


Note that, for some of the types shown here, order might be unable to be received by the MISUMI Thailand, Malaysia, Indonesia, and/or India offices.

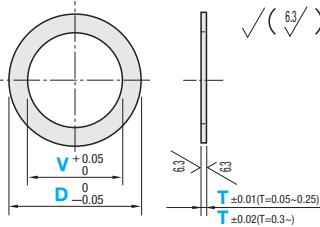
Precision Grade Shim Rings / Wave Washers

Standard / Configurable

Precision Grade Shim Rings



RoHS 10



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

| 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 | | | |


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

Configurable

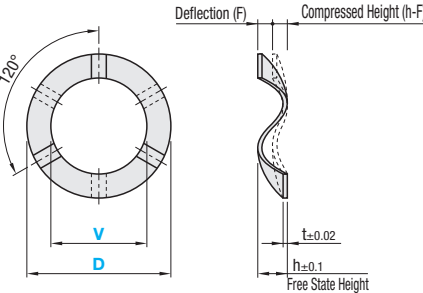
| Part Number | D | V | T Selection | | Unit Price | |
|------------------|---------|-------------|-------------|--------|------------|----------|
| | | | CIMASF | CIMAKF | T0.05-0.3 | T0.4-1.0 |
| CIMASF (SUS304H) | 5-10 | 0 (No Hole) | 0.05 | 0.05 | | |
| | | | 0.06 | | | |
| | 10.5-20 | 2.0 | 0.07 | | | |
| | | | 0.08 | | | |
| 20.5-30 | 2.6 | 0.09 | | | | |
| | | 0.1 | | | | |
| CIMAKF (SK) | 30.5-40 | 3.0~48.0 | 0.15 | 1.0 | | |
| | | | 0.2 | | | |
| | 40.5-50 | | 0.2 | | | |
| | | | 0.3 | | | |
| | | | 0.3 | | | |
| | | | 0.5 | | | |
| | | | 0.6 | | | |
| | | | 0.7 | | | |
| | | | 0.8 | | | |
| | | | 0.9 | | | |
| | | | 1.0 | | | |

T≤0.25...V≤D-2 0.3≤T...V≤D-4

Wave Washers



RoHS 10



V
 D
 h
 $t \pm 0.02$
 $h \pm 0.1$
 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) | h-F | Load (N) | Deflection (F) (mm) | h-F | Load (N) | |
| 3 | +0.2 | 3.6 | 0 | 0.5 | 0.1 | 0.4 | 0.35 | 0.3 | 0.2 | 0.77 | |
| 4 | 0 | 4.2 | -0.2 | 0.05 | | | 0.73 | 0.4 | 0.3 | 1.96 | |
| | | 5 | 0.47 | | | | 0.91 | | | | |
| | | 6 | 0.87 | | | | 1.62 | | | | |
| 5 | | 7 | | 0.7 | 0.2 | 0.5 | 0.60 | 0.4 | 0.3 | 1.11 | |
| | | 8 | 0.69 | | | | 1.25 | | | | |
| | | 10 | 0.75 | | | | 1.42 | | | | |
| 6 | | 8 | | 1.0 | 0.3 | 0.7 | 3.68 | 0.7 | 0.3 | 8.39 | |
| | | 10 | 5.23 | | | | 15.33 | | | | |
| | | 12 | 5.10 | | | | 19.00 | | | | |
| 8 | +0.3 | 10 | 0 | 0.1 | 1.0 | 0.3 | 1.88 | 0.7 | 0.3 | 4.93 | |
| | | 12 | -0.3 | | | | 2.93 | | | 8.72 | |
| | | 16 | | | | | 2.84 | | | 11.00 | |
| 10 | 0 | 12 | | 1.5 | 0.5 | 1.0 | 1.03 | 1.0 | 0.5 | 2.71 | |
| | | 14 | | | | | 1.31 | | | 4.46 | |
| | | 16 | | | | | 1.76 | | | 5.82 | |
| 12 | | 14 | | 3.0 | 1.0 | 2.0 | 0.69 | 2.0 | 1.0 | 1.71 | |
| | | 15 | | | | | 0.98 | | | 2.58 | |
| | | 17 | | | | | 1.20 | | | 3.58 | |
| 16 | | 18 | | 1.5 | 0.5 | 1.0 | 1.33 | 1.0 | 0.5 | 2.82 | |
| | | 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 | |
| | | 28 | -0.5 | | | | 2.34 | | | 5.94 | |
| | | 28 | | | | | 1.48 | | | 3.76 | |
| 22 | | 30 | | 0.2 | 3.0 | 1.0 | 1.74 | 1.0 | 1.0 | 4.59 | |
| 25 | +0.9 | 30 | 0 | | | | 5.40 | | | 8.78 | |
| 30 | 0 | 35 | -0.9 | | | | 8.20 | | | 16.25 | |
| | | 35 | | | 2.92 | 5.77 | | | | | |
| | | 38 | | | 4.30 | 9.29 | | | | | |

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