Select a product from categoryP.551
Select a product from applicationP.553
Vacuum Application ScrewsP.563
Low profile Screws/Small Head ScrewsP.593
High Performance S.S. ScrewsP.621
Titanium Screws ·····P.633
Special Material ScrewsP.645
Chemical Resistance ScrewsP.663
Screws with Special Surface Treatment ··· P.671

Miniature Screws ·····P.681
Captive Screws/Full Thread ScrewsP.689
Functional Screws ·····P.701
Inch ScrewsP.708
Tamper Resistance Screws ·····P.713
Hexalobular Socket Head ScrewsP.723
PlugsP.727
Plastic Screws ·····P.733
Washers/Lock Nuts ·····P.780







Screw Thread Shape Additional Processing Materials **Surface Treatment** Thread Locking

Additional Processing

Screw Length Adjustment





To meet customer's desired length

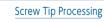


To release machine



Head Shape

To prevent screws from falling out





To improve locationing To decrease head



Head Processing



Treatment

To prevent loosening



Trivalent Chromate Electroless







Electro-Polishing Chemical



Gold Coating

Super Black



Gold Plating Silver Plating







Oxide Coating



Nickel Plating Antibacterial





Painted-Baked Head Finish

Special Materials









Phospor Bronze Ceramic Inconel, Hastelloy, Nickel, Super Invar, SUS316L, SUS310S, Aluminum, and more.

Plastic







Conductive PEEK

Others such as conductive resins, PCTFE, POM, PI, and more.



Nylon Deposition Nylon Lock



Thread Pitches: Coarse, Fine, Very Fine, Unified and Whitworth

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Ordering Standard Products

Select a product from category

⇒ P.551

Select a product from application

→ P.553

Ordering Special Products

Feel free to contact us.

https://www.nbk1560.com/

Select a product from categories

Vacuum Application Screws → P.563

Screws have gas ventilation holes for vacuum drawing of machines and have excellent corrosion resistance under vacuum environments.



⇒ P.593

Compact head screws. Suitable for reducing the size of applications.



High Performance S.S. Fasteners

High performance stainless steel screws have excellent strength.

heat resistance, and corrosion resistance compared to standard stainless steel screws.



⇒ P.621

⇒ P.671

Titanium Screws

⇒ P.633

Screws made of titanium. They are lightweight, nonmagnetic, and chemically resistant.



Special Material Fasteners → P.645

Screws made of special materials such as Inconel, Molybdenum and Hastellov to provide excellent heat, chemical, corrosion resistance.

Chemical Resistance Screws

⇒ P.663

Screws with special materials, surface treatments, and shapes for applications

that require chemical resistance.



Screws with Special Surface Treatment

Screws with surface treatment for seizing prevention and reflection resistance.



Miniature Screws

⇒ P.681

Small-diameter screws lower than M2.6 size for precision instruments.

Captive Screws Full Thread Screws

⇒ P.689

⇒ P.708

Screws for falling out preventation and screws with full thread.



Functional Screws

⇒ P.701

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Screws for fixing and locating clamping screws and ball plungers.



Inch Screws

Screws for equipment

and facilities that use inch-screw specifications.



Tamper Resistance Screws → P.713

Screws which cannot be installed or removed easily with standard tools to prevent theft and tampering.

Hexalobular **Socket Head Screws**

⇒ P.723

Screws with strength socket heads. For repeating installations and removals.



Plugs

⇒ P.727

Screw plugs for oil hydraulic equipment and pneumatic devices are available.



Plastic Screws

NBK

→ P.733

Various types of plastic screws made from materials such as VESPEL®, PEEK, and PTFE (Teflon).



and thickness variations, and vibration resistant treatment parts are available.



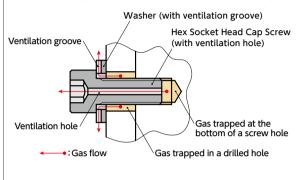
Washers and vibration resistant treatment

⇒ P.780

Select a product from category →P.551

Vacuum

• Bolts with ventilation holes and washers with ventilation grooves support equipment vacuuming.



With ventilation hole/ventilation groove	Listed page
Screws	→ P.565 - 582
Washers	→ P.583 · P.584
Hexagon Posts	→ P.585 • P.586
Clamping Set Screws	→ P.587
Clamping Cap Screws	→ P.588
Miniature Ball Plungers	→ P.589

• The surface of the screw head has been roughened with blasting to prevent the deposition from peeling off.



• Aluminum alloy and ceramic cover caps prevent corrosion of bolts due to the process gas and plasma in the vacuum chamber.



	Listed page
Cover Caps Socket Head Cap Screws for Cover Caps	→ P.591

Chemical Resistance

• Screws with excellent chemical resistance protect the thread and screw head from chemicals.





Resin's chemical resistance				
Material	Chemical Resistance	Listed page		
PTFE (Teflon)	High	→ P.769 - 770		
PVDF		→ P.771 - 772		
H-PVC		→ P.775 - 776		
PP		→ P.773 - 774		
PEEK		→ P.743 - 754		

• PTFE (Teflon) cover cap protects the screw head from chemicals.



	5000 000
Caps Head Cap for Cover Caps	→ P.667
•	→ P.667

• Bolt head only has Teflon coating with excellent chemical resistance.

Socket I



• Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

Low Outgas

• Screws using material/surface treatment with low outgassing. Outgassing is extremely low even in



Material and Surface Treatment	Listed page
Special Chemical Polish	→ P.565
Stainless Steel Black	→ P.675
Low temperature black chrome treatment	→ P.676
VESPEL®	→ P.739 - 742
PEEK	→ P.743 - 754

Cleanroom Specification

• Screws are washed and packed in cleanrooms.





Particle Measurement Results Specimen: SUS303 ϕ 19 x 20

Test Method: Automatic Submerged Particle Counter Measurement

	0	'	Omic. pc
Particle Size	Ultrasonic Cleaning	IPA Cleaning	Unprocessed
≧0.3μm	220,000	7,000,000	210,000,000
≧0.5μm	51,000	1,900,000	37,000,000
≧0.7μm	15,000	640,000	9,700,000
≧1.0μm	3,100	160,000	1,400,000
≧2.0μm	280	29,000	240,000

Number of particles floating in ultra-pure water Unit po

Refer to the cleanroom washing and packaging service for more information. → P.807

Antireflection

Metal's chemical resistance

Material

Hastelloy

Monel 400

Titanium

Inconel SUS316L (HiMo)

SUS310S

• Low temperature black chrome treatment/stainless steel black has a very low spectral reflectance, making it ideal for optical equipment that requires antireflection.

Chemical Resistance Listed page

→ P.653

→ P.647

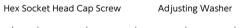
→ P.625

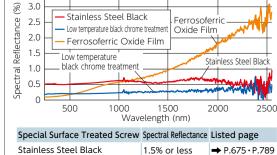
→ P.628

→ P.633 - 643

→ P.648 - 649







Low temperature black chrome treatment 1.5% or less

Heat-resistance

• These are highly heat-resistant screws even for

Select according to the operating environment.



Material	Tensile Strength (N/mm²)				Listed page	
маценац	200℃	500℃	800℃	1000℃	Listed page	
SUS316L	560	500	250	_	→ P.627	
SUS310S	580	500	200	_	→ P.628	
Inconel 600	560	530	200	70	→ P.648 - 649	
Molybdenum	590	450	290	210	→ P.650	
Carbon Steel	450	230	40	-	-	
SUS304	500	420	160	-	_	

Material	Continuous operating temperature (°C)	Listed page
Ceramic	1500	→ P.659 - 661
VESPEL®	288 • 350	→ P.739 - 742
PTFE (Teflon)	260	→ P.769 - 770

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Seizing Prevention

• By reducing the friction coefficient of the threaded surface through plating and coating, the required axial force can be obtained even at low tightening torque. As a result, the generation of frictional heat in tightening can be suppressed, making it effective in preventing galling and seizing.

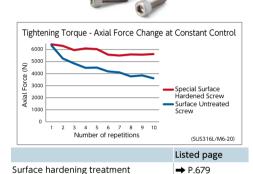


Low Temperature Black Chrome Treatment

•		
Special Surface Treated Screw	Axial Force (kN)	Listed page
Low temperature black chrome treatment	9.2	→ P.676
Teflon coating	8.7	→ P.677
Molybdenum disulfide coating	6.7	→ P.674
Fluorine coating	5	→ P.673
Gold coating	4.3	→ P.678
No surface treatment	2.3	_

• Stainless steel/M5/tightening torque: values measured at 5N·m.

 Galling and seizing are prevented by curing the screw surface using NBK's own processing technology. There is nothing adhering to the surface, eliminating concerns about contamination due to stripping. Furthermore, it is effective in preventing galling and seizing even at high temperatures.



High Strength

• Screws made of high-strength titanium, stainless steel, resin and surface treatment. For applications that require strength in addition to the properties of the material and surface treatment.



Functional Stainless Steel Screws	Tensile Strength (N/mm²)	Listed page
SUS316L HiMo	800 • 1000	→ P.625
Titanium Screws	Tensile Strength (N/mm²)	Listed page
Ti-6Al-4V (64 Titanium)	895 or Higher	→ P.635
Ti-15-3-3-3 (β Titanium)	705 - 945	→ P.637 • P.639
Plastic screw	Tensile Strength (N/mm²)	Listed page
RENY	285	→ P.761 - 768

Tightening Hole Damage Prevention

• Hexalobular hole shape allows minimal damage from tools compared to hex hole or cross hole. It is ideal for repeated use at a high tightening

> Hexalobular Socket Head Cap Screws with Special Low Profile



Hexalobular Socket Pan Head Hexalobular Socket Flat Head Machine Screws Machine Screws Listed page

Hexalobular Socket Head Cap Screws with Low Profile	→ P.605
lexalobular Socket Head Cap Screws with Special Low Profile	→ P.606
lexalobular Socket Head Cap Screws with Extreme Low Profile	→ P.607
Hexalobular Socket Pan Head Machine Screws	→ P.724
Hexalobular Socket Flat Head Machine Screws	→ P.725

Non-magnetic

• Non-magnetic screws with low permeability. For FPD manufacturing equipment, semiconductor manufacturing equipment and electronic equipment requiring non-magnetic properties.



	Amplitude Permeability (μ)	Listed page
Pure Titanium	1.0001	→ P.636 • P.638 • P.640 - 643
Phosphor Bronze	1.0001	→ P.657
Ti-6Al-4V (64 Titanium)	1.0002	→ P.635
Ti-15-3-3-3 (β Titanium)	1.0002	→ P.637 • P.639
SUS316L	1.006	→ P.627
SUS316 HiMo	1.007	→ P.625

Electrical Insulation

• Screws with excellent electrical insulating properties. For electrical and electronic equipment and the like requiring electrical insulating properties.





Volume Resistivity ($\times 10^{14}\Omega \cdot m$)	Listed page
>100	→ P.769 - 770
4.9	→ P.743 - 754
4	→ P.777 - 778
>0.01	→ P.659 - 661
10×10−8Ω·m	_
	4.9 4 >0.01

Lightweight

• For applications that require lighter weight such as automobiles, aircraft, aerospace equipment, medical equipment, robots, etc.



→ P.777 - 778

→ P.761 - 768

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Metal screw	Specific Gravity	Listed page
Aluminum	2.64	→ P.658
Ti-6Al-4V (64 Titanium)	4.43	→ P.635
Pure Titanium	4.51	→ P.636 • P.638 • P.640 - 643
Ti-15-3-3-3 (β Titanium)	4.8	→ P.637 • P.639
Iron	7.8	_
Plastic screw	Specific Gravity	Listed page

1.2

1.65

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Simple Operation

• Screws with washers incorporated. They do not require washers to be embedded, simplifying the assembly.



Socket Button Head Cap Screws with Flange

	Listed page
Hex Socket Head Cap Screws with Captive Washer and Ventilation Hole	→ P.567
Socket Button Head Cap Screws with Flange	→ P.611
Hex Socket Head Cap Screws with Magnetic Captive Washer	→ P.631

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Select a product from category →P.551

Space-saving.

• Screws with low head. Suitable for reducing the size of equipment and devices.



Hex Socket Head Cap Screws with Special Low Profile

Low Head Screws	Listed page
Hex Socket Head Cap Screws with Ventilation Hole with Low Profile	→ P.574
Hex Socket Head Cap Screws with Low Profile	→ P.595
Hex Socket Head Cap Screws with Special Low Profile	→ P.599 - 604
Hexalobular Socket Head Cap Screws with Low Profile	→ P.605 - 607
Aluminum Hexalobular Socket Head Cap Screws vith Extreme Low Profile	→ P.609
Hex Head Screw / Special Low Head	→ P.610
lex Socket Head Cap Captive Screws with Low Profile	→ P.697
Tamper Resistant Special Low Profile Cap Screws	→ P.714

• Screws with small head diameter.



Hex Socket Head Cap Screws with Small Head

Small Head Screws	Listed page
Cross Recessed Flat Head Machine Screws with Small Head	→ P.614
Hex Socket Head Cap Screws with Small Head	→ P.615
Hex Socket Head Cap Screws with Low & Small Head	→ P.617
Hex Socket Head Cap Screws with Extreme Low & Small Head	→ P.619

• Small-diameter screws of M2.6 or less.



Precision Instruments



Resin Screws	
(PEEK / small countersunk screws	
for precision equipment)	



Head Height

	Head Cap Screw JIS B 1176	Cap Screws with		Head Cap Screws with Extreme Low Profile
M2	2	1.3	1.1	0.5
M2.5	2.5	1.6	1.3	_
M2.6	2.6	_	_	0.6
M3	3	2	1.3	0.8
M4	4	2.8	1.5	0.9
M5	5	3.5	1.5	1
M6	6	4	1.5	1.2
8M	8	5	1.5	_
M10	10	6	1.5	_

Head Diameter Comparison of small-head and

	Hex Socket Head Cap Screw JIS B 1176	Hex Socket Head Cap Screws with Small Head
M2	3.8	3
M2.5	4.5	3.8
M3	5.5	4.5
M4	7	5.5
M5	8.5	7
M6	10	8.5
M8	13	11
M10	16	13.5

standard screw head diameters



Listed page Miniature Screw Series → P.681 - 688

Theft Prevention

• This prevents mounting and removing with commercial screwdrivers or wrenches. Dedicated tools are required for these screws, providing effective theft prevention.



Triwing Pan Head Machine Screws

Flat Head Bolts with Hexalobular Socket (with Pin)

	Listed page
Tamper Resistant Special Low Profile Cap Screws	→ P.714
Flat Head Bolts with Hexalobular Socket (with Pin)	→ P.717
Button Head Cap Screws (with Pin)	→ P.718 • P.719
Two Hole Pan Head Machine Screws	→ P.721
Triwing Pan Head Machine Screws	→ P.722

• Theft prevention nuts and one-sided pan-head screws can be mounted using commercially available tools. Crime can be prevented without compromising the workability of



Theft Prevention Nuts



One Side Pan Head Machine Screws

	Listed page
Theft Prevention Nuts	→ P.715
One Side Pan Head Machine Screws	→ P.720

Fixing and Positioning

• Clamping bolts, ball plungers, etc. suitable for fixing and positioning.

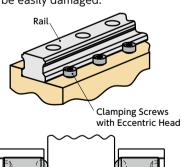


Clamping Screws with Eccentric Head





• For fixing linear guideway rails and workpieces that can be easily damaged.



	Listed page
Clamping Set Screws with Ventilation Hole	→ P.587
Clamping Cap Screws with Ventilation Hole	→ P.588
Spring Plungers with Ball with Ventilation Hole	→ P.589
Clamping Screws with Eccentric Head	→ P.702 - 706
Hex Socket Head Cap Screws - Fine Pitch Thread	→ P.707

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Select a product from category →P.551

Fallout/Loss Prevention

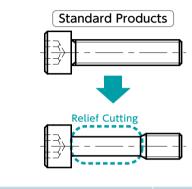
• Screws and washers suitable for screw fallout prevention. For CE Marking compatibility.



Hex Socket Head Cap Captive Screws

	Listed page
Captive screw	→ P.689 - 699

• Captive processing service is available to provide screws with relief cut and fallout prevention functions.



	Listed page
Captive Processing Service	→ P.806

• Since a flat washer is incorporated into the screw, the washer will not be lost. Furthermore, the magnetic detection type has a built-in magnetic flat washer, allowing magnetism detection.



Hex Socket Head Cap Screws with Captive Washer and Ventilation Hole

	Listed page
Hex Socket Head Cap Screws with Captive Washer and Ventilation Hole	→ P.567
Hex Socket Head Cap Screws with Magnetic Captive Washer	→ P.631



Hex Socket Head Cap Screws with Magnetic Captive Washer

Vibration Resistant

• Screw components highly effective for prevention of screw loosening due to vibration or seating surface



Hex Lock Nuts

Socket Button Head Cap Screws with Flange

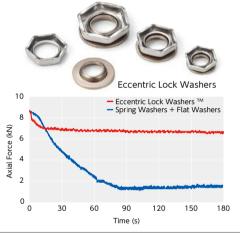


Ribbed Lock Washers

Listed page
→ P.611
→ P.642
→ P.781
→ P.791
→ P.795
→ P.797

In addition to the above products, an anti-loosening service for screws is available. → P.810

• Prevents screw loosening with eccentric lock washers in combination with commercially available hex nuts. Video displays Junker and NAS vibration tests, demonstrating high loosening-prevention performance. Please visit the NBK website.



Prevention of air/liquid leakage

• Plugs and seal washers prevent leakage of gas or liquid.



Hex Socket Flange Head Screw Plugs



	Listed page
Plugs	→ P.727 - 732
Locking and Sealing Rings	→ P.790
Seal Washers	→ P.793

Decoration

• The mounting surface has been beautifully decorated with a distinctive color and shape.









Gold coating

Hexalobular Socket Head Cap Screws with Extreme Low Profile

	Listed page
Stainless Steel Black	→ P.675 • P.789
Special Low Profile Cap Screws	→ P.599 - 604 • P.606
Hexalobular Socket Head Cap Screws with Extreme Low Profile	→ P.607 • P.609
Gold coating	→ P.678
Two Hole Pan Head Machine Screws	→ P.721
Plastic Screws - Cross Recessed Pan Head Machine Screws - PC	→ P.777
Bezel Washers	→ P.796

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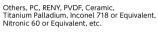
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Consult us any time about screws.

Please feel free to contact us.











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• Socket Head Cap Screws (with Ventilation Hole)

Vacuum Application Screws

	Socket Head Cap Screws					
Part Number	SVSS	SVSS-PC	SVSQS	SVSS (INCH)	SVSS-MOS	SVSS-AG
Shape						
Page	P.565	P.565	P.567	P.568	P.569	P.570
Materials	SUSXM7	SUSXM7 Chemical Polish	SUSXM7		SUSXM7 MoS2 Shot	SUSXM7 Silver Plating
Characteristics	Standard	Low Outgas	Built-in Washers	Inch Screws	Seizing Prevention	Seizing Prevention
Size	M2 - M12	M3 - M12	M3 - M12	No.4-40UNC - 1/4-20UNC	M3 - M8	M3 - M8

	Socket Head Cap Screws			Socket Head Cap Screws With Low Profile with Special Low Profile Head Screws		
Part Number	SVSX-88	SVSL	SVST	SVLS	SVSHS	SVFCS
Shape			Î			
Page	P.571	P.572	P.573	P.574	P.575	P.576
Materials	SUS316L HiMo	SUS316L	TB340C (Grade 2 Titanium)	SUSXM7	SUSXM7	SUSXM7
	High Strength (Strength Class 8.8)	Corrosion Resistance	Lightweight • Nonmagnetic • Chemical Resistance		Special Low Profile Small Space	Hex Socket Counter- sunk Head Screws Small Space
Size	M3 - M6	M3 - M12	M3 - M5	M3 - M10	M3 - M6	M3 - M8

Hex Head Screws (with Ventilation Hole)

(***********	menacion mote,
	Hex Head Screws
Part Number	SVHS
Shape	
Page	P.577
Materials	SUSXM7
Characteristics	Hex Head Screws
Size	M3 - M8

• Hex Socket Set Screws (with Ventilation Hele)

(with Ventilation Hole)			
	Phillips Cross Recessed Set Screws		
Part Number	SVTS		
Shape			
Page	P.582		
Materials	SUSXM7		
Characteristics	Set Screw		
Size	M3 - M8		

• Cross Recessed Machine Screws (with Ventilation Hole)

0.000		Jerema (mier ven			
			Phillips Cross Recessed Pan Head Machine Screws		
Part Number	per SVFS SVFT		SVPS	SVPT	
Shape		+			
Page	P.578	P.579	P.580	P.581	
Materials	SUSXM7	TW270 (Grade 1 Titanium)	SUSXM7	TW270 (Grade 1 Titanium)	
Characteristics	Flat Head Machine Screws Small Space	Lightweight • Nonmagnetic • Chemical Resistance	Pan Head Machine Screw	Lightweight • Nonmagnetic • Chemical Resistance	
Size	M2 - M6	M3 - M5	M3 - M8	M3 - M4	

• Washers (with Ventilation Grooves)

	Washers		
Part Number	SWAS-VF	SWAS-VF-PC	SWAT-VF
Shape	0	0	0
Page	P.583	P.583	P.584
Materials	SUS304	SUS304 Chemical Polishing	TP340C (Grade 1 Titanium)
Characteristics	Standard	Low Outgas	Lightweight • Nonmagnetic
Size	Nominal 3 to 12	Nominal 3 to 12	Nominal 3 to 5

• Hex Posts (with Ventilation Hole)

Tiex Posts (With Ventilation Hote)										
	Hex Posts									
Part Number	SHVAS	SHVBS								
Shape										
Page	P.585	P.586								
Materials	SUS304	SUS304								
Characteristics	Single - end Female Screw Type	Double - end Female Screw Type								
Size	M3 - M8	M3 - M8								

• Fixing and Locating (with Ventilation Hole)

	(,				
	Clamping Set Screws	i	Clamping Cap Screw	Spring Plunger with Ball			
Part Number	SCSS-VR	SCSS-VF	SCBS-VR	SCBS-VF	PVFS		
Shape							
Page	P.587	P.587	P.588	P.588	P.589		
Materials	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C	Body: Stainless Steel (A2) Ball: SUS440C		
Characteristics	For Fixing • Full Ball	For Fixing • Flat Ball	For Fixing • Full Ball	For Fixing • Flat Ball	For Locating		
Size	M5 - M10						

• High Performance Socket Head Cap Screws

NBK

- Ingili ci	TOTTIGHTEE SOCKEE	ricad cap scient	-			
	Socket Head Cap Screws with Special Low Profile	Cover Caps	Socket Head Cap Screws for Cover Cap			
Part Number	SSHS-HB	SCAP-AL	SCAP-CE	SNCPS		
Shape		O				
Page	P.590	P.591	P.591	P.591		
Materials	SUSXM7 Blasting (Head Only)	A5056	Al ₂ O ₃ 99.5% Alumina	SUSXM7		
Characteristics	Peeling Prevention for Deposits	Low Outgas · Corrosion Resistance	Heat Resistance • Chemical Resistance Electrical Insulation	For Cover Caps		
Size	M3 - M6	M3 to M10	M3 to M10	M3 - M10		

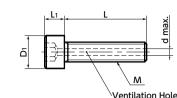


565

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SVSS Hex Socket Head Cap Screws with Ventilation Hole

SUS Stainless steel Vacuum Cleanroom wash & packaging



SVSS-PC

SUSXM7

A2-70



• The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.

chemical polishing. Outgas quantity is extremely

low. Suitable for the use under medium vacuum

• Ventilation holes are made using a method that

RoHS2 Compliant • Cleanroom wash and cleanroom packing are (Equivalent to SUS304) • **SVSS-PC** has an improved surface coarseness by Chemical Polish

• Part number specification

Material/Finish

Main Body

Strength Class

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

svss

SUSXM7

A2-70

(Equivalent to SUS304)

Related Products

SVSQS Socket Head Cap Screws with Captive Washer and Ventilation Holes → P.567



SVST Socket Head Cap Screws - Titanium → P.573



SVSHS Hex Socket Head Cap Screws with Special Low Profile → P.575



SVFCS Hex Socket Countersunk Head Screws → P.576



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SVSS-MOS Socket Head Cap Screws with MoS₂ Shot → P.569



SVSS No Surface Treatment

Part Number	Qty* ¹ per pack
SVSS-M2	10
SVSS-M2.5	10
SVSS-M3	20
SVSS-M4	20*2
SVSS-M5	10
SVSS-M6	10
SVSS-M8	10*2
SVSS-M10	5
SVSS-M12	5

- *1: Also sold separately from 1 piece up. → P.809
- *2: Quantity per pack for SVSS-M4-30 and SVSS-M4-35 is 10 pieces. Quantity per pack for **SVSS-M8-60** is 5 pieces.

SVSS-PC Special Chemical Polishing

	•
Part Number	Qty*1 per pack
SVSS-M3-PC	20
SVSS-M4-PC	20*2
SVSS-M5-PC	10
SVSS-M6-PC	10
SVSS-M8-PC	10*2
SVSS-M10-PC	5
SVSS-M12-PC	5

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

NBK

*2: Quantity per pack for **SVSS-M4-30-PC** and **SVSS-M4-35-PC** is 10 pieces. Quantity per pack for **SVSS-M8-60-PC** is 5 pieces.

le effect on metal structure. The occurrence	
as under vacuum environment and brittle	

has little of outga fracture during usage are suppressed respectively.

Application

environments.

completed. → P.807

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

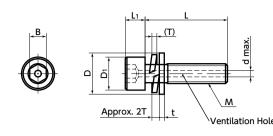
SVSS No Surface Treatment	SVSS-PC Chemical Polish	Comn	Common dimensions																					
Part Number	Part Number	M ¶1	ML								D1	L1	В	d	Mass	(g)								
SVSS-M2		M2	3	4	5	6	8	10											3.8	2	1.5	0.8	0.16	5 - 0.3
SVSS-M2.5		M2.5		4	5	6	8	10	12										4.5	2.5	2	1	0.35	5 - 0.59
SVSS-M3	SVSS-M3-PC	M3			5	6	8	10	12	16									5.5	3	2.5	1.2	0.67	7 - 1.2
SVSS-M4	SVSS-M4-PC	M4			5	6	8	10	12	16	20	25	30	35					7	4	3	1.5	1.4	- 4.2
SVSS-M5	SVSS-M5-PC	M5				6	8	10	12	16	20	25	30	35	40				8.5	5	4	1.5	2.2	- 7.1
SVSS-M6	SVSS-M6-PC	M6					8	10	12	16	20	25	30	35	40	45	50		10	6	5	2	4.3	- 13
SVSS-M8	SVSS-M8-PC	M8							12	16	20	25	30	35	40	45	50	60	13	8	6	2	11	- 29
SVSS-M10	SVSS-M10-PC	M10								16	20	25	30	35	40	45	50	60	16	10	8	3	21	- 46
SVSS-M12	SVSS-M12-PC	M12											30	35	40	45	50	60	18	12	10	3	39	- 63

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



▶ https://www.nbk1560.com





• Part number specification

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



• The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.

- Flat washers and spring washers are captive, therefore prevent separation from screws.
- It is unnecessary to assemble washers. It simplifies work when wearing gloves in a clean room.
- Cleanroom wash and cleanroom packing are completed. → P.807
- Application

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

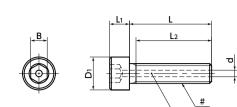
Material/Finish	RoHS2 Compliant
	svsqs
Screw Body	SUSXM7 (Equivalent to SUS304)
Screw Body Tensile Strength	A2-70
Plain Washer	SUS304
Spring Washer	SUS304

Part Number	M	L 🍜	2										D1	D	L1	В	t	Т	d	Mass (g)		
SVSQS-M3	M3	5	6	8	10	12	16								5.5	7	3	2.5	0.5	0.7	1.2	0.9 - 1.4
SVSQS-M4	M4		6	8	10	12	16	20	25	30	35				7	9	4	3	8.0	1	1.5	2.1 - 4.7
SVSQS-M5	M5			8	10	12	16	20	25	30	35	40			8.5	10	5	4	1	1.3	1.5	3.4 - 8
SVSQS-M6	M6				10	12	16	20	25	30	35	40	45	50	10	12.5	6	5	1.6	1.5	2	6.9 - 15
SVSQS-M8	M8					12	16	20	25	30	35	40	45	50	13	17	8	6	1.6	2	2	15 - 29
SVSQS-M10	M10						16	20	25	30	35	40	45	50	16	21	10	8	2	2.5	3	29 - 47
SVSQS-M12	M12									30	35	40	45	50	18	24	12	10	2.5	3	3	51 - 66

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

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

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



Application

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

Selection WE CAD Vacuum Cannoom wash & packaging SUS Stainless steel

Ventilation hole

Material/Finish	RoHS2 Compliant
	SVSS(INCH)
Main body	Equivalent to SUS304
Strength Class	A2-50



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- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Inch thread type.
- The ventilation hole is machined by a method that has less effect on metal structure. It suppress the brittle failure and generation of outgas in a vacuum environment during use.
- Cleanroom wash and cleanroom packing are completed. → P.807

																				Unit:inch
Part Number	# Nominal of Thread	L 🌓										D1	L1	L ₂ min.	В	d max. (mm)	Mass (g)			
SVSS-#4-40	No.4-40UNC	3/16	1/4	5/16	3/8	1/2	5/8	3/4							0.183	0.112	Full Thread	3/32	1	0.51 - 1.1
SVSS- # 5-40	No.5-40UNC		1/4	5/16	3/8	1/2	5/8	3/4							0.205	0.125	Full Thread	3/32	1.2	0.78 - 1.4
SVSS-#6-32	No.6-32UNC		1/4	5/16	3/8	1/2	5/8	3/4							0.226	0.138	Full Thread	7/64	1.2	0.98 - 1.7
SVSS-#8-32	No.8-32UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1					0.27	0.164	0.88	%4	1.5	1.6 - 3.2
SVSS-#10-24	No.10-24UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1					0.312	0.19	0.88	5/32	1.5	2.3 - 4.4
SVSS-#10-32	No.10-32UNF		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1					0.312	0.19	0.88	5/32	1.5	2.3 - 4.6
SVSS-1/4-20	1/4-20UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.375	0.25	1	3/16	2	4.3 - 13

SVSS (INCH) Hex Socket Head Cap Screws (with Ventilation Hole / Inch Screws)

Part Number	Qty per pack*1
SVSS-#4-40	10
SVSS- # 5-40	10
SVSS-#6-32	10
SVSS-#8-32	10
SVSS-#10-24	10
SVSS-#10-32	10
SVSS-1/4-20	10

▶ https://www.nbk1560.com

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

NBK

• Part number specification

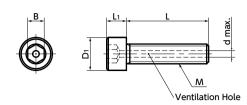


Order in number of packs. Also sold separately from 1 piece up. → P.809

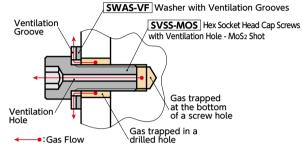
NBK

SVSS-MOS Hex Socket Head Cap Screws with Ventilation Hole - MoS₂ Shot

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

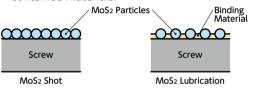


• Part number specification





- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- The MoS₂ particles shot by shot blast increase the lubrication of the screw and prevent seizing.
- Unlike a general MoS₂ lubrication, MoS₂ shot does not use a bonding agent so it is easy to identify contained materials.



Application

Strength Class

Seizing Prevention

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

 Material/Finish 	RoHS2 Compliant
	SVSS-MOS
Main Body	SUSXM7 (Equivalent to SUS304) MoS2 Shot

A2-70

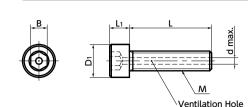
Unit:mm

Part Number	M 1	L 1						D ₁	L1	В	d	Mass (g)			
SVSS-M3-MOS	M3	6	8	10	12	16					5.5	3	2.5	1.2	0.71 - 1.2
SVSS-M4-MOS	M4	6	8	10	12	16	20	25			7	4	3	1.5	1.5 - 3.2
SVSS-M5-MOS	M5	6	8	10	12	16	20	25			8.5	5	4	1.5	2.2 - 4.8
SVSS-M6-MOS	M6		8	10	12	16	20	25	30		10	6	5	2	4.3 - 8.3
SVSS-M8-MOS	M8				12	16	20	25	30	35	13	8	6	2	11 - 19

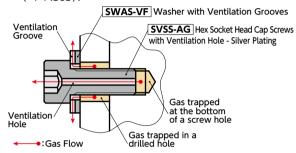
Part Number	Qty*1 per pack
SVSS-M3-MOS	20
SVSS-M4-MOS	10
SVSS-M5-MOS	10
SVSS-M6-MOS	10
SVSS-M8-MOS	10

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

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



• Usage example Gas trapped at the bottom of a screw hole is released through **SVSS-AG**, and gas trapped in a drilled hole is released through **SWAS-VF** $(\Rightarrow P.583).$





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- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Silver plating. Excellent lubrication and electroconductivity. For the prevention of screw seizing and use in conductive sections of electronic parts.
- Electric Resistance Silver: $1.6\mu\Omega \cdot \text{cm}(\text{Gold: } 2.3\mu\Omega \cdot \text{cm})$
- *This is the performance of the silver material.

Application

SVSS-AG Hex Socket Head Cap Screws with Ventilation Hole - Silver Plating

CAD Stainless steel

Seizing Prevention

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

Material/Finish

• material missi	ROH32 COMPlian
	SVSS-AG
Main Body	SUSXM7 (S.S. grade : A2) Silver Plating
Strength Class	A2-70

• Part number specification



															Unit:mm
Part Number	M 1	L 2	L 1 2								D ₁	L1	В	d	Mass (g)
SVSS-M3-AG	M3	6	8	10	12	16					5.5	3	2.5	1.2	0.71 - 1.2
SVSS-M4-AG	M4	6	8	10	12	16	20	25			7	4	3	1.5	1.5 - 3.2
SVSS-M5-AG	M5	6	8	10	12	16	20	25			8.5	5	4	1.5	2.2 - 4.8
SVSS-M6-AG	M6		8	10	12	16	20	25	30		10	6	5	2	4.3 - 8.3
SVSS-M8-AG	M8				12	16	20	25	30	35	13	8	6	2	11 - 19

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



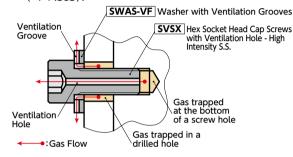
SVSX Hex Socket Head Cap Screws with Ventilation Hole - High Intensity S.S.



e-nedzi.com®

Ventilation Hole

 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





- 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	RoHS2 Complian
	svsx
Main Body	SUS316L HiMo
Strength Class	8.8

Related Products

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

→ P.583



SNSX, which does not have a ventilation hole, is available.

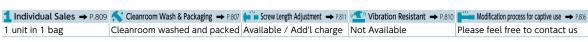
→ P.625

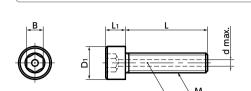


															Unit:mm
Part Number	M 1	L 2								D ₁	L ₁	L2*1	В	d	Mass (g)
SVSX-M3-88	M3	6	8	10	12	16	20	25		5.5	3	18(L=25)	2.5	1.2	0.71 - 1.6
SVSX-M4-88	M4	6	8	10	12	16	20	25		7	4	Full Thread	3	1.5	1.5 - 3.2
SVSX-M5-88	M5			10	12	16	20	25	30	8.5	5	22(L=30)	4	1.5	2.7 - 5.6
SVSX-M6-88	M6				12	16	20	25	30	10	6	Full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

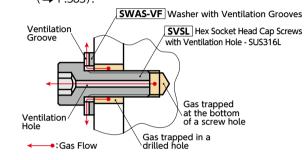




SVSL Hex Socket Head Cap Screws with Ventilation Hole - SUS316L

Ventilation Hole

• 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



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



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

Application

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

 Material/Finish RoHS2 Compliant SVSL Main Body SUS316L Strength Class A4-70

Related Products

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

→ P.583



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

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

▶ https://www.nbk1560.com

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

NBK



7.2 - 16

SVST Hex Socket Head Cap Screws with Ventilation Hole - Titanium

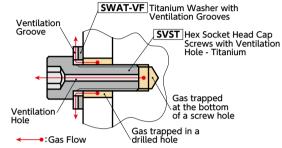
CAD Solventoad Vacuum Cleanroom wash & packaging Non-Magnetic



e-nedzi.com®

Ventilation Hole

• Usage example Gas trapped at the bottom of a screw hole is released through **SVST**, and gas trapped in a drilled hole is released through **SWAT-VF** (→ P.584).



• Part number specification

SVST-M5-20



• The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.

- Chemical polishing and brightening processing improve the quality of the surface. Outgas quantity is extremely low.
- Nonmagnetic.
- Cleanroom wash and cleanroom packing are completed. → P.807
- The features of brightening processing and titanium → P.633
- Application

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

Material/Finish

11/1 1111311	ROHS2 Complian
	SVST
	TB340C (Grade 2 Titanium)

Related Products

SNST Titanium Socket Head Cap Screw without Ventilation hole is available.

→ P.636

Main Body



Please feel free to contact us

								Unit: mm
Part Number	M	L	D1	L1	В	d	Mass (g)	Qty per pack
SVST-M3-5	M3	5	5.5	3	2.5	1.2	0.38	1
SVST-M3-6	M3	6	5.5	3	2.5	1.2	0.4	1
SVST-M3-8	M3	8	5.5	3	2.5	1.2	0.45	1
SVST-M3-10	M3	10	5.5	3	2.5	1.2	0.5	1
SVST-M3-12	M3	12	5.5	3	2.5	1.2	0.54	1
SVST-M3-16	M3	16	5.5	3	2.5	1.2	0.66	1
SVST-M3-20	M3	20	5.5	3	2.5	1.2	0.77	1
SVST-M4-8	M4	8	7	4	3	1.5	0.94	1
SVST-M4-10	M4	10	7	4	3	1.5	1	1
SVST-M4-12	M4	12	7	4	3	1.5	1.1	1
SVST-M4-16	M4	16	7	4	3	1.5	1.3	1
SVST-M5-10	M5	10	8.5	5	4	1.5	1.5	1
SVST-M5-12	M5	12	8.5	5	4	1.5	1.7	1
SVST-M5-16	M5	16	8.5	5	4	1.5	2	1
SVST-M5-20	M5	20	8.5	5	4	1.5	2.3	1
SVST-M5-25	M5	25	8.5	5	4	1.5	2.7	1

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

Cleanroom washed and packed Available / Add'l charge Not Available

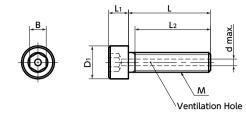
▶ https://www.nbk1560.com

SVLS Socket Head Cap Screws with Ventilation Hole with Low Profile

Selection CAD Vacuum Protrusion Cleanroom wash & packaging SUS Stainless steel



e-nedzi.com®



 Application RoHS2 Compliant Vacuum devices, vacuum chambers, FPD production equipment, semiconductor devices, and electron microscopes

Material/Finish

SVLS-M3

SVLS-M4

SVLS-M5

SVLS-M6

SVLS-M8

SVLS-M10

M5

M6

	SVLS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

10

10 12

10



- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Socket head cap screws have low head heights. These screws are intended for the reduction of the size of machinery and device and applications with limited overhead space.
- Cleanroom wash and cleanroom packing are completed. → P.807

							Ome min
	D1	L1	B*2	t	L2*1	d	Mass (g)
	5.5	2	2	1.5	Full Thread	1.2	0.53 - 0.78
	7	2.8	2.5	2.3	Full Thread	1.5	1.1 - 1.9
	8.5	3.5	3	2.7	Full Thread	1.5	1.8 - 3.3

Full Thread 3

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

12 16

*2: The hexagonal width across flats of [SVLS-M10] has been changed from 7 mm to 6 mm.

16

20

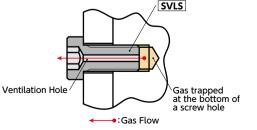
20

25

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

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

 Usage example Effective with vacuum devices and vacuum chambers that require the exhaustion of gas trapped in screw holes.



• Part number specification



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

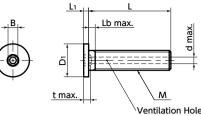
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 🚅 Vibration Resistant → P.810 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Cleanroom washed and packed | Available / Add'l charge | Not Available

1 unit in 1 bag

575







Application

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

Material/Finish	RoHS2 Complia
	SVSHS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50



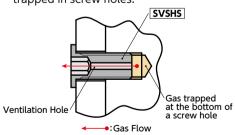
e-nedzi.com®

- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- The head height of all screws is 1.5 mm or less. These screws are intended for the reduction of the size of machinery and device and applications with limited overhead space.
- Cleanroom wash and cleanroom packing are completed. → P.807

														Unit:mm
Part Number	M	L 2	42					D1	L1	Lb	В	t	d	Mass (g)
SVSHS-M3	M3	6	8	10				6	1.3	1.5	1.5	2	1.2	0.53 - 0.7
SVSHS-M4	M4	6	8	10	12	16		8	1.5	1.6	2	2.5	1.5	1.1 - 1.9
SVSHS-M5	M5	6	8	10	12	16	20	9	1.5	2	3	3	1.5	1.5 - 3.3
SVSHS-M6	M6	6	8	10	12	16	20	10	1.5	2.5	3	4	2	2.7 - 5.3

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

- *1: Also sold separately from 1 piece up. → P.809
- Usage example Effective with vacuum devices and vacuum chambers that require the exhaustion of gas trapped in screw holes.



Related Products

NBK

SSH Socket Head Cap Screws with Special Low Profile without ventilation hole is available.

₱ P.599



▶ https://www.nbk1560.com

• Part number specification



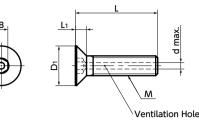
Order in number of packs. Also sold separately from 1 piece up. → P.809

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 | Cleanroom washed and packed | Available / Add'l charge | Not Available

SVFCS Hex Socket Countersunk Head Screws with Ventilation Hole

e-nedzi.com®





Application

Part Number

SVFCS-M3

SVFCS-M4

SVFCS-M5

SVFCS-M6

SVFCS-M8

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

Material/Finish	RoHS2 Complian
	SVFCS
Main Body	SUSXM7 (Equivalent to SUS304)

L < 2

M5

M6

10

10

10

12

12

12

12

16

16

16

20

20

20

25

25



- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- The flat head does not protrude after tightening.
- Cleanroom wash and cleanroom packing are completed. → P.807

1 7

2.3

2.8

3.3

10

12

16

30

2.5

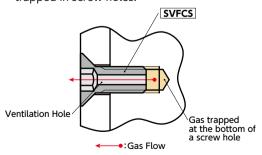
d	Mass (g)					
1.2	0.49 - 0.77					
1.5	1 - 1.8					
1.5	2.2 - 3.6					
2	3.9 - 6.5					

8.9 - 15

Unit: mm

Part Number	Qty*1 per pack
SVFCS-M3	20
SVFCS-M4	20
SVFCS-M5	10
SVFCS-M6	10
SVFCS-M8	10

- *1: Also sold separately from 1 piece up. → P.809
- Usage example Effective with vacuum devices and vacuum chambers that require the exhaustion of gas trapped in screw holes.



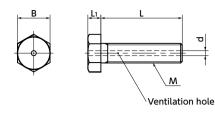
• Part number specification



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 | Cleanroom washed and packed | Available / Add'l charge | Not Available

SVHS Hexagon Head Bolts (with Ventilation Hole) CAD Cleanroom wash & packaging SUS Stainless steel



Material/Finish	RoHS2 Compliant
	SVHS
Main body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-70



e-nedzi.com®

- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- The ventilation hole is machined by a method that has less effect on metal structure. It suppress the brittle failure and generation of outgas in a vacuum environment during use.
- For locations with narrow top space and hex wrench cannot be used.
- Cleanroom wash and cleanroom packing are completed. → P.807

Application

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

Part Number	M	L 2	1 2								L1	В	d max.	Mass (g)
SVHS-M3	M3	6	8	10	12	16					2	5.5	1.2	0.67 - 1.1
SVHS-M4	M4		8	10	12	16	20				2.8	7	1.5	1.6 - 2.5
SVHS-M5	M5			10	12	16	20	25			3.5	8	1.5	2.8 - 4.7
SVHS-M6	M6				12	16	20	25	30		4	10	2	4.9 - 8.1
SVHS-M8	M8					16	20	25	30	35	5.3	13	2	11 - 18

Part Number	Qty per pack*1
SVHS-M3	10
SVHS-M4	10
SVHS-M5	10
SVHS-M6	10
SVHS-M8	10

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

Related Products

For ventilation of drilled hole. please use **SWAS-VF**

→ P.583



▶ https://www.nbk1560.com

• Part number specification



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.805 Available / Add'l charge | Cleanroom washed and packed | Available / Add'l charge | Not Available

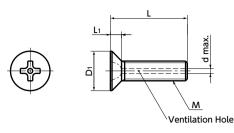
NBK

Available / Add'l charge | Cleanroom washed and packed | Available / Add'l charge | Not Available



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

SVFS Cross Recessed Flat Head Machine Screws with Ventilation Hole Selection Select



Application

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

Material/Finish	RoHS2 Compli
	SVFS
Main Body	SUSXM7 (Equivalent to SUS304)



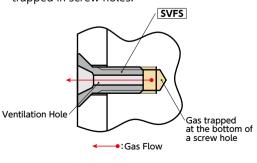
e-nedzi.com®

- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- The flat head does not protrude after tightening.
- Cleanroom wash and cleanroom packing are completed. → P.807

														Unit:mm
Part Number 1	M	L 2									D ₁	L1	d	Mass (g)
SVFS-M2	M2	3	4	5	6	8					4	1.2	0.8	0.13 - 0.21
SVFS-M2.6	M2.6		4	5	6	8	10				5.2	1.5	1	0.27 - 0.46
SVFS-M3	M3			5	6	8	10	12			6	1.75	1.2	0.49 - 0.77
SVFS-M4	M4				6	8	10	12	16		8	2.3	1.5	1 - 1.8
SVFS-M5	M5					8	10	12	16		10	2.8	1.5	2.2 - 3.1
SVFS-M6	M6						10	12	16	20	12	3.4	2	3.9 - 5.6

Part Number	Qty*1 per pack
SVFS-M2	10
SVFS-M2.6	10
SVFS-M3	20
SVFS-M4	20
SVFS-M5	10
SVFS-M6	10

- *1: Also sold separately from 1 piece up. → P.809
- Usage example Effective with vacuum devices and vacuum chambers that require the exhaustion of gas trapped in screw holes.







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

577

580

579

SVFT Phillips Cross Recessed Flat Head Titanium Machine Screws (with Ventilation Hole) CAD Vacuum Cleanroom wash & packaging CAD Vacuum Cleanroom wash & packaging CAD Vacuum C



Ventilation hole



e-nedzi.com®

- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Flat head screw type whose head does not protrude after tightening.
- The surface is reformed by special chemical polishing and bright heat treatment. The amount of outgas is ultralow.
- Nonmagnetic.
- Cleanroom wash and cleanroom packing are completed. → P.807
- About bright heat treatment and titanium properties → P.633
- Application

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

•	Materia	l/Finish	
			SVF

• Material/Tillisii	RoHS2 Complia
	SVFT
Main body	TW270 (Type 1 titanium)

Unit: mm

Part Number	M	L 2				D1	L1	d max.	Mass (g)
SVFT-M3	M3	6	8	10		6	1.75	1.2	0.18 - 0.23
SVFT-M4	M4	6	8	10	12	8	2.3	1.5	0.34 - 0.49

Part Number	Qty per pack*1
SVFT-M3	10
SVFT-M4	10

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

Related Products

Phillips cross recessed flat head titanium machine screw without ventilation hole **SNFT** is available. → P.640



▶ https://www.nbk1560.com

• Part number specification



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 | Cleanroom washed and packed | Available / Add'l charge | Not Available

SVPS Phillips Cross Recessed Pan Head Machine Screw (with Ventilation Hole)

CAD Stainless steel



e-nedzi.com®

Ventilation hole



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

Application

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

Material/Finish	RoHS2 Complian
	SVPS
Main body	SUSXM7 (Equivalent to SUS304)

													Officential
Part Number	M	L 2								D1	L1	d max.	Mass (g)
SVPS-M3	M3	8	10	12	16					5.5	2	1.2	0.61 - 0.94
SVPS-M4	M4		10	12	16	20				7	2.6	1.5	1.3 - 2.1
SVPS-M5	M5			12	16	20	25			9	3.3	1.5	2.7 - 4.2
SVPS-M6	M6			12	16	20	25	30		10.5	3.9	2	4.3 - 7.4
SVPS-M8	M8					20	25	30	35	14	5.2	2	11 - 16

Part Number	Qty per pack*1
SVPS-M3	10
SVPS-M4	10
SVPS-M5	10
SVPS-M6	10
SVPS-M8	10

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

Related Products

For ventilation of drilled hole. please use **SWAS-VF**

→ P.583



• Part number specification



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

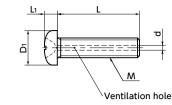
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 🚅 Vibration Resistant → P.810 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Cleanroom washed and packed | Available / Add'l charge | Not Available

581

3.2 - 11.2

e-nedzi.com® **SVPT** Phillips Cross Recessed Pan Head Titanium Machine Screws (with Ventilation Hole)

CAD Vacuum Cleanroom wash & packaging Non-Magnetic Lightweight





- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Chemical polishing and brightening processing improve the quality of the surface. Outgas quantity is extremely low.
- Nonmagnetic.
- Cleanroom wash and cleanroom packing are completed. → P.807
- The features of brightening processing and titanium → P.633
- Application

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

 Material/Finish 	RoHS2 Compliar
	SVPT
Main body	TW270 (Type 1 titanium)

Unit: mm

Part Number	M	L 2	•2							D1	L1	d max.	Mass (g)
SVPT-M3	M3	6	8	10	12	16	20			5.5	2	1.2	0.31 - 0.63
SVPT-M4	M4	6	8	10	12	16	20	25		7	2.6	1.5	0.59 - 1.4
SVPT-M5	M5		8	10	12	16	20	25	30	9	3.3	1.5	1.3 - 2.8

Part Number	Qty per pack*1
SVPT-M3	10
SVPT-M4	10
SVPT-M5	10

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

Related Products

NBK

Phillips cross recessed pan head titanium machine screw without ventilation hole **SNPT** is available. → P.638



▶ https://www.nbk1560.com

• Part number specification



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 | Cleanroom washed and packed | Available / Add'l charge | Not Available

NBK

Part Number

M3

M4

M5

M6

M8

SVTS-M3

SVTS-M4

SVTS-M5

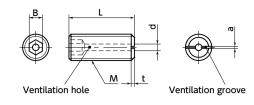
SVTS-M6

SVTS-M8



e-nedzi.com®







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

Application

15

15

15

15

10

10

10

10

12

Vacuum device / Vacuum container / FPD production device / Semiconductor manufacturing device / Electron microscope

 Material/Finish 	RoHS2 Compliant
	SVTS
Main body	SUSXM7 (Equivalent to SUS304)

							Unit:mm	
			В	a		d max.	Mass (g)	
			1.5	0.4	0.3	1.2	0.2 - 0.7	
20			2	0.4	0.3	1.5	0.4 - 1.6	
20	25		2.5	0.5	0.5	1.5	0.7 - 3.1	

0.5

Part Number	Qty per pack*1
SVTS-M3	20
SVTS-M4	20
SVTS-M5	20
SVTS-M6	20
SVTS-M8	20

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

• Part number specification

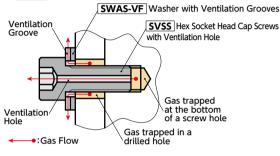


Order in number of packs. Also sold separately from 1 piece up. → P.809

Ventilation Groove

• Usage example Gas trapped in drilled holes is released through **SWAS-VF**, and gas trapped in screw holes is released by screws with ventilation holes such as **SVSS** (→ P.565).

SWAS-VF Washers with Ventilation Grooves





e-nedzi.com®

• The ventilation groove easily releases gas trapped in the drill holes of equipment and machines, and supports vacuum drawing of vacuum devices.

- Cleanroom wash and cleanroom packing are completed. → P.807
- **SWAS-VF-PC** has an improved surface coarseness by chemical polishing. Outgas quantity is extremely low. Suitable for the use under medium vacuum environments.
- Combine this item with screws with ventilation holes, such as **SVSS** Socket Head Cap Screw with Ventilation Hole. → P.565

Application

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

Material/Finish		RoHS2 Compliant
	SWAS-VF	SWAS-VF-PC
Main Body	CL IC3U1	SUS304
Main Body	303304	Chemical Polish

							Unit: m		
SWAS-VF No Surface Treatment	SWAS-VF-PC Chemical Polish	Common di	ommon dimensions						
Part Number 📶	Part Number 1	Nominal	d	D	t	Mass (g)	per pack		
SWAS-3-VF	SWAS-3-VF-PC	3	3.2	7	0.5	0.12	20		
SWAS-4-VF	SWAS-4-VF-PC	4	4.3	9	0.8	0.31	20		
SWAS-5-VF	SWAS-5-VF-PC	5	5.3	10	1	0.44	10		
SWAS-6-VF	SWAS-6-VF-PC	6	6.4	12.5	1.6	1.1	10		
SWAS-8-VF	SWAS-8-VF-PC	8	8.4	17	1.6	2.1	10		
SWAS-10-VF	SWAS-10-VF-PC	10	10.5	21	2	4	5		
SWAS-12-VF	SWAS-12-VF-PC	12	13	24	2.5	6.2	5		

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

Related Products

SVSS

Socket Head Cap Screws with Ventilation Hole

→ P.565



SVSS-MOS

NBK

Socket Head Cap Screws with Ventilation Hole - MoS₂ Shot

₱ P.569



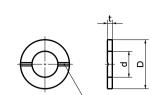
• Part number specification

SWAS-5-VF-PC



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	Cleanroom washed and packed	Not Available	Not Available	Not Available





- The ventilation groove easily releases gas trapped in the drill holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Cleanroom wash and cleanroom packing are completed. → P.807
- Combine this item with **SVST** Socket Head Cap Screws with Ventilation Hole-titanium(→ P.573).

Application

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

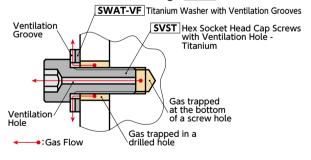
Material/Finish

Material/Finish	RoHS2 Compliant
	SWAT-VF
Main Body	TP340C (Grade 2 Titanium)

Part Number 📶	Nominal	d	D	t	Mass (g)	Qty per pack
SWAT-3-VF	3	3.2	7	0.5	0.068	1
SWAT-4-VF	4	4.3	9	0.8	0.18	1
SWAT-5-VF	5	5.3	10	1	0.25	1

• Usage example

Gas trapped at the bottom of a screw hole is released through **SWAT-VF**, and gas trapped in a drilled hole is released through **SVST** (→ P.573).



Related Products

SWAT Titanium Washers without a ventilation groove is available. → P.643

NBK



▶ https://www.nbk1560.com

• Part number specification



1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	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

Special Screws

e-nedzi.com® **SHVAS** Hex Posts with Ventilation Hole CAD Stainless steel

/Ventilation Ventilation | Hole



 Material/Finish RoHS2 Compliant SHVAS Main Body SUS304

- Hexagon posts with single-end male and single-end female threads.
- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- Two or more hexagon posts can be connected for use.
- Application

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

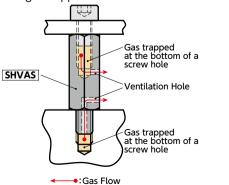
																							Ur	nit : mm
Part Number	M	L 🖅	◆2											В	C (Approx.)	Lm	Lf	d	d1	Mass (g)			
SHVAS-M3	M3	15	20	25	30	35	40										6	6.9	4.5	6	1.2	1.5	3.6 -	9.6
SHVAS-M4	M4		20	25	30	35	40	45	50	60	70	80					7	8.1	6	8	1.5	1.5	6.5 -	26
SHVAS-M5	M5		20	25	30	35	40	45	50	60	70	80	90	100			8	9.2	7.5	10	1.5	1.5	8.3 -	43
SHVAS-M6	M6			25	30	35	40	45	50	60	70	80	90	100	120	150	10	11.5	9	12	2	1.5	16 - 1	100
SHVAS-M8	M8					35	40	45	50	60	70	80	90	100	120	150	13	15	12	16	2	1.5	39 - 1	170

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

• Usage example

NBK

These screws are effective with vacuum devices and vacuum chambers that require the elimination of gas trapped in screw holes.

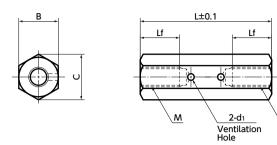


• Part number specification



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



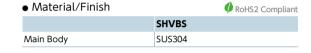




- Hexagon posts with double-ended female threads.
- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.

Application

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



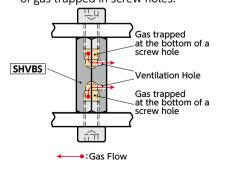
																					Unit:mm
Part Number	M	L 1 2	•2											В	C (Approx.)	Lf	d1*1	Mass (g)			
SHVBS-M3	M3	15	20	25	30	35	40										6	6.9	6	1.5	3.1 - 9.1
SHVBS-M4	M4		20	25	30	35	40	45	50	60	70	80					7	8.1	8	1.5	5.4 - 25
SHVBS-M5	M5		20	25	30	35	40	45	50	60	70	80	90	100			8	9.2	10	1.5	6.1 - 40
SHVBS-M6	M6			25	30	35	40	45	50	60	70	80	90	100	120	150	10	11.5	12	1.5	13 - 96
SHVBS-M8	M8					35	40	45	50	60	70	80	90	100	120	150	13	15	16	1.5	30 - 161

*1: Depending on the "L" dimension, there may be only one ventilation hole.

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

 Usage example These screws are effective with vacuum devices and vacuum chambers that require the elimination

of gas trapped in screw holes.



• Part number specification



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
unit in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

SCSS Clamping Set Screws with Ventilation Hole CAD Download Vacuum Cleanroom wash & packaging SUS Stainless steel

Ventilation Ventilation Hole

Application

Fixing and locating workpiece, Vacuum devices, FPD production equipment, semiconductor devices

RoHS2 Compliant

Material/Finish

SCSS SUSXM7 Main Body (Equivalent to SUS304) SUS440C (Hardness 55 - 60HRC) Thin Fluorine Coating

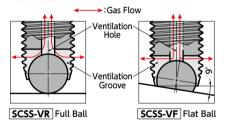
• Part number specification

SCSS-M6-25-VR



e-nedzi.com®

- This screw is used to secure work in vacuum devices and vacuum chambers, such as FPD production equipment and semiconductor devices.
- Cleanroom wash and cleanroom packing are completed. → P.807
- The thin fluorine coating keeps the ball highly lubricated, even after cleanroom washing.
- Ventilation holes and grooves easily release gas trapped in machines.
- **SCSS-VR** has a full ball to firmly secure work at the contact point.
- The contact surface of **SCSS-VF** is a flat ball. Workpiece is not damaged. The ball rotates flexibly up to 9°. Clamps securely even the inclined surface.



SCSS-VR Full Ball		SCSS-VF Flat Ball		Commo	on dimens	Ohi nas maak			
Part Number 📶	L	Part Number 1	L	M	Db	В	d	Mass (g)	Qty per pack
SCSS-M5-8-VR	8.6	SCSS-M5-8-VF	8	M5	3	2.5	1.5	0.8	1
SCSS-M5-12-VR	12.6	SCSS-M5-12-VF	12	M5	3	2.5	1.5	1.3	1
SCSS-M5-20-VR	20.6	SCSS-M5-20-VF	20	M5	3	2.5	1.5	2.3	1
SCSS-M6-10-VR	10.8	SCSS-M6-10-VF	10	M6	4	3	2	1.5	1
SCSS-M6-16-VR	16.8	SCSS-M6-16-VF	16	M6	4	3	2	2.5	1
SCSS-M6-20-VR	20.8	SCSS-M6-20-VF	20	M6	4	3	2	3.4	1
SCSS-M6-25-VR	25.8	SCSS-M6-25-VF	25	M6	4	3	2	4	1
SCSS-M8-10-VR	11.2	SCSS-M8-10-VF	10	M8	5.5	4	2	2.5	1
SCSS-M8-12-VR	13.2	SCSS-M8-12-VF	12	M8	5.5	4	2	3.2	1
SCSS-M8-20-VR	21.2	SCSS-M8-20-VF	20	M8	5.5	4	2	5.7	1
SCSS-M8-25-VR	26.2	SCSS-M8-25-VF	25	M8	5.5	4	2	7.7	1
SCSS-M8-30-VR	31.2	SCSS-M8-30-VF	30	M8	5.5	4	2	9	1
SCSS-M10-16-VR	17.7	SCSS-M10-16-VF	16	M10	7	5	3	5	1
SCSS-M10-20-VR	21.7	SCSS-M10-20-VF	20	M10	7	5	3	7	1
SCSS-M10-25-VR	26.7	SCSS-M10-25-VF	25	M10	7	5	3	9.5	1
SCSS-M10-35-VR	36.7	SCSS-M10-35-VF	35	M10	7	5	3	11	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	Not Available	Not Available	Not Available

▶ https://www.nbk1560.com

SCBS Clamping Cap Screws with Ventilation Hole Selection Tool Download Vacuum CAD Stainless steel SCBS-VR

RoHS2 Compliant

Ventilation SCBS-VF

Application

Fixing and locating workpiece, Vacuum devices, FPD production equipment, semiconductor devices

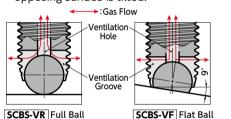
Material/Finish

	SCBS
Main Body	SUSXM7 (Equivalent to SUS304)
Ball	SUS440C (Hardness 55 - 60HRC Thin Fluorine Coating

• Part number specification

SCBS-M6-40-VR

- This screw is used to secure work in vacuum devices and vacuum chambers, such as FPD production equipment and semiconductor devices.
- Cleanroom wash and cleanroom packing are completed. → P.807
- The thin fluorine coating keeps the ball highly lubricated, even after cleanroom washing.
- Ventilation holes and grooves easily release gas trapped in machines.
- SCBS-VR has a full ball to firmly secure workpiece at the contact point.
- The contact surface of **SCBS-VF** is a flat ball. Workpiece is not damaged. The ball rotates flexibly up to 9°. It clamps securely even when the opposing surface is tilted.



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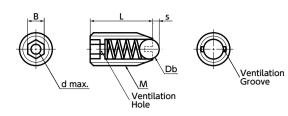
SCBS-VF

SCBS-VR Full Ball		SCBS-VF Flat Ball		Common	dimensio	ns					Ohi ner neeli
Part Number 1	L	Part Number 1	L	M	D ₁	L1	Db	В	d	Mass (g)	Qty per pack
SCBS-M5-12-VR	12.6	SCBS-M5-12-VF	12	M5	8.5	5	3	4	1.5	2.9	1
SCBS-M5-16-VR	16.6	SCBS-M5-16-VF	16	M5	8.5	5	3	4	1.5	3.4	1
SCBS-M5-20-VR	20.6	SCBS-M5-20-VF	20	M5	8.5	5	3	4	1.5	3.9	1
SCBS-M5-25-VR	25.6	SCBS-M5-25-VF	25	M5	8.5	5	3	4	1.5	4.4	1
SCBS-M5-30-VR	30.6	SCBS-M5-30-VF	30	M5	8.5	5	3	4	1.5	5	1
SCBS-M6-16-VR	16.8	SCBS-M6-16-VF	16	M6	10	6	4	5	2	5.6	1
SCBS-M6-20-VR	20.8	SCBS-M6-20-VF	20	M6	10	6	4	5	2	6.5	1
SCBS-M6-25-VR	25.8	SCBS-M6-25-VF	25	M6	10	6	4	5	2	7.6	1
SCBS-M6-30-VR	30.8	SCBS-M6-30-VF	30	M6	10	6	4	5	2	8.7	1
SCBS-M6-40-VR	40.8	SCBS-M6-40-VF	40	M6	10	6	4	5	2	11	1
SCBS-M8-20-VR	21.2	SCBS-M8-20-VF	20	M8	13	8	5.5	6	2	14	1
SCBS-M8-30-VR	31.2	SCBS-M8-30-VF	30	M8	13	8	5.5	6	2	18	1
SCBS-M8-40-VR	41.2	SCBS-M8-40-VF	40	M8	13	8	5.5	6	2	22	1
SCBS-M8-50-VR	51.2	SCBS-M8-50-VF	50	M8	13	8	5.5	6	2	25	1
SCBS-M10-25-VR	26.7	SCBS-M10-25-VF	25	M10	16	10	7	8	3	26	1
SCBS-M10-30-VR	31.7	SCBS-M10-30-VF	30	M10	16	10	7	8	3	29	1
SCBS-M10-40-VR	41.7	SCBS-M10-40-VF	40	M10	16	10	7	8	3	34	1
SCBS-M10-50-VR	51.7	SCBS-M10-50-VF	50	M10	16	10	7	8	3	39	1
SCBS-M10-60-VR	61.7	SCBS-M10-60-VF	60	M10	16	10	7	8	3	47	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
unit in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

PVFS Spring Plungers with Ball with Ventilation Hole CAD Overload Vacuum Cleanroom wash & packaging SUS Stainless steel

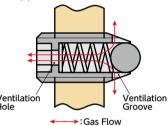






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- For positioning in vacuum devices and vacuum chambers, such as FPD production equipment and semiconductor devices.
- Cleanroom wash and cleanroom packing are completed. → P.807
- The thin fluorine coating keeps the ball highly lubricated, even after cleanroom washing.
- Ventilation holes and grooves easily release gas trapped in machines.



Application

Fixing and locating workpiece, Vacuum devices, FPD production equipment, semiconductor devices

			<i>,</i> – .	
•	Mate	rial	/Lin	uch
•	IVIALE	Hat	/ I II	пэп

	The state of the s
	PVFS
Main Body	Equivalent to SUS304
Ball	SUS440C (Hardness 55 - 60HRC) Thin Fluorine Coating
Spring	SUS631J1

RoHS2 Compliant

Unit: mm

									OIIIC · IIIIII
Part Number 1	M	s	L	Db	В	a	Load (N) min./max.	Mass (g)	Qty per pack
PVFS-5	M5	0.9	12	3	2.5	1.5	5.7 / 9.6	0.9	1
PVFS-6	M6	1	14	3.5	3	2	6.9 / 13	1.5	1
PVFS-8	M8	1.5	16	5	4	2	9.5 / 16	3.5	1
PVFS-10	M10	2	19	6	5	3	16 / 28	7	1

• Part number specification

PVFS-6

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

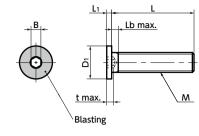
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CAD Stainless steel

SSHS-HB Socket Head Cap Screws with Special Low Profile - Head Shot Blast



e-nedzi.com®



 Material/Finish RoHS2 Compliant SUSXM7 (S.S. grade: A2) Main Body Blasted (Head Only) Strength Class A2-50

• Part number specification



Order in number of packs.

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



- Socket head cap screws with special low profile with blasted head surface.
- The surface of the screw head is coarsened by blasting.
- It prevent deposits on the screw head from peeling during vacuum deposition and other film formation equipment.



Unprocessed



• Also, screws with blasted heads with special specifications are available, including dimensions



Application

Film formation equipment, vacuum devices, FPD production equipment, and semiconductor devices

															Unit:mm
Part Number	M 11 L 2								D1	L1	Lb	В	t	Max. Torque (N·m)	Mass (g)
SSHS-M3-HB	M3	6	8	10	12				6	1.3	1.5	1.5	2	0.6	0.44 - 0.69
SSHS-M4-HB	M4	6	8	10	12	16			8	1.5	1.6	2	2.5	1.5	0.89 - 1.6
SSHS-M5-HB	M5		8	10	12	16	20		9	1.5	2	3	3	3.1	0.98 - 2.5
SSHS-M6-HB	M6			10	12	16	20	25	10	1.5	2.5	3	4	5.3	1.9 - 4.8

Part Number	Qty*1 per pack
SSHS-M3-HB	10
SSHS-M4-HB	10
SSHS-M5-HB	10
SSHS-M6-HB	10

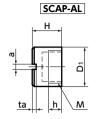
*1: Also sold separately from 1 piece up. → P.809



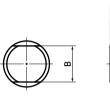
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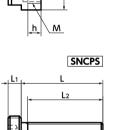






SCAP-CE





Material/Finish

RoHS2 Compliant SCAP-AL SCAP-CE SNCPS Al₂O₃ SUSXM7 Main Body A5056 (99.5% Alumina) (Equivalent to SUS304) Strength Class A2-50

SCAP-AL Cover Caps: Aluminum Alloy (A5056)

SCAP-CE + SNCPS



- Combine **SCAP** Cover Cap and **SNCPS** Socket Head Cap Screw for Cover Cap.
- These caps prevent the corrosion of screw heads due to vacuum chamber processing gas and plasma.
- **SCAP** has 2 material types as standard.

SCAP-AL	——Aluminum alloy
SCAP-CE	Ceramic

- The screw connection section is made of stainless steel, so this product has a higher tightening strength than aluminum or ceramic screws.
- Cleanroom wash and cleanroom packing are completed. → P.807
- Other requested materials such as Inconel*1 and Hastelloy*1 can be used for Cover Caps.
- *1: Inconel is a registered trademark of Special Metals
- *1: Hastelloy is a registered trademark of Haynes International,

Application

Film formation equipment, etching devices, FPD production equipment, and semiconductor devices

Unit:mm

Part Number	M	н	D1	h	a	ta	Recommendation Torque $(N \cdot m)$	SNCPS Part.No	Mass (g)	Qty per pack
SCAP-3-AL	M5×0.5	5	7	2	0.8	0.6	0.1	SNCPS-M3	0.4	1
SCAP-4-AL	M6×0.75	7	8	2.8	1.2	1	0.15	SNCPS-M4	0.6	1
SCAP-5-AL	M8×0.75	8	10	3.5	1.2	1	0.3	SNCPS-M5	1	1
SCAP-6-AL	M10×0.75	9	12	4	1.6	1.2	0.4	SNCPS-M6	1.5	1
SCAP-8-AL	M12×1	11	14	5	2	1.8	0.6	SNCPS-M8	2.3	1
SCAP-10-AL	M16×1	12	18	6	2.5	2	0.8	SNCPS-M10	3.7	1

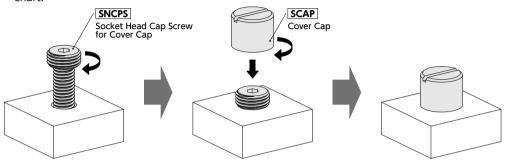
SCAP-CE Co	SCAP-CE Cover Caps : Ceramic (Al ₂ O ₃) Unit													
Part Number	M	н	D1	h	В	tB	Recommendation Torque $(N \cdot m)$	SNCPS Part.No	Mass (g)	Qty per pack				
SCAP-3-CE	M5×0.5	6	9	2	7	3	0.1	SNCPS-M3	1.2	1				
SCAP-4-CE	M6×0.75	8	10	2.8	8	3	0.15	SNCPS-M4	2	1				
SCAP-5-CE	M8×0.75	9	12	3.5	9	3	0.3	SNCPS-M5	3	1				
SCAP-6-CE	M10×0.75	10	14	4	11	4	0.4	SNCPS-M6	4.3	1				
SCAP-8-CE	M12×1	11	16	5	13	4	0.6	SNCPS-M8	5.8	1				
SCAP-10-CE	M16×1	12	20	6	17	4	0.8	SNCPS-M10	9.2	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

Cleanroom washed and packed S.S. only/ Add'l charge | Male screw only/ Add'l charge | Not Available

After tightening **SNCPS** Socket Head Cap Screw for Cover Cap, assemble **SCAP** Cover Cap so that it covers the head of **SNCPS**.

Ensure that the tightening torque of **SCAP** does not exceed the recommendation torque in the chart.



Precautions for Use Corrosion resistance changes depending on use conditions. Always carry out tests under conditions same as actual conditions before use.

Related Products

SCAP-PT Cover Cap made of PTFE (Teflon), which has excellent chemical resistance, is available.

→ P.667

NBK



• Part number specification





Order the **SCAP** and **SNCPS** individually.

SNCPS Socket Head Can Screw for Cover Can

SIACLS SOCKE	Unit: mm																	
Part Number	M	L 💶	€3									M 1	L1	В	t	L2*1	SCAP 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
SNCPS-M8	M8				12		20	25			40	M12×1	5	5	3.8	22(L=35)	SCAP-8	9 - 16

*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

Low Profile Screws/Small Head Screws e-nedzi.com®

• Low Profile Screws

	Socket Head Cap Scr	ews with Low Profile		Socket Head Cap Screws with Special Low Profile					
Part Number	SLH	SLHS	SLHL	SSH	SSHS / SSHL	SSHS-FT			
Shape									
Page	P.595	P.597	P.598	P.599	P.601	P.603			
Materials	SWCH45K	SUSXM7	SUS316L	SCM435	SUSXM7 SUS316L	SUS304			
Characteristics	Low Profile Small Space			Special Low Profile Small Space	Special Low Profile	Full Thread • Special Low Profile Small Space			
Size	M2 - M10	M2 - M10	M3 - M6	M2 - M10	M2 - M10	M3 - M10			

	Socket Head Cap Screws with Special Low Profile	Hexalobular Socket H	exalobular Socket Head Cap Screws with Low Profile									
Part Number	SSHT	SSTS	SET / SETS	SETA	SLT / SLTS	SKX						
Shape				NEW								
Page	P.604	P.606	P.607	P.609	P.605	P.726						
Materials	TW340 (Grade 2 Titanium)	SUSXM7	SWCH SUSXM7	A5056	SAE1022 SUSMX7	Alloyed Steel						
Characteristics	Lightweight · Nonmagnetic · Chemical Resistance Low Profile · Small Space	Special Low Profile •	Hexalobular Socket Extra Low Profile • Small Space	Super Special Low Head With Hexalobular Socket Space-saving	Hexalobular Socket Low Profile • Small Space	Hexalobular Socket						
Size	M3 - M6	M2 - M8	M2 - M6	M3 - M6	M2 - M6	No.4 - No.45						

	Hex Head Screw / Special Low Head	Socket Head Cap Screws with Low Profile	Socket Button Head Cap Screws with Flange		
Part Number	SNHS-LH	SLP	SFB / SFBS		
Shape	NEW	Î	New Variation Added		
Page	P.610	P.613	P.611		
Materials	SUS304	Equivalent to S45C	SCM435 SUSXM7		
Characteristics	Low head space-saving	Pilot Recess Low Profile • Small Space	With Flange Small Space		
Size	M4 - M8	M4 - M8	M3 - M8		

• Small Head Screws

	Socket Head Cap Screws with Small Head	Socket Head Cap Screws with Low & Small Head	Socket Head Cap Screws with Special Low & Small Head	Cross Recessed Flat Head Machine Screws with Small Head
Part Number	SNS-SD	SLH-SD	SSH-SD	SNF-SD
Shape				
Page	P.615	P.617	P.619	P.614
Materials	SCM435 SUSXM7	SWCH45K SUSXM7	SCM435 SUSXM7	SWCH SUSXM7
Characteristics	Small Head Small Space	Low Profile • Small Head Small Space	Special Low Profile • Small Head Small Space	Low Profile • Small Head Small Space
Size	M2 - M10	M3 - M10	M2 - M10	M3 - M6

Comparison of the Dimensions of Low Profile Screws and Small Head Screws

• Comparison of the Head Heights of Low Profile Screws and Standard Screws

	Socket Head Cap Screws JIS B 1176	SLH	SSH	SLP	SSTS	SET	SLT	SFB
M2	2	1.3	1.1	_	1.2	0.5	_	_
M2.5	2.5	1.6	1.3	-	1.3	_	-	-
M2.6	2.6	_	-	_	_	0.6	_	_
M3	3	2	1.3	_	1.3	0.8	2.4	1.65
M4	4	2.8	1.5	2.8	1.5	0.9	3.1	2.2
M5	5	3.5	1.5	3.5	1.5	1	3.65	2.75
M6	6	4	1.5	4	1.5	1.2	4.4	3.3
M8	8	5	1.5	5	1.5	_	_	4.4
M10	10	6	1.5	_	_	_	_	_

• Comparison of the Head Diameter of **Small Head Screws and Standard Screws**

	Socket Head Cap Screws JIS B 1176	SNS-SD	SLH-SD	SSH-SD
M3	5.5	4.5	4.5	5
V 14	7	5.5	5.5	6
M 5	8.5	7	7	8
M6	10	8.5	8.5	9
8N	13	11	11	11
W10	16	13.5	13.5	13.5

		Unit : mm
	Cross Recessed Flat Head Machine Screws JIS B 1111*	SNF-SD
M3	6	5
M4	8	6
M5	10	8
M6	12	10

* These are values for cross recessed flat head machine screws not based on ISO 7046 prescribed in the appendix.

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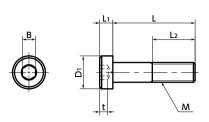
▶ https://www.nbk1560.com

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NBK

Special Screws

WEB CAD Protrusion



• Material/Finish	4 3	RoHS2 Compliant
	SLH	SLH-TZB
Main Body	SWCH45K Ferrosoferric Oxide Film (Black)	SWCH45K Trivalent Chromate Treatment
Strength Class	8.8	8.8



- Socket head cap screws have low head heights.
- Intended for reducing the size of devices and applications with limited overhead space.
- Also, **SVLS** Socket Head Cap Screws with Low Profile with Ventilation Hole is available. → P.574
- Application

Reducing the size of equipment and devices

SLH Steel - Ferr	osoferrio	Oxi	de C	oatin	g																Unit:mm
Part Number	M 1	L 🍕	2										D1	L1	В	t	L2*1	Max. Torque (N·m)	Mass (g)		
SLH-M2	M2	5	6	8	10	12									3.8	1.3	1.3	0.7	Full Thread	0.3	0.13 - 0.29
SLH-M2.5	M2.5	5	6	8	10	12									4.5	1.6	1.5	1	Full Thread	0.5	0.26 - 0.47
SLH-M3	M3		6	8	10	12	16	20							5.5	2	2	1.5	12(L=20)	1.4	0.53 - 1.2
SLH-M4	M4		6	8	10	12	16	20	25						7	2.8	2.5	2.3	Full Thread	3.4	1.1 - 2.8
SLH-M5	M5			8	10	12	16	20	25	30	35				8.5	3.5	3	2.7	16(L≧30)	6	1.8 - 5.7
SLH-M6	M6			8	10	12	16	20	25	30	35	40	45		10	4	4	3	18(L≧30)	10	3.1 - 11
SLH-M8	M8				10	12	16	20	25	30	35	40	45	50	13	5	5	3.8	22(L≧35)	27	7.2 - 22
SLH-M10	M10						16	20	25	30	35	40	45	50	16	6	6	4.5	32(L≧45)	46	15 - 33

*1: If the	"L" value is	other than the	value in parentheses.	the screw is full thread.
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Part Number	Qty*1 per pack
SLH-M2	50
SLH-M2.5	50
SLH-M3	50
SLH-M4	50
SLH-M5	50
SLH-M6	20
SLH-M8	20
SLH-M10	10

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

SLH-TZB	Steel -	Trivalen	t Chromate	Treatmen	t

Ur	nit	: r	nm

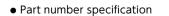
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Part Number	M 💶	L 1 2	ı									D1	L1	В	t	L2* ¹	Max. Torque (N•m)	Mass (g)
SLH-M2-TZB	M2	5	6	8	10	12						3.8	1.3	1.3	0.7	Full Thread	0.3	0.13 - 0.29
SLH-M2.5-TZB	M2.5	5	6	8	10	12						4.5	1.6	1.5	1	Full Thread	0.5	0.26 - 0.47
SLH-M3-TZB	M3		6	8	10	12						5.5	2	2	1.5	Full Thread	1.4	0.53 - 0.78
SLH-M4-TZB	M4			8	10	12	16	20	25	30		7	2.8	2.5	2.3	14(L=30)	3.4	1.3 - 3.3
SLH-M5-TZB	M5			8	10	12	16	20	25	30	35	8.5	3.5	3	2.7	16(L≧30)	6	1.8 - 5.7
SLH-M6-TZB	M6				10	12	16	20	25	30	35	10	4	4	3	18(L≧30)	10	3.5 - 8.7
SLH-M8-TZB	M8					12	16	20	25	30	35	13	5	5	3.8	27(L=35)	27	7.8 - 16
SLH-M10-TZB	M10						16	20	25	30	35	16	6	6	4.5	Full Thread	46	15 - 24

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

Part Number	Qty*1 per pack
SLH-M2-TZB	50
SLH-M2.5-TZB	50
SLH-M3-TZB	50
SLH-M4-TZB	50
SLH-M5-TZB	50
SLH-M6-TZB	20
SLH-M8-TZB	20
SLH-M10-TZB	10

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





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

597

NBK

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

RoHS2 Compliant



e-nedzi.com®

Material/Finish

SLHS SUSXM7

	SLHS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50



- Socket head cap screws have low head heights.
- Intended for reducing the size of devices and applications with limited overhead space.
- Also, **SVLS** Socket Head Cap Screws with Low Profile with Ventilation Hole is available. → P.574
- Application

Reducing the size of equipment and devices

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2																					Unit - mm
Part Number	M	L ◀	2												D1	L1	B*2	t	L2*1	Max. Torque (N·m)	Mass (g)
SLHS-M2	M2	5	6	8	10	12									3.8	1.3	1.3	0.7	Full Thread	0.18	0.13 - 0.29
SLHS-M2.5	M2.5	5	6	8	10	12									4.5	1.6	1.5	1	Full Thread	0.36	0.26 - 0.47
SLHS-M3	M3	5	6	8	10	12	16	20							5.5	2	2	1.5	12(L=20)	0.6	0.5 - 1.2
SLHS-M4	M4		6	8	10	12	16	20	25						7	2.8	2.5	2.3	Full Thread	1.5	1.1 - 2.8
SLHS-M5	M5			8	10	12	16	20	25	30	35				8.5	3.5	3	2.7	16(L≧30)	3.1	1.8 - 5.7
SLHS-M6	M6			8	10	12	16	20	25	30	35	40	45		10	4	4	3	18(L≧30)	5.3	3.1 - 11
SLHS-M8	M8				10	12	16	20	25	30	35	40	45	50	13	5	5	3.8	22(L≧35)	12	7.2 - 22
SLHS-M10	M10						16	20	25	30	35	40	45	50	16	6	6	4.5	32(L≧45)	25	15 - 33

- *1: If the "L" value is other than the value in parentheses, the screw is full thread.
- *2: The hexagonal width across flat of **SLHS-M10** has been changed from 7 mm to 6 mm.

Part Number	Qty*1 per pack
SLHS-M2	50
SLHS-M2.5	50
SLHS-M3	50
SLHS-M4	50
SLHS-M5	50
SLHS-M6	20
SLHS-M8	20
SLHS-M10	10

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



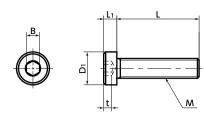


Order in number of packs. Also sold separately from 1 piece up. → P.809

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 | Available / Add'l charge | Available / Add'l charge

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• To distinguish from **SLHS**, following processing are

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



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





e-nedzi.com®

- 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		RoHS2 Compliant
	SLHL	
Main Body	SUS316L	
Strength Class	A4-70	

- Do not exceed the max. tightening torque.
- Part number specification



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

SLHL SUS316L													Unit:mm
Part Number	M	L 2						D ₁	L1	В	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



SSH Socket Head Cap Screws with Special Low Profile WEB CAD Protrusion



e-nedzi.com®

Lb max. t max.

 Material/Finish €3 RoHS2 Compliant SSH SSH-EL SCM435 SCM435 Main Body Ferrosoferric Oxide Electroless Nickel Plating Coating (Black) Thread: 10.9 Thread: 10.9 Head*1: Head*1: Strength Class 5.8 (M2 - M8) 5.8 (M2 - M8) 4.8 (M10) 4.8 (M10)

*1: Do not exceed the max. tightening torque. Though strength is increased through heat treatment, the head strength is less than that of thread.



- The head height for all screws is 1.5 mm or less.
- Intended for reducing the size of devices and applications with limited overhead space.
- Also, **SVSHS** Socket Head Cap Screws with Special Low Profile with Ventilation Hole (→ P.575), and **SSHS-FT** Socket Head Cap Screws with Special Low Profile with long thread (→ P.603) are available.
- Application

Reducing the size of equipment and devices

Part Number	M 💶	L 1 2	1 2											Lb	В	t	Max. Torque (N·m)	Mass (g)
SSH-M2	M2	4	5	6	8	10	12					4	1.1	1.2	1.3	1.2	0.3	0.11 - 0.29
SSH-M2.5	M2.5	4	5	6	8	10	12					5	1.3	1.4	1.3	1.5	0.4	0.23 - 0.47
SSH-M3	M3	4	5	6	8	10	12					6	1.3	1.5	1.5	2	0.7	0.36 - 0.69
SSH-M4	M4			6	8	10	12	16	20			8	1.5	1.6	2	2.5	1.7	0.89 - 1.9
SSH-M5	M5			6	8	10	12	16	20	25		9	1.5	2	3	3	6.2	0.73 - 3.1
SSH-M6	M6			6	8	10	12	16	20	25	30	10	1.5	2.5	3	4	6.3	1.2 - 5.5
SSH-M8	M8				8	10	12	16	20	25	30	13	1.5	3	4	5	14	3 - 10
SSH-M10	M10					10	12	16	20	25	30	16	1.5	3.5	5	6	27	4.6 - 15

SSH-EL Made o	SSH-EL Made of Steel · Electroless Nickel Plating Unit: mm																	
Part Number	M	L 4 2	1								D1	Lı	Lb	В	t	Max. Torque (N·m)	Mass (g)	
SSH-M2-EL	M2	4	5	6	8	10	12					4	1.1	1.2	1.3	1.2	0.3	0.11 - 0.29
SSH-M2.5-EL	M2.5	4	5	6	8	10	12					5	1.3	1.4	1.3	1.5	0.4	0.23 - 0.47
SSH-M3-EL	M3	4	5	6	8	10	12					6	1.3	1.5	1.5	2	0.7	0.36 - 0.69
SSH-M4-EL	M4			6	8	10	12	16	20			8	1.5	1.6	2	2.5	1.7	0.89 - 1.9
SSH-M5-EL	M5			6	8	10	12	16	20	25		9	1.5	2	3	3	6.2	0.73 - 3.1
SSH-M6-EL	M6			6	8	10	12	16	20	25	30	10	1.5	2.5	3	4	6.3	1.2 - 5.5
SSH-M8-EL	M8				8	10	12	16	20	25	30	13	1.5	3	4	5	14	3 - 10
SSH-M10-EL	M10					10	12	16	20	25	30	16	1.5	3.5	5	6	27	4.6 - 15

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

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

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

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

NBK

• Part number specification



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

599

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SSHS/SSHL Socket Head Cap Screw with Special Low Profile - Stainless Steel Selection CAD SUS Stainless steel Protrusion

Lb max. t max.

Material/Finish RoHS2 Compliant

	SSHS	SSHL
Main Body	SUSXM7 (Equivalent to SUS304)	SUS316L
Strength Class	A2-50	A4-70
• Do not exceed	118	

• Do not exceed the max. tightening torque.

SSHS SUSXM7

• To distinguish from **SSHS**, **SSHL** has a cup point



SSHL SSHS

• Socket head cap screws with special low profile made of stainless steel.

• The head height for all screws is 1.5 mm or less. Intended for reducing the size of devices and applications with limited overhead space.

• The following two types of stainless materials are available as standard.

SUSXM7 (S.S. grade : A2) SUS316L

• 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.

Unit:mm

• SUS316L is non-magnetic.

Application

Reducing the size of equipment and devices

Part Number	M	L 1 2										D1	L1	Lb	В	t	Max. Torque (N•m)	Mass (g)
SSHS-M2	M2	4	5	6	8	10	12					4	1.1	1.2	1.3	1.2	0.18	0.11 - 0.29
SSHS-M2.5	M2.5	4	5	6	8	10	12					5	1.3	1.4	1.3	1.5	0.36	0.23 - 0.47
SSHS-M3	M3	4	5	6	8	10	12					6	1.3	1.5	1.5	2	0.6	0.36 - 0.69
SSHS-M4	M4		5	6	8	10	12	16				8	1.5	1.6	2	2.5	1.5	0.83 - 1.6
SSHS-M5	M5			6	8	10	12	16	20	25		9	1.5	2	3	3	3.1	0.73 - 3.3
SSHS-M6	M6			6	8	10	12	16	20	25	30	10	1.5	2.5	3	4	5.3	1.2 - 5.5
SSHS-M8	M8				8	10	12	16	20	25	30	13	1.5	3	4	5	12	3 -10
SSHS-M10	M10					10	12	16	20	25	30	16	1.5	3.5	5	6	25	4.6 - 15

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

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

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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	Available / Add'l charge	Available / Add'l charge

SSHL SUS316L

													Omit - mi
Part Number 1	M	L ₫2				D ₁	L1	Lb	В	t	Max. Torque (N·m)	Mass (g)	
SSHL-M3	M3	6	8	10		6	1.3	1.5	1.5	2	1	0.44 - 0.61	
SSHL-M4	M4	6	8	10		8	1.5	1.6	2	2.5	2	0.89 - 1.2	
SSHL-M5	M5		8	10	12	9	1.5	2	3	3	5	0.98 - 1.5	

Part Number	Qty*1 per pack
SSHL-M3	10
SSHL-M4	10
SSHL-M5	10

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

Related Products

Steel special low head bolt **SSH** is available. → P.599



SVSHS Socket Head Cap Screws with Special Low Profile with Ventilation Hole. → P.575



SSHS-FT Socket Head Cap Screws with Special Low Profile with long thread. → P.603



• Part number specification

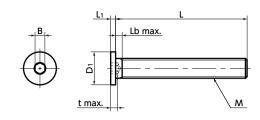


Order in number of packs. Also sold separately from 1 piece up. → P.809

Socket Head Cap Screws with Special Low Profile - Full Thread Protrusion Full Thread SUS Stainless steel



e-nedzi.com®





- Full thread socket head cap screws with special low Profile.
- The head height for all screws is 1.5 mm or less.
- Intended for reducing the size of devices and applications with limited overhead space.
- Application

Reducing the size of equipment and devices

 Material/Finish RoHS2 Compliant SSHS-FT Main Body SUS304

																Unit . mm
Part Number	M 1	L 2								D1	L1	Lb	В	t	Max. Torque (N·m)	Mass (g)
SSHS-M3-FT	M3	16	20	25	30	40	50			6	1.3	1.5	1.5	2	1	0.89 - 2.6
SSHS-M4-FT	M4		20	25	30	40	50	60		8	1.5	1.6	2	2.5	2	2 - 5
SSHS-M5-FT	M5				30	40	50	60	70	9	1.5	2	3	3	3.5	4.1 - 10
SSHS-M6-FT	M6					40	50	60	70	10	1.5	2.5	3	4	5	8.2 - 15
SSHS-M8-FT	M8					40	50	60	70	13	1.5	3	4	5	10	14 - 26
SSHS-M10-FT	M10					40	50	60	70	16	1.5	3.5	5	6	18	20 - 39

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

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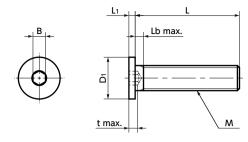
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• Part number specification

SSHS - M8 - 60 - FT

1 Inclividual 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

e-nedzi.com® **SSHT** Socket Head Cap Screws - Special Low Profile - Pure Titanium Selection Select



 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 📶	M	L 2					D1	L1	Lb	В	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	16	9	1.5	2	3	3	2.5	0.7 - 1.12
SSHT-M6	M6			10	12	16	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



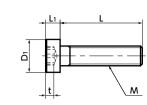


CAD Protrusion SUS Stainless steel

SLT/SLTS Hexalobular Socket Head Cap Screws with Extreme Low Profile



e-nedzi.com®



Material/F	RoHS2 Complia	
	SLT-TZB	SLTS
Main Body	SAE1022 Trivalent Chromate Treatment	SUSXM7 (Equivalent to SUS304)
Strength Class	8.8	A2-50

Part number specification

SLT ·	-M5	- 20 -	TZB
41	■ 2	■ 3	41

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



- Hexalobular*1 socket head cap screws with low profiles.
- Intended for reducing the size of devices and applications with limited overhead space.
- The hexalobular*1 shape can withstand high tightening torque. → P.723
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws"
- Install and remove by using **SKX** Specialty Hexalobular Key. → P.726
- Application

Reducing the size of equipment and devices

																		OHIL - HIHI
SLT-TZB Steel - Trivalent Chromate Treatment	SLTS Stainless steel	Comm	Common dimensions															
Part Number	Part Number	M 1 2	M 12 L 13										D1	L1	Applicable wrench	Hexalobular Socket No.	t	Mass (g)
	SLTS-M2	M2	4	5	6	8	10						3.8	1.55	SKX-6	6	0.84	0.11 - 0.23
	SLTS-M2.5	M2.5		5	6	8	10	12					4.5	1.85	SKX-8	8	0.91	0.26 - 0.47
SLT-M3-TZB	SLTS-M3	M3			6	8	10	12	16				5.5	2.4	SKX-10	10	1.27	0.53 - 0.98
SLT-M4-TZB	SLTS-M4	M4			6	8	10	12	16	20			7	3.1	SKX-20	20	1.66	1.1 - 2.3
SLT-M5-TZB	SLTS-M5	M5				8	10	12	16	20	25		8.5	3.65	SKX-25	25	1.91	1.8 - 4.1
SLT-M6-TZB	SLTS-M6	M6				8	10	12	16	20	25	30	10	4.4	SKX-30	30	2.29	3.1 - 7.1

SLT-TZB Steel - Trivalent Chromate Treatment

Part Number	per pack
SLT-M3-TZB	50
SLT-M4-TZB	50
SLT-M5-TZB	50
SLT-M6-TZB	20

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

SLTS Stainless Steel

JE13 Stantess Steet									
Part Number	Qty*1 per pack								
SLTS-M2	50								
SLTS-M2.5	50								
SLTS-M3	50								
SLTS-M4	50								
SLTS-M5	50								
SLTS-M6	20								

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

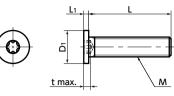
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 📤 Vibration Resistant → P.810 📫 Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge | Please feel free to contact us

SSTS Hexalobular Socket Head Cap Screws with Special Low Profile



e-nedzi.com®

Selection Tool Download Protrusion SUS Stainless steel



• Part number specification



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



- The head height for all screws is 1.5 mm or less.
- Intended for reducing the size of devices and applications with limited overhead space.
- The hexalobular*1 shape can withstand high tightening torque. → P.723
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts
- Install and remove by using **SKX** Specialty Hexalobular Key. → P.726



Application

Reducing the size of equipment and devices

 Material/Finish RoHS2 Compliant SSTS SUSXM7 Main Body (Equivalent to SUS304) Strength Class A2-50

Part Number	M	L 42	L 42								L1	Applicable wrench	Hexalobular Socket No.	t	Max. Torque (N•m)	Mass (g)
SSTS-M2	M2	4	5	6	8					4	1.2	SKX-5	5	0.9	0.18	0.11 - 0.19
SSTS-M2.5	M2.5	4	5	6	8					5	1.3	SKX-6	6	1	0.36	0.23 - 0.35
SSTS-M3	M3		5	6	8	10				6	1.3	SKX-8	8	1.1	0.65	0.4 - 0.61
SSTS-M4	M4			6	8	10	12			8	1.5	SKX-10	10	1.5	1.5	0.89 - 1.3
SSTS-M5	M5			6	8	10	12	16		9	1.5	SKX-15	15	1.8	3.1	0.73 - 2
SSTS-M6	M6				8	10	12	16	20	10	1.5	SKX-20	20	2.1	5.3	1.6 - 3.8
SSTS-M8	M8				8	10	12	16	20	13	1.5	SKX-25	25	2.4	12	3 - 6.7

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

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

NBK



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Unit:mm

Unit: mm

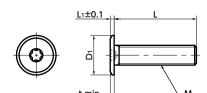
0.73 - 3.8

1.7 - 8.4

NBK

Selection CAD SUS Stainless steel Protrusion

SET/SETS Hexalobular Socket Head Cap Screws with Extreme Low Profile



Application

Reducing the size of equipment and devices

•	• Ma	nterial/Finish 📶		RoHS2 Compliant
		SET-NI	SET-BNI	SETS
	Main	SWCH	SWCH	SUSXM7
	Body	Nickel Plating	Black Nickel Plating	(Equivalent to SUS304)



- Hexalobular*1 socket head cap screws with extra low profiles.
- Intended for reducing the size of devices and applications with limited overhead space.
- The hexalobular*1 shape can withstand high tightening torque. → P.723
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts
- Install and remove by using **SKX** Specialty Hexalobular Key. → P.726



• Also, products with special specifications such as ventilation holes, dimensions, shapes, materials, surface treatments, cleanroom washing & packaging are available.

→ P.549



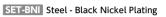
Electroless Nickel Plating

Unit:mm

Part Number	M 2	L 43					D ₁	L1	Applicable wrench	Hexalobular Socket No.	t	Max. Torque (N·m)	Mass (g)
SET-M3-NI	M3	6	8	10			7	0.8	SKX-6	6	0.75	0.7	0.39 - 0.56
SET-M4-NI	M4	6	8	10	12	16	8	0.9	SKX-8	8	0.9	2.3	0.65 - 1.4
SET-M5-NI	M5		8	10	12	16	9	1	SKX-10	10	1	4	0.73 - 1.7

Part Number	Qty*1 per pack
SET-M3-NI	20
SET-M4-NI	20
SET-M5-NI	20

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



Part Number	M 12	L 3					D1	L1		Hexalobular Socket No.	t	Max. Torque (N·m)	Mass (g)
SET-M3-BNI	M3	6	8	10			7	0.8	SKX-6	6	0.75	0.7	0.39 - 0.56
SET-M4-BNI	M4	6	8	10			8	0.9	SKX-8	8	0.9	2.3	0.65 - 0.95
SET-M5-BNI	M5		8	10	12	16	9	1	SKX-10	10	1	4	0.73 - 1.7

Part Number	Qty* ¹ per pack
SET-M3-BNI	20
SET-M4-BNI	20
SET-M5-BNI	20

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

SETS Stainless Steel

M5

M6

SETS-M5

SETS-M6

Hexalobular Applicable Max. Torque Mass (g) Part Number M 12 L 13 Socket No. 0.047 - 0.23 SETS-M2 4 5 6 8 10 12 4_0,4 0.5 SKX-4 0.4 0.15 M2.6 4 10 12 $6_{-0.5}^{0}$ 0.6 SKX-5 0.5 0.3 0.17 - 0.41 SETS-M2.6 0.75 0.6 SETS-M3 8 10 12 16 7_{-0.5} 0.8 SKX-6 0.39 - 0.84 8_0.5 0.9 SKX-8 SETS-M4 M4 6 8 10 12 16 20 25 0.9 1.5 0.65 - 2.3

8 10 12 16 20 25 30 35 40 12_{-0.6} 1.2 SKX-20

9_{-0.5} 1 SKX-10

Part Number	Qty*1 per pack
SETS-M2	20
SETS-M2.6	20
SETS-M3	20
SETS-M4	20
SETS-M5	20
SETS-M6	20

8 10 12 16 20 25 30

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

• Part number specification



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

10

20

1 3.1

1.2 5.3

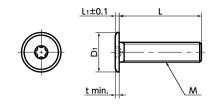


NBK

SETA Aluminum Super Special Low Head Bolt with Hexalobular Socket Selection WEB CAD Protrusion Lightweight



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Application

Space-saving equipment and devices

 Material/Finish RoHS2 Compliant SETA A5056 Main unit



- Aluminum Alloy Super Special Low Head Bolt with Hexalobular Socket
- Specific gravity is approx. 33% of that of stainless
- No electrocorrosion due to contact with aluminum
- Hexalobular socket *1 bolt with extra-low profile.
- For space-saving of equipment/device and applications with a limited top space.
- Hexalobular socket *1 shape can withstand high tightening torque. → P.723
- *1: The shape of hexalobular socket is defined in JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular Socket for Male
- Use a dedicated wrench **SKX** for mounting and removing. → P.726



• We also produce alumite-treated products. Please feel free to contact our customer service.

														Unit:mm
Part Number 1	M	L 🍜	√2		D1	L1	Applicable wrench	Hexalobular Socket No.	t	Max. Torque (N•m)	Mass(g)			
SETA-M3	M3	6	8	10				7_0.5	8.0	SKX-6	6	0.75	0.23	0.14 - 0.19
SETA-M4	M4		8	10	12	16		8_0.5	0.9	SKX-8	8	0.9	1.0	0.25 - 0.47
SETA-M5	M5			10	12	16	20	9_0.5	1	SKX-10	10	1	1.5	0.51 - 0.90
SETA-M6	M6			10	12	16	20	12_0.6	1.2	SKX-20	20	1.2	3.3	0.80 - 1.41

Part Number	Qty per pack*1	
SETA-M3	10	
SETA-M4	10	
SETA-M5	10	
SET A-M6	10	

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

• Part number specification



Place order by a bag. Also sold separately from 1 piece up. → P.809

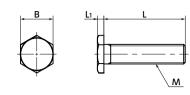
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 📤 Vibration Resistant → P.810 📫 Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge | Available / Add'l charge

SNHS-LH Hex Head Screw / Special Low Head NEW WEB CAD

Download

Protrusion

SUS Stainless steel





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- Hexagon Head Bolt with low head.
- For space-saving of equipment/device and applications with a limited top space.
- Application

Reducing the size of equipment and devices

 Material/Finish 	RoHS2 Compliant
	SNHS-LH
Main body	Equivalent to SUS304

											Unit:mm
Part Number	M 1	L √2		L1	В	Mass(g)					
SNHS-M4-LH	M4	8	10	12	15	20	25	30	1.5	7	1.2 - 2.9
SNHS-M5-LH	M5	8	10	12	15	20	25	30	2	8	1.9 - 4.7
SNHS-M6-LH	M6		10	12	15	20	25	30	2	10	3.2 - 6.9
SNHS-M8-LH	M8				15	20	25	30	2	13	7.8 - 12

Part Number	Qty per pack
SNHS-M4-LH	10
SNHS-M5-LH	10
SNHS-M6-LH	10
SNHS-M8-LH	10

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

• Part number specification



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

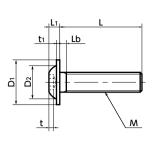
Available / Add'l charge | Available / Add'l charge | Available / Add'l charge

Unit:mm



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- Socket button head cap screws with wide bearing surface and are resistant to looseness.
- Intended for reducing the size of devices and applications with limited overhead space.
- Compared to **SFB** (Ferrosoferric Oxide Coating), **SFB-EL** (Electroless nickel plating) has excellent corrosion resistance.

Unit:mm

Application

Reducing the size of equipment and devices

Material/Finish

RoHS2 Compliant SFB SFBS SFB-EL SCM435AD SCM435AD SUSXM7 Main Body Ferrosoferric Oxide (Equivalent to SUS304) Electroless nickel plating Coating (Black) Strength Class 10.9 A2-50 10.9

SFB Steel - Ferrosoferric Oxide Coating

Part Number 1	M	L 🐠	2						D ₁	D ₂	L1	t1	В	t	Lb	Max. Torque (N·m)	Mass (g)
SFB-M3	M3	6	8	10	12				7	5.2	1.65	0.6	2	1.05	1	1	0.52 - 0.78
SFB-M4	M4	6	8	10	12	16	20		9.2	6.8	2.2	0.7	2.5	1.3	1.4	2	1 - 2
SFB-M5	M5		8	10	12	16	20	25	11.4	8.5	2.75	0.9	3	1.6	1.6	4	2 - 4
SFB-M6	M6		8	10	12	16	20	25	13.6	10.1	3.3	1	4	2.1	2	8	3 - 5.9
SFB-M8	M8			10	12	16	20	25	17	12.6	4.4	1.4	5	2.6	2.5	12	6.8 - 11

Part Number	Qty*1 per pack
SFB-M3	50
SFB-M4	50
SFB-M5	20
SFB-M6	20
SFB-M8	20

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

SFBS Made of Stainless Steel

Part Number 1	M	L 🀠	2						D1	D ₂	L1	t1	В	t	Lb	Max. Torque (N·m)	Mass (g)
SFBS-M3	M3	6	8	10	12				7	5.2	1.65	0.6	2	1.05	1	0.25	0.52 - 0.78
SFBS-M4	M4	6	8	10	12	16	20		9.2	6.8	2.2	0.7	2.5	1.3	1.4	0.5	1 -2
SFBS-M5	M5		8	10	12	16	20	25	11.4	8.5	2.75	0.9	3	1.6	1.6	1	2 -4
SFBS-M6	M6		8	10	12	16	20		13.6	10.1	3.3	1	4	2.1	2	2	3 - 5.2

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

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

SER-EL Steel -Flectroless nickel plating

Unit:mm																	
Part Number 1	M	L <	L 12			D ₁	D ₂	L1	tı	В	t	Lb	Max. Torque (N·m)	Mass (g)			
SFB-M3-EL	M3	6	8	10	12				7	5.2	1.65	0.6	2	1.05	1	1	0.52 - 0.78
SFB-M4-EL	M4	6	8	10	12	16	20		9.2	6.8	2.2	0.7	2.5	1.3	1.4	2	1 - 2
SFB-M5-EL	M5		8	10	12	16	20	25	11.4	8.5	2.75	0.9	3	1.6	1.6	4	2 - 4
SFB-M6-EL	M6		8	10	12	16	20	25	13.6	10.1	3.3	1	4	2.1	2	8	3 - 5.9
SFB-M8-EL	M8			10	12	16	20	25	17	12.6	4.4	1.4	5	2.6	2.5	12	6.8 - 11

Part Number	Qty*1 per pack
SFB-M3-EL	20
SFB-M4-EL	20
SFB-M5-EL	20
SFB-M6-EL	20
FB-M8-EL	20

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

• Part number specification



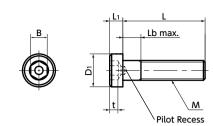
Select "L", and then Order in number of packs. Also sold separately from 1 piece up. → P.809

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

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• Part number specification

SLP-	-M6	- 2	
41		4	2

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



- These socket head cap screws have low head heights.
- Intended for reducing the size of devices and applications with limited overhead space.
- Install and remove by using **SKP** Specialty Key. As the pilot recess guides securely, you can tighten at higher torque more safely. (Commercially available hex keys can also be used for tightening.)
- Application

Reducing the size of equipment and devices

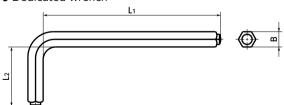
 Material/Finish 	RoHS2 Complian
	SLP
Main Body	Equivalent to S45C Ferrosoferric Oxide Film (Black)
Strength Class	8.8

Part Number 1	M	L	2				D1	L1	В	t	Lb	Max. Torque (N·m)	Mass (g)
SLP-M4	M4	8	10				7	2.8	3	1.6	3.5	2	1.3 - 1.4
SLP-M5	M5		10	12	16	20	8.5	3.5	4	2	4.2	6	2 - 3.3
SLP-M6	M6		10	12	16	20	10	4	5	2.5	5.5	9	3.5 - 5.3
SLP-M8	M8			12	16	20	13	5	6	3	7	20	7.8 - 10

Part Number	Qty*1 per pack
SLP-M4	20
SLP-M5	20
SLP-M6	20
SLP-M8	20

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

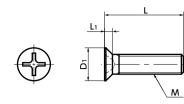
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Part Number	B Nominal of Key	L1	L2	with Screw	Mass (g)	Qty per pack
SKP-3	3	63	20	SLP-M4	5	1
SKP-4	4	71	25	SLP-M5	10	1
SKP-5	5	80	28	SLP-M6	28	1
SKP-6	6	90	32	SLP-M8	34	1







• Part number specification



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



- Cross Recessed flat head machine screws with small head diameters. This makes it possible to reduce the spot facing diameters compared to standard flat head machine screws.
- Since the head height is lower than that of standard flat head screws. Suitable for connecting thin plates.
- Application

Reducing the size of equipment and devices

• Material/	Finish 👊	RoHS2 Compliant
	SNF-SD-TZB	SNFS-SD
Main Rody	SWCH Trivalent Chromate Treatment	SUSXM7 (Equivalent to SUS304)

													Unit:mm
SNF-SD-TZB Steel - Trivalent Chromate Treatment	SNFS-SD Stainless steel	Common dimensions											
Part Number	Part Number	M 2	L 3								D ₁	L1	Mass (g)
SNF-M3-SD-TZB		M3	5	6	8	10	12				5	1.3	0.41 - 0.69
SNF-M4-SD-TZB	SNFS-M4-SD	M4		6	8	10	12	16			6	1.3	0.73 - 1.5
SNF-M5-SD-TZB	SNFS-M5-SD	M5			8	10	12	16	20		8	1.8	1.7 - 3.1
SNF-M6-SD-TZB	SNFS-M6-SD	M6				10	12	16	20	25	10	2.3	3.2 - 5.8

SNF-SD-TZB Steel - Trivalent Chromate Treatment

Part Number	Qty*1 per pack
SNF-M3-SD-TZB	20
SNF-M4-SD-TZB	20
SNF-M5-SD-TZB	20
SNF-M6-SD-TZB	20

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

SNFS-SD Stainless Steel

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	 .
Part Number	Qty* ¹ per pack
SNFS-M4-SD	20
SNFS-M5-SD	20
SNFS-M6-SD	20

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



614

Application

Main

Body

SNSS-SD

RoHS2 Compliant

Unit:mm

• Socket head cap screws with small head diameters.

to standard socket head cap screws.

Reducing the size of equipment and devices

Able to reduce the spot facing diameters compared

SNS-SD-EL

Strength 12.9 A2-70 Class

 Usage example It is possible to perform spot facing and hide the head in locations where spot facing is not possible

with standard socket head cap screws.

Hex Socket Head Cap Screw SNS-SD

Precautions for Use

- Since the head bearing surface area is small, bearing surface pressure become high.
- Using the following formula as a reference, ensure that the bearing surface pressure due to screw tightening does not exceed the permitted surface pressure of the intended fastening material.

SUS Stainless steel Small Head

SNS-SD/SNSS-SD Socket Head Cap Screws with Small Head

$P = \sigma \frac{As}{\Delta}$	Head	diamete	r:D1	
P : Bearing surface pressure (N/mm²) σ : Bolt stress (N/mm²) As : Screw effective sectional area (mm²) A : Bearing surface area (mm²)				Intended fastening material Drilled hole diameter:d
Bearing surface area $A=\pi \frac{(D_1^2-d^2)}{4}$				
D ₁ : Head diameter (mm) d: Drilled hole diameter (mm)				
- Hoad Diamotor and Scrow E	ffocti	un Cro		octional

 Head Diameter and Screw Effective Cross-sectional Area

Part Number	Head Diameter (mm)	Screw effective cross- sectional area (mm²)
SNS-M3-SD	4.5	5.03
SNS-M4-SD	5.5	8.78
SNS-M5-SD	7	14.2
SNS-M6-SD	8.5	20.1
SNS-M8-SD	11	36.6
SNS-M10-SD	13.5	58

• Part number specification



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

SNS-SD-EL Steel - Electroless Nickel Plating Unit: mm																
Part Number	ber M 1 L 3												D1	L1	В	Mass (g)
SNS-M3-SD-EL	M3	5	6	8	10	12							4.5	3	2.5	0.5 - 0.8
SNS-M4-SD-EL	M4		6	8	10	12	16	20	25				5.5	4	3	1.1 - 2.6
SNS-M5-SD-EL	M5			8	10	12	16	20	25				7	4.5	4	2.1 - 4.2
SNS-M6-SD-EL	M6			8	10	12	16	20	25	30			8.5	5.5	5	3.4 - 7.2
SNS-M8-SD-EL	M8				10	12	16	20	25	30	35		11	7.5	6	7.8 - 16
SNS-M10-SD-EL	M10						16	20	25	30	35	40	13.5	9.5	8	17 - 29

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

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

SNSS-SD Stainle	ess Ste	el																	Unit	:mm
Part Number	M <2	■2 L ■3												D ₁	L ₁	В	Mass ((g)		
SNSS-M2-SD	M2	3	4	5	6										3	2	1.5	0.088	3 - (ე.15
SNSS-M2.5-SD	M2.5		4	5	6	8									3.8	2.5	2	0.26	- (0.38
SNSS-M3-SD	M3			5	6	8	10	12							4.5	3	2.5	0.5	- (0.8
SNSS-M4-SD	M4				6	8	10	12	16	20	25				5.5	4	3	1.1	- :	2.6
SNSS-M5-SD	M5					8	10	12	16	20	25				7	4.5	4	2.1	- 4	4.2
SNSS-M6-SD	M6					8	10	12	16	20	25	30			8.5	5.5	5	3.4	- :	7.2
SNSS-M8-SD	M8						10	12	16	20	25	30	35		11	7.5	6	7.8	- 16	5
SNSS-M10-SD	M10								16	20	25	30	35	40	13.5	9.5	8	17	- 29	9

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

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

SNS-SD Steel - I	Ferrosoferric Oxide Coating
Doub Nivershop	M 40 1 40

Part Number	M 12	M 1 L 3											D ₁	L1	В	Mass (g)
SNS-M3-SD	M3	5	6	8	10	12							4.5	3	2.5	0.5 - 0.8
SNS-M4-SD	M4		6	8	10	12	16	20	25				5.5	4	3	1.1 - 2.6
SNS-M5-SD	M5			8	10	12	16	20	25				7	4.5	4	2.1 - 4.2
SNS-M6-SD	M6			8	10	12	16	20	25	30			8.5	5.5	5	3.4 - 7.2
SNS-M8-SD	M8				10	12	16	20	25	30	35		11	7.5	6	7.8 - 16
SNS-M10-SD	M10						16	20	25	30	35	40	13.5	9.5	8	17 - 29

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

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

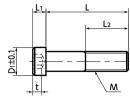
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1 Individual Sales → P.809 🍕 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 💶 Vibration Resistant → P.810 📫 Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge | Please feel free to contact us

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SLH-SD/SLHS-SD Socket Head Cap Screws with Low & Drawl Head

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Selection SUS Stainless steel Protrusion Small Head

Precautions for Use

- Since the head bearing surface area is small, bearing surface pressure become high.
- Using the following formula as a reference, ensure that the bearing surface pressure due to screw tightening does not exceed the permitted surface pressure of the intended fastening material.

pressure or the miteriaea ras	,
$P = \sigma \frac{As}{\Delta}$	Head diameter: D1
$P = \sigma \overline{A}$	Intended !
P: Bearing surface pressure (N/mm²)	fastening / material
σ : Bolt stress (N/mm ²)	\(\frac{1}{2}\) /
As: Screw effective	Drilled hole diameter: d
sectional area (mm²)	diameter o
A: Bearing surface area(mm²)	
· ·	
Bearing surface area $A=\pi \frac{(D_1^2-d^2)}{4}$	
4	
D ₁ : Head diameter (mm)	$\overline{}$
d:Drilled hole diameter(mm)	~

• Head Diameter and Screw Effective Cross-sectional Area

Part Number	Head Diameter (mm)	Screw effective cross- sectional area (mm²)
SLH-M3-SD	4.5	5.03
SLH-M4-SD	5.5	8.78
SLH-M5-SD	7	14.2
SLH-M6-SD	8.5	20.1
SLH-M8-SD	11	36.6
SLH-M10-SD	13.5	58



• Socket head cap screws with low profiles and small head diameters. Able to reduce the spot facing diameters compared to standard socket head cap screws with low profiles.

Application

Reducing the size	of equipment and devices

Materia	RoHS2 Complian		
	SLH-SD	SLH-SD-EL	SLHS-SD
Main Body	SWCH45K Ferrosoferric Oxide Film (Black)	SWCH45K Electroless Nickel Plating	SUSXM7 (Equivalent to SUS304)
Strength Class	8.8	8.8	A2-50

SLH-SD Steel - Ferrosoferric Oxide Coating Unit:mm Part Number Mass (g) SLH-M3-SD 1.5 0.5 - 0.7 M4 SLH-M4-SD 20 2.3 0.9 - 2.4 25 Full Thread M5 12 16 20 1.7 - 3.8 SLH-M5-SD 10 3 2.2 Full Thread SLH-M6-SD M6 10 12 16 20 25 30 8.5 3.5 4 2.5 18(L=30) 2.6 - 6.5 SLH-M8-SD M8 16 20 25 30 35 5 3.3 22(L=35) 5.9 - 14 M10 16 20 13.5 5.5

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

Part Number	Qty per pack*1
SLH-M3-SD	10
SLH-M4-SD	10
SLH-M5-SD	10
SLH-M6-SD	10
SLH-M8-SD	10
SLH-M10-SD	10

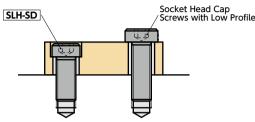
*1: Also sold separately from 1 piece up. → P.809

1 Individual Sales → P.809	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	Please feel free to contact us

Usage example

It is possible to perform spot facing and hide the head in locations where spot facing is not possible with standard socket head cap screws.





• Part number specification

SLH	-M5	- 20	-SD-EL	
41	2	3	41	

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

SLH-SD-FL Steel - Flectroless Nickel Plating

Ster-SD-EL Steet - Electroless Nicket Flating Unit: m										Unit:mm							
Part Number	M 2	L 3										D1	L ₁	В	t	L2*1	Mass (g)
SLH-M3-SD-EL	МЗ	6	8	10	12							4.5	2	2	1.5	Full Thread	0.5 - 0.7
SLH-M4-SD-EL	M4	6	8	10	12	16	20	25				5.5	2.8	2.5	2.3	Full Thread	0.9 - 2.4
SLH-M5-SD-EL	M5		8	10	12	16	20	25				7	3	3	2.2	Full Thread	1.7 - 3.8
SLH-M6-SD-EL	M6		8	10	12	16	20	25	30			8.5	3.5	4	2.5	18(L=30)	2.6 - 6.5
SLH-M8-SD-EL	M8			10	12	16	20	25	30	35		11	4.5	5	3.3	22(L=35)	5.9 - 14
SLH-M10-SD-EL	M10					16	20	25	30	35	40	13.5	5.5	6	4	Full Thread	13 - 25

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

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

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

SLHS-SD Stainless Steel Unit:										Unit:mm							
Part Number	M 2	L 3										D1	L1	В	t	L2*1	Mass (g)
SLHS-M3-SD	M3	6	8	10	12							4.5	2	2	1.5	Full Thread	0.5 - 0.7
SLHS-M4-SD	M4	6	8	10	12	16	20	25				5.5	2.8	2.5	2.3	Full Thread	0.9 - 2.4
SLHS-M5-SD	M5		8	10	12	16	20	25				7	3	3	2.2	Full Thread	1.7 - 3.8
SLHS-M6-SD	M6		8	10	12	16	20	25	30			8.5	3.5	4	2.5	18(L=30)	2.6 - 6.5
SLHS-M8-SD	M8			10	12	16	20	25	30	35		11	4.5	5	3.3	22(L=35)	5.9 - 14
SLHS-M10-SD	M10					16	20	25	30	35	40	13.5	5.5	6	4	Full Thread	13 - 25

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

Part Number	Qty per pack*1
SLHS-M3-SD	10
SLHS-M4-SD	10
SLHS-M5-SD	10
SLHS-M6-SD	10
SLHS-M8-SD	10
SLHS-M10-SD	10

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

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SSH-SD/SSHS-SD Socket Head Cap Screws with Extreme Low & Dead Head

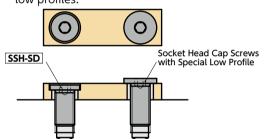
Lb max.

• Socket head cap screws with special low profiles and small head diameters. This makes it possible to reduce the spot facing diameter compared to standard socket head cap screws with special low profiles.

Application

Reducing the size of equipment and devices

 Usage example It is possible to perform spot facing and hide the head in locations where spot facing is not possible with standard socket head cap screws with special low profiles.





A Precautions for Use

• Since the head bearing surface area is small, bearing surface pressure becomes high.

• Using the following formula as a reference, ensure that the bearing surface pressure due to screw tightening does not exceed the permitted surface pressure of the intended fastening material.

P= $\sigma \frac{As}{A}$ P: Bearing surface pressure (N/mm²) σ : Bolt stress (N/mm²) As: Screw effective sectional area (mm²)	Head diameter: D1 fas	ended tening terial illed hole ameter: c
A: Bearing surface area(mm²)		
Bearing surface area $A=\pi \frac{(D_1^2-d^2)}{4}$	-	
D ₁ : Head diameter (mm)	\hookrightarrow	

• Head Diameter and Screw Effective Cross-sectional Area

Part Number	Head Diameter (mm)	Screw effective cross- sectional area (mm²)
SSH-M3-SD	5	5.03
SSH-M4-SD	6	8.78
SSH-M5-SD	8	14.2
SSH-M6-SD	9	20.1
SSH-M8-SD	11	36.6
SSH-M10-SD	13.5	58

SSH-SD Made	of Steel	· Ferro	soferr	ic Oxio	de Film											Unit:mm
Part Number	M 12 L 13								D1	L1	Lb	В	t	Max. Torque*1 (N·m)	Mass (g)	
SSH-M3-SD	M3	6	8	10	12					5	1.3	1.5	1.5	2	1	0.4 - 0.7
SSH-M4-SD	M4	6	8	10	12	16				6	1.5	1.6	2	2.5	2	0.7 - 1.5
SSH-M5-SD	M5	6	8	10	12	16	20			8	1.5	2	3	3	3.5	1.2 - 2.9
SSH-M6-SD	M6	M6 6 8 10 12 16 20 25 30						9	1.5	2.5	3	4	5	1.6 - 5.8		
SSH-M8-SD	M8		8	10	12	16	20	25	30	11	1.5	3	4	5	10	3.1 - 10
SSH-M10-SD	M10			10	12	16	20	25	30	13.5	1.5	3.5	5	6	18	5.7 - 16

*1: The maximum tightening torque of the screw body.

Part Number	Qty per pack*1
SSH-M3-SD	10
SSH-M4-SD	10
SSH-M5-SD	10
SSH-M6-SD	10
SSH-M8-SD	10
SSH-M10-SD	10
*1: Also sold s	reparately from 1 piece up P 800

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	Available / Add'l charge	Please feel free to contact us

 Material/Finish 411 RoHS2 Compliant SSH-SD SSH-SD-EL SSHS-SB SCM435 SCM435 SUSXM7 Main Ferrosoferric Oxide | Electroless Nickel | (Equivalent to Body Coating (Black) Plating SUS304) Thread: 10.9 Thread: 10.9 Head*1: A2-50 Strength Head*1: 5.8 (M3 - M8) 5.8 (M3 - M8) Class 4.8 (M10) 4.8 (M10)

*1: Do not exceed the maximum tightening torque. While strength is increased through heat treatment, the head strength is less than the thread strength.

• Part number specification

SSH	- M5	- 20	-SD-EL
41	2	3	41

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

SSH-SD-EL Made of Steel · Electroless Nickel Plating

						•										Unit : mm
Part Number	M 2	L 3								D1	L1	Lb	В	t	Max. Torque*1 (N·m)	Mass (g)
SSH-M3-SD-EL	M3	6	8	10	12					5	1.3	1.5	1.5	2	1	0.4 - 0.7
SSH-M4-SD-EL	M4	6	8	10	12	16				6	1.5	1.6	2	2.5	2	0.7 - 1.5
SSH-M5-SD-EL	M5	6	8	10	12	16	20			8	1.5	2	3	3	3.5	1.2 - 2.9
SSH-M6-SD-EL	M6	6	8	10	12	16	20	25	30	9	1.5	2.5	3	4	5	1.6 - 5.8
SSH-M8-SD-EL	M8		8	10	12	16	20	25	30	11	1.5	3	4	5	10	3.1 - 10
SSH-M10-SD-EL	M10			10	12	16	20	25	30	13.5	1.5	3.5	5	6	18	5.7 - 16

*1: The maximum tightening torque of the screw body.

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

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

SSHS-SD Made of Stainless Steel

																		Unit: mn
Part Number	M 2	L 43									D1	L1	Lb	В	t	Max. Torque*1 (N·m)	Mass	(g)
SSHS-M2-SD	M2	5	6	8							3.2	1.1	1.2	1.3	1.2	0.2	0.087	- 0.15
SSHS-M2.5-SD	M2.5	5	6	8							4	1.3	1.4	1.3	1.5	0.4	0.19	- 0.28
SSHS-M3-SD	M3		6	8	10	12					5	1.3	1.5	1.5	2	0.6 0.4 - 0.7		
SSHS-M4-SD	M4		6	8	10	12	16				6	1.5	1.6	2	2.5	1.2	0.7	- 1.5
SSHS-M5-SD	M5		6	8	10	12	16	20			8	1.5	2	3	3	2.5	1.2	- 2.9
SSHS-M6-SD	M6		6	8	10	12	16	20	25	30	9	1.5	2.5	3	4	5	1.6	- 5.8
SSHS-M8-SD	M8			8	10	12	16	20	25	30	11	1.5	3	4	5	7	3.1	- 10
SSHS-M10-SD	M10				10	12	16	20	25	30	13.5	1.5	3.5	5	6	18	5.7	- 16

*1: The maximum tightening torque of the screw body.

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

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

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• Corrosion Resistance

	Duplex Stainless Steel Hexagon Head Screw	Duplex Stainless Steel Hexagon Nuts
Part Number	SNHDS	SHNDS
Shape	NEW NEW	NEW
Page	P.623	P.624
Materials	UNS S31803	UNS S31803
Characteristics	Corrosion Resistance High Strength • Magnetic	Corrosion Resistance High Strength • Magnetic
Size	M12 - M24	M12 - M24

High Performance Stainless Steel Screws

A Lligh Ctrongth

 High Stre 	ngth
	Socket Head Cap Screws
Part Number	SNSX
Shape	
Page	P.625
Materials	SUS316L HiMo
Characteristics	High Strength • Heat Resistance • Corrosion Resistance Nonmagnetic
Size	M3 - M12

Heat Resistance

	Socket Head Cap Scr	Hex Nuts • Washers		
Part Number	SNSL	SNSJ	SHNJ/SWAJ	
Shape			000	
Page	P.627	P.628	P.629	
Materials	SUS316L	SUS310S	SUS310S	
Characteristics	Heat Resistance • Corrosion Resistance • Nonmagnetic	Heat Resistance · Chemical Resistance	Heat Resistance · Chemical Resistance	
Size	M3 - M8	M3 - M10	M3 - M10	

For Magn	letic Detection	
	Socket Head Cap Screws with Magnetic Captive Washers	Hex Nuts • Washers
Part Number	SNSQS-PM	SHNS-PM/SWAS-PM
Shape		
Page	P.631	P.632
Materials	Body: SUSXM7 Washers: NSSC-180	Hex Nuts: NSSC-550 Washers: NSSC-180
Characteristics	Magnetic • Corrosion Resistance	Magnetic • Corrosion Resistance
Size	M3 - M6	M4 - M10

Properties of High Performance Stainless Steel Screws

Mechanical Properties

Properties	SUS316L HiMo SNSX-88	SUS316L HiMo SNSX-109	SUS316L*1 SNSL	SUS310S SNSJ	UNS S31803 SNHDS	SUSXM7*2
Tensile Strength (N/mm²)	800	1,000	700	520	620	700
0.2% Proof Stress (N/mm²)	640	900	450	205	450	450
Elongation (mm)	0.3d	0.2d	0.4d	_	_	0.4d
Magnetic	Non-Magnetic	Non-Magnetic	Non-Magnetic	Non-Magnetic	Magnetic	Non-Magnetic

- *1 Values for Strength Class A4 70.
- *2 Values for Strength Class A2 70.
- Values in chart are for reference only. They are not guaranteed values.

• Yield load (N)

Thread	SUS316L HiMo SNSX-88	SUS316L HiMo SNSX-109	SUS316L*1 SNSL	SUS310S SNSJ	UNS S31803 SNHDS	SUSXM7*2
M3	3,200	-	2,300	1,030	2,300	2,300
M4	5,600	-	4,000	1,790	4,000	4,000
M5	9,100	-	6,400	2,910	6,400	6,400
M6	12,900	18,100	9,000	4,120	9,000	9,000
M8	23,400	32,900	16,500	7,500	16,500	16,500
M10	_	52,200	26,100	11,800	26,100	26,100
M12	_	75,800	37,900	-	37,900	37,900

- *1 Values for Strength Class A4 70.
- *2 Values for Strength Class A2 70.
- Values in chart are for reference only. They are not guaranteed values.

Proof Stress by Temperature (N/mm²)

Part Number • Material	20℃	100℃	200℃	300℃	400℃	500℃	600℃
SUS316L HiMo SNSX-88	640	576	576	544	512	480	448
SUS316L HiMo SNSX-109	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.

Non-Magnetic

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

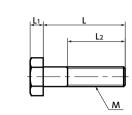
• Values in chart are for reference only. They are not guaranteed values.

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NBK

SNHDS Duplex Stainless Steel Hexagon Head Screw NEW 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

RoHS2 Compliant

e-nedzi.com®

	SNHDS
Main body	UNS S31803

Mechanical property

	UNS S31803	SUS316L
Tensile strength (N/mm²)	620 or above	480 or above
0.2% Proof Stress (N/mm²)	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.

Jnit	:	mm	

												Onit - min
Part Number	M 1	L 1 2	■2						В	L1	L ₂	Mass (g)
SNHDS-M12	M12	30	40	50	60				19	8	30	42 - 68
SNHDS-M16	M16		40	50	60	70			24	10	38	96 - 143
SNHDS-M20	M20			50	60	70	80		30	13	46	185 - 258
SNHDS-M24	M24				60	70	80	90	36	15	54	314 - 420

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

► https://www.nbk1560.com

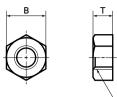
• Part number specification

SNHDS-	-M20	- 60
Product Code	41	■ 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	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

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- 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

Main body

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

Material/Finish

RoHS2 Compliant SHNDS UNS S31803

Mechanical property

- · · · · · · · · · · · · · · · · · · ·										
	UNS S31803	SUS316L								
Tensile strength (N/mm²)	620 or above	480 or above								
0.2% Proof Stress (N/mm²)	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	В	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



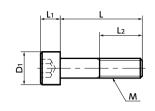


Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
unit in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

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Application

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

Material/Finis	h	RoHS2 Complian
	SNSX-88	SNSX-109
Main Body	SUS316L HiMo	SUS316L HiMo
Strength Class	8.8	10.9



- High intensity socket head cap screws are made of stainless steel. (Strength Class 8.8 or 10.9)
- For applications that require both high strength and corrosion resistance.
- High strength per a screw is useful for space and weight saving by decreasing thread diameter and
- Screws with excellent heat resistance and corrosion resistance.
- Nonmagnetic.

SNSX-88													Unit:mm				
Part Number	M	L 1 2	2 St								Strength Class	D ₁	L1	В	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 1	L 12						Strength Class	D1	L1	В	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 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

Please feel free to contact us Available / Add'l charge Available / Add'l charge Available / Add'l charge

*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

Mechanical property

Part Number • Strength Class \ Property	Tensile Strength (N / mm²)	Proof Stress (N / mm²)	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.

CR 10									Elemei nce Ev		on	
9				AIS	304 1	_	Corrosio	on Eva	luatior	Diag	ram af	
7					$\overline{}$		0 Year No Cor					
6												
5							AISI	316L				
4					,							
3											C	22
2								-		$\overline{}$		K3
1									Т			
0									SNSX]		
	12	14	16	18	20	22	24	26	28	30	32	PRE

Pitting Corrosion and Crevice Corrosion Countermeasures PRE value (Pitting Resistance Equivalent)
PRE=%Cr+3.3×%Mo+16×%N;

• Sulfuric acid corrosion test (H₂SO₄, 50°C and mm / year)

	-		,
$\textbf{Part Number} \cdot \textbf{Material} \diagdown \textbf{Density}$	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

SVSX, a type with a ventilation hole is available.

→ P.571

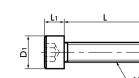


• Part number specification



626

CAD
Download
Download
Heat-resistance
Non-Magnetic
SUS Stainless steel





e-nedzi.com®

Material/Finish	RoHS2 Compliant
	SNSL
Main Body	SUS316L
Strength Class	A4-70

- These screws have corrosion resistibility against chemical products and seawater environments that matches or exceeds SUS304.
- Nonmagnetic.
- SUS316L is a stainless steel made by adding Mo to SUS304, so it has high pitting corrosion and oxidation resistance. Due to its reduced carbon, it also has high intergranular corrosion resistibility.
- High strength even under high temperatures because of basic components include Mo.
- Application

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

															Onit - min
Part Number	M	L 1 2	2										L1	В	Mass (g)
SNSL-M3	M3	5	6	8	10	12	16					5.5	3	2.5	0.67 - 1.2
SNSL-M4	M4	5	6	8	10	12	16	20	25			7	4	3	1.4 - 3.2
SNSL-M5	M5		6	8	10	12	16	20	25			8.5	5	4	2.2 - 4.8
SNSL-M6	M6			8	10	12	16	20	25	30		10	6	5	4.3 - 8.3
SNSL-M8	M8					12	16	20	25	30	35	13	8	6	11 - 19

Part Number	Qty*1 per pack
SNSL-M3	5
SNSL-M4	5
SNSL-M5	5
SNSL-M6	5
SNSL-M8	5

▶ https://www.nbk1560.com

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

• Part number specification

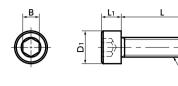
Order in number of packs. Also sold separately from 1 piece up. → P.809

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 | Available / Add'l charge | Available / Add'l charge

SNSJ Hex Socket Head Cap Screws - SUS310S CAD Cleanroom wash & packaging Heat-resistance Chemical-proof SUS Stainless steel



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Mechanical property

	SUS310S
Tensile Strength (N/mm²)	520 or Higher
0.2% Proof Stress (N/mm²)	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 ($^{\circ}$ C)	700
Electric Resistance ($\mu\Omega \cdot m$)	0.78
Specific Heat (J/kg·K)	500
Thermal Conductivity $(W/(m \cdot K))$	14
Linear Expansion Coefficient (K-1)	15.9×10 ⁻⁶

- *1: This is the heat resistance temperature of the SUS310S
- Values in chart are for reference only. They are not guaranteed
- 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.

6	

- 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

• Material/Tillisii		RoHS2 Compliant
	SNSJ	
Main Body	SUS310S	

• Part number specification



																Ome min
Part Number	M	L 2								D1	L1	В	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.

Qty per pack
1
1
1
1
1
1



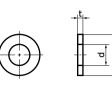
SHNJ/SWAJ Hex Nuts / Washers - SUS310S Selection CAD Cleanroom wash & packaging Heat-resistance Chemical-proof SUS Stainless steel



e-nedzi.com®

SHNJ





SWAJ-F

• Mechanical property

	SUS310S
Tensile Strength (N/mm²)	520 or Higher
0.2% Proof Stress (N/mm²)	205 or Higher
Elongation (%)	40 or Higher
Hardness (HRB)	90 or Less

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

• Physical property

	SUS310S
Specific Gravity	7.98
Heat Resistance Temperature*¹(℃)	700
Electric Resistance ($\mu\Omega$ · m)	0.78
pecific Heat (J/kg • K)	500
hermal Conductivity (W/(m·K))	14
inear Expansion Coefficient (K-1)	15.9×10 ⁻⁶

- *1: This is the heat resistance temperature of the SUS310S
- Values in chart are for reference only. They are not guaranteed
- 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.

	SHNJ
SWAJ-F	

- 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/Fi	nish	RoHS2 Compliant
	SHNJ	SWAJ-F
Main Body	SUS310S	SUS310S

• Part number specification

SHNJ-M5

SHNJ Hex Nuts							
Part Number 📶	M	В	Т	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 1	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





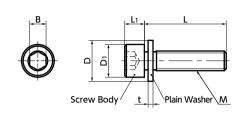
NBK

▶ https://www.nbk1560.com

SNSQS-PM Hex Socket Head Cap Screws with Magnetic Captive Washer CAD Download Download PMagnetic Easy operation SUS Stainless steel



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- Socket head cap screws have built-in magnetic stainless steel washers.
- They can be detected magnetically even if the screw falls out from food industry machines and get mixed in food products in factories.
- The washer is built in below the neck so it does not fall off. Attaching the washer is not required.
- Washer's corrosion resistance is as same as SUS304.

Application

With magnetic detection Food industry machines, food production lines, and food packaging lines

 Material/Finish 	RoHS2 Compliant
	SNSQS-PM
Screw Body	SUSXM7 (Equivalent to SUS304)
Screw Body Tensile Strength	A2-50
Plain Washer	NSSC-180 (Equivalent to SUS430J1L)

													Unit:mm
Part Number	M 1	L 2						D1	D	L1	В	t	Mass (g)
SNSQS-M3-PM	M3	8	10	12	16			5.5	7	3	2.5	0.5	0.92 - 1.3
SNSQS-M4-PM	M4		10	12	16	20		7	9	4	3	0.8	2.1 - 3
SNSQS-M5-PM	M5			12	16	20	25	8.5	10	5	4	1	3.4 - 5.2
SNSQS-M6-PM	M6			12	16	20	25	10	12.5	6	5	1.5	6.2 - 8.7

Part Number	Qty per pack
SNSQS-M3-PM	1
SNSQS-M4-PM	1
SNSQS-M5-PM	1
SNSQS-M6-PM	1

▶ https://www.nbk1560.com

• Part number specification

SNSQS-	-M5 -	- 25	-PM
Product Code	41	■ 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	Not Available

SHNS-PM/SWAS-PM Hex Nuts/Washers - Magnetic S.S.

Selection We CAD Download Download Magnetic SUS Stainless steel

Special Screws

e-nedzi.com®

SHNS-PM

SWAS-F-PM









- Made of magnetic stainless steel.
- They can be detected magnetically even if the screw falls out from food industry machines and gets mixed in food products in factories.
- Same corrosion resistance as SUS304.
- Application

With magnetic detection Food industry machines, food production lines, and food packaging lines

 Materia 	l/Finish	RoHS2 Compliant
	SHNS-PM	SWAS-PM
Main Body	NSSC-550	NSSC-180 (Equivalent to SUS430J1L)

SHNS-PM Hex Nuts					Unit:mm
Part Number 1	М	В	т	Mass (g)	Qty*1 per pack
SHNS-M4-PM	M4	7	3.2	0.69	10
SHNS-M5-PM	M5	8	4	1.1	10
SHNS-M6-PM	M6	10	5	2.2	10
SHNS-M8-PM	M8	13	6.5	4.7	5
SHNS-M10-PM	M10	17	8	10	5

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

SWAS-F-PM Washers						Unit: mm
Part Number 1	Nominal	d	D	t	Mass (g)	Qty* ¹ per pack
SWAS-3-F-PM	3	3.2	7	0.5	0.12	10
SWAS-4-F-PM	4	4.3	9	0.8	0.31	10
SWAS-5-F-PM	5	5.3	10	1	0.45	10
SWAS-6-F-PM	6	6.4	12.5	1.5	1.1	10
SWAS-8-F-PM	8	8.4	17	1.5	2	5
SWAS-10-F-PM	10	10.5	21	2	4.1	5

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

• Part number specification





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

• Socket Head Cap Screws • Cross Recessed Machine Screws

Titanium Screws

	Socket Head Cap Screws		Cross Recessed Machine Screws				
Part Number	SNSTG	SNST	SNPTG	SNPT	SNFTG	SNFT	
Shape							
Page	P.635	P.636	P.637	P.638	P.639	P.640	
Materials	Ti-6Al-4V (64 Titanium)	TB340C (Grade 2 Titanium)	Ti-15-3-3-3 (β Titanium)	TW270 (Grade 1 Titanium)	Ti-15-3-3-3 (β Titanium)	TW270 (Grade 1 Titanium)	
Characteristics	High Strength • Lightweight • Nonmagnetic Corrosion Resistance	Lightweight • Nonmagnetic • Chemical Resistance	High Strength • Lightweight • Nonmagnetic Corrosion Resistance	Lightweight • Nonmagnetic • Chemical Resistance	High Strength • Lightweight • Nonmagnetic Corrosion Resistance	Lightweight • Nonmagnetic • Chemical Resistance	
Size	M3 - M10	M3 - M6	M3 - M5	M2 - M5	M3 - M5	M3 - M4	

Nuts • Washers

- reas - vedsiers				
	Hex Nuts	Hex Lock Nuts	Washers	
Part Number	SHNT	SWUT	SWAT	
Shape			C 0	
Page	P.641	P.642	P.643	
Materials	TW270 (Grade 1 Titanium) TW340 (Grade 2 Titanium)	FRS-9901 (Equivalent to TW340)	TP340C (Grade 2 Titanium)	
Characteristics	Lightweight •	Lightweight • Nonmagnetic • Chemical Resistance Vibration Resistant	Lightweight • Nonmagnetic • Chemical Resistance	
Size	M3 - M10	M3 - M10	Nominal 3 to 10	

• Titanium screws by NBK receive chemical polishing and brightening processing to improve their surfaces. Furthermore, the screws are cleanroom washed and comply with clean specifications that require no oil or foreign matter deposits.





Properties of Titanium

Physical Properties

Properties	TB340C (Pure Titanium)	Ti-6Al-4V (64 Titanium)	Ti-15-3-3-3 (β Titanium)
Specific Gravity	4.51	4.43	4.8
Melting Point(℃)	1668	1540	-
Longitudinal Elastic Modulus (GPa)	106	113	90
Thermal Conductivity $(W/(m \cdot K))$	17.16	7.5	_
Linear Expansion Coefficient (K-1)	8.4×10 ⁻⁶	8.8×10 ⁻⁶	_
Electric Resistance $(\mu\Omega \cdot m)$	0.55	1.7	_
Amplitude Permeability (μ)	1.0001	1.0002	1.0002

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

Mechanical Properties

Properties	TB340C	Ti-6Al-4V	Ti-15-3-3-3	SUSXM7
rioperties	(Pure Titanium)	(64 Titanium)	(β Titanium)	
Tensile Strength	340 - 510	895	705 - 945	500
(N/mm ²)	340-510	or Higher	705 - 945	500
0.2% Proof Stress	215	825	690 - 835	210
(N/mm ²)	or Higher	or Higher	090 - 033	210
Elongation (%)	23	10	12	_
Etorigation (%)	or Higher	or Higher	or Higher	

*Values for Strength Class A2 - 50.

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

• Tension Rupture Load (N)

Thread	TB340C (Pure Titanium)	Ti-6Al-4V (64 Titanium)	Ti-15-3-3-3 (β Titanium)	
M3	3210	5240	4170	2500
M4	5610	8850	7520	4400
M5	9080	14700	11900	7100
M6	12800	20800	-	10100
M8	_	33700	_	18300
M10	_	58900	_	29000

- *Values for Strength Class A2 50.
- Values in chart are for reference only. They are not guaranteed values.

Magnetic Flux Density

	Titanium	SUSXM7
Magnetic Flux Density (T)	0	5×10 ⁻⁵

Measuring device: 5080 Gauss (Tesla) Meter by F.W.BELL Measuring conditions: DC magnetic field measuring mode Probe and sample separation distance: 5 mm

Chemical Resistance (Partially excerpted from "World of Titanium" by Japan Titanium Society)

Chemical Name	Composition	Corrosion Resistibility		
Chemical Name	(%)	Pure Titanium	SUS304	Hastelloy*
Hydrochloric	10	0	×	0
Acid	30	×	×	0
Sulfuric Acid	10 50	×	×	0
Nitric Acid	10 50	0	0	Ö -
Nitrohydrochloric Acid (HCI: HNO ₃)	3:01	0	×	Δ
Chromic Acid	5	0	_	0
Hydrofluoric Acid	5	×	×	Δ
Phosphoric Acid	50 (Ventilation)	Δ	0	0
Ferric Chloride	10 - 30	0	×	0
Cupric Chloride	10 - 30	0	×	0
Sodium Chloride	10 - 40	0	0	0
Calcium Chloride	50	0	0	0
Ammonium Chloride	40	0	_	0
Magnesium Chloride	40	0	0	0
Ferrous Sulfate	10 - 50	0	0	0
Ammonia	10 - 30	0	0	0
Sodium Hydroxide	50	0	0	_
Sodium Carbonate	10	0	0	0
Hydrogen Sulfide	Dry Gas Wet Gas	0	△ O	© O
Hydrogen Sulfide	Dry Gas Wet Gas	×	_ _	○
Sulfur Dioxide	Dry Gas Wet Gas	0	- -	_
Seawater	High Speed Stream	0	_	_
Formic Acid	10 - 50	0	0	0
Lactic Acid	50	0	0	0
Oxalic Acid	20	×	_	0
Citric Acid	10 - 50	0	0	0

Testing Temperature: Room Temperature

©:<0.127 mm/year △: 0.508 - 1.27 mm/year O: 0.127 - 0.508 mm/year × :>1.27 mm/year *Hastelloy is a registered trademark of Haynes International, Inc.

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.

NBK

SNSTG Hex Socket Head Cap Screws - High Intensity Titanium Alloy

Ti-6Al-4V (64 Titanium)

4.43

1540

113

Mechanical property

Physical property

Longitudinal Elastic Modulus (GPa)

Specific Gravity

Melting Point (℃)

	Ti-6Al-4V (64 Titanium)
Tensile Strength (N/mm²)	895 or Higher
0.2% Proof Stress (N/mm²)	825 or Higher
Elongation (%)	10 or Higher

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

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



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

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

Material/Fillisti	RoHS2 Compliant
	SNSTG
lain Body	Ti-6Al-4V (64 Titanium)

• Part number specification

-	SNS'	TG-	M5	- 20
Γ	411			4 2

																			Unit:mm
Part Number	M	Λ L 1 2									D1	L1	В	L2*1	Tension*2 Rupture Load (N)	Mass (g)			
SNSTG-M3	М3	6	8	10	12	16	20							5.5	3	2.5	Full Thread	5240	0.4 - 0.77
SNSTG-M4	M4		8	10	12	16	20	25	30					7	4	3	Full Thread	8850	0.94 - 2.1
SNSTG-M5	M5			10	12	16	20	25	30	35				8.5	5	4	Full Thread	14700	1.5 - 3.6
SNSTG-M6	M6			10	12	16	20	25	30	35	40	45	50	10	6	5	45(L=50)	20800	2.7 - 7.5
SNSTG-M8	M8					16	20	25	30	35	40	45	50	13	8	6	45(L=50)	33700	6.9 - 14
SNSTG-M10	M10					16	20	25	30	35	40	45	50	16	10	8	45(L=50)	58900	12 - 22

- *1: If the "L" value is not in parentheses, the screw is full thread.
- *2: Values in chart are for reference only. They are not guaranteed values.

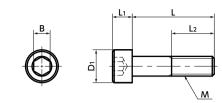
▶ https://www.nbk1560.com

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

NBK

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	gth 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 charg	ge Available / Add'l charge

e-nedzi.com® **SNST** Hex Socket Head Cap Screws - Titanium Selection CAD Cleanroom wash & packaging Chemical-proof Non-Magnetic Lightweight



Physical property

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

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

Mechanical property

	TB340C (Grade 2 Titanium)
Tensile Strength (N/mm²)	340 - 510
0.2% Proof Stress (N/mm²)	215 or Higher
Elongation (%)	23 or Higher

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

• Part number specification





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

SNST



Application

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

Material /Einich

Material/Finish	RoHS2 Compliant
	SNST
Main Body	TB340C (Grade 2 Titanium)

																					Unit:mm
Part Number	M	L 《	2												D1	L1	В	L2*1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)
SNST-M3	М3	5	6	8	10	12	16	20							5.5	3	2.5	Full Thread	3210	1.5	0.38 - 0.77
SNST-M4	M4			8	10	12	16	20	25	30					7	4	3	20(L=30)	5610	3.4	0.94 - 2.1
SNST-M5	M5				10	12	16	20	25	30	35				8.5	5	4	22(L≧30)	9080	7.1	1.5 - 3.6
SNST-M6	M6				10	12	16	20	25	30	35	40	45	50	10	6	5	24(L≧35)	12800	12	2.7 - 7.5

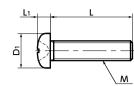
*1: If the "L" value is not in parentheses, the screw is full thread.

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

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



NBK



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

Mechanical property

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

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

• Screws made of high strength titanium alloy.

• Specific gravity is approximately 60% of stainless

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- Nonmagnetic.
- These screws are resistant to corrosion and are particularly strong against seawater.
- About the properties of titanium → P.633
- Chemical polishing and brightening processing improve the screw surface. Furthermore, the screws are cleanroom washed, cleanroom packed, and comply with clean specifications that require no oil or foreign matter deposits.

SNPTG Unprocessed



Application

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

Material/Finish	RoHS2 Complian
	SNPTG
Main Body	Ti-15 - 3 - 3 - 3 (β Titanium)

Part number specification

SNPTG-M5	- 20
41	2

Jni	τ.	m	m

Part Number	M	L 2	L 1								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.

▶ https://www.nbk1560.com

SNPTG-M3	1
SNPTG-M4	1
SNPTG-M5	1

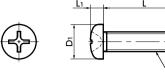
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Cleanroom washed and packed	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

e-nedzi.com®

SNPT Cross Recessed Pan Head Machine Screws - Titanium

CAD Chemical-proof Chemical-proof Chemical-proof





Physical property

TW270 (Grade 1 Titanium)
4.51
1668
106
17.16
8.4×10 ⁻⁶
0.55
1.0001 (Nonmagnetic)

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

Mechanical property

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

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

• Part number specification





- 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

• Matorial /Finish

• Material/Firisii	4	RoHS2 Complian
	SNPT	
Main Body	TW270 (Grade 1 Titanium)	

Related Products

SHNT Titanium Hex Nut. **SWUT** Titanium Hex Lock Nut, and **SWAT** Titanium Washer are available.

→ P.641 - 643



|--|

															Unit: mm
Part Number	M	L 2	••								D1		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

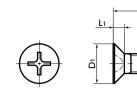


NBK

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



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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

Mechanical property

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

- Values in chart are for reference only. They are not guaranteed
- Part number specification





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

SNFTG Unprocessed

Application

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

Material/Finish	RoHS2 Compliant
	SNFTG
Main Body	$Ti-15-3-3(\beta Titanium)$

												Unit:mm
Part Number	M	L 42	◆2				D1	L1	Tension*1 Rupture Load (N)	Mass (g)		
SNFTG-M3	M3	6	8	10	12	15	20		6	1.75	4170	0.33 - 0.68
SNFTG-M4	M4		8	10	12	15	20	25	8	2.3	7520	0.73 - 1.5
SNFTG-M5	M5		8	10	12	15	20	25	10	2.8	11900	1.4 - 2.6

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

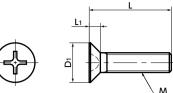
▶ https://www.nbk1560.com

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



SNFT Cross Recessed Flat Head Machine Screws - Titanium





Physical property

, , ,	
	TW270 (Grade 1 Titanium)
Specific Gravity	4.51
Melting Point (℃)	1668
Longitudinal Elastic Modulus (GPa)	106
Thermal Conductivity(W/(m·K))	17.16
inear 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

Mechanical property

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

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



- 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



Unit: mm Torsional*1 Tension*1 Mass (g) **Rupture Load** Torque (N·m) 0.31 - 0.4

0.59 - 0.86

								····	
SNFT-M3	M3	6	8	10		6	1.75	2360	1
SNFT-M4	M4	6	8	10	12	8	2.3	4120	2.4

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

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

L < 2

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807 (m) 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

Part Number

Special Screws

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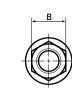
NBK

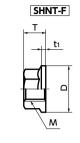
SHNT Hex Nuts - Titanium



SHNT







Physical property

	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)
Specific Gravity	4.51	4.51
Melting Point (℃)	1668	1668
Longitudinal Elastic Modulus (GPa)	106	106
Thermal Conductivity (W/ $(m \cdot K)$)	17.16	17.16
Linear Expansion Coefficient (K-1)	8.4×10 ⁻⁶	8.4×10 ⁻⁶
Electric Resistance ($\mu\Omega \cdot m$)	0.55	0.55
Amplitude Permeability (μ)	1.0001 (Nonmagnetic)	1.0001 (Nonmagnetic)

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

Mechanical property

	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)
Tensile Strength (N/mm²)	270 - 410	340 - 510
0.2% Proof Stress (N/mm²)	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.

e-nedzi.com®

- 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

Mat	erial/Finish	RoHS2 Compliant
	SHNT	SHNT-F
Main body	TW270 (Grade 1 Titanium)	TW340 (Grade 2 Titanium)

• Part number specification

SHNT-M6-F



SHNT Hex Nuts - Tita	anium				Unit: mr
Part Number 1	M	В	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

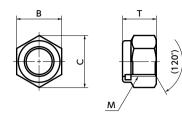
SHNT-F Hex Flange Nuts - Titanium						Unit:mm		
Part Number 1	M	В	Т	t1	D	Mass (g)	Qty per pack	
SHNT-M3-F	M3	5.5	3.7	0.8	8	0.4	1	
SHNT-M4-F	M4	7	4.2	0.8	10	0.72	1	
SHNT-M5-F	M5	8	5.5	1.1	12	1.3	1	
SHNT-M6-F	M6	10	6	1.5	14	1.9	1	
SHNT-M8-F	M8	12	7.5	1.5	17	3.3	1	
SHNT-M10-F	M10	14	9	1.8	19	4.8	1	

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

e-nedzi.com®

SWUT Hex Lock Nuts - Titanium Selection CAD Cleanroom wash & packaging Non-Magnetic Lightweight Vibration resistant treatment







- Specific gravity is approximately 60% of stainless
- These nuts are equipped with vibration resistant patch to prevent screw from loosening.
- Continuous Max. Operating Temperature: -40 to 120 deg C

Application

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

Material/Finish

• Material I illish	Rohsz Compliant
	SWUT
Main Body	FRS-9901 (Equivalent to TW340)
Nylon Ring	Nylon 66

							Offic - Itiliti
Part Number 1	M	В	C(Approx.)	Т	Mass (g)	Qty per pack	
SWUT-M3	M3	5.5	6.4	4	0.27	1	
SWUT-M4	M4	7	8.1	5	0.52	1	
SWUT-M5	M5	8	9.2	6.5	0.77	1	
SWUT-M6	M6	10	11.5	8	1.8	1	
SWUT-M8	M8	13	15	9.8	3.5	1	
SWUT-M10	M10	17	19.6	12	7.3	1	

Related Products

SWUS Hexagon Lock Nut made of stainless steel is available.

→ P.797





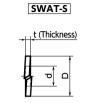
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
1 pc. in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

e-nedzi.com® **SWAT** Washers - Titanium Selection CAD Scleanroom wash & packaging Chemical-proof Non-Magnetic Lightweight



SWAT-F





Physical property

TP340C (Grade 2 Titanium)
4.51
1668
106
17.16
8.4×10 ⁻⁶
0.55
1.0001 (Nonmagnetic)

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



• Specific gravity is approximately 60% of stainless

- 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	RoHS2 Compliant
	SWAT
Main Body	TP340C(Grade 2 Titanium)

SWAT-F Plain Washers - Titanium						Unit:mm	
Part Number 1	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						l	Jnit:mm
Part Number 1	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





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





e-nedzi.com®

Monel400

	Hex Socket Head Cap Screw (Monel 400 equiv.)
Part Number	SNSMN
Shape	NEW
Page	P.647
Materials	Monel 400 equiv.
Characteristics	Chemical-proof Heat-resistance
Size	M3 - M6

Special Material Screws

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

Molybdenum

	Socket Head Cap Screws	Hex Socket Countersunk Head Screw	Hex Nuts • Washers
Part Number	SNSM	SNFCM	SHNM / SWAM
Shape		NEW	
Page	P.650	P.651	P.652
Materials	Pure Molybdenum	Pure Molybdenum	Pure Molybdenum
Characteristics	Heat Resistance	Heat Resistance	Heat Resistance
Size	M3 - M8	M2 - M4	M3 - M8

 Super In 	var
	Socket Head Cap Screws
Part Number	SNSIV
Shape	
Page	P.656
Materials	Super Invar
Characteristics	Low Expansion
Size	M3 - M8

Phospor	Bronze
	Socket Head Cap Screws
Part Number	SNSP
Shape	
Page	P.657
Materials	C5191
Characteristics	Nonmagnetic
Size	M3 - M8

Hastelloy

Shape

Page

Size

Part Number SNSH-C276

P.653

NW0276

M3 - M8

Socket Head Cap Screws

Characteristics Chemical Resistance Chemical Resistance

SNSH-C22

NW6022

M3 - M8

NBK

Characteristics

Nickel

Shape

Page Materials

Size

Part Number SNSN

Socket Head Cap Screws

Chemical Resistance •

Heat Resistance

M3 - M8

Aluminu	m	
	Socket Head Cap Screws	Hexalobular Socket Head Cap Screws with Low Profile
Part Number	SNSA	SETA
Shape		NEW
Page	P.658	P.609
Materials	A5056	A5056
Characteristics	Lightweight	Hexalobular Socket Extra Low Profile / Small Space
Size	M3 - M8	M3 - M6

Ceramic

	Socket Head Cap Screws	Hex Head Screws	Hex Nuts
Part Number	SCX-C	SCX-H	SCX-N
Shape	Additional Size	Additional Size	
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

Properties of Screws Made of Special Materials

Mechanical Properties

Properties	Inconel* (NCF600) SNSI	Pure Molybdenum SNSM SNFCM	(NW0276)	Hastelloy*C-22 (NW6022) SNSH-C22	(UNS N0400)	Nickel (NW2201) SNSN	Super Invar	Phosphor Bronze (C5191)	Aluminum Alloy (A5056) SNSA
Tensile Strength (N/mm²)	548 - 695	515	793	786	517 - 620	343 - 411	470	590 or Higher	294
0.2% Proof Stress (N/mm²)	205 - 352	380	400	365	172 - 345	68 - 166	333	_	245
Elongation (%)	35 - 55	15	60	57	35 - 60	40 - 60	43	8	12
Hardness	65 - 85 (HRB)	_	-	92 (HRB)	60 - 80(HRB)	75 - 100 (HB)	143 (HV)	_	98 (HB)

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

Physical Properties

Properties	Inconel* (NCF600) SNSI		,	Hastelloy*C-22 (NW6022) SNSH-C22	Monel 400 equiv. (UNS N0400) SNSMN	Nickel (NW2201) SNSN	•	Phosphor Bronze (C5191)	Aluminum Alloy (A5056) SNSA
Specific Gravity	8.42	10.2	8.89	8.61	8.80	8.89	8.15	8.83	2.64
Longitudinal Elastic Modulus (GPa)	207	327	205	209	179	206	132	105	71.7
Thermal Conductivity $(W/(m \cdot K))$	16.7	142	_	_	22	79.5	10.47	67	112
Linear Expansion Coefficient (K-1)	13.4×10 ⁻⁶	5.1×10 ⁻⁶	11.2×10 ⁻⁶	12.4×10 ⁻⁶	14.2×10 ⁻⁶ (100°C)	13.4×10 ⁻⁶	0.69×10 ⁻⁶	18×10 ⁻⁶	24.1×10 ⁻⁶
Electric Resistance $(\mu\Omega \cdot m)$	1.0	0.058	1.3	1.2	0.5	0.085	0.77	0.13	0.064

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

• Chemical Resistance of Inconel*, Hastelloy*, and Nickel Screws

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

AA: Excellent A : Good

C: Useable under certain conditions 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 Ceramic Screws

Chemical Name	Temperature	Hour	Effect
35% Hydrochloric Acid	Boiling	30 minutes	0
70% Nitric Acid	Boiling	30 minutes	0
98% Sulfuric Acid	Boiling	30 minutes	0
90% Phosphoric Acid	Boiling	30 minutes	0
60% Hydrofluoric Acid	20℃	24 hours	\triangle
10% Potassium Hydroxide	80℃	7 Days	0
Potassium Hydroxide	500°C(Boiling)	24 hours	Δ
Sodium Hydroxide	500°C(Boiling)	24 hours	0
Sodium Carbonate	900°C(Boiling)	24 hours	0
Sodium Sulfate	1000°C(Boiling)	24 hours	0
Potassium Fluoride	90°C(Boiling)	4 hours	×

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

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.

• Magnetic Flux Density of Phosphor Bronze Screws

	Phosphor Bronze	SUSXM7(S.S. grade: A2)
Magnetic Flux Density (T)	0	5×10 ⁻⁵

Measuring conditions: DC magnetic field measuring mode Probe and sample separation distance: 5 mm

Unit:mm

648

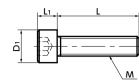
NBK

SNSMN Hex Socket Head Cap Screws (Monel 400 equiv.)

CAD Cleanroom wash & packaging Heat-resistance Chemical-proof



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Mechanical property

	UNS N04400 (Monel 400 equiv.)	SUS304
Tensile strength (N/mm²)	517 - 620	520 or above
0.2% Proof Stress (N/mm²)	172 - 345	205 or Higher
Extension (%)	35 - 60	40 or above
Hardness (HRB)	60 - 80	90 or less

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

	UNS N04400 (Monel 400 equiv.)	SUS304
Specific gravity	8.80	7.93
Longitudinal elastic modulus (GPa)	179	193
Specific heat (J/kg·K)	427	500
Electric resistivity ($\mu\Omega \cdot m$)	0.5	0.7
Heat thermal conductivity (W/($m \cdot K$))	22	17
Linear expansion coefficient (K-1)	14.2 x 10 ⁻⁶ (100°C)	17.3 x 10 ⁻⁶

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



- A nickel-copper alloy with resistance to fluorine gas and hydrofluoric acid.
- Excellent strength compared to pure nickel or
- Excellent stress corrosion cracking resistance due to chlorine ions.
- Cleanroom wash and cleanroom packing are completed. → P.807
- Application

FPD production device/Semiconductor manufacturing device/ Chemical plant/Offshore instrument

 Material/Finish RoHS2 Compliant SNSMN UNS N04400 (Monel*1 400 equiv.)

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

														Unit - mm
Part Number 1	M	L 2	l							D ₁	L1	В	Tension Rupture Load*1 (N)	Mass (g)
SNSMN-M3	М3	6	8	10	12					5.5	3	2.5	2600	0.8 - 1.1
SNSMN-M4	M4		8	10	12	16	20			7	4	3	4530	1.9 - 3
SNSMN-M5	M5			10	12	16	20	25		8.5	5	4	7340	3 - 5.4
SNSMN-M6	M6				12	16	20	25	30	10	6	5	10300	5.7 - 9.4

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

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

• Part number specification



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 ch

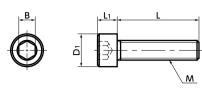
▶ https://www.nbk1560.com

SNSI Socket Head Cap Screw - Inconel equiv.

CAD Cleanroom wash & packaging Heat-resistance Chemical-proof







Mechanical property

	Inconel (NCF600)	SUS304
Tensile Strength (N/mm²)	548 - 695	520 or High
0.2% Proof Stress (N/mm²)	205 - 352	205 or High
Elongation (%)	35 - 55	40 or Highe
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 ($\mu\Omega \cdot m$)	1.0	0.7
Thermal Conductivity $(W/(m \cdot K))$	16.7	17
Linear Expansion Coefficient (K-1)	13.4×10 ⁻⁶	17.3×10

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



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- 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

Material/Firiisri	RoHS2 Compliant
	SNSI
Main Body	UNS N06600 (Inconel*1600 equiv.)

- *1: Inconel is a registered trademark of Special Metals Corporation.
- Part number specification



Part Number	M	L 2	. 1 1 1 1 1 1 1 1 1 1							D1	L1	В	Rupture Load (N)	Mass (g)	
SNSI-M3	M3	6	8	10	12	16	20				5.5	3	2.5	2750	0.77 - 1.5
SNSI-M4	M4		8	10	12	16	20	25			7	4	3	4810	1.8 - 3.4
SNSI-M5	M5			10	12	16	20	25			8.5	5	4	7780	2.9 - 5.2
SNSI-M6	M6				12	16	20	25	30		10	6	5	11000	5.5 - 9
SNSI-M8	M8					16	20	25	30	35	13	8	6	20000	13 - 21

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

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



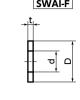
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NBK

SHNI/SWAI Hex Nuts/Washers - Inconel Selection WE CAD Cleanroom wash & packaging Heat-resistance Chemical-proof

SHNI





Mechanical property

	Inconel (NCF600)	SUS304
Tensile Strength (N/mm²)	548 - 695	520 or Higher
0.2% Proof Stress (N/mm²)	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

Physical property

SHNI Inconel Hex Nut

		Inconel (NCF600)	SUS304
Specific Gra	vity	8.42	7.93
Longitudinal	Elastic Modulus (GPa)	207	193
Specific Hea	t(J/kg·K)	444	500
Electric Resi	stance (μΩ·m)	1.0	0.7
Thermal Co	nductivity (W/(m·K))	16.7	17
Linear Expar	nsion Coefficient (K-1)	13.4×10 ⁻⁶	17.3×10 ⁻⁶

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

• 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 RoHS2 Compliant SHNI SWAI Main Body NCF600 (Inconel*1) NCF600 (Inconel*1)

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

Unit:mm

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Part Number 1	M	В	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 1	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		

• Part number specification

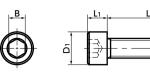
SHNI-M5

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

▶ https://www.nbk1560.com

SNSM Hex Socket Head Cap Screws - Molybdenum

CAD
Download
Cleanroom wash & packaging
Heat-resistance



Mechanical property

	Pure Molybdenum	SUS304
Tensile Strength (N/mm²)	515	520 or High
0.2% Proof Stress (N/mm²)	380	205 or High
Elongation (%)	15	40 or Highe

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

Physical property

	Pure Molybdenum	SUS304
Specific Gravity	10.2	7.93
Longitudinal Elastic Modulus (GPa)	327	193
Electric Resistance ($\mu\Omega \cdot m$)	0.058	0.7
Thermal Conductivity $(W/(m \cdot K))$	142	17
Linear Expansion Coefficient (K-1)	5.1×10 ⁻⁶	17.3×10 ⁻⁶

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



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- These screws are made of pure molybdenum.
- Melting Point: 2623 deg C. Excellent heat resistance.
- Application

Sputtering equipment and high temperature furnaces

 Material/Finish RoHS2 Compliant **SNSM** Main Body Pure Molybdenum

• Precautions for Use

Note that in an oxidizing atmosphere, sublimation will begin at 600℃ or higher.

															Unit:mm
Part Number	M	L 2	€2								D1	L1	В	Tension*1 Rupture Load (N)	Mass (g)
SNSM-M3	M3	6	8	10	12	16	20				5.5	3	2.5	2760	0.93 - 1.8
SNSM-M4	M4		8	10	12	16	20	25			7	4	3	4820	2.2 - 4.1
SNSM-M5	M5			10	12	16	20	25			8.5	5	4	7810	3.5 - 6.3
SNSM-M6	M6				12	16	20	25	30		10	6	5	11000	6.6 - 11
SNSM-M8	M8					16	20	25	30	35	13	8	6	20100	16 - 25

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

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

• Part number specification

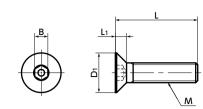


1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 📤 Vibration Resistant → P.810 📫 Modification process for captive use → P.806 1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge | Available / Add'l ch

NBK

SNFCM Hexagon Socket Countersunk Head Screw - Molybdenum CAD Sownload Cleanroom wash & packaging Heat-resistance





Mechanical property

	Pure molybdenum	SUS304
Tensile strength (N/mm²)	515	520 or above
0.2% Proof Stress (N/mm²)	380	205 or Higher
Extension (%)	15	40 or above

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

Physical property

	Pure molybdenum	SUS304
Specific gravity	10.2	7.93
Longitudinal elastic modulus (Gpa)	327	193
Electric resistivity ($\mu\Omega \cdot m$)	0.058	0.7
Heat thermal conductivity (W/($m \cdot K$))	142	17
Linear expansion coefficient (K-1)	5.1 x 10 ⁻⁶	17.3 x 10 ⁻⁶

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





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• Made of pure molybdenum.

• Melting point: 2623℃ Excellent heat resistance.

• The flat head does not protrude after tightening.

• Cleanroom wash and cleanroom packing are completed. → P.807

Application

Sputtering equipment and high temperature furnaces

 Material/Finish 	RoHS2 Complian
	SNFCM
Main body	Pure molybdenum

• Precautions for Use

Note that in an oxidizing atmosphere, sublimation will begin at 600℃ or higher.

Part Number 1	M	L 2	L 1					D ₁	L1	В	Tension Rupture Load*1 (N)	Mass (g)
SNFCM-M2	M2	5	6	8	10			4	1.2	1.3	1130	0.21 - 0.33
SNFCM-M3	M3		6	8	10	12		6	1.75	2	2760	0.69 - 1.0
SNFCM-M4	M4			8	10	12	16	8	2.3	2.5	4820	1.5 - 2.4

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

Part Number	Qty per pack
SNFCM-M2	1
SNFCM-M3	1
SNFCM-M4	1

• Part number specification



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 Cleanroom washed and packed Available / Add'l charge | Available / Add'l charge | Not Available 1 unit in 1 bag

▶ https://www.nbk1560.com

SHNM/SWAM Hex Nuts/Washers - Molybdenum

Selection CAD Cleanroom wash & packaging Heat-resistance





Mechanical property

SHNM

	Pure Molybdenum	SUS304
Tensile Strength (N/mm²)	515	520 or Higher
0.2% Proof Stress (N/mm²)	380	205 or Higher
Elongation (%)	15	40 or Higher

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

Physical property

	Pure Molybdenum	SUS304
Specific Gravity	10.2	7.93
Longitudinal Elastic Modulus (GPa)	327	193
Electric Resistance ($\mu\Omega \cdot m$)	0.058	0.7
Thermal Conductivity $(W/(m \cdot K))$	142	17
Linear Expansion Coefficient (K-1)	5.1×10 ⁻⁶	17.3×10 ⁻⁶

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



- These nuts and washers are made of pure molybdenum.
- Melting Point: 2623 deg C. Excellent heat resistance.
- Application

Sputtering equipment and high temperature furnaces

Material/Finish

• Macchaer Insti		ROH32 COMPlian
	SHNM	SWAM
Main Body	Pure Molybdenum	Pure Molybdenum

• Precautions for Use

Note that in an oxidizing atmosphere, sublimation will begin at 600℃ or higher.

SHNM Hex	Nuts - Molybo	lenum
Part Numbe	r 1 1	M

SHNM Hex Nuts - Molybdenum							
Part Number 1	M	В	Т	Mass (g)	Qty per pack		
SHNM-M3	M3	5.5	2.4	0.44	1		
SHNM-M4	M4	7	3.2	1	1		
SHNM-M5	M5	8	4	1.6	1		
SHNM-M6	M6	10	5	3.2	1		
SHNM-M8	M8	13	6.5	7.1	1		

	•					Unit : mm
Part Number 1	Nominal	d	D	t	Mass (g)	Qty per pack
SWAM-3-F	3	3.2	7	0.5	0.16	1
SWAM-4-F	4	4.3	9	0.8	0.4	1
SWAM-5-F	5	5.3	10	1	0.58	1
SWAM-6-F	6	6.4	12.5	1.6	1.5	1
SWAM-8-F	8	8.4	17	1.6	2.8	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 I	Not Available	Not Available	Not Available

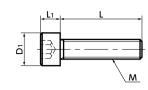
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CAD Chemical-proof

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



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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
- 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 ($\mu\Omega \cdot m$)	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,

Part Number	M 1	L 2	€2								D1	L1	В	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.

▶ https://www.nbk1560.com

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

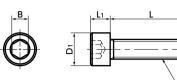
• Part number specification

SNSH	-M5	- 16	-C276
Product Code	41	2	Product Code

1 Inclividual 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 ch

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

CAD Cleanroom wash & packaging Chemical-proof



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 ($\mu\Omega$ · 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



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- 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
- Cleanroom wash and cleanroom packing are completed. → P.807

Application

Main Body

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

Material/Finish

11/ [11115]]	RoHS2 Compliant
	SNSH-C22
	UNS N06022(Hastelloy*1C-22 equiv.)

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

															Unit: mm
Part Number	M 1	L 1 2									D1	L1	В	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



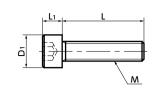
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 📤 Vibration Resistant → P.810 📫 Modification process for captive use → P.806 1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge | Available / Add'l ch

NBK

SNSN Hex Socket Head Cap Screws - Nickel CAD Cleanroom wash & packaging Heat-resistance Chemical-proof



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Mechanical property

	Nickel (NW2201)	SUS304
Tensile Strength (N/mm²)	343 - 411	520 or Higher
0.2% Proof Stress (N/mm²)	68 - 166	205 or Higher
Elongation (%)	40 - 60	40 or Higher
Hardness (HB)	75 - 100	187 or Less

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

Physical property

	Nickel (NW2201)	SUS304
Specific Gravity	8.89	7.93
Longitudinal Elastic Modulus (GPa)	206	193
Specific Heat (J/kg·K)	456	500
Electric Resistance ($\mu\Omega \cdot m$)	0.085	0.7
Thermal Conductivity(W/(m·K))	79.5	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.



- Pure nickel screws contain Ni 99.0% or more.
- Excellent corrosion resistance against alkaline liquids such as sodium hydroxide, high purity halogen gas and non-oxidizing acids.

Application

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

• Material/Finish

RoHS2 Compliant

	SNSN
Main Body	NW2201 (Ni 99.0% or more)

Part Number	M	L 2	•2								D1	L1		Tension*1 Rupture Load (N)	Mass (g)
SNSN-M3	M3	6	8	10	12	16	20				5.5	3	2.5	1720	0.81 - 1.6
SNSN-M4	M4		8	10	12	16	20	25			7	4	3	3010	1.9 - 3.6
SNSN-M5	M5			10	12	16	20	25			8.5	5	4	4870	3.1 - 5.4
SNSN-M6	M6				12	16	20	25	30		10	6	5	6890	5.8 - 9.5
SNSN-M8	M8					16	20	25	30	35	13	8	6	12500	14 - 22

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

▶ https://www.nbk1560.com

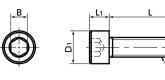
Part Number	Qty per pack
SNSN-M3	1
SNSN-M4	1
SNSN-M5	1
SNSN-M6	1
SNSN-M8	1

• Part number specification

SNSN-M5-16

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

SNSIV Hex Socket Head Cap Screws - Super Invar CAD Download Cleanroom wash & packaging



Mechanical property

	Super Invar	SUS304
Tensile Strength (N/mm²)	470	520 or Higher
0.2% Proof Stress (N/mm²)	333	205 or Higher
Elongation (%)	43	40 or Higher
Hardness (HV)	143	200 or Less

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

• Physical property

	Super Invar	SUS304
Specific Gravity	8.15	7.93
Longitudinal Elastic Modulus (GPa)	132	193
Electric Resistance ($\mu\Omega$ · m)	0.77	0.7
Thermal Conductivity(W/(m·K))	10.47	17
Linear Expansion Coefficient (K-1)	0.69×10 ⁻⁶	17.3×10 ⁻⁶

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



- Super Invar is a special alloy with an extremely low linear expansion coefficient, and its dimensions change very little due to temperature.
- For measurement and precision instruments which do not allow changes in dimensions due to thermal
- For Prevention from loosening and damage due to differences in thermal expansion.
- Linear Expansion Coefficient: 0.69×10 - 6 (K-1) (30 deg C - 100 deg C)
- Application

Precision and measurement instruments

 Material/Finish RoHS2 Compliant SNSIV Main Body Super Invar

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															Unit:mm
Part Number	M	L 42	€2							D1	L1	В	Tension*1 Rupture Load (N)	Mass (g)	
SNSIV-M3	M3	6	8	10	12	16	20				5.5	3	2.5	2360	0.74 - 1.4
SNSIV-M4	M4		8	10	12	16	20	25			7	4	3	4120	1.7 - 3.3
SNSIV-M5	M5			10	12	16	20	25			8.5	5	4	6670	2.8 - 5
SNSIV-M6	M6				12	16	20	25	30		10	6	5	9440	5.3 - 8.7
SNSIV-M8	M8					16	20	25	30	35	13	8	6	17200	13 - 20

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

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





NBK

SNSP Hex Socket Head Cap Screws - Phosphor Bronze CAD Cleanroom wash & packaging Non-Magnetic



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Mechanical property

	Phosphor Bronze (C5191)	SUS304
Tensile Strength (N/mm²)	590 or Higher	520 or Highe
Elongation (%)	8	40 or Higher

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

	Phosphor Bronze (C5191)	SUS304
Specific Gravity	8.83	7.93
Longitudinal Elastic Modulus (GPa)	105	193
Electric Resistance ($\mu\Omega$ · m)	0.13	0.7
Thermal Conductivity (W/(m·K))	67	17
Linear Expansion Coefficient (K-1)	18×10 ⁻⁶	17.3×10 ⁻⁶

- Values in chart are for reference only. They are not guaranteed
- Magnetic flux density

	Phosphor Bronze	SUSXM7 (Equivalent to SUS304)
Magnetic Flux Density (T)	0	5×10 ⁻⁵

Measuring device: 5080 Gauss (Tesla) Meter by F.W.BELL Measuring conditions: DC magnetic field measuring mode Probe and sample separation distance: 5 mm

- Non-Magnetic.
- Excellent fatigue resistance, corrosion resistance, and abrasion resistance.
- Application

FPD production equipment, semiconductor devices, and electrical and electronic equipment

 Material/Finish RoHS2 Compliant **SNSP** Main Body C5191 (Phosphor Bronze)

															Unit:mm
Part Number	M	L 《2	1						D1	L1	В	Tension*1 Rupture Load (N)	Mass (g)		
SNSP-M3	M3	6	8	10	12	16	20				5.5	3	2.5	2960	0.81 - 1.6
SNSP-M4	M4		8	10	12	16	20	25			7	4	3	5180	1.9 - 3.6
SNSP-M5	M5			10	12	16	20	25			8.5	5	4	8370	3.1 - 5.4
SNSP-M6	M6				12	16	20	25	30		10	6	5	11800	5.8 - 9.5
SNSP-M8	M8					16	20	25	30	35	13	8	6	21500	14 - 22

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

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

• Part number specification

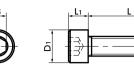
SNSP-M5-16

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807
1 unit in 1 bag	Cleanroom washed and packed Available / Add'l charge Available / Add'l charge Available / Add'l charge

▶ https://www.nbk1560.com

SNSA Hex Socket Head Cap Screws - Aluminum WEB Selection Tool Soundard CAD Cleanroom wash & packaging Lightweight





 Material/Finish RoHS2 Compliant

:	SNSA
Main Body	A5056

Mechanical property

	A5056	SUS304
Tensile Strength (N/mm²)	294	520 or Higher
0.2% Proof Stress (N/mm²)	245	205 or Higher
Elongation (%)	12	40 or Higher
Hardness (HB)	98	187 or Less

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

, , , ,		
	A5056	SUS304
Specific Gravity	2.64	7.93
Longitudinal Elastic Modulus (GPa)	71.7	193
Specific Heat (J/kg·K)	904	500
Electric Resistance (μΩ·m)	0.064	0.7
Thermal Conductivity(W/(m·K))	112	17
Linear Expansion Coefficient (K-1)	24.1×10 ⁻⁶	17.3×10 ⁻⁶

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



- These screws are made of aluminum alloy.
- Specific gravity is approximately 33% of stainless steel.
- No electrical corrosion is generated from contact with aluminum alloy.
- Excellent corrosion resistance, electroconductivity, and thermal conductivity.
- Cleanroom wash and cleanroom packing are completed. → P.807
- Also, anodized products are available. Please contact us for details.



Application

Weight saving of instruments and machines FPD production equipment and semiconductor devices

															Unit:mm
Part Number	M	L 2							D1	L1	В	Tension*1 Rupture Load (N)	Mass (g)		
SNSA-M3	M3	6	8	10	12	16	20				5.5	3	2.5	1650	0.24 - 0.46
SNSA-M4	M4		8	10	12	16	20	25			7	4	3	2890	0.56 - 1.1
SNSA-M5	M5			10	12	16	20	25			8.5	5	4	4680	0.91 - 1.6
SNSA-M6	M6				12	16	20	25	30		10	6	5	6630	1.7 - 2.8
SNSA-M8	M8					16	20	25	30	35	13	8	6	12000	4.1 - 6.4

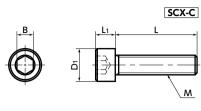
*1: Values in chart are for reference only. They are not guaranteed values.

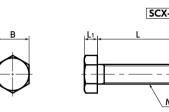
Part Number	Qty per pack
SNSA-M3	1
SNSA-M4	1
SNSA-M5	1
SNSA-M6	1
SNSA-M8	1





SCX Ceramic Bolt Additional Size Selection Tool CAD Download Heat-resistance Chemical-proof e-nedzi.com®





SCX-C Hex Socket Head Cap Screws

M

M4

M5

M6

M10

Qty per pack

Part Number 411

SCX-M3-C

SCX-M4-C

SCX-M5-C

SCX-M6-C

SCX-M8-C

SCX-M10-C

Part Number

SCX-M3-C SCX-M4-C SCX-M5-C SCX-M6-C SCX-M8-C SCX-M10-C

NBK



- Ceramic made from 99.5% high-purity alumina.
- Usable continually at 1500℃.
- Types can be selected by the end symbol of the part number.

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

 Material/Finish RoHS2 Compliant SCX-C SCX-H Main Body Al₂O₃ (99.5% Alumina) Al₂O₃ (99.5% Alumina)

3

5

8

10

8.5

10

13

16

Mass (g)

0.34 - 0.4

0.71 - 0.98

1.2 - 2

2.4 - 3.3

5.5 - 7.5

9.5 - 14

⚠ Precautions fo	r Use
144	

• 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
- 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.



SCX-H Hex Head Scr	ews													Unit:mm
Part Number	M 1	L 2									В	L ₁	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	

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



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

10

10

12

12

12

12

16

16

16

16

20

20

20

25

25

30

NBK





e-nedzi.com®

- Ceramic made from 99.5% high-purity alumina.
- Usable continually at 1500℃.
- 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	RoHS2 Complia
	SCX-N
Main Body	Al ₂ O ₃ (99.5% Alumina)

SCX-N Hex Nuts						Unit:mm
Part Number 1	M	В	Т	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

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

► https://www.nbk1560.com

The Properties of Ceramic Screws

• Physical Properties

	Al ₂ O ₃ (99.5% Alumina)
Specific Gravity	3.9 - 3.939
Flexural Strength (N/mm²)	360
Volume Resistivity ($\Omega \cdot m$)	>1012
Thermal Conductivity (W/(m·K))	32 (20℃)
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	0
70% Nitric Acid	Boiling	30 minutes	0
98% Sulfuric Acid	Boiling	30 minutes	0
90% Phosphoric Acid	Boiling	30 minutes	0
60% Hydrofluoric Acid	20℃	24 hours	Δ
10% Potassium Hydroxide	80℃	7 Days	0
Potassium Hydroxide	500℃ (Boiling)	24 hours	Δ
Sodium Hydroxide	500℃ (Boiling)	24 hours	0
Sodium Carbonate	900℃ (Boiling)	24 hours	0
Sodium Sulfate	1000℃ (Boiling)	24 hours	0
Potassium Fluoride	90°C(Boiling)	4 hours	×

 ○: No Corrosion ○: Slight Corrosion △: Moderate 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.

e-nedzi.com®

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

Chemical Resistance Screws

- core caps societied cap selens in core.					
	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	T	Revised Part number
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 Flat Head Machine Screws	Hex Nuts	Hex Lock Nuts	Washers
Part Number	SNST	SNPT	SNFT	SHNT	SWUT	SWAT
Shape					88	000
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)
	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

Inconet		
	Socket Head Cap Screws	Hex Nuts • Washers
Part Number	SNSI	SHNI / SWAI
Shape		000
Page	P.648	P.649
Materials	NCF600	NCF600
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance
Size	M3 - M8	M3 - M8

Hastello	У				
	Socket Head Cap Scr	Socket Head Cap Screws			
Part Number	SNSH-C276	SNSH-C22			
Shape					
Page	P.653	P.654			
Materials	NW0276	NW6022			
Characteristics	Chemical Resistance • Heat Resistance	Chemical Resistance • Heat Resistance			
Size	M3 - M8	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	Additional Size	Additional Size	
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		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		Îĵ		NEW	T	ĨĨ
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	Heat Resistance	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		T		
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	11	
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

NBK

Chemical Resistance of Chemical Resistance Screws

•	Chemical	Resistance	of Teflon*	Coating

Chemical Resistance	or remon	Joating
Chemical Name	Temperature (°C)	Teflon* Coating (For SNHS-HTF) and SWS-HTF)
10% Hydrochloric Acid	25 50 75	0
10% Nitric Acid	25 70	0
30% Sulfuric Acid	25 70	0
10% Sodium Hydroxide	25 70	0
10% Ammonium Hydroxide	25 70	0
Acetone	25 50	0
Carbon Tetrachloride	25 50	0
95% Ethyl Alcohol	25 50	0
Ethyl Acetate	25 50	0
Toluene	25 50	0
Benzene	78	0

O: No Corrosion

*Teflon is a registered trademark of DuPont.

• Chemical Resistance of Inconel*, Hastelloy*, and Nickel Chemical Name Temperature Inconel* Hastelloy* Nickel

O: Slight Corrosion

Chemical Name	remperature	inconet	Hastelloy	MICKEL				
Dilute Sulfuric	Room Temperature	A	AA	A				
Acid	Boiling Point	D	A	D				
Concentrate	Room Temperature	C	AA	C				
Sulfuric Acid	Boiling Point	D	D	D				
Dilute	Room Temperature	B	AA	A				
Hydrochloric Acid	Boiling Point	D	D	D				
Concentrate	Room Temperature	D	AA	D				
Hydrochloric Acid	Boiling Point	D	B	D				
Dilute Nitric Acid	Room Temperature	D	AA	D				
	Boiling Point	-	AA	D				
Concentrate	Room Temperature	A	AA	D				
Nitric Acid	Boiling Point	-	D	D				
Dilute Phosphoric	Room Temperature	AA	AA	AA				
Acid	Boiling Point	-	AA	D				
Concentrate	Room Temperature	AA	AA	AA				
Phosphoric Acid	Boiling Point	-	B	D				
Sodium Hydroxide	Room Temperature	AA	_	AA				
(Diluted)	Boiling Point	C		AA				
Sodium Hydroxide (Concentrated)	Room Temperature	AA	_	AA				
	Boiling Point	C	_	AA				
AA: Excellent C: Useable under certain conditions								

Hastelloy is a registered trademark of Haynes International, Inc.

AA : Excellent

D: Non Useable *Inconel is a registered trademark of Special Metals Corporation. • Chemical Resistance of Titanium

Chemical Name	Composition	Corrosion Res	istance
	(%)	Pure Titanium	SUS304
Hydrochloric	10	0	×
Acid	30 10	×	×
Sulfuric Acid	50	×	×
Nitric Acid	10 50	0	0
Nitrohydrochloric Acid (HCI : HNO3)	3:1	0	×
Chromic Acid	5	0	_
Hydrofluoric Acid	5	×	×
Phosphoric Acid	50 (Ventilation)	Δ	0
Ferric Chloride	10 - 30	0	×
Cupric Chloride	10 - 30	0	×
Sodium Chloride	10 - 40	0	0
Calcium Chloride	50	0	0
Ammonium Chloride	40	0	_
Magnesium Chloride	40	O	0
Ferrous Sulfate	10 - 50	0	0
Ammonia	10 - 30	0	0
Sodium Hydroxide	50	0	0
Sodium Carbonate	10	0	0
Hydrogen Sulfide	Dry Gas Wet Gas	0	0
Hydrogen Sulfide	Dry Gas Wet Gas	×	- -
Sulfur Dioxide	Dry Gas Wet Gas	0	_
Seawater	High Speed Stream	0	_
Formic Acid	10 - 50	0	0
Lactic Acid	50	0	0
Oxalic Acid	20	×	_

10 - 50 Testing Temperature: Room Temperature

Citric Acid

©:<0.127 mm/year △: 0.508 - 1.27 mm/year O: 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	0
70% Nitric Acid	Boiling	30 minutes	0
98% Sulfuric Acid	Boiling	30 minutes	0
90% Phosphoric Acid	Boiling	30 minutes	0
60% Hydrofluoric Acid	20℃	24 hours	\triangle
10% Potassium Hydroxide	80℃	7 Days	0
Potassium Hydroxide	500°C(Boiling)	24 hours	\triangle
Sodium Hydroxide	500°C(Boiling)	24 hours	0
Sodium Carbonate	900°C(Boiling)	24 hours	0
Sodium Sulfate	1000°C(Boiling)	24 hours	0
Potassium Fluoride	90°C (Boiling)	4 hours	×

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

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 Plastics

Chemical Name	PTFE	PEEK	VESPEL® SP-1	VESPEL® SCP-5000	PPS	H-PVC	RENY	PC	PP	PVDF
10% Hydrochloric Acid	0	0	0	0	0	0	×	0	0	0
10% Sulfuric Acid	0	0	0	0	0	0	×	0	0	0
50% Sulfuric Acid	0	×	×	\triangle	×	0	×	\triangle	_	0
10% Nitric Acid	0	0		Δ	0	0	×	0	0	0
50% Nitric Acid	0	×	×	×	×	\triangle	×	\triangle	_	0
10% Hydrofluoric Acid	0	-	Δ	Δ	Δ		×	0	0	0
50% Hydrofluoric Acid	0	×	×	×	×	\triangle	×	\triangle	\triangle	\triangle
Phosphoric Acid	0	0	_	-	Δ	0	×	0	0	0
Formic Acid	0	\triangle	\triangle	\triangle	0	\triangle	×	0	0	0
Phosphoric Acid	0	0	0	0	0	0	×	0	0	0
Citric Acid	0	0	0	0	0	0	\triangle	0	0	0
Chromic Acid	0	0	_	-	Δ	0	×	0	0	0
Boric Acid	0	0	0	0	0	0	\triangle	0	0	0
Methyl Alcohol	0	0	Δ	Δ	0	0	_	Δ	_	0
Glycol	0	0	0	0	0	_	_	0	_	_
Ammonia	0	0	×	Δ	0	0	0	×	0	0
10% Sodium Hydroxide	0	0	×	\triangle	0	0	0	_	0	0
10% Potassium Hydroxide	0	0	×	Δ	Δ	0	0	×	0	0
Calcium Hydroxide	0	0	_	_	\triangle	0	×	0	0	0
Water	0	0	0	0	0	0	Δ	0	0	0
Hydrogen Sulfide (Gas)	0	0	_	_	0	-	0	0	0	0
Sulfur Dioxide	0	0	_	_	Δ	-	0	0	0	_
Ammonium Nitrate	0	0	_	_	0	-	0	0	0	0
Sodium Nitrate	0	0	_	-	0	-	0	×	0	0
Calcium Carbonate	0	0	_	_	0	_	0	×	0	0
Calcium Chloride	0	0	_	_	0	0	0	0	0	0
Magnesium Chloride	0	0	_	_	0	0	0	0	0	0
Magnesium Sulfate	0	0	_	_	0	_	0	0	0	0
Zinc Sulfate	0	0	_	_	0	-	0	0	0	0
Hydrogen Peroxide	0	0	Δ	Δ	Δ	0	Δ	0	0	0

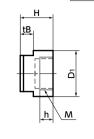
O: Usable △: Usable under certain conditions ×: Non-usable

NBK

• A test piece was used to acquire the test data at room temperature (23 °C).

► https://www.nbk1560.com

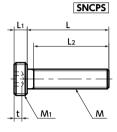
NBK



Selection West CAD SUS Stainless steel Cleanroom wash & packaging Chemical-proof

SCAP-PT





Precautions for Use Chemical resistance changes with performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.

• 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.

SCAP-PT + SNCPS

SNCPS

- 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

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

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

RoHS2 Compliant

Material/Finish

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

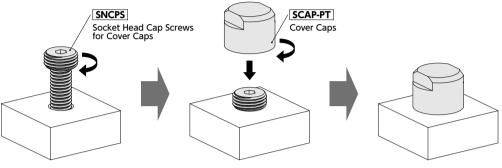
*1: Teflon is a registered trademark of DuPont.

SCAP-PT Cover Caps Unit: n												
Part Number	М	Н	D1	h	В	tB	Recommendation Torque $(N \cdot m)$	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		

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.

SCAP-CE ceramic cover cap for

use in vacuum chambers are

→ P.591

available.

→ P.591



SNCPS Socket Head Cap Screws for Cover Caps

Order SCAP-PT and SNCPS individually.

SCAP-6-PT SCAP-PT Cover Caps

• Part number specification

SNCPS Socket Head Cap Screws for Cover Caps Unit: mm																		
Part Number	M	L 4 3	3									M 1	L ₁	В	t	L2*1	SCAP-PT Part.No	Mass (g)
SNCPS-M3	М3	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

NBK

Special Screws

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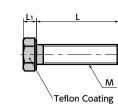
NBK

SNHS-HTF Hex Head Screws - Teflon Coating for Head CAD Stainless steel



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Precautions for Use

- Friction during tightening may remove the coating. Take care not to tighten too much. Apply the recommendation torque or lower for tightening.
- For tightening, use a socket wrench with a hexagonal socket.



- Only the screw head is coated with Teflon. This increases the chemical resistance of the screw head.
- Chemical Resistance of Teflon Coating → P.665
- To increase chemical resistance, the coating membrane is thickened (to approximately 50 μ m). The screw thread is not coated so thread precision is not affected.
- Use with **SWS-HTF** Sealing Washer Teflon Coating to prevent chemical liquids from moving from the bearing surface to the thread. → P.670
- 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
	SNHS-HTF
Main Body	SUSXM7 (Equivalent to SUS304)*2
	Teflon*1Coating (Head Only)

*1: Teflon is a registered trademark of DuPont.

*2: The baking finish during coating changes the color of the screw thread.

Ome min	Unit	:	mm	
---------	------	---	----	--

Part Number	M 1	L 1 2									L1	В	Recommendation Torque (N·m)	Mass (g)
SNHS-M3-HTF	M3	6	8	10	12	16					2	5.5	0.5	0.67 - 1.1
SNHS-M4-HTF	M4		8	10	12	16	20				2.8	7	1.1	1.6 - 2.5
SNHS-M5-HTF	M5			10	12	16	20	25			3.5	8	2.2	2.8 - 4.7
SNHS-M6-HTF	M6				12	16	20	25	30		4	10	3.8	4.9 - 8.1
SNHS-M8-HTF	M8					16	20	25	30	35	5.3	13	9.2	11 - 18

Part Number	Qty per pack
SNHS-M3-HT	1
SNHS-M4-HTF	1
SNHS-M5-HTF	1
SNHS-M6-HTF	1
SNHS-M8-HTF	1

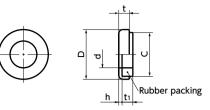
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• Part number specification

SNHS	- M5	- 20	-HTF
Product Code	41	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	Not Available





• Part numbers for **SWS-HTF** have been changed. New and old part numbers are as follows.

Old Part Number	New Part Number
SWS-3-TF	SWS-3-HTF
SWS-4-TF	SWS-4-HTF
SWS-5-TF	SWS-5-HTF
SWS-6-TF	SWS-6-HTF
SWS-8-TF	SWS-8-HTF

Precautions for Use

Part Number

SWS-3-HTF

SWS-4-HTF

SWS-5-HTF

SWS-6-HTF

SWS-8-HTF

- Friction with the screw bearing surface during tightening may remove the coating. Take care not to tighten too much.
- When combining with **SNHS-HTF**, use the recommendation torque of **SNHS-HTF** or less for tightening.

Nominal d

3.2

4.2

5.2

6.2

8.2

8

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- Sealing washers with a built-in rubber seal.
- Sealing washers prevent the leakage of gas and liquid from the bearing surface of the screw head.
- The washer body is coated with Teflon. The rubber seal is made of fluororubber, which has excellent chemical resistance.
- Chemical Resistance of Teflon Coating → P.665
- Application

0.5

0.5

0.8

9.5

11.5

15.2

2.2

2.1

2.7

3

3.2

2.2

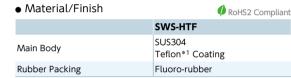
2.3

2.8

3

3.3

FPD production equipment / Semiconductor fabrication wet processes / Printed circuit board etching devices / Metallic surface treatment equipment and facilities / Cleaning equipment / Chemical plants



1.8

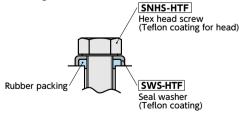
*1: Teflon is a registered trademark of DuPont.

13.4

			Unit:mm
С	Mass (g)	Qty per pack	
6.3	0.2	1	
7.2	0.2	1	
8.2	0.6	1	
9.8	1	1	

• Usage example Use with **SNHS-HTF** Hex Head Screws-Teflon Coating for Head (→ P.669) to prevent chemical liquids from moving from the bearing surface to the thread.

• Airtight test at 0.6 MPa confirmed that there is no leakage.



Related Products

SWS Sealing Washer, which is not Teflon coated is available. → P.793



• Part number specification



1 Inclividual 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

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Socket Head Cap Screws

Screws with Special Surface Treatment

	Socket Head Cap Sci	rews				
Part Number	SNSS-FC	SNSS-MO	SNSS-BK	SNSS-RY	SNSS-TF	SNSS-AUS
Shape			11	11	11	
Page	P.673	P.674	P.675	P.676	P.677	P.678
Materials	SUSXM7 Fluorine Coating	SUSXM7 Molybdenum Disulfide Coating	SUSXM7 Super Black	SUSXM7 Low Temperature Black Chrome Treatment	SUSXM7 Teflon Coating	SUSXM7 Gold Coating
Characteristics	Seizing Prevention	Seizing Prevention	Reflection Resistance · Corrosion Resistance	Chemical Resistance • Reflection Resistance Seizing Prevention	Chemical Resistance Seizing Prevention	Seizing Prevention
Size	M3 - M10	M3 - M10	M2 - M10	M3 - M10	M3 - M10	M3 - M10

	Socket Head Cap Screws	
Part Number	SNSL-PN	SNS-EL
Shape	T NEW	
Page	P.679	P.680
Materials	SUS316L Surface Hardening Treatment	SCM435 Electroless Nickel Plating
Characteristics	Seizing Prevention Peeling Prevention for Deposits	High Strength
Size	M3 - M8	M3 - M10

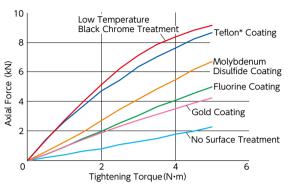
• Chemical Proof Screws

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

Properties of Screws with Special Surface Treatment

• Comparison of Axial Force by Surface Treatment

Surface Treatment	Tightening Torque (N·m)	Stress (N/mm²)	Axial Force (kN)
No Surface Treatment	5	146	2.3
Fluorine Coating SNSS-FC	5	317	5.0
Molybdenum Disulfide SNSS-MO	5	425	6.7
Low Temperature Black Chrome Treatment SNSS-RY	5	584	9.2
Teflon* Coating SNSS-TF	5	552	8.7
Gold Coating SNSS-AUS	5	273	4.3



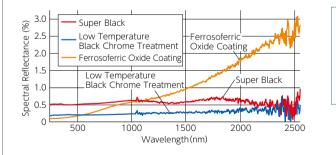
Test piece: Stainless Steel Socket Head Cap Screw M5×25 Strength Class: A2 - 70

- •Values in chart are for reference only. They are not guaranteed values.
- ●The permanent elongation 0.2% proof stress of strength class A2 - 70 is 450 N/mm2. It is recommended to use at an axial force at which stress at tightening is 70% or less of the permanent elongation 0.2% proof stress.
- *Teflon is a registered trademark of DuPont.

The main cause of seizing is frictional heat on the thread peak surface generated during tightening. The test results above confirmed that special surface treatment decreases the coefficient of friction of the thread peak surface and makes it possible to obtain higher axial force compared to untreated surfaces with the same tightening torque.

As a result, the tightening torque and frictional heat can be reduced, preventing the risk of seizing.

• Comparison of Spectral Reflectance by Surface Treatment



Low temperature black chrome treatment and super black result in extremely low spectral reflectance, which is optimal for optical instruments that require diffuse reflection prevention.

• High Performance Socket **Head Cap Screws**

	Socket Head Cap Screws with Special Low Profile
Part Number	SSHS-HB
Shape	
Page	P.590
Materials	SUSXM7 Blasting (Head Only)
Characteristics	Peeling Prevention for Deposits
Size	M3 - M6

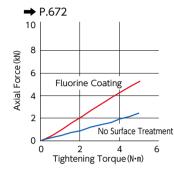
Seizing Prevention SUS Stainless steel



Unit:mm

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





- Coating with good cost performance.
- Excellent lubricating ability and suitable for seizing prevention of screws.
- Application

Seizing prevention FPD production equipment, semiconductor devices, and general industrial machines

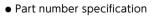
Material/Finish	RoHS2 Compliant
	SNSS-FC
Main Body	SUSXM7 (S.S. Grade : A2) Fluorine Coating
Strength Class	A2-70

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

Part Number	Qty*1 per pack
SNSS-M3-FC	10
SNSS-M4-FC	10
SNSS-M5-FC	10
SNSS-M6-FC	10
SNSS-M8-FC	10
SNSS-M10-FC	10

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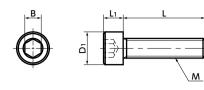
*1: Also sold separately from 1 piece up. → P.809



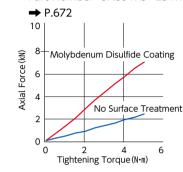


1 Individual Sales → P.809 🧩 Cleanroom Wash & Packaging → P.80	7 (m) Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge Not Available	Not Available	Not Available	Not Available





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





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- Excellent corrosion resistance and abrasion resistance.
- The coating has excellent lubricating ability and is intended to prevent seizing of screws.

Application

Seizing prevention FPD production equipment, semiconductor devices, and general industrial machines

 Material/Finish 	RoHS2 Compliant
	SNSS-MO
Main Body	SUSXM7 (Equivalent to SUS304) Molybdenum Disulfide Coating
Strength Class	A2-70

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

Part Number	Qty*1 per pack
SNSS-M3-MO	10
SNSS-M4-MO	10
SNSS-M5-MO	10
SNSS-M6-MO	10
SNSS-M8-MO	10
SNSS-M10-MO	10

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





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.805 Available / Add'l charge | Not Available Not Available Not Available

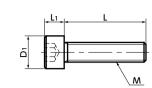
CAD Antireflection SUS Stainless steel

SNSS-BK Hex Socket Head Cap Screws - Super Black



Unit: mm

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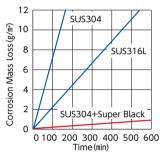
Material/Finish

Main Body

RoHS2 Compliant SNSS-BK

SUSXM7 (Equivalent to SUS304) Stainless Steel Black Strength Class A2-70

• Corrosion-resistant comparison Ferric Chloride Corrosion Testing (JIS G 0578)



This graph compares corrosion weight loss of a test piece in 6% ferric chloride solution over Comparing over the same time period, the mass loss due to corrosion of super black is much less than

that of SUS304 and SUS316L, which confirms the good corrosion resistance of super black.

• Part number specification

SNSS-M5-16-BK

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

- The stainless black surface treatment develops a passive membrane on the stainless steel surface up to 200 times of normal to produce a deep black
- Excellent corrosion resistance. 8 times more resistant compared to SUS316L and 32 times to SUS304, respectively.
- The membrane contains no impurities and has extremely low outgas even in vacuum environments.
- Spectral reflectance is 1.5% or less. For optical instruments and other applications that require antireflection. → P.672
- Deep black color decorates surfaces of equipment and devices.
- Application

Antireflection. Optical instruments, FPD production equipment, semiconductor devices, vacuum applications, and general industrial machines

																		0
Part Number	M 1	L 2													D ₁	L1	В	Mass (g)
SNSS-M2-BK	M2	3	4	5	6										3.8	2	1.5	0.16 - 0.22
SNSS-M3-BK	M3			5	6	8	10	12	16	20					5.5	3	2.5	0.67 - 1.4
SNSS-M4-BK	M4				6	8	10	12	16	20	25				7	4	3	1.5 - 3.2
SNSS-M5-BK	M5					8	10	12	16	20	25				8.5	5	4	2.5 - 4.8
SNSS-M6-BK	M6						10	12	16	20	25	30			10	6	5	4.7 - 8.3
SNSS-M8-BK	M8								16	20	25	30	35		13	8	6	12 - 19
SNSS-M10-BK	M10									20	25	30	35	40	16	10	8	23 - 33

Part Number	Qty*1 per pack				
SNSS-M2-BK	5				
SNSS-M3-BK	5				
SNSS-M4-BK	5				
SNSS-M5-BK	5				
SNSS-M6-BK	5				
SNSS-M8-BK	5				
SNSS-M10-BK	5				

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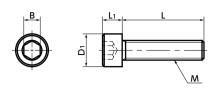
*1: Also sold separately from 1 piece up. → P.809

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

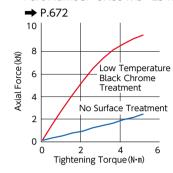
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SNSS-RY Hex Socket Head Cap Screws - Low Temperature Black Chrome

Seizing Prevention Chemical-proof Antireflection SUS Stainless steel



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



 Excellent corrosion resistance, chemical resistance. and abrasion resistance.

- Due to low outgas, screws can be used under vacuum environments.
- The coating has excellent lubricating ability and is suitable for prevention of seizing.
- Spectral reflectance is 1.5% or less. These screws are intended for optical instruments and other applications that require antireflection. → P.672
- Application

Seizing prevention and reflection resistance. Optical instruments, FPD production equipment, and semiconductor devices

Material/Finish



SNSS-RY SUSXM7 (S.S. Grade: A2) Low Temperature Black Chrome Treatment*1

Strength Class A2-70

*1: The surface treatment for **SNSS-RY** has been changed to low temperature black chrome treatment.



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

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

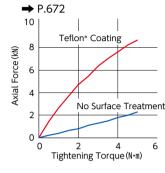


NBK

SNSS-TF

Hex Socket Head Cap Screws - Teflon Coating

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





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Unit:mm

• 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	RoHS2 Compliant
	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											D ₁	L1	В	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

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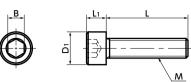
• Part number specification

		•		
SNSS	- M6	- 25	- TF	
Product Code	4 1	4 2	Product Code	

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

e-nedzi.com® **SNSS-AUS** Hex Socket Head Cap Screws - Gold Coating

CAD Stainless steel

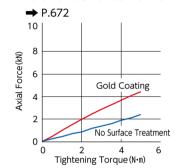


Material/Finish

RoHS2 Compliant SNSS-AUS

SUSXM7 (S.S. Grade: A2) Main Body Gold coating (gold purity: 99.99 wt%) Strength Class

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





• Excellent corrosion resistance, oxidation resistance, electroconductivity, and thermal conductivity.

• The coating has excellent lubricating ability and is suitable for prevention of seizing.

• Unlike standard gold plating, there is no surface preparation, so the screws are suitable for applications in which impure elements are controlled, such as with FPD production equipment and semiconductor devices.

• Gold purity of coating: 99.99wt%

• Also, products with special specifications such as dimensions, shapes, materials, surface treatments, and cleanroom washing & special packaging are available. → P.549



Electroless Nickel Plating

Application

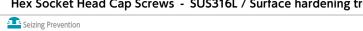
Seizing prevention and control of impure elements. FPD production equipment, Semiconductor devices

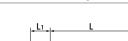
																Unit:mm
Part Number	M 1	1 L										D1	L1	В	Mass (g)	
SNSS-M3-AUS	M3	5	6	8	10	12	16	20					5.5	3	2.5	0.67 - 1.4
SNSS-M4-AUS	M4		6	8	10	12	16	20	25				7	4	3	1.5 - 3.2
SNSS-M5-AUS	M5			8	10	12	16	20	25				8.5	5	4	2.5 - 4.8
SNSS-M6-AUS	M6				10	12	16	20	25	30			10	6	5	4.7 - 8.3
SNSS-M8-AUS	M8						16	20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

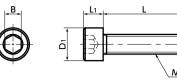


1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	" Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Cleanroom washed and packed	Not Available	Not Available	Not Available

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







Precautions for Use

May have lower corrosion resistance than general

We recommend performing a test under the same usage conditions as in actual usage in advance.



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

Application

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

 Material/Finish 	RoHS2 Compliant
	SNSL-PN
Main body	SUS316L Surface hardening treatment
Strength Class	A4-70

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

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

▶ https://www.nbk1560.com

• Part number specification

SNSL	- M5	- 16	-PN
Product Code	41	2	Product Code

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

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

CAD High strength



e-nedzi.com®



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

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

Material/Finish	RoHS2 Compliant
	SNS-EL
Main Body	SCM435 Electroless Nickel Plating
Strength Class	12.9

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

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

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

• Part number specification



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

NBK

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• Miniature Screws

Miniature Screws

	Socket Head Cap Screws	Flat Head Machine Screws	Pan Head Machine So	an Head Machine Screws						
Part Number	SNS / SNSS	SNZF / SNZFS	SNZS	SNZ	SNTS					
Shape		Î			NEW					
Page	P.682	P.683	P.684	P.685	P.699	P.686				
Materials	SCM435 SUSXM7	SWCH16A SUSXM7	SUSXM7	SWCH16A	SUSXM7	SUS303 SUSXM7				
Characteristics	For Precision Instruments Socket Head Cap Screws	For Precision Instruments Cross Recessed Flat Head Machine Screws	For Precision Instruments Pan Head Machine Screws	For Precision Instruments Pan Head Machine Screws	Pan Head Machine Screws for Precision Instruments	For Precision Instruments Set Screws				
Size	M1 - M2.5	M1.4 - M2.6	S0.6 - M2.6	M1.4 - M2.6	M1.4 - M2.6	M1 - M2.6				

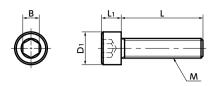
	Hex Head Screws	Plastic screws			
Part Number	SHNS	SPE-MC	SPE-MF	SPA-MC	SPA-MF
Shape		Additional Size	NEW	Additional Size	NEW
Page	P.687	P.747	P.748	P.763	P.764
Materials	SUS303 Equivalent to SUS304	PEEK	PEEK	RENY	RENY
Characteristics	For precision equipment Hexagon Nut	Heat Resistance Chemical Resistance For Precision Instruments	Chemical-proof Heat-resistant For precision equipment	High Strength For Precision Instruments	High strength For precision equipment
Size	M1 - M2.6	M1.2 - M1.6	M1.2 - M1.6	M1.2 - M1.6	M1.2 - M1.6

Tools

	nex keys
Part Number	SKH
Shape	
Page	P.688
Materials	Alloyed Steel
Characteristics	For precision equipment Hexagon Wrench
Size	M1 - M2.6

SNS/SNSS Hex Socket Head Cap Screws for Precision Instruments

Selection Tool Openhood O Miniature Size SUS Stainless steel



• Part number specification



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



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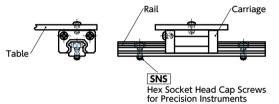
• M1 - M2.5. Miniature screws for precision instruments.

Application

Reducing the size of equipment and devices Compact precision instruments

$\bullet \ Material/Finish$		RoHS2 Complian
	SNS	SNSS
Main Body	SCM435 Ferrosoferric Oxide Coating (Black)	SUSXM7 (Equivalent to SUS304

 Usage example For fixing miniature linear guideway rails and tables.



														Unit:mm
SNS Steel - Ferrosoferric Oxide Coating		SNSS Stainless steel		Common dimensions										
Part Number 📶	Max. Torque (N·m)	Part Number 1	Max. Torque (N·m)	M	M L 2				D1	L1	В	Mass (g)		
		SNSS-M1	0.02	M1	2	3	4	5			2	1	0.9	0.025 - 0.039
		SNSS-M1.4	0.07	M1.4	2	3	4	5			2.6	1.4	1.3	0.062 - 0.085
SNS-M1.6	0.25	SNSS-M1.6	0.1	M1.6		3	4	5	6		3	1.6	1.5	0.09 - 0.12
SNS-M2	0.53	SNSS-M2	0.22	M2		3	4	5	6		3.8	2	1.5	0.16 - 0.22
SNS-M2.5	1.12	SNSS-M2.5	0.46	M2.5			4	5	6	8	4.5	2.5	2	0.35 - 0.47

SNS Steel - Ferrosoferric Oxide Coating

art Number	Qty per pack*1
NS-M1.6	10
NS-M2	10
NS-M2.5	10

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

SNSS Made of Stainless Steel

NBK

Part Number	Qty per pack*1
SNSS-M1	10
SNSS-M1.4	10
SNSS-M1.6	10
SNSS-M2	10
SNSS-M2.5	10

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



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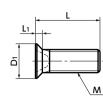
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CAD Q Miniature Size SUS Stainless steel

SNZF/SNZFS Cross Recessed Flat Head Machine Screws for Precision Instruments Additional State St







• Part number specification

SNZFS-M1.7	-	3
41		■ 2

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



- Miniature screws for precision instruments.(JCIS 10 - 70)
- M1.4 M2.6。
- More compact head than standard flat head machine screws.
- Application

Reducing the size of equipment and devices Compact precision instruments

Mate	RoHS2 Complian	
	SNZF-TBZ	SNZFS
Main	SWCH16A	SUSXM7
Body	Black Trivalent Chromate Treatment	(Equivalent to SUS304

												U		
SNZF-TBZ Steel - Black Trivalent Chromate	e Treatment	SNZFS Stainless steel			Common dimensions									
Part Number 1	Mass (g)	Part Number 📶	Mass (g)	M	M L 🔁								L ₁	
SNZF-M1.4-TBZ	0.016 - 0.066	SNZFS-M1.4	0.016 - 0.066	M1.4	2	3	4	5	6	8		2	0.45	
		SNZFS-M1.6	0.033 - 0.11	M1.6		3	4	5	6	8	10	2.3	0.5	
SNZF-M1.7-TBZ	0.027 - 0.13	SNZFS-M1.7	0.04 - 0.13	M1.7	2	3	4	5	6	8	10	2.5	0.5	
SNZF-M2-TBZ	0.038 - 0.18	SNZFS-M2	0.056 - 0.18	M2	2	3	4	5	6	8	10	3	0.6	
SNZF-M2.6-TBZ	0.1 - 0.27	SNZFS-M2.6	0.1 - 0.27	M2.6		3	4	5	6	8		4	0.8	

*1: **SNZF-TBZ** Steel - Black Trivalent Chromate Treatment only is a standard product.

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SNZF-TBZ Made of Steel · Black Trivalent Chromate Treatment

Part Number	Qty per pack*1
SNZF-M1.4-TBZ	50
SNZF-M1.7-TBZ	50
SNZF-M2-TBZ	50
SNZF-M2.6-TBZ	50

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

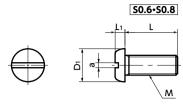
SNZFS Made of Stainless Steel

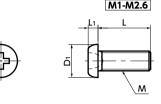
Part Number	Qty per pack*1					
SNZFS-M1.4	50					
SNZFS-M1.6	50					
SNZFS-M1.7	50					
SNZFS-M2	50					
SNZFS-M2.6	50					

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



SNZS Pan Head Machine Screws for Precision Instruments Additional Size Selection Tool Open CAD Open Miniature Size SUS Stainless steel







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- Miniature screws for precision instruments in sizes from S0.6 to S0.8 and M1 to M2.6.
- Pan head machine screws of low profile. For applications with limited overhead space.
- Application

Reducing the size of equipment and devices Compact precision instruments

 Material/Finish RoHS2 Compliant SNZS SUSXM7 Main Body (Equivalent to SUS304)

• Part number specification



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

Part Number	M	L 1 2	€2											D1	L1	а	Max. Torque (N·m)	Mass (g)	
SNZS-S0.6	M0.6	1	1.5	2											1.3	0.4	0.25	0.005	0.0031 - 0.0058
SNZS-S0.8	M0.8	1	1.5	2											1.6	0.5	0.25	0.01	0.0067 - 0.011
SNZS-M1	M1			2		3		4	5						1.8	0.45		0.02	0.013 - 0.025
SNZS-M1.4	M1.4			2		3		4	5	6	8	10			2	0.5		0.07	0.024 - 0.09
SNZS-M1.6	M1.6			2		3		4	5	6	8	10	12		2.3	0.5		0.1	0.014 - 0.13
SNZS-M1.7	M1.7			2		3		4	5	6	8	10	12	14	2.5	0.5		0.14	0.036 - 0.18
SNZS-M2	M2			2	2.5	3	3.5	4	5	6	8	10	12	14	3	0.6		0.22	0.055 - 0.26
SNZS-M2.5	M2.5					3		4	5	6	8				3.8	8.0		0.46	0.13 - 0.28
SNZS-M2.6	M2.6				2.5	3		4	5	6	8				4	8.0		0.53	0.13 - 0.3

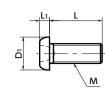
Part Number	Qty per pack*1
SNZS-S0.6	10
SNZS-S0.8	10
SNZS-M1	50
SNZS-M1.4	50
SNZS-M1.6	50
SNZS-M1.7	50
SNZS-M2	50
SNZS-M2.5	50
SNZS-M2.6	50

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

NBK









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- Miniature screws for precision instruments in sizes from M1.4 to M2.6.
- Pan head machine screws of low profile. For applications with limited overhead space.
- Application

Reducing the size of equipment and devices Compact precision instruments

 Material/Finish RoHS2 Compliant SNZ SWCH16A Main Body Black Trivalent Chromate Treatment

													011101111111
Part Number	M 1	L 2							D1	L1	Max. Torque (N·m)	Mass (g)	
SNZ-M1.4-TBZ	M1.4	2		3		4	5	6	8	2	0.5	0.07	0.022 - 0.073
SNZ-M1.7-TBZ	M1.7	2		3		4	5	6	8	2.5	0.5	0.14	0.036 - 0.11
SNZ-M2-TBZ	M2	2	2.5	3	3.5	4	5	6	8	3	0.6	0.22	0.054 - 0.16
SNZ-M2.6-TBZ	M2.6			3		4	5	6	8	4	0.8	0.53	0.14 - 0.3

Part Number	Qty per pack*1
SNZ-M1.4-TBZ	50
SNZ-M1.7-TBZ	50
SNZ-M2-TBZ	50
SNZ-M2.6-TBZ	50

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

• Part number specification



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

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SNTS Set Screws for Precision Instruments Selection Tool CAD Miniature Size SUS Stainless steel

M1-M1.6





- Miniature screws for precision instruments in sizes from M1 to M2.6.
- Set screws with flat point.
- Application

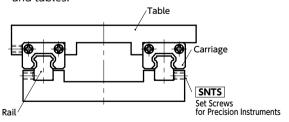
Reducing the size of equipment and devices Compact precision instruments

 Material 	/Finish	RoHS2 Compliant
	M1-M1.6	M2-M2.6
Main Body	SUS303	SUSXM7 (Equivalent to SUS304)

Part Number	M 1	L 12				a	t	В	Max. Torque (N • m)	Mass (g)
SNTS-M1-FP	M1	3	3 4 5 6			0.35	0.35		0.003	0.012 - 0.023
SNTS-M1.4-FP	M1.4	3	4	5	6	0.4	0.45		0.02	0.022 - 0.049
SNTS-M1.6-FP	M1.6	3	3 4 5		6	0.4	0.5		0.03	0.029 - 0.062
SNTS-M2-FP	M2	3	4	5	6			0.9	0.2	0.041 - 0.092
SNTS-M2.5-FP	M2.5		4	5	6			1.3	0.4	0.055 - 0.13
SNTS-M2.6-FP	M2.6		4	5				1.3	0.4	0.094 - 0.13

Part Number	Qty per pack*1
SNTS-M1-FP	10
SNTS-M1.4-FP	10
SNTS-M1.6-FP	10
SNTS-M2-FP	10
SNTS-M2.5-FP	10
SNTS-M2.6-FP	10

- *1: Also sold separately from 1 piece up. → P.809
- Usage example To locate and fix miniature linear guideway rails and tables.







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 P.810 Output Description P.810 Output Description Descri	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SHNS Hexagon Nut (For Miniature Screws) CAD Download Miniature Size SUS Stainless steel







- Dedicated hexagon nut for miniature screws
- Available size includes M1 to M2.6.
- Conforms to DIN 934.

 Material/Finish 		
	M1	I

					Unit: mm
Part Number 1	M	В	Т	Mass (g)	Qty per pack*1
SHNS-M1	1	2.5	0.8	0.03	10
SHNS-M1.4	1.4	3	1.2	0.06	10
SHNS-M1.6	1.6	3.2	1.3	0.08	20
SHNS-M2	2	4	1.6	0.14	20
SHNS-M2.5	2.5	5	2	0.28	20
SHNS-M2.6	2.6	5	2	0.28	20

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



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Application

Reducing the size of equipment and devices Compact precision instruments

Material/Finish		RoHS2 Complia
	M1	M1.4-M2.6
Main body	SUS303	Equivalent to SUS30

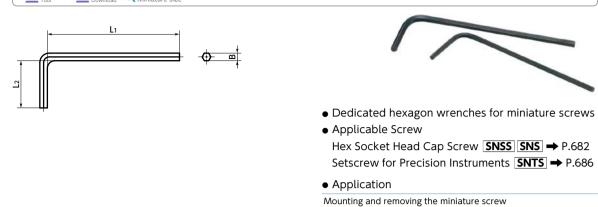
art	number	specification	

SHNS-M1.6

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

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 Material/Finish 	RoHS2 Compli
	SKH
Main hody	Alloy steel Ferrosoferric Oxide Film (Black)

								Unit : m
				Applicable Screw				Qty
Part Number 1	B Nominal of Key	L1	L ₂	SNS SNSS → P.682		SNTS → P.686	Mass (g)	per pack
SKH-0.89	0.89	31	9		SNSS-M1	SNTS-M2-FP	0.21	1
SKH-1.27	1.27	42	13.5		SNSS-M1.4	SNTS-M2.5-FP • SNTS-M2.6-FP	0.6	1
SKH-1.5	1.5	45	14	SNS-M1.6 • SNS-M2	SNSS-M1.6 • SNSS-M2		0.9	1
SKH-2	2	50	16	SNS-M2.5	SNSS-M2.5		1.8	1
SKH-2.5	2.5	56	18				3.1	1
SKH-3	3	63	20				5.1	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	Not Available	Not Available	Not Available	Not Available

• Captive Screws • Captive Washers

	Socket Head Cap Ca	ptive Screws		Hex Head Captive Screws	Button Head Cap Captive Screws	
Part Number	SSC	SSC (INCH)	SSCLS	SSCHS	SSC-SNHS	SSC-SRBS
Shape			Î			
Page	P.691	P.692	P.697	P.698	P.693	P.694
Materials	SUSXM7	SUS304	SUSXM7	SUSXM7	SUSXM7	SUSXM7
Characteristics	Standard	Inch Screws	Low Profile Cap Screws	Special Low Profile Cap Screws	Hex Head Screws	Tamper-Resistance Screws
Size	M3 - M8	M3 - M8	M3 - M8	M3 - M8	M3 - M8	M3 - M8

	Cross Recessed Mac	Pan Head Machine Screws	
Part Number	SSCPS	SSCMS	SSCZS
Shape		Î	NEW
Page	P.695	P.696	P.699
Materials	SUSXM7	SUSXM7	SUSXM7
Characteristics	Pan Head Machine Screws	Truss Head Screws	Pan Head Machine Screws for Precision Instruments
Size	M3 - M8	M3 - M8	M1.4 - M2.6

Captive Screws/Full Thread Screws

• Full Thread Screws

	Socket Head Cap Screws	Socket Head Cap Screws with Special Low Profile	Plastic Screws
Part Number	SNSS-FT	SSHS-FT	SPE-FT
Shape			ÎÎ
Page	P.700	P.603	P.745
Materials	SUSXM7	SUS304	PEEK
Characteristics	Standard	Special Low Profile Cap Screws	Chemical Resistance Low Outgas
Size	M3 - M10	M3 - M10	M3 - M6

Use the NBK Captive Screw Series to comply with CE marking requirements*.

EU Machinery Directive Appendix I of the Machinery Directive (2006/42/EC) of the EC Directives requires that screws that secure protective and inspection covers on instruments and machines do not fall out from the cover when the cover is removed.

Excerpt from EU Machinery Directive Appendix I

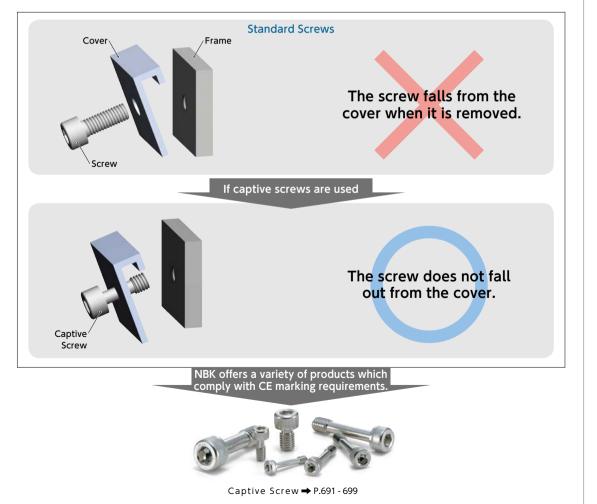
1.4.2 Special requirements for guards

1.4.2.1 Fixed guards

Fixed guards must be fixed by systems that can be opened or removed only with tools. Their fixing systems must remain attached to the guards or to the machinery when the guards are removed.

Where possible, guards must be incapable of remaining in place without their fixings.

- (f) 'Guard' means a part of the machinery used specifically to provide protection by means of a physical
- *CE marking proves that the machines, devices, and other products of manufacturers comply with EC directives. Products exported or distributed in EC member states must comply with EC directives. In order to distribute products in EU member states, products must have CE marking, which proves that they comply with EC directives.

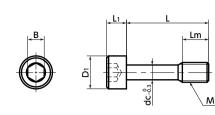


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SSC Socket Head Cap Captive Screws CAD SUS Stainless steel



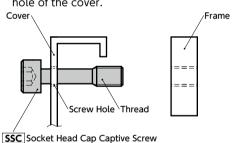
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 Material/Finish RoHS2 Compliant SSC SUSXM7 Main Body (Equivalent to SUS304) Strength Class A2-70

Precautions for Use

- Screw hole inner diameter on the cover side shall be at least the dc dimension.
- The cover thickness should be 0.8 mm or above.
- Installation example Process a screw hole in the cover, then pass **SSC** thread through it. Even when the screw is removed from the frame, **SSC** does not fall out from the cover because **SSC** thread catches on the screw hole of the cover.



- The shape of the screws prevent them from falling out and loss. For fixing protective and inspection covers that are frequently installed and removed.
- Socket head cap screw type.
- These items comply with CE marking requirements. → P.690
- Also, captive screws with special specifications for dimensions, shapes, materials, and surface treatments are available.



Application

Securement of protective and inspection covers and compliance with CE marked products Machine tools, food industry machines, and electrical and electronic equipment

Unit	٠	m

Part Number 1	M	L 12									Lm	D ₁	L1	В	dc	Mass (g)
SSC-M3	M3	8	10	12	16						4	5.5	3	2.5	2.2	0.8 - 1.2
SSC-M4	M4		10	12	16	20					5	7	4	3	3	1.8 - 2.7
SSC-M5	M5			12	16	20	25				6	8.5	5	4	3.9	3 - 4.8
SSC-M6	M6			12	16	20	25	30			8	10	6	5	4.5	5.1 - 8.3
SSC-M8	M8				16	20	25	30	35	40	10	13	8	6	6.3	12 - 21

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

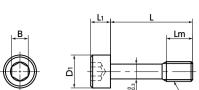
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NBK

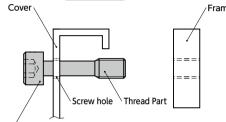
• Part number specification

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	with Captive Processing

SSC (INCH) Socket Head Cap Captive Screws (Inch Screws) WEB Selection Tool Download SUS Stainless steel



 Installation example Machine a screw hole on the cover and let through the threaded part of **SSC(INCH)**. Threaded part of **SSC(INCH)** is still engaged with the screw hole on the cover even after the screw is removed from the frame, so **SSC(INCH)** never fall out of the cover.



SSC(INCH) Socket Head Cap Captive Screw (Inch Screws)

• Part number specification





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- It prevents fall-off and loss of the screw. For fixing of protection cover and cover for inspection that are frequently mounted and removed.
- Inch screw type.
- For CE marking. → P.690
- Use a dedicated wrench **SKH(INCH)** for mounting and removal. → P.712
- We also produce captive screws of special specifications, e.g. dimensions, shapes, materials and surface treatment. Please feel free to contact our customer service.



Application

Fixing of protection cover and cover for inspection / CE marking Machine tool / Food machinery / and Electronic device

Material/Finish	RoHS2 Compliant
	SSC (INCH)
Main body	Equivalent to SUS304
Strength Class	A2-50



- Screw hole inner diameter on the cover side shall be at least the dc dimension.
- The cover thickness should be 0.8 mm or above.

1	nit	inch	

Part Number	# Nominal of Thread	L 🐠	1							Lm(mm)	D ₁	L1	В	dc(mm)	Mass (g)
SSC-#4-40	No.4-40UNC	5/16	3/8	1/2	5/8					4	0.183	0.112	3/32	1.9	0.63 - 0.94
SSC-#6-32	No.6-32UNC		3/8	1/2	5/8	3/4				5	0.226	0.138	7/64	2.4	1.2 - 1.7
SSC-#8-32	No.8-32UNC		3/8	1/2	5/8	3/4				5	0.27	0.164	%4	3	1.8 - 2.7
SSC-#10-32	No.10-32UNF		3/8	1/2	5/8	3/4	7/8			6	0.312	0.19	5/32	3.7	2.7 - 4.2
SSC-1/4-20	1/4-20UNC				5/8	3/4	7/8	1	1 1/4	9	0.375	0.25	3/16	4.6	6.2 - 9.3

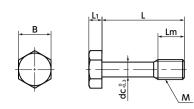
Part Number	Qty per pack
SSC-#4-40	1
SSC-#6-32	1
SSC-#8-32	1
SSC-#10-32	1
SSC-1/4-20	1

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	Available / Add'l charge	Not Available	Not Available	with Captive Processing

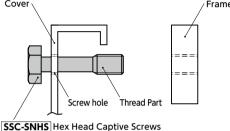
NBK



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 Installation example Machine a screw hole on the cover and let through the threaded part of **SSC-SNHS**. Threaded part of **SSC-SNHS** is still engaged with the screw hole on the cover even after the screw is removed from the frame, so **SSC-SNHS** never fall out of the cover.



• Part number specification

SSC-SNHS-M6-12



• It prevents fall-off and loss of the screw. For fixing of protection cover and cover for inspection that are frequently mounted and removed.

- Hex head bolt type.
- For CE marking. → P.690
- We also produce captive screws of special specifications, e.g. dimensions, shapes, materials and surface treatment. Please feel free to contact our customer service.



Application

Fixing of protection cover and cover for inspection / CE marking Machine tool / Food machinery / and Electronic device

 Material/Finish 	RoHS2 Compliant
	SSC-SNHS
Main body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

Precautions for Use

- Screw hole inner diameter on the cover side shall be at least the dc dimension.
- The cover thickness should be 0.8 mm or above.

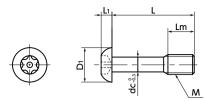
															Unit:mm
Part Number 📶	M	L 2									Lm	В	L1	dc	Mass (g)
SSC-SNHS-M3	M3	8	10	12	16						4	5.5	2	2.2	0.8 - 1.1
SSC-SNHS-M4	M4		10	12	16	20					5	7	2.8	3	1.7 - 2.5
SSC-SNHS-M5	M5			12	16	20	25				6	8	3.5	3.9	3 - 4.7
SSC-SNHS-M6	M6			12	16	20	25	30			8	10	4	4.5	4.9 - 8.1
SSC-SNHS-M8	M8				16	20	25	30	35	40	10	13	5.5	6.3	11 - 20

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



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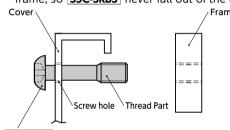
SSC-SRBS Captive Button Head Cap Bolts with Hexalobular Socket (with Pin) CAD Download Tamper Resistance SUS Stainless steel



Precautions for Use

- Screw hole inner diameter on the cover side shall be at least the dc dimension.
- The cover thickness should be 0.8 mm or above.
- Installation example Machine a screw hole on the cover and let through

the threaded part of **SSC-SRBS**. Threaded part of **SSC-SRBS** is still engaged with the screw hole on the cover even after the screw is removed from the frame, so **SSC-SRBS** never fall out of the cover.



SSC-SRBS Captive Button Head Cap Bolt with Hexalobular Socket (with Pin)

• Part number specification



NBK



- It prevents fall-off and loss of the screw. For fixing of protection cover and cover for inspection that are frequently mounted and removed.
- Tamper-resistance screw type.
- For CE marking. → P.690
- Use a dedicated tool **SRX** → P.718 for mounting and removal.
- We also produce captive screws of special specifications, e.g. dimensions, shapes, materials and surface treatment. Please feel free to contact our customer service.



Application

Fixing of protection cover and cover for inspection / CE marking Machine tool / Food machinery / and Electronic device

Material/Finish	RoHS2 Compliant
	SSC-SRBS
Main body	SUS304
Strength Class	Equivalent to A2-50

Part Number 1	M	L 2	•2					Lm	D1	L1	dc	Applicable wrench	Hexalobular Socket No.	Mass (g)		
SSC-SRBS-M3	M3	8	10	12	16					4	5.7	1.65	2.2	SRX-10	10	0.57 - 0.93
SSC-SRBS-M4	M4		10	12	16	20				5	7.6	2.2	3	SRX-20	20	1.4 - 2.2
SSC-SRBS-M5	M5			12	16	20	25			6	9.5	2.75	3.9	SRX-25	25	2.3 - 4.1
SSC-SRBS-M6	M6			12	16	20	25	30		8	10.5	3.3	4.5	SRX-30	30	3.6 - 6.9
SSC-SRBS-M8	M8				16	20	25	30	40	10	14	4.4	6.3	SRX-40	40	9.1 - 18

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

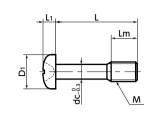
▶ https://www.nbk1560.com

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	with Captive Processing

NBK

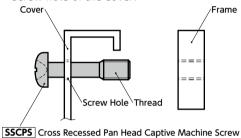
SSCPS Cross Recessed Pan Head Captive Machine Screws

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SUS Stainless steel

 Installation example Make a screw hole in the cover, then pass **SSCPS** thread through it. Even when the screw is removed from the frame, **SSCPS** does not fall out from the cover because **SSCPS** thread catches on the screw hole of the cover.





- The shape of the screws prevent them from falling out and loss. They are intended to fix protective and inspection covers that are frequently installed and removed.
- Cross Recessed pan head machine screws.
- These items comply with CE marking requirements. → P.690
- Application

Securement of protective and inspection covers and compliance with CE marked products.

Machine tools, food industry machines, and electrical and electronic equipment

 Material/Finish 	RoHS2 Complian
	SSCPS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

Precautions for Use

- The inner diameter of the screw hole of the cover must be equal or larger than dimension dc.
- The thickness of the cover must be 0.8 mm or more.

															OIIIL - IIIIII
Part Number 📶	M	L 2									Lm	D1	L1	dc	Mass (g)
SSCPS-M3	M3	8	10	12	16						4	5.5	2	2.2	0.61 - 0.94
SSCPS-M4	M4		10	12	16	20					5	7	2.6	3	1.3 - 2.1
SSCPS-M5	M5			12	16	20	25				6	9	3.3	3.9	2.7 - 4.2
SSCPS-M6	M6			12	16	20	25	30			8	10.5	3.9	4.6	4.3 - 7.4
SSCPS-M8	M8				16	20	25	30	35	40	10	14	5.2	6.3	10 - 18

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

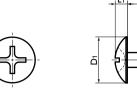
▶ https://www.nbk1560.com

• Part number specification

SSCPS-M6-	12
41	₹ 2

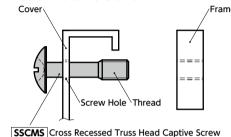
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment -> P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Available / Add'l charge	Not Available	Not Available	with Captive Processing

SSCMS Cross Recessed Truss Head Captive Screws Selection WE CAD SUS Stainless steel



Installation example

Make a screw hole in the cover, then pass **SSCMS** thread through it. Even when the screw is removed from the frame, **SSCMS** does not fall out from the cover because **SSCMS** thread catches on the screw hole of the cover.





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- The shape of the screws prevent them from falling out and loss. They are intended to fix protective and inspection covers that are frequently installed and removed.
- These screws have large heads that decorate attachment surfaces beautifully.
- These items comply with CE marking requirements. → P.690
- Application

Securement of protective and inspection covers and compliance with CE marked products

Machine tools, food industry machines, and electrical and electronic equipment

 Material/Finish 	RoHS2 Compliant
	SSCMS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

Precautions for Use

- The inner diameter of the screw hole of the cover must be equal or larger than dimension dc.
- The thickness of the cover must be 0.8 mm or more. Unit: mm

														0
Part Number	М	L 2								Lm	D1	L1	dc	Mass (g)
SSCMS-M3	M3	8	10	12	16					4	6.9	1.9	2.2	0.61 - 0.94
SSCMS-M4	M4		10	12	16	20				5	9.4	2.5	3	1.4 - 2.2
SSCMS-M5	M5			12	16	20	25			6	11.8	3.1	3.9	3.1 - 4.7
SSCMS-M6	M6			12	16	20	25	30		8	14	3.7	4.6	4.4 - 7.5
SSCMS-M8	M8				16	20	25	30	40	10	17.8	4.8	6.3	10 - 18

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

• Part number specification



Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
I unit in 1 bag	Available / Add'l charge	Not Available	Not Available	with Captive Processing

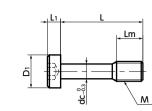
NBK

SSCLS Socket Head Cap Captive Screws with Low Profile

Protrusion SUS Stainless steel



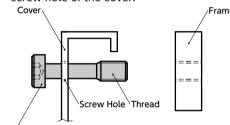
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Precautions for Use

- The inner diameter of the screw hole of the cover must be equal or larger than dimension dc.
- The thickness of the cover must be 0.8 mm or more.
- Installation example

Make a screw hole in the cover, then pass **SSCLS** thread through it. Even when the screw is removed from the frame, **SSCLS** does not fall out from the cover because **SSCLS** thread catches on the screw hole of the cover.



SSCLS Socket Head Cap Captive Screw with Low Profile



- The shape of the screws prevent them from falling out and loss. They are intended to fix protective and inspection covers that are frequently installed and removed.
- These screws are intended for the reduction of the size of machinery and device and applications with limited overhead space.
- These items comply with CE marking requirements.

Application

Securement of protective and inspection covers and compliance with CE marked products

Machine tools, food industry machines, and electrical and electronic equipment

 Material/Finish 	RoHS2 Complian
	SSCLS
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

																Unit - mm
Part Number	M	L 1	2									D1	L1	В	dc	Mass (g)
SSCLS-M3	M3	8	10	12	16						4	5.5	2	2	2.2	0.62 - 0.98
SSCLS-M4	M4		10	12	16	20					5	7	2.8	2.5	3	1.4 - 2.3
SSCLS-M5	M5			12	16	20	25				6	8.5	3.5	3	3.9	2.3 - 4.1
SSCLS-M6	M6			12	16	20	25	30			8	10	4	4	4.5	3.8 - 7.1
SSCLS-M8	M8				16	20	25	30	35	40	10	13	5	5	6.3	9 - 18

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

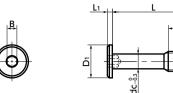
• Part number specification



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	with Captive Processing

SSCHS Socket Head Cap Captive Screws with Special Low Profile

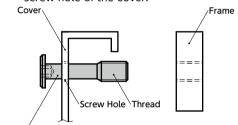
Selection Tool Protrusion SUS Stainless steel



Precautions for Use

- The inner diameter of the screw hole of the cover must be equal or larger than dimension dc.
- The thickness of the cover must be 0.8 mm or more.
- Installation example

Make a screw hole in the cover, then pass **SSCHS** thread through it. Even when the screw is removed from the frame, **SSCHS** does not fall out from the cover because **SSCHS** thread catches on the screw hole of the cover.



SSCHS Socket Head Cap Captive Screw with Special Low Profile

• The shape of the screws prevent them from falling out and loss. They are intended to fix protective

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- and inspection covers that are frequently installed and removed.
- These screws are intended for the reduction of the size of machinery and device and applications with limited overhead space.
- These items comply with CE marking requirements. → P.690

Application

Securement of protective and inspection covers and compliance with CE marked products

Machine tools, food industry machines, and electrical and electronic equipment

Material/Finish RoHS2 Compliant SSCHS SUSXM7

Main Body (Equivalent to SUS304) Strength Class A2-40

														Unit: mm
Part Number	M	L 2							Lm	D1	L1	В	dc	Mass (g)
SSCHS-M3	M3	8	10	12					4	6	1.3	1.5	2.2	0.53 - 0.69
SSCHS-M4	M4		10	12	16				5	8	1.5	2	3	1.2 - 1.6
SSCHS-M5	M5			12	16	20			6	9	1.5	3	3.9	1.5 - 2.5
SSCHS-M6	M6			12	16	20	25	30	8	10	1.5	3	4.5	2.3 - 5.5
SSCHS-M8	M8				16	20	25	30	10	13	1.5	4	6.3	5.4 - 10

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

• Part number specification



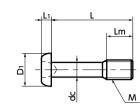
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Available / Add'l charge	Not Available	Not Available	with Captive Processing

Selection WE CAD Protrusion Miniature Size SUS Stainless steel

SSCZS Pan head captive machine screws for precision instruments (miniature screws)

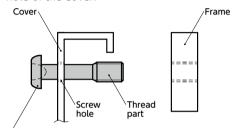






Installation example

Make a screw hole in the cover, then pass **SSCZS** thread through it. Even when the screw is removed from the frame, **SSCZS** does not fall out from the cover because **SSCZS** thread catches on the screw hole of the cover.



SSCZS Pan head captive machine screws for precision instruments

• Precautions for Use

- Screw hole inner diameter on the cover side shall be at least the dc dimension.
- The cover thickness should be 0.3 mm or above.

	4
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- For locations within precision instruments requiring frequent mounting and removal.
- M1.4 M2.6. Pan Head Machine Screws for Precision Instruments.
- For CE Marking compatibility. → P.690
- Application

Fixing of protective covers/inspection jigs within precision instruments / CE marking compatible compact precision instruments and electric/electronic devices

Material/Finish

RoHS2 Compliant

	55025
Main Body	SUSXM7(Equivalent to SUS304)

												Unit:mm
Part Number	M	L 🍕	•2				Lm	D ₁	Lı	dc	Max. Torque(N·m)	Mass (g)
SSCZS-M1.4	M1.4	4	5	6	8		2	2	0.5	$1.0^{-0}_{-0.1}$	0.03	0.04 - 0.06
SSCZS-M1.6	M1.6	4	5	6	8		2	2.3	0.5	1.1_0	0.04	0.05 - 0.08
SSCZS-M1.7	M1.7	4	5	6	8		2	2.5	0.5	$1.2^{0}_{-0.1}$	0.04	0.06 - 0.08
SSCZS-M2	M2	4	5	6	8		2.5	3	0.6	$1.4_{-0.15}^{0}$	0.09	0.09 - 0.13
SSCZS-M2.5	M2.5			6	8	10	3	3.8	0.8	1.8_0	0.15	0.21 - 0.25
SSCZS-M2.6	M2.6			6	8	10	3	4	0.8	1.8_015	0.16	0.22 - 0.26

Part Number	Qty per pack
SSCZS-M1.4	1
SSCZS-M1.6	1
SSCZS-M1.7	1
SSCZS-M2	1
SSCZS-M2.5	1
SSCZS-M2.6	1

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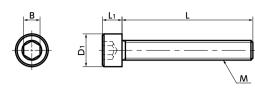
• Part number specification



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	with Captive Processing

SNSS-FT Hex Socket Head Cap Screws - Full Thread

SUS Stainless steel





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• Full thread socket head cap screws.

Application

Equipment and devices that require long screws

Material/Finish	RoHS2 Compliant
	SNSS-FT
Main Body	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

																						Unit:mm
Part Number	M	L 1 2	•									D1	L1	В	Mass (g)							
SNSS-M3-FT	МЗ	25	30	35	40	45	50												5.5	3	2.5	1.6 - 2.9
SNSS-M4-FT	M4		30	35	40	45	50	55	60	65	70	75	80	85	90	100			7	4	3	3.7 - 11
SNSS-M5-FT	M5		30	35	40	45	50	55	60	65	70	75	80	85	90	100			8.5	5	4	5.6 - 16
SNSS-M6-FT	M6			35	40	45	50	55	60	65	70	75	80	85	90	100			10	6	5	9.9 - 24
SNSS-M8-FT	M8				40	45	50	55	60	65	70	75	80	85	90	100			13	8	6	21 - 45
SNSS-M10-FT	M10					45	50	55	60	65	70	75	80	85	90	100	110	120	16	10	8	36 - 84

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

Related Products

SSHS-FT Low Profile Screws (Hex Socket Head Cap Screws with Low Profile Full Thread)

→ P.603



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

→ P.745



• Part number specification

SNSS	-M3	- 25	-FT
Product Code	41	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 hag	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Not Available

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• Clamping Cap Screws with Eccentric Head

Functional Screws

	Clamping Cap Screws with Eccentric Head								
Part Number	SLEC-A	SLEC-A-EL	SLEC-B	SLEC-B-EL					
Shape	TT		TT						
Page	P.703	P.703	P.705	P.705					
Materials	SCM435 Ferrosoferric Oxide Coating	SCM435 Electroless Nickel Plating	SCM435 Ferrosoferric Oxide Coating	SCM435 Electroless Nickel Plating					
Characteristics	Standard Type • High-Strength Fixing	Standard Type • High-Strength Fixing	Guidance • High-Strength Fixing	Guidance • High-Strength Fixing					
Size	M3 - M12	M3 - M12	M3 - M8	M3 - M8					

• Fine Pitch Thread

• Fille Fitt	.ii iiiieau
	Socket Head Cap Screws
Part Number	SNSS
Shape	
Page	P.707
Materials	SUSXM7
Characteristics	Locating · Looseness Countermeasure
Size	M4 - M12

• Clamping Set Screws • Clamping Cap Screws (with Ventilation Hole)

	Clamping Set Screws		Clamping Cap Screws				
Part Number	SCSS-VR	SCSS-VF	SCBS-VR	SCBS-VF			
Shape							
Page	P.587	P.587	P.588	P.588			
Materials	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C	Body: SUSXM7 Ball: SUS440C			
Characteristics	Full Ball With Ventilation Hole	Flat Ball With Ventilation Hole	Full Ball With Ventilation Hole	Flat Ball With Ventilation Hole			
Size	M5 - M10	M5 - M10	M5 - M10	M5 - M10			

• Spring Plunger with Ball (with Ventilation Hole)

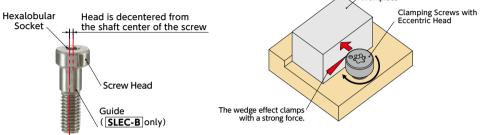
	Spring Plunger with Ball
Part Number	PVFS
Shape	
Page	P.589
Materials	Body: Stainless Steel(A2) Ball: SUS440C
Characteristics	With Ventilation Hole
Size	M5 - M10

Secure Workpiece Easily and Reliably Clamping Screws with Eccentric Head

Characteristics

• The wedge effect achieves a large clamping force

When the screw is tightened, the workpiece is strongly clamped by the head, which is decentered from the shaft center of the screw. The wedge effect creates a large clamping force with low tightening



- The screw has a hexalobular socket that can withstand high tightening torque.
- Two surface treatments are available as standard: ferrosoferric oxide coating or electroless nickel plating.

Types of Clamping Screws with Eccentric Head

• Two types of clamping screws with eccentric head are available as standard.

Standard Type

For fixing linear guideway rails and workpieces and tools.



Guide Type

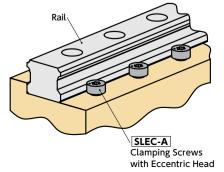
The precision-processed guide provides increased durability when clamping. For fixing heavier workpieces and jigs.



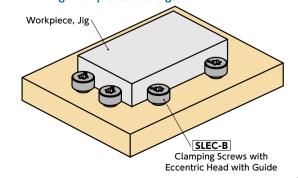
SLEC-B Clamping Screws with Eccentric Head with Guide

Usage Examples

• Fixing Linear Guideway Rails



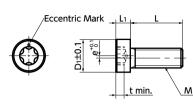
• Fixing Workpieces and Jigs



NBK

SLEC-A Clamping Screws with Eccentric Head

WEB Selection WEB CAD Downlo



• Material/F	inish	RoHS2 Complia
	SLEC-A	SLEC-A-EL
Main Body	SCM435 Ferrosoferric Oxide Coating	SCM435 Electroless Nickel Platin
Strength Class	10.9	10.9

*1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".

SLEC-A SLEC-A-EL

- When the screw is tightened, the workpiece is strongly clamped by the head, which is decentered from the shaft center of the screw. The wedging effect creates a large clamping force with a low tightening torque.
- The screws has a hexalobular socket*1 that can withstand a high tightening torque. → P.723
- Install and remove by using **SKX** Special Key. **→** P.726
- For fixing linear guideway rails.
- **SLEC-A-EL** is an electroless nickel (EN) plating

For applications that require corrosion resistance.

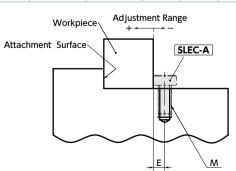
- Also, **SLEC-B** Clamping Screw with Eccentric Head, which has a guide section below the neck is available. → P.705
- Application

Fixing linear guideway rails, workpieces, and tools

											Unit: mm
SLEC-A Ferrosoferric oxide film	SLEC-A-EL Electroless nickel plating	Common	mmon dimensions								
Part Number 1	Part Number 1	M	L	D1	L1	e	P.F	Hexalobular Socket No.	t	Mass (g)	Qty per pack
SLEC-M3-A	SLEC-M3-A-EL	M3	6	6.8	2.5	0.4	SKX-10	10	1	0.7	1
SLEC-M4-A	SLEC-M4-A-EL	M4	8	7	3	0.4	SKX-15	15	1.2	1.6	1
SLEC-M5-A	SLEC-M5-A-EL	M5	10	8.5	4	0.4	SKX-20	20	1.5	2.6	1
SLEC-M6-A	SLEC-M6-A-EL	M6	12	10	4	0.5	SKX-25	25	2	5.1	1
SLEC-M8-A	SLEC-M8-A-EL	M8	16	13	5	0.8	SKX-30	30	2.5	11	1
SLEC-M10-A	SLEC-M10-A-EL	M10	20	16	7	1	SKX-40	40	3	22	1
SLEC-M12-A	SLEC-M12-A-EL	M12	24	18	8	1	SKX-45	45	3.5	32	1

• Installation Dimensions Unit:mm									
Part Number	Part Number	E	M	Adjustment Range min. / max.					
SLEC-M3-A	SLEC-M3-A-EL	3.1 +0.3	М3	-0.1 / 0.7					
SLEC-M4-A	SLEC-M4-A-EL	3.15 ^{+0.3}	M4	-0.05 / 0.75					
SLEC-M5-A	SLEC-M5-A-EL	3.9 ^{+0.3}	M5	-0.05 / 0.75					
SLEC-M6-A	SLEC-M6-A-EL	4.65 + 0.3	M6	-0.15 / 0.85					
SLEC-M8-A	SLEC-M8-A-EL	$6.05^{+0.5}_{0}$	M8	-0.35 / 1.25					
SLEC-M10-A	SLEC-M10-A-EL	7.5+0.5	M10	-0.5 / 1.5					
SLEC-M12-A	SLEC-M12-A-EL	8.5 ^{+0.5} ₀	M12	-0.5 / 1.5					

NBK



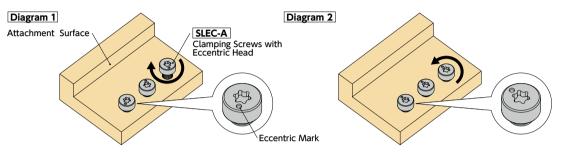
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

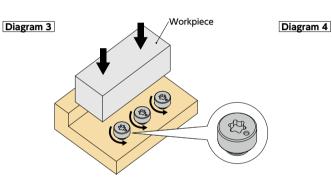
• Installation Method

- •Screw the clamping screws with eccentric head into the screw holes until the head bearing surface lightly touches the surface **Diagram 1**. At this time, the positions of the eccentric marks do not have to be aligned.
- **2**Loosen the clamping screws with eccentric head so that the eccentric marks reach the position in Diagram 2.
- 3Loosen the clamping screws with eccentric head further so that the eccentric marks reach the position in Diagram 3.
- **4** With the eccentric marks at the position in the **Diagram 3**, insert the workpiece you wish to secure between the clamping screws with eccentric head and the attachment surface.

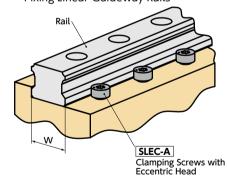
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6Tighten the clamping screws with eccentric head by clockwise turn. The heads press the workpiece into the attachment surface and secure the workpiece Diagram 4.

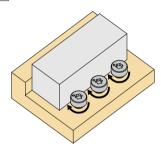




• Usage example Fixing Linear Guideway Rails



NBK



• Recommended size of linear guideway rail Unit:mm

Nominal of Rail	Rail Width W	with Clamping Eccentric Head	
#9	9	SLEC-M3-A	SLEC-M4-A
#12	12	SLEC-M3-A	SLEC-M4-A
#15	15	SLEC-M3-A	SLEC-M4-A
#20	20	SLEC-M4-A	SLEC-M5-A
#25	23	SLEC-M5-A	SLEC-M6-A
#30	28	SLEC-M6-A	SLEC-M8-A
#35	34	SLEC-M8-A	SLEC-M10-A
#45	45	SLEC-M10-A	SLEC-M12-A
#55	53	SLEC-M12-A	

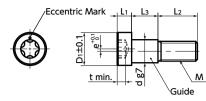
• Part number specification



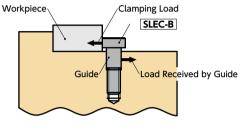
▶ https://www.nbk1560.com

SLEC-B Clamping Screws with Eccentric Head

WEB Selection WEB CAD



• Since the precision-processed guide receives the clamping load, durability during clamping is increased.





- When the screw is tightened, the workpiece is strongly clamped by the head, which is decentered from the shaft center of the screw. The wedge effect creates a large clamping force with low tightening torque.
- The screw has a hexalobular socket*1 that can withstand high tightening torque. → P.723
- Install and remove by using **SKX** Special Key. → P.726
- **SLEC-B-EL** is electroless nickel (EN) plating type. It is intended for applications that require corrosion resistance.
- Application

Fixing workpieces and jigs and fine positional adjustment of heavy objects

Material/F	inish	RoHS2 Compliant				
	SLEC-B	SLEC-B-EL				
Main Body	SCM435 Ferrosoferric Oxide Coating	SCM435 Electroless Nickel Plating				
Strength Class	10.9	10.9				

*1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".

											Unit : mm		
SLEC-B Ferrosoferric oxide film	SLEC-B-EL Electroless nickel plating	Comm	ommon dimensions										
Part Number 1	Part Number 1	M	D1	L1	L2	d	Lз	e	Applicable wrench	Hexalobular Socket No.	t	Mass (g)	Qty per pack
SLEC-M3-B	SLEC-M3-B-EL	M3	6.8	2.5	6	3.35	4	0.4	SKX-10	10	1	0.82	1
SLEC-M4-B	SLEC-M4-B-EL	M4	7	3	7	4.5	5	0.4	SKX-15	15	1.2	1.9	1
SLEC-M5-B	SLEC-M5-B-EL	M5	8.5	4	10	5.5	6	0.4	SKX-20	20	1.5	3.3	1
SLEC-M6-B	SLEC-M6-B-EL	M6	10	4	12	6.5	8	0.5	SKX-25	25	2	6	1
SLEC-M8-B	SLEC-M8-B-EL	M8	13	5	16	8.5	9	0.8	SKX-30	30	2.5	14.3	1

• Installation Dimensions Unit:mm										
Part Number	Part Number	E	M	В Н8	Adjustment Range min. / max.					
SLEC-M3-B	SLEC-M3-B-EL	3.1 + 0.3	МЗ	3.35	-0.1 / 0.7					
SLEC-M4-B	SLEC-M4-B-EL	3.15 ^{+0.3}	M4	4.5	-0.05 / 0.75					
SLEC-M5-B	SLEC-M5-B-EL	3.9 ^{+0.3}	M5	5.5	-0.05 / 0.75					
SLEC-M6-B	SLEC-M6-B-EL	4.65 + 0.3	M6	6.5	-0.15 / 0.85					
SLEC-M8-B	SLEC-M8-B-EL	6.05 ^{+0.5} ₀	M8	8.5	-0.35 / 1.25					

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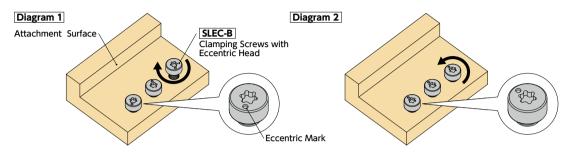
		Workpi	ece Adjust	ment R	ange –	
Δ	Attachm	ent Surface <			SLEC	-В
					B H8	\neg
			<u></u>		M	ノ -

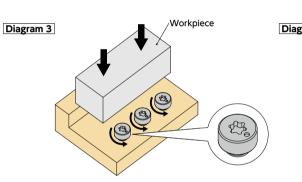
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
1 unit in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

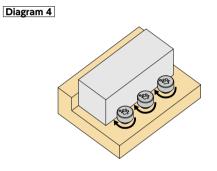
• Installation Method

- •Screw the clamping screws with eccentric head into the screw holes until the head bearing surface lightly touches the surface **Diagram 1**. At this time, the positions of the eccentric marks do not have to be aligned.
- ②Loosen the clamping screws with eccentric head so that the eccentric marks reach the position in Diagram 2.
- 3Loosen the clamping screws with eccentric head further so that the eccentric marks reach the position in **Diagram 3**.
- **4** With the eccentric marks at the position in the | **Diagram 3**|, insert the workpiece you wish to secure between the clamping screws with eccentric head and the attachment surface.
- **S**Tighten the clamping screws with eccentric head by clockwise turn. The heads press the workpiece into the attachment surface and secure the workpiece Diagram 4.

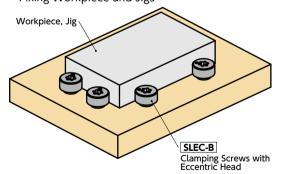
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• Usage example Fixing Workpiece and Jigs



Related Products

SLEC-A Clamping Screw with Eccentric Head, which does not have a guide section below the head is available.

→ P.703

• Part number specification



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706

NBK

SNSS Hex Socket Head Cap Screws - Fine Pitch Thread CAD SUS Stainless steel

e-nedzi.com®

Material/Finish

Material/Finish	RoHS2 Compliant					
	SNSS					
Main Body	SUSXM7 (Equivalent to SUS304)					
Strength Class	A2-50 (M4 - M6) A2-70 (M8 - M12)					



- Socket head cap screws with fine pitch thread.
- The effective diameter is larger and fatigue strength is better than coarse threads.
- The thread pitch is small and the number of thread peaks is more than coarse threads. For securing thin plates and similar items for which coarse thread screws lack sufficient thread peaks.
- Since the lead angle of the thread peak is smaller than that of coarse threads, there is little slippage of the thread peak surface, which prevents screws from loosening.
- Application

Loosening prevention / Securement of thin plates, etc.

																Unit - mini
Part Number 1	M	L <2											D ₁	L1	В	Mass (g)
SNSS-M4-P0.5	M4×0.5	8	10	12	15	20	25						7	4	3	1.7 - 3.2
SNSS-M5-P0.5	M5×0.5		10	12	15	20	25	30					8.5	5	4	2.7 - 5.6
SNSS-M6-P0.75	M6×0.75	8	10	12	15	20	25	30					10	6	5	4.3 - 8.3
SNSS-M8-P1	M8×1			12	15	20	25	30	35	40	45	50	13	8	6	11 - 25
SNSS-M10-P1	M10×1				15	20	25	30	35	40	45	50	16	10	8	21 - 39
SNSS-M12-P1	M12×1					20	25	30	35	40	45	50	18	12	10	32 - 55

Part Number	Qty per pack
SNSS-M4-P0.5	1
SNSS-M5-P0.5	1
SNSS-M6-P0.75	1
SNSS-M8-P1	1
SNSS-M10-P1	1
SNSS-M12-P1	1

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• Part number specification

SNSS-M5-P0.5	- 20
411	√ 2

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Communication (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

Inch Screws e-nedzi.com®



Socket Head Cap Screws

	Socket Head Cap Screws	Button Head Cap Screws
Part Number	SNSS (INCH)	SNBS (INCH)
Shape		ÎÎ
Page	P.709	P.710
Materials	SUS304	SUS304
Characteristics	Inch Thread	Inch Thread Button Head Cap Screws
Size	No.4-40UNC - 3/ ₈ -16UNC	No.4-40UNC - 1/ ₄ -20UNC

Tools

	Hex Wrench
Part Number	SKH(INCH)
Shape	
Page	P.712
Materials	Alloyed Steel
Characteristics	For Inch Screws
Size	1/16 - 5/16

• Socket Head Cap Screws (with Ventilation Hole)

	•
	Socket Head Cap Captive Screw
Part Number	SVSS (INCH)
Shape	
Page	P.568
Materials	SUS304
Characteristics	With Ventilation Hole
Size	No.4-40UNC - 1/4-20UNC

• Hex Nut • Washers

	Hex Nuts • Washers
Part Number	SHNS / SWAS
Shape	P
Page	P.711
Materials	SUS304
Characteristics	Inch Thread
Size	No.4-40UNC - 3/8-16UNC

Captive Scrowe

• Captive Screws							
	Socket Head Cap Captive Screws						
Part Number	SSC (INCH)						
Shape	I						
Page	P.692						
Materials	SUS304						
Characteristics	Captive						
Size	No.4-40UNC - ³ / ₈ -16UNC						

709

SNSS(INCH) Hex Socket Head Cap Screws - Inch Thread Selection CAD Download SUS Stainless steel

L₂ min.

Material/Finish	RoHS2 Compliant
	SNSS(INCH)
Main Body	Stainless Steel (Grade : A2)
Strength Class	A2-50

• Part number specification

SNSS-	#	4-40	-	1/4
41				2

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



e-nedzi.com®

- Socket head cap screws with inch thread.
- ANSI B18.3 compliance.
- Install and remove by using **SKH(INCH)** Specialty Key. **→** P.712
- Application

Equipment and devices using inch screw specifications

																			Unit:ir	nch
Part Number 1	# Nominal of hread	L 🍜	2												D1	L1	L ₂	В	Mass (g)	
SNSS-#4-40	No.4-40UNC	3/16	1/4	5/16	3/8	1/2	5/8	3/4							0.183	0.112	0.75	3/32	0.51 - 1.	1
SNSS-#5-40	No.5-40UNC		1/4	5/16	3/8	1/2	5/8	3/4							0.205	0.125	0.75	3/32	0.78 - 1.4	4
SNSS-#6-32	No.6-32UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.226	0.138	0.75	7/64	0.98 - 3.6	6
SNSS-#8-32	No.8-32UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.27	0.164	0.88	%4	1.6 - 5.4	4
SNSS-#10-24	No.10-24UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.312	0.19	0.88	5/32	2.3 - 7.3	2
SNSS-#10-32	No.10-32UNF	3/16	1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.312	0.19	0.88	5/32	2.2 - 7.0	6
SNSS-#12-24	No.12-24UNC				3/8	1/2	5/8	3/4		1	1 1/4	1 ½			0.343	0.216	1	5/32	3.4 - 7.0	6
SNSS-1/4-20	1/4-20UNC		1/4	5/16	3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.375	0.25	1	3/16	4.3 - 13	
SNSS-1/4-28	1/4-28UNF				3/8	1/2	5/8	3/4		1	1 1/4				0.375	0.25	1	3/16	5.1 - 9.8	8
SNSS-5/16-18	5/16-18UNC				3/8	1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 3/4	2	0.469	0.312	1.12	1/4	8.8 - 22	
SNSS-3/8-16	%-16UNC					1/2	5/8	3/4	7/8	1	1 1/4	1 ½	1 ¾	2	0.562	0.375	1.25	5/16	16 - 33	

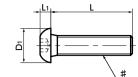
• All dimensions are in inches.

Part Number	Qty*1 per pack
SNSS-#4-40	10
SNSS-#5-40	10
SNSS-#6-32	10
SNSS-#8-32	10
SNSS-#10-24	10
SNSS-#10-32	10
SNSS-#12-24	10
SNSS-1/4-20	10
SNSS-1/4-28	10
SNSS-5/16-18	10
SNSS-3/8-16	10

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

1 Individual Sales → P.809 💰 Cleanroom Wash & Packaging → P.807 🞳 Screw Length Adjustment → P.811 🚅 Vibration Resistant → P.810 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge | Available / Add'l charge

SNBS(INCH) Socket Button Head Cap Screws - Inch Thread Selection WE CAD Download SUS Stainless steel



Material/Finish	RoHS2 Compliant
	SNBS(INCH)
Main Body	Stainless Steel (Grade : A2)
Strength Class	A2-50

• Part number specification



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



e-nedzi.com®

- Socket button head cap screws with inch thread.
- ANSI B18.3 compliance.
- Install and remove by using **SKH(INCH)** Specialty Key. **→** P.712
- Also, products with special specifications such as dimensions, shapes, materials, surface treatments, cleanroom washing and special packaging are available. → P.549



Application

Equipment and devices using inch screw specifications

														Unit:inch
Part Number 1	# Nominal of Thread	L 1 2									D1	L1	В	Mass (g)
SNBS-#4-40	No.4-40UNC	3/16	1/4	5/16	3/8	1/2					0.213	0.059	1/16	0.35 - 0.65
SNBS- # 5-40	No.5-40UNC		1/4		3/8	1/2					0.238	0.066	5/64	0.53 - 0.85
SNBS-#6-32	No.6-32UNC		1/4	5/16	3/8	1/2	5/8	3/4			0.262	0.073	5/64	0.67 - 1.4
SNBS-#8-32	No.8-32UNC		1/4		3/8	1/2	5/8	3/4			0.312	0.087	3/32	1.1 - 2.2
SNBS-#10-24	No.10-24UNC		1/4		3/8	1/2	5/8	3/4	7/8	1	0.361	0.101	1/8	1.5 - 3.6
SNBS-#10-32	No.10-32UNF		1/4		3/8	1/2	5/8	3/4	7/8	1	0.361	0.101	1/8	1.5 - 3.8
SNBS-1/4-20	1/4-20UNC				3/8	1/2	5/8	3/4	7/8	1	0.437	0.132	5/32	3.3 - 6.4

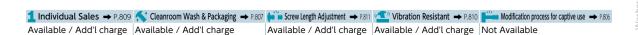
• All dimensions are in inches.

NBK

Part Number	Qty*1 per pack
SNBS-#4-40	10
SNBS- # 5-40	10
SNBS-#6-32	10
SNBS-#8-32	10
SNBS-#10-24	10
SNBS-#10-32	10
SNBS-1/4-20	10

▶ https://www.nbk1560.com

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



SHNS(INCH)/SWAS(INCH) Hex Nuts / Washers - Inch Thread

e-nedzi.com®

SHNS(INCH)

Selection CAD Download SUS Stainless steel



SWAS-IF(INCH) SWAS-IS(INCH)

• Part number specification SHNS-#4-40

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

SHNS(INCH) He	SHNS(INCH) Hex Nuts Unit: inch							
Part Number	# Nominal of Thread	В	Т	Mass (g)	Qty*1 per pack			
SHNS-#4-40	No.4-40UNC	1/4	0.098	0.58	10			
SHNS-#6-32	No.6-32UNC	5/16	0.114	1.1	10			
SHNS-#8-32	No.8-32UNC	11/32	0.13	1.4	10			
SHNS-#10-24	No.10-24UNC	3/8	0.13	1.7	10			
SHNS-#10-32	No.10-32UNF	3/8	0.13	1.6	10			
SHNS-1 / 4-20	1/4-20UNC	7/16	7/32	3.1	10			
SHNS-5 / 16-18	5/16-18UNC	1/2	17/64	5.4	10			
SHNS-3 / 8-16	3%-16LINC	9/16	21/64	7.8	10			

- *1: Also sold separately from 1 piece up. → P.809
- All dimensions are in inches.

SWAS-IF(INCH) Washers Unit : inch								
Part Number	Nominal	d	D	t	Mass (g)	Qty*1 per pack		
SWAS-#4-IF	No.4	0.125	0.312	0.025	0.21	10		
SWAS-#6-IF	No.6	0.156	0.375	0.036	0.43	10		
SWAS-#8-IF	No.8	0.187	0.375	0.036	0.39	10		
SWAS-#10-IF	No.10	0.218	0.437	0.036	0.53	10		
SWAS-1 / 4-IF	1/4	0.281	0.625	0.051	1.6	10		
SWAS-5 / 16-IF	5/16	0.343	0.687	0.051	1.8	10		
SWAS-3 / 8-IF	3/8	0.406	0.812	0.051	2.6	10		

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- *1: Also sold separately from 1 piece up. → P.809
- All dimensions are in inches.

NBK

SHNS(INCH)	
	SWAS-IF(INCH)
	0
SWAS-IS(INCH)	0

- Inch-thread hexagon nuts and washers.
- **SHNS-#4 SHNS-#10** —ANSI B18.6.3 compliance **SHNS-1/4** - **SHNS-3/8** — ANSI B18.2.2 compliance **SWAS-IF(INCH)** — MS15795 compliance **SWAS-IS(INCH)** —ASME B18.21.1 compliance
- Use in combination with **SNSS(INCH)** Socket Head Cap Screw (→ P.709) or **SNBS(INCH)** Socket Bottom Head Screw (→ P.710).
- Application

Equipment and devices using inch screw specifications

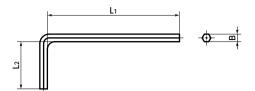
 Material/Finish RoHS2 Compliant SWAS(INCH) SHNS(INCH) Equivalent to SUS304 Equivalent to SUS304 Main body

SWAS-IS(INCH) Spring Washers Unit: inch								
Part Number	Nominal	d	D	t	Mass (g)	Qty*1 per pack		
SWAS-#4-IS	No.4	0.114	0.209	0.025	0.078	10		
SWAS-#6-IS	No.6	0.141	0.25	0.031	0.13	10		
SWAS-#8-IS	No.8	0.167	0.293	0.04	0.24	10		
SWAS-#10-IS	No.10	0.193	0.334	0.047	0.36	10		
SWAS-1 / 4-IS	1/4	0.252	0.487	0.062	1.1	10		
SWAS-5 / 16-IS	5/16	0.314	0.583	0.078	1.9	10		
SWAS-3 / 8-IS	3/8	0.377	0.68	0.094	3.1	10		

- *1: Also sold separately from 1 piece up. → P.809
- All dimensions are in inches.

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

SKH(INCH) Hex Keys for Inch Screws WEB Selection WEB CAD Download





e-nedzi.com®

- Hexagon Keys for Inch Screws only.
 - Application

Installing and removing inch screws

Material/	Material/Finish	
	SKH(INCH)	
Main Body	Alloyed Steel (Hardness 50 HRC Ferrosoferric Oxide Coating	or higher)

Part Number	B Nominal of Key	L1	L ₂	Inch Screw Size	Mass (g)	Qty per pack	
i art i varriber	b Nominat of Key	-"	LZ	SNSS(INCH) (⇒ P.709)	SNBS(INCH) (⇒ P.710)	Mass (g)	Qty per pack
SKH-1 / 16	1/16	1.75	0.562		#4 - 40	1	1
SKH-5 / 64	5/64	1.875	0.609		#5 - 40 • #6 - 32	1.7	1
SKH-3 / 32	3/32	2	0.656	#4 - 40 • #5 - 40	#8 - 32	2.6	1
SKH-7 / 64	7/64	2.125	0.703	#6 - 32		3.7	1
SKH-1 / 8	1/8	2.25	0.75		#10 - 24 • #10 - 32	5.2	1
SKH-9 / 64	9/64	2.375	0.796	#8 - 32		6.9	1
SKH-5 / 32	5/32	2.5	0.844	#10 - 24 • #10 - 32 • #12 - 24	1/4 - 20	9	1
SKH-3 / 16	3/16	2.75	0.938	1/4 - 20 • 1/4 - 28		14	1
SKH-1 / 4	1/4	3.25	1.125	5/16 - 18		30	1
SKH-5 / 16	5/16	3.75	1.25	³ ⁄ ₈ - 16		54	1

• All dimensions are in inches.

Related Products

SNSS(INCH) Hex Socket Head Cap Screws - Inch Thread

→ P.709



Socket Button Head Cap Screws

- Inch Thread **SNBS(INCH)**

→ P.710

NBK



• Part number specification



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	Not Available	Not Available	Not Available	Not Available

• Tamper Resistance Screws

	Tamper-resistant Special Low Head Bolt	Anti-theft Nut	Flat Head Screws with Pins	Button Head Cap Screws with Pins		One Side Pan Head Machine Screws
Part Number	SRSHS	SHNRS	SRFXS	SRBS	SRHS	SROS
Shape	NEW	NEW	NEW		Î	
Page	P.714	P.715	P.717	P.718	P.719	P.720
Materials	SUSXM7	SUS304	SUS304	SUS304	SUS304	SUS304
Characteristics	Tamper-resistant bolt with special low head height	Anti-theft Nut	Hexalobular Socket With Pin	Hexalobular Socket With Pin	Hex Socket • With Pin	Tightened with Philips Screwdriver
Size	M2 - M4	M8 - M12	M3 - M6	M3 - M8	M3 - M6	M3 - M5

	Two Hole Pan Head Machine Screws	Triwing Pan Head Machine Screws
Part Number	SRTS	SRWS
Shape		
Page	P.721	P.722
Materials	SUS304	SUS304
Characteristics	2 Holes	Triwing Socket
Size	M3 - M5	M3 - M5

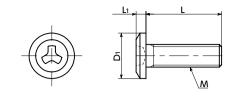
Tools

	Special Bits for Tamper Resistance Screws	Special Socket for Security Nut	Keys		Screwdrivers	Magnetic Screwdrivers
Part Number	SRSHB	SKW	SRX	SRH	SROT	SRD
Shape	NEW	NEW				
Page	P.714	P.715	P.717-718	P.719	P.720	P.721-722
	Dedicated Bits	Dedicated Tools	Dedicated Wrench	Dedicated Wrench	Dedicated Screwdriver	Dedicated Magnetic
Characteristics	for SRSHS	for SHNRS	for SRFXS SRBS	for SRHS	for SROS	Screwdriver
						for SRTS SRWS

	Bits	
Part Number	SRTB	SRWB
Shape		
Page	P.721	P.722
Characteristics		Dedicated Bits for SRWS

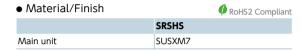
► https://www.nbk1560.com

e-nedzi.com® SRSHS Tamper - resistant Special Low Head Bolt NEW



Application

Dismantling equipment/device, tamper-resistance/anti-theft measures for outdoor facility/ security measures/safety measures





- Tamper-Resistance screws, all with head height of 1.5 mm or less.
- It cannot be mounted or removed by normal tools. As well, because the head height is low, it is difficult to remove by grasping the head directly, leading to excellent anti-theft properties.
- The protrusion after mounting is minimal, leaving the external appearance unblemished.
- Use a dedicated bit **SRSHB** for mounting and removing.

Oilic	٠	 ''

Part Number 1	M	L 2							D1	L1	Bit Part No.	Mass(g)
SRSHS-M2	M2	4	5	6	8				3	0.6	SRSHB-0	0.089 - 0.16
SRSHS-M2.5	M2.5	4	5	6	8				3.8	8.0	SRSHB-1	0.15 - 0.28
SRSHS-M3	M3			6	8	10	12		6	1.3	SRSHB-2	0.44 - 0.69
SRSHS-M4	M4				8	10	12	16	8	1.5	SRSHB-3	1.0 - 1.6

Part Number	Qty per pack*1
SRSHS-M2	10
SRSHS-M2.5	10
SRSHS-M3	20
SRSHS-M4	20

*1: Also sold separately from 1 piece up.

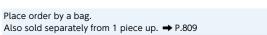
• Dedicated bit (Supports V6.3/U6.3 insert shapes) Unit: mm

Part Number 1	Applicable bolt	b	Qty per pack	Mass (g)
SRSHB-0	SRSHS-M2	2	1	6.4
SRSHB-1	SRSHS-M2.5	2	1	6.4
SRSHB-2	SRSHS-M3	3	1	13.8
SRSHB-3	SRSHS-M4	4	1	14.7

• Part number specification









SRSHB-0 SRSHB-1

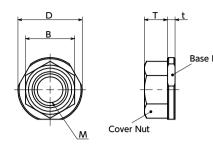
SRSHB-2 SRSHB-3



e-nedzi.com®

SHNRS Anti-theft Nut NEW Patent Pending







- Anti-theft nut that can be mounted with commercially available tools.
- For removal, the dedicated tool **SKW** is required.
- Because there is no need to switch tools, the mounting process work-hours can be reduced.
- We can also produce customer-original anti-theft nuts with new base nut shapes.
- Application

Anti-theft measures for outdoor facility / Dismantling- and tamper-resistance for equipment/ devices / Security measures / Safety measures

Material/Finish		RoHS2 Complian
	SHNRS	
Main unit	SUS304	

Precautions for Use

Not Available

Not Available

For removal, confirm that the dedicated removal tool **SKW** is entirely fitted with the base nut.

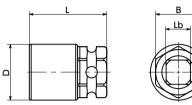
								Unit : n	nm
Part Number 📶	M	В	D	Т	t	Removal Tool Part No.	Mass (g)	Qty per pack	
SHNRS-M8	M8	13	17	6.1	2	SKW-8	7	1	
SHNRS-M10	M10	17	21.6	8.4	2.2	SKW-10	15.3	1	
SHNRS-M12	M12	19	24	9	2.5	SKW-12	20	1	

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

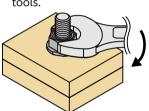
► https://www.nbk1560.com

• Dedicated removal tools

Part Number 1	D	L	В	Lb	Mass(g)	Qty per pack
SKW-8	22	32	19	9.5	53	1
SKW-10	27	39	24	12.7	93	1
SKW-12	29.5	41	24	12.7	106	1

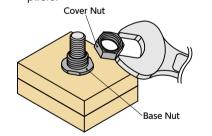


- Includes O-ring and pin for impact wrench.
- Usage example Mounting is possible with commercially available tools.



Of commercially available nuts, only cover nuts can

The remaining base nuts are shaped so as to be extremely difficult to remove with a wrench or pliers.



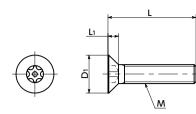
• Part number specification





1 pc. in 1 bag







e-nedzi.com®

- Flat Head Bolt with a Pin at the center of Hexalobular Socket*1.
- It cannot be mounted or removed by normal tools.
- Use a dedicated wrench **SRX** for mounting and removing.
- *1: The shape of hexalobular socket is defined in JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular Socket for Male Screw

Application

Machinery / Tools / Equipment / Devices disassembly prevention · tampering prevention / Theft prevention for outdoor facilities / Security measures / Safety measures

 Material/Finish 	♠ RoHS2 Complia				
	SRFXS				
Main body	SUS304				
Strength Class	Equivalent to A2-50				

• Part number specification



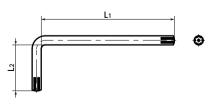
														Unit - mm
Part Number	M 1	L 🌗	L 2								L1	Applicable wrench	Hexalobular Socket No.	Mass (g)
SRFXS-M3	M3	6	8	10	12					6	1.75	SRX-10	10	0.48 - 0.72
SRFXS-M4	M4		8	10	12	16	20			8	2.3	SRX-20	20	1.0 - 1.9
SRFXS-M5	M5			10	12	16	20	25		10	2.8	SRX-25	25	2.1 - 3.9
SRFXS-M6	M6			10	12	16	20	25	30	12	3.4	SRX-30	30	3.3 - 7.0

Part Number	Qty per pack
SRFXS-M3	10
SRFXS-M4	10
SRFXS-M5	10
SRFXS-M6	10

 Dedicated 	wrench

Dedicated Wie	HICH			Unit:mm
Part Number	L1	L2	Mass (g)	Qty per pack
SRX-10	60	20	3.7	1
SRX-20	67	23	8.2	1
SRX-25	70	25	11	1
SRX-30	81	28	20	1
SRX-40	88	31	32	1

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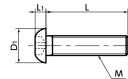


1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Not Available

e-nedzi.com®

SRBS Hexalobular Button Head Cap Screws with Pin Selection Selection Download Tamper Resistance SUS Stainless steel





• Part number specification



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



- Button head cap screws with pin at the center of their hexalobular*1 socket.
- Screws cannot be installed or removed by using standard tools.
- Install and remove by using **SRX** Specialty Hexalobular Key.
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".

Application

Machinery, tools, equipment, and devices disassembly prevention. tampering prevention, theft prevention for outdoor facilities, security measures, and safety measures

Material/Finish	RoHS2 Compliant
	SRBS
Main Body	SUS304
Strength Class	Equivalent to A2-50

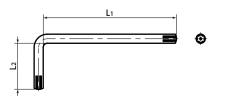
Part Number	M	L 2	•2								D1	L1	Annlicable wrench	Hexalobular Socket No.	Mass (g)	
SRBS-M3	МЗ	6	8	10	12	16	20	25				5.7	1.65	SRX-10	10	0.48 - 1.4
SRBS-M4	M4		8	10	12	16	20	25	30			7.6	2.2	SRX-20	20	1.2 - 3.2
SRBS-M5	M5			10	12	16	20	25	30	40		9.5	2.75	SRX-25	25	2 - 6.4
SRBS-M6	M6			10	12	16	20	25	30	40	50	10.5	3.3	SRX-30	30	3.3 - 12
SRBS-M8	M8			10	12	16	20	25	30	40	50	14	4.4	SRX-40	40	7.3 - 22

Part Number	Qty*1 per pack
SRBS-M3	20
SRBS-M4	20
SRBS-M5	20
SRBS-M6	10
SRBS-M8	10

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

• Dedicated wrench

				Onit - mr
Part Number	L1	L ₂	Mass (g)	Qty per pack
SRX-10	60	20	3.7	1
SRX-20	67	23	8.2	1
SRX-25	70	25	11	1
SRX-30	81	28	20	1
SRX-40	88	31	32	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
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge

717



e-nedzi.com®

• Part number specification

SRHS-M5-16

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



- Button head cap screws with pin at the center of their socket.
- They cannot be installed or removed by using standard tools.
- Install and remove by using **SRH** Specialty Key.
- Application

Machinery, tools, equipment, and devices disassembly prevention · tampering prevention, theft prevention for outdoor facilities, security measures, and safety measures

Material/Finish	RoHS2 Compliant
	SRHS
Main Body	SUS304
Strength Class	Equivalent to A2-50
	Main Body

													Unit - mini
Part Number	M	L 1 2	€2						D1	L1	В	Applicable wrench	Mass (g)
SRHS-M3	M3	6	8	10	12	16			5.7	1.65	2	SRH-2	0.48 - 0.93
SRHS-M4	M4	6	8	10	12	16	20		7.6	2.2	2.5	SRH-2.5	1.1 - 2.2
SRHS-M5	M5			10	12	16	20		9.5	2.75	3	SRH-3	2 - 3.3
SRHS-M6	M6			10	12	16	20	25	10.5	3.3	4	SRH-4	3.3 - 6.1

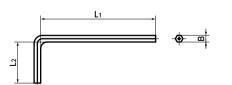
Part Number	Qty*1 per pack
SRHS-M3	20
SRHS-M4	20
SRHS-M5	20
SRHS-M6	10

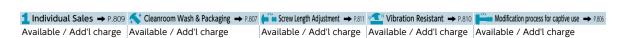
*1: Also sold separately from 1 piece up. → P.809

NBK

Dedicated wrench Unit:n								
Part Number	В	L1	L ₂	Mass (g)	Qty per pack			
SRH-2	2	50	16	1.8	1			
SRH-2.5	2.5	56	18	3.1	1			
SRH-3	3	63	20	5	1			
SRH-4	4	70	25	10	1			

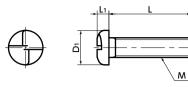
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• Part number specification



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



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- The screws can be installed, but not removed, using commercially available slotted screwdrivers.
- Remove the screws by using **SROT** Specialty Removal Tool.
- Application

Machinery, tools, equipment, and devices disassembly prevention • tampering prevention, theft prevention for outdoor facilities, security measures, and safety measures

 Material/Finish 	RoHS2 Compliant
	SROS
Main Body	SUS304
Strength Class	Equivalent to A2-50

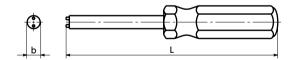
Unit:mm

Part Number	M	L 2	L 1 2						D1	Lı	Removal Tool Part No.	Mass (g)	
SROS-M3	M3	5	6	8	10	12	16			5.5	2	SROT-410	0.49 - 0.94
SROS-M4	M4		6	8	10	12	16	20	25	7	2.6	SROT-410	1 - 2.5
SROS-M5	M5			8	10	12				9	3.3	SROT-510	2.2 - 2.7

Part Number	Qty*1 per pack
SROS-M3	20
SROS-M4	20
SROS-M5	20

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

Dedicated driver Unit:mm Part Number Mass (g) Qty per pack SROT-410 180 8 94 SROT-510 185 10 127

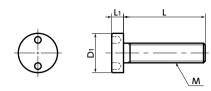


721

Special Screws

SRTS Two Hole Pan Head Machine Screws





• Part number specification

SRTS-M5	-16
41	2

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



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- They cannot be installed or removed by using standard tools.
- Install and remove by **SRTB** Specialty Bits and **SRD** Specialty Magnetic Screwdriver together.
- The simple head design is suitable for decoration.
- Application

Machinery, tools, equipment, and devices disassembly prevention · tampering prevention, theft prevention for outdoor facilities, security measures, and safety measures

 Material/Finish 	RoHS2 Compliant
	SRTS
Main Body	SUS304
Strength Class	Equivalent to A2-50

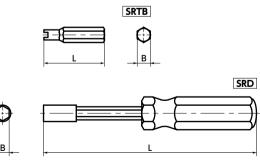
												Unit - mm
Part Number	M	L 1 2						D1	L1	Bit Part No.	Screwdriver Part No.	Mass (g)
SRTS-M3	M3	6	8	10				6	1.8	SRTB-4	SRD-6.35	0.66 - 0.82
SRTS-M4	M4			10	12	16		8	2.4	SRTB-8	SRD-6.35	1.7 - 2.2
SRTS-M5	M5				12	16	20	10	3	SRTB-10	SRD-6.35	3.4 - 4.3

Part Number	Qty*1 per pack
SRTS-M3	20
SRTS-M4	20
SRTS-M5	20

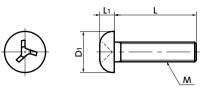
*1: Also sold separately from 1 piece up. → P.809

SRTB Dedicated bit								
Part Number	L	В	Mass (g)	Qty per pack				
SRTB-4	25.4	6.35	5	1				
SRTB-8	25.4	6.35	5	1				
SRTB-10	25.4	6.35	5.2	1				

• SRD Dedicated magnet screwdriver Unit								
Part Number	L	В	Mass (g)	Qty per pack				
SRD-6.35	210	6.35	98	1				







• Part number specification



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



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- They cannot be installed or removed by using standard tools.
- Install and remove by **SRWB** Specialty Bits and **SRD** Specialty Magnetic Screwdriver together.

Application

Machinery, tools, equipment, and devices disassembly prevention · tampering prevention, theft prevention for outdoor facilities, security measures, and safety measures

Material/Finish	RoHS2 Compliant
	SRWS
Main Body	SUS304
Strength Class	Equivalent to A2-50

Part Number	M	L 1 2					D1	L1	Rit Part No	Screwdriver Part No.	Mass (g)
SRWS-M3	M3	6	8	10			5.6	1.8	SRWB-2	SRD-6.35	0.54 - 0.7
SRWS-M4	M4		8	10	12		8.2	2.9	SRWB-4	SRD-6.35	1.5 - 1.9
SRWS-M5	M5			10	12	16	9.5	3.4	SRWB-5	SRD-6.35	2.8 - 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

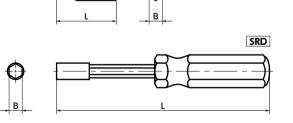
Available / Add'l charge | Available / Add'l charge | Available / Add'l charge

Part Number	Qty*1 per pack
SRWS-M3	20
SRWS-M4	20
SRWS-M5	20

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

SRWB Dedicated bit Unit:mn								
Part Number	L	В	Mass (g)	Qty per pack				
SRWB-2	25.4	6.35	4.2	1				
SRWB-4	25.4	6.35	5.2	1				
SRWB-5	25.4	6.35	5.6	1				

SRD Dedicated magnet screwdriver Unit: Unit: Output Description:										
Part Number	L	В	Mass (g)	Qty per pack						
SRD-6.35	210	6.35	98	1						



SRWB

Available / Add'l charge | Available / Add'l charge

NBK

723

Hexalobular Socket Head Screws

Pan Head Machine Screws

	Pan Head
Part Number	SNPXS
Shape	
Page	P.724
Materials	SUSXM7
Characteristics	High Tightening Torque
Size	M2 - M6

• Flat Head Machine Screws

	Flat Head
Part Number	SNFXS
Shape	
Page	P.725
Materials	SUSXM7
Characteristics	High Tightening Torque Space Optimization
Size	M2 - M6

Tools

	Hexalobular Keys
Part Number	SKX
Shape	
Page	P.726
Materials	Alloyed Steel
Characteristics	For Hexalobular Socket Head Screws
Size	No.4 - No.45

Low Profile Screws

	Special Low Profile	Extreme Low Profile	Low Profile
Part Number	SSTS	SET / SETS	SLT / SLTS
Shape			
Page	P.606	P.607	P.605
Materials	SUSXM7	SWCH SUSXM7	SAE1022 SUSXM7
Characteristics	High Tightening Torque Space Optimization	High Tightening Torque Space Optimization	High Tightening Torque Space Optimization
Size	M2 - M8	M2 - M6	M2 - M6

Properties of the Hexalobular Socket*

• Excellent Transmission Efficiency of Tightening Torque Since the hexalobular socket transmits the force of the tool at 15 degrees, the tightening torque is transmitted more efficiently. Diagram1 Since a hexagonal socket transmits the force of the tool at 60 degrees, the force of the tightening torque is spread outward, which generates loss. Diagram 2

Reducing the Risk of Breakage of Tools and Screw Heads

With hexalobular sockets, the surface of the tool makes contact. This means the stress is not concentrated, which reduces the risk of breakage of tools and screw heads. With hexagonal sockets, the angled portion of the tool only makes contact, which increases the tightening torque.

Tightening Torque

This concentrates the stress on the angle portion of the tool and may break the tool or the hexagonal socket of the screw head.

No Cam Out

With cross recessed screws, the tool such as a screwdriver may rise up unless it press down the screw when tightening. This phenomenon is called as cam out. If cam out occurs, the engagement of the cross recess and tool is reduced, which causes damage to tools and screw heads.

With hexalobular sockets, cam outs do not

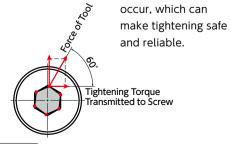


Diagram 2 Hexagonal Socket

*The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664:2005) "Hexalobular internal driving feature for bolts and screws".

SNPXS Hexalobular Socket Pan Head Machine Screws

SUS Stainless steel

• Part number specification

WEB Selection WEB CAD



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

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- The shape of hexalobular sockets*1 makes them more resistant to high tightening torques than cross recesses. → P.723
- Less likely to damage the head caused by tightening. Therefore, able to make tightening safe and reliable.
- Screws cannot be installed or removed by using standard tools such as a hex key or screwdriver. For prevention of disassembly, theft, and tampering of equipment and facilities.*2
- Install and remove by using **SKX** Specialty Hexalobular Key. → P.726
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".
- *2: Tools for hexalobular sockets are commercially available. For tamper resistance, consider to select tamper resistance screws. → P.713

Application

Prevention of damage to screw heads and reliable tightening

Material/Finish

• Macchae I misi	Ronsz Compulant
	SNPXS
Material	SUSXM7 (Equivalent to SUS304)
Strength Class	A2-50

																	Unit:mm
Part Number	M	L 2	L 2									D1	L1	Applicable wrench	Hexalobular Socket No.	t	Mass (g)
SNPXS-M2	M2	4	5	6	8	10	12					4	1.6	SKX-6	6	0.77	0.14 - 0.29
SNPXS-M2.5	M2.5	4	5	6	8	10	12	16				5	2.1	SKX-8	8	1.04	0.27 - 0.65
SNPXS-M3	M3		5	6	8	10	12	16	20			5.6	2.4	SKX-10	10	1.27	0.49 - 1.1
SNPXS-M4	M4			6	8	10	12	16	20	25		8	3.1	SKX-20	20	1.66	1 - 2.5
SNPXS-M5	M5				8	10	12	16	20	25	30	9.5	3.7	SKX-25	25	1.91	2.2 - 4.8
SNPXS-M6	M6					10	12	16	20	25	30	12	4.6	SKX-30	30	2.42	3.9 - 7.4

Part Number	Qty*1 per pack
SNPXS-M2	20
SNPXS-M2.5	20
SNPXS-M3	20
SNPXS-M4	20
SNPXS-M5	20
SNPXS-M6	20

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

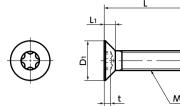
NBK



Diagram 1 Hexalobular Socket

SUS Stainless steel

SNFXS Hexalobular Socket Flat Head Machine Screws



• Part number specification

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



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- The shape of hexalobular sockets*1 makes them more resistant to high tightening torques than cross recesses. → P.723
- This makes head damage caused by tightening less likely and can make tightening safe and reliable.
- Screws cannot be installed or removed by using standard tools such as a hex key or screwdriver. For prevention of disassembly, theft, and tampering of equipment and facilities.*2
- Install and remove by using **SKX** Specialty Hexalobular Key. → P.726
- *1: The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".
- *2: Tools for hexalobular sockets are commercially available. For tamper resistance, consider to select tamper resistance screws. → P.713
- Application

Prevention of damage to screw heads and reliable tightening

Material/Finish	RoHS2 Compliant		
	SNFXS		
Main Body	SUSXM7 (Equivalent to SUS304)		
Strength Class	A2-50		

																	Unit:mm
Part Number	M	L 🔨	•2									D1	L1	Applicable wrench	Hexalobular Socket No.	t	Mass (g)
SNFXS-M2	M2	4	5	6	8	10	12					3.8	1.2	SKX-6	6	0.64	0.14 - 0.29
SNFXS-M2.5	M2.5	4	5	6	8	10	12	16				4.7	1.5	SKX-8	8	0.79	0.27 - 0.65
SNFXS-M3	M3		5	6	8	10	12	16	20			5.5	1.65	SKX-10	10	0.83	0.49 - 1.1
SNFXS-M4	M4			6	8	10	12	16	20	25		8.4	2.7	SKX-20	20	1.53	1 - 2.5
SNFXS-M5	M5				8	10	12	16	20	25	30	9.3	2.7	SKX-25	25	1.51	2.2 - 4.8
SNFXS-M6	M6					10	12	16	20	25	30	11.3	3.3	SKX-30	30	1.78	3.9 - 7.4

Part Number	Qty*1 per pack
SNFXS-M2	20
SNFXS-M2.5	20
SNFXS-M3	20
SNFXS-M4	20
SNFXS-M5	20
SNFXS-M6	20

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

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	' (mi'm 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	Available / Add'l charge	Not Available

SKX Hexalobular Keys WEB Selection WEB CAD Download



 Material/Finish RoHS2 Compliant

Alloyed Steel (Hardness 50 HRC or higher) Main Body Ferrosoferric Oxide Coating

• Special keys for hexalobular socket head screws allow you to tighten at higher torques more safely. → P.723

*The hexalobular shape is prescribed by JIS B 1015: 2008 (ISO 10664: 2005) "Hexalobular internal driving feature for bolts and screws".

Application

Installing and removing hexalobular socket head screws

Unit:mm

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Part Number 1	Hexalobular Socket No.	Α	L1	L ₂	Mass (g)	Qty per pack
SKX-4	4	1.26	45	13	0.56	1
SKX-5	5	1.42	47	14	0.75	1
SKX-6	6	1.66	42	16	0.98	1
SKX-8	8	2.32	48	16	2.1	1
SKX-10	10	2.74	51	16	3.1	1
SKX-15	15	3.28	54	18	4.8	1
SKX-20	20	3.86	57	19	6.9	1
SKX-25	25	4.43	63	20	10	1
SKX-30	30	5.52	70	25	18	1
SKX-40	40	6.65	76	26	28	1
SKX-45	45	7.82	89	32	45	1

• For Use Hexalobular Socket Head Screws

NBK

Hexalobular	Applicable He	exalobula	r Socket Head	l Screws					
Keys	SSTS SET • SETS (→P.606) (→P.607)			SLT • SLTS (⇒ P.605)		SLEC (⇒ P.703)		SNPXS (⇒P.724)	SNFXS (⇒P.725)
SKX-4			SETS-M2						
SKX-5	SSTS-M2		SETS-M2.6						
SKX-6	SSTS-M2.5	SET-M3	SETS-M3		SLTS-M2			SNPXS-M2	SNFXS-M2
SKX-8	SSTS-M3	SET-M4	SETS-M4		SLTS-M2.5			SNPXS-M2.5	SNFXS-M2.5
SKX-10	SSTS-M4	SET-M5	SETS-M5	SLT-M3-TZB	SLTS-M3	SLEC-M3-A	SLEC-M3-B	SNPXS-M3	SNFXS-M3
SKX-15	SSTS-M5					SLEC-M4-A	SLEC-M4-B		
SKX-20	SSTS-M6		SETS-M6	SLT-M4-TZB	SLTS-M4	SLEC-M5-A	SLEC-M5-B	SNPXS-M4	SNFXS-M4
SKX-25	SSTS-M8			SLT-M5-TZB	SLTS-M5	SLEC-M6-A	SLEC-M6-B	SNPXS-M5	SNFXS-M5
SKX-30				SLT-M6-TZB	SLTS-M6	SLEC-M8-A	SLEC-M8-B	SNPXS-M6	SNFXS-M6
SKX-40						SLEC-M10-A			
SKX-45						SLEC-M12-A			

• Part number specification



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	Not Available	Not Available	Not Available	Not Available

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Plugs

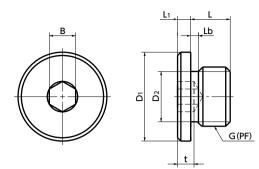
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	Hex Socket Flange He	ead Screw Plugs	Parallel Screw Plugs	Hexagon Socket Pipe Plugs
Part Number	SFF / SFFS	SFM / SFMS	SFP	SFT / SFTS
Shape				88
Page	P.728	P.729	P.731	P.732
Materials	SCM435 SUS304	SCM435 SUS304	S45C	S45C SUSXM7
Characteristics	Parallel Pipe Thread	Metric Fine Screw Thread Parallel Pipe Thread	Metric Fine Screw Thread	Sunk Head Plug With Hex Socket
Size	G1/8 - G1	M8 - M27 , G1/8 - G1/2	M12 - M36	R1/16 - R1/2







• Part number specification

SFF-3

SFF-8

• SFF is made of steel and can be used in

• Screw plugs for high-power hydraulic applications.

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highpressure applications up to 49 MPa.

Application

Hydraulic equipment, pneumatic machinery and equipment, and general industrial machines

Material	/Finish 4	RoHS2 Complia
	SFF	SFFS
	SCM435 (Hardness 32 - 42 HRC) Ferrosoferric Oxide Coating (Black)	SUS304

SFF Steel • Ferrosoferric Oxide Coating Unit:mm Part Number O-ring Recommendation Torque Nominal Qty per pack SFF-1 G 1/8 10 14.7 8.2 SFF-2 12 11.2 2.5 P11 29.4 17 G 1/4 21 SFF-3 2.5 G 3/8 12 24 14.2 5 P14 27 SFF-4 54 G ½ 30 18.2 10 2.5 P18 SFF-6 G ¾ 16 40 23.7 3.5 147 90 P24

10

3.5

P29

245

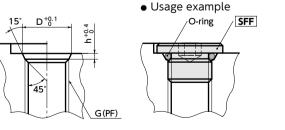
29.2 17

SFFS Stainle	ess Steel											Unit:mm
Part Number	G (PF) Nominal of Thread	L	D ₁	L1	D ₂	В	t	Lb	O-ring No.	Recommendation Torque (N·m)	Mass (g)	Qty per pack
SFFS-1	G 1/8	10	16	4	8.2	5	3	2	P8	7.4	9	1
SFFS-2	G 1/4	12	21	4	11.2	6	4	2.5	P11	14.7	17	1
SFFS-3	G ¾	12	24	4	14.2	8	5	2.5	P14	24.5	27	1
SFFS-4	G ½	16	30	4	18.2	10	6	2.5	P18	39.3	54	1
SFFS-6	G ¾	16	40	5	23.7	12	7	3.5	P24	73.5	90	1
SFFS-8	G1	21	45	5	29.2	17	10	3.5	P29	122.5	177	1

Installation	Installation Dimensions								
G(PF)	D	h							
G1/8	11.6	2							
G1⁄4	15.6	2.5							
G¾	18.6	2.5							
G1/2	22.6	2.5							
G¾	29.8	3.5							
G1	35.8	3.5							

21

45



177

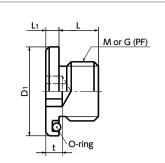
728

730

SFM / SFMS Hexagon Socket Flange Head Screw Plugs WEE Selection Tool SUS Stainless steel



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- Because O-ring is provided, grooving is not required on the female screw side part material.
- Because this is a parallel thread, strain on the female screw side part material like tightened a taper thread does not occur. It is suitable for oil hydraulic equipment / pneumatic device that are often mounted and removed.
- For stainless steel **SFMS**, metric fine screw threads and parallel pipe threads are standardized.
- Application

Oil hydraulic equipment / Pneumatic device / General industry machinery

Mater	ial/Finish	RoHS2 Compliant				
	SFM	SFMS				
Main body	SCM435 (hardness: 32 - 42 HRC) Ferrosoferric Oxide Film (Black)	SUS304				
O-ring	Nitrile rubber (Type 1 B of JIS B 2401)	Fluoro-rubber (Type 4 D of JIS B 2401)				

	,		0							OTHE THIRD
Part Number	M	L	D ₁	L1	В	t	O-ring No.	Recommendation Torque (N·m)	Mass (g)	Qty per pack
SFM-M8	M8×1	7	16	4	5	3.5	P10	15.7	4	1
SFM-M10	M10×1	8	19.5	4	5	4	P12.5	19.6	7	1
SFM-M12	M12×1.5	12	21	4	6	5	P14	27.5	14	1
SFM-M14	M14×1.5	12	23	4	6	5	P16	39.2	19	1
SFM-M16	M16×1.5	12	25	4	8	6	P18	63.7	25	1
SFM-M18	M18×1.5	12	27	4	8	6	P20	78.5	32	1
SFM-M20	M20×1.5	14	32.5	5	10	6.5	P22.4	113	47	1
SFM-M22	M22×1.5	14	35	5	10	6.5	P25	137	57	1
SFM-M24	M24×1.5	14	38	5	12	7.5	P28	201	68	1
SFM-M27	M27×2	16	40	5	12	7.5	P30	245	94	1

	,			0						OIIIL - IIIIII
Part Number	M	L	D1	L1	В	t	O-ring No.	Recommendation Torque (N·m)	Mass (g)	Qty per pack
SFMS-M8	M8×1	7	16	4	5	3.5	P10	10.9	4	1
SFMS-M10	M10×1	8	19.5	4	5	4	P12.5	13.7	7	1
SFMS-M12	M12×1.5	12	21	4	6	5	P14	19.2	14	1
SFMS-M14	M14×1.5	12	23	4	6	5	P16	27.4	19	1
SFMS-M16	M16×1.5	12	25	4	8	6	P18	44.5	25	1
SFMS-M18	M18×1.5	12	27	4	8	6	P20	54.9	32	1
SFMS-M20	M20×1.5	14	32.5	5	10	6.5	P22.4	78.9	47	1
SFMS-M22	M22×1.5	14	35	5	10	6.5	P25	96.1	57	1
SFMS-M24	M24×1.5	14	38	5	12	7.5	P28	141	68	1

SFMS Main body: Made of stainless steel / O-ring: Fluoro-rubber and parallel pipe threads Unit												
Part Number	G(PF) Nominal of Thread	L	D1	L1	В	t	O-ring No.	Recommendation Torque (N·m)	Mass (g)	Qty per pack		
SFMS-1	G 1/8	8	19.5	4	5	4	P12.5	13.3	10	1		
SFMS-2	G 1/4	12	23	4	6	5	P16	25.7	19	1		
SFMS-3	G 3/8	12	27	4	8	6	P20	50.8	28	1		
SFMS-4	G ½	14	35	5	10	6.5	P25	91.5	56	1		

• Part number specification



P30

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 pc. in 1 bag	Not Available	Not Available	Not Available	Not Available

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SFM Main body: Made of steel / O-ring: Nitrile rubber

SFMS-M27 M27×2 16

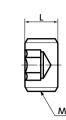
SFMS Main body: Made of stainless steel / O-ring: Fluoro-rubber and metric fine screw threads

RoHS2 Compliant

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WEB Selection WEB CAD







• For applications such as compression spring holders and oil injection opening covers.

Application

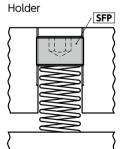
Spring holders and load adjusters, Hydraulic equipment, pneumatic machinery and equipment, and general industrial machines

Material/Finish		RoHS2 Complian
	SFP	
Main Body	S45C (Hardness: 34 - 43 HRC Ferrosoferric Oxide Film (Bla	,

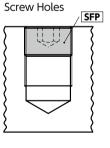
Part Number 1	M	L	В	Mass (g)	Qty per pack*1
SFP-M12	M12×1.5	10	6	5	10
SFP-M14	M14×1.5	10	6	8	10
SFP-M16	M16×1.5	10	8	10	10
SFP-M18	M18×1.5	10	10	12	5
SFP-M20	M20×1.5	12	10	20	5
SFP-M22	M22×1.5	12	12	23	5
SFP-M24	M24×1.5	12	14	27	5
SFP-M27	M27×1.5	12	14	37	5
SFP-M30	M30×1.5	12	17	44	5
SFP-M33	M33×1.5	12	17	55	5
SFP-M36	M36×1.5	18	17	107	1

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

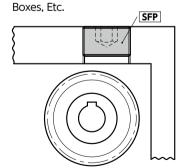
 Usage example **Compression Spring**



Protection for Unused Oil Injection Opening Cover in Gear



▶ https://www.nbk1560.com



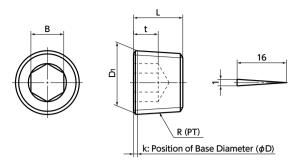
• Part number specification



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 Not Available Not Available Please feel free to contact us Not Available

SFT/SFTS Hex Socket Pipe Plugs WEB Selection VEB CAD SUS Stainless steel





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- SFT-PS and SFTS-PS are pre-coated types that do not require sealing tape or sealing agent.
- Excellent oil, gasoline, water, and heat resistance and strong sealing effect.

Application

Hydraulic equipment, pneumatic machinery and equipment, and general industrial machines

Material/Finish

SFT-PS SFTS SFTS-PS SUSXM7 SUSXM7 S45C (Hardness: 32 - 42 HRC) S45C (Hardness: 32 - 42 HRC) Main Body Ferrosoferric Oxide Film (Black) Ferrosoferric Oxide Film (Black) (Equivalent to SUS304) (Equivalent to SUS304)

SFT SFT-PS Steel	 Ferrosoferric Oxide 	Coating							Unit:mm
SFT No Seal	SFT-PS Pre-coat Seal	Common dimension	non dimensions						Qty*1
Part Number 1	Part Number 1	R(PT) Nominal of Thread	D1	k	L	В	t	Mass (g)	per pack
SFT-0.5	SFT-0.5-PS	R ½16	7.723	0.45	6	4	3	2	10
SFT-1	SFT-1-PS	R 1/8	9.728	0.45	7	5	3.5	3	10
SFT-2	SFT-2-PS	R 1/4	13.157	0.7	8.9	6	4.5	6	10
SFT-3	SFT-3-PS	R 3/8	16.662	0.7	10	8	5	11	10
SFT-4	SFT-4-PS	R ½	20.955	0.9	12	10	6	21	5

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

SFTS SFTS-PS Stainless Steel							Unit: mm		
SFTS No Seal	SFTS-PS Pre-coat Seal	Common dimension	nmon dimensions						Qty
Part Number 1	Part Number 1	R(PT) Nominal of Thread	D ₁	k	L	В	t	Mass (g)	per pack
SFTS-0.5	SFTS-0.5-PS	R 1/16	7.723	0.45	6	4	3	2	1
SFTS-1	SFTS-1-PS	R 1/8	9.728	0.45	7	5	3.5	3	1
SFTS-2	SFTS-2-PS	R 1/4	13.157	0.7	8.9	6	4.5	6	1
SFTS-3	SFTS-3-PS	R 3/8	16.662	0.7	10	8	5	11	1
SFTS-4	SFTS-4-PS	R ½	20.955	0.9	12	10	6	21	1

• Part number specification





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 P.810 Output Description P.810 Output Description Descri	Modification process for captive use → P.806
Available / Add'l charge	Not Available	Not Available	Not Available	Not Available

• VESPEL (Non-thermoplastic Polyimide Resin)

Plastic Screws

	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	T	TT	Ĩ	TT
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 PFFK

Conduct	IVE FLLK
	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		ÎÎ		NEW	NEW	T
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	Small Space Chemical Resistance • Heat Resistance	Heat Resistance For	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

Hex Head Screws

SPE-H

P.752

PEEK

Chemical Resistance · Chemical Resistance ·

M4 - M10

Hex Nuts • Washers Screw Plugs

P.754

R1/8 - R3/8

PEEK

SPE-N/SPE-W

P.753

M2 - M10

PEEK

 PVDF (Polyvinylidene Fluoride) 						
	Hex Head Screws	Socket Head Cap Screws				
Part Number	SPV-H	SPV-C				
Shape	11	1				
Page	P.771	P.772				
Materials	PVDF	PVDF				
Characteristics	Chemical Resistance	Chemical Resistance				
Size	M5 - M8	M5 - M6				

• PPS (Polyphenylene Sulfide)

P.750

M2 - M8

PEEK

Part Number SPE-F

Shape

Page

Size

Materials

Cross Recessed Flat Hex Socket Set

P.751

PEEK

M3 - M8

Head Machine Screws Screws

- 113 (134)	, pricir, terre sutire	,				
	Socket Head Cap Screws		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
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 Flat Head Machine Screws
Part Number	SPA-C	SPA-LC	SPA-MC	SPA-MF	SPA-P	SPA-F
Shape	ÎĬ		NEW	NEW	11	T
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 Shar

Shape	T	
Page	P.767	P.768
Materials	RENY	RENY
Characteristics	High Strength	High Strength
Size	M5 - M10	M2 - M16

PTFE (Tetrafluoroethylene: Teflon)

(ti aitaoi octii, tein	or remon,
	Hex Head Screws	Hex Nuts • Washers
Part Number	SPT-H	SPT-N/SPT-W
Shape	1	
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

	.,,	
	Hex Head Screws	Socket Head Cap Screws
Part Number	SPV-H	SPV-C
Shape	11	1
Page	P.771	P.772
Materials	PVDF	PVDF
Characteristics	Chemical Resistance	Chemical Resistance
Size	M5 - M8	M5 - M6

H-PVC (Hard Polyvinyl Chloride)

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

PP (Polypropylene)

PP (POLY	oropytene)	
	Hex Head Screws	Hex Nuts • Washers
Part Number	SPP-H	SPP-N/SPP-W
Shape	17	000
Page	P.773	P.774
Materials	PP	PP
Characteristics	Chemical Resistance	Chemical Resistance
Size	M4 - M10	M4 - M10

PC (Polycarbonate)

PC (POLY	carbonate)	
	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

NBK

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Properties of Plastic Screws

• The Abbreviations, Names, and Heat Resistance **Temperature of Plastics**

Abbreviation	Name	Heat Resistance Temperature
VESPEL*	SP-1	288°C
VESPEL	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

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.
- •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	НВ	V-2	НВ	V-0
Dielectric Constant (106 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)

Thysical Hoperius (11-1 ve)							
Properties	Test Meth	od (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.

• Chemical Resistance

Chemical Name	VESPEL SP-1	VESPEL SCP-5000	PEEK	PTFE	PPS	H-PVC	RENY	PC	PP	PVDF
10% Hydrochloric Acid	0	0	0	0	0	0	×	0	0	0
10% Sulfuric Acid	0	0	0	0	0	0	×	0	0	0
50% Sulfuric Acid	×	\triangle	×	0	×	0	×	\triangle	_	0
10% Nitric Acid		\triangle	0	0	0	0	×	0	0	0
50% Nitric Acid	×	×	×	0	×	Δ	×	\triangle	_	0
10% Hydrofluoric Acid		\triangle	-	0	\triangle	Δ	×	0	0	0
50% Hydrofluoric Acid	×	×	×	0	×	Δ	×	\triangle	\triangle	\triangle
Phosphoric Acid	_	-	0	0	Δ	0	×	0	0	0
Formic Acid	\triangle	\triangle	\triangle	0	0	Δ	×	0	0	0
Phosphoric Acid	0	0	0	0	0	0	×	0	0	0
Citric Acid	0	0	0	0	0	0	\triangle	0	0	0
Chromic Acid	_	-	0	0	Δ	0	×	0	0	0
Boric Acid	0	0	0	0	0	0	\triangle	0	0	0
Methyl Alcohol		\triangle	0	0	0	0	-	Δ	-	0
Glycol	0	0	0	0	0	_	_	0	_	_
Ammonia	×	\triangle	0	0	0	0	0	×	0	0
10% Sodium Hydroxide	×	\triangle	0	0	0	0	0	_	0	0
10% Potassium Hydroxide	×	Δ	0	0	Δ	0	0	×	0	0
Calcium Hydroxide	_	_	0	0	\triangle	0	×	0	0	0
Water	0	0	0	0	0	0	Δ	0	0	0
Hydrogen Sulfide (Gas)	_	_	0	0	0	_	0	0	0	0
Sulfur Dioxide	_	-	0	0	\triangle	_	0	0	0	-
Ammonium Nitrate	_	_	0	0	0	_	0	0	0	0
Sodium Nitrate	_	_	0	0	0	_	0	×	0	0
Calcium Carbonate	_	_	0	0	0	_	0	×	0	0
Calcium Chloride	_	_	0	0	0	0	0	0	0	0
Magnesium Chloride	_	_	0	0	0	0	0	0	0	0
Magnesium Sulfate	_	-	0	0	0	_	0	0	0	0
Zinc Sulfate	_	_	0	0	0	_	0	0	0	0
Hydrogen peroxide	Δ	Δ	0	0	Δ	0	Δ	0	0	0

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)

► https://www.nbk1560.com

	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.

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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.

Chemical Resistance

VESPEL is resistant to various chemicals.

- Plasma Resistance
- Radiation Hardness
- Abrasion Resistance

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.



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



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

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	℃	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.

Low Outgas

Outgassing in vacuum 350C - 30min

Chemical Resistance

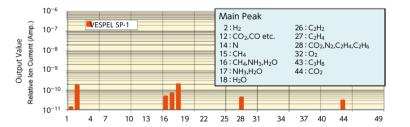
Chemical Name	VESPEL SP-1	VESPEL SCP-5000
10% Hydrochloric Acid	0	0
10% Sulfuric Acid	0	0
50% Sulfuric Acid	×	\triangle
10% Nitric Acid	Δ	Δ
50% Nitric Acid	×	×
10% Hydrofluoric Acid	Δ	Δ
50% Hydrofluoric Acid	×	×
Formic Acid	Δ	Δ
Phosphoric Acid	0	0
Citric Acid	0	0
Boric Acid	0	0
Methyl Alcohol	Δ	Δ
Glycol	0	0
Ammonia	×	\triangle
10% Sodium Hydroxide	×	\triangle
10% Potassium Hydroxide	×	\triangle
Water	0	0
Hydrogen Peroxide	Δ	Δ
.		

O 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.



: Quadrupole Mass Spectrometer (QMS) Instrument

Heating temperature: 350 °C Heating time : 30 minutes

NBK

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

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



► https://www.nbk1560.com

VESPEL is a registered trademark of DuPont.

NBK

► https://www.nbk1560.com

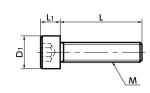
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SPD-C Plastic Screw - Socket Head Cap Screws - VESPEL(Grade: SP - 1)



Unit:mm

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

- 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 superengineering 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℃.
- 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

Part Number	M 💶	L 2									D ₁	L1	В	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	40	10	6	5	0.95	0.86 - 2
SPD-M8-C	M8			10	12	16	20	25	30	40	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 ℃ is available.

→ P.741

NBK



▶ https://www.nbk1560.com

• Part number specification



1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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 Complian
	SPD-H
Main Body	VESPEL SP-1 (Non-thermoplastic Polyimide Resin
Heat Resistance Temperature*1	288℃
\/CCDCL is a variationed tradem	and of Dupont

- 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.



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- VESPEL SP-1 is a non-thermoplastic superengineering 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℃.
- 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	L € 2								В	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	40	10	4	0.95	0.82 - 1.8
SPD-M8-H	M8			10	12	16	20	25	30	40	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 ℃ is available.



• Part number specification

SPD	-M5	- 20	-H
Product Code	41	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

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

- 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.



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- VESPEL SP-1 is a non-thermoplastic superengineering 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
- 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

															Officential
Part Number	M 💶	L 2							D1	L1		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	40	10	6	5	1.65	0.86 - 2
SPDC-M8-C	M8			10	12	16	20	25	30	40	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.

SPDC-C Plastic Screw - Socket Head Cap Screws - VESPEL (Grade: SCP - 5000)

RoHS2 Compliant

CAD Cleanroom wash & packaging Heat-resistance Chemical-proof

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

NBK

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

→ P.739

▶ https://www.nbk1560.com

• Part number specification

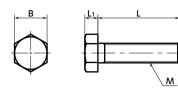


1 Inclividual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🚛 Screw Length Adjustment → P.811 🖭 Vibration Resistant → P.810 🚞 Modification process for captive use → P.806 1 unit in 1 bag Cleanroom washed and packed Available / Add'l charge Not Available Please feel free to contact us

CAD Download Cleanroom wash & packaging Heat-resistance Chemical-proof

SPDC-H Plastic Screw - Hex Head Screws - VESPEL (Grade: SCP - 5000)

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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 Complian
	SPDC-H
Main body	VESPEL SCP-5000 (Non-thermoplastic Polyimide Resin
Heat Resistance Temperature*1	350℃

- 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 superengineering 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℃. Due to its stable and long-term heat resistance, it has a continuous duty temperature of
- 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

Part Number	M 1	L 2	◆2										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) Socket Head Cap Screw, which has a heat resistance temperature of 280 deg C is available. → P.740

• Part number specification





NBK

Material/Finish

RoHS2 Compliant SPEC-C

CAD
Download

Electric conducting property

Chemical-proof

SPEC-C Plastic Screw Conductive PEEK / Hex Socket Head Cap Screws

PEEK (Polyether ether ketone, carbon combined) Main body

180℃

Heat resistance temperature*1

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



e-nedzi.com®

- 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.

Unit:m	m
--------	---

Part Number	M 💶	L 1 2		D1	L1		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

▶ https://www.nbk1560.com

• Part number specification

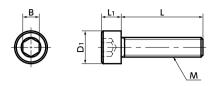
SPEC	-M5	- 30	-C
Product Code	41	1 2	Product Code

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 Wee Selection Wee CAD Chemical-proof





 Material/Finish RoHS2 Compliant SPE-C PEEK/Light brown Main body Heat Resistance Temperature* 180℃

*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	L 42									D1	Lı	В	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



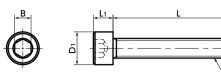
Order in number of packs. Also sold separately from 1 piece up. → P.809

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

Chemical-proof Full Thread

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

RoHS2 Compliant



Material/Finish

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

*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.



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- 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
- 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 1	L 1 2						D ₁	L1	В	Tension*1 Rupture Load (N)	l orsional* i	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



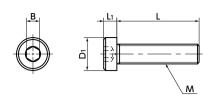
▶ https://www.nbk1560.com

• Part number specification



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

SPE-LC Plastic screw - Hex Socket Low Head Bolt - PEEK 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 Complian
	SPE-LC
Main body	PEEK / Light Brown
Heat resistance temperature*1	180℃

*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.



e-nedzi.com®

- 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
- It is highly frame-resistant satisfying V-0 of the UL standard 94.
- Plastic screw properties and precautions for use → P.735

	<u> </u>															Unit:mm
Part Number	M 1	L 1 2										L1	К	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



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

1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

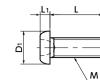
NBK

Chemical-proof Miniature Size



e-nedzi.com®





Material/Finis	h	RoHS2 Compliant
	SPE-MC	
Main body	PEEK / Light Brown	
Heat resistance temperature*1	180℃	

*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
- 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 42					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

▶ https://www.nbk1560.com

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

• Part number specification



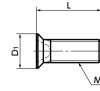
Order in number of packs. Also sold separately from 1 piece up. → P.809

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

e-nedzi.com®

SPE-MF Plastic Screw (PEEK/Machine Screw for Precision Instruments) Chemical-proof Miniature Size





 Material/Finish RoHS2 Complian SPE-MF PEEK (Polyether ether ketone) (Light brown) Main unit Heat resistance temperature*1 180℃

*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

							Offic Thirt			
Part Number	M 💶	L 2	L 1 2		D 1		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

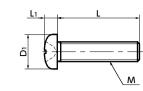


Place order by a bag. Also sold separately from 1 piece up. → P.809

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







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

• Material/Tillisii	RoHS2 Compliant
	SPE-P
Main body	PEEK/Light brown
Heat Resistance Temperature*1	180℃

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



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- 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 2	●2											L1	Tension*1 Rupture Load (N)	Torsional*	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

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.

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

Related Products

NBK

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

→ P.753



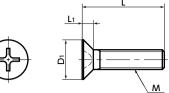
▶ https://www.nbk1560.com

• Part number specification

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





 Material/Finish RoHS2 Compliant SPE-F Main body PEEK/Light brown Heat Resistance Temperature* 180℃

*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.

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- 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

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Part Number	M 1	M 1 L 2										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

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

750

Heat Resistance Temperature* 180℃

Material/Finish

Main body

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.

*1: This is the value for the plastic material. The maximum

operating temperature of the product changes with

performance conditions such as tightening torque.

SPE-T

PEEK/Light brown

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

RoHS2 Compliant



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- These screws have excellent abrasion, shock, and fatigue resistance.
- They have high incombustibility that meets V-0 of
- 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 11	L 12										В	t	Torsional*1 Torque (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	2.26	0.13 - 0.68
SPE-M8-T	M8					10	12	15	20	25	30	4	5	5.98	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

NBK

751

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



▶ https://www.nbk1560.com

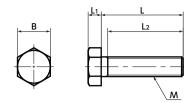
• Part number specification



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

1 Individual Sales → P.809	Cleanroom Wash & Packaging \Rightarrow P.807	(m) im 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 CAD Chemical-proof



 Material/Finish RoHS2 Compliant SPE-H Main body PEEK/Light brown Heat Resistance Temperature* 1 180℃

*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.

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- They have high incombustibility that meets V-0 of
- 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 【2	42								В	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	0.75 - 1.6
SPE-M8-H	M8		10		15	20	25	30		40		13	5.5	Full Thread	3090	5.98	1.6 - 4.1
SPE-M8-H	M8										50	13	5.5	27	3090	5.98	1.6 - 4.1
SPE-M10-H	M10					20	25	30				17	7	Full Thread	4900	10.8	4 - 4.8

*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.

• 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

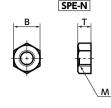


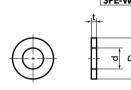
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1 Inclividual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 🚅 Vibration Resistant → P.810 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge Available / Add'l charge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

NBK







Material/Finish

• Material/Tillish	ROHSZ Compil
	SPE-N / SPE-W
Main body	PEEK/Light Brown
Heat Resistance Temperature*1	180℃

- *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



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- They have high incombustibility that meets V-0 of
- 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

SPE-N Hex Nuts						Unit:mm
Part Number 1	M	В	Т	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 1	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

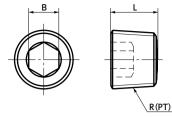
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1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not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

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- They have high incombustibility that meets V-0 of
- 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℃

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

I Init ' mm

Part Number 1	R (PT) Nominal of Thread	L	В	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



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

Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	7 (maximum Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
vailable / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

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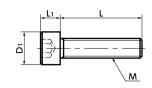
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NBK

SPS-C Plastic Screw - Hex Socket Head Cap Screws - PPS CAD
Download
Heat-resistance
Chemical-proof



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Material/Finish

RoHS2 Compliant SPS-C

PPS (Polyphenylene Sulfide) / Bright Light Brown Main body Glass Fiber 40%

Heat Resistance 200℃ Temperature*1

*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℃. Under 200℃, 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

Part Number	M	L 2	l								D1	L1	В	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				7	4	3	980	0.71	0.32 - 0.56
SPS-M5-C	M5		8	10	12	15	20	25	30		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

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

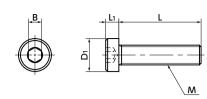
• Part number specification

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



temperature*1

 Material/Finish RoHS2 Compliant SPS-LC Main body (Poly Phenylene Sulfide) (Bright Light Brown) (Glass fiber 40%) Heat resistance 200℃

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



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- 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℃ 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 2									D1	L1	R	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



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



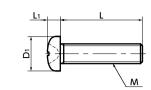
SPS-P Plastic Screw - Cross Recessed Pan Head Machine Screws - PPS CAD
Download
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Heat-resistance
Chemical-proof

RoHS2 Compliant



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Material/Finish

Glass Fiber 40%

PPS (Polyphenylene Sulfide) / Bright Light Brown

Main body

Heat Resistance 200℃ Temperature*1

*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

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Part Number	M 1	L 2										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

▶ https://www.nbk1560.com

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

• Part number specification

SPS-	M5	- 20	-	P
Product Code	41	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 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge Available / Add'l charge | Not Available

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



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 Material/Finish RoHS2 Compliant PPS (Polyphenylene Sulfide) / Bright Light Brown Main body Glass Fiber 40% Heat Resistance 200℃ Temperature*1

*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℃. Under 200℃, 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 1	L 1 2						D1	L1	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



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

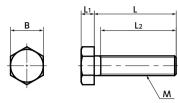
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SPS-H Plastic Screw - Hex Head Screws - PPS CAD

Download

Heat-resistance

Chemical-proof



 Material/Finish RoHS2 Compliant PPS (Polyphenylene Sulfide) / Bright Light Brown Main body Glass Fiber 40% Heat Resistance 200℃ Temperature*1

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



e-nedzi.com®

- 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

Part Number	M	L 1									В	L1	L ₂ *1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)
SPS-M4-H	M4	8	10	12	15	20	25				7	2.8	Full Thread	980	0.71	0.33 - 0.62
SPS-M5-H	M5	8	10	12	15	20	25	30			8	3.5	Full Thread	1570	1.42	0.54 - 1.1
SPS-M6-H	M6		10	12	15	20	25	30	40		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				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



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



• Material/Finish RoHS2 Compliant SPS-N / SPS-W PPS (Polyphenylene Sulfide) / Bright Light Brown Main body Glass Fiber 40% Heat Resistance 200℃ Temperature*1

*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℃. Under 200℃, 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:mn
Part Number 1	M	В	Т	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: mr
Part Number 1	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





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

Material/Finish

Main body

Heat Resistance

Temperature*2

Plastics Corporation.

Special Screws

761

Part Number SPA-M3-C 20 20 SPA-M4-C SPA-M5-C 20 SPA-M6-C 10

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

10

SPA-M8-C

SPA-C Plastic Screw - Hex Socket Head Cap Screws - RENY WEB CAD
Download High strength

RoHS2 Compliant

SPA-C

/Black

105℃

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

*2: This is the value for the plastic material. The maximum

operating temperature of the product changes with

performance conditions such as tightening torque.

RENY*1 (50% Glass Fiber

Reinforced Polyamide MXD6)



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• RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.

- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws → P.735
- Application

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

																	Unit:mm
Part Number	M 💶	L 《2								D1	Lı	В	Tension*1 Rupture Load (N)	Torsional*1 Torque (N•m)	Mass (g)		
SPA-M3-C	M3	6	8	10	12	15	20					5.5	3	2.5	635	0.39	0.15 - 0.29
SPA-M4-C	M4	6	8	10	12	15	20					7	4	3	1470	0.79	0.32 - 0.56
SPA-M5-C	M5			10	12	15	20	25	30	35		8.5	5	4	2450	1.77	0.57 - 1.3
SPA-M6-C	M6					15	20	25	30	35	40	10	6	5	3140	2.94	1.2 - 2.3
SPA-M8-C	M8					15	20	25	30	35	40	13	8	6	5100	7.85	2.5 - 4.4

*1: Values

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

Not Available

	M4	6	8	10	12	15	20					7	4	3	1470	0.79	0.32 - 0.56
:	M5			10	12	15	20	25	30	35		8.5	5	4	2450	1.77	0.57 - 1.3
:	M6					15	20	25	30	35	40	10	6	5	3140	2.94	1.2 - 2.3
	M8					15	20	25	30	35	40	13	8	6	5100	7.85	2.5 - 4.4
es in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque.																	
er Qty per pack*1																	

• Part number specification

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

Not Available

Order in number of packs.

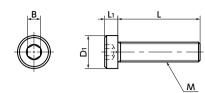
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CAD
Download
High strength





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 Material/Finish RoHS2 Compliant SPA-LC Main body (Glass Fiber 50% Reinforced Polyamide MXD6) (Black) Heat resistance 105℃ temperature*2

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



- Hex socket head cap screw with low head.
- For space-saving of equipment/device and applications with a limited top space.
- RENY is thermoplastic engineering plastics with excellent tensile strength and bending strength.
- It is highly fatigue-resistant and has excellent creeping and heat insulation properties.
- While it is nearly as strong as metal, its weight is approximately 1/5 of iron.
- Plastic screw properties and precautions for use → P.735

Application

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

																Unit: mm
Part Number	M 1	L 💤	1								D1	L1	В	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPA-M3-LC	M3	6	8	10	12	16	20				5.5	2	2	740	0.31	0.11 - 0.25
SPA-M4-LC	M4	6	8	10	12	16	20				7	2.8	2.5	1325	0.62	0.24 - 0.48
SPA-M5-LC	M5			10	12	16	20	25	30		8.5	3.5	3	2050	1.20	0.43 - 1.0
SPA-M6-LC	M6					16	20	25	30	40	10	4	4	2798	2.15	0.96 - 2.1

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

Qty per pack*1
20
20
20
20

▶ https://www.nbk1560.com

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

NBK

• Part number specification



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

Available / Add'l charge | Available / Add'l charge

NBK

WEB CAD Download High strength Miniature Size

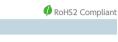


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SPA-MC

• Material/Finish



RENY*1 (Glass Fiber 50% Reinforced Polyamide MXD6)

Heat resistance 105℃ temperature*2

Main body

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



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

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

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

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

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

▶ https://www.nbk1560.com

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

• Part number specification



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

e-nedzi.com®

SPA-MF Plastic Screw (RENY/Machine Screw for Precision Instruments) Selection Tool Pownload High strength Miniature Size









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

Application

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

• Matorial/Einich

• Material/Firisii	RoHS2 Compliant
	SPA-MF
Main unit	RENY*1 (Glass Fiber 50% Reinforced Polyamide MXD6) (Ivory)
Heat resistance temperature*2	105℃

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

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

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

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

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

• Part number specification

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

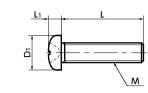
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SPA-P Plastic Screw - Cross Recessed Pan Head Machine Screws - RENY



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Selection CAD Download Pligh strength

Application

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

 Material/Finish 	PROHS2 Complian
	SPA-P
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6)/Ivory
Heat Resistance Temperature* ²	105℃

- *1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.
- *2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.



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

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

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

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

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

• Part number specification

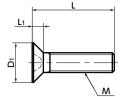


Also sold separately from 1 piece up. → P.809

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
wailable / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

e-nedzi.com® **SPA-F** Plastic Screw RENY / Phillips Cross Recessed Flat Head Machine Screws

Selection CAD Download High strength



Material/Finish

RoHS2 Compliant

	Jr A-r
Main body	RENY*1 (50% Glass Fiber Reinforced Polyamide MXD6)/Ivory
Heat Resistance Temperature* ²	105℃

- *1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.
- *2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.



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

Application

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

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

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

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

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

• Part number specification

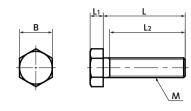


Also sold separately from 1 piece up. → P.809

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

NBK





Material/Finish

RoHS2 Compliant

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

- *1: RENY is a registered trademark of Mitsubishi Engineering-Plastics Corporation.
- *2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.



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• RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.

- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws → P.735
- Application

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

Part Number	M	L 42					В	L1	L2*1	Tension*2 Rupture Load (N)	Torsional*2 Torque (N·m)	Mass (g)				
SPA-M5-H	M5			15	20	25	30				8	3.5	Full Thread	2450	1.77	0.72 - 1.1
SPA-M6-H	M6	10	12	15	20	25	30	35	40		10	4	Full Thread	3140	2.94	0.95 - 2.1
SPA-M8-H	M8			15	20	25	30	35	40	50	13	5.5	27(L=50)	5100	7.85	2.3 - 4.8
SPA-M10-H	M10					25	30	35	40	50	17	7	27(L=50)	6900	12.75	5.6 - 8.3

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

▶ https://www.nbk1560.com

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

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

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

• Part number specification



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
vailable / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

SPA-N/SPA-W Plastic Screw - Hex Nuts / Washers - RENY WES Selection CAD Download Pligh Strength

Reinforced Polyamide MXD6)







 Material/Finish RoHS2 Compliant SPA-N / SPA-W RENY*1 (50% Glass Fiber

Heat Resistance Temperature*2

Main body

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

/Ivory

105℃

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

SPA-N

e-nedzi.com®

• RENY is a thermoplastic super-engineering plastic with excellent tensile and flexural strength.

- Screws have excellent fatigue resistance, cleanliness, and thermal insulation.
- It has a hardness level near that of metal but its mass is 1/5th that of iron.
- The properties and precautions of plastic screws → P.735
- Application

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

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

*1: Also sold separately from 1 piece up. → P.809 SPA-W Washers

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

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

• Part number specification



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

SPT-H Plastic Screw - Hex Head Screws - PTFE: Teflon

e-nedzi.com®

Chemical-proof

 Material/Finish RoHS2 Compliant SPT-H PTFE (Tetrafluoroethylene: Teflon*1) Main body /White Heat Resistance Temperature*2 260°C

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



- PTFE (Teflon) is a plastic with excellent heat resistance, electrical properties, chemical resistance, and abrasion resistance. Most chemicals cannot penetrate it.
- 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, and chemical plants

																Unit:mm
Part Number	M 1	L 1 2											В	L1	Tension*1 Rupture Load (N)	Mass (g)
SPT-M3-H	M3	6	8	10	12	16	20						5.5	2	45	0.18 - 0.35
SPT-M4-H	M4		8	10	12	16	20	25					7	2.8	79	0.41 - 0.77
SPT-M5-H	M5			10	12	16	20	25	30				8	3.5	128	0.74 - 1.4
SPT-M6-H	M6			10	12	16	20	25	30	40			10	4	181	1.2 - 2.6
SPT-M8-H	M8					16	20	25	30	40	50		13	5.5	329	3 - 6
SPT-M10-H	M10						20	25	30	40			17	7	522	6.3 - 9
SPT-M12-H	M12							25	30	40	50	60	19	8	759	10 - 17

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

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Part Number	Qty per pack
SPT-M3-H	1
SPT-M4-H	1
SPT-M5-H	1
SPT-M6-H	1
SPT-M8-H	1
SPT-M10-H	1
SPT-M12-H	1

• Part number specification

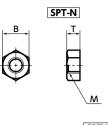
SPT-M8-40-H

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.805 1 unit in 1 bag Available / Add'l charge Available / Add'l charge | Not Available

SPT-N/SPT-W Plastic Screw - Hex Nuts / Washers - PTFE: Teflon

e-nedzi.com®

Selection Tool Heat-resistance Chemical-proof





 Material/Finish RoHS2 Compliant SPT-N / SPT-W PTFE (Tetrafluoroethylene: Teflon*1) Main body /White Heat Resistance Temperature*2 260℃

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



- PTFE (Teflon) is a plastic with excellent heat resistance, electrical properties, chemical resistance, and abrasion resistance. Most chemicals cannot penetrate it.
- 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, and chemical plants

SPT-N Hex Nuts					Unit: mm
Part Number 1	Μ	В	T	Mass (g)	Qty per pack
SPT-M3-N	M3	5.5	2.4	0.09	1
SPT-M4-N	M4	7	3.2	0.21	1
SPT-M5-N	M5	8	4	0.37	1
SPT-M6-N	M6	10	5	0.67	1
SPT-M8-N	M8	13	6.5	1.5	1
SPT-M10-N	M10	17	9	2.8	1
SPT-M12-N	M12	19	10	4.2	1

SPT-W Washers						Unit:mm
Part Number 1	d	D	t	Nominal	Mass (g)	Qty per pack
SPT-3-W	3.2	7	0.5	3	0.032	1
SPT-4-W	4.3	9	0.8	4	0.082	1
SPT-5-W	5.3	10	1	5	0.12	1
SPT-6-W	6.4	12.5	1.6	6	0.3	1
SPT-8-W	8.4	17	1.6	8	0.57	1
SPT-10-W	10.5	21	2	10	1.1	1
SPT-12-W	13	24	2.5	12	1.7	1

• Part number specification

SPT-M8-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

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NBK

SPV-H Plastic Screw PVDF / Hex Head Screws



e-nedzi.com®

 Material/Finish RoHS2 Compliant SPV-H PVDF (Polyvinylidene Fluoride) Main body (Milky White) Heat resistance temperature* 150℃

*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

Part Number	M 1	L 42				В	l 1	Rupture Load	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

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

• Part number specification



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

Selection CAD Chemical-proof

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



e-nedzi.com®

Application

A A . I I /E' . . . I

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

• Mat	erial/Finisn	RoHS2 Complia
		SPV-C
Main b	ody	PVDF (Polyvinylidene Fluoride) (Milky White)
Heat re	sistance temperature*1	150℃

*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 1	L 1			D1	L1	В	Runture	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



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 CAD Chemical-proof



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e-nedzi.com®

Heat Resistance Temperature* 1 65℃

 Material/Finish RoHS2 Compliant SPP-H Main body PP (Polypropylene) / Milky White

*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

Part Number	M 1	L €2	L 1 2							L1	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



▶ https://www.nbk1560.com

• Part number specification

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

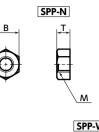
Selection CAD Chemical-proof

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



e-nedzi.com®







 Material/Finish RoHS2 Compliant SPP-N / SPP-W Main body PP (Polypropylene) / Milky White Heat Resistance Temperature* 65℃

*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 1	M	В	Т	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





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

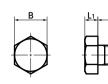
1 Individual Sales → P.809 🕵 Cleanroom Wash & Packaging → P.807 🔐 Screw Length Adjustment → P.811 🖭 Vibration Resistant → P.810 ≌ Modification process for captive use → P.806 Available / Add'l charge | Available / Add'l charge Not Available Not Available

NBK

SPVC-H Plastic Screw - Hex Head Screws - H - PVC CAD Chemical-proof



e-nedzi.com®



Material/Finish

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

- *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 1	L 1 2	.42										Tension*1 Rupture Load (N)	Mass (g)
SPVC-M4-H	M4	10	12	16	20	25	30	35			7	2.8	200	0.3 - 0.65
SPVC-M5-H	M5	10	12	16	20	25	30	35	40		8	3.5	400	0.48 - 1.1
SPVC-M6-H	M6	10	12	16	20	25	30	35	40	50	10	4	670	0.78 - 2

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

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

• Part number specification



1 Inclividual 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





• 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. •2

IV——Ivory

- 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℃

- *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.

SPVC-N Hex Nuts			periorina	aee eea	Unit:mm
Part Number 1	M	В	Т	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

SPVC-W Washers						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



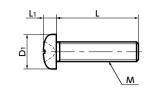
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	(Vibration Resistant → P.810	Modification process for captive use → P.806
1 pc. in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

SPC-P Plastic Screw - Cross Recessed Pan Head Machine Screws - PC



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Material/Finish

• Material inisi	Ronsz Compila
	SPC-P
Main body	PC (Polycarbonate) (Transparent)*
Heat Resistance Temperature*2	115℃

- *1: SPC-M1.7-3-P SPC-M1.7-4-P are black.
- *2: This is the value for the plastic material. The maximum operating temperature of the product changes with performance conditions such as tightening torque.



- PC (polycarbonate) has the highest shock resistance of engineering plastics.
- Max. Operating Temperature*2 (min./max.): -40/115 deg C
- PC has low water absorbency and excellent weather resistance.
- The properties and precautions of plastic screws → P.735
- Application

Electrical and electronic equipment and automobiles

																Unit:
Part Number	M 1	L 2	€2									D1	L1	Tension*1 Rupture Load (N)	Torsional*1 Torque (N·m)	Mass (g)
SPC-M1.7-P	M1.7	3	4									2.5	0.5	47	0.02	0.0066 - 0.008
SPC-M2-P	M2	3	4	5	6							3.5	1.3	112	0.05	0.02 - 0.028
SPC-M3-P	M3			5	6	8	10	12	15			5.5	2	300	0.22	0.075 - 0.14
SPC-M4-P	M4				6	8	10	12	15			7	2.6	515	0.54	0.16 - 0.27
SPC-M5-P	M5						10	12	15	20		9	3.3	750	1.03	0.38 - 0.56
SPC-M6-P	M6						10	12	15	20	25	10.5	3.9	1080	1.37	0.6 - 1

*1: Values in chart are for reference only. They are not guaranteed values. The recommendation torque is 50% of the torsional torque. • M1.7 is black.

Part Number	Qty per pack*1
SPC-M1.7-P	50
SPC-M2-P	50
SPC-M3-P	50
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

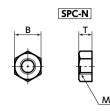


1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Not Available	Not Available

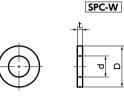
SPC-N/SPC-W Plastic Screw - Hex Nuts / Washers - PC



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WEB Selection WEB CAD Download



- PC (polycarbonate) has the highest shock resistance of engineering plastics.
- Max. Operating Temperature*1 (min./max.): -40/115 deg C
- PC has low water absorbency and excellent weather resistance.
- The properties and precautions of plastic screws → P.735
- Application

Electrical and electronic equipment and automobiles

Material/Finish

• Material/Firisii	RoHS2 Compliant				
	SPC-N / SPC-W				
Main body	PC (Polycarbonate) (Transparent)				
Heat Resistance Temperature*1	115℃				

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

SPC-N Hex Nuts					ı	Unit:mm
Part Number 1	M	В	Т	Mass (g)	Qty per pack*1	
SPC-M2-N	M2	4	1.6	0.019	50	
SPC-M3-N	M3	5.5	2.4	0.052	50	
SPC-M4-N	M4	7	3.2	0.12	50	
SPC-M5-N	M5	8	4	0.18	50	
SPC-M6-N	M6	10	5	0.37	20	

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

SPC-W Washers						Unit : n
Part Number 1	d	D	t	Nominal	Mass (g)	Qty per pack*1
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

► https://www.nbk1560.com

NBK

• Part number specification



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

Washers/Lock Nuts

e-nedzi.com®

Washers



	Ribbed Lock Washers	Sealing Washers	Spherical Washers	High Intensity Flat Washers	Bezel Washers
Part Number	SWR	sws	SQW / SQWS	SWF	SWBS
Shape	Additional Size	New Variation Added	Additional Size	0	
Page	P.791	P.793	P.794	P.795	P.796
Materials	Equivalent to S70CM SUS304	SUS304	S45C SUS304	SCM435	SUS303
Characteristics	Vibration Resistant	Air and Liquid Leak Prevention	Support Surface Tilt to 2°	Vibration Resistant High strength	For Flat Screws
Size	Nominal diameter 2 to 20	Nominal diameter 3 to 16	Nominal diameter 3 to 12	Nominal diameter 6 to 16	Nominal diameter 4 to 8

• Hex Lock Nuts • Cover Caps

	Hex Lock Nuts	Cover Caps			
Part Number	swus	SCC	SCH		
Shape					
Page	P.797	P.798	P.799		
Materials	SUS304	Polypropylene	Polyethylene		
Characteristics	Vibration Resistant	For Socket Head Cap Screws	For Hex Head		
Size	M6 - M12	For M5 - M20	For M5 - M16		

CAD Data

Download

https://www.nbk1560.com/

Selection

Navigator

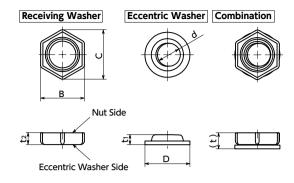
NBK

SWAS-EW Eccentric Lock Washer™ NEW SUS Stainless steel

Vibration resistant treatment



e-nedzi.com®



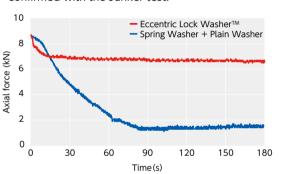
Precautions for Use

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

SWAS-10-EW



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



Test conditions

Bolt size: M10 - 40

Distance between washer surfaces: 24mm

Amplitude: ±0.43mm Vibration: 3.3Hz Test time: 180 sec

Application

Vibration resistant treatment

Material/Finish		RoHS2 Compliant
	SWAS-EW	
Receiving Washer	SUS304	
Eccentric Washer	SLIS304	

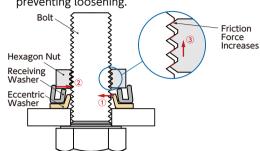
											Unit:mm
Part Number	Nominal	D	d	В	С	t1	t2	t	Reference tightening torque (N·m)	Mass (g)	Qty per pack
SWAS-6-EW	6	12	6.05	11.6	13.3	2.65	2.9	3.9	10	1.5	100
SWAS-8-EW	8	17	8.1	15	17.3	3.3	3.9	5.1	28	3.5	100
SWAS-10-EW	10	21	10.2	19.8	22.8	4.05	4.8	6.2	55	7.2	100
SWAS-12-EW	12	24	12.2	22	25.4	4.5	6	7.5	90	11	100

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

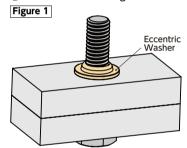
1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment -> P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

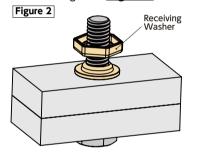
Structure

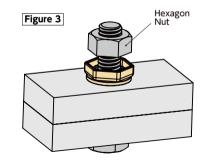
- 1) Tightening hexagon nuts causes eccentric washers to bite into bolts.
- ②Receiving washers press hexagon nuts into bolts.
- ③Receiving washers then press hexagon nuts upward, increasing friction between hexagon nuts and bolts and preventing loosening.



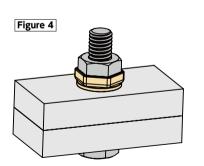
- Installation Method
- ①Mount eccentric washers with convex side upward. Figure 1
- ②Mount receiving washers with concave side upward. Figure 2
- ③Screw in hexagon nuts until they lightly contact receiving washers. Figure 3
- (4) Check that receiving washers and hexagon nuts are mated, and tighten.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







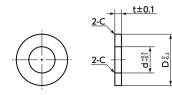
NBK



Washers/ Lock Nuts

784

SWA-AW Adjust Washer - Steel - Ferrosoferric Oxide Film



*D=16 or less : C0.2 or less D=20 or more : C0.5 or less



- There is a variety of outside diameters and thickness relative to normal plain washers.
- For securing seating surface on the long hole position and engagement of materials with low marginal seating surface pressure such as aluminum and resin.
- For adjustment of cumulative error in assembly.
- Application

Height adjustment / Seating surface fall prevention

 Material/Finish 	RoHS2 Compliant
	SWA-AW
Main body	S45C Ferrosoferric Oxide Film (Black)

									Onit - ini
		- 479	t 43			Qty*1			
Part Number	d 11	D 12	1	1.5	2	3	5	Mass (g)	per pack
SWA-2-8-AW	2	8	•		•			0.38 - 0.75	10
SWA-3-8-AW	3	8	•		•			0.35 - 0.69	10
SWA-4-8-AW	4	8	•	•	•			0.3 - 0.6	10
SWA-4-10-AW	4	10	•		•	•		0.53 - 1.6	10
SWA-4-12-AW	4	12	•		•	•		0.8 - 2.4	10
SWA-4-15-AW	4	15			•	•		2.6 - 3.9	10
SWA-5-8-AW	5	8	•	•	•			0.25 - 0.49	10
SWA-5-10-AW	5	10	•		•	•		0.47 - 1.4	10
SWA-5-12-AW	5	12	•		•	•		0.74 - 2.2	10
SWA-5-15-AW	5	15			•	•		2.5 - 3.7	10
SWA-5-16-AW	5	16			•	•		2.9 - 4.3	10
SWA-5-20-AW	5	20	•		•			2.3 - 4.7	10
SWA-6-10-AW	6	10	•		•	•		0.4 - 1.2	10
SWA-6-12-AW	6	12	•		•	•		0.68 - 2	10
SWA-6-15-AW	6	15			•	•		2.4 - 3.5	10
SWA-6-16-AW	6	16			•	•	•	2.7 - 6.8	10
SWA-6-20-AW	6	20	•		•	•	•	2.3 - 11	10
SWA-6-25-AW	6	25			•	•	•	7.3 - 18	10

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

									Unit: mm
Part Number	d 1	D 1 2	t 3	1.5	2	3	5	Mass (g)	Qty*1 per pack
SWA-8-12-AW	8	12			•	•	•	1 - 2.5	10
SWA-8-16-AW	8	16			•	•	•	2.4 - 6	10
SWA-8-20-AW	8	20			•	•	•	4.2 - 10	10
SWA-8-25-AW	8	25			•	•	•	7 - 17	10
SWA-8-30-AW	8	30			•	•	•	10 - 26	10
SWA-10-12-AW	10	12			•	•	•	0.55 - 1.4	10
SWA-10-16-AW	10	16				•	•	2.9 - 4.8	10
SWA-10-20-AW	10	20			•	•	•	3.7 - 9.3	10
SWA-10-25-AW	10	25				•	•	9.8 - 16	10
SWA-10-30-AW	10	30				•	•	15 - 25	10
SWA-12-16-AW	12	16				•	•	2.1 - 3.5	10
SWA-12-20-AW	12	20			•	•	•	3.2 - 8	10
SWA-12-25-AW	12	25				•	•	9 - 15	10
SWA-12-30-AW	12	30				•	•	14 - 23	10
SWA-16-20-AW	16	20			•	•	•	1.8 - 4.5	10
SWA-16-25-AW	16	25				•	•	6.9 - 11	10
SWA-16-30-AW	16	30				•	•	12 - 20	10

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

• Part number specification



Select the t dimension from the dimension list.

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 Not Available Not Available

NBK

785

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*D=16 or less : C0.2 or less D=20 or more : C0.5 or less



- There is a variety of outside diameters and thickness relative to normal plain washers.
- For securing seating surface on the long hole position and engagement of materials with low marginal seating surface pressure such as aluminum and resin.
- For adjustment of cumulative error in assembly.
- Application

Height adjustment / Seating surface fall prevention

Material/Finish	RoHS2 Compliant
	SWA-AWEL
Main hody	S45C Electroless Nickel Plating

			t 3			Qty*1			
Part Number	d 11	D 2	1	1.5	2	3	5	Mass (g)	per pack
SWA-2-8-AWEL	2	8	•		•			0.38 - 0.75	10
SWA-3-8-AWEL	3	8	•		•			0.35 - 0.69	10
SWA-4-8-AWEL	4	8	•	•	•			0.3 - 0.6	10
SWA-4-10-AWEL	4	10	•		•	•		0.53 - 1.6	10
SWA-4-12-AWEL	4	12	•		•	•		0.8 - 2.4	10
SWA-4-15-AWEL	4	15			•	•		2.6 - 3.9	10
SWA-5-8-AWEL	5	8	•	•	•			0.25 - 0.49	10
SWA-5-10-AWEL	5	10	•		•	•		0.47 - 1.4	10
SWA-5-12-AWEL	5	12	•		•	•		0.74 - 2.2	10
SWA-5-15-AWEL	5	15			•	•		2.5 - 3.7	10
SWA-5-16-AWEL	5	16			•	•		2.9 - 4.3	10
SWA-5-20-AWEL	5	20	•		•			2.3 - 4.7	10
SWA-6-10-AWEL	6	10	•		•	•		0.4 - 1.2	10
SWA-6-12-AWEL	6	12	•		•	•		0.68 - 2	10
SWA-6-15-AWEL	6	15			•	•		2.4 - 3.5	10
SWA-6-16-AWEL	6	16			•	•	•	2.7 - 6.8	10
SWA-6-20-AWEL	6	20	•		•	•	•	2.3 - 11	10
SWA-6-25-AWEL	6	25			•	•	•	7.3 - 18	10

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

									Unit:mm
			t 3						Qty*1
Part Number	d 1 1	D 12	1	1.5	2	3	5	Mass (g)	per pack
SWA-8-12-AWEL	8	12			•	•	•	1 - 2.5	10
SWA-8-16-AWEL	8	16			•	•	•	2.4 - 6	10
SWA-8-20-AWEL	8	20			•	•	•	4.2 - 10	10
SWA-8-25-AWEL	8	25			•	•	•	7 - 17	10
SWA-8-30-AWEL	8	30			•	•	•	10 - 26	10
SWA-10-12-AWEL	10	12			•	•	•	0.55 - 1.4	10
SWA-10-16-AWEL	10	16				•	•	2.9 - 4.8	10
SWA-10-20-AWEL	10	20			•	•	•	3.7 - 9.3	10
SWA-10-25-AWEL	10	25				•	•	9.8 - 16	10
SWA-10-30-AWEL	10	30				•	•	15 - 25	10
SWA-12-16-AWEL	12	16				•	•	2.1 - 3.5	10
SWA-12-20-AWEL	12	20			•	•	•	3.2 - 8	10
SWA-12-25-AWEL	12	25				•	•	9 - 15	10
SWA-12-30-AWEL	12	30				•	•	14 - 23	10
SWA-16-20-AWEL	16	20			•	•	•	1.8 - 4.5	10
SWA-16-25-AWEL	16	25				•	•	6.9 - 11	10
SWA-16-30-AWEL	16	30				•	•	12 - 20	10

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

• Part number specification



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 Not Available Not Available Not Available

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Washers/ Lock Nuts

788

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*D=16 or less : C0.2 or less D=20 or more : C0.5 or less



RoHS2 Compliant

Unit:mm

- There is a variety of outside diameters and thickness relative to normal plain washers.
- For securing seating surface on the long hole position and engagement of materials with low marginal seating surface pressure such as aluminum and resin.
- For adjustment of cumulative error in assembly.
- Application

Height adjustment / Seating surface fall prevention

Material/Finish

	SWAS-AW
Main body	SUS304

Part Number	d 1 1	D 1 2	t 🔞					Mass (g)	Oty per pack*1
Part Number	u III	D Z	1	1.5	2	3	5	Mass (g)	Qty per pack*1
SWAS-2-8-AW	2	8	•		•			0.38 - 0.75	10
SWAS-3-8-AW	3	8	•		•			0.35 - 0.69	10
SWAS-4-8-AW	4	8	•	•	•			0.3 - 0.6	10
SWAS-4-10-AW	4	10	•		•	•		0.53 - 1.6	10
SWAS-4-12-AW	4	12	•		•	•		0.8 - 2.4	10
SWAS-4-15-AW	4	15			•	•		2.6 - 3.9	10
SWAS-5-8-AW	5	8	•	•	•			0.25 - 0.49	10
SWAS-5-10-AW	5	10	•		•	•		0.47 - 1.4	10
SWAS-5-12-AW	5	12	•		•	•		0.74 - 2.2	10
SWAS-5-15-AW	5	15			•	•		2.5 - 3.7	10
SWAS-5-16-AW	5	16			•	•		2.9 - 4.3	10
SWAS-5-20-AW	5	20	•		•			2.3 - 4.7	10
SWAS-6-10-AW	6	10	•		•	•		0.4 - 1.2	10
SWAS-6-12-AW	6	12	•		•	•		0.68 - 2	10
SWAS-6-15-AW	6	15			•	•		2.4 - 3.5	10
SWAS-6-16-AW	6	16			•	•	•	2.7 - 6.8	10
SWAS-6-20-AW	6	20	•		•	•	•	2.3 - 11	10
SWAS-6-25-AW	6	25			•	•	•	7.3 - 18	10

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

									Unit:mm
Part Number	d 1 1	D 1 2	t 3			Mass (g)	Qty per pack*1		
r are realised	u -		1	1.5	2	3	5	Mass (6)	Qty per pack
SWAS-8-12-AW	8	12			•	•	•	1 - 2.5	10
SWAS-8-16-AW	8	16			•	•	•	2.4 - 6	10
SWAS-8-20-AW	8	20			•	•	•	4.2 - 10	10
SWAS-8-25-AW	8	25			•	•	•	7 - 17	10
SWAS-8-30-AW	8	30			•	•	•	10 - 26	10
SWAS-10-12-AW	10	12			•	•	•	0.55 - 1.4	10
SWAS-10-16-AW	10	16				•	•	2.9 - 4.8	10
SWAS-10-20-AW	10	20			•	•	•	3.7 - 9.3	10
SWAS-10-25-AW	10	25				•	•	9.8 - 16	10
SWAS-10-30-AW	10	30				•	•	15 - 25	10
SWAS-12-16-AW	12	16				•	•	2.1 - 3.5	10
SWAS-12-20-AW	12	20			•	•	•	3.2 - 8	10
SWAS-12-25-AW	12	25				•	•	9 - 15	10
SWAS-12-30-AW	12	30				•	•	14 - 23	10
SWAS-16-20-AW	16	20			•	•	•	1.8 - 4.5	10
SWAS-16-25-AW	16	25				•	•	6.9 - 11	10
SWAS-16-30-AW	16	30				•	•	12 - 20	10

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

• Part number specification



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 Not Available

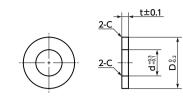
Washers/ Lock Nuts

SWAS-AWBK Adjust Washer - Stainless Steel Black

WEB CAD
Download
Download
Download
Download



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*D=16 or less : C0.2 or less D=20 or more : C0.5 or less

Part number specification

SWAS-5-10-3-AWBK

Select the t dimension from the dimension list.



Stainless Steel Black

- There is a variety of outside diameters and thickness relative to normal plain washers.
- For securing seating surface on the long hole position and engagement of materials with low marginal seating surface pressure such as aluminum and resin.
- For adjustment of cumulative error in assembly.
- Application

Main body

Height adjustment / Seating surface fall prevention

 Material/Finish RoHS2 Compliant SWAS-AWBK SUS304

									Unit:mm
Part Number	d 41	D 42	t 🕄					Mass (g)	Oty per peck
Part Number	u	D 2	1	1.5	2	3	5	Mass (g)	Qty per pack
SWAS-3-8-AWBK	3	8	•		•			0.35 - 0.69	1
SWAS-4-8-AWBK	4	8	•	•	•			0.3 - 0.6	1
SWAS-4-10-AWBK	4	10	•		•	•		0.53 - 1.6	1
SWAS-4-12-AWBK	4	12	•		•	•		0.8 - 2.4	1
SWAS-5-8-AWBK	5	8	•	•	•			0.25 - 0.49	1
SWAS-5-10-AWBK	5	10	•		•	•		0.47 - 1.4	1
SWAS-5-12-AWBK	5	12	•		•	•		0.74 - 2.2	1
SWAS-5-16-AWBK	5	16			•	•		2.9 - 4.3	1
SWAS-5-20-AWBK	5	20	•		•			2.3 - 4.7	1
SWAS-6-10-AWBK	6	10	•		•	•		0.4 - 1.2	1
SWAS-6-12-AWBK	6	12	•		•	•		0.68 - 2	1
SWAS-6-16-AWBK	6	16			•	•	•	2.7 - 6.8	1
SWAS-6-20-AWBK	6	20	•		•	•	•	2.3 - 11	1
SWAS-6-25-AWBK	6	25			•	•	•	7.3 - 18	1
SWAS-8-12-AWBK	8	12			•	•	•	1 - 2.5	1
SWAS-8-16-AWBK	8	16			•	•	•	2.4 - 6	1
SWAS-8-20-AWBK	8	20			•	•	•	4.2 - 10	1
SWAS-8-25-AWBK	8	25			•	•	•	7 - 17	1
SWAS-10-12-AWBK	10	12			•	•	•	0.55 - 1.4	1
SWAS-10-16-AWBK	10	16				•	•	2.9 - 4.8	1
SWAS-10-20-AWBK	10	20			•	•	•	3.7 - 9.3	1
SWAS-10-25-AWBK	10	25				•	•	9.8 - 16	1
SWAS-12-16-AWBK	12	16				•	•	2.1 - 3.5	1
SWAS-12-20-AWBK	12	20			•	•	•	3.2 - 8	1
SWAS-12-25-AWBK	12	25				•	•	9 - 15	1
SWAS-16-25-AWBK	16	25				•	•	6.9 - 11	1

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

SWH/SWC Locking and Sealing Rings

SWH For Hex head screws and hex Nuts

SWH-3

SWH-4

SWH-5

SWH-6

SWH-8

SWH-10

SWH-12

SWC-4

SWC-5

SWC-6

SWC-8

SWC-10

SWC-12

NBK

SWH

SWC

3.2

4.15

5.15

6.5

8.1

10.2

12.2

4.1

5.15

6.5 8.1

10.2

12.2 19

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

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

SWC For Socket Head Cap Screws

12

8

9.5

10.6

12.7

16.2

19.6

23.6

7.7 2

9.8 3

10.5

14

17

2.2

2.6

3.5

4.5

2.5

3.3

3.8

4.4

3



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SWH



- For sealing of the bolt tightening section.
- **SWH**—For hex head screws and hex nuts **SWC** ——For socket head cap screws
- Max. Operating Temperature: −60 to 80 deg C
- Also, **SWT** Toothed Washer for locking and sealing rings is available.



Application

Unit: mm Qty*1

> per pack

10

10

10

10

5

5

Unit:mm

Qty*1

pack

10

10

10

10

10

5

Mass

0.1

0.1

0.2

0.3

0.6

1.5

Mass (g)

0.1

0.2

0.2

0.3

0.5

0.7

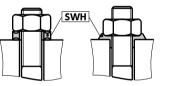
Thread Locking and Thread Sealing

Material/Finish

• Material Fillish		ROHSZ Compliant
	SWH	SWC
Main Body	Polyamide (White)	Polyamide (White)

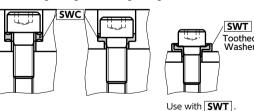
• Installation Method

• Before Tightening • After Tightening



Use with **SWT**

• Before Tightening • After Tightening



• Part number specification



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 | Not Available

▶ https://www.nbk1560.com

Not Available

Not Available

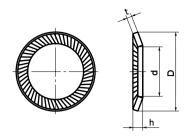
Not Available

Available / Add'l charge

791

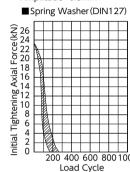
NBK

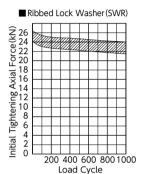
SWR/SWRS Ribbed Lock Washers Additional Size SUS Stainless steel Vibration resistant treatment



• Vibration test comparison

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







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

Vibration Res	istant		
Material/	Finish	♠ RoHS	2 Compliant
	SWR		SWRS
Main Body	SCM435(Hardness: 425 - 495 HV) Ferrosoferric Oxide Film (Black)		SUS304

Precautions for Use

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

Unit:mm

WR Made of Steel · Ferrosoferric Oxide Film

Part Number 1	Nominal	d	D	t	h	Mass (g)	Qty per pack*1
SWR-2	2	2.2 + 0.3	4_0.3	0.35	0.6	0.02	10
SWR-2.5	2.5	2.7 + 0.3	4.8_03	0.45	0.9	0.04	10
SWR-3	3	3.2 + 0.3	$5.5_{-0.3}^{0}$	0.45	0.9	0.05	20
SWR-4	4	4.3 + 0.3	7-0.36	0.5	1	0.08	20
SWR-5	5	5.3 ^{+0.3}	9_0.36	0.6	1.1	0.14	20
SWR-6	6	6.4 + 0.36	10_0.36	0.7	1.2	0.23	20
SWR-8	8	8.4 + 0.36	13_0.43	0.8	1.4	0.43	10
SWR-10	10	10.5 + 0.43	16_0.43	1	1.6	0.82	10
SWR-12	12	13 +0.43	18_0_0	1.1	1.7	0.89	10
SWR-16	16	17 +0.43	24_0.52	1.3	2.1	2	10
SWR-20	20	21 +0.52	30_0.62	1.5	2.4	3.4	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

Not Available

Not Available

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

Available / Add'l charge | Available / Add'l charge

SWRS Made of Stainless Steel

Part Number	Nominal	d	D	t	h	Mass (g)	Qty per pack*1
SWRS-1.6	1.6	1.7 +0.3	$3.2^{-0}_{-0.3}$	0.5	0.75	0.02	10
SWRS-2	2	2.2 + 0.3	4_0.3	0.5	0.75	0.03	20
SWRS-2.5	2.5	2.7 + 0.3	$4.8_{-0.3}^{0}$	0.5	0.95	0.04	20
SWRS-3	3	3.2 + 0.3	5.5_0.3	0.5	0.95	0.05	20
SWRS-4	4	4.3 + 0.3	7_0.36	0.7	1.2	0.08	20
SWRS-5	5	5.3 + 0.3	9_0.36	0.7	1.2	0.14	10
SWRS-6	6	6.4 + 0.36	10_0.36	0.7	1.2	0.23	10
SWRS-8	8	8.4 + 0.36	13_0_0	1	1.6	0.43	10
SWRS-10	10	10.5 + 0.43	16_0.43	1	1.6	0.82	5
SWRS-12	12	13 ^{+0.43}	18_0_0	1.25	1.85	0.89	5
SWRS-16	16	17 ^{+0.43}	24_0.52	1.5	2.3	2	5
SWRS-20	20	21 +0.52	30_0.62	1.8	2.8	3.4	5

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

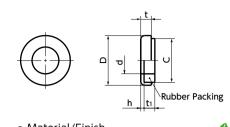
NBK

• Part number specification



794

SWS Seal washer New Variation Added SUS Stainless steel



Material	/Finish		Ro	HS2 Compliant
	sws	SWS-F	SWS-E	SWS-S
Main Body	SUS304	SUS304	SUS304	SUS304
Rubber Packing	NBR	Fluoro-rubber	EPDM	Silicone rubber



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- Seal washer incorporating rubber packing in a stainless steel washer.
- Prevents air/liquid leakage from the seating surface of the screw head. Test results for JIS C 0920 protection degree IPX7 are available on the NBK website.
- During screw tightening, the rubber bonds with the screw thread to make the seal rather than slipping out of place.
- Four types of material are used in the rubber packing. They can be selected by the end symbol of the part number.

End Symbol	Rubber Packing Material	Characteristics	Allowable Operating Temperature
No	NBR	Standard	120℃
F	Fluoro-rubber	Chemical-proof/heat-resistance/ ozone resistance	200℃
E	EPDM	Weather resistance/water resistance/ ozone resistance	120℃
s	Silicone rubber	Heat-resistance/cold-resistance/ electrical insulation	180℃

Unit:mm

Application

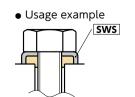
Seal ring

Oil hydraulic equipment / Pneumatic device

SWS Rubber packing: NBR SWS-F Rubber packing: Fluoro-rubber SWS-E Rubber packing: EPDM SWS-S Rubber packing: Silicone rubber								
Part Number 1	Part Number 1	Part Number 1	Part Number 1	Nominal	d	D	h	t
SWS-3	SWS-3-F	SWS-3-E	SWS-3-S	3	3.2	7	0.5	2.2
SWS-4	SWS-4-F	SWS-4-E	SWS-4-S	4	4.2	8	0.5	2.1

Part Number 1	Part Number	Part Number 1	Part Number Silicone rubber	Nominal	d	D	h	t	t1	С	Mass (g)	Qty per pack
SWS-3	SWS-3-F	SWS-3-E	SWS-3-S	3	3.2	7	0.5	2.2	2.2	6.3	0.2	10
SWS-4	SWS-4-F	SWS-4-E	SWS-4-S	4	4.2	8	0.5	2.1	2.3	7.2	0.2	10
SWS-5	SWS-5-F	SWS-5-E	SWS-5-S	5	5.2	9.5	0.8	2.7	2.8	8.2	0.6	10
SWS-6	SWS-6-F	SWS-6-E	SWS-6-S	6	6.2	11.5	1	3	3	9.8	1	10
SWS-8	SWS-8-F	SWS-8-E	SWS-8-S	8	8.2	15.2	1	3.2	3.3	13.4	1.8	5
SWS-10	SWS-10-F	SWS-10-E	SWS-10-S	10	10.2	18	1.5	4	3.8	15.1	3.2	5
SWS-12	SWS-12-F	SWS-12-E	SWS-12-S	12	14.2	24	1.5	4.8	4.6	21.1	6.6	5
SWS-16	SWS-16-F	SWS-16-E	SWS-16-S	16	18.8	30	2	5.3	4.8	26.2	11	5

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



NBK

Washers/ Lock Nuts

• Part number specification



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	Not Available	Not Available	Not Available	Not Available





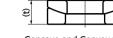
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SQWS

d1

Convex Side

Selection WEB CAD Download Download SUS Stainless steel



SQW/SQWS Spherical Washers Additional Size

Concave Side

SQW-10

SQW-12

d2



• Use a concave and convex set.

- Washers can absorb a tilt of the bolt and bearing surface to a maximum of 2°.
- Application

7.5

Absorption of misalignment of bolt and bearing surface

SQW Made of Steel · Ferrosoferric Oxide Film											
Part Number 1	Nominal	D	d1	d ₂	t1	t ₂	t	R	θ (°)	Mass (g)	Qty per pack
SQW-3	3	7.3	3.5	3.8	1.3	1.6	2.3	8	2	0.2	1
SQW-4	4	9.4	4.5	4.9	1.7	2	3	10.2	2	0.3	1
SQW-5	5	11.5	5.5	6	2.1	2.5	3.7	12.5	2	0.5	1
SQW-6	6	13	6.6	7.2	2.3	2.8	4.2	15	2	3	1
SQW-8	8	17	9	9.6	3.1	3.7	5.6	20	2	7	1

10.5

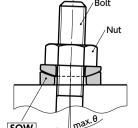
13.5

15

12

SQWS Made of Stainless Steel											
Part Number 1	Nominal	D	d1	d ₂	t1	t ₂	t	R	θ (°)	Mass (g)	Qty per pack
SQWS-3	3	7.3	3.5	3.8	1.3	1.6	2.3	8	2	0.2	1
SQWS-4	4	9.4	4.5	4.9	1.7	2	3	10.2	2	0.3	1
SQWS-5	5	11.5	5.5	6	2.1	2.5	3.7	12.5	2	0.5	1
SQWS-6	6	13	6.6	7.2	2.3	2.8	4.2	15	2	3	1
SQWS-8	8	17	9	9.6	3.1	3.7	5.6	20	2	7	1
SQWS-10	10	23	11	12	4.1	4.9	7	25	2	17	1
SQWS-12	12	25	14	15	4.5	5.6	8.4	30	2	21	1
SQWS-16	16	32	17	19.9	6	5	8.8	35	3	38	1
SQWS-20	20	40	21	25	7.5	7	11.4	40	3	76	1
SQWS-24	24	48	25	30	9	8	13.4	50	3	130	1

• Usage example



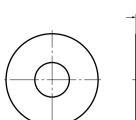
Material/	RoHS2 Compliant	
	sqw	sqws
Main Body	S45C (Hardness: 25 - 30 HRC) Ferrosoferric Oxide Film (Black)	SUS304

• Part number specification



1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) 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

SWF High Intensity Flat Washers Vibration resistant treatment





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- Flat washers for high intensity screws.
- The surface area is twice or more of that of standard washers. Washers eliminate bolt looseness by preventing the sinking of the bearing surface.
- For the connection of materials with low limits for bearing surface pressure such as aluminum and plastic.
- Application

Prevention of bearing surface sinking and loosening

Material/Fi	inish	RoHS2 Complia
	SWF	
Main Body	SCM435 (Hardness 350 - Ferrosoferric Oxide Coa	

						Unit : mm
Part Number 1	Nominal	d	D	t	Mass (g)	Qty per pack
SWF-6	6	6.4 + 0.3	17_0.43	3	5	1
SWF-8	8	8.4 + 0.3	23_0_0.52	4	11	1
SWF-10	10	10.5 +0.3	28_0.52	4	17	1
SWF-12	12	13 ^{+0.4}	35_0.52	5	33	1
SWF-16	16	17 ^{+0.4}	45_0.62	6	64	1

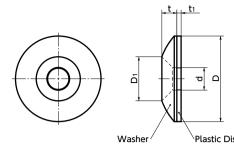
• Part number specification



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	Not Available	Not Available	Not Available	Not Available

► https://www.nbk1560.com

SWBS Bezel Washers WEB Selection VEB CAD SUS Stainless steel





e-nedzi.com®

- Washers are for flat screws. They decorate attachment surfaces beautifully.
- Their smooth slanted shape prevents catching of screw heads.
- The plastic disk prevents damage to the attachment surface.
- Application

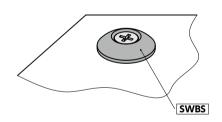
Decoration, prevention of catching the screw head, prevention of damage to the intended fastening material

 Material/Fini 	sh RoHS2 Compliant
	SWBS
Main Body	SUS303
Plastic Disk	Nylon 6 (White)

Unit	:	mm

Part Number 1	Nominal	D	d	D ₁	t	t1	Mass (g)	Qty per pack
SWBS-4	4	18	4.3	8.5	3	0.8	3.6	1
SWBS-5	5	20	5.3	10.3	3.5	1	5	1
SWBS-6	6	22	6.4	12.3	4	1	7.2	1
SWBS-8	8	26	8.4	16.4	5	1	11	1

• Usage example For Decoration



• Part number specification

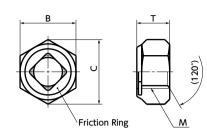


1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	(m) Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
1 pc. in 1 bag	Available / Add'l charge	Not Available	Not Available	Not Available

NBK

SWUS Hex Lock Nuts







e-nedzi.com®

- Nuts equipped with a high-performance mechanism of loosening prevention. For loosening caused by vibration.
- Friction ring with very good restoration elasticity and heat resistance tighten the thread peak of the male thread from four sides. Effective for loosening prevention. The male thread is not damaged.
- Glass fiber reinforced polyamide is used for the friction ring. Rings with heat resistance effectively prevent loosening under conditions up to 110 deg C. In addition, they are not affected by gasoline, alcohol, and oil.
- The friction ring retains most of its effects even after repeated use.
- Application Loosening Prevention

• Material/Finish	n RoHS2 Complian
	swus
Main Body	SUS304
Friction Ring	Glass Fiber Reinforced Polyamide

Unit:mm

Part Number 1	М	В	C (Approx.)	Т	Mass (g)	Qty*1 per pack
SWUS-M6	M6	10	11.5	6	2	50
SWUS-M8	M8	13	15	8	4.6	20
SWUS-M10	M10	17	19.6	10	11	10
SWUS-M12	M12	19	21.9	12	16	10

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

Related Products

NBK

SWUT Hexagon Lock Nut made of titanium is available. → P.642



• Part number specification



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

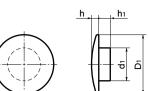
Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
vailable / Add'l charge	Available / Add'l charge	Not Available	Not Available	Not Available

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SCC Cover Caps for Hex Socket Head Cap Screws



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• Caps protect the hex socket of socket head cap screws from being clogged with foreign matter.

Application

Protection of screw heads and dust countermeasure

Material/Finish

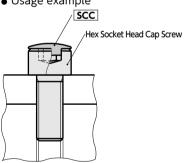
RoHS2 Compliant SCC Main Body Polyethylene (Gray)

							Unit:mm
Part Number	Nominal of*2 Hex Socket Head Cap Screws	d1	D ₁	h	h1	Mass (g)	Qty*1 per pack
SCC-4	M5	4.2	9	1.3	2.5	0.1	20
SCC-5	M6	5.2	10	1.4	3.1	0.1	20
SCC-6	M8	6.2	13	1.5	4	0.3	20
SCC-8	M10	8.2	16	1.6	5	0.4	20
SCC-10	M12	10.3	18	1.8	6.4	0.6	10
SCC-14	M16	14.4	24	2.2	7	0.9	10
SCC-17	M20	17.4	30	2.5	9	1.2	10

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

*2: For use with socket head cap screws listed in JIS B 1176: 2006 (ISO 4762: 1997) "Hexagon Socket Head Cap Screws".

• Usage example



• Part number specification

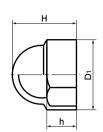


1 Individual Sales → P.809	Cleanroom Wash & Packaging → P.807	Screw Length Adjustment → P.811	Vibration Resistant → P.810	Modification process for captive use → P.806
Available / Add'l charge	Not Available	Not Available	Not Available	Not Available

SCH Cover Caps for Hex Head Screw



e-nedzi.com®





• Cover caps cover heads of hex head screws and hex nuts to increase the safety of machines and instruments.

Application

Protection of screw heads and dust countermeasure

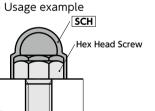
Material/Finish	RoHS2 Complia
	SCH
Main Body	Polyethylene (Black)

							Unit:mm
Part Number	Nominal of* ² Hex Socket Head Cap Screws	В	н	h	D1	Mass (g)	Qty* ¹ per pack
SCH-5	M5	8	9.5	5	10.9	0.3	20
SCH-6	M6	10	13	6	12.9	0.6	20
SCH-8	M8	13	15	9	16.8	1	20
SCH-10	M10	17	19.5	9	21.3	1.9	10
SCH-12	M12	19	21.5	11	23.6	2.4	10
SCH-16	M16	24	27	14	29.8	3.2	10

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

*2: Confirm the width across flat dimensions of the hex head screws and hex nuts. [SCH-10] and [SCH-12] use the old JIS dimensions.

• Usage example



• Part number specification



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 ᆣ Modification process for captive use → P.806 Available / Add'l charge | Not Available Not Available Not Available

Safety Precautions - Special Screws

In order to use our products safely, please read these safety precautions and the precautions and handling methods on each product page before use. After reading the precautions and methods, store this catalog so that it can be reviewed when necessary.



Warning

If handled incorrectly, personal injury or physical damage may occur.

- Make sure to switch off the power of machines before attaching and removing products. Hands and fingers may touch the machine and cause injury if it is operated suddenly.
- Our products are manufactured for use with general purpose instruments and machines. When using these products with instruments and machines that require safety, use a prototype to confirm usability.
- To prevent danger, check for looseness of screws and perform other maintenance on a regular basis.
- Do not disassemble or modify products.



Precautions

If handled incorrectly, death or serious injury may occur.

- Do not use products in environments that may negatively affect them.
- Take care when handling products. If products are dropped, they may become damaged or deformed. In addition, take care when performing work to avoid back pain when moving objects or dropping items on feet.
- The mechanical properties, physical properties, chemical resistance, heat resistance temperature, and other data listed on the product pages in this catalog are reference values. These values may change due to performance conditions. Always carry out tests under performance conditions similar to actual conditions in advance.
- To prevent a negative impact on the environment, have a professional disposal company dispose of these products.
- Take care to avoid burns when handling products. Heat transferred from the surrounding machines may cause products to reach high temperatures immediately after operation stops.

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