

# Precision Pivot Pins

## Lock Nut with Extra Low Hex Socket Head

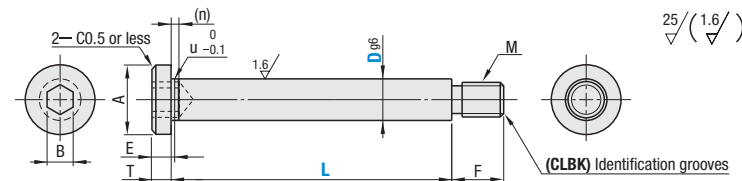
Feature: Thinner shoulder design ensures use in limited spaces.

Precision Pivot Pins – Lock Nut with Extra Low Hex Socket Head



RoHS 10

Type	Material	Hardness	Surface Treatment	Accessory
CLBK	1045 Carbon Steel or Equivalent	—	Black Oxide	Nut 1 Pc. Material SWRCH Carbon Steel
CLBKH	—	40~45 HRC min.	—	
SCLBK	304 Stainless Steel	—	—	Material 304 Stainless Steel
SCLBKH	440C Stainless Steel	45~50 HRC min.	—	



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

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

Part Number Type	D	L 0.1 mm Increment	A	T	F	B	E	u	(n)	M (Coarse Thread)						
											CLBK	4	10.0-50.0	7	1.5	6
CLBKH	5	10.0-60.0	9	M4												
SCLBK	6	10.0-100.0	10	M5												
SCLBKH	8	10.0-100.0	13	M6												
	10	15.0-100.0	16	2.5	18	5	3	9.8	1.5	M8						
	12	15.0-200.0	18							M10						
	13	25.0-200.0	24							12	13.8	14.8	15.8	17.8	19.8	M12
	14															M16
	15	30.0-200.0	27	24	6	4	5	19.8	1.5	M16						
	16															
	20															
	25															

SCLBKH may be discolored by hardening.

Part Number Example: CLBK15 - 102.3

Part Number Alterations: CLBK10 - 50.5 - FC8

Alterations	Thread Part Length	Thread Diameter	L Dimension Tolerance	Shoulder Diameter Cut
Code	FC	MC	LKC	HC
Spec.	Ordering Code: FC4 FC = 1 mm Increment M(MC)≤FC≤M(MC)×3	Ordering Code: MC3 D MC (Selection Range) 5 3 6 3 4 8 3 4 5 10 4 5 6 12 5 6 8 13-16 6 8 10 20 8 10 12 25 10 12 Not applicable to D4. For D12, MC5, please also use alteration FC.	Ordering Code: LKC Changes L dimension tolerance to ±0.05.	Ordering Code: HC - D=4-10 HC=A/2-1 - D=12-25 HC=A/2-2

# Precision Pivot Pins

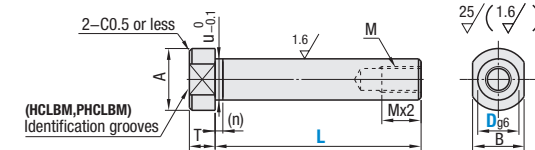
## Tapped with Flange / Tapped, Hex Socket Head with Flange

Precision Pivot Pins – Tapped with Flange



RoHS 10

Type	Material	Hardness	Surface Treatment	D Tolerance (g6)
HCLBM	1045 Carbon Steel or Equivalent	—	Black Oxide	6 -0.004 -0.012
HCLBHM		40~45 HRC min.		8, 10 -0.005 -0.014
PHCLBM		—	Electroless Nickel Plating	12-18 -0.006 -0.017
PHCLBHM		40~45 HRC min.		20-25 -0.007 -0.020
GHCLBM	304 Stainless Steel	Plating Hardness 750 HV min.	Hard Chrome Plating	
SHCLBM	440C Stainless Steel Equivalent	45~50 HRC min.	—	
SHCLBHM		45~50 HRC min.		
GSHCLBHM		Plating Hardness 750 HV min.	Hard Chrome Plating	



- HCLBM, PHCLBM may have identification grooves on the side in order to distinguish them from Hardened Type.
- Relief dimension under the shoulder is for reference.
- For L Dimension, Standard Machining Tolerances (Class: Medium) are used.

Part Number Type	D	L 0.1 mm Increment	A	B	u	T	(n)	M (Coarse Thread)				
									HCLBM	6	15.0-100.0	10
HCLBHM	8	15.0-100.0	13	10	7.8	M5						
PHCLBM	10	20.0-100.0	16	13	9.8	M6						
PHCLBHM	12	20.0-200.0	18	14	11.8	M8						
GHCLBM	13	25.0-200.0	24	21	12.8	13.8	14.8	15.8	17.8	19.8	1.5	M10
SHCLBM	14											
SHCLBHM	15											
GSHCLBHM	16											
	17	30.0-200.0	27	23	16.8	17.8	18.8	19.8	21.8	24.8	1.5	M12
	18											
	20											
	22											
	25	35.0-200.0	30	27	24.8						1.5	M16
	22											

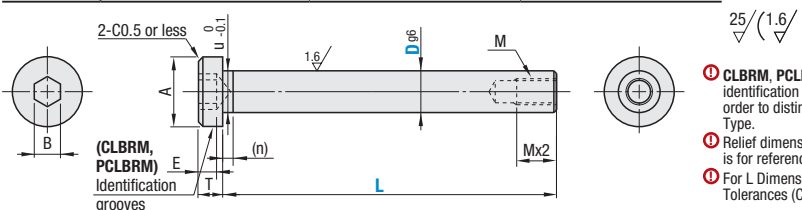
SHCLBHM and GSHCLBHM may be discolored by hardening.

Precision Pivot Pins – Tapped, Hex Socket Head with Flange



RoHS 10

Type	Material	Hardness	Surface Treatment	D Tolerance (g6)
CLBRM	1045 Carbon Steel or Equivalent	—	Black Oxide	6 -0.004 -0.012
CLBRHM		40~45 HRC min.		8, 10 -0.005 -0.014
PCLBRM		—	Electroless Nickel Plating	12-18 -0.006 -0.017
PCLBRHM		40~45 HRC min.		20-25 -0.007 -0.020
GCLBRM	304 Stainless Steel	Plating Hardness 750 HV min.	Hard Chrome Plating	
SCLBRM	440C Stainless Steel Equivalent	45~50 HRC min.	—	
SCLBRHM		45~50 HRC min.		



- CLBRM, PCLBRM may have identification grooves on the side in order to distinguish them from Hardened Type.
- Relief dimension under the shoulder is for reference.
- For L Dimension, Standard Machining Tolerances (Class: Medium) are used.

Part Number Type	D	L 0.1 mm Increment	A	T	B	E	u	(n)	M (Coarse Thread)										
										CLBRM	6	15.0-100.0	10	5	3	2	5.8	1.5	M3
CLBRHM	8	20.0-100.0	13	M5															
PCLBRM	10	25.0-100.0	16	6	4	11.8	12.8	13.8	14.8	15.8	17.8	19.8	21.8						24.8
PCLBRHM	12	25.0-200.0	18																
GCLBRM	13	30.0-200.0	24	5	8	5	16.8	17.8	18.8	19.8	1.5	M10							
SCLBRM	14																		
SCLBRHM	15																		
	16																		
	17	35.0-200.0	27	10	6	8	21.8	24.8			1.5	M12							
	18																		
	20																		
	22																		
	25	55.0-200.0	30	12	8						1.5	M16							
	22																		

SCLBRHM may be discolored by hardening.

Part Number Example: HCLBHM8 - 35.8, SCLBRHM10 - 50.5

Part Number Alterations: HCLBHM10 - 50.5 - TC3

Alterations	Thread Diameter	Shoulder Thickness	L Dimension Tolerance	Shoulder Diameter Cut
Code	MC	TC	LKC	HC
Spec.	Ordering Code: MC3 D MC (Selection Range) 6 2.6 8 3 4 10 12 4 5 13-15 5 6 16-18 6 8 20, 22 8 10 25 10 12 Not applicable to D4. For D12, MC5, please also use alteration FC.	Ordering Code: TC3 TC = 0.5 mm Increment 2≤TC≤5 Not available for Tapped, Hex Socket Head with Shoulder Type.	Ordering Code: LKC Changes L dimension tolerance to ±0.05.	Ordering Code: HC - D=6-8 HC=A/2-1 - D=10-25 HC=A/2-2