

Hinge Bases with Center Hole

U-Shaped Counterbore Hole / Bottom Mount Type

Feature: Greatly reduces mounting area.

Hinge Bases with Center Hole – U-Shaped Counterbore Hole / Bottom Mount Type

Type		Material	Surface Treatment
Counterbored	Bottom Mount		
HBNTB	HBNUB	1045 Carbon Steel or Equivalent	Black Oxide
HBNTS	HBNUS	304 Stainless Steel	—

Counterbored Type and **Bottom Mount Type** diagrams showing dimensions: D_{H7} , W , H , A , P , B , C , S , d_1 , d , h . Surface finish: $25/\sqrt{6.3/1.6}$.

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⊙ When choosing W6 or less, W tolerance is +0.05→+0.2.

Part Number	Type	D_{H7}	W 1 mm Increment	H 1 mm Increment	A	P	B	C	S	d_1	d	h
4	Counterbored Type HBNTB HBNTS	4	4-12	12-20	16	8	4	3	5.5	6.5	3.5	3.5
5												
6		6-12	14-25	20	10	6	4	7.5	8	4.5	4.5	
8												
10		10-20	17-30	28	14	10	12	5	9.5	9.5	5.5	
12												
13	12-22	22-35	32	16	13	14	5	9.5	9.5	5.5		
14												

⊙ When W<d, is specified, the knuckle joint shape is as the upper right photo shown above.

Part Number	Type	D_{H7}	W 1 mm Increment	H 1 mm Increment	A	P	B	C	S	M
4	Bottom Mount HBNUB HBNUS	4	4-12	15-20	16	10	4	3	10	M3
5										
6		6-12	20-35	20	12	6	4	12	M4	
8										
10		10-20	30-45	28	14	10	5	14	M5	
12										
13	12-22		32	16	14					
14										

Features: Compact in size and small installation footprint.

Comparison Table

D	HBNTB			HGCCB (P.3681)				HGCTB (P.3681)			
	Vertical	Horizontal	Installation Footprint	Vertical	Horizontal	Installation Footprint	Reduction Ratio	Vertical	Horizontal	Installation Footprint	Reduction Ratio
4	16	16	256	12	25	300	-15%	28	28	784	-67%
5	16	16	256	12	25	300	-15%	32	32	1024	-75%
6	20	20	400	19	35	665	-40%	32	32	1024	-61%
8	20	20	400	19	32	608	-34%	38	38	1444	-72%
10	20	20	400	22	32	704	-43%	38	38	1444	-72%
12	28	28	784	22	38	836	-6%	45	45	2025	-61%
13	28	28	784	25	38	950	-17%	50	50	2500	-69%
14	32	32	1024	30	50	1500	-32%	50	50	2500	-59%

Part Number Example
 Part Number - W - H
 HBNTB10 - W8 - H20
 HBNUB12 - W12 - H35

Thick Hinge Bases

T-Shaped / Standard / A Dimension Compact

Feature: Both H and W dimensions can be specified in 1mm increments.

Thick Hinge Bases – T-Shaped / Standard / A Dimension Compact

Type			Material	Surface Treatment
Standard	With Oil Free Bushing	W Selectable		
W Fixed HKNNB	W & H Configurable HGNNB	W Selectable HKNMB	1045 Carbon Steel or Equivalent	Black Oxide Electroless Nickel Plating
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⊙ When choosing W6 or less, W tolerance is +0.05→+0.2.

Part Number	Type	D_{H7}	T	W			H 1 mm Increment	A	F	S	d	C							
				Standard	1 mm Increment	With Oil Free Bushing W Selectable													
Standard Type W Fixed HKNNB	4	12	8	3-8	5 6 8	16-25	25	17	5	4.5	3								
												5	19	5-12	5 6 8	18-30	32	23	5
	6	19	10	8-16	8 10 12	26-35	27	5	5.5	6									
											10	22	10-18	10 12 16 18	28-35	28	10	6	
																			12
13	25	12	12-24	35-45	28-40	38	6	6	7										
										14	30	35-45	38-45	29-40	50	37	7		
																		15	30
16	30	16	20-35	38-45	29-40	15	7	8	8										
										20	38	40-55	65	49	9	11			
																	25	38	44-55

Part Number Alterations
 Part Number - T - W - H - (WDC)
 HKNNB10 - T22 - H35 - WDC

Alteration Code
 WDC

Changes the number of d holes from 2 to 4. The holes are drilled at T₁ position.

Ordering Code: WDC

T	T ₁
16	8
19	10
22	12
25	14
30	15
38	20

⊗ Not applicable to D4.
 ⊗ Not applicable to Oil Free Type.

Part Number Example
 Part Number - T - W - H
 HKNNB10 - T22 - H35
 HGNNM20 - T38 - W25 - H48

List of Diameter (D_{H7}), Thickness (T) and Thickness on One Side

D_{H7}	Hinge Bases Standard (P.3687-3695)		Hinge Base Thick		
	T	Thickness on One Side (T- D_{H7})/2	T	Thickness on One Side (T- D_{H7})/2	Thickness on One Side (T- D_{H7})/2
4	9	2.5	12	4	—
5	12	3.5	16	5.5	7
		3	—	5	6.5
6	16	4	19	5.5	7
		3	—	4.5	6
8	19	3.5	22	5	6.5
		3	—	4.5	6
10	22	4	—	5.5	8
		3.5	25	5	7.5
12	25	3	—	4.5	7
		2.5	30	5	38
13	30	2.5	—	6.5	—
		38	—	—	—

D	W	For T-Shaped Type (1 pc.)	
		Oil Free Bushing	Self-Lubricating Bushing to be used
		d (I.D.)	L (Overall Length)
4	5	4	4
	6	4	5
	8	4	6
5	5	5	4
	6	5	5
	8	5	6
6	6	6	5
	8	6	6
	10	6	8
8	8	8	6
	10	8	8
	12	8	10
10	10	10	8
	12	10	10
	16, 18	10	15
12	12	12	10
	16, 18	12	15

D	W	For T-Shaped (1pc) Self-Lubricating Bushing to be used	
		Bushing Type	
4	5	MDZB4-4	
	6	MDZB4-5	
	8	MDZB4-6	
5	5	MDZB5-4	
	6	MDZB5-5	
	8	MDZB5-6	
6	6	MDZB6-5	
	8	MDZB6-6	
	10	MDZB6-8	
8	8	MDZB8-6	
	10	MDZB8-8	
	12	MDZB8-10	
10	10	MDZB10-8	
	12	MDZB10-10	
	16 18	MDZB10-15	
12	12	MDZB12-10	
	16 18	MDZB12-15	

Features: (1) The hole's thickness on one side is selectable by working load.
 (2) New products can specify H and W dimensions in 1mm increment.