

Hex Socket Set Screws

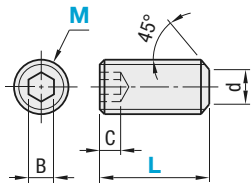
Flat End (Available in box)

Hex Socket Set Screws

Cup Point (Boxes)



Type	Material	Hardness	Surface Treatment
BOX-MSSF	EN 1.7220 Equiv.	45HRC~	Black Oxide
BOX-MSSFs	EN 1.4301 Equiv.	-	-



MxP (Coarse)	B	C (Min.)	d (Max.)
2 x0.4	0.9	0.8	1
2.5x0.45	1.3	1.2	1.5
2.6x0.45	1.3	1.2	1.5
3 x0.5	1.5	1.2	2
4 x0.7	2	1.5	2.5
5 x0.8	2.5	2	3.5

Can be ordered as a separate item. P211

Please specify in box quantity when ordering.
One box is shipped for an order of 1.

Ordering Example
Part Number
BOX-MSSF3-10
BOX-MSSFs2.5-5

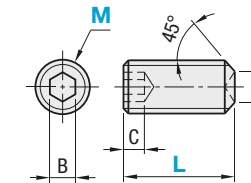
Box package is cost-saving for in-house stock or when large quantities are needed.

Part Number		Unit Price 1 to 10 boxes		Pcs./ Box
Type	M-L	Price per pkg.	1 Box	
BOX-MSSF	2- 2			1,000 pcs./box
	3			
	4			
	5			
	6			
	2.5- 3			
	4			
	5			
	6			
	2.6- 3			
	4			
	5			
	6			
	3- 3			
	4			
	5			
	6			
	8			
	10			
	4- 4			
	5			
	6			
	8			
	10			
	5- 5			
	6			
	8			
	10			

Part Number		Unit Price 1 to 10 boxes		Pcs./ Box
Type	M-L	Price per pkg.	1 Box	
BOX-MSSFs (Stainless Steel)	2- 2			1,000 pcs./box
	3			
	4			
	5			
	6			
	2.5- 3			
	4			
	5			
	6			
	2.6- 3			
	4			
	5			
	6			
	3- 3			
	4			
	5			
	6			
	8			
	10			
	4- 4			
	5			
	6			
	8			
	10			
	5- 5			
	6			
	8			
	10			



Type	Material	Hardness	Surface Treatment
BOX-MSSK	EN 1.7220 Equiv.	45HRC~	Black Oxide
BOX-MSSU	EN 1.4301 Equiv.	-	-



MxP (Coarse)	B	C (Min.)	d (Max.)
2 x0.4	0.9	0.8	1
2.5x0.45	1.3	1.2	1.2
2.6x0.45	1.3	1.2	1.2
3 x0.5	1.5	1.2	1.4
4 x0.7	2	1.5	2
5 x0.8	2.5	2	2.5

Can be ordered as a separate item. P211

Please specify in box quantity when ordering.
One box is shipped for an order of 1.

Ordering Example
Part Number
BOX-MSSK5-5
BOX-MSSU2-3

Box package is cost-saving for in-house stock or when large quantities are needed.

Part Number		Unit Price 1 to 10 boxes		Pcs./ Box
Type	M-L	Price per pkg.	1 Box	
BOX-MSSK	2- 2			1,000 pcs./box
	3			
	4			
	5			
	6			
	2.5- 3			
	4			
	5			
	6			
	2.6- 3			
	4			
	5			
	6			
	3- 3			
	4			
	5			
	6			
	8			
	10			
	4- 4			
	5			
	6			
	8			
	10			
	5- 5			
	6			
	8			
	10			

Part Number		Unit Price 1 to 10 boxes		Pcs./ Box
Type	M-L	Price per pkg.	1 Box	
BOX-MSSU (Stainless Steel)	2- 2			1,000 pcs./box
	3			
	4			
	5			
	6			
	2.5- 3			
	4			
	5			
	6			
	2.6- 3			
	4			
	5			
	6			
	3- 3			
	4			
	5			
	6			
	8			
	10			
	4- 4			
	5			
	6			
	8			
	10			
	5- 5			
	6			
	8			
	10			

Hex Socket Set Screws

Cup Point/Flat End/Cone Point (Available in Single item)

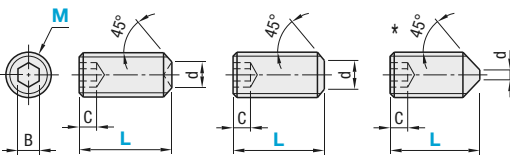
MSSF, MSSFS, MSSK and MSSU can be ordered in cost-saving boxes. P209, 210



MSSK
MSSU (Stainless Steel)

MSSF
MSSFS (Stainless Steel)

MSST
MSSTS (Stainless Steel)



* MSST / MSSTS (Cone Point) M=L size is 60

Type	Material	Hardness	Surface Treatment
MSSK	EN 1.7220 Equiv.	45HRC~	Black Oxide
MSSF	EN 1.4301 Equiv.	-	-
MSST	EN 1.4301 Equiv.	-	-
MSSU	EN 1.4301 Equiv.	-	-
MSSFS	EN 1.4301 Equiv.	-	-
MSSTS	EN 1.4301 Equiv.	-	-

MxP (Coarse)	B	C (Min.)	d (Max.)		
			Flat End	Cone Point	Cup Point
2x0.4	0.9	0.8	1	0.8	1
2.6x0.45	1.3	1.2	1.5	1.2	1.2
3x0.5	1.5	1.2	2	0.75	1.4
4x0.7	2	1.5	2.5	1	2
5x0.8	2.5	2	3.5	1.25	2.5
6x1.0	3	2	4	1.5	3
8x1.25	4	3	5.5	2	5
10x1.5	5	4	7	2.5	6
12x1.75	6	4.8	8.5	3	8

Part Number		MSSK (Cup Point)	MSSF (Flat End)	MSST (Cone Point)	MSSU (Cup Point)	MSSFS (Flat End)	MSSTS (Cone Point)
Type	M - L	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
MSSK MSSF MSST (Stainless Steel) MSSU MSSFS MSSTS	2 - 2						
	3						
	4						
	2.6 - 3						
	4						
	5						
	3 - 2.5						
	3						
	4						
	5						
	6						
	8						
	10						
	12						
	15						
	16						
	5 - 4						
	5						
	6						
	8						
	10						
	12						
	15						
	16						
	20						
6 - 5	5						
	6						
	8						
	10						
	12						
	15						
	16						
	20						
	25						
	30						
8 - 6	6						
	8						
	10						
	12						
	15						
	16						
	20						
	25						
	30						
	30						
10 - 12	12						
	15						
	20						
	25						
	30						
12 - 15	15						
	20						
	25						
	30						
	30						

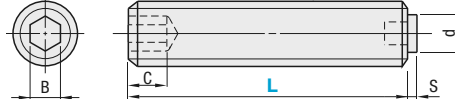
Hex Socket Set Screws / Hex Socket Cap Screws / Crush Pads

Soft Tips / Head Cap Screws



Hex Socket Set Screws Soft Tips

Type	Material	Surface Treatment	Pad Material
SBPP	EN 1.7220 Equiv.	Black Oxide	Polyacetal (White)
SBCP	EN 1.7220 Equiv.	Black Oxide	Free-cutting Brass (EN CW614N Equiv.)
SBCP	EN 1.7220 Equiv.	Black Oxide	Urethane (Shore A70, Black)
SBPPS	EN 1.4301 Equiv.	-	Polyacetal (White)
SBCPS	EN 1.4301 Equiv.	-	Free-cutting Brass (EN CW614N Equiv.)
SBCTS	EN 1.4301 Equiv.	-	Urethane (Shore A70, Black)

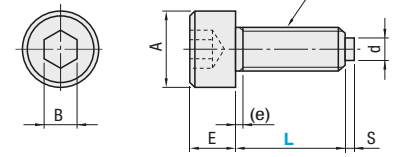


Part Number		L										S	d	B	C (Min.)
Type	M (Coarse)	⚠Dimensions in () are only applicable to SBPP and SBCP.													
SBPP	SBCP	3	5	6	8	10	12	16	20			0.5	1.5	1.5	2.0
SBPPS	SBCPS	4		6	8	10	12	16	20			1	2	2	2.5
SBPP	SBCP	5			8	10	12	16	20	25		1	3	2.5	3.0
SBPPS	SBCPS	6			8	10	12	16	20	25	30	40	50	3	3.5
		8				10	12	16	20	25	30	40	50	4	5.0
SBCT		10					12	16	20	25	30	40	50	5	6.0
SBCTS		12						16	20	25	30	40	50	6	8.0



Hex Socket Set Screws Head Cap Screws

Type	Material	Surface Treatment	Material Pad
CBPP	EN 1.7220 Equiv.	Black Oxide	Polyacetal (White)
CBPPS	EN 1.7220 Equiv.	Black Oxide	Free-cutting Brass (EN CW614N Equiv.)
CBP	EN 1.4301 Equiv.	-	Polyacetal (White)
CBP	EN 1.4301 Equiv.	-	Free-cutting Brass (EN CW614N Equiv.)

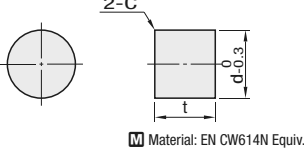


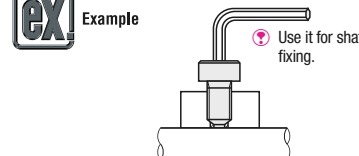


Crush Pads



SEPN
SEPNS (Thin)
(50 pcs. per Pkg.)
PACK-SEPN
PACK-SEPNS





Example
Use it for shaft fixing.

Part Number		d	t	C	Unit Price 1 to 100 (Single item)	PACK-SEPN, PACK-SEPNS
Type	Applicable M		SEPN SEPNS		Unit Price	Volume Discount Rate
SEPN	*3	2.2	2.0	0.5		
SEPN	*4	3.0	2.5	0.5		
SEPN	*5	3.9	3.0	0.5		
SEPN	*6	4.7	3.5	1.0		
SEPN	8	6.4	4.5	-		
SEPN	10	8.2	5.5	-		
SEPN	12	9.9	6.5	-		

* SEPN is available only in M3 through M6. * For SEPN, C<0.1 * PACK-SEPN is available only in M3 through M6.
When placing an order for PACK-SEPN or PACK-SEPNS, please specify number of packages. 1 package to be delivered includes 50 pieces.



Ordering Example

Part Number
MSSF5 -10



Ordering Example

Part Number
CBPP3-10
SEPN5
PACK-SEPN4

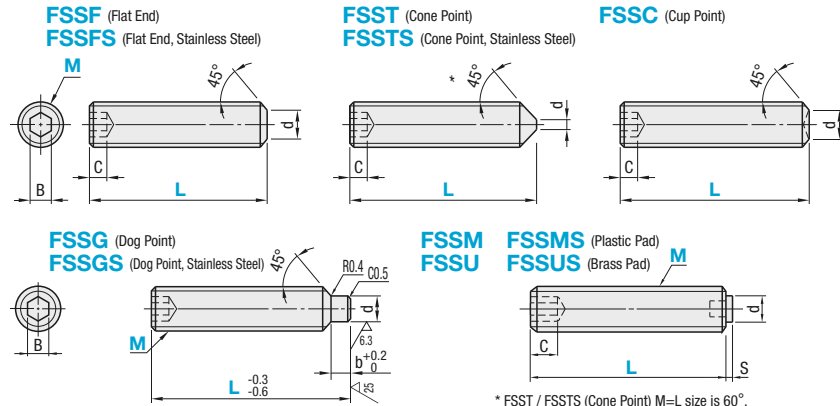
Configurable Length Screws with Hex Sockets

Tip Shape Selectable

Configurable Length Screws with Hex Sockets Tip Shape Selectable



Type	Material	Surface Treatment	Pad
FSSF FSST FSSC FSSG	EN 1.1191 Equiv.	Black Oxide	-
FSSM	EN 1.7220 Equiv.	Black Oxide Coating	White Polyacetal
FSSU	-	-	Free-cutting Brass (EN CW614N Equiv.)
FSSFS FSSTS FSSGS	EN 1.4301 Equiv.	-	White Polyacetal
FSSMS	-	-	Free-cutting Brass (EN CW614N Equiv.)
FSSUS	-	-	-



* FSST / FSSTS (Cone Point) M=L size is 60°.

Part Number		L 1mm Increment	B	C (Min.)	d (Max.)					S (with Plastic / Brass Pad)	b (Dog Point)
Type	M				Flat End	Cone Point	Cup Point	Dog Point	with Plastic / Brass Pad		
FSSF (Flat End)	5	20~250	2.5	3	3.5	1.25	2.5	4	3	1	4
FSSFS (Flat End, Stainless Steel)	6		3.0	3.5	4.0	1.5	3	4	4	1	4
FSST (Cone Point)	8	20~400	4.0	5	5.5	2.0	5	6	5	2	5
FSSTS (Cone Point, Stainless Steel)	8		4.0	5	5.5	2.0	5	6	5	2	5
FSSC (Cup Point)	10		5.0	6	7	2.5	6	8	6	2	6
FSSG (Dog Point)	12		6.0	8	8.5	3	8	8	8	2	7
FSSGS (Dog Point, Stainless Steel)	12		6.0	8	8.5	3	8	8	8	2	7
FSSM FSSMS (Plastic Pad)	16		8.0	10	12	4	10	10	10	3	9
FSSU FSSUS (Brass Pad)	20		10.0	12	15	5	14	12	13	3	11

Ordering Example
Part Number - L
FSSTS6 - 100

M	L	Unit Price										
		FSSF	FSST	FSSC	FSSG	FSSM	FSSU	FSSFS	FSSTS	FSSGS	FSSMS	FSSUS
5	20~100											
	101~200											
	201~250											
6	20~100											
	101~200											
	201~250											
8	20~100											
	101~200											
	201~400											
10	20~100											
	101~200											
	201~400											
12	20~100											
	101~200											
	201~400											
16	20~100											
	101~200											
	201~400											
20	20~100											
	101~200											
	201~400											

Alterations
Part Number - L - (JIS-SKH (TS for hot work))
FSSTS6 - 100 - SKH

Alteration Code	Tip Induction Hardened
SKH	Induction hardening at 2 ~ 3mm away from the tip. Hardness: 40 ~ 45HRC Ordering Code JIS-SKH (TS for hot work) Applicable only to FSSF, FSST and FSSG.

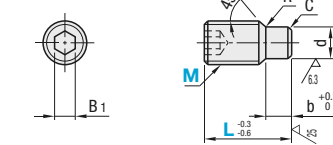
Hexagon Socket Screws - Dog Point

Hex Socket Set Screws / Hex Socket Head Cap Screws Standard and Configurable

Hexagon Socket Screws - Dog Point

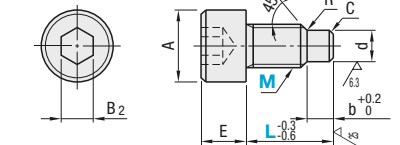


MSSG (Hex Socket Set Screws)



- These differ from JIS dog point set screws in dimension of nose portion.
- Use for rough locking of shafts, etc. where continuous load is not imparted to the nose portion.

CBBG (Hex Socket Head Cap Screws)



Type	Material	Hardness	Surface Treatment
MSSG	EN 1.7220 Equiv.	45HRC~	Black Oxide
CBBG	EN 1.7220 Equiv.	38~43HRC	-
CBBGS	EN 1.4301 Equiv.	-	-

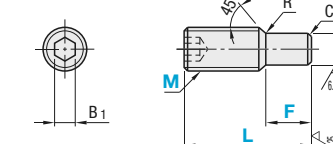
Part Number		L										B1	B2	A	E	d		b	C	R	Unit Price		
Type	M (Coarse)															Reference Dim.	Tolerance				MSSG	CBBG	CBBGS
MSSG CBBG CBBGS	4	12	16	20	25	30					2	3	7	4	3	-0.1	3	0.3	0.5				
	5	12	16	20	25	30					2.5	4	8.5	5	4	-0.2	4						
	6	12	16	20	25	30	35	40		3	5	10	6	6		5							
	8	16	20	25	30	35	40	45		4	6	13	8	6	-0.1	5	0.5	1					
	10		20	25	30	35	40	45	50	5	8	16	10	8	-0.3	6							

Hexagon Socket Screws - Dog Point Configurable



FMSSG (Hex Socket Set Screws)

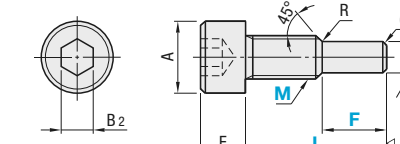
FMSSGS (Hex Socket Set Screws, Stainless Steel)



- Use for rough locking of shafts, etc. where continuous load is not imparted to the nose portion.

FCBBG (Hex Socket Head Cap Screws)

FCBBGS (Hex Socket Head Cap Screws, Stainless Steel)

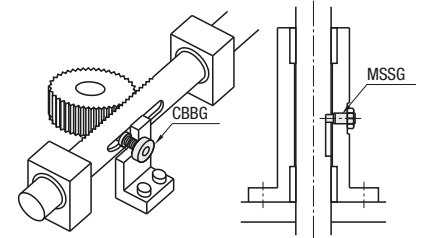


Type	Material	Hardness	Surface Treatment
FMSSG	EN 1.7220 Equiv.	45HRC~	Black Oxide
FCBBG	EN 1.7220 Equiv.	38~43HRC	-
FMSSGS FCBBGS	EN 1.4301 Equiv.	-	-

Part Number		L			F 1mm Increment	B1	B2	A	E	d		C	R	Unit Price				
Type	M (Coarse)	FMSSG	FMSSGS	FCBBG						FCBBGS	Reference Dim.			Tolerance	FMSSG	FMSSGS	FCBBG	FCBBGS
FMSSG FMSSGS FCBBG FCBBGS	4	-		12-25	2-30 ⌀10=L-F	-	3	7	4	3	-0.1 -0.2	0.3	0.5	-	-			
	5	12-25		12-25		2.5	4	8.5	5									
		26-50		26-50														
	6	12-40		12-30						4								
	41-60		31-70															
8	12-50		12-35			3	5	10	6	-0.1 -0.3	0.5	1						
	51-100		36-75			4	6	13	8				6					
10	12-50		12-40			5	8	16	10	8								
	51-100		41-75															

Ordering Example
Part Number - L - F
FMSSG5 - 16
FMSSG6 - 50 - 20

ex Example



Alterations
Part Number - L - (RC, RS)
CBBG8 - 20 - RS

Alterations	Tip R Machining		Undercut	
Code	RC		RS	
Spec.	Adds Tip R Processing to the tip of a nose portion. Not applicable to CBBG. Ordering Code RC		Adds an undercut below the head of Head Cap Screws. Applicable only to CBBG, FCBBG and FCBBGS. Ordering Code RS	
	M	R	b	F
	4	3	3	4
	5	4	4	5
	6	4	4	6
Spec.	M	f	g	r
	4	3.2	1.5	0.2~0.3
	5	4.1	2	0.2~0.5
	6	4.9	2.5	0.2~0.5
	8	6.6	2.5	0.2~0.5

Alterations only to FCBBG, FCBBGS. Can be used in combination with RC and RS.