

The advertisement features a central circular logo with a white background and a green border. The logo contains the text "NIKKI" in large green letters and "PRECISION LOCKNUTS" in smaller grey letters below it. The background is a vibrant green with concentric, swirling patterns. Three precision locknuts are shown: one at the top, one at the bottom left, and one at the bottom right. The top and bottom left locknuts are black with a silver inner ring, while the bottom right one is entirely silver. The locknuts are shown from various angles, highlighting their precision and design.

**NIKKI**  
PRECISION LOCKNUTS

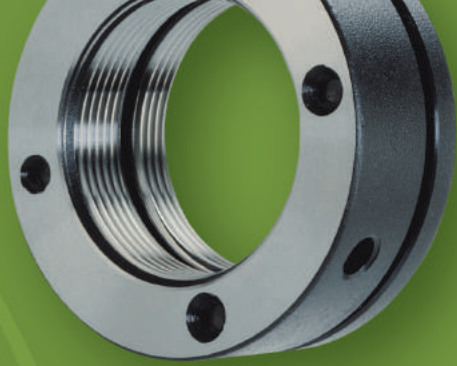
## Product & Service

- ◆ Precision Locknuts for Bearings
- ◆ Firm Fastening Locknuts
- ◆ Custom Locknuts
- ◆ Product Design and Development
- ◆ Outer Thread Grinding Processing

Let us know if you have a special product request.



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FAX: +886 4 2350-3161  
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# NIKKI

PRECISION LOCKNUTS

HSIANG KAI FU CO., LTD. is a professional manufacturer of precision locknuts for bearings and precision machine components. Established in 1994 and headquartered in Taichung Precision Machinery Technological Park, Taiwan, HSIANG KAI FU's excellent brand NIKKI Precision Locknuts has built its reputation by offering advanced locknuts and services to its global customers across Germany, Japan, the US, Italy, Australia, India, China and more.

## *Quality is the Key*

HSIANG KAI FU CO., LTD. strives to provide global customers with the highest quality precision locknuts and services. To ensure customer satisfaction, the company pays attention to the quality of each operational aspect and reinforces a corporate culture of consistent hard work. With industry-leading expertise and outstanding services, the company provides the best products on time to help customers improve their production quality and volume. The key to NIKKI's success has always been to focus on its customers' success.

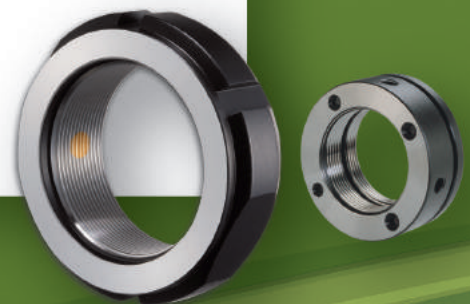
## *Sustainability*

- Certificate of RoHS & SVHC free (EU)
- ISO 9001:2015
- SGS Test Report



Management System  
ISO 9001:2015

www.tuv.com  
ID 9105070374



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***Best Flank Angle Locking Series***



HKF	..... P.8
HKR	..... P.9

***30° Flank Locking Series***

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BFZ	..... P.11
MF	..... P.12
MFZ	..... P.13
TMF	..... P.14
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***Radial Locking Series***

MR	..... P.16
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***Axial Locking Series***

MKR ..... P.22  
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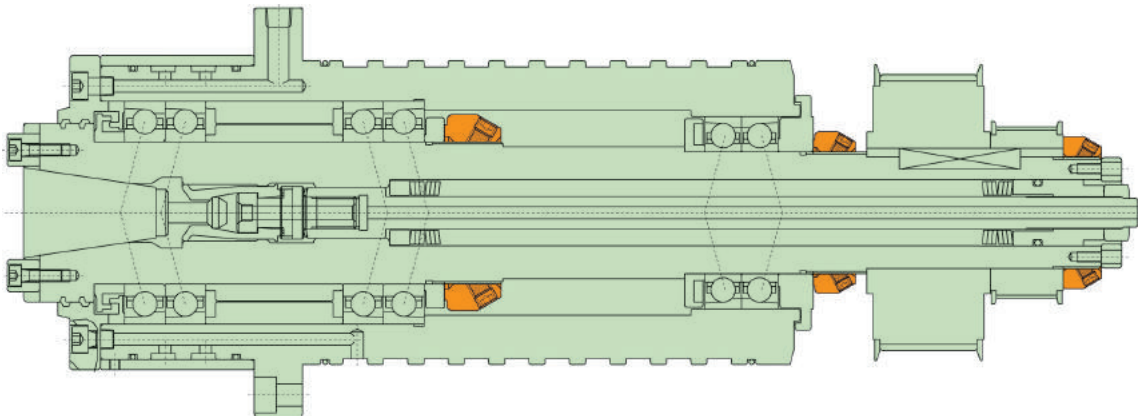
***NIKKI Customer Service***

Customized Locknuts ..... P.27  
 Mounting Tools ..... P.27  
 Assembly Guide ..... P.28  
 Disassembly Guide ..... P.28  
 Technical Information ..... P.29

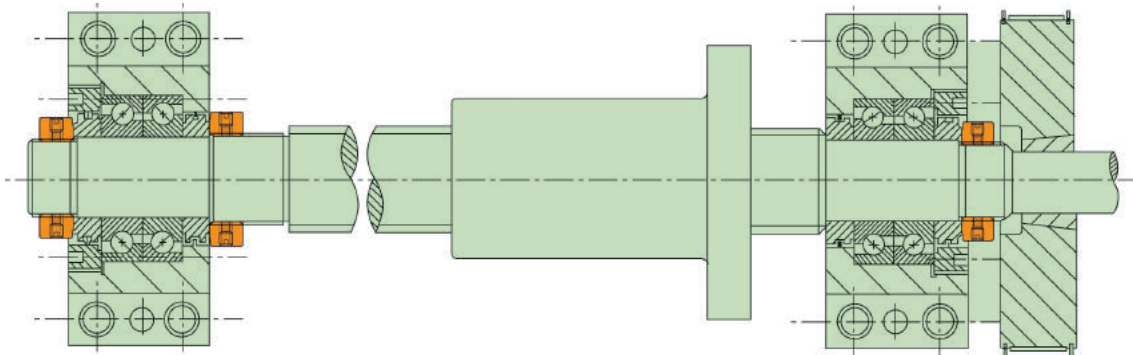
## USAGE SCENARIO

- When applied to a rotating spindle / ball screw of a machine, NIKKI's precision locknuts will greatly increase the assembly precision and prevent the system from deflection.
- Common challenges like measuring, adjusting, and deformation after the bolt is locked can all be improved significantly by NIKKI's precision locknuts.
- NIKKI's locknuts are easy to set up and highly durable.

### Spindle Structure

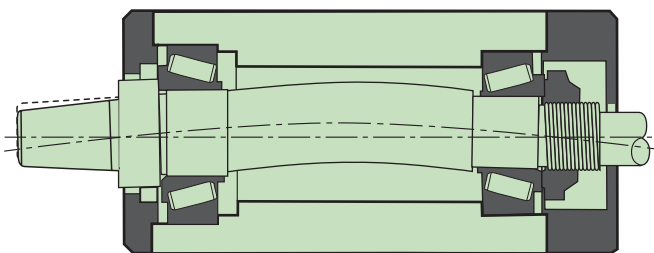


### Ball Screw Structure



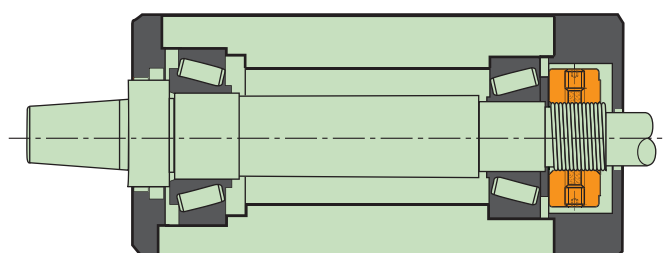
## ADVANTAGE BY USING PRECISION LOCKNUTS

### Without Precision Locknuts



- Distortion (vibration) due to misalignment

### With Precision Locknuts



- Spindle distortion prevented

# QUALITY ASSURANCE

High Locking, High Precision, High Stability

## NIKKI Precision Locknuts

- ISO 4H thread precision
- High load carrying capacity
- Easy correction to a right angle against axis
- Lock without a washer or keyway
- Save assembly time with increased precision and save cost
- Effectively prevent spindles and ball screws from distortion
- Prolong the life of bearings and machines
- Easy to assemble and disassemble
- Reusable if handled properly



## Material Information

- Materials Used: JIS SCM440 / DIN 42CrMo4 / AISI 4140
- Certificate of RoHS & SVHC free (EU)
- SGS Test Report

## Measuring Process



Measure the thickness



Measure the inner diameter

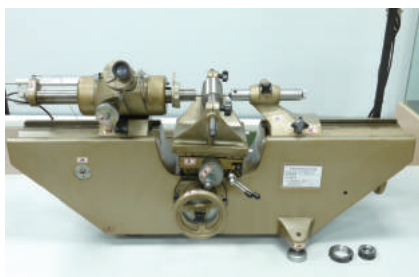


Check the thread precision by a gauge to ensure ISO 4H



Measure the thread run-out a gauge to ensure ISO 4H

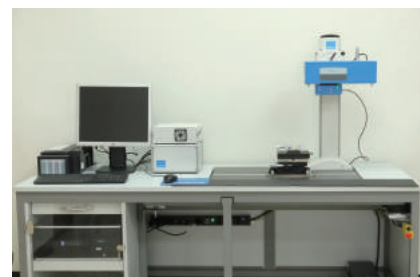
## Measuring Instrument



Universal length measuring instrument



Universal measuring microscope



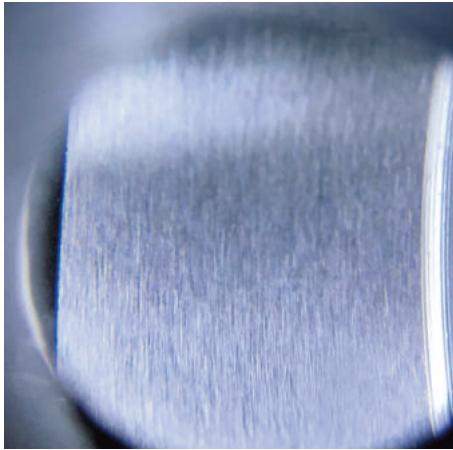
Roughness and contour instrument

NIKKI

# FEATURE

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## Roughness of Contact Surface Comparison (Zoom in Sixty Times)

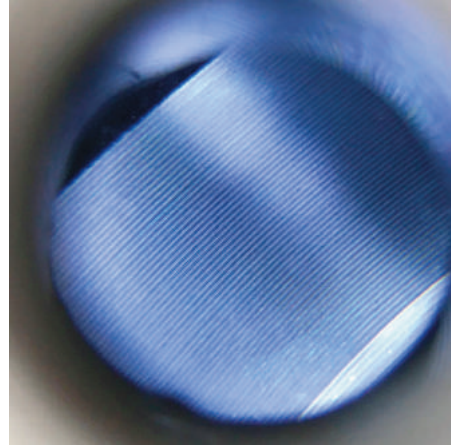


**NIKKI**

### *Grinding Series*

The roughness of the contact surface is extremely smooth, which provides top locking/anti-loosening performance and dynamic rotary stability. This series is suitable for heavy workloads and outstanding rigidity.

Maximum axial run-out: 0.002 mm



**NIKKI**

### *Turning Series*

The roughness of the contact surface is higher. This series is suitable for normal workloads and standard rigidity.

Maximum axial run-out: 0.005 mm

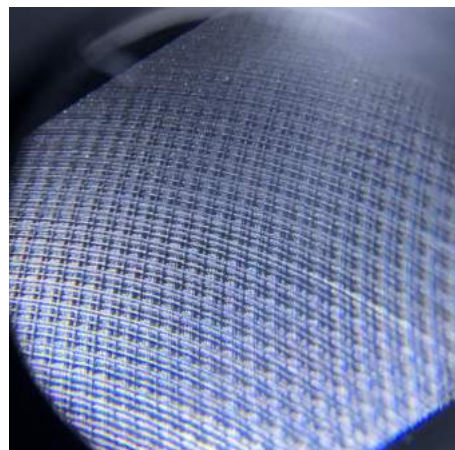
## Contact Surface Comparison between Different Processing Methods (Zoom in Sixty Times)



**NIKKI**

### *NIKKI Special Grinding Technique*

With NIKKI's special grinding process, the contact surface is extremely smooth, providing top locking/anti-loosening performance and dynamic rotary stability.



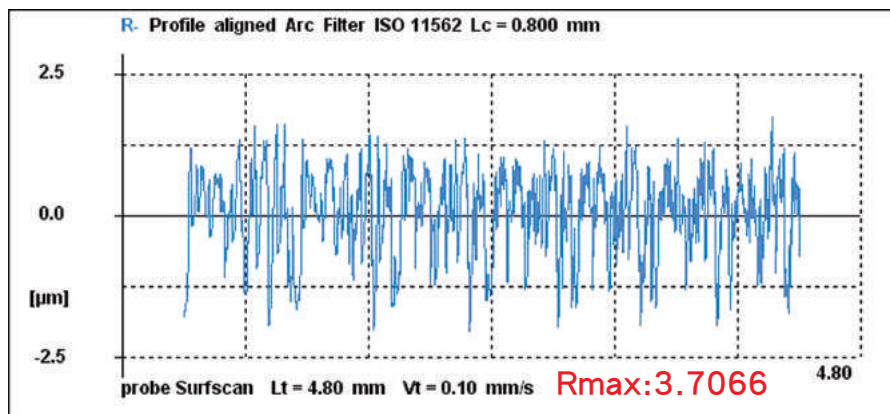
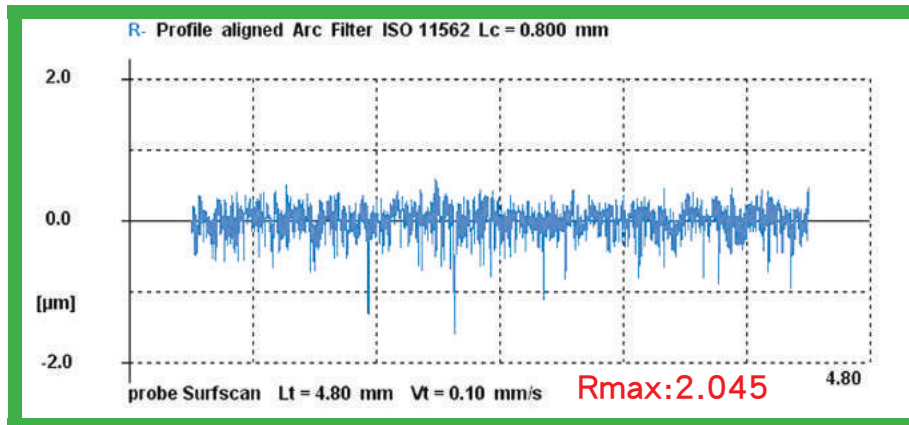
**Other Brands**

### *Traditional Grinding Technique*

With traditional grinding process, the smoothness of the contact surface is relatively lower, leading to lower locking/anti-loosening performance and dynamic rotary stability.

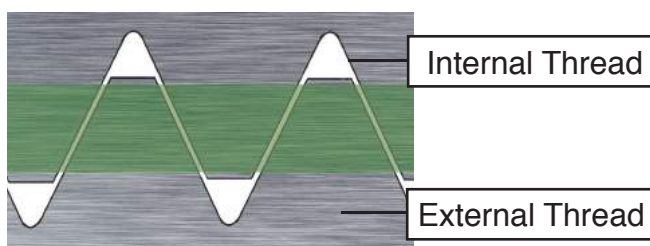


## Grinding Thread Comparison



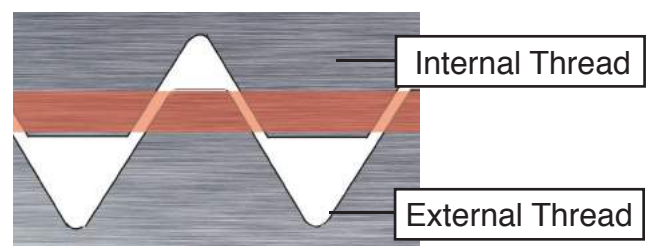
### Other Brands

## Comparison between Different Manufacturing Tolerances



The manufacturing tolerance is in the middle of the ISO 4H standard.

After assembling internal and external threads, the effective contact surface is larger, causing the friction and axial force to increase. NIKKI's locknut is secured to prevent unintentional loosening and improves rotary stability.



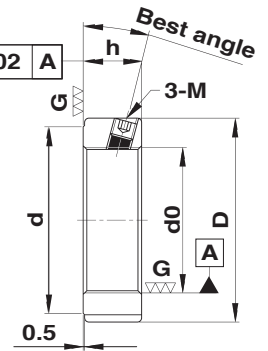
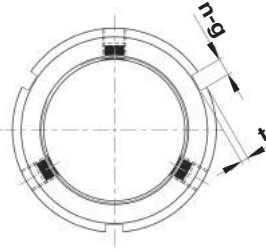
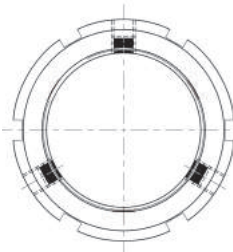
### Other Brands

The manufacturing tolerance is at the upper limit of the ISO 4H standard.

After assembling internal and external threads, the effective contact surface is smaller, causing the friction and axial force to decline, so the locknut is easy to loosen and reduces rotary stability.

NIKKI

## HKF SERIES-BEST FLANK ANGLE LOCKING



Outperform 30° flank locking nuts

HKF85 and above

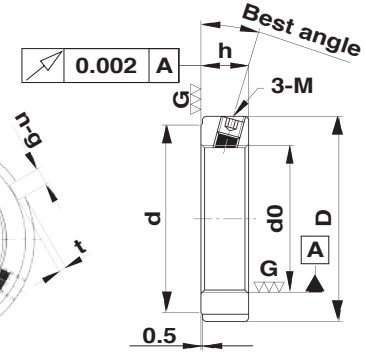
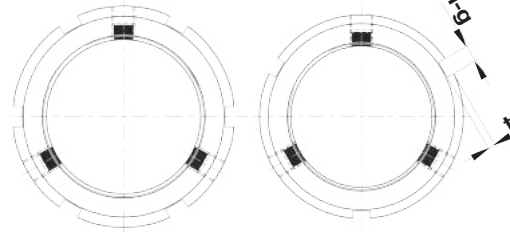
HKF80 and under

- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

Order No.	Dimensions in mm						n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	g		t	3-M
HKF15X1.0P	M15X1	30	14	25	4	2	3	M5	4.8
HKF17X1.0P	M17X1	32	16	27	4	2	3	M5	4.8
HKF20X1.0P	M20X1	38	16	33	4	2	3	M6	8
HKF20X1.5P	M20X1.5	38	16	33	4	2	3	M6	8
HKF25X1.5P	M25X1.5	38	18	33	5	2	3	M6	8
HKF30X1.5P	M30X1.5	45	18	40	5	2	3	M6	8
HKF35X1.5P	M35X1.5	52	18	47	5	2	3	M8	19
HKF40X1.5P	M40X1.5	58	20	52	6	2.5	3	M8	19
HKF45X1.5P	M45X1.5	65	20	59	6	2.5	3	M8	19
HKF50X1.5P	M50X1.5	70	20	64	6	2.5	3	M8	19
HKF55X1.5P	M55X1.5	75	22	68	7	3	3	M8	19
HKF55X2.0P	M55X2	75	22	68	7	3	3	M8	19
HKF60X1.5P	M60X1.5	80	22	73	7	3	3	M8	19
HKF60X2.0P	M60X2	80	22	73	7	3	3	M8	19
HKF65X1.5P	M65X1.5	85	22	78	7	3	3	M8	19
HKF65X2.0P	M65X2	85	22	78	7	3	3	M8	19
HKF70X1.5P	M70X1.5	92	24	84	8	3.5	3	M8	19
HKF70X2.0P	M70X2	92	24	84	8	3.5	3	M8	19
HKF75X1.5P	M75X1.5	98	24	90	8	3.5	3	M8	19
HKF75X2.0P	M75X2	98	24	90	8	3.5	3	M8	19
HKF80X2.0P	M80X2	105	24	96	8	3.5	3	M8	19
HKF85X2.0P	M85X2	110	24	102	8	3.5	6	M8	19
HKF90X2.0P	M90X2	120	26	108	10	4	6	M8	19
HKF95X2.0P	M95X2	125	26	113	10	4	6	M8	19
HKF100X2.0P	M100X2	130	26	118	10	4	6	M8	19
HKF105X2.0P	M105X2	140	28	125	10	4	6	M10	36
HKF110X2.0P	M110X2	145	28	132	10	4	6	M10	36
HKF115X2.0P	M115X2	150	28	137	10	4	6	M10	36
HKF120X2.0P	M120X2	155	30	142	12	5	6	M10	36
HKF125X2.0P	M125X2	160	30	147	12	5	6	M10	36
HKF130X2.0P	M130X2	165	30	152	12	5	6	M10	36
HKF135X2.0P	M135X2	175	32	160	12	5	6	M10	36
HKF140X2.0P	M140X2	180	32	165	12	5	6	M10	36
HKF145X2.0P	M145X2	190	32	175	12	5	6	M10	36
HKF150X2.0P	M150X2	195	32	180	12	5	6	M10	36
HKF155X3.0P	M155X3	200	34	180	14	6	6	M10	36
HKF160X3.0P	M160X3	210	34	190	14	6	6	M10	36
HKF165X3.0P	M165X3	210	34	190	14	6	6	M10	36
HKF170X3.0P	M170X3	220	34	200	14	6	6	M10	36
HKF180X3.0P	M180X3	230	36	205	16	7	6	M12	60
HKF190X3.0P	M190X3	240	36	215	16	7	6	M12	60
HKF200X3.0P	M200X3	250	38	225	16	7	6	M12	60

- When ordering above products, please refer to the Name. For example: HKF30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: HKF30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: HKF30-U18

## HKR SERIES-BEST FLANK ANGLE LOCKING



Outperform 30° flank locking nuts

HKR85 and above

HKR80 and under

- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision **grinding** process.

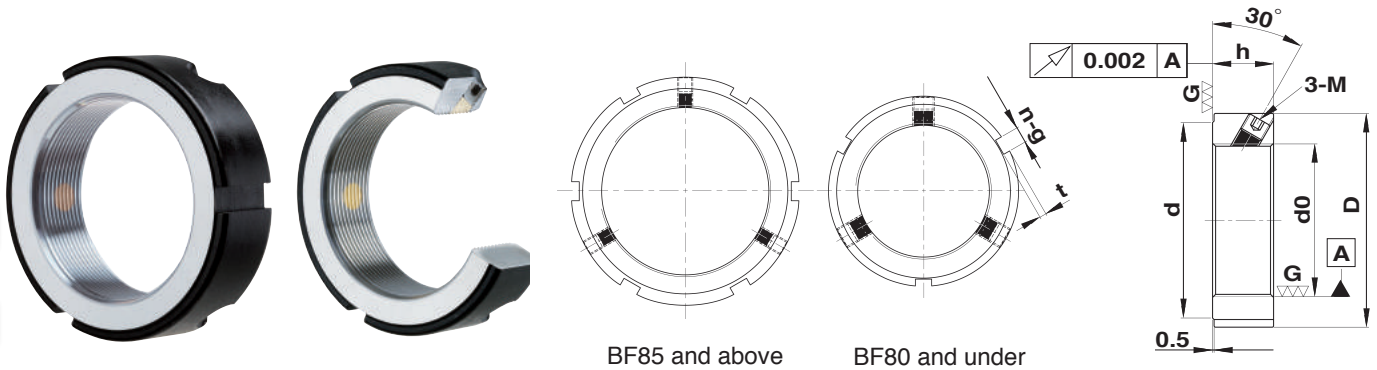
Order No. Name	Dimensions in mm						n	Set Screw Data	
	d0 ISO 4H	D	h	d	g	t		3-M	Max. Torque_Nm
HKR15X1.0P	M15X1	25	8	21	3	2	3	M4	2.2
HKR17X1.0P	M17X1	28	10	23	4	2	3	M5	4.8
HKR20X1.0P	M20X1	32	10	27	4	2	3	M5	4.8
HKR20X1.5P	M20X1.5	32	10	27	4	2	3	M5	4.8
HKR25X1.5P	M25X1.5	38	12	33	5	2	3	M6	8
HKR30X1.5P	M30X1.5	45	12	40	5	2	3	M6	8
HKR35X1.5P	M35X1.5	52	12	47	5	2	3	M6	8
HKR40X1.5P	M40X1.5	58	14	52	6	2.5	3	M6	8
HKR45X1.5P	M45X1.5	65	14	59	6	2.5	3	M6	8
HKR50X1.5P	M50X1.5	70	14	64	6	2.5	3	M6	8
HKR55X1.5P	M55X1.5	75	16	68	7	3	3	M8	19
HKR55X2.0P	M55X2	75	16	68	7	3	3	M8	19
HKR60X1.5P	M60X1.5	80	16	73	7	3	3	M8	19
HKR60X2.0P	M60X2	80	16	73	7	3	3	M8	19
HKR65X1.5P	M65X1.5	85	16	78	7	3	3	M8	19
HKR65X2.0P	M65X2	85	16	78	7	3	3	M8	19
HKR70X1.5P	M70X1.5	92	18	84	8	3.5	3	M8	19
HKR70X2.0P	M70X2	92	18	84	8	3.5	3	M8	19
HKR75X1.5P	M75X1.5	98	18	90	8	3.5	3	M8	19
HKR75X2.0P	M75X2	98	18	90	8	3.5	3	M8	19
HKR80X2.0P	M80X2	105	18	96	8	3.5	3	M8	19
HKR85X2.0P	M85X2	110	18	102	8	3.5	6	M8	19
HKR90X2.0P	M90X2	120	20	108	10	4	6	M8	19
HKR95X2.0P	M95X2	125	20	113	10	4	6	M8	19
HKR100X2.0P	M100X2	130	20	118	10	4	6	M8	19
HKR105X2.0P	M105X2	140	22	125	10	4	6	M10	36
HKR110X2.0P	M110X2	145	22	132	10	4	6	M10	36
HKR115X2.0P	M115X2	150	22	137	10	4	6	M10	36
HKR120X2.0P	M120X2	155	24	142	12	5	6	M10	36
HKR125X2.0P	M125X2	160	24	147	12	5	6	M10	36
HKR130X2.0P	M130X2	165	24	152	12	5	6	M10	36
HKR135X2.0P	M135X2	175	26	160	12	5	6	M10	36
HKR140X2.0P	M140X2	180	26	165	12	5	6	M10	36
HKR145X2.0P	M145X2	190	26	175	12	5	6	M10	36
HKR150X2.0P	M150X2	195	26	180	12	5	6	M10	36
HKR155X3.0P	M155X3	200	28	180	14	6	6	M10	36
HKR160X3.0P	M160X3	210	28	190	14	6	6	M10	36
HKR165X3.0P	M165X3	210	28	190	14	6	6	M10	36
HKR170X3.0P	M170X3	220	28	200	14	6	6	M10	36
HKR180X3.0P	M180X3	230	30	205	16	7	6	M12	60
HKR190X3.0P	M190X3	240	30	215	16	7	6	M12	60
HKR200X3.0P	M200X3	250	32	225	16	7	6	M12	60

- When ordering above products, please refer to the Name. For example: HKR30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: HKR30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: HKR30-U18



# BF SERIES-30° FLANK LOCKING

MIRRI



BF85 and above

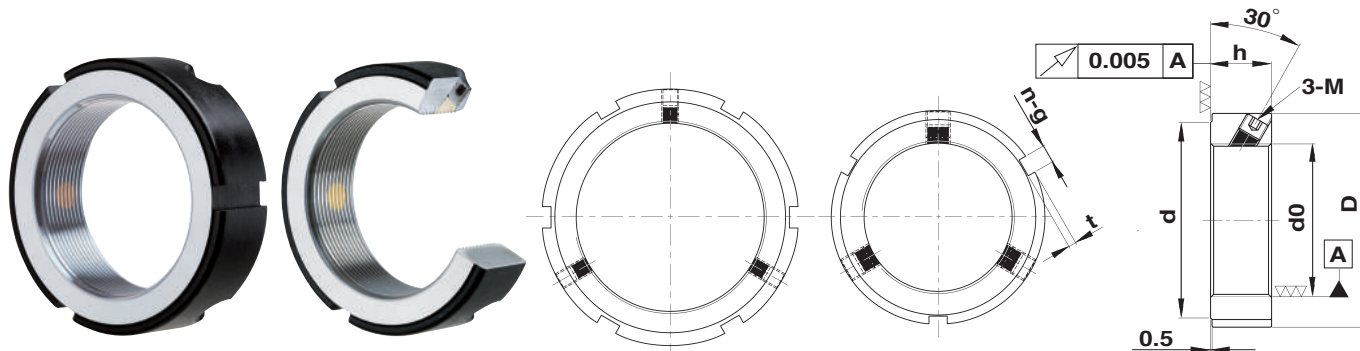
BF80 and under

- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

Order No.	Dimensions in mm						n	Set Screw Data	
Name	d0_ISO 4H	D	h	d	g	t		3-M	Max. Torque_Nm
BF15X1.0P	M15X1	30	14	25	4	2	3	M5	4.8
BF17X1.0P	M17X1	32	16	27	4	2	3	M5	4.8
BF20X1.0P	M20X1	38	16	33	4	2	3	M6	8
BF20X1.5P	M20X1.5	38	16	33	4	2	3	M6	8
BF25X1.5P	M25X1.5	38	18	33	5	2	3	M6	8
BF30X1.5P	M30X1.5	45	18	40	5	2	3	M6	8
BF35X1.5P	M35X1.5	52	18	47	5	2	3	M8	19
BF40X1.5P	M40X1.5	58	20	52	6	2.5	3	M8	19
BF45X1.5P	M45X1.5	65	20	59	6	2.5	3	M8	19
BF50X1.5P	M50X1.5	70	20	64	6	2.5	3	M8	19
BF55X2.0P	M55X2	75	22	68	7	3	3	M8	19
BF60X2.0P	M60X2	80	22	73	7	3	3	M8	19
BF65X2.0P	M65X2	85	22	78	7	3	3	M8	19
BF70X2.0P	M70X2	92	24	84	8	3.5	3	M8	19
BF75X2.0P	M75X2	98	24	90	8	3.5	3	M8	19
BF80X2.0P	M80X2	105	24	96	8	3.5	3	M8	19
BF85X2.0P	M85X2	110	24	102	8	3.5	6	M8	19
BF90X2.0P	M90X2	120	26	108	10	4	6	M8	19
BF95X2.0P	M95X2	125	26	113	10	4	6	M8	19
BF100X2.0P	M100X2	130	26	118	10	4	6	M8	19
BF105X2.0P	M105X2	140	28	125	10	4	6	M10	36
BF110X2.0P	M110X2	145	28	132	10	4	6	M10	36
BF115X2.0P	M115X2	150	28	137	10	4	6	M10	36
BF120X2.0P	M120X2	155	30	142	12	5	6	M10	36
BF125X2.0P	M125X2	160	30	147	12	5	6	M10	36
BF130X2.0P	M130X2	165	30	152	12	5	6	M10	36
BF135X2.0P	M135X2	175	32	160	12	5	6	M10	36
BF140X2.0P	M140X2	180	32	165	12	5	6	M10	36
BF145X2.0P	M145X2	190	32	175	12	5	6	M10	36
BF150X2.0P	M150X2	195	32	180	12	5	6	M10	36
BF155X3.0P	M155X3	200	34	180	14	6	6	M10	36
BF160X3.0P	M160X3	210	34	190	14	6	6	M10	36
BF165X3.0P	M165X3	210	34	190	14	6	6	M10	36
BF170X3.0P	M170X3	220	34	200	14	6	6	M10	36
BF180X3.0P	M180X3	230	36	205	16	7	6	M12	60
BF190X3.0P	M190X3	240	36	215	16	7	6	M12	60
BF200X3.0P	M200X3	250	38	225	16	7	6	M12	60
BF210X3.0P	M210X3	260	38	245	16	7	6	M12	60
BF220X3.0P	M220X3	270	38	255	16	7	6	M12	60
BF230X3.0P	M230X3	280	40	258	16	9	6	M12	60
BF240X3.0P	M240X3	290	40	268	16	9	6	M12	60
BF250X3.0P	M250X3	300	40	278	16	9	6	M12	60
BF260X4.0P	M260X4	310	40	288	20	10	6	M14	100

- When ordering above products, please refer to the Name. For example: BF30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: BF30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: BF30-U18

# BFZ SERIES-30° FLANK LOCKING

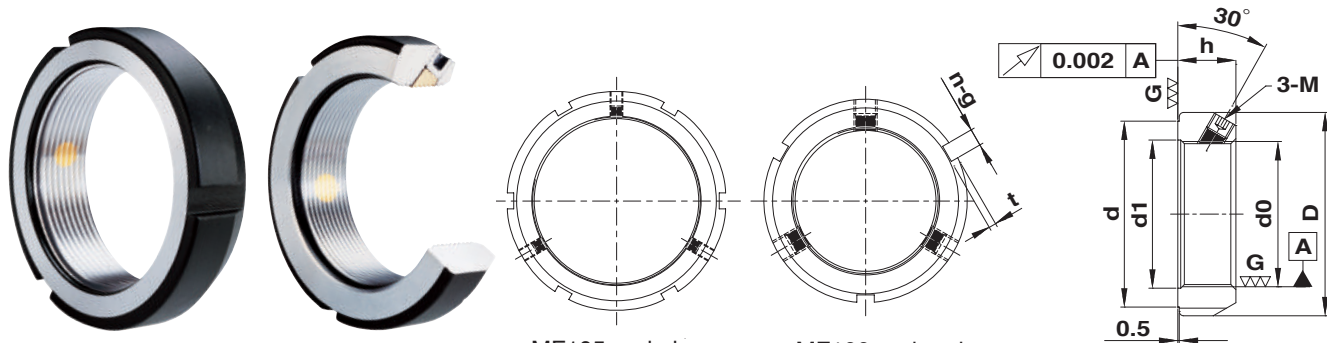


- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No. Name	Dimensions in mm						n	Set Screw Data	
	d0_ISO 4H	D	h	d	g	t		3-M	Max. Torque_Nm
BFZ15X1.0P	M15X1	30	14	25	4	2	3	M5	4.8
BFZ17X1.0P	M17X1	32	16	27	4	2	3	M5	4.8
BFZ20X1.0P	M20X1	38	16	33	4	2	3	M6	8
BFZ20X1.5P	M20X1.5	38	16	33	4	2	3	M6	8
BFZ25X1.5P	M25X1.5	38	18	33	5	2	3	M6	8
BFZ30X1.5P	M30X1.5	45	18	40	5	2	3	M6	8
BFZ35X1.5P	M35X1.5	52	18	47	5	2	3	M8	19
BFZ40X1.5P	M40X1.5	58	20	52	6	2.5	3	M8	19
BFZ45X1.5P	M45X1.5	65	20	59	6	2.5	3	M8	19
BFZ50X1.5P	M50X1.5	70	20	64	6	2.5	3	M8	19
BFZ55X2.0P	M55X2	75	22	68	7	3	3	M8	19
BFZ60X2.0P	M60X2	80	22	73	7	3	3	M8	19
BFZ65X2.0P	M65X2	85	22	78	7	3	3	M8	19
BFZ70X2.0P	M70X2	92	24	84	8	3.5	3	M8	19
BFZ75X2.0P	M75X2	98	24	90	8	3.5	3	M8	19
BFZ80X2.0P	M80X2	105	24	96	8	3.5	3	M8	19
BFZ85X2.0P	M85X2	110	24	102	8	3.5	6	M8	19
BFZ90X2.0P	M90X2	120	26	108	10	4	6	M8	19
BFZ95X2.0P	M95X2	125	26	113	10	4	6	M8	19
BFZ100X2.0P	M100X2	130	26	118	10	4	6	M8	19
BFZ105X2.0P	M105X2	140	28	125	10	4	6	M10	36
BFZ110X2.0P	M110X2	145	28	132	10	4	6	M10	36
BFZ115X2.0P	M115X2	150	28	137	10	4	6	M10	36
BFZ120X2.0P	M120X2	155	30	142	12	5	6	M10	36
BFZ125X2.0P	M125X2	160	30	147	12	5	6	M10	36
BFZ130X2.0P	M130X2	165	30	152	12	5	6	M10	36
BFZ135X2.0P	M135X2	175	32	160	12	5	6	M10	36
BFZ140X2.0P	M140X2	180	32	165	12	5	6	M10	36
BFZ145X2.0P	M145X2	190	32	175	12	5	6	M10	36
BFZ150X2.0P	M150X2	195	32	180	12	5	6	M10	36
BFZ155X3.0P	M155X3	200	34	180	14	6	6	M10	36
BFZ160X3.0P	M160X3	210	34	190	14	6	6	M10	36
BFZ165X3.0P	M165X3	210	34	190	14	6	6	M10	36
BFZ170X3.0P	M170X3	220	34	200	14	6	6	M10	36
BFZ180X3.0P	M180X3	230	36	205	16	7	6	M12	60
BFZ190X3.0P	M190X3	240	36	215	16	7	6	M12	60
BFZ200X3.0P	M200X3	250	38	225	16	7	6	M12	60
BFZ210X3.0P	M210X3	260	38	245	16	7	6	M12	60
BFZ220X3.0P	M220X3	270	38	255	16	7	6	M12	60
BFZ230X3.0P	M230X3	280	40	258	16	9	6	M12	60
BFZ240X3.0P	M240X3	290	40	268	16	9	6	M12	60
BFZ250X3.0P	M250X3	300	40	278	16	9	6	M12	60
BFZ260X4.0P	M260X4	310	40	288	20	10	6	M14	100

- When ordering above products, please refer to the Name. For example: BFZ30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: BFZ30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: BFZ30-U18

# MF SERIES-30° FLANK LOCKING



MF105 and above

MF100 and under

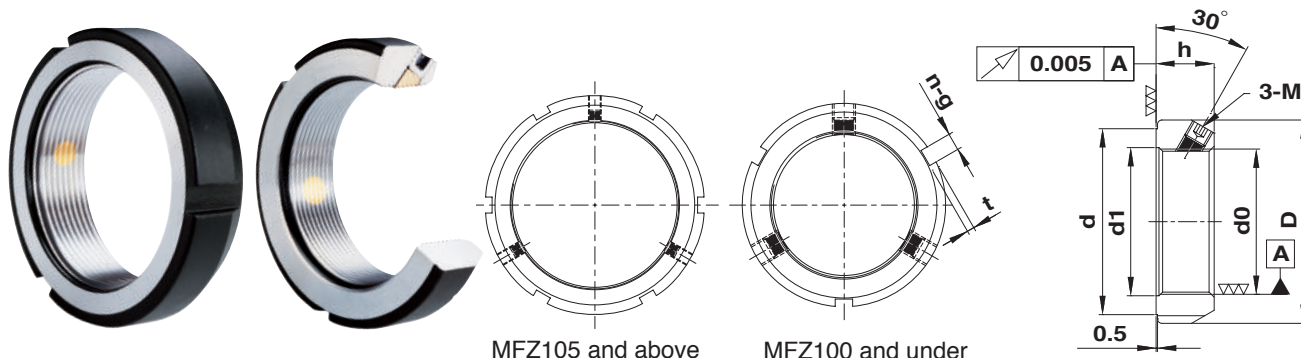
- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

Order No. Name	Dimensions in mm								Set Screw Data	
	d0_ISO 4H	D	h	d	d1	g	t	n	3-M	Max. Torque_Nm
MF12X1.0P	M12X1	30	14	25	-	4	2	3	M5	4.8
MF15X1.0P	M15X1	34	16	26	16	4	2	3	M6	8
MF17X1.0P	M17X1	36	16	28	18	5	2	3	M6	8
MF20X1.0P	M20X1	38	18	32	21	5	2	3	M6	8
MF20X1.5P	M20X1.5	38	18	32	21	5	2	3	M6	8
MF25X1.5P	M25X1.5	42	18	36	26	5	2	3	M6	8
MF30X1.5P	M30X1.5	48	18	43	31	5	2	3	M6	8
MF35X1.5P	M35X1.5	53	18	48	36	5	2	3	M8	19
MF40X1.5P	M40X1.5	58	20	52	41	6	2.5	3	M8	19
MF45X1.5P	M45X1.5	65	20	59	46	6	2.5	3	M8	19
MF50X1.5P	M50X1.5	70	20	64	51	6	2.5	3	M8	19
MF55X2.0P	M55X2	75	22	68	56	7	3	3	M8	19
MF60X2.0P	M60X2	80	22	73	61	7	3	3	M8	19
MF65X2.0P	M65X2	85	22	78	66	7	3	3	M8	19
MF70X2.0P	M70X2	92	24	84	71	8	3.5	3	M8	19
MF75X2.0P	M75X2	98	24	90	76	8	3.5	3	M8	19
MF80X2.0P	M80X2	105	24	96	81	8	3.5	3	M8	19
MF85X2.0P	M85X2	112	24	104	86	8	3.5	3	M8	19
MF90X2.0P	M90X2	118	26	108	91	10	4	3	M8	19
MF95X2.0P	M95X2	123	26	113	96	10	4	3	M8	19
MF100X2.0P	M100X2	128	26	118	101	10	4	3	M8	19
MF105X2.0P	M105X2	137	26	125	106	10	4	6	M8	19
MF110X2.0P	M110X2	145	30	132	111	12	5	6	M8	19
MF115X2.0P	M115X2	150	30	137	116	12	5	6	M8	19
MF120X2.0P	M120X2	155	30	142	121	12	5	6	M8	19
MF125X2.0P	M125X2	160	30	146	126	12	5	6	M8	19
MF130X2.0P	M130X2	165	30	152	131	12	5	6	M8	19
MF135X2.0P	M135X2	175	30	160	136	12	5	6	M8	19
MF140X2.0P	M140X2	180	32	165	141	12	5	6	M10	36
MF145X2.0P	M145X2	190	32	175	146	12	5	6	M10	36
MF150X2.0P	M150X2	195	32	180	151	12	5	6	M10	36
MF155X3.0P	M155X3	200	34	180	156	12	5	6	M10	36
MF160X3.0P	M160X3	210	34	190	161	12	5	6	M10	36
MF170X3.0P	M170X3	220	34	200	171	12	5	6	M10	36
MF180X3.0P	M180X3	230	36	205	181	12	5	6	M10	36
MF190X3.0P	M190X3	240	36	220	191	12	5	6	M10	36
MF200X3.0P	M200X3	250	36	230	201	12	5	6	M10	36
MF210X4.0P	M210X4	270	36	250	211	12	5	6	M10	36
MF220X4.0P	M220X4	280	36	260	221	12	5	6	M10	36
MF230X4.0P	M230X4	290	36	270	231	12	5	6	M10	36
MF240X4.0P	M240X4	300	36	280	241	12	5	6	M10	36
MF250X4.0P	M250X4	310	36	290	251	12	5	6	M10	36
MF260X4.0P	M260X4	320	36	300	261	12	5	6	M10	36

- When ordering above products, please refer to the Name. For example: MF30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: MF30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: MF30-U18

MIRRI

# MFZ SERIES-30° FLANK LOCKING



MFZ105 and above

MFZ100 and under

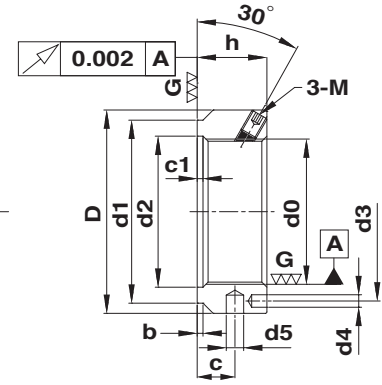
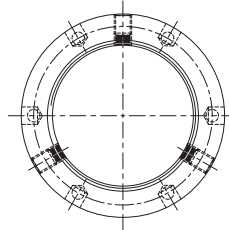
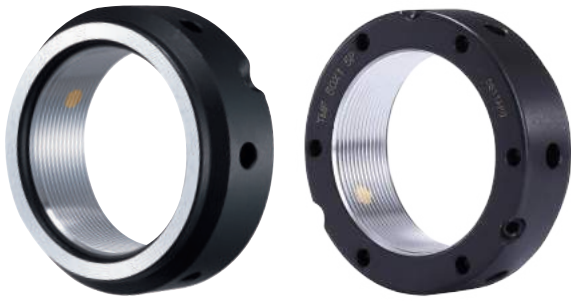
- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No. Name	Dimensions in mm								Set Screw Data	
	d0_ISO 4H	D	h	d	d1	g	t	n	3-M	Max. Torque_Nm
MFZ12X1.0P	M12X1	30	14	25	-	4	2	3	M5	4.8
MFZ15X1.0P	M15X1	34	16	26	16	4	2	3	M6	8
MFZ17X1.0P	M17X1	36	16	28	18	5	2	3	M6	8
MFZ20X1.0P	M20X1	38	18	32	21	5	2	3	M6	8
MFZ20X1.5P	M20X1.5	38	18	32	21	5	2	3	M6	8
MFZ25X1.5P	M25X1.5	42	18	36	26	5	2	3	M6	8
MFZ30X1.5P	M30X1.5	48	18	43	31	5	2	3	M6	8
MFZ35X1.5P	M35X1.5	53	18	48	36	5	2	3	M8	19
MFZ40X1.5P	M40X1.5	58	20	52	41	6	2.5	3	M8	19
MFZ45X1.5P	M45X1.5	65	20	59	46	6	2.5	3	M8	19
MFZ50X1.5P	M50X1.5	70	20	64	51	6	2.5	3	M8	19
MFZ55X2.0P	M55X2	75	22	68	56	7	3	3	M8	19
MFZ60X2.0P	M60X2	80	22	73	61	7	3	3	M8	19
MFZ65X2.0P	M65X2	85	22	78	66	7	3	3	M8	19
MFZ70X2.0P	M70X2	92	24	84	71	8	3.5	3	M8	19
MFZ75X2.0P	M75X2	98	24	90	76	8	3.5	3	M8	19
MFZ80X2.0P	M80X2	105	24	96	81	8	3.5	3	M8	19
MFZ85X2.0P	M85X2	112	24	104	86	8	3.5	3	M8	19
MFZ90X2.0P	M90X2	118	26	108	91	10	4	3	M8	19
MFZ95X2.0P	M95X2	123	26	113	96	10	4	3	M8	19
MFZ100X2.0P	M100X2	128	26	118	101	10	4	3	M8	19
MFZ105X2.0P	M105X2	137	26	125	106	10	4	6	M8	19
MFZ110X2.0P	M110X2	145	30	132	111	12	5	6	M8	19
MFZ115X2.0P	M115X2	150	30	137	116	12	5	6	M8	19
MFZ120X2.0P	M120X2	155	30	142	121	12	5	6	M8	19
MFZ125X2.0P	M125X2	160	30	146	126	12	5	6	M8	19
MFZ130X2.0P	M130X2	165	30	152	131	12	5	6	M8	19
MFZ135X2.0P	M135X2	175	30	160	136	12	5	6	M8	19
MFZ140X2.0P	M140X2	180	32	165	141	12	5	6	M10	36
MFZ145X2.0P	M145X2	190	32	175	146	12	5	6	M10	36
MFZ150X2.0P	M150X2	195	32	180	151	12	5	6	M10	36
MFZ155X3.0P	M155X3	200	34	180	156	12	5	6	M10	36
MFZ160X3.0P	M160X3	210	34	190	161	12	5	6	M10	36
MFZ170X3.0P	M170X3	220	34	200	171	12	5	6	M10	36
MFZ180X3.0P	M180X3	230	36	205	181	12	5	6	M10	36
MFZ190X3.0P	M190X3	240	36	220	191	12	5	6	M10	36
MFZ200X3.0P	M200X3	250	36	230	201	12	5	6	M10	36
MFZ210X4.0P	M210X4	270	36	250	211	12	5	6	M10	36
MFZ220X4.0P	M220X4	280	36	260	221	12	5	6	M10	36
MFZ230X4.0P	M230X4	290	36	270	231	12	5	6	M10	36
MFZ240X4.0P	M240X4	300	36	280	241	12	5	6	M10	36
MFZ250X4.0P	M250X4	310	36	290	251	12	5	6	M10	36
MFZ260X4.0P	M260X4	320	36	300	261	12	5	6	M10	36

- When ordering above products, please refer to the Name. For example: MFZ30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: MFZ30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: MFZ30-U18



## TMF SERIES-30° FLANK LOCKING



- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

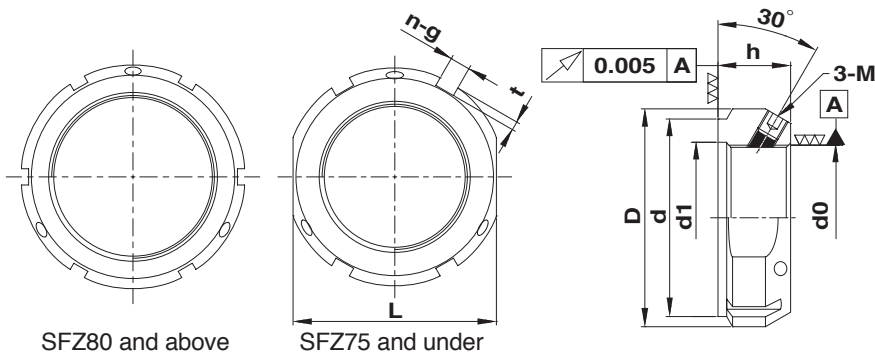
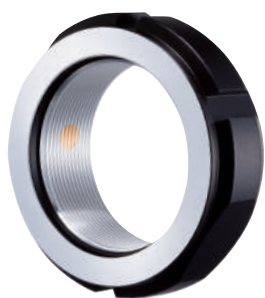
Order No.	Dimensions in mm											Set Screw Data	
Name	d0_ISO 4H	D	h	d1	d2	d3	d4	d5	c	b	c1	3-M	Max. Torque_Nm
TMF20X1.0P	M20X1	38	18	30	21	29	4.3	4	10	2	1	M6	8
TMF25X1.5P	M25X1.5	42	20	35	26	32.5	4.3	4	11	2	2	M6	8
TMF30X1.5P	M30X1.5	48	20	40	32	40.5	4.3	5	11	2	2	M6	8
TMF35X1.5P	M35X1.5	53	20	47	38	45.5	4.3	5	11	2	2	M6	8
TMF40X1.5P	M40X1.5	58	22	52	42	50.5	4.3	5	12	2	2	M6	8
TMF45X1.5P	M45X1.5	68	22	58	48	58	4.3	6	12	2	2	M6	8
TMF50X1.5P	M50X1.5	70	24	63	52	61.5	4.3	6	13	2	2	M6	8
TMF55X1.5P	M55X1.5	75	24	70	58	66.5	4.3	6	13	3	3	M6	8
TMF60X1.5P	M60X1.5	84	24	75	62	74.5	5.3	6	13	3	3	M6	8
TMF65X1.5P	M65X1.5	88	25	80	68	78.5	5.3	6	13	3	3	M6	8
TMF70X1.5P	M70X1.5	95	26	86	72	85	5.3	8	14	3	3	M8	19
TMF75X1.5P	M75X1.5	100	26	91	77	88	6.4	8	13	3	3	M8	19
TMF80X2.0P	M80X2	110	30	97	83	95	6.4	8	16	3	3	M8	19
TMF85X2.0P	M85X2	115	32	102	88	100	6.4	8	17	3	3	M10	36
TMF90X2.0P	M90X2	120	32	110	93	108	6.4	8	17	3	3	M10	36
TMF95X2.0P	M95X2	125	32	114	98	113	6.4	8	17	3	3	M10	36
TMF100X2.0P	M100X2	130	32	120	103	118	6.4	8	17	3	3	M10	36
TMF110X2.0P	M110X2	140	32	132	112	128	6.4	8	17	3	3	M10	36
TMF120X2.0P	M120X2	155	32	142	122	140	6.4	8	17	3	3	M10	36
TMF130X3.0P	M130X3	165	32	156	132	153	6.4	8	17	3	3	M10	36
TMF140X3.0P	M140X3	180	32	166	142	165	6.4	10	17	3	3	M10	36
TMF150X3.0P	M150X3	190	32	180	152	175	6.4	10	17	5	5	M10	36
TMF160X3.0P	M160X3	205	32	190	162	185	8.4	10	17	5	5	M10	36
TMF170X3.0P	M170X3	215	32	205	172	195	8.4	10	17	5	5	M10	36
TMF180X3.0P	M180X3	230	32	215	182	210	8.4	10	17	5	5	M10	36
TMF190X3.0P	M190X3	240	32	225	192	224	8.4	10	17	5	5	M10	36
TMF200X3.0P	M200X3	245	32	237	202	229	8.4	10	17	5	5	M10	36

- When ordering above products, please refer to the Name. For example: TMF30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: TMF30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: TMF30-U18

MIRKI



# SFZ SERIES-30° FLANK LOCKING



SFZ80 and above

SFZ75 and under

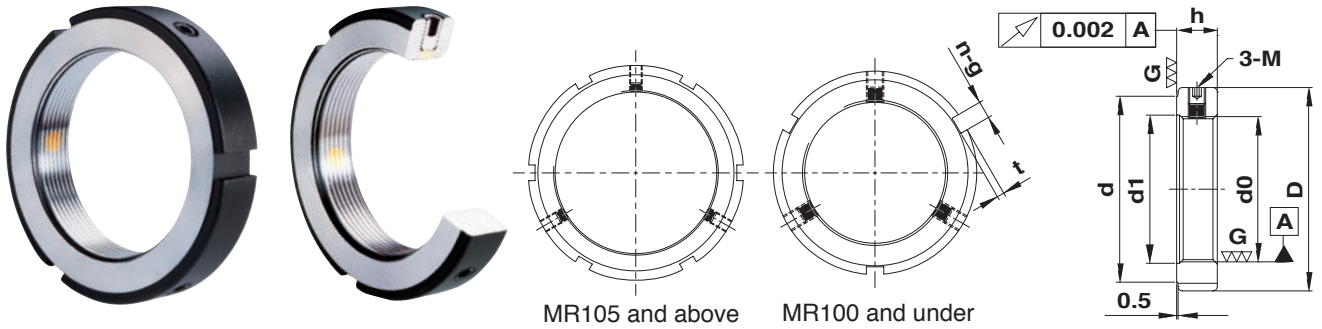
- Material: JIS SCM440 / DIN42CrMo4
- Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No.	Dimensions in mm								n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	d1	g	t		L	3-M
SFZ10X0.75P	M10X0.75	28	14	23	11	4	2	24	4	M5	4.8
SFZ12X1.0P	M12X1	30	14	25	13	4	2	27	4	M5	4.8
SFZ15X1.0P	M15X1	33	16	28	16	4	2	30	4	M5	4.8
SFZ17X1.0P	M17X1	37	18	33	18	5	2	34	4	M6	8
SFZ20X1.0P	M20X1	40	18	35	21	5	2	36	4	M6	8
SFZ20X1.5P	M20X1.5	40	18	35	21	5	2	36	4	M6	8
SFZ25X1.5P	M25X1.5	44	20	39	26	5	2	41	4	M6	8
SFZ30X1.5P	M30X1.5	49	20	44	32	5	2	46	4	M6	8
SFZ35X1.5P	M35X1.5	54	22	49	38	5	2	50	4	M6	8
SFZ40X1.5P	M40X1.5	65	22	59	42	6	2.5	60	4	M8	19
SFZ45X1.5P	M45X1.5	70	22	64	48	6	2.5	65	4	M8	19
SFZ50X1.5P	M50X1.5	75	25	68	52	7	3	70	4	M8	19
SFZ55X2.0P	M55X2	85	25	78	58	7	3	80	4	M8	19
SFZ60X2.0P	M60X2	90	26	82	62	8	3.5	85	4	M8	19
SFZ65X2.0P	M65X2	95	28	87	68	8	3.5	90	4	M8	19
SFZ70X2.0P	M70X2	100	28	92	72	8	3.5	95	4	M8	19
SFZ75X2.0P	M75X2	105	28	97	77	8	3.5	100	4	M8	19
SFZ80X2.0P	M80X2	110	32	100	83	8	3.5	-	6	M8	19
SFZ85X2.0P	M85X2	120	32	110	88	10	4	-	6	M10	36
SFZ90X2.0P	M90X2	125	32	115	93	10	4	-	6	M10	36
SFZ95X2.0P	M95X2	130	32	120	98	10	4	-	6	M10	36
SFZ100X2.0P	M100X2	135	32	125	103	10	4	-	6	M10	36
SFZ110X2.0P	M110X2	145	32	134	112	10	4	-	6	M10	36
SFZ120X2.0P	M120X2	155	32	144	122	10	4	-	6	M10	36
SFZ130X2.0P	M130X2	165	32	154	132	12	5	-	6	M10	36
SFZ140X2.0P	M140X2	175	32	164	142	14	6	-	6	M10	36
SFZ150X2.0P	M150X2	185	32	174	152	14	6	-	6	M10	36
SFZ160X3.0P	M160X3	195	32	184	162	14	6	-	6	M10	36
SFZ170X3.0P	M170X3	205	32	194	172	14	6	-	6	M10	36
SFZ180X3.0P	M180X3	215	32	204	182	16	7	-	6	M10	36
SFZ190X3.0P	M190X3	225	32	214	192	16	7	-	6	M10	36
SFZ200X3.0P	M200X3	235	32	224	202	18	8	-	6	M10	36

- When ordering above products, please refer to the Name. For example: SFZ30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: SFZ30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: SFZ30-U18

MIRRI

# MR SERIES-RADIAL LOCKING



MR105 and above

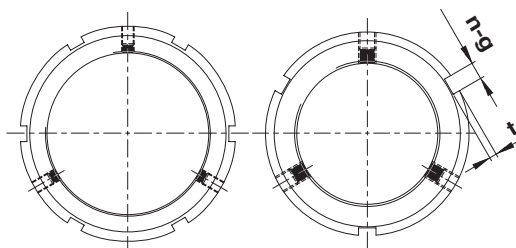
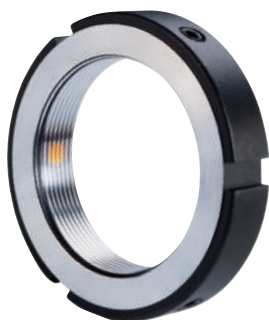
MR100 and under

- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

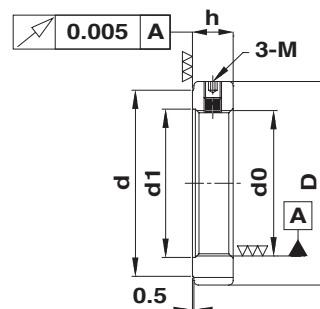
Order No.	Dimensions in mm								Set Screw Data	
	Name	d0_ISO 4H	D	h	d	d1	g	t	n	3-M
MR6X0.5P	M6X0.5	16	8	11	-	3	2	3	M4	2.2
MR8X0.75P	M8X0.75	16	8	11	-	3	2	3	M4	2.2
MR8X1.0P	M8X1	16	8	11	-	3	2	3	M4	2.2
MR10X0.75P	M10X0.75	18	8	13	-	3	2	3	M4	2.2
MR10X1.0P	M10X1	18	8	13	-	3	2	3	M4	2.2
MR12X1.0P	M12X1	24	8	19	-	3	2	3	M4	2.2
MR15X1.0P	M15X1	28	8	23	-	3	2	3	M4	2.2
MR17X1.0P	M17X1	32	10	27	-	4	2	3	M5	4.8
MR20X1.0P	M20X1	35	10	30	-	4	2	3	M5	4.8
MR20X1.5P	M20X1.5	35	10	30	-	4	2	3	M5	4.8
MR25X1.5P	M25X1.5	42	12	36	26	5	2	3	M6	8
MR30X1.5P	M30X1.5	48	12	43	31	5	2	3	M6	8
MR35X1.5P	M35X1.5	53	12	48	36	5	2	3	M6	8
MR40X1.5P	M40X1.5	58	14	52	41	6	2.5	3	M6	8
MR45X1.5P	M45X1.5	65	14	59	46	6	2.5	3	M6	8
MR50X1.5P	M50X1.5	70	14	64	51	6	2.5	3	M6	8
MR55X2.0P	M55X2	75	16	68	56	7	3	3	M8	19
MR60X2.0P	M60X2	80	16	73	61	7	3	3	M8	19
MR65X2.0P	M65X2	85	16	78	66	7	3	3	M8	19
MR70X2.0P	M70X2	92	18	84	71	8	3.5	3	M8	19
MR75X2.0P	M75X2	98	18	90	76	8	3.5	3	M8	19
MR80X2.0P	M80X2	105	18	96	81	8	3.5	3	M8	19
MR85X2.0P	M85X2	112	18	104	86	8	3.5	3	M8	19
MR90X2.0P	M90X2	118	20	108	91	10	4	3	M8	19
MR95X2.0P	M95X2	123	20	113	96	10	4	3	M8	19
MR100X2.0P	M100X2	128	20	118	101	10	4	3	M8	19
MR105X2.0P	M105X2	137	20	125	106	10	4	6	M8	19
MR110X2.0P	M110X2	145	24	132	111	12	5	6	M8	19
MR115X2.0P	M115X2	150	24	137	116	12	5	6	M8	19
MR120X2.0P	M120X2	155	24	142	121	12	5	6	M8	19
MR125X2.0P	M125X2	160	24	147	126	12	5	6	M8	19
MR130X2.0P	M130X2	165	24	152	131	12	5	6	M8	19
MR135X2.0P	M135X2	175	24	160	136	12	5	6	M8	19
MR140X2.0P	M140X2	180	26	165	141	12	5	6	M10	36
MR145X2.0P	M145X2	190	26	175	146	12	5	6	M10	36
MR150X2.0P	M150X2	195	26	180	151	12	5	6	M10	36
MR155X3.0P	M155X3	200	28	180	156	12	5	6	M10	36
MR160X3.0P	M160X3	210	28	190	161	12	5	6	M10	36
MR165X3.0P	M165X3	210	28	190	166	12	5	6	M10	36
MR170X3.0P	M170X3	220	28	200	171	12	5	6	M10	36
MR180X3.0P	M180X3	230	30	210	181	12	5	6	M10	36
MR190X3.0P	M190X3	240	30	220	191	12	5	6	M10	36
MR200X3.0P	M200X3	250	30	230	201	12	5	6	M10	36
MR210X4.0P	M210X4	270	30	250	211	12	5	6	M10	36
MR220X4.0P	M220X4	280	30	260	221	12	5	6	M10	36
MR230X4.0P	M230X4	290	30	270	231	12	5	6	M10	36
MR240X4.0P	M240X4	300	30	280	241	12	5	6	M10	36
MR250X4.0P	M250X4	310	30	290	251	12	5	6	M10	36
MR260X4.0P	M260X4	320	30	300	261	12	5	6	M10	36

MIRIKI

# MRZ SERIES-RADIAL LOCKING



MRZ105 and above      MRZ100 and under

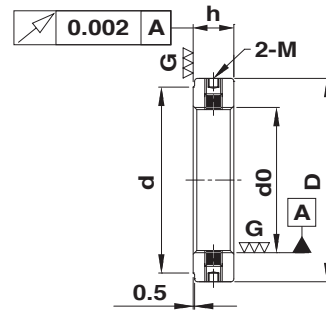
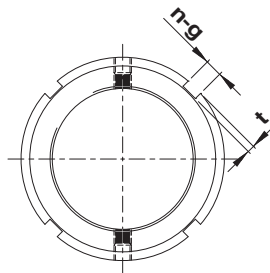
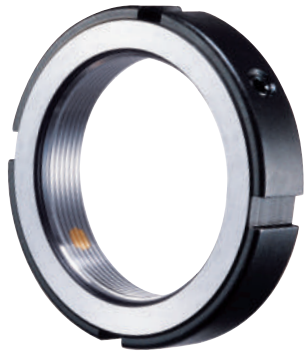


- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No.	Dimensions in mm								Set Screw Data		
	Name	d0_ISO 4H	D	h	d	d1	g	t	n	3-M	Max. Torque_Nm
MRZ6X0.5P	M6X0.5	16	8	11	-	3	2	3	3	M4	2.2
MRZ8X0.75P	M8X0.75	16	8	11	-	3	2	3	3	M4	2.2
MRZ8X1.0P	M8X1	16	8	11	-	3	2	3	3	M4	2.2
MRZ10X0.75P	M10X0.75	18	8	13	-	3	2	3	3	M4	2.2
MRZ10X1.0P	M10X1	18	8	13	-	3	2	3	3	M4	2.2
MRZ12X1.0P	M12X1	20	8	18	-	3	2	3	3	M4	2.2
MRZ15X1.0P	M15X1	25	8	21	-	3	2	3	3	M4	2.2
MRZ17X1.0P	M17X1	28	10	23	-	4	2	3	3	M5	4.8
MRZ20X1.0P	M20X1	32	10	27	-	4	2	3	3	M5	4.8
MRZ20X1.5P	M20X1.5	32	10	27	-	4	2	3	3	M5	4.8
MRZ25X1.5P	M25X1.5	38	12	33	26	5	2	3	3	M6	8
MRZ30X1.5P	M30X1.5	45	12	40	31	5	2	3	3	M6	8
MRZ35X1.5P	M35X1.5	52	12	47	36	5	2	3	3	M6	8
MRZ40X1.5P	M40X1.5	58	14	52	41	6	2.5	3	3	M6	8
MRZ45X1.5P	M45X1.5	65	14	59	46	6	2.5	3	3	M6	8
MRZ50X1.5P	M50X1.5	70	14	64	51	6	2.5	3	3	M6	8
MRZ55X1.5P	M55X1.5	75	16	68	56	7	3	3	3	M8	19
MRZ55X2.0P	M55X2	75	16	68	56	7	3	3	3	M8	19
MRZ60X1.5P	M60X1.5	80	16	73	61	7	3	3	3	M8	19
MRZ60X2.0P	M60X2	80	16	73	61	7	3	3	3	M8	19
MRZ65X1.5P	M65X1.5	85	16	78	66	7	3	3	3	M8	19
MRZ65X2.0P	M65X2	85	16	78	66	7	3	3	3	M8	19
MRZ70X1.5P	M70X1.5	92	18	84	71	8	3.5	3	3	M8	19
MRZ70X2.0P	M70X2	92	18	84	71	8	3.5	3	3	M8	19
MRZ75X1.5P	M75X1.5	98	18	90	76	8	3.5	3	3	M8	19
MRZ75X2.0P	M75X2	98	18	90	76	8	3.5	3	3	M8	19
MRZ80X2.0P	M80X2	105	18	96	81	8	3.5	3	3	M8	19
MRZ85X2.0P	M85X2	112	18	104	86	8	3.5	3	3	M8	19
MRZ90X2.0P	M90X2	118	20	108	91	10	4	3	3	M8	19
MRZ95X2.0P	M95X2	123	20	113	96	10	4	3	3	M8	19
MRZ100X2.0P	M100X2	128	20	118	101	10	4	3	3	M8	19
MRZ105X2.0P	M105X2	137	20	125	106	10	4	6	3	M8	19
MRZ110X2.0P	M110X2	145	24	132	111	12	5	6	3	M8	19
MRZ115X2.0P	M115X2	150	24	137	116	12	5	6	3	M8	19
MRZ120X2.0P	M120X2	155	24	142	121	12	5	6	3	M8	19
MRZ125X2.0P	M125X2	160	24	147	126	12	5	6	3	M8	19
MRZ130X2.0P	M130X2	165	24	152	131	12	5	6	3	M8	19
MRZ135X2.0P	M135X2	175	24	160	136	12	5	6	3	M8	19
MRZ140X2.0P	M140X2	180	26	165	141	12	5	6	3	M10	36
MRZ145X2.0P	M145X2	190	26	175	146	12	5	6	3	M10	36
MRZ150X2.0P	M150X2	195	26	180	151	12	5	6	3	M10	36
MRZ155X3.0P	M155X3	200	28	180	156	12	5	6	3	M10	36
MRZ160X3.0P	M160X3	210	28	190	161	12	5	6	3	M10	36
MRZ165X3.0P	M165X3	215	28	195	166	12	5	6	3	M10	36
MRZ170X3.0P	M170X3	220	28	200	171	12	5	6	3	M10	36
MRZ180X3.0P	M180X3	230	30	210	181	12	5	6	3	M10	36
MRZ190X3.0P	M190X3	240	30	220	191	12	5	6	3	M10	36
MRZ200X3.0P	M200X3	250	30	230	201	12	5	6	3	M10	36



# SR SERIES-RADIAL LOCKING



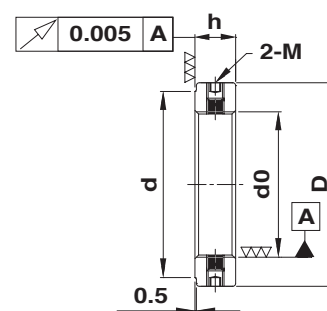
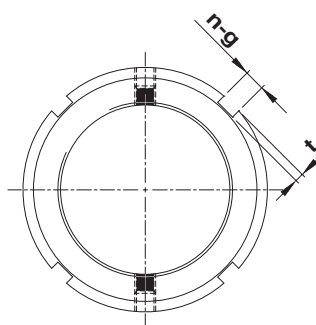
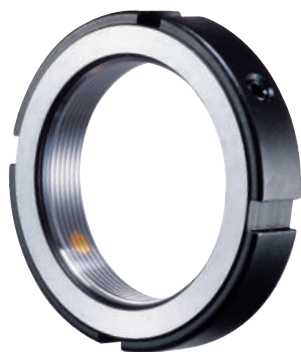
- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision **grinding** process.

Order No.	Dimensions in mm							n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	g	t		2-M	Max. Torque_Nm
SR6X0.5P	M6X0.5	16	8	11	3	2	4	M4	2.2	
SR8X0.75P	M8X0.75	16	8	11	3	2	4	M4	2.2	
SR8X1.0P	M8X1	16	8	11	3	2	4	M4	2.2	
SR10X0.75P	M10X0.75	18	8	13	3	2	4	M4	2.2	
SR10X1.0P	M10X1	18	8	13	3	2	4	M4	2.2	
SR12X1.0P	M12X1	22	8	18	3	2	4	M4	2.2	
SR15X1.0P	M15X1	25	8	21	3	2	4	M4	2.2	
SR17X1.0P	M17X1	28	10	23	4	2	4	M5	4.8	
SR20X1.0P	M20X1	32	10	27	4	2	4	M5	4.8	
SR20X1.5P	M20X1.5	32	10	27	4	2	4	M5	4.8	
SR25X1.5P	M25X1.5	38	12	33	5	2	4	M6	8	
SR30X1.5P	M30X1.5	45	12	40	5	2	4	M6	8	
SR35X1.5P	M35X1.5	52	12	47	5	2	4	M6	8	
SR40X1.5P	M40X1.5	58	14	52	6	2.5	4	M6	8	
SR45X1.5P	M45X1.5	65	14	59	6	2.5	4	M6	8	
SR50X1.5P	M50X1.5	70	14	64	6	2.5	4	M6	8	
SR55X2.0P	M55X2	75	16	68	7	3	4	M6	8	
SR60X2.0P	M60X2	80	16	73	7	3	4	M6	8	
SR65X2.0P	M65X2	85	16	78	7	3	4	M6	8	
SR70X2.0P	M70X2	92	18	85	8	3.5	4	M8	19	
SR75X2.0P	M75X2	98	18	90	8	3.5	4	M8	19	
SR80X2.0P	M80X2	105	18	95	8	3.5	4	M8	19	
SR85X2.0P	M85X2	110	18	102	8	3.5	4	M8	19	
SR90X2.0P	M90X2	120	20	108	10	4	4	M8	19	
SR95X2.0P	M95X2	125	20	113	10	4	4	M8	19	
SR100X2.0P	M100X2	130	20	120	10	4	4	M8	19	
SR105X2.0P	M105X2	140	22	126	12	5	4	M10	36	
SR110X2.0P	M110X2	145	22	133	12	5	4	M10	36	
SR115X2.0P	M115X2	150	22	137	12	5	4	M10	36	
SR120X2.0P	M120X2	155	24	138	12	5	4	M10	36	
SR125X2.0P	M125X2	160	24	148	12	5	4	M10	36	
SR130X2.0P	M130X2	165	24	149	12	5	4	M10	36	
SR135X2.0P	M135X2	175	26	160	14	6	4	M12	60	
SR140X2.0P	M140X2	180	26	160	14	6	4	M12	60	
SR145X2.0P	M145X2	190	26	172	14	6	4	M12	60	
SR150X2.0P	M150X2	195	26	171	14	6	4	M12	60	
SR155X3.0P	M155X3	200	28	182	16	7	4	M12	60	
SR160X3.0P	M160X3	210	28	182	16	7	4	M12	60	
SR165X3.0P	M165X3	210	28	193	16	7	4	M12	60	
SR170X3.0P	M170X3	220	28	193	16	7	4	M12	60	
SR180X3.0P	M180X3	230	30	203	18	8	4	M12	60	
SR190X3.0P	M190X3	240	30	214	18	8	4	M12	60	
SR200X3.0P	M200X3	250	32	226	18	8	4	M12	60	

- When ordering above products, please refer to the Name. For example: SR30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: SR30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: SR30-U18

MIRKI

# SRZ SERIES-RADIAL LOCKING

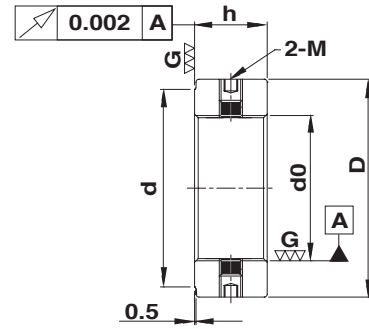
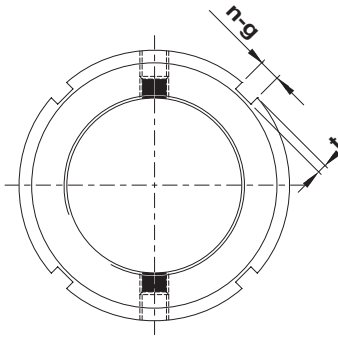
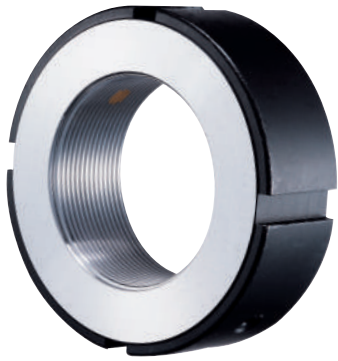


- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No.	Dimensions in mm						n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	g		t	2-M
SRZ6X0.5P	M6X0.5	16	8	11	3	2	4	M4	2.2
SRZ8X0.75P	M8X0.75	16	8	11	3	2	4	M4	2.2
SRZ8X1.0P	M8X1	16	8	11	3	2	4	M4	2.2
SRZ10X0.75P	M10X0.75	18	8	13	3	2	4	M4	2.2
SRZ10X1.0P	M10X1	18	8	13	3	2	4	M4	2.2
SRZ12X1.0P	M12X1	22	8	18	3	2	4	M4	2.2
SRZ15X1.0P	M15X1	25	8	21	3	2	4	M4	2.2
SRZ17X1.0P	M17X1	28	10	23	4	2	4	M5	4.8
SRZ20X1.0P	M20X1	32	10	27	4	2	4	M5	4.8
SRZ20X1.5P	M20X1.5	32	10	27	4	2	4	M5	4.8
SRZ25X1.5P	M25X1.5	38	12	33	5	2	4	M6	8
SRZ30X1.5P	M30X1.5	45	12	40	5	2	4	M6	8
SRZ35X1.5P	M35X1.5	52	12	47	5	2	4	M6	8
SRZ40X1.5P	M40X1.5	58	14	52	6	2.5	4	M6	8
SRZ45X1.5P	M45X1.5	65	14	59	6	2.5	4	M6	8
SRZ50X1.5P	M50X1.5	70	14	64	6	2.5	4	M6	8
SRZ55X2.0P	M55X2	75	16	68	7	3	4	M6	8
SRZ60X2.0P	M60X2	80	16	73	7	3	4	M6	8
SRZ65X2.0P	M65X2	85	16	78	7	3	4	M6	8
SRZ70X2.0P	M70X2	92	18	85	8	3.5	4	M8	19
SRZ75X2.0P	M75X2	98	18	90	8	3.5	4	M8	19
SRZ80X2.0P	M80X2	105	18	95	8	3.5	4	M8	19
SRZ85X2.0P	M85X2	110	18	102	8	3.5	4	M8	19
SRZ90X2.0P	M90X2	120	20	108	10	4	4	M8	19
SRZ95X2.0P	M95X2	125	20	113	10	4	4	M8	19
SRZ100X2.0P	M100X2	130	20	120	10	4	4	M8	19
SRZ105X2.0P	M105X2	140	22	126	12	5	4	M10	36
SRZ110X2.0P	M110X2	145	22	133	12	5	4	M10	36
SRZ115X2.0P	M115X2	150	22	137	12	5	4	M10	36
SRZ120X2.0P	M120X2	155	24	138	12	5	4	M10	36
SRZ125X2.0P	M125X2	160	24	148	12	5	4	M10	36
SRZ130X2.0P	M130X2	165	24	149	12	5	4	M10	36
SRZ135X2.0P	M135X2	175	26	160	14	6	4	M12	60
SRZ140X2.0P	M140X2	180	26	160	14	6	4	M12	60
SRZ145X2.0P	M145X2	190	26	172	14	6	4	M12	60
SRZ150X2.0P	M150X2	195	26	171	14	6	4	M12	60
SRZ155X3.0P	M155X3	200	28	182	16	7	4	M12	60
SRZ160X3.0P	M160X3	210	28	182	16	7	4	M12	60
SRZ165X3.0P	M165X3	210	28	193	16	7	4	M12	60
SRZ170X3.0P	M170X3	220	28	193	16	7	4	M12	60
SRZ180X3.0P	M180X3	230	30	203	18	8	4	M12	60
SRZ190X3.0P	M190X3	240	30	214	18	8	4	M12	60
SRZ200X3.0P	M200X3	250	32	226	18	8	4	M12	60

- When ordering above products, please refer to the Name. For example: SRZ30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: SRZ30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: SRZ30-U18

# MRRA SERIES-RADIAL LOCKING



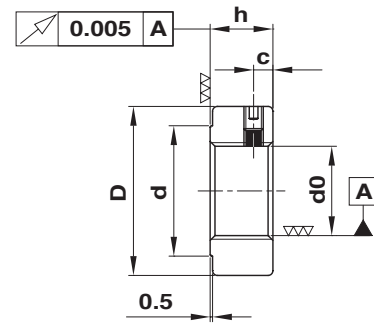
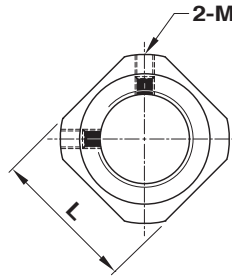
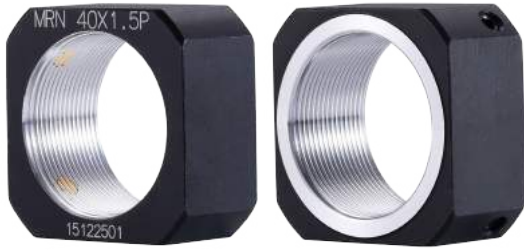
- Material : JIS SCM440 / DIN42CrMo4    ■ Hardness : HRC28-32    ■ Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

**MRRA**

Order No.	Dimensions in mm						n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	g		t	2-M
MRRA15/32	M15X1	32	20	27	4	2	4	M5	4.8
MRRA17/38	M17X1	38	20	33	5	2	4	M5	4.8
MRRA20/38	M20X1	38	20	33	5	2	4	M5	4.8
MRRA20/38	M20X1.5	38	20	33	5	2	4	M5	4.8
MRRA20/52	M20X1	52	25	47	5	2	4	M5	4.8
MRRA20/52	M20X1.5	52	25	47	5	2	4	M5	4.8
MRRA25/45	M25X1.5	45	20	40	5	2	4	M6	8
MRRA25/58	M25X1.5	58	24	52	6	2.5	4	M6	8
MRRA30/52	M30X1.5	52	22	47	5	2	4	M6	8
MRRA30/65	M30X1.5	65	30	59	6	2.5	4	M6	8
MRRA35/58	M35X1.5	58	22	52	6	2.5	4	M6	8
MRRA35/70	M35X1.5	70	30	64	6	2.5	4	M6	8
MRRA40/62	M40X1.5	62	22	56	6	2.5	4	M8	19
MRRA40/75	M40X1.5	75	30	69	6	2.5	4	M8	19
MRRA45/68	M45X1.5	68	24	62	6	2.5	4	M8	19
MRRA45/85	M45X1.5	85	32	78	7	3	4	M8	19
MRRA50/75	M50X1.5	75	25	68	6	2.5	4	M8	19
MRRA50/92	M50X1.5	92	32	84	8	3.5	4	M8	19
MRRA55/98	M55X2	98	32	90	8	3.5	4	M8	19
MRRA60/98	M60X2	98	32	90	8	3.5	4	M8	19
MRRA65/105	M65X2	105	32	97	8	3.5	4	M8	19
MRRA70/110	M70X2	110	35	102	8	3.5	4	M8	19
MRRA75/125	M75X2	125	38	117	8	3.5	4	M8	19
MRRA80/120	M80X2	120	35	105	10	4	4	M8	19
MRRA90/130	M90X2	130	38	120	10	4	4	M8	19
MRRA90/155	M90X2	155	38	146	10	4	4	M8	19
MRRA100/140	M100X2	140	38	128	12	5	4	M10	36
MRRA110/180	M110X2	180	40	167	14	6	4	M10	36
MRRA130/210	M130X2	210	40	205	16	7	4	M10	36
MRRA150/230	M150X2	230	42	215	18	8	4	M12	56

- When ordering above products, please refer to the Name. For example: MRRA50/75
- If a left hand thread is required, please notify "L" after the Name. For example: MRRA50/75-L
- If an inch thread is required, please notify "U" after the Name. For example: MRRA50/75-U18

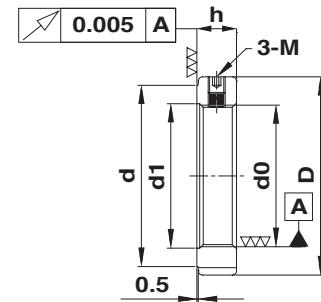
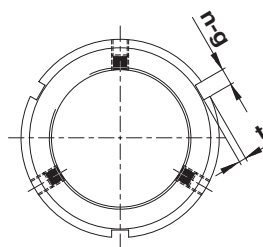
# MRN SERIES-FOR LIGHT-DUTY TRANSMISSION



- Material: JIS SCM440 / DIN42CrMo4
- Maximum axial run-out: 0.005 mm
- The contact surface and thread area are all produced by a high precision turning process.

Order No.	Dimensions in mm						Set Screw Data	
Name	d0_ISO 4H	D	h	d	c	L	2-M	Max. Torque_Nm
MRN 05X0.5P	M5X0.5	12.5	5	8	2.3	11	M3	0.9
MRN 06X0.75P	M6X0.75	13.5	5	9	2.3	12	M3	0.9
MRN 08X1.0P	M8X1	16	6.5	11	2.5	14	M3	0.9
MRN 10X1.0P	M10X1	19	8	13	2.5	16	M3	0.9
MRN 12X1.0P	M12X1	22	8	16	2.5	19	M4	2.2
MRN 15X1.0P	M15X1	25	8	19	3.25	22	M4	2.2
MRN 17X1.0P	M17X1	29	13	21	4	24	M4	2.2
MRN 20X1.0P	M20X1	35	11	27	4	30	M4	2.2
MRN 25X1.5P	M25X1.5	43	15	32	5	35	M6	8
MRN 30X1.5P	M30X1.5	48	20	37	6	40	M6	8
MRN 35X1.5P	M35X1.5	60	21	47	7	50	M6	8
MRN 40X1.5P	M40X1.5	62	25	47	7	50	M6	8

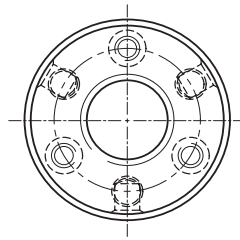
# MRS SERIES-FOR FOOD, PHARMACEUTICAL, CHEMICAL & SEMICONDUCTOR EQUIPMENT



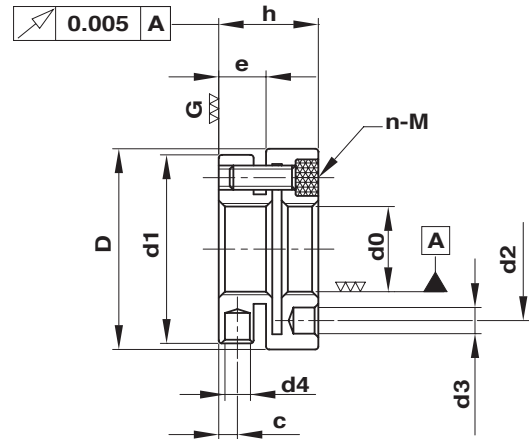
- Material: JIS SUS304\_Fully stainless steel (stainless pin and setscrew included)
- Maximum axial run-out: 0.005 mm

Order No.	Dimensions in mm								Set Screw Data	
Name	d0_ISO 4H	D	h	d	d1	g	t	n	3-M	Max. Torque_Nm
MRS 06X0.5P	M6X0.5	16	8	11	-	3	2	3	M4	2.2
MRS 08X0.75P	M8X0.75	16	8	11	-	3	2	3	M4	2.2
MRS 08X1.0P	M8X1	16	8	11	-	3	2	3	M4	2.2
MRS 10X0.75P	M10X0.75	18	8	13	-	3	2	3	M4	2.2
MRS 10X1.0P	M10X1	18	8	13	-	3	2	3	M4	2.2
MRS 12X1.0P	M12X1	20	8	18	-	3	2	3	M4	2.2
MRS 15X1.0P	M15X1	25	8	21	-	3	2	3	M4	2.2
MRS 17X1.0P	M17X1	28	10	23	-	4	2	3	M5	4.8
MRS 20X1.0P	M20X1	32	10	27	-	4	2	3	M5	4.8
MRS 20X1.5P	M20X1.5	32	10	27	-	4	2	3	M5	4.8
MRS 25X1.5P	M25X1.5	38	12	33	26	5	2	3	M6	8
MRS 30X1.5P	M30X1.5	45	12	40	31	5	2	3	M6	8
MRS 35X1.5P	M35X1.5	52	12	47	36	5	2	3	M6	8
MRS 40X1.5P	M40X1.5	58	14	52	41	6	2.5	3	M6	8
MRS 45X1.5P	M45X1.5	65	14	59	46	6	2.5	3	M6	8
MRS 50X1.5P	M50X1.5	70	14	64	51	6	2.5	3	M6	8

## MKR SERIES-AXIAL LOCKING



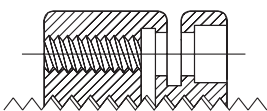
MKR10-MKR15



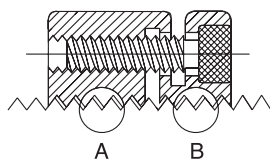
- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.005 mm
- The contact surface is produced by a high precision **grinding** process.

Order No.	Dimensions in mm									Helical Angle	Clamping Screw Data	
	Name	d0_ISO 4H	D	h	e	d1	d2	d3	d4		c	n-M
MKR10X0.75P	M10X0.75	24	14	6.6	22	17	3.2	2.5	3	1.44	3-M3X10	3
MKR10X1.0P	M10X1	24	15	6.6	22	17	3.2	2.5	3	1.95	3-M3X10	3
MKR12X1.0P	M12X1	26	14	6.6	25	19	3.2	3	3	1.61	3-M3X10	3
MKR12X1.5P	M12X1.5	26	15	6.6	25	19	3.2	3	3	2.48	3-M3X10	3
MKR14X1.5P	M14X1.5	32	16	7.6	30	22.5	4.3	4	3	2.10	3-M4X10	5.5
MKR15X1.0P	M15X1	33	16	7.6	31	23.5	4.3	4	3	1.27	3-M4X10	5.5
MKR16X1.5P	M16X1.5	34	18	-	-	24.5	4.3	4	5	1.82	4-M4X12	5.5
MKR17X1.0P	M17X1	35	18	-	-	25.5	4.3	4	5	1.21	4-M4X12	5.5
MKR18X1.5P	M18X1.5	36	18	-	-	26.5	4.3	4	5	1.61	4-M4X12	5.5
MKR20X1.0P	M20X1	40	18	-	-	30.5	4.3	4	5	0.94	4-M4X12	5.5
MKR20X1.5P	M20X1.5	40	18	-	-	30.5	4.3	4	5	1.44	4-M4X12	5.5
MKR22X1.5P	M22X1.5	40	18	-	-	30.5	4.3	4	5	1.30	4-M4X12	5.5
MKR24X1.5P	M24X1.5	42	18	-	-	32.5	4.3	4	5	1.19	4-M4X12	5.5
MKR25X1.5P	M25X1.5	45	20	-	-	36.5	4.3	5	6.5	1.14	4-M4X14	5.5
MKR26X1.5P	M26X1.5	45	20	-	-	36.5	4.3	5	6.5	1.09	4-M4X14	5.5
MKR28X1.5P	M28X1.5	46	20	-	-	38.5	4.3	5	6.5	1.01	4-M4X14	5.5
MKR30X1.5P	M30X1.5	48	20	-	-	40.5	4.3	5	6.5	0.94	4-M4X14	5.5
MKR32X1.5P	M32X1.5	50	22	-	-	42.5	4.3	5	7	0.88	4-M4X16	5.5
MKR35X1.5P	M35X1.5	53	22	-	-	45.5	4.3	5	7	0.80	4-M4X16	5.5
MKR38X1.5P	M38X1.5	58	22	-	-	48.5	4.3	5	7	0.74	4-M4X16	5.5
MKR40X1.5P	M40X1.5	58	22	-	-	50.5	4.3	5	7	0.70	4-M4X16	5.5
MKR42X1.5P	M42X1.5	60	22	-	-	52.5	4.3	5	7	0.67	4-M4X16	5.5
MKR45X1.5P	M45X1.5	68	22	-	-	58	4.3	6	6.5	0.62	6-M4X16	5.5
MKR48X1.5P	M48X1.5	68	25	-	-	59.5	4.3	6	9	0.58	6-M4X18	5.5
MKR50X1.5P	M50X1.5	70	25	-	-	61.5	4.3	6	9	0.56	6-M4X18	5.5
MKR52X1.5P	M52X1.5	72	25	-	-	63.5	4.3	6	9	0.54	6-M4X18	5.5
MKR55X1.5P	M55X1.5	75	25	-	-	66.5	4.3	6	9	0.51	6-M4X18	5.5
MKR55X2.0P	M55X2	75	25	-	-	66.5	4.3	6	9	0.68	6-M4X18	5.5

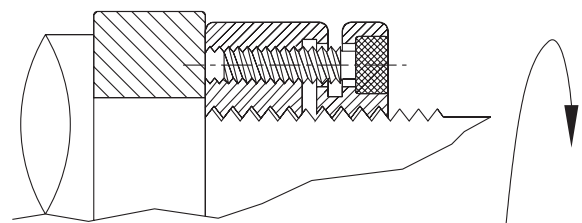
1.



2.

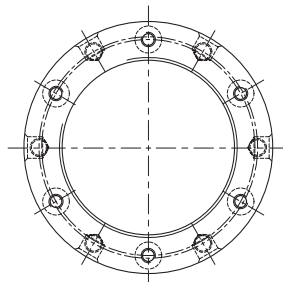


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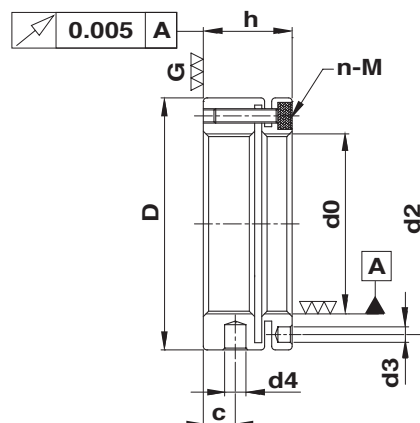




# MKR SERIES-AXIAL LOCKING



MKR16-MKR200



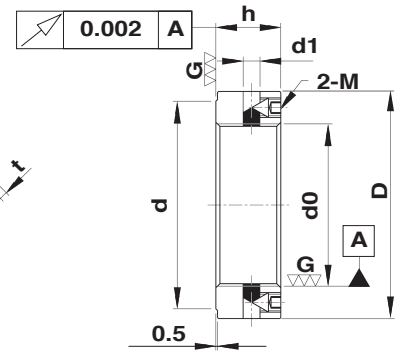
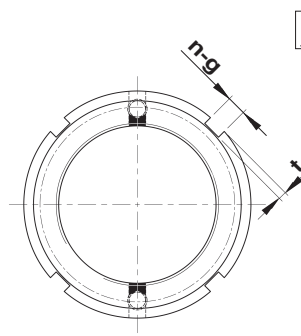
- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface is produced by a high precision **grinding** process.

Order No.	Dimensions in mm									Helical Angle	Clamping Screw Data	
Name	d0_ISO 4H	D	h	e	d1	d2	d3	d4	c		n-M	Max. Torque_Nm
MKR58X1.5P	M58X1.5	82	26	-	-	72.5	5.3	6	9	0.48	6-M5X18	9
MKR60X1.5P	M60X1.5	84	26	-	-	74.5	5.3	6	9	0.46	6-M5X18	9
MKR60X2.0P	M60X2	84	26	-	-	74.5	5.3	6	9	0.62	6-M5X18	9
MKR62X1.5P	M62X1.5	86	28	-	-	76.5	5.3	6	10.5	0.45	6-M5X20	9
MKR65X1.5P	M65X1.5	88	28	-	-	78.5	5.3	6	10.5	0.43	6-M5X20	9
MKR65X2.0P	M65X2	88	28	-	-	78.5	5.3	6	10.5	0.57	6-M5X20	9
MKR68X1.5P	M68X1.5	95	28	-	-	83	5.3	8	9.5	0.41	6-M5X20	9
MKR70X1.5P	M70X1.5	95	28	-	-	85	5.3	8	9.5	0.40	6-M5X20	9
MKR70X2.0P	M70X2	95	28	-	-	85	5.3	8	9.5	0.53	6-M5X20	9
MKR72X1.5P	M72X1.5	98	28	-	-	86	6.4	8	8.5	0.39	6-M6X20	12
MKR75X1.5P	M75X1.5	100	28	-	-	88	6.4	8	8.5	0.37	6-M6X20	12
MKR75X2.0P	M75X2	100	28	-	-	88	6.4	8	8.5	0.50	6-M6X20	12
MKR80X2.0P	M80X2	110	32	-	-	95	6.4	8	11	0.46	6-M6X20	12
MKR85X2.0P	M85X2	115	32	-	-	100	6.4	8	11	0.44	6-M6X20	12
MKR90X2.0P	M90X2	120	32	-	-	108	6.4	8	11	0.41	6-M6X20	12
MKR95X2.0P	M95X2	125	32	-	-	113	6.4	8	11	0.39	6-M6X20	12
MKR100X2.0P	M100X2	130	32	-	-	118	6.4	8	11	0.37	6-M6X20	12
MKR105X2.0P	M105X2	135	32	-	-	123	6.4	8	11	0.35	6-M6X20	12
MKR110X2.0P	M110X2	140	32	-	-	128	6.4	8	11	0.34	6-M6X20	12
MKR115X2.0P	M115X2	145	36	-	-	133	6.4	8	13	0.32	6-M6X25	12
MKR120X2.0P	M120X2	155	36	-	-	140	6.4	8	13	0.31	6-M6X25	12
MKR125X2.0P	M125X2	160	36	-	-	148	6.4	8	13	0.29	6-M6X25	12
MKR130X3.0P	M130X3	165	36	-	-	153	6.4	8	13	0.43	6-M6X25	12
MKR140X3.0P	M140X3	180	36	-	-	165	6.4	10	12	0.40	8-M6X25	12
MKR150X3.0P	M150X3	190	36	-	-	175	6.4	10	12	0.37	8-M6X25	12
MKR160X3.0P	M160X3	205	40	-	-	185	8.4	10	14	0.35	8-M8X30	25.5
MKR170X3.0P	M170X3	215	40	-	-	195	8.4	10	14	0.33	8-M8X30	25.5
MKR180X3.0P	M180X3	230	40	-	-	210	8.4	10	14	0.31	8-M8X30	25.5
MKR190X3.0P	M190X3	240	40	-	-	224	8.4	10	14	0.29	8-M8X30	25.5
MKR200X3.0P	M200X3	245	40	-	-	229	8.4	10	14	0.28	8-M8X30	25.5

- When ordering above products, please refer to the Name. For example: MKR30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: MKR30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: MKR30-U18

MKR

# MA SERIES-AXIAL LOCKING



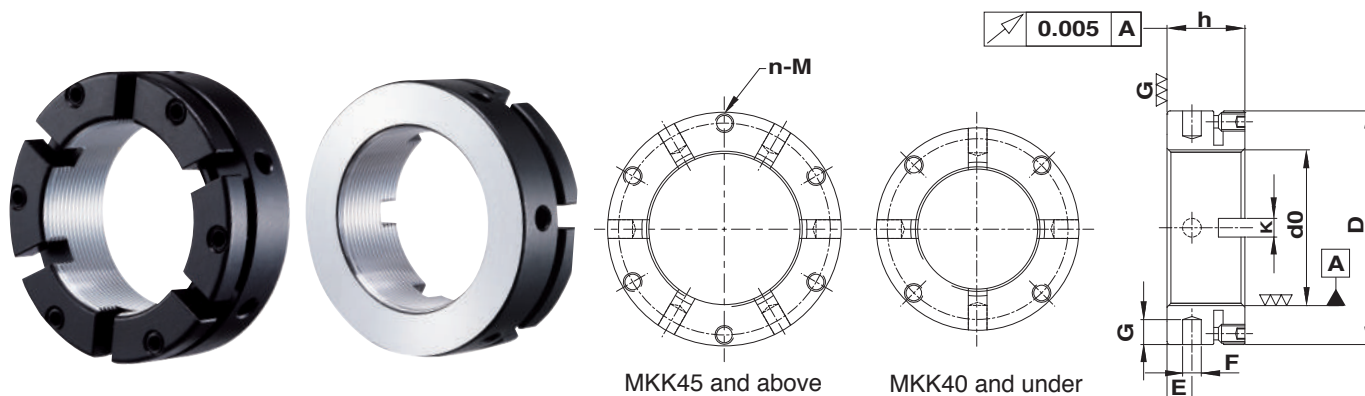
- Material: JIS SCM440 / DIN42CrMo4
- Hardness: HRC28-32
- Maximum axial run-out: 0.002 mm
- The contact surface and thread area are all produced by a high precision grinding process.

Order No.	Dimensions in mm								n	Set Screw Data	
	Name	d0_ISO 4H	D	h	d	g	t	d1		2-M	Max .Torque_Nm
MA17X1.0P	M17X1	28	15	23	4	2	3.5	4	M4	2.2	
MA20X1.0P	M20X1	32	15	27	4	2	3.5	4	M4	2.2	
MA25X1.5P	M25X1.5	38	17	33	5	2	4.5	4	M5	4.8	
MA30X1.5P	M30X1.5	45	17	40	5	2	4.5	4	M5	4.8	
MA35X1.5P	M35X1.5	52	17	47	5	2	4.5	4	M5	4.8	
MA40X1.5P	M40X1.5	58	19	52	6	2.5	5.2	4	M6	8	
MA45X1.5P	M45X1.5	65	19	59	6	2.5	5.2	4	M6	8	
MA50X1.5P	M50X1.5	70	19	64	6	2.5	5.2	4	M6	8	
MA55X2.0P	M55X2	75	21	68	7	3	5.2	4	M6	8	
MA60X2.0P	M60X2	80	21	73	7	3	5.2	4	M6	8	
MA65X2.0P	M65X2	85	21	78	7	3	5.2	4	M6	8	
MA70X2.0P	M70X2	92	23	85	8	3.5	7	4	M8	19	
MA75X2.0P	M75X2	98	23	90	8	3.5	7	4	M8	19	
MA80X2.0P	M80X2	105	23	95	8	3.5	7	4	M8	19	
MA85X2.0P	M85X2	110	23	102	8	3.5	7	4	M8	19	
MA90X2.0P	M90X2	120	25	108	10	4	7	4	M8	19	
MA95X2.0P	M95X2	125	25	113	10	4	7	4	M8	19	
MA100X2.0P	M100X2	130	25	120	10	4	7	4	M8	19	
MA105X2.0P	M105X2	140	27	126	12	5	8.7	4	M10	36	
MA110X2.0P	M110X2	145	27	133	12	5	8.7	4	M10	36	
MA115X2.0P	M115X2	150	27	137	12	5	8.7	4	M10	36	
MA120X2.0P	M120X2	155	29	138	12	5	8.7	4	M10	36	
MA125X2.0P	M125X2	160	29	148	12	5	8.7	4	M10	36	
MA130X2.0P	M130X2	165	29	149	12	5	8.7	4	M10	36	
MA135X2.0P	M135X2	175	31	160	14	6	10.7	4	M12	56	
MA140X2.0P	M140X2	180	31	160	14	6	10.7	4	M12	56	
MA145X2.0P	M145X2	190	31	172	14	6	10.7	4	M12	56	
MA150X2.0P	M150X2	195	31	171	14	6	10.7	4	M12	56	
MA160X3.0P	M160X3	210	33	182	16	7	10.7	4	M12	56	
MA170X3.0P	M170X3	220	33	193	16	7	10.7	4	M12	56	
MA180X3.0P	M180X3	230	35	203	18	8	10.7	4	M12	56	
MA190X3.0P	M190X3	240	35	214	18	8	10.7	4	M12	56	
MA200X3.0P	M200X3	250	37	226	18	8	10.7	4	M12	56	

- When ordering above products, please refer to the Name. For example: MA30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: MA30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: MA30-U18

MIRKI

## MKK SERIES-AXIAL LOCKING



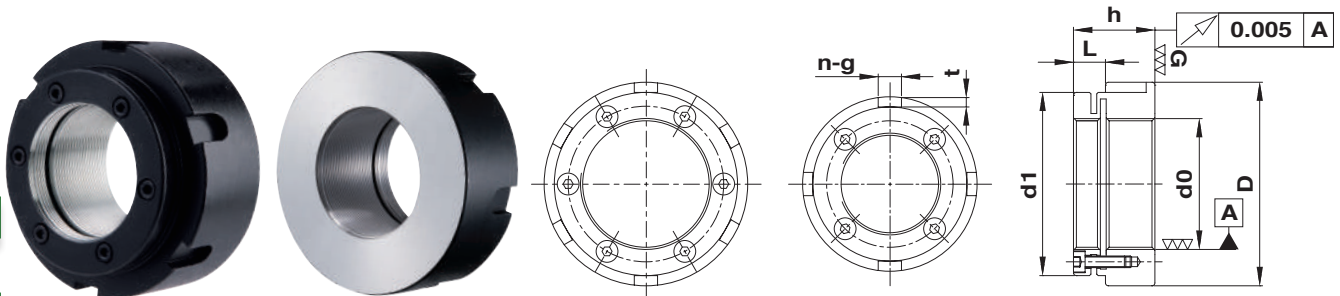
- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC28-32    ■ Maximum axial run-out: 0.005 mm
- The contact surface is produced by a high precision **grinding** process.

Order No.	Dimensions in mm							Clamping Screw Data	
Name	d0_ISO 4H	D	h	K	E	F	G	n-M	Max. Torque_Nm
MKK15X1.0P	M15X1	30	18	4	5	4	5	4-M5	4.8
MKK17X1.0P	M17X1	32	18	4	5	4	5	4-M5	4.8
MKK20X1.0P	M20X1	38	18	4	5	4	6	4-M6	8
MKK25X1.5P	M25X1.5	45	20	5	6	5	6	4-M6	8
MKK30X1.5P	M30X1.5	52	20	5	6	5	7	4-M6	8
MKK30/65	M30X1.5	65	30	6	6	6	8	4-M6	8
MKK35/58	M35X1.5	58	20	5	6	5	7	4-M6	8
MKK35X1.5P	M35X1.5	65	22	6	6	6	8	4-M6	8
MKK40X1.5P	M40X1.5	65	22	6	6	6	8	4-M6	8
MKK40/85	M40X1.5	85	32	6	6	6	8	4-M6	8
MKK45X1.5P	M45X1.5	70	22	6	6	6	8	6-M6	8
MKK50X1.5P	M50X1.5	75	25	6	8	6	8	6-M6	8
MKK55X2.0P	M55X2	85	26	6	8	6	8	6-M8	19
MKK60X2.0P	M60X2	90	26	6	8	6	8	6-M8	19
MKK65X2.0P	M65X2	100	26	8	8	8	10	6-M8	19
MKK70X2.0P	M70X2	100	28	8	9	8	10	6-M8	19
MKK75X2.0P	M75X2	115	30	8	10	8	10	6-M10	36
MKK80X2.0P	M80X2	110	30	8	10	8	10	6-M10	36
MKK85X2.0P	M85X2	115	30	8	10	8	10	6-M10	36
MKK90X2.0P	M90X2	130	32	8	13	8	10	6-M10	36
MKK95X2.0P	M95X2	130	30	8	10	8	10	8-M10	36
MKK100X2.0P	M100X2	130	30	8	10	8	10	8-M10	36
MKK110X2.0P	M110X2	140	30	8	10	8	10	8-M10	36
MKK120X2.0P	M120X2	155	30	8	10	8	10	8-M10	36
MKK130X2.0P	M130X2	165	30	8	10	8	10	8-M10	36

- When ordering above products, please refer to the Name. For example: MKK30x1.5P
- If a left hand thread is required, please notify "L" after the Name. For example: MKK30x1.5P-L
- If an inch thread is required, please notify "U" after the Name. For example: MKK30-U18

MKN

## MKW SERIES-AXIAL LOCKING



MKW40 and above    MKW35 and under

- Material: JIS SCM440 / DIN42CrMo4    ■ Hardness: HRC25-28    ■ Maximum axial run-out: 0.005 mm
- The contact surface is produced by a high precision **grinding** process.

Order No.	Dimensions in mm								Clamping Screw Data	
Name	d0_ISO 4H	D	h	d1	n	g	t	L	n-M	Max. Torque_Nm
MKW20-28	M20X1.5	42	28	38	4	6	2.5	11	4-M4X14	5.5
MKW25-28	M25X1.5	47	28	43	4	7	3	11	4-M4X14	5.5
MKW30-28	M30X1.5	52	28	48	4	7	3	11	4-M4X14	5.5
MKW35-28	M35X1.5	60	28	53	4	8	3.5	11	4-M4X14	5.5
MKW40-28	M40X1.5	65	28	58	6	8	3.5	11	6-M4X14	5.5
MKW45-28	M45X1.5	70	28	63	6	8	3.5	11	6-M4X14	5.5
MKW50-32	M50X1.5	75	32	68	6	8	3.5	11	6-M4X14	5.5
MKW20-40	M20X1.5	52	40	42	4	7	3	11	4-M4X14	5.5
MKW25-40	M25X1.5	62	40	47	4	8	3.5	11	4-M4X14	5.5
MKW30-44	M30X1.5	68	44	52	4	8	3.5	11	4-M4X14	5.5
MKW35-44	M35X1.5	73	44	60	4	8	3.5	11	4-M4X14	5.5
MKW40-44	M40X1.5	75	44	62	6	8	3.5	11	6-M4X14	5.5
MKW45-44	M45X1.5	90	44	70	6	10	4	11	6-M4X14	5.5
MKW50-46	M50X1.5	95	46	75	6	10	4	11	6-M4X14	5.5
MKW55-46	M55X1.5	100	46	80	6	10	4	12	6-M5X16	9
MKW60-46	M60X1.5	100	46	85	6	10	4	12	6-M5X16	9
MKW65-46	M65X1.5	110	46	90	6	10	4	12	6-M5X16	9
MKW70-46	M70X1.5	115	46	95	6	10	4	12	6-M5X16	9

- When ordering above products, please refer to the Name. For example: MKW40-28
- If a left hand thread is required, please notify "L" after the Name. For example: MKW40-28-L
- If an inch thread is required, please notify "U" after the Name. For example: MKW40-28-U18

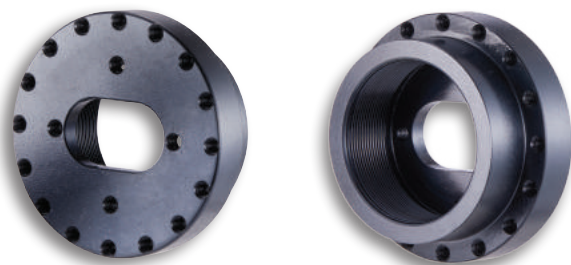
MKW

# CUSTOMIZED LOCKNUTS

## Full Grinding Locknuts



## ODM Projects



## Outer Locknuts



# MOUNTING TOOLS

HSIANG KAI FU provides turnkey locking solutions. NIKKI mounting tools can effectively prevent the single point of force applied to the locknuts compared with traditional tools. With NIKKI mounting tools, our clients assemble the precision locknuts more conveniently and accurately while saving the locking workforce.

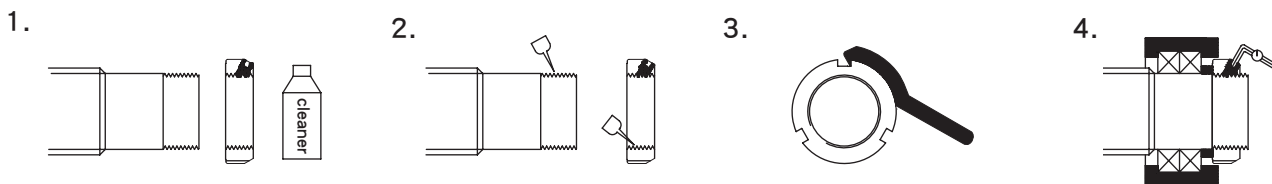


NIKKI Collar	NIKKI Socket
Applicable to the front/rear end of a spindle or the pre-tensioned/motor end of a ball screw	Applicable to the rear end of a spindle or the pre-tensioned end of a ball screw
Highly durable	
Convenient and easy to use	
Increase accuracy of locknut assembly	

NIKKI

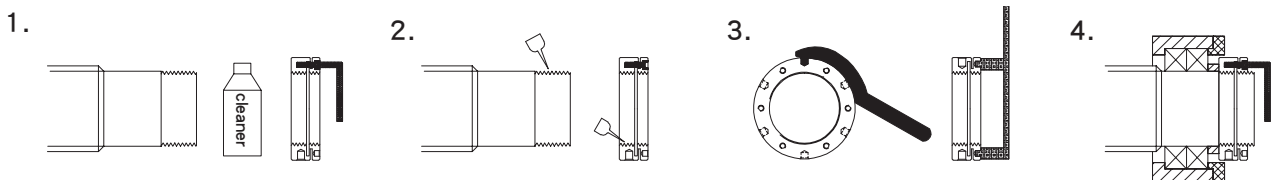
# ASSEMBLY GUIDE

## Locknuts with set screws



- Step 1: Wash the spindle / ball screw and locknut with oil cleaner and air dry them
- Step 2: Add lubricating oil onto the thread of the spindle / ball screw and locknut
- Step 3: Use appropriate tool and torque wrench to do the fixation
- Step 4: Drive the setscrews tightly

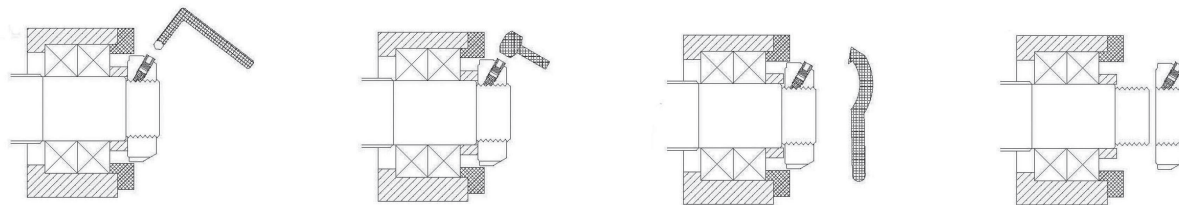
## Locknuts with clamping screws



- Step 1: Wash the spindle / ball screw and locknut with oil cleaner and air dry them; loosen the clamping screws of the locknut
- Step 2: Add lubricating oil onto the thread of the spindle / ball screw and locknut
- Step 3: Use appropriate tool and torque wrench to do the fixation
- Step 4: Drive the socket head screws tightly

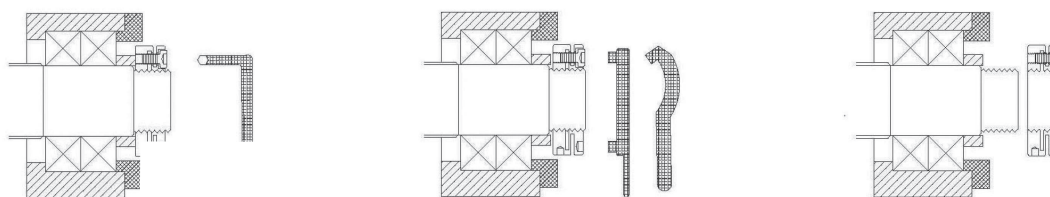
# DISASSEMBLY GUIDE

## Locknuts with set screws



- Step 1: Loosen the set screws and clean the spindle / ball screw
- Step 2: Lightly tap the locknut by rubber mallet
- Step 3: Loosen the locknut by an appropriate tool
- Step 4: Take down the locknut

## Locknuts with clamping screws



- Step 1: Loosen the clamping screws
- Step 2: Loosen the locknut by an appropriate tool
- Step 3: Take down the locknut

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# TECHNICAL INFORMATION

## Torque and Force Calculation Formula

$$T = F * K \text{ ( N*M )}$$

$$K = \frac{1}{2} \{ dp * \tan ( P^* + \beta ) + dw * uw \} * 10^{-3} \text{ (m)}$$

T: Nut locking torque

F: Nut tightening force

dp: Nut effective diameter (mm)

P\*: Thread friction angle,  $P^* = \tan^{-1} \mu_s$

$\beta$ : Nut lead angle,  $\beta = \tan^{-1} ( \text{pitch} / 3.142 * dp )$

$\mu_s$ : Coefficient of friction for nut connecting face ;  $uw = us \approx 0.15$

dw: The average diameter of friction torque for nut connecting face.

$$\text{(mm)} ; dw = \frac{D+d}{2}$$

## Static Axial Load Calculation Formula

$$F = A * Sh * n$$

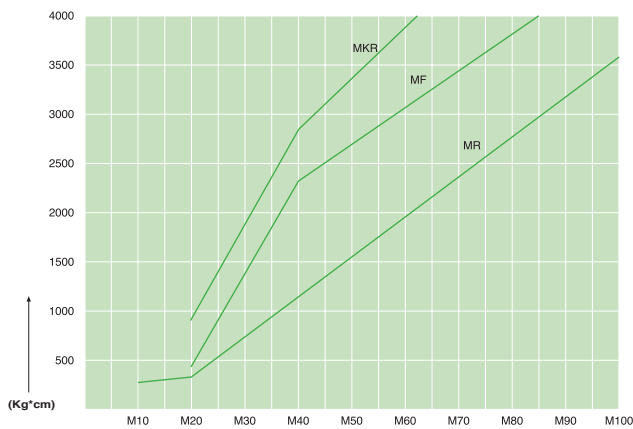
F: Axial Load

A: The area of each thread

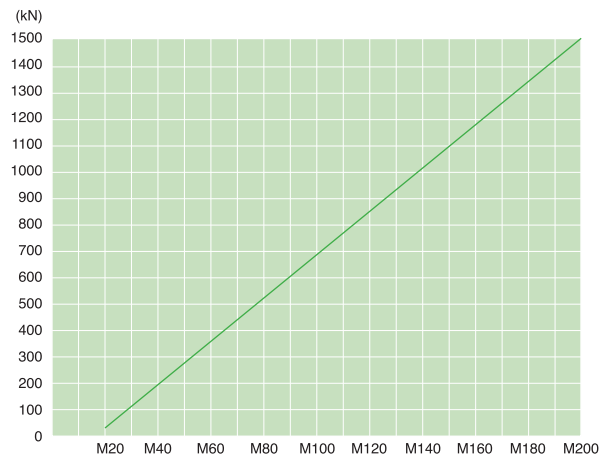
Sh: Allowed shearing stress ( Safety factor = 4 )

n: Number of effective thread

### Loosening Torque



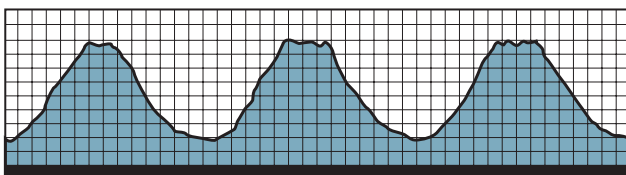
### Static Axial Load



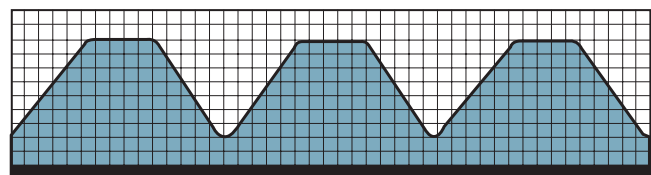
Remarks:

- (1) The data are for reference only.
- (2) 1 N\*M = 10.2 kg\*cm = 0.73 lb\*ft

## Threading Profile

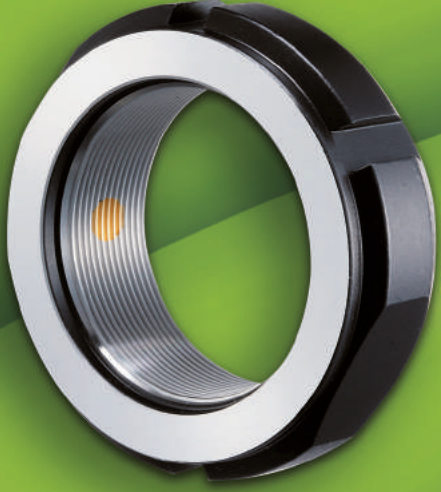


Traditional threading surface profile



Threading surface profile by NIKKI's precision grinding process

NIKKI



# NIKKI

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