

High Speed Steel
SKH51 equivalent

R-chamfered
P · W_{-0.01}
Free designation

R-CHAMFERED RECTANGULAR EJECTOR PINS

—FREE DESIGNATION · R POSITION SELECTION TYPE—

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

Part Number				Head Thickness	P · W	R parts							
1 place is rounded.	2 places are rounded.	3 places are rounded.	4 places are rounded.			No. of R	Shape	① Upper left	② Upper right	③ Lower left	④ Lower right		
ER1AR ER1BR	ERWR ER2BR ER2CR ER2DR	ER3AR ER3BR	ERFR	4mm(T4)	0 -0.01	1	1AR 1BR	①	—	—	—		
ERJ1AR ERJ1BR	ERJWR ERJ2BR ERJ2CR ERJ2DR	ERJ3AR ERJ3BR	ERJFR	4 · 6 · 8mm(JIS)		0 -0.01	2	WR 2BR 2CR 2DR	①	②	③	④	
							3	3AR 3BR	①	②	③	④	
								4	FR	①	②	③	④

R position is selected from R-position Designation [Shape]
 P ≥ W K = √(P² + W²) (Dimension before R processing)

Ⓢ Range of guaranteed shaft diameter precision (D) (Details P.1301) Ⓢ SKH51 equivalent
 Ⓢ Step R (Details P.1302) Ⓢ 58-60HRC
 Ⓢ Range of guaranteed base material hardness (Details P.1303)

RoHS

4mm head		JIS head		Part Number		0.01mm increments			R	Kmax.	N 1mm increments	Nmin.	
H	T	H	T	Type	Shape	D	L	P					W
3	4	3	4	ER	1AR	1.5	50.00~250.00	0.60~1.30	0.30~	0.1	20 ≤ (L-N) ≤ 250	1.4	
4	5	4	5			2	50.00~300.00	0.80~1.80				1.9	
5	6	5	6			3		0.80~2.80				2.4	
6	7	6	7			3.5		1.00~3.30				2.9	
7	8	7	8	ERJ	2BR	4		1.00~3.80	0.40~	0.15		3.4	
8	9	8	9			4.5		1.20~4.30				3.9	
9	10	9	10			5		1.50~4.80				4.4	
10	11	10	11			5.5		1.80~5.30				4.9	
11	12	11	12	ERJ	2CR	6		2.00~5.80	0.50~	0.2		5.4	
14	13	12	13			6.5		2.00~6.30				5.9	
15	14	13	14			7		2.30~6.80				6.4	
17	15	14	15			7.5		2.30~7.80				6.9	
—	—	17	17	ERJ	3AR	8		2.30~8.30	0.80~	0.3		40	7.9
						10.5		3.00~10.30					8.4
						12		3.50~11.80					9.9
						15		3.50~14.80					10.4
						15		1.50~				11.9	
												14.9	

Ⓢ Designate P · W dimensions within the Kmax. $K = \sqrt{P^2 + W^2}$ (Dimension before R processing) Ⓢ P ≥ W
 Ⓢ Select R dimension from the range of $R \leq \frac{W}{2} - 0.05$.

Alterations Part Number — L — P — W — R — N — (AKC · AWC...etc.)
 ER1AR 4 — 200.00 — P2.00 — W1.00 — R0.1 — N150 — AKC 0 — CS1 — E30

Alteration details P.195

Alterations	Code	Spec.	1Code
	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.	
	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	
	HCC	HCC=0.1mm increments D+1 ≤ HCC < H-0.3	
	KSA	KSA=0.1mm increments W/2+0.1 ≤ KSA ≤ D/2-0.1	
	WSA	WSA=0.1mm increments W/2+0.1 ≤ WSA ≤ D/2-0.1	
	TC	TC=0.1mm increments T/2 ≤ TC < T (Dimensions L and N remain unchanged) T-TC ≤ Lmax.-L	

Quotation

Alterations	Code	Spec.	1Code
	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	
	LKC	L dimension tolerance alteration L+0.02...+0.01 Available when L ≤ 200	
	MC	Tapping D8 · 3.5...M4 D10 · 10.5...M5 D12 · 15...M6 Only available combination is with CS · CSF · TMC	
	CS	Process C recess at the bottom of R processed (except tip) Process C recess at all places R processed. Designation method CS1-E25	Range of designation W CS, CSF 1.0 ≤ W < 1.5 0.3 W ≥ 1.5 0.5 1.5 P ≥ 1.5 CS, CSF < W/2
	CSF	C recess processing at 4 points (except tip) Designation method CSF0.5-E30	E=1mm increments 5 ≤ E ≤ (L-N)-20 R process range P.196

Quotation

Rectangular Ejector Pins

High Speed Steel SKH51 equivalent

R-chamfered P · W_{-0.01} Free designation R position selection

R-position Designation

One place of R	Two places of R		Three places of R	Four places of R
	Horizontal/Longitudinal	Diagonal		
1AR ① Upper left 	WR ① Upper left ② Upper right 	2CR ① Upper left ④ Lower right 	3AR ① Upper left ② Upper right ③ Lower left 	FR 4 places
1BR ② Upper right 	2BR ① Upper left ③ Lower left 	2DR ② Upper right ③ Lower left 	3BR ① Upper left ② Upper right ④ Lower right 	R tolerance ±0.01

Order Part Number — L — P — W — R — N
 ER1AR 4 — 200.00 — P2.00 — W1.00 — R0.1 — N150

Days to Ship Quotation

Price Quotation

Precision Standard	
Squareness of the tip corner	 Pmax. Pmin. W plane as the base (Pmax. - Pmin.) ≤ 0.02
Corner R value of the tip corner	 Rmax. Rmax. ≤ 0.03 (Trimming R) Corner R value outside R processing range The tip corners have been slightly trimmed to measure the P · W dimensions. (Details P.1313)