball Nuts with Integral Flange provide higher-level positional accuracy and repeatability from a rolled screw assembly. These adjustable preload ball nuts feature precision ground internal threads, which enable smoother running, more consistent performance. The integral flange is held to high perpendicularity tolerances to ensure the load bearings are aligned to load to prevent unnecessary wear.

Internal Return Ball Nuts



Internal Return Ball Nuts feature an internal ball recirculation system, which allows higher speeds, and lower noise in a compact envelope. Each nut includes an integrated wiper as standard. These ball nuts come standard "as machined" with corrosion protective film applied prior to shipment. machined" with corrosion protective film applied prior to shipment. Please note, a full line of internal return ball nuts are featured as part of our metric series ball screws.

High Capacity Ball Nuts

High Capacity Ball Nuts provide higher static and dynamic load capacities than our standard nuts. These ball nuts are typically longer than standard nuts, allowing for more balls in contact with the screw. High capacity nuts may also include larger balls than those found in standard ball nuts.

High Speed Ball Nuts

High Speed Ball Nuts are designed to permit higher linear speeds in applications where critical speed of the ball nut (DN value) limits performance in an application. These ball nuts feature solid deflectors and reinforced ball return guides to allow smooth, reliable transition of balls entering and exiting the return system at high speeds.



0.375 x 0.125

Precision Rolled Ball Screws — Inch Series

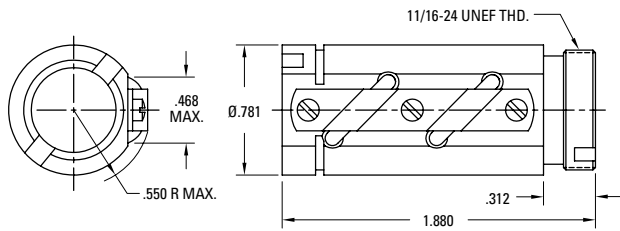
Diameter x Lead (in.)	0.375 x 0.125
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.3
Screw Root Diameter (in.)	0.31
Nominal Ball Diameter (in.)	0.078
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 36" P/N	190-9217		
Maximum Length 72" P/N	190-9441		

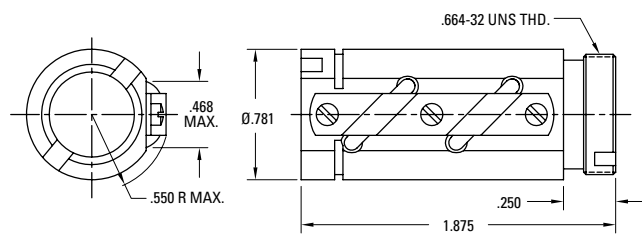
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock (11/16 - 24 V-Thread)



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	500	
Max. Static Load (lbs)	4,250	
Torque to raise 1 lb (oz-in.)	0.35	
Nut weight (lbs)	0.16	
Ball Nut Part Number	8103-448-003	
Flange Part Number	8103-448-002	
Wiper Kit Part Number	8103-101-002	

Double Circuit, Round Ball Nut with Load Lock (.664 - 32 V-Thread)



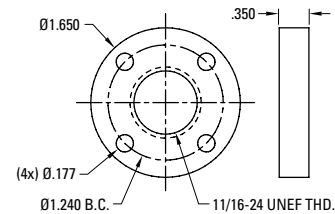
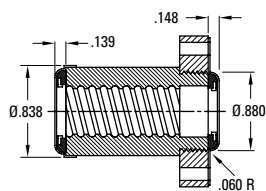
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	500	
Max. Static Load (lbs)	4,250	
Torque to raise 1 lb (oz-in.)	0.35	
Nut weight (lbs)	0.16	
Ball Nut Part Number	8103-448-013	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Wiper and Flange Kits

Wiper P/N 8103-101-002

Flange P/N 8103-448-002



0.375 x 0.125

Precision Rolled Ball Screws — Inch Series

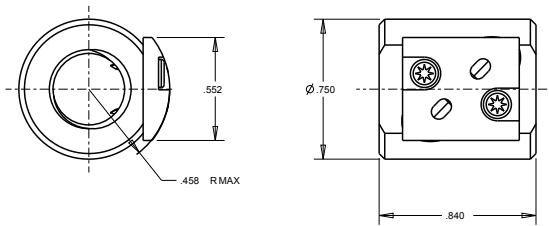
Diameter x Lead (in.)	0.375 x 0.125
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.3
Screw Root Diameter (in.)	0.31
Nominal Ball Diameter (in.)	0.078
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 31" P/N	190-9452		
Maximum Length 48" P/N			190-9576
Maximum Length 72" P/N		190-9575	

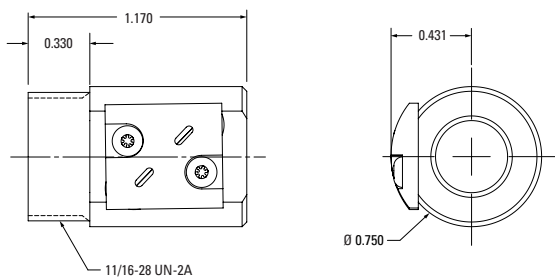
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Single Circuit, Cylindrical Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	170	
Max. Static Load (lbs)	1,600	
Torque to raise 1 lb (oz-in.)	0.35	
Nut weight (lbs)	0.13	
Ball Nut Part Number	8103-448-017	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Single Circuit, Round Ball Nut

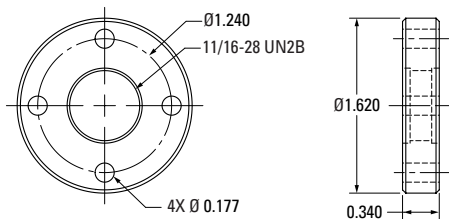


Thread Direction	Right Hand	Left Hand	Right Hand
Nut Material	Alloy Steel	Alloy Steel	Stainless Steel
Dynamic Load (lbs)	170		24
Max. Static Load (lbs)	1,600		255
Torque to raise 1 lb (oz-in.)	0.35		0.35
Nut weight (lbs)	0.13		0.13
Ball Nut Part Number	8103-448-018		8103-448-057
Flange Part Number	8103-448-056		N/A
Wiper Kit Part Number	N/A		N/A

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Wiper and Flange Kits

Flange P/N 8103-448-056





0.500 x 0.200

Precision Rolled Ball Screws — Inch Series

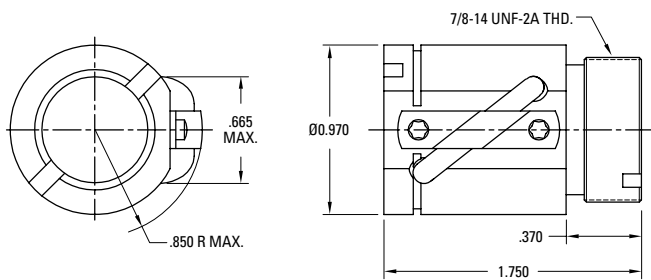
Diameter x Lead (in.)	0.500 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.7
Screw Root Diameter (in.)	0.41
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 72" P/N	190-9097		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Single Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	600	
Max. Static Load (lbs)	2,975	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.27	
Ball Nut Part Number	8105-448-023	
Flange Part Number	N/A	
Wiper Kit Part Number	8105-101-002	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

0.500 x 0.200

Precision Rolled Ball Screws — Inch Series

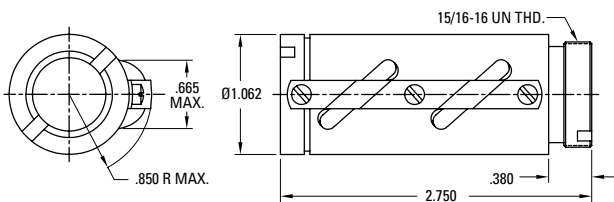
Diameter x Lead (in.)	0.500 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.7
Screw Root Diameter (in.)	0.41
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 72" P/N	190-9097		

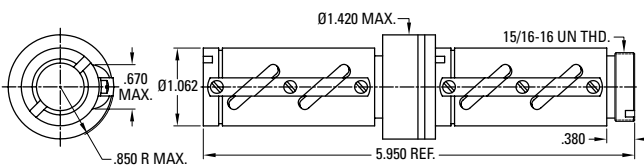
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,200	
Max. Static Load (lbs)	9,430	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.55	
Ball Nut Part Number	8105-448-013	
Flange Part Number	8105-448-002	
Wiper Kit Part Number	8105-101-002	

Preloaded, Double Circuit, Round Ball Nut with Load Lock



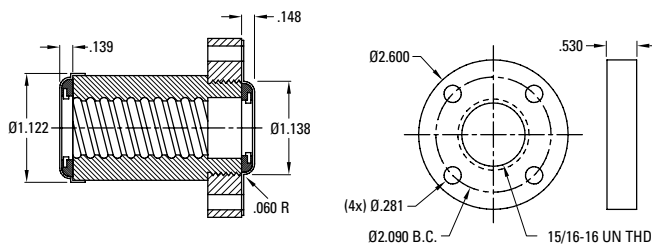
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,200	
Max. Static Load (lbs)	9,430	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	1.30	
Ball Nut Part Number	8105-448-008	
Flange Part Number	8105-448-002	
Wiper Kit Part Number	8105-101-002	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8105-101-002

Flange P/N 8105-448-002





0.500 x 0.500

Precision Rolled Ball Screws — Inch Series

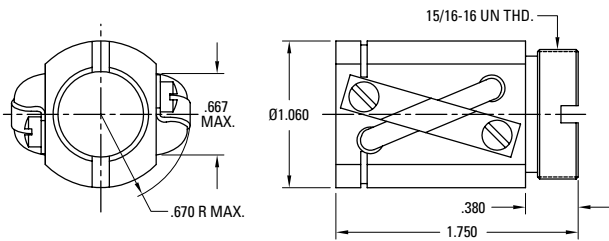
Diameter x Lead (in.)	0.500 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.7
Screw Root Diameter (in.)	0.41
Nominal Ball Diameter (in.)	0.125
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 72" P/N	190-9096		190-9010
Maximum Length 144" P/N			190-9043

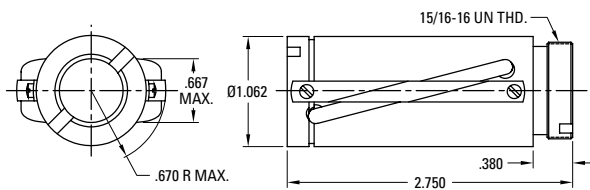
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	929	
Max. Static Load (lbs)	4,150	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	0.27	
Ball Nut Part Number	8105-448-014	
Flange Part Number	8105-448-002	
Wiper Kit Part Number	8105-101-002	

Double Circuit, Round Ball Nut with Load Lock — High Capacity



Thread Direction	Right Hand	Left Hand	Right Hand
Nut Material	Alloy Steel	Alloy Steel	Stainless Steel
Dynamic Load (lbs)	2,200		380
Max. Static Load (lbs)	13,350		1,950
Torque to raise 1 lb (oz-in.)	1.42		1.42
Nut weight (lbs)	0.40		0.40
Ball Nut Part Number	8105-448-011		8105-448-016 ⁽¹⁾
Flange Part Number	8105-448-002		8105-448-004
Wiper Kit Part Number	8105-101-002		8105-101-002

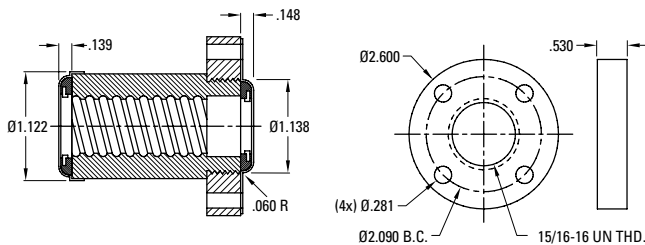
(1) Load Lock not available

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8105-101-002

Flange P/N 8105-448-002 / 8105-448-004



0.631 x 0.200

Precision Rolled Ball Screws — Inch Series

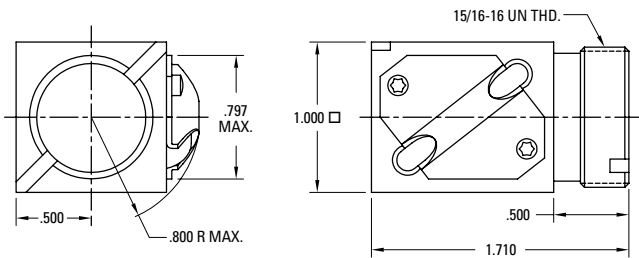
Diameter x Lead (in.)	0.631 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.9
Screw Root Diameter (in.)	0.50
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9098	190-9099	
Maximum Length 144" P/N	190-9121	190-9122	190-9574

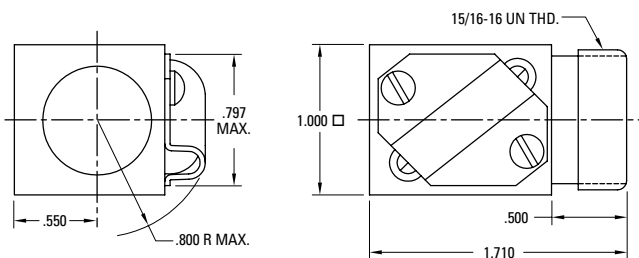
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Single Circuit, Square Ball Nut with Load Lock



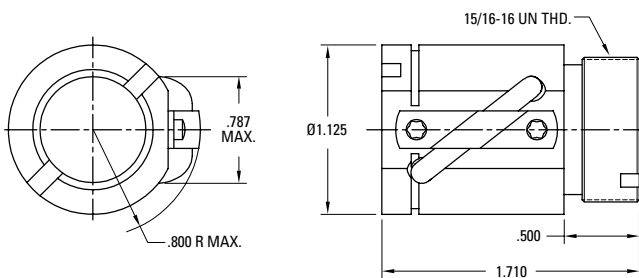
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	800	800
Max. Static Load (lbs)	6,384	6,384
Torque to raise 1 lb (oz-in.)	0.57	0.57
Nut weight (lbs)	0.27	0.27
Ball Nut Part Number	8106-448-022	8106-448-026
Flange Part Number	8105-448-002	8105-448-002
Wiper Kit Part Number	8106-101-006	8106-101-006

Single Circuit, Square Ball Nut – Stainless Steel



Thread Direction	Right Hand	Left Hand	Right Hand
Nut Material	Alloy Steel	Alloy Steel	Stainless Steel
Dynamic Load (lbs)			140
Max. Static Load (lbs)			1,149
Torque to raise 1 lb (oz-in.)			0.57
Nut weight (lbs)			0.27
Ball Nut Part Number			8106-448-045
Flange Part Number			8105-448-004
Wiper Kit Part Number			8106-101-006

Single Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	800	800
Max. Static Load (lbs)	6,384	6,384
Torque to raise 1 lb (oz-in.)	0.57	0.57
Nut weight (lbs)	0.27	0.27
Ball Nut Part Number	8106-448-009	8106-448-008
Flange Part Number	8105-448-002	8105-448-002
Wiper Kit Part Number	8106-101-002	8106-101-002

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



0.631 x 0.200

Precision Rolled Ball Screws — Inch Series

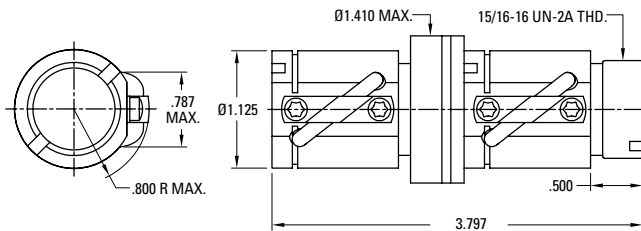
Diameter x Lead (in.)	0.631 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.9
Screw Root Diameter (in.)	0.50
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9098	190-9099	
Maximum Length 144" P/N	190-9121	190-9122	

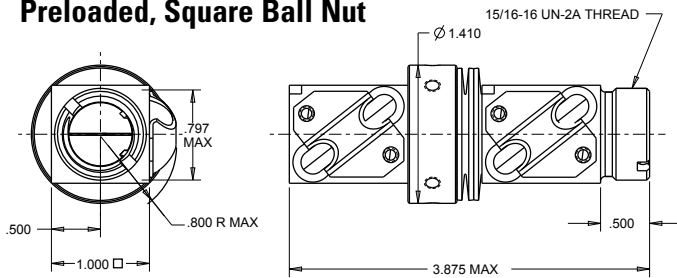
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Single Circuit, Round Ball Nut



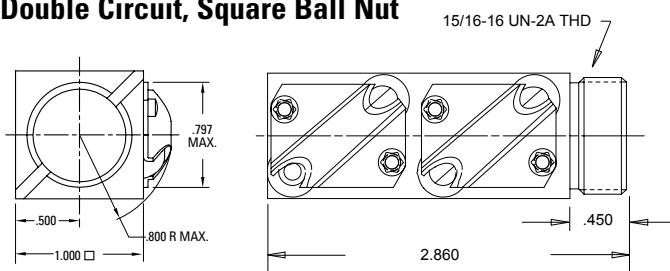
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	800	800
Max. Static Load (lbs)	6,384	6,384
Torque to raise 1 lb (oz-in.)	0.57	0.57
Nut weight (lbs)	0.79	0.79
Ball Nut Part Number	8106-448-015	8106-448-019
Flange Part Number	8105-448-002	8105-448-002
Wiper Kit Part Number	8106-101-002	8106-101-002

Preloaded, Square Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	800	
Max. Static Load (lbs)	6,384	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.79	
Ball Nut Part Number	8106-448-012	
Flange Part Number	8105-448-002	
Wiper Kit Part Number	8106-101-006	

Double Circuit, Square Ball Nut

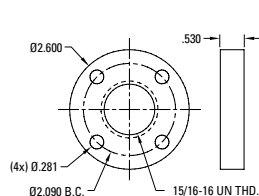
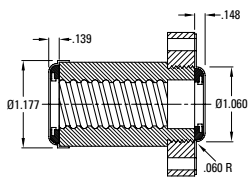


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,600	
Max. Static Load (lbs)	12,768	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.54	
Ball Nut Part Number	8106-448-036	
Flange Part Number	8105-448-002	
Wiper Kit Part Number	N/A	

Optional Wiper and Flange Kits

Wiper P/N 8106-101-002

Flange P/N 8105-448-002



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

0.631 x 0.200

Precision Rolled Ball Screws — Inch Series

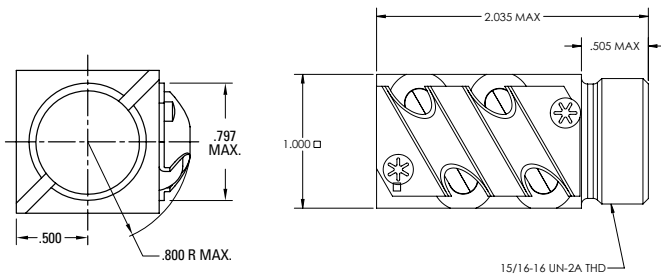
Diameter x Lead (in.)	0.631 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.9
Screw Root Diameter (in.)	0.50
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9098	190-9099	
Standard Length 144" P/N	190-9121	190-9122	

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Square Ball Nut

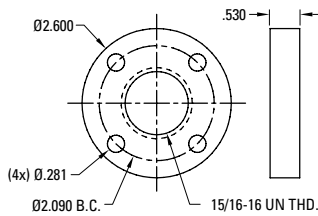


Thread Direction	Right Hand	Left Hand
Nut Material		Alloy Steel
Dynamic Load (lbs)		1,600
Max. Static Load (lbs)		12,768
Torque to raise 1 lb (oz-in.)		0.57
Nut weight (lbs)		0.54
Ball Nut Part Number		8106-448-037
Flange Part Number		8105-448-002
Wiper Kit Part Number		N/A

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kit

Flange P/N 8105-448-002





0.631 x 1.000

Precision Rolled Ball Screws — Inch Series

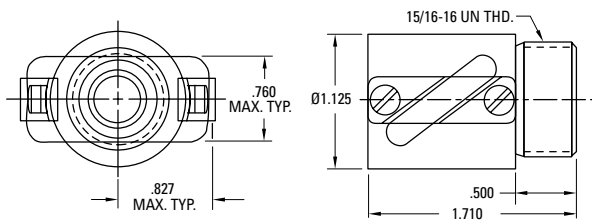
Diameter x Lead (in.)	0.631 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	0.8
Screw Root Diameter (in.)	0.48
Nominal Ball Diameter (in.)	0.125
Number of Starts	4

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 96" P/N	190-9549		

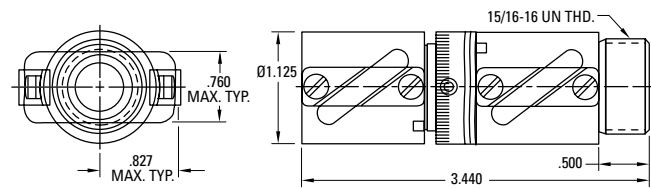
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	578	
Max. Static Load (lbs)	2,425	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	0.28	
Ball Nut Part Number	8106-448-041	
Flange Part Number	8106-448-046	
Wiper Kit Part Number	8106-101-007	

Preloaded, Double Circuit, Round Ball Nut



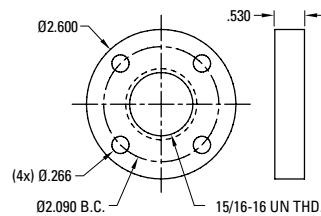
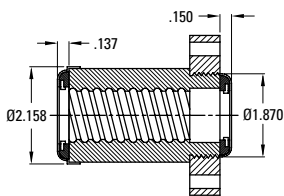
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	578	
Max. Static Load (lbs)	2,425	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	0.67	
Ball Nut Part Number	8106-448-042	
Flange Part Number	8106-448-046	
Wiper Kit Part Number	8106-101-007	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8106-101-007

Flange P/N 8106-448-046



Note: Wiper kit does not include flange end cap.

0.750 x 0.200

Precision Rolled Ball Screws — Inch Series

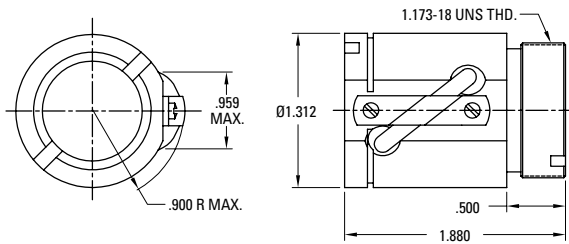
Diameter x Lead (in.)	0.750 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.4
Screw Root Diameter (in.)	0.66
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9101		
Maximum Length 144" P/N	190-9124		

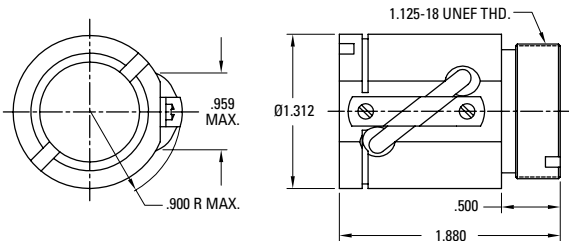
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Single Circuit, Round Ball Nut with Load Lock (1.173 - 18 V-Thread)



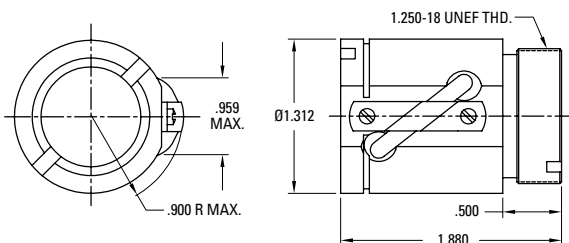
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	950	
Max. Static Load (lbs)	7,750	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.50	
Ball Nut Part Number	8107-448-018	
Flange Part Number	8107-448-007	
Wiper Kit Part Number	8107-101-002	

Single Circuit, Round Ball Nut (1.125 - 18 V-Thread)



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	950	
Max. Static Load (lbs)	7,750	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.50	
Ball Nut Part Number	8107-448-026	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Single Circuit, Round Ball Nut (1.250 - 18 V-Thread)



Thread Direction	Right Hand	Left Hand
Nut Material	Carbon Steel	Alloy Steel
Dynamic Load (lbs)	950	
Max. Static Load (lbs)	7,750	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.50	
Ball Nut Part Number	8107-448-047	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



0.750 x 0.200

Precision Rolled Ball Screws — Inch Series

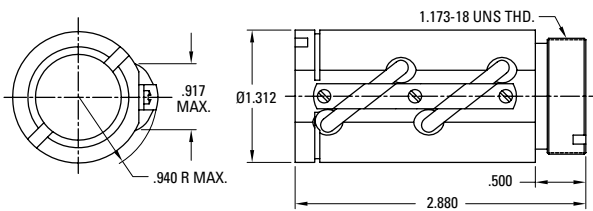
Diameter x Lead (in.)	0.750 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.4
Screw Root Diameter (in.)	0.66
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9101		
Maximum Length 144" P/N	190-9124		

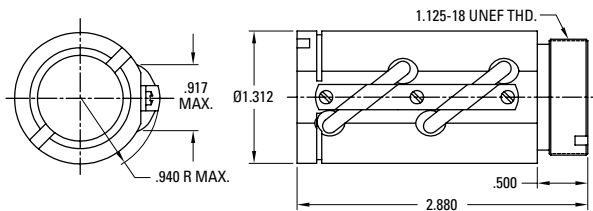
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock (1.173 - 18 V-Thread)



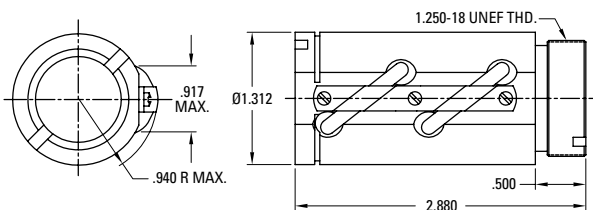
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,900	
Max. Static Load (lbs)	18,800	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.75	
Ball Nut Part Number	8107-448-016	
Flange Part Number	8107-448-007	
Wiper Kit Part Number	8107-101-002	

Double Circuit, Round Ball Nut with Load Lock (1.125 - 18 V-Thread)



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,900	
Max. Static Load (lbs)	18,800	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.75	
Ball Nut Part Number	8107-448-027	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Double Circuit, Round Ball Nut with Load Lock (1.250 - 18 V-Thread)



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,900	
Max. Static Load (lbs)	18,800	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.75	
Ball Nut Part Number	8107-448-046	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

0.750 x 0.200

Precision Rolled Ball Screws — Inch Series

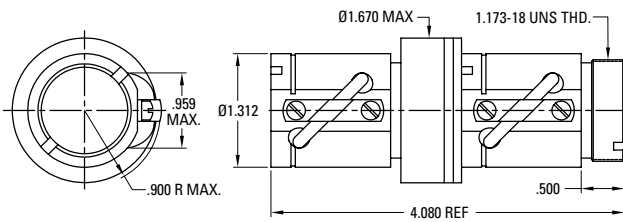
Diameter x Lead (in.)	0.750 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.4
Screw Root Diameter (in.)	0.66
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9101		
Maximum Length 144" P/N	190-9124		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Single Circuit, Round Ball Nut (1.173 - 18 V-Thread)



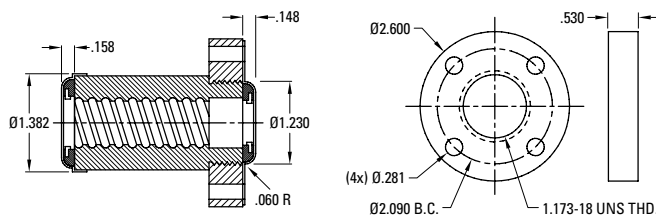
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	950	
Max. Static Load (lbs)	7,750	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	1.20	
Ball Nut Part Number	8107-448-025	
Flange Part Number	8107-448-007	
Wiper Kit Part Number	8107-101-002	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8107-101-002

Flange P/N 8107-448-007



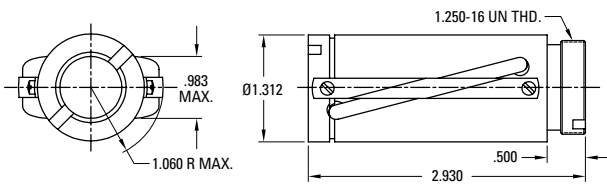


0.750 x 0.500

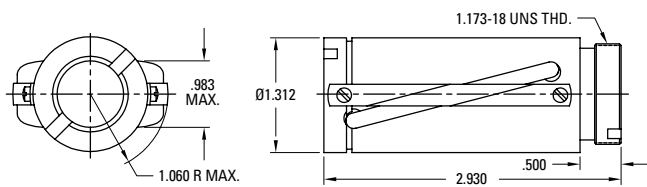
Precision Rolled Ball Screws — Inch Series

Diameter x Lead (in.)	0.750 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.4
Screw Root Diameter (in.)	0.63
Nominal Ball Diameter (in.)	0.156
Number of Starts	2

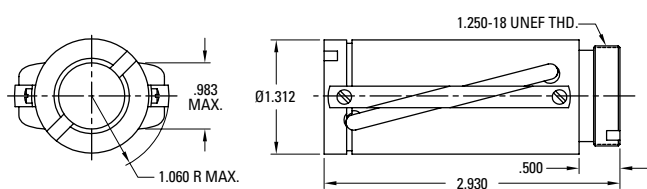
Double Circuit, Round Ball Nut with Load Lock (1.250 - 16 V-Thread)



Double Circuit, Round Ball Nut with Load Lock (1.173 - 18 V-Thread)



Double Circuit, Round Ball Nut with Load Lock (1.250 - 18 V-Thread)



Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9100		190-9006
Maximum Length 144" P/N	190-9123		190-9048

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Thread Direction	Right Hand	Left Hand	Right Hand
Nut Material	Alloy Steel	Alloy Steel	Stainless Steel
Dynamic Load (lbs)	3,450		600
Max. Static Load (lbs)	24,200		3,460
Torque to raise 1 lb (oz-in.)	1.42		1.42
Nut weight (lbs)	0.80		0.80
Ball Nut Part Number	8107-448-014		8107-448-020 ⁽¹⁾
Flange Part Number	8107-448-002		8107-448-004
Wiper Kit Part Number	8107-101-002		8107-101-002

(1) Load Lock not available

Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,450	
Max. Static Load (lbs)	24,200	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	0.80	
Ball Nut Part Number	8107-448-049	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,450	
Max. Static Load (lbs)	24,200	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	0.80	
Ball Nut Part Number	8107-448-048	
Flange Part Number	N/A	
Wiper Kit Part Number	N/A	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

0.750 x 0.500

Precision Rolled Ball Screws — Inch Series

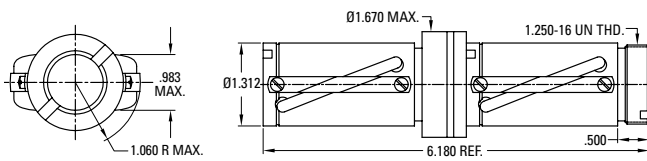
Diameter x Lead (in.)	0.750 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.4
Screw Root Diameter (in.)	0.63
Nominal Ball Diameter (in.)	0.156
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 72" P/N	190-9100		
Maximum Length 144" P/N	190-9123		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Double Circuit, Round Ball Nut with Load Lock (1.250 - 16 V-Thread)



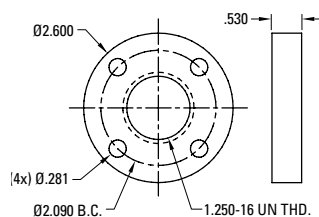
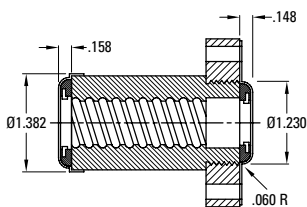
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,450	
Max. Static Load (lbs)	24,200	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	1.85	
Ball Nut Part Number	8107-448-011	
Flange Part Number	8107-448-002	
Wiper Kit Part Number	8107-101-002	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8107-101-002

Flange P/N 8107-448-002 / 8107-448-007





0.875 x 0.200

Precision Rolled Ball Screws — Inch Series

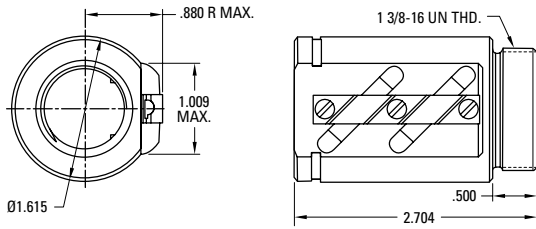
Diameter x Lead (in.)	0.875 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	1.8
Screw Root Diameter (in.)	0.74
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9550		
Maximum Length 288" P/N	190-9551		

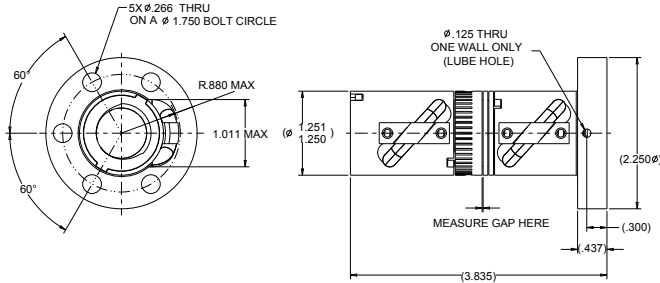
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,942	
Max. Static Load (lbs)	18,063	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.69	
Ball Nut Part Number	8109-448-001	
Flange Part Number	8109-448-002	
Wiper Kit Part Number	8109-101-001	

Preloaded, Single Circuit, Round Ball Nut with Integral Flange

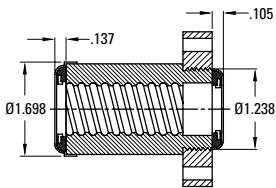


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	971	
Max. Static Load (lbs)	9,482	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	1.81	
Ball Nut Part Number	8109-448-003	
Flange Part Number	Integral	
Wiper Kit Part Number	Internal	

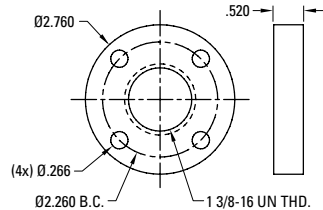
Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8109-101-001



Flange P/N 8109-448-002



Note: Wiper kit does not include flange end cap.

1.000 x 0.250

Precision Rolled Ball Screws — Inch Series

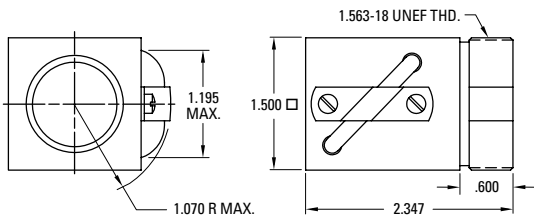
Diameter x Lead (in.)	1.000 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.3
Screw Root Diameter (in.)	0.84
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9104	190-9105	
Maximum Length 288" P/N	190-9127		

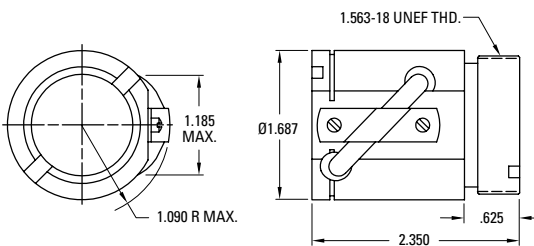
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Single Circuit, Square Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,612	1,612
Max. Static Load (lbs)	15,300	15,300
Torque to raise 1 lb (oz-in.)	0.71	0.71
Nut weight (lbs)	0.81	0.81
Ball Nut Part Number	8110-448-055	8110-448-091
Flange Part Number	8110-448-002	8110-448-002
Wiper Kit Part Number	8110-101-008	8110-101-008

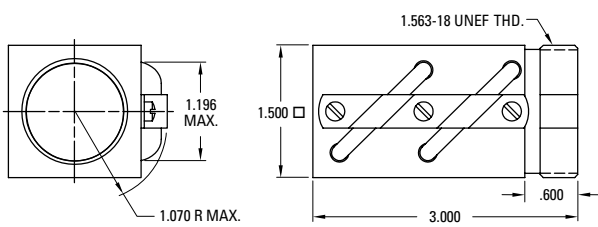
Single Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,612	1,612
Max. Static Load (lbs)	13,913	13,913
Torque to raise 1 lb (oz-in.)	0.71	0.71
Nut weight (lbs)	0.81	0.81
Ball Nut Part Number	8110-448-032	8110-448-030 ⁽¹⁾
Flange Part Number	8110-448-002	8110-448-002
Wiper Kit Part Number	8110-101-002	8110-101-002

(1) Load Lock not available

Double Circuit, Square Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,350	
Max. Static Load (lbs)	30,750	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	1.25	
Ball Nut Part Number	8110-448-056	
Flange Part Number	8110-448-002	
Wiper Kit Part Number	8110-101-008	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



1.000 x 0.250

Precision Rolled Ball Screws — Inch Series

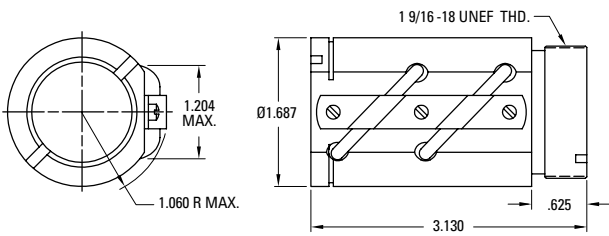
Diameter x Lead (in.)	1.000 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.3
Screw Root Diameter (in.)	0.84
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9104	190-9105	
Maximum Length 288" P/N	190-9127		

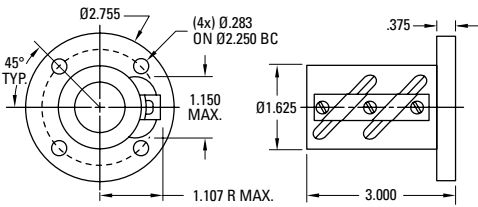
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,350	3,350
Max. Static Load (lbs)	30,750	30,750
Torque to raise 1 lb (oz-in.)	0.71	0.71
Nut weight (lbs)	1.25	1.25
Ball Nut Part Number	8110-448-026	8110-448-024
Flange Part Number	8110-448-002	8110-448-002
Wiper Kit Part Number	8110-101-002	8110-101-002

Double Circuit, Round Ball Nut with Integral Flange

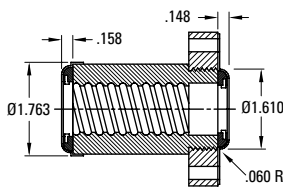


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,350	3,350
Max. Static Load (lbs)	30,750	30,750
Torque to raise 1 lb (oz-in.)	0.71	0.71
Nut weight (lbs)	1.50	1.50
Ball Nut Part Number	8110-448-087	8110-448-088
Flange Part Number	Integral	Integral
Wiper Kit Part Number	8110-101-007	8110-101-007

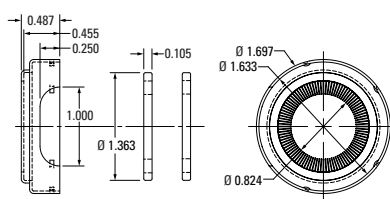
Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

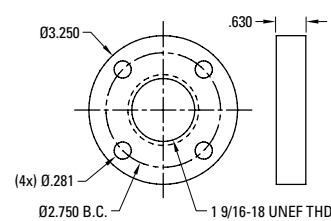
Wiper P/N 8110-101-002



Wiper P/N 8110-101-007



Flange P/N 8110-448-002



1.000 x 0.250

Precision Rolled Ball Screws — Inch Series

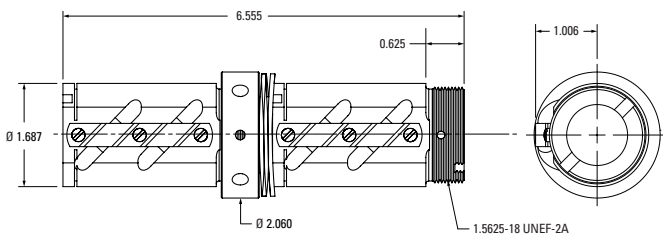
Diameter x Lead (in.)	1.000 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.3
Screw Root Diameter (in.)	0.84
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9104	190-9105	
Maximum Length 288" P/N	190-9127		

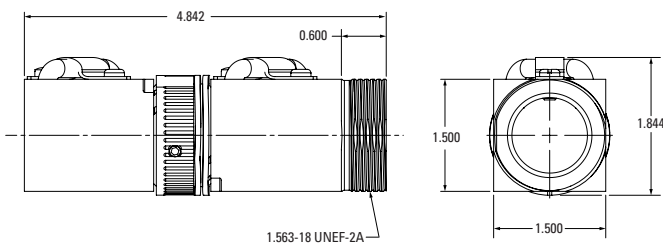
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,350	
Max. Static Load (lbs)	30,750	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	2.50	
Ball Nut Part Number	8110-448-017	8110-448-018
Flange Part Number	8110-448-002	8110-448-002
Wiper Kit Part Number	8110-101-002	8110-101-002

Preloaded, Single Circuit, Square Ball Nut

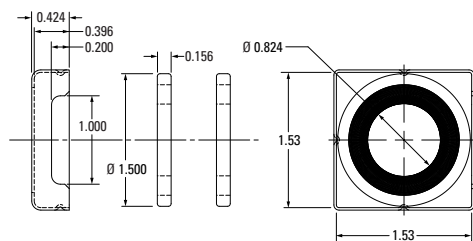


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	1,612	1,612
Max. Static Load (lbs)	15,300	15,300
Torque to raise 1 lb (oz-in.)	0.71	0.71
Nut weight (lbs)	0.81	0.81
Ball Nut Part Number	8110-448-100	8110-448-089
Flange Part Number	8110-448-002	8110-448-002
Wiper Kit Part Number	8110-101-008	8110-101-008

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8110-101-008



Note: Wiper Kit does not include flange end cap.



1.000 x 0.500

Precision Rolled Ball Screws — Inch Series

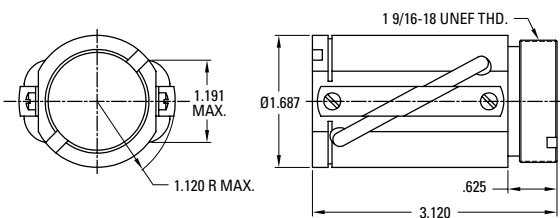
Diameter x Lead (in.)	1.000 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.6
Screw Root Diameter (in.)	0.88
Nominal Ball Diameter (in.)	0.156
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9103		
Maximum Length 288" P/N	190-9126		

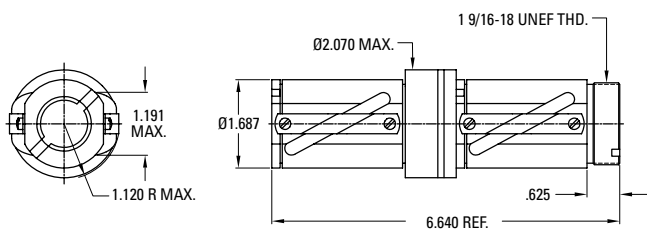
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,950	
Max. Static Load (lbs)	32,300	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	1.25	
Ball Nut Part Number	8110-448-022	
Flange Part Number	8110-448-002	
Wiper Kit Part Number	8110-101-002	

Preloaded, Double Circuit, Round Ball Nut with Load Lock

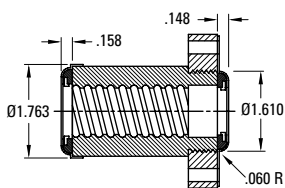


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,950	
Max. Static Load (lbs)	32,300	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	2.90	
Ball Nut Part Number	8110-448-016	
Flange Part Number	8110-448-002	
Wiper Kit Part Number	8110-101-002	

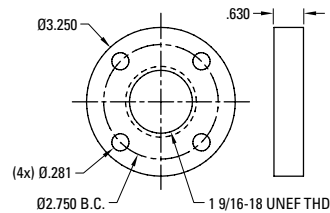
Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8110-101-002



Flange P/N 8110-448-002



1.000 x 1.000

Precision Rolled Ball Screws — Inch Series

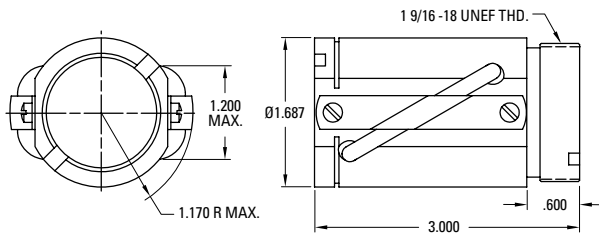
Diameter x Lead (in.)	1.000 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.3
Screw Root Diameter (in.)	0.84
Nominal Ball Diameter (in.)	0.156
Number of Starts	4

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9102		190-9150"
Maximum Length 288" P/N	190-9125		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

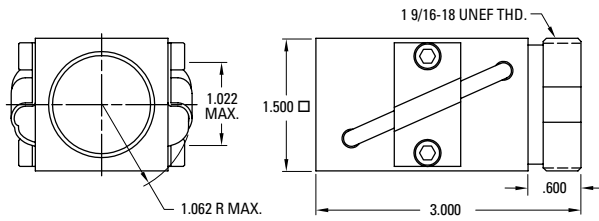
Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand	Right Hand
Nut Material	Alloy Steel	Alloy Steel	Stainless Steel
Dynamic Load (lbs)	2,250		430
Max. Static Load (lbs)	13,750		2000
Torque to raise 1 lb (oz-in.)	2.83		2.83
Nut weight (lbs)	1.25		1.25
Ball Nut Part Number	8110-448-020		8110-448-034 ⁽¹⁾
Flange Part Number	8110-448-002		8110-448-037
Wiper Kit Part Number	8110-101-002		8110-101-002

(1) Load Lock not available

Double Circuit, Square Ball Nut with Load Lock



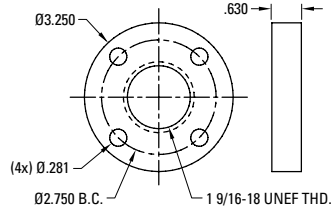
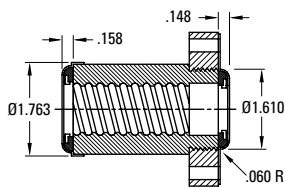
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	2,400	
Max. Static Load (lbs)	13,600	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	1.25	
Ball Nut Part Number	8110-448-086	
Flange Part Number	8110-448-002	
Wiper Kit Part Number	8110-101-009	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8110-101-002

Flange P/N 8110-448-002 / 8110-448-037





1.150 x 0.200

Precision Rolled Ball Screws — Inch Series

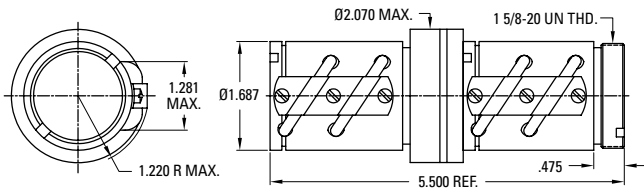
Diameter x Lead (in.)	1.150 x 0.200
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	3.2
Screw Root Diameter (in.)	1.02
Nominal Ball Diameter (in.)	0.125
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9106		
Maximum Length 288" P/N	190-9129		

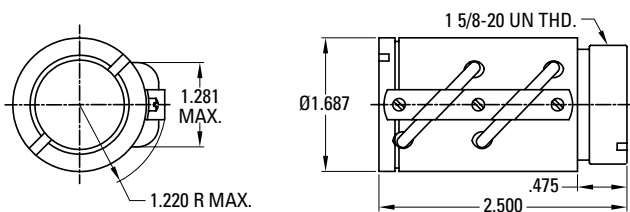
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	2,400	
Max. Static Load (lbs)	27,550	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	2.25	
Ball Nut Part Number	8111-448-004	
Flange Part Number	8111-448-002	
Wiper Kit Part Number	8111-101-002	

Double Circuit, Round Ball Nut with Load Lock



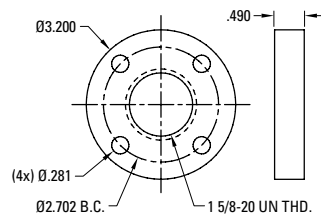
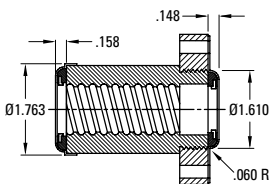
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	2,400	
Max. Static Load (lbs)	27,550	
Torque to raise 1 lb (oz-in.)	0.57	
Nut weight (lbs)	0.88	
Ball Nut Part Number	8111-448-006	
Flange Part Number	8111-448-002	
Wiper Kit Part Number	8111-101-002	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8111-101-002

Flange P/N 8111-448-002



1.171 x 0.413

Precision Rolled Ball Screws — Inch Series

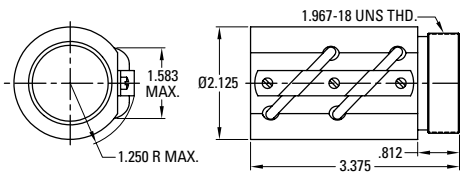
Diameter x Lead (in.)	1.171 x 0.413
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	2.8
Screw Root Diameter (in.)	0.87
Nominal Ball Diameter (in.)	0.281
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9552		
Maximum Length 288" P/N	190-9553		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



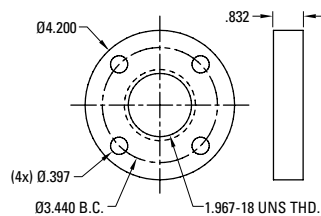
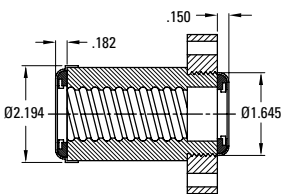
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,894	
Max. Static Load (lbs)	22,917	
Torque to raise 1 lb (oz-in.)	1.17	
Nut weight (lbs)	1.94	
Ball Nut Part Number	8111-448-015	
Flange Part Number	8111-448-003	
Wiper Kit Part Number	8111-101-003	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8111-101-003

Flange P/N 8111-448-003



Note: Wiper kit does not include flange end cap.



1.500 x 0.250

Precision Rolled Ball Screws — Inch Series

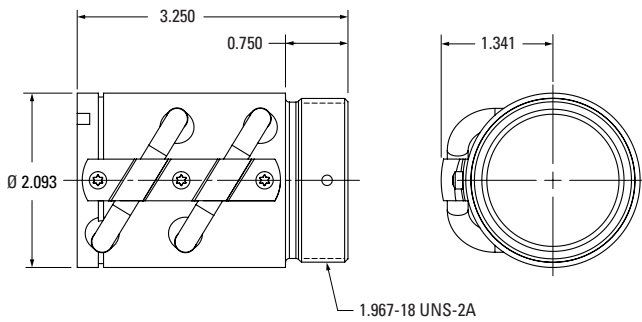
Diameter x Lead (in.)	1.500 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.2
Screw Root Diameter (in.)	1.32
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9110	190-9567	
Maximum Length 288" P/N	190-9133	190-9568	

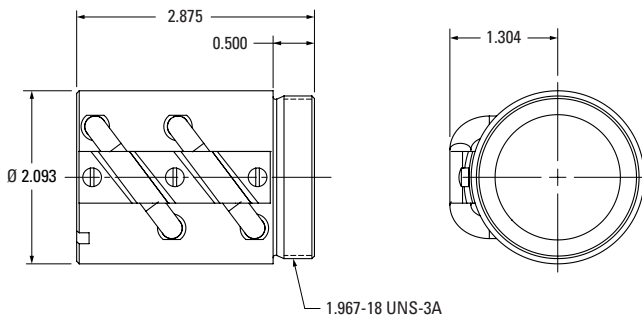
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	4,050	
Max. Static Load (lbs)	47,450	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	1.5	
Ball Nut Part Number	8115-448-020	
Flange Part Number	8115-448-009	
Wiper Kit Part Number	8115-101-006	

Double Circuit, Round Ball Nut



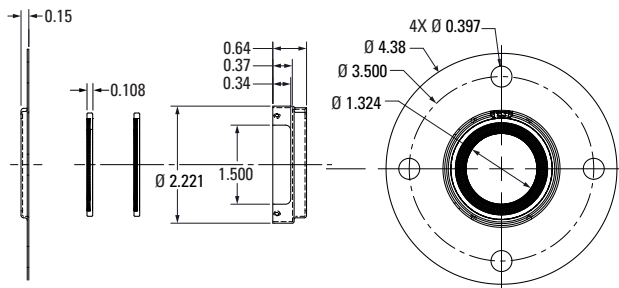
Thread Direction	Right Hand	Left Hand (1)
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)		4,198
Max. Static Load (lbs)		44,030
Torque to raise 1 lb (oz-in.)		0.71
Nut weight (lbs)		1.65
Ball Nut Part Number		8115-448-083 (1)
Flange Part Number		8115-448-084
Wiper Kit Part Number		8115-101-015

(1) Load Lock not available

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

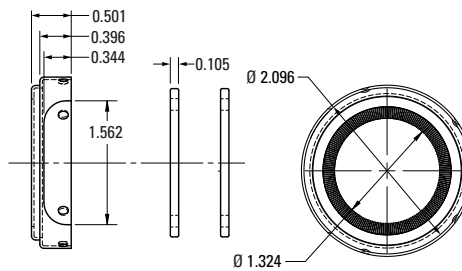
Optional Wiper Kits (Flange Kits, see next page)

Wiper P/N 8115-101-006



Note: Wiper kit does not include flange end cap.

Wiper P/N 8115-101-015



1.500 x 0.250

Precision Rolled Ball Screws — Inch Series

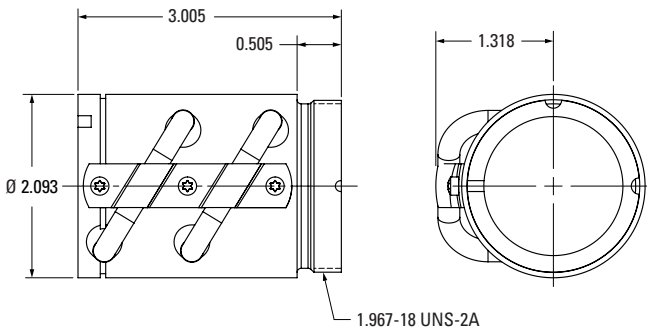
Diameter x Lead (in.)	1.500 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.2
Screw Root Diameter (in.)	1.32
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9110	190-9567	
Maximum Length 288" P/N	190-9133	190-9568	

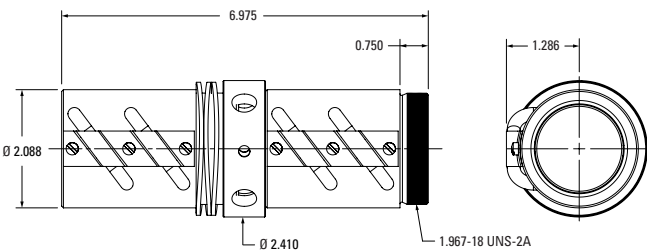
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	4,050	
Max. Static Load (lbs)	47,450	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	1.5	
Ball Nut Part Number	8115-448-085	
Flange Part Number	8115-448-084	
Wiper Kit Part Number	8115-101-006	

Preloaded, Double Circuit, Round Ball Nut with Load Lock



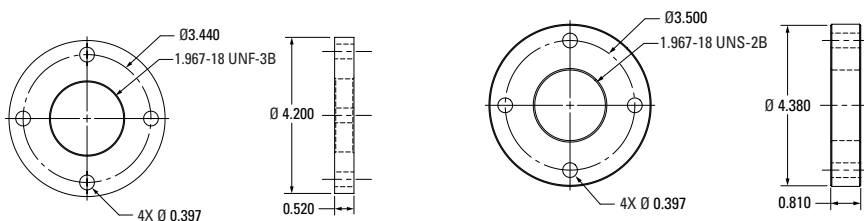
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	3,645	
Max. Static Load (lbs)	47,075	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	4.00	
Ball Nut Part Number	8115-448-012	
Flange Part Number	8115-448-009	
Wiper Kit Part Number	8115-101-006	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kits (Wiper Kits, see previous page)

Flange P/N 8115-448-084

Flange P/N 8115-448-009



Note: Wiper kit does not include flange end cap.



1.500 x 0.473

Precision Rolled Ball Screws — Inch Series

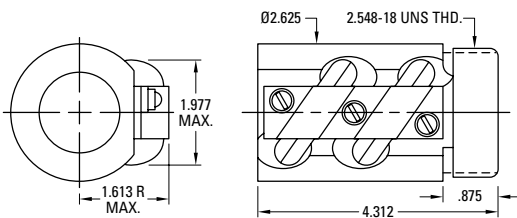
Diameter x Lead (in.)	1.500 x 0.473
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	4.5
Screw Root Diameter (in.)	1.14
Nominal Ball Diameter (in.)	0.344
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9554		
Maximum Length 288" P/N	190-9555		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut



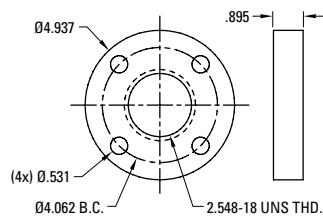
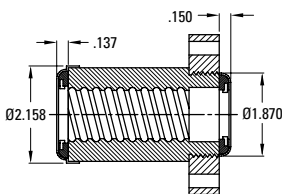
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	10,050	
Max. Static Load (lbs)	57,770	
Torque to raise 1 lb (oz-in.)	1.34	
Nut weight (lbs)	3.94	
Ball Nut Part Number	8115-448-081	
Flange Part Number	8115-448-064	
Wiper Kit Part Number	8115-101-014	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8115-101-014

Flange P/N 8115-448-064



Note: Wiper kit does not include flange end cap.

1.500 x 0.500

Precision Rolled Ball Screws — Inch Series

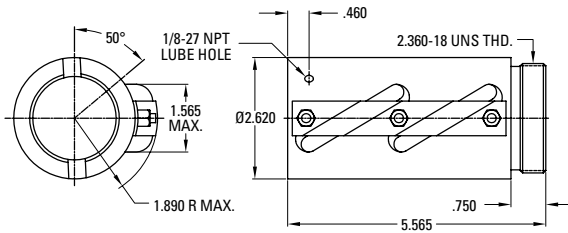
Diameter x Lead (in.)	1.500 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.6
Screw Root Diameter (in.)	1.27
Nominal Ball Diameter (in.)	0.312
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9108	190-9109	
Maximum Length 288" P/N	190-9131		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

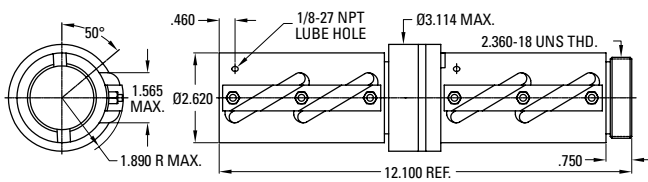
Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	14,513	14,513
Max. Static Load (lbs)	102,300	102,300
Torque to raise 1 lb (oz-in.)	1.42	1.42
Nut weight (lbs)	5.70	5.70
Ball Nut Part Number	8115-448-016	8115-448-018
Flange Part Number	8115-448-004	8115-448-004
Wiper Kit Part Number*	Internal	Internal

* Wiper kit included with this ball nut.

Preloaded, Double Circuit, Round Ball Nut with Load Lock

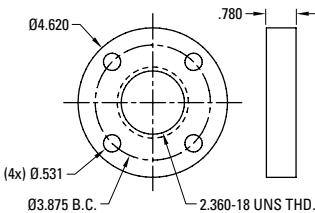


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	14,513	
Max. Static Load (lbs)	102,300	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	12.20	
Ball Nut Part Number	8115-448-006	
Flange Part Number	8115-448-004	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8115-448-004



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



1.500 x 1.000

Precision Rolled Ball Screws — Inch Series

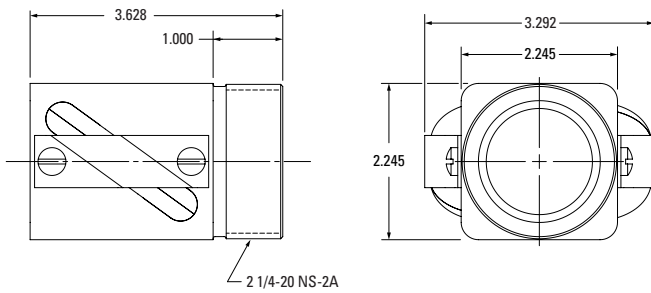
Diameter x Lead (in.)	1.500 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.6
Screw Root Diameter (in.)	1.14
Nominal Ball Diameter (in.)	0.344
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9107	190-9569	
Maximum Length 288" P/N	190-9130	190-9570	

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Square Ball Nut

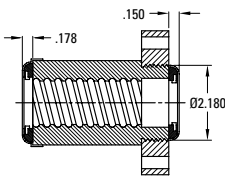


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)		8,250
Max. Static Load (lbs)		34,662
Torque to raise 1 lb (oz-in.)		2.83
Nut weight (lbs)		3.88
Ball Nut Part Number		8115-448-080
Flange Part Number		8115-448-002
Wiper Kit Part Number		8115-101-012

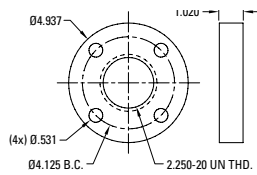
Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Wiper and Flange Kits

Wiper P/N 8115-101-012



Flange P/N 8115-448-002



Note: Wiper kit does not include flange end cap.

1.500 x 1.000

Precision Rolled Ball Screws — Inch Series

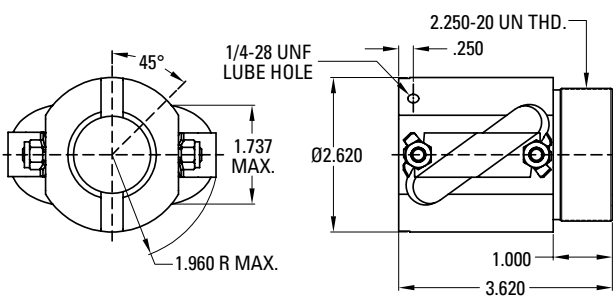
Diameter x Lead (in.)	1.500 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.6
Screw Root Diameter (in.)	1.14
Nominal Ball Diameter (in.)	0.344
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9107	190-9569	
Maximum Length 288" P/N	190-9130	190-9570	

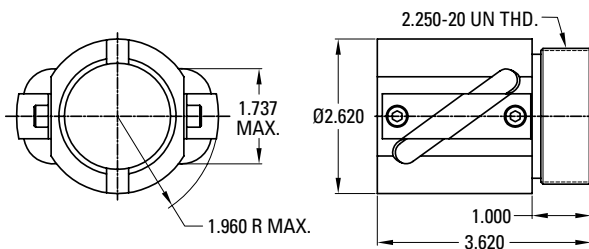
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut – High Speed



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	8,250	
Max. Static Load (lbs)	34,662	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	3.90	
Ball Nut Part Number	8115-448-049	
Flange Part Number	8115-448-002	
Wiper Kit Part Number*	Internal	

Double Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	8,250	
Max. Static Load (lbs)	34,662	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	3.90	
Ball Nut Part Number	8115-448-014	
Flange Part Number	8115-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



1.500 x 1.000

Precision Rolled Ball Screws — Inch Series

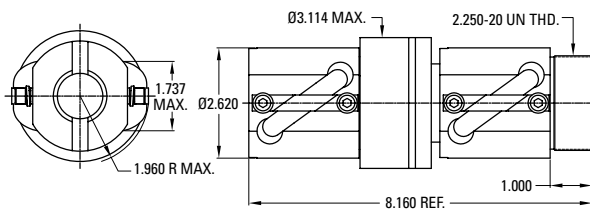
Diameter x Lead (in.)	1.500 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.6
Screw Root Diameter (in.)	1.14
Nominal Ball Diameter (in.)	0.344
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9107	190-9569	
Maximum Length 288" P/N	190-9130	190-9570	

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Preloaded, Double Circuit, Round Ball Nut



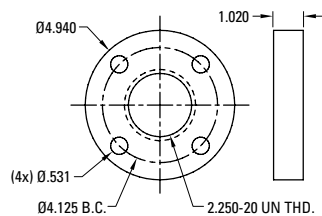
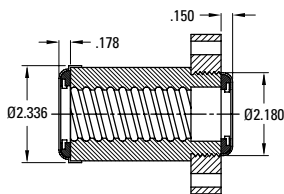
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	8,250	
Max. Static Load (lbs)	47,800	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	8.60	
Ball Nut Part Number	8115-448-011	
Flange Part Number	8115-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Wiper and Flange Kits

Wiper P/N 8115-101-012

Flange P/N 8115-448-002



Note: Wiper kit does not include flange end cap.

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

1.500 x 1.875

Precision Rolled Ball Screws — Inch Series

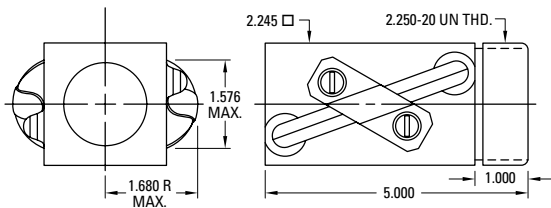
Diameter x Lead (in.)	1.500 x 1.875
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.3
Screw Root Diameter (in.)	1.19
Nominal Ball Diameter (in.)	0.281
Number of Starts	4

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9556		
Maximum Length 288" P/N	190-9557		

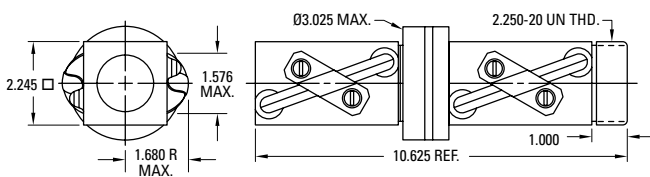
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Square Ball Nut



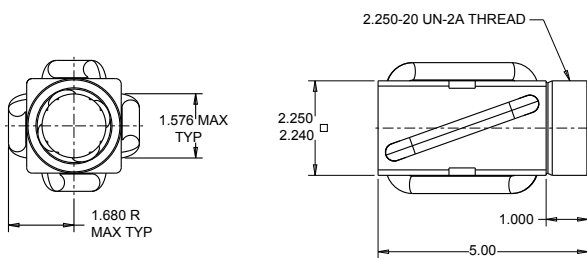
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	7,242	
Max. Static Load (lbs)	29,895	
Torque to raise 1 lb (oz-in.)	5.31	
Nut weight (lbs)	4.22	
Ball Nut Part Number	8115-448-082	
Flange Part Number	8115-448-002	
Wiper Kit Part Number	8115-101-013	

Preloaded, Double Circuit, Square Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	7,242	
Max. Static Load (lbs)	29,895	
Torque to raise 1 lb (oz-in.)	5.31	
Nut weight (lbs)	9.93	
Ball Nut Part Number	8115-448-087	
Flange Part Number	8115-448-002	
Wiper Kit Part Number	8115-101-013	

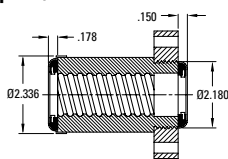
Quad Circuit, Square Ball Nut



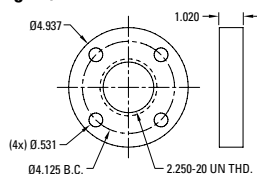
Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	14,484	
Max. Static Load (lbs)	59,790	
Torque to raise 1 lb (oz-in.)	5.31	
Nut weight (lbs)	4.25	
Ball Nut Part Number	8115-448-086	
Flange Part Number	8115-448-002	
Wiper Kit Part Number	8115-101-013	

Optional Wiper and Flange Kits

Wiper P/N 8115-101-013



Flange P/N 8115-448-002



Note: Wiper kit does not include flange end cap.

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Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



1.500 x 2.000

Precision Rolled Ball Screws — Inch Series

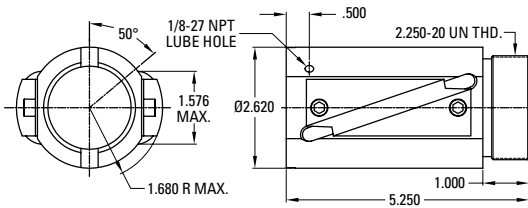
Diameter x Lead (in.)	1.500 x 2.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	5.6
Screw Root Diameter (in.)	1.21
Nominal Ball Diameter (in.)	0.281
Number of Starts	4

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9345		
Maximum Length 288" P/N	190-9409		

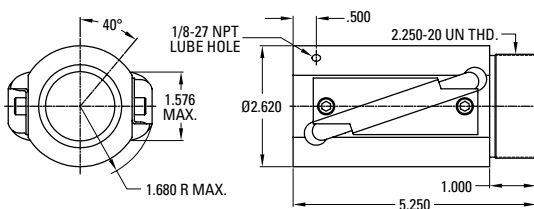
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	7,600	
Max. Static Load (lbs)	29,000	
Torque to raise 1 lb (oz-in.)	5.66	
Nut weight (lbs)	5.00	
Ball Nut Part Number	8115-448-056	
Flange Part Number	8115-448-002	
Wiper Kit Part Number*	Internal	

Double Circuit, Round Ball Nut with Load Lock — High Speed

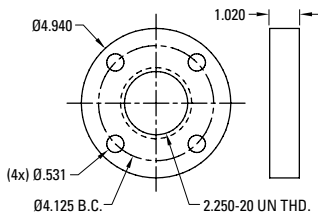


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	7,600	
Max. Static Load (lbs)	29,000	
Torque to raise 1 lb (oz-in.)	5.66	
Nut weight (lbs)	5.00	
Ball Nut Part Number	8115-448-057	
Flange Part Number	8115-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8115-448-002



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

2.000 x 0.500

Precision Rolled Ball Screws — Inch Series

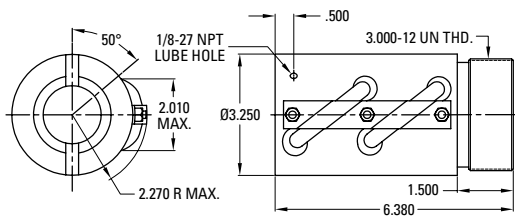
Diameter x Lead (in.)	2.000 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	9.8
Screw Root Diameter (in.)	1.72
Nominal Ball Diameter (in.)	0.375
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9112	190-9113	
Maximum Length 288" P/N	190-9135	190-9438	

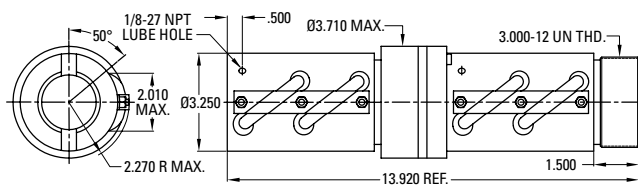
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	18,500	18,500
Max. Static Load (lbs)	154,635	154,635
Torque to raise 1 lb (oz-in.)	1.42	1.42
Nut weight (lbs)	8.00	8.00
Ball Nut Part Number	8120-448-011	8120-448-013
Flange Part Number	8120-448-002	8120-448-002
Wiper Kit Part Number*	Internal	Internal

Preloaded, Double Circuit, Round Ball Nut with Load Lock

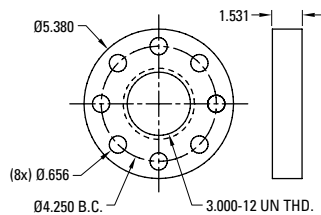


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	18,500	18,500
Max. Static Load (lbs)	154,635	154,635
Torque to raise 1 lb (oz-in.)	1.42	1.42
Nut weight (lbs)	19.25	19.25
Ball Nut Part Number	8120-448-006	8120-448-007
Flange Part Number	8120-448-002	8120-448-002
Wiper Kit Part Number*	Internal	Internal

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8120-448-002



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



2.000 x 1.000

Precision Rolled Ball Screws — Inch Series

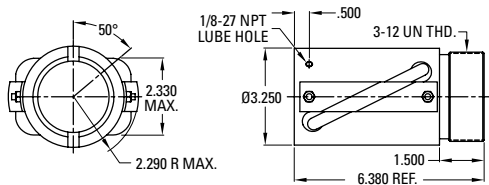
Diameter x Lead (in.)	2.000 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	9.8
Screw Root Diameter (in.)	1.72
Nominal Ball Diameter (in.)	0.375
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9111		
Maximum Length 288" P/N	190-9134		

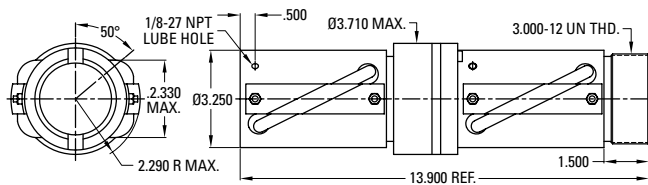
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	21,200	
Max. Static Load (lbs)	152,605	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	8.00	
Ball Nut Part Number	8120-448-021	
Flange Part Number	8120-448-002	
Wiper Kit Part Number*	Internal	

Preloaded, Double Circuit, Round Ball Nut with Load Lock

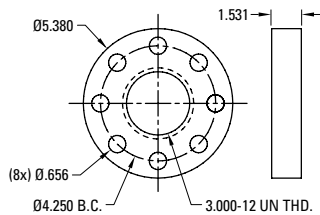


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	21,200	
Max. Static Load (lbs)	152,605	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	19.25	
Ball Nut Part Number	8120-448-019	
Flange Part Number	8120-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8120-448-002



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

2.250 x 0.500

Precision Rolled Ball Screws — Inch Series

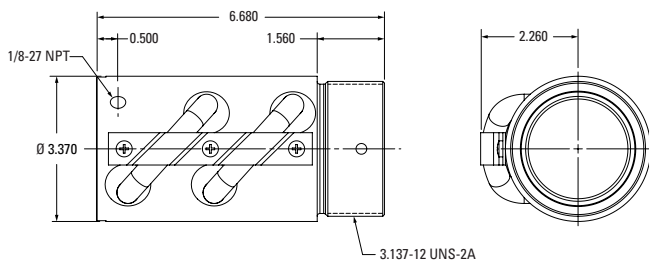
Diameter x Lead (in.)	2.250 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	10.9
Screw Root Diameter (in.)	1.85
Nominal Ball Diameter (in.)	0.375
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9114	190-9571	
Maximum Length 288" P/N	190-9137	190-9572	

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	21,306	21,306
Max. Static Load (lbs)	161,150	161,150
Torque to raise 1 lb (oz-in.)	1.42	1.42
Nut weight (lbs)	8.25	8.25
Ball Nut Part Number	8122-448-005	8122-448-007⁽¹⁾
Flange Part Number	8122-448-002	8122-448-008
Wiper Kit Part Number*	Internal	Internal

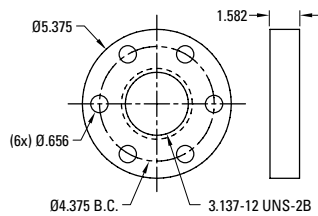
(1) Load Lock not available, 3.137-12 UNS-3A THD.

* Wiper kit included with this ball nut.

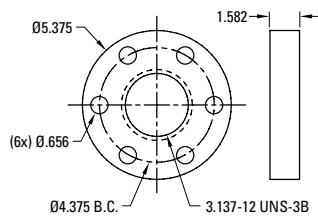
Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kit

Flange P/N 8122-448-002



Flange P/N 8122-448-008





2.250 x 1.000

Precision Rolled Ball Screws — Inch Series

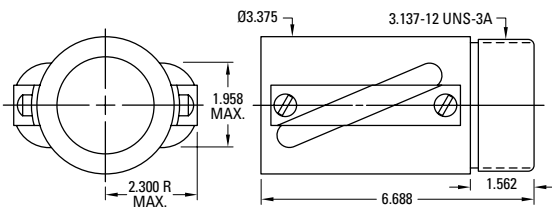
Diameter x Lead (in.)	2.250 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	10.9
Screw Root Diameter (in.)	1.85
Nominal Ball Diameter (in.)	0.375
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9558		
Maximum Length 288" P/N	190-9559		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut

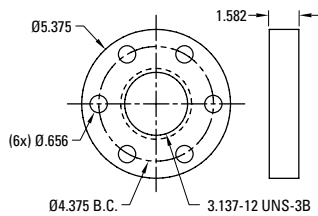


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	26,538	
Max. Static Load (lbs)	161,150	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	8.25	
Ball Nut Part Number	8122-448-006	
Flange Part Number	8122-448-008	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8122-448-008



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

2.500 x 0.250

Precision Rolled Ball Screws — Inch Series

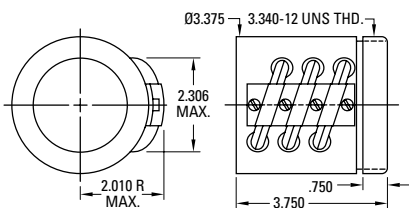
Diameter x Lead (in.)	2.500 x 0.250
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	15.5
Screw Root Diameter (in.)	2.32
Nominal Ball Diameter (in.)	0.156
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9560		
Maximum Length 288" P/N	190-9561		

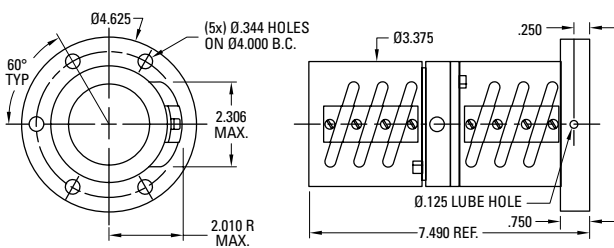
Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Triple Circuit, Round Ball Nut



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	6,315	
Max. Static Load (lbs)	81,938	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	4.72	
Ball Nut Part Number	8125-448-021	
Flange Part Number	8125-448-022	
Wiper Kit Part Number*	Internal	

Preloaded, Triple Circuit, Round Ball Nut with Integral Flange

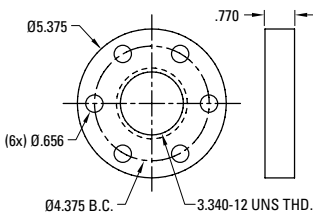


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	6,315	
Max. Static Load (lbs)	81,938	
Torque to raise 1 lb (oz-in.)	0.71	
Nut weight (lbs)	4.72	
Ball Nut Part Number		
Flange Part Number	Integral	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8125-448-022



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



2.500 x 0.500

Precision Rolled Ball Screws — Inch Series

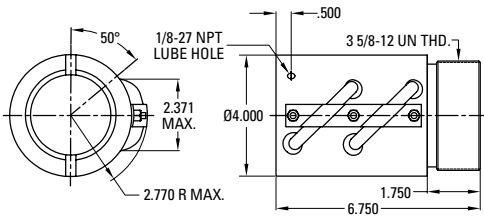
Diameter x Lead (in.)	2.500 x 0.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	15.0
Screw Root Diameter (in.)	2.22
Nominal Ball Diameter (in.)	0.375
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9116		
Maximum Length 288" P/N	190-9139		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

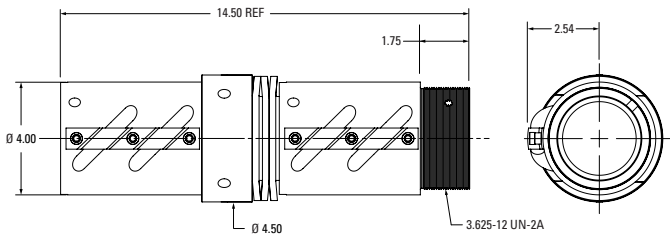
Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	22,981	
Max. Static Load (lbs)	186,000	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	13.00	
Ball Nut Part Number	8125-448-010	
Flange Part Number	8125-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Preloaded, Double Circuit, Round Ball Nut with Load Lock

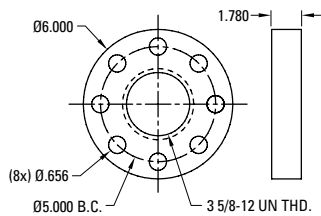


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	22,981	
Max. Static Load (lbs)	186,000	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	13.00	
Ball Nut Part Number	8125-448-006	
Flange Part Number	8125-448-002	
Wiper Kit Part Number*	Internal	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kit

Flange P/N 8125-448-002



2.500 x 1.000

Precision Rolled Ball Screws — Inch Series

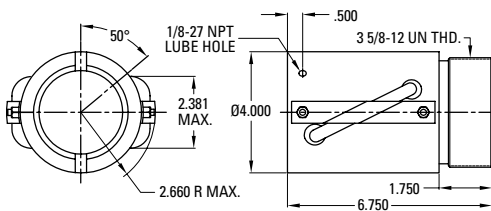
Diameter x Lead (in.)	2.500 x 1.000
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	15.0
Screw Root Diameter (in.)	2.22
Nominal Ball Diameter (in.)	0.375
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9115		
Maximum Length 288" P/N	190-9138		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

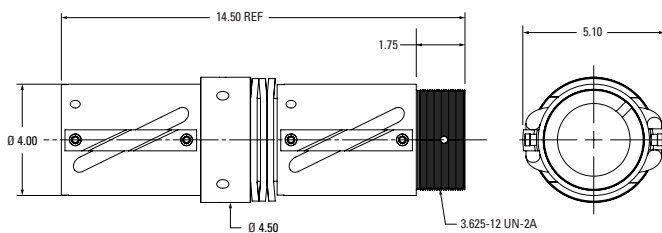
Double Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	27,000	
Max. Static Load (lbs)	174,000	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	13.00	
Ball Nut Part Number	8125-448-008	
Flange Part Number	8125-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Preloaded, Double Circuit, Round Ball Nut with Load Lock

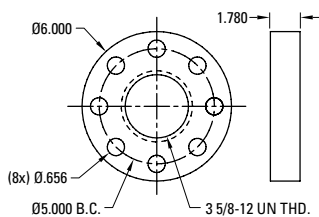


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	22,981	
Max. Static Load (lbs)	186,000	
Torque to raise 1 lb (oz-in.)	1.42	
Nut weight (lbs)	13.00	
Ball Nut Part Number	8125-448-004	
Flange Part Number	8125-448-002	
Wiper Kit Part Number*	Internal	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kit

Flange P/N 8125-448-002





3.000 x 0.660

Precision Rolled Ball Screws — Inch Series

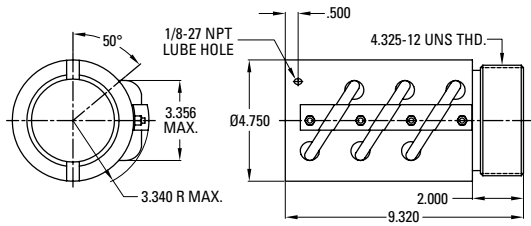
Diameter x Lead (in.)	3.000 x 0.660
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	18.3
Screw Root Diameter (in.)	2.48
Nominal Ball Diameter (in.)	0.500
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9117		
Maximum Length 288" P/N	190-9140		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

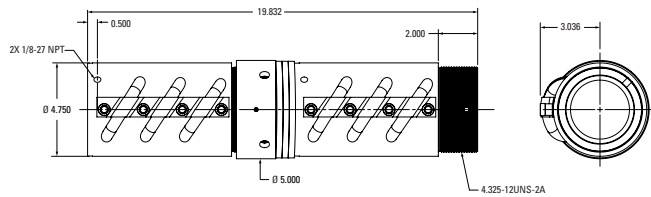
Triple Circuit, Round Ball Nut with Load Lock



Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	44,316	
Max. Static Load (lbs)	323,950	
Torque to raise 1 lb (oz-in.)	1.87	
Nut weight (lbs)	26.00	
Ball Nut Part Number	8130-448-007	
Flange Part Number	8130-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Preloaded, Triple Circuit, Round Ball Nut with Load Lock

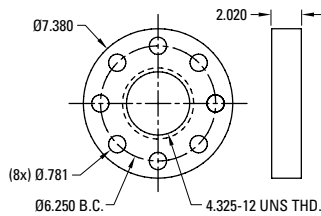


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	44,316	
Max. Static Load (lbs)	323,950	
Torque to raise 1 lb (oz-in.)	1.87	
Nut weight (lbs)	26.00	
Ball Nut Part Number	8130-448-004	
Flange Part Number	8130-448-002	
Wiper Kit Part Number*	Internal	

Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Optional Flange Kit

Flange P/N 8130-448-002



3.000 x 1.500

Precision Rolled Ball Screws — Inch Series

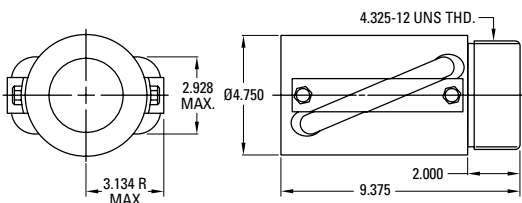
Diameter x Lead (in.)	3.000 x 1.500
Lead Accuracy (in/ft)	± 0.004
Screw Weight (lbs/ft)	19.3
Screw Root Diameter (in.)	2.48
Nominal Ball Diameter (in.)	0.500
Number of Starts	2

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Standard Length 144" P/N	190-9562		
Maximum Length 288" P/N	190-9563		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Double Circuit, Round Ball Nut

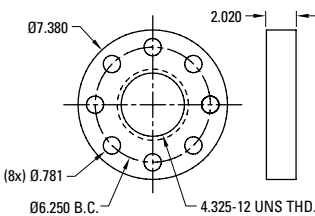


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	53,646	
Max. Static Load (lbs)	253,617	
Torque to raise 1 lb (oz-in.)	4.25	
Nut weight (lbs)	27.2	
Ball Nut Part Number	8130-448-018	
Flange Part Number	8130-448-020	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8130-448-020



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.



4.000 x 1.000

Precision Rolled Ball Screws — Inch Series

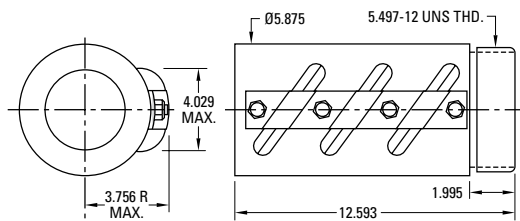
Diameter x Lead (in.)	4.000 x 1.000
Lead Accuracy (in/ft)	± 0.007
Screw Weight (lbs/ft)	34.4
Screw Root Diameter (in.)	3.34
Nominal Ball Diameter (in.)	0.625
Number of Starts	1

Ball Screw Part Numbers

Thread Direction	Right Hand	Left Hand	Right Hand
Screw Material	Alloy Steel	Alloy Steel	Stainless Steel
Maximum Length 244" P/N	190-9564		

Ball screws can be cut to the length you require. Specify ball screw part number and overall length at time of order.

Triple Circuit, Round Ball Nut with Load Lock

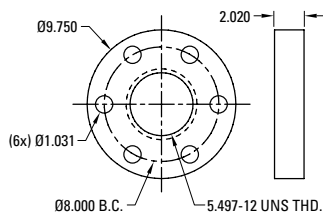


Thread Direction	Right Hand	Left Hand
Nut Material	Alloy Steel	Alloy Steel
Dynamic Load (lbs)	85,758	
Max. Static Load (lbs)	476,970	
Torque to raise 1 lb (oz-in.)	2.83	
Nut weight (lbs)	53.5	
Ball Nut Part Number	8140-448-001	
Flange Part Number	8140-448-002	
Wiper Kit Part Number*	Internal	

* Wiper kit included with this ball nut.

Optional Flange Kit

Flange P/N 8140-448-002



Note: Dimensional information for all End Journals and Bearing Supports is available on page 118 – 137. Information on required lubrication is on page 177.

Assembly Ordering

Assembly Ordering Key - Inch Series Ball Screws

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
R	03	08	L	45.5	F	R	X-	BK	1	S	X		X	
1. Nut configuration MR = RH, high capacity, cylindrical MV = RH, high capacity, V-threads R- = RH, dual circuit (3066 = triple circuit) RB = Precision high lead (legacy) RC = RH, single circuit RD = RH, single circuit, preloaded RE = LH, single circuit, preloaded RF = Dual circuits, square RG = Dual shortened circuits, square RH = RH, dual circuit, high speed RJ = RH, dual circuit, preloaded, high speed RK = LH, single circuit RL = LH, dual circuit RP = RH, dual circuit, preloaded RQ = RH, single circuit, Square RR = LH, square RS = RH, dual circuit, stainless steel RT = LH, dual circuit, preloaded RU = RH, square, preloaded RV = LH, square, preloaded RY = LH, round, 300 series stainless steel RZ = RH, stainless steel, preloaded					3. Thread lead 08 = 0.125 inch 05 = 0.200 inch 04 = 0.250 inch 41 = 0.413 inch 47 = 0.473 inch 02 = 0.500 inch 66 = 0.660 inch 01 = 1.000 inch 15 = 1.500 inch 18 = 1.875 inch 20 = 2.000 inch					9. Left end configuration X = Cut to length K = Machine to print xx.x = Annealed length [inch] BK = Base mount BF = Floating base mount FK = Flange mount FF = Floating flange mount QK = Base/flange mount QF = Floating base/flange mount WK = Heavy duty flange MK = Motor mount				
2. Nominal thread diameter 03 = 0.375 inch 05 = 0.500 inch 06 = 0.631 inch 07 = 0.750 inch 09 = 0.875 inch 10 = 1.000 inch 11 = 1.150 inch 11 = 1.171 inch 15 = 1.500 inch 20 = 2.000 inch 22 = 2.250 inch 25 = 2.500 inch 30 = 3.000 inch 40 = 4.000 inch					4. Nut style L = Load Lock, standard LA = Load Lock, standard with 0.664-32 UNS V-threads LB = Load Lock, standard with 1.250-18 UNEF V-threads LC = Load Lock, standard with 1.125-18 UNEF V-threads LD = Load Lock, standard with 1.173-18 UNS V-threads N = Standard (no Load Lock) NB = Standard with 1.250-18 UNEF V-threads NC = Standard with 1.125-18 UNEF V-threads NF = Standard with Integral Flange ND = Standard with 1.173-18 UNS V-threads NA = Standard with 0.664-32 UNS V-threads NE = Standard with 1.967-18 UNS-3A V-threads					10. Left end drive configuration Blank = With drive extension or cut to length 1 = Without drive extension				
					5. Threaded length xxx.xxx- = Length (inch)					11. Left screw support configuration X = No support (machined only) S = Support installed on machined surface				
					6. Assembly type X = No nut or flange (screw only) F = Screw and nut with flange O = Screw and nut without flange P = Screw and nut with pinned flange					12. Right end configuration X = Cut to length K = Machine to print xx.x = Annealed length [inch] BK = Base mount BF = Floating base mount FK = Flange mount FF = Floating flange mount QK = Base/flange mount QF = Floating base/flange mount WK = Heavy duty flange MK = Motor mount				
					7. Nut orientation R = Nut faces right end L = Nut faces left end X = Nut ships on arbor					13. Right end drive configuration Blank = With drive extension or cut to length 1 = Without drive extension				
					8. Wipers X- = No wipers W- = Internal or optional add-on kit					14. Right screw support configuration X = No support (machined only) S = Support installed on machined surface				
										15. Custom Modifier Blank = Standard M = Custom				

NOTE: Not all bearing supports are available in all sizes. See catalog or tact customer support for available combinations