

Catalog No.				L							0.01 mm increments				B	H			
Type	Tip shape	Tip length	D								(A)		D REG				R		
				min. P max.		P-Kmax.	P-Wmin.	R											
(Dm5)		S	3	40	50	60	70	80	90	100	1.00~	2.99	—	—	0.15 ≤ R < $\frac{W}{2}$ (R only)	8	5		
—WPC® treatment—			4	40	50	60	70	80	90	100	1.00~	3.99	3.97	1.00			7		
W—SP			5	40	50	60	70	80	90	100	2.00~	4.99	4.97	1.20			8		
W—SH			6	40	50	60	70	80	90	100	2.00~	5.99	5.97	1.50		9			
W—PH			8	(40)	50	60	70	80	90	100	3.00~	7.99	7.97	2.00		11			
—HW coating—			10	(40)	50	60	70	80	90	100	3.00~	9.99	9.97	2.50		13			
HW—SH			13	(40)	50	60	70	80	90	100	6.00~	12.99	12.97	3.00		16			
HW—PH			16	(40)	50	60	70	80	90	100	10.00~	15.99	15.97	4.00		19			
(D ^{+0.005} ₀)			20	(40)	50	60	70	80	90	100	13.00~	19.99	19.97	5.00		23			
—WPC® treatment—			25	(40)	50	60	70	80	90	100	18.00~	24.99	24.97	6.00		28			
AW—SP		L	3		50	60	70	80	90	100	1.00~	2.99	—	—		0.15 ≤ R < $\frac{W}{2}$ (R only)	13	5	
AW—SH			4		50	60	70	80	90	100	1.00~	3.99	3.97	2.00				7	
AW—PH			5		50	60	70	80	90	100	2.00~	4.99	4.97	2.00				8	
—HW coating—			6		50	60	70	80	90	100	2.00~	5.99	5.97	2.00			9		
HW—SH			8		50	60	70	80	90	100	3.00~	7.99	7.97	2.50			11		
HW—PH			10		50	60	70	80	90	100	3.00~	9.99	9.97	2.50			13		
(D ^{+0.005} ₀)			13		50	60	70	80	90	100	6.00~	12.99	12.97	3.00			16		
—WPC® treatment—			16			60	70	80	90	100	10.00~	15.99	15.97	4.00			19		
AW—SP			20			60	70	80	90	100	13.00~	19.99	19.97	5.00			23		
AW—SH			25			60	70	80	90	100	18.00~	24.99	24.97	6.00			28		
AW—PH		X	3		50	60	70	80	90	100	1.20~	2.99	—	—			0.15 ≤ R < $\frac{W}{2}$ (R only)	19	5
—HW coating—			4		50	60	70	80	90	100	1.20~	3.99	3.97	2.00					7
AHW—SH			5		60	70	80	90	100	2.00~	4.99	4.97	3.50	8					
AHW—PH			6		60	70	80	90	100	2.00~	5.99	5.97	3.50	9					
—HW coating—			8		60	70	80	90	100	3.00~	7.99	7.97	5.00	11					
AHW—SH			10		60	70	80	90	100	3.00~	9.99	9.97	5.00	13					
AHW—PH			13		60	70	80	90	100	6.00~	12.99	12.97	5.00	16					
			16			70	80	90	100	10.00~	15.99	—	—	19					
			20			70	80	90	100	13.00~	19.99	—	—	23					
			25			70	80	90	100	18.00~	24.99	—	—	28					

Days to Ship **Quotation**

Alterations

Catalog No. — L (LC-LCT-LMT) — P (PC) — W (WC) — R — (BC/HK), etc.)

W—SPDS 10 — LC72 — PC1.90 — WC1.90 — BC8—KC45

Alteration	Code	A	D R E G	1Code																
Alterations to tip		PC WC	Tip dimension change $PC \geq \frac{P_{min}}{2}$ 0.01 mm increments (If combined with PCC, 0.01 mm increments can be selected.) <table><tr><th>P (PC)</th><th>Bmax</th></tr><tr><td>0.500~0.799</td><td>10</td></tr><tr><td>0.800~0.999</td><td>13</td></tr><tr><td>1.000~1.999</td><td>20</td></tr><tr><td>2.000~3.999</td><td>35</td></tr><tr><td>4.000~4.999</td><td>45</td></tr><tr><td>5.000~5.999</td><td>50</td></tr><tr><td>6.000~</td><td>60</td></tr></table>	P (PC)	Bmax	0.500~0.799	10	0.800~0.999	13	1.000~1.999	20	2.000~3.999	35	4.000~4.999	45	5.000~5.999	50	6.000~	60	Tip dimension change $PC \geq \frac{P-W_{min}}{2} \geq 0.80$ 0.01 mm increments ❗ Cannot be used for tip X.
			P (PC)	Bmax																
	0.500~0.799	10																		
	0.800~0.999	13																		
	1.000~1.999	20																		
	2.000~3.999	35																		
4.000~4.999	45																			
5.000~5.999	50																			
6.000~	60																			
	BC	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments ⚡ Full length L must be at least 25 mm longer than tip length BC. ❗ PC < 1.00 Cannot be used with HW coating.	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments ⚡ Full length L must be at least 30 mm longer than tip length BC.																	
			PRC	Rounding of tip side edge $0.3 \leq PRC \leq 1$ 0.1 mm increments ❗ PRC ≤ (P-0.2)/2 ❗ Cannot be combined with PCC.																
	PCC			Chamfering of tip side edge $0.3 \leq PCC \leq 1.1$ mm increments ❗ PCC ≤ (P-0.2)/2 ❗ Cannot be combined with PRC. ❗ Cannot be used with HW coating.																
			PKC	Tip tolerance change $P+0.01 \Rightarrow +0.005$ ⚡ P dimension can be selected in 0.001 mm increments. ❗ Cannot be used with HW coating.	Tip tolerance change $P+W \pm 0.01 \Rightarrow +0.01$ 0															
Alterations to full length		LC	Full length change $25+B(BC) \leq LC < L$ 0.1 mm increments ⚡ If difference between full length and tip length is 25 mm or less, tip length is adjusted to (Full length-25 mm). (If combined with LKC, 0.01 mm increments can be selected.)	Full length change $30+B(BC) \leq LC < L$ 0.1 mm increments ⚡ If difference between full length and tip length is 30 mm or less, tip length is adjusted to (Full length-30 mm).																
				LCT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (⚡) are the same as for LC.															
		TKC			Head thickness tolerance change $T+0.3 \Rightarrow +0.02$ 0	Full length tolerance change $L+0.3 \Rightarrow +0.1$ 0														
				LMT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (⚡) are the same as for LC.															
	TKM	Head thickness tolerance change $T+0.3 \Rightarrow -0.02$ 0			Full length tolerance change $L+0.3 \Rightarrow +0.1$ 0															

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Alteration	Code	A	D R E G	1Code
Alterations to full length		LKC	Full length tolerance change $L+0.3 \Rightarrow +0.05$ 0	
		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 	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 $D \leq HC < H$ 0.1 mm increments	
		TC	Head thickness change $2 \leq TC < 5$ 0.1 mm increments (if combined with TKC-TKM-LCT-LMT, 0.01 mm increments can be selected.) ⚡ Full length L is shortened by (5-TC). If combined with LC-LCT-LMT, full length remains as specified.	
		TKC	Head thickness tolerance change $T+0.3 \Rightarrow +0.02$ 0	
		TKM	Head thickness tolerance change $T+0.3 \Rightarrow -0.02$ 0	
		TCC	Chamfering of head This improves the strength of the punch head. ⚡ P:1097 0.1 mm increments $0.5 \leq TCC \leq (H-D)/2$ ⚡ If H ≤ 5, then TCC is 0.5. ❗ Cannot be combined with SRC.	
	RC	Head thickness is machined to a tolerance of $-0.04 \sim 0$ relative to the retainer surface. ❗ Cannot be used for $D+0.005$ types.		
Alterations to shank		SRC	Modification of head for use with select retainers (SLS) ⚡ For details, refer to P.629. ⚡ Can be used for D10~25. ❗ Cannot be used for $D+0.005$ types.	
		UC	Modification for urethane stripper (USN) installation ⚡ For details ⚡ P.630. ❗ Can be used for D10~25.	
		NDC	No press-in lead $l \geq 3 \Rightarrow l=0$	

Quotation

Price

Quotation