X Axis Long Travel Aluminum Crossed Roller Translation Stages | TAMC-1 RoHS

High precision crossed-roller linear translation stages with black anodized aluminum bodies.

- These stages use a leadscrew drive system (2mm pitch) with a crank style handle enabling smooth, fast travel.
- The standard stages have a linear scale on the side of the stage with resolution of 1mm and a second scale on the crank(resolution of 20µm).
- The LS models have a digital scale with resolution of 0.1mm.

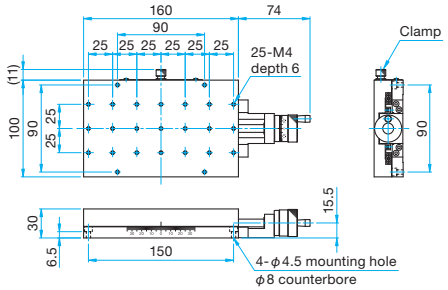
Guide

- The TAMC-20201(LS) supports hole patterns of both 180 × 180mm and 175 × 175mm, and can be directly mounted on a 25mm pitch optical breadboard.
- The models with the part number suffix LS are fitted with a digital display scale with a readable resolution of 10µm.
- The digital display scale has a reset function and a memory function to retain the value at the time the power is turned off (redisplay the value being displayed when the power is turned off).

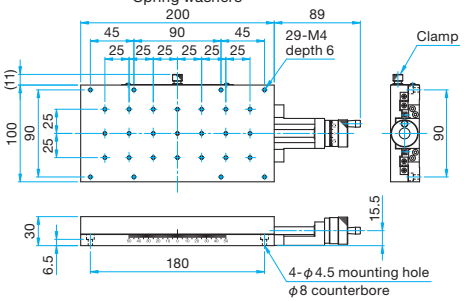
2D CAD 3D CAD

Outline Drawing

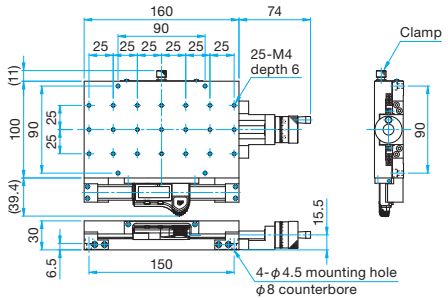
TAMC-10161 Hexagonal socket head cap screw M4×12…4 screws Spring washers



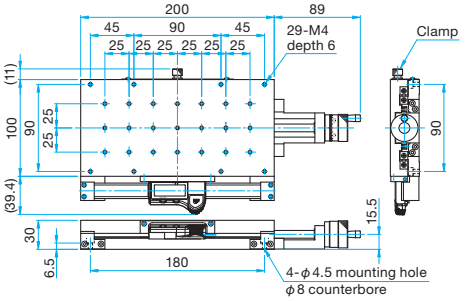
TAMC-10201 Hexagonal socket head cap screw M4×12…4 screws Spring washers



TAMC-10161LS Hexagonal socket head cap screw M4×12…4 screws Spring washers



TAMC-10201LS Hexagonal socket head cap screw M4×12…4 screws Spring washers



Specifications

Part Number		TAMC-10161	TAMC-10161LS	TAMC-10201	TAMC-10201LS
Stage Size [mm]		100×160	100×160	100×200	100×200
Axes of Travel		X axis			
Handle Position		Center	Center	Center	Center
Travel [mm]		±35	±35	±50	±50
Lead of Actuator [mm/rotation]		2.0	2.0	2.0	2.0
Readable Resolution [mm]		0.02	0.01	0.02	0.01
Guide Method		Crossed roller			
Primary Material		Aluminum			
Finish		Black anodized			
Load Capacity [N]		588 (60.0kgf)	588 (60.0kgf)	980 (100.0kgf)	980 (100.0kgf)
Travel Accuracy	Straightness [µm]	2	2	3	3
	Pitch [″]	40	40	60	60
	Yaw [″]	25	25	25	25
Max. Moment Capacity	Pitch [N·m]	62.8	62.8	100.0	100.0
	Roll [N·m]	60.8	60.8	99.1	99.1
	Yaw [N·m]	58.8	58.8	98.1	98.1
Moment Stiffness	Pitch [″/N·cm]	0.046	0.046	0.036	0.036
	Roll [″/N·cm]	0.04	0.04	0.03	0.03
Parallelism [µm]		100	100	100	100
Running Parallelism [µm]		15	15	25	25
Weight [kg]		1.6	1.7	1.9	2.1

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Goniometer
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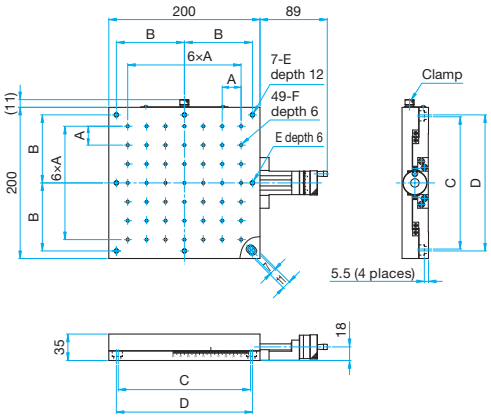
Vacuum
Ball Bearing Guide
Crossed Roller
Dovetail
Lapping
V Groove Screw
Ohters
15 × 15 mm
25 × 25 mm
40 × 40 mm
60 × 60 mm
65 × 65 mm
80 × 80 mm
100 × 100 mm
120 × 120 mm
Others

2D CAD 3D CAD

Outline Drawing

TAMC-20201/20201-M6/20201UU

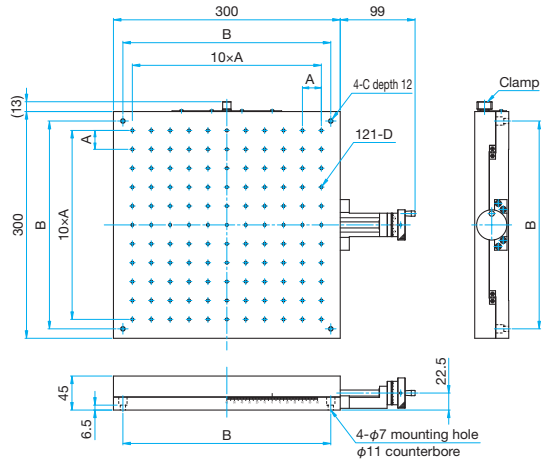
Hexagon socket head cap screw M6×10…4 screws
Hexagon socket head cap screw M6×10…4 screws (M6)
Hexagon socket head cap screw 1/4-20UNC×1/2… screws (UU)



Part Number	A (mm)	B (mm)	C (mm)	D (mm)	E	F
TAMC-20201	25	90	175	180	M6 P1	M4
TAMC-20201-M6	25	87.5	175		M6 P1	M6 P1
TAMC-20201UU	25.4	88.9	177.8		1/4-20UNC	1/4-20UNC

TAMC-30301/30301-M6/30301UU

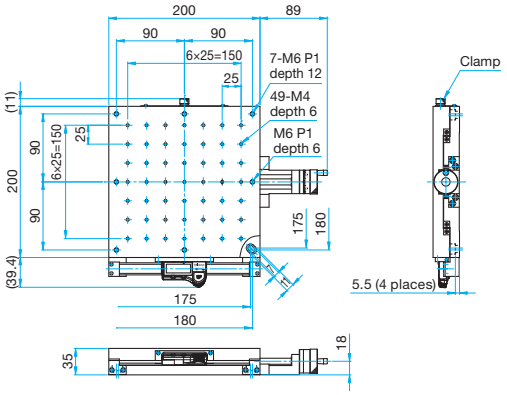
Hexagon socket head cap screw M6×12…4 screws
Hexagon socket head cap screw M6×12…4 screws (M6)
Hexagon socket head cap screw 1/4-20UNC×1/2…4 screws (UU)



Part Number	A (mm)	B (mm)	C	D
TAMC-30301	25	275	M6 P1	M4 depth 8
TAMC-30301-M6	25	275	M6 P1	M6 P1 depth 10
TAMC-30301UU	25.4	279.4	1/4-20UNC	1/4-20UNC depth 10

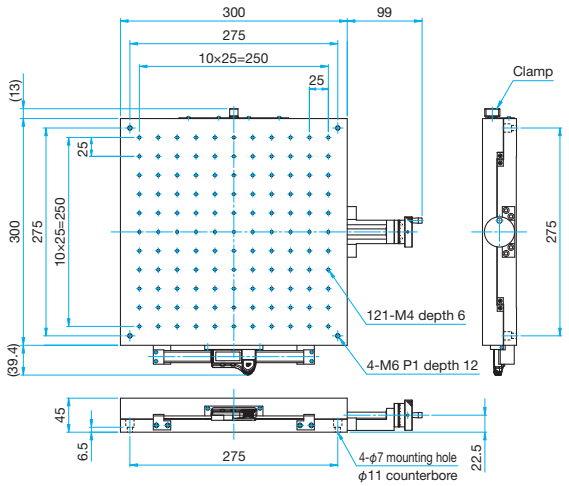
TAMC-20201LS

Hexagon socket head cap screw M6×10…4 screws



TAMC-30301LS

Hexagon socket head cap screw M6×12…4 screws



Specifications

Part Number	METRIC	TAMC-20201	TAMC-20201-M6	TAMC-20201LS	TAMC-30301	TAMC-30301-M6	TAMC-30301LS
	INCH	—	TAMC-20201UU	—	—	TAMC-30301UU	—
Stage Size [mm]		200×200	200×200	200×200	300×300	300×300	300×300
Axes of Travel		X axis					
Micrometer Position		Center	Center	Center	Center	Center	Center
Travel [mm]		±50	±50	±50	±60	±60	±60
Lead of Actuator [mm/rotation]		2.0	2.0	2.0	2.0	2.0	2.0
Micrometer Readable Resolution [mm]		0.02	0.02	0.01	0.02	0.02	0.01
Guide Method		Crossed roller					
Primary Material		Aluminum					
Finish		Black anodized					
Load Capacity [N]		1176 (120.0kgf)	1176 (120.0kgf)	1176 (120.0kgf)	1274 (130.0kgf)	1274 (130.0kgf)	1274 (130.0kgf)
Travel Accuracy	Straightness [μm]	4	4	4	5	5	5
	Pitch [″]	60	60	60	60	60	60
	Yaw [″]	25	25	25	25	25	25
Max. Moment Capacity	Pitch [N·m]	112.0	112.0	112.0	117.0	117.0	117.0
	Roll [N·m]	119.0	119.0	119.0	122.0	122.0	122.0
	Yaw [N·m]	113.0	113.0	113.0	116.0	116.0	116.0
Moment Stiffness	Pitch [″/N·cm]	0.036	0.036	0.036	0.03	0.03	0.03
	Roll [″/N·cm]	0.026	0.026	0.026	0.024	0.024	0.024
Parallelism [μm]		100	100	100	100	100	100
Running Parallelism [μm]		25	25	25	40	40	40
Weight [kg]		3.5	3.5	3.7	10.7	10.7	10.9