

D	L	d	R	MXP (Lift-out tap hole)	Catalog No.		Base unit price	
					Type	No.	DAS 1 ~ 49 pieces	DASP 1 ~ 49 pieces
6	8	4.2	0.4	—	DAS DASP	※4		
8	10	5.2	0.4	6×1.0		5		
10	12	6.3	0.6	8×1.25		6		
12	16	8.4	0.7	10×1.5		8		
14	20	10.4	0.8	12×1.75		10		
18	24	12.5	0.8	14×2.0		12		

※No. 4 is available for DAS only.
 ⚠ DASP is thinner than DAS. Therefore use DAS or else one size larger DASP at locations where rigidity is required.

Order Catalog No. **DAS 6**

Days to Ship **Quotation**

Price **Quotation**

- Features**
- Allows positioning to the same degree as a dowel pin.
 - Positioning and clamping are achieved by a single operation, saving space.
 - Determining location of three plates is possible.
 - Elastic deformation of dowel rings may occur during press-fit to the plate.

Installing the locating dowel ring

(1) Dimensions of holes to be machined in plate

Machining of hole on fixed plate (press-fit hole)

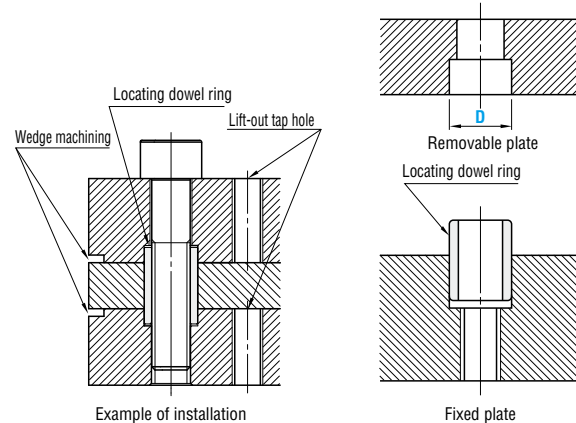
Actual outer diameter of locating dowel ring $0_{-0.015}^0$

Machining of hole on removable plate (clearance-fit or transition-fit hole)

Actual outer diameter of locating dowel ring $+0.015_0$

The hole machining dimensions vary depending on factors such as the plate material and hardness, and the application. The values here should be used only as an approximate guide.

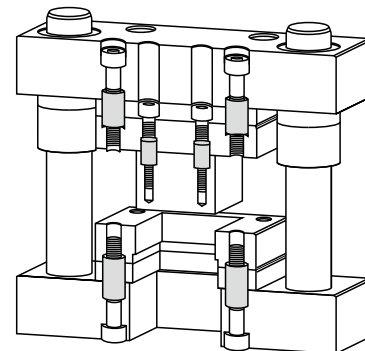
- (2) When position accuracy is necessary and both ends are press-fit, create a lift-out tap hole or counterbore in order to facilitate removal.**



Example of installation

Fixed plate

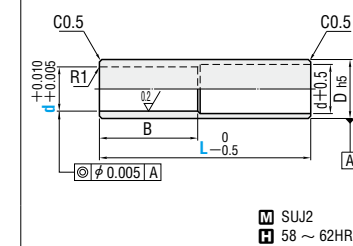
EX Example



Locating dowel rings

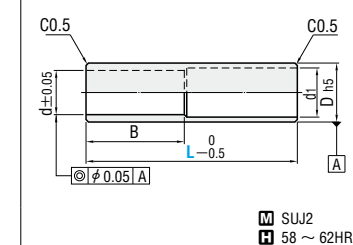


KNLB (Dowel bushings)



Material: SUJ2
 Hardness: 58 ~ 62HRC

KNLBB (Dowel bushing blanks)



Material: SUJ2
 Hardness: 58 ~ 62HRC

Order Catalog No. **KNLB 10 - L 50**

Days to Ship **Quotation**

Price **Quotation**

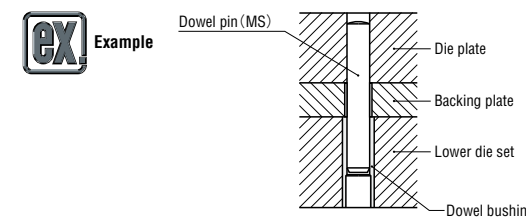
Alterations Catalog No. **L(LC) - (DRC)**
KNLBB - LC50.5 - DRC
Quotation

Dh5	B	Catalog No.		L	Base unit price 1 ~ 9 pieces
		Type	d		
10	13	KNLB	6	10 15 20 25	
				30 35 40 45	
				50 55 60	
12	15		8	15 20 25 30	
				35 40 45 50 55	
				60 65 70 75 80	
14	20	10	20 25 30		
			35 40 45 50 55		
			60 65 70 75 80		
16	25	12	25 30		
			35 40 45 50 55		
			60 65 70 75 80		
18	25	13	30		
			35 40 45 50 55		
			60 65 70 75 80		

⚠ If L ≤ B, then L = B.
 ■ Attachment method: Loctite adhesive (Henkel Japan No. 638)

Dh5	d	d1	B	Catalog No.		L 0.5mm increments	Base unit price 1 ~ 9 pieces	
				Type	No.			
10	5.8	6.5	13	KNLBB (No inner diameter finishing)	6	10 ~ 60		
						7.8 8.5 15		
14	9.8	10.5	20		10	12	10 ~ 80	
								11.8 12.5
16	11.8	12.5	25		13	13		
								12.8 13.5

⚠ If L ≤ B, then L = B.
 ■ How to use: Use Loctite adhesive or press-fit, then finish the inner diameter by jig grinding.



⚠ The recommended clearance when bonding with Loctite is 0.01 ~ 0.03 mm on each side. If you are using nearly zero clearance in order to achieve positional accuracy, use alteration DRC.

Alteration	Code	Spec.	1Code
	LC	L dimension change 10 ≤ LC < Lmax. 0.5mm increments ⚠ Can be used for KNLB.	Quotation
	DRC	Addition of grooves for Loctite	Quotation