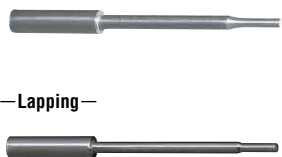
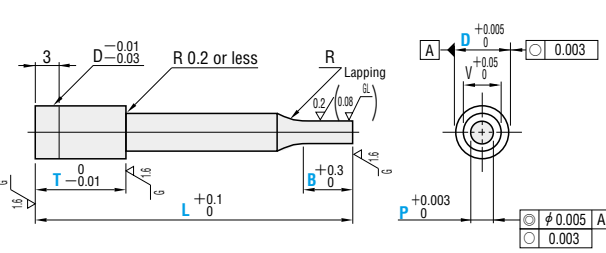


PRECISION FLANGE STOPPER PUNCHES

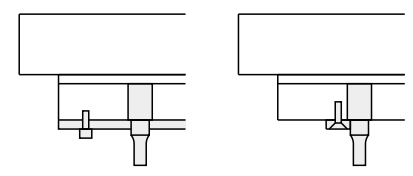
Type	RoHS	Catalog No.	Shape
—Lapping— 	Equivalent to SKD11 60~63HRC	VSPTAL Lapping L—VSPTAL	
	Powdered high-speed steel 60~63HRC	VPHTAL Lapping L—VPHTAL	

Catalog No. Type	D	L		0.001mm increments min. P max.	T			1mm increments B	V	R
		4	5		6	8	13			
VSPTAL L—VSPTAL	4	40	50	0.500 ~ 2.000	13	16	20	2 ~ 6	2	2 ~ 3
		50	60		25					
VPHTAL L—VPHTAL	5	40	50	1.000 ~ 3.000	13	16	20	2 ~ 8	3	10
		60	70		25					
VPHTAL L—VPHTAL	6	40	50	1.500 ~ 4.000	13	16	20	2 ~ 10	4	10
		60	70		25					
VPHTAL L—VPHTAL	8	40	50	2.000 ~ 6.000	13	16	20	2 ~ 10	6	10
		60	70		25					

Order  Catalog No. — L — P — T — B
 VPHTAL 5 — 60 — P3.000 — T20 — B5




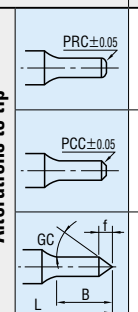
Example of use for punch holder plate Example of use for punch fixing key

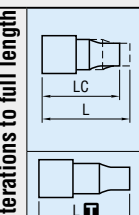
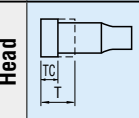
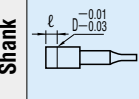


Days to Ship  **Quotation**


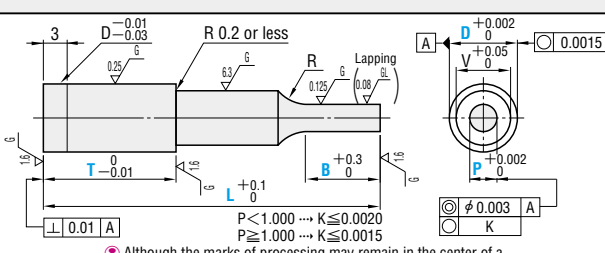
Price  **Quotation**

Alterations  Catalog No. — L(LC) — P — T(TC) — B — (LKC, etc.)
 VPHTAL 5 — 60 — P3.000 — TC15.0 — B5


Alteration	Code	Spec.	1Code
Alterations to tip 	PRC	Rounding of tip side edge 0.3 ≤ PRC ≤ 1 0.1 mm increments ⊕ PRC ≤ (P-0.2)/2 ⊗ Cannot be combined with PCC-GC.	Quotation
	PCC	Chamfering to tip side edge 0.3 ≤ PCC ≤ 1 0.1 mm increments ⊕ PCC ≤ (P-0.2)/2 ⊗ Cannot be combined with PRC-GC.	
	GC	20° ≤ GC < 90° 1° increments Tip length B ≥ f+2 f = P/2 × tan(90° - GC°) ⊗ Cannot be used for P ≤ 1.000. ⊗ Cannot be used for LKC-PRC-PCC. ⊕ Punches with lapping are rounded at the edges.	

Alteration	Code	Spec.	1Code
Alterations to full length 	LC	Full length change 40 < LC < L 0.1 mm increments (If combined with LKC, 0.01 mm increments can be selected.) ⊕ If LC < 50, T and TC are 20 or less. ⊕ If LC < 50 with D6·8, the allowable range of change for B is 2~10.	Quotation
	LKC	Full length tolerance change L +0.1 / 0 ⇨ +0.01 / 0	
Head 	TC	T dimension change 13 < TC < 25 0.1 mm increments ⊕ If L < 50, the allowable range of change is 13 < TC < 20. ⊕ The full length L remains the same.	Quotation
Shank 	NDC	No press-in lead ℓ = 3 ⇨ ℓ = 0	


PRECISION CARBIDE FLANGE STOPPER PUNCHES


Type	RoHS	Catalog No.	Shape
—Lapping— 	Super fine grain (HIP) 90~92HRA	VXPHAL Lapping L—VXPHAL	 <p>Although the marks of processing may remain in the center of a flange end face, it is satisfactory on a function.</p>
	Super fine grain (HIP) 90~92HRA	VXJHAL Lapping L—VXJHAL	

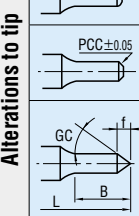
Catalog No. Type	D	L		0.001mm increments min. P max.	T			1mm increments B	V	d1	R	Base unit price 1~4 pieces VXPHAL L—VXPHAL VXJHAL L—VXJHAL
		4	5		6	8	13					
VXPHAL Lapping L—VXPHAL	4	40	50	0.500 ~ 2.000	13	16	20	2 ~ 6	2	—	2 ~ 3	Quotation
		50	60		25							
VXPHAL Lapping L—VXPHAL	5	40	50	1.000 ~ 3.000	13	16	20	2 ~ 8	3	—	10	Quotation
		60	70		25							
VXPHAL Lapping L—VXPHAL	6	40	50	1.500 ~ 4.000	13	16	20	2 ~ 10	4	—	10	Quotation
		60	70		25							
VXPHAL Lapping L—VXPHAL	8	40	50	2.000 ~ 6.000	13	16	20	2 ~ 10	6	—	10	Quotation
		60	70		25							
With air hole VXJHAL Lapping L—VXJHAL	5	40	50	1.000 ~ 3.000	13	16	20	2 ~ 8	3	0.4	10	Quotation
		60	70		25							
With air hole VXJHAL Lapping L—VXJHAL	6	40	50	1.500 ~ 4.000	13	16	20	2 ~ 10	4	0.5	10	Quotation
		60	70		25							
With air hole VXJHAL Lapping L—VXJHAL	8	40	50	2.000 ~ 6.000	13	16	20	2 ~ 10	6	0.8	10	Quotation
		60	70		25							

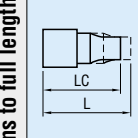
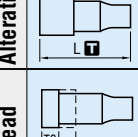
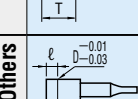
Order  Catalog No. — L — P — T — B
 VXPHAL 5 — 60 — P3.000 — T20 — B6

Days to Ship  **Quotation**

Price  **Quotation**

Alterations  Catalog No. — L(LC) — P — T(TC) — B — (LKC, etc.)
 VXPHAL 5 — LC55 — P3.000 — TC15.5 — B6 — LKC

Alteration	Code	Spec.	1Code
Alterations to tip 	PRC	Rounding of tip side edge 0.3 ≤ PRC ≤ 1 0.1 mm increments ⊕ PRC ≤ (P-0.2)/2 ⊗ Cannot be combined with PCC-GC. ⊕ With air hole, PRC ≤ (P-d1-0.5)/2	Quotation
	PCC	Chamfering to tip side edge 0.3 ≤ PCC ≤ 1 0.1 mm increments ⊕ PCC ≤ (P-0.2)/2 ⊗ Cannot be combined with PRC-GC. ⊕ With air hole, PCC ≤ (P-d1-0.5)/2	
	GC	20° ≤ GC < 90° 1° increments Tip length B ≥ f+2 f = P/2 × tan(90° - GC°) ⊗ Cannot be used for P ≤ 1.000. ⊗ Cannot be combined with LKC-PRC-PCC. ⊗ Cannot be used for punches with air hole. ⊕ Punches with lapping are rounded at the edges.	

Alteration	Code	Spec.	1Code
Alterations to full length 	LC	Full length change 40 < LC < L 0.1 mm increments (If combined with LKC, 0.01 mm increments can be selected.) ⊕ If LC < 50, T and TC are 20 or less. ⊕ If LC < 50 with D6·8, the allowable range of B is 2~10.	Quotation
	LKC	Full length tolerance change L +0.1 / 0 ⇨ +0.01 / 0	
Head 	TC	T dimension change 13 < TC < 25 0.1 mm increments ⊕ If L < 50, the allowable range of change is 13 < TC < 20. ⊕ The full length L remains the same.	Quotation
Others 	NDC	No press-in lead ℓ = 3 ⇨ ℓ = 0	

■ Fixing keys for punches with key grooves  P.245

PSKB PSKBH		PSKS PSKJ		PSK PSKP PSKH		PSKW	
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