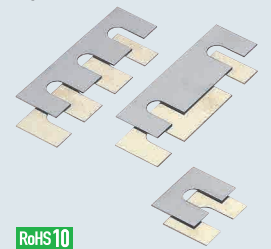




# Square Shims

## Slotted Hole / Round Hole

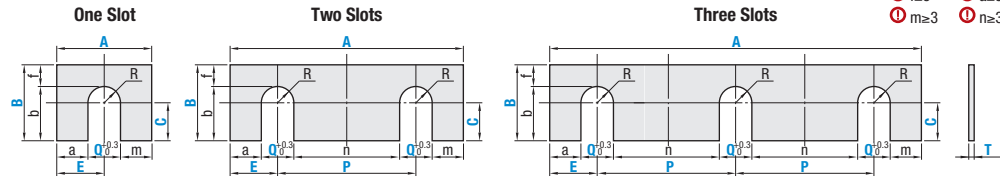
### Square Shims – Slotted Hole



RoHS10

Part Number			Material	Hardness	Tolerance by Thickness								
One Slot	Two Slots	Three Slots			0.05	0.1	0.15	0.2	0.3	0.5	1.0	2.0	3.0
ASAFR	ASFFR	ASCFR	Low Carbon Steel Equivalent	—	—	±0.03	—	±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	±0.12	±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	±0.025	±0.03	±0.035	±0.04	±0.05	±0.20	±0.25

Machining Conditions of Slotted Hole Type  
 Ⓢ f<sub>z</sub>3 Ⓢ a<sub>z</sub>3  
 Ⓢ m≥3 Ⓢ n≥3

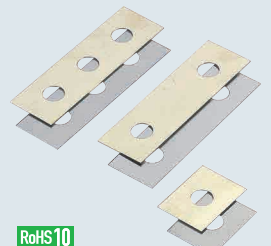


Part Number Type	A 1 mm Increment	B 1 mm Increment	T	0.5 mm Increment		0.1 mm Increment		P
				Q	E	C	P	
Low Carbon Steel Equivalent			(0.05)					Ⓢ For One Hole Type, specification of P is not necessary.
Brass			0.1					
304 Stainless Steel (H)			(0.15)					
One Hole	10~150	10~150	0.2					
Two Holes			0.3	3~31	Q/2+3~	0		
Three Holes			0.5			B-(Q/2+3)		
			1.0				Q+3~	
			2.0					
			(3.0)					

Ⓢ Low Carbon Steel Equivalent is not available for T(0.05) and T(3.0).  
 Ⓢ T(0.15) is for 304H only.

Part Number Example  
 ASFFB - A100 - B25 - T1.0 - Q12 - E15 - C12 - P70

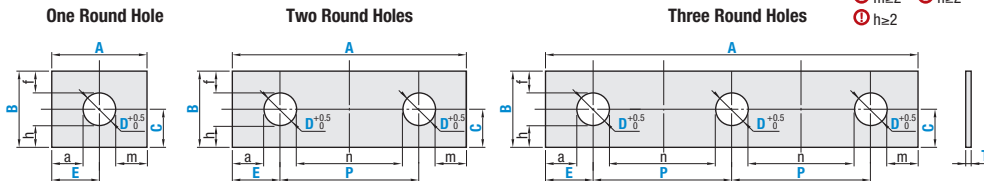
### Square Shims – Round Hole



RoHS10

Part Number			Material	Hardness	Tolerance by Thickness								
One Round Hole	Two Round Holes	Three Round Holes			0.05	0.1	0.15	0.2	0.3	0.5	1.0	2.0	3.0
ASACR	ASFCR	ASCCR	Low Carbon Steel or Equivalent	—	—	±0.03	—	±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	±0.12	±0.15
ASACS	ASFCS	ASCCS	T=0.05~1.0 304 Stainless Steel T=2.0 / 3.0 304 Stainless Steel	370~430 HV min.	±0.005	±0.02	±0.025	±0.03	±0.035	±0.04	±0.05	±0.20	±0.25

Machining Conditions of Round Hole Type  
 Ⓢ f<sub>z</sub>2 Ⓢ a<sub>z</sub>2  
 Ⓢ m≥2 Ⓢ n≥2  
 Ⓢ h≥2



Part Number Type	A 1 mm Increment	B 1 mm Increment	T (Selection)	D 0.5 mm Increment	0.1 mm Increment			P
					E	C	P	
Low Carbon Steel Equivalent			(0.05)					Ⓢ For One Hole Type, specification of P is not necessary.
Brass			0.1					
304 Stainless Steel (H)			(0.15)					
One Hole	10~150	10~150	0.2					
Two Holes			0.3	3~100	D/2+2~	D/2+2		
Three Holes			0.5			B-(D/2+2)		
			1.0				D+3~	
			2.0					
			(3.0)					

Ⓢ Low Carbon Steel Equivalent is not available for T (0.05) and T (3.0).  
 Ⓢ T (0.15) is for 304H only.

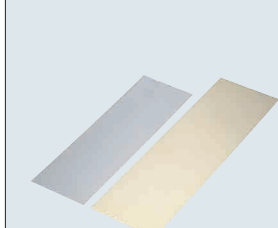
Part Number Example  
 ASCCR - A50 - B25 - T0.1 - D7.5 - E25 - C11 - P45  
 ASCCS - A120 - B15 - T3.0 - D10 - E15 - C7 - P45



# Shim Plates

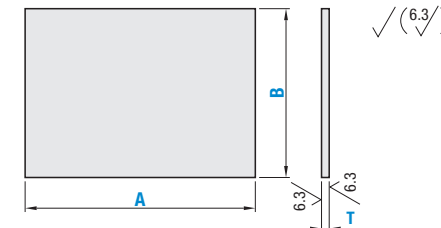
## Standard / Configurable

### Shim Plates – Standard / Configurable



RoHS10

Type		Material	Hardness	Tolerance by Thickness						
Standard Type	Dimension Configurable			0.05	0.1	0.15	0.2	0.3	0.5	1.0
CIRA	CIRAF	Low Carbon Steel Equivalent	—	—	±0.03	—	±0.03	±0.04	±0.06	±0.11
CIRAB	CIRABF	C28000 Brass	—	±0.005	±0.02	—	±0.03	±0.04	±0.05	±0.08
CIRAS	CIRASF	304 Stainless Steel	370~430 HV min.	±0.005	±0.02	±0.025	±0.03	±0.035	±0.04	±0.05



A / B	A / B Tolerances		
	Standard Type		Configurable Type
	CIRA, CIRAS	CIRAB	
20~	+0.5 0	—	±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													
				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			
CIRA CIRAB CIRAS	(0.05) CIRA is not available 0.1 (0.15) CIRA, CIRAB, CIRAS are not available 0.2 0.3 0.5 1.0	20 30 40	20 30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
		50 60 70	20 30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		80 90 100	20 30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		120 150	20 30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		40 50 60	40 50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		70 80 90	40 50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		100 120	40 50	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
		60 70 80	60 70	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		90 100	60 70	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		120 150	60 70	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		200	60 70	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
		80 90 100	80 90	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
120 150	80 90	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
200	80 90	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
100 120	100 120	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
150	100 120	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
200	100 120	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
150	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
200	150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
200	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
1000	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
1200	200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	320	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		
	365	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*		

Ⓢ 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 0.1 (0.15) CIRAF, CIRABF are not available 0.2 0.3 0.5 1.0
	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  
 CIRAB0.5 - 40 - 20

Part Number Example  
 CIRASF - 527 - 118 - 0.2