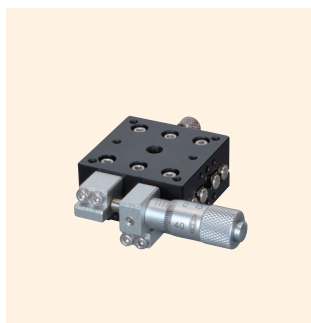


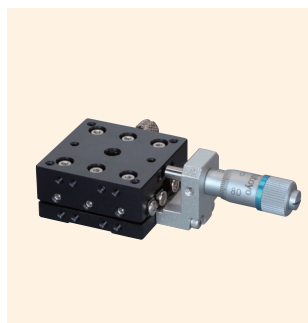
## High-Grade Aluminum - X Stages 30 x 30



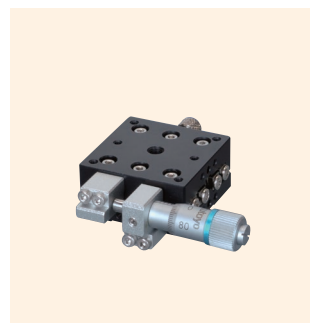
↑ TLS-3047-C1



↑ TLS-3047-S1



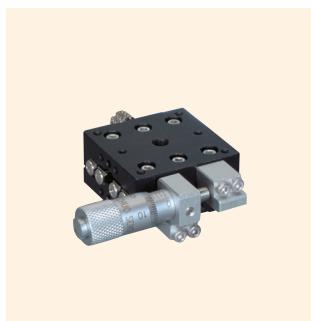
↑ TLS-3047-C8



↑ TLS-3047-S8



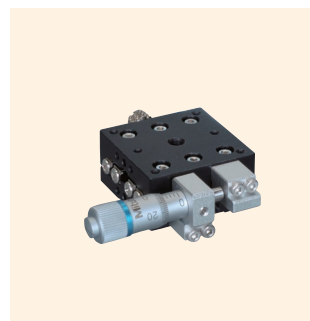
↑ TLS-3047-CR1



↑ TLS-3047-SR1



↑ TLS-3047-CR8



↑ TLS-3047-SR8

### Features

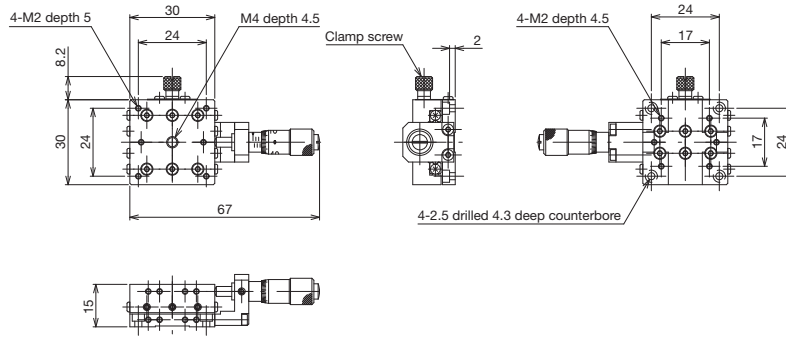
- Adopts an aluminum alloy as the main material and uses the HG-VCR method to achieve both high rigidity and light weight.
- Standard types and symmetrical types are available for a left-right symmetrical structure.
- Standard micrometers and fine pitch micrometers are available for the feed method.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

Model number (Standard type)	TLS-3047-C1	TLS-3047-S1	TLS-3047-C8	TLS-3047-S8
Model number (Symmetrical type)	TLS-3047-CR1	TLS-3047-SR1	TLS-3047-CR8	TLS-3047-SR8
Model name	High-Grade Aluminum X Stage 30 x 30			
Travel direction	X-axis single direction			
Stage surface	30 mm x 30 mm			
Clamp method	Plate clamp			
Operating part mounting position	Center	Side	Center	Side
Feed method	CMH-6.5RA (standard micrometer)		MHT3-6.5FP (Fine pitch micro)	
Travel amount	±3 mm			
Travel amount/1 knob rotation	0.5 mm		0.1 mm	
Scale	Micrometer 0.01 mm		Micrometer 0.002 mm	
Sensitivity	0.003 mm		0.001 mm	
Travel guide	HG-VCR (V-groove and cross rollers)			
Travel accuracy	Straightness (horizontal/vertical) 0.002 mm Yawing 20 s, pitching 30 s			
Moment rigidity	Yaw rigidity 1.00 s/N-cm, pitch rigidity 1.00 s/N-cm, roll rigidity 1.00 s/N-cm			
Parallelism	0.030 mm			
Parallelism of motion	0.010 mm			
Load capacity	19.6 N (2 kgf)			
Mass	0.06 kg			
Main materials/surface treatment	Aluminum alloy/black satin anodized finish			

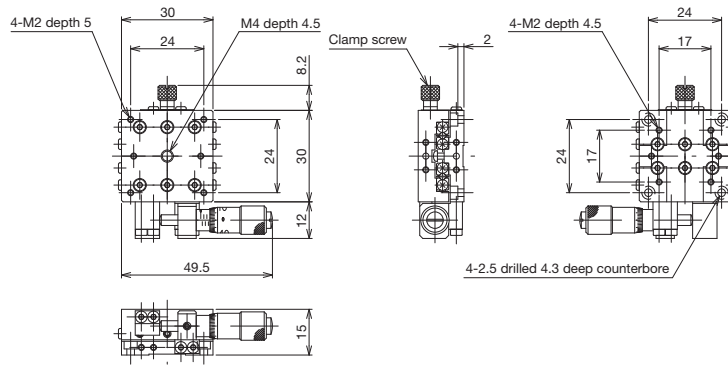


# High-Grade Stages ◀ Manual Stages ◀

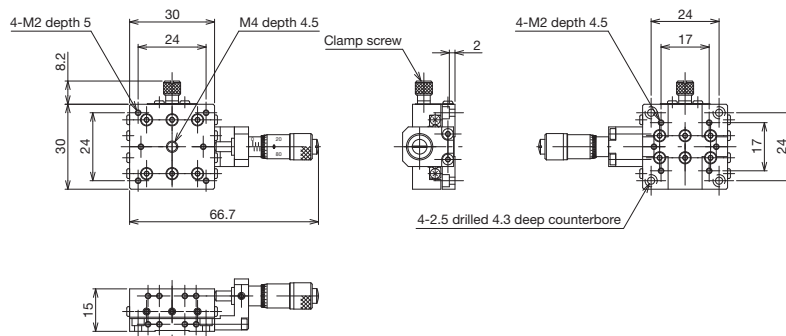
## Product Appearance



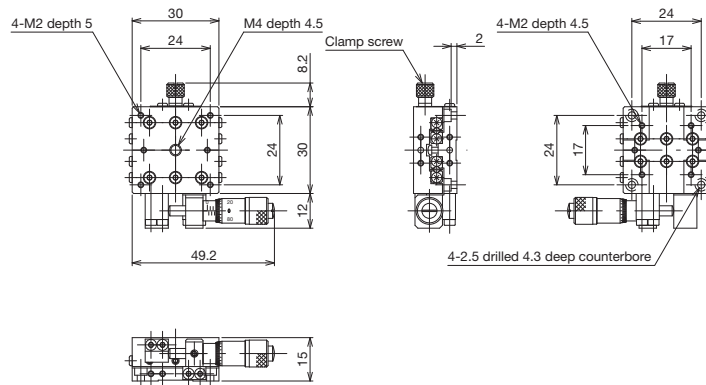
\*TLS-3047-CR1 is a symmetrical type with the same dimensions as TLS-3047-C1. ↑ TLS-3047-C1



\*TLS-3047-SR1 is a symmetrical type with the same dimensions as TLS-3047-S1. ↑ TLS-3047-S1



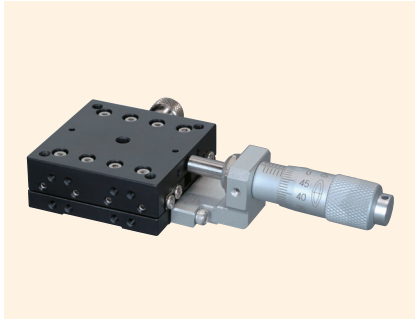
\*TLS-3047-CR8 is a symmetrical type with the same dimensions as TLS-3047-C8. ↑ TLS-3047-C8



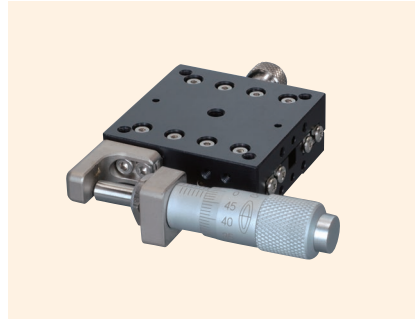
\*TLS-3047-SR8 is a symmetrical type with the same dimensions as TLS-3047-S8. ↑ TLS-3047-S8

- Motorized Stages
- Automated Products for Microscopes
- Manual Stages**
- Fix Stages
- Thin VB 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
- X/YZ Stages

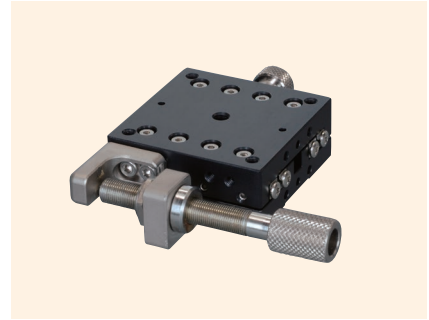
## High-Grade Aluminum - X Stages 40 x 40



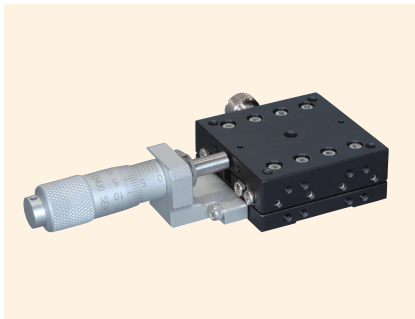
↑ TLS-4047-C1



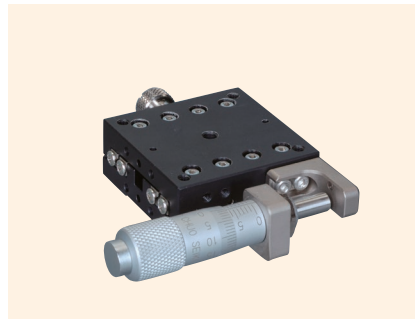
↑ TLS-4047-S1



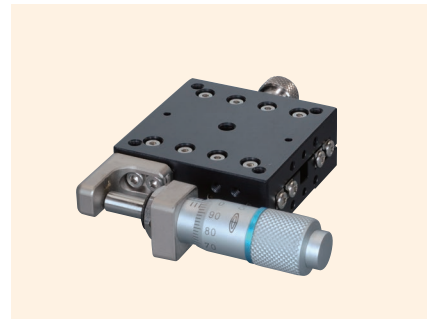
↑ TLS-4047-S6



↑ TLS-4047-CR1



↑ TLS-4047-SR1



↑ TLS-4047-S8

### Features

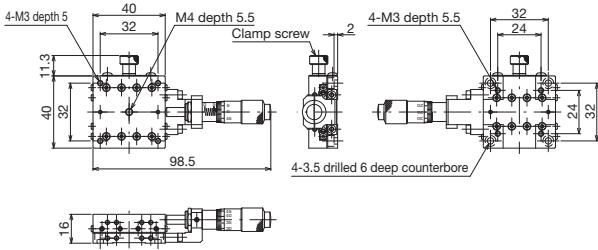
- Adopts an aluminum alloy as the main material and uses the HG-VCR method to achieve both high rigidity and light weight.
- Standard types and symmetrical types are available for a left-right symmetrical structure.
- Feed screws, standard micrometers, and fine pitch micrometers are available for the feed method.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

Model number (Standard type)	TLS-4047-C1	TLS-4047-S1	TLS-4047-C6	TLS-4047-S6	TLS-4047-C8	TLS-4047-S8
Model number (Symmetrical type)	TLS-4047-CR1	TLS-4047-SR1	TLS-4047-CR6	TLS-4047-SR6	TLS-4047-CR8	TLS-4047-SR8
Model name	High-Grade Aluminum X Stage 40 x 40					
Travel direction	X-axis single direction					
Stage surface	40 mm x 40 mm					
Clamp method	Plate clamp					
Operating part mounting position	Center	Side	Center	Side	Center	Side
Feed method	CMH-13RM (standard micrometer)		Feed screw P=0.5 mm		MHS4-6.5FP (Fine pitch micro)	
Travel amount	±6.5 mm				±3 mm	
Travel amount/1 knob rotation	0.5 mm				0.1 mm	
Scale	Micrometer 0.01 mm		-		Micrometer 0.002 mm	
Sensitivity	0.003 mm		0.01 mm		0.001 mm	
Travel guide	HG-VCR (V-groove and cross rollers)					
Travel accuracy	Straightness (horizontal/vertical) 0.002 mm Yawing 20 s, pitching 30 s					
Moment rigidity	Yaw rigidity 0.20 s/N-cm, pitch rigidity 0.50 s/N-cm, roll rigidity 0.50 s/N-cm					
Parallelism	0.030 mm					
Parallelism of motion	0.010 mm					
Load capacity	39.2 N (4 kgf)					
Mass	0.13 kg					
Main materials/surface treatment	Aluminum alloy/black satin anodized finish					



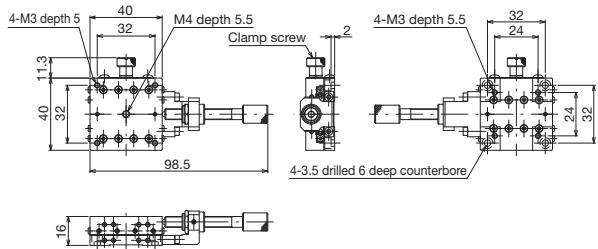
# High-Grade Stages ◀ Manual Stages ◀

## Product Appearance



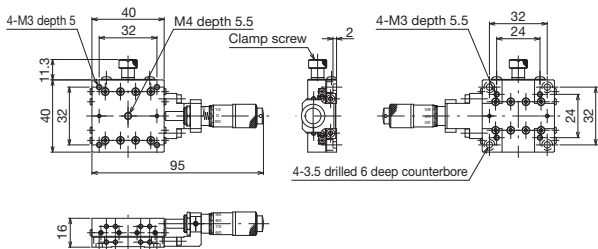
\*TLS-4047-CR1 is a symmetrical type with the same dimensions as TLS-4047-C1.

↑ TLS-4047-C1



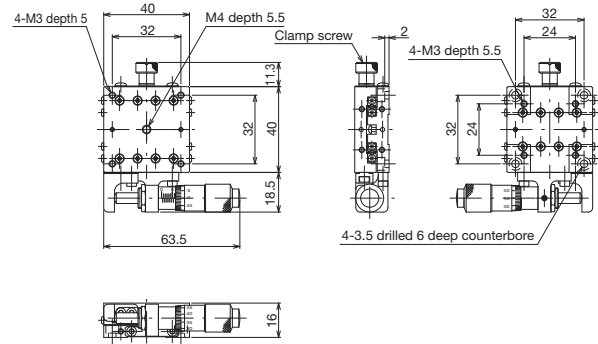
\*TLS-4047-CR6 is a symmetrical type with the same dimensions as TLS-4047-C6.

↑ TLS-4047-C6



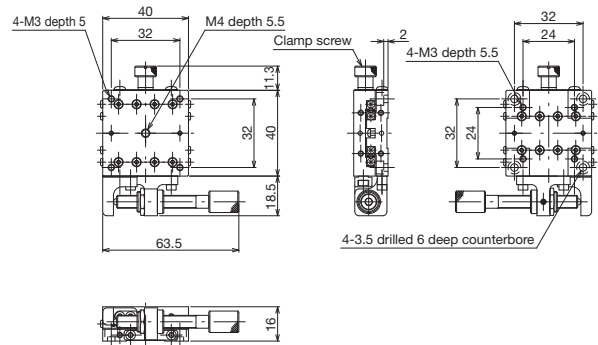
\*TLS-4047-CR8 is a symmetrical type with the same dimensions as TLS-4047-C8.

↑ TLS-4047-C8



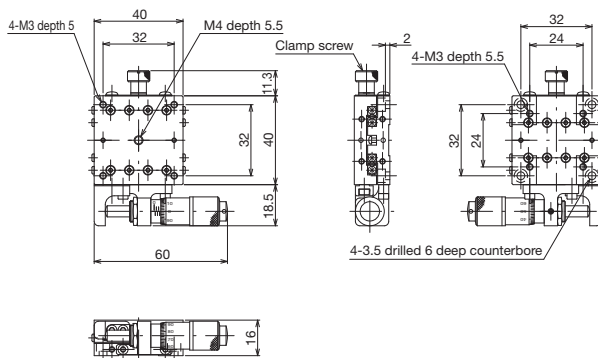
\*TLS-4047-SR1 is a symmetrical type with the same dimensions as TLS-4047-S1.

↑ TLS-4047-S1



\*TLS-4047-SR6 is a symmetrical type with the same dimensions as TLS-4047-S6.

↑ TLS-4047-S6

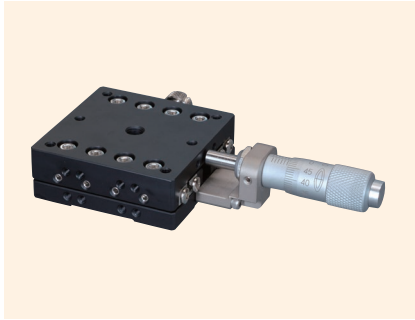


\*TLS-4047-SR8 is a symmetrical type with the same dimensions as TLS-4047-S8.

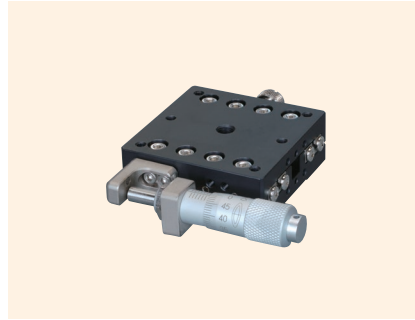
↑ TLS-4047-S8

Motorized Stages
Automated Products for Microscopes
<b>Manual Stages</b>
Fix Stages
Thin V8 Stages
Rack & Pinion Stages
High-Grade Stages
Swim Stages, Cross Roller Stages
Z-Like Stages
Rotary Stages
Tilt Stages
Tilt/Rotary Stages
XZ, YZ Stages
XYZ Stages

## High-Grade Aluminum - X Stages 50 x 50



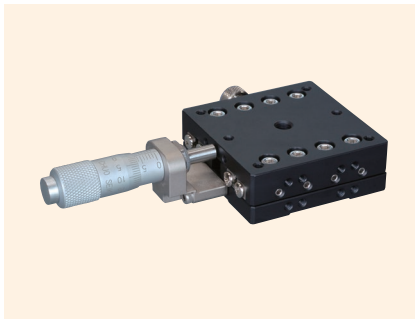
↑ TLS-5047-C1



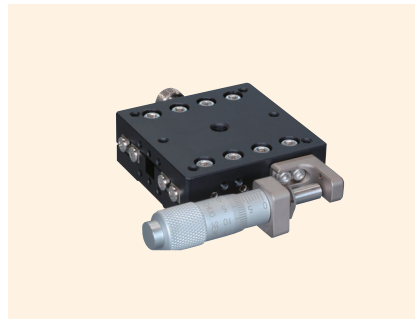
↑ TLS-5047-S1



↑ TLS-5047-S6



↑ TLS-5047-CR1



↑ TLS-5047-SR1



↑ TLS-5047-S8

### Features

- Adopts an aluminum alloy as the main material and uses the HG-VCR method to achieve both high rigidity and light weight.
- Standard types and symmetrical types are available for a left-right symmetrical structure.
- Feed screws, standard micrometers, and fine pitch micrometers are available for the feed method.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

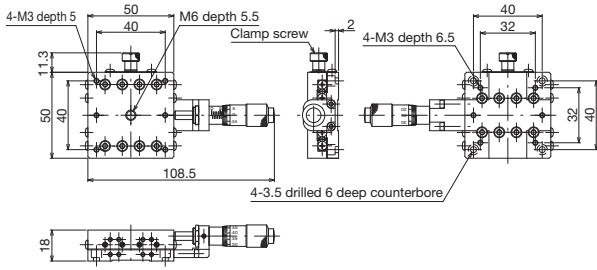
Model number (Standard type)	TLS-5047-C1	TLS-5047-S1	TLS-5047-C6	TLS-5047-S6	TLS-5047-C8	TLS-5047-S8
Model number (Symmetrical type)	TLS-5047-CR1	TLS-5047-SR1	TLS-5047-CR6	TLS-5047-SR6	TLS-5047-CR8	TLS-5047-SR8
Model name	High-Grade Aluminum X Stage 50 x 50					
Travel direction	X-axis single direction					
Stage surface	50 mm x 50 mm					
Clamp method	Plate clamp					
Operating part mounting position	Center	Side	Center	Side	Center	Side
Feed method	CMH-13RM (standard micrometer)		Feed screw P=0.5 mm		MHS4-6.5FP (Fine pitch micro)	
Travel amount	±6.5 mm				±3 mm	
Travel amount/1 knob rotation	0.5 mm				0.1 mm	
Scale	Micrometer 0.01 mm		-		Micrometer 0.002 mm	
Sensitivity	0.003 mm		0.01 mm		0.001 mm	
Travel guide	HG-VCR (V-groove and cross rollers)					
Travel accuracy	Straightness (horizontal/vertical) 0.002 mm Yawing 20 s, pitching 30 s					
Moment rigidity	Yaw rigidity 0.10 s/N-cm, pitch rigidity 0.30 s/N-cm, roll rigidity 0.30 s/N-cm					
Parallelism	0.030 mm					
Parallelism of motion	0.010 mm					
Load capacity	49 N (5 kgf)					
Mass	0.19 kg					
Main materials/surface treatment	Aluminum alloy/black satin anodized finish					



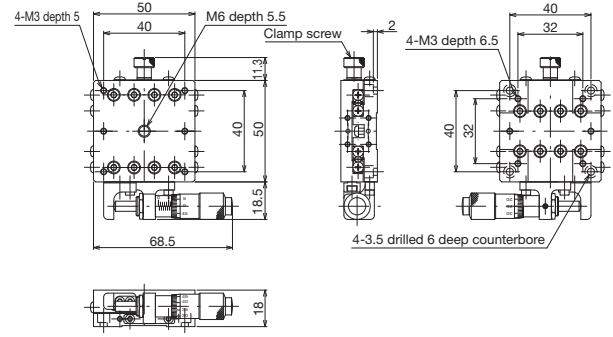
# High-Grade Stages ◀ Manual Stages ◀

## Product Appearance

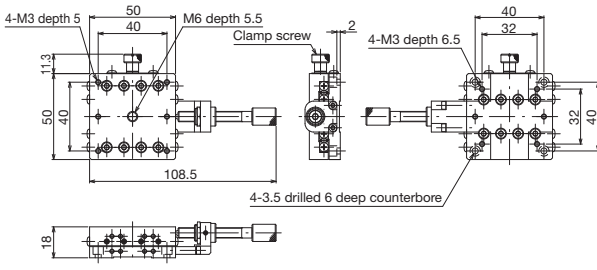
Motorized Stages
Automated Products for Microscopes
<b>Manual Stages</b>
Fix Stages
Thin VB Stages
Rack & Pinion Stages
<b>High-Grade Stages</b>
Swim Stages, Cross Roller Stages
Z-Like Stages
Rotary Stages
Tilt Stages
Tilt/Rotary Stages
XZ, YZ Stages
XYZ Stages



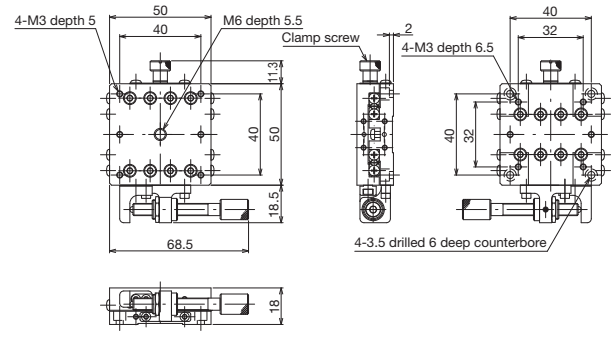
\*TLS-5047-CR1 is a symmetrical type with the same dimensions as TLS-5047-C1. ↑ TLS-5047-C1



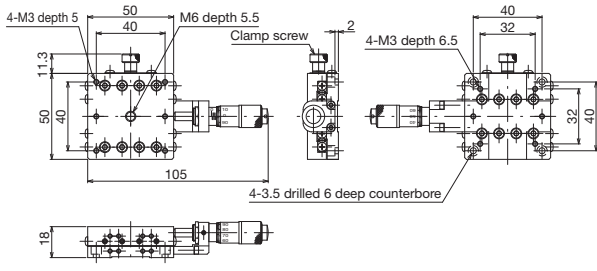
\*TLS-5047-SR1 is a symmetrical type with the same dimensions as TLS-5047-S1. ↑ TLS-5047-S1



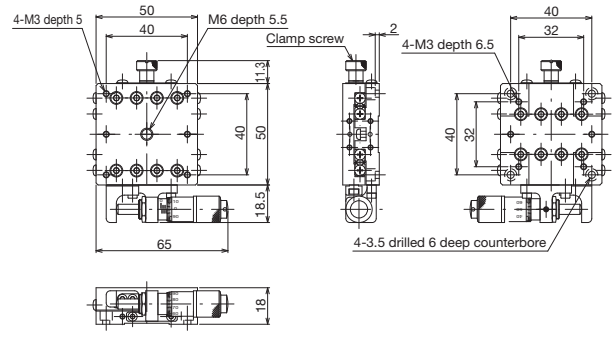
\*TLS-5047-CR6 is a symmetrical type with the same dimensions as TLS-5047-C6. ↑ TLS-5047-C6



\*TLS-5047-SR6 is a symmetrical type with the same dimensions as TLS-5047-S6. ↑ TLS-5047-S6

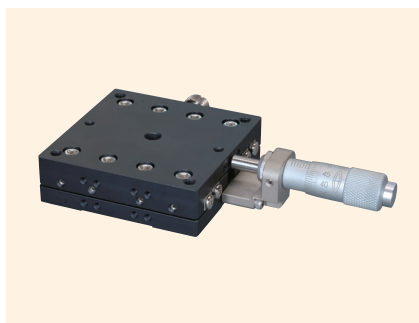


\*TLS-5047-CR8 is a symmetrical type with the same dimensions as TLS-5047-C8. ↑ TLS-5047-C8

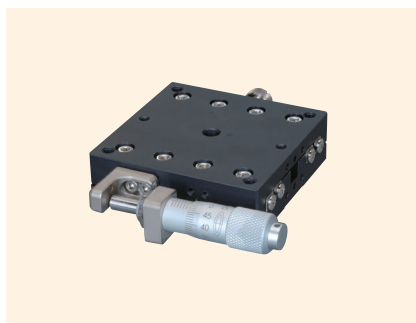


\*TLS-5047-SR8 is a symmetrical type with the same dimensions as TLS-5047-S8. ↑ TLS-5047-S8

## High-Grade Aluminum - X Stages 60 x 60



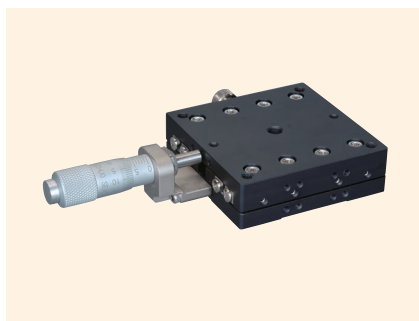
↑ TLS-6047-C1



↑ TLS-6047-S1



↑ TLS-6047-S6



↑ TLS-6047-CR1



↑ TLS-6047-SR1



↑ TLS-6047-S8

### Features

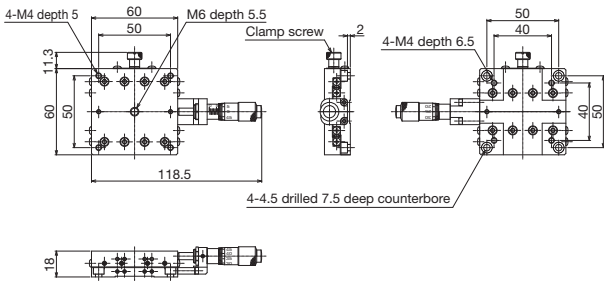
- Adopts an aluminum alloy as the main material and uses the HG-VCR method to achieve both high rigidity and light weight.
- Standard types and symmetrical types are available for a left-right symmetrical structure.
- Feed screws, standard micrometers, and fine pitch micrometers are available for the feed method.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

Model number (Standard type)	TLS-6047-C1	TLS-6047-S1	TLS-6047-C6	TLS-6047-S6	TLS-6047-C8	TLS-6047-S8
Model number (Symmetrical type)	TLS-6047-CR1	TLS-6047-SR1	TLS-6047-CR6	TLS-6047-SR6	TLS-6047-CR8	TLS-6047-SR8
Model name	High-Grade Aluminum X Stage 60 x 60					
Travel direction	X-axis single direction					
Stage surface	60 mm x 60 mm					
Clamp method	Plate clamp					
Operating part mounting position	Center	Side	Center	Side	Center	Side
Feed method	CMH-13RM (standard micrometer)		Feed screw P=0.5 mm		MHS4-6.5FP (Fine pitch micro)	
Travel amount	±6.5 mm				±3 mm	
Travel amount/1 knob rotation	0.5 mm				0.1 mm	
Scale	Micrometer 0.01 mm		-		Micrometer 0.002 mm	
Sensitivity	0.003 mm		0.01 mm		0.001 mm	
Travel guide	HG-VCR (V-groove and cross rollers)					
Travel accuracy	Straightness (horizontal/vertical) 0.002 mm Yawing 20 s, pitching 30 s					
Moment rigidity	Yaw rigidity 0.05 s/N-cm, pitch rigidity 0.20 s/N-cm, roll rigidity 0.20 s/N-cm					
Parallelism	0.030 mm					
Parallelism of motion	0.010 mm					
Load capacity	58.8 N (6 kgf)					
Mass	0.24 kg					
Main materials/surface treatment	Aluminum alloy/black satin anodized finish					



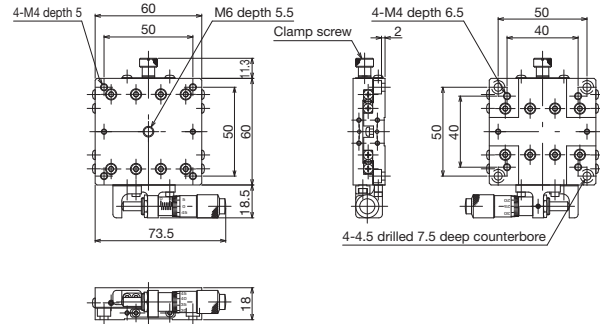
# High-Grade Stages ◀ Manual Stages ◀

## Product Appearance



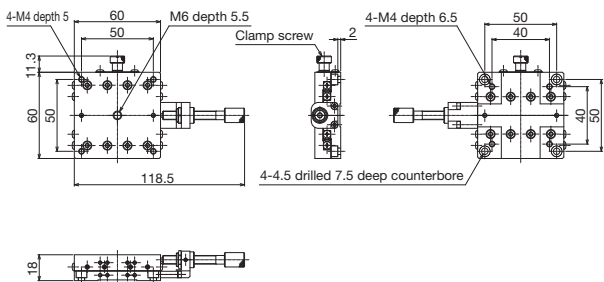
\*TLS-6047-CR1 is a symmetrical type with the same dimensions as TLS-6047-C1.

↑ TLS-6047-C1



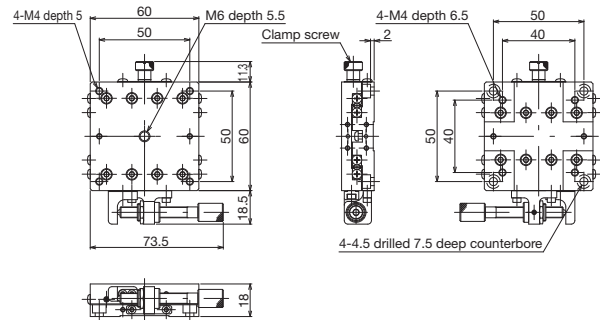
\*TLS-6047-SR1 is a symmetrical type with the same dimensions as TLS-6047-S1.

↑ TLS-6047-S1



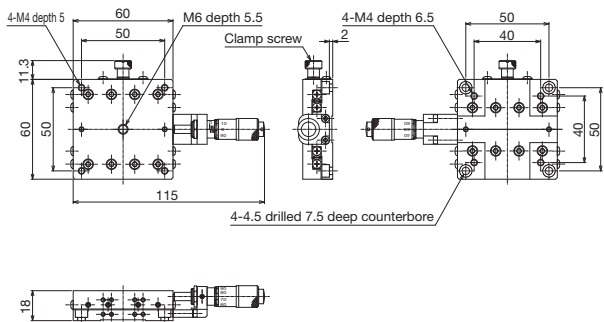
\*TLS-6047-CR6 is a symmetrical type with the same dimensions as TLS-6047-C6.

↑ TLS-6047-C6



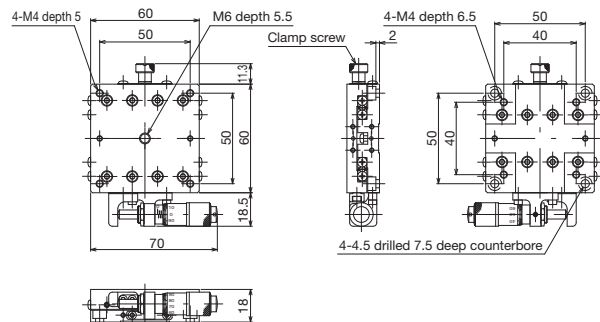
\*TLS-6047-SR6 is a symmetrical type with the same dimensions as TLS-6047-S6.

↑ TLS-6047-S6



\*TLS-6047-CR8 is a symmetrical type with the same dimensions as TLS-6047-C8.

↑ TLS-6047-C8



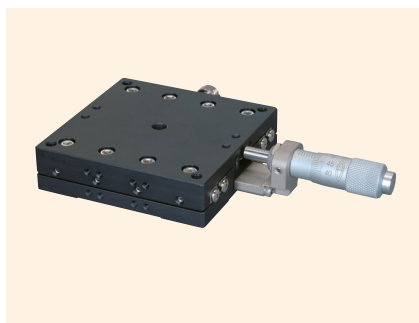
\*TLS-6047-SR8 is a symmetrical type with the same dimensions as TLS-6047-S8.

↑ TLS-6047-S8

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



## High-Grade Aluminum - X Stages 70 x 70



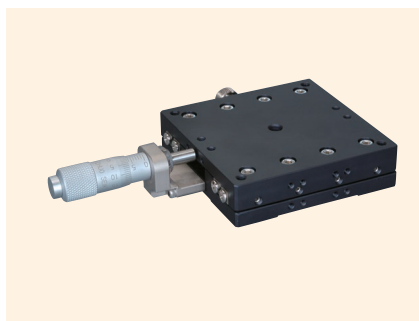
↑ TLS-7047-C1



↑ TLS-7047-S1



↑ TLS-7047-S6



↑ TLS-7047-CR1



↑ TLS-7047-SR1



↑ TLS-7047-S8

### Features

- Adopts an aluminum alloy as the main material and uses the HG-VCR method to achieve both high rigidity and light weight.
- Standard types and symmetrical types are available for a left-right symmetrical structure.
- Feed screws, standard micrometers, and fine pitch micrometers are available for the feed method.
- Versatile use for precision positioning of cameras, sensors, workpieces, and more.

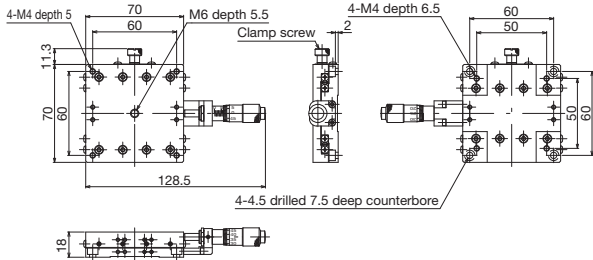
Model number (Standard type)	TLS-7047-C1	TLS-7047-S1	TLS-7047-C6	TLS-7047-S6	TLS-7047-C8	TLS-7047-S8
Model number (Symmetrical type)	TLS-7047-CR1	TLS-7047-SR1	TLS-7047-CR6	TLS-7047-SR6	TLS-7047-CR8	TLS-7047-SR8
Model name	High-Grade Aluminum X Stage 70 x 70					
Travel direction	X-axis single direction					
Stage surface	70 mm x 70 mm					
Clamp method	Plate clamp					
Operating part mounting position	Center	Side	Center	Side	Center	Side
Feed method	CMH-13RM (standard micrometer)		Feed screw P=0.5 mm		MHS4-6.5FP (Fine pitch micro)	
Travel amount	±6.5 mm				±3 mm	
Travel amount/1 knob rotation	0.5 mm				0.1 mm	
Scale	Micrometer 0.01 mm		-		Micrometer 0.002 mm	
Sensitivity	0.003 mm		0.01 mm		0.001 mm	
Travel guide	HG-VCR (V-groove and cross rollers)					
Travel accuracy	Straightness (horizontal/vertical) 0.002 mm Yawing 20 s, pitching 30 s					
Moment rigidity	Yaw rigidity 0.03 s/N-cm, pitch rigidity 0.10 s/N-cm, roll rigidity 0.10 s/N-cm					
Parallelism	0.030 mm					
Parallelism of motion	0.010 mm					
Load capacity	78.4 N (8 kgf)					
Mass	0.30 kg					
Main materials/surface treatment	Aluminum alloy/black satin anodized finish					



# High-Grade Stages ◀ Manual Stages ◀

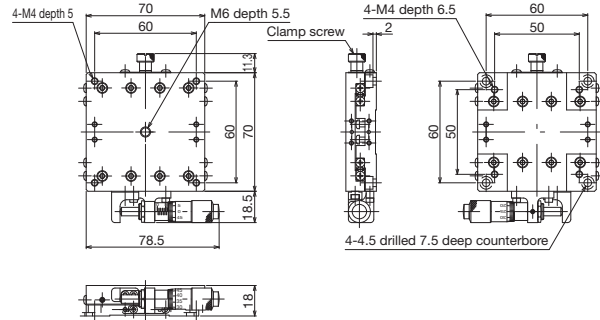
## Product Appearance

Motorized Stages
Automated Products for Microscopes
<b>Manual Stages</b>
Fix Stages
Thin V8 Stages
Rack & Pinion Stages
<b>High-Grade Stages</b>
Spin Stages, Cross Roller Stages
Z-Like Stages
Rotary Stages
Tilt Stages
Tilt/Rotary Stages
XZ, YZ Stages
XYZ Stages



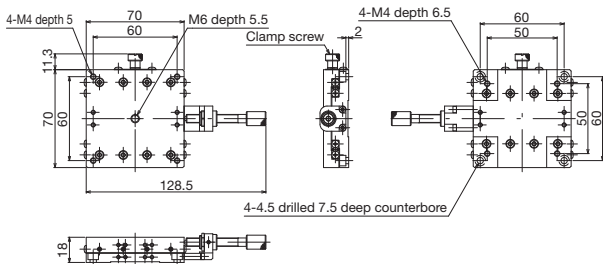
\*TLS-7047-CR1 is a symmetrical type with the same dimensions as TLS-7047-C1.

↑ TLS-7047-C1



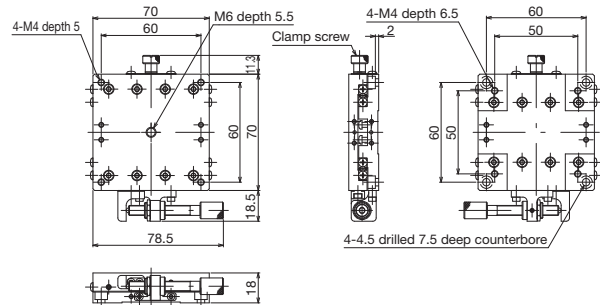
\*TLS-7047-SR1 is a symmetrical type with the same dimensions as TLS-7047-S1.

↑ TLS-7047-S1



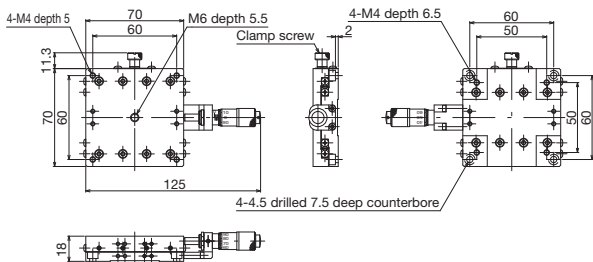
\*TLS-7047-CR6 is a symmetrical type with the same dimensions as TLS-7047-C6.

↑ TLS-7047-C6



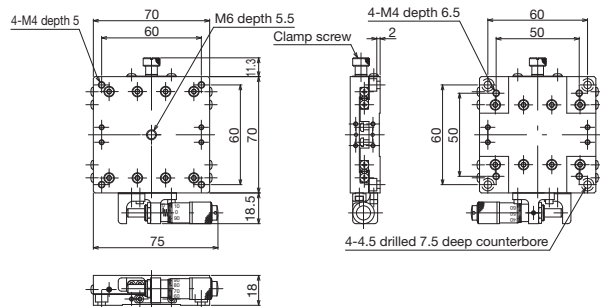
\*TLS-7047-SR6 is a symmetrical type with the same dimensions as TLS-7047-S6.

↑ TLS-7047-S6



\*TLS-7047-CR8 is a symmetrical type with the same dimensions as TLS-7047-C8.

↑ TLS-7047-C8



\*TLS-7047-SR8 is a symmetrical type with the same dimensions as TLS-7047-S8.

↑ TLS-7047-S8