

PUNCHES WITH LOCATING DOWEL HOLES

— FINISHED FOR RETAINERS · TiCN COATING —



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	B 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 R E G	S L X	-C	<p>The tip end is ground before the coating is applied. Tip length (B) X>L>S</p>

Tip shape A

Tip shape D

Tip shape R

Tip shape E

Tip shape G

Tip shape A: $P \geq W$, $R=0$ can be selected, $K = \sqrt{P^2 + W^2}$
 Tip shape D: $R \leq 0.2$, $W \pm 0.01$, $P \pm 0.01$, $K = \sqrt{P^2 + W^2}$
 Tip shape R: $P \geq W$, $0.15 \leq R < \frac{W}{2}$, $K = \sqrt{(P-2R)^2 + (W-2R)^2} + 2R$
 Tip shape E: $P > W$
 Tip shape G: $P > W$, $R \leq 0.2$

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

* L(40)→B=8 If full length is (40) and D dimension is 10 ~ 25, tip length is 8mm in all cases.
 * A: P>D-0.03→ℓ=0 If P>D-0.03 for a round punch, D-0.03 (press-in lead) is not included.
 * D R E G: P·K>D-0.05→ℓ=0 If P·K>D-0.05 for a shaped punch, D-0.05 (press-in lead) is not included.

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

Days to Ship **Quotation**

Alterations Catalog No. - L(LC) - P(PC) - W(WC) - R - (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 ≥ Pmin. WC ≥ P-Wmin. 0.01 mm increments (If combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change PC ≥ P·Wmin. WC ≥ P-Wmin. 0.01 mm increments * Cannot be used for tip X.	
	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 of tip side edge 0.3 ≤ PCC ≤ 1.0 mm increments * PCC ≤ (P-0.2)/2 * Cannot be combined with PRC.		
	PKC	Tip tolerance change P+0.01 ⇔ +0.005 0 ⇔ 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 ⇔ 0 * Cannot be used for D>13.	
Alterations to full length	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). (If combined with LKC, 0.01 mm increments can be selected.)	
	LKC	Full length tolerance change L+0.3 ⇔ +0.05 0 ⇔ 0		

Price **Quotation**

Alteration	Code	A	D R E G	1Code										
Alterations to head	KC	Addition of single key flat to head	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 0.5 ≤ TCC ≤ (H-D)/2												
	UC	Modification for urethane stripper (USN) installation <table border="1"> <thead> <tr> <th>Code</th> <th>U</th> <th>L</th> <th>Applicable USN</th> </tr> </thead> <tbody> <tr> <td>UC40</td> <td>37</td> <td>L ≥ 80</td> <td>USN40</td> </tr> <tr> <td>UC50</td> <td>47</td> <td>L ≥ 90</td> <td>USN50</td> </tr> </tbody> </table> * P·Kmax.=D-1.1 * Details P.750 * Can be used for L ≥ 80 or L ≥ 90.	Code	U	L	Applicable USN	UC40	37	L ≥ 80	USN40	UC50	47	L ≥ 90	USN50
Code	U	L	Applicable USN											
UC40	37	L ≥ 80	USN40											
UC50	47	L ≥ 90	USN50											
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

Quotation