

PUNCHES WITH LOCATING DOWEL HOLES

—FINISHED FOR RETAINERS·TiCN COATING—

PRODUCTS DATA

P.1604

Type	A	Shank diameter D tolerance	M	Catalog No.				The tip shape can be selected from Tip shape A~G in the figure below.
				Type	Tip shape	Tip length	With dowel hole	
TiCN coating with locating dowel hole	Dowel pin MS6—25	Dm5	Equivalent to SKD11 60~63HRC Surface 3000HV	H—SP	A D E G	S L X	—C	
Tip shape A D R E G								

Catalog No.		L													0.01mm increments				B	H
Type	D														A			D R E G		
		min.	P	max.	P	Kmax.	P	Wmin.												
 H—SPAS—C H—SPDS—C H—SPRS—C H—SPES—C H—SPGS—C	10	(40)	50	60	70	80	90	100	110	120	130	140	150	3.00~ 9.99	9.97	2.50	0.15≤R<W/2 (R only)	—	13	13
	13	(40)	50	60	70	80	90	100	110	120	130	140	150	6.00~ 12.99	12.97	3.00				16
	16	(40)	50	60	70	80	90	100	110	120	130	140	150	10.00~ 15.99	15.97	4.00			19	19
	20	(40)	50	60	70	80	90	100	110	120	130	140	150	13.00~ 19.99	19.97	5.00				23
	25	(40)	50	60	70	80	90	100	110	120	130	140	150	18.00~ 24.99	24.97	6.00				28
 H—SPAL—C H—SPDL—C H—SPRL—C H—SPEL—C H—SPGL—C	10		50	60	70	80	90	100	110	120	130	140	150	3.00~ 9.99	9.97	2.50	0.15≤R<W/2 (R only)	—	19	13
	13		50	60	70	80	90	100	110	120	130	140	150	6.00~ 12.99	12.97	3.00				16
	16			60	70	80	90	100	110	120	130	140	150	10.00~ 15.99	15.97	4.00			25	19
	20			60	70	80	90	100	110	120	130	140	150	13.00~ 19.99	19.97	5.00				23
	25			60	70	80	90	100	110	120	130	140	150	18.00~ 24.99	24.97	6.00				28
 H—SPAX—C H—SPDX—C H—SPRX—C H—SPEX—C H—SPGX—C	10			70	80	90	100	110	120	130	140	150	6.00~ 9.99	9.97	5.00	0.15≤R<W/2 (R only)	—	30	13	
	13			70	80	90	100	110	120	130	140	150	6.00~ 12.99	12.97	5.00				16	
	16				80	90	100	110	120	130	140	150	10.00~ 15.99	—	—			40	19	
	20				80	90	100	110	120	130	140	150	13.00~ 19.99						23	
	25				80	90	100	110	120	130	140	150	18.00~ 24.99						28	

Ⓛ (40)→B=8 If full length is (40) and D dimension is 10 ~ 25, tip length is 8mm in all cases.
 Ⓜ: P>D-0.03→ℓ=0 If P>D-0.03 for a round punch, D_{-0.01}^{+0.01} (press-in lead) is not included.
 Ⓝ: P>K>D-0.05→ℓ=0 If P>K>D-0.05 for a shaped punch, D_{-0.01}^{+0.01} (press-in lead) is not included.

Order — — — —
 H—SPAS—C 25 — 100 — P18.05

Days to Ship **Quotation**

Alterations — — — — — (BC·HC·TC, etc.)
 H—SPAS—C 25 — LC95 — P18.05 — BC30

Alteration	Code	A	D R E G	1Code
Alterations to tip	PC WC	Tip dimension change PC ≥ $\frac{P_{min.}}{2}$ 0.01 mm increments (If combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change WC ≥ $\frac{P \cdot W_{min.}}{2}$ 0.01 mm increments ⓧ Cannot be used for tip X.	
		P (PC) Bmax. 1.500~1.999 20 2.000~3.999 35 4.000~5.999 45 6.000~ 60	P (PC)·W (WC) Bmax. 1.25~1.49 8 1.50~1.99 13 2.00~3.49 19 3.50~4.99 25 5.00~ 30	
	BC	Tip length change 2≤BC≤Bmax. 0.1 mm increments ⓧ Full length L must be at least 25mm longer than tip length BC.	Tip length change 2≤BC≤Bmax. 0.1 mm increments ⓧ Full length L must be at least 30mm longer than tip length BC.	
	SC	Lapping of tip ⓧ P dimension tolerance and increment are the same. The base material is finished before the coating is applied. ⓧ R=0 cannot be selected for the tip shape D corners.		
	PRC	Rounding of tip side edge 0.3≤PRC≤1.0 mm increments ⓧ PRC≤(P-0.2)/2 ⓧ Cannot be combined with PCC.		
	PCC	Chamfering to tip side edge 0.3≤PCC≤1.0 mm increments ⓧ PCC≤(P-0.2)/2 ⓧ Cannot be combined with PRC.		
Alterations to full length	PKC	Tip tolerance change P+0.01 ⇄ +0.005 0 ⓧ (P dimension can be selected in 0.001 mm increments.) ⓧ Cannot be used for D>13.	Tip tolerance change P·W±0.01 ⇄ +0.01 0 ⓧ Cannot be used for D>13.	
	LC	Full length change 25+B (BC) ≤LC<L 0.1 mm increments ⓧ If difference between full length and tip length is 25mm or less, tip length is adjusted to (Full length-25mm). (If combined with LKC, 0.01 mm increments can be selected.)	Full length change 30+B (BC) ≤LC<L 0.1 mm increments ⓧ If difference between full length and tip length is 30mm or less, tip length is adjusted to (Full length-30mm).	
	LKC	Full length tolerance change L+0.3 0 ⇄ +0.05 0		

Price **Quotation**

Alteration	Code	A	D R E G	1Code
Alterations to head	KC	Addition of single key flat to head	90° 0° 180° 270° Key flat position change 1° increments	
	WKC	Addition of double key flats in parallel	Double key flats in parallel Can be combined with KC.	
	KFC	Double key flats at 0° and a selected angle 1° increments ⓧ Cannot be combined with KC·WKC.	Double key flats at 0° and a selected angle 1° increments ⓧ Cannot be combined with KC·WKC.	
	NKC	—	No key flat	
	HC	Head diameter change D≤HC<H 0.1 mm increments		
Alterations to shank	TC	Head thickness change 2≤TC<5 0.1mm increments ⓧ Full length L is shortened by (5-TC). If combined with LC, full length is equal to LC.		
	TCC	Chamfering of head This improves the strength of the punch head P.1611 0.1 mm increments 0.5≤TCC≤(H-D)/2		
	UC	Modification for urethane stripper (USN) installation Code U L Applicable USN UC40 37 L≥80 USN40 UC50 47 L≥90 USN50 ⓧ P·Kmax.=D-1.1 ⓧ Details P.750 ⓧ Can be used for L≥80 or L≥90.		
	TPC	Dowel pin change MS6—25 that comes with the product is changed to MSTP6—25 (tapped type).		
	NDC	No press-in lead ℓ≥3 ⇄ ℓ=0		

PUNCHES