

BURRING PUNCHES

— TAPERED TIP TYPE —

PRODUCTS DATA
P.1604-1605

RoHS

RoHS

● Calculating the projection length of the jector pin (reference value) **P.241**
 ● For details of jector holes, refer to Jector Punch Blanks **P.236**
 ● For details of jector pins, refer to Jector Pin Sets. **P.239**

Catalog No.				M	S	H
D _{m5}		D _{±0.005}				
Short tip	Long tip	Short tip	Long tip			
SPMT	SPMTL	A-SPMT	A-SPMTL	Equivalent to SKD11	—	60~63HRC
SHMT	SHMTL	A-SHMT	A-SHMTL	Equivalent to SKH51	—	61~64HRC
H-SHMT	H-SHMTL	AH-SHMT	AH-SHMTL	TiCN coating 61~64HRC Surface 3000HV	—	61~64HRC
HW-SHMT	HW-SHMTL	AHW-SHMT	AHW-SHMTL			
PHMT	PHMTL	A-PHMT	A-PHMTL	—	—	64~67HRC
H-PHMT	H-PHMTL	AH-PHMT	AH-PHMTL	Powdered high-speed steel TiCN coating 64~67HRC Surface 3000HV	—	64~67HRC
HW-PHMT	HW-PHMTL	AHW-PHMT	AHW-PHMTL			

● For shank diameter tolerance D \square , select either (m5) or (± 0.005).

Catalog No.				M	S	H
D _{m5}		D _{±0.005}				
Short tip	Long tip	Short tip	Long tip			
SJMT	—	A-SJMT	—	D4~6 Equivalent to SKH51 D8~10 Equivalent to SKD11	—	D4~6 61~64HRC D8~10 60~63HRC
PJMT	—	A-PJMT	—			64~67HRC
H-PJMT	—	AH-PJMT	—	Powdered high-speed steel TiCN coating 64~67HRC Surface 3000HV	—	64~67HRC
HW-PJMT	—	AHW-PJMT	—			64~67HRC Surface 3000HV

● For shank diameter tolerance D \square , select either (m5) or (± 0.005).

B	H	Catalog No.		L	0.01mm increments		0.1mm increments	1" increments
		Type	D		min. V	max. P		
8	7	—Short tip— (D _{m5}) (D _{±0.005})	4	40.0~80.0 (0.1mm increments)	1.60~3.99	1.00	F≤L-2	0°<K<90°
	8	SPMT A-SPMT	5		1.80~4.99	1.20		
	9	SHMT A-SHMT	6		1.80~5.99	1.20		
	11	H-SHMT AH-SHMT	8		2.10~7.99	1.50		
	13	PHMT A-PHMT	8		3.00~9.99	2.50		
	13	H-PHMT AH-PHMT	10		3.00~9.99	2.50		
15	7	—Long tip— (D _{m5}) (D _{±0.005})	4	50.0~80.0 (0.1mm increments)	1.60~3.99	1.00	F≤L-2	0°<K<90°
	8	SPMTL A-SPMTL	5		1.80~4.99	1.20		
	9	SHMTL A-SHMTL	6		1.80~5.99	1.20		
	11	H-SHMTL AH-SHMTL	8		2.10~7.99	1.50		
	13	PHMTL A-PHMTL	8		3.00~9.99	2.50		
	13	H-PHMTL AH-PHMTL	10		3.00~9.99	2.50		
8	7	—Short tip jector— (D _{m5}) (D _{±0.005})	4	40 50 60 70 80	2.00~3.99	1.00	F≤L-2	0°<K<90°
	8	SJMT A-SJMT	5		2.00~4.99	2.00		
	9	PJMT A-PJMT	6		2.00~5.99	2.00		
	11	H-PJMT AH-PJMT	8		3.00~7.99	3.00		
	13	HW-PJMT AHW-PJMT	10		3.00~9.99	3.00		
	13	HW-PJMT AHW-PJMT	10		3.00~9.99	3.00		

● V-P≥0.3 ● B≥(L-F) + {(V-P)/2tanK} + 2

Order **Catalog No.** — **L** — **V** — **P** — **F** — **K**
 SPMT 4 — 41.0 — V2.60 — P1.00 — F39.0 — K30

Days to Ship **Quotation**

Alterations **Catalog No.** — **L** — **V** — **P** — **F** — **K** — (BC·HC·TC, etc.)
 SPMT 4 — 41.0 — V1.60 — P1.00 — F38.5 — K30 — BC10

Alteration	Code	Spec.	1Code
Alterations to tip	BC	B dimension change 0.1mm increments Full length must be 30 mm longer than tip length. $(L-F) + \alpha + 2 \leq BC \leq BC_{max}$ $\alpha = \frac{(V-P) \cot K}{2}$ For coating punches, $(L-F) + \alpha + 2 \leq BC \leq BC_{max} \leq L/2$	Quotation
	VKC	V dimension tolerance change $V + 0.01 \rightarrow +0.005$ Cannot be used for coating punches.	
Alterations to head	HC	Head diameter change $D \leq HC < H$ 0.1mm increments	Quotation
	TC	Head thickness change 0.1mm increments Other than jector $2 \leq TC < 5$ Full length L remains as specified. Jector $3.5 \leq TC < 5$ Full length L is shortened by (5-TC). (If combined with TKC-TKM, 0.01mm increments can be selected.)	
	TCC	Chamfering of head This improves the strength of the punch head. P.1611 0.1 mm increments $0.5 \leq TCC \leq (H-D)/2$ If $H \leq 5$, then TCC is 0.5. Cannot be combined with SRC.	
	TKC	Head thickness tolerance change $T + 0.3 \rightarrow +0.02$	
	TKM	Head thickness tolerance change $T + 0.3 \rightarrow -0.02$	

Price **Quotation**

Alteration	Code	Spec.	1Code
Alterations to head	KC	Addition of single key flat to head	
	WKC	Addition of double key flats in parallel	
	RC	Head thickness is machined to a tolerance of -0.04~0 relative to the retainer surface. Can be used for D10 only. Cannot be used for D ± 0.005 types.	
Others	LKC	Full length tolerance change $L + 0.3 \rightarrow +0.05$	Quotation
	FKC	Full length tolerance change $F + 0.3 \rightarrow +0.05$	
	AC	The jector pin is removed to create an air path and the side vent hole is plugged from the inside. Can be used for jector types only.	
	NC	The jector pin is removed. Cannot be combined with AC. Can be used for jector types only.	
	KKC	K angle tolerance change $K \pm 30' \rightarrow \pm 10'$	
	NDC	No press-in lead $\ell \geq 3 \rightarrow \ell = 0$	

PUNCHES & DIES FOR FORMING