

High Speed Steel
SKH51 equivalent

Precision
P · W_{-0.005}
Free designation

PRECISION RECTANGULAR EJECTOR PINS

— FREE DESIGNATION TYPE —

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

RoHS

Part Number	Head Thickness	P · W
ERVYF (Small diameter)	4mm(T4)	0 -0.005
※P-ERVYF (Small diameter angular tip corner)		
ERVF	4 · 6 · 8mm(JIS)	0 -0.005
※P-ERVF (Angular tip corner)		
ERVJ		

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

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

※ For P-ERVYF and P-ERVF, the deburring of tip is not carried out. (For details, refer to the right page.)

Order

Part Number — L — P — W — N

ERVF 5.5 — 105.03 — P3.50 — W0.65 — N55

Alterations

Part Number — L — P — W — N — (AKC · AWC · etc.)

ERVF 5.5 — 105.03 — P3.50 — W0.65 — N55 — AWC 0

Quotation

Alteration details Ⓢ P.195

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

Alterations	Code	Spec.	1Code												
	TC	TC=0.1mm increments Ⓢ T/2 ≤ TC < T Ⓢ Dimensions L and N remain unchanged. Ⓢ T-TC ≤ Lmax. — L, D ≥ 1.5													
	NC	Dowel hole boring NC=90° increments Ⓢ Available when H ≥ 4 Ⓢ Combination with other than NHC · MNH 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 · MNH 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													
	TMC	Lapping on the tip face Ⓢ Available when P ≥ 0.6 Ⓢ (P-) ERVYF not available.	Quotation												
	LKC	L dimension tolerance alteration L +0.02 ... +0.01 Ⓢ Available when L ≤ 200													
	MC	Tapping D8 ... M4 D10 ... M5 D12 · 15 ... M6 Ⓢ Only available combination is with CSW · CSF · TMC Ⓢ Available for ERVJ only Ⓢ Available when D ≥ 8													
	CSW	C chamfering processing at 2 points on top (except tip) for relief is performed. Designation method CSW1-E25	<table border="1" style="font-size: small;"> <tr> <td colspan="2">CSW, CSF: Range of designation</td> </tr> <tr> <td>W</td> <td>CSW, CSF</td> </tr> <tr> <td>1.0 ≤ W < 1.5</td> <td>0.3</td> </tr> <tr> <td>W ≥ 1.5</td> <td>0.5</td> </tr> <tr> <td></td> <td>1</td> </tr> <tr> <td></td> <td>1.5</td> </tr> </table>	CSW, CSF: Range of designation		W	CSW, CSF	1.0 ≤ W < 1.5	0.3	W ≥ 1.5	0.5		1		1.5
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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 8 ptCSF0.5-E30	<table border="1" style="font-size: small;"> <tr> <td>Ⓢ P ≥ 1.5</td> </tr> <tr> <td>Ⓢ CSW, CSF < W/2</td> </tr> <tr> <td>E=1mm increments</td> </tr> <tr> <td>Ⓢ 5 ≤ E ≤ (L-N)-20</td> </tr> </table>	Ⓢ P ≥ 1.5	Ⓢ CSW, CSF < W/2	E=1mm increments	Ⓢ 5 ≤ E ≤ (L-N)-20								
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4mm head		JIS head		Part Number		0.01mm increments				Kmax.	N	Nmin.
H	T	H	T	4mm head	JIS head	D	L	P	W			
2				ERVYF (4mm head) P-ERVYF (Angular tip corner)	-	0.8	40.00~100.00	0.30~0.60	0.20~	0.7	10 ≤ (L-N) ≤ 50	23
						0.9		0.30~0.70		0.8		
3				ERVF (4mm head) P-ERVF (Angular tip corner)	-	1.1	40.00~200.00	0.30~0.90	0.30~	1.0	10 ≤ (L-N) ≤ 150	26
						1.2		0.30~1.00		1.1		
						1.3		0.30~1.10		1.2		
						1.4		0.30~1.20		1.3		
						1.5		0.50~1.30		1.4		
						2		0.80~1.80		1.9		
4				ERVJ (JIS Head)	-	2.5	40.00~300.00	0.80~2.30	0.30~	2.4	10 ≤ (L-N) ≤ 250	27
3						0.80~2.80		2.9				
5				ERVF (4mm head) P-ERVF (Angular tip corner)	-	3.5	40.00~300.00	1.00~3.30	0.40~	3.4	10 ≤ (L-N) ≤ 250	29
6						1.00~3.30		3.9				
7				ERVJ (JIS Head)	-	4	40.00~300.00 (40.00~350.00)	1.00~3.80	0.50~	4.4	10 ≤ (L-N) ≤ 250	31
8						1.20~4.30		4.9				
8				ERVF (4mm head) P-ERVF (Angular tip corner)	-	5	40.00~300.00	1.50~4.80	0.80~	5.4	10 ≤ (L-N) ≤ 250	33
9						1.80~5.30		5.9				
9				ERVJ (JIS Head)	-	6	50.00~300.00 (50.00~350.00)	2.00~5.80	1.50~	6.4	10 ≤ (L-N) ≤ 250	40
10						2.00~5.80		6.9				
10				ERVF (4mm head) P-ERVF (Angular tip corner)	-	6.5	50.00~300.00	2.00~6.30	0.80~	7.9	10 ≤ (L-N) ≤ 250	31
11						2.30~6.80		9.9				
11				ERVJ (JIS Head)	-	7	50.00~300.00	2.30~6.80	1.50~	11.9	10 ≤ (L-N) ≤ 250	33
15						2.30~7.80		14.9				
15				ERVF (4mm head) P-ERVF (Angular tip corner)	-	8	50.00~300.00	3.00~9.80	1.50~	11.9	10 ≤ (L-N) ≤ 250	33
15						3.50~11.80		14.9				
15				ERVJ (JIS Head)	-	10	50.00~300.00	3.50~11.80	1.50~	14.9	10 ≤ (L-N) ≤ 250	33
15						3.50~14.80		14.9				

Ⓢ Designate P · W dimensions within the Kmax. $K = \sqrt{P^2 + W^2}$ Ⓢ P ≥ W Ⓢ L dimension in () is for ERVJ.

Days to Ship

Quotation

Price

Quotation

Precision Standard		
Squareness of the tip corner	P-ERVYF ERVF P-ERVF ERVJ	 Pmax. Pmin. W plane as the base (Pmax. - Pmin.) ≤ 0.01
Corner R value of the tip corner	ERVYF ERVF ERVJ P-ERVYF P-ERVF	 Rmax. Rmin. ≤ 0.03 (Trimming R) Ⓢ The tip corners have been slightly trimmed to measure the P · W dimensions. (Details Ⓢ P.1313)

Rectangular Ejector Pins
High Speed Steel SKH51 equivalent
Precision P · W_{-0.005} Free designation