

Nuts

U-Nuts® / Double Locking Nuts
Hard Lock Nuts®

These nuts are designed with smaller hex envelope and thickness than JIS standard to be used in limited spaces.

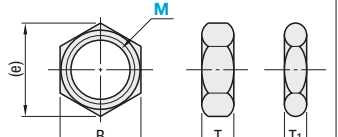
Compact Nuts



PACK- contains 10 pcs.

RoHS

SNTRC
SNTRCS (Thin)
PACK-SNTRC
PACK-SNTRCS (Thin)



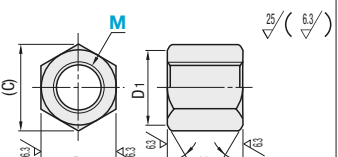
Material: EN 1.4301 Equiv.
* Strength Class SNTRC: 5T Equiv.
SNTRCS: 4T Equiv.

Tall Nuts



RoHS

Type	Material	Surface Treatment	Hardness
NT	EN 1.1191 Equiv.	Trivalent Bright Chromate Plating	25~30HRC
SNT	EN 1.4301 Equiv.	-	-



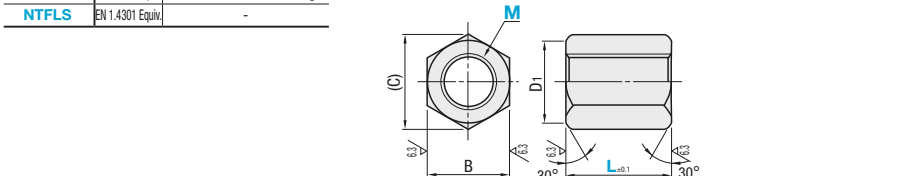
25 / (6.3)

Configurable Length Nuts



RoHS

Type	Material	Surface Treatment
NTFL	EN 1.0038 Equiv.	Electroless Nickel Plating
NTFLS	EN 1.4301 Equiv.	-



25 / (6.3)

L Dimension Selectable													
Part Number		L			B	(C)	D1	NTFL			NTFLS		
Type	M Coarse							Unit Price	Volume	Discount Rate	Unit Price	Volume	Discount Rate
NTFL NTFLS	3	4 5 6 8 10	6	6.9	5.3								
	4	5 6 8 10 12 15	7	8.1	6.8								
	5	6 8 10 12 15 20	8	9.2	7.8								
	6	10 12 15 20 25	10	11.5	9.8								
	8	10 15 20 25 30	13	15	12.5								
	10	10 20 25 30 40	17	19.6	16.5								

L Dimension Configurable								
Part Number		L	B	(C)	D ₁	Unit Price		
Type	M (Coarse)	1mm Increment				NTFL	NTFLS	
NTFL NTFLS	3	3~10	6	6.9	5.3			
	4	4~15	7	8.1	6.8			
	5	5~20	8	9.2	7.8			
	6	6~25	10	11.5	9.8			
	8	8~30	13	15	12.5			
	10	10~40	17	19.6	16.5			
	12	10~50	19	21.9	18			
	16	10~50	24	27.7	23			

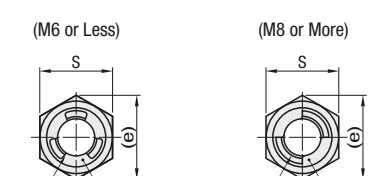
U-Nuts®



Part Numbers in are not RoHS compliant.

RoHS

Type	Material	Surface Treatment	Screw Precision
UNUTZ	EN 1.0038 Equiv. or Equiv.	Bright Chromate Plating	JIS6H (Class 2)
UNUTKZ	EN 1.0038 Equiv. or Equiv.	Trivalent Chromate	JIS6H (Class 2)
UNUTSZ	EN 1.4301 Equiv. or Equiv.	-	JIS6H (Class 2)



(M6 or Less) (M8 or More)

Friction Ring

As shown in the figure below, stress P is caused by the spring effect when Friction Ring contacts the thread. The reaction force P' together with P presses hard upon the threads, which creates friction torque (prevailing torque) to prevent any free motion.

Friction Ring

U-Nuts® is a trademark of Fuji Seimitsu Co. Ltd.									
Part Number		UNUTZ		UNUTKZ		UNUTSZ			
Type	M	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate		
		1 ~ 9 pc(s)	10 ~ 500 pcs.	1 ~ 9 pc(s)	10 ~ 500 pcs.	1 ~ 9 pc(s)	10 ~ 500 pcs.		
UNUTZ UNUTKZ UNUTSZ	4								
	5								
	6								
	8								
	10								
	12								
	16								

Part Number		Qty. /1 pkg.	PACK-UNUT		PACK-UNUTK		PACK-UNUTS	
Type	M		Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
			1 ~ 9 pkg(s).	10 pkgs.	1 ~ 9 pkg(s).	10 pkgs.	1 ~ 9 pkg(s).	10 pkgs.
PACK-UNUT PACK-UNUTK PACK-UNUTS	4	100						
	5	100						
	6	100						
	8	100						
	10	50						
	12	50						
	16	50						

For orders larger than indicated quantity, please check with WOS.

100 pcs./pkg. for M4 ~ 8; 50 pcs./pkg. for M10 ~ 16.

For orders larger than indicated quantity, please check with WOS.

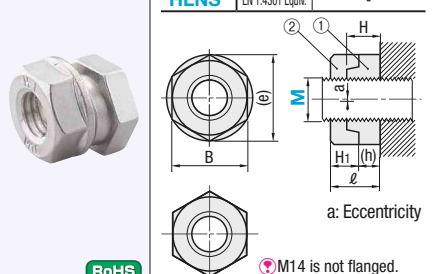
M	Pitch	S		h		m	(e)	Tightening Torque N·m (kg·cm)		
		Reference Dim.	Tolerance	Reference Dim.	Tolerance			UNUT	UNUTK	UNUTS
4	0.7	7	0	3.8	±0.3	3	8.1	2.2(22)	1.9(19)	
5	0.8	8	-0.2	4.6	±0.3	3.9	9.2	4.4(45)	3.8(39)	
6	1.0	10		5.1	±0.4	4.2	11.5	7.4(75)	6.5(66)	
8	1.25	13	0	7.3	±0.4	6.1	15	18(180)	16(160)	
10	1.5	17	-0.25	8.3	±0.4	7.1	19.6	36(370)	31(320)	
12	1.75	19	0	10.5	±0.5	9	21.9	62(630)	55(560)	
16	2.0	24	-0.35	14.5	±0.5	13	27.7	155(1600)	135(1400)	

Double Locking Nuts



RoHS

Type	Material	Surface Treatment
HLN	EN 1.0038 Equiv.	Trivalent Chromate
HLNS	EN 1.4301 Equiv.	-



a: Eccentricity

M14 is not flanged.

Structure and Function of Hard Lock Nuts®

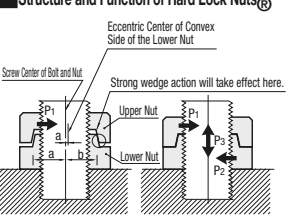


Fig.-1 Fig.-2

Hard Lock Nuts® is a registered trademark of Hard Lock Industry Co., Ltd.

Cautions

Screws or shafts should be machined in accordance with JIS6g (Class 2) for thread precision. Nuts may not fit well due to different thread precision. Although O.D. of the upper nut and the lower nut may become eccentric or clearance may occur during assembling caused by its structure, it does not affect the operation.

Fig.-1: When upper nut is tightened, stress is automatically applied in P1 arrow direction. Horizontal stress continues to increase with tightening until upper nut closely contacts lower nut as shown in Fig.-2. The nuts are fully locked by the wedge effect.

Fig.-2: After nuts are tightened, internal stress remains distributed as composite stress of P1+P2+P3 to resist external impact.

Part Number		MxPitch	B	(e)	① Lower Nut		② Upper Nut		Pair Height /Tolerance	(h)	Weight per Set (g)	Unit Price	
Type	M				H	Tolerance	H1	Tolerance				HLN	HLNS
HLN HLNS (Stainless Steel)	6	6x1.0	10	11.5	5	±0.3	5	±0.3	8	3	4		
	8	8x1.25	13	15	6.5	0	6.5	0	10.6	4.1	8.9		
	10	10x1.5	17	19.6	8	-0.58	8	-0.58	13.2	5.2	18		
	12	12x1.75	19	21.9	10	0	9.3	0	16	7.0	26		
	14	14x2.0	22	25.4	11	0	11	0	18.5	7.5	39		
	16	16x2.0	24	27.7	13	-0.7	11	-0.7	20	9	46		

Tightening Torque Chart (Reference Value)									
M	① Lower Nut							② Upper Nut	
	By Material: Tightening Torque Reference Value Chart (N·m)							All Materials	
	EN 1.0038 Equiv. or Equiv. EN 1.1191 Equiv. or Equiv. EN 1.2220 Equiv. or Equiv. EN 1.4301 Equiv., 316 or Equiv. 4.8(320N/mm²) 8.8(640N/mm²) 10.9(900N/mm²) 50(210N/mm²) 70(450N/mm²)							Tightening Torque (N·m)	
6	2.3~6	-	-	1.5~4	3.3~9	4~5			
8	5.6~15	11.2~30	15.8~42	3.7~10	7.9~21	9~13			
10	11~30	22~59	31~84	7~20	16~42	18~24			
12	19~52	39~104	55~146	13~34	27~73	27~39			
14	31~82	62~165	87~232	20~54	44~116	40~58			
16	48~129	97~257	136~362	32~84	68~181	70~100			

Part Number

HLN8