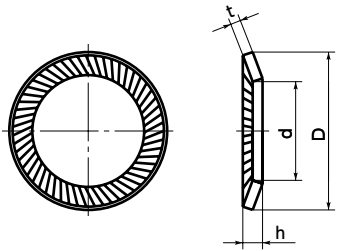


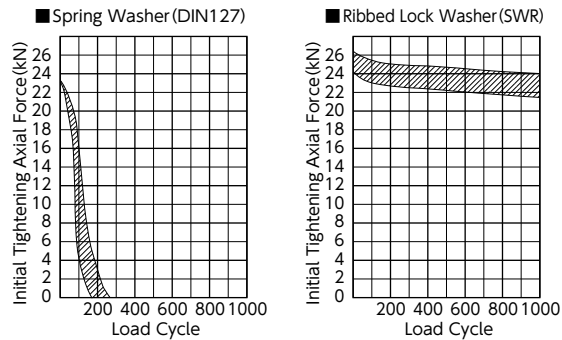
SWR/SWRS Ribbed Lock Washers

WEB Selection Tool | WEB CAD Download | SUS Stainless steel | Vibration resistant treatment



● Vibration test comparison

Test Hexagon Screws : DIN933 - 8.8-M10 - 35, Vibration : 15Hz, Amplitude : 0.5mm



- Ribs on both sides of the washer hook onto the bolt bearing surface and intended attachment section to prevent looseness due to vibration.
- Washers for losing prevention. For connecting locations that cannot use other means such as adhesives.
- More effective for losing prevention than standard spring washers.

● Application

Vibration Resistant

● Material/Finish



	SWR	SWRS
Main Body	Spring Steel(Hardness: 380 - 450 HV) Ferrosoferric Oxide Film (Black)	Stainless steel

⚠️ Precautions for Use

Ribs may not hook into some connecting locations, depending on their material. Confirm in advance that the ribs will hook.

SWR Made of Steel · Ferrosoferric Oxide Film

Unit : mm

Part Number	Nominal	d	D	t	h	Mass (g)	Qty per pack
SWR-2	2	2.2 ^{+0.3} ₀	4 ⁰ _{-0.3}	0.35	0.6	0.02	10
SWR-2.5	2.5	2.7 ^{+0.3} ₀	4.8 ⁰ _{-0.3}	0.45	0.9	0.04	10
SWR-3	3	3.2 ^{+0.3} ₀	5.5 ⁰ _{-0.3}	0.45	0.9	0.05	20
SWR-4	4	4.3 ^{+0.3} ₀	7 ⁰ _{-0.36}	0.5	1	0.08	20
SWR-5	5	5.3 ^{+0.3} ₀	9 ⁰ _{-0.36}	0.6	1.1	0.14	20
SWR-6	6	6.4 ^{+0.36} ₀	10 ⁰ _{-0.36}	0.7	1.2	0.23	20
SWR-8	8	8.4 ^{+0.36} ₀	13 ⁰ _{-0.43}	0.8	1.4	0.43	10
SWR-10	10	10.5 ^{+0.43} ₀	16 ⁰ _{-0.43}	1	1.6	0.82	10
SWR-12	12	13 ^{+0.43} ₀	18 ⁰ _{-0.43}	1.1	1.7	0.89	10
SWR-16	16	17 ^{+0.43} ₀	24 ⁰ _{-0.52}	1.3	2.1	2	10
SWR-20	20	21 ^{+0.52} ₀	30 ⁰ _{-0.62}	1.5	2.4	3.4	5

● The minimum order quantity is 1 piece.

→ P.xxxx

SWRS Made of Stainless Steel

Unit : mm

Part Number	Nominal	d	D	t	h	Mass (g)	Qty per pack
SWRS-1.6	1.6	1.7 ^{+0.3} ₀	3.2 ⁰ _{-0.3}	0.5	0.75	0.02	10
SWRS-2	2	2.2 ^{+0.3} ₀	4 ⁰ _{-0.3}	0.5	0.75	0.03	20
SWRS-2.5	2.5	2.7 ^{+0.3} ₀	4.8 ⁰ _{-0.3}	0.5	0.95	0.04	20
SWRS-3	3	3.2 ^{+0.3} ₀	5.5 ⁰ _{-0.3}	0.5	0.95	0.05	20
SWRS-4	4	4.3 ^{+0.3} ₀	7 ⁰ _{-0.36}	0.7	1.2	0.08	20
SWRS-5	5	5.3 ^{+0.3} ₀	9 ⁰ _{-0.36}	0.7	1.2	0.14	10
SWRS-6	6	6.4 ^{+0.36} ₀	10 ⁰ _{-0.36}	0.7	1.2	0.23	10
SWRS-8	8	8.4 ^{+0.36} ₀	13 ⁰ _{-0.43}	1	1.6	0.43	10
SWRS-10	10	10.5 ^{+0.43} ₀	16 ⁰ _{-0.43}	1	1.6	0.82	5
SWRS-12	12	13 ^{+0.43} ₀	18 ⁰ _{-0.43}	1.3	1.85	0.89	5
SWRS-16	16	17 ^{+0.43} ₀	24 ⁰ _{-0.52}	1.5	2.3	2	5
SWRS-20	20	21 ^{+0.52} ₀	30 ⁰ _{-0.62}	1.8	2.8	3.4	5

● The minimum order quantity is 1 piece.

→ P.xxxx

● Part number specification

SWR-10



Order in number of packs.

Also sold separately from 1 piece up. → P.xxxx

Individual Sales → P.xxxx	Cleanroom Wash & Packaging → P.xxxx	Screw Length Adjustment → P.xxxx	Vibration Resistant → P.xxxx	Modification process for captive use → P.xxxx
Available / Add'l charge	S.S. only/ Add'l charge	Not Available	Not Available	Not Available