

Rotary Shafts

—Both Ends Stepped and 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 "L" length can be specified with 0.01" increments. See the application examples at the bottom of the page. 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-SFRH |
| | Electroless Nickel Plating | U-PSFRH |
| 304 Stainless Steel | - | U-SSFRH |

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 |

⊕ Thread or hole location tolerance: ±0.005" non-cumulative.

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

| Part No. | Choose in 0.01" Increments | | P Choose in 0.0001" Increments | | T Thread Selection (Callout) | | | | | | | | |
|------------------------------|----------------------------|--------------|--------------------------------|------------------------------|------------------------------|-------|--------|--------|---------|--------|--------|--------|--------|
| | Callout | Nominal | L | F | #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-SFRH U-PSFRH U-SSFRH | 0.38 | 3/8 | 0.75 ~ 19.50 | 0.09 ≤ F ≤ P × 5 | 0.1250 + T Dias P ≤ D - 0.01 | 6 | 8 | 10 | | | | | |
| | 0.50 | 1/2 | 1.00 ~ 23.50 | 0.09 ≤ F ≤ P × 5 | (When T = 6 ~ 0.31) | | | 10 | 0.25 | | | | |
| | 0.63 | 5/8 | 1.50 ~ 25.50 | 0.09 ≤ F ≤ P × 5 | | | | | 0.25 | 0.31 | | | |
| | 0.75 | 3/4 | 1.50 ~ 29.50 | 0.09 ≤ F ≤ P × 5 | 0.1875 + T Dias P ≤ D - 0.01 | | | | | 0.31 | 0.38 | | |
| | 1.00 | 1" | 1.75 ~ 29.50 | 0.09 ≤ F ≤ P × 5 | (When T = 0.38 ~ 0.63) | | | | | | 0.38 | 0.50 | |
| 1.25 | 1-1/4 | 1.75 ~ 29.50 | 0.09 ≤ F ≤ P × 5 | 0.3750 + T Dias P ≤ D - 0.01 | | | | | | | 0.50 | 0.63 | |
| 1.50 | 1-1/2 | 2.00 ~ 29.50 | 0.09 ≤ F ≤ P × 5 | (When T = 0.75) | | | | | | | | 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 — F — P — T

Type D
 U-SFRH 1.00 — L 20.00 — F 0.47 — P 0.7874 — T 0.50

Technical Information

| Callout | D | | (Y) Max | |
|---------|---------|-----------|---------|-------|
| | Nominal | Tolerance | | |
| 0.38 | 3/8 | 0.3748 | 0.3744 | 20.00 |
| 0.50 | 1/2 | 0.4998 | 0.4994 | 24.00 |
| 0.63 | 5/8 | 0.6248 | 0.6244 | 26.00 |
| 0.75 | 3/4 | 0.7497 | 0.7492 | 30.00 |
| 1.00 | 1" | 0.9997 | 0.9992 | 30.00 |
| 1.25 | 1-1/4 | 1.2496 | 1.2490 | 30.00 |
| 1.50 | 1-1/2 | 1.4996 | 1.4990 | 30.00 |

| over | up to | Tolerance |
|--------|--------|------------|
| | | |
| 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 |

| Callout | T (Thread) | | T1 Thread Depth |
|---------|-------------|----------|-----------------|
| | Thread Size | Diameter | |
| 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 |

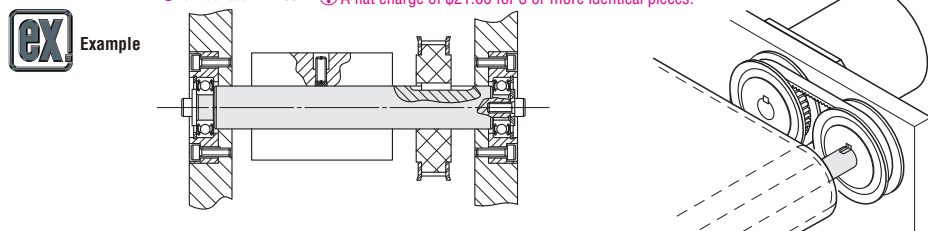
Selection Criteria: ⊕ (Y) ≥ T1 × 2

Days to Ship

Standard **6** Days P.30

Express **4** Days (Specify Express A) \$ 8.00/piece P.30

⊕ Non-Returnable P.30
 ⊕ A flat charge of \$21.60 for 3 or more identical pieces.



Optional Modifications P.203

Part No. — L — F — P — T — (Ordering Code)
 (SC, LKC, FC...etc)

U-SFRH 1.00 — L 20.125 — F 0.47 — P 0.7874 — T 0.50 — SC 10.00 — LKC

| Optional Modifications | Key Groove | Set Screw Flat | Two Set Screw Flats at Angle | Wrench Flats | Length Tolerance | Concentricity |
|------------------------|--|---|---|--|--|--|
| Ordering Code | KC, WKC | FC, WFC | KFC | SC | LKC | CKC |
| Details | • 1 Key Groove: KC • 2 Key Grooves: WKC Example: KC2.00-A0.50 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. | • Set Screw Flat: FC • Two Set Screw Flats: WFC Example: FC1.00-G0.13 KC: 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 | Example: KFC1.00-G0.13-AG120 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 | Example: SC1.00 Adds wrench flats. ⊕ SC = 0.01" Increments ⊕ SC + δ2 ≤ L ⊕ SC = 0 or SC ≥ 0.05 | Example: LKC Changes the length tolerance. ⊕ If the LKC is used, 0.001" Increments can be specified for L dimension. ⊕ Please refer to order example. | Example: CKC Changes the concentricity to dia 0.0008. ⊕ Available with L dimension range in a table below. |
| \$ Price Adder | KC: 4.00 WKC: 8.00 | FC: 2.00 WFC: 4.00 | 6.00 | 4.00 | 4.00 | 8.00 |

⊕ 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. | \$ Unit Price | | | | | | | | |
|----------|---------------|--------|-------|-------|-------|--------|--------|--------|--------|
| | D | Min. L | L2.01 | L4.01 | L6.01 | L8.01 | L12.01 | L16.01 | L24.01 |
| U-SFRH | 0.38 | 10.70 | 11.70 | 13.20 | 14.60 | 20.60 | 23.40 | 27.00 | - |
| | 0.50 | 12.20 | 14.30 | 15.00 | 15.90 | 21.90 | 25.10 | 34.40 | - |
| | 0.63 | 13.20 | 15.30 | 16.40 | 17.30 | 23.70 | 27.00 | 37.20 | 43.40 |
| | 0.75 | 14.90 | 18.60 | 19.50 | 21.60 | 29.90 | 33.50 | 45.00 | 53.60 |
| | 1.00 | 17.70 | 22.10 | 24.90 | 27.60 | 34.10 | 41.60 | 56.10 | 66.60 |
| U-PSFRH | 0.38 | 11.70 | 13.50 | 15.30 | 16.70 | 22.70 | 26.10 | 29.60 | - |
| | 0.50 | 13.20 | 15.60 | 16.10 | 18.00 | 24.00 | 27.50 | 38.90 | - |
| | 0.63 | 14.30 | 17.00 | 17.40 | 19.50 | 26.10 | 29.70 | 42.20 | 47.40 |
| | 0.75 | 17.40 | 21.80 | 23.00 | 25.70 | 34.70 | 39.50 | 51.80 | 78.00 |
| | 1.00 | 21.30 | 26.60 | 29.40 | 32.90 | 42.80 | 48.80 | 63.90 | 80.60 |
| U-SSFRH | 0.38 | 15.70 | 17.10 | 19.60 | 21.60 | 32.40 | 36.00 | 40.00 | - |
| | 0.50 | 18.40 | 21.60 | 22.10 | 24.70 | 35.50 | 39.60 | 49.70 | - |
| | 0.63 | 19.80 | 23.40 | 24.10 | 26.80 | 38.30 | 42.80 | 54.00 | 68.40 |
| | 0.75 | 20.70 | 25.90 | 26.60 | 28.40 | 41.60 | 45.90 | 64.30 | 73.60 |
| | 1.00 | 22.70 | 28.40 | 32.40 | 35.80 | 45.90 | 58.00 | 88.90 | 99.70 |
| 1.25 | 25.20 | 34.00 | 38.30 | 42.70 | 59.90 | 68.00 | 107.80 | 108.90 | |
| 1.50 | 35.60 | 53.60 | 60.50 | 67.00 | 94.90 | 107.80 | 151.40 | 172.40 | |

Related Components



Timing Pulleys P.293



Keyless Bushings P.311



Precision Washers P.495



Express Options P.30



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