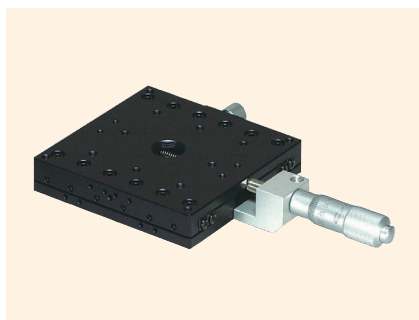


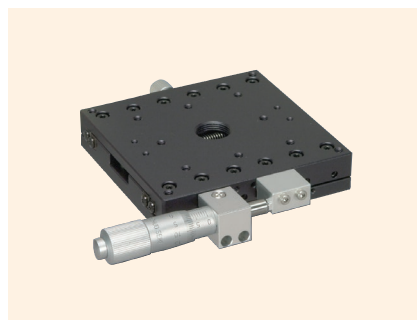
X Slim Stages 90 x 90



↑ TLS-947-C1



↑ TLS-947-S1



↑ TLS-947-R1

Features

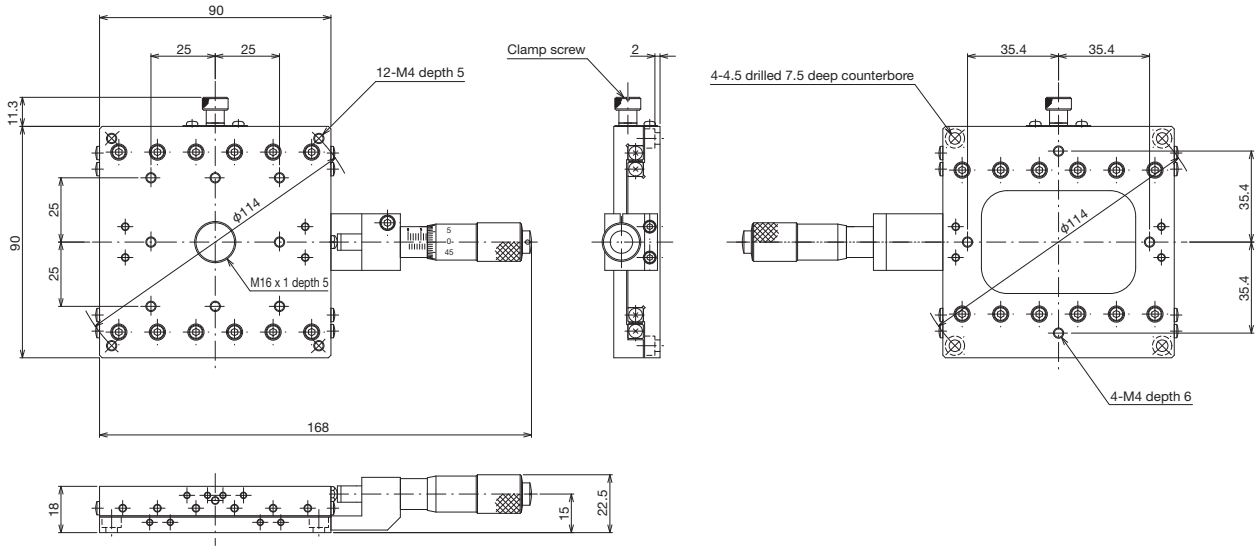
- A thin, lightweight stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Select between center, side, or reverse side for the operating part mounting position.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

Model number	TLS-947-C1	TLS-947-S1	TLS-947-R1
Model name	X Slim Stage 90 x 90		
Travel direction	X-axis single direction		
Stage surface	90 mm x 90 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Reverse side
Feed method	MHM1-15 (standard micrometer)		
Travel amount	±7.5 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		
Sensitivity	0.003 mm		
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm		
Load capacity	78.4 N (8 kgf)		
Mass	0.45 kg		
Main materials/surface treatment	Aluminum alloy/black satin anodized finish		

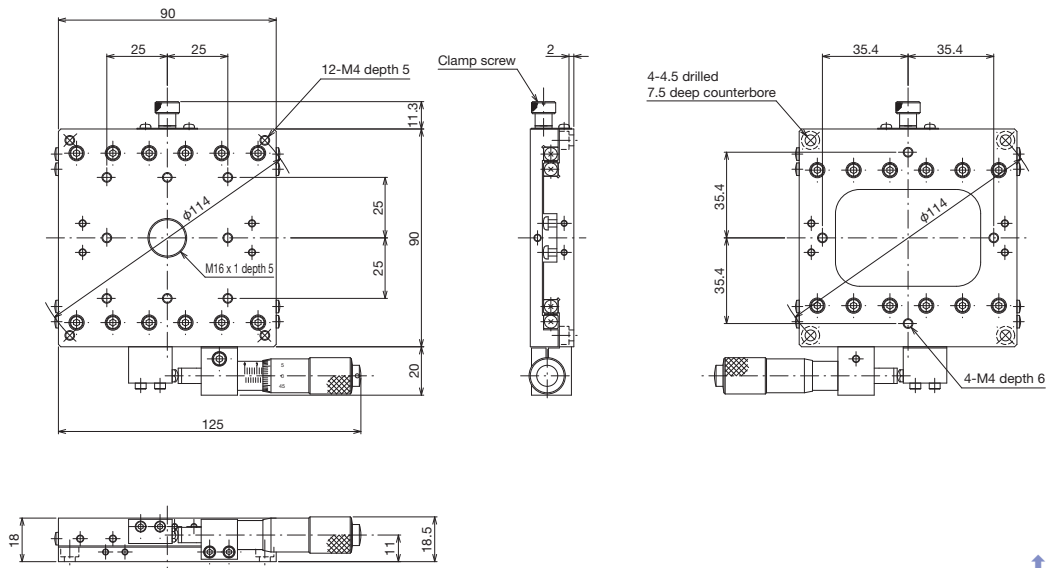


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

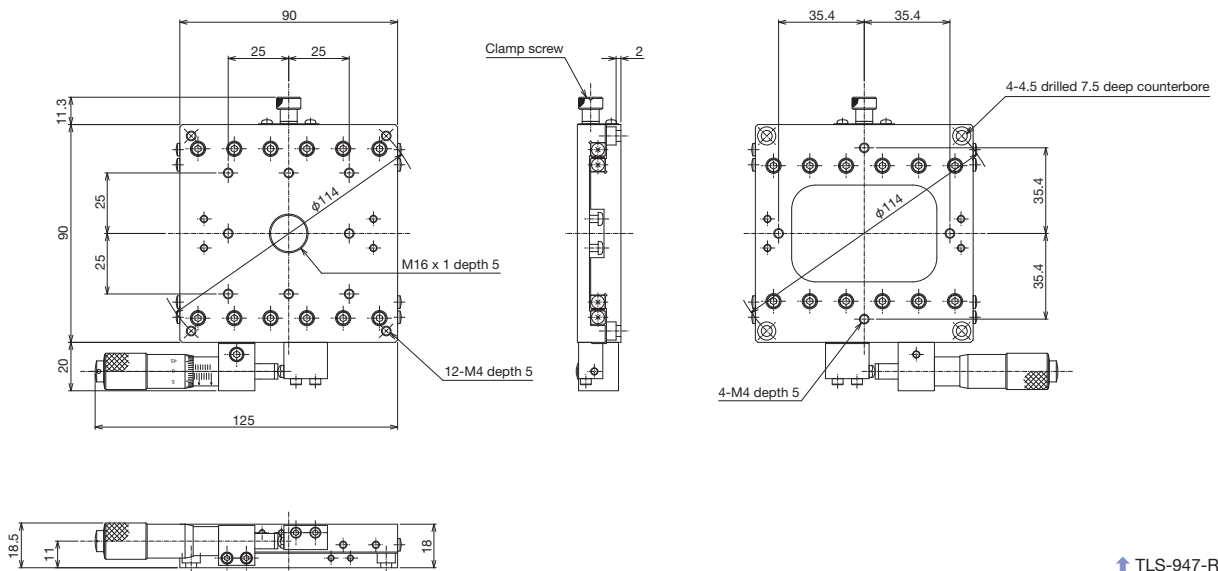
Product Appearance



↑ TLS-947-C1



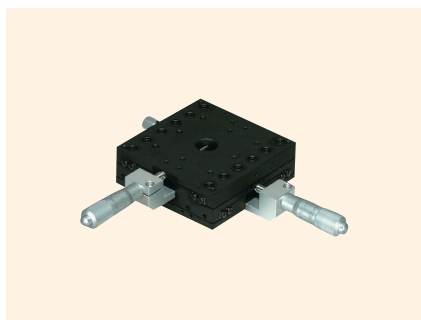
↑ TLS-947-S1



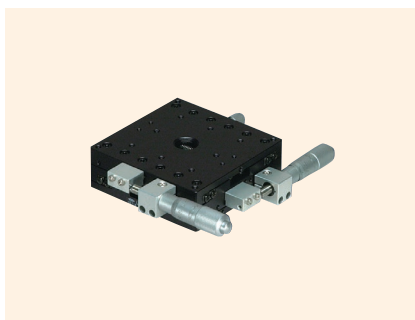
↑ TLS-947-R1

Motorized Stages	Automated Products for Microscopes	Manual Stages	Fix Stages	Thin VB Stages	Rock & Pinion Stages	High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages	Rotary Stages	Tilt Stages	Tilt/Rotary Stages	XZ, YZ Stages	XYZ Stages
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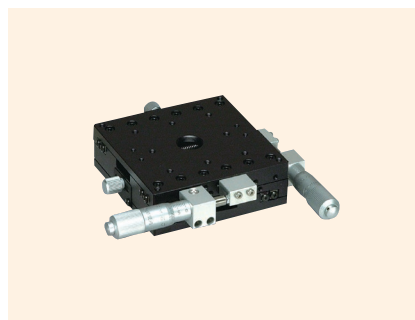
XY Slim Stages 90 x 90



↑ TLD-947-C1



↑ TLD-947-S1



↑ TLD-947-R1

Features

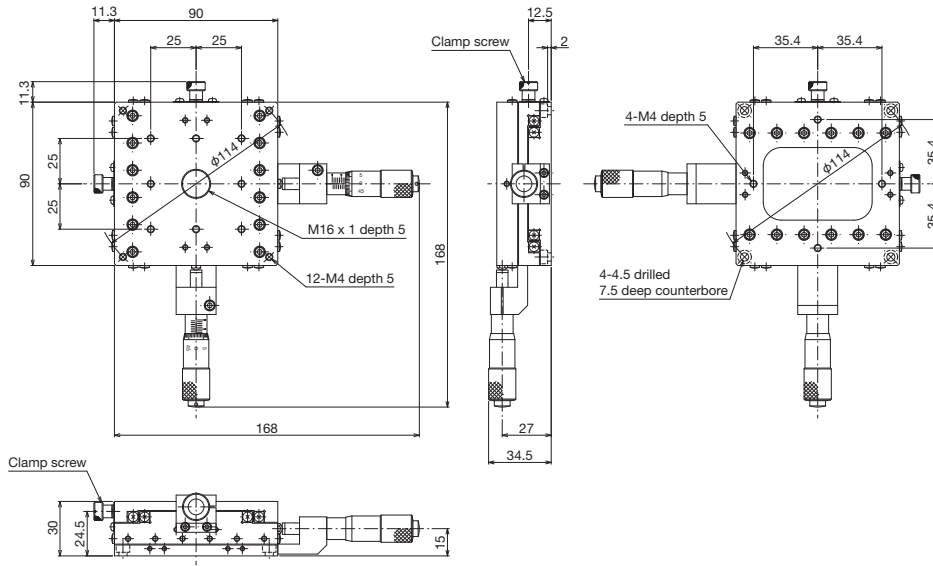
- A thin, lightweight stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Select between center, side, or reverse side for the operating part mounting position.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

Model number	TLD-947-C1	TLD-947-S1	TLD-947-R1
Model name	XY Slim Stage 90 x 90		
Travel direction	XY-axis double direction		
Stage surface	90 mm x 90 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Reverse side
Feed method	MHM1-15 (standard micrometer)		
Travel amount	±7.5 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		
Sensitivity	0.003 mm		
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm		
XY orthogonality	0.02 mm		
Load capacity	78.4 N (8 kgf)		
Mass	0.85 kg		
Main materials/surface treatment	Aluminum alloy/black satin anodized finish		

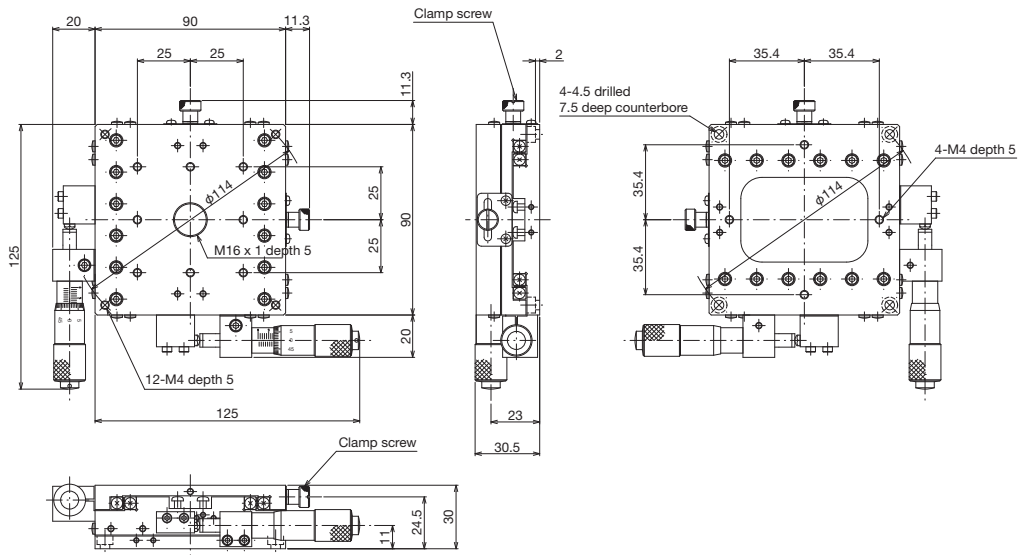


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

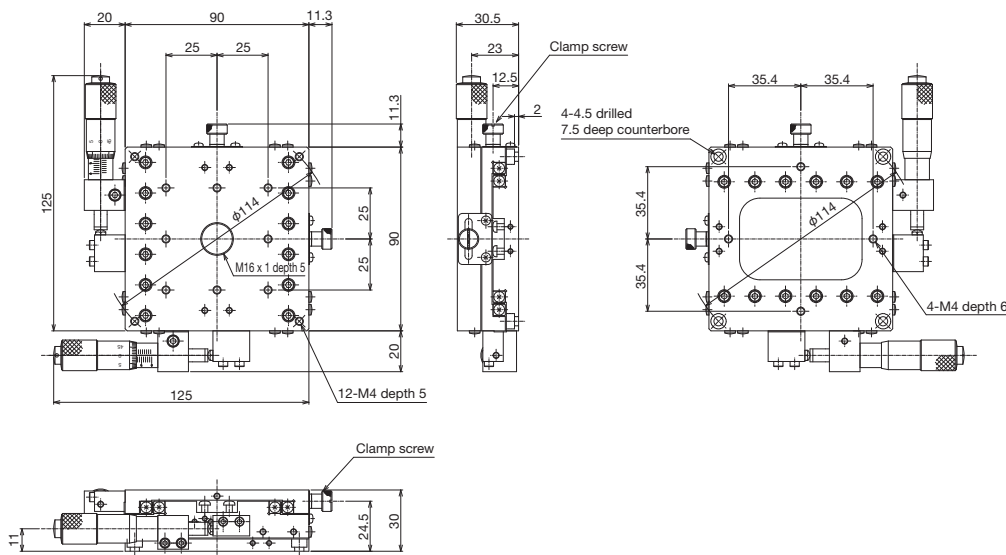
Product Appearance



↑ TLD-947-C1



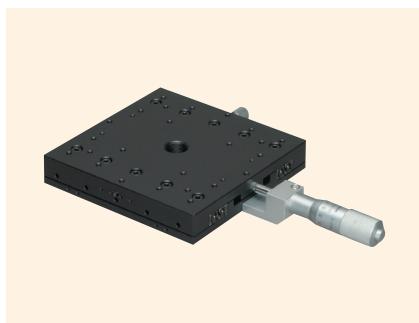
↑ TLD-947-S1



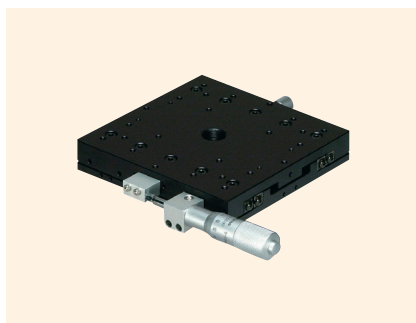
↑ TLD-947-R1

Motorized Stages	Automated Products for Microscopes	Manual Stages
Fix Stages	Thin VB Stages	Rack & Pinion Stages
High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages
	Rotary Stages	Tilt Stages
	Tilt/Rotary Stages	XZ, YZ Stages
		XZ Stages

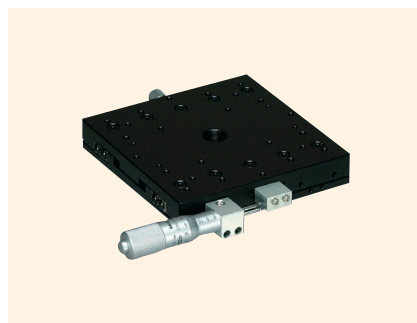
X Slim Stages 125 x 125



↑ TLS-149-C1



↑ TLS-149-S1



↑ TLS-149-R1

Features

- A thin-type stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Select between center, side, or reverse side for the operating part mounting position.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

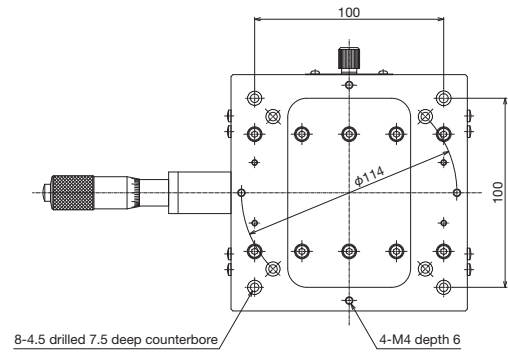
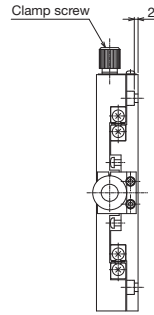
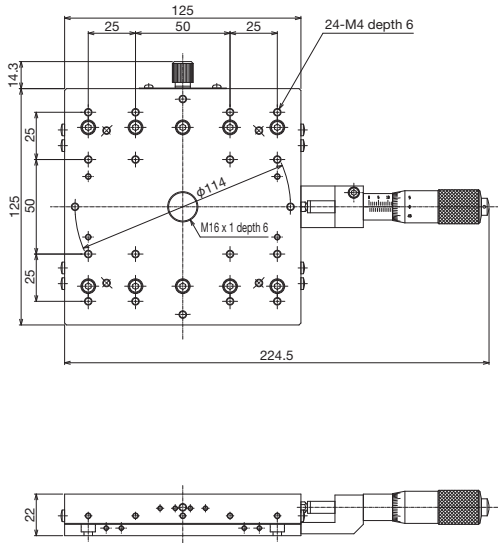
Model number	TLS-149-C1	TLS-149-S1	TLS-149-R1
Model name	X Slim Stage 125 x 125 (Steel)		
Travel direction	X-axis single direction		
Stage surface	125 mm x 125 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Reverse side
Feed method	MHN1-25T (standard micrometer)		
Travel amount	±12.5 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		
Sensitivity	0.003 mm		
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm Yaw/pitch 15 s		
Moment rigidity	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm		
Parallelism	0.03 mm		
Load capacity	245 N (25 kgf)		
Mass	2.5 kg		
Main materials/surface treatment	Steel/hardened black chrome		

Model number	TLS-149-C7	TLS-149-S7
Model name	X Slim Stage 125 x 125 (With Digital Display Micrometer) (Steel)	
Travel direction	X-axis single direction	
Stage surface	125 mm x 125 mm	
Clamp method	Plate clamp	
Operating part mounting position	Center	Side
Feed method	MHN1-25MX (digimatic micrometer)	
Travel amount	±12.5 mm	
Travel amount/1 knob rotation	0.5 mm	
Scale	Digital display micrometer 0.001 mm	
Sensitivity	0.003 mm	
Travel guide	V-groove and cross rollers	
Travel accuracy	Straightness: 0.003 mm Yaw/pitch 15 s	
Moment rigidity	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm	
Parallelism	0.03 mm	
Load capacity	245 N (25 kgf)	
Mass	2.6 kg	
Main materials/surface treatment	Steel/hardened black chrome	

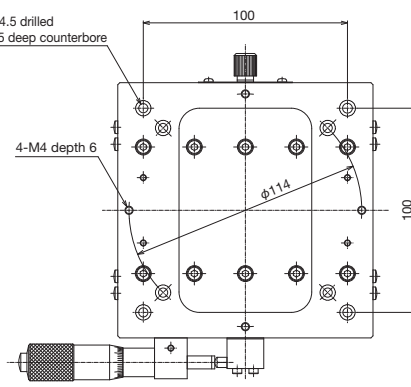
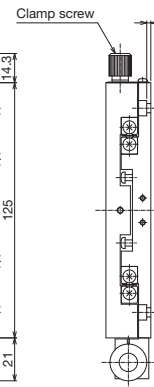
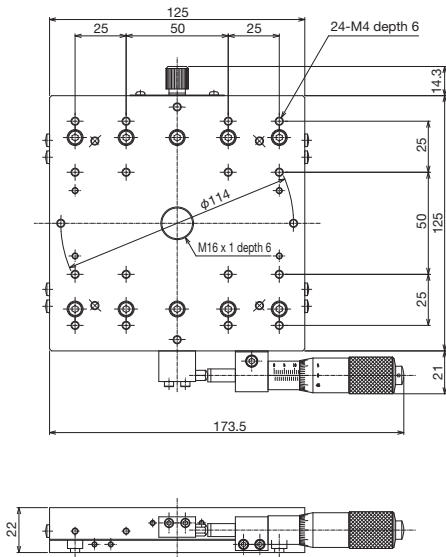


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

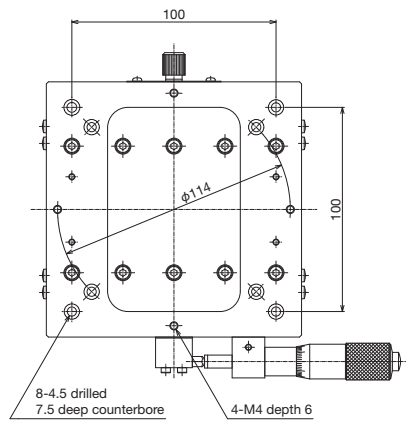
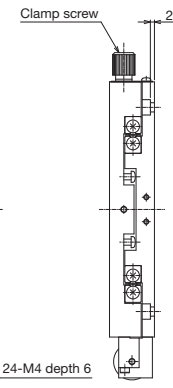
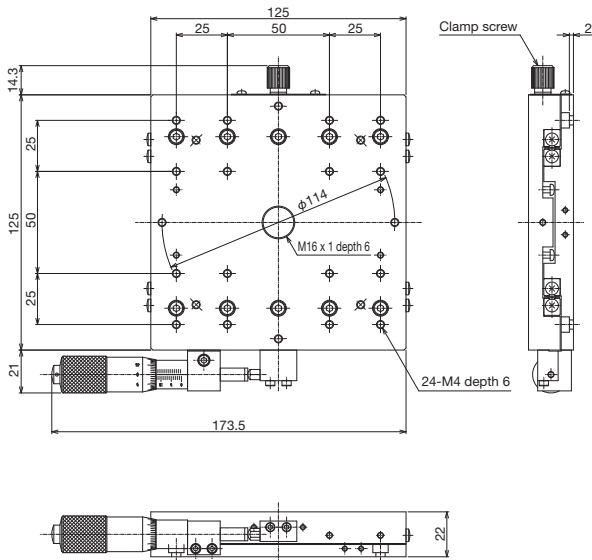
Product Appearance



↑ TLS-149-C1



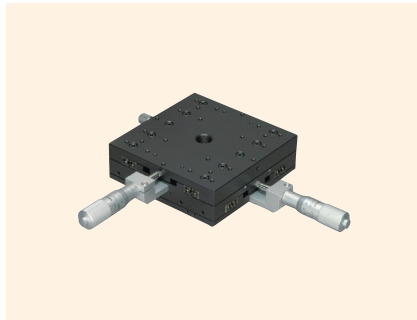
↑ TLS-149-S1



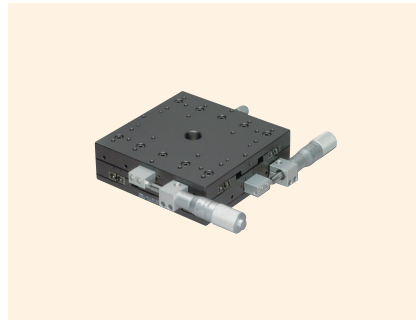
↑ TLS-149-R1

Motorized Stages	Automated Products for Microscopes	Manual Stages	Fix Stages	Thin V8 Stages	Rack & Pinion Stages	High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages	Rotary Stages	Tilt Stages	Tilt/Rotary Stages	XZ, YZ Stages	XYZ Stages
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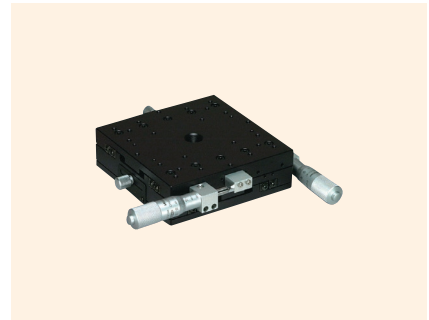
XY Slim Stages 125 x 125



↑ TLD-149-C1



↑ TLD-149-S1



↑ TLD-149-R1

Features

- A thin-type stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Select between center, side, or reverse side for the operating part mounting position.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

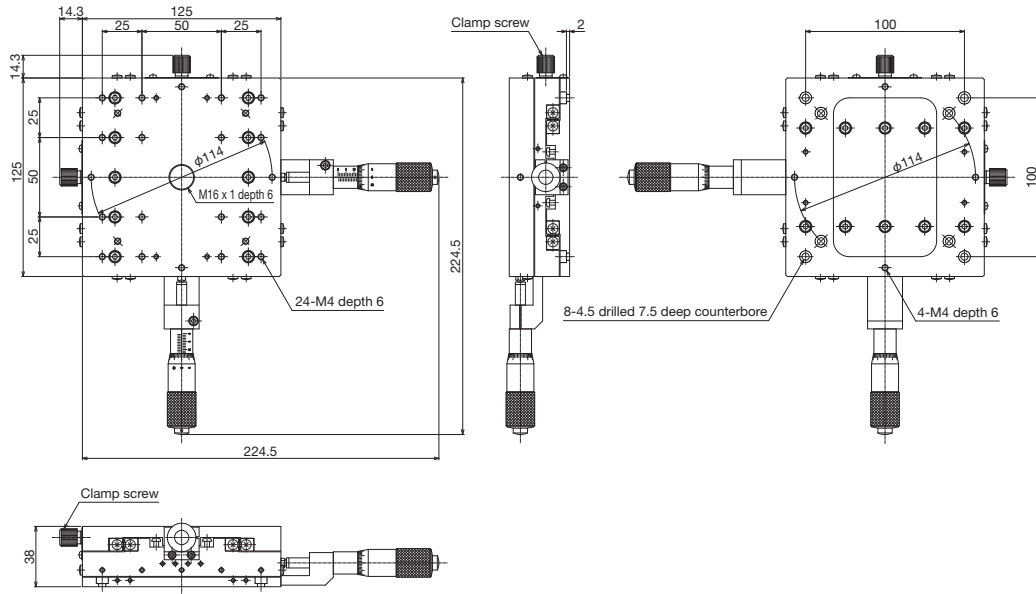
Model number	TLD-149-C1	TLD-149-S1	TLD-149-R1
Model name	XY Slim Stage 125 x 125 (Steel)		
Travel direction	XY-axis double direction		
Stage surface	125 mm x 125 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Reverse side
Feed method	MHN1-25T (standard micrometer)		
Travel amount	±12.5 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		
Sensitivity	0.003 mm		
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm Yaw/pitch 15 s		
Moment rigidity	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm		
Parallelism	0.05 mm		
XY orthogonality	0.02 mm		
Load capacity	225 N (23 kgf)		
Mass	4.3 kg		
Main materials/surface treatment	Steel/hardened black chrome		

Model number	TLD-149-C7	TLD-149-S7
Model name	XY Slim Stage 125 x 125 (With Digital Display Micrometer) (Steel)	
Travel direction	XY-axis double direction	
Stage surface	125 mm x 125 mm	
Clamp method	Plate clamp	
Operating part mounting position	Center	Side
Feed method	MHN1-25MX (digital display micrometer)	
Travel amount	±12.5 mm	
Travel amount/1 knob rotation	0.5 mm	
Scale	Digital display micrometer 0.001 mm	
Sensitivity	0.003 mm	
Travel guide	V-groove and cross rollers	
Travel accuracy	Straightness: 0.003 mm Yaw/pitch 15 s	
Moment rigidity	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.05 s/N-cm, roll rigidity 0.03 s/N-cm	
Parallelism	0.05 mm	
XY orthogonality	0.02 mm	
Load capacity	225 N (23 kgf)	
Mass	4.5 kg	
Main materials/surface treatment	Steel/hardened black chrome	

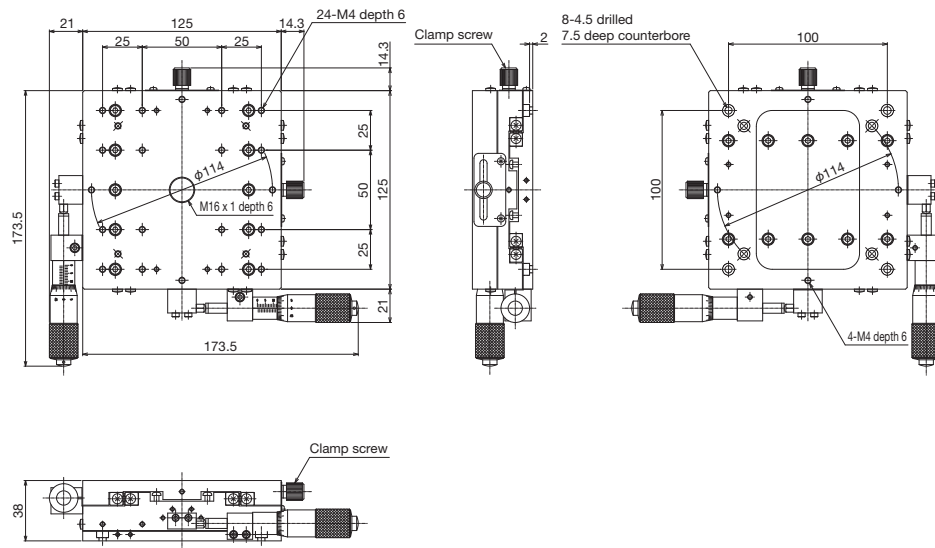


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

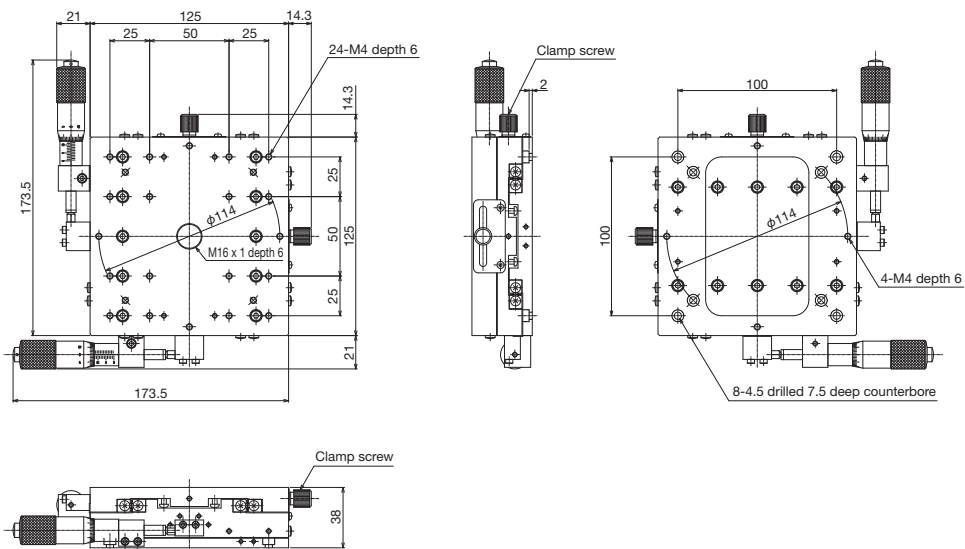
Product Appearance



↑ TLD-149-C1



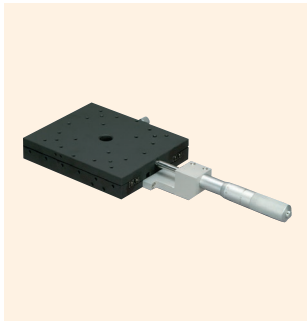
↑ TLD-149-S1



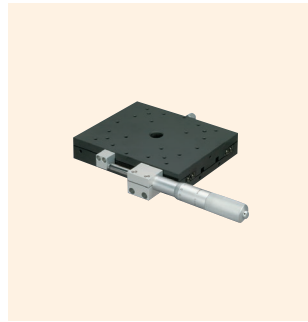
↑ TLD-149-R1

Motorized Stages	Automated Products for Microscopes	Manual Stages
Fix Stages	Thin VB Stages	Rack & Pinion Stages
High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages
	Rotary Stages	TTR Stages
	TTR/Rotary Stages	XZ, YZ Stages
		XZ Stages

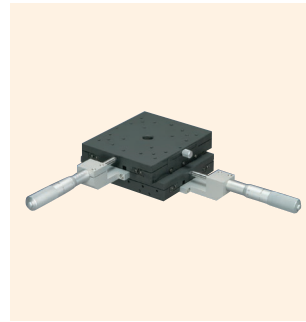
X Stages, XY Stages 125 x 150



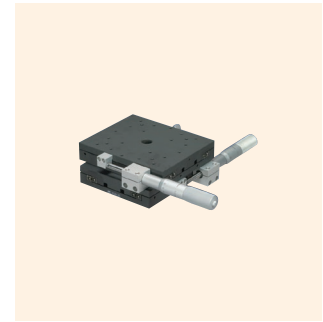
↑ TLS-241-C1



↑ TLS-241-S1



↑ TLD-241-C1



↑ TLD-241-S1

Features

- An ultra-precision stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Select between center or side for the operating part mounting position.
- Standard micrometers and digimatic micrometers are available for the feed method.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

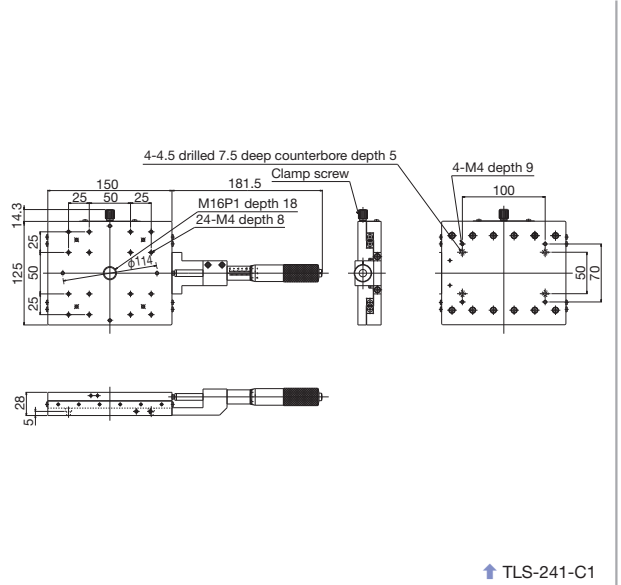
Model number	TLS-241-C1	TLS-241-S1	TLS-243-C7
Model name	VCR Ultra-Precision X Stage 125 x 150		VCR Ultra-Precision X Stage 125 x 150 (With Digital Display Micrometer)
Travel direction	X-axis single direction		
Stage surface	125 mm x 150 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Center
Feed method	MHH1-50T (standard micrometer)		MHD-50MB (digital display micrometer)
Travel amount	±25 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		Digital display micrometer 0.001 mm
Sensitivity	0.003 mm		0.001 mm
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm, yaw/pitch: 15 s		
Moment rigidity	Yaw rigidity 0.02 s/N-cm, pitch rigidity 0.02 s/N-cm, roll rigidity 0.01 s/N-cm		
Parallelism	0.03 mm		
Load capacity	294 N (30 kgf)		
Mass	4.9 kg		5.3 kg
Main materials/surface treatment	Steel/hardened black chrome		

Model number	TLD-241-C1	TLD-241-S1	TLD-243-C7
Model name	VCR Ultra-Precision XY Stage 125 x 150		VCR Ultra-Precision XY Stage 125 x 150 (With Digital Display Micrometer)
Travel direction	XY-axis double direction		
Stage surface	125 mm x 150 mm		
Clamp method	Plate clamp		
Operating part mounting position	Center	Side	Center
Feed method	MHH1-50T (standard micrometer)		MHD-50MB (digital display micrometer)
Travel amount	±25 mm		
Travel amount/1 knob rotation	0.5 mm		
Scale	Micrometer 0.01 mm		Digital display micrometer 0.001 mm
Sensitivity	0.003 mm		0.001 mm
Travel guide	V-groove and cross rollers		
Travel accuracy	Straightness: 0.003 mm, yaw/pitch: 15 s		
Moment rigidity	Yaw rigidity 0.02 s/N-cm, pitch rigidity 0.02 s/N-cm, roll rigidity 0.01 s/N-cm		
Parallelism	0.06 mm		
XY orthogonality	0.02 mm		
Load capacity	245 N (25 kgf)		
Mass	9.8 kg		10.6 kg
Main materials/surface treatment	Steel/hardened black chrome		

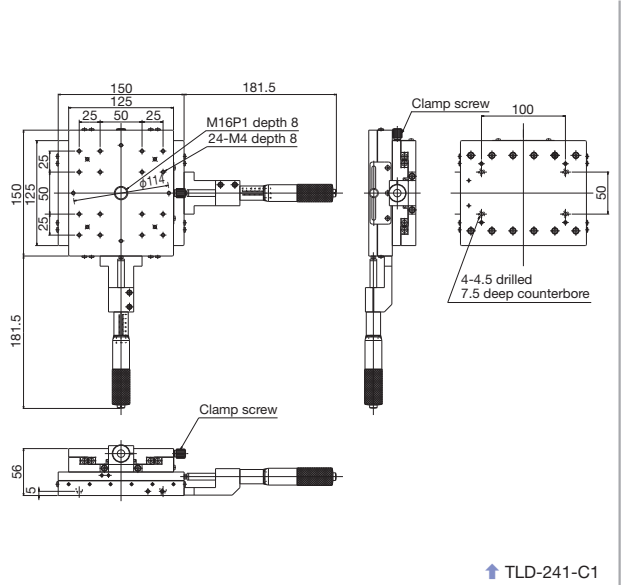


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

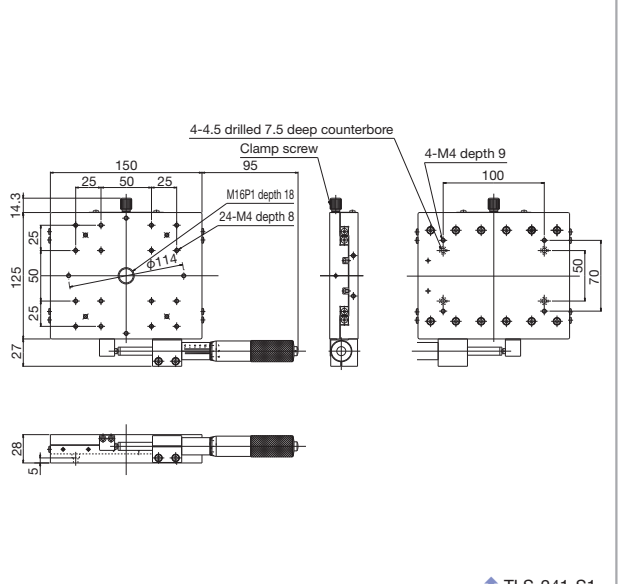
Product Appearance



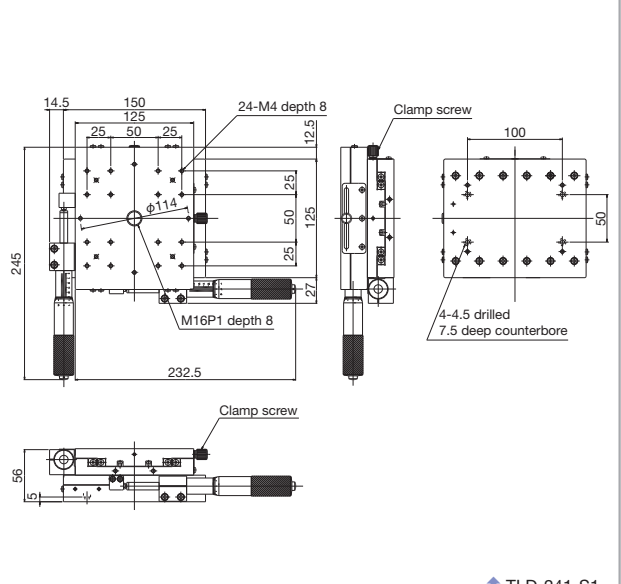
↑ TLS-241-C1



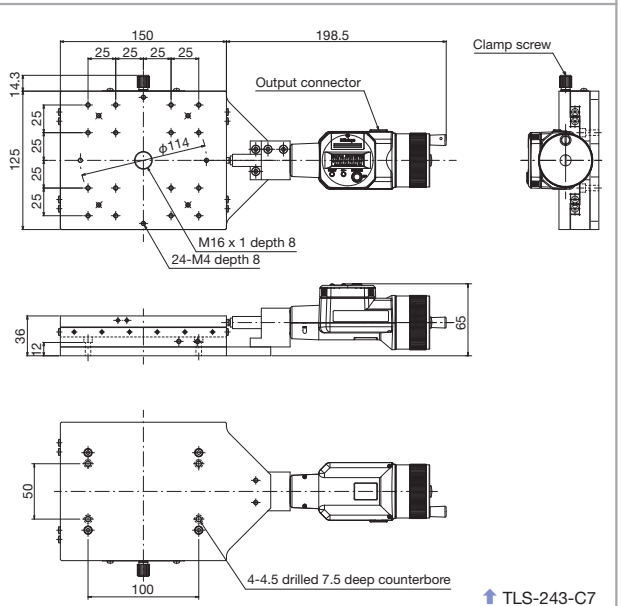
↑ TLD-241-C1



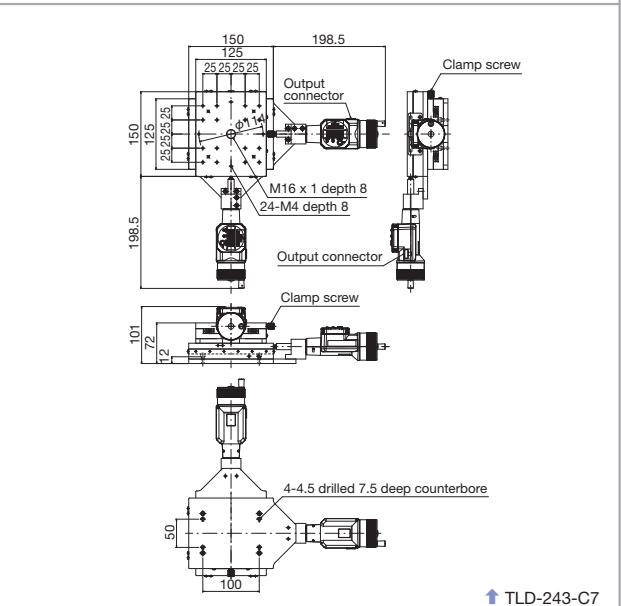
↑ TLS-241-S1



↑ TLD-241-S1



↑ TLS-243-C7

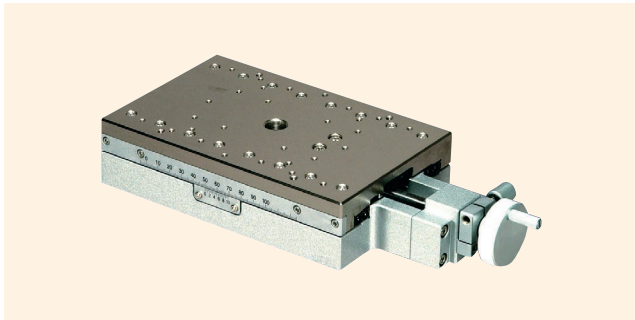


↑ TLD-243-C7

Motorized Stages	Automated Products for Microscopes	Manual Stages	Fix Stages	Thin V8 Stages	Rack & Pinion Stages	High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages	Rodway Stages	TTR Stages	TTR/Rotary Stages	XZ, YZ Stages	XVZ Stages
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X Stages, XY Stages 130 x 200

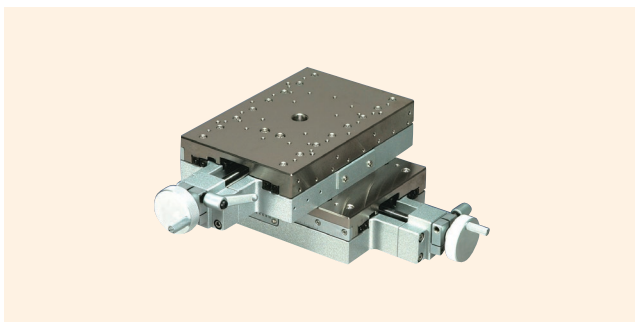
 V-CR method



↑ TLS-242



↑ TLS-242-MS



↑ TLD-242



↑ TLD-242-MS

Features

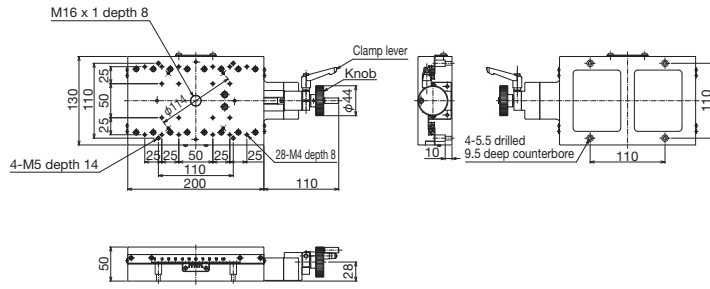
- An ultra-precision stage that uses a V-groove and cross rollers (V-CR method) for the travel guides.
- Types with a vernier scale and types with a magnetic scale are available.
- Versatile use for precision positioning of workpieces or for the sample tables of measurement equipment.

Model number	TLS-242	TLS-242-MS	TLD-242	TLD-242-MS
Model name	VCR Ultra-Precision X Stage 130 x 200	VCR Ultra-Precision X Stage 130 x 200 (With Magnetic Scale)	VCR Ultra-Precision XY Stage 130 x 200	VCR Ultra-Precision XY Stage 130 x 200 (With Magnetic Scale)
Travel direction	X-axis single direction		XY-axis double direction	
Stage surface	130 mm x 200 mm			
Clamp method	Split tightening method			
Feed method	Manual feed method			
Travel amount	±50 mm			
Travel amount/1 knob rotation	1 mm			
Scale	Vernier reading: 0.05 mm	Vernier reading: 0.05 mm/ scale display unit only: 0.0005 mm (0.5 μm)	Vernier reading: 0.05 mm	Vernier reading: 0.05 mm/ scale display unit only: 0.0005 mm (0.5 μm)
Travel guide	V-groove and cross rollers			
Travel accuracy	Straightness: 0.003 mm, yaw/pitch: 15 s			
Moment rigidity	Yaw rigidity 0.02 s/N-cm, pitch rigidity 0.02 s/N-cm, roll rigidity 0.01 s/N-cm			
Parallelism	0.03 mm		0.06 mm	
XY orthogonality	-		0.02 mm	
Load capacity	294 N (30 kgf)		216 N (22 kgf)	
Mass	8 kg		16 kg	
Main materials/surface treatment	Steel: Electroless nickel plating (table), coating (base)			
Linear scale	-	Magnetic scale or display unit included	-	Magnetic scale or display unit included

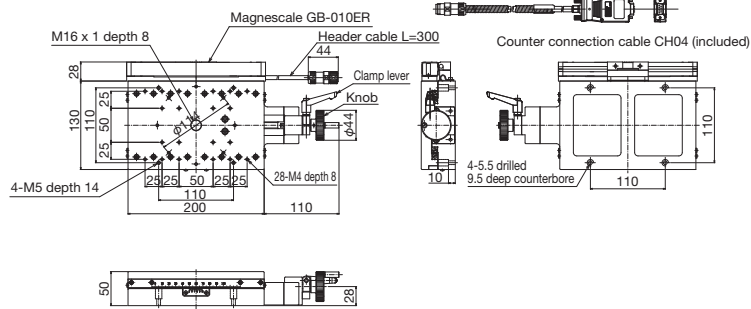


Slim Stages, Cross Roller Stages ◀ Manual Stages ◀

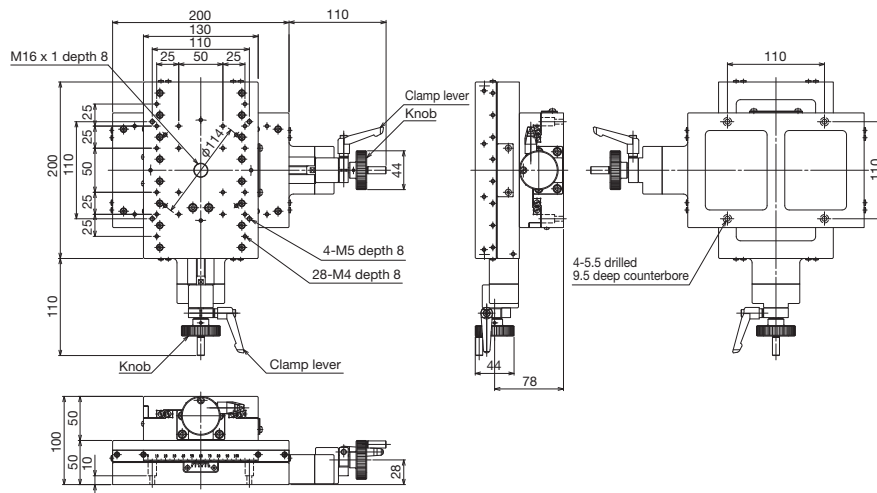
Product Appearance



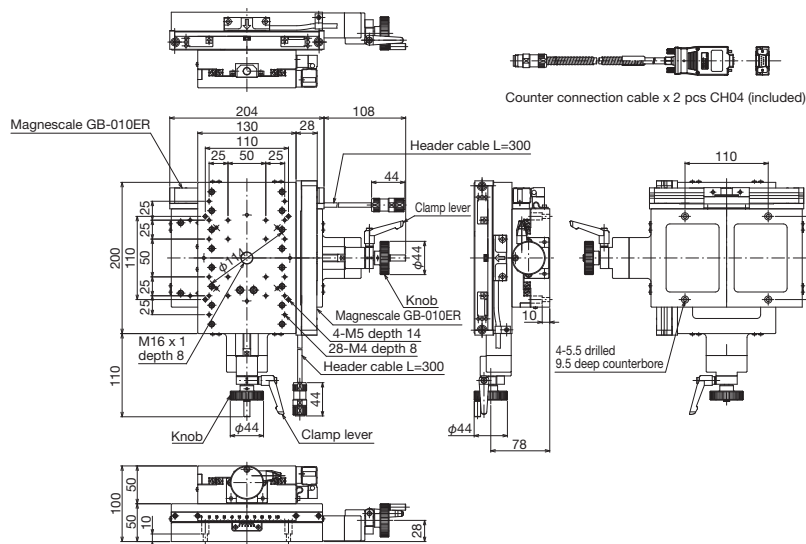
↑ TLS-242



↑ TLS-242-MS



↑ TLD-242



↑ TLD-242-MS

Motorized Stages	Automated Products for Microscopes	Manual Stages
Fix Stages	Thin VB Stages	Rack & Pinion Stages
High-Grade Stages	Slim Stages, Cross Roller Stages	Z-Like Stages, Z Stages
Rotary Stages	Tilt Stages	Tilt/Rotary Stages
XZ, YZ Stages	XZ, YZ Stages	XZ Stages