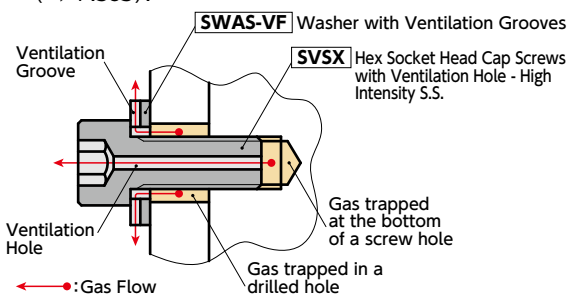


- Usage example
Gas trapped at the bottom of a screw hole is released through **SVSX**, and gas trapped in a drilled hole is released through **SWAS-VF** (→ P.583).



- 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

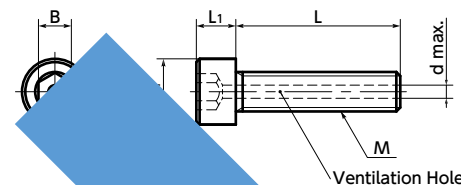
For ventilation of drilled hole, please use **SWAS-VF**.
→ P.583

SVSX, which does not have a ventilation hole, is available.
→ P.625

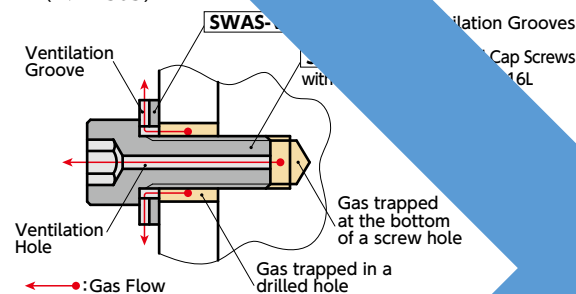
Part Number	M	1	L	2	D1	L1	L2*1	B	d	Mass (g)
SVSX-M3-88	M3	6	8	10 12 16 20 25	5.5	3	18(L=25)	2.5	1.2	0.71 - 1.6
SVSX-M4-88	M4	6	8	10 12 16 20 25	7	4	Full Thread	3	1.5	1.5 - 3.2
SVSX-M5-88	M5			10 12 16 20 25 30	8.5	5	22(L=30)	4	1.5	2.7 - 5.6
SVSX-M6-88	M6			12 16 20 25 30 10	10	6	Full Thread	5	2	5.1 -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



- 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

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

Part Number	M	1	L	2	D1	L1	L2*1	B	d	Mass (g)
SVSL-M3	M3	6	8	10 12 16 20 25	5.5	3	18(L=25)	2.5	1.2	0.67 - 1.2
SVSL-M4	M4	6	8	10 12 16 20 25	7	4	Full Thread	3	1.5	1.4 - 3.2
SVSL-M5	M5			10 12 16 20 25 30	8.5	5	22(L=30)	4	1.5	2.4 - 4.8
SVSL-M6	M6			12 16 20 25 30 10	10	6	Full Thread	5	2	4.3 - 8.3
SVSL-M8	M8			12 16 20 25 30 35 40 45	13	8	Full Thread	6	2	8.3 - 13.2
SVSL-M10	M10			16 20 25 30 35 40 45	16	10	Full Thread	8	3	13.2 - 21.2
SVSL-M12	M12			20 25 30 35 40 45	18	12	Full Thread	10	3	18.2 - 28.2

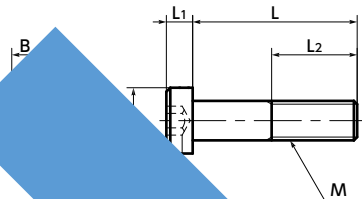
Part Number	Qty*1 per pack
SVSL-M3	20
SVSL-M4	20
SVSL-M5	10
SVSL-M6	10
SVSL-M8	10
SVSL-M10	5
SVSL-M12	5

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

SLHS Hex Socket Head Cap Screws with Low Profile (SUSXM7)

WEB Selection Tool CAD Download Protrusion SUS Stainless steel

e-nedzi.com



- Material: SUSXM7 (RoHS2 Compliant)

Main Body: SUSXM7 (to SUS304)

Strength Class: A4-70

- Socket head cap screws with low profile heights.
- Intended for reducing the size of devices and applications with limited overhead space.
- Also, **SVLS** Screws with Low Profile with hexagonal head is available. ➔ P.574

- Application: Reducing the size of equipment and devices

SLHS SUSXM7														Unit : mm	
Part Number	M	L						B*2	t	L2*1	Max. Torque (N・m)	Mass (g)			
SLHS-M2	M2	5	6	8	10	12		1.3	0.7	Full Thread	0.18	0.13 - 0.29			
SLHS-M2.5	M2.5	5	6	8	10	12		1.5	1	Full Thread	0.36	0.26 - 0.47			
SLHS-M3	M3	5	6	8	10	12	16	20	1.5	12(L=20)	0.6	0.5 - 1.2			
SLHS-M4	M4		6	8	10	12	16	20	2.3	Full Thread	1.5	1.1 - 2.8			
SLHS-M5	M5			8	10	12	16			16(L≥30)	3.1	1.8 - 5.7			
SLHS-M6	M6			8	10	12				18(L≥30)	5.3	3.1 - 11			
SLHS-M8	M8				10					20(L≥35)	12	7.2 - 22			
SLHS-M10	M10									25(L≥40)	25	15 - 33			

- *1 : If the "L" value is other than the values in parentheses, the screw is full thread.
- *2 : The hexagonal width (B) has been changed from 7 mm to 6 mm.

Part Number	Qty*1 per pack
SLHS-M2	20
SLHS-M2.5	20
SLHS-M3	20
SLHS-M4	20
SLHS-M5	10
SLHS-M6	10
SLHS-M8	10
SLHS-M10	10

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

- Part number specification

SLHS-M5 - 20

Order in number of packs.

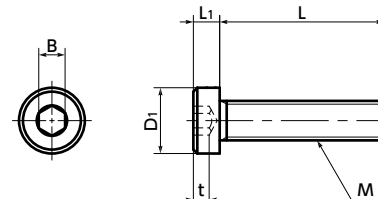
Also sold separately from 1 piece up. ➔ P.809

1 Individual Sales ➔ P.809 2 Cleanroom Wash & Packaging ➔ P.807 3 Screw Length Adjustment ➔ P.811 4 Vibration Resistant ➔ P.810 5 Modification process for captive use ➔ P.806

SLHL Socket Head Cap Screw - Low Profile - SUS316L

WEB Selection Tool CAD Download Protrusion Heat-resistance Chemical-proof Non-Magnetic High strength SUS Stainless steel

e-nedzi.com



- To distinguish from **SLHS**, following processing are made.

SLHL-M3 **SLHL-M4** : Cup-pointed at screw tips



SLHL-M5 **SLHL-M6** : Indicated as "A4" on the top of screw heads



- Socket head cap screws with low profile made of SUS316L.
- Intended for reducing the size of devices and applications with limited overhead space.
- Compared to SUS304, SUS316L has excellent hydrogen embrittlement resistance, fluorine and chlorine gas resistance, and heat resistance. This screw also has corrosion resistance against chemical products and seawater environments that matches or exceeds SUS304.
- SUS316L is non-magnetic.

- Application

Reducing the size of equipment and devices
FPD production equipment/Semiconductor devices/
Aquatic applications/General industrial machines

- Material/Finish

SLHL	
Main Body	SUS316L
Strength Class	A4-70

- Do not exceed the max. tightening torque.

- Part number specification

SLHL-M5 - 16

Order in number of packs.

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

SLHL SUS316L														Unit : mm	
Part Number	M	L						D1	L1	B	t	Max. Torque (N・m)	Mass (g)		
SLHL-M3	M3	6	8	10				5.5	2	2	1.5	1.2	0.53 - 0.7		
SLHL-M4	M4	6	8	10	12			7	2.8	2.5	2.3	3.2	1.1 - 1.6		
SLHL-M5	M5		8	10	12	16		8.5	3.5	3	2.7	6.4	1.8 - 2.8		
SLHL-M6	M6			10	12	16	20	10	4	4	3	11	3.5 - 5.3		

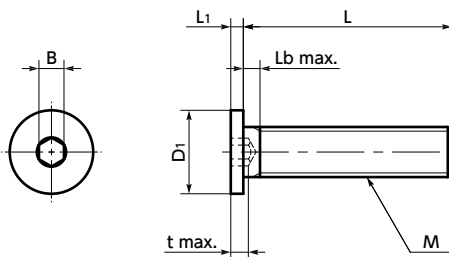
Part Number	Qty*1 per pack
SLHL-M3	20
SLHL-M4	20
SLHL-M5	10
SLHL-M6	10

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

1 Individual Sales ➔ P.809 2 Cleanroom Wash & Packaging ➔ P.807 3 Screw Length Adjustment ➔ P.811 4 Vibration Resistant ➔ P.810 5 Modification process for captive use ➔ P.806

SSHT Socket Head Cap Screws - Special Low Profile - Pure Titanium

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



● Material/Finish RoHS2 Compliant

	SSHT
Main Body	TW435(Grade2 Titanium)

- Socket head cap screws with special low profile made of pure titanium.
- The head height for all screws is 1.5 mm or less.
- Specific gravity is approximately 60% of stainless steel.
- Useful for space and weight saving of devices.
- 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.
Reducing the size of equipment and devices.
FPD production equipment, semiconductor devices, electrical and electronic equipment, aquatic applications, and electrochemical plating

Unit : mm													
Part Number	1	M	L 2				D1	L1	Lb	B	t	Max. Torque (N・m)	Mass (g)
SSHT-M3		M3	6	8	10		6	1.3	1.5	1.5	2	0.6	0.25 - 0.35
SSHT-M4		M4		8	10	12	8	1.5	1.6	2	2.5	1.2	0.59 - 0.76
SSHT-M5		M5			10	12	9	1.5	2	3	3	2.5	0.7 - 1.12
SSHT-M6		M6			10	12	10	1.5	2.5	3	4	5	1.1 - 1.7

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

● Part number specification

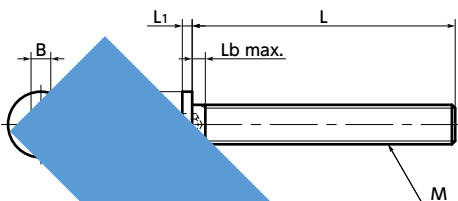
SSHT-M3-10

1 2

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

SSHS-FT Socket Head Cap Screws with Special Low Profile - Full Thread

WEB Selection Tool WEB CAD Download Protrusion Full Thread SUS Stainless steel



- Full thread socket head cap screws with special low Profile.
- The head height for all screws is 1.5 mm or less.
- Intended for use in a variety of devices and applications where overhead space.

- Application
Reducing the size of equipment and devices

	SSHS-FT
	SUS304

Unit : mm													
Part Number	M	1	L				2	t				Max. Torque (N・m)	Mass (g)
SSHS-M3-FT	M3	16	20	25	30	40	50	60	70	80	90	1	0.89 - 2.6
SSHS-M4-FT	M4		20	25	30		40	50	60	8	1.5	2	2 - 5
SSHS-M5-FT	M5				30		40	50	60	9	1.5	3.5	4.1 - 10
SSHS-M6-FT	M6						60	70	80	10	1.5	2.5	8.2 - 15
SSHS-M8-FT	M8						60	70	80	13	1.5	3	14 - 26
SSHS-M10-FT	M10						60	70	80	16	1.5	3.5	20 - 39

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

● Part number specification

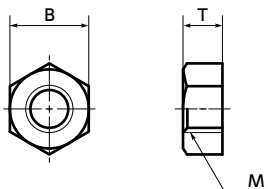
SSHS-M8-60-FT

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 Available / Add'l charge

SHNDS Duplex Stainless Steel Hexagon Nuts NEW

WEB Selection Tool WEB CAD Download Chemical-proof High strength Magnetic SUS Stainless steel



- Made of duplex stainless steel, combining the best of austenitic and ferritic steel.
- Excellent strength and corrosion resistance compared to SUS316L.
- It has magnetism.
- For applications in chloride environments such as seawater.

● Application

Seawater desalination equipment / Seawater intake pump / Offshore instruments / Food machinery / Food production line

● Material/Finish



	SHNDS
Main body	UNS S31803

● Mechanical property

	UNS S31803	SUS316L
Tensile strength (N/mm ²)	620 or above	480 or above
0.2% Proof Stress (N/mm ²)	450 or above	175 or above
Extension (%)	18 or above	40 or above
Hardness (HRB)	(106 or less)	90 or less

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

Part Number	M	B	T	Mass(g)	Qty per pack
SHNDS-M12	M12	19	10	16	1
SHNDS-M16	M16	24	13	31	1
SHNDS-M20	M20	30	16	61	1
SHNDS-M24	M24	36	19	102	1

Unit : mm

● Part number specification

SHNDS-M20

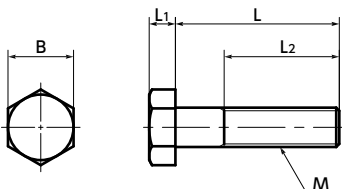


1 Individual Sales → P.809 Cleanroom Wash & Packaging → P.807 Screw Length Adjustment → P.811 Vibration Resistant → P.810 Modification process for captive use → P.806

1 unit in 1 bag Available / Add'l charge Not Available Not Available Not Available

SNHDS Duplex Stainless Steel Hexagon Head Screw NEW

WEB Selection Tool WEB CAD Download Chemical-proof High strength Magnetic SUS Stainless steel



- Made of duplex stainless steel, combining the best of austenitic and ferritic steel.
- Excellent strength and corrosion resistance compared to SUS316L.
- It has magnetism.
- For applications in chloride environments such as seawater.

● Application

Seawater desalination equipment / Seawater intake pump / Offshore instruments / Food machinery / Food production line

● Material/Finish



	SHNDS
Main body	UNS S31803

● Mechanical property

	UNS S31803	SUS316L
Tensile strength (N/mm ²)	620 or above	480 or above
0.2% Proof Stress (N/mm ²)	450 or above	175 or above
Extension (%)	18 or above	40 or above
Hardness (HRB)	(106 or less)	90 or less

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

Part Number	M	L	B	L1	L2	Mass (g)
SNHDS-M12	M12	30	40	50	60	42 - 68
SNHDS-M16	M16	40	50	60	70	96 - 143
SNHDS-M20	M20	50	60	70	80	185 - 258
SNHDS-M24	M24	60	70	80	90	314 - 420

Unit : mm

Part Number	Qty per pack
SNHDS-M12	1
SNHDS-M16	1
SNHDS-M20	1
SNHDS-M24	1

● Part number specification

SNHDS-M20-60

Product Code



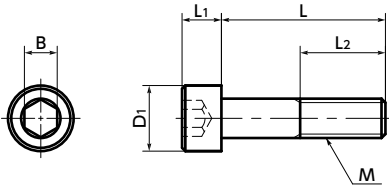
1 Individual Sales → P.809 Cleanroom Wash & Packaging → P.807 Screw Length Adjustment → P.811 Vibration Resistant → P.810 Modification process for captive use → P.806

1 unit in 1 bag Available / Add'l charge Available / Add'l charge Available / Add'l charge Available / Add'l charge



SNSX Hex Socket Head Cap Screws - High Intensity S.S.

WEB Selection Tool WEB CAD Download SUS Stainless steel Heat-resistance Chemical-proof Non-Magnetic High strength



● Application

FPD production equipment, semiconductor devices, sputtering equipment, aquatic applications, and general industrial machines

● Material/Finish



	SNSX-88	SNSX-109
Main Body	SUS316L HiMo	SUS316L HiMo
Strength Class	8.8	10.9

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

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

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	D1	L1	B	L2*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

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

Part Number	Qty per pack
SNSX-M6-109	1
SNSX-M8-109	1
SNSX-M10-109	1
SNSX-M12-109	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	Please feel free to contact us	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

● Mechanical property

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

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

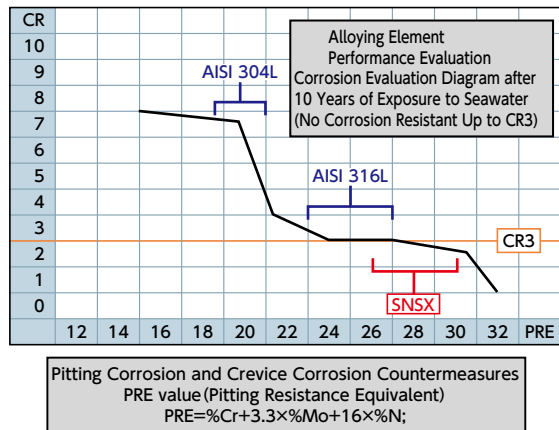
● Durability by temperature (N/mm²)

Part Number・Material	20℃	100℃	200℃	300℃	400℃	500℃	600℃
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	—	—	—

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

● Result of corrosion test by metal materials
SUS316L HiMo steel used in SNSX is a special steel alloy with reduced carbon and increased Cr, Ni, and Mo. Reducing carbon shows an increased resistance to grain boundary corrosion cracking, and adding Cr and Mo increases resistance to pitting corrosion and crevice corrosion. In addition, adding Ni effectively reduces the risk of stress corrosion cracking.

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.



● Sulfuric acid corrosion test (H2SO4, 50℃ and mm / year)

Part Number・Material\Density	3%	10%	20%
SUS304	1.08	3	—
SUS316, SUS316L	0	0.3	1.3
SNSX-88 SNSX-109	0	0	0.44

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

● Magnetic permeability comparison

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

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

● Related Products

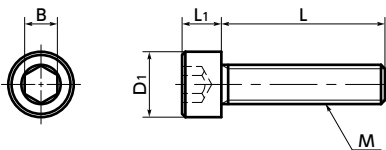
SNSX, a type with a ventilation hole is available.
→ P.571



● Part number specification

SNSX - M3 - 25 - 88

Product Code 1 2 3



● Mechanical property

	SUS310S
Tensile Strength (N/mm ²)	520 or Higher
0.2% Proof Stress (N/mm ²)	205 or Higher
Elongation (%)	40 or Higher
Hardness (HRB)	90 or Less

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

● Physical property

	SUS310S
Specific Gravity	7.98
Heat Resistance Temperature*1 (°C)	700
Electric Resistance (μΩ・m)	0.78
Specific Heat (J/kg・K)	500
Thermal Conductivity (W/(m・K))	14
Linear Expansion Coefficient (K ⁻¹)	15.9×10 ⁻⁶

*1 : This is the heat resistance temperature of the SUS310S material.

- Values in chart are for reference only. They are not guaranteed values.
- When heated to 700 deg C, tensile strength drops approximately 60% and proof stress drops approximately 40%.
- Make sure to carry out tests under the same condition of actual use in advance to confirm safety.

● Compared to SUS304, SUS310S has excellent heat resistance, oxidation resistance, and nitric acid resistance compared to SUS304.

● Austenitic series stainless steel with high Ni content, which is effective for corrosion resistance and high temperature characteristics.

● Cleanroom wash and cleanroom packing are completed. ➡ P.807

● Application

FPD production equipment, semiconductor devices, nitric acid plants, and aquatic applications

● Material/Finish



	SNSJ
Main Body	SUS310S

● Part number specification

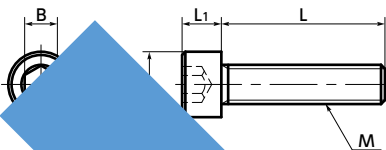
SNSJ-M5-16



Unit : mm																
Part Number 1	M	L 2										D1	L1	B	Tension*1 Rupture Load (N)	Mass (g)
SNSJ-M3	M3	6	8	10	12	16	20					5.5	3	2.5	2610	0.71 - 1.4
SNSJ-M4	M4		8	10	12	16	20	25				7	4	3	4560	1.7 - 3.2
SNSJ-M5	M5			10	12	16	20	25				8.5	5	4	7380	2.7 - 4.8
SNSJ-M6	M6				12	16	20	25	30			10	6	5	10400	5.1 - 8.3
SNSJ-M8	M8					16	20	25	30	35		13	8	6	19000	12 - 19
SNSJ-M10	M10						20	25	30	35	40	16	10	8	30100	23 - 33

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

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



● Material/Finish

	SNSL
Main Body	SUS316L
Strength Class	A4-70

● These screws have high resistibility against chemical corrosion in seawater environments that match those of SUS304.

● Not only is it stainless steel made by adding Mo to SUS304, but it also has high pitting corrosion and intergranular corrosion resistance. Due to its reduced carbon, it has high intergranular corrosion resistibility. It has high strength even under high temperatures. Its basic components include Mo.

● FPD production equipment, semiconductor devices, aquatic applications, and material machines

Part Number	M	L	B	Mass (g)
SNSL-M3	M3	5	12	0.67 - 1.2
SNSL-M4	M4		10	1.4 - 3.2
SNSL-M5	M5		10	2 - 4.8
SNSL-M6		8	10	8.3
SNSL-M8			12	

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

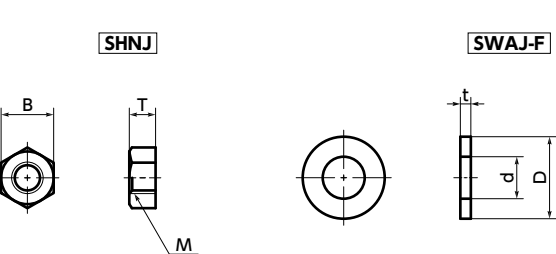
*1 : Also sold separately from 1 piece up. ➡ P.809

● Part number specification

SNSL-M5-16



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



● Mechanical property

	SUS310S
Tensile Strength (N/mm ²)	520 or Higher
0.2% Proof Stress (N/mm ²)	205 or Higher
Elongation (%)	40 or Higher
Hardness (HRB)	90 or Less

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

● Physical property

	SUS310S
Specific Gravity	7.98
Heat Resistance Temperature*1 (°C)	700
Electric Resistance (μΩ · m)	0.78
Specific Heat (J/kg · K)	500
Thermal Conductivity (W / (m · K))	14
Linear Expansion Coefficient (K ⁻¹)	15.9 × 10 ⁻⁶

*1 : This is the heat resistance temperature of the SUS310S material.

- Values in chart are for reference only. They are not guaranteed values.
- When heated to 700 deg C, tensile strength drops approximately 60% and proof stress drops approximately 40%.
- Make sure to carry out tests under the same condition of actual use in advance to confirm safety.

- Compared to SUS304, SUS310S has excellent heat resistance, oxidation resistance, and nitric acid resistance compared to SUS304.
- Austenitic series stainless steel with high Ni content, which is effective for corrosion resistance and high temperature characteristics.
- Use in combination with **SNSJ** Socket Head Cap Screw (SUS310S) ➡ P.628
- Cleanroom wash and cleanroom packing are completed. ➡ P.807

● Application

FPD production equipment, semiconductor devices, nitric acid plants, and aquatic applications

● Material/Finish

	SHNJ	SWAJ-F
Main Body	SUS310S	SUS310S

RoHS2 Compliant

● Part number specification

SHNJ-M5



SHNJ Hex Nuts

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack
SHNJ-M3	M3	5.5	2.4	0.35	1
SHNJ-M4	M4	7	3.2	0.81	1
SHNJ-M5	M5	8	4	1.2	1
SHNJ-M6	M6	10	5	2.5	1
SHNJ-M8	M8	13	6.5	5.6	1
SHNJ-M10	M10	17	8	12	1

SWAJ-F Washers

Unit : mm

Part Number	Nominal	d	D	t	Mass (g)	Qty per pack
SWAJ-3-F	3	3.2	7	0.5	0.12	1
SWAJ-4-F	4	4.3	9	0.8	0.31	1
SWAJ-5-F	5	5.3	10	1	0.45	1
SWAJ-6-F	6	6.5	13	1	0.79	1
SWAJ-8-F	8	8.5	18	1.5	2.4	1
SWAJ-10-F	10	10.5	22	1.5	3.5	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 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

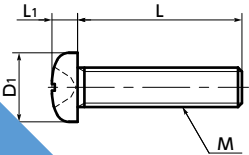


<https://www.nbk1560.com/>

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



	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	
Tensile Strength (N/mm ²)	635 or Higher
0.2% Proof Stress (N/mm ²)	635 or Higher
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 suitable for seawater.
- 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.

Unprocessed



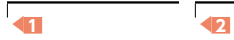
- Applications: Lightweight applications in automobiles, aircrafts, spacecrafts, and robots FPD production equipment, semiconductor devices, electrical and electronic equipment, aquatic applications, and electrochemical plating

- Material/Finish: RoHS2 Compliant

Main Body	TW270 (Grade 1 Titanium)
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- Part number specification

SNPTG-M5-20



Part Number	M	L	D1	L1	Tension*1 Rupture Load (N)	Mass (g)
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.

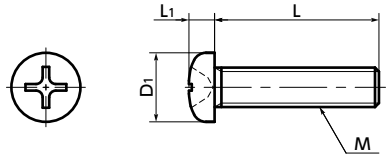
Part Number	Qty per pack
SNPTG-M3	1
SNPTG-M4	1
SNPTG-M5	1

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



	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)

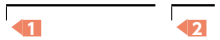
• Values in chart are for reference only. They are not guaranteed values.

	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.

- Part number specification

SNPT-M5-20



- 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

Main Body	SNPT TW270 (Grade 1 Titanium)
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- Related Products

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



Part Number	M	L	D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
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 25	7	2.6	4120	2.4	0.59 - 1.4
SNPT-M5	M5	8 10 12 16 20 25 30	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

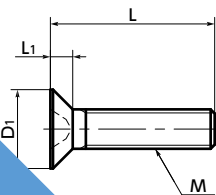
1 Individual Sales ➔ P.809 Cleanroom Wash & Packaging ➔ P.807 Screw Length Adjustment ➔ P.811 Vibration Resistant ➔ P.810 Modification process for captive use ➔ P.806 1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge Available / Add'l charge Available / Add'l charge

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

e-nedzi.com



● 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	
Tensile Strength (N/mm ²)	1190
0.2% Proof Stress (N/mm ²)	690
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 in seawater.
- About the part number specification → 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.

Unprocessed



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

● Material/Finish	RoHS2 Compliant
Main Body	Ti-15-3-3-3 (β Titanium)

Part Number										Unit : mm	
SNFTG-M3											
1	6	8	10	12	15	20		6	1.75	2360	0.31 - 0.4
2	8	10	12	15	20	25	8	2.3	4120	2.4	0.59 - 0.86
3	10	12	15	20	25	30	10	2.8	11900		

● 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

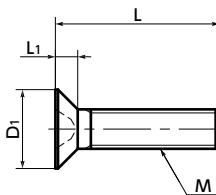
e-nedzi.com



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

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

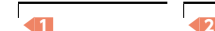
Material/Finish

RoHS2 Compliant

	SNFT
Main Body	TW270 (Grade 1 Titanium)

Part number specification

SNFT-M4-10



Part Number										Unit : mm	
SNFT-M3											
1	6	8	10		6	1.75	2360	1	0.31 - 0.4		
2	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.

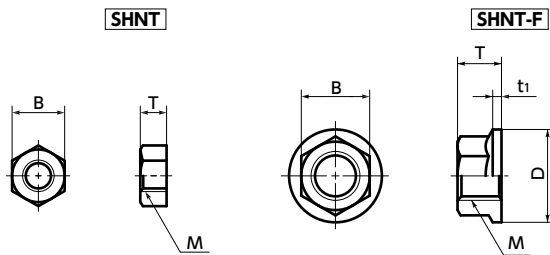
Part Number	Qty per pack
SNFT-M3	1
SNFT-M4	1

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

SHNT Hex Nuts - Titanium

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

e-nedzi.com®



Physical property

	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)
Specific Gravity	4.51	4.51
Melting Point (°C)	1668	1668
Longitudinal Elastic Modulus (GPa)	106	106
Thermal Conductivity (W/(m·K))	17.16	17.16
Linear Expansion Coefficient (K ⁻¹)	8.4×10 ⁻⁶	8.4×10 ⁻⁶
Electric Resistance (μΩ·m)	0.55	0.55
Amplitude Permeability (μ)	1.0001 (Nonmagnetic)	1.0001 (Nonmagnetic)

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

Mechanical property

	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)
Tensile Strength (N/mm ²)	270 - 410	340 - 510
0.2% Proof Stress (N/mm ²)	165 or Higher	215 or Higher
Elongation (%)	27 or Higher	23 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.

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



	SHNT	SHNT-F
Main body	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)

Part number specification

SHNT-M6-F



SHNT Hex Nuts - Titanium

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack
SHNT-M3	M3	5.5	2.4	0.2	1
SHNT-M4	M4	7	3.2	0.46	1
SHNT-M5	M5	8	4	0.69	1
SHNT-M6	M6	10	5	1.4	1
SHNT-M8	M8	13	6.5	3.1	1
SHNT-M10	M10	17	8	6.5	1

SHNT-F Hex Flange Nuts - Titanium

Unit : mm

Part Number	M	B	T	t ₁	D	Mass (g)	Qty per pack
SHNT-M3-F	M3	5.5	3.7	0.8	8	0.4	1
SHNT-M4-F	M4	7	4.2	0.8	10	0.72	1
SHNT-M5-F	M5	8	5.5	1.1	12	1.3	1
SHNT-M6-F	M6	10	6	1.5	14	1.9	1
SHNT-M8-F	M8	12	7.5	1.5	17	3.3	1
SHNT-M10-F	M10	14	9	1.8	19	4.8	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 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

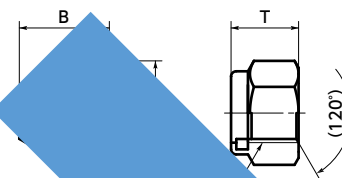
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WEB ▶ <https://www.nbk1560.com>

SWUT Hex Lock Nuts - Titanium

WEB Selection Tool WEB CAD Download Cleanroom wash & packaging Non-Magnetic Lightweight Vibration resistant treatment

e-nedzi.com®



- Specific gravity is approximately 60% of stainless steel.
- These nuts are equipped with a vibration resistant patch to prevent screw loosening.
- Continuous Max. Temperature : -40 to 120 degrees Celsius

Application

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



	SWUT
	FRS-9901 (Equivalent to TW340)
	Nylon 66

Part Number	M	B	T	Mass (g)	Qty per pack
SWUT-M3	M3	5.5	2.4	0.2	1
SWUT-M4	M4	7	3.2	0.46	1
SWUT-M5	M5	8	4	0.69	1
SWUT-M6	M6	10	5	1.4	1
SWUT-M8	M8	13	6.5	3.1	1
SWUT-M10	M10	17	8	6.5	1

Related Products

SWUS Hexagon Lock Nut made of stainless steel is available.
→ P.797



Part number specification

SWUT-M6



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 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

NBK

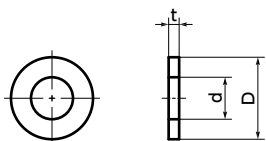
WEB ▶ <https://www.nbk1560.com>

SWAT Washers - Titanium

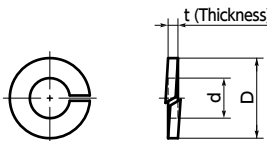
WEB Selection Tool CAD Download Cleanroom wash & packaging Chemical-proof Non-Magnetic Lightweight



SWAT-F



SWAT-S



SWAT-F

SWAT-S

Physical property

	TP340C (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.

- 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.

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



	SWAT
Main Body	TP340C (Grade 2 Titanium)

SWAT-F Plain Washers - Titanium

Unit : mm

Part Number	Nominal	d	D	t	Mass (g)	Qty per pack
SWAT-3-F	3	3.2	7	0.5	0.068	1
SWAT-4-F	4	4.3	9	0.8	0.18	1
SWAT-5-F	5	5.3	10	1	0.25	1
SWAT-6-F	6	6.4	12.5	1.6	0.65	1
SWAT-8-F	8	8.4	17	1.6	1.2	1
SWAT-10-F	10	10.5	21	2	2.3	1

SWAT-S Spring Washers - Titanium

Unit : mm

Part Number	Nominal	d	D	t	Mass (g)	Qty per pack
SWAT-3-S	3	3.1	5.9	0.7	0.062	1
SWAT-4-S	4	4.1	7.6	1	0.15	1
SWAT-5-S	5	5.1	9.2	1.3	0.27	1
SWAT-6-S	6	6.1	12.2	1.5	0.59	1
SWAT-8-S	8	8.2	15.4	2	1.2	1
SWAT-10-S	10	10.2	18.4	2.5	2.1	1

Related Products

SWAT-VF Titanium Washer with Ventilation Grooves is available.
➔ P.584



Part number specification

SWAT-6-F



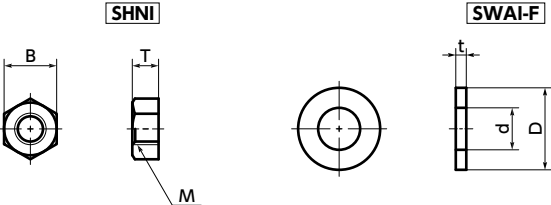
1 Individual Sales ➔ P.809	Cleanroom Wash & Packaging ➔ P.807	Screw Length Adjustment ➔ P.811	Vibration Resistant ➔ P.810	Modification process for captive use ➔ P.806
1 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

Selection Navigator



CAD Data Download

<https://www.nbk1560.com/>



● Mechanical property

	Inconel (NCF600)	SUS304
Tensile Strength (N/mm ²)	548 - 695	520 or Higher
0.2% Proof Stress (N/mm ²)	205 - 352	205 or Higher
Elongation (%)	35 - 55	40 or Higher
Hardness (HRB)	65 - 85	90 or Less

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

● Physical property

	Inconel (NCF600)	SUS304
Specific Gravity	8.42	7.93
Longitudinal Elastic Modulus (GPa)	207	193
Specific Heat (J/kg · K)	444	500
Electric Resistance (μΩ · m)	1.0	0.7
Thermal Conductivity (W/ (m · K))	16.7	17
Linear Expansion Coefficient (K ⁻¹)	13.4 × 10 ⁻⁶	17.3 × 10 ⁻⁶

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

SHNI Inconel Hex Nut

Part Number	M	B	T	Mass (g)	Qty per pack
SHNI-M3	M3	5.5	2.4	0.37	1
SHNI-M4	M4	7	3.2	0.86	1
SHNI-M5	M5	8	4	1.3	1
SHNI-M6	M6	10	5	2.6	1
SHNI-M8	M8	13	6.5	5.9	1

SWAI-F Plain Washers - Inconel

Part Number	Nominal	d	D	t	Mass (g)	Qty per pack
SWAI-3-F	3	3.2	7	0.5	0.12	1
SWAI-4-F	4	4.3	9	0.8	0.31	1
SWAI-5-F	5	5.3	10	1	0.45	1
SWAI-6-F	6	6.4	12.5	1.6	1.2	1
SWAI-8-F	8	8.4	17	1.6	2.3	1



● Screws show excellent corrosion resistance against oxidizing and reducing by inorganic and organic acids. ➡ P.646

- Excellent resistance to stress corrosion cracking caused by hydrogen sulfide ions.
- Nearly complete corrosion resistance against ammonia.
- Excellent heat resistance and creep resistance. High strength even near 600 deg C.

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

● Material/Finish

	SHNI	SWAI
Main Body	NCF600 (Inconel*1)	NCF600 (Inconel*1)

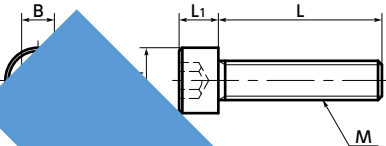
*1 : Inconel is a registered trademark of Special Metals Corporation.

● Part number specification

SHNI-M5



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 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available



● Mechanical property

	Pure Molybdenum	SUS304
Tensile Strength (N/mm ²)	15	520 or Higher
0.2% Proof Stress (N/mm ²)		205 or Higher
Elongation (%)		40 or Higher

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

● Physical property

	Pure Molybdenum
Specific Gravity	10.2
Longitudinal Elastic Modulus (GPa)	327
Electric Resistance (μΩ · m)	0.058
Thermal Conductivity (W/ (m · K))	142
Linear Expansion Coefficient (K ⁻¹)	5.1 × 10 ⁻⁶

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

- These screws are made of pure molybdenum.
- Melting Point: 2623 deg C
- Excellent resistance to oxidation at high temperature.

● Application

Sputtering equipment, high temperature furnaces

● Material

	SNSM
Main Body	Pure Molybdenum

● Recommended Use

Use in an oxidizing atmosphere, sublimation in vacuum, and in an atmosphere of sulfuric acid at 600°C or higher.

Part Number	M	L											B	Tension*1 Rupture Load (N)	Mass (g)
SNSM-M3	M3	6	8	10								5	2760	0.93 - 1.8	
SNSM-M4	M4		8				25						4820	2.2 - 4.1	
SNSM-M5	M5					20	25						310	3.5 - 6.3	
SNSM-M6	M6					20	25	30		10				6.6 - 11	
SNSM-M8	M8					16	20	25	30	35	13	6		16 - 25	

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

Part Number										
SNSM-M3										
SNSM-M4										
SNSM-M5										
SNSM-M6										
SNSM-M8										

● Part number specification

SNSM-M5-16

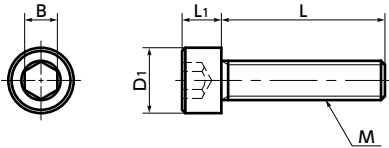


1 Individual Sales ➡ P.809	 Cleanroom Wash & Packaging ➡ P.807	 Screw Length Adjustment ➡ P.811	 Vibration Resistant ➡ P.810	 Modification process for captive use ➡ P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

SNSH-C276 Socket Head Cap Screw - Hastelloy C - 276 equiv.

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

e-nedzi.com®



Mechanical property

	HastelloyC-276	SUS304
Tensile Strength (N/mm²)	793	520 or Higher
0.2% Proof Stress (N/mm²)	400	205 or Higher
Elongation (%)	60	40 or Higher

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

Physical property

	HastelloyC-276	SUS304
Specific Gravity	8.89	7.93
Longitudinal Elastic Modulus (GPa)	205	193
Specific Heat (J/kg·K)	427	500
Electric Resistance (μΩ·m)	1.3	0.7
Linear Expansion Coefficient (K ⁻¹)	11.2×10 ⁻⁶	17.3×10 ⁻⁶

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

- Hastelloy C-276 is a general type of Hastelloy.
- Excellent corrosion resistance against oxidizing and reducing salts. ➡ P.646
- Cleanroom wash and cleanroom packing are completed. ➡ P.807
- Also, **SNSH-C22** Socket Head Screw-Hastelloy (Hastelloy C-22), which is also resistant to wet chlorine gas, hypochlorite, and chlorine dioxide is available. ➡ P.654

Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

Material/Finish



	SNSH-C276
Main Body	UNS N10276(Hastelloy*1C-276 equiv.)

* 1 : Hastelloy is a registered trademark of Haynes International, Inc.

Part Number	M	1	L	2							D1	L1	B	Tension*1 Rupture Load (N)	Mass (g)
SNSH-M3-C276	M3	6	8	10	12	16	20				5.5	3	2.5	3980	0.81 - 1.6
SNSH-M4-C276	M4		8	10	12	16	20	25			7	4	3	6960	1.9 - 3.6
SNSH-M5-C276	M5			10	12	16	20	25			8.5	5	4	11200	3.1 - 5.4
SNSH-M6-C276	M6				12	16	20	25	30		10	6	5	15900	5.8 - 9.5
SNSH-M8-C276	M8					16	20	25	30	35	13	8	6	29000	14 - 22

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

Part Number	Qty per pack
SNSH-M3-C276	1
SNSH-M4-C276	1
SNSH-M5-C276	1
SNSH-M6-C276	1
SNSH-M8-C276	1

Part number specification

SNSH - M5 - 16 - C276

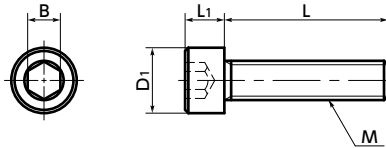
Product Code 1 2 Product Code

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	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

SNSH-C22 Socket Head Cap Screw - Hastelloy C - 22 equiv.

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

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Mechanical property

	Hastelloy C-22	SUS304
Tensile Strength (N/mm²)	786	520 or Higher
0.2% Proof Stress (N/mm²)	365	205 or Higher
Elongation (%)	57	40 or Higher
Hardness (HRB)	92	90 or Less

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

Physical property

	Hastelloy C-22	SUS304
Specific Gravity	8.61	7.93
Longitudinal Elastic Modulus (GPa)	209	193
Specific Heat (J/kg·K)	381	500
Electric Resistance (μΩ·m)	1.2	0.7
Linear Expansion Coefficient (K ⁻¹)	12.4×10 ⁻⁶	17.3×10 ⁻⁶

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

- Hastelloy C-22 is one of the few metals that is resistant to wet chlorine gas, hypochlorite, and chlorine dioxide.
- Excellent corrosion resistance against oxidizing and reducing acids and salts. ➡ P.646
- For aquatic applications that use sea and salt water.
- Cleanroom wash and cleanroom packing are completed. ➡ P.807

Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

Material/Finish



	SNSH-C22
Main Body	UNS N06022(Hastelloy*1C-22 equiv.)

* 1 : Hastelloy is a registered trademark of Haynes International, Inc.

Unit : mm

Part Number	M	1	L	2							D1	L1	B	Tension*1 Rupture Load (N)	Mass (g)
SNSH-M3-C22	M3	6	8	10	12	16	20				5.5	3	2.5	3950	0.79 - 1.5
SNSH-M4-C22	M4		8	10	12	16	20	25			7	4	3	6900	1.8 - 3.5
SNSH-M5-C22	M5			10	12	16	20	25			8.5	5	4	11100	3 - 5.3
SNSH-M6-C22	M6				12	16	20	25	30		10	6	5	15700	5.6 - 9.2
SNSH-M8-C22	M8					16	20	25	30	35	13	8	6	28700	13 - 21

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

Part Number	Qty per pack
SNSH-M3-C22	1
SNSH-M4-C22	1
SNSH-M5-C22	1
SNSH-M6-C22	1
SNSH-M8-C22	1

Part number specification

SNSH - M5 - 16 - C22

Product Code 1 2 Product Code

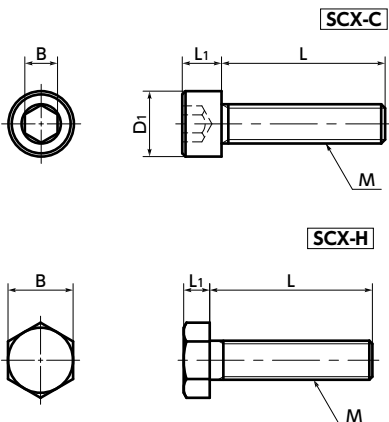
1 Individual Sales ➡ P.809	Cleanroom Wash & Packaging ➡ P.807	Screw Length Adjustment ➡ P.811	Vibration Resistant ➡ P.810	Modification process for captive use ➡ P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge



SCX Ceramic Bolt

Additional Size

- WEB Selection Tool
- WEB CAD Download
- Heat-resistance
- Chemical-proof



- Ceramic made from 99.5% high-purity alumina.
- Usable continually at 1500°C.
- Types can be selected by the end symbol of the part number. **3**
- **SCX-C** — Socket Head Cap Screws
- **SCX-H** — Hex Head Screws
- Excellent heat resistance, chemical resistance, and electrical insulation.
- The properties of ceramic screws → P.662
- Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

	SCX-C	SCX-H
Main Body	Al ₂ O ₃ (99.5% Alumina)	Al ₂ O ₃ (99.5% Alumina)

RoHS2 Compliant

SCX-C Hex Socket Head Cap Screws

Part Number 1	M	L 2	D1	L1	B	Mass (g)
SCX-M3-C	M3	5 6 8	5.5	3	2	0.34 - 0.4
SCX-M4-C	M4	5 6 8 10 12	7	4	2.5	0.71 - 0.98
SCX-M5-C	M5	8 10 12 16 20	8.5	5	3	1.2 - 2
SCX-M6-C	M6	10 12 16 20	10	6	4	2.4 - 3.3
SCX-M8-C	M8	12 16 20 25	13	8	5	5.5 - 7.5
SCX-M10-C	M10	12 16 20 25 30	16	10	6	9.5 - 14

Unit : mm

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

⚠ Precautions for Use

- When tightening ceramic screws, use a torque driver or torque wrench and do not exceed the torsional torque. The recommendation torque is 50% of the torsional torque.

M	Torsional Torque (N・m)
M3	0.04
M4	0.05
M5	0.10
M6	0.15
M8	0.30
M10	0.50

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

- Ceramic screws may be damaged by impact. Take care when handling these screws.

- Also, ceramics screws with special specifications such as ventilation holes, dimensions, shapes, and cleanroom washing are available. Please contact us for details.



Ventilation Hole

SCX-H Hex Head Screws

Part Number	M 1	L 2	B	L1	Mass (g)
SCX-M3-H	M3	5 6 8	5.5	2	0.31 - 0.38
SCX-M4-H	M4	5 6 8 10 12	7	2.8	0.66 - 0.94
SCX-M5-H	M5	8 10 12 16 20	8	3.5	1.3 - 2
SCX-M6-H	M6	10 12 16 20	10	4	2.2 - 3.1
SCX-M8-H	M8	12 16 20 25	13	5.3	5.1 - 7.2
SCX-M10-H	M10	12 16 20 25 30	16	6.4	9.9 - 14

Unit : mm

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

- Part number specification

SCX-M5-16-C

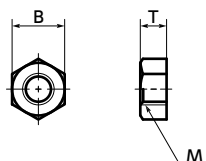
Product Code **1 2 3**

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	Not Available	Not Available	Not Available

SCX-N Hex Nuts - Ceramic

WEB Selection Tool WEB CAD Download Heat-resistance Chemical-proof

e-nedzi.com®



- Ceramic made from 99.5% high-purity alumina.
- Usable continually at 1500°C.
- They have excellent heat resistance, chemical resistance, and electrical insulation.
- The properties of ceramic screws ➔ P.662

• Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

• Material/Finish



	SCX-N
Main Body	Al ₂ O ₃ (99.5% Alumina)

SCX-N Hex Nuts

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack
SCX-M3-N	M3	5.5	2.3	0.16	1
SCX-M4-N	M4	7	3.1	0.38	1
SCX-M5-N	M5	8	4.6	0.68	1
SCX-M6-N	M6	10	5	1.2	1
SCX-M8-N	M8	13	6.7	2.8	1
SCX-M10-N	M10	16	8.2	5.1	1

• Part number specification

SCX-M5-N



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 pc. in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

e-nedzi.com®

The Properties of Ceramic Screws

• Physical Properties

	Al ₂ O ₃ (99.5% Alumina)
Specific Gravity	3.9 - 3.939
Flexural Strength (N/mm ²)	360
Volume Resistivity (Ω · m)	> 10 ¹²
Thermal Conductivity (W / (m · K))	32 (20°C)
Linear Expansion Coefficient (K ⁻¹)	7.2 × 10 ⁻⁶ (40 - 400°C)
Vickers Hardness (GPa)	15.5
Maximum Duty Temperature (°C)	1500

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

• Chemical Resistance

Chemical Name	Temperature	Hour	Effect
35% Hydrochloric Acid	Boiling	30 minutes	○
70% Nitric Acid	Boiling	30 minutes	○
98% Sulfuric Acid	Boiling	30 minutes	○
90% Phosphoric Acid	Boiling	30 minutes	○
60% Hydrofluoric Acid	20°C	24 hours	△
10% Potassium Hydroxide	80°C	7 Days	○
Potassium Hydroxide	500°C (Boiling)	24 hours	△
Sodium Hydroxide	500°C (Boiling)	24 hours	○
Sodium Carbonate	900°C (Boiling)	24 hours	○
Sodium Sulfate	1000°C (Boiling)	24 hours	○
Potassium Fluoride	90°C (Boiling)	4 hours	×

◎ : No Corrosion △ : Moderate Corrosion
○ : Slight Corrosion × : Heavy Corrosion



Precautions for Ceramic Screws

- When tightening ceramic screws, use a torque driver or torque wrench and do not exceed the torsional torque. The recommended torque is 50% of the torsional torque.

M	Torsional Torque (N · m)
M3	0.04
M4	0.05
M5	0.10
M6	0.15
M8	0.30
M10	0.50

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

- Heat resistance and chemical resistance change with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.
- Ceramic screws may be damaged by impact. Take care when handling these screws.

- Also, ceramics screws with special specifications such as ventilation holes, dimensions, shapes, and cleanroom washing are available. Please contact us for details.





• Cover Caps • Socket Head Cap Screws for Cover Caps

	Cover Caps	Socket Head Cap Screws for Cover Caps
Part Number	SCAP-PT	SNCPS
Shape		
Page	P.667	P.667
Materials	PTFE (Teflon)	SUSXM7
Characteristics	Chemical Resistance	For Cover Caps
Size	M3 to M10	M3 - M10

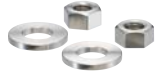
• Coating

	Hex Head Screws	Sealing Washers
Part Number	SNHS-HTF	SWS-HTF
Shape		
Page	P.669	P.670
Materials	SUSXM7 Teflon Coating (Head Only)	Body : SUS304 Teflon Coating Seal : Fluororubber
Characteristics	Fluororubber	Fluororubber
Size	M3 - M8	Nominal 3 to 8

• Titanium

	Socket Head Cap Screws	Cross Recessed Pan Head Machine Screws	Cross Recessed Flat Head Machine Screws	Hex Nuts	Hex Lock Nuts	Washers
Part Number	SNST	SNPT	SNFT	SHNT	SWUT	SWAT
Shape						
Page	P.636	P.638	P.640	P.641	P.642	P.643
Materials	TB340C (Grade 2 Titanium)	TW270 (Grade 1 Titanium)	TW270 (Grade 1 Titanium)	TW270 (Grade 1 Titanium) TW340 (Grade 2 Titanium)	FRS-9901 (Equivalent to TW340)	TP340C (Grade 2 Titanium)
Characteristics	Chemical Resistance • Lightweight • Nonmagnetic	Chemical Resistance • Lightweight • Nonmagnetic	Chemical Resistance • Lightweight • Nonmagnetic	Chemical Resistance • Lightweight • Nonmagnetic With Flange	Chemical Resistance • Lightweight • Nonmagnetic Vibration Resistant	Chemical Resistance • Lightweight • Nonmagnetic
Size	M3 - M6	M3 - M5	M3 - M4	M3 - M10	M3 - M10	Nominal 3 to 10

• Inconel

	Socket Head Cap Screws	Hex Nuts • Washers
Part Number	SNSI	SHNI / SWAI
Shape		
Page	P.648	P.649
Materials	NCF600	NCF600
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance
Size	M3 - M8	M3 - M8

• Hastelloy

	Socket Head Cap Screws
Part Number	SNSH-C276 SNSH-C22
Shape	
Page	P.653 P.654
Materials	NW0276 NW6022
Characteristics	Chemical Resistance • Heat Resistance
Size	M3 - M8

• Nickel

	Socket Head Cap Screws
Part Number	SNSN
Shape	
Page	P.655
Materials	NW2201 (Ni99.0%)
Characteristics	Chemical Resistance • Heat Resistance
Size	M3 - M8

• Ceramic

	Socket Head Cap Screws	Hex Head Screws	Hex Nuts
Part Number	SCX-C	SCX-H	SCX-N
Shape			
Page	P.659	P.659	P.661
Materials	Al ₂ O ₃ (99.5% Alumina)	Al ₂ O ₃ (99.5% Alumina)	Al ₂ O ₃ (99.5% Alumina)
Characteristics	Chemical Resistance • Heat Resistance • Electrical Insulation	Chemical Resistance • Heat Resistance • Electrical Insulation	Chemical Resistance • Heat Resistance • Electrical Insulation
Size	M3 - M10	M3 - M10	M3 - M10

• PEEK (Polyetheretherketone)

	Socket Head Cap Screws	Socket Head Cap Screws	Low Head Bolt with Hexagon Socket	Micro Screws	Cross Recessed Pan Head Machine Screws	Cross Recessed Flat Head Machine Screws
Part Number	SPE-C	SPE-FT	SPE-LC	SPE-MC	SPE-P	SPE-F
Shape						
Page	P.744	P.745	P.746	P.747	P.749	P.750
Materials	PEEK	PEEK	PEEK	PEEK	PEEK	PEEK
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance • Full Thread	Small Space Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance
Size	M3 - M8	M3 - M6	M3 - M6	M1.2 - M1.6	M1.7 - M8	M2 - M8

	Hex Socket Set Screws	Hex Head Screws	Hex Nuts • Washers	Screw Plugs
Part Number	SPE-T	SPE-H	SPE-N/SPE-W	SPE-R
Shape				
Page	P.751	P.752	P.753	P.754
Materials	PEEK	PEEK	PEEK	PEEK
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance
Size	M3 - M8	M4 - M10	M2 - M10	R ¹ / ₈ - R ³ / ₈

• PTFE (Tetrafluoroethylene: Teflon)

	Hex Head Screws	Hex Nuts • Washers
Part Number	SPT-H	SPT-N / SPT-W
Shape		
Page	P.769	P.770
Materials	PTFE (Teflon)	PTFE (Teflon)
Characteristics	Chemical Resistance • Heat Resistance • Electrical Insulation	Chemical Resistance • Heat Resistance • Electrical Insulation
Size	M3 - M12	M3 - M12



Chemical Resistance of Chemical Resistance Screws

• Chemical Resistance of Teflon® Coating

Chemical Name	Temperature (°C)	Teflon® Coating (For SNHS-HTF and SWS-HTF)
10% Hydrochloric Acid	25	○
	50	○
	75	○
10% Nitric Acid	25	○
	70	○
30% Sulfuric Acid	25	○
	70	○
10% Sodium Hydroxide	25	○
	70	○
10% Ammonium Hydroxide	25	○
	70	○
Acetone	25	○
	50	○
Carbon Tetrachloride	25	○
	50	○
95% Ethyl Alcohol	25	○
	50	○
Ethyl Acetate	25	○
	50	○
Toluene	25	○
	50	○
Benzene	78	○

○ : No Corrosion ○ : Slight Corrosion
*Teflon is a registered trademark of DuPont.

• Chemical Resistance of Inconel®, Hastelloy®, and Nickel

Chemical Name	Temperature	Inconel®	Hastelloy®	Nickel
Dilute Sulfuric Acid	Room Temperature	A	AA	A
	Boiling Point	D	A	D
Concentrate Sulfuric Acid	Room Temperature	C	AA	C
	Boiling Point	D	D	D
Dilute Hydrochloric Acid	Room Temperature	B	AA	A
	Boiling Point	D	D	D
Concentrate Hydrochloric Acid	Room Temperature	D	AA	D
	Boiling Point	D	B	D
Dilute Nitric Acid	Room Temperature	D	AA	D
	Boiling Point	—	AA	D
Concentrate Nitric Acid	Room Temperature	A	AA	D
	Boiling Point	—	D	D
Dilute Phosphoric Acid	Room Temperature	AA	AA	AA
	Boiling Point	—	AA	D
Concentrate Phosphoric Acid	Room Temperature	AA	AA	AA
	Boiling Point	—	B	D
Sodium Hydroxide (Diluted)	Room Temperature	AA	—	AA
	Boiling Point	C	—	AA
Sodium Hydroxide (Concentrated)	Room Temperature	AA	—	AA
	Boiling Point	C	—	AA

AA : Excellent C : Useable under certain conditions
A : Good D : Non Useable
B : Useable

*Inconel is a registered trademark of Special Metals Corporation.
Hastelloy is a registered trademark of Haynes International, Inc.

• Chemical Resistance of Titanium

Chemical Name	Composition (%)	Corrosion Resistance	
		Pure Titanium	SUS304
Hydrochloric Acid	10	○	×
	30	×	×
Sulfuric Acid	10	△	—
	50	×	×
Nitric Acid	10	○	○
	50	○	○
Nitrohydrochloric Acid (HCl : HNO ₃)	3:1	○	×
Chromic Acid	5	○	—
Hydrofluoric Acid	5	×	×
Phosphoric Acid	50 (Ventilation)	△	○
	10 - 30	○	×
Cupric Chloride	10 - 30	○	×
Sodium Chloride	10 - 40	○	○
Calcium Chloride	50	○	○
Ammonium Chloride	40	○	—
Magnesium Chloride	40	○	○
Ferrous Sulfate	10 - 50	○	○
Ammonia	10 - 30	○	○
Sodium Hydroxide	50	○	○
Sodium Carbonate	10	○	○
Hydrogen Sulfide	Dry Gas	○	△
	Wet Gas	○	○
Hydrogen Sulfide	Dry Gas	×	—
	Wet Gas	○	—
Sulfur Dioxide	Dry Gas	○	—
	Wet Gas	○	—
Seawater	High Speed Stream	○	—
	10 - 50	○	○
Formic Acid	50	○	○
Lactic Acid	20	×	—
Oxalic Acid	10 - 50	○	○

Testing Temperature : Room Temperature
○ : <0.127 mm/year △ : 0.508 - 1.27 mm/year
○ : 0.127 - 0.508 mm/year × : >1.27 mm/year

⚠ Important Information about Chemical Resistance Data

- A test piece was used to acquire the test data.
- Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

• Chemical Resistance of Ceramic

Chemical Name	Temperature	Hour	Effect
35% Hydrochloric Acid	Boiling	30 minutes	○
70% Nitric Acid	Boiling	30 minutes	○
98% Sulfuric Acid	Boiling	30 minutes	○
90% Phosphoric Acid	Boiling	30 minutes	○
60% Hydrofluoric Acid	20°C	24 hours	△
10% Potassium Hydroxide	80°C	7 Days	○
Potassium Hydroxide	500°C (Boiling)	24 hours	△
Sodium Hydroxide	500°C (Boiling)	24 hours	○
Sodium Carbonate	900°C (Boiling)	24 hours	○
Sodium Sulfate	1000°C (Boiling)	24 hours	○
Potassium Fluoride	90°C (Boiling)	4 hours	×

○ : No Corrosion △ : Moderate Corrosion
○ : Slight Corrosion × : Heavy Corrosion

• Chemical Resistance of Plastics

Chemical Name	PTFE	PEEK	VESPEL® SP-1	VESPEL® SCP-5000	PPS	H-PVC	RENY	PC	PP	PVDF
10% Hydrochloric Acid	○	○	○	○	○	○	×	○	○	○
10% Sulfuric Acid	○	○	○	○	○	○	×	○	○	○
50% Sulfuric Acid	○	×	×	△	×	○	×	△	—	○
10% Nitric Acid	○	○	△	△	○	○	×	○	○	○
50% Nitric Acid	○	×	×	×	×	△	×	△	—	○
10% Hydrofluoric Acid	○	—	△	△	△	△	×	○	○	○
50% Hydrofluoric Acid	○	×	×	×	×	△	×	△	△	△
Phosphoric Acid	○	○	—	—	△	○	×	○	○	○
Formic Acid	○	△	△	△	○	△	×	○	○	○
Phosphoric Acid	○	○	○	○	○	○	×	○	○	○
Citric Acid	○	○	○	○	○	○	△	○	○	○
Chromic Acid	○	○	—	—	△	○	×	○	○	○
Boric Acid	○	○	○	○	○	○	△	○	○	○
Methyl Alcohol	○	○	△	△	○	○	—	△	—	○
Glycol	○	○	○	○	○	—	—	○	—	—
Ammonia	○	○	×	△	○	○	○	×	○	○
10% Sodium Hydroxide	○	○	×	△	○	○	○	—	○	○
10% Potassium Hydroxide	○	○	×	△	△	○	○	×	○	○
Calcium Hydroxide	○	○	—	—	△	○	×	○	○	○
Water	○	○	○	○	○	○	△	○	○	○
Hydrogen Sulfide (Gas)	○	○	—	—	○	—	○	○	○	○
Sulfur Dioxide	○	○	—	—	△	—	○	○	○	—
Ammonium Nitrate	○	○	—	—	○	—	○	○	○	○
Sodium Nitrate	○	○	—	—	○	—	○	×	○	○
Calcium Carbonate	○	○	—	—	○	—	○	×	○	○
Calcium Chloride	○	○	—	—	○	○	○	○	○	○
Magnesium Chloride	○	○	—	—	○	○	○	○	○	○
Magnesium Sulfate	○	○	—	—	○	—	○	○	○	○
Zinc Sulfate	○	○	—	—	○	—	○	○	○	○
Hydrogen Peroxide	○	○	△	△	△	○	△	○	○	○

○ : Usable △ : Usable under certain conditions × : Non-usable
• A test piece was used to acquire the test data at room temperature (23 °C).

⚠ Important Information about Chemical Resistance Data

- A test piece was used to acquire the test data.
- Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.



SCAP-PT / SNCPS Cover Caps - PTFE (Teflon) / Socket Head Cap Screws for Cover Caps

WEB Selection Tool CAD Download SUS Stainless steel Cleanroom wash & packaging Chemical-proof



- Combine **SCAP-PT** Cover Caps and **SNCPS** Socket Head Cap Screws for Cover Caps.
- The PTFE (Teflon) cover protects the screw head from corrosion caused by chemicals.
- PTFE is a plastic with excellent chemical resistance, and most chemicals cannot penetrate it.
- Chemical Resistance of PTFE → P.665
- Since the screw portion is stainless steel, they can be used with higher tightening forces than PTFE screws.
- Tightening with the recommendation torque has a sealing effect and the bearing surface of the cover cap fits the attachment surface tightly. Airtight testing at 0.6 MPa confirmed that there is no leakage.
- Also, make cover caps from requested materials such as Hastelloy*1 and PEEK are available.
- *1: Hastelloy is a registered trademark of Haynes International, Inc.

Application
FPD production equipment, semiconductor fabrication wet processes, printed circuit board etching devices, metallic surface treatment equipment and facilities, cleaning equipment, and chemical plants

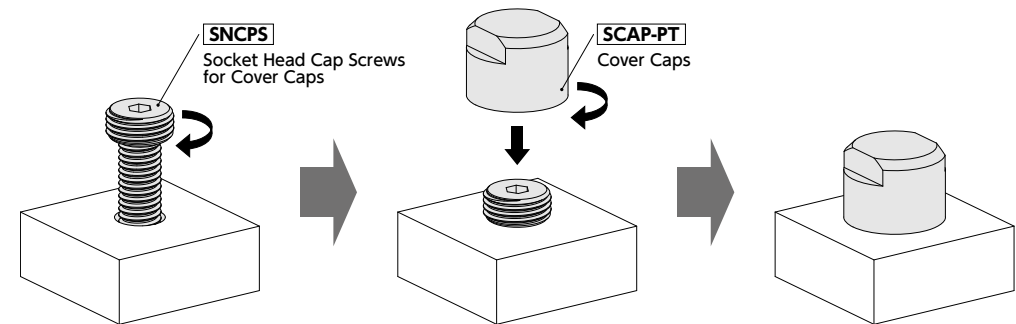
Material/Finish		RoHS2 Compliant
	SCAP-PT Cover Caps	SNCPS Socket Head Cap Screws
Main Body	PTFE (Tetrafluoroethylene : Teflon*1)	SUSXM7 (Equivalent to SUS304)
Strength Class		A2-50

*1: Teflon is a registered trademark of DuPont.

SCAP-PT Cover Caps										Unit : mm
Part Number	M	H	D1	h	B	tB	Recommendation Torque (N·m)	SNCPS Part.No	Mass (g)	Qty per pack
SCAP-3-PT	M5×0.5	6	9	2	7	3	0.04	SNCPS-M3	0.65	1
SCAP-4-PT	M6×0.75	8	10	2.8	8	3	0.08	SNCPS-M4	1.1	1
SCAP-5-PT	M8×0.75	9	12	3.5	9	3	0.2	SNCPS-M5	1.6	1
SCAP-6-PT	M10×0.75	10	14	4	11	4	0.35	SNCPS-M6	2.3	1
SCAP-8-PT	M12×1	11	16	5	13	4	0.45	SNCPS-M8	3.1	1
SCAP-10-PT	M16×1	12	20	6	17	4	0.6	SNCPS-M10	4.8	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 pc. in 1 bag Cleanroom washed and packed S.S. only/ Add'l charge S.S. only/ Add'l charge Not Available

- Usage
After tightening **SNCPS** Socket Head Cap Screw for Cover Cap, attach **SCAP-PT** Cover Cap so that it covers the head of **SNCPS**.
Ensure that the tightening torque of **SCAP-PT** does not exceed the recommendation torque in the chart.



Related Products

SCAP-AL aluminum alloy for use in vacuum chambers are available.
→ P.591

SCAP-CE ceramic cover cap for use in vacuum chambers are available.
→ P.591

Part number specification

SCAP-6-PT **SCAP-PT** Cover Caps

SNCPS-M6-20 **SNCPS** Socket Head Cap Screws for Cover Caps

Order **SCAP-PT** and **SNCPS** individually.

SNCPS Socket Head Cap Screws for Cover Caps

Part Number	M	L	M1	L1	B	t	L2*1	SCAP-PT Part.No	Mass (g)
SNCPS-M3	M3	6 8 10 12	M5×0.5	2	2	1.5	Full Thread	SCAP-3	0.53 - 0.78
SNCPS-M4	M4	8 10 12 16	M6×0.75	2.8	2.5	2.3	Full Thread	SCAP-4	1.3 - 1.9
SNCPS-M5	M5	10 12 16 20	M8×0.75	3.5	3	2.7	Full Thread	SCAP-5	2 - 3.3
SNCPS-M6	M6	12 16 20 25	M10×0.75	4	4	3	Full Thread	SCAP-6	3.8 - 6.4
SNCPS-M8	M8	16 20 25 30 35	M12×1	5	5	3.8	22(L=35)	SCAP-8	9 - 16
SNCPS-M10	M10	20 25 30 35 40	M16×1	6	6	4.5	26(L=40)	SCAP-10	17 - 27

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

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

SNSS-TF Hex Socket Head Cap Screws - Teflon Coating

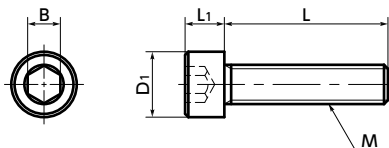
WEB Selection Tool

CAD Download

Seizing Prevention

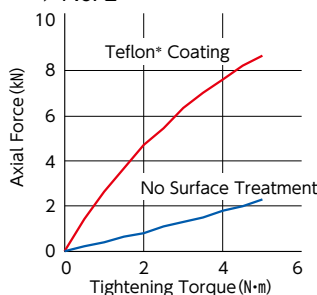
Chemical-proof

SUS Stainless steel



- Tightening property (reference)
Part Number : SNSS-M5 - 25-TF

➔ P.672



- Excellent chemical resistance.
- The coating has excellent lubricating ability and is suitable for prevention of seizing.

- Application

Seizing prevention. FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

- Material/Finish

	SNSS-TF
Main Body	SUSXM7 (S.S. Grade : A2) Teflon*1 Coating
Strength Class	A2-70

*1 : Teflon is a registered trademark of DuPont.

Part Number	M	1	L	2											D1	L1	B	Mass (g)
SNSS-M3-TF	M3	5	6	8	10	12	16	20							5.5	3	2.5	0.67 - 1.4
SNSS-M4-TF	M4		6	8	10	12	16	20	25						7	4	3	1.5 - 3.2
SNSS-M5-TF	M5			8	10	12	16	20	25						8.5	5	4	2.5 - 4.8
SNSS-M6-TF	M6				10	12	16	20	25	30					10	6	5	4.7 - 8.3
SNSS-M8-TF	M8						16	20	25	30	35				13	8	6	12 - 19
SNSS-M10-TF	M10							20	25	30	35	40			16	10	8	23 - 33

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

- Part number specification

SNSS - M6 - 25 - TF

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	Not Available	Not Available	Not Available

SNSS-AUS Hex Socket Head Cap Screws - Gold Coating

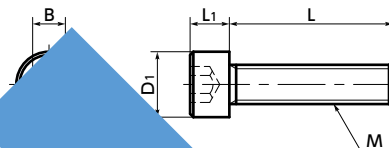
WEB Selection Tool

CAD Download

Cleanroom wash & packaging

Seizing Prevention

SUS Stainless steel



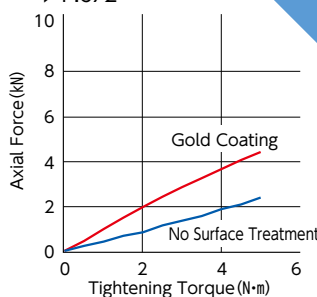
- Material/Finish

Main Body	SUSXM7 (S.S. Grade : A2) Gold Coating (Purity : 99.99 wt%)
Strength Class	A2-70

- Tightening property (reference)

Part Number : SNSS-M5 - 16-AUS

➔ P.672



- Excellent corrosion resistance, high electrical resistance, electroconductivity, and high thermal conductivity.
- The coating has excellent lubricating ability and is suitable for prevention of seizing.
- Unlike standard screws, there is no surface preparation. Screws are suitable for applications where pure elements are required, such as in FPD production equipment and semiconductor devices.

Gold Coating : 99.99wt%
Products with special specifications such as dimensions, shapes, materials, surface treatments, cleanroom washing & special packaging are available. ➔ P.549



- Application

Seizing prevention and control of dust. FPD production equipment, Semiconductor devices

Part Number	M	1	L	2											D1	L1	B	Mass (g)
SNSS-M3-AUS	M3	5	6	8	10	12	16	20							5.5	3	2.5	0.67 - 1.4
SNSS-M4-AUS	M4		6	8	10	12	16	20	25						7	4	3	1.5 - 3.2
SNSS-M5-AUS	M5			8	10	12	16	20	25						8.5	5	4	2.5 - 4.8
SNSS-M6-AUS	M6				10	12	16	20	25	30					10	6	5	4.7 - 8.3
SNSS-M8-AUS	M8						16	20	25	30	35				13	8	6	12 - 19
SNSS-M10-AUS	M10							20	25	30	35	40			16	10	8	23 - 33

- Part number specification

SNSS - M5 - 16 - AUS

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	Cleanroom washed and packed	Not Available	Not Available	Not Available



• VESPEL (Non-thermoplastic Polyimide Resin)

	Socket Head Cap Screws	Hex Head Screws	Socket Head Cap Screws	Hex Head Screws
Part Number	SPD-C	SPD-H	SPDC-C	SPDC-H
Shape				
Page	P.739	P.740	P.741	P.742
Materials	VESPEL SP-1	VESPEL SP-1	VESPEL SCP-5000	VESPEL SCP-5000
Characteristics	Heat Resistance • Chemical Resistance • Low Outgas	Heat Resistance • Chemical Resistance • Low Outgas	Heat Resistance • Chemical Resistance • Low Outgas	Heat Resistance • Chemical Resistance • Low Outgas
Size	M3 - M8	M3 - M8	M3 - M8	M3 - M8

• Conductive PEEK

	Socket Head Cap Screws
Part Number	SPEC-C
Shape	
Page	P.743
Materials	Conductive PEEK
Characteristics	Conductivity • Chemical Resistance • Heat Resistance
Size	M4 - M6

• PEEK (Polyetheretherketone)

	Socket Head Cap Screws	Socket Head Cap Screws	Socket Hex Head Screws with Low Profile	Micro Screws		Cross Recessed Pan Head Machine Screws
Part Number	SPE-C	SPE-FT	SPE-LC	SPE-MC	SPE-MF	SPE-P
Shape						
Page	P.744	P.745	P.746	P.747	P.748	P.749
Materials	PEEK	PEEK	PEEK	PEEK	PEEK	PEEK
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance • Full Thread	Chemical Resistance • Small Space • Heat Resistance	Chemical Resistance • Heat Resistance For precision equipment	Chemical Resistance • Heat Resistance For precision equipment	Chemical Resistance • Heat Resistance
Size	M3 - M8	M3 - M6	M3 - M6	M1.2 - M1.6	M1.2 - M1.6	M1.7 - M8

	Cross Recessed Flat Head Machine Screws	Hex Socket Set Screws	Hex Head Screws	Hex Nuts • Washers	Screw Plugs
Part Number	SPE-F	SPE-T	SPE-H	SPE-N/SPE-W	SPE-R
Shape					
Page	P.750	P.751	P.752	P.753	P.754
Materials	PEEK	PEEK	PEEK	PEEK	PEEK
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance
Size	M2 - M8	M3 - M8	M4 - M10	M2 - M10	R1/8 - R3/8

• PPS (Polyphenylene Sulfide)

	Socket Head Cap Screws	Socket Hex Head Screws with Low Profile	Cross Recessed Pan Head Machine Screws	Cross Recessed Flat Head Machine Screws	Hex Head Screws	Hex Nuts • Washers
Part Number	SPS-C	SPS-LC	SPS-P	SPS-F	SPS-H	SPS-N/SPS-W
Shape						
Page	P.755	P.756	P.757	P.758	P.759	P.760
Materials	PPS	PPS	PPS	PPS	PPS	PPS
Characteristics	Heat Resistance • Chemical Resistance	Small Space • Chemical Resistance • Heat Resistance	Heat Resistance • Chemical Resistance	Heat Resistance • Chemical Resistance	Heat Resistance • Chemical Resistance	Heat Resistance • Chemical Resistance
Size	M3 - M8	M3 - M6	M2 - M6	M3 - M6	M4 - M12	M2 - M12

• RENY (50% Glass Fiber Reinforced Polyamide MXD6)

	Socket Head Cap Screws	Socket Hex Head Screws with Low Profile	Micro Screws		Cross Recessed Pan Head Machine Screws	Cross Recessed Flat Head Machine Screws
Part Number	SPA-C	SPA-LC	SPA-MC	SPA-MF	SPA-P	SPA-F
Shape						
Page	P.761	P.762	P.763	P.764	P.765	P.766
Materials	RENY	RENY	RENY	RENY	RENY	RENY
Characteristics	High Strength	Small Space • High Strength	High Strength For precision equipment	High Strength For precision equipment	High Strength	High Strength
Size	M3 - M8	M3 - M6	M1.2 - M1.6	M1.2 - M1.6	M1.7 - M6	M2 - M8

	Hex Head Screws	Hex Nuts • Washers
Part Number	SPA-H	SPA-N/SPA-W
Shape		
Page	P.767	P.768
Materials	RENY	RENY
Characteristics	High Strength	High Strength
Size	M5 - M10	M2 - M16

• PTFE (Tetrafluoroethylene: Teflon)

	Hex Head Screws	Hex Nuts • Washers
Part Number	SPT-H	SPT-N/SPT-W
Shape		
Page	P.769	P.770
Materials	PTFE (Teflon)	PTFE (Teflon)
Characteristics	Chemical Resistance • Heat Resistance • Electrical Insulation	Chemical Resistance • Heat Resistance • Electrical Insulation
Size	M3 - M12	M3 - M12

• PVDF (Polyvinylidene Fluoride)

	Hex Head Screws	Socket Head Cap Screws
Part Number	SPV-H	SPV-C
Shape		
Page	P.771	P.772
Materials	PVDF	PVDF
Characteristics	Chemical Resistance	Chemical Resistance
Size	M5 - M8	M5 - M6

• PP (Polypropylene)

	Hex Head Screws	Hex Nuts • Washers
Part Number	SPP-H	SPP-N/SPP-W
Shape		
Page	P.773	P.774
Materials	PP	PP
Characteristics	Chemical Resistance	Chemical Resistance
Size	M4 - M10	M4 - M10

• H-PVC (Hard Polyvinyl Chloride)

	Hex Head Screws	Hex Nuts • Washers
Part Number	SPVC-H	SPVC-N/SPVC-W
Shape		
Page	P.775	P.776
Materials	H-PVC	H-PVC
Characteristics	Chemical Resistance	Chemical Resistance
Size	M4 - M6	M4 - M6

• PC (Polycarbonate)

	Cross Recessed Pan Head Machine Screws	Hex Nuts • Washers
Part Number	SPC-P	SPC-N/SPC-W
Shape		
Page	P.777	P.778
Materials	PC	PC
Characteristics	Shock Resistance • Weather Resistance	Shock Resistance • Weather Resistance
Size	M1.7 - M6	M2 - M6



Properties of Plastic Screws

The Abbreviations, Names, and Heat Resistance Temperature of Plastics

Abbreviation	Name	Heat Resistance Temperature
VESPEL*	SP-1	288°C
	SCP-5000	350°C
PEEK	Polyetheretherketone	180°C
PTFE	Tetrafluoroethylene	260°C
PPS	Polyphenylene Sulfide	200°C
H-PVC	Hard Polyvinyl Chloride	35°C
RENY*	RENY	105°C
PC	Polycarbonate	115°C
PP	Polypropylene	65°C
PVDF	Polyvinylidene Fluoride	150°C

•The heat resistance temperatures in the chart are for the plastic material. The max. operating temperature of the product changes with performance conditions such as tightening torque.

*VESPEL is a registered trademark of DuPont.

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

Selection Criteria for Plastic Screws

Strength	RENY>PPS>VESPEL (SCP-5000)>PEEK>VESPEL (SP-1)>PC>PVDF>PP>H-PVC>PTFE	From tensile strength data
Heat Resistance	VESPEL (SCP-5000)>VESPEL (SP-1)>PTFE>PPS>PEEK>PVDF>PC>RENY>PP>H-PVC	From heat resistance temperature
Chemical Resistance	PTFE>PVDF>H-PVC • PP>PEEK>PPS>PC>VESPEL (SCP-5000)>VESPEL (SP-1)>RENY	From chemical resistance data

Physical Properties

Properties	Test Method	Unit	VESPEL SP-1	VESPEL SCP-5000	PEEK	PTFE	PPS	RENY	PC	PP	PVDF
Tensile Strength	D638	N/mm ²	86	160	97	24	185	285	62	36	57
Tensile Elongation	D638	%	7.5	7	65	200 - 400	1.9	2.1	110	500	70 - 80
Flexural Strength	D790	N/mm ²	110	247	156	—	255	380	88.2	—	75
Flexural Modulus	D790	GPa	3.1	5.7	4.1	0.56	13.2	17.4	2.3	1.5	1.99
Izot Impact (with Notch)	D256	J/m	42.7	—	94	160	100	110	880	30	160 - 375
Rockwell Hardness	D785	R and M Scales	M90	M100	M99	—	M100	M111	R120	R100	R93 - 116
Deflection Temp. under Load (1.82 MPa)	D648	°C	360	350	152	—	260	234	135	120	80
Flame Class	UL94	—	V-0	V-0	V-0	V-0	V-0	HB	V-2	HB	V-0
Dielectric Constant (10 ⁶ Hz)	D150	—	3.6	3.3	3.3	<2.1	4.6	4.0	2.9	—	10
Dielectric Loss Tangent (10 ⁶ Hz)	D150	—	0.0034	0.001	0.003	<0.0002	0.002	0.009	0.009	—	0.015
Volume Resistivity (×10 ¹⁴)	D257	Ω·m	1 - 10	1	4.9	>100	1.0	1.3	4.0	1.0	0.1 - 1
Dielectric Breakdown Strength	D149	MV/m	22	—	17	19	12	32	16	31	300
Arc Resistance	D495	sec	—	—	23	>300	120	129	120	—	—
Specific Gravity	D792	—	1.43	1.43	1.30	2.14 - 2.2	1.66	1.65	1.20	0.91	1.79
Water Absorption (in 23 °C Water for 24 h)	D570	%	0.240	0.080	0.500	0.010	0.015	0.140	0.150	0.010	0.030
Glass Fiber Content	—	%	—	—	—	—	40	50	—	—	—

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

Physical Properties (H-PVC)

Properties	Test Method (JIS)	Unit	H-PVC
Tensile Strength	JISK7162	Test Speed : 10mm/min	N/mm ² 38.8
Tensile Elongation	JISK7162	Test Speed : 10mm/min	% 188
Hardness	JISK7215	10 seconds later (2 mm thickness 3 sheets overlaid)	Hs 97
Specific Gravity	JISK7112	Method A	— 1.32

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



Precautions for Plastic Screws

- While these plastics screws comply with JIS and ISO standards, there are some areas irrelevant to these screws as their manufacturing methods differ from that of metal screws.
- The values in the mechanical properties chart are reference values.
- Use a torque driver or torque wrench when tightening.
- Always carry out tests under performance conditions similar to actual conditions in advance.
- The color of machine screws, bolts, nuts, and washers may differ by lot.

Chemical Resistance

Chemical Name	VESPEL SP-1	VESPEL SCP-5000	PEEK	PTFE	PPS	H-PVC	RENY	PC	PP	PVDF
10% Hydrochloric Acid	O	O	O	O	O	O	×	O	O	O
10% Sulfuric Acid	O	O	O	O	O	O	×	O	O	O
50% Sulfuric Acid	×	△	×	O	×	O	×	△	—	O
10% Nitric Acid	△	△	O	O	O	O	×	O	O	O
50% Nitric Acid	×	×	×	O	×	△	×	△	—	O
10% Hydrofluoric Acid	△	△	—	O	△	△	×	O	O	O
50% Hydrofluoric Acid	×	×	×	O	×	△	×	△	△	△
Phosphoric Acid	—	—	O	O	△	O	×	O	O	O
Formic Acid	△	△	△	O	O	△	×	O	O	O
Phosphoric Acid	O	O	O	O	O	O	×	O	O	O
Citric Acid	O	O	O	O	O	O	△	O	O	O
Chromic Acid	—	—	O	O	△	O	×	O	O	O
Boric Acid	O	O	O	O	O	O	△	O	O	O
Methyl Alcohol	△	△	O	O	O	O	—	△	—	O
Glycol	O	O	O	O	O	—	—	O	—	—
Ammonia	×	△	O	O	O	O	O	×	O	O
10% Sodium Hydroxide	×	△	O	O	O	O	O	—	O	O
10% Potassium Hydroxide	×	△	O	O	△	O	O	×	O	O
Calcium Hydroxide	—	—	O	O	△	O	×	O	O	O
Water	O	O	O	O	O	O	△	O	O	O
Hydrogen Sulfide (Gas)	—	—	O	O	O	—	O	O	O	O
Sulfur Dioxide	—	—	O	O	△	—	O	O	O	—
Ammonium Nitrate	—	—	O	O	O	—	O	O	O	O
Sodium Nitrate	—	—	O	O	O	—	O	×	O	O
Calcium Carbonate	—	—	O	O	O	—	O	×	O	O
Calcium Chloride	—	—	O	O	O	O	O	O	O	O
Magnesium Chloride	—	—	O	O	O	O	O	O	O	O
Magnesium Sulfate	—	—	O	O	O	—	O	O	O	O
Zinc Sulfate	—	—	O	O	O	—	O	O	O	O
Hydrogen peroxide	△	△	O	O	△	O	△	O	O	O

OUsable

△Usable under certain conditions

×Non-usable

•A test piece was used to acquire the test data at room temperature (23°C). Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

Torsional Torque of Plastic Screws (N·m)

	VESPEL SP-1	VESPEL SCP-5000	PEEK	PTFE	PPS	H-PVC	RENY	PC	PP	PVDF
M1.7	—	—	0.02	—	—	—	0.03	0.02	—	—
M2	—	—	0.06	—	0.08	—	0.1	0.05	—	—
M2.6	—	—	0.16	—	—	—	0.24	—	—	—
M3	0.12	0.21	0.3	0.02	0.36	—	0.39	0.22	—	—
M4	0.27	0.47	0.64	0.03	0.71	0.18	0.79	0.54	0.23	—
M5	0.54	0.98	1.28	0.08	1.42	0.41	1.77	1.03	0.51	0.64
M6	0.95	1.65	2.26	0.14	2.11	0.65	2.94	1.37	0.8	0.88
M8	2.26	4.04	5.98	0.24	5.29	—	7.85	—	2.2	2.65
M10	—	—	—	0.69	11.8	—	12.75	—	3.4	—
M12	—	—	—	1.54	20.6	—	—	—	—	—

•Values in chart are for reference only. They are not guaranteed values. The recommended torque is 50% of the value in the chart. The value differs depending on the head shape of the screw. See the product page for details.



DuPont™ VESPEL Screws for Extreme Heat Resistance and Cleanliness

VESPEL is non-thermoplastic super-engineering plastic formed from powder of wholly aromatic polyimide resin developed by DuPont using advanced technology.

Among super-engineering plastics, it has top-level heat resistance. It is used in wide range of applications, starting with machine and electrical machine parts.

Characteristics

• Extreme Heat Resistance

Continuous Max. Operating Temperature:
288 °C (SP-1), 350 °C (SCP-5000)
VESPEL is formed from a polyimide that has excellent heat resistance. VESPEL can be used continually under high temperatures without reaching a softening point, such as its melting point or glass transition point.

• Low outgas

Outgas quantity is extremely low under high temperatures. No bubbles blend in thanks to the powder compression molding method.

VESPEL Screw Types

• Standard grade SP-1 and high grade SCP-5000 screws are available as standard.

SP-1

This material has excellent heat resistance and electrical and thermal insulation properties. It is used widely in industrial fields. Due to its excellent plasma resistance and low outgas characteristics, it is widely used for peripheral parts for FPD production equipment and semiconductor devices.



[SPDC-C] VESPEL Socket Head Cap Screws
(Grade: SP-1) → P.739



[SPDC-H] High-grade VESPEL Hex Head Screws
(Grade: SP-1) → P.740



• Chemical Resistance

VESPEL is resistant to various chemicals.

• Plasma Resistance

• Radiation Hardness

• Abrasion Resistance

SCP-5000

This material has better strength characteristics, heat resistance, chemical resistance, and dimensional stability than SP-1. In addition to FPD production equipment and semiconductor devices, this material is also used in the fields of air and spacecraft.



[SPDC-C] High-grade VESPEL Socket Head Cap Screws
(Grade: SCP-5000) → P.741



[SPDC-H] High-grade VESPEL Hex Head Screws
(Grade: SCP-5000) → P.742

Properties of VESPEL by DuPont™

• Physical Properties

Properties	Test Method	Unit	VESPEL SP-1	VESPEL SCP-5000
Tensile Strength	D1708	N/mm ²	86	160
Tensile Elongation	D1708	%	7.5	7
Flexural Strength	D790	N/mm ²	110	247
Flexural Modulus	D790	GPa	3.1	5.7
Izot Impact (with Notch)	D256	J/m	42.7	—
Rockwell Hardness	D785	R and M Scales	M90	M100
Deflection Temp. under Load (1.82 MPa)	D648	°C	360	350
Flame Class	UL94	—	V-0	V-0
Dielectric Constant (10 ⁶ Hz)	D150	—	3.6	3.3
Dielectric Loss Tangent (10 ⁶ Hz)	D150	—	0.0034	0.001
Volume Resistivity (× 10 ¹⁴)	D257	Ω·m	1 - 10	1
Dielectric Breakdown Strength	D149	MV/m	22	—
Specific Gravity	D792	—	1.43	1.43
Water Absorption (in 23 °C Water for 24 h)	D570	%	0.24	0.08
Glass Fiber Content	—	%	—	—

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

• Chemical Resistance

Chemical Name	VESPEL SP-1	VESPEL SCP-5000
10% Hydrochloric Acid	○	○
10% Sulfuric Acid	○	○
50% Sulfuric Acid	×	△
10% Nitric Acid	△	△
50% Nitric Acid	×	×
10% Hydrofluoric Acid	△	△
50% Hydrofluoric Acid	×	×
Formic Acid	△	△
Phosphoric Acid	○	○
Citric Acid	○	○
Boric Acid	○	○
Methyl Alcohol	△	△
Glycol	○	○
Ammonia	×	△
10% Sodium Hydroxide	×	△
10% Potassium Hydroxide	×	△
Water	○	○
Hydrogen Peroxide	△	△

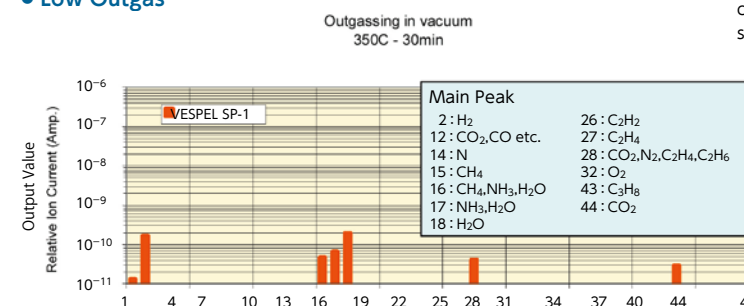
○ Usable

△ Usable under certain conditions

× Non-usable

• A test piece was used to acquire the test data at room temperature (23 °C). Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

• Low Outgas



Instrument : Quadrupole Mass Spectrometer (QMS)

Heating temperature : 350 °C

Heating time : 30 minutes

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

Also, screws with special sizes including nominal and length are available.



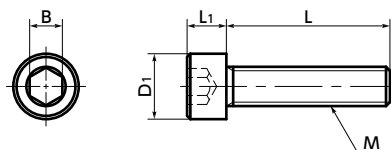
VESPEL is a registered trademark of DuPont.

SPD-C Plastic Screw - Socket Head Cap Screws - VESPEL (Grade : SP - 1)

e-nedzi.com®



WEB Selection Tool CAD Download Cleanroom wash & packaging Heat-resistance Chemical-proof



● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● Material/Finish



	SPD-C
Main body	VESPEL SP-1 (Non-thermoplastic Polyimide Resin)
Heat Resistance Temperature*1	288°C

● VESPEL is a registered trademark of DuPont.

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

- VESPEL SP-1 is a non-thermoplastic super-engineering plastic with excellent physical and chemical properties.
- Properties of VESPEL SP-1 ➔ P.738
- It does not reach a softening point, such as its melting point or glass transition point, even under high temperatures and can be used continually at 288°C.
- The screws have excellent chemical resistance, plasma resistance, radiation hardness, and abrasion resistance.
- Thanks to the powder compression molding method, no bubbles blend in and outgas quantity is extremely low. ➔ P.738
- Cleanroom wash and cleanroom packing are completed. ➔ P.807

Unit : mm

Part Number	M	1	L	2						D1	L1	B	Torsional*1 Torque (N·m)	Mass (g)
SPD-M3-C	M3	6	8	10	12	16				5.5	3	2.5	0.12	0.13 - 0.21
SPD-M4-C	M4	6	8	10	12	16	20	25		7	4	3	0.27	0.28 - 0.58
SPD-M5-C	M5		8	10	12	16	20	25	30	8.5	5	4	0.54	0.45 - 1
SPD-M6-C	M6			10	12	16	20	25	30	10	6	5	0.95	0.86 - 2
SPD-M8-C	M8			10	12	16	20	25	30	13	8	6	2.26	1.9 - 3.8

*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
SPD-M3-C	1
SPD-M4-C	1
SPD-M5-C	1
SPD-M6-C	1
SPD-M8-C	1

● Related Products

SPDC VESPEL SCP-5000 Hex socket head screw, which has a continuous duty temperature of 350 °C is available.
➔ P.741



● Part number specification

SPD - M5 - 20 - C

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	Cleanroom washed and packed	Available / Add'l charge	Not Available	Please feel free to contact us

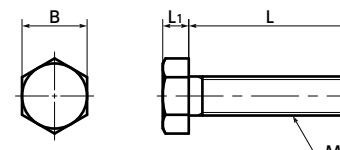
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WEB ▶ <https://www.nbk1560.com>**SPD-H** Plastic Screw - Hex Head Screws - VESPEL (Grade : SP - 1)

e-nedzi.com®



WEB Selection Tool CAD Download Cleanroom wash & packaging Heat-resistance Chemical-proof



● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● Material/Finish



	SPD-H
Main Body	VESPEL SP-1 (Non-thermoplastic Polyimide Resin)
Heat Resistance Temperature*1	288°C

● VESPEL is a registered trademark of DuPont.

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

- VESPEL SP-1 is a non-thermoplastic super-engineering plastic with excellent physical and chemical properties.
- Properties of VESPEL SP-1 ➔ P.738
- It does not reach a softening point, such as its melting point or glass transition point, even under high temperatures and can be used continually at 288°C.
- The screws have excellent chemical resistance, plasma resistance, radiation hardness, and abrasion resistance.
- Thanks to the powder compression molding method, no bubbles blend in and outgas quantity is extremely low. ➔ P.738
- Cleanroom wash and cleanroom packing are completed. ➔ P.807

Unit : mm

Part Number	M	1	L	2						B	L1	Torsional*1 Torque (N·m)	Mass (g)
SPD-M3-H	M3	6	8	10	12	16				5.5	2	0.12	0.12 - 0.21
SPD-M4-H	M4	6	8	10	12	16	20	25		7	2.8	0.27	0.25 - 0.53
SPD-M5-H	M5		8	10	12	16	20	25	30	8	3.5	0.54	0.46 - 0.97
SPD-M6-H	M6			10	12	16	20	25	30	10	4	0.95	0.82 - 1.8
SPD-M8-H	M8			10	12	16	20	25	30	13	5.3	2.26	1.7 - 3.5

*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
SPD-M3-H	1
SPD-M4-H	1
SPD-M5-H	1
SPD-M6-H	1
SPD-M8-H	1

● Related Products

SPDC VESPEL SCP-5000 Hex head screw, which has a continuous duty temperature of 350 °C is available.
➔ P.742



● Part number specification

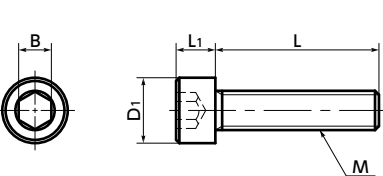
SPD - M5 - 20 - H

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	Cleanroom washed and packed	Available / Add'l charge	Not Available	Please feel free to contact us

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● **Application**

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● **Material/Finish** RoHS2 Compliant

	SPDC-C
Main body	VESPEL SCP-5000 (Non-thermoplastic Polyimide Resin)
Heat Resistance Temperature*1	350°C

● VESPEL is a registered trademark of DuPont.
*1 : This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

- VESPEL SP-1 is a non-thermoplastic super-engineering plastic with excellent physical and chemical properties.
- Properties of VESPEL SP-1 ➡ P.738
- This material maintains high strength and flexibility even under high temperatures and does not soften up to 350°C. Due to its stable and long-term heat resistance, it has a continuous duty temperature of 350°C.
- The screws have excellent chemical resistance, plasma resistance, radiation hardness, and abrasion resistance.
- Thanks to the powder compression molding method, no bubbles blend in and outgas quantity is extremely low. ➡ P.738
- Cleanroom wash and cleanroom packing are completed. ➡ P.807

Unit : mm														
Part Number	M	1	L							D1	L1	B	Torsional*1 Torque (N・m)	Mass (g)
SPDC-M3-C	M3	6	8	10	12	16				5.5	3	2.5	0.21	0.13 - 0.21
SPDC-M4-C	M4	6	8	10	12	16	20	25		7	4	3	0.47	0.28 - 0.58
SPDC-M5-C	M5		8	10	12	16	20	25	30	8.5	5	4	0.98	0.45 - 1
SPDC-M6-C	M6			10	12	16	20	25	30	10	6	5	1.65	0.86 - 2
SPDC-M8-C	M8			10	12	16	20	25	30	13	8	6	4.04	1.9 - 3.8

*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
SPDC-M3-C	1
SPDC-M4-C	1
SPDC-M5-C	1
SPDC-M6-C	1
SPDC-M8-C	1

● **Related Products**

SPD-C VESPEL (Grade : SP-1) Socket Head Cap Screw, which has a heat resistance temperature of 280 deg C is available.
➡ P.739

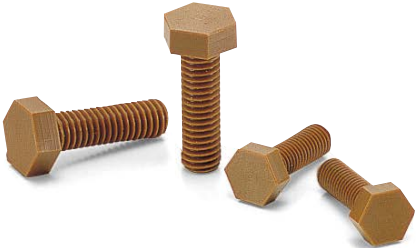
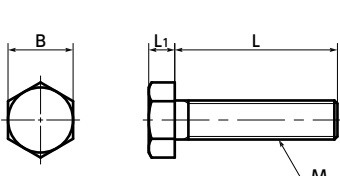


● **Part number specification**

SPDC - M5 - 20 - C

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	Cleanroom washed and packed	Available / Add'l charge	Not Available	Please feel free to contact us



● **Application**

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● **Material/Finish** RoHS2 Compliant

	SPDC-H
Main body	VESPEL SCP-5000 (Non-thermoplastic Polyimide Resin)
Heat Resistance Temperature*1	350°C

● VESPEL is a registered trademark of DuPont.
*1 : This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.

- VESPEL SP-1 is a non-thermoplastic super-engineering plastic with excellent physical and chemical properties.
- Properties of VESPEL SP-1 ➡ P.738
- This material maintains high strength and flexibility even under high temperatures and does not soften up to 350°C. Due to its stable and long-term heat resistance, it has a continuous duty temperature of 350°C.
- The screws have excellent chemical resistance, plasma resistance, radiation hardness, and abrasion resistance.
- Thanks to the powder compression molding method, no bubbles blend in and outgas quantity is extremely low. ➡ P.738
- Cleanroom wash and cleanroom packing are completed. ➡ P.807

Unit : mm

Part Number	M 	L 									B	L ₁	Torsional*1 Torque (N·m)	Mass (g)
SPDC-M3-H	M3	6	8	10	12	16					5.5	2	0.21	0.12 - 0.21
SPDC-M4-H	M4	6	8	10	12	16	20	25			7	2.8	0.47	0.25 - 0.53
SPDC-M5-H	M5		8	10	12	16	20	25	30		8	3.5	0.98	0.46 - 0.97
SPDC-M6-H	M6			10	12	16	20	25	30	40	10	4	1.65	0.82 - 1.8
SPDC-M8-H	M8			10	12	16	20	25	30	40	13	5.3	4.04	1.7 - 3.5

*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
SPDC-M3-H	1
SPDC-M4-H	1
SPDC-M5-H	1
SPDC-M6-H	1
SPDC-M8-H	1

● **Related Products**

SPD-H VESPEL (Grade : SP-1) Hex Head Screw, which has a heat resistance temperature of 280 deg C is available.
➡ P.740



● **Part number specification**

SPDC - M5 - 20 - H

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	Cleanroom washed and packed	Available / Add'l charge	Not Available	Please feel free to contact us

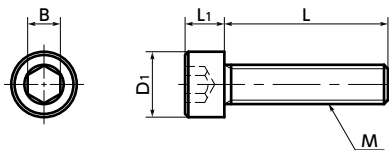
SPEC-C

Plastic Screw Conductive PEEK / Hex Socket Head Cap Screws **NEW**

e-nedzi.com®



WEB Selection Tool WEB CAD Download Electric conducting property Chemical-proof



● Material/Finish

RoHS2 Compliant

	SPEC-C
Main body	PEEK (Polyether ether ketone, carbon combined) (Black)
Heat resistance temperature*1	180°C

*1 : A value of plastic materials. The allowable operating temperature of the product varies depending on use conditions such as tightening torque.



- Conductive PEEK hex socket head cap screw.
- For applications of preventing electrostatic charge due to contact and friction.
- Mechanical property, chemical resistance, heat resistance, waterproof, friction resistance, shock resistance and fatigue resistance equivalent to those of PEEK material.
- Plastic screw properties and precautions for use
→ P.735

● Application

FPD production device / Semiconductor manufacturing device /
Print board etching equipment / Metal surface treatment facility /
Chemical plant / Transformer / Electric and electronic device



Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

Part Number	M	L	D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPEC-M4-C	M4	10 12 15	7	4	3	600	0.35	0.31 - 0.39
SPEC-M5-C	M5	10 12 15 20	8.5	5	4	1160	0.96	0.46 - 0.69
SPEC-M6-C	M6	15 20 25	10	6	5	1590	1.62	0.99 - 1.3

*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
SPEC-M4-C	1
SPEC-M5-C	1
SPEC-M6-C	1

● Part number specification

SPEC-M5-30-C

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 pc. in 1 bag	Available / Add'l charge	Available / Add'l charge	Not Available	Please feel free to contact us

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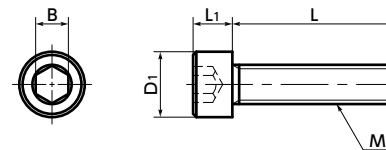
SPE-C

Plastic Screw - Hex Socket Head Cap Screws - PEEK

e-nedzi.com®



WEB Selection Tool WEB CAD Download Chemical-proof



● Material/Finish

RoHS2 Compliant

	SPE-C
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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



Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.



- PEEK is a thermoplastic super - engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V - 0 of UL 94.
- The properties and precautions of plastic screws
→ P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Part Number	M	L	D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M3-C	M3	6 8 10 12 15 20 25	5.5	3	2.5	430	0.3	0.12 - 0.27
SPE-M4-C	M4	6 8 10 12 15 20 25 30	7	4	3	765	0.64	0.25 - 0.61
SPE-M5-C	M5	6 8 10 12 15 20 25 30	8.5	5	4	1230	1.28	0.37 - 0.93
SPE-M6-C	M6	10 12 15 20 25 30 40	10	6	5	1670	2.26	0.78 - 1.8
SPE-M8-C	M8	15 20 25 30 40	13	8	6	3090	5.98	2 - 3.5

*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
SPE-M3-C	20
SPE-M4-C	20
SPE-M5-C	10
SPE-M6-C	10
SPE-M8-C	5

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

● Related Products

SPE-N Plastic Hexagon Nut (PEEK) is available.

→ P.753



● Part number specification

SPE-M5-20-C

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	Available / Add'l charge	Not Available	Please feel free to contact us

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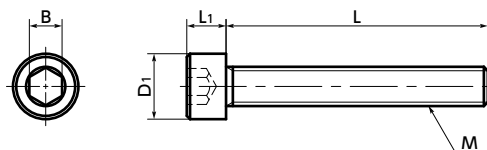
744

SPE-FT Plastic Screw - Hex Socket Head Cap Screws - Full Thread - PEEK

e-nedzi.com®



WEB Selection Tool CAD Download Chemical-proof Full Thread



● Material/Finish

RoHS2 Compliant

	SPE
Main Body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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

⚠ Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws → P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm

Part Number	M	1	2							D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M3-C-FT	M3	30	40	50						5.5	3	2.5	430	0.3	0.31 - 0.48
SPE-M4-C-FT	M4		40	50	60	70	80	90	100	7	4	3	765	0.64	0.78 - 1.8
SPE-M5-C-FT	M5		40	50	60	70	80	90	100	8.5	5	4	1230	1.28	1.2 - 2.7
SPE-M6-C-FT	M6			50	60	70	80	90	100	10	6	5	1670	2.26	2.2 - 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
SPE-M3-C-FT	1
SPE-M4-C-FT	1
SPE-M5-C-FT	1
SPE-M6-C-FT	1

● Related Products

SPE-N Plastic Hexagon Nut (PEEK) is available.
→ P.753



● Part number specification

SPE-M6-50-C-FT

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	Not Available	Not Available

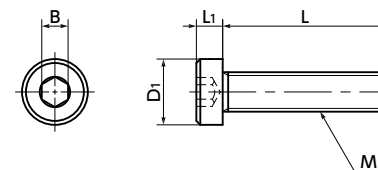
NBK

WEB ▶ <https://www.nbk1560.com>**SPE-LC** Plastic screw - Hex Socket Low Head Bolt - PEEK

e-nedzi.com®



WEB Selection Tool CAD Download Chemical-proof



● Application

FPD production device / Semiconductor manufacturing device / Print board etching equipment / Metal surface treatment facility / Chemical plant / Transformer / Electric and electronic device / Hydrothermal pump / Chemical pump

● Material/Finish

RoHS2 Compliant

	SPE-LC
Main body	PEEK / Light Brown
Heat resistance temperature*1	180°C

*1: A value of plastic materials. The allowable operating temperature of the product varies depending on use conditions such as tightening torque.

⚠ Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- Hex socket head cap screw with low head.
- For space-saving of equipment/device and applications with a limited top space.
- PEEK is thermoplastic super engineering plastic superior in physical and chemical properties.
- Excellent chemical resistance. It resists almost all chemicals other than concentrated sulfuric acid, concentrated nitric acid and concentrated hydrofluoric acid.
- It is highly heat-resistant and water-proofed and high temperature strength is retained.
- Features outstanding friction, shock, and fatigue resistance.
- It is highly frame-resistant satisfying V-0 of the UL standard 94.
- Plastic screw properties and precautions for use → P.735

Unit : mm

Part Number	M	1	2								D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M3-LC	M3	6	8	10	12	16	20				5.5	2	2	370	0.15	0.09 - 0.20
SPE-M4-LC	M4	6	8	10	12	16	20	25			7	2.8	2.5	730	0.54	0.19 - 0.46
SPE-M5-LC	M5	6	8	10	12	16	20	25	30		8.5	3.5	3	1170	1.11	0.26 - 0.81
SPE-M6-LC	M6			10	12	16	20	25	30	40	10	4	4	1666	1.72	0.58 - 1.6

*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
SPE-M3-LC	10
SPE-M4-LC	10
SPE-M5-LC	10
SPE-M6-LC	5

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

● Related Products

PEEK hexagon nuts **SPE-N** are available.
→ P.753



● Part number specification

SPE-M5-30-LC

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	Available / Add'l charge	Not Available	Please feel free to contact us

NBK

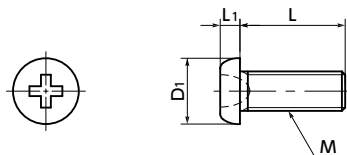
WEB ▶ <https://www.nbk1560.com>

SPE-MC Plastic screw - Fine Thread - PEEK *Additional Size*

e-nedzi.com®



WEB Selection Tool WEB CAD Download Chemical-proof Miniature Size



● Material/Finish

RoHS2 Compliant

	SPE-MC
Main body	PEEK / Light Brown
Heat resistance temperature*1	180°C

*1 : 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.
- PEEK is thermoplastic super engineering plastic superior in physical and chemical properties.
- Excellent chemical resistance. It resists almost all chemicals other than concentrated sulfuric acid, concentrated nitric acid and concentrated hydrofluoric acid.
- It is highly heat-resistant and water-proofed and high temperature strength is retained.
- Features outstanding friction, shock, and fatigue resistance.
- It is highly frame-resistant satisfying V-0 of the UL standard 94.
- Plastic screw properties and precautions for use → P.735

● Application

FPD production device / Semiconductor manufacturing device / Print board etching equipment / Metal surface treatment facility / Chemical plant / Transformer / Electric and electronic device / Hydrothermal pump / Chemical pump

Unit : mm

Part Number	M	1	L	2			D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M1.2-MC	M1.2	2	2.5	3	4		1.8	0.5	46.7	0.012	0.015 - 0.016
SPE-M1.4-MC	M1.4	2	2.5	3	4		2	0.5	46.9	0.014	0.016 - 0.017
SPE-M1.6-MC	M1.6		2.5	3	4	6	2.3	0.5	52	0.02	0.017 - 0.02

*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
SPE-M1.2-MC	10
SPE-M1.4-MC	10
SPE-M1.6-MC	10

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

● Part number specification

SPE-M1.6-4-MC

Product Code 1 Product Code 2

Order in number of packs.

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

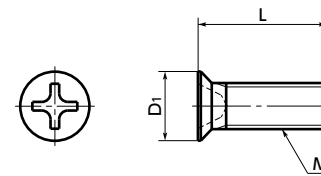
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPE-MF Plastic Screw (PEEK/Machine Screw for Precision Instruments) *NEW*

e-nedzi.com®



WEB Selection Tool WEB CAD Download Chemical-proof Miniature Size



● Material/Finish

RoHS2 Compliant

	SPE-MF
Main unit	PEEK (Polyether ether ketone) (Light brown)
Heat resistance temperature*1	180°C

*1 : 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.
- PEEK is thermoplastic super engineering plastic superior in physical and chemical properties.
- Excellent chemical resistance. It resists almost all chemicals other than concentrated sulfuric acid, concentrated nitric acid and concentrated hydrofluoric acid.
- It is highly heat-resistant and water-proofed and high temperature strength is retained.
- Features outstanding friction, shock, and fatigue resistance.
- It is highly frame-resistant satisfying V-0 of the UL standard 94.
- Plastic screw properties and precautions for use → P.735

● Application

FPD production device / Semiconductor manufacturing device / Print board etching equipment / Metal surface treatment facility / Chemical plant / Transformer / Electric and electronic device / Hydrothermal pump / Chemical pump

Unit : mm

Part Number	M	1	L	2	D1	Tension Rupture Load*1 (N)	Torsional Torque*1 (N·m)	Mass(g)
SPE-M1.2-MF	M1.2	2.5	4		2.3	53.7	0.019	0.004 - 0.006
SPE-M1.4-MF	M1.4	2.5	4		2.5	73.9	0.03	0.005 - 0.006
SPE-M1.6-MF	M1.6	2.5	4		2.8	84.3	0.042	0.006 - 0.008

*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
SPE-M1.2-MF	10
SPE-M1.4-MF	10
SPE-M1.6-MF	10

*1 : Also sold separately from 1 piece up.

→ P.809

● Part number specification

SPE-M1.6-4-MF

Product Code 1 Product Code 2

Place order by a bag.

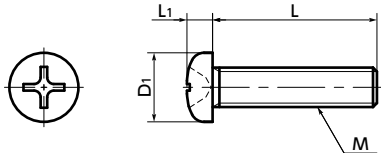
Also sold separately from 1 piece up. → P.809

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

SPE-P Plastic Screws - Cross Recessed Pan Head Machine Screws - PEEK

WEB Selection Tool WEB CAD Download Chemical-proof

e-nedzi.com®



● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● Material/Finish

RoHS2 Compliant

	SPE-P
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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

- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws ➡ P.735

Part Number	M	L													D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M1.7-P	M1.7	4													2.5	0.5	59	0.02	0.0088
SPE-M2-P	M2	4	5	6	8	10	12								3.5	1.3	160	0.06	0.023 - 0.048
SPE-M2.6-P	M2.6			6	8	10	12								4.5	1.7	312	0.16	0.055 - 0.087
SPE-M3-P	M3		5	6	8	10	12	15	16	20	25				5.5	2	430	0.3	0.082 - 0.22
SPE-M4-P	M4			6	8	10	12	15	16	20	25	30			7	2.6	765	0.64	0.17 - 0.48
SPE-M5-P	M5			6	8	10	12	15	16	20	25	30			9	3.3	1230	1.28	0.33 - 0.8
SPE-M6-P	M6					10	12	15		20	25	30			10.5	3.9	1670	2.26	0.65 - 1.2
SPE-M8-P	M8							15		20	25				14	5.2	3090	5.98	1.6 - 2.2

*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
SPE-M1.7-P	20
SPE-M2-P	20
SPE-M2.6-P	20
SPE-M3-P	20
SPE-M4-P	20
SPE-M5-P	10
SPE-M6-P	10
SPE-M8-P	5

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

● Related Products

[SPE-N] Plastic Hexagon Nut (PEEK) is available. ➡ P.753



Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

● Part number specification

SPE - M5 - 20 - P

Product Code 1 2 Product Code

Order in number of packs.

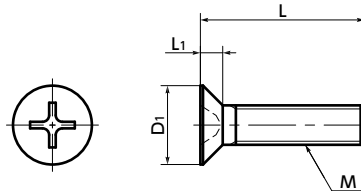
Also sold separately from 1 piece up. ➡ P.809

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	Available / Add'l charge	Not Available	Not Available

SPE-F Plastic Screw - Cross Recessed Flat Head Machine Screws - PEEK

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● Material/Finish

RoHS2 Compliant

	SPE-F
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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



Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws ➡ P.735
- Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Part Number	M	L													D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPE-M2-F	M2		6	8											4	1.2	160	0.06	0.03 - 0.035
SPE-M2.6-F	M2.6	4	6												5.2	1.5	312	0.16	0.045 - 0.055
SPE-M3-F	M3		6	8	10	12	15	16	20	25					6	1.75	430	0.3	0.088 - 0.22
SPE-M4-F	M4		6	8	10	12	15	16	20	25					8	2.3	765	0.64	0.17 - 0.42
SPE-M5-F	M5			8	10	12	15		20	25	30				10	2.8	1230	1.28	0.37 - 0.8
SPE-M6-F	M6				10		15		20		30				12	3.4	1670	2.26	0.65 - 1.2
SPE-M8-F	M8								20	25	30				16	4.4	3090	5.98	1.9 - 2.4

*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
SPE-M2-F	20
SPE-M2.6-F	20
SPE-M3-F	20
SPE-M4-F	20
SPE-M5-F	10
SPE-M6-F	10
SPE-M8-F	5

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

● Related Products

[SPE-N] Plastic Hexagon Nut (PEEK) is available. ➡ P.753



● Part number specification

SPE - M5 - 20 - F

Product Code 1 2 Product Code

Order in number of packs.

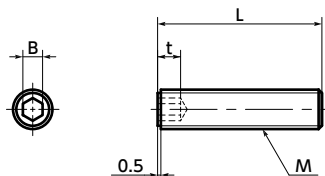
Also sold separately from 1 piece up. ➡ P.809

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	Available / Add'l charge	Not Available	Not Available

SPE-T Plastic Screw - Hex Socket Set Screws - PEEK

WEB Selection Tool WEB CAD Download Chemical-proof

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● Material/Finish



	SPE-T
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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

⚠ Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws → P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm														
Part Number	M	L								B	t	Torsional*1 (N·m)	Mass (g)	
SPE-M3-T	M3	4	5	6	8	10	12	15		1.5	2	0.3	0.023 - 0.1	
SPE-M4-T	M4		5	6	8	10	12	15	20	2	2.5	0.64	0.05 - 0.25	
SPE-M5-T	M5		5	6	8	10	12	15	20	2.5	3	1.28	0.05 - 0.37	
SPE-M6-T	M6			6	8	10	12	15	20	25	3	3.5	0.13 - 0.68	
SPE-M8-T	M8					10	12	15	20	25	30	4	0.42 - 1.5	

*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
SPE-M3-T	10
SPE-M4-T	10
SPE-M5-T	10
SPE-M6-T	5
SPE-M8-T	5

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

● Related Products

SPE-N Plastic Hexagon Nut (PEEK) is available.
→ P.753



● Part number specification

SPE - M5 - 20 - T

Product Code **1** Product Code **2**

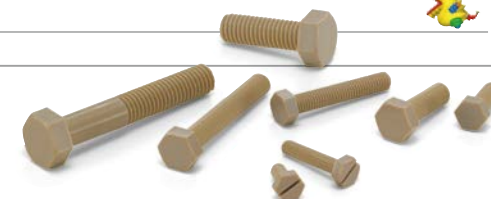
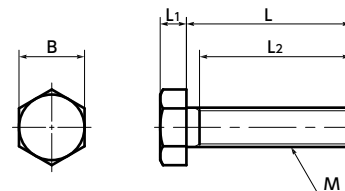
Order in number of packs.
Also sold separately from 1 piece up. → P.809

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	Available / Add'l charge	Not Available	Not Available

SPE-H Plastic Screw - Hex Head Screws - PEEK

WEB Selection Tool WEB CAD Download Chemical-proof

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● Material/Finish



	SPE-H
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180°C

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

⚠ Precautions for Use

Because a cumulative pitch difference is created when PEEK screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws → P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm																
Part Number	M	L								B	L1	L2*1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)	
SPE-M4-H	M4	8	10		15	20	25			7	2.8	Full Thread	765	0.64	0.26 - 0.48	
SPE-M5-H	M5		10		15	20	25	30		8	3.5	Full Thread	1230	1.28	0.46 - 0.88	
SPE-M6-H	M6		10	12	15	20	25	30	35	40	10	4	Full Thread	1670	2.26 - 1.6	
SPE-M8-H	M8		10		15	20	25	30		40	13	5.5	Full Thread	3090	5.98 - 4.1	
SPE-M8-H	M8									50	13	5.5	27	3090	5.98 - 4.1	
SPE-M10-H	M10					20	25	30			17	7	Full Thread	4900	10.8 - 4	

*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.

● The M4 has a slot in its head.

Part Number	Qty per pack*1
SPE-M4-H	10
SPE-M5-H	10
SPE-M6-H	10
SPE-M8-H	5
SPE-M10-H	1

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

● Related Products

SPE-N Plastic Hexagon Nut (PEEK) is available.
→ P.753



● Part number specification

SPE - M5 - 20 - H

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	Available / Add'l charge	Not Available	Please feel free to contact us

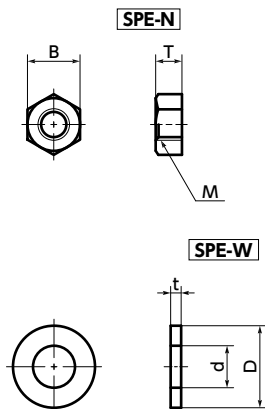
SPE-N/SPE-W

Plastic Screw - Hex Nuts / Washers - PEEK

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WEB Selection Tool WEB CAD Download Chemical-proof



● Material/Finish

RoHS2 Compliant

	SPE-N / SPE-W
Main body	PEEK/Light Brown
Heat Resistance Temperature*1	180°C

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

● Part number specification

SPE-M5-N



Order in number of packs.

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

SPE-N Hex Nuts

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack*1
SPE-M2-N	M2	4	1.6	0.02	20
SPE-M2.6-N	M2.6	5	2	0.038	20
SPE-M3-N	M3	5.5	2.4	0.057	20
SPE-M4-N	M4	7	3.2	0.13	20
SPE-M5-N	M5	8	4	0.2	20
SPE-M6-N	M6	10	5	0.4	10
SPE-M8-N	M8	13	6.5	0.91	5
SPE-M10-N	M10	17	8	1.9	5

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

SPE-W Washers

Unit : mm

Part Number	d	D	t	Nominal	Mass (g)	Qty per pack*1
SPE-2-W	2.1	4	0.5	2	0.0059	20
SPE-2.6-W	2.7	6	0.5	2.6	0.015	20
SPE-3-W	3.2	7	0.5	3	0.02	20
SPE-4-W	4.3	9	0.8	4	0.051	20
SPE-5-W	5.3	10	1	5	0.073	20
SPE-6-W	6.4	12.5	1.6	6	0.19	10
SPE-8-W	8.4	17	1.6	8	0.36	5
SPE-10-W	10.5	21	2	10	0.68	5

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

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

NBK

<https://www.nbk1560.com>

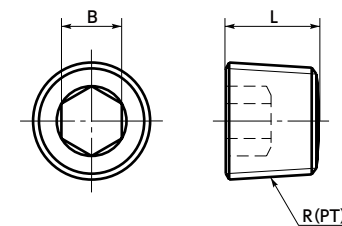
SPE-R

Plastic Screw - Socket Head Cap Screw Plugs - PEEK

e-nedzi.com®



WEB Selection Tool WEB CAD Download Chemical-proof



- PEEK is a thermoplastic super-engineering plastic with excellent physical and chemical properties.
- These screws have excellent chemical resistance. They are mostly unaffected by chemicals excluding concentrate sulfuric acid, concentrate nitric acid, and concentrate hydrofluoric acid.
- These screws have excellent heat resistance, water resistance, and high heat resistance strength.
- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws ➔ P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

● Material/Finish

RoHS2 Compliant

	SPE-R
Main body	PEEK/Light Brown
Heat Resistance Temperature*1	180°C

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

Part Number	R (PT) Nominal of Thread	L	B	Mass (g)	Qty per pack*1
SPE-1-R	R 1/8	8	5	0.45	5
SPE-2-R	R 1/4	11	6	1.1	5
SPE-3-R	R 3/8	12	8	2.1	5

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

● Part number specification

SPE-2-R



Order in number of packs.

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

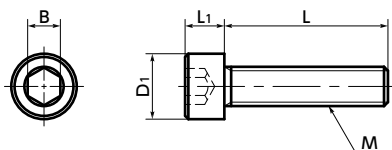
Individual Sales ➔ P.809	Cleanroom Wash & Packaging ➔ P.807	Screw Length Adjustment ➔ P.811	Vibration Resistant ➔ P.810	Modification process for captive use ➔ P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

NBK

<https://www.nbk1560.com>

SPS-C Plastic Screw - Hex Socket Head Cap Screws - PPS

WEB Selection Tool WEB CAD Download Heat-resistance Chemical-proof



● Material/Finish

RoHS2 Compliant

	SPS-C
Main body	PPS (Polyphenylene Sulfide) /Bright Light Brown Glass Fiber 40%
Heat Resistance Temperature*1	200°C

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

- PPS has excellent heat resistance and chemical resistance and continuous duty temperature of 200°C. Under 200°C, no oils, fats, or organic solvents dissolve PPS.
- It has high strength, high rigidity, and high heat resistance strength.
- It has high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws
➔ P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm

Part Number	M	L	D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPS-M3-C	M3	6 8 10 12 15 20	5.5	3	2.5	570	0.36	0.15 - 0.29
SPS-M4-C	M4	6 8 10 12 15 20 25 30	7	4	3	980	0.71	0.32 - 0.56
SPS-M5-C	M5	8 10 12 15 20 25 30 40	8.5	5	4	1570	1.42	0.52 - 1.2
SPS-M6-C	M6	10 12 15 20 25 30 40	10	6	5	2250	2.11	1 - 2.3
SPS-M8-C	M8	10 12 15 20 25 30 40	13	8	6	3720	5.29	2.2 - 4.4

*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
SPS-M3-C	20
SPS-M4-C	20
SPS-M5-C	10
SPS-M6-C	10
SPS-M8-C	5

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

● Part number specification

SPS-M5-20-C

Product Code 1 2 Product Code

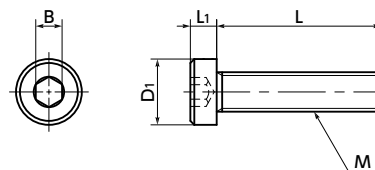
Order in number of packs.

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	Available / Add'l charge	Not Available	Please feel free to contact us

SPS-LC Plastic screw - Hex Socket Low Head Bolt - PPS

WEB Selection Tool WEB CAD Download Heat-resistance Chemical-proof



● Material/Finish

RoHS2 Compliant

	SPS-LC
Main body	PPS (Poly Phenylene Sulfide) (Bright Light Brown) (Glass fiber 40%)
Heat resistance temperature*1	200°C

*1 : A value of plastic materials. The allowable operating temperature of the product varies depending on use conditions such as tightening torque.

- Hex socket head cap screw with low head.
- For space-saving of equipment/device and applications with a limited top space.
- PPS is excellent in heat resistance and chemical resistance and continuously used at 200°C. No fat or organic solvent cannot dissolve PPS at 200°C or below.
- High strength, high rigidity and high temperature strength is retained.
- It is highly frame-resistant satisfying V-0 of the UL standard 94.
- Plastic screw properties and precautions for use
➔ P.735

● Application

FPD production device / Semiconductor manufacturing device / Print board etching equipment / Metal surface treatment facility / Chemical plant / Transformer / Electric and electronic device / Hydrothermal pump / Chemical pump

Unit : mm

Part Number	M	L	D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPS-M3-LC	M3	6 8 10 12 16 20	5.5	2	2	492	0.25	0.11 - 0.25
SPS-M4-LC	M4	6 8 10 12 16 20 25	7	2.8	2.5	789	0.46	0.24 - 0.59
SPS-M5-LC	M5	8 10 12 16 20 25 30	8.5	3.5	3	1190	1.04	0.38 - 1.0
SPS-M6-LC	M6	10 12 16 20 25 30 40	10	4	4	1811	1.70	0.74 - 2.1

*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
SPS-M3-LC	10
SPS-M4-LC	10
SPS-M5-LC	10
SPS-M6-LC	5

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

● Part number specification

SPS-M5-30-LC

Product Code 1 2 Product Code

Order in number of packs.

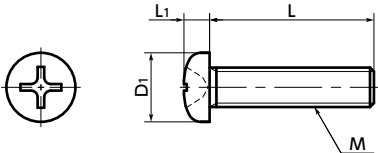
Also sold separately from 1 piece up. ➔ P.809

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	Available / Add'l charge	Not Available	Please feel free to contact us

SPS-P Plastic Screw - Cross Recessed Pan Head Machine Screws - PPS

WEB Selection Tool WEB CAD Download Heat-resistance Chemical-proof

e-nedzi.com



Material/Finish RoHS2 Compliant

	SPS-P
Main body	PPS (Polyphenylene Sulfide) /Bright Light Brown Glass Fiber 40%
Heat Resistance Temperature*1	200°C

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

- PPS has excellent heat resistance and chemical resistance and continuous duty temperature of 200°C. Under 200°C, no oils, fats, or organic solvents dissolve PPS.
- It has high strength, high rigidity, and high heat resistance strength.
- It has high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws ➡ P.735
- Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm

Part Number	M 	L 										D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPS-M2-P	M2	4	5	6	8	10	12					3.5	1.3	236	0.08	0.03 - 0.062
SPS-M3-P	M3		5	6	8	10	12	15	20	25	30	5.5	2	570	0.36	0.1 - 0.32
SPS-M4-P	M4			6	8	10	12	15	20	25	30	7	2.6	980	0.71	0.22 - 0.61
SPS-M5-P	M5				8	10	12	15	20	25	30	9	3.3	1570	1.42	0.47 - 1
SPS-M6-P	M6					10	12	15	20			10.5	3.9	2250	2.11	0.83 - 1.2

*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
SPS-M2-P	20
SPS-M3-P	20
SPS-M4-P	20
SPS-M5-P	10
SPS-M6-P	10

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

Part number specification

SPS - M5 - 20 - P

Product Code 1 2 Product Code

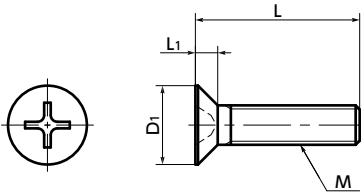
Order in number of packs.
Also sold separately from 1 piece up. ➡ P.809

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	Available / Add'l charge	Not Available	Not Available

SPS-F Plastic Screw PPS / Phillips Cross Recessed Flat Head Machine Screws

WEB Selection Tool WEB CAD Download Heat-resistance Chemical-proof

e-nedzi.com



Material/Finish RoHS2 Compliant

	SPS-F
Main body	PPS (Polyphenylene Sulfide) /Bright Light Brown Glass Fiber 40%
Heat Resistance Temperature*1	200°C

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

- PPS has excellent heat resistance and chemical resistance and continuous duty temperature of 200°C. Under 200°C, no oils, fats, or organic solvents dissolve PPS.
- It has high strength, high rigidity, and high heat resistance strength.
- It has high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws ➡ P.735
- Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm

Part Number	M 	L 						D ₁	L ₁	Tension* ¹ Rupture Load (N)	Torsional* ¹ Torque (N·m)	Mass (g)
SPS-M3-F	M3	6	8	10	12	15		6	1.75	570	0.36	0.11 - 0.19
SPS-M4-F	M4		8	10	12	15		8	2.3	980	0.71	0.25 - 0.37
SPS-M5-F	M5			10	12	15	20	10	2.8	1570	1.42	0.52 - 0.77
SPS-M6-F	M6			10	12	15	20	12	3.4	2250	2.11	0.83 - 1.2

*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
SPS-M3-F	20
SPS-M4-F	20
SPS-M5-F	10
SPS-M6-F	10

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

Part number specification

SPS - M5 - 20 - F

Product Code 1 2 Product Code

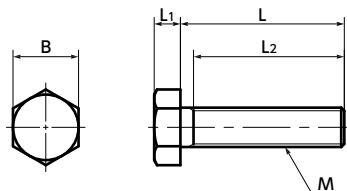
Order in number of packs.
Also sold separately from 1 piece up. ➡ P.809

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	Available / Add'l charge	Not Available	Not Available

SPS-H Plastic Screw - Hex Head Screws - PPS

WEB Selection Tool CAD Download Heat-resistance Chemical-proof

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● Material/Finish

RoHS2 Compliant

	SPS-H
Main body	PPS (Polyphenylene Sulfide) / Bright Light Brown Glass Fiber 40%
Heat Resistance Temperature*1	200°C

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



- PPS has excellent heat resistance and chemical resistance and continuous duty temperature of 200°C. Under 200°C, no oils, fats, or organic solvents dissolve PPS.
- It has high strength, high rigidity, and high heat resistance strength.
- It has high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws
➔ P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

Unit : mm

Part Number	M	L	B	L1	L2*1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)
SPS-M4-H	M4	8 10 12 15 20 25 30 40 50	7	2.8	Full Thread	980	0.71	0.33 - 0.62
SPS-M5-H	M5	8 10 12 15 20 25 30 40 50	8	3.5	Full Thread	1570	1.42	0.54 - 1.1
SPS-M6-H	M6	10 12 15 20 25 30 40 50	10	4	Full Thread	2250	2.11	0.96 - 2.1
SPS-M8-H	M8	15 20 25 30 40 50	13	5.5	27(L=50)	3720	5.29	2.4 - 4.8
SPS-M10-H	M10	20 25 30 40 50	17	7	27(L=50)	5890	11.8	5.1 - 8.3
SPS-M12-H	M12	20 25 30 40 50	19	8	Full Thread	7850	20.6	7.3 - 8

*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
SPS-M4-H	10
SPS-M5-H	10
SPS-M6-H	10
SPS-M8-H	5
SPS-M10-H	1
SPS-M12-H	1

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

● Part number specification

SPS-M5-20-H

Product Code 1 2 Product Code

Order in number of packs.

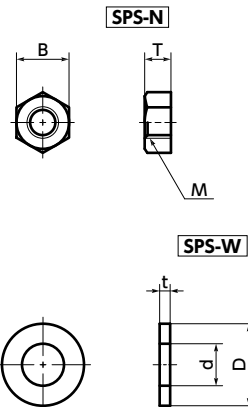
Also sold separately from 1 piece up. ➔ P.809

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	Available / Add'l charge	Not Available	Please feel free to contact us

SPS-N/SPS-W Plastic Screw - Hex Nuts / Washers - PPS

WEB Selection Tool CAD Download Heat-resistance Chemical-proof

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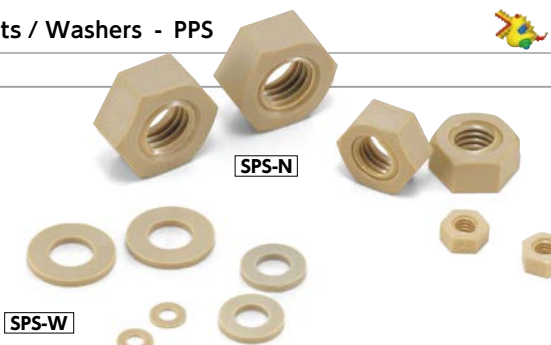


● Material/Finish

RoHS2 Compliant

	SPS-N / SPS-W
Main body	PPS (Polyphenylene Sulfide) / Bright Light Brown Glass Fiber 40%
Heat Resistance Temperature*1	200°C

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



- PPS has excellent heat resistance and chemical resistance and continuous duty temperature of 200°C. Under 200°C, no oils, fats, or organic solvents dissolve PPS.
- It has high strength, high rigidity, and high heat resistance strength.
- It has high incombustibility that meets V-0 of UL 94.
- The properties and precautions of plastic screws
➔ P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, transformers, electrical and electronic equipment, hot water pumps, and chemical pumps

SPS-N Hex Nuts

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack*1
SPS-M2-N	M2	4	1.6	0.026	20
SPS-M2.6-N	M2.6	5	2	0.05	20
SPS-M3-N	M3	5.5	2.4	0.07	20
SPS-M4-N	M4	7	3.2	0.17	20
SPS-M5-N	M5	8	4	0.25	20
SPS-M6-N	M6	10	5	0.52	10
SPS-M8-N	M8	13	6.5	1.2	10
SPS-M10-N	M10	17	8	2.4	5
SPS-M12-N	M12	19	10	3.5	5

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

SPS-W Washers

Unit : mm

Part Number	d	D	t	Nominal	Mass (g)	Qty per pack*1
SPS-3-W	3.2	7	0.5	3	0.025	20
SPS-4-W	4.3	9	0.8	4	0.065	20
SPS-5-W	5.3	10	1	5	0.094	20
SPS-6-W	6.4	12.5	1.6	6	0.24	10
SPS-8-W	8.4	17	1.6	8	0.46	10
SPS-10-W	10.5	21	2	10	0.86	5
SPS-12-W	13	24	2.5	12	1.3	5

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

● Part number specification

SPS-M5-N

Product Code 1

Order in number of packs.

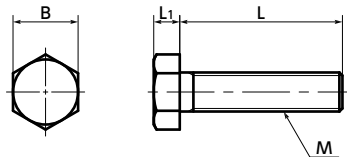
Also sold separately from 1 piece up. ➔ P.809

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

SPV-H Plastic Screw PVDF / Hex Head Screws

WEB Selection Tool CAD Download Chemical-proof

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Material/Finish

RoHS2 Compliant

	SPV-H
Main body	PVDF (Polyvinylidene Fluoride) (Milky White)
Heat resistance temperature*1	150°C

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

- PVDF has excellent corrosion resistance against strong acids and organic solvents as well as halogen compounds such as hydrogen sulfide and bromine.
- It can be used in atmospheres in which metal and PVC (polyvinyl chloride) cannot be used.
- Max. Operating Temperature*1 (min./max.): 40/150 deg C
- Its tensile strength equals or exceeds PVC, and its impact strength is 3 times that of PVC.
- These screws comply with food hygiene laws. It is proven to be nontoxic and odorless.
- It is self-extinguishing and has excellent incombustibility.
- The properties and precautions of plastic screws → P.735

Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, and food industry machines

Unit : mm										
Part Number	M 	L 				B	L ₁	Tension* ¹ Rupture Load (N)	Torsional* ¹ Torque (N·m)	Mass (g)
SPV-M5-H	M5	10	15	20	25	8	3.5	640	0.64	0.64 - 1.1
SPV-M6-H	M6	10	15	20		10	4	940	0.88	1 - 1.4
SPV-M8-H	M8		15	20	25	13	5.5	1810	2.65	2.5 - 3.3

*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
SPV-M5-H	20
SPV-M6-H	10
SPV-M8-H	10

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

Part number specification

SPV - M5 - 15 - H

Product Code 1 2 Product Code

Order in number of packs.

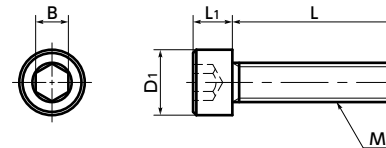
Also sold separately from 1 piece up. → P.809

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	Available / Add'l charge	Not Available	Please feel free to contact us

SPV-C Plastic Screw - Hex Socket Head Cap Screws - PVDF

WEB Selection Tool CAD Download Chemical-proof

e-nedzi.com



Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, chemical plants, and food industry machines

Material/Finish

RoHS2 Compliant

	SPV-C
Main body	PVDF (Polyvinylidene Fluoride) (Milky White)
Heat resistance temperature*1	150°C

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

- PVDF has excellent chemical resistance against strong acids and organic solvents as well as halogen compounds such as hydrogen sulfide and bromine.
- It can be used in atmospheres in which metal and PVC (polyvinyl chloride) cannot be used.
- Max. Operating Temperature*1 (min./max.): -40/150 deg C
- Its tensile strength equals or exceeds that of PVC, and its impact strength is 3 times that of PVC.
- These screws comply with food hygiene laws. It is proven to be nontoxic and odorless.
- It is self-extinguishing and has excellent incombustibility.
- The properties and precautions of plastic screws → P.735

Unit : mm												
Part Number	M 	L 					D1	L1	B	Tension*1 Rupture Load (N)	Torsional*1 Torque (N・m)	Mass (g)
SPV-M5-C	M5	10	15	20	25	30	8.5	5	4	640	0.64	0.62 - 1.3
SPV-M6-C	M6	10	15	20	25		10	6	5	940	0.88	1.1 - 1.7

*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
SPV-M5-C	20
SPV-M6-C	10

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

Part number specification

SPV - M5 - 15 - C

Product Code 1 2 Product Code

Order in number of packs.

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

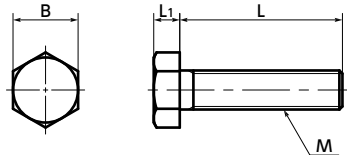
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Not Available	Please feel free to contact us

SPP-H Plastic Screw - Hex Head Screws - PP

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WEB Selection Tool CAD Download Chemical-proof



Material/Finish

RoHS2 Compliant

	SPP-H
Main body	PP (Polypropylene) / Milky White
Heat Resistance Temperature*1	65°C

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

⚠ Precautions for Use

Because a cumulative pitch difference is created when PP screws are manufactured, use these screws with nuts. If a nut is not used, use a 20 mm or less fit with female thread.

- PP plastic has excellent resistance to chemicals such as strong acids and organic solvents.
- It is used as a replacement for vinyl chloride type plastic screws.
- The properties and precautions of plastic screws → P.735

Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants



Unit : mm													
Part Number	M 	L 							B	L ₁	Tension*1 Rupture Load (N)	Torsional*1 Torque (N・m)	Mass (g)
SPP-M4-H	M4	10	12	15	20	25			7	2.8	270	0.23	0.2 - 0.34
SPP-M5-H	M5	10	12	15	20	25	30		8	3.5	440	0.51	0.32 - 0.62
SPP-M6-H	M6	10	12	15	20	25	30		10	4	620	0.8	0.52 - 0.94
SPP-M8-H	M8	10	12	15	20	25	30	40	13	5.5	1100	2.2	1.1 - 2.2
SPP-M10-H	M10				20	25	30	40	17	7	1800	3.4	2.8 - 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
SPP-M4-H	20
SPP-M5-H	20
SPP-M6-H	10
SPP-M8-H	10
SPP-M10-H	10

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

Related Products

SPP-N Plastic Hexagon Nut (PP) is available.
→ P.774



Part number specification

SPP-M4-25-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	Available / Add'l charge	Not Available	Please feel free to contact us

NBK

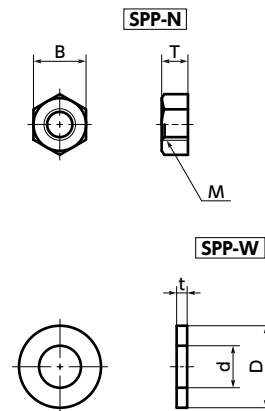
WEB ▶ <https://www.nbk1560.com>

SPP-N/SPP-W Plastic Screw - Hex Nuts / Washers - PP

e-nedzi.com®



WEB Selection Tool CAD Download Chemical-proof



Material/Finish

RoHS2 Compliant

	SPP-N / SPP-W
Main body	PP (Polypropylene) / Milky White
Heat Resistance Temperature*1	65°C

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



- PP plastic has excellent resistance to chemicals such as strong acids and organic solvents.
- It is used as a replacement for vinyl chloride type plastic screws.
- The properties and precautions of plastic screws → P.735

Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

SPP-N Hex Nuts

Unit : mm

Part Number	M	B	T	Mass (g)	Qty per pack*1
SPP-M4-N	M4	7	3.2	0.092	20
SPP-M5-N	M5	8	4	0.14	20
SPP-M6-N	M6	10	5	0.28	10
SPP-M8-N	M8	13	6.5	0.63	10
SPP-M10-N	M10	17	8	1.3	10

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

SPP-W Washers

Unit : mm

Part Number	d	D	t	Nominal	Mass (g)	Qty per pack*1
SPP-4-W	4.3	9	0.8	4	0.036	20
SPP-5-W	5.3	10	1	5	0.051	20
SPP-6-W	6.4	12.5	1.6	6	0.13	10
SPP-8-W	8.4	17	1.6	8	0.25	10
SPP-10-W	10.5	21	2	10	0.47	10

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

Part number specification

SPP-M4-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

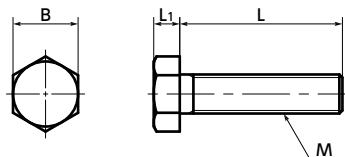
NBK

WEB ▶ <https://www.nbk1560.com>

SPVC-H Plastic Screw - Hex Head Screws - H - PVC

WEB Selection Tool WEB CAD Download Chemical-proof

e-nedzi.com®



● Material/Finish

	SPVC-H
Main body	H-PVC(Hard Polyvinyl Chloride)*1
Heat Resistance Temperature*2	35°C

*1 : Does not comply with the RoHS Directive. These products contain lead.

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

- These products have excellent chemical resistance against strong acids and organic solvents as well as halogen compounds such as hydrogen sulfide and bromine.

- They can be used in atmospheres in which metal and PVC (polyvinyl chloride) cannot be used.

- Max. Operating Temperature*2 (min./max.): -10/35 deg C

- Two colors, ivory and gray, are available.

IV Ivory

GR Gray

- The properties and precautions of plastic screws → P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

Unit : mm													
Part Number	M	L									B	L1	Tension*1 Rupture Load (N)
SPVC-M4-H	M4	10	12	16	20	25	30	35			7	2.8	200
SPVC-M5-H	M5	10	12	16	20	25	30	35	40		8	3.5	400
SPVC-M6-H	M6	10	12	16	20	25	30	35	40	50	10	4	670

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

Part Number	Qty per pack
SPVC-M4-H	1
SPVC-M5-H	1
SPVC-M6-H	1

● Part number specification

SPVC-M5-30-H-IV

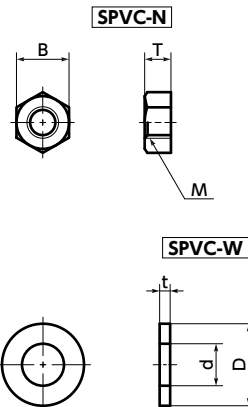
Product Code Product Code

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	Not Available	Please feel free to contact us

SPVC-N/SPVC-W Plastic Screw - Cross Recessed Pan Head Machine Screws - PPS

WEB Selection Tool WEB CAD Download Chemical-proof

e-nedzi.com®



- These products have excellent chemical resistance against strong acids and organic solvents as well as halogen compounds such as hydrogen sulfide and bromine.

- They can be used in atmospheres in which metal and PVC (polyvinyl chloride) cannot be used.

- Max. Operating Temperature*2 (min./max.): -10/35 deg C

- Two colors, ivory and gray, are available.

IV Ivory

GR Gray

- The properties and precautions of plastic screws → P.735

● Application

FPD production equipment, semiconductor devices, printed circuit board etching devices, metallic surface treatment equipment and facilities, and chemical plants

● Material/Finish

	SPVC-N / SPVC-W
Main body	H-PVC(Hard Polyvinyl Chloride)*1
Heat Resistance Temperature*2	35°C

*1 : Does not comply with the RoHS Directive. These products contain lead.

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

Unit : mm						
Part Number	M	B	T	Mass (g)	Qty per pack	
SPVC-M4-N	M4	7	3.2	0.14	1	
SPVC-M5-N	M5	8	4.7	0.24	1	
SPVC-M6-N	M6	10	5.2	0.44	1	

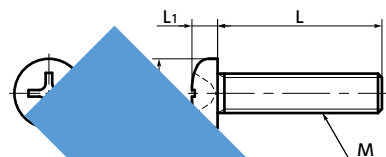
Unit : mm						
Part Number	d	D	t	Nominal	Mass (g)	Qty per pack
SPVC-4-W	4.3	9	0.8	4	0.053	1
SPVC-5-W	5.3	10	1	5	0.077	1
SPVC-6-W	6.4	12.5	1.6	6	0.2	1

● Part number specification

SPVC-M5-N-IV

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 pc. in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

 [Selection Tool](#) [CAD Download](#)



- Heat Resistance Tempe

- *2: This is the value for the power dissipation at maximum operating temperature of the device with performance conditions such as

- PC (polycarbonate) has the highest shock resistance of all thermoplastics.
- Max. Operating Temperature*2 (min./max.): -40/110°C
- PC has high transparency and excellent weather resistance.

ation

and electronic equipment and automobiles

													Unit : mm		
Part Number	M 	L 											Tension*1 Rupture Load (N)	Torsional*1 Torque (N・m)	Mass (g)
SPC-M1.7-P	M1.7	3	4									7	0.02	0.0066 - 0.0085	
SPC-M2-P	M2	3	4									2	0.05	0.02 - 0.028	
SPC-M3-P	M3					10	12	15				5.5	0.22	0.075 - 0.14	
SPC-M4-P	M4					3	10	12	15			7	2	0.16 - 0.27	
SPC-M5-P	M5						10	12	15	20		9	3.3	0.38 - 0.56	
SPC-M6-P	M6						10	12	15	20	25	10.5	3.9	0.6 - 1	

- *1: Values in chart are for reference only. They are not guaranteed values. The recommendation torque is the minimum torque.

- M1.7 is black

Part Number	1
SPC-M4-P	50
SPC-M5-P	50
SPC-M6-P	20

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

- Part number specification

SPC-M5-20-P

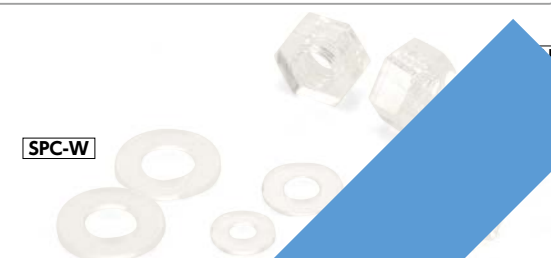
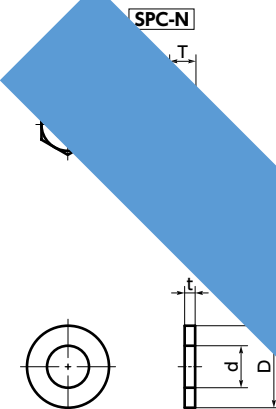
Product Code 1 2 Product Code

Order in number of packs.

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

 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	Available / Add'l charge	Not Available	Not Available
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- PC (polycarbonate) has high impact resistance and shock resistance of 6000 J/m².
- Max. Operating Temperature: 125°C (min./max.): -40/115°C
- PC has high transparency and excellent weather resistance.

on

and electronic equipment and automobiles

Finish

 RoHS2 Compliant

SPC-N / SPC-W

PC (Polycarbonate) (Transparent)

* 1: The maximum operating temperature of the plastic material. The maximum operating temperature of the product changes with the tightening torque.

SPC-N Hex Nuts					Unit : mm
Part Number	B	T	Mass	per pack*1	
SPC-M2-N	4	1.6	0.019		
SPC-M3-N	5.5	2.4	0.052		
SPC-M4-N	7	3.2	0.12		
SPC-M5-N	8	4	0.18		
SPC-M6-N	10	5	0.37	20	

- *1 ... from 1 piece up. → P.809

	d	D	t	Nominal	Mass (g)	Qty per pack*
SPC-2-W	2.1	4	0.5	2	0.0055	100
SPC-3-W	3.3	8	0.8	3	0.04	100
SPC-4-W	4.5	10	0.8	4	0.06	100
SPC-5-W	5.5	12	0.8	5	0.086	100
SPC-6-W	6.5	13	1	6	0.12	50

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

- Part number specification

SPC-M4-N

1

Order in number of packs.

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

 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

Individual Cells	Standard Wash & Packaging	Screw Length Adjustment	Vibration Resistant	Medication process for capsule use
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available