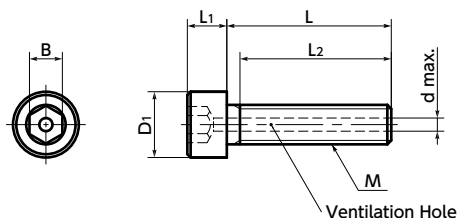
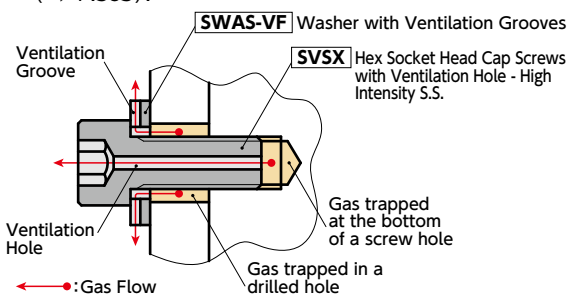


SVSX Hex Socket Head Cap Screws with Ventilation Hole - High Intensity S.S.

WEB Selection Tool CAD Download Vacuum Cleanroom wash & packaging Heat-resistance Chemical-proof Non-Magnetic High strength SUS Stainless steel



- Usage example
Gas trapped at the bottom of a screw hole is released through **SVSX**, and gas trapped in a drilled hole is released through **SWAS-VF** (→ P.583).



- Part number specification

SVSX - M5 - 25 - 88

Product Code 1 2 Strength Class

- Made of high strength stainless steel (Strength class 8.8).
- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Excellent heat resistance and corrosion resistance.
- Nonmagnetic.
- About the characteristics of SUS316L HiMo → P.625

- Application

Vacuum devices, vacuum chambers, FPD production equipment, semiconductor devices, and electron microscopes

- Material/Finish

	SVSX
Main Body	SUS316L HiMo
Strength Class	8.8

- Related Products

For ventilation of drilled hole, please use **SWAS-VF**. → P.583**SVSX**, which does not have a ventilation hole, is available. → P.625

Part Number	M	1	L	2	D1	L1	L2*1	B	d	Mass (g)
SVSX-M3-88	M3	6	8	10 12 16 20 25	5.5	3	18(L=25)	2.5	1.2	0.71 - 1.6
SVSX-M4-88	M4	6	8	10 12 16 20 25	7	4	Full Thread	3	1.5	1.5 - 3.2
SVSX-M5-88	M5			10 12 16 20 25 30	8.5	5	22(L=30)	4	1.5	2.7 - 5.6
SVSX-M6-88	M6			12 16 20 25 30 10	10	6	Full Thread	5	2	5.1 - 8.3

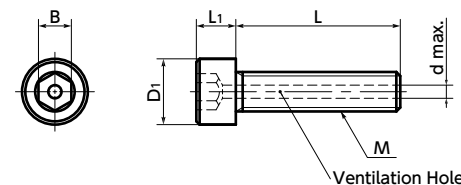
*1: If the "L" value is other than the value in parentheses, the screw is full thread.

Part Number	Qty per pack
SVSX-M3-88	1
SVSX-M4-88	1
SVSX-M5-88	1
SVSX-M6-88	1

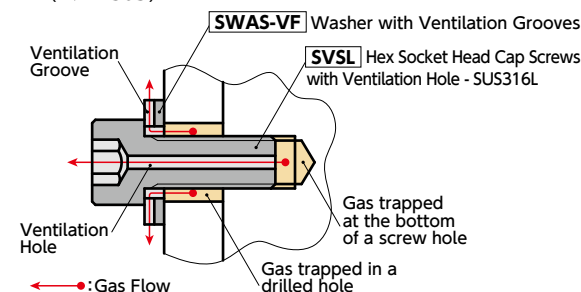
1 Individual Sales → P.809 Cleanroom Wash & Packaging → P.807 Screw Length Adjustment → P.811 Vibration Resistant → P.810 Modification process for captive use → P.806
1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge Not Available Please feel free to contact us

SVSL Hex Socket Head Cap Screws with Ventilation Hole - SUS316L

WEB Selection Tool CAD Download Vacuum Cleanroom wash & packaging Heat-resistance SUS Stainless steel



- Usage example
Gas trapped at the bottom of a screw hole is released through **SVSL**, and gas trapped in a drilled hole is released through **SWAS-VF** (→ P.583).



- Part number specification

SVSL-M5-25

1 2

Order in number of packs.
Also sold separately from 1 piece up. → P.809

- Made of SUS316L. Excellent corrosion resistance.
- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Cleanroom wash and cleanroom packing are completed. → P.807

- Application

Vacuum devices, vacuum chambers, FPD production equipment, semiconductor devices, and electron microscopes

- Material/Finish

	SVSL
Main Body	SUS316L
Strength Class	A4-70

- Related Products

For ventilation of drilled hole, please use **SWAS-VF**. → P.583

Part Number	M	L	2	D1	L1	B	d	Mass (g)
SVSL-M3	M3	5	6 8 10 12 16	5.5	3	2.5	1.2	0.67 - 1.2
SVSL-M4	M4	5	6 8 10 12 16 20 25	7	4	3	1.5	1.4 - 3.2
SVSL-M5	M5		6 8 10 12 16 20 25	8.5	5	4	1.5	2.2 - 4.8
SVSL-M6	M6		8 10 12 16 20 25 30	10	6	5	2	4.3 - 8.3
SVSL-M8	M8		12 16 20 25 30 35	13	8	6	2	11 - 19
SVSL-M10	M10		16 20 25 30 35 40	16	10	8	3	21 - 33
SVSL-M12	M12		30 35 40 45 18 12 10	18	12	10	3	39 - 50

Part Number	Qty*1 per pack
SVSL-M3	20
SVSL-M4	20
SVSL-M5	10
SVSL-M6	10
SVSL-M8	10
SVSL-M10	5
SVSL-M12	5

*1: Also sold separately from 1 piece up. → P.809

1 Individual Sales → P.809 Cleanroom Wash & Packaging → P.807 Screw Length Adjustment → P.811 Vibration Resistant → P.810 Modification process for captive use → P.806
Available / Add'l charge Cleanroom washed and packed Available / Add'l charge Not Available Please feel free to contact us



 RoHS2 Compliant

SNSX-88																	Unit : mm	
Part Number	M	L 										Strength Class	D1	L1	B	L2*1	Mass (g)	
SNSX-M3-88	M3	6	8	10	12	16	20	25				8.8	5.5	3	2.5	18(L=25)	0.71 - 1.6	
SNSX-M4-88	M4	6	8	10	12	16	20	25				8.8	7	4	3	Full Thread	1.5 - 3.2	
SNSX-M5-88	M5			10	12	16	20	25	30			8.8	8.5	5	4	22(L=30)	2.7 - 5.6	
SNSX-M6-88	M6				12	16	20	25	30			8.8	10	6	5	Full Thread	5.1 - 8.3	
SNSX-M8-88	M8					16	20	25	30	35	40	8.8	13	8	6	28(L=40)	12 - 21	

Part Number	Qty per pack
SNSX-M3-88	1
SNSX-M4-88	1
SNSX-M5-88	1
SNSX-M6-88	1
SNSX-M8-88	1

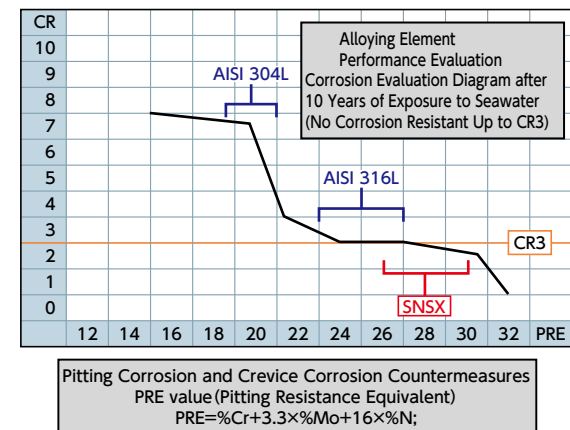
SNSX-109											Unit : mm		
Part Number	M	L						Strength Class	D ₁	L ₁	B	L ₂ * ¹	Mass (g)
SNSX-M6-109	M6	16	20	25	30	40	50	10.9	10	6	5	24(L≥40)	5.8 - 13
SNSX-M8-109	M8	16	20	25	30	40	50	10.9	13	8	6	28(L≥40)	12 - 25
SNSX-M10-109	M10		20	25	30	40	50	10.9	16	10	8	32(L=50)	23 - 39
SNSX-M12-109	M12				30	40	50	10.9	18	12	10	Full Thread	39 - 55

Part Number	Qty per pack
SNSX-M6-109	1
SNSX-M8-109	1
SNSX-M10-109	1
SNSX-M12-109	1

Part Number • Strength Class \ Property	Tensile Strength (N / mm ²)	Proof Stress (N / mm ²)	Elongation after Break Minimum (mm)
A2-50 • A4-50	500	210	0.6d
A2-70 • A4-70	700	450	0.4d
SNSX-88 8.8	800	640	0.3d
SNSX-109 10.9	1,000	900	0.2d

Part Number • Material	20°C	100°C	200°C	300°C	400°C	500°C	600°C
SNSX-88 SUS316L HiMo	640	576	576	544	512	480	448
SNSX-109 SUS316L HiMo	900	855	855	855	810	810	765
SUSXM7	450	382	360	337	315	—	—
SCM435	1,100	1,020	925	825	—	—	—

The chart above shows the degree of corrosion after 10 years of exposure to conditions similar to seawater environment, and there was no corrosion for CR3 or lower.



Part Number • Material	Amplitude Permeability
SNSX-88 SUS316L HiMo	1.006
SNSX-109 SUS316L HiMo	1.007
SNSL SUS316L	1.015
SUSXM7	1.4

➔ P.571

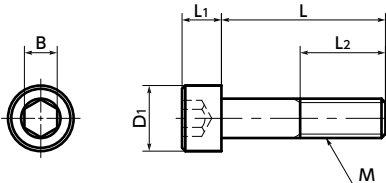


SNSX - M3-25-88

Product Code  1  2  3

SNST Hex Socket Head Cap Screws - Titanium

WEB Selection Tool WEB CAD Download Cleanroom wash & packaging Chemical-proof Non-Magnetic Lightweight



Physical property

	TB340C (Grade 2 Titanium)
Specific Gravity	4.51
Melting Point (°C)	1668
Longitudinal Elastic Modulus (GPa)	106
Thermal Conductivity (W/(m·K))	17.16
Linear Expansion Coefficient (K ⁻¹)	8.4×10 ⁻⁶
Electric Resistance (μΩ·m)	0.55
Amplitude Permeability (μ)	1.0001 (Nonmagnetic)

Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	TB340C (Grade 2 Titanium)
Tensile Strength (N/mm ²)	340 - 510
0.2% Proof Stress (N/mm ²)	215 or Higher
Elongation (%)	23 or Higher

Values in chart are for reference only. They are not guaranteed values.

Part number specification

SNST-M5-20



- Specific gravity is approximately by 60% of stainless steel.
- Nonmagnetic.
- Excellent chemical and seawater resistance.
- About the features of titanium ➡ P.633

- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.



Application

Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, aquatic applications, and electrochemical plating

Material/Finish

	SNST
Main Body	TB340C (Grade 2 Titanium)

																		Unit : mm			
Part Number 1	M	L 2												D1	L1	B	L2*1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)	
SNST-M3	M3	5	6	8	10	12	16	20						5.5	3	2.5	Full Thread	3210	1.5	0.38 - 0.77	
SNST-M4	M4			8	10	12	16	20	25	30				7	4	3	20(L=30)	5610	3.4	0.94 - 2.1	
SNST-M5	M5				10	12	16	20	25	30	35			8.5	5	4	22(L≥30)	9080	7.1	1.5 - 3.6	
SNST-M6	M6				10	12	16	20	25	30	35	40	45	50	10	6	5	24(L≥35)	12800	12	2.7 - 7.5

*1 : If the " L " value is not in parentheses, the screw is full thread.

*2 : Values in chart are for reference only. They are not guaranteed values.

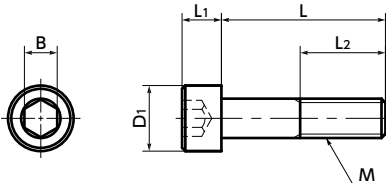
Part Number	Qty per pack
SNST-M3	1
SNST-M4	1
SNST-M5	1
SNST-M6	1

1 Individual Sales ➡ P.809 Cleanroom Wash & Packaging ➡ P.807 Screw Length Adjustment ➡ P.811 Vibration Resistant ➡ P.810 Modification process for captive use ➡ P.806

1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge Available / Add'l charge Available / Add'l charge

SNSTG Hex Socket Head Cap Screws - High Intensity Titanium Alloy

WEB Selection Tool WEB CAD Download Cleanroom wash & packaging Non-Magnetic High strength Lightweight



Physical property

	Ti-6Al-4V (64 Titanium)
Specific Gravity	4.43
Melting Point (°C)	1540
Longitudinal Elastic Modulus (GPa)	113
Thermal Conductivity (W/(m·K))	7.5
Linear Expansion Coefficient (K ⁻¹)	8.8×10 ⁻⁶
Electric Resistance (μΩ·m)	1.7
Amplitude Permeability (μ)	1.0002 (Nonmagnetic)

Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	Ti-6Al-4V (64 Titanium)
Tensile Strength (N/mm ²)	895 or Higher
0.2% Proof Stress (N/mm ²)	825 or Higher
Elongation (%)	10 or Higher

Values in chart are for reference only. They are not guaranteed values.

Screws made of high strength titanium alloy.

- Specific gravity is approximately 60% of stainless steel.

Nonmagnetic.

- These screws are resistant to corrosion and are particularly strong against seawater.

- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.

About the properties of titanium ➡ P.633

Application

Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, and aquatic applications

Material/Finish

	SNSTG
Main Body	Ti-6Al-4V (64 Titanium)

Part number specification

SNSTG-M5-20



																	Unit : mm		
Part Number	M	L											D ₁	L ₁	B	L ₂ *1	Tension*2 Rupture Load (N)	Mass (g)	
SNSTG-M3	M3	6	8	10	12	16	20						5.5	3	2.5	Full Thread	5240	0.4 - 0.77	
SNSTG-M4	M4		8	10	12	16	20	25	30				7	4	3	Full Thread	8850	0.94 - 2.1	
SNSTG-M5	M5			10	12	16	20	25	30	35			8.5	5	4	Full Thread	14700	1.5 - 3.6	
SNSTG-M6	M6			10	12	16	20	25	30	35	40	45	50	10	6	5	45(L=50)	20800	2.7 - 7.5
SNSTG-M8	M8					16	20	25	30	35	40	45	50	13	8	6	45(L=50)	33700	6.9 - 14
SNSTG-M10	M10					16	20	25	30	35	40	45	50	16	10	8	45(L=50)	58900	12 - 22

*1 : If the " L " value is not in parentheses, the screw is full thread.

*2 : Values in chart are for reference only. They are not guaranteed values.

Part Number	Qty per pack
SNSTG-M3	1
SNSTG-M4	1
SNSTG-M5	1
SNSTG-M6	1
SNSTG-M8	1
SNSTG-M10	1

1 Individual Sales ➡ P.809 Cleanroom Wash & Packaging ➡ P.807 Screw Length Adjustment ➡ P.811 Vibration Resistant ➡ P.810 Modification process for captive use ➡ P.806

1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge Available / Add'l charge Available / Add'l charge

e-nedzi.com®

SNPTG Cross Recessed Pan Head Machine Screws - High Intensity Titanium Alloy

 WEB Selection Tool

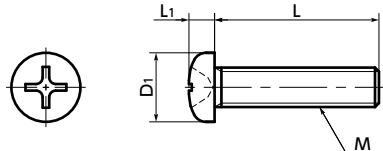
 WEB CAD Download

 Cleanroom wash & packaging

 Non-Magnetic

 High strength

 Lightweight



Physical property

	Ti-15-3-3-3 (β Titanium)
Specific Gravity	4.8
Longitudinal Elastic Modulus (GPa)	90
Amplitude Permeability (μ)	1.0002 (Nonmagnetic)

• Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	Ti-15-3-3-3 (β Titanium)
Tensile Strength (N/mm²)	705 - 945
0.2% Proof Stress (N/mm²)	690 - 835
Elongation (%)	12 or Higher

• Values in chart are for reference only. They are not guaranteed values.

- Screws made of high strength titanium alloy.
- Specific gravity is approximately 60% of stainless steel.
- Nonmagnetic.
- These screws are resistant to corrosion and are particularly strong against seawater.
- About the properties of titanium ➡ P.633
- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.

SNPTG

Unprocessed



Application

Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, and aquatic applications

Material/Finish

 RoHS2 Compliant

	SNPTG
Main Body	Ti-15-3-3-3 (β Titanium)

Part number specification

SNPTG-M5-20

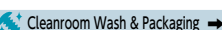
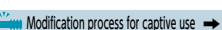
1

2

Part Number	M	L 2							D1	L1	Tension*1 Rupture Load (N)	Mass (g)
		6	8	10	12	15	20	25				
SNPTG-M3	M3	6	8	10	12	15	20		5.5	2	4170	0.33 - 0.68
SNPTG-M4	M4	6	8	10	12	15	20	25	7	2.6	7520	0.63 - 1.5
SNPTG-M5	M5		8	10	12	15	20	25	9	3.3	11900	1.4 - 2.6

*1 : Values in chart are for reference only. They are not guaranteed values.

Part Number	Qty per pack
SNPTG-M3	1
SNPTG-M4	1
SNPTG-M5	1

1 Individual Sales ➡ P.809	 Cleanroom Wash & Packaging ➡ P.807	 Screw Length Adjustment ➡ P.811	 Vibration Resistant ➡ P.810	 Modification process for captive use ➡ P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

SNPT Cross Recessed Pan Head Machine Screws - Titanium

 WEB Selection Tool

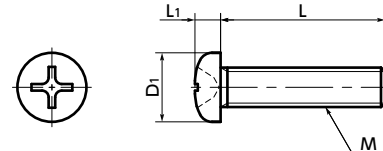
 WEB CAD Download

 Cleanroom wash & packaging

 Chemical-proof

 Non-Magnetic

 Lightweight



Physical property

	TW270 (Grade 1 Titanium)
Specific Gravity	4.51
Melting Point (°C)	1668
Longitudinal Elastic Modulus (GPa)	106
Thermal Conductivity (W/(m·K))	17.16
Linear Expansion Coefficient (K ⁻¹)	8.4×10 ⁻⁶
Electric Resistance (μΩ·m)	0.55
Amplitude Permeability (μ)	1.0001 (Nonmagnetic)

• Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	TW270 (Grade 1 Titanium)
Tensile Strength (N/mm²)	270 - 410
0.2% Proof Stress (N/mm²)	165 or Higher
Elongation (%)	27 or Higher

• Values in chart are for reference only. They are not guaranteed values.

Part number specification

SNPT-M5-20

1

2

- Specific gravity is approximately 60% of stainless steel.
- Nonmagnetic.
- Excellent chemical and seawater resistance.
- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.
- About the features of titanium ➡ P.633

Application

Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, aquatic applications, and electrochemical plating

Material/Finish

 RoHS2 Compliant

	SNPT
Main Body	TW270 (Grade 1 Titanium)

Related Products

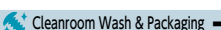
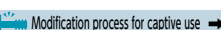
 SHNT Titanium Hex Nut,
 SWUT Titanium Hex Lock Nut,
and  SWAT Titanium Washer
are available.
➡ P.641 - 643



Part Number	M	L 2							D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
		5	6	8	10	12	16	20					
SNPT-M2	M2	5	6	8	10				3.5	1.3	840	0.3	0.09 - 0.14
SNPT-M2.5	M2.5	5	6	8	10	12			4.5	1.7	1380	0.5	0.17 - 0.3
SNPT-M3	M3		6	8	10	12	16	20	5.5	2	2360	1	0.31 - 0.63
SNPT-M4	M4		6	8	10	12	16	20	7	2.6	4120	2.4	0.59 - 1.4
SNPT-M5	M5			8	10	12	16	20	9	3.3	6670	5.1	1.3 - 2.8

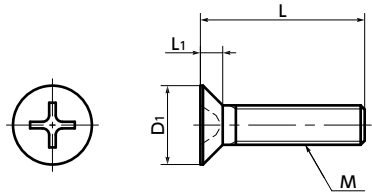
*1 : Values in chart are for reference only. They are not guaranteed values.

Part Number	Qty per pack
SNPT-M2	1
SNPT-M2.5	1
SNPT-M3	1
SNPT-M4	1
SNPT-M5	1

1 Individual Sales ➡ P.809	 Cleanroom Wash & Packaging ➡ P.807	 Screw Length Adjustment ➡ P.811	 Vibration Resistant ➡ P.810	 Modification process for captive use ➡ P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

SNFT Cross Recessed Flat Head Machine Screws - Titanium

WEB Selection Tool WEB CAD Download Cleanroom wash & packaging Chemical-proof Non-Magnetic Lightweight



Physical property

	TW270 (Grade 1 Titanium)
Specific Gravity	4.51
Melting Point (°C)	1668
Longitudinal Elastic Modulus (GPa)	106
Thermal Conductivity (W/(m·K))	17.16
Linear Expansion Coefficient (K ⁻¹)	8.4×10 ⁻⁶
Electric Resistance (μΩ·m)	0.55
Amplitude Permeability (μ)	1.0001 (Nonmagnetic)

• Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	TW270 (Grade 1 Titanium)
Tensile Strength (N/mm ²)	270 - 410
0.2% Proof Stress (N/mm ²)	165 or Higher
Elongation (%)	27 or Higher

• Values in chart are for reference only. They are not guaranteed values.

- Specific gravity is approximately 60% of stainless steel.
- Nonmagnetic.
- Excellent chemical and seawater resistance.
- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.
- About the features of titanium → P.633
- Also, titanium screws with special specifications such as ventilation holes, dimensions, shapes, cleanroom washing, and special packaging are available. Please contact our customer service.



Application

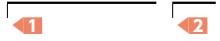
Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, aquatic applications, and electrochemical plating

Material/Finish

	SNFT
Main Body	TW270 (Grade 1 Titanium)

Part number specification

SNFT-M4-10



Unit : mm										
Part Number	M	L				D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SNFT-M3	M3	6	8	10		6	1.75	2360	1	0.31 - 0.4
SNFT-M4	M4	6	8	10	12	8	2.3	4120	2.4	0.59 - 0.86

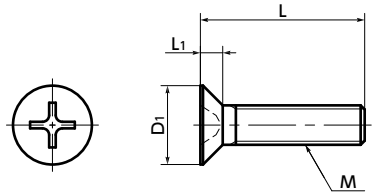
*1 : Values in chart are for reference only. They are not guaranteed values.

Part Number	Qty per pack
SNFT-M3	1
SNFT-M4	1

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Not Available

SNFTG Cross Recessed Flat Head Machine Screws - High Intensity Titanium Alloy

WEB Selection Tool WEB CAD Download Cleanroom wash & packaging Non-Magnetic High strength Lightweight



Physical property

	Ti-15-3-3-3 (β Titanium)
Specific Gravity	4.8
Longitudinal Elastic Modulus (GPa)	90
Amplitude Permeability (μ)	1.0002 (Nonmagnetic)

• Values in chart are for reference only. They are not guaranteed values.

Mechanical property

	Ti-15-3-3-3 (β Titanium)
Tensile Strength (N/mm ²)	705 - 945
0.2% Proof Stress (N/mm ²)	690 - 835
Elongation (%)	12 or Higher

• Values in chart are for reference only. They are not guaranteed values.

Part number specification

SNFTG-M5-20



- Screws made of high strength titanium alloy.
- Specific gravity is approximately 60% of stainless steel.
- Nonmagnetic.
- These screws are resistant to corrosion and are particularly strong against seawater.
- About the properties of titanium → P.633
- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.



Application

Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, and aquatic applications

Material/Finish

	SNFTG
Main Body	Ti-15-3-3-3 (β Titanium)

RoHS2 Compliant

Unit : mm												
Part Number	M	L							D1	L1	Tension*1 Rupture Load (N)	Mass (g)
SNFTG-M3	M3	6	8	10	12	15	20		6	1.75	4170	0.33 - 0.68
SNFTG-M4	M4		8	10	12	15	20	25	8	2.3	7520	0.73 - 1.5
SNFTG-M5	M5		8	10	12	15	20	25	10	2.8	11900	1.4 - 2.6

*1 : Values in chart are for reference only. They are not guaranteed values.

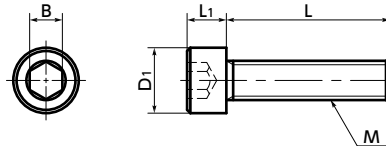
Part Number	Qty per pack
SNFTG-M3	1
SNFTG-M4	1
SNFTG-M5	1

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Not Available



SNS-EL Hex Socket Head Cap Screws - Electroless Nickel Plating

WEB Selection Tool WEB CAD Download High strength



- Our unique processing technology enables screws to meet strength class 12.9 after surface treatment.
- For applications that require both high strength (Strength Class 12.9) and corrosion resistance.

• Application

Equipment and device structures, FPD production equipment, semiconductor devices, and general industrial machines

• Material/Finish



	SNS-EL
Main Body	SCM435 Electroless Nickel Plating
Strength Class	12.9

Unit : mm

Part Number	M	1	L	2										D1	L1	B	Mass (g)
SNS-M3-EL	M3	5	6	8	10	12	16	20						5.5	3	2.5	0.67 - 1.4
SNS-M4-EL	M4	5	6	8	10	12	16	20	25					7	4	3	1.4 - 3.2
SNS-M5-EL	M5		6	8	10	12	16	20	25					8.5	5	4	2.2 - 4.8
SNS-M6-EL	M6			8	10	12	16	20	25	30				10	6	5	4.3 - 8.3
SNS-M8-EL	M8				10	12	16	20	25	30	35			13	8	6	10 - 19
SNS-M10-EL	M10							20	25	30	35	40		16	10	8	23 - 33

Part Number	Qty*1 per pack
SNS-M3-EL	20
SNS-M4-EL	20
SNS-M5-EL	20
SNS-M6-EL	10
SNS-M8-EL	10
SNS-M10-EL	10

*1 : Also sold separately from 1 piece up. ➡ P.809

• Part number specification

SNS-M5-16-EL

Product Code 1 2 Product Code

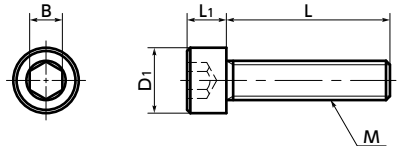
Order in number of packs.
Also sold separately from 1 piece up. ➡ P.809

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Available / Add'l charge	Please feel free to contact us



SNSL-PN Hex Socket Head Cap Screws - SUS316L / Surface hardening treatment

WEB Selection Tool WEB CAD Download Seizing Prevention



⚠ Precautions for Use

May have lower corrosion resistance than general SUS316L.
We recommend performing a test under the same usage conditions as in actual usage in advance.

- Hardening the screw surface prevents screw seizing / sticking.
- Unlike platings or coatings, there is nothing adhering to the surface, eliminating concerns about contamination due to stripping during tightening.
- Suitable for preventing seizing and sticking in environments where lubricant cannot be used.

• Application

Seizing & Sticking Prevention
FPD production devices / semiconductor production devices / food machinery / general industry machinery

• Material/Finish



	SNSL-PN
Main body	SUS316L Surface hardening treatment
Strength Class	A4-70

Unit : mm

Part Number	M	1	L	2										D1	L1	B	Mass (g)
SNSL-M3-PN	M3	6	8	10	12									5.5	3	2.5	0.71 - 0.96
SNSL-M4-PN	M4		8	10	12	16	20							7	4	3	1.7 - 2.7
SNSL-M5-PN	M5		8	10	12	16	20							8.5	5	4	2.5 - 4
SNSL-M6-PN	M6			10	12	16	20	25	30					10	6	5	4.7 - 8.3
SNSL-M8-PN	M8					16	20	25	30	35				13	8	6	12 - 19

Part Number	Qty per pack
SNSL-M3-PN	1
SNSL-M4-PN	1
SNSL-M5-PN	1
SNSL-M6-PN	1
SNSL-M8-PN	1

• Part number specification

SNSL-M5-16-PN

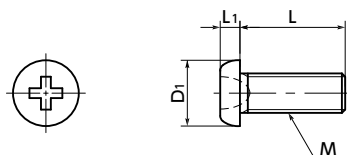
Product Code 1 2 Product Code

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
1 unit in 1 bag	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Please feel free to contact us

SPA-MC Plastic screw - Fine Thread - RENY Additional Size

WEB Selection Tool WEB CAD Download High strength Miniature Size

e-nedzi.com



Material/Finish

RoHS2 Compliant

	SPA-MC
Main body	RENY*1 (Glass Fiber 50% Reinforced Polyamide MXD6) (Ivory)
Heat resistance temperature*2	105°C

- *1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.
- *2: A value of plastic materials. The allowable operating temperature of the product varies depending on use conditions such as tightening torque.

- Fine screws for precision devices.
- RENY is thermoplastic engineering plastics with excellent tensile strength and bending strength.
- It is highly fatigue-resistant and has excellent creeping and heat insulation properties.
- While it is nearly as strong as metal, its weight is approximately 1/5 of iron.
- Plastic screw properties and precautions for use → P.735

Application

Heat insulation and dew condensation prevention of electric and electronic devices / refrigerating and freezing facilities / Weight saving of offshore instruments, plating facility and automobile, aircraft and space equipment, etc.

Unit : mm

Part Number	M	L	D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPA-M1.2-MC	M1.2	2 2.5 3 4	1.8	0.5	80.9	0.018	0.015 - 0.018
SPA-M1.4-MC	M1.4	2 2.5 3 4	2	0.5	61.4	0.018	0.016 - 0.019
SPA-M1.6-MC	M1.6	2.5 3 4 6	2.3	0.5	54.1	0.023	0.019 - 0.026

*1: Values in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque.

Part Number	Qty per pack*1
SPA-M1.2-MC	10
SPA-M1.4-MC	10
SPA-M1.6-MC	10

*1: Also sold separately from 1 piece up. → P.809

Part number specification

SPA - M1.6 - 4 - MC

Product Code 1 Product Code 2

Order in number of packs.

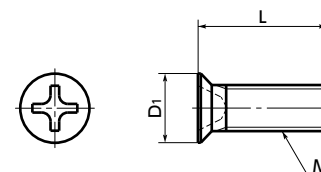
Also sold separately from 1 piece up. → P.809

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-MF Plastic Screw (RENY/Machine Screw for Precision Instruments) NEW

WEB Selection Tool WEB CAD Download High strength Miniature Size

e-nedzi.com



- Fine screws for precision devices.
- RENY is thermoplastic engineering plastics with excellent tensile strength and bending strength.
- It is highly fatigue-resistant and has excellent creeping and heat insulation properties.
- While it is nearly as strong as metal, its mass is about 1/5 of iron.
- Plastic screw properties and precautions for use → P.735

Application

Heat insulation and dew condensation prevention of electric and electronic devices / refrigerating and freezing facilities / Weight saving of offshore instruments, plating facility and automobile, aircraft and space equipment, etc.

Material/Finish

RoHS2 Compliant

	SPA-MF
Main unit	RENY*1 (Glass Fiber 50% Reinforced Polyamide MXD6) (Ivory)
Heat resistance temperature*2	105°C

- *1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.
- *2: A value of plastic materials. The allowable operating temperature of the product varies depending on use conditions such as tightening torque.

Unit : mm

Part Number	M	L	D1	Tension Rupture Load*1 (N)	Torsional Torque*1 (N·m)	Mass(g)
SPA-M1.2-MF	M1.2	2.5 4	2.3	98.5	0.022	0.005 - 0.007
SPA-M1.4-MF	M1.4	2.5 4	2.5	127.7	0.039	0.006 - 0.008
SPA-M1.6-MF	M1.6	2.5 4	2.8	127.7	0.056	0.008 - 0.011

*1: Values in chart are for reference only. They are not guaranteed values. The recommended torque is 50% of the torsional torque.

Part Number	Qty per pack*1
SPA-M1.2-MF	10
SPA-M1.4-MF	10
SPA-M1.6-MF	10

*1: Also sold separately from 1 piece up. → P.809

Part number specification

SPA - M1.6 - 4 - MF

Product Code 1 Product Code 2

Place order by a bag.

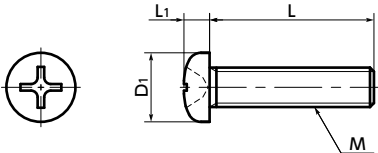
Also sold separately from 1 piece up. → P.809

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-P Plastic Screw - Cross Recessed Pan Head Machine Screws - RENY

WEB Selection Tool WEB CAD Download High strength

e-nedzi.com



● Application

Electrical and electronic equipment, insulation and dew condensation prevention for refrigerators and freezers, aquatic applications, electrochemical plating, lightweight applications in automobiles, aircrafts, and spacecrafts

● Material/Finish



	SPA-P
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6) /Ivory
Heat Resistance Temperature*2	105°C

*1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.

*2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

- RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.
- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws ➡ P.735

Unit : mm																
Part Number	M 	L 										D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPA-M1.7-P	M1.7		4									2.5	0.5	80	0.03	0.011
SPA-M2-P	M2	3	4	5	6	8	10	12				3.5	1.3	303	0.1	0.028 - 0.061
SPA-M2.6-P	M2.6				6	8	10	12				4.5	1.7	588	0.24	0.07 - 0.11
SPA-M3-P	M3		4	5	6	8	10	12	15			5.5	2	635	0.39	0.093 - 0.19
SPA-M4-P	M4			5	6	8	10	12	15			7	2.6	1470	0.79	0.2 - 0.36
SPA-M5-P	M5					8	10	12	15	20		9	3.3	2450	1.77	0.47 - 0.76
SPA-M6-P	M6						10	12	15	20	25	10.5	3.9	3140	2.94	0.83 - 1.4

*1: Values in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque.

Part Number	Qty per pack*1
SPA-M1.7-P	50
SPA-M2-P	50
SPA-M2.6-P	50
SPA-M3-P	50
SPA-M4-P	50
SPA-M5-P	20
SPA-M6-P	20

*1: Also sold separately from 1 piece up. ➡ P.809

● Part number specification

SPA - M5 - 20 - P

Product Code 1 2 Product Code

Order in number of packs.

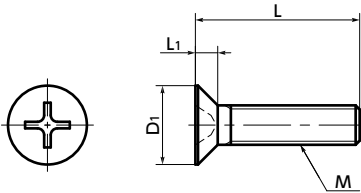
Also sold separately from 1 piece up. ➡ P.809

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-F Plastic Screw RENY / Phillips Cross Recessed Flat Head Machine Screws

WEB Selection Tool WEB CAD Download High strength

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● Material/Finish



	SPA-F
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6) /Ivory
Heat Resistance Temperature*2	105°C

*1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.

*2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

- RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.
- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws ➡ P.735

● Application

Electrical and electronic equipment, insulation and dew condensation prevention for refrigerators and freezers, aquatic applications, electrochemical plating, lightweight applications in automobiles, aircrafts, and spacecrafts

Unit : mm															
Part Number	M 1	L 2									D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPA-M2-F	M2		6	8	10						4	1.2	303	0.1	0.038 - 0.053
SPA-M3-F	M3	5	6	8	10	12	15				6	1.75	635	0.39	0.1 -0.19
SPA-M4-F	M4		6	8	10	12	15	20			8	2.3	1470	0.79	0.22 -0.45
SPA-M5-F	M5				10	12	15	20			10	2.8	2450	1.77	0.52 -0.76
SPA-M6-F	M6				10	12	15	20			12	3.4	3140	2.94	0.83 -1.2
SPA-M8-F	M8						15	20	25	30	16	4.4	5100	7.85	2.1 -3.1

*1: Values in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque.

Part Number	Qty per pack*1
SPA-M2-F	50
SPA-M3-F	50
SPA-M4-F	50
SPA-M5-F	20
SPA-M6-F	20
SPA-M8-F	10

*1: Also sold separately from 1 piece up. ➡ P.809

● Part number specification

SPA - M5 - 20 - F

Product Code 1 2 Product Code

Order in number of packs.

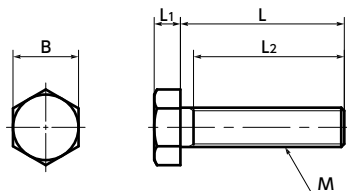
Also sold separately from 1 piece up. ➡ P.809

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-H Plastic Screw - Hex Head Screws - RENY

WEB Selection Tool WEB CAD Download High strength

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● Material/Finish

RoHS2 Compliant

	SPA-H
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6) /Ivory
Heat Resistance Temperature*2	105°C

*1 : RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.

*2 : This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

- RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.
- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws ➡ P.735

● Application

Electrical and electronic equipment, insulation and dew condensation prevention for refrigerators and freezers, aquatic applications, electrochemical plating, lightweight applications in automobiles, aircrafts, and spacecrafts

Unit : mm																
Part Number	M	L									B	L ₁	L ₂ *1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N・m)	Mass (g)
SPA-M5-H	M5			15	20	25	30				8	3.5	Full Thread	2450	1.77	0.72 - 1.1
SPA-M6-H	M6	10	12	15	20	25	30	35	40		10	4	Full Thread	3140	2.94	0.95 - 2.1
SPA-M8-H	M8			15	20	25	30	35	40	50	13	5.5	27(L=50)	5100	7.85	2.3 - 4.8
SPA-M10-H	M10					25	30	35	40	50	17	7	27(L=50)	6900	12.75	5.6 - 8.3

*1 : If the "L" value is other than the value in parentheses, the screw is full thread.

*2 : Values in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque.

Part Number	Qty per pack*1
SPA-M5-H	20
SPA-M6-H	10
SPA-M8-H	10
SPA-M10-H	5

*1 : Also sold separately from 1 piece up. ➡ P.809

● Part number specification

SPA - M5 - 30 - H

Product Code 1 2 Product Code

Order in number of packs.

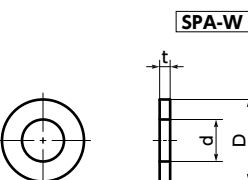
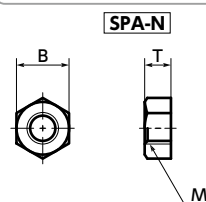
Also sold separately from 1 piece up. ➡ P.809

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-N/SPA-W Plastic Screw - Hex Nuts / Washers - RENY

WEB Selection Tool WEB CAD Download High strength

e-nedzi.com®



● Material/Finish

RoHS2 Compliant

	SPA-N / SPA-W
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6) /Ivory
Heat Resistance Temperature*2	105°C

*1 : RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.

*2 : This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

SPA-N Hex Nuts

Unit : mm						
Part Number	M	B	T	Mass (g)	Qty per pack*1	
SPA-M2-N	M2	4	1.6	0.027	50	
SPA-M2.6-N	M2.6	5	2	0.05	50	
SPA-M3-N	M3	5.5	2.4	0.072	50	
SPA-M4-N	M4	7	3.2	0.17	50	
SPA-M5-N	M5	8	4	0.25	20	
SPA-M6-N	M6	10	5	0.51	20	
SPA-M8-N	M8	13	6.5	1.1	20	
SPA-M10-N	M10	17	8	2.4	10	
SPA-M12-N	M12	19	10	3.5	10	
SPA-M16-N	M16	24	18	8.9	5	

*1 : Also sold separately from 1 piece up. ➡ P.809

SPA-W Washers

Unit : mm						
Part Number	d	D	t	Nominal	Mass (g)	Qty per pack*1
SPA-3-W	3.2	7	0.5	3	0.025	50
SPA-4-W	4.3	9	0.8	4	0.065	50
SPA-5-W	5.3	10	1	5	0.093	50
SPA-6-W	6.4	12.5	1.6	6	0.24	20
SPA-8-W	8.4	17	1.6	8	0.45	20
SPA-10-W	10.5	21	2	10	0.86	20
SPA-12-W	13	24	2.5	12	1.3	20
SPA-16-W	17	30	3	16	2.4	10

*1 : Also sold separately from 1 piece up. ➡ P.809

- RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.
- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws ➡ P.735

● Application

Electrical and electronic equipment, insulation and dew condensation prevention for refrigerators and freezers, aquatic applications, electrochemical plating, lightweight applications in automobiles, aircrafts, and spacecrafts

● Part number specification

SPA-M5-N

1

Order in number of packs.

Also sold separately from 1 piece up. ➡ P.809

1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

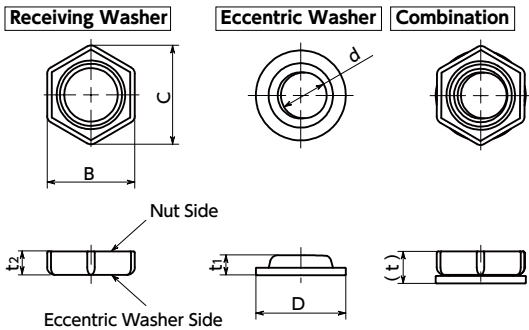
SWAS-EW Eccentric Lock Washer™ NEW

WEB Selection Tool

CAD Download

SUS Stainless steel

Vibration resistant treatment



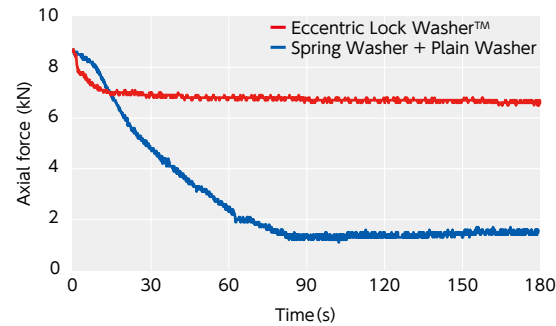
⚠ Precautions for Use

- Dedicated for hexagon nuts. Do not use on head side of hexagon head bolts.
- After tightening, use bolts with length sufficient to ensure screw thread pitches of 3 or more extending beyond the hexagon nuts.
- Do not use with other washers such as plain washers.
- When using half-thread bolts, confirm that the eccentric washer is in the screw thread part.
- Bolt damage may ensue due to product properties.
- Part number specification

SWAS-10-EW



- Vibration resistant treatment effect can be achieved simply by using commercially available hexagon nuts.
- Hexagon nuts can be tightened by hand until tightening force applies, for simple mounting.
- Use the receiving washer and eccentric washer as a set.
- Passes NAS-type vibration tests (NAS3350).
- Vibration resistant treatment effect has also been confirmed with the Junker test.



• Test conditions

Bolt size: M10 - 40
 Distance between washer surfaces: 24mm
 Amplitude: $\pm 0.43\text{mm}$
 Vibration: 3.3Hz
 Test time: 180 sec

• Application

Vibration resistant treatment

• Material/Finish



	SWAS-EW
Receiving Washer	SUS304
Eccentric Washer	SUS304

Unit : mm

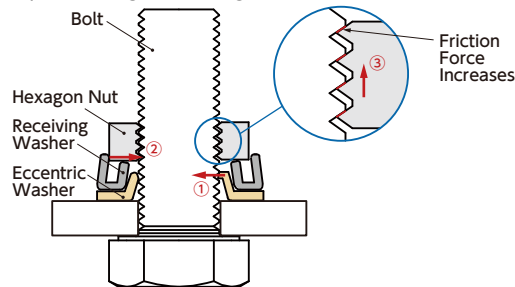
Part Number 1	Nominal	D	d	B	C	t ₁	t ₂	t	Reference tightening torque (N・m)	Mass (g)	Qty per pack
SWAS-6-EW	6	12	6.05	11.6	13.3	2.65	2.9	3.9	10	1.5	100
SWAS-8-EW	8	17	8.1	15	17.3	3.3	3.9	5.1	28	3.5	100
SWAS-10-EW	10	21	10.2	19.8	22.8	4.05	4.8	6.2	55	7.2	100
SWAS-12-EW	12	24	12.2	22	25.4	4.5	6	7.5	90	11	100

- The minimum order quantity is 1 set. → P.809

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

• Structure

- ① Tightening hexagon nuts causes eccentric washers to bite into bolts.
- ② Receiving washers press hexagon nuts into bolts.
- ③ Receiving washers then press hexagon nuts upward, increasing friction between hexagon nuts and bolts and preventing loosening.



• Installation Method

- ① Mount eccentric washers with convex side upward. **Figure 1**
- ② Mount receiving washers with concave side upward. **Figure 2**
- ③ Screw in hexagon nuts until they lightly contact receiving washers. **Figure 3**
- ④ Check that receiving washers and hexagon nuts are mated, and tighten. **Figure 4**

