

Square Shims

Slotted Hole / Round Hole

Square Shims – Slotted Hole

Part Number			Material	Hardness	Tolerance by Thickness						
One Slot	Two Slots	Three Slots			0.05	0.1	0.2	0.3	0.5	1.0	2.0
ASAFR	ASFFR	ASCFR	Low Carbon Steel Equivalent	—	—	±0.03	±0.04	±0.06	±0.11	±0.17	—
ASAFB	ASFFB	ASCFB	Brass (C28000 Brass or C2680P)	—	±0.005	±0.02	±0.03	±0.04	±0.05	±0.08	±0.15
ASAFS	ASFFS	ASCFs	T=0.05~1.0 304H Stainless Steel T=2.0, 3.0 304 Stainless Steel	370~430 HV min.	±0.005	±0.02	±0.03	±0.035	±0.04	±0.05	±0.20

Machining Conditions of Slotted Hole Type
 f_z≥3 a_z≥3
 m≥3 n≥3

Part Number Type		A 1 mm Increment	B 1 mm Increment	T	0.5 mm Increment Q	0.1 mm Increment E	0.1 mm Increment C	P
Low Carbon Steel Equivalent	Brass	10~150	10~150	(0.05)	3~31	Q/2+3~	0 ~ B-(Q/2+3)	Q+3~
One Hole	ASAFR ASAFB ASAFS			0.1				
Two Holes	ASFFR ASFFB ASFFS			0.2				
Three Holes	ASCFR ASCFB ASCFS	16~200	10~200	0.3				
				0.5				
				1.0				
				2.0				
				(3.0)				

⊖ For One Hole Type, specification of P is not necessary.

⊖ Low Carbon Steel Equivalent is not available for T(0.05) and T(3.0).

Part Number Example

Part Number - A - B - T - Q - E - C - P
 ASFFB - A100 - B25 - T1.0 - Q12 - E15 - C12 - P70

Square Shims – Round Hole

Part Number			Material	Hardness	Tolerance by Thickness						
One Round Hole	Two Round Holes	Three Round Holes			0.05	0.1	0.2	0.3	0.5	1.0	2.0
ASACR	ASFCR	ASCCR	Low Carbon Steel or Equivalent	—	—	±0.03	±0.04	±0.06	±0.11	±0.17	—
ASACB	ASFCB	ASCCB	Brass (C28000 Brass or C2680P)	—	±0.005	±0.02	±0.03	±0.04	±0.05	±0.08	±0.15
ASACS	ASFCS	ASCCS	T=0.05~1.0 304 Stainless SteelH T=2.0 / 3.0 304 Stainless Steel	370~430 HV min.	±0.005	±0.02	±0.03	±0.035	±0.04	±0.05	±0.20

Machining Conditions of Round Hole Type
 f_z≥2 a_z≥2
 m≥2 n≥2
 h_z≥2

Part Number Type		A 1 mm Increment	B 1 mm Increment	T (Selection)	0.5 mm Increment D	0.1 mm Increment E	0.1 mm Increment C	P
Low Carbon Steel Equivalent	Brass	10~150	10~150	(0.05)	3~100	D/2+2~	D/2+2 ~ B-(D/2+2)	D+3~
One Hole	ASACR ASACB ASACS			0.1				
Two Holes	ASFCR ASFCB ASFCS			0.2				
Three Holes	ASCCR ASCCB ASCCS	15~200	10~200	0.3				
				0.5				
				1.0				
				2.0				
				(3.0)				

⊖ For One Hole Type, specification of P is not necessary.

⊖ Low Carbon Steel Equivalent is not available for T (0.05) and T (3.0).

Part Number Example

Part Number - A - B - T - D - E - C - P
 ASACR - A50 - B25 - T0.1 - D7.5 - E25 - C11 -
 ASCCS - A120 - B15 - T3.0 - D10 - E15 - C7 - P45

Shim Plates

Standard / Configurable

Shim Plates – Standard / Configurable

Type		Material	Hardness	Tolerance by Thickness					
Standard Type	Dimension Configurable			0.05	0.1	0.2	0.3	0.5	1.0
CIRA	CIRAF	Low Carbon Steel Equivalent	—	—	±0.03	±0.04	±0.06	±0.11	
CIRAB	CIRABF	C28000 Brass	—	±0.005	±0.02	±0.03	±0.04	±0.05	
CIRAS	CIRASF	304 Stainless Steel	370~430 HV min.	±0.005	±0.02	±0.03	±0.035	±0.04	

A / B	A / B Tolerances		
	Standard Type		Configurable Type
20~	CIRA, CIRAS	CIRAB	±0.5
400~	—	—	±0.8
800~	±1.2	+5 0	±1.2

Standard Type

Part Number Type	T	Selection		Available Types																
		A	B	CIRA		CIRAB		CIRAS												
CIRA CIRAB CIRAS	(0.05) CIRA is not available	20 30 40	20 30	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		50 60 70	20 30	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		80 90 100	20 30	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		120 150	20 30	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		40 50 60	40 50	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		70 80 90	40 50	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		100 120	40 50	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		60 70 80	60 70	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		90 100	60 70	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		120 150	60 70	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		200	60 70	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
		80 90 100	80 90	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0
120 150	80 90	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
200	80 90	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
40 50 60	100 120	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
70 80 90	100 120	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
100 120	100 120	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
150	100 120	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
200	100 120	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
300	150	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
400	150	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
500	200	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
600	200	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
700	200	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
800	200	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
900	300	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
1000	320	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		
1200	365	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0	0.05	0.1	0.2	0.3	0.5	1.0		

⊖ Specify as A=B.

Configurable

Part Number Type	1 mm Increment		Selection
	A	B	
CIRAF CIRABF CIRASF	10~100	10~100	(0.05) CIRAF is not available
	101~200	20~100	
		101~200	
	201~300	20~100	
		101~200	
		201~300	
	301~400	20~100	
		101~200	
		201~300	
	401~500	20~100	
		101~200	
		201~300	
501~600	20~100		
	101~200		
	201~300		
601~800	20~100		
	101~200		
	201~300		
801~1000	20~100		
	101~200		
	201~300		

⊖ T=0.05 → B≤300

Part Number Example

Part Number - A - B
 CIRAB0.5 - 40 - 20

Part Number Example

Part Number - A - B - C
 CIRASF - 527 - 118 - 0.2