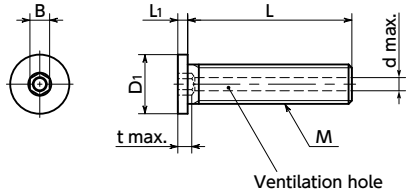


# SVSHT-SD Vented Socket Head Cap Screws with Ultra Low Small Head - Titanium

- Vacuum
- Protrusion
- Cleanroom wash & packaging
- Chemical-proof
- Non-Magnetic
- Lightweight
- Small Head



● Material/Finish



	<b>SVSHT-SD</b>
Main Body	TW340 (Grade 2 Titanium)

- Special low profile small head screws with ventilation holes.
- The ventilation hole easily releases gas trapped in the screw holes of equipment and machines, and supports vacuum drawing of vacuum devices.
- All head heights are 1.5 mm or less. For space-saving of equipment/devices and applications with limited overhead space.
- Because the head diameter is small, spot facing diameters can be reduced compared to standard hex socket head cap screws with ultra low heads.
- The specific gravity is approximately 60% that of stainless steel.
- Non-magnetic.
- Excellent chemical resistance / seawater resistance.
- Special chemical polishing and brightening treatment improve the quality of the surface. Additionally, products have been cleanroom washed and packed. Cleanroom specification prevents oil and dirt from adhering.
- For the properties of titanium materials, see "Properties of Titanium."

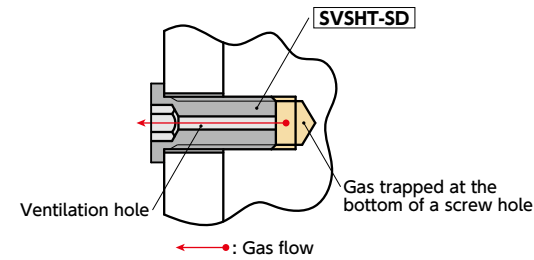
● Application

Vacuum devices / Vacuum chambers / FPD production equipment / Semiconductor manufacturing equipment / Electron microscopes

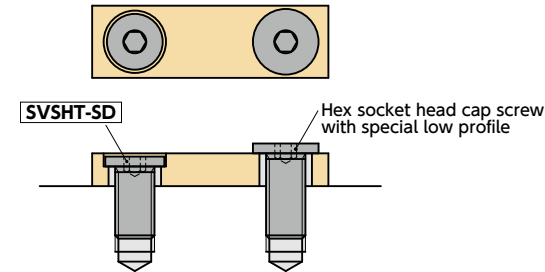
Unit : mm

Part Number	M (Coarse)		L				D1	L1	B	t	d	Mass (g)
	Nominal of Thread	Pitch										
<b>SVSHT-M3-SD</b>	M3	0.5	6	8	10		5	1.3	1.5	2	1.2	0.2 - 0.29
<b>SVSHT-M4-SD</b>	M4	0.7		8	10	12	6	1.5	2	2.5	1.5	0.44 - 0.61
<b>SVSHT-M5-SD</b>	M5	0.8			10	12	16	8	1.5	3	3	0.6 - 1
<b>SVSHT-M6-SD</b>	M6	1			10	12	16	9	1.5	3	4	1 - 1.6

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



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



⚠ Precautions for Use

- Since the head bearing surface area is small, the bearing surface pressure increases.
- 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/mm<sup>2</sup>)

σ: Bolt stress (N/mm<sup>2</sup>)

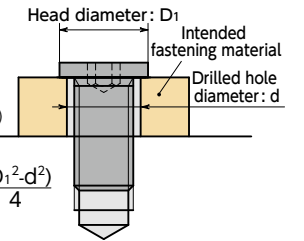
As: Screw effective cross-sectional area (mm<sup>2</sup>)

A: Bearing surface area (mm<sup>2</sup>)

$$\text{Bearing surface area } A = \pi \frac{(D_1^2 - d^2)}{4}$$

D<sub>1</sub>: Head diameter (mm)

d: Drilled hole diameter (mm)

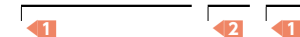


● Head Diameter and Screw Effective Cross-Sectional Area

Part Number	Head Diameter (mm)	Screw Effective Cross-Sectional Area (mm <sup>2</sup> )
<b>SVSHT-M3-SD</b>	5	5.03
<b>SVSHT-M4-SD</b>	6	8.78
<b>SVSHT-M5-SD</b>	8	14.2
<b>SVSHT-M6-SD</b>	9	20.1

● Part Number Specification

**SVSHT-M3-10-SD**



Batch cleanroom packing is provided for orders containing multiple items of the same size.

Individual Sales	Cleanroom Wash & Packaging	Screw Length Adjustment	Vibration Resistant	Modification process for captive use
1 piece in 1 pack	Cleanroom washed and packed	Available / Add'l charge	Not Available	Not Available