

Shafts

One End Stepped Hollow



Type	Material	Hardness	Surface Treatment
SPJG	SUJ2	Effective Hardened Depth of Induction Hardening P112 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More Low Temp. Black Chrome Plating
PSPJG			
RSPJG			

Features of Low Temp. Black Chrome Plating P128
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P111
Low temp. black chrome plating is not applied to the inside of hollow shafts, taps, bored holes and lateral holes, and may rust.
Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). About Hollow Shaft Wall Thickness Deviations See P111

Part Number		1mm Increment				(Y) Max.		d	R	C
Type	Dg6	L	F	P						
SPJG	6	-0.004 -0.012	25~598	5≤P<D	600	2	0.5 or Less	0.3 or Less	1.0 or Less	0.5 or Less
	8	-0.005	25~798	6≤P<D	800	3				
	10	-0.014	25~798	7≤P<D	1000	4				
	12	-0.006	25~998	10≤P<D	1200	6				
	13	-0.017	25~998	13≤P<D	1400	7				
PSPJG	16	-0.007	25~1198	16≤P<D	1600	10	1.0 or Less	0.5 or Less	0.5 or Less	0.5 or Less
	20	-0.020	25~1198	20≤P<D	1800	14				
RSPJG (D≤30, L≤500)	25	-0.007	25~1198	22≤P<D	2000	16	1.0 or Less	0.5 or Less	0.5 or Less	0.5 or Less
	30	-0.020	25~1498	24≤P<D	2200	17				
	35	-0.009	25~1498	25≤P<D	2400	19				
	40	-0.025	25~1498	32≤P<D	2600	20				
	50	-0.025	25~1498			26				

Ordering Example: SPJG20 - 400 - F25 - P16

Alterations Example: SPJG30 - 400 - F25 - P22 - VC

When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
Alterations may lower hardness. See P112

Alterations	Code	Spec.
Reverse O.D. Tolerance (Precision Grade)	DKC	O.D. tolerance is altered to h5. (Ordering Code) DKC D h5 Tolerance 6 0 -0.005 8,10 0 -0.006 12~16 0 -0.008 20~30 0 -0.009 35~50 0 -0.011 ⊗ Not applicable to Low Temp. Black Chrome Plated Shafts.
Alteration to L dimension tolerance	LKC	Changes L tolerance. (Ordering Code) LKC L<200→ L±0.03 200≤L<500 → L±0.05 L≥500→ L±0.1 L dimensions can be specified in 0.1mm increment for LKC. ⊗ Not applicable when D-P≤2.
Wrench Flats	SC	Adds wrench flats. (Ordering Code) SC5 SC=1mm Increment SC+ℓ1≤L SC≥0 D W ℓ1 6 5 8 8 7 8 10 8 8 12 10 10 13 11 11 16 14 14 20 17 17 25 22 22 30 27 27 35 30 30 40 36 36 50 41 41
One End Bored	VC	One end is bored. (Used as a pilot hole) Hole diameter Vh7 is shown in the table below. K=1mm Increment 3<K≤Vx2 (Ordering Code) VC-K5 D Vh7 6 - 8 - 10 8 12 10 13 11 16 14 20 17 25 22 30 27 35 30 40 36 50 41
Lateral Hole on One Side	RH	Adds a lateral hole on one side. Lateral hole diameters are shown in the table below. RH=1mm Increment d1+1<RH≤Dx3 (Ordering Code) RH5 D d1 10 2 20 6 12 3 25 6 13 3 35 6 16 5 50 10

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
SPJG RSPJG Price on right + Price in the table below	6												
	8												
	10												
	12												
	13												
	16												
	20												
	25												
	30												
	35												
	40												
PSPJG	6												
	8												
	10												
	12												
	13												
	16												
	20												
	25												
	30												
	35												
	40												

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 Low Temp. Black Chrome Plating Additional Charge on the left to the non-plated shaft Unit Price above.
Features of Low Temp. Black Chrome Plating P128

Shafts

Both Ends Stepped Hollow



Type	Material	Hardness	Surface Treatment
SPJQ	SUJ2	Effective Hardened Depth of Induction Hardening P112 58HRC~	Hard Chrome Plating Plating Hardness: HV750 ~ Plating Thickness: 5µ or More Low Temp. Black Chrome Plating
PSPJQ			
RSPJQ			

Features of Low Temp. Black Chrome Plating P128
L Dimension Tolerance, Circularity, Straightness, Perpendicularity, Concentricity and Changes in Hardness P111
Low temp. black chrome plating is not applied to the inside of hollow shafts, taps, bored holes and lateral holes, and may rust.
Annealing may lower hardness at shaft end machined areas (effective thread length + approx. 10mm). About Hollow Shaft Wall Thickness Deviations See P111

Part Number		1mm Increment				(Y) Max.		d	R	C
Type	Dg6	L	F, T	P, Q						
SPJQ	6	-0.004 -0.012	25~596	5≤P(Q)<D	600	2	0.3 or Less	0.5 or Less	1.0 or Less	0.5 or Less
	8	-0.005	25~796	6≤P(Q)<D	800	3				
	10	-0.014	25~796	7≤P(Q)<D	1000	4				
	12	-0.006	25~996	10≤P(Q)<D	1200	6				
	13	-0.017	25~996	13≤P(Q)<D	1400	7				
PSPJQ	16	-0.007	25~1196	16≤P(Q)<D	1600	10	1.0 or Less	0.5 or Less	0.5 or Less	0.5 or Less
	20	-0.020	25~1196	20≤P(Q)<D	1800	14				
RSPJQ (D≤30, L≤500)	25	-0.007	25~1196	22≤P(Q)<D	2000	16	1.0 or Less	0.5 or Less	0.5 or Less	0.5 or Less
	30	-0.020	25~1496	24≤P(Q)<D	2200	17				
	35	-0.009	25~1496	25≤P(Q)<D	2400	19				
	40	-0.025	25~1496			20				
	50	-0.025	25~1496			26				

Ordering Example: SPJQ20 - 400 - F25 - P16 - T25 - Q18

Alterations Example: SPJQ20 - 400 - F25 - P16 - T25 - Q18 - LKC

Alterations may lower hardness. See P112

Alterations	Code	Spec.
Reverse O.D. Tolerance (Precision Grade)	DKC	O.D. tolerance is altered to h5. (Ordering Code) DKC D h5 Tolerance 6 0 -0.005 8,10 0 -0.006 12~16 0 -0.008 20~30 0 -0.009 35~50 0 -0.011 ⊗ Not applicable to Low Temp. Black Chrome Plated Shafts.
Alteration to L dimension tolerance	LKC	Changes L tolerance. (Ordering Code) LKC L<200→ L±0.03 200≤L<500 → L±0.05 L≥500→ L±0.1 L dimensions can be specified in 0.1mm increment for LKC. ⊗ Not applicable when D-P(Q)≤2.
Wrench Flats	SC	Adds wrench flats. (Ordering Code) SC5 SC=1mm Increment SC+ℓ1≤L SC≥0 D W ℓ1 6 5 8 8 7 8 10 8 8 12 10 10 13 11 11 16 14 14 20 17 17 25 22 22 30 27 27 35 30 30 40 36 36 50 41 41

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	L1201~1496
SPJQ RSPJQ Price on right + Price in the table below	6												
	8												
	10												
	12												
	13												
	16												
	20												
	25												
	30												
	35												
	40												
PSPJQ	6												
	8												
	10												
	12												
	13												
	16												
	20												
	25												
	30												
	35												
	40												

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						

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Features of Low Temp. Black Chrome Plating P128