

## Horizontal Goniometer Stages



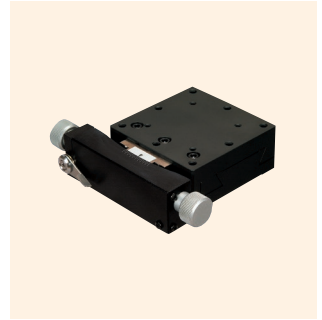
↑ TTS-R411



↑ TTS-R412



↑ TTS-R611



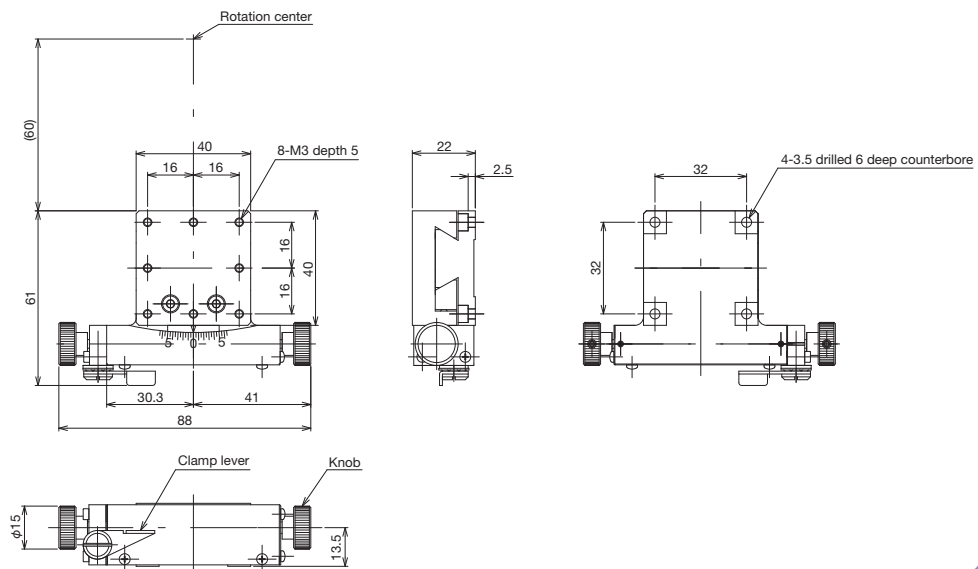
↑ TTS-R612

### Features

- A 1-axis horizontal tilt stage with differing rotation center position and travel amount.
- THK CHUO's proprietary complex coupling structure enables fine movements to be made extraordinarily smoothly.
- Dovetails (D-T Method) are used for the travel guide.
- Versatile use for precision positioning of cameras, sensors, etc.

Model number	TTS-R411	TTS-R412	TTS-R611	TTS-R612
Model name	Horizontal Goniometer Stage 40 x 40		Horizontal Goniometer Stage 60 x 60	
Travel direction	Rotation 1 direction			
Stage surface	40 mm x 40 mm		60 mm x 60 mm	
Feed method	Precision screw, complex coupling method			
Travel amount	±6°		±5°	±4.5°
Travel amount/1 knob rotation	Approx. 16' 8"	Approx. 13' 35"	Approx. 10' 37"	Approx. 9' 27"
Scale	Scale reading 30'			
Travel guide	Dovetail			
Rotation center (from stage surface center)	80 mm	100 mm	120 mm	140 mm
Rotation center accuracy	-		φ 0.1 mm	
Load capacity	19.6 N (2 kgf)		29.4 N (3 kgf)	
Mass	0.4 kg		0.8 kg	
Main materials/surface treatment	Brass/hardened black chrome			

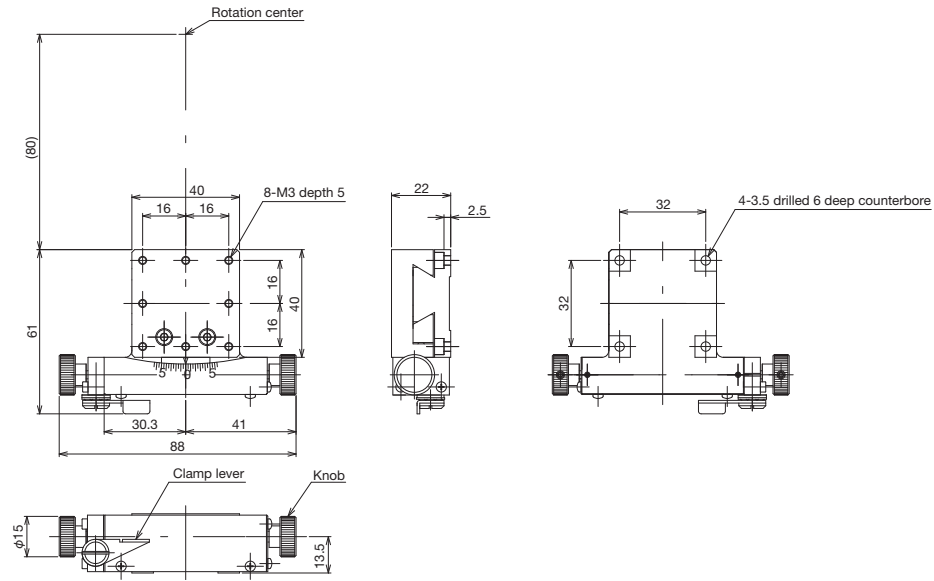
### Product Appearance



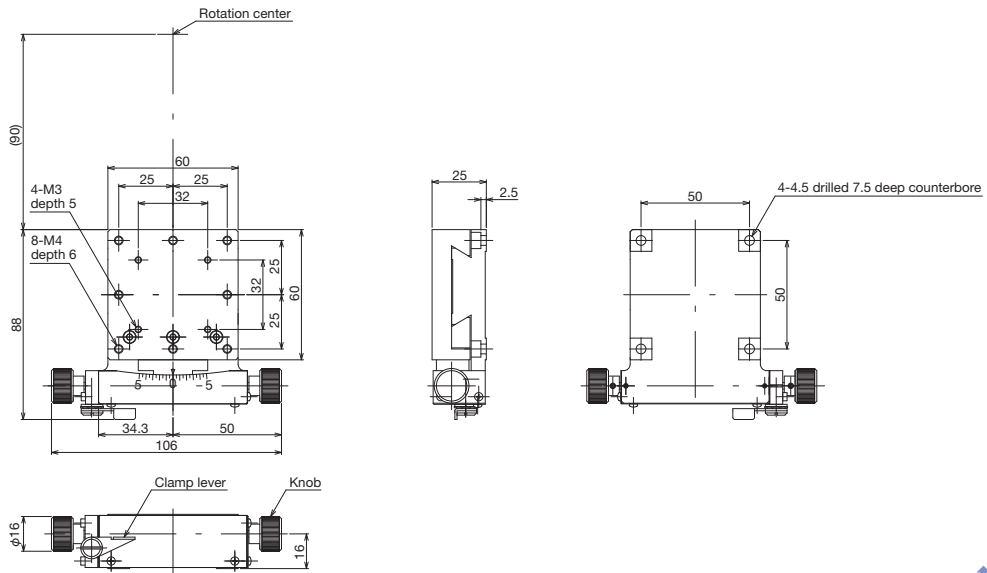
↑ TTS-R411



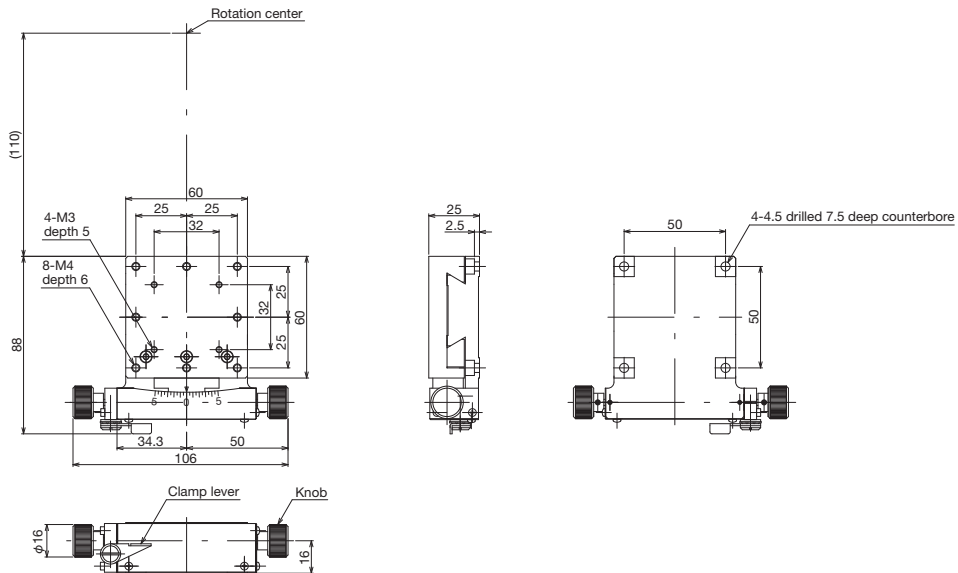
Product Appearance



↑ TTS-R412



↑ TTS-R611

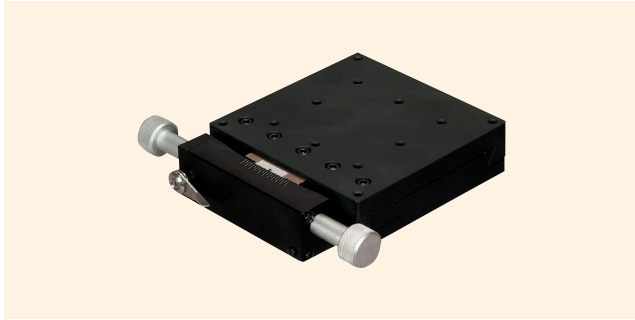


↑ TTS-R612

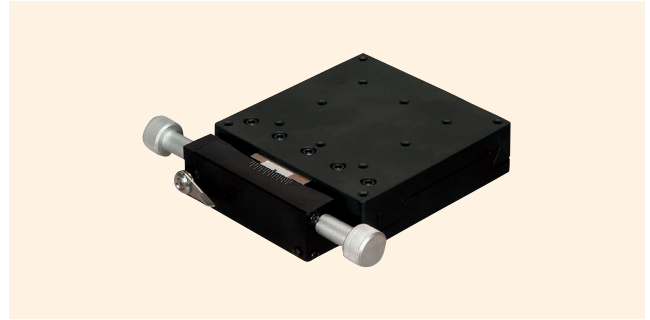
Motorized Stages	Automated Products for Microscopes	Manual Stages	Fix Stages	Thin V8 Stages	Rack & Pinion Stages	High-Grade Stages	Swim Stages, Cross Roller Stages	Z-Like Stages, Z Stages	Rotary Stages	Tilt Stages	Tilt/Rotary Stages	XZ, YZ Stages	XZ Stages
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# Horizontal Goniometer Stages



↑ TTS-R911



↑ TTS-R912

## Features

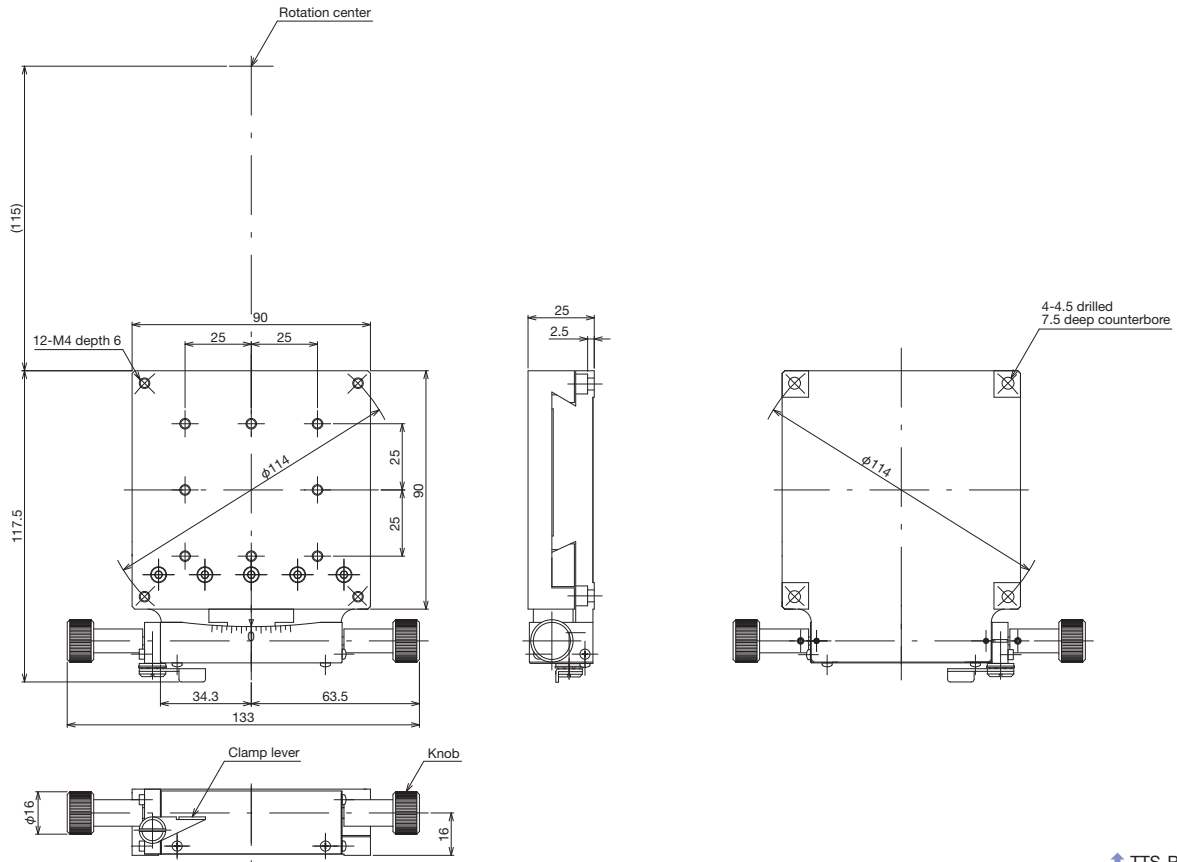
- A 1-axis horizontal tilt stage with differing rotation center position and travel amount.
- THK CHUO's proprietary complex coupling structure enables fine movements to be made extraordinarily smoothly.
- Dovetails (D-T Method) are used for the travel guide.
- Versatile use for precision positioning of cameras, sensors, etc.

Model number	TTS-R911	TTS-R912
Model name	Horizontal Goniometer Stage 90 x 90	
Travel direction	Rotation single direction	
Stage surface	90 mm x 90 mm	
Feed method	Precision screw, complex coupling method	
Travel amount	±4°	±3.5°
Travel amount/1 knob rotation	Approx. 7' 55"	Approx. 7' 15"
Scale	Scale reading 30'	
Travel guide	Dovetail	
Rotation center (from stage surface center)	160 mm	180 mm
Rotation center accuracy	φ 0.1 mm	
Load capacity	39.2 N (4 kgf)	
Mass	1.6 kg	
Main materials/surface treatment	Brass/hardened black chrome	

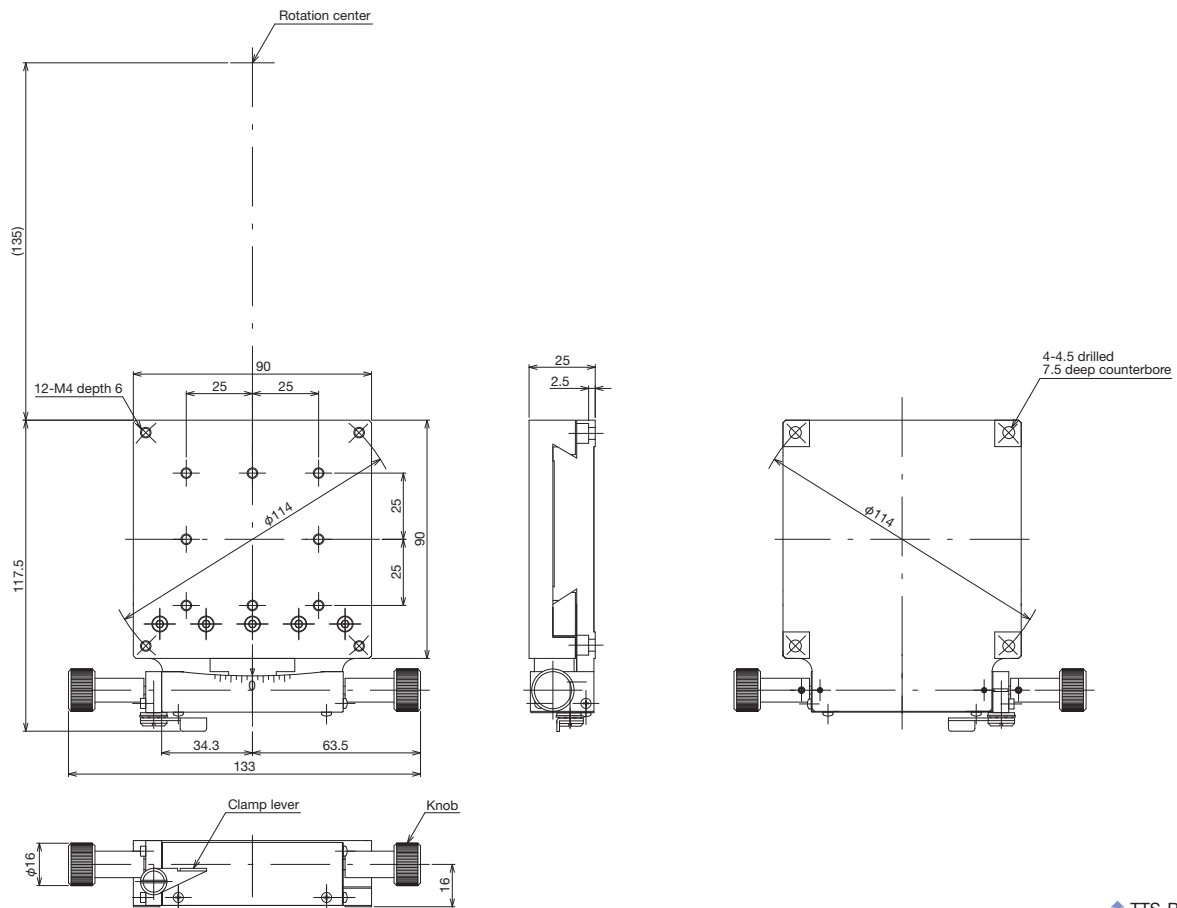
Motorized Stages  
Automated Products for Microscopes  
Manual Stages  
FX Stages  
Thin Yθ Stages  
Rack & Pinion Stages  
High-Clearance Stages  
Slim Stages, Cross Roller Stages  
Z-Lin Stages, Z Stages  
Rotary Stages  
Tilt Stages  
Tilt/Rotary Stages  
XZ, YZ Stages  
XZ Stages



Product Appearance



↑ TTS-R911



↑ TTS-R912

Motorized Stages	Automated Products for Microscopes	Manual Stages	Fx Stages	Thru V8 Stages	Rack & Pinion Stages	High-Grade Stages	Spin 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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