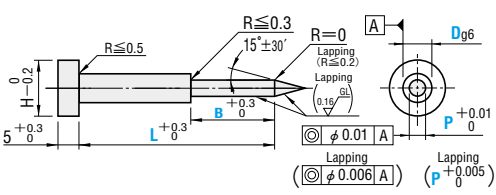
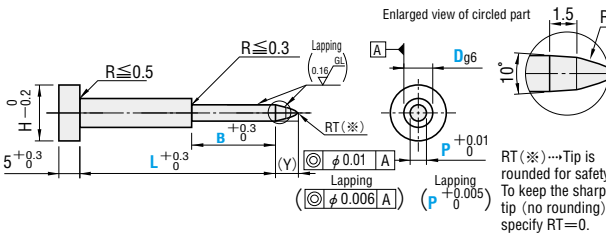


# PILOT PUNCHES, MOVABLE TYPE

—HEADED TYPE, NORMAL · LAPPING—

Type	Shank diameter D tolerance	Material	Catalog No.		Shape
			Normal	Lapping	
—Sharp tip angle type— <b>RoHS</b>	D <sub>g6</sub>	Equivalent to SKD11 60~63HRC	UPTH	L-UPTH	<p>Add alterations to tip according to specifications.</p> 
			HUPTH	L-HUPTH	
			PUPTH	L-PUPTH	
—Tip R and taper combined type— <b>RoHS</b>	D <sub>g6</sub>	Equivalent to SKD11 60~63HRC	UPTHF	L-UPTHF	<p>Enlarged view of circled part</p>  <p>RT (※) → Tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0.</p>
			HUPTHF	L-HUPTHF	
			PUPTHF	L-PUPTHF	

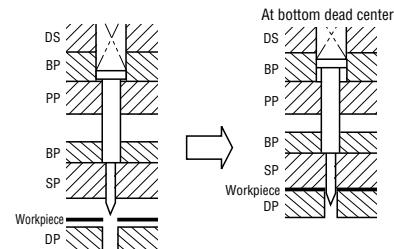
H	Catalog No.		L				0.01mm increments (0.001mm increments for lapping)		0.1mm increments	
	Type	D	L is the dimension under the head.				min. P max.		B	
6	—Normal— UPTH UPTHF	3	42	52	62	72	1.00~2.50		2.0~25.0	
			4	42	52	62	72	1.50~3.50		
8	HUPTH HUPTHF	5	42	52	62	72	2.00~4.50			
			6	42	52	62	72	2.50~5.50		
10	PUPTH PUPTHF	8	42	52	62	72	82	3.00~7.50		

(Y) → Tip Y length = 0.6 + √((P-0.2)(40.2-P))/4

**Order** Catalog No. — L — P — B — (RT=0)  
 UPTH 4 — 52 — P2.55 — B2.5  
 L-HUPTHF 6 — 62 — P3.00 — B8.0 — RTO

**Example**

**Features** ● A large spring is used, providing a large load and allowing these punches to be used for high-speed operations.  
 ● Because they include heads, the punches will not fall out even if the stripper plate is removed during trial operation or adjustment.



**Alterations** Catalog No. — L(LC) — P(PC) — B — (RT=0) — (GC·PKC...etc.)  
 UPTH 8 — LC70 — P5.82 — B20 — GC30 — PKC

Alteration	Code	Spec.	1Code
Alterations to tip	PC	Tip diameter change Sharp tip angle type PC ≥ Pmin./2 ≥ 0.5 Tip R and taper combined type PC ≥ Pmin./2 ≥ 1.0 0.01mm increments (With lapping, 0.001mm increments) (If combined with PKC, 0.001mm increments can be selected.) ⊕ If PC0.5~0.99, Bmax. is 8mm.	Quotation
	GC	Tip angle change 15° < GC ≤ 45° 1° increments ⊗ Cannot be used for tip R and taper combined types.	
	RC	Rounding to tip Tip is rounded to R10. ⊗ Cannot be used for tip R and taper combined types.	
	RLC	Tip R is cut flat. 3 ≤ RLC < Ymax. 0.1mm increments ⊗ RT=0 cannot be selected. ⊗ Cannot be used for sharp tip angle types. ⊗ P < 1 cannot be selected.	

**Price** Quotation

Alteration	Code	Spec.	1Code
Alterations to tip	PKC	Tip diameter tolerance change P +0.01 → +0.005 ⊕ P dimension can be selected in 0.001mm increments. ⊗ Cannot be used with lapping	Quotation
	BKC	Tip length tolerance change B +0.3 → +0.05 ⊗ Cannot be combined with RC. ⊕ B dimension can be selected in 0.01mm increments.	
Alterations in length	LC	Full length change B + 15 ≤ LC < L 0.1mm increments	
Alterations to head	HC	Head diameter change D ≤ HC < H 0.1mm increments	
	TC	Head thickness change 2 ≤ TC < 5 0.1mm increments	

PILOT PUNCHES