

Hexagon Socket Cap Screws

Extra Low Head

Extra Low Hexagon Socket Head Cap Screws

RoHS10

Type	Material	HhHardness	Surface Treatment	Strength Class	Head Strength Class
CBSS	4137 Alloy Steel	32-39 HRC min.	Black Oxide	10.9	5.8 (M10, 4.8)
CBSM			Bright Chromate Plating		
CBSA			Trivalent Chromate		
CBSR			Low Temperature Black Chrome Plating		
CBSTS	304 Stainless Steel	—	—	(Note 1)	—

Ⓢ CBMS is not RoHS compliant

M x P	A	B	t max.	(e) max.	r
2 x 0.4	4	1.3	1.2	1.2	0.1 or More (0.2 or More)
2.5 x 0.45	5	1.3	1.5	1.5	0.1 or More (0.2 or More)
3 x 0.5	6	1.5	2.0	1.6	0.2 or More
4 x 0.7	8	2.0	2.5	1.6	0.2 or More
5 x 0.8	9	3.0	3.0	2.0	0.25 or More (0.2 or More)
6 x 1.0	10	3.0	4.0	2.5	0.4 or More (0.2 or More)
8 x 1.25	13	4.0	5.0	3.0	0.4 or More (0.2 or More)
10 x 1.5	16 (15)	5.0	5.0	3.5	0.4 or More (0.2 or More)

* The dimension for M2 Type of CBSS, CBSA and CBSTS is 1.1, and M2.5 Type is 1.3.
* The dimension for M3 Type of CBSS, CBSM, CBSA and CBSR is 1.3.

Part Number	Available Types											
	Type	M - L	CBSS		CBSM		CBSA		CBSR		CBSTS	
		2 - 3	1-49	50-300	1-99	100-00	1-99	100-00	1-99	100-00	1-99	100-00
CBSS	2 - 3	•	•	•	•	•	•	•	•	•	•	•
CBSM	4	•	•	•	•	•	•	•	•	•	•	•
CBSA	5	•	•	•	•	•	•	•	•	•	•	•
CBSR	6	•	•	•	•	•	•	•	•	•	•	•
CBSTS	8	•	•	•	•	•	•	•	•	•	•	•
		10	•	•	•	•	•	•	•	•	•	•
		12	•	•	•	•	•	•	•	•	•	•
		14	•	•	•	•	•	•	•	•	•	•
		16	•	•	•	•	•	•	•	•	•	•
		18	•	•	•	•	•	•	•	•	•	•
		20	•	•	•	•	•	•	•	•	•	•
		25	•	•	•	•	•	•	•	•	•	•
		30	•	•	•	•	•	•	•	•	•	•
		35	•	•	•	•	•	•	•	•	•	•
		40	•	•	•	•	•	•	•	•	•	•

Ⓢ The dimensions of CBSTS is shown in ().
Ⓢ Hex Wrench for M2 and M2.5 P.2395

Features
- Developed to reduce the screw head height space.
- They require no countersinking unlike flat head screws.

Part Number Example **CBSA6-12**

Ultra Low Hexagon Socket Head Cap Screws

Hexalobular / Hexagon Sockets

Ultra Low Socket Head Cap Screws - Hexalobular

RoHS10

Type	Material	Hardness	Surface Treatment
CBSSSE	Cold Forged Carbon Steel Wire	HV 400 min.	Nickel Plating
CBSKE	SWCH Carbon Steel 12-18 Carbon Wire Steel (JIS)		Black Nickel Plating
CBSTSE	304 Stainless Steel or Equivalent	—	—

Ⓢ Ultra Low Head Cap Screws are fully threaded.

*Not available for L8, 10 and 12.

M	r (Max.)
2	0.3
2.6	0.3
3	0.4
4	0.5
5	0.6
6	0.7

Part Number	Available Types												
	Type	M - L	M x P	A	E	Hexalobular Socket Number	t min.	CBSTSE					
		2 - 3	2 x 0.4	4.0	0.5	4	0.4	1-19	20+	1-19	20+	1-9	10+
CBSTSE	2 - 3	•	•	•	•	•	•	•	•	•	•	•	•
		4	•	•	•	•	•	•	•	•	•	•	•
		5	•	•	•	•	•	•	•	•	•	•	•
		6	•	•	•	•	•	•	•	•	•	•	•
		8	•	•	•	•	•	•	•	•	•	•	•
		10	•	•	•	•	•	•	•	•	•	•	•
		12	•	•	•	•	•	•	•	•	•	•	•
		16	•	•	•	•	•	•	•	•	•	•	•
		20	•	•	•	•	•	•	•	•	•	•	•
		25	•	•	•	•	•	•	•	•	•	•	•
		30	•	•	•	•	•	•	•	•	•	•	•
		35	•	•	•	•	•	•	•	•	•	•	•
		40	•	•	•	•	•	•	•	•	•	•	•

Ⓢ CBSSE and CBSKE are carburized. Carburization is the process where carbon diffused into the steel surface is heat treated to make surface harder.
Ⓢ Select screws from hexalobular socket numbers.

Reference Values

Thread	Tightening Torque	
	N · m	lb · ft
M2	0.178	0.013
M2.6	0.36	0.027
M3	0.63	0.046
M4	1.50	0.110
M5	3	0.221
M6	5.2	0.381

Hexalobular Key Wrenches CMM

RoHS10

Material: Tool Steel Hardness: 45-52 HRC min.

Part Number	Hexalobular Socket	(L ₁)	(L ₂)	d
CMM-4	4	48	16	3
CMM-5	5	48	16	3
CMM-6	6	42	16	3
CMM-8	8	48	16	3
CMM-10	10	51	16	4
CMM-15	15	54	18	4
CMM-20	20	57	19	4

Ⓢ L₁ and L₂ are reference values.

Ultra Low Socket Head Cap Screws - Hexagon CBSTSR

RoHS10

Material: 304 Stainless Steel or Equivalent

Part Number	Available Types									
	Type	M - L	M x P	A	B	E	t max.	(e) max.		
		2 - 3	2 x 0.4	4	1.27	0.5	1.2	1.2		
CBSTSR	2 - 3	•	•	•	•	•	•	•		
		4	•	•	•	•	•	•		
		5	•	•	•	•	•	•		
		6	•	•	•	•	•	•		
		8	•	•	•	•	•	•		
		10	•	•	•	•	•	•		
		12	•	•	•	•	•	•		
		16	•	•	•	•	•	•		
		20	•	•	•	•	•	•		
		25	•	•	•	•	•	•		
		30	•	•	•	•	•	•		
		35	•	•	•	•	•	•		
		40	•	•	•	•	•	•		

Part Number Example **CBSKE5-16** **CBSTSR3-8**

Reference Values

Thread	Tightening Torque		Tensile Strength N/mm ²
	N · m	lb · ft	
M2	0.16	0.012	200
M2.5	0.35	0.026	
M3	0.6	0.044	
M4	1.1	0.081	
M5	2.2	0.162	
M6	5	0.368	

Hexagonal Wrench CME

RoHS10

Material: Tool Steel Hardness: 45-52 HRC min.

Part Number	(L ₁)	(L ₂)	d
CME-0.9	32	10	0.9
CME-1.3	41	12	1.3

Ⓢ Can be used for Hexagon Socket Extra Low Head Cap Screws M2 and M2.5. P.2394

Part Number Example **CMM-5** **CME-1.3**