

Rotary Shafts

—One Stepped and Tapped End—One Threaded End (For Inch Bearings)—



Mostly used as drive or idler shafts in rotary motion applications. Available in 1045 carbon steel and 304 stainless steel. One end of this rotary shaft has inch male thread with very precise O.D. so it can be used in combination with inch bearings and locknuts. Choose from a wide variety of modifications. Simply add the modification ordering code to the end of the part number. The overall length can be specified with 0.01" increments. MISUMI's Rotary Shafts are delivered with complete shaft end machining, fine surface finish, and can fit into your system right out of the box.

Material	Surface Treatment	Type
1045 Steel	Black Oxide	U-SFRBA
	Electroless Nickel Plating	U-PSFRBA
304 Stainless Steel	-	U-SSFRBA

Material Characteristics P.628, 629

Surface Roughness: Unless otherwise specified $R_{a} 0.25$

Circularity, Straightness, Perpendicularity and Concentricity P.203

Part No.	D	Choose in 0.01" Increments		P	T							Choose in 0.01" Increments		U (=Q)							
		L	F		Inch Thread Selection (Callout)	G	S	#6-32	#8-32	#10-32	#1/4-20	#5/16-18	#3/8-16	1/2-13	5/8-11	3/4-10	#10-24	1/4-20	3/8-16	1/2-13	5/8-11
U-SFRBA	0.38	3/8	0.75 - 18.00	0.09 ≤ F ≤ P x 5	0.1250 + T Dia SPSD - 0.01 (When T = 6 - 0.31)	6	8	10	0.09 ≤ G ≤ U Dia x 7 (When U ≤ 0.25)	0.25 ≤ S ≤ Dia 13 & S ≤ G - 0.09 (When U ≤ 0.25)	10	0.25	0.25	0.31	0.38	0.50	0.63	0.75	0.88	1.00	
U-PSFRBA	0.50	1/2	1.00 - 22.00	0.09 ≤ F ≤ P x 5	0.1875 + T Dia SPSD - 0.01 (When T = 0.38 - 0.63)				0.13 ≤ G ≤ U Dia x 7 (When 0.38 ≤ U ≤ 0.50)	S ≤ G - 0.13 (When 0.38 ≤ U ≤ 0.50)											
U-SSFRBA	0.63	5/8	1.50 - 24.00	0.09 ≤ F ≤ P x 5	0.3750 + T Dia SPSD - 0.01 (When T = 0.38 - 0.63)				0.19 ≤ G ≤ U Dia x 7 (When U ≤ 0.63)	S ≤ G - 0.19 (When U ≤ 0.63)											
	0.75	3/4	1.50 - 28.00	0.09 ≤ F ≤ P x 5																	
	1.00	1"	1.75 - 28.00	0.09 ≤ F ≤ P x 5																	
	1.25	1-1/4	1.75 - 28.00	0.09 ≤ F ≤ P x 5																	
	1.50	1-1/2	1.75 - 28.00	0.09 ≤ F ≤ P x 5																	

Order Example: Part No. — L — F — P — T — G — S — U

Type — D

U-SFRBA 1.00 — L 20.00 — F 0.47 — P 0.7874 — T 0.50 — G 1.00 — S 0.75 — U 0.63

The part number consists only of the fields with blue characters. Please refer to the table below for technical information.

Callout	D		Y	T (Thread)			T1	U (=Q)		Q		Compatible Inch Bearing		
	Nominal	Tolerance		Callout	Thread Size	Diameter		Thread Depth	Callout	Thread Size	Nominal		Tolerance	
0.38	3/8	0.3748	0.3744	20.00	6	#6-32	0.138	0.28	0.25	#10-24	3/16	0.1875	0.1870	RA3
0.50	1/2	0.4998	0.4994	24.00	8	#8-32	0.164	0.33	0.38	1/4	0.2500	0.2494	R4, RA4	
0.63	5/8	0.6248	0.6244	26.00	10	#10-32	0.190	0.38	0.50	3/8	0.3750	0.3744	R6	
0.75	3/4	0.7497	0.7492	30.00	0.25	1/4-20	0.250	0.50	0.63	1/2	0.5000	0.4993	R8	
1.00	1"	0.9997	0.9992	30.00	0.31	5/16-18	0.313	0.63	0.75	5/8	0.6250	0.6243	R10	
1.25	1-1/4	1.2496	1.2490	30.00	0.38	3/8-16	0.375	0.75	0.88	3/4	0.7500	0.7492	R12	
1.50	1-1/2	1.4996	1.4990	30.00	0.50	1/2-13	0.500	1.00	1.00	7/8	0.8750	0.8742	R14	
					0.63	5/8-11	0.625	1.25		1"	1.0000	0.9992	R16	
					0.75	3/4-10	0.750	1.50						

over	P		Tolerance
	up to		
0.1200	0.2400		+0 / -0.0005
0.2400	0.4000		+0 / -0.0006
0.4000	0.7100		+0 / -0.0007
0.7100	1.1900		+0 / -0.0008
1.1900	1.9700		+0 / -0.0010

Example:

Days to Ship: Standard 6 Days, Express 4 Days

Specify Express A \$ 8.00/piece P.30

A flat charge of \$21.60 for 3 or more identical pieces.

Optional Modifications: Part No. — L — F — P — T — G — S — U (UC) — (Ordering Code: UC) (SC, LKC, KFC...etc)

U-SFRBA 1.00 — L 20.125 — F 0.47 — P 0.7874 — T 0.50 — G 1.00 — S 0.69 — UC 0.63 — SC 10.00 — LKC

Optional Modifications	Key Groove	Set Screw Flat	Two Set Screw Flats at Angle	Wrench Flats	Length Tolerance	Concentricity	Inch Fine Thread
Key Groove: KC	Set Screw Flat: FC	Two Set Screw Flats at Angle	Wrench Flats	Length Tolerance	Concentricity	Inch Fine Thread	UC (Inch Fine Thread)
2 Key Grooves: WKC	Two Set Screw Flats: WFC						
Ordering Code	KC, WKC	FC, WFC	KFC	SC	LKC	CKC	UC
Details	<ul style="list-style-type: none"> KC: Adds one key groove. WKC: Adds two key grooves. KC, A, WKC, C, K, E = 0.01" Increments A, C, E ≤ 4.00 Key Groove Dimensions: Please refer to specifications on P.204. When 3 key grooves are required, please use both KC and WKC. Please see P.204. 	<ul style="list-style-type: none"> FC: Adds one set screw flat. WFC: Adds two set screw flats. FC, G, WFC, J, W, V = 0.01" Increments 0.01 ≤ G, J, V ≤ 2.00 FC, WFC, W = 0 or FC, WFC, W ≥ 0.02 	<ul style="list-style-type: none"> KFC: Adds a flat at the base face (0°), and another at the designated angle. KFC, G = 0.01" Increments AG = 15° Increments 0.01 ≤ G ≤ 2.00 KFC = 0 or KFC ≥ 0.02 	<ul style="list-style-type: none"> SC = 0.01" Increments SC + Δ ≤ L SC = 0 or SC ≥ 0.05 	<ul style="list-style-type: none"> LKC: Changes the length tolerance. If the LKC is used, 0.001" Increments can be specified for L dimension. Please refer to order example. 	<ul style="list-style-type: none"> CKC: Changes the concentricity to dia 0.0008. Available with L dimension range in a table below. 	<ul style="list-style-type: none"> UC: Changes to inch fine thread in a table below. P dimension is the same with UC. Change U to UC to specify fine threads like the order example.
\$ Price Adder	KC: 4.00 WKC: 8.00	FC: 2.00 WFC: 4.00	6.00	4.00	4.00	8.00	3.00

When using Optional Modifications, add the "Price Adder" to the standard "Unit Price".

Quantity Discount Rate:

Quantity	Rate
1	—
2-4	5%
5-19	10%
20~	15%

For larger quantity orders "Days to Ship" may differ from published catalog term. P.29

Part No.	Type	D	\$ Unit Price							
			Min. L	L2.01	L4.01	L6.01	L8.01	L12.01	L16.01	L24.01
U-SFRBA	0.38	9.80	10.70	12.20	13.40	18.80	21.50	24.60	-	
	0.50	11.10	12.90	13.80	14.60	20.00	22.80	31.40	-	
	0.63	12.00	14.10	14.90	15.80	21.60	24.80	33.90	-	
	0.75	13.50	17.00	17.70	19.70	27.50	30.60	41.30	49.10	
	1.00	16.20	20.10	22.80	25.10	31.10	38.10	51.50	60.80	
	1.25	19.10	21.60	24.80	27.50	36.00	42.30	55.80	67.70	
U-PSFRBA	0.38	10.70	12.30	14.00	15.20	20.90	23.70	27.00	-	
	0.50	12.20	14.30	14.70	16.40	22.10	25.10	35.60	-	
	0.63	13.10	15.60	15.90	17.70	23.90	27.20	38.60	-	
	0.75	15.90	19.80	21.00	23.40	31.80	36.00	47.30	71.30	
	1.00	19.50	24.30	26.90	30.00	39.20	44.60	58.40	73.60	
	1.25	22.80	25.80	29.00	32.10	42.00	47.70	67.10	76.40	
U-SSFRBA	0.38	14.20	15.70	18.00	19.60	29.50	32.90	36.50	-	
	0.50	16.70	19.60	20.30	22.50	32.40	36.20	45.50	-	
	0.63	18.20	21.20	22.00	24.50	35.10	39.10	49.50	-	
	0.75	18.90	23.60	24.30	25.90	38.20	41.90	58.90	67.30	
	1.00	20.70	25.90	29.70	32.90	41.90	52.90	81.40	91.30	
	1.25	23.20	31.10	34.90	39.10	54.70	62.30	98.60	99.50	
	1.50	32.60	49.00	55.30	61.20	86.60	98.60	138.40	157.70	

Related Components: Shaft Collars P.139, Bearing Locknuts P.275, Timing Pulleys P.293, Keyless Bushings P.311

Express Options P.30

MISUMI www.misumiusa.com E-mail: inquire@misumiusa.com

TEL. 1-847-843-9105 FAX. 1-847-843-9107 TOLL FREE TEL. 1-800-681-7475 TOLL FREE FAX. 1-800-681-7402

Contents

How to Use the Catalog

Linear Motion

Linear Shafts

Bushings

Shaft Supports

Shaft Collars

Linear Guides

Rotary Motion

Rotary Shafts

Bearings w/ Housings

Pulleys

Belts

Couplings

Locating Components

Locating Pins & Bushings

Locating Components

General Components

Pivot Pins

Floating Joints

Posts

Device Stands

Strut Clamps

Angle Plates

Gussets

Welded Stands

Washers

Collars

Manifolds

Urethanes

Rubbers

Plates

Misc.

Technical Data

Business Information

Index