

Locating Pins

Pilot Pins

■ Features: Insert it to prevent deviation in pitch for locating.

Material	Hardness	B Fixed		B Configurable		
		Press Fit	Tapped, Flathead Slot	Press Fit	Without Flathead Slot	Flathead Slot
SKS3 Equivalent	Treated Hardness: 60 ~ 63HRC	HPST	HPSTM	HPSF	HPSFS	HPSFM
SUS304	-	SHPST	SHPSTM	SHPSF	-	SHPSFM
SUS400 Equivalent	Treated Hardness: 50 ~ 55HRC	CHPST	CHPSTM	CHPSF	CHPSFS	CHPSFM

■ B Fixed, Standard, Tapped

Part Number	Type	D	D dim. Tolerance	L Selection			P	B	E	ℓ	M	*Tightening Torque N·cm	Unit Price					
				3	4	5							6	8	10	12	15	18
Standard HPST SHPST CHPST	Tapped Flathead Slot	1	+0.012 +0.007	12	1.50~3.00	1	3	3	-	-	-	-	-	-	-	-	-	-
		2		12	2.50~4.00	2	4						-	-	-	-		
	3	12		4.00~6.00	3	5	-						-	-	-			
	4	12		5.00~7.00	4	6	-						-	-	-			
	5	12		6.00~8.00	5	6	-						-	-	-			
	6	12		7.00~9.00	6	6	-						-	-	-			
	8	15		9.00~13.00	3	6	M3						147	-	-	-	-	
	10	15		11.00~15.00	3	6	M4						333	-	-	-	-	
													M5	676	-	-	-	-

■ B Configurable, Press Fit

Part Number	Type	D	D dim. Tolerance	L Selection			P	B	E	ℓ	Unit Price					
				3	4	5					6	8	10	12	15	18
HPSF SHPSF CHPSF	Press Fit	1	+0.012 +0.007	3	4	5	6	8	10	12	1.50~3.00	1.00~5.00	3	-	-	-
		2		4	5	6	8	10	12	2.50~4.00	1.00~10.00	4	-	-	-	
		3		5	6	8	10	12	15	4.00~6.00	1.00~10.00	5	-	-	-	
		4		5	6	8	10	12	15	5.00~7.00	1.00~10.00	6	-	-	-	
		5		5	6	8	10	12	15	6.00~8.00	1.00~10.00	6	-	-	-	
		6		6	8	10	12	15	7.00~10.00	1.00~12.00	6	-	-	-		
		8		8	10	12	15	9.00~13.00	1.00~15.00	6	-	-	-	-		
		10		10	12	15	18	11.00~15.00	1.00~20.00	6	-	-	-	-		

■ B Configurable, Tapped

Part Number	Type	D	D dim. Tolerance	L Selection			P	B	E	M	*Tightening Torque N·cm	Unit Price					
				6	8	10						12	15	18 <th>6.00~8.00 <th>7.00~10.00 <th>9.00~13.00 <th>11.00~15.00 <th>1.00~10.00 <th>1.00~12.00 <th>1.00~15.00 <th>1.00~20.00 </th></th></th></th></th></th></th></th>	6.00~8.00 <th>7.00~10.00 <th>9.00~13.00 <th>11.00~15.00 <th>1.00~10.00 <th>1.00~12.00 <th>1.00~15.00 <th>1.00~20.00 </th></th></th></th></th></th></th>	7.00~10.00 <th>9.00~13.00 <th>11.00~15.00 <th>1.00~10.00 <th>1.00~12.00 <th>1.00~15.00 <th>1.00~20.00 </th></th></th></th></th></th>	9.00~13.00 <th>11.00~15.00 <th>1.00~10.00 <th>1.00~12.00 <th>1.00~15.00 <th>1.00~20.00 </th></th></th></th></th>
Without Flathead Slot HPSFS CHPSFS	Tapped Flathead Slot	5	-0.004	6	8	10	12	15	6.00~8.00	1.00~10.00	5	M3	147	-	-	-	-
		6	-0.012	6	8	10	12	15	7.00~10.00	1.00~12.00	6	M4	333	-	-	-	-
		8	-0.005	8	10	12	15	18	9.00~13.00	1.00~15.00	6	M5	676	-	-	-	-
		10	-0.014	10	12	15	18	11.00~15.00	1.00~20.00	6	M5	676	-	-	-	-	

* Tightening torque (reference) will be within Strength Class of Tightening Torque on Technical Data ㉞ P.2297 (10.9). Not applicable when using locking materials or lock washers.

Ordering Example

Part Number - L - P - B

HPST5 - 15 - P7.20 - B

HPSF4 - 10 - P5.05 - B1.20

Alterations

Part Number - L - P - (BC)

HPSTM5 - 15 - P7.20 - BC3.5

Alteration	Code	Spec.
B Dimension	BC	BC=0.1mm Increment 1≤BC≤BC max Ordering Code BC3.5 Applicable to B Fixed Type only.
		D BC max 1.2 3.0 3 4.0 4.5 5.0 6 6.0 8,10 7.0

Locating Pins

Double Stepped

■ Features: Suitable for positioning workpieces with different hole diameters.

Material	Surface Treatment	Hardness	Press Fit		Tapped
			D Tolerance m6	D Tolerance p6	D Tolerance g6
SKS3 Equivalent	-	Treated Hardness: 60 ~ 63HRC	WPM	WPP	WPG
SUS304	-	-	SWPM	-	SWPG
SUS304	Hard Chrome Plating Plating Thickness: 3um or more	Plating Hardness: 750HV ~	HWPM	HWPP	HWPG

■ Press Fit

Part Number	Type	D	P	Q	L	B	E	F	m	C	ℓ	Unit Price		
												WPM	SWPM	HWPM
D Tolerance m6 WPM SWPM HWPM	Press Fit	2	2.00~4.00	1.00~3.00	2~6	2.0~6.0	1.0~3.0	2.0~6.0	1	0.3	0	-	-	-
		3	3.00~6.00	1.00~5.00	3~6	2.0~10.0	1.0~5.0	2.0~10.0	2	0.5	-	-	-	-
		4	4.00~7.00	2.00~6.00	4~8	2.0~15.0	1.0~8.0	2.0~15.0	3	1	1	-	-	-
		5	5.00~8.00	2.00~7.00	5~10	2.0~20.0	1.0~10.0	2.0~20.0						
		6	6.00~10.00	2.00~9.00	6~12	2.0~20.0	1.0~10.0	2.0~20.0	4	1.5	2	-	-	-
		8	8.00~13.00	3.00~12.00	8~16	3.0~20.0		3.0~20.0						
		10	10.00~15.00	3.00~14.00	10~20	5.0~20.0	5.0~20.0	5.0~20.0	5	3	-	-	-	
		12	12.00~16.00	5.00~15.00	12~24	5.0~20.0								
		16	16.00~25.00	10.00~24.00	16~32	5.0~20.0								
		20	20.00~30.00	13.00~29.00	20~40	5.0~20.0								

Ⓜ P>Q

■ Tapped

Part Number	Type	D	P	Q	L	B	E	F	m	M	*Tightening Torque N·cm	ℓ	Unit Price		
													WPG	SWPG	HWPG
D Tolerance g6 WPG SWPG HWPG	Tapped	6	6.00~10.00	2.00~9.00	6~12	2.0~20.0	1.0~10.0	2.0~20.0	3	M3	147	5	-	-	-
		8	8.00~13.00	3.00~12.00	8~16	3.0~20.0		3.0~20.0	4	M4	333	8	-	-	-
		10	10.00~15.00	3.00~14.00	10~20	5.0~20.0		5.0~20.0							
		12	12.00~16.00	5.00~15.00	12~24	5.0~20.0		5.0~20.0	5	M8	2803	12	-	-	-
		16	16.00~25.00	10.00~24.00	16~32	5.0~20.0		5.0~20.0							
		20	20.00~30.00	13.00~29.00	20~40	5.0~20.0		5.0~20.0							

Ⓜ P>Q Ⓜ Note the strength of under-head part ㉞ P.1566

* Tightening torque (reference) will be within Strength Class of Tightening Torque on Technical Data ㉞ P.2297 (10.9). Not applicable when using locking materials or lock washers.

Ordering Example

Part Number - P - Q - L - B - E - F

SWPM5 - P7.30 - Q5.01 - L10 - B10.5 - E5.2 - F7.8

HWPG16 - P20.02 - Q15.30 - L18 - B12.3 - E3.1 - F5.0

Example

Applicable to different hole diameters. (Suitable for reducing number of tooling changes.)

Small diameter (Q dimension) can be used as the insertion guide.