

## XY Axis Rack and Pinion Translation Stages

TARW/TAR-2

RoHS

Rack and pinion dovetail translation stages, suitable for frequent use that requires quick and long travel.



## Guide

► Use adaptor plates for TAR (SP-109) and for TAS-2060 (SP-127-1) to mount post holders and various stages.

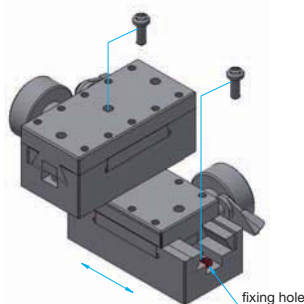
SP-109 [Reference](#) D039 [Catalog Code](#) W6061

SP-127-1 [Reference](#) D041 [Catalog Code](#) W6069

## Attention

► The knurled adjustment knob of the TARW-25502 protrudes from the bottom surface of the stage. Therefore, it cannot be directly mounted on a flat surface without the use of a spacer.

## Mounting Method

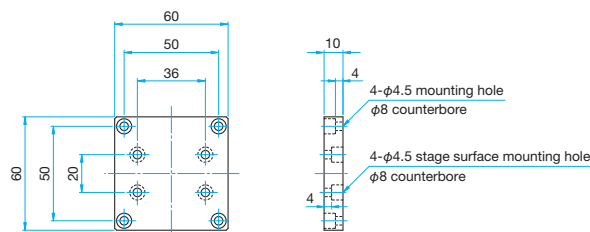


Stage must be translated to provide access to all of the mounting holes.

## Bottom Plate

Primary material: Aluminum  
Finish: Black Anodized

TAR-34602/34802 include a base plate that allows mounting on instruments or bases fitted with M4 tapped holes on 50 × 50mm, preventing the handle from contacting the mounting surface.



## Specifications

Part Number	METRIC	TARW-25502	TAR-34602	TAR-34802	TAR-38652-M6	TAR-381202-M6
	INCH	—	—	—	TAR-38652UU	TAR-381202UU
Stage Size [mm]		25×50	34×60	34×80	38×65	38×120
Axes of Travel		XY axis				
Travel [mm]		XY axis: ±10	XY axis: ±15	XY axis: ±25	XY axis: ±15	X axis: ±40 Y axis: ±15
Lead of Actuator [mm/rotation]		about 20	about 20	about 20	about 20	about 20
Vernier Scale [mm]		0.1	0.1	0.1	0.1	0.1
Guide Method		Dovetail method				
Primary Material		Brass				
Finish		Super black chrome				
Load Capacity [N]		78.5 (8.0kgf)	147 (15.0kgf)	196 (20.0kgf)	147 (15.0kgf)	245 (25.0kgf)
Travel Accuracy	Straightness [μm]	20	20	30	20	30
	Pitch [N·m]	0.6	1.5	1.5	2.9	3.0
	Roll [N·m]	0.6	1.5	1.5	1.5	1.5
Max. Moment Capacity	Yaw [N·m]	1.0	2.0	2.6	2.0	2.5
	Pitch ["/N·cm]	3.67	1.2	1.1	0.15	0.3
Moment Stiffness	Roll ["/N·cm]	3.67	1.2	1.1	0.15	0.15
	Parallelism [μm]	100	140	160	140	160
Weight [kg]		0.44	1.0	1.6	1.2	1.9

Application Systems

Optics &amp; Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators &amp; Adjusters

Motorized Stages

Light Sources &amp; Laser Safety

Index

Guide

X Axis Stages

XY Axis Stages

Z Axis Stages

XZ Axis Stages

XYZ Axis Stages

Rotation Stages

Goniometer

Tilt Stages

Vacuum

Ball Bearing Guide

Crossed Roller

Dovetail

Lapping

V Groove Screw

Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

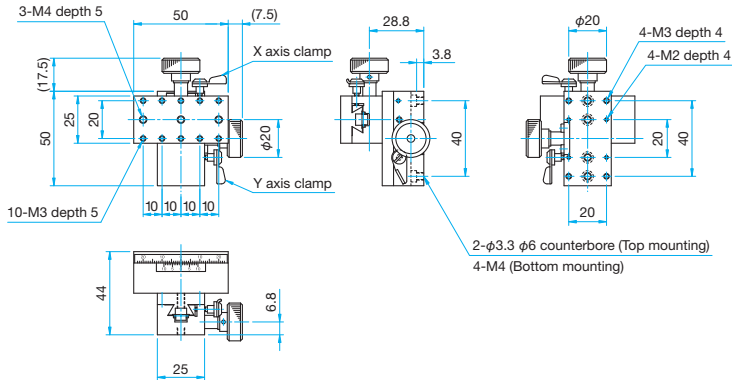
120 × 120 mm

Others

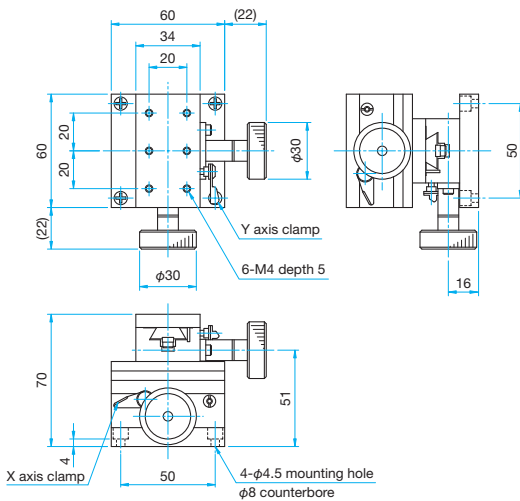


**Outline Drawing**

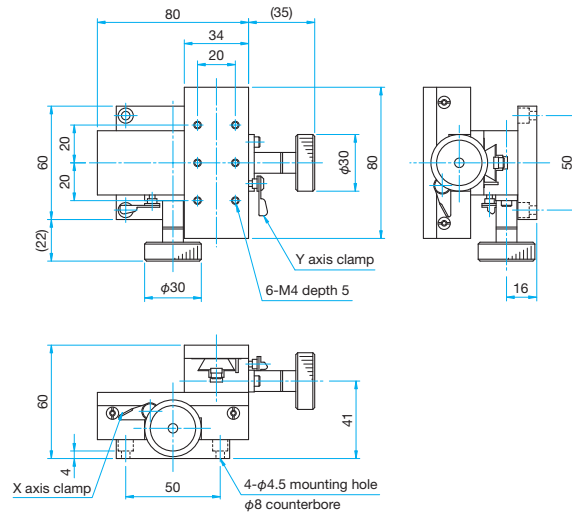
**TARW-25502** Pan head screw M3x8...4 screws



**TAR-34602** Hexagonal socket head cap screw M4x8...4 screws

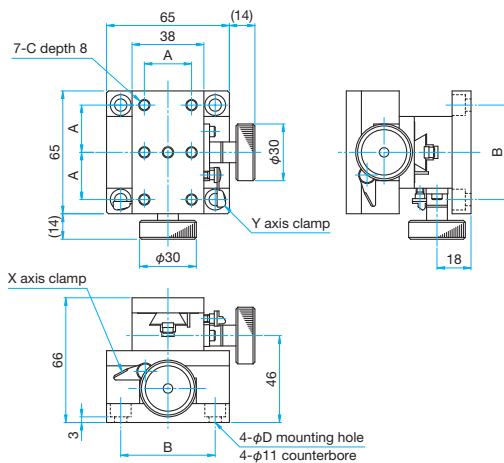


**TAR-34802** Hexagonal socket head cap screw M4x8...4 screws



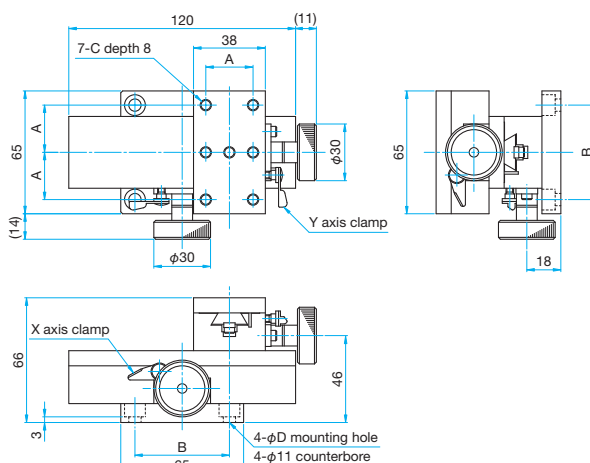
**TAR-38652-M6/38652UU**

Hexagonal socket head cap screw M6x10...4 screws (M6)  
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



**TAR-381202-M6/381202UU**

Hexagonal socket head cap screw M6x10...4 screws (M6)  
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TAR-38652-M6	25	50	M6 P1	6.5
TAR-38652UU	25.4	50.8	1/4-20UNC	7

Part Number	A (mm)	B (mm)	C	D (mm)
TAR-381202-M6	25	50	M6 P1	6.5
TAR-381202UU	25.4	50.8	1/4-20UNC	7

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Bases

Manual Stages

Actuators & Adjusters

Motoeized Stages

Light Sources & Laser Safety

Index

Guide

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