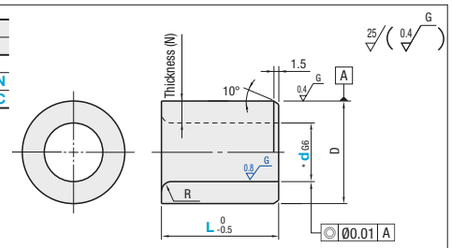
Bushings for Locating Pins

Straight, Standard / Thin Wall

Spec.Change
Printed in Purple

■Standard

M Material	S Surface Treatment	H Hardness	Type p6	Type m6
EN 1.2510 Equiv.	-	60HRC~	JBA	JBAM
EN 1.2510 Equiv.	Electroless Nickel Plating	60HRC~	JBAN	JBAMN
EN 1.4125 Equiv.	-	50HRC~	JBAC	JBAMC



RoHS

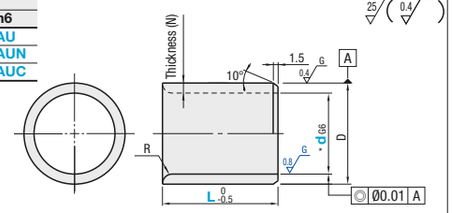
Tolerance of d dimension 2 ~ 6 of electroless nickel plated products is H7.
For hole machining, please note that inner diameter shrinkage of p6 Type is more than that of m6 Type. (See "Variance of I.D. after Press-fitting Bushings for Locating Pins" on P.1566)

Part Number Type	d	D Tolerance (No Surface Treatment)	D Tolerance (Electroless Nickel Plating)	L Selection	Thickness (N)	R	D	D Tolerance p6	D Tolerance m6	Unit Price JBA JBAM	Unit Price JBAN JBAMN	Unit Price JBAC JBAMC
(p6) JBA JBAN JBAC	2	G6 +0.008 +0.002	H7 +0.010 0	5 6 7 8 10 12	1.5	0.8	5	+0.020 +0.012	+0.012 +0.004			
	3				2		7					
	4	G6 +0.012 +0.004	H7 +0.012 0	5 6 7 8 10 12 15 *16 20	2	1	8	+0.024 +0.015	+0.015 +0.006			
	5			5 6 7 8 10 12 15 16 20	2.5		10					
	6			5 6 7 8 10 12 15 16 20 25	2							
	8	G6 +0.014 +0.005	G6 +0.014 +0.005		2	2	12	+0.029 +0.018	+0.018 +0.007			
	10			6 7 8 10 12 15 16 20 25 30	2.5		15					
(m6) JBAM JBAMN JBAMC	12	G6 +0.017 +0.006	G6 +0.017 +0.006	8 10 12 15 16 20 25 30	3		18					
	13			10 12 *15 16 20 *25 30	4.5		22	+0.035 +0.022	+0.021 +0.008			
	15			12 15 16 20 *25 30	5		25					
	16			12 15 16 20 25 30	5		26					
	20	G6 +0.020 +0.007	G6 +0.020 +0.007		5	3	30	+0.042 +0.026	+0.025 +0.009			
	25			16 20 25 30 *35	5		35					

⊗L dimension with * is not applicable to JBAMC.

■Thin Wall

M Material	S Surface Treatment	H Hardness	Type p6	Type m6
SUJ2 or SKS3 Equiv.	-	58HRC~	JBAUP	JBAU
SUJ2 or SKS3 Equiv.	Electroless Nickel Plating	58HRC~	JBAUNP	JBAUN
EN 1.4125 Equiv.	-	50HRC~	JBAUCP	JBAUC



RoHS

Tolerance of d dimension 3 ~ 6 of electroless nickel plated products is H7.
For hole machining, please note that inner diameter shrinkage of p6 Type is more than that of m6 Type. (See "Variance of I.D. after Press-fitting Bushings for Locating Pins" on P.1566)

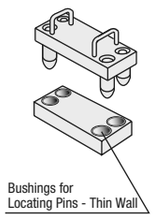
Part Number Type	d	D Tolerance (No Surface Treatment)	D Tolerance (Electroless Nickel Plating)	L Selection	Thickness (N)	R	D	D Tolerance p6	D Tolerance m6	Unit Price JBAU JBAUP	Unit Price JBAUN JBAUNP	Unit Price JBAUC JBAUCP
(p6) JBAUP JBAUNP JBAUCP	3	G6 +0.008 +0.002	H7 +0.010 0	5 6 8 10 12	1	0.5	5	+0.020 +0.012	+0.012 +0.004			
	4	G6 +0.012 +0.004	H7 +0.012 0	5 6 8 10 12 15 16			6	+0.024 +0.015	+0.015 +0.006			
	5			5 6 8 10 12 15 16 20			7					
	6						8					
	8	G6 +0.014 +0.005	G6 +0.014 +0.005	6 8 10 12 15 16 20			10					
	10				1.5		13	+0.029 +0.018	+0.018 +0.007			
	12	G6 +0.017 +0.006	G6 +0.017 +0.006	8 10 12 15 16 20			15					
(m6) JBAU JBAUN JBAUC	13			10 12 *15 16 20	2	1	17	+0.035 +0.022	+0.021 +0.008			
	15			10 12 15 16 20			19					
	16			10 12 15 16 20 25	2.5	2	21					
	20	G6 +0.020 +0.007	G6 +0.020 +0.007	12 15 16 20 25	3		26	+0.042 +0.026	+0.025 +0.009			
	25			20 25			31					

⊗L dimension with * is not applicable to JBAUN.

Ordering Example

Part Number	-	L
JBAC12	-	10
JBAUN8	-	8

ex Example



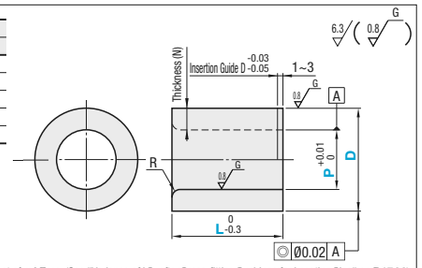
Bushings for Locating Pins - Thin Wall

Bushings for Locating Pins

Configurable, Straight, Standard / Thin Wall

■Standard

M Material	S Surface Treatment	H Hardness	Type p6	Type m6
EN 1.2510 Equiv.	-	56~60HRC	JBAFP	JBAF
EN 1.2510 Equiv.	Black Oxide	56~60HRC	JBAFBP	JBAFB
EN 1.2510 Equiv.	Electroless Nickel Plating	56~60HRC	JBAFMP	JBAFM
EN 1.4301 Equiv.	-	-	JBAFSP	JBAFS
EN 1.4125 Equiv.	-	50~55HRC	JBAFCP	JBAFC



RoHS

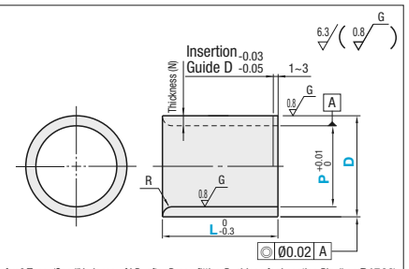
For hole machining, please note that inner diameter shrinkage of p6 Type is more than that of m6 Type. (See "Variance of I.D. after Press-fitting Bushings for Locating Pins" on P.1566)

Part Number Type	D	D Tolerance p6	D Tolerance m6	P 0.01mm Increment	L 0.1mm Increment	Thickness (N)	R	Unit Price JBAF JBAFP	Unit Price JBAFB JBAFBP	Unit Price JBAFM JBAFMP	Unit Price JBAFS JBAFSP	Unit Price JBAFC JBAFCP
(p6) JBAFP JBAFBP JBAFMP JBAFSP JBAFCP	5	+0.020 +0.012	+0.012 +0.004	2.00~2.50	5.0~6.0	1.25~1.50	0.8					
	7	+0.024 +0.015	+0.015 +0.006	2.00~3.50	5.0~8.0	1.75~2.50						
	8			3.00~4.50	5.0~13.0		1.0					
	10			4.00~6.50	5.0~20.0	1.75~3.00						
	12			6.00~8.50								
	15	+0.029 +0.018	+0.018 +0.007	8.00~10.50	5.0~40.0	2.25~3.50	2.0					
	18			10.00~12.50		2.75~4.00						
(m6) JBAF JBAFB JBAFM JBAFS JBAFC	20	+0.035 +0.022	+0.021 +0.008	12.00~13.50		3.25~4.00						
	22			12.00~13.50		4.25~5.00						
	25			13.00~15.50		4.75~6.00						
	26			15.00~16.50		4.75~5.50						
	30			16.00~20.50	5.0~60.0	4.75~7.00	3.0					
	35	+0.042 +0.026	+0.025 +0.009	20.00~25.00		5.00~7.50						

L≤Px2.5 when P≤3.59 L≤Px3.0 when P≥3.60 For (D-P)/2≤2, R≤2

■Thin Wall

M Material	S Surface Treatment	H Hardness	Type p6	Type m6
EN 1.2510 Equiv.	-	56~60HRC	JBAUFP	JBAUF
EN 1.2510 Equiv.	Black Oxide	56~60HRC	JBAUFBP	JBAUFB
EN 1.2510 Equiv.	Electroless Nickel Plating	56~60HRC	JBAUFMP	JBAUFM
EN 1.4125 Equiv.	-	50~55HRC	JBAUFCP	JBAUFC



RoHS

For hole machining, please note that inner diameter shrinkage of p6 Type is more than that of m6 Type. (See "Variance of I.D. after Press-fitting Bushings for Locating Pins" on P.1566)

Part Number Type	D	D Tolerance p6	D Tolerance m6	P 0.01mm Increment	L 0.1mm Increment	Thickness (N)	R	Unit Price JBAUF JBAUFP	Unit Price JBAUFB JBAUFBP	Unit Price JBAUFM JBAUFMP	Unit Price JBAUFC JBAUFCP
(p6) JBAUFP JBAUFBP JBAUFMP JBAUFCP	7	+0.024 +0.015	+0.015 +0.006	3.51~5.00	5.0~8.0	1.00~1.74	0.5				
	8			4.51~6.00	5.0~13.0						
	9			4.51~6.50		1.25~2.24					
	10	+0.029 +0.018	+0.018 +0.007	6.51~8.00	5.0~20.0	1.00~1.74					
	11			8.00~9.00		1.00~1.50					
	12			8.51~9.00		1.50~1.74					
	13			8.51~10.00		1.50~2.24					
	14			9.00~11.00		1.50~2.50					
	15			10.51~12.00	5.0~40.0	1.50~2.24					
(m6) JBAUF JBAUFB JBAUFM JBAUFC	17			10.51~13.00		2.00~3.24	1.0				
	18			12.51~14.00		2.00~2.74					
	20	+0.035 +0.022	+0.021 +0.008	13.51~15.00		2.50~3.24					
	22			13.51~17.00		2.50~4.24					
	25			15.51~19.00		3.00~4.74					
	26			16.51~20.00		3.00~4.74					
	30			20.51~24.00		3.00~4.74	1.5				
	35	+0.042 +0.026	+0.025 +0.009	25.01~29.00	5.0~60.0	3.00~4.99					

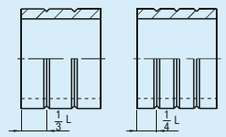
L≤Px2.5 when P≤3.59 L≤Px3.0 when P≥3.60

Ordering Example

Part Number	-	P	-	L
JBAF10	-	P4.00	-	L8.5
JBAUFC10	-	P8.00	-	L15.0

Alterations

Part Number	-	P	-	L	-	(RS)
JBAFP20	-	P12.00	-	L20.0	-	RS

Alteration	Code	Spec.
Loctite Adhesive Groove Machining When L≤13.0 When L>13.0 	RS	Adds a Loctite adhesive groove. Number of O.D. Grooves ・When L≤13.0 → 2 lines ・When L>13.0 → 3 lines Ordering Code RS When D≤13, D-P≥3 When D≥14, D-P≥4 ⊗Not applicable to Thin Wall Type. ⊗Not applicable to L<9.0.