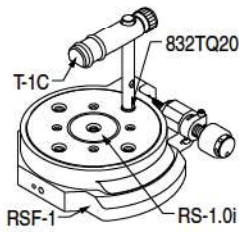# Translation Stages

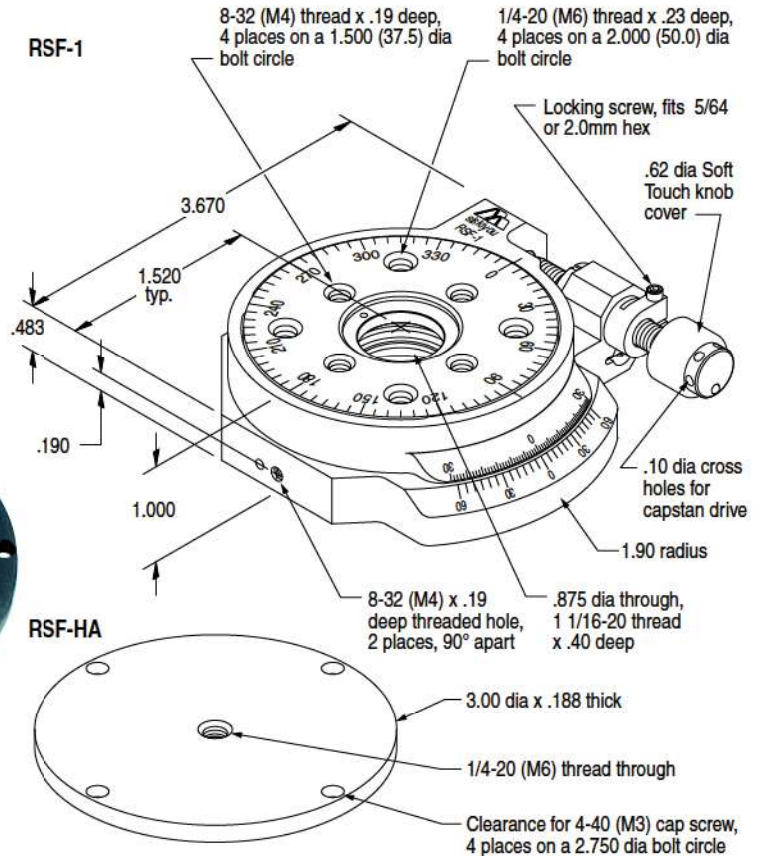## Rotary Manual

Ball Bearing

Polarizing Optics Positioner / RSF-1

Note that dimensions in parentheses (mm) reflect metric assembly features

RSF-1

8-32 (M4) thread x .19 deep, 4 places on a 1.500 (37.5) dia bolt circle

1/4-20 (M6) thread x .23 deep, 4 places on a 2.000 (50.0) dia bolt circle

Locking screw, fits 5/64 or 2.0mm hex

.62 dia Soft Touch knob cover

3.670

1.520 typ.

.483

.190

1.000

.10 dia cross holes for capstan drive

1.90 radius

8-32 (M4) x .19 deep threaded hole, 2 places, 90° apart

.875 dia through, 1 1/16-20 thread x .40 deep

RSF-HA

3.00 dia x .188 thick

1/4-20 (M6) thread through

Clearance for 4-40 (M3) cap screw, 4 places on a 2.750 dia bolt circle

832TQ20

T-1C

RSF-1 — RS-1.0i

Product Features

■ 360° coarse manual adjustment

■ ±10° fine adjustment

■ Post or table mounting

■ Vacuum compatible versions available upon request

Performance Specifications

Travel	
coarse	360° continuous
fine	± 10°
Maximum load	
when axis of rotation is vertical	10 lbs
when axis of rotation is horizontal	5 lbs
Minimum controllable motion	5 arc sec.

Related Products

T-1C prism table adapter	251
cube holders	304
RS-1.0i thread adapter	72
thread adapters	145

Order Information

rotation stage, 100TPI, manual adjustment	RSF-1
horizontal adapter plate with 4 screws (inset)	RSF-HA

Metric Option — for metric assembly features on this product, add '-M' after model number.

Rotation Stage

The RSF-1 is ideal for positioning 1.0 inch polarizing optics, or for rotating beamsplitters and prism cubes. This high precision ball bearing rotation stage combines 360° of coarse positioning with ±10° of manual adjustment using our 100TPI adjustment screw which enables 5 arc-minute resolution, 5 arc-second minimum controllable motion. For applications requiring hands-off adjustment the manual adjustment can be replaced with a 421 or 841 actuator for remote motorized positioning.

Mounting in the vertical (rotation along the optical axis) is achieved by attachment to one of the two 8-32 (M4) tapped holes on the perimeter. These attachment points put the adjustment screw in the vertical or horizontal plane. For horizontal applications (rotating beamsplitters and prism cubes perpendicular to the optical axis) the stage can also be mounted on our RSF-HA horizontal adapter.

The face of the RSF-1 includes four 8-32 (M4) and four 1/4-20 (M6) tapped holes for accommodating a wide variety of devices. The 1 1/16-20 I.D. thread (accommodates 1.0 inch optics) is supplied with two Delrin® retaining rings for securely holding delicate optics without damage.