

Pivot Pins

Set Screw Flat, Shouldered with Set Screw Flat

Set Screw Flat Type

Type	Material	Hardness	Surface Treatment
CLSG	S45C Equivalent	-	Black Oxide
CLSGH		40~45HRC	
PCLSG		-	Electroless Nickel Plating
PCLSGH	SUS304	40~45HRC	
SCLSG		-	
SCLSGH	SUS440C Equivalent	45~50HRC	

⚠ CLSG, PCLSG may have identification grooves on the side in order to distinguish them from Hardened Type.
 ⚠ For L Dimension, Standard Machining Tolerances (Class: Medium) is used.
 ⚠ This type may have centering holes depending on dimensions.

D Tolerance (g6)	Value
3	-0.002 -0.008
4~6	-0.004 -0.012
8, 10	-0.005 -0.014
12~18	-0.006 -0.017
20~25	-0.007 -0.020

RoHS10

Part Number Type	D	L=0.1mm Increment	1mm Increment		N	Unit Price						
			F	E		CLSG	CLSGH	PCLSG	PCLSGH	SCLSG	SCLSGH	
CLSG CLSGH PCLSG PCLSGH SCLSG SCLSGH	3	5.0~50.0	F=0 or 2sFs/L/2	1sEs50	0.5							
	4	5.0~50.0										
	5	10.0~60.0										
	6	10.0~100.0										
	8	10.0~100.0										
	10	15.0~100.0	25.0~200.0	1sEs50	1							
	12	15.0~200.0										
	13	15.0~200.0										
	14	25.0~200.0										
	15	25.0~200.0										
	16	30.0~200.0	1sEs50	2	2							
	17											
	18											
	20											
	22											
	25											

Example

⚠ SCLSGH may be discolored by hardening.

Shouldered with Set Screw Flat

Type	D Tolerance	Material	Hardness	Surface Treatment
HCLSG	g6	S45C Equivalent	-	Black Oxide
HCLSGH			40~45HRC	
PHCLSG			-	Electroless Nickel
PHCLSGH	SUS304	SUS304	40~45HRC	Plating
SHCLSG			-	
SHCLSGH	SUS440C Equivalent	SUS440C Equivalent	45~50HRC	

⚠ For L Dimension, Standard Machining Tolerances (Class: Medium) is used.
 ⚠ This type may have centering holes depending on dimensions.
 ⚠ HCLSG, PHCLSG may have identification grooves on the side in order to distinguish them from Hardened Type.
 ⚠ Relief dimension under the shoulder is for reference.

D Tolerance (g6)	Value
3	-0.002 -0.008
4~6	-0.004 -0.012
8, 10	-0.005 -0.014
12~18	-0.006 -0.017
20~25	-0.007 -0.020

RoHS10

Part Number Type	D	L=0.1mm Increment	0.1mm Increment		A	u	T	(n)	(N)	Unit Price						
			E	F						HCLSG	HCLSGH	PHCLSG	PHCLSGH	SHCLSG	SHCLSGH	
HCLSG HCLSGH PHCLSG PHCLSGH SHCLSG SHCLSGH	3	5.0~50.0	1sEs50	F=0 or 2sFs/L/2	5.5	2.9	1.5	1.0	0.5							
	4	5.0~50.0														
	5	10.0~60.0														
	6	10.0~100.0														
	8	10.0~100.0														
	9	10.0~100.0	20.0~200.0	1sEs50	17	11.8	2	1.5	1							
	10	15.0~100.0														
	12	15.0~200.0														
	13	15.0~200.0														
	14	20.0~200.0														
	15	20.0~200.0	1sEs50	2	18	12.8	3	1.5	2							
	16															
	17															
	18															
	20															
	21	20.0~200.0	1sEs50	3	21	15.8	4	1.5	2							
	22															
	25															

⚠ SHCLSGH may be discolored by hardening.

Ordering Example: CLSGH15 - 100.0 - F20 - E10

For Set Screw Flat Type and Shouldered with Set Screw Flat Type, specifying order of E and F is reversed.

Alterations	Tapping		Shoulder Thickness	L Dimension Tolerance
	M	F		
Code	MMC	TC	TC	LKC
Spec.	Ordering Code: MMC		Ordering Code: TC3	Ordering Code: LKC
	D	M (Coarse)	z	
	6	M3	6	
	8~14	M4	8	
	15~22	M6	12	
	25	M8	16	

⚠ Not applicable to Shouldered with Set Screw Type.
 ⚠ Not applicable to D3 ~ 5.
 ⚠ (D-M)/2 When (D-M)/2-N≤1, F>Mx2. ⚠ L>Mx3
 ⚠ TC=0.5mm Increment
 ⚠ T<TC≤5
 ⚠ Not applicable to Set Screw Flat Type.
 ⚠ Changes L dimension tolerance to ±0.05.
 ⚠ Not applicable to Set Screw Flat Type.

Pivot Pins

D-Cut

Features: Two flats will effectively stop pins from rotating.

Type	Material	Hardness	Surface Treatment
CLSW	S45C Equivalent	-	Black Oxide
CLSWH		40~45HRC	
SCLSW	SUS304	-	

⚠ CLSW may have identification grooves on the side in order to distinguish it from Hardened Type.
 ⚠ For L Dimension, Standard Machining Tolerances (Class: Medium) is used.
 ⚠ This type may have centering holes depending on dimensions.

D Tolerance (g6)	Value
4~6	-0.004 -0.012
8, 10	-0.005 -0.014
12~16	-0.006 -0.017
20, 25	-0.007 -0.020

RoHS10

Part Number Type	D	L=0.1mm Increment	1mm Increment		N	Unit Price			
			F	T		CLSW	CLSWH	SCLSW	
CLSW CLSWH SCLSW	4	10.0~50.0	2sF≤20	2sT≤20	0.5				
	5	10.0~60.0							
	6	10.0~60.0							
	8	10.0~100.0	2sF≤30	2sT≤30	1				
	10	10.0~100.0							
	12	15.0~200.0							
	13	25.0~200.0	5sF≤30	5sT≤30	1				
	14								
	15								
	16	30.0~200.0	5sF≤30	5sT≤30	2				
	20								
	25								

Ordering Example: CLSWH15 - 120.5 - F30 - T30

Example diagram showing a pivot pin assembly with a link, hinge base, and hinge pin.