

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]		25x25	25x25	40x40	40x40
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
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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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

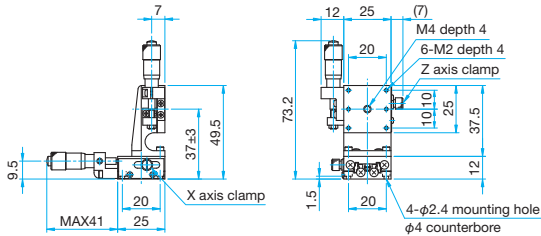
120 x 120 mm

Others

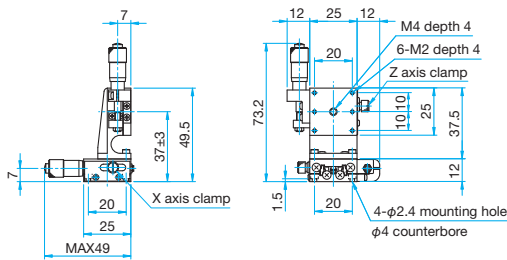


Outline Drawing

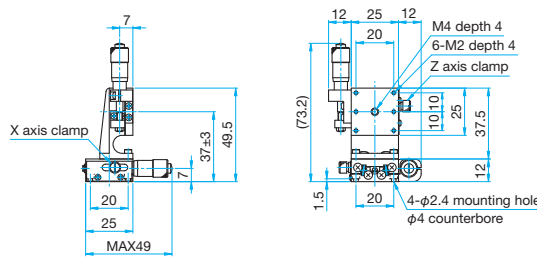
TSD-254CL Hexagonal socket head cap screw M2x4...4 screws



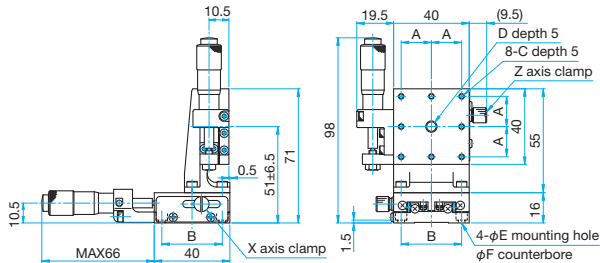
TSD-254SL Hexagonal socket head cap screw M2x4...4 screws



TSD-254SRL Hexagonal socket head cap screw M2x4...4 screws

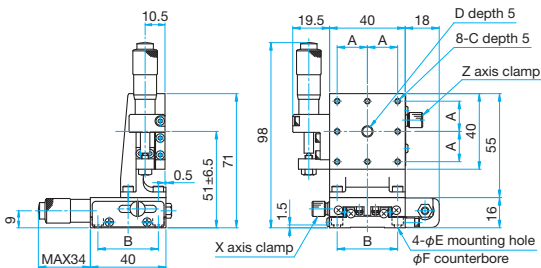


TSD-404CL/404CLUU Hexagonal socket head cap screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx3/16...4 screws (UU)



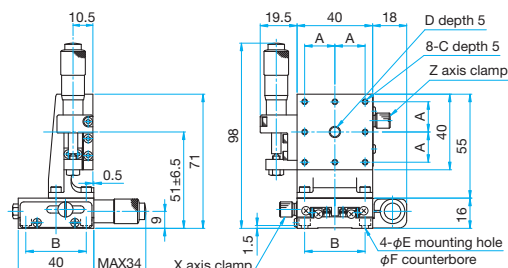
Part Number	A (mm)	B (mm)	C	D	E (mm)	F (mm)
TSD-404CL	16	32	M3	M6 P1	3.5	6
TSD-404CLUU	15.875	31.75	6-32UNC	1/4-20UNC	4	6.5

TSD-404SL/404SLUU Hexagonal socket head cap screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx3/16...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/404SRLUU Hexagonal socket head cap screw M3x6...4 screws, Spring washers
Hexagonal socket head cap screw 6-32UNCx3/16...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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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

XZ Axis Steel Extended Contact Translation Stages (Vertical)

TSD-604L Stage Size 60 x 60 mm

TSD-654L Stage Size 65 x 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

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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

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]		60x60	60x60	65x65	65x65
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
	Pitch [N·m]	8.0	8.0	8.0	8.0
Max. Moment Capacity	Roll [N·m]	8.0	8.0	8.0	8.0
	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

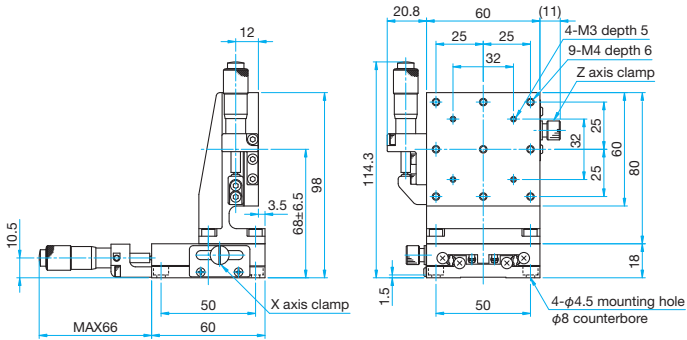
* Please add an option code as the part number suffix to specify various optional specifications.

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

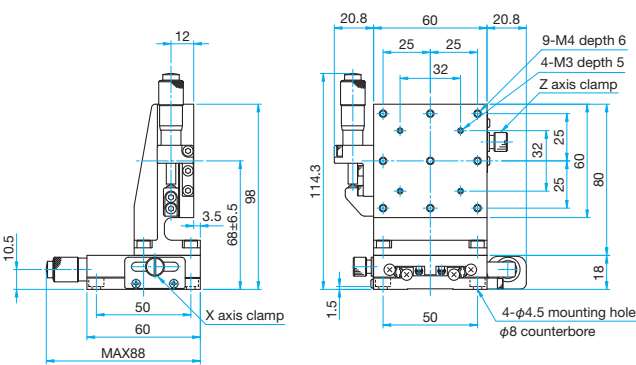


Outline Drawing

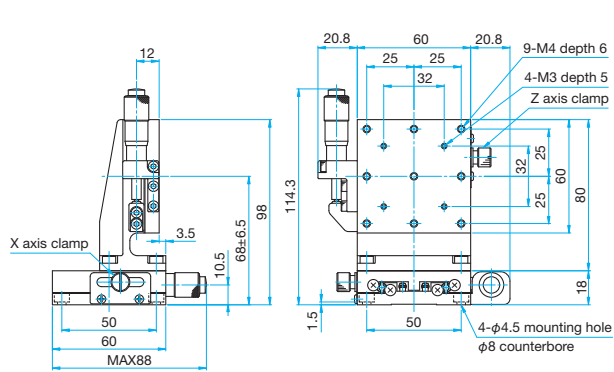
TSD-604CL Hexagonal socket head cap screw M4x6...4 screws



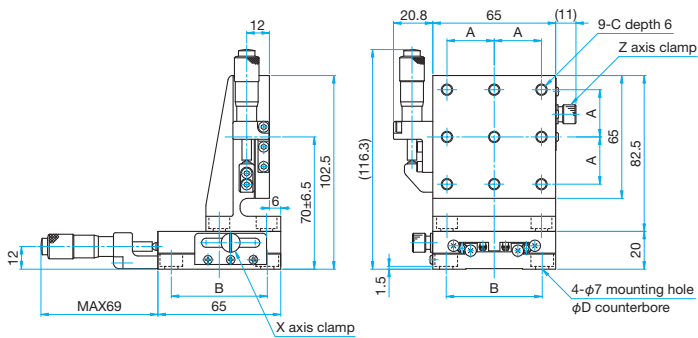
TSD-604SL Hexagonal socket head cap screw M4x6...4 screws



TSD-604SRL Hexagonal socket head cap screw M4x6...4 screws



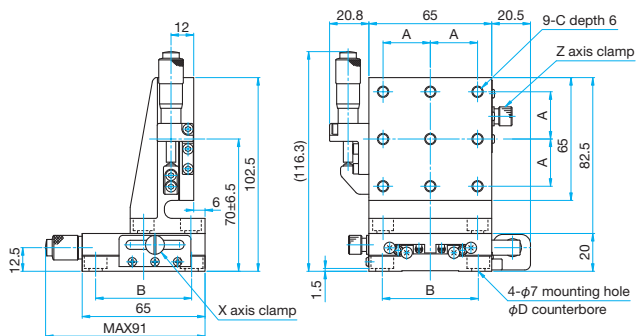
TSD-654CL-M6/654CLUU Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



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

TSD-654SL-M6/654SLUU

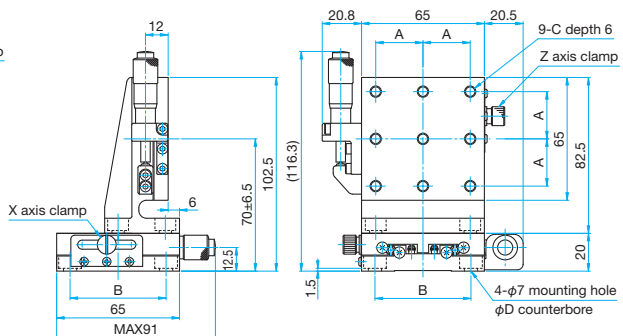
Hexagonal socket head cap screw M6x6...4 screws (M6)
Hexagonal socket head cap screw 1/4-20UNCx1/4...4 screws (UU)



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

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