

XZ Axis Steel Extended Contact Translation Stages

TSD-254 Stage Size 25 × 25 mm

RoHS

TSD-404 Stage Size 40 × 40 mm

RoHS

This XZ assembly incorporates an (X) 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-254/404) are also available. [Reference](#) E212 [Catalog Code](#) W7064

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-254C	TSD-254S	TSD-404C	TSD-404S
	INCH	—	—	TSD-404CUU	TSD-404SUU
(Opposite Model)	METRIC	—	TSD-254SR	—	TSD-404SR
	INCH	—	—	—	TSD-404SRUU
Stage Size [mm]		25×25	25×25	40×40	40×40
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±3 Z axis ±3	X axis ±3 Z axis ±3	X axis ±6.5 Z axis ±3	X axis ±6.5 Z axis ±3
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]		29.4 (3.0kgf)	29.4 (3.0kgf)	88.3 (9.0kgf)	88.3 (9.0kgf)
Travel Accuracy	Straightness [μm]	5	5	2.5	2.5
	Pitch [N·m]	1.0	1.0	3.9	3.9
Max. Moment Capacity	Roll [N·m]	1.0	1.0	3.9	3.9
	Pitch [°/N·cm]	8.95	8.95	2.14	2.14
Moment Stiffness	Roll [°/N·cm]	8.75	8.75	2.04	2.04
	Parallelism [μm]	110	110	110	110
Options		FP	FP	FP	FP
Weight [kg]		0.17	0.17	0.45	0.45

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	X axis: FPSA-62540 Z axis: FPSA-42525	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). (40 × 40mm)

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

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Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

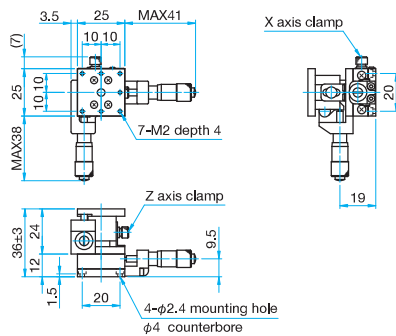
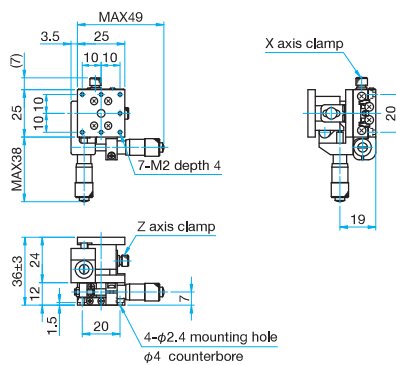
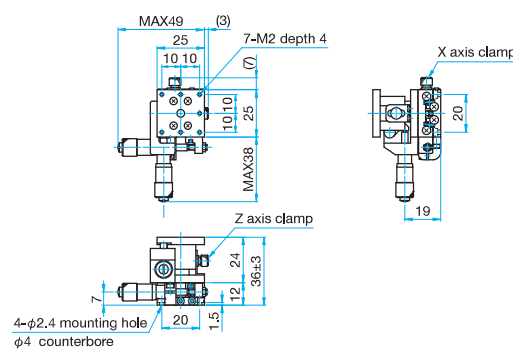
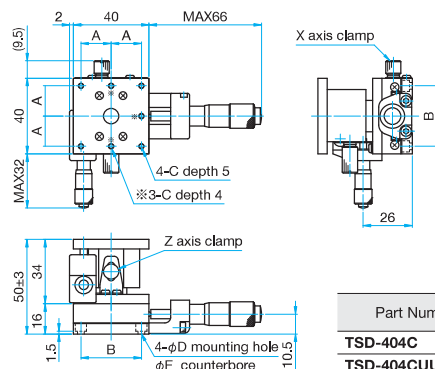
100 × 100 mm

120 × 120 mm

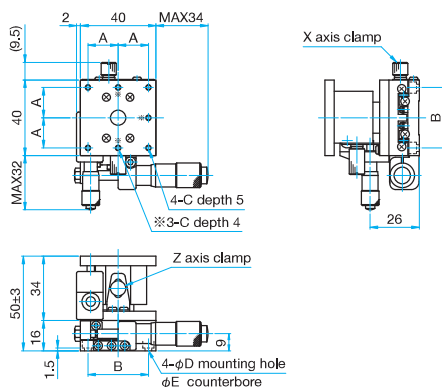
Others



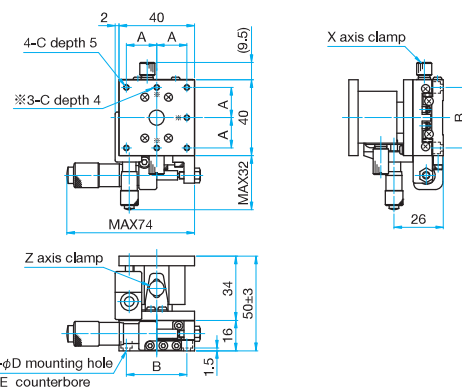
Outline Drawing

TSD-254C Hexagonal socket head cap screw M2×4...4 screws**TSD-254S** Hexagonal socket head cap screw M2×4...4 screws**TSD-254SR** Hexagonal socket head cap screw M2×4...4 screws**TSD-404C/404CUU** Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-404C	16	32	M3	3.5	6
TSD-404CUU	15.875	31.75	6-32UNC	4	6.5

TSD-404S/404SUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-404S	16	32	M3	3.5	6
TSD-404SUU	15.875	31.75	6-32UNC	4	6.5

TSD-404SR/404SRUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-404SR	16	32	M3	3.5	6
TSD-404SRUU	15.875	31.75	6-32UNC	4	6.5

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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

XZ Axis Steel Extended Contact Translation Stages

TSD-604 Stage Size 60 × 60 mm

TSD-654 Stage Size 65 × 65 mm

RoHS

RoHS

This XZ assembly incorporates an (X) 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-604/654) are also available. [Reference](#) E212 [Catalog Code](#) W7064

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-604C	TSD-604S	TSD-654C-M6	TSD-654S-M6
	INCH	—	—	TSD-654CUU	TSD-654SUU
(Opposite Model)	METRIC	—	TSD-604SR	—	TSD-654SR-M6
	INCH	—	—	—	TSD-654SRUU
Stage Size [mm]		60×60	60×60	65×65	65×65
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±6.5 Z axis ±5	X axis ±6.5 Z axis ±5	X axis ±6.5 Z axis ±5	X 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]	0.73	0.73	0.73	0.73
	Roll [°/N·cm]	0.64	0.64	0.64	0.64
Parallelism [μm]		110	110	110	110
Options		FP	FP	FP	FP
Weight [kg]		1.5	1.5	1.7	1.7

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

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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

XZ Axis Steel Extended Contact Translation Stages

TSD-804 Stage Size 80 × 80 mm

TSD-1004 Stage Size 100 × 100 mm

RoHS

RoHS

This XZ assembly incorporates an (X) 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-804C	TSD-804S	TSD-1004C	TSD-1004S
(Opposite Model)	METRIC	—	TSD-804SR	—	TSD-1004SR
Stage Size [mm]		80×80	80×80	100×100	100×100
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±12.5 Z axis ±5	X axis ±12.5 Z axis ±5	X axis ±12.5 Z axis ±10	X 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
Max. Moment Capacity	Pitch [N·m]	6.9	6.9	9.8	9.8
	Roll [N·m]	6.9	6.9	9.8	9.8
Moment Stiffness	Pitch [°/N·cm]	0.61	0.61	0.42	0.42
	Roll [°/N·cm]	0.57	0.57	0.39	0.39
Parallelism [μm]		110	110	130	130
Options		FP	FP	FP	FP
Weight [kg]		2.1	2.1	5.0	5.0

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	X axis: FPSA-62550 Z 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

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V Groove Screw

Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

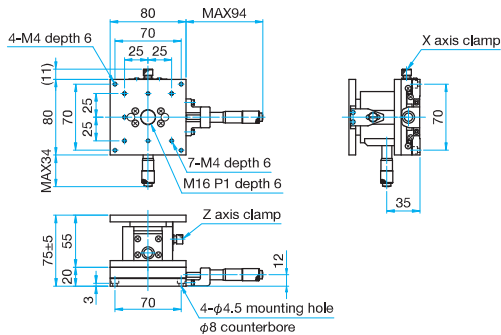
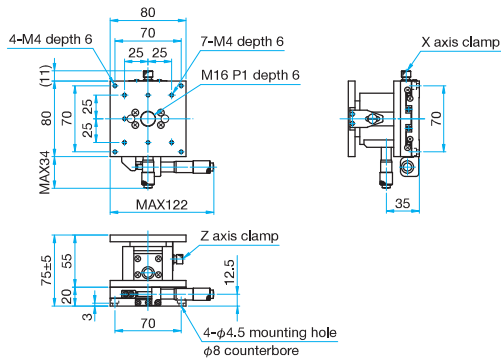
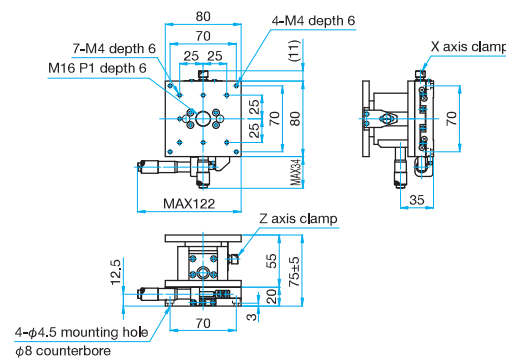
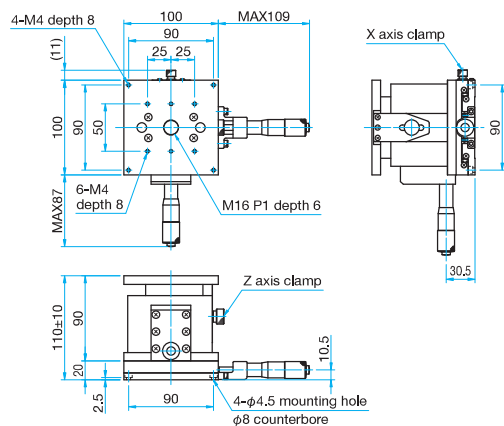
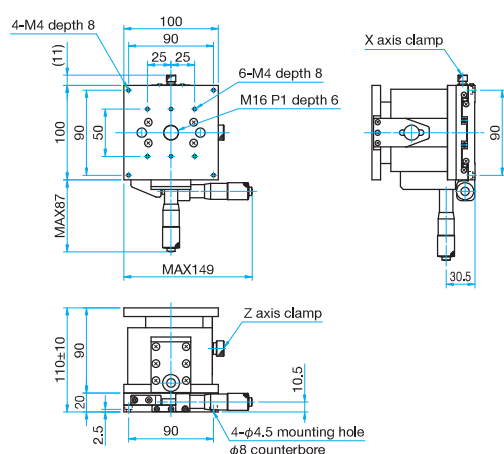
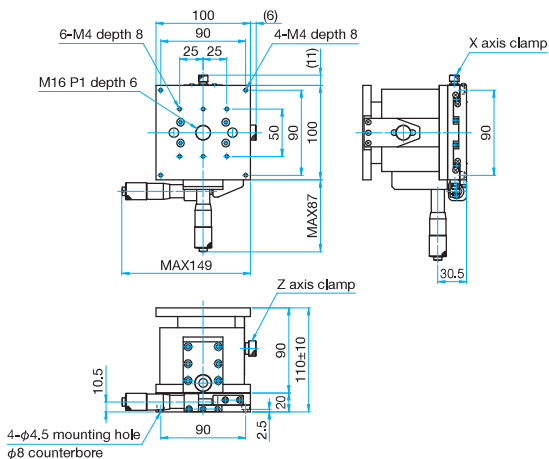
100 × 100 mm

120 × 120 mm

Others



Outline Drawing

TSD-804C Hexagonal socket head cap screw M4×8...4 screws**TSD-804S** Hexagonal socket head cap screw M4×8...4 screws**TSD-804SR** Hexagonal socket head cap screw M4×8...4 screws**TSD-1004C** Hexagonal socket head cap screw M4×8...4 screws**TSD-1004S** Hexagonal socket head cap screw M4×8...4 screws**TSD-1004SR** Hexagonal socket head cap screw M4×8...4 screws

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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

XZ Axis Steel Extended Contact Translation Stages

Stage Size 120 × 120 mm

TSD-1204

RoHS

This XZ assembly incorporates an (X) 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.

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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

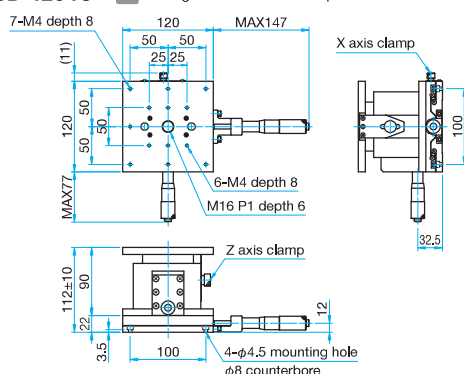
Specifications

Part Number	METRIC	TSD-1204C	TSD-1204S	TSD-1204C-M6	TSD-1204S-M6
	INCH	—	—	TSD-1204CUU	TSD-1204SUU
(Opposite Model)	METRIC	—	TSD-1204SR	—	TSD-1204SR-M6
	INCH	—	—	—	TSD-1204SRUU
Stage Size [mm]		120×120	120×120	120×120	120×120
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±20 Z axis ±10	X axis ±20 Z axis ±10	X axis ±20 Z axis ±10	X 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
Max. Moment Capacity	Pitch [N·m]	9.8	9.8	9.8	9.8
	Roll [N·m]	9.8	9.8	9.8	9.8
Moment Stiffness	Pitch [°/N·cm]	0.4	0.4	0.4	0.4
	Roll [°/N·cm]	0.38	0.38	0.38	0.38
Parallelism [μm]		150	150	150	150
Weight [kg]		6.2	6.2	6.2	6.2

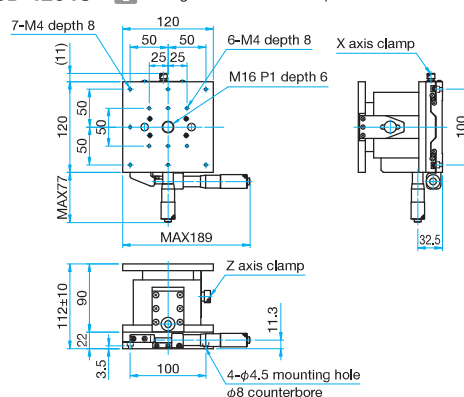


Outline Drawing

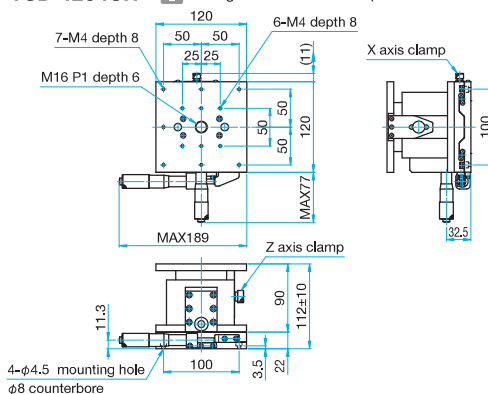
TSD-1204C Hexagonal socket head cap screw M4x8...4 screws



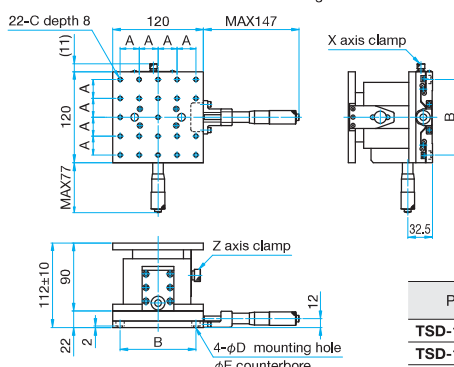
TSD-1204S Hexagonal socket head cap screw M4x8...4 screws



TSD-1204SR Hexagonal socket head cap screw M4x8...4 screws



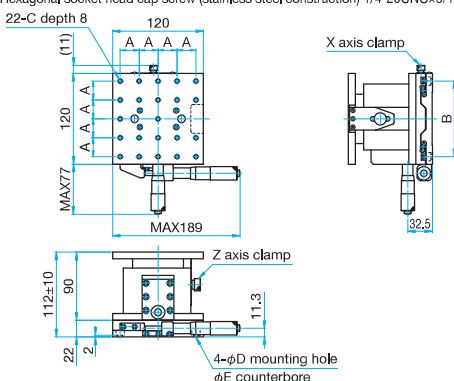
TSD-1204C-M6/1204CUU Hexagonal socket head cap screw M6x8...4 screws (M6) Hexagonal socket head cap screw (stainless steel construction) 1/4-20UNCx5/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-1204C-M6	25	100	M6 P1	6.5	11
TSD-1204CUU	25.4	101.6	1/4-20UNC	7	12

TSD-1204S-M6/1204SUU

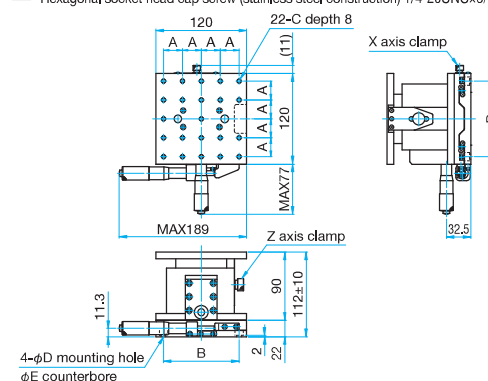
Hexagonal socket head cap screw M6x8...4 screws (M6)
 Hexagonal socket head cap screw (stainless steel construction) 1/4-20UNCx5/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-1204S-M6	25	100	M6 P1	6.5	11
TSD-1204SUU	25.4	101.6	1/4-20UNC	7	12

TSD-1204SR-M6/1204SRUU

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-1204SR-M6	25	100	M6 P1	6.5	11
TSD-1204SRUU	25.4	101.6	1/4-20UNC	7	12

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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

XZ Axis Steel Extended Contact Translation Stages (Vertical)

TSD-254L Stage Size 25 x 25 mm

RoHS

TSD-404L Stage Size 40 x 40 mm

RoHS

This XZ assembly incorporates an (X) 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-254*L/404*L) are also available. [Reference](#) E214 [Catalog Code](#) W7068

Specifications

Part Number	METRIC	TSD-254CL	TSD-254SL	TSD-404CL	TSD-404SL
	INCH	—	—	TSD-404CLUU	TSD-404SLUU
(Opposite Model)	METRIC	—	TSD-254SRL	—	TSD-404SRL
	INCH	—	—	—	TSD-404SRLUU
Stage Size [mm]		25×25	25×25	40×40	40×40
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±3 Z axis ±3	X axis ±3 Z axis ±3	X axis ±6.5 Z axis ±6.5	X 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	1.0	1.0
	Pitch [N·m]	2.2	2.2	5.0	5.0
Max. Moment Capacity	Roll [N·m]	2.1	2.1	5.0	5.0
	Pitch [°/N·cm]	5.1	5.1	0.9	0.9
Moment Stiffness		5.1	5.1	0.9	0.9
Options		FP	FP	FP	FP
Weight [kg]		0.17	0.17	0.5	0.5

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

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Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

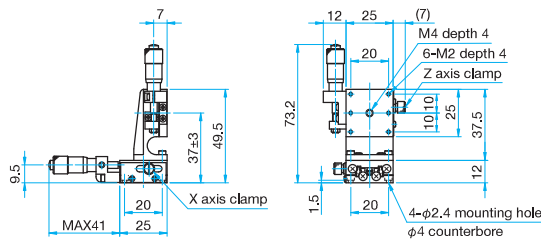
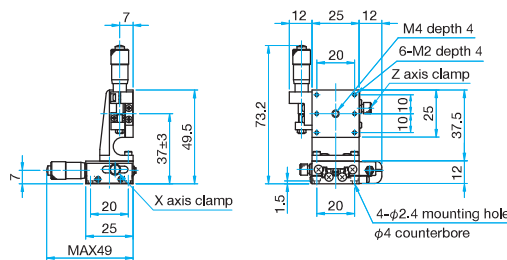
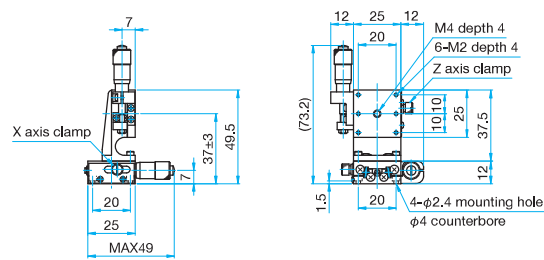
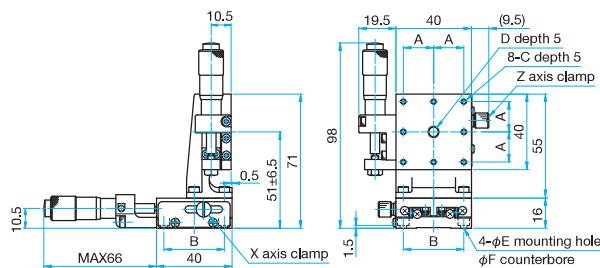
100 × 100 mm

120 × 120 mm

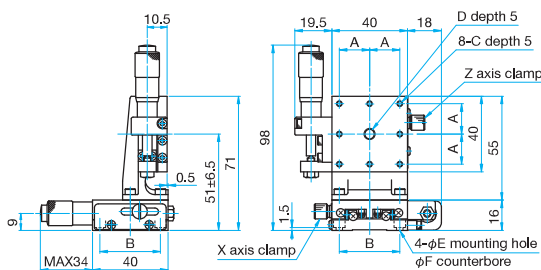
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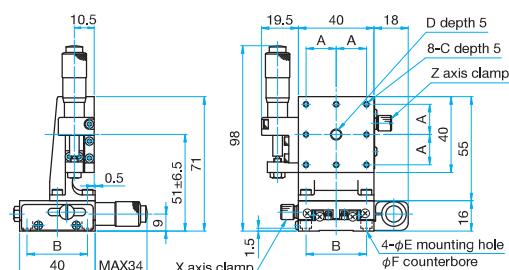
Outline Drawing

TSD-254CL Hexagonal socket head cap screw M2×4...4 screws**TSD-254SL** Hexagonal socket head cap screw M2×4...4 screws**TSD-254SRL** Hexagonal socket head cap screw M2×4...4 screws**TSD-404CL/404CLUU** Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-404CL	16	32	M3	M6 P1	3.5	6
TSD-404CLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSD-404SL/404SLUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-404SL	16	32	M3	M6 P1	3.5	6
TSD-404SLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSD-404SRL/404SRLUUHexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)

Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-404SRL	16	32	M3	M6 P1	3.5	6
TSD-404SRLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

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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

XZ Axis Steel Extended Contact Translation Stages (Vertical)

TSD-604L Stage Size 60 × 60 mm

TSD-654L Stage Size 65 × 65 mm

RoHS

RoHS

This XZ assembly incorporates an (X) 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-604*L/654*L) are also available. [Reference](#) E214 [Catalog Code](#) W7068

Specifications

Part Number	METRIC	TSD-604CL	TSD-604SL	TSD-654CL-M6	TSD-654SL-M6
	INCH	—	—	TSD-654CLUU	TSD-654SLUU
(Opposite Model)	METRIC	—	TSD-604SRL	—	TSD-654SRL-M6
	INCH	—	—	—	TSD-654SRLUU
Stage Size [mm]		60×60	60×60	65×65	65×65
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ± 6.5 Z axis ±6.5	X axis ±6.5 Z axis ±6.5	X axis ±6.5 Z axis ±6.5	X 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]	0.45	0.45	0.45	0.45
Options		FP	FP	FP	FP
Weight [kg]		1.3	1.3	1.6	1.6

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

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V Groove Screw

Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

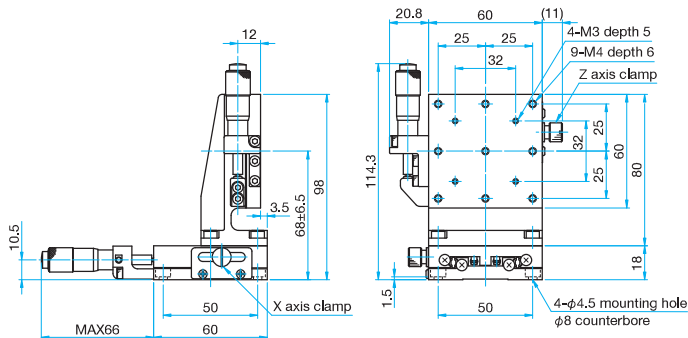
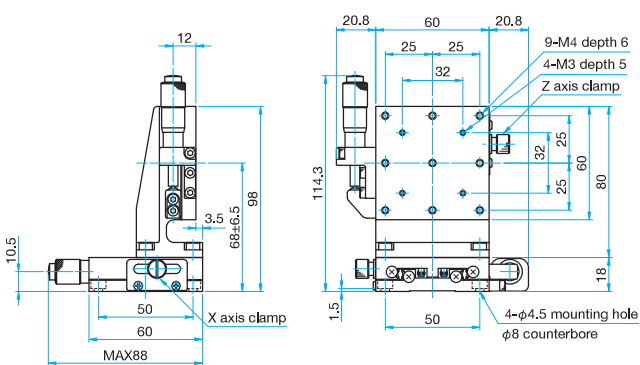
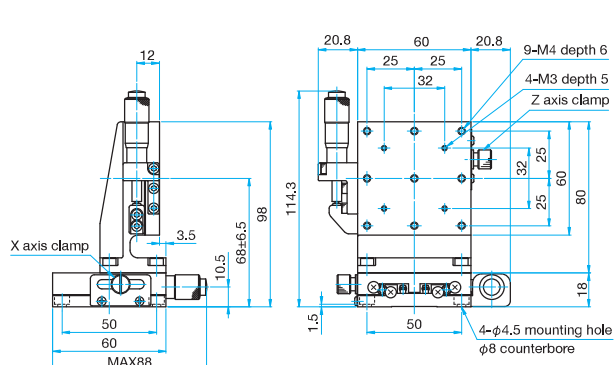
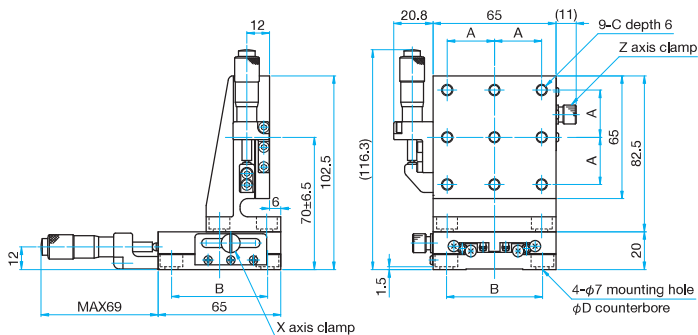
100 × 100 mm

120 × 120 mm

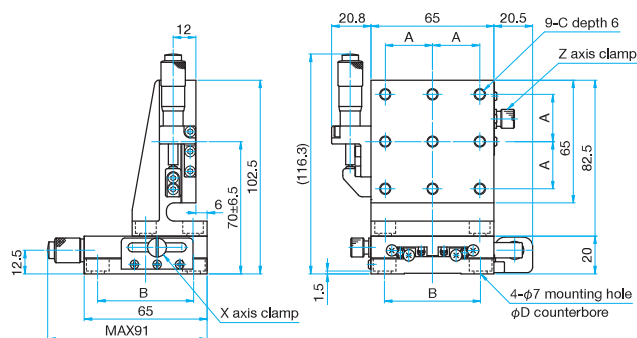
Others



Outline Drawing

TSD-604CL Hexagonal socket head cap screw M4×6...4 screws**TSD-604SL** Hexagonal socket head cap screw M4×6...4 screws**TSD-604SRL** Hexagonal socket head cap screw M4×6...4 screws**TSD-654CL-M6/654CLUU** Hexagonal socket head cap screw M6×6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)**TSD-654SL-M6/654SLUU**

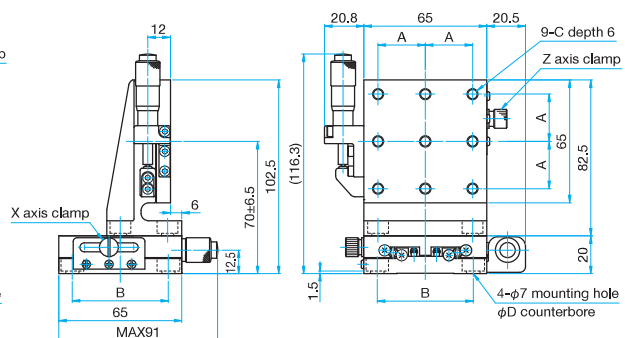
Hexagonal socket head cap screw M6×6...4 screws (M6)
 Hexagonal socket head cap screw 1/4-20UNC×1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TSD-654SL-M6	25	50	M6 P1	11
TSD-654SLUU	25.4	50.8	1/4-20UNC	12

TSD-654SRL-M6/654SRLUU

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-654SRL-M6	25	50	M6 P1	11
TSD-654SRLUU	25.4	50.8	1/4-20UNC	12

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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

XZ Axis Aluminum Crossed Roller Translation Stages (Vertical)

Stage Size 40 × 40 mm / 60 × 60 mm

TAM-4L

RoHS

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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 XZ assemblies incorporate an (X) axis aluminum linear stage and a (Z) axis aluminum stage with an integrated vertical bracket.

Crossed roller guides enable smooth travel.



Specifications

Part Number	METRIC	TAM-404CL	TAM-404SL	TAM-604CL	TAM-604SL
	INCH	TAM-404CLUU	TAM-404SLUU	—	—
(Opposite Model)	METRIC	—	TAM-404SRL	—	TAM-604SRL
	INCH	—	TAM-404SRLUU	—	—
Stage Size [mm]		40×40		60×60	
Axes of Travel		XZ axis			
Micrometer Position		Center	Side	Center	Side
Travel [mm]		X axis ±6.5 Z axis ±6.5	X axis ±6.5 Z axis ±6.5	X axis ±6.5 Z axis ±6.5	X 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
Max. Moment Capacity	Pitch [N·m]	2.75	2.75	5.0	5.0
	Roll [N·m]	3.0	3.0	5.0	5.0
Moment Stiffness	Pitch [°/N·cm]	1.4	1.4	0.6	0.6
Options		FP	FP	FP	FP
Weight [kg]		0.3	0.3	0.6	0.6

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.

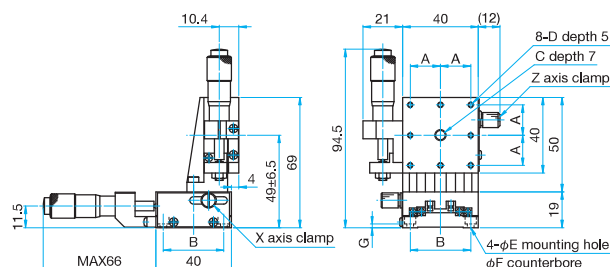
* The FP type requires a hex wrench or the optional hex wrench with knob (KCL) for driving operation. [Reference](#) F010 [Catalog Code](#) W8008



Outline Drawing

TAM-404CL/404CLUU

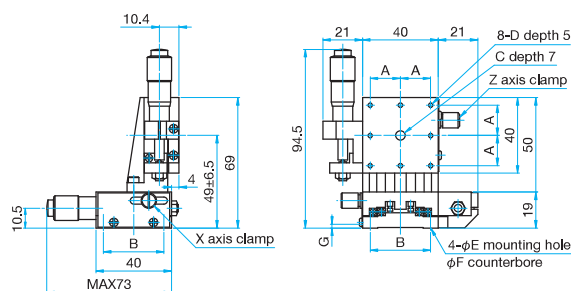
Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-404CL	16	32	M6 P1	M3	3.5	6	2
TAM-404CLUU	15.875	31.75	1/4-20UNC	6-32UNC	4	6.5	1.5

TAM-404SL/404SLUU

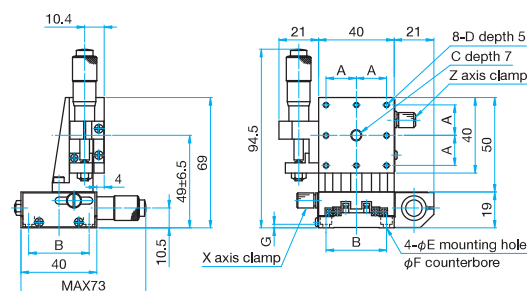
Pan head screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-404SL	16	32	M6 P1	M3	3.5	6	2
TAM-404SLUU	15.875	31.75	1/4-20UNC	6-32UNC	4	6.5	1.5

TAM-404SRL/404SRLUU

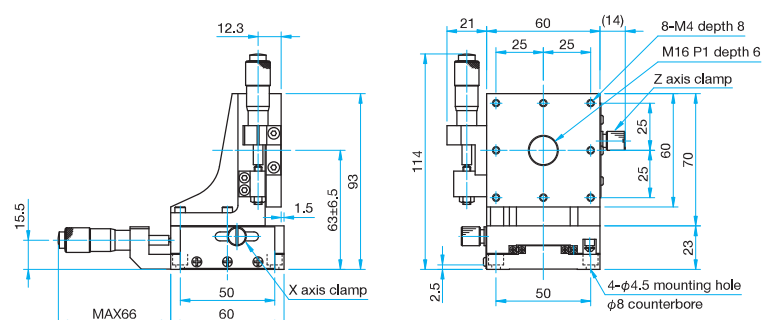
Pan head screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×1/4...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G (mm)
TAM-404SRL	16	32	M6 P1	M3	3.5	6	2
TAM-404SRLUU	15.875	31.75	1/4-20UNC	6-32UNC	4	6.5	1.5

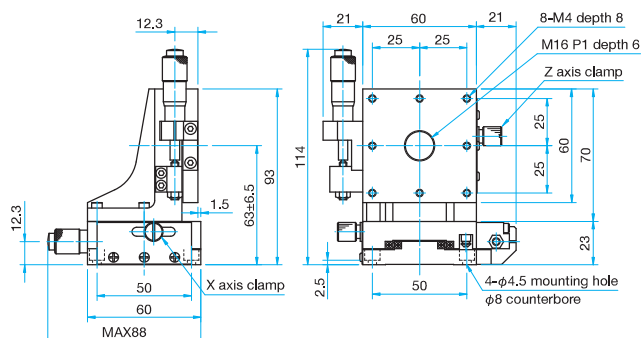
TAM-602CL

Hexagonal socket head cap screw M4×8...4 screws



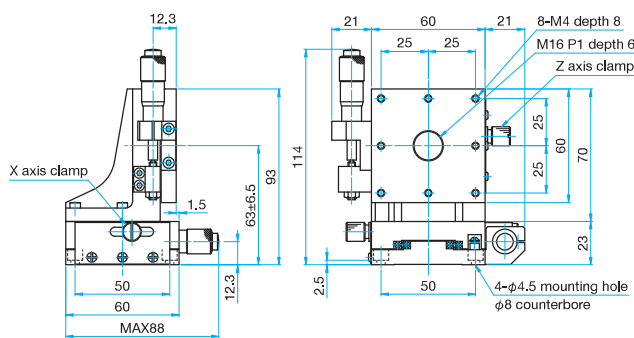
TAM-602SL

Hexagonal socket head cap screw M4×8...4 screws



TAM-602SRL

Hexagonal socket head cap screw M4×8...4 screws



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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

XZ Axis Aluminum Crossed Roller Translation Stages (Vertical)

Stage Size 65 × 65 mm / 80 × 80 mm

TAM-4L

RoHS

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



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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

Specifications

Part Number	METRIC	TAM-654CL-M6	TAM-654SL-M6	TAM-804CL	TAM-804SL
	INCH	TAM-654CLUU	TAM-654SLUU	—	—
(Opposite Model)	METRIC	—	TAM-654SRL-M6	—	—
	INCH	—	TAM-654SRLUU	—	—
Stage Size [mm]	65×65		65×65	80×80	80×80
Axes of Travel	XZ axis				
Micrometer Position	Center		Side	Center	Side
Travel [mm]	X axis ±6.5 Z axis ±6.5		X axis ±6.5 Z axis ±6.5	X axis ±7.5 Z axis ±7.5	X 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]	0.6	0.6	0.25	0.25
Options	FP		FP	FP	FP
Weight [kg]	0.7		0.7	1.2	1.2

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

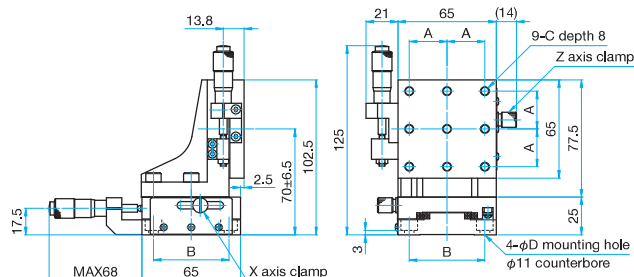
* Please add an option code as the part number suffix to specify various optional specifications.

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



Outline Drawing

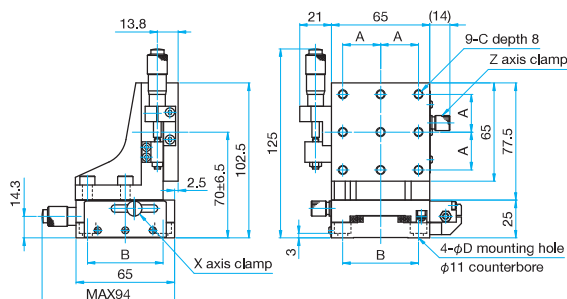
TAM-654CL-M6/654CLUU Hexagonal socket head cap screw M6×8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TAM-654CL-M6	25	50	M6 P1	6.5
TAM-654CLUU	25.4	50.8	1/4-20UNC	7

TAM-654SL-M6/654SLUU

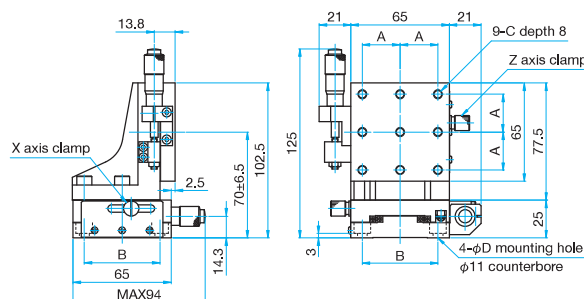
Hexagonal socket head cap screw M6×8...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNC×3/8...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)
TAM-654SL-M6	25	50	M6 P1	6.5
TAM-654SLUU	25.4	50.8	1/4-20UNC	7

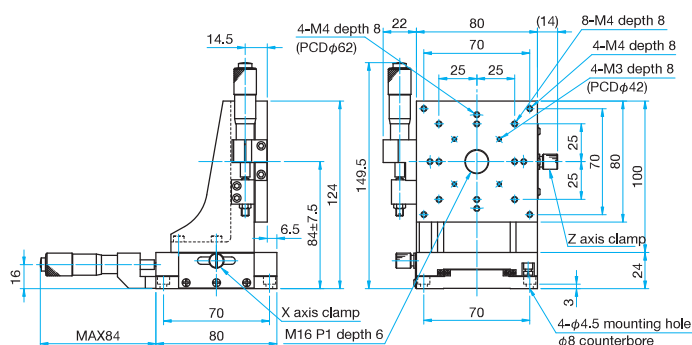
TAM-654SRL-M6/654SRLUU

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

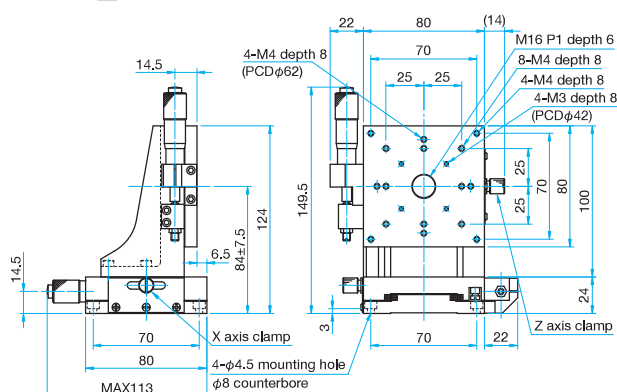


Part Number	A (mm)	B (mm)	C	D (mm)
TAM-654SRL-M6	25	50	M6 P1	6.5
TAM-654SRLUU	25.4	50.8	1/4-20UNC	7

TAM-804CL Hexagonal socket head cap screw M4×8...4 screws



TAM-804SL Hexagonal socket head cap screw M4×8...4 screws



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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

XZ Axis Preset Dovetail Translation Stages

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

TASB-4

RoHS

XZ 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.

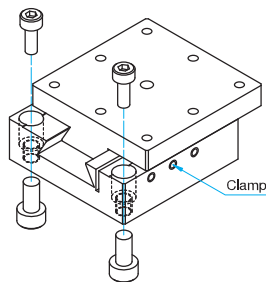


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► A hex wrench knurled knob and locking wrench are included.

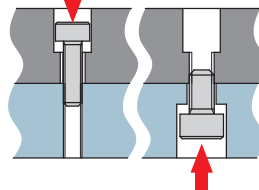


Mounting Method



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.

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-154	M2	M2.6
TASB-254	M2	M3
TASB-404	M3	M4
TASB-404UU	6-32UNC	—
TASB-604	M4	M5
TASB-654-M6	M6	M8
TASB-654UU	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-154	TASB-254	TASB-404	TASB-604	TASB-654-M6
	INCH	—	—	TASB-404UU	—	TASB-654UU
Stage Size [mm]		15×15	25×25	40×40	60×60	65×65
Axes of Travel		XZ axis				
Travel [mm]		X axis ±2 Z axis +2 / -0	X axis ±3 Z axis +3 / -0	X axis ±7 Z axis +5 / -0	X axis ±10 Z axis +7 / -0	X 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]	—	8.2	5.2	1.1	1.1
	Roll [°/N·cm]	—	5.6	3.1	2.1	2.1
Parallelism [μm]		150	150	150	150	150
Weight [kg]		0.03	0.11	0.4	1.4	1.8

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Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

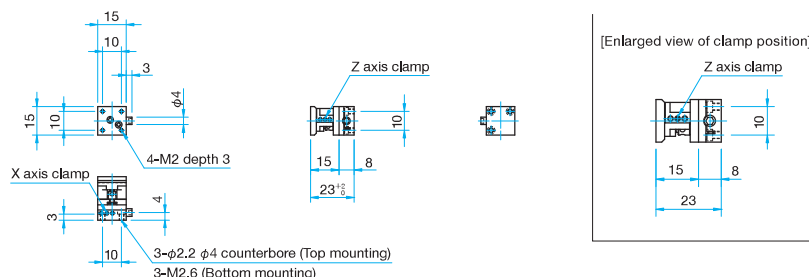
120 × 120 mm

Others

Outline Drawing

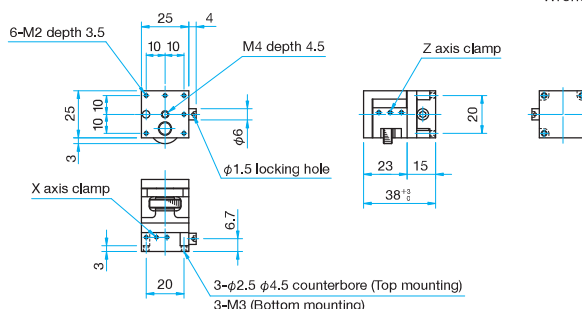
TASB-154 Pan head screw M2x5...3 screws, One 2.5mm hex wrench with knob,
One 0.89mm hex wrench

 X axis=Wrench size for adjustment 2.5mm, Z axis=Adjustment hole size $\phi 1.8\text{mm}$
Wrench size for clamp common to X and Z axes=0.89mm



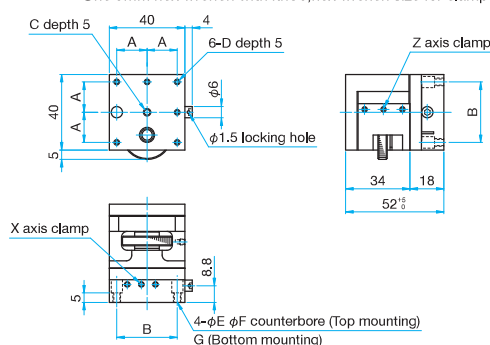
TASB-254 Pan head screw M2×6...3 screws, One 3mm hex wrench with knob,
One 0.89mm hex wrench

Wrench size for adjustment X axis=3mm,
Wrench size for clamp common to X and Z axes=0.89mm



TASB-404/404UU

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

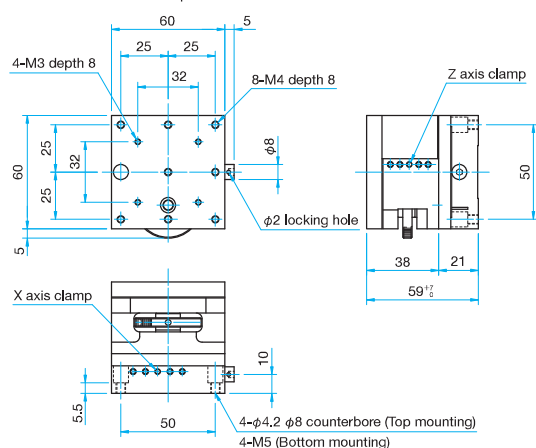


Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)	G
TASB-404	16	32	M4	M3	3.3	6	M4
TASB-404UU	15.875	31.75	8-32UNC	6-32UNC	4	6.5	

TASB-604

 Hexagonal socket head cap screw M4x10...4 screws,
One 3mm hex wrench with knob. One 1.5mm hex wrench

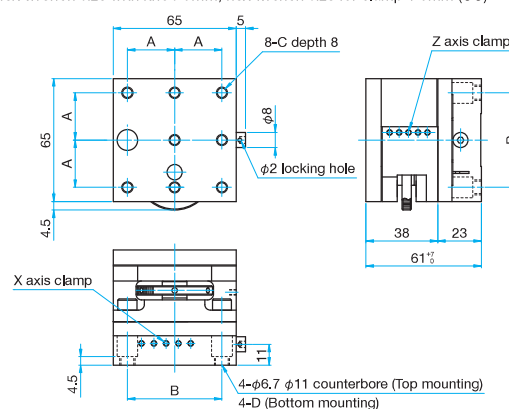
 X axis=Wrench size for adjustment 3mm, Z axis=Adjustment hole size $\phi 3\text{mm}$
Wrench size for clamp common to X and Z axes=1.5mm



TASB-654-M6/654UU

**Hexagonal socket head cap screw M6x12...4 screws,
One 3mm hex wrench with knob, One 1.5mm hex wrench (M6)
Hexagonal socket head cap screw 6-32UNCx3/8...4 screws,
One 3mm hex wrench with knob, One 1.5mm hex wrench (UU)**

Hex wrench size with knob 3mm, hex wrench size for clamp 1.5mm (M6)
Hex wrench size with knob 3mm, hex wrench size for clamp 1.5mm (UU)



Part Number	A (mm)	B (mm)	C	D
TASB-654-M6	25	50	M6	M8
TASB-654IJJ	25.4	50.8	1/4-20UNC	5/16-18UNC

XZ Axis Leadscrew Translation Stages

XZ Axis Rack and Pinion Dovetail Translation Stages

TAS-4L

TAR-4L

RoHS

RoHS

Catalog Code W7069

Catalog Code W7070

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

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

- TAR-4D model : The TAR series translation stages have dovetail rack and pinion guides. They are suitable for frequent operations that require quick motion and long travel. This model incorporates a coarse and fine adjustment.

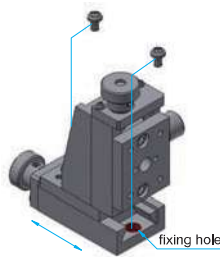


Guide

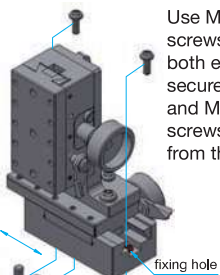
- Micrometer brackets may extend above the top surface of some stages. Check drawings for more information.

Mounting Method

■TAS-24304L



■TAR-25504L



Use M3 pan head screws (only on both edges) to secure from the top, and M4 pan head screws to secure from the bottom.

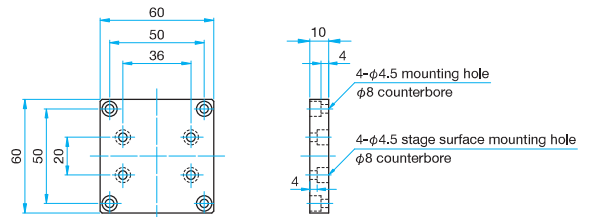
Components

Part Number	TAR-25504L
Z Axis	TARW-25503L
X Axis	TARW-25501

Bottom Plate

Primary material: Aluminum
Finish: Black Anodized

TAR-34804L 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-24304L	TAS-20604L	TAR-25504L	TAR-34804L	TAR-38404L-M6	TAR-60554D	TAR-60704D
	INCH	—	—	—	—	TAR-38404LUU	—	—
Stage Size [mm]		24×30	18×60	25×50	34×40	38×40	60×60	60×60
Axes of Travel		XZ axis						
Travel [mm]		X axis ±4 Z axis ±4	X axis ±7.5 Z axis ±7.5	X axis ±10 Z axis ±10	X axis ±25 Z axis ±25 / -20	X axis ±15 Z axis ±25 / -20	X axis +27 / -0 Z axis +18 / -0	X axis +37 / -0 Z axis +33 / -1
Lead of Actuator [mm/rotation]		0.5	0.5	about 20	about 20	about 20	Coars: about 20 Fine: about 2.5	Coars: about 20 Fine: about 2.5
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)	24.5 (2.5kgf)	24.5 (2.5kgf)
Travel Accuracy	Straightness [μm]	20	20	30	30	30	30	30
Max. Moment Capacity	Pitch [N·m]	0.5	0.2	0.5	0.5	0.5	0.4	0.4
	Roll [N·m]	0.2	0.2	0.5	0.5	0.5	0.5	0.5
Moment Stiffness	Pitch [°/N·cm]	—	—	3.98	2	2	—	—
Weight [kg]		0.42	1.0	0.52	1.1	1.2	0.83	0.85

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Others

15 × 15 mm

25 × 25 mm

40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

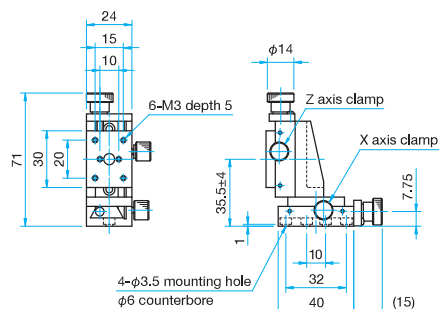
120 × 120 mm

Others

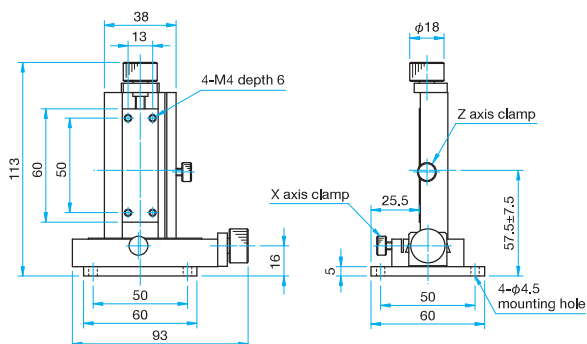


Outline Drawing

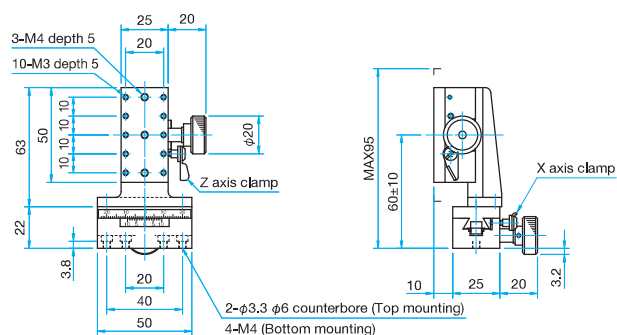
TAS-24304L Pan head screw M3x5...4 screws



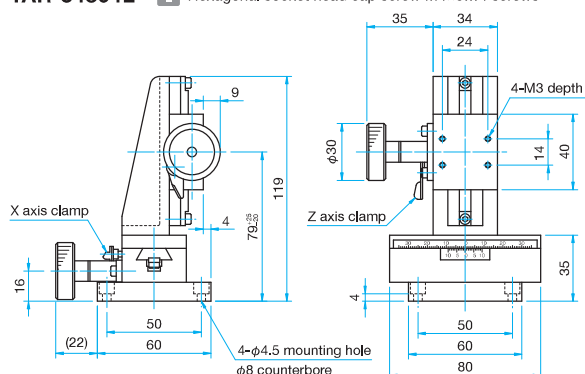
TAS-20604L Hexagonal socket head cap screw M4x10...4 screws



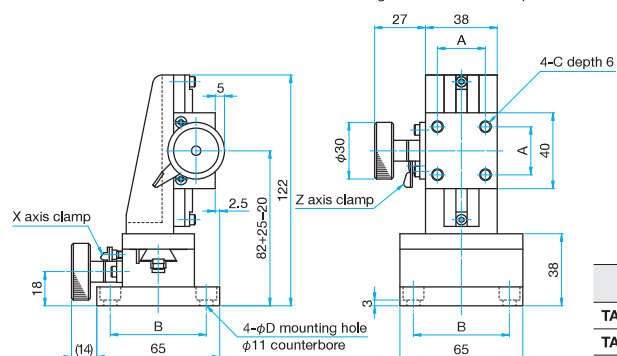
TAR-25504L Pan head screw M3x8...4 screws



TAR-34804L Hexagonal socket head cap screw M4x8...4 screws

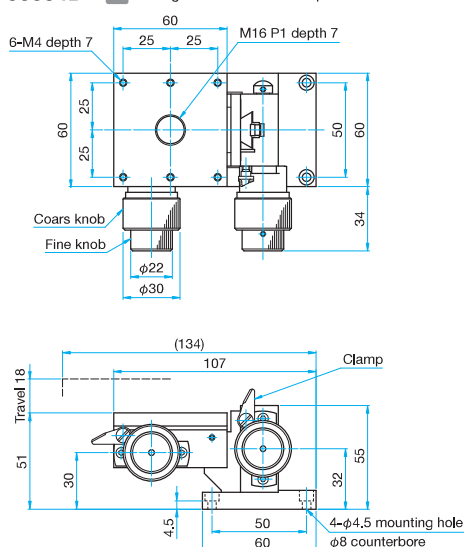


TAR-38404L-M6/38404LUU Hexagonal socket head cap screw M6x10...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx3/8...4 screws (UU)

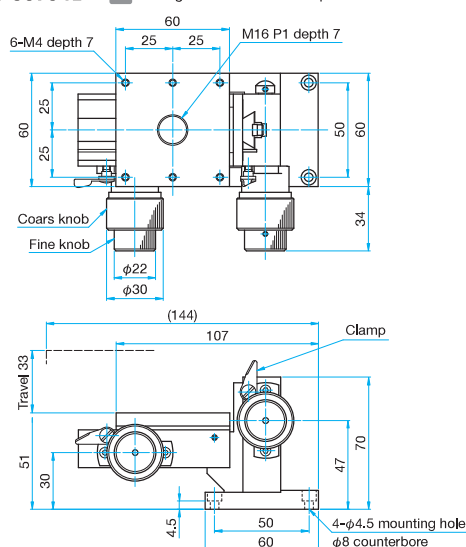


Part Number	A (mm)	B (mm)	C	D (mm)
TAR-38404L-M6	25	50	M6	6.5
TAR-38404LUU	25.4	50.8	1/4-20UNC	7

TAR-60554D Hexagonal socket head cap screw M4x8...4 screws



TAR-60704D Hexagonal socket head cap screw M4x8...4 screws



XYZ Axis Steel Extended Contact Translation Stages

TSD-255 Stage Size 25 × 25 mm

RoHS

TSD-405 Stage Size 40 × 40 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-255/405) 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-255C	TSD-255S	TSD-405C	TSD-405S
	INCH	—	—	TSD-405CUU	TSD-405SUU
(Opposite Model)	METRIC	—	TSD-255SR	—	TSD-405SR
	INCH	—	—	—	TSD-405SRUU
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 ±3	XY axis ±6.5 Z axis ±3
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]		29.4 (3.0kgf)	29.4 (3.0kgf)	88.3 (9.0kgf)	88.3 (9.0kgf)
Travel Accuracy	Straightness [μm]	5	5	2.5	2.5
Max. Moment Capacity	Pitch [N·m]	1.0	1.0	3.9	3.9
	Roll [N·m]	1.0	1.0	3.9	3.9
Moment Stiffness	Pitch [°/N·cm]	10.55	10.55	2.34	2.34
	Roll [°/N·cm]	10.55	10.55	2.34	2.34
Parallelism [μm]		130	130	130	130
Options		FP	FP	FP	FP
Weight [kg]		0.2	0.2	0.55	0.55

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	XY axis: FPSA-62540	0.25	—	E008
		Z axis: FPSA-42525			

* 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). (40 × 40mm)

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

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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

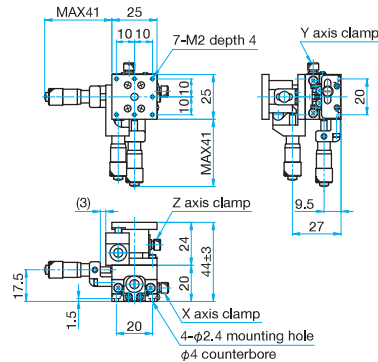
Others



Outline Drawing

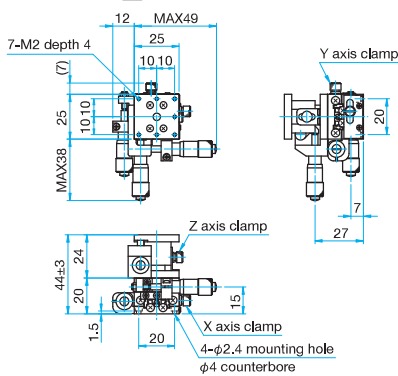
TSD-255C

Hexagonal socket head cap screw
M2×4...4 screws



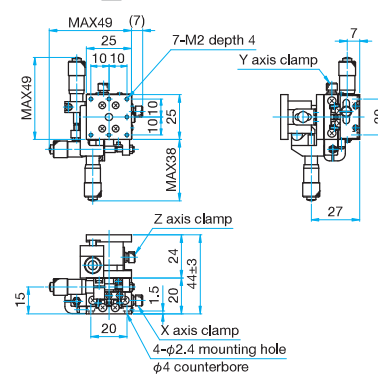
TSD-255S

Hexagonal socket head cap screw M2×4...4 screws



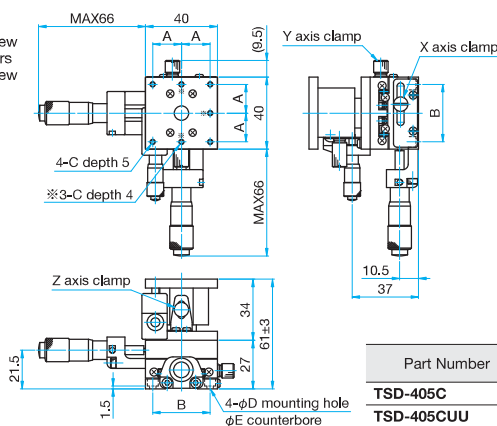
TSD-255SR

Hexagonal socket head cap screw M2×4...4 screws



TSD-405C/405CUU

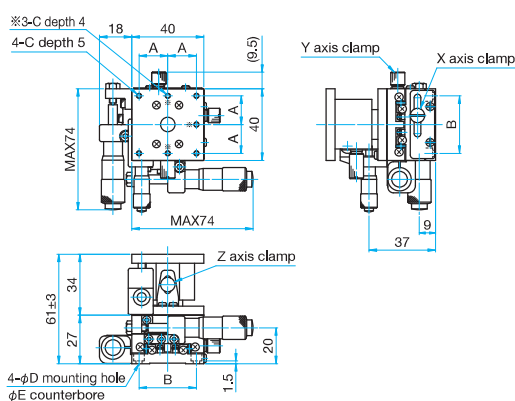
Hexagonal socket head cap screw
M3×6...4 screws, Spring washers
Hexagonal socket head cap screw
6-32UNC×3/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-405C	16	32	M3	3.5	6
TSD-405CUU	15.875	31.75	6-32UNC	4	6.5

TSD-405S/405SUU

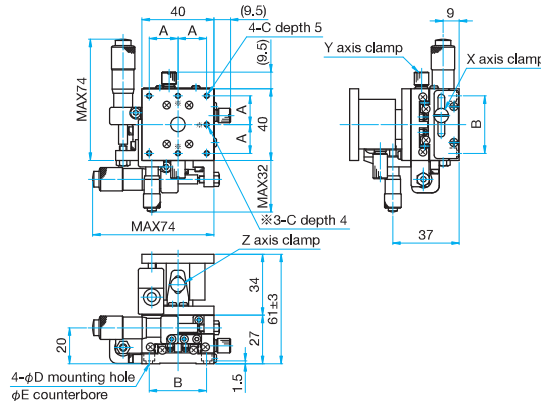
Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-405S	16	32	M3	3.5	6
TSD-405SUU	15.875	31.75	6-32UNC	4	6.5

TSD-405SR/405SRUU

Hexagonal socket head cap screw M3×6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNC×3/16...4 screws (UU)



Part Number	A (mm)	B (mm)	C	D (mm)	E (mm)
TSD-405SR	16	32	M3	3.5	6
TSD-405SRUU	15.875	31.75	6-32UNC	4	6.5

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15 × 15 mm

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40 × 40 mm

60 × 60 mm

65 × 65 mm

80 × 80 mm

100 × 100 mm

120 × 120 mm

Others