



SFM Safety Nut

Backup Safety Feature For Vertical Ball Screw Applications



Maximizing Safety In Vertical Ball Screw Applications

When installing a ball nut assembly in a vertical application, it can be critical to have a safety lock mechanism in the ball nut assembly to hold the load in the event of a ball nut failure. Thomson SFM safety nuts deliver reliable backup functionality for the traveling nut to ensure maximum safety.

Flexible Design Options

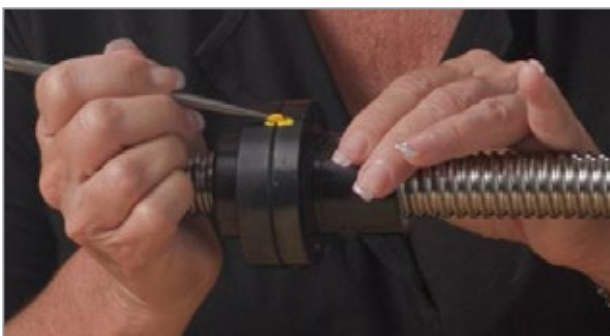
To best accommodate your application requirements, SFM safety nuts are available in various sizes.

The safety nut is an optional part to a ball screw assembly and mounted below the traveling nut without any axial load applied. In case axial play increases (caused by wear, nut or ball breakage, or ball loss resulting from dirt, lubrication starvation, overheating, etc.), the negative thread of the safety unit gets into contact with the screw thread, thus holding the load and avoiding damage to the machine.

Easy Installation

Watch our Tech Tips video on how to properly install an external safety nut onto a ball screw:

<https://www.thomsonlinear.com/safetynut-video>



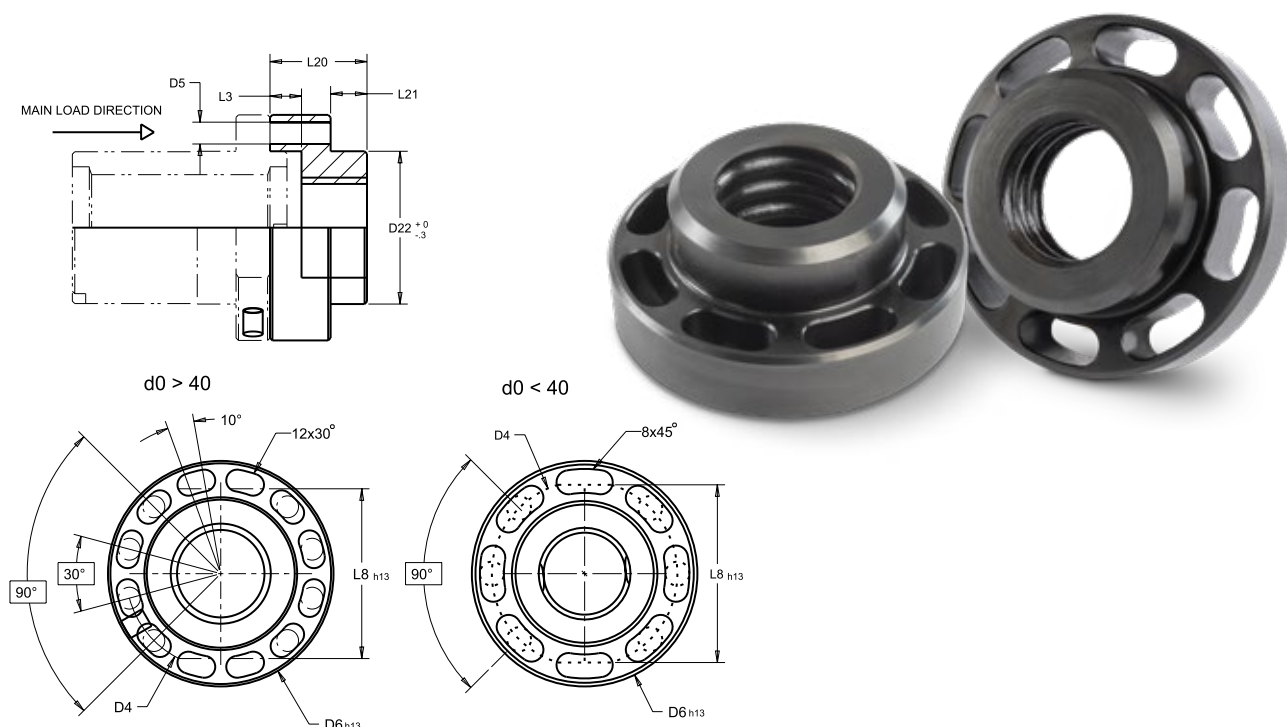
Application Examples

Some applications require higher safety standards. This rings particularly true for machine and structural engineering designs in which personal safety is critical such as patient tables, stage constructions and people bridges at the airport.



SAFE. RELIABLE.
EASY TO INSTALL.

Specifications – External Safety Nut



Flanged Version – Standard Sizes

Size	ID Number	Dimensions [mm]								Max. Load [kN]
		D _w	D6	D4	D22	D5	L20	L21	L3	
1605	0215901978	3.500	48	38	28	8×5.5	25	12	8.5	60
2005	0215901979	3.500	58	47	36	8×6.6	25	12	9	75
2505	0215901630	3.500	62	51	40	8×6.6	25	12	9	90
2525	0215900326	3.500	62	51	40	8×6.6	35	10	16	95
3205	0215901682	3.500	80	65	50	8×9	30	15	9	160
3210	0215901419	5.556	80	65	50	8×9	30	15	11.5	95
4005	0215901726	3.500	93	78	63	12×9	35	15	10	240
4010	0215901389	7.144	93	78	63	12×9	40	15	13	235
4020	0215901980	5.556	93	78	63	12×9	40	15	12	115
5010	0215901404	7.144	110	93	75	12×11	40	15	15	285
5020	0215901981	6.35	110	93	75	12×11	40	15	14	160
6310	0215901123	7.144	125	108	90	12×11	40	15	15	350
6320	0215901982	7.144	135	115	95	12×13.5	40	20	17	235
8010	0215900895	7.144	145	125	105	12×13.5	40	20	14	430
8020	0215900831	12.700	165	145	125	12×13.5	45	20	19	450

The normal function of the unit is guaranteed up to an axial play of 0.4 mm.

Note: The safety nut can only be installed together with the corresponding flanged nut.

Thomson also offers complete units with integrated safety nuts (flanged and cylindrical). Contact Thomson Customer Service for more information or for additional technical resources: www.thomsonlinear.com/cs.

USA, CANADA and MEXICO

Thomson
203A West Rock Road
Radford, VA 24141, USA
Phone: 1-540-633-3549
Fax: 1-540-633-0294
E-mail: thomson@regalrexnord.com
Literature: literature.thomsonlinear.com

EUROPE

United Kingdom

Thomson
Office 9, The Barns
Caddsdwn Business Park
Bideford, Devon, EX39 3BT
Phone: +44 1271 334 500
E-mail: thomson.europe@regalrexnord.com

Germany

Thomson
Nürtinger Straße 70
72649 Wolfschlügen
Phone: +49 7022 504 403
Fax: +49 7022 504 405
E-mail: thomson.europe@regalrexnord.com

France

Thomson
Phone: +33 243 50 03 30
E-mail: thomson.europe@regalrexnord.com

Italy

Thomson
Via per Cinisello 95/97
20834 Nova Milanese (MB)
Phone: +39 0362 366406
Fax: +39 0362 276790
E-mail: thomson.italy@regalrexnord.com

Sweden

Thomson
Bredbandsvägen 12
29162 Kristianstad
Phone: +46 44 590 2400
Fax: +46 44 590 2585
E-mail: thomson.europe@regalrexnord.com

ASIA

Asia Pacific

Thomson
E-mail: thomson.apac@regalrexnord.com

China

Thomson
Rm 805, Scitech Tower
22 Jianguomen Wai Street
Beijing 100004
Phone: +86 400 606 1805
Fax: +86 10 6515 0263
E-mail: thomson.china@regalrexnord.com

India

Kollmorgen – Div. of Altra Industrial Motion
India Private Limited
Unit no. 304, Pride Gateway, Opp. D-Mart,
Baner Road, Pune, 411045
Maharashtra
Phone: +91 20 67349500
E-mail: thomson.india@regalrexnord.com

South Korea

Thomson
3033 ASEM Tower (Samsung-dong)
517 Yeongdong-daero
Gangnam-gu, Seoul, South Korea (06164)
Phone: + 82 2 6001 3223 & 3244
E-mail: thomson.korea@regalrexnord.com

SOUTH AMERICA

Brazil

Thomson
Av. João Paulo Ablas, 2970
Jardim da Glória - Cotia SP - CEP: 06711-250
Phone: +55 11 4615 6300
E-mail: thomson.brasil@regalrexnord.com

www.thomsonlinear.com

SFM_Safety_Nut_BRUK-0048-01 | 20240909SK

Errors and technical alterations reserved. It is the responsibility of the product user to determine the suitability of this product for a specific application. All trademarks property of their respective owners. ©2024 Thomson Industries, Inc.

 **THOMSON**[®]

Linear Motion. Optimized.[™]

A REGAL REXNORD BRAND