

Bushings for Locating Pins

Shouldered, Standard / Thin Wall

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Configurable, Shouldered, Standard / Thin Wall

Standard

Material	Surface Treatment	Hardness	Type	
			p6	m6
SKS3 Equivalent	-	60HRC~	JBHF	JBHM
SKS3 Equivalent	Electroless Nickel Plating	60HRC~	JBHNP	JBHMN
SUS440C or 13Cr stainless	-	50HRC~	JBHCP	JBHMC

RoHS10

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)

Type	d	D Tolerance		L Selection	Thickness (N)	R	H	T	D	D Tolerance		Unit Price		
		No Surface Treatment	Electroless Nickel Plating							p6	m6	JBHF	JBHNP	JBHMN
(p6) JBH JBHN JBHC	2	+0.008 +0.002	H7	5 6 8 10 12	1.5	0.8	9	2.5	5	+0.020	+0.012			
	3			5 6 8 *10 12	2					+0.012	+0.004			
	4			*5 6 8 10 12 15 *16 20	2					+0.024	+0.015			
	5	+0.012 +0.004	H7	5 6 8 10 12 15 16 20	2.5	1	14	10	8	+0.024	+0.015			
	6			*5 6 8 10 12 15 16 20 25	2					+0.024	+0.015			
	(m6) JBHM JBHMN JBHMC	10	+0.014 +0.005	G6	6 8 10 12 15 16 20 25	2.5	2	16	12	15	+0.029	+0.018		
12		8 10 12 15 16 20 25 30			3	+0.029					+0.018			
13		10 12 15 16 20 25 30			3	+0.029					+0.018			
15		+0.017 +0.006	G6	10 *12 *15 *16 *20 *25 *30	4.5	2	22	18	26	+0.035	+0.021			
16				10 12 15 16 20 25 30	5					+0.022	+0.008			
20		+0.020 +0.007	G6	12 15 16 20 25 30	5	3	35	30	35	+0.042	+0.025			
25				12 15 16 20 25 30	5					+0.042	+0.025			

* L dimension with * is not applicable to JBHMC.

Thin Wall

Material	Surface Treatment	Hardness	Type	
			p6	m6
SUJ2 or SKS3 Equivalent	-	58HRC~	JBHUP	JBHU
SUJ2 or SKS3 Equivalent	Electroless Nickel Plating	58HRC~	JBHUNP	JBHUN
SUS440C or 13Cr stainless	-	50HRC~	JBHUCP	JBHUC

RoHS10

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)

Type	d	D Tolerance		L Selection	Thickness (N)	R	H	T	D	D Tolerance		Unit Price		
		No Surface Treatment	Electroless Nickel Plating							p6	m6	JBHU	JBHUNP	JBHUN
(p6) JBHUP JBHUNP JBHUCP	3	+0.008 +0.002	H7	6 8 10 12	1	0.5	9	2.5	5	+0.020	+0.012			
	4			6 8 10 12 15 16	1					+0.012	+0.004			
	5			6 8 10 12 *15 *16 20	1					+0.024	+0.015			
	6	+0.012 +0.004	H7	6 8 10 12 *15 16 20	1	1	14	10	8	+0.024	+0.015			
	8			*6 8 10 12 *15 16 20	1					+0.024	+0.015			
	(m6) JBHU JBHUN JBHUC	10	+0.014 +0.005	G6	6 8 10 12 15 16 20	1.5	2	17	13	19	+0.029	+0.018		
12		8 10 12 15 16 *20			1.5	+0.029					+0.018			
13		10 12 15 16 20			1.5	+0.029					+0.018			
15		+0.017 +0.006	G6	12 15 16 20 *25	2	1	24	19	26	+0.035	+0.021			
16				12 15 16 20 25	2					+0.022	+0.008			
20		+0.020 +0.007	G6	12 15 16 20 25	2.5	2	31	26	31	+0.042	+0.025			
25				12 15 16 20 25	2.5					+0.042	+0.025			

* L dimension with * is not applicable to JBHUC.

Ordering Example
 Part Number - L
 JBH5 - 8
 JBHUN12 - 12

Standard

Material	Surface Treatment	Hardness	Type	
			p6	m6
SKS3 Equivalent	-	56-60HRC	JBHFP	JBHF
SKS3 Equivalent	Black Oxide	56-60HRC	JBHFBP	JBHFB
SKS3 Equivalent	Electroless Nickel Plating	56-60HRC	JBHFMP	JBHFM
SUS304	-	-	JBHFSP	JBHFS
SUS440C or 13Cr stainless	-	50-55HRC	JBHFSP	JBHFC

RoHS10

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)

Type	D	D Tolerance		P	L	Thickness (N)	R	H	T	Unit Price				
		p6	m6							0.01mm Increment	0.1mm Increment	JBHF	JBHFBP	JBHFMP
(p6) JBHFP JBHFBP JBHFMP JBHFSP JBHF	5	+0.024 +0.015	+0.015	2.20-2.50	3.0-3.5	1.25-1.50	0.8	9	2.5					
	7			2.20-3.50	3.0-6.0									
	8			3.00-4.50	3.0-10.0									
	10	+0.029 +0.018	+0.018	4.00-6.50	3.0-15.0	1.75-3.00	1.0	14	3					
	12			6.00-8.50										
	(m6) JBHF JBHFB JBHFM JBHFS JBHFC	15	+0.035 +0.022	+0.021 +0.008	8.00-10.50	5.0-35.0	2.25-3.50	2.0	19	4				
18		10.00-12.50												
20		12.00-13.50												
22		+0.022	+0.008	12.00-13.50		2.75-4.00	3.0	22	5					
25				13.00-15.50										
26		15.00-16.50												
30		16.00-20.50												
35		+0.042 +0.026	+0.025 +0.009	20.00-25.00	5.0-50.0	4.75-7.00	3.0	35	6					

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

Thin Wall

Material	Surface Treatment	Hardness	Type	
			p6	m6
SKS3 Equivalent	-	56-60HRC	JBHUF	JBHUF
SKS3 Equivalent	Black Oxide	56-60HRC	JBHUFBP	JBHUF
SKS3 Equivalent	Electroless Nickel Plating	56-60HRC	JBHUFMP	JBHUF
SUS440C or 13Cr stainless	-	50-55HRC	JBHUF	JBHUF

RoHS10

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)

Type	D	D Tolerance		P	L	Thickness (N)	R	H	T	Unit Price					
		p6	m6							0.01mm Increment	0.1mm Increment	JBHUF	JBHUFBP	JBHUFMP	JBHUF
(p6) JBHUF JBHUFBP JBHUFMP JBHUF	7	+0.024 +0.015	+0.015	3.51-5.00	3.0-6.0	1.00-1.74	0.5	11	2.5						
	8			4.51-6.00	3.0-10.0										
	9			4.51-6.50	3.0-10.0										
	10	+0.029 +0.018	+0.018	6.51-8.00	3.0-15.0	1.00-1.74	1.0	14	3						
	11			8.00-9.00											
	(m6) JBHUF JBHUFBP JBHUFMP JBHUF	12	+0.035 +0.022	+0.021 +0.008	8.51-9.00	5.0-35.0	1.50-1.74	1.5	17	4					
		13			8.51-10.00										
		14			9.00-11.00										
		15	10.51-12.00												
		17	10.51-13.00												
18		12.51-14.00													
20		13.51-15.00													
22		13.51-17.00													
25		15.51-19.00													
26		16.51-20.00													
30		20.51-24.00													
35		+0.042 +0.026	+0.025 +0.009	25.01-29.00	5.0-50.0	3.00-4.99	1.5	35	6						

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

Ordering Example
 Part Number - P - L
 JBHFMP25 - P14.00 - L20.0
 JBHUF15 - P11.00 - L20.0

Alterations
 Part Number - P - L - (RC, TC)
 JBHFMP12 - P8.00 - L12.0 - RC

Alterations	Code	Spec.
I.D. Radius R	RC	Machines Radius R on both sides. Thickness 1.5mm or more. Size of R will be the same as R on shoulder side with D dimension 10 or more. (Ordering Code) RC
Shoulder Thickness	TC	1mm Increment (Ordering Code) TC4 $3 \leq TC < 1$ 0.0A.L. becomes short as much as T-TC. Applicable when D≥12.