

CARBIDE PILOT PUNCHES WITH KEY GROOVES

Type	Shank diameter D tolerance	Material	Catalog No.	Shape
— Tip R type — RoHS	Dm5	V30 (HIP) 88~89HRA	WKSTAS WKSTAL	<p>Tip length (B) L > S RT (※) → If P < 8, tip is rounded for safety. To keep the sharp tip (no rounding), specify RT=0. (However if P ≥ 8, tip end is flat. P.1592) For the length of tip R, refer to the products data "Punch R length". P.1592 Although the marks of processing may remain in the center of a flange end face, it is satisfactory on a function.</p>
	D +0.005 / 0		A-WKSTAS A-WKSTAL	
— Tapered tip type — RoHS	Dm5	V30 (HIP) 88~89HRA	WKTPAS WKTPAL	<p>Tip length (B) L > S Although the marks of processing may remain in the center of a flange end face, it is satisfactory on a function.</p>
	D +0.005 / 0		A-WKTPAS A-WKTPAL	

Catalog No.		L					0.001mm increments		0.1mm increments	B	Y	U	
Type	D	3	4	5	6	8	min.	max.	T				
S (Dm5) (D +0.005 / 0)	WKSTAS A-WKSTAS WKTPAS A-WKTPAS	3	42	52	62		1.000	2.990	T > 5.0	10	2	0.5	
		4	42	52	62	72	1.000	3.990					
		5	42	52	62	72		2.000			4.990	3	1.0
		6	42	52	62	72	82	2.000			5.990		
		8	(42)	52	62	72	82	3.000			7.990	5	1.5
		10	(42)	52	62	72	82	3.000			9.990		
13	(42)	52	62	72	82	6.000	12.990	8	1.5				
16	(42)	52	62	72	82	10.000	15.990						
L (Dm5) (D +0.005 / 0)	WKSTAL A-WKSTAL WKTPAL A-WKTPAL	3		52	62		1.000	2.990	T > 5.0	15	2	0.5	
		4		52	62	72	1.000	3.990					
		5		52	62	72		2.000			4.990	3	1.0
		6		52	62	72	82	2.000			5.990		
		8		52	62	72	82	3.000			7.990	5	1.5
		10		52	62	72	82	3.000			9.990		
		13		52	62	72	82	6.000			12.990	8	1.5
		16		52	62	72	82	10.000			15.990		

L (42) → B=10 If full length L is (42), tip length B is 10mm in all cases.

Order	Catalog No.	L	P	T	RT/R
	WKSTAL 6	62	P4.500	T10	RT=0
	WKTPAS 5	52	P2.015	T8	R0

- If no key groove is required, select T=L.
- RT=0 only can be selected: Can be used for tip R types with P < 8 (except lapping).
- R=0 only can be selected: Can be used for tapered tip types (except lapping).

Days to Ship **Quotation**

Alterations **WKSTAL 6** — **LC65.0** — **P4.500** — **T8** — **RT=0** — **(BC·YC·WKD...etc.)** — **PKC**

Alteration	Code	1Code
	RLC	Tip R is cut flat. Allowable range of change 2 ≤ RLC < √P(10-P/4) 0.1mm increments Can be used for P < 8.
	PC	Tip diameter change PC ≥ Pmin./2 0.001mm increments
	BC	Tip length change 2 ≤ BC ≤ Bmax. 0.1mm increments Full length L must be at least 25mm longer than tip length BC.
	YC	Tip taper length change If P < 2.0, 1 ≤ YC ≤ P × 2.83 - 0.3 If P ≥ 2.0, 1 ≤ YC ≤ P × 1.86 - 0.3 ≤ 12 L(LC) + YC ≤ Lmax. + 8 0.1mm increments
	PKC	Tip diameter tolerance change P +0.005 / 0 → +0.003 / 0
	PKV	Tip diameter tolerance change P +0.005 / 0 → ±0.002
	SC	Tip roughness change 0.2 / G → 0.08 / GL

Alteration	Code	1Code
	LC	Full length change 25+B(BC) ≤ LC < L 0.1mm increments If difference between full length and tip length is 25mm or less, tip length is adjusted to (Full length - 25mm).
	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.
	WKD	TKC Addition of double key grooves in parallel
	UK	Key groove depth change Cannot be used for D3.
	TKC	T dimension tolerance change T +0.05 / 0 → 0 / -0.02

Price **Quotation**

Fixing keys for punches with key grooves **P.245**

