

Shafts - Standard / Precision - One End Threaded with Undercut

For Shafts With Wrench Flats P.119

RoHS

Type				Material	Hardness	Surface Treatment	D Tol.			
Precision Type	Standard						D	g6	h5	f8
D Tol. g6	D Tol. g6	D Tol. h5	D Tol. f8							
VAFN	SAFN	SFNU	-	52100 Bearing Steel	Effective Hardened Depth of Induction Hardened P.98	Hard Chrome Plating Plating Hardness: HV750 - Plating Thickness: 5µ or More	8	-0.005	0	-0.013
VSAFN	SSAFN	SSFNU	-	440C Stainless Steel			10	-0.014	-0.006	-0.035
VPAFN	PSAFN	PSFNU	-	52100 Bearing Steel			12	-0.006	0	-0.016
VPSAFN	PSSAFN	PSSFNU	-	440C Stainless Steel			13	-0.017	-0.008	-0.043
VRFN	RSAFN	-	-	52100 Bearing Steel	440C Stainless Steel 58HRC - Low Temp. Black Chrome Plating	Hard Chrome Plating Plating Hardness: HV750 - Plating Thickness: 10µ or More	15	-0.007	0	-0.020
-	-	-	-	304 Stainless Steel			16	-0.020	-0.009	-0.053
-	-	-	PSAGN	1045 Carbon Steel	-	-	20	-0.009	0	-0.025
-	-	-	PSSAGN	304 Stainless Steel			25	-0.025	-0.011	-0.064
-	-	-	-	-			35	-	-	-
-	-	-	-	-	-	-	40	-	-	-
-	-	-	-	-	-	-	50	-	-	-

Features of Precision Shafts
Perpendicularity is $\perp 0.03$.

No Surface Treatment on Machined Features

Precision shafts have centering holes on end faces.

Part Number	D	L	F	M (Coarse Thread)	(Y) Max.	C
Precision Type (D Tolerance g6)	8	25-295	5 ≤ F ≤ Mx3	6	300	0.5 or Less
VAFN	10	25-345		6 8	350	
VSAFN	12	25-345		6 8 10	350	
VPAFN	13	25-345		6 8 10 12	350	
VPSAFN	15	25-345		6 8 10 12 16	350	
VRFN	16	25-345		6 8 10 12 16 20	350	
	18	25-345		6 8 10 12 16 20 24	350	
	20	25-445		6 8 10 12 16 20 24 30	450	
	25	25-443		6 8 10 12 16 20 24 30 35	450	
	30	25-443		6 8 10 12 16 20 24 30 35 40	450	
					1.0 or Less	

Coarse Thread Undercut Dimension

M	Pitch	MC (g)
6	1.0	4.4 (4.2)
8	1.25	6.0
10	1.5	7.7
12	1.75	9.4
16	2.0	13.0
20	2.5	16.4
24	3.0	19.6
30	3.5	25.0

MC dimensions in () are for Precision Type M6 (Coarse).

Shaft ends may have centering holes.

Part Number	D	L	F	M (Coarse Thread)	(Y) Max.	C
Standard Type (D Tolerance g6)	8	25-795	5 ≤ F ≤ Mx3	6	800	0.5 or Less
SAFN	10	25-795		6 8	800	
SSAFN	12	25-995		6 8 10	1000	
PSAFN	13	25-995		6 8 10 12	1000	
PSSAFN	15	25-995		6 8 10 12 16	1000	
RSAFN	16	25-1195		6 8 10 12 16 20	1200	
PSAGN	18	25-1195		6 8 10 12 16 20 24	1200	
PSSAGN	20	25-1195		6 8 10 12 16 20 24 30	1200	
	25	25-1495		6 8 10 12 16 20 24 30 35	1500	
	30	25-1495		6 8 10 12 16 20 24 30 35 40	1500	
	35	25-1495	6 8 10 12 16 20 24 30 35 40 45	1500		
	40	25-1495	6 8 10 12 16 20 24 30 35 40 45 50	1500		
	50	25-1495	6 8 10 12 16 20 24 30 35 40 45 50 55	1500		

Configure Online

Part Number	D	Min. L	L51	L101	L151	L201	L301	L401	L501	L601	L801	L1001	L1201
SAFNU	8	50	100	150	200	300	400	500	600	800	1000	1200	1495
SSAFNU	8	50	100	150	200	300	400	500	600	800	1000	1200	1495
PSAFNU	8	50	100	150	200	300	400	500	600	800	1000	1200	1495
PSSAFNU	8	50	100	150	200	300	400	500	600	800	1000	1200	1495

Part Number	D	Min. L	L51	L101	L151	L201	L301	L401
RSAFNU	8	50	100	150	200	300	400	500
VAFNU	8	50	100	150	200	300	400	500
VSAFNU	8	50	100	150	200	300	400	500
VPSAFNU	8	50	100	150	200	300	400	500
VSAGNU	8	50	100	150	200	300	400	500
PSSAGNU	8	50	100	150	200	300	400	500

Alterations Part Number - L - F - M (MMC, MMS) - (LKC, etc.)
SAFN30 - 250 - F20 - M10 - LKC
[Configure Online](#)

Alterations	Code	Spec.	Price Adder								
	LKC	Alteration to L dimension tolerance [Ordering Code] LKC [Application Notes] Applicable when L=200 or less for precision type. L dimensions can be specified in 0.1 mm increment for LKC. L < 200 → L ± 0.03 200 ≤ L < 500 → L ± 0.05 L ≥ 500 → L ± 0.1 Not applicable when D-M ≤ 2.									
	FC	Set Screw Flat at One Location [Ordering Code] FC10-E8 [Application Notes] Not applicable to precision shafts. FC, E=1mm Increment FC ≤ 3xD When 1.5xD < FC, FC ≤ L/2 E=0 or E=2 Not available in combination with WFC.	<table border="1" style="font-size: 6px;"><tr><th>D</th><th>h</th></tr><tr><td>8-18</td><td>1</td></tr><tr><td>20-40</td><td>2</td></tr><tr><td>50</td><td>3</td></tr></table>	D	h	8-18	1	20-40	2	50	3
D	h										
8-18	1										
20-40	2										
50	3										
	WFC	Set Screw Flats at Two Locations [Ordering Code] WFC8-A8-E4 [Application Notes] Not applicable to precision shafts. WFC, A, E=1mm Increment WFC ≤ 3xD When 1.5xD < WFC, 2WFC ≤ L/2 A (E)=0 or A (E) ≥ 2 Orientation between set screw flats is random. Not available in combination with FC.	<table border="1" style="font-size: 6px;"><tr><th>D</th><th>h</th></tr><tr><td>8-18</td><td>1</td></tr><tr><td>20-40</td><td>2</td></tr><tr><td>50</td><td>3</td></tr></table>	D	h	8-18	1	20-40	2	50	3
D	h										
8-18	1										
20-40	2										
50	3										

Alterations	Code	Spec.	Price Adder
	RC	90-deg. Set Screw Flat at One Location [Ordering Code] RC10 [Application Notes] Only applicable to D=10-30. Not applicable to precision shafts. Not available in combination with WRC.	
	WRC	90-deg. Set Screw Flats at Two Locations [Ordering Code] WRC10-Y10 [Application Notes] Only applicable to D=10-30. Not applicable to precision shafts. Not available in combination with RC. Orientation between set screw flats is random.	
	MMC/MMS	Change to Fine Thread [Ordering Code] MMC14 (M is changed to MMC) MMS14 (M is changed to MSC)	
	KC	Add keyway at one location. [Ordering Code] KC10-G10 [Application Notes] Only applicable to D=12, 16, 20, 25 and 30. Not applicable to precision shafts.	

Please see Shaft Alteration Overview for details if provided. P.99
When selecting multiple alteration additions, the distance between machined areas should be greater than 2mm.
Alterations may lower hardness. Please see P.98

Ordering Example
Part Number - L - F - M
SAFN13 - 200 - F20 - M10
SAFN13 - 800 - F23 - M10

Days to Ship
[Configure Online](#)