

High Speed Steel  
SKH51 equivalent

Extra precision  
P · W<sup>0</sup><sub>-0.003</sub>  
Free designation

# EXTRA PRECISION RECTANGULAR EJECTOR PINS

— FREE DESIGNATION / ANGULAR TIP CORNER · FREE DESIGNATION TYPE —

Ⓢ Non JIS material definition is listed on P.1351 - 1352

Enlarged view of angular tip corner

RoHS

Part Number	Head Thickness	P · W
ERZF	4mm(T4)	0 -0.003
※ P-ERZF (Angular tip corner)		

Ⓢ Range of guaranteed shaft diameter precision (D) (Details P.1301)  
Ⓢ Step R (Details P.1302)

Ⓢ P ≥ W  
Ⓢ K = √(P<sup>2</sup> + W<sup>2</sup>)

Ⓢ SKH51 equivalent  
Ⓢ 58 ~ 60HRC  
Range of guaranteed base material hardness (Details P.1303)

※ For P-ERZF, the deburring of tip is not carried out. (For details, refer to the table of precision standard on the right page.)

Alterations

Part Number: L - P - W - N - (AKC · AWC...etc.)  
ERZF 5.5 - 105.03 - P3.50 - W0.65 - N55 - AWC 0

Quotation

Alteration details P.195

Alterations	Code	Spec.	1Code
	VAK	VAK=45° increments Ⓢ 0 ≤ VAK < 360 Ⓢ Combination with KSA/WSA not available.	
	VAW	VAW=45° increments Ⓢ 0 ≤ VAW < 360 Ⓢ Combination with KSA/WSA not available.	
	AKC	AKC=1° increments Ⓢ 0 ≤ AKC < 360 Ⓢ When combined with KSA/WSA, 90° increments only.	
	AWC	AWC=1° increments Ⓢ 0 ≤ AWC < 360 Ⓢ When combined with KSA/WSA, 90° increments only.	
	ARC	ARC=1° increments Ⓢ 0 ≤ ARC < 360 Ⓢ When combined with KSA/WSA, 90° increments only.	Quotation
	ADC	ADC=1° increments Ⓢ 0 ≤ ADC < 360 Ⓢ When combined with KSA/WSA, 90° increments only.	
	KGA	KGA=1° increments Ⓢ 0 < KGA < 360	
	KGD	KGD=1° increments Ⓢ 0 < KGD < 360	
	HC	HC=0.1mm increments Ⓢ D+1 ≤ HC < H Ⓢ Available when D ≥ 1.5	
	HCC	HCC=0.1mm increments Ⓢ D+1 ≤ HCC < H-0.3 Ⓢ Available when D ≥ 1.5	
	KSA	KSA=0.1mm increments Ⓢ W/2+0.1 ≤ KSA ≤ D/2-0.1 Ⓢ Available when D ≥ 1.5	

Alterations	Code	Spec.	1Code
	WSA	WSA=0.1mm increments Ⓢ W/2+0.1 ≤ WSA ≤ D/2-0.1 Ⓢ Available when D ≥ 1.5	
	TC	TC=0.1mm increments Ⓢ 2.0 ≤ TC < 4 Dimension L and N remains unchanged. (ERZF) Dimension N becomes shorter by (4-TC). (P-ERZF) (Dimension L remains unchanged.) Ⓢ 4-TC ≤ Lmax.-L	
	NC	Dowel hole boring NC=90° increments Ⓢ Available when H ≥ 4 Ⓢ Combination with other than NHC · MHN not available. How to order and detailed specifications P.195	
	NCW	Dowel hole boring+Spring pin driving NCW=90° increments Ⓢ Available when H ≥ 4 Ⓢ Combination with other than NHC · MHN not available. How to order and detailed specifications P.195	
	NHC	Numbering on the head How to order P.196	
	NHN	Automatic sequential numbering on the head How to order P.196	Quotation
	TMC	Lapping on the tip face Ⓢ Available when P ≥ 0.6	
	CSW	C chamfering processing at 2 points on top (except tip) for relief is performed. [Designation method] CSW1-E25	CSW, CSF: Range of designation W CSW, CSF 1.0 ≤ W < 1.5 0.3 W ≥ 1.5 0.5 1 1.5
	CSF	C chamfering processing at 4 points (except tip) for relief is performed. [Designation method] CSF0.5-E30	Ⓢ P ≥ 1.5 Ⓢ CSW, CSF < W/2 E=1mm increments Ⓢ 5 ≤ E ≤ (L-N)-20

H	T	Part Number		0.01mm increments				Kmax.	N 1mm increments	Nmin.	
		Type	D	L	P	W					
2	4	ERZF (4mm head)	1	40.00~100.00	0.30~0.80	0.30~1.00	0.30~	0.9	10 ≤ (L-N) ≤ 200	23	
3			1.2					0.60~1.30			1.1
4			1.5					0.80~1.80			1.4
5			2					0.80~2.30			1.9
6			2.5					1.00~3.30			2.4
7			3					1.00~3.80			2.9
8		P-ERZF (4mm head angular tip corner)	3.5	40.00~150.00	1.20~4.30	0.40~	3.4	27			
9			4				1.50~4.80	4.4			29
			4.5				1.80~5.30	4.9			31
		5	40.00~200.00	2.00~5.80	0.50~	5.4	33				
		5.5				5.9					

Ⓢ Designate P · W dimensions within the Kmax. K=√(P<sup>2</sup>+W<sup>2</sup>) Ⓢ P ≥ W

Order

Part Number: L - P - W - N  
ERZF 2 - 105.03 - P1.30 - W0.30 - N55

Days to Ship

Quotation

Price

Quotation

Precision Standard	
Squareness of the tip corner	 P-ERZF Pmax. Pmin. W plane as the base (Pmax.-Pmin.) ≤ 0.005
Corner R value of the tip corner	 ERZF Rmax. Rmax. ≤ 0.03 (Trimming R) Ⓢ The tip corners have been slightly trimmed to measure the P · W dimensions. (Details P.1313)
	 P-ERZF 4-R ≤ 0.03 Approximately within 5mm from the tip is without deburring process. 5mm onward, deburring R is within ≤ 0.03.

Rectangular Ejector Pins

High Speed Steel SKH51 equivalent

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