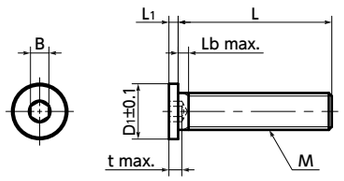
SSH-SD/SSHS-SD Socket Head Cap Screws with Extreme Low & Small Head

WEB Selection Tool | WEB CAD Download | Protrusion | Small Head | SUS Stainless steel



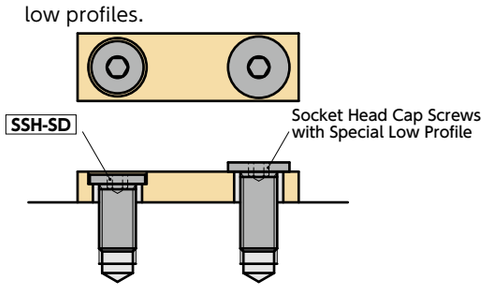
- Socket head cap screws with special low profiles and small head diameters. This makes it possible to reduce the spot facing diameter compared to standard socket head cap screws with special low profiles.

- 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.



⚠ Precautions for Use

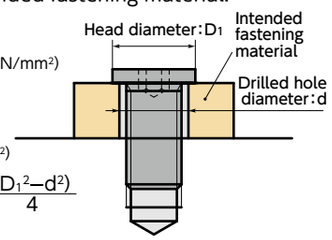
- Since the head bearing surface area is small, bearing surface pressure becomes high.
- Using the following formula as a reference, ensure that the bearing surface pressure due to screw tightening does not exceed the permitted surface pressure of the intended fastening material.

$$P=\sigma\frac{As}{A}$$

P : Bearing surface pressure (N/mm²)
σ : Bolt stress (N/mm²)
As : Screw effective sectional area (mm²)
A : Bearing surface area (mm²)

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

D1 : 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 (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 Steel - Ferrosoferric Oxide Coating

Unit : mm

Part Number	M 2	L 3								D1	L1	Lb	B	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	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

*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 The minimum order quantity is 1 piece. ➡ P.794

1 Individual Sales ➡ P.794	Cleanroom Wash & Packaging ➡ P.792	Screw Length Adjustment ➡ P.796	Vibration Resistant ➡ P.795	Modification process for captive use ➡ P.791
Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Available / Add'l charge	Please feel free to contact us

- Material/Finish 1

RoHS Compliant

	SSH-SD	SSH-SD-EL	SSHS-SB
Main Body	SCM435 Ferrosoferric Oxide Coating (Black)	SCM435 Electroless Nickel Plating	SUSXM7 (S.S. grade : A2)
Strength Class	Thread : 10.9 Head* : 5.8 (M3 - M8) 4.8 (M10)	Thread : 10.9 Head* : 5.8 (M3 - M8) 4.8 (M10)	A2-50

*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
(1) (2) (3) (1)

Order in number of packs.
The minimum order quantity is 1 piece. ➡ P.794

SSH-SD-EL Steel - Electroless Nickel Plating

Unit : mm

Part Number	M 2	L 3								D1	L1	Lb	B	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

*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 The minimum order quantity is 1 piece. ➡ P.794

SSHS-SD Stainless Steel

Unit : mm

Part Number	M 2	L 3								D1	L1	Lb	B	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 The minimum order quantity is 1 piece. ➡ P.794