

# Rotary Shafts

## -Both Ends Tapped-



Mostly used as drive or idler shafts in rotary motion applications. Available in 1045 carbon steel and 304 stainless steel. 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-SFRW
	Electroless Nickel Plating	U-PSFRW
304 Stainless Steel	-	U-SSFRW

Material Characteristics P.628, 629

Tolerance of L and Y P.203  
General Tolerance  
Unless otherwise specified use the table below.

From	To	Tolerance
0.000	5.000	+0.01
5.001	16.000	+0.02
16.001	60.000	+0.05

Surface Roughness: Unless otherwise specified Ra  
Circularity, Straightness, Perpendicularity and Concentricity P.203

Type	Part No.			L Choose in 0.01" Increments	T, U Thread Selection (Callout)									
	Callout	Nominal	Tolerance		#5-40	#6-32	#8-32	#10-32	1/4-20	5/16-18	3/8-16	1/2-13	5/8-11	3/4-10
U-SFRW U-PSFRW U-SSFRW	0.25	1/4	0.2498	0.2494	5									
	0.38	3/8	0.3748	0.3744	6		8		10					
	0.50	1/2	0.4998	0.4994	10				0.25	0.31				
	0.63	5/8	0.6248	0.6244	1.50 ~ 26.00				0.25		0.31		0.38	
	0.75	3/4	0.7497	0.7492	1.75 ~ 30.00				0.31		0.38			
	1.00	1"	0.9997	0.9992	2.00 ~ 30.00				0.38		0.50	0.63	0.75	
	1.25	1-1/4	1.2496	1.2490	2.50 ~ 30.00				0.50		0.63	0.75		
	1.50	1-1/2	1.4996	1.4990	3.50 ~ 30.00				0.63		0.75			

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

Part No. **L** - **T** - **U**  
Type **D**  
U-SFRW 1.00 - L 20.00 - T 0.50 - U 0.63

### Technical Information

Callout	T, U (Thread)		T <sub>1</sub> , U <sub>1</sub> Thread Depth
	Thread Size	Diameter	
5	#5-40	0.125	0.25
6	#6-32	0.138	0.28
8	#8-32	0.164	0.33
10	#10-32	0.190	0.38
0.25	1/4-20	0.250	0.50
0.31	5/16-18	0.313	0.63
0.38	3/8-16	0.375	0.75
0.50	1/2-13	0.500	1.00
0.63	5/8-11	0.625	1.25
0.75	3/4-10	0.750	1.50

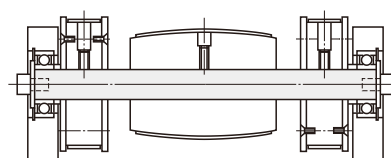
Selection Criteria: L ≥ T<sub>1</sub> + U<sub>1</sub>

Days to Ship  
Standard **6** Days Non-Returnable P.30

Example

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** - **T** - **U** (Ordering Code)  
(SC, LKC, FC...etc)  
Type **D**  
U-SFRW 1.00 - L 20.125 - T 0.50 - U 0.63 - SC 1.00 - LKC

Optional Modifications	Key Groove	Set Screw Flat	Two Set Screw Flats at Angle	Wrench Flats	Length Tolerance																																																																																
• 1 Key Groove: KC • 2 Key Grooves: WKC	• Set Screw Flat: FC • Two Set Screw Flats: WFC	• Adds a flat at the base face (0°), and another at the designated angle.	• Adds wrench flats.	• Changes the length tolerance.																																																																																	
Ordering Code	KC, WKC	FC, WFC	KFC	SC	LKC																																																																																
Details	<p>Example KC2.00-A0.50 KC: Adds one key groove. WKC: Adds two key grooves.</p> <p>• KC, A, WKC, C, K, E = 0.01" Increments • A, C, E ≤ 4.00 • D = 0.25 is not available • 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.</p>	<p>Example FC1.00-G0.13 FC: Adds one set screw flat. WFC: Adds two set screw flats.</p> <p>• 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</p> <table border="1"> <thead> <tr> <th colspan="2">D</th> <th>H</th> </tr> <tr> <th>From</th> <th>To</th> <th></th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>0.63</td> <td>0.04</td> </tr> <tr> <td>0.75</td> <td>1.50</td> <td>0.08</td> </tr> </tbody> </table>	D		H	From	To		0.25	0.63	0.04	0.75	1.50	0.08	<p>Example KFC1.00-G0.13-AG120 Adds a flat at the base face (0°), and another at the designated angle.</p> <p>• KFC, G = 0.01" Increments • AG = 15° Increments • 0.01 ≤ G ≤ 2.00 • KFC = 0 or KFC ≥ 0.02</p> <table border="1"> <thead> <tr> <th colspan="2">D</th> <th colspan="2">H</th> </tr> <tr> <th>From</th> <th>To</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>0.63</td> <td>0.25</td> <td>0.63</td> </tr> <tr> <td>0.75</td> <td>1.50</td> <td>0.75</td> <td>1.50</td> </tr> </tbody> </table>	D		H		From	To	From	To	0.25	0.63	0.25	0.63	0.75	1.50	0.75	1.50	<p>Example SC1.00 Adds wrench flats.</p> <p>• SC = 0.01" Increments • SC + d<sub>2</sub> ≤ L • SC = 0 or SC ≥ 0.05</p> <table border="1"> <thead> <tr> <th rowspan="2">D</th> <th colspan="2">W</th> <th rowspan="2">d<sub>2</sub></th> </tr> <tr> <th>Wrench Size</th> <th>Actual</th> </tr> </thead> <tbody> <tr> <td>0.25</td> <td>3/16</td> <td>0.188</td> <td>0.31</td> </tr> <tr> <td>0.38</td> <td>5/16</td> <td>0.313</td> <td>0.31</td> </tr> <tr> <td>0.50</td> <td>7/16</td> <td>0.438</td> <td>0.38</td> </tr> <tr> <td>0.63</td> <td>9/16</td> <td>0.563</td> <td>0.38</td> </tr> <tr> <td>0.75</td> <td>1 1/16</td> <td>0.688</td> <td>0.50</td> </tr> <tr> <td>1.00</td> <td>7/8</td> <td>0.875</td> <td>0.50</td> </tr> <tr> <td>1.25</td> <td>1-1/8</td> <td>1.125</td> <td>0.50</td> </tr> <tr> <td>1.50</td> <td>1-3/8</td> <td>1.375</td> <td>0.63</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">L</th> <th rowspan="2">Tolerance</th> </tr> <tr> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>0.750</td> <td>12.000</td> <td>± 0.002</td> </tr> <tr> <td>12.001</td> <td>24.000</td> <td>± 0.004</td> </tr> <tr> <td>24.001</td> <td>30.000</td> <td>± 0.006</td> </tr> </tbody> </table>	D	W		d <sub>2</sub>	Wrench Size	Actual	0.25	3/16	0.188	0.31	0.38	5/16	0.313	0.31	0.50	7/16	0.438	0.38	0.63	9/16	0.563	0.38	0.75	1 1/16	0.688	0.50	1.00	7/8	0.875	0.50	1.25	1-1/8	1.125	0.50	1.50	1-3/8	1.375	0.63	L		Tolerance	From	To	0.750	12.000	± 0.002	12.001	24.000	± 0.004	24.001	30.000	± 0.006	<p>Example LKC Changes the length tolerance.</p> <p>• If the LKC is used, 0.001" Increments can be specified for L dimension. • Please refer to order example.</p>
D		H																																																																																			
From	To																																																																																				
0.25	0.63	0.04																																																																																			
0.75	1.50	0.08																																																																																			
D		H																																																																																			
From	To	From	To																																																																																		
0.25	0.63	0.25	0.63																																																																																		
0.75	1.50	0.75	1.50																																																																																		
D	W		d <sub>2</sub>																																																																																		
	Wrench Size	Actual																																																																																			
0.25	3/16	0.188	0.31																																																																																		
0.38	5/16	0.313	0.31																																																																																		
0.50	7/16	0.438	0.38																																																																																		
0.63	9/16	0.563	0.38																																																																																		
0.75	1 1/16	0.688	0.50																																																																																		
1.00	7/8	0.875	0.50																																																																																		
1.25	1-1/8	1.125	0.50																																																																																		
1.50	1-3/8	1.375	0.63																																																																																		
L		Tolerance																																																																																			
From	To																																																																																				
0.750	12.000	± 0.002																																																																																			
12.001	24.000	± 0.004																																																																																			
24.001	30.000	± 0.006																																																																																			
\$ Price Adder	KC: 4.00 WKC: 8.00	FC: 2.00 WFC: 4.00	6.00	4.00	4.00																																																																																

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



Price

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-SFRW	0.25	8.00	8.90	10.10	11.00	15.50	-	-	-	
	0.38	8.00	8.90	10.10	11.00	15.50	17.60	20.30	-	
	0.50	9.00	10.50	11.30	11.90	16.40	18.80	25.70	-	
	0.63	9.90	11.60	12.20	12.90	17.70	20.30	27.80	32.40	
	0.75	11.10	14.10	14.60	16.20	22.40	25.10	33.80	40.10	
	1.00	13.20	16.50	18.60	20.70	25.50	31.20	42.20	49.80	
U-PSFRW	0.25	-	17.70	20.30	22.40	29.60	34.50	45.60	55.40	
	0.38	-	26.70	29.70	32.90	44.00	54.00	72.30	86.40	
	0.50	8.90	10.20	11.60	12.50	17.00	-	-	-	
	0.63	8.90	10.20	11.60	12.50	17.00	19.70	22.20	-	
	0.75	10.10	11.70	12.20	13.40	18.20	20.60	29.10	-	
	1.00	10.80	12.80	13.10	14.60	19.70	22.40	31.70	35.60	
U-SSFRW	0.25	13.10	16.40	17.10	19.20	26.10	29.60	38.70	54.60	
	0.38	15.90	19.80	22.10	24.60	32.10	36.60	47.90	60.50	
	0.50	-	21.20	23.70	26.40	34.50	39.00	54.90	62.60	
	0.63	-	30.90	34.10	37.80	50.00	61.10	80.40	97.80	
	0.75	11.70	13.00	14.80	16.00	24.30	-	-	-	
	1.00	11.70	13.00	14.80	16.00	24.30	27.00	30.10	-	

