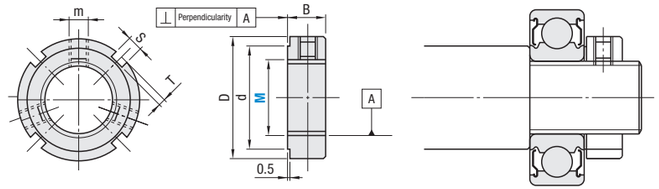
Precision Lock Nuts / Hook Spanners for Bearing Lock Nuts

Precision Lock Nuts



Type	
PLNY Standard	⊥ 0.005 A
PLN High-Grade	⊥ 0.002 A

Components	Material	Hardness	Surface Treatment
Main Body	4140 Alloy Steel or Equivalent	28–32 HRC	Black Oxide
Set Screw	4137 Alloy Steel or Equivalent	35–40 HRC	
Locking Metal (*)	Phosphor Bronze	—	—

*Locking metal is the metal at the tip portion of set screw.

Screw Accuracy ISO Class 4H

Part Number Type	M	M x Pitch (Fine)	D	d	B	S	T	m	Perpendicularity of End Face (max.)	Max. Tightening Torque (N•m) Set Screw
Standard PLNY / High-Grade PLN	8	8 x 0.75	16	11	8	3	2	2 x M4	PLNY 0.005 / PLN 0.002	3.5
	10	10 x 1.0	18	13						
	12	12 x 1.0	20	16						
	15	15 x 1.0	25	21						
	17	17 x 1.0	28	23	10	4		2 x M5		4.5
	20	20 x 1.0	32	27				3 x M5		
	25	25 x 1.5	38	33	12	5		3 x M6		8.0
	30	30 x 1.5	45	40						
	35	35 x 1.5	52	47						
	40	40 x 1.5	58	52	14	6	2.5			
	45	45 x 1.5	65	59						
	50	50 x 1.5	70	64				3 x M8		18.0
	55	55 x 2.0	75	68	16	7	3			
	60	60 x 2.0	80	73						

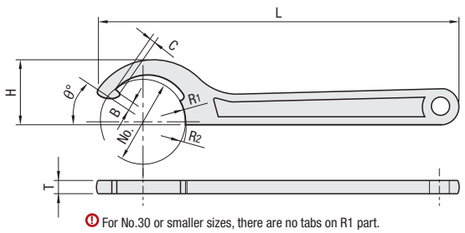
Part Number Example

Part Number
PLNY8

Hook Spanners for Bearing Lock Nuts

RoHS10

MFK



For No.30 or smaller sizes, there are no tabs on R1 part.

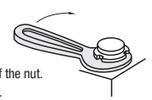
Material: Chrome Vanadium Steel
Surface Treatment: Cathodic Electrodeposition Coating

Part Number Type	No.	R_1	R_2	B	C	θ	T	H	L	Shaft Diameter	Round Nut, Bearing Nut
MFK	16	8	10	1.5	2	30°	4	11	108	Ø16 / Ø18	M8, M10
	20	10	11							Ø20 / Ø22	M12
	25	12.5	14	2	2.3		5	20	136	Ø25 / Ø28	M15, M17
	30	15	16							Ø30 / Ø32	M20
	34	17	19	2.5	2.5	35°	6	28	160	Ø34 / Ø38	M25
	45	22.5	24				7	36	196	Ø45 / Ø48	M30
	52	26	27.5				6.5	41	208	Ø52 / Ø55	M35
	58	29	32.5	3.5	3		8.5	46	232	Ø58 / Ø65	M40, M45
	65	32.5	35							Ø65 / Ø70	M45, M50
	70	35	37.5		3.5			52	247	Ø70 / Ø75	M50, M55

Part Number Example

Part Number
MFK25

Application Example



– Use a wrench matching the diameter of the nut.
– Do not hit the stem with a hammer, etc.
– Do not insert a pipe when using.

Bearing Lock Nuts

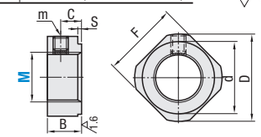
Square / Hexagon

Bearing Lock Nuts – Square

RoHS10

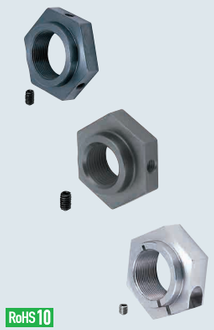
Type Coarse	Type Fine	Material	Hardness	Surface Treatment	Accessories	
BNG	BNR	1018 Carbon Steel or Equivalent	—	Black Oxide	Set Piece (Copper Alloy)	Set Screw 4137 Alloy Steel or Equivalent
BNGC	BNRC	1045 Carbon Steel or Equivalent Thermal Refined	22–28 HRC			
BNGS	BNRS	304 Stainless Steel	—	—		Set Screw (304 Stainless Steel)

- BNGC and BNRC have identification mark (C) on the side of nut.
- Tighten the set screw after inserting the set piece.
- For Set Piece Specifications, refer to **P.2410**.
- 1045 Carbon Steel or Equivalent Thermal Refined excels in durability.



Part Number Type	M	M x Pitch Coarse	M x Pitch Fine	D	d	F	B	C	S	m
Coarse BNG BNGC BNGS / Fine BNR BNRC BNRS	3	M3 x 0.5	M3 x 0.35	11.5	4	10	5.5	3	0.5	M3 (With Set Piece)
	4	M4 x 0.7	M4 x 0.5		5					
	5	M5 x 0.8	M5 x 0.5	13.5	9	11				
	6	M6 x 1.0	M6 x 0.75	14.5	10	12				
	8	M8 x 1.25	M8 x 1.0	17	13	14	6.5	4		
	10	M10 x 1.5	M10 x 1.0	20	16	17	8	5	1	M4 (With Set Piece)
	12	M12 x 1.75	M12 x 1.0	22	17	19				
	15	—	M15 x 1.0	25	21	22	10	6		
	16	M16 x 2.0	—							
	17	—	M17 x 1.0							
	20	M20 x 2.5	M20 x 1.0	35	26	30	13	8		
	24	M24 x 3.0	—	43	33	35	15	10	2	M5 (With Set Piece)
	25	—	M25 x 1.5							
	30	M30 x 3.5	M30 x 1.5	48	39	40	20	14		M6 (With Set Piece)
	35	—	M35 x 1.5		43	45				
	40		M40 x 1.5	53	48	49	25	16		
	50		M50 x 1.5	66	61	63				

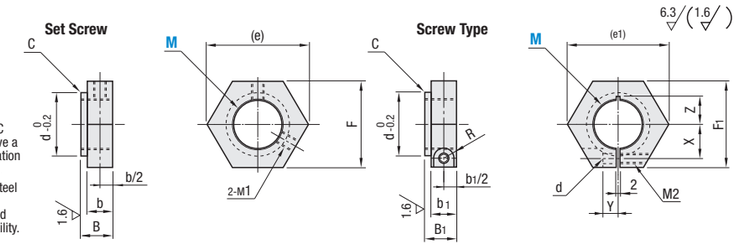
Bearing Lock Nuts – Hexagon



RoHS10

Type	Coarse	Fine	Material	Hardness	Surface Treatment	Accessories	
Set Screw Type	BNCM	BNSC	1018 Carbon Steel or Equivalent	—	Black Oxide	Set Piece (Copper Alloy)	Set Screw 4137 Alloy Steel or Equivalent
	—	BNSCC	1045 Carbon Steel or Equivalent Thermal Refined	20–24HRC			
	BNCMS	BNSCS	303 Stainless Steel	—	—		Set Screw (304 Stainless Steel)
Screw Type	BNBM	BNBS	1018 Carbon Steel or Equivalent	—	Black Oxide	Hex Socket Screw 4137 Alloy Steel or Equivalent	
	—	BNBSC	1045 Carbon Steel or Equivalent Thermal Refined	20–24HRC			
	BNBMS	BNBSS	303 Stainless Steel	—	—	Hex Socket Screw (304 Stainless Steel)	

- BNSCC, BNBMC and BNBSC have a round identification groove in front.
- 1045 Carbon Steel or Equivalent Thermal Refined excels in durability.



Part Number Type	M	M x Pitch Coarse	M x Pitch Fine	D	C	Set Screw (e)	F	b	M_1	Screw Type (e_1)	F_1	B_1	b_1	M_2	X	Y	Z	d	R	Available Types BNCM	BNCMS	BNBM	BNBMS	BNSC	BNSCC	BNSCS	BNBS	BNBSC	BNBSS
Coarse Set Screw BNCM BNCMS	*5	M5 x 0.8	M5 x 0.5	9	0.2	19.6	17	9	5	M3	—	—	—	—	—	—	—	—	—	•	•	—	—	•	•	•	—	—	—
	*6	M6 x 1.0	M6 x 0.75	10																•	•			•	•	•	•	•	•
Coarse Screw BNBM BNBMS	8	M8 x 1.25	M8 x 1.0	13		21.9	19				27.7	24	13	9	M4	7	4	7 (8.5)	4.5	3.75	•	•	•	•	•	•	•	•	•	•
	10	M10 x 1.5	M10 x 1.0	16		25.4	22	10			31.2	27				9		7 (10)			•	•	•	•	•	•	•	•	•	•
	12	M12 x 1.75	M12 x 1.0	17		27.7	24		6		34.6	30	16	12	M5	9.5	4.5	9 (11)	5.5	4.5	•	•	•	•	•	•	•	•	•	•
Fine Set Screw BNSC BNSCC BNSCS	15	—	M15 x 1.0	21		31.2	27	11			41.6	36	19	14	M6	12.5	5	9.5 (11)	7	5.5	—	—	—	—	•	•	•	•	•	•
	16	M16 x 2.0	—															9.5 (12)			•	•	•	•	—	—	—	—	—	—
	20	M20 x 2.5	M20 x 1.0	26		37.0	32				47.3	41				15	6.5	12 (15)			•	•	•	•	•	•	•	•	•	•
Fine Screw BNBS BNBSC BNBSS	24	M24 x 3.0	—	33		47.3	41	13	8	M5	53.1	46				17	7.5	15			•	•	•	•	—	—	—	—	—	—
	25	—	M25 x 1.5																		—	—	—	—	•	•	•	•	•	•
	30	M30 x 3.5	M30 x 1.5	39	0.5	57.7	50	16	10	M6	57.7	50	20			19.5	8.5	18			•	•	•	•	•	•	•	•	•	•

*End Face M5 and M6 is available for Set Screw only. Z dimensions in ( ) are for Stainless Steel Type.

Part Number Example

Part Number
BNR12
BNSC12