

# Cantilever Shafts (Threaded with Tapped End)

Standard / Stepped

Cantilever Shafts – Threaded with Tapped End Standard



RoHS10

Type		Material	Surface Treatment
Thread Length Fixed	Thread Length Configurable		
FXAB	FXNAB	1045 Carbon Steel or Equivalent	Black Oxide
PFXAB	PFXNAB		Electroless Nickel Plating
SFXAB	SFXNAB	304 Stainless Steel	—
PHFXAB	—	4137 Alloy Steel Equivalent Hardness 35–40 HRC min.	Electroless Nickel Plating

Dimensions of Wrench Flats when  $Y \geq 17$

Ⓢ Please refer to Table 1 to specify dimensions Y and F.  
Ⓢ Refer to the table on P.915 for thread undercut dimensions. Ⓢ This type may have centering holes depending on dimensions.

Part Number	Type	No.	Dg <sub>6</sub>		1 mm Increment			MA (Coarse)	H	W	M (Coarse Thread)
			Y	F	N						
Thread Length Fixed FXAB PFXAB SFXAB PHFXAB	2-60	6	6	-0.004	5-100	3	10-20	10	8	M6	
		6A	-0.012	14				12	M8		
		8	-0.005	16				14	M10		
		8A	-0.014	15				13	M12		
		10	-0.014	20				17	M12		
	Thread Length Configurable FXNAB PFXNAB SFXNAB	4-75	10A	-0.006	20-40	4 5 6	17	14	M20		
			12	-0.017			18	15	M16		
			13	-0.017			20	17	M20		
			15	-0.017			21	18	M16		
			16	-0.017			22	19	M20		
17	-0.017	23	20	M16							
18	-0.017	26	24	M20							
20	-0.007	28	27	M16							
20A	-0.020	31	27	M20							
22	-0.020	36	32	M16							
22A	-0.020	36	32	M20							
25	-0.020	36	32	M16							
25A	-0.020	36	32	M20							
30	-0.020	36	32	M16							
30A	-0.020	36	32	M20							

Ⓢ N is available for Thread Length Configurable Type only.

Table 1

MA	Y+F
M3	Y+F≥11.5
M4	Y+F≥14.0
M5	Y+F≥16.2
M6	Y+F≥18.5
M8	Y+F≥23.5
M10	Y+F≥28.5
M12	Y+F≥35.5
M16	Y+F≥45.0
M20	Y+F≥55.0

Cantilever Shafts – Threaded with Tapped End Stepped



RoHS10

Type	Material	Surface Treatment
FXBB	1045 Carbon Steel or Equivalent	Black Oxide
PFXBB	304 Stainless Steel	Electroless Nickel Plating
SFXBB	—	—

Dimensions of Wrench Flats when  $W < V, Y \geq 17$

Ⓢ Please refer to Table 1 to specify dimensions Y and F.  
Ⓢ Refer to the table on P.915 for thread undercut dimensions. Ⓢ This type may have centering holes depending on dimensions.

Part Number	Type	No.	Dg <sub>6</sub>		1 mm Increment			MA (Coarse)	V	H	W	M (Coarse Thread)
			Y	F								
FXBB PFXBB SFXBB	7-60	6	6	-0.004	5-75	3	10-20	8	10	8	M6	
		6A	-0.012	12				12	M8			
		8	-0.005	14				14	M10			
		8A	-0.014	13				13	M12			
		10	-0.014	15				15	M12			
		10A	-0.014	18				18	M16			
		12	-0.006	19				19	M16			
		13	-0.017	20				20	M20			
		15	-0.017	21				21	M20			
		16	-0.017	22				22	M20			
	10-75	4-75	20-40	8 10 12 16	24	26	24	M20				
								26	28	M16		
								29	31	M20		
								31	27	M16		
								34	36	M20		
								36	32	M16		

Ⓢ When  $W < V$ , wrench flats W reaches outer diameter V.

Table 1

MA	Y+F
M3	Y+F≥11.5
M4	Y+F≥14.0
M5	Y+F≥16.2
M6	Y+F≥18.5
M8	Y+F≥23.5
M10	Y+F≥28.5
M12	Y+F≥35.5
M16	Y+F≥45.0
M20	Y+F≥55.0

# Cantilever Shafts (Threaded with Tapped End)

Hex

Cantilever Shafts – Threaded with Tapped End Hex



RoHS10

Type		Material	Surface Treatment
Thread Length Fixed	Thread Length Configurable		
LXAB	LXNAB	1045 Carbon Steel or Equivalent	Black Oxide
PLXAB	PLXNAB		Electroless Nickel Plating
SLXAB	SLXNAB	304 Stainless Steel	—

Dimensions of Wrench Flats when  $Y \geq 17$

Ⓢ Please refer to Table 1 to specify dimensions Y and F.  
Ⓢ Refer to the table below for thread undercut dimensions.  
Ⓢ This type may have centering holes depending on dimensions.

Part Number	Type	No.	Dg <sub>6</sub>		1 mm Increment			MA (Coarse) Selection	B	(C)	M (Coarse Thread)				
			Y	F	N										
Thread Length Fixed LXAB PLXAB SLXAB	2-60	6	6	-0.004	5-100	3	10-20	8	9.2	M6					
		6A	-0.012	10				11.5	M8						
		8	-0.005	13				15.0	M10						
		8A	-0.014	14				16.2	M12						
		10	-0.014	17				19.6	M12						
	Thread Length Configurable LXNAB PLXNAB SLXNAB	4-60	20-40	6 8 10 12	24	27.7	6 8 10 12	27	31.2	M20					
											20A	-0.006	24	27.7	M16
											22	-0.017	27	31.2	M20
											22A	-0.017	27	31.2	M16
											25	-0.017	32	36.9	M20
25A	-0.017	32	36.9	M16											
30	-0.007	32	36.9	M20											
30A	-0.020	32	36.9	M16											

Ⓢ N is available for Thread Length Configurable Type only.

Part Number Example

Part Number - Y - F - N - MA

FXAB10 - 25 - F18 - N12 - MA5

PLXNAB12 - 15 - F25 - N12 - MA6

Part Number Alterations

Part Number - Y - F - N - MA - (YKC / WSC)

FXAB20 - 20 - F20 - N10 - MA10 - YKC

Application Example

Alterations	Y Dimension Tolerance	Four Wrench Flats
Code	YKC	WSC
Spec.	Changes Y dimension tolerance to $\pm 0.05$ . Ⓢ Applicable to all types. Ordering Code: YKC	Changes from two wrench flats to four wrench flats. Ⓢ Applicable to Standard / Stepped Types. Ordering Code: WSC

Ⓢ Thread Undercut Dimensions

Thread Dia. (M)	Coarse Thread		
	g	r	f
6			4.3-4.9
8	1.5-2.5	0.2-0.6	6.3-6.6
10			8.1-8.3
12	1.5-3.0		9.8-10.1
16		0.2-1.0	13.6-13.8
20	1.5-4.0		17.0-17.2