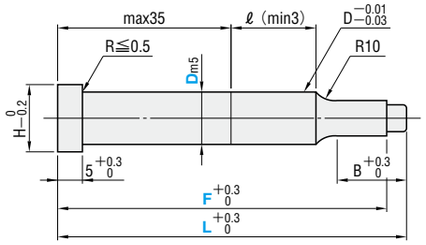
DRAWING PUNCHES
—DICOAT® TREATMENT・TiCN COATING・HW COATING—

PRODUCTS DATA
P.1599・1604・1605

Type	M	H	S	Shank diameter D	Catalog No.
RoHS Regular type	Equivalent to SKD11	60～63HRC Surface 3000HV	Dicoat® treatment	3～25	T—SP
	Powdered high-speed steel	62～64HRC Surface 3000HV			T—PH
	Equivalent to SKH51	61～64HRC Surface 3000HV	TiCN coating	3～25	H—SH
			HW coating		HW—SH
	Powdered high-speed steel	64～67HRC Surface 3000HV	TiCN coating		H—PH
			HW coating		HW—PH
RoHS Punch with locating dowel hole	Equivalent to SKD11	60～63HRC Surface 3000HV	Dicoat® treatment	10～25	T—SP—C
			TiCN coating		H—SP—C
			HW coating		HW—SP—C
RoHS Tapped punch	Powdered high-speed steel	64～67HRC Surface 3000HV	TiCN coating	5～25	H—MPH
			HW coating		HW—MPH



SP—C ⋯▸ T=5 +0.03 +0.01

Shape P.673

B	H	M	Type	Shape	D	L	0.01mm increments min. P max.	0.01mm increments V min
8	5	—	Regular type (D3～25) Dicoat® treatment T—SP T—PH; TiCN coating H—SH H—PH; HW coating HW—SH HW—PH	2A～4A・6A	3	40.0～80.0	2.00～ 2.99	1.00
	7				4		2.00～ 3.99	1.00
	8	3			5		2.00～ 4.99	1.20
	9				6		2.00～ 5.99	1.20
13	11	4		2B ～ 8B	8	(40.0～49.9)	3.00～ 7.99	1.50
	13	5	With locating dowel hole (D10～25) T—SP—C H—SP—C HW—SP—C	2C～10C	10		3.00～ 9.99	1.50
	16	6			13		6.00～ 12.99	2.00
19	19				16	50.0～100.0	10.00～ 15.99	3.00
	23		Tapped (D5～25) H—MPH HW—MPH	2D～10D	20		13.00～ 19.99	3.00
	28				25		18.00～ 24.99	4.00

- Dicoat® treatment punches cannot be used for shapes 6A・8B・2D.
- L(40.0～49.9)⋯▸B=8 If full length L is (40.0～49.9), tip length B is 8mm in all cases.
- P>D—0.03 ⋯▸ℓ=0 If P>D—0.03, $D^{-0.01}_{-0.03}$ (press-in lead) is not included.

Order

Catalog No.	—	L	—	P・E・V・R・Q・A・K・F・S
T—SP2C 16	—	70.0	—	P12.00—V9.00—A30—F65.0—S3

Days to Ship **Quotation**

Alterations

Catalog No. — L — P(PC)・E・V・R・Q・A・K・F・S — (BC・HC…etc.)
T—SP2C 16 — 75.0 — P12.00—V9.00—A30—F65.0—S3 — LKC

Alterations	Code	Spec.	1Code
Alterations to tip	PC	P dimension change PC≧ Pmin./2 ≧Vmin. 0.01mm increments	
	BC	Tip length change 2≦BC≦BCmax. 0.1mm increments (P) Full length L must be at least 30mm longer than tip length BC. ・TiCN coating ・Dicoat® treatment HW coating	
		P(PC) / BCmax: 1.00～1.19 / 15; 1.20～1.99 / 20; 2.00～2.99 / 30; 3.00～3.99 / 35; 4.00～5.99 / 45; 6.00～ / 60	
		P(PC) / BCmax: 1.00～1.99 / 15; 2.00～2.99 / 25; 3.00～3.99 / 30; 4.00～5.99 / 40; 6.00～ / 45	
		For coating punches, 2≦BC≦BCmax.≦L/2	
	SC	Lapping of tip (P) P dimension tolerance and increment remain the same. The base material is finished before the coating is applied. ⊗ Cannot be used with Dicoat® treatment・HW coating. ⊗ Cannot be used for shapes 2A・6A・8B・2C・3C・4C・6C・2D・3D・4D・5D・8D・9D・10D. ⊗ Cannot be combined with AKC・KKC・RKC・QKC.	Quotation
	AKC	Angle A tolerance change A±30′⇨±10′ ⊗ Cannot be used with Dicoat® treatment punches.	
	KKC	Angle K tolerance change K±30′⇨±10′ ⊗ Cannot be used with Dicoat® treatment punches.	
	RKC	R dimension tolerance R±0.5⇨±0.05 ⊗ Cannot be used with Dicoat® treatment punches. Can be used for 0.1≦R≦10. (P) For HW coating, R±0.1	
	QKC	Q dimension tolerance change Q±0.5⇨±0.05 ⊗ Cannot be used with Dicoat® treatment punches. Can be used for 0.1≦Q≦10. (P) For HW coating, Q±0.1	
Head	HC	Head diameter change D≦HC<H 0.1mm increments	
	TC	Head thickness change 2≦TC<5 0.1mm increments (If combined with TKC・TKM, 0.01mm increments can be selected.) (P) The full length remains as specified.	

Alterations	Code	Spec.	1Code
Alterations to head	TCC	Chamfering of head This improves the strength of the punch head. P.1611 0.1mm increments 0.5≦TCC≦(H—D)/2 (P) If H≦5, then TCC is 0.5.	Quotation
	KC	Addition of single key flat ⊗ Cannot be used for tapped punches of D5	
	WKC	Addition of double key flats in parallel ⊗ Cannot be used for tapped punches of D5	
	RC	0 −0.04 Head thickness is machined to a tolerance of —0.04～0 relative to the retainer surface.	
	T	TKC Head thickness tolerance change 5 +0.3 0 ⇨ +0.02 0 ⊗ Cannot be used for punches with locating dowel holes.	
		TKM Head thickness tolerance change 5 +0.3 0 ⇨ 0 −0.02 ⊗ Cannot be used for punches with locating dowel holes.	
Others	L	LKC L dimension tolerance change L +0.3 0 ⇨ +0.05 0	
	F	FKC F dimension tolerance change F +0.3 0 ⇨ +0.05 0 ⊗ Cannot be used with Dicoat® treatment punches.	
		NDC No press-in lead ℓ≧3 ⇨ ℓ=0 ⊗ Cannot be used for tapped punches.	

Price **Quotation**