Cantilever Shafts (Flanged)

Retaining Ring / Bolt Mount

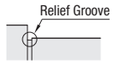
Cantilever Shafts – Flanged Retaining Ring

RoHS10

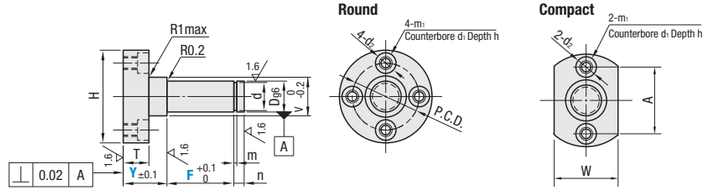
D Tolerance (g6)	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12–18	-0.006 -0.017
20–30	-0.007 -0.020
35–50	-0.009 -0.025

Type		Material	Surface Treatment
Round	Compact		
FXFA	FXEA	1045 Carbon Steel or Equivalent	Black Oxide
PFXFA	PFXEA		Electroless Nickel Plating
SFXFA	SFXEA	304 Stainless Steel	—

6.3 (1.6)



! All types except FXFA and FXEA have an undercut groove at R0.2 step.



Round

Compact

! This type may have centering holes depending on dimensions.

Part Number		D	1 mm Increment		V	H	T	m_1	d_1	d_2	h	P.C.D.	D Tolerance	m	n	W	A	Available Types					
																		Round			Compact		
Type	No.		Y	F														FXFA	PFXFA	SFXFA	FXEA	PFXEA	SFXEA
Round FXFA PFXFA SFXFA Compact FXEA PFXEA SFXEA	6	6	12–60	5–100	8	26	10	M4	6.5	3.5	3.5	17	5	+0.075 0	0.7	2	14	17	•	•	•	•	•	•
	6A					32						23					—	—	•	•	•	—	—	—
	8	8			10	28						19	7	+0.090 0	0.9	3	15	19	•	•	•	•	•	•
	8A					36		M5	8	4.3	4.4	26					—	—	•	•	•	—	—	—
	10	10			13	32		M4	6.5	3.5	3.5	23	9.6	0 -0.090	1.15	4	16	23	•	•	•	•	•	•
	10A					40						30					—	—	•	•	•	—	—	—
	12	12		10–150	15	36		M5	8	4.3	4.4	26	11.5				20	26	•	•	•	•	•	•
	13	13			16	38						27	12.4				22	27	•	•	•	•	•	•
	15	15			18	40						30	14.3	0 -0.110			24	30	•	•	•	•	•	•
	16	16			19	42						31	15.2				25	31	•	•	•	•	•	•
	17	17			20	44						32	16.2				28	32	•	•	•	•	•	•
	18	18			21	46						34	17				31	34	•	•	•	•	•	•
	20	20			24	48						36	19		1.35		32	36	•	•	•	•	•	•
	22	22			26	50		M6	9.5	5.2	5.4	39	21	0 -0.210		5	34	39	•	•	•	•	•	•
	25	25		17–75	29	54						42	23.9				38	42	•	•	•	•	•	•
	30	30			34	62	15	M8	11	6.8	6.5	49	28.6		1.65		42	49	•	•	•	•	•	•
	35	35			39	70						55	33	0 -0.250			50	55	•	•	—	•	•	—
	40	40		20–75	44	80		M10	14	8.6	9	63	38		1.9		56	63	•	•	—	•	•	—
	50	50			54	90						73	47		2.2		70	73	•	•	—	•	•	—

! Mounting holes are tapped and counterbored to allow mounting from either the front or the back side.

Cantilever Shafts – Flanged Bolt Mount

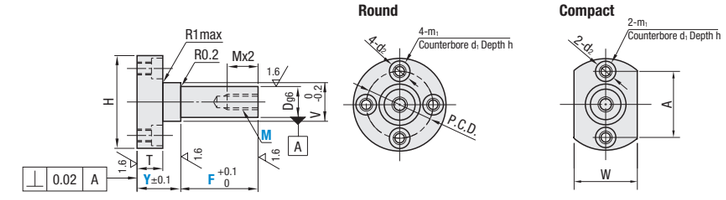
RoHS10

D Tolerance (g6)	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12–18	-0.006 -0.017
20–30	-0.007 -0.020
35–50	-0.009 -0.025

Type		Material	Surface Treatment
Round	Compact		
FXFB	FXEB	1045 Carbon Steel or Equivalent	Black Oxide
PFXFB	PFXEB		Electroless Nickel Plating
SFXFB	SFXEB	304 Stainless Steel	—

6.3 (1.6)

! All types except FXFB and FXEB have an undercut groove at R0.2 step.



Round

Compact

! This type may have centering holes depending on dimensions.

Part Number		D	1 mm Increment		M (Coarse)	V	H	T	m_1	d_1	d_2	h	P.C.D.	W	A	Available Types					
																Round			Compact		
Type	No.		Y	F												FXFB	PFXFB	SFXFB	FXEB	PFXEB	SFXEB
Round FXFB PFXFB SFXFB Compact FXEB PFXEB SFXEB	6	6	12–60	5–100	3	8	26	10	M4	6.5	3.5	3.5	17	14	17	•	•	•	•	•	•
	6A						32						23	—	—	•	•	•	—	—	—
	8	8			4	10	28						19	15	19	•	•	•	•	•	•
	8A						36		M5	8	4.3	4.4	26	—	—	•	•	•	—	—	—
	10	10			4 5 6	13	32		M4	6.5	3.5	3.5	23	16	23	•	•	•	•	•	•
	10A						40						30	—	—	•	•	•	—	—	—
	12	12		10–150	5 6 8	15	36		M5	8	4.3	4.4	26	20	26	•	•	•	•	•	•
	13	13				16	38						27	22	27	•	•	•	•	•	•
	15	15			6 8 10	18	40						30	24	30	•	•	•	•	•	•
	16	16				19	42						31	25	31	•	•	•	•	•	•
	17	17				20	44						32	28	32	•	•	•	•	•	•
	18	18				21	46						34	31	34	•	•	•	•	•	•
	20	20			6 8 10 12	24	48	15	M6	9.5	5.2	5.4	36	32	36	•	•	•	•	•	•
	22	22				26	50						39	34	39	•	•	•	•	•	•
	25	25		17–75	8 10 12 16	29	54						42	38	42	•	•	•	•	•	•
	30	30			8 10 12 16 20	34	62		M8	11	6.8	6.5	49	42	49	•	•	•	•	•	•
	35	35				39	70						55	50	55	•	•	—	•	•	—
	40	40		20–75	12 16 20	44	80		M10	14	8.6	9	63	56	63	•	•	—	•	•	•
	50	50			16 20	54	90						73	70	73	•	•	—	•	•	•

! Mounting holes are tapped and counterbored to allow mounting from either the front or the back side.

MiSUMi

Cantilever Shafts (Flanged)

Lock Nut

Cantilever Shafts – Flanged Lock Nut

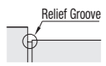
RoHS10

D Tolerance (g6)	
6	-0.004 -0.012
8, 10	-0.005 -0.014
12–18	-0.006 -0.017
20–30	-0.007 -0.020
35–50	-0.009 -0.025

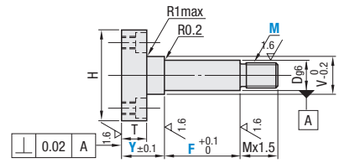
! This type may have centering holes depending on dimensions.

Type	Material	Surface Treatment
Round		
FXFC	1045 Carbon Steel or Equivalent	Black Oxide
PFXFC		Electroless Nickel Plating
SFXFC	304 Stainless Steel	—

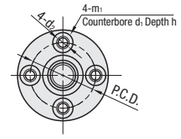
6.3 (1.6)

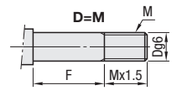


! All types except FXFC have an undercut groove at R0.2 step.
! Refer to the table below for thread undercut dimensions.



Round





Part Number		D	1 mm Increment		M (Coarse) Selection	V	H	T	m_1	d_1	d_2	h	P.C.D.	Available Types
														Round
Type	No.		Y	F										FXFC	PFXFC	SFXFC
Round FXFC PFXFC SFXFC	6	6	12–60	5–100	4 5 6	8	26	10	M4	6.5	3.5	3.5	17	•	•	•
	6A						32						23	•	•	•
	8	8			5 6 8	10	28						19	•	•	•
	8A						36		M5	8	4.3	4.4	26	•	•	•
	10	10			6 8 10	13	32		M4	6.5	3.5	3.5	23	•	•	•
	10A						40						30	•	•	•
	12	12		10–150	6 8 10 12	15	36		M5	8	4.3	4.4	26	•	•	•
	13	13				16	38						27	•	•	•
	15	15			8 10 12 (15)	18	40						30	•	•	•
	16	16				19	42						31	•	•	•
	17	17			10 12 (15) 16	20	44						32	•	•	•
	18	18				21	46						34	•	•	•
	20	20			10 12 (15) 16 20	24	48	15	M6	9.5	5.2	5.4	36	•	•	•
	22	22				26	50						39	•	•	•
	25	25		17–75	10 12 (15) 16 20 24 (25)	29	54						42	•	•	•
	30	30				34	62		M8	11	6.8	6.5	49	•	•	•
	35	35			12 (15) 16 20 24 (25) 30	39	70						55	•	•	—
	40	40		20–75		44	80		M10	14	8.6	9	63	•	•	—
	50	50				54	90						73	•	•	—

! M dimensions with ( ) (M15 and M25) are Fine Thread. Specify MSC instead of M.
! Mounting holes are tapped and counterbored to allow mounting from either the front or the back side.

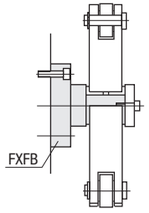
Part Number Example

Part Number	-	Y	-	F	-	M
FXFA12	-	27	-	F35		
FXFB10	-	30	-	F40	-	M4

Part Number Alterations

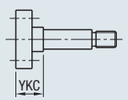
Part Number	-	Y	-	F	-	M (MSC)	-	(YKC, APC…etc.)
PFXFC10	-	20	-	F40	-	MSC10	-	APC

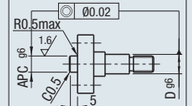
Application Example

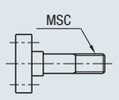


Alterations	Retaining Ring Set	Y Dimension Tolerance	Additional Pilot	Fine Thread
Code	SET	YKC	APC	MSC
Spec.	Attaches a retaining ring to each applicable shaft diameter. **Ordering Code:** SET Applicable to Retaining Ring Type. Retaining Ring Shape No.6–8A: E Type Retaining Ring No.10–30: C Type Retaining Ring Retaining Ring Material	Changes Y dimension tolerance to ±0.05. ! Applicable to all types. **Ordering Code:** YKC	Adds a pilot to the Shoulder seat. ! Applicable to all types. **Ordering Code:** APC	Changes the Lock Nut Type Thread M to Fine Thread on the table below. ! Applicable to Lock Nut Type only. ! Specify MSC instead of M. **Ordering Code:** MSC8

Cantilever Shafts		Retaining Ring
Material	Surface Treatment	Material
1045 Carbon Steel or Equivalent	Black Oxide	Spring Steel
	Electroless Nickel Plating	304 Stainless Steel
304 Stainless Steel	—	



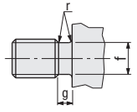




D	APC g6
6	8
8–30	10
35–50	12

MSC	Pitch
M6	0.75
M8–20	1.0
M25 / 30	1.5

Thread Undercut Dimensions



Coarse Thread			
Thread Dia. (M)	g	r	f
4	1.2–1.5	0.2–0.3	2.9–3.2
5			3.9–4.1
6	1.5–2.5	0.2–0.6	4.3–4.9
8			6.3–6.6
10			8.1–8.3
12	1.5–3.0	0.2–1.0	9.8–10.1
16			13.6–13.8
20	1.5–4.0		17.0–17.2
24	2.5–5.0	0.2–1.5	20.2–20.7
30			26.0–26.2

Fine Thread			
Thread Dia. (MSC)	g	r	f
4	1.2–1.5	0.2–0.3	2.9–3.2
5			3.9–4.1
6	1.5–2.5	0.2–0.6	4.3–4.9
8			6.3–6.6
10			8.3–8.6
12	1.5–3.0	0.2–1.0	9.8–10.7
15			13.6–13.8
20	1.5–4.0		17.2–18.8
25	2.5–5.0	0.2–1.5	20.2–23.2
30			26.2–28.2