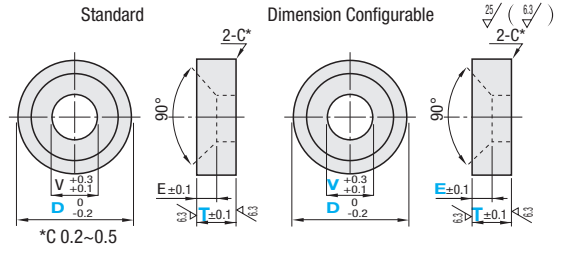


# Metal Washer

## Countersunk / With Screw Holes



Standard	Dimension Configurable	Material	Surface Treatment
-	FWSRC	S45C Equivalent	-
WSRB	FWSRB		Black Oxide
WSRM	FWSRM		Electroless Nickel Plating
-	FWSRA	2000Series Aluminum Alloy	Clear Anodize
WSRS	FWSRS	SUS304	-



### Countersunk, Standard

Part Number	Type	D	T Selection	E	V	Unit Price		
						WSRB	WSRM	WSRS
14	WSRB	14	2.5	2.5	4.5			
			4					
			5					
16	WSRB	16	3	3	5.5			
			4					
			5					
20	WSRB	20	3.5	3.5	6.6			
			4					
			5					
25	WSRB	25	5	5	9			
			6					
			8					
30	WSRB	30	6	6	11			
			8					

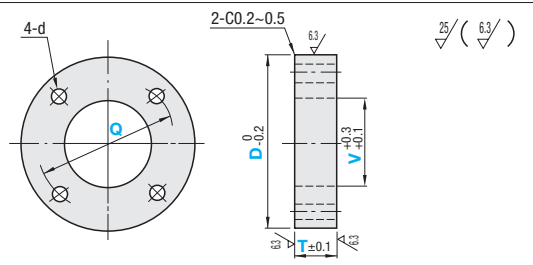
### Countersunk, Dimension Configurable

Part Number	D	V 0.5mm Increment (V3 or More)	E 0.5mm Increment	T 0.5mm Increment	Unit Price				
					FWSRC	FWSRB	FWSRM	FWSRA	FWSRS
FWSRC	10.0-20.0 (0.5mm Increment)	2.0	2.0-10.0	2.0-5.0					
FWSRB	21-30 (1mm Increment)	2.6	E=T	2.0-5.0					
FWSRM	31-40 (1mm Increment)	3-30	E=T	2.0-5.0					
FWSRA	41-50 (1mm Increment)	3-30	E=T	2.0-5.0					
FWSRS	51-60 (1mm Increment)	3-30	E=T	2.0-5.0					

⚠ (D-V)/2-E ≥ 1 → 1mm or more is required for the min. thickness.  
 ⚠ Circularity cannot be guaranteed because the thickness V becomes 0 when E=T.



Type	Material	Surface Treatment
WBAC	S45C Equivalent	-
WBAB		Black Oxide
WBAM		Electroless Nickel Plating
WBAA	2000Series Aluminum Alloy	Clear Anodize
WBAS	SUS304	-



Part Number	Type	D	V 0.5mm Increment	Q 0.5mm Increment	T 1mm Increment	d	Applicable Screw	Unit Price																						
								WBAC			WBAB			WBAM			WBAA			WBAS										
WBAC	WBAC	20	3.0-5.0	10.5-13.5	1-10	3.5	M3	T1-2	T3-5	T6-10	T1-2	T3-5	T6-10	T1-2	T3-5	T6-10	T2	T3-5	T6-10	T1-2	T3-5	T6-10								
								25	3.0-9.5	10.5-17	3.5	M3																		
								30	3.0-10.0	12-20	4.5	M4																		
								35	3.0-16.0	12-25	4.5	M4																		
								40	3.0-20.0	12-30	4.5	M4																		
								50	3.0-22.0	14-35	5.5	M5																		
60	3.0-28.0	14-40	5.5	M5																										

⚠ Q ≥ V + d + 4    ⚠ T ≥ 2 for WBAA.

**Ordering Example**

Part Number - **D** - **V** - **E** - **Q** - **T**

WSRM14 - D17.5 - V6.5 - E3 - Q18 - T3

FWSRS - D17.5 - V6.5 - E3 - T7.5

WBAB30 - V8 - Q18 - T3

**Alterations**

Part Number - **D** - **V** - **E** - **Q** - **T** - (TKC, FC)

FWSRB - D15 - V5 - E3 - T3.0 - TKC

WBAS40 - V10 - Q25 - T10 - FC3

⚠ Alterations are available for Dimension Configurable Type only.

Alterations	Code	Spec.
T Dimension Tolerance	TKC	Changes T dimension tolerance. Ordering Code TKC T ± 0.1 → ± 0.01 ⚠ Applicable to Countersunk Type only.
Blind Hole	FC	Changes V hole to blind hole. Ordering Code FC3 FC=1mm Increment ⚠ Applicable to Screw Holes Type only. ⚠ T-FC ≥ 2 ⚠ V ≥ 10    ⚠ FC ≥ 2