


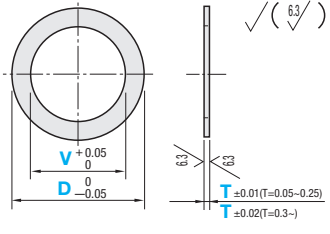
Precision Grade Shim Rings / Wave Washers

Standard / Configurable

Precision Grade Shim Rings



RoHS 10



$V +0.05$
 0
 $D -0.05$
 $T = 0.01(T=0.05-0.25)$
 $T = 0.02(T=0.3-)$

Standard, Sold by the package	Configurable	Material	Hardness
PCIMAS	CIMASF	SUS304H	370~430HV
PCIMAK	CIMAKF	SK	480~520HV

Standard, Sold by the package 1 package contains 10 pieces.

Part Number Type	D	V (I.D.) Selection	T Selection	Unit Price		
				T0.05	T0.1~0.3	T0.5, 1.0
5	3					
6	3 4					
7	3 4 5					
8	4 5 6					
9	4 5 6					
10	4 5 6 7 8					
11	5 6 7 8		0.05			
12	5 6 7 8		0.1			
13	7 8		0.2			
14	7 8 10		0.3			
15	8 10 12		0.5			
16	8 10 12		1.0			
20	8 10 12					
22	8 10 12					
25	8 10 12 18 21					
28		21 23				
30			24			

Configurable

Part Number	D	V	T Selection		Unit Price	
			CIMASF	CIMAKF	T0.05-0.3	T0.4-1.0
CIMASF (SUS304H)	0.5mm Increment	No Hole	0.05			
			0.06			
			0.07			
			0.08			
			0.09			
			0.1		0.05	
			0.15		0.1	
			0.2		0.2	
			0.25		0.3	
			0.3		0.5	
CIMAKF (SK)	0.5mm Increment	3.0~48.0	0.4			
			0.5			
			0.6			
			0.7			
			0.8			
			0.9			
			1.0			
			1.0			
			1.0			
			1.0			


T≤0.25→V≤D-2 0.3≤T→V≤D-4

Ordering Example: Part Number - D - V - T
 PCIMAS - D25 - V10 - T0.2
 CIMASF - D25 - V10 - T0.2

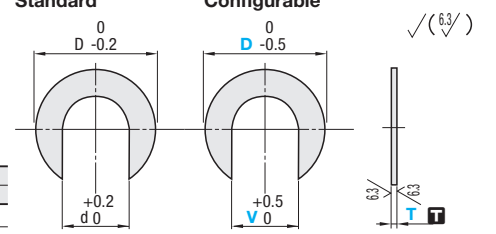
Shim (Split Type)

Standard / Configurable

Split Type



RoHS 10



Standard
 $D -0.2$
 $+0.2$
 d

Configurable
 $D -0.5$
 $+0.5$
 V
 T

Part Number	Configurable	Material	Hardness	Thickness (T) Tolerance						
				0.05	0.1	0.2	0.3	0.5	1.0	
CIMW	CIMWF	SPCC Equivalent	-	-	±0.03	±0.04	±0.06	±0.11		
CIMWB	CIMWBF	Brass (C2801P or C2680P)	-	±0.005	±0.02	±0.03	±0.04	±0.05	±0.08	
CIMWS	CIMWSF	SUS304H	370~430HV	±0.005	±0.02	±0.03	±0.035	±0.04	±0.05	
PACK-CIMWS	-	-	-	-	-	-	-	-	-	-

Standard

Part Number Type	No.	T	d	D	Unit Price		
					CIMW	CIMWB	CIMWS
6	(0.05)	6.5	12				
8	For CIMWB and CIMWS only	8.5	15				
10		10.5	20				
12	0.1	13	25				
16	0.2	17	30				
20	0.3	21	35				
24	0.5	25	40				
30	1.0	31	50				


Standard, Sold by the package 1 package contains 10 pieces.

Part Number Type	No.	T Selection	d	D	Unit Price			
					T0.05	T0.1~0.3	T0.5	T1.0
6			6.5	12				
8	0.05		8.5	15				
10	0.1		10.5	20				
12	0.2		13	25				
16	0.3		17	30				
20	0.5		21	35				
24	1.0		25	40				
30			31	50				

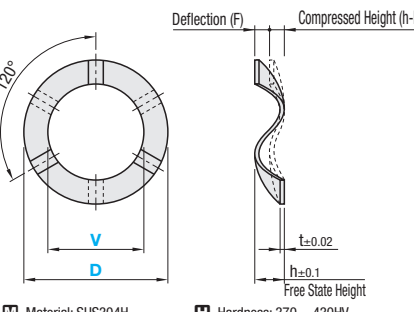
Ordering Example: Part Number - T
 CIMW10 - 0.2

Ordering Example: Part Number - T
 PACK-CIMWS12 - 0.1
 Please specify number of packages to order.
 Quantity 1 means one package.

Wave Washers



RoHS 10



Deflection (F)
 Compressed Height (h-F)
 120°
 V
 D
 $t \pm 0.02$
 $h \pm 0.1$
 Free State Height

Material: SUS304H Hardness: 370 ~ 430HV

Standard, Sold by the package 1 Package contains 30 pieces.

Part Number Type	V	D	t	h	Load (Reference Value)						Unit Price
					Deflection (F) (mm)	Compressed Height (h-F)	Load (N)	Deflection (F) (mm)	Compressed Height (h-F)	Load (N)	
3	+0.2	3.6	0	0.5	0.1	0.4	0.35	0.3	0.2	0.77	
	0	4.2	-0.2				0.73			1.96	
4		5		0.05			0.47			0.91	
		6					0.87			1.62	
		7		0.7	0.2	0.5	0.60	0.4	0.3	1.11	
5		8					0.69			1.25	
		10					0.75			1.42	
		8					3.68			8.39	
6		10					5.23			15.33	
		12					5.10			19.00	
		10	0				1.88			4.93	
8	+0.3	12	-0.3				2.93			8.72	
	0	16		0.1	1.0	0.3	2.84	0.7	0.3	11.00	
		12					1.03			2.71	
		14					1.31			4.46	
10		16					1.76			5.82	
		14					0.69			1.71	
		15					0.98			2.58	
		17					1.20			3.58	
		18					1.33			2.82	
16		20					2.56			5.95	
		28					4.28			12.61	
20	+0.5	24	0	0.15	1.5	0.5	1.43	1.0	0.5	3.31	
	0	28	-0.5				2.34			5.94	
		28					1.48			3.76	
22		30					1.74			4.59	
		30					5.40			8.78	
25	+0.9	35	0	0.2	3.0	1.0	8.20	2.0	1.0	16.25	
	0	35	-0.9				2.92			5.77	
30		38					4.30			9.29	

Ordering Example: Part Number - V - D
 PACK-WWS - V3 - D4.2

Configurable

Part Number	T Selection	V	D	Unit Price												
				0.5mm Increment	1mm Increment	CIMWF			CIMWBF			CIMWSF				
CIMWF CIMWBF CIMWSF	(0.05)	3~31	10~20	T0.1-0.3	T0.5	T1.0	T0.05	T0.1-0.3	T0.5	T1.0	T0.05	T0.1-0.3	T0.5	T1.0		
	0.1															
	0.2															
	0.3															
	0.5															
1.0																

V≤D-4

Ordering Example: Part Number - T - V - D
 CIMWF - 0.2 - 8.5 - 20