

XYZ Axis Steel Extended Contact Translation Stages

TSD-605 Stage Size 60 × 60 mm

RoHS

TSD-655 Stage Size 65 × 65 mm

RoHS

This XYZ assembly incorporates an integrated (XY) axis steel linear stage and a (Z) vertical axis steel stage with a horizontal flat top plate.

There are options for micrometer position and fine pitch screws.



Guide

► Vacuum-compatible stainless steel stages (TSDS-605/655) are also available. [Reference](#) E216 [Catalog Code](#) W7076

Attention

- This translation stage type is not suitable for inverted use. In this condition, all load would be pulling against the spring.
- These stages use a pivot mechanism to transfer horizontal motion to vertical motion. This mechanism induces a small non-linearity between the distance the micrometer moves and the distance the stage platform moves. Contact our Sales Division for more information.

Specifications

Part Number	METRIC	TSD-605C	TSD-605S	TSD-655C-M6	TSD-655S-M6
	INCH	—	—	TSD-655CUU	TSD-655SUU
(Opposite Model)	METRIC	—	TSD-605SR	—	TSD-655SR-M6
	INCH	—	—	—	TSD-655SRUU
Stage Size [mm]		60×60	60×60	65×65	65×65
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±6.5 Z axis ±5	XY axis ±6.5 Z axis ±5	XY axis ±6.5 Z axis ±5	XY axis ±6.5 Z axis ±5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Super black chrome + Black matte			
Load Capacity [N]		147 (15.0kgf)	147 (15.0kgf)	147 (15.0kgf)	147 (15.0kgf)
Travel Accuracy	Straightness [μm]	2.5	2.5	2.5	2.5
Max. Moment Capacity	Pitch [N·m]	6.9	6.9	6.9	6.9
	Roll [N·m]	6.9	6.9	6.9	6.9
Moment Stiffness	Pitch [°/N·cm]	0.81	0.81	0.81	0.81
	Roll [°/N·cm]	0.81	0.81	0.81	0.81
Parallelism [μm]		130	130	130	130
Options		FP	FP	FP	FP
Weight [kg]		1.9	1.9	2.0	2.0

Option

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

* The load capacity of the FP type is 39.2N (4.0kgf).

* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

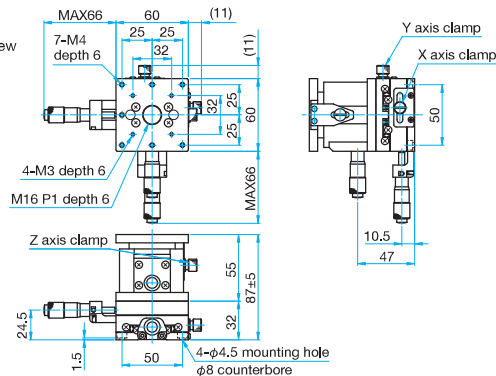
Others



Outline Drawing

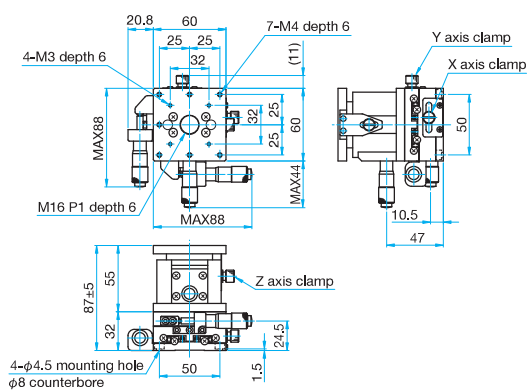
TSD-605C

Hexagonal socket head cap screw M4x6...4 screws



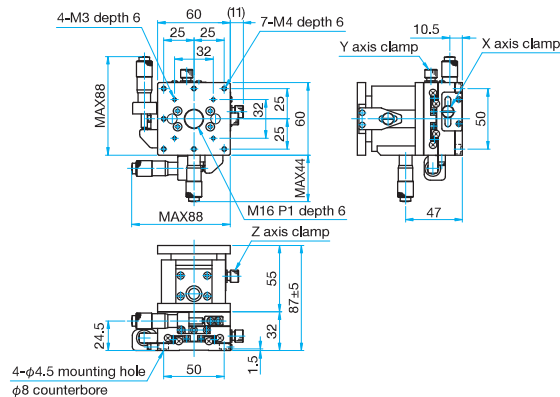
TSD-605S

Hexagonal socket head cap screw M4x6...4 screws



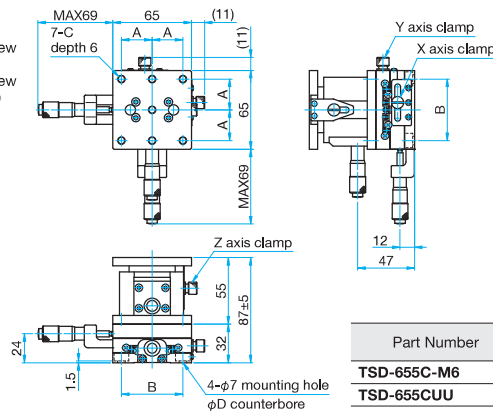
TSD-605SR

Hexagonal socket head cap screw M4x6...4 screws



TSD-655C-M6/655CUU

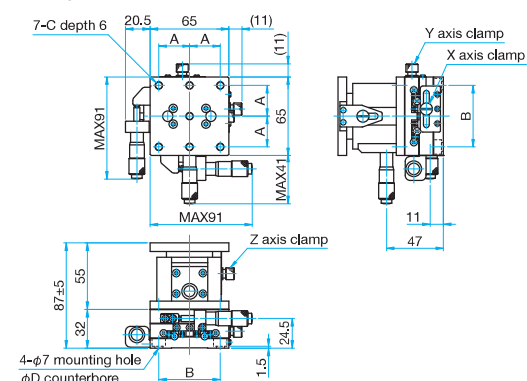
Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655C-M6	25	50	M6 P1	11
TSD-655CUU	25.4	50.8	1/4-20UNC	12

TSD-655S-M6/655SUU

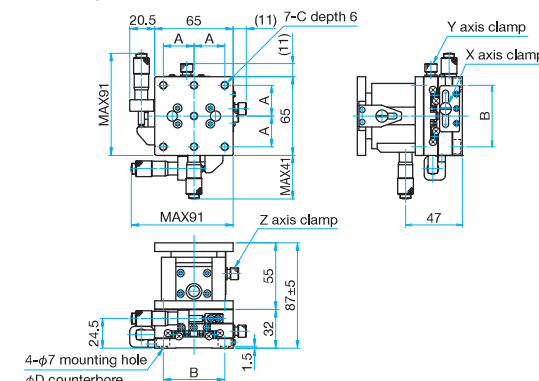
Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655S-M6	25	50	M6 P1	11
TSD-655SUU	25.4	50.8	1/4-20UNC	12

TSD-655SR-M6/655SRUU

Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655SR-M6	25	50	M6 P1	11
TSD-655SRUU	25.4	50.8	1/4-20UNC	12

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

XYZ Axis Steel Extended Contact Translation Stages

TSD-805 Stage Size 80 × 80 mm

TSD-1005 Stage Size 100 × 100 mm

RoHS

RoHS

This XYZ assembly incorporates an integrated (XY) axis steel linear stage and a (Z) vertical axis steel stage with a horizontal flat top plate.

There are options for micrometer position and fine pitch screws.



Attention

- ▶ This translation stage type is not suitable for inverted use. In this condition, all load would be pulling against the spring.
- ▶ These stages use a pivot mechanism to transfer horizontal motion to vertical motion. This mechanism induces a small non-linearity between the distance the micrometer moves and the distance the stage platform moves. Contact our Sales Division for more information.

Specifications					
Part Number	METRIC	TSD-805C	TSD-805S	TSD-1005C	TSD-1005S
(Opposite Model)	METRIC		TSD-805SR	—	TSD-1005SR
Stage Size [mm]		80×80	80×80	100×100	100×100
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±12.5 Z axis ±5	XY axis ±12.5 Z axis ±5	XY axis ±12.5 Z axis ±10	XY axis ±12.5 Z axis ±10
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Super black chrome + Black matte			
Load Capacity [N]		147 (15.0kgf)	147 (15.0kgf)	245 (25.0kgf)	245 (25.0kgf)
Travel Accuracy	Straightness [μm]	2.5	2.5	2.5	2.5
	Pitch [N·m]	6.9	6.9	9.8	9.8
Max. Moment Capacity	Roll [N·m]	6.9	6.9	9.8	9.8
	Pitch [°/N·cm]	0.67	0.67	0.45	0.45
Moment Stiffness	Roll [°/N·cm]	0.67	0.67	0.45	0.45
	Parallelism [μm]	130	130	150	150
Options		FP	FP	FP	FP
Weight [kg]		2.6	2.6	6.1	6.1

Option for □80mm

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	XY axis: FPSA-62550 X axis: FPSA-62540	0.25	—	E008

Option for □100mm

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62555	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

* The load capacity of the FP type is 39.2N (4.0kgf).

* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

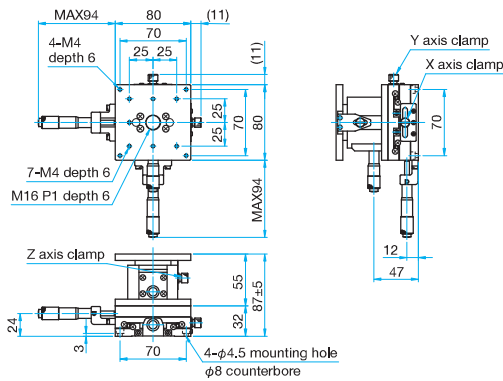
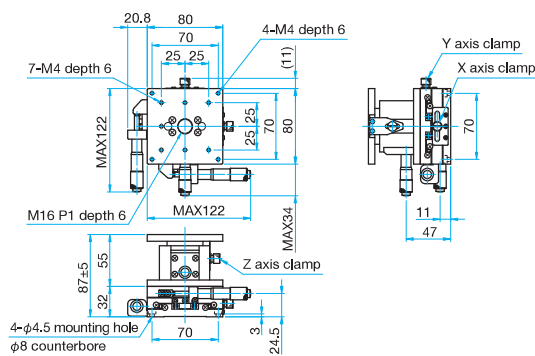
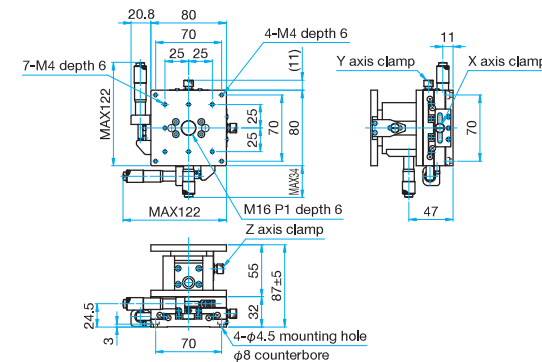
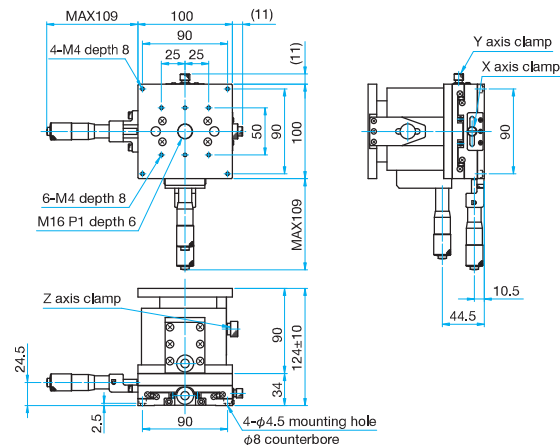
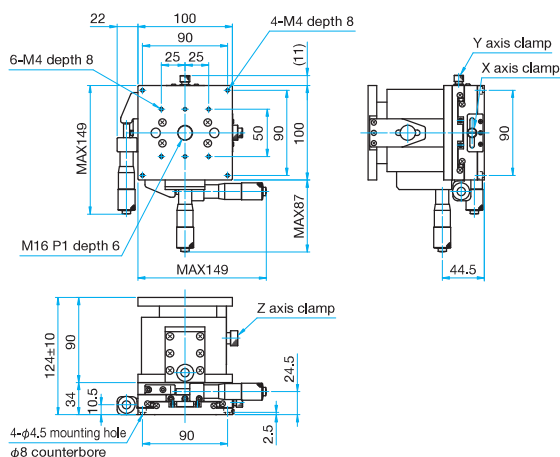
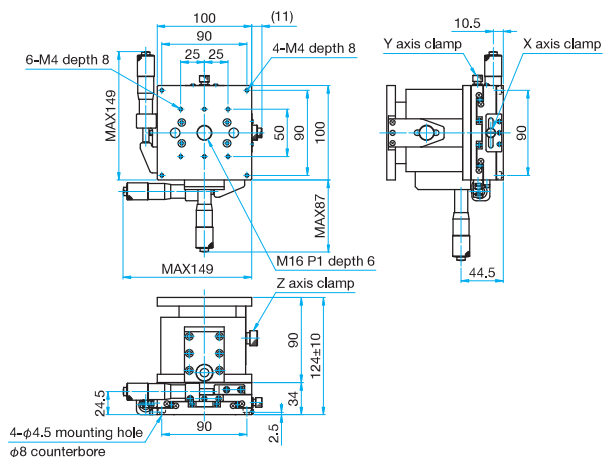
100 × 100 mm

120 × 120 mm

Others



Outline Drawing

TSD-805C Hexagonal socket head cap screw M4×8...4 screws**TSD-805S** Hexagonal socket head cap screw M4×8...4 screws**TSD-805SR** Hexagonal socket head cap screw M4×8...4 screws**TSD-1005C** Hexagonal socket head cap screw M4×8...4 screws**TSD-1005S** Hexagonal socket head cap screw M4×8...4 screws**TSD-1005SR** Hexagonal socket head cap screw M4×8...4 screws

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

XYZ Axis Steel Extended Contact Translation Stages

Stage Size 120 × 120 mm

TSD-1205

RoHS

Application
SystemsOptics &
Optical
CoatingsOpto-
Mechanics

Bases

Manual
StagesActuators &
AdjustersMotorized
StagesLight Sources &
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

This XYZ assembly incorporates an integrated (XY) axis steel linear stage and a (Z) vertical axis steel stage with a horizontal flat top plate.

There are options for metric/inch, micrometer position and fine pitch screws.

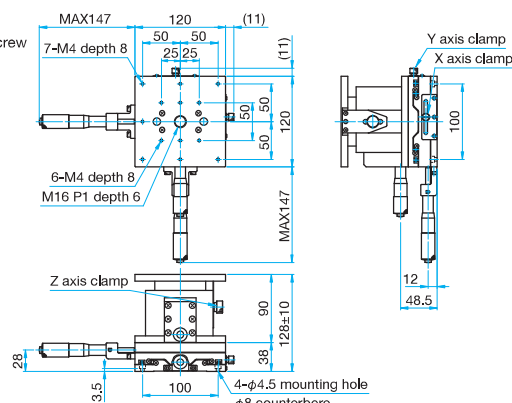


Attention

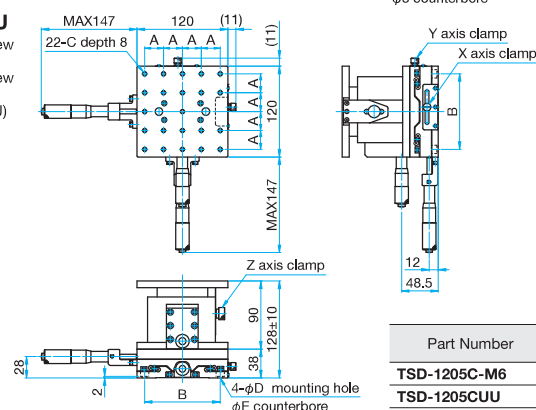
- This translation stage type is not suitable for inverted use. In this condition, all load would be pulling against the spring.
- These stages use a pivot mechanism to transfer horizontal motion to vertical motion. This mechanism induces a small non-linearity between the distance the micrometer moves and the distance the stage platform moves. Contact our Sales Division for more information.

Specifications					
Part Number	METRIC	TSD-1205C	TSD-1205S	TSD-1205C-M6	TSD-1205S-M6
	INCH	—	—	TSD-1205CUU	TSD-1205SUU
(Opposite Model)	METRIC	—	TSD-1205SR	—	TSD-1205SR-M6
	INCH	—	—	—	TSD-1205SRUU
Stage Size [mm]		120×120	120×120	120×120	120×120
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±20 Z axis ±10	XY axis ±20 Z axis ±10	XY axis ±20 Z axis ±10	XY axis ±20 Z axis ±10
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Super black chrome + Black matte			
Load Capacity [N]		245 (25.0kgf)	245 (25.0kgf)	245 (25.0kgf)	245 (25.0kgf)
Travel Accuracy	Straightness [μm]	2.5	2.5	2.5	2.5
	Pitch [N·m]	9.8	9.8	9.8	9.8
Max. Moment Capacity	Roll [N·m]	9.8	9.8	9.8	9.8
	Pitch [°/N·cm]	0.41	0.41	0.41	0.41
Moment Stiffness	Roll [°/N·cm]	0.41	0.41	0.41	0.41
	Parallelism [μm]	150	150	150	150
Weight [kg]		7.3	7.3	7.3	7.3

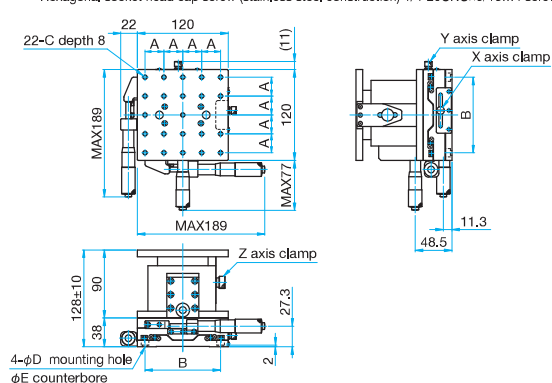
 Hexagonal socket head cap screw
M4x8...4 screws



 Hexagonal socket head cap screw
M6x8...4 screws (M6)
Hexagonal socket head cap screw
(stainless steel construction)
1/4-20UNCx5/16...4 screws (UU)



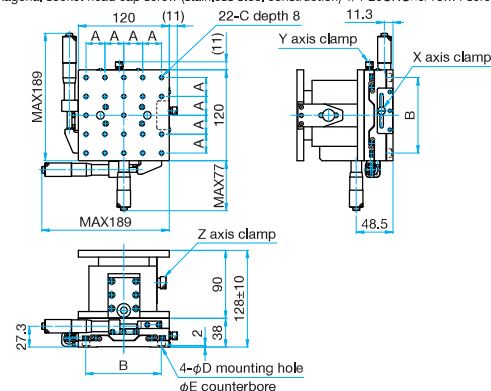
 Hexagonal socket head cap screw M6x8...4 screws (M6)
 Hexagonal socket head cap screw (stainless steel construction) 1/4-20UNCx5/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-1205S-M6	25	100	M6 P1	6.5	11
TSD-1205SUU	25.4	101.6	1/4-20UNC	7	12

[illegible]

 Hexagonal socket head cap screw M6x8...4 screws (M6)
 Hexagonal socket head cap screw (stainless steel construction) 1/4-20UNCx5/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-1205SR-M6	25	100	M6 P1	6.5	11
TSD-1205SRUU	25.4	101.6	1/4-20UNC	7	12

Others

XYZ Axis Steel Extended Contact Translation Stages (Vertical)

TSD-255L Stage Size 25 x 25 mm

TSD-405L Stage Size 40 x 40 mm

RoHS

RoHS

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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 x 15 mm

25 x 25 mm

40 x 40 mm

60 x 60 mm

65 x 65 mm

80 x 80 mm

100 x 100 mm

120 x 120 mm

Others

This XYZ assembly incorporates an integrated (XY) axis steel linear stage and a (Z) axis steel stage with an integrated vertical bracket.

There are options for micrometer position and fine pitch screws.



Guide

► Vacuum-compatible stainless steel stages (TSDS-255*L/405*L) are also available. [Reference](#) E218 [Catalog Code](#) W7080

Specifications

Part Number	METRIC	TSD-255CL	TSD-255SL	TSD-405CL	TSD-405SL
	INCH	—	—	TSD-405CLUU	TSD-405SLUU
(Opposite Model)	METRIC	—	TSD-255SRL	—	TSD-405SRL
	INCH	—	—	—	TSD-405SRLUU
Stage Size [mm]		25×25	25×25	40×40	40×40
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±3 Z axis ±3	XY axis ±3 Z axis ±3	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Super black chrome			
Load Capacity [N]		14.7 (1.5kgf)	14.7 (1.5kgf)	49 (5.0kgf)	49 (5.0kgf)
Travel Accuracy	Straightness [μm]	1	1	1	1
Max. Moment Capacity	Pitch [N·m]	2.2	2.2	5.0	5.0
	Roll [N·m]	2.1	2.1	5.0	5.0
Moment Stiffness	Pitch [°/N·cm]	6.7	6.7	1.1	1.1
Options		FP	FP	FP	FP
Weight [kg]		0.2	0.2	0.6	0.6

Option for □25mm

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference ►
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-42525	0.25	—	E008

Option for □40mm

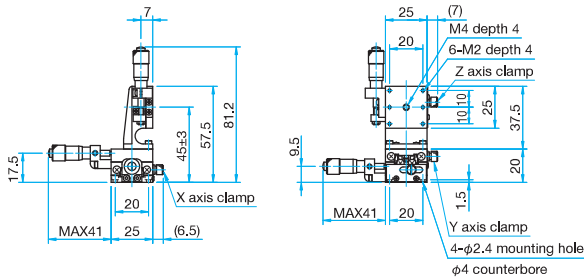
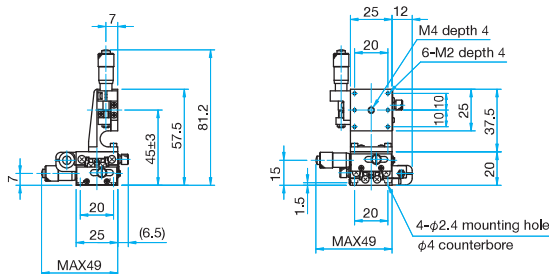
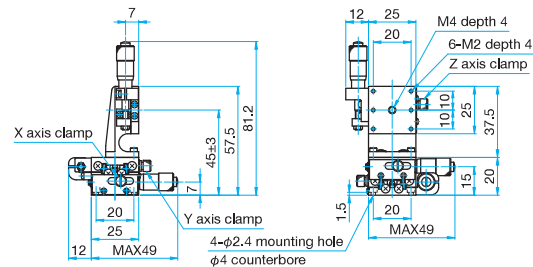
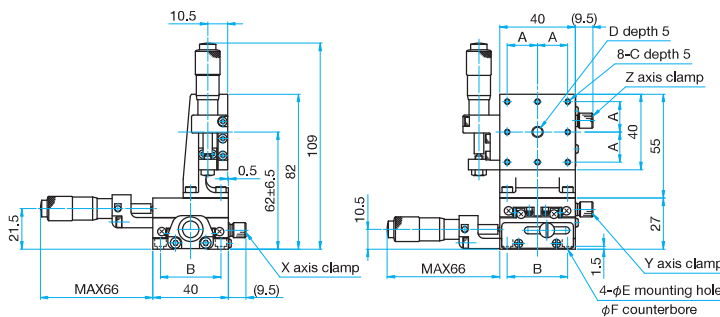
Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference ►
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

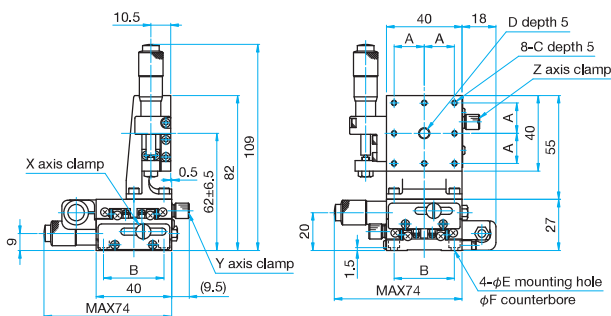
* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008



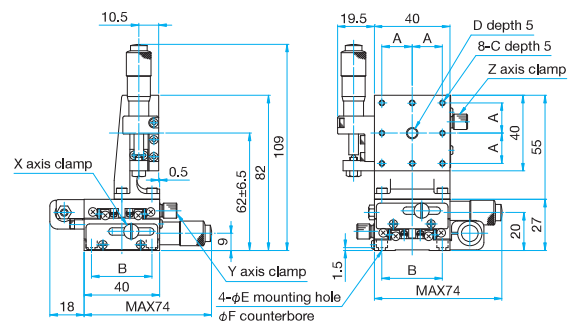
Outline Drawing

TSD-255CL Hexagonal socket head cap screw M2×4...4 screws**TSD-255SL** Hexagonal socket head cap screw M2×4...4 screws**TSD-255SRL** Hexagonal socket head cap screw M2×4...4 screws**TSD-405CL/405CLUU** Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/6...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-405CL	16	32	M3	M6 P1	3.5	6
TSD-405CLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSD-405SL/405SLUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/6...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-405SL	16	32	M3	M6 P1	3.5	6
TSD-405SLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSD-405SRL/405SRLUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/6...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-405SRL	16	32	M3	M6 P1	3.5	6
TSD-405SRLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

XYZ Axis Steel Extended Contact Translation Stages (Vertical)

TSD-605L Stage Size 60 x 60 mm

RoHS

TSD-655L Stage Size 65 x 65 mm

RoHS

This XYZ assembly incorporates an integrated (XY) axis steel linear stage and a (Z) axis steel stage with an integrated vertical bracket.

There are options for micrometer position and fine pitch screws.



Guide

► Vacuum-compatible stainless steel stages (TSDS-605*L/655*L) are also available. [Reference](#) E218 [Catalog Code](#) W7080

Specifications

Part Number	METRIC	TSD-605CL	TSD-605SL	TSD-655CL-M6	TSD-655SL-M6
	INCH	—	—	TSD-655CLUU	TSD-655SLUU
(Opposite Model)	METRIC	—	TSD-605SRL	—	TSD-655SRL-M6
	INCH	—	—	—	TSD-655SRLUU
Stage Size [mm]		60×60	60×60	65×65	65×65
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Extended contact ball bearing guide			
Primary Material		Steel			
Finish		Super black chrome			
Load Capacity [N]		49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)
Travel Accuracy	Straightness [μm]	1	1	1	1
Max. Moment Capacity	Pitch [N·m]	8.0	8.0	8.0	8.0
	Roll [N·m]	8.0	8.0	8.0	8.0
Moment Stiffness	Pitch [°/N·cm]	0.58	0.58	0.58	0.58
Options		FP	FP	FP	FP
Weight [kg]		1.7	1.7	1.9	1.9

Option

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

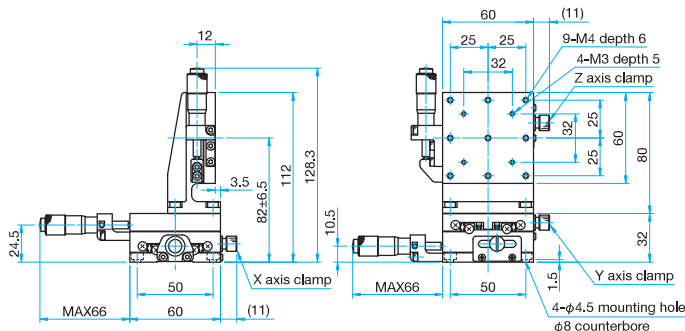
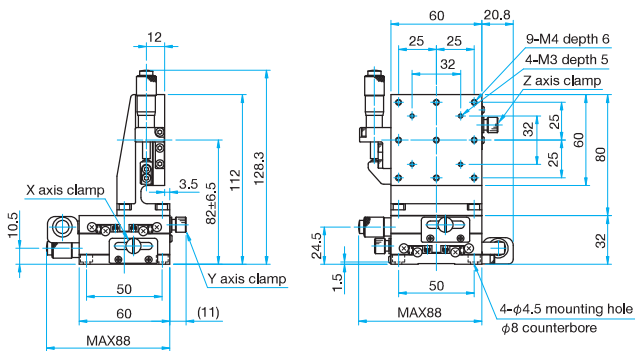
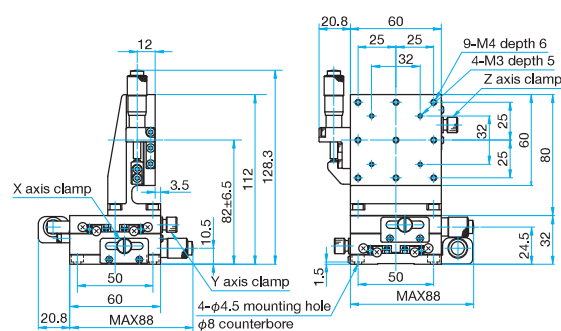
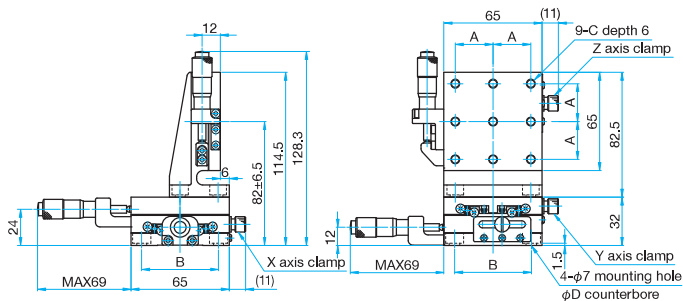
100 × 100 mm

120 × 120 mm

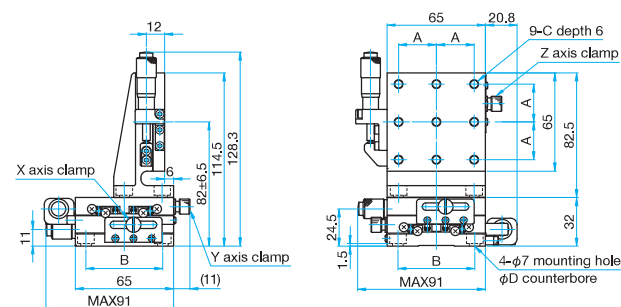
Others



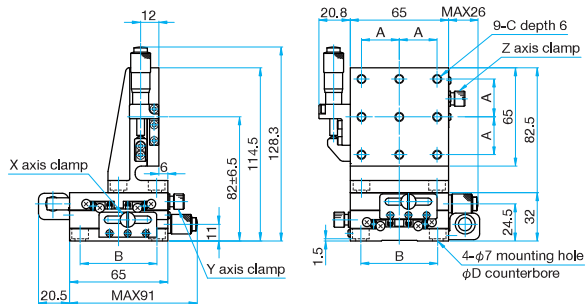
Outline Drawing

TSD-605CL Hexagonal socket head cap screw M4×6...4 screws**TSD-605SL** Hexagonal socket head cap screw M4×6...4 screws**TSD-605SRL** Hexagonal socket head cap screw M4×6...4 screws**TSD-655CL-M6/655CLUU** Hexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655CL-M6	25	50	M6 P1	11
TSD-655CLUU	25.4	50.8	1/4-20UNC	12

TSD-655SL-M6/655SLUUHexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655SL-M6	25	50	M6 P1	11
TSD-655SLUU	25.4	50.8	1/4-20UNC	12

TSD-655SRL-M6/655SRLUUHexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TSD-655SRL-M6	25	50	M6 P1	11
TSD-655SRLUU	25.4	50.8	1/4-20UNC	12

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

XYZ Axis Aluminum Crossed Roller Translation Stages (Vertical)

Stage Size 40 × 40 mm / 60 × 60 mm

TAM-5L

RoHS

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

These XYZ assemblies incorporate an integrated (XY) axis aluminum linear stage and a (Z) axis aluminum stage with an integrated vertical bracket. Crossed roller guides enable smooth travel.



Guide

► Fine-pitch screws vs. micrometers are also available.

Specifications

Part Number	METRIC	TAM-405CL	TAM-405SL	TAM-605CL	TAM-605SL
	INCH	TAM-405CLUU	TAM-405SLUU	—	—
(Opposite Model)	METRIC	—	TAM-405SRL	—	TAM-605SRL
	INCH	—	TAM-405SRLUU	—	—
Stage Size [mm]		40×40	40×40	60×60	60×60
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Crossed roller			
Primary Material		Aluminum			
Finish		Black anodized			
Load Capacity [N]		49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)
Travel Accuracy	Straightness [μm]	2	2	2	2
	Pitch [N·m]	2.75	2.75	5.0	5.0
Max. Moment Capacity	Roll [N·m]	3.0	3.0	5.0	5.0
	Pitch [°/N·cm]	1.9	1.9	0.9	0.9
Options		FP	FP	FP	FP
Weight [kg]		0.4	0.4	0.9	0.9

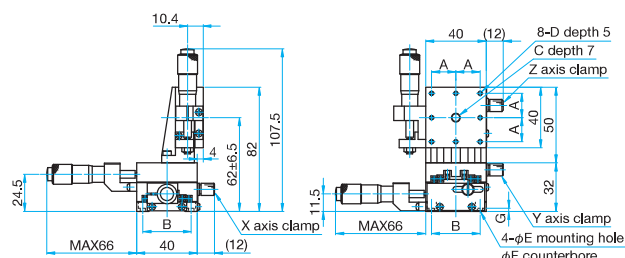
Option

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

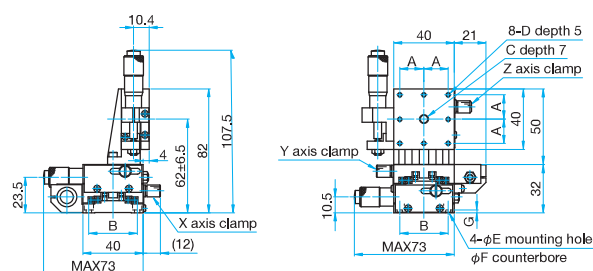
* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008

TAM-405CL/405CLUU Pan head screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx1/4...4 screws (UU)



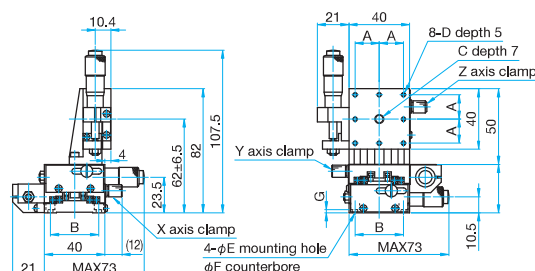
Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-405CL	16	32	M6 P1	M3	3.5	6	2
TAM-405CL III	15.875	31.75	1/4-20 UNC	6-32 UNC	4	6.5	1.5

 Pan head screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-405SL	16	32	M6 P1	M3	3.5	6	2
TAM-405SLUU	15.875	31.75	1/4-20UNC	6-32UNC	4	6.5	1.5

 Pan head screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-405SRL	16	32	M6 P1	M3	3.5	6	2
TAM-405SRLUU	15.875	31.75	1/4-20UNC	6-32UNC	4	6.5	1.5

Technical drawings of the MAX66 motor assembly, showing front and side views with dimensions and labels.

Front View (Left):

- Overall width: 129
- Overall height: 108
- Top flange width: 60
- Top flange thickness: 12.3
- Motor body width: 50
- Motor body height: 30.5
- Motor body to base distance: 78±6.5
- Base width: 60
- Base thickness: 1.5
- Label: X axis clamp
- Label: MAX66
- Label: (14)

Side View (Right):

- Overall width: 15.5
- Overall height: 70
- Top flange width: 60
- Top flange thickness: 14
- Motor body width: 50
- Motor body height: 30.5
- Motor body to base distance: 78±6.5
- Base width: 60
- Base thickness: 1.5
- Label: Y axis clamp
- Label: MAX66
- Label: (14)
- Label: 8-M4 depth 8
- Label: M16 P1 depth 6
- Label: Z axis clamp
- Label: 4-φ4.5 mounting hole
- Label: φ8 counterbore

Technical drawings of the MAX88 sensor assembly, showing front and side views with dimensions and labels.

Front View (Left):

- Overall width: 12.3
- Overall height: 108
- Mounting hole diameter: 27.3
- Distance from bottom to mounting hole center: 50
- Distance from side to mounting hole center: 60
- Distance from bottom to sensor center: 78±6.5
- Distance from side to sensor center: 1.5
- Label: X axis clamp
- Label: MAX88
- Label: (14)

Side View (Right):

- Overall width: 60
- Overall height: 70
- Mounting hole diameter: 21
- Distance from bottom to mounting hole center: 25
- Distance from side to mounting hole center: 25
- Distance from bottom to sensor center: 60
- Distance from side to sensor center: 2.5
- Label: Y axis clamp
- Label: MAX88
- Label: 8-M4 depth 8
- Label: M16 P1 depth 6
- Label: Z axis clamp
- Label: 4-φ4.5 mounting hole
- Label: φ8 counterbore

[illegible]

XYZ Axis Aluminum Crossed Roller Translation Stages (Vertical)

Stage Size 65 × 65 mm / 80 × 80 mm

TAM-5L

RoHS

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

These XYZ assemblies incorporate an integrated (XY) axis aluminum linear stage and a (Z) axis aluminum stage with an integrated vertical bracket. Crossed roller guides enable smooth travel.



Guide

► Fine-pitch screws vs. micrometers are also available.

Specifications

Part Number	METRIC	TAM-655CL-M6	TAM-655SL-M6	TAM-805CL	TAM-805SL
	INCH	TAM-655CLUU	TAM-655SLUU	—	—
(Opposite Model)	METRIC	—	TAM-655SRL-M6	—	—
	INCH	—	TAM-655SRLUU	—	—
Stage Size [mm]		65×65	65×65	80×80	80×80
Axes of Travel		XYZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		XY axis ±6.5 Z axis ±6.5	XY axis ±6.5 Z axis ±6.5	XY axis ±7.5 Z axis ±7.5	XY axis ±7.5 Z axis ±7.5
Lead of Actuator [mm/rotation]		0.5	0.5	0.5	0.5
Micrometer Readable Resolution [mm]		0.01	0.01	0.01	0.01
Guide Method		Crossed roller			
Primary Material		Aluminum			
Finish		Black anodized			
Load Capacity [N]		49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)	49 (5.0kgf)
Travel Accuracy	Straightness [μm]	2	2	2	2
Max. Moment Capacity	Pitch [N·m]	5.0	5.0	7.0	7.0
	Roll [N·m]	5.0	5.0	7.0	7.0
Moment Stiffness	Pitch [°/N·cm]	0.9	0.9	0.35	0.35
Options		FP	FP	FP	FP
Weight [kg]		1.15	1.15	1.5	1.5

Option for □65mm

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference ▶
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62540	0.25	—	E008

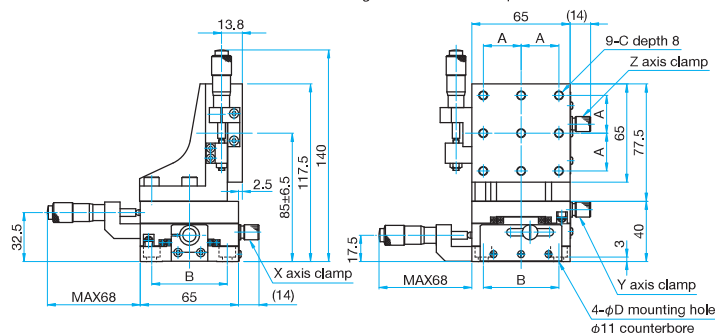
Option for □80mm

Option Code	Compatible product		Lead of Actuator [mm/rotation]	Micrometer Readable Resolution [mm]	Reference ▶
	Products Name	Part Number			
FP	Fine-pitch Screw Adjusters	FPSA-62550	0.25	—	E008

* Please add an option code as the part number suffix to specify various optional specifications.

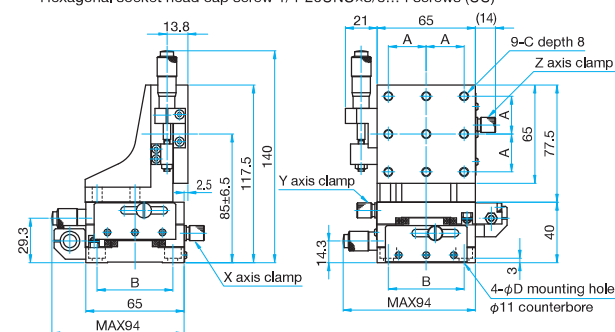
* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference ▶](#) F010 [Catalog Code](#) W8008

TAM-655CL-M6/655CLUU Hexagonal socket head cap screw M6x8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



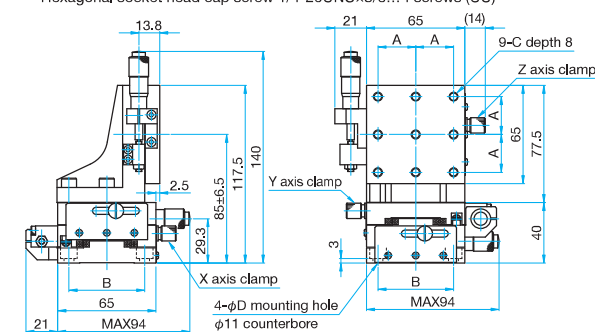
Part Number	A (mm)	B (mm)	C	D (mm)
TAM-655CL-M6	25	50	M6 P1	6.5
TAM-655CLUU	25.4	50.8	1/4-20UNC	7

Hexagonal socket head cap screw M6x8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TAM-655SL-M6	25	50	M6 P1	6.5
TAM-655SLUU	25.4	50.8	1/4-20UNC	7

Hexagonal socket head cap screw M6x8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TAM-655SRL-M6	25	50	M6 P1	6.5
TAM-655SRLUU	25.4	50.8	1/4-20UNC	7

The technical drawing illustrates the MAX84 mounting bracket from two perspectives: a front view (left) and a side view (right). The front view shows a base plate with a central circular feature and four mounting holes. Dimensions include a total width of 140mm, a base thickness of 6.5mm, and a central hole diameter of 70mm. The side view shows the bracket's profile with a height of 165.5mm and a base width of 80mm. It also details the mounting holes: 4-M4 depth 8 (PCD φ62), 4-M3 depth 8 (PCD φ42), and 8-M4 depth 8. The Z-axis clamp is shown at the top, and the Y-axis clamp is at the bottom. The X-axis clamp is indicated by a dimension of 14mm. The MAX84 label is present on both views.

[illegible]

Others

XYZ Axis Preset Dovetail Translation Stages

Stage Size 15 × 15 mm / 25 × 25 mm / 40 × 40 mm / 60 × 60 mm / 65 × 65 mm

TASB-5

RoHS

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

XYZ axis translation stages with horizontal top plate.

Space saving design offers compact footprints.

Appropriate for system integration.

- Ideal for system integration where fine alignment is made, the stage is locked, and the system is sealed or closed.
- Multiple square footprints available.
- Minimal protrusions, including the adjustment knob, to fit within tight locations.
- Lockable with the use of a small locking set screw and wrench.

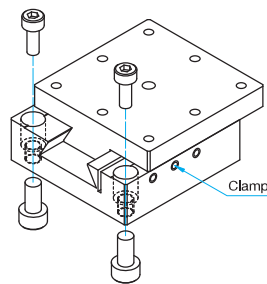


Guide

► A hex wrench, knurled knob, and locking wrench are included.

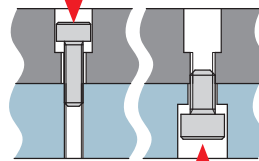


Mounting Method



Detailed Illustration

Clamp with a screw from the top



Top mounting

Tapped holes are used as counterbores because screws are smaller than tapped holes and will go in without any interference.

Bottom mounting

Clamp with screws that match the specification of tapped holes.

Clamp with a screw from the bottom

About Mounting Holes

The bottom mounting holes of preset stages are tapped holes. These stages allow mounting from the top or the bottom, convenient for securing on optical breadboards or other instruments as well as assembling in systems. Use the screws of the sizes listed in the table on the right for mounting.

Part Number	Secure from the top	Secure from the bottom
TASB-155	M2	M2.6
TASB-255	M2	M3
TASB-405	M3	M4
TASB-405UU	6-32UNC	—
TASB-605	M4	M5
TASB-655-M6	M6	M8
TASB-655UU	1/4-20UNC	5/16-18UNC

* When mounting from the top surface, slide the top surface to insert screws in mounting holes.

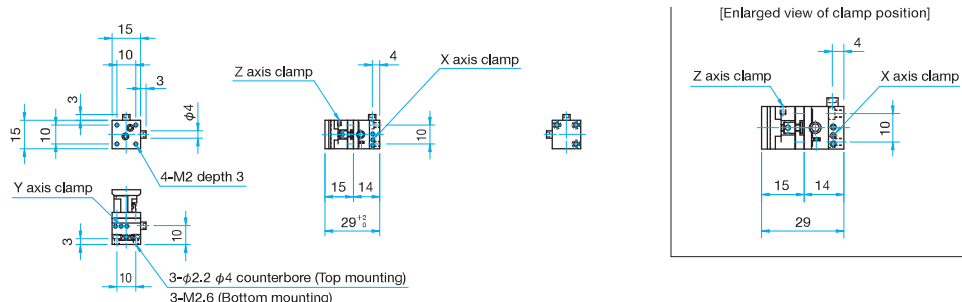
Specifications

Part Number	METRIC	TASB-155	TASB-255	TASB-405	TASB-605	TASB-655-M6
	INCH	—	—	TASB-405UU	—	TASB-655UU
Stage Size [mm]		15×15	25×25	40×40	60×60	65×65
Axes of Travel		XYZ axis				
Travel [mm]		XY axis ±2 Z axis +2 / -0	XY axis ±3 Z axis +3 / -0	XY axis ±7 Z axis +5 / -0	XY axis ±10 Z axis +7 / -0	XY axis ±12.5 Z axis +7 / -0
Screw Pitch [mm]		0.4	0.5	0.5	0.5	0.5
Guide Method		Dovetail slide method				
Primary Material		Brass				
Finish		Black matte				
Load Capacity [N]		4.9 (0.5kgf)	6.9 (0.7kgf)	29.4 (3.0kgf)	98.1 (10.0kgf)	98.1 (10.0kgf)
Travel Accuracy	Straightness [μm]	30	30	30	30	30
Max. Moment Capacity	Pitch [N·m]	—	0.3	0.5	1.0	1.0
	Roll [N·m]	—	0.3	0.5	1.0	1.0
Moment Stiffness	Pitch [°/N·cm]	—	9.7	5.8	1.5	1.5
	Roll [°/N·cm]	—	7.7	3.7	2.5	2.5
Parallelism [μm]		200	200	200	200	200
Weight [kg]		0.04	0.16	0.53	1.73	2.22

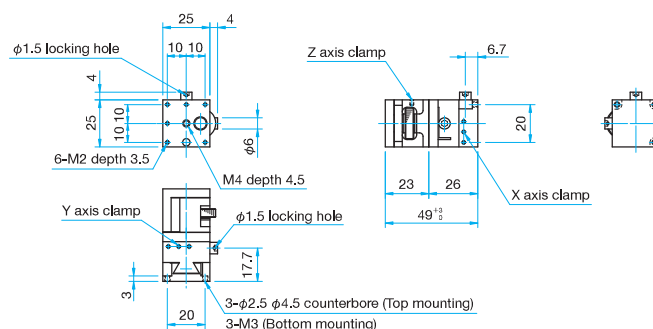


Outline Drawing

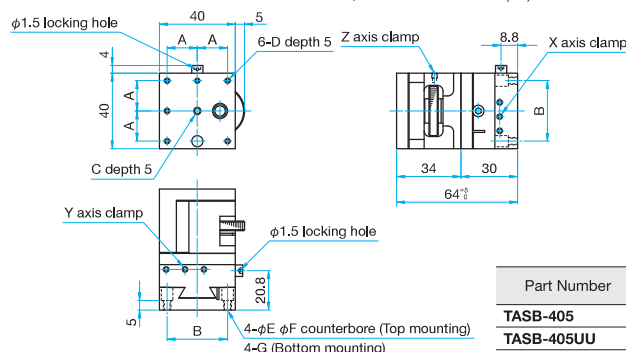
TASB-155 Pan head screw M2x5...3 screws, One 2.5mm hex wrench with knob, One 0.89mm hex wrench XY axis=Wrench size for adjustment 2.5mm, Z axis=Adjustment hole size $\phi 1.8$ mm
Wrench size for clamp common to XYZ axes=0.89mm



TASB-255 Pan head screw M2x6...3 screws, One 3mm hex wrench with knob, One 0.89mm hex wrench Wrench size for adjustment XY axes=3mm, Wrench size for clamp common to XYZ axes=0.89mm



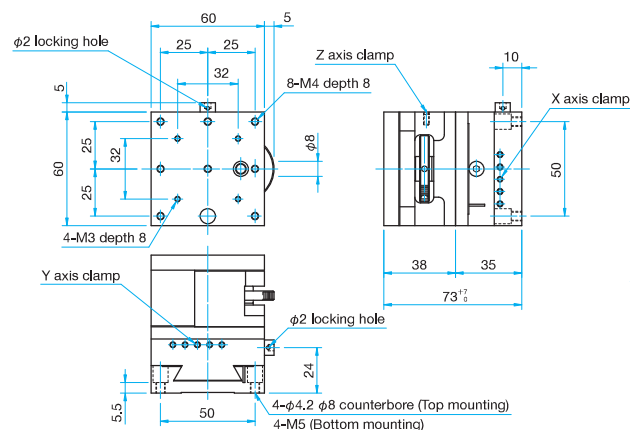
TASB-405/405UU Pan head screw M3x8...4 screws, One 3mm hex wrench with knob, One 1.5mm hex wrench Wrench size for adjustment XY axis=3mm, Wrench size for clamp common to XYZ axes=1.5mm (UU)
 Hexagonal socket head cap screw 6-32UNCx3/8...4 screws, One 3mm hex wrench with knob, One 1.5mm hex wrench (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G
TASB-405	16	32	M4	M3	3.3	6	M4
TASB-405UU	15.875	31.75	8/32UNC	6-32UNC	4	6.5	

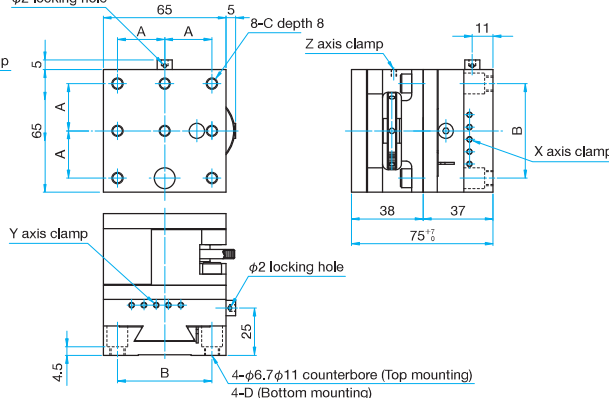
TASB-605

Hexagonal socket head cap screw M4x10...4 screws, One 3mm hex wrench with knob, One 1.5mm hex wrench XY axes=Wrench size for adjustment 3mm, Z axis=Adjustment hole size $\phi 3$ mm
Wrench size for clamp common to XYZ axes=1.5mm



TASB-655-M6/655UU

Hexagonal socket head cap screw M6x12...4 screws, One 3mm hex wrench with knob, One 1.5mm hex wrench (M6) Wrench size for adjustment XY axis=3mm, Wrench size for clamp common to XYZ axes=1.5mm (UU)
 Hexagonal socket head cap screw 1/4-20UNCx1/2...4 screws, One 3mm hex wrench with knob, One 1.5mm hex wrench (UU)



Part Number	A (mm)	B (mm)	C	D
TASB-655-M6	25	50	M6	M8
TASB-655UU	25.4	50.8	1/4-20UNC	5/16-18UNC

Application
Stages

Optics &
Optical
Coatings

Opto-
Mechanics

Bases

Manual
Stages

Actuators &
Adjusters

MotORIZED
Stages

Light Sources &
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

XYZ Axis Leadscrew Translation Stages

XYZ Axis Rack and Pinion Dovetail Translation Stages

TAS-5L

TAR-5L

RoHS

RoHS

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

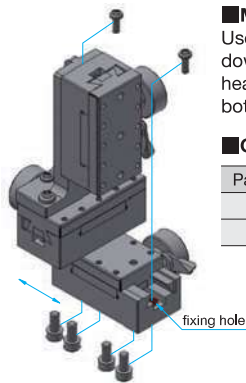
TAS model : XYZ axis leadscrew dovetail translation stages with rectangular form factor, enabling longer travel with fine adjustment.

TAR model : XYZ axis rack and pinion dovetail translation stages, suitable for frequent use that requires quick movement and long travel.

- Low cost, high stability, and long travel due to form factor.
- Large adjustment knob provides high sensitivity.



Guide



■ Mounting Method of TAR-25505L

Use M3 pan head screws when mounting down to a base, from the top, and M4 pan head screws for mounting from the bottom.

■ Components

Part Number	TAR-25505L
Z axis	TARW-25503L
XY axis	TARW-25502

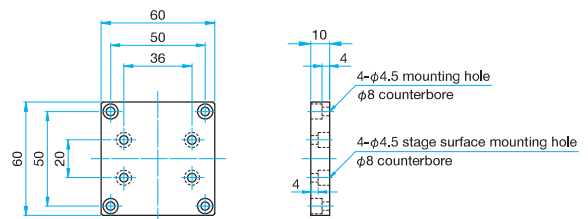
Attention

- ▶ Micrometer brackets may extend above the top surface of some stages. Check drawings for more information.
- ▶ Note that some samples might not be able to be fixed on the stage depending on their shapes, or required travel might not be ensured.

Bottom Plate

Primary material: Aluminum
Finish: Black Anodized

TAR-34805L 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.



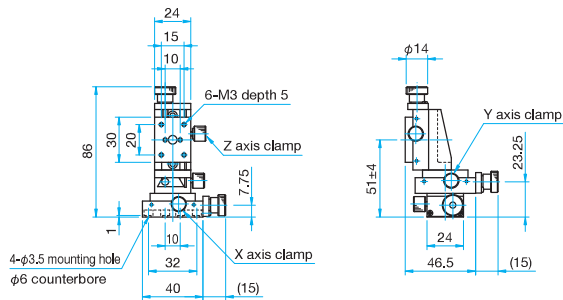
Specifications

Part Number	METRIC	TAS-24305L	TAS-20605L	TAR-25505L	TAR-34805L	TAR-38405L-M6
	INCH	—	—	—	—	TAR-38405LUU
Stage Size [mm]		24×30	18×60	25×50	34×40	38×40
Axes of Travel		XYZ axis				
Travel [mm]		XY axis ±4 Z axis ±4	XY axis ±7.5 Z axis ±7.5	XY axis ±10 Z axis ±10	XY axis ±25 Z axis +25 / −20	XY axis ±15 Z axis +25 / −20
Lead of Actuator [mm/rotation]		0.5	0.5	about 20	about 20	about 20
Vernier Readable Resolution [mm]		—			0.1	
Guide Method		Dovetail slide method				
Primary Material		Brass				
Finish		Super black chrome				
Load Capacity [N]		4.9 (0.5kgf)	9.8 (1.0kgf)	9.8 (1.0kgf)	14.7 (1.5kgf)	14.7 (1.5kgf)
Travel Accuracy	Straightness [μm]	30	30	30	30	30
Max. Moment Capacity	Pitch [N·m]	0.1	0.1	0.5	0.5	1.5
	Roll [N·m]	0.1	0.1	0.5	0.5	1.0
Weight [kg]		0.62	1.5	0.75	2.1	1.8

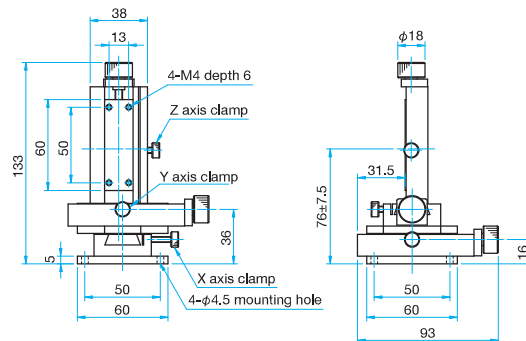


Outline Drawing

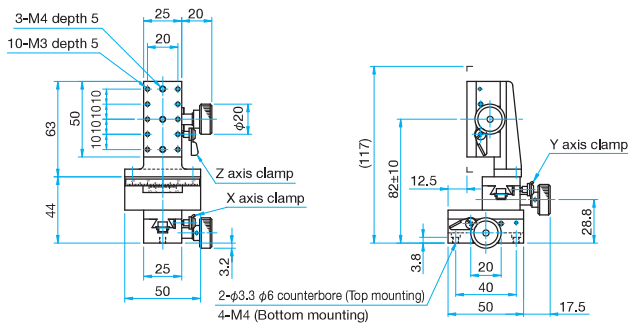
TAS-24305L Pan head screw M3×5...4 screws



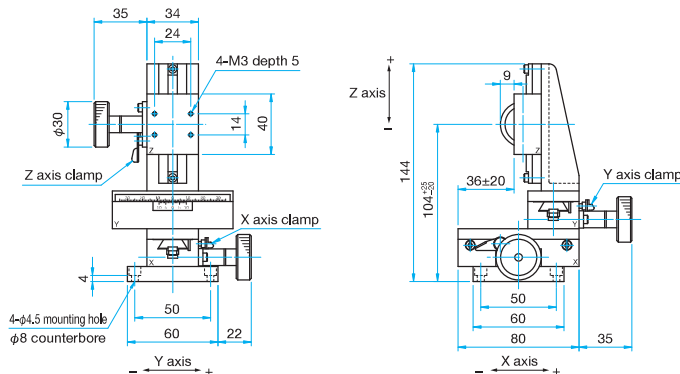
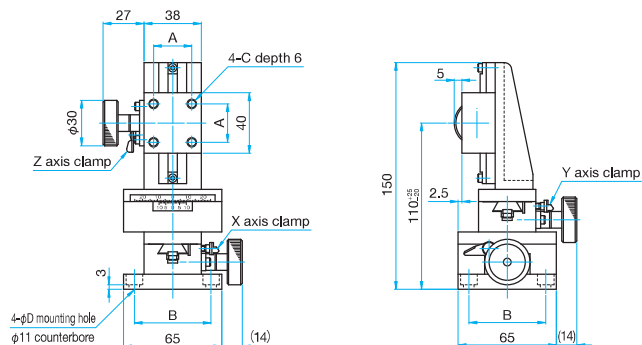
TAS-20605L Hexagonal socket head cap screw M4×10...4 screws



TAR-25505L Pan head screw M3×8...4 screws



TAR-34805L Hexagonal socket head cap screw M4×8...4 screws

TAR-38405L-M6/38405LUU Hexagonal socket head cap screw M6×10...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×3/8...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)
TAR-38405L-M6	25	50	M6	6.5
TAR-38405LUU	25.4	50.8	1/4-20UNC	7

Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & 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

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