

# Hexagon Socket Head Cap Screws

With Thread Locking Compound

**Hexagon Socket Head Cap Screws – With Thread Locking Compound**

Type	Material	Surface Treatment	Hardness	Strength Class
LB	4137 Alloy Steel	Black Oxide	38–43 HRC min.	12.9
SUSLB	304 Stainless Steel or Equivalent	—	—	A2-70

Thread Locking Coating MxP

**Thread Locking Treatment:** This treatment applies the special plastic excellent in elasticity, abrasion resistance and oil resistance to the thread grooves. It can be used repeatedly with a lubricant. The effect is most pronounced at the first use, and will gradually decrease after that.

\*The strength class signifies the screw's tensile strength.  
(Ex.) 12.9  
This indicates that the minimum value for yielding point or proof stress is 90% of tensile strength.  
This indicates that the minimum value of tensile strength is 1,220 N/mm<sup>2</sup>.  
(Ex.) A2-70  
This indicates that the minimum value of tensile strength is 700 N/mm<sup>2</sup>.  
The steel class is A2 (Austenitic Stainless Steel).

M x P (Coarse)	A	E	B
4 x 0.7	7	4	3
5 x 0.8	8.5	5	4
6 x 1.0	10	6	5
8 x 1.25	13	8	6
10 x 1.5	16	10	8
12 x 1.75	18	12	10

Part Number	ℓ			
Type	M - L			
LB SUSLB	4 - 8 10 12 15 20 25 30*	Fully Threaded Screws 20		
	5 - 10 12 15 20 25 30 35		Fully Threaded Screws 22	
	6 - 10* 15 20 25 30 35 40 45 50			Fully Threaded Screws 24

Part Number	ℓ			
Type	M - L			
LB SUSLB	8 - 15 20 25 30 35 40 45 50 55 60	Fully Threaded Screws 28		
	10 - 20* 25 30 35 40 45 50 55 60		Fully Threaded Screws 32	
	12 - 25* 30 35 40 45 50 55 60			Fully Threaded Screws 36

**Part Number Example**

Part Number: LB8-40

\*Not available for SUSLB Type

**Hexagon Socket Head Cap Screws with Hole**

Type	Material	Surface Treatment	Hardness	Strength Class
CBLH	4137 Alloy Steel	Black Oxide	22–32 HRC min.	8.8 Equivalent
SCBLH	304 Stainless Steel	—	—	A2-70 Equivalent

**Application Example:** Put wire through the hole in the screw head to prevent the screw loosening or falling off.

MxP	A	E	B	d
3x0.5	5.5	3	2.5	ø1
4x0.7	7	4	3	ø1.5
5x0.8	8.5	5	4	
6x1.0	10	6	5	ø2
8x1.25	13	8	6	
10x1.5	16	10	8	
12x1.75	18	12	10	

Part Number	ℓ	Available Types			
Type	M - L	CBLH SCBLH			
CBLH SCBLH	6 - 10 12 15 20 25 30 35 40 45*	Fully Threaded Screws • • • • •			
	8 - 12* 15 20 25 30 35 40 45*		Fully Threaded Screws • • • • •		
	10 - 20 25 30 35 40* 45*			Fully Threaded Screws • • • • •	
	12 - 25* 30 35 40 45* 50*				Fully Threaded Screws* • • • • •

**Tapped Socket Head Screws**

Type	Material	Surface Treatment	Strength Class
TSCB	304 Stainless Steel or Equivalent	—	A2-50 Equivalent

Cap Screws with Tapped Hole are fully threaded.

Part Number	M <sub>2</sub> (Coarse) (Tap size)	A	E	B	
Type	M <sub>1</sub> (Coarse) - L				
TSCB	6 - 10 12 15 16 20 25	3	10	6	5
	8 - 10 15 16 25 30	4	13	8	6
	10 - 16 20 25	4	16	10	8
	12 - 20 25	5	18	12	10
	16 - 30 35	6	24	16	14

**Part Number Example**

Part Number: CBLH8-12  
SCBLH8-40  
TSCB10-20 - 5

**Application Example**

**Space Saving**  
It can be used when space is limited or when two or more holes in installation seat are not needed.

# Hexagon Socket Head Cap Screws / Cover Caps

Fine Thread / Left-Hand Thread

**Hexagon Socket Head Cap Screws – Fine Thread**

Type	Material	Surface Treatment	Hardness	Strength Class
CBPK	4137 Alloy Steel	Black Oxide	39–44 HRC min.	12.9
SCBPK	304 Stainless Steel or Equivalent	—	—	A2-70

Part Number	M x P	ℓ	A	E	B	
Type	M - L					
CBPK SCBPK	6 - 10 12 15 20 25	6 x 0.75	Fully Threaded Screws	10	6	5
	8 - 12 15 20 25 30	8 x 1.0	Fully Threaded Screws	13	8	6
	10 - 15 20 25 30 35 40 45 50	10 x 1.25	Fully Threaded Screws	16	10	8
	12 - 20 25 30 35 40 50	12 x 1.25	Fully Threaded Screws	18	12	10

\*SCBPK is Full Thread Type.

**Part Number Example**

Part Number: CBPK6-15  
SCBL8-20

**Cover Caps for Hexagon Socket Cap Screws**

**BTCSW White**  
**BTCSB Black**

Material: Polyacetal (White / Black)

Part Number	Applicable Screw	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>2</sub> Tolerance	d	h	h <sub>1</sub>	t	
BTCSW BTCSB	3	M3	4.5	1.5	2.5	+0.13 +0.08	1.7	1	0.3	1.3
	4	M4	6	2	3	+0.20	2.1	1.1	0.4	1.5
	5	M5	7.5	3	4	+0.10	3.1	1.3	0.4	2
	6	M6	9	4	5	+0.10	4.1	1.5	0.4	2.3
	8	M8	12	5	6	+0.25	4.8	1.8	0.5	2.8
	10	M10	15	6	8	+0.15	6.7	2	0.5	3.4
	12	M12	17	8	10	+0.15	8.7	2.2	0.6	3.5

**Application Example**

- It covers the hex hole of a Hex socket head cap screw and prevents dust accumulation.
- Available in white and black for identification.
- Repetitive attaching and removing causes loose fit.

**Part Number Example**

Part Number: BTCSW8  
MTCWS6

**Hexagon Socket Head Cap Screws – Left-Hand Thread**

Type	Material	Surface Treatment	Hardness	Strength Class
BCBL	4137 Alloy Steel	Black Oxide	38–43 HRC min.	12.9 Equivalent
SCBL	304 Stainless Steel or Equivalent	—	—	A2-70 Equivalent

Part Number	M x P	A	E	B		
Type	M - L					
BCBL SCBL	4 - 10 12 15 20	4 x 0.7	Fully Threaded Screws	7	4	3
	5 - 10 12 15 20	5 x 0.8	Fully Threaded Screws	8.5	5	4
	6 - 10 12 15 20 25	6 x 1.0	Fully Threaded Screws	10	6	5
	8 - 15 20 25 30	8 x 1.25	Fully Threaded Screws	13	8	6
	10 - 20 25 30 40	10 x 1.5	Fully Threaded Screws	16	10	8
	12 - 20* 25* 30* 40*	12 x 1.75	Fully Threaded Screws	18	12	10

\* Not available for SCBL

**Cover Caps for Counterbored Holes**

**MTCWS White**  
**MTCBS Black**  
**MTCSC Transparent**

Material: Ether Type Urethane Shore A90

M	D <sub>2</sub> Tol.	R
M3	+0.3 +0.1	0.2
M4, 5	+0.4 +0.2	0.5
M6–12	+0.5 +0.3	

Part Number	Applicable Screws	D	D <sub>1</sub>	D <sub>2</sub>	d	h	h <sub>1</sub>	t	
MTCWS MTCBS MTCSC	3	M3	9	7	2.5	1	1	0.2	1.2
	4	M4	10	8	3	1.5	1	0.2	1.7
	5	M5	12	9.5	4	2.5	1	0.2	2.2
	6	M6	14	11	5	3.5	1.3	0.3	2.7
	8	M8	17	13.5	6	4.8	1.5	0.3	3.5
	10	M10	21	16	8	6.5	2	0.4	4
	12	M12	23	17	10	8.5	2.5	0.5	5

**Application Example**

- Ether type urethane is applicable to following test methods.
- Japan-Food Sanitation Law, Standard of Foods and Additives (Ministry of Health and Welfare Notification No. 370, 1959)
- Rubber Apparatus or Container and Package (Except nursing apparatus) (No. 85 Notification of the Ministry of Health and Welfare, Japan 1986)