

Shafts

One End Stepped, One End Tapped Hollow



Type	Material	Hardness	Surface Treatment
SPJA	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening P112 58HRC~	-
PSPJA			Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More
RSPJA			LTBC Plating

Features of LTBC Plating P128
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P111
LTBC Plating is not applied to the inside of hollow shafts, taps, bored holes and lateral holes, and may rust.
Shaft End Machined Area (Effective Thread Length + Approx. 10mm)
Annealing may lower hardness.

About Hollow Shaft Wall Thickness Deviations See P111

Part Number		1mm Increment		M (Coarse) Selection		(Y) Max.	d	R	C
Type	Dg6	L	F	P					
SPJA	6	-0.004	25~598	5≤P<D	3	600	2	0.5 or Less	
	8	-0.005	25~798	6≤P<D	4 5	800	3		
	10	-0.014	25~798	7≤P<D	5 6	800	4		
	12	-0.006	25~998	10≤P<D	8 T1 (RC1/8)	1000	6		
PSPJA	13	-0.006	25~998	10≤P<D	10 T1 (RC1/8)	1000	7	0.3 or Less	
	16	-0.017	25~1198	13≤P<D	12 T2 (RC1/4)	1200	10		
RSPJA (D≤30, L≤500)	20	-0.007	25~1198	16≤P<D	16 T3 (RC3/8)	1200	14	1.0 or Less	
	25	-0.020	25~1198	20≤P<D	20	1200	16		
	30	-0.017	25~1498	22≤P<D	20	1500	17		
	35	-0.009	25~1498	24≤P<D	24	1500	19		
	40	-0.025	25~1498	25≤P<D	24 30	1500	20		
	50	-0.025	25~1498	32≤P<D	30	1500	26		

When T1, T2 or T3 is selected as M, tapered thread machining is applied. (Ordering Code: MT1)
Overall length L requires Mx3≤L.

Ordering Example

Part Number - L - F - P - M

SPJA20 - 277 - F25 - P16 - M16

Alterations

Part Number - L - F - P - M - (DKC, LKC, SC)

SPJA20 - 277 - F25 - P16 - M16 - LKC

Alterations

Code

Spec.

DKC

LKC

SC

Changes L tolerance.

Adds wrench flats.

Alterations may lower hardness. See P112

Part Number		Unit Price											
Type	D	Min. L ~ 50	L51~100	L101~150	L151~200	L201~300	L301~400	L401~500	L501~600	L601~800	L801~1000	L1001~1200	L1201~1498
SPJA RSPJA Price on right + Price in the table below	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	16												-
	20												-
	25												-
	30												
	35												
40													
50													
PSPJA	6									-	-	-	-
	8										-	-	-
	10										-	-	-
	12											-	-
	13											-	-
	16												-
	20												-
	25												-
	30												
	35												
	40												
	50												

Low Temp. Black Chrome Plating Additional Charge	D	Additional Price						
		Min. L - 50	L51-100	L101-150	L151-200	L201-300	L301-400	L401-500
	6							
	8							
	10							
	12							
	13							
	16							
	20							
	25							
30								

For Low Temp. Chrome Plated Shafts, please add LTBC Plating Additional Charge on the left to the non-plated shaft Unit Price above.

Features of LTBC Plating P128

Shafts

Continuous Support - Pre-Drilled and Tapped



Type	Material	Hardness	Surface Treatment
SFAE	EN 1.3505 Equiv.	Effective Hardened Depth of Induction Hardening P112 58HRC~	-
SSFAE	EN 1.4037 Equiv.		
PSFAE	EN 1.3505 Equiv.		Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More
PSSFAE	EN 1.4037 Equiv.		

N = $\frac{L - P \times K}{2}$
K: Number of Pitches

L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P111

Part Number			L specified in 1mm Increment	M (Coarse)	P	h	C	A	F	
Type	Dg6									
SFAE PSFAE	10	-0.005 -0.014	200~ 800	M4	100	4.5	0.5 or Less	4.3	2.0	
	12	-0.006 -0.017	200~1000			5				
	13		200~1000			5.5				
SFAE SSFAE PSFAE PSSFAE	16	-0.007 -0.020	200~1200	M5	150	Mx2	1.0 or Less	5.5	2.5	
	20		200~1200	M6				6.8		
	25		300~1200		M8			200	9	3.0
	30	300~1500	M10	300					11	3.5
	35	-0.009 -0.025								
	40				400~1500					
	50	400~1500								

Ordering Example

Part Number - L

SFAE10 - 300

Correlation between L Dimension and Number of Taps									
Pitch	P=100	P=150	P=200	P=300	Number of Taps (Number of Pitches)		N		
L	200~219	200~319	300~419	400~619	2	1	N = $\frac{L - P \times K}{2}$		
	220~319	320~469	420~619	620~919	3	2			
	320~419	470~619	620~819	920~1219	4	3			
	420~519	620~769	820~1019	1220~	5	4			
	520~619	770~919	1020~1219	-	6	5			
	620~719	920~1069	1220~1419	-	7	6			
	720~819	1070~	1420~	-	8	7			
	820~919	-	-	-	9	8			
	920~	-	-	-	10	9			

Part Number		Unit Price							
Type	D	L200~300	L301~400	L401~500	L501~600	L601~800	L801~1000	L1001~1200	L1201~1500
SFAE	10								
	12								
	13								
	16								
	20								
	25								
	30								
	35								
	40	-							
	50	-							
SSFAE	16								-
	20								-
	25								-
	30								-
	35								-
PSFAE	10								-
	12								-
	13								-
	16								-
	20								-
PSSFAE	16								-
	20								-
	25								-
	30								-
	35								-