



## Item Numbers

- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw
- **AC** = Crossed Roller Bearing / **VC** = Carbon Steel V-Grooved Crossed Roller Bearing
- **I** = To order Imperial model please add \* I - \* to Item number

| Item Number           | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Straightness of Travel (mm) | Travel Range (mm) | Weight / Load (kg) |
|-----------------------|------------|--------------|--------------------|-------------------------|-----------------------------|-------------------|--------------------|
| <b>TC120H-2</b>       | M          | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | 0.93 / 12          |
| <b>TC120H-2A</b>      | 100        | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | 0.92 / 12          |
| <b>TCS120H-2</b>      | M          | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | 0.93 / 25          |
| <b>TCS120H-2A</b>     | 100        | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | 0.92 / 25          |
| <b>TC120H-XY-2</b>    | M          | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | --- / 12           |
| <b>TC120H-XY-2A</b>   | 100        | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | --- / 12           |
| <b>TCS120H-XY-2</b>   | M          | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | --- / 25           |
| <b>TCS120H-XY-2A</b>  | 100        | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | --- / 25           |
| <b>TC120H-XYZ-2</b>   | M          | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | --- / 12           |
| <b>TC120H-XYZ-2A</b>  | 100        | AC           | 0.005              | (X)±0.008 (XY)±0.016    | ± 0.025                     | ± 25.4            | --- / 12           |
| <b>TCS120H-XYZ-2</b>  | M          | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | --- / 25           |
| <b>TCS120H-XYZ-2A</b> | 100        | VC           | 0.003              | (X)±0.004 (XY)±0.008    | ± 0.01                      | ± 25.4            | --- / 25           |

## Constructing XYZ translation stages

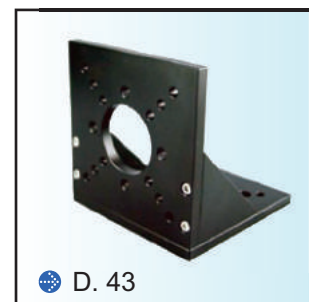
The TC / TCS / TS / TSS 120H-series 2" Travel Range Linear Stages can be integrated with (AB-2) 90° angle brackets for constructing 3-axis XYZ translation stages.



## Related

### PRODUCTS

Related products for stages assemblies

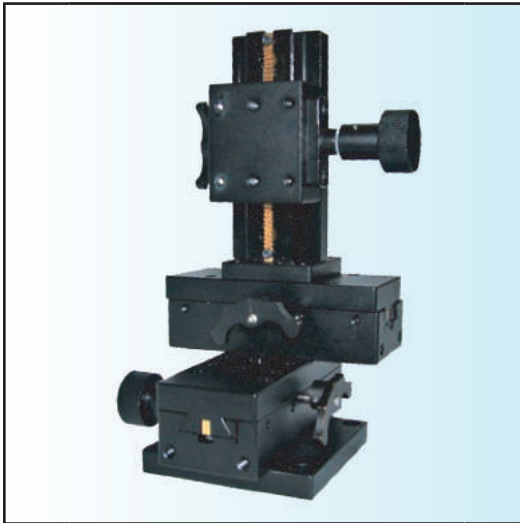


D. 43

AB-2

◀ Please see the previous page for more product information for TC / TCS / TS / TSS 120H-series linear stages

## 2" Miniature Dovetail Translation Stages



### Overview

- Travel Range : 60 mm
- Resolution: 0.1 mm
- Straightness:  $\leq 0.03$  mm
- Weight: 1.5 kg (completed integrated XYZ stage)
- Loading: 2.0 kg
- Stage Material : Aluminum
- Dovetail with pinion design
- Lockable by knobs
- Scale with 1mm increment
- Metric / Imperial versions are available
- To order Imperial model please add \* I-\* to Item

The TGV34-XYZ stage features dovetail cutting rails with oblique rack gear design for easy operation and precise positioning. Each of the XYZ axis can be fixed and locked in place individually with locking knob. The base for combining the stage with other components is also included.

### Specification

**TGV34-24**

5-M6\*1P[1/20W]  
46 [1.81] 25[1]  
50[2]  
60.0 [2.36]  
35 [1.38]  
50[2]  
4-M4CLR  
10-M4\*0.7P [8-32W]

**TGV34-60Z**

34.0 [1.34]  
25[1]  
80 [3.15]  
25 [1]  
3-M6\*1P [1/4-20W]  
4-M3\*0.5P  
43.0 [1.69]  
94 [3.7]  
4-M4CLR  
50[2]  
8-M4\*0.7P  
25[1]  
50[2]

Please see the following page for more product information of TGV34 - series ▶



Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

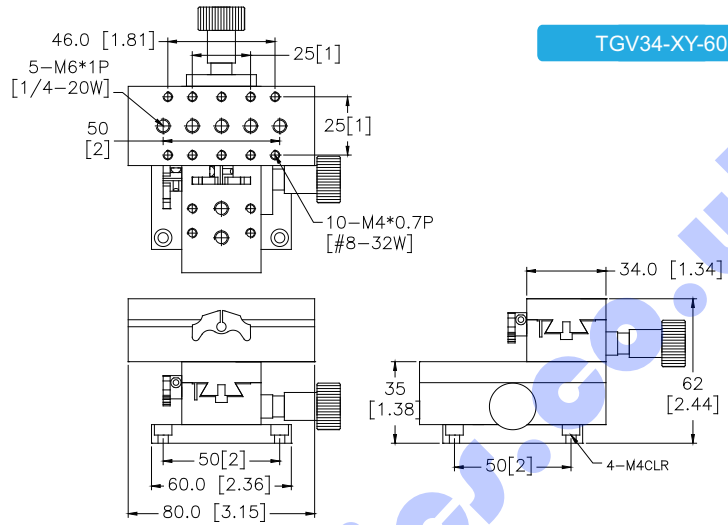
Lasers

Optics & Crystals

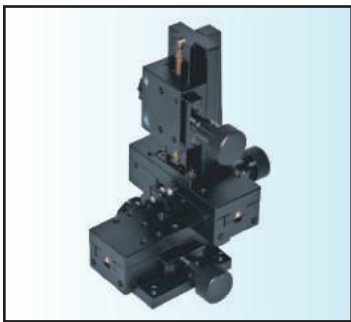
Other Equipment



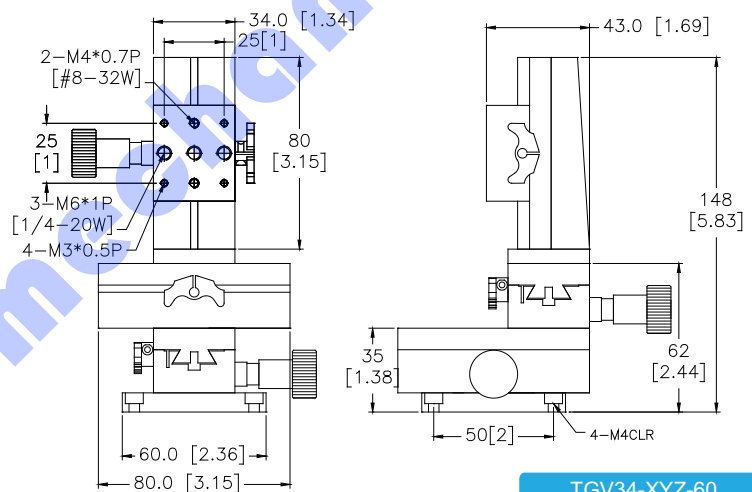
TGV34-XY-60



TGV34-XY-60



TGV34-XYZ-60



TGV34-XYZ-60

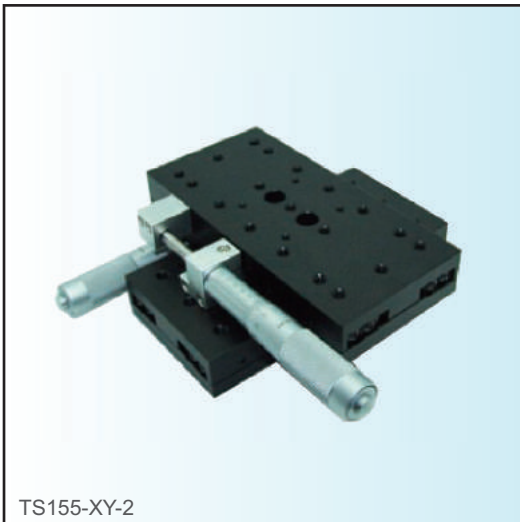
Item Numbers

- **DV** = Dovetail
- **I** = To order Imperial model please add \* I - \* to Item num

| Item Number         | Base Dimension (mm) | Travel Range (mm) | Travel Guide | Straightness (mm) | Resolution (mm) | Weight / Load (mm) |
|---------------------|---------------------|-------------------|--------------|-------------------|-----------------|--------------------|
| <b>TGV34-16Z</b>    | 34 x 34             | 40                | DV           | ≤ 0.03            | 0.1             | 0.20 / 00          |
| <b>TGV34-60</b>     | 60 x 60             | 60                | DV           | ≤ 0.03            | 0.1             | 0.28 / 00          |
| <b>TGV34-XY-60</b>  | 60 x 60             | 60                | DV           | ≤ 0.03            | 0.1             | 0.52 / 00          |
| <b>TGV34-XYZ-60</b> | 60 x 60             | 60                | DV           | ≤ 0.03            | 0.1             | 0.74 / 00          |

◀ More product information of TGV34-series on the previous page

## 2" Travel Range Linear Stages (155 x 76 mm)



TS155-XY-2

### Overview

- Stage Dimension : 155 x 76 mm
- Travel Range : 2" ( ± 25.4 mm )
- Load Capacity: 20~40 kg
- Stage Material : Aluminum (black anodized)
- Micrometer or adjustment screws driven at side position
- Rail : (TC/TS) V-Grooved crossed roller bearing
- Rail : (TCS/TSS) Stainless steel V-Grooved crossed roller bearing
- Allows assembly of 2 or 3-axis stages with angle bracket (AB-1N)
- Metric / Imperial Versions available
- To order Imperial model please add \* I-\* to Item number

### Specification

2

OPTIONS

of rail for better precision movement

1

#### Crossed Roller Bearing (AC)



TC/TS155-series

V-Grooved raceway on the dedicated rail for achieving high precision, stability and larger load capacity.

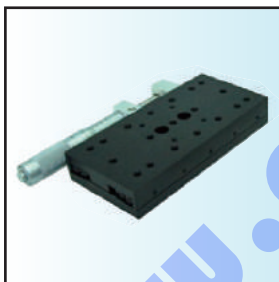
2

#### V-Grooved Crossed Roller Bearing (VC)

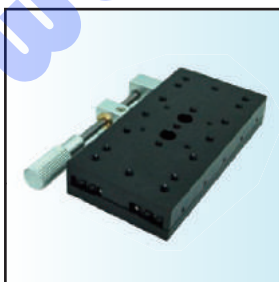


TCS/TSS155-series

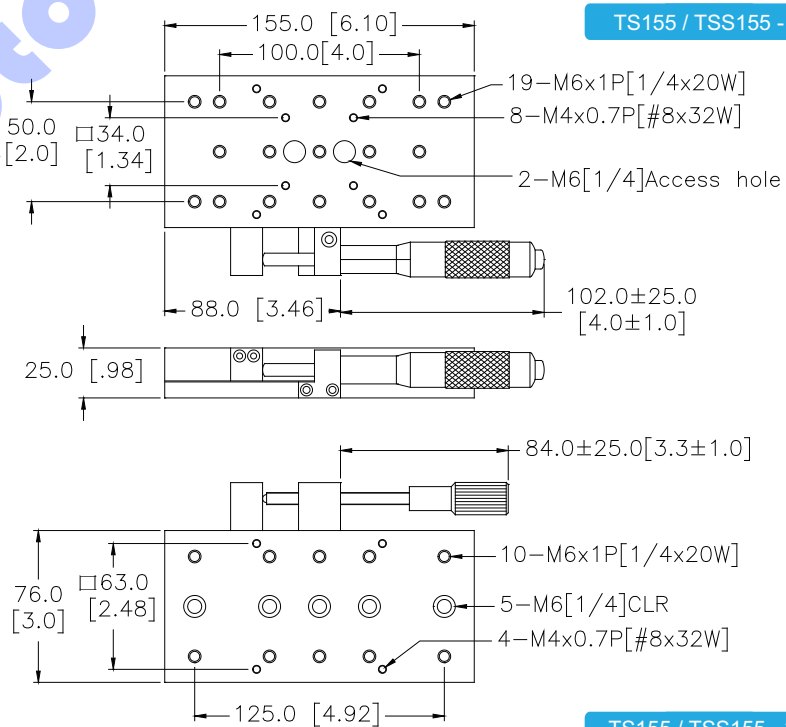
Crossed-roller bearing preloaded provides smooth, stable and negligible backlash adjustment



TS155 / TSS155 - 2



TS155 / TSS155 - 2A



Please see the following page for more product information of TS / TSS 155 - series ▶



### Item Numbers

- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw
- **AC** = Crossed Roller Bearing / **VC** = Carbon Steel V-Grooved Crossed Roller Bearing
- **I** = To order Imperial model please add \* I - \* to Item num

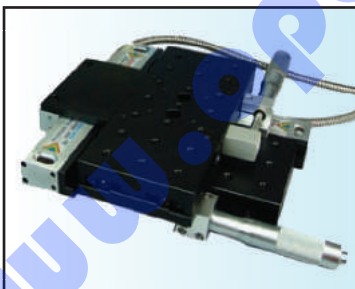
#### TS - series

| Item Number         | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|---------------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| <b>TS155-2</b>      | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS155-2A</b>     | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |
| <b>TS155-XY-2</b>   | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS155-XY-2A</b>  | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |
| <b>TS155-XYZ-2</b>  | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS155-XYZ-2A</b> | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |

#### TSS - series

| Item Number          | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|----------------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| <b>TSS155-2</b>      | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS155-2A</b>     | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |
| <b>TSS155-XY-2</b>   | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS155-XY-2A</b>  | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |
| <b>TSS155-XYZ-2</b>  | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS155-XYZ-2A</b> | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |

## TSS155XY-2R Manual Translation Stage with Linear Encoder

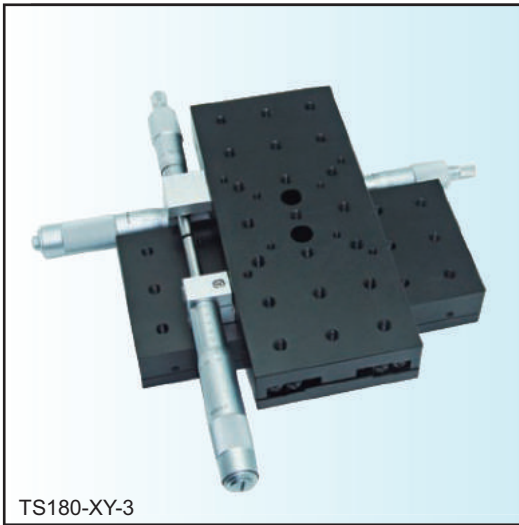


- Apply optical measuring rail with 1 um resolution.
- Monitor display the steps that X and Y axis move.
- V-Grooved hardened stainless steel with / crossed-roller bearing
- Travel : 50 mm
- Micrometer driven

- Measure Accuracy : ± 8 um / m
- Measure Basis : Optic grating cycle 20um
- React speed : 50m / min
- Reading Design : Vertical five bearing
- Output signal : TTL/EIA-422-A
- Signal Transfer Cycle : 4 um
- Signal Line Range : 3 m
- Power : DC 5V ±5%
- Operating Temperature : 0~50°C

◀ Please see the previous page for more product information of TS / TSS 155 - series

# 3" Travel Range Linear Stages (180 x 80 mm)



TS180-XY-3

## Overview

- Stage Dimension : 180 x 80 mm
- Travel Range : 3" ( ± 38.0 mm )
- Load Capacity: 20~40 kg
- Stage Material : Aluminum (black anodized)
- Micrometer or adjustment screws driven at side position
- Rail : (TC/TS) V-Grooved crossed roller bearing
- Rail : (TCS/TSS) Stainless steel V-Grooved crossed roller bearing
- Allows assembly of 3-axis stages with vertical bracket (VAB-150)
- Metric / Imperial Versions available
- To order Imperial model please add \* I-\* to Item number

## Specification

2

OPTIONS  
of rail design for better precision movement

1

### Crossed Roller Bearing (AC)



TC/TS180-series

V-Grooved raceway on the dedicated rail for achieving high precision, stability and larger load capacity.

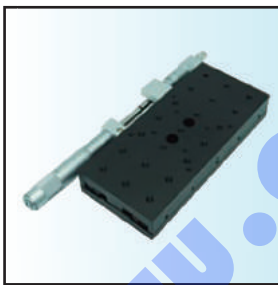
2

### V-Grooved Crossed Roller Bearing (VC)



TCS/TSS180-series

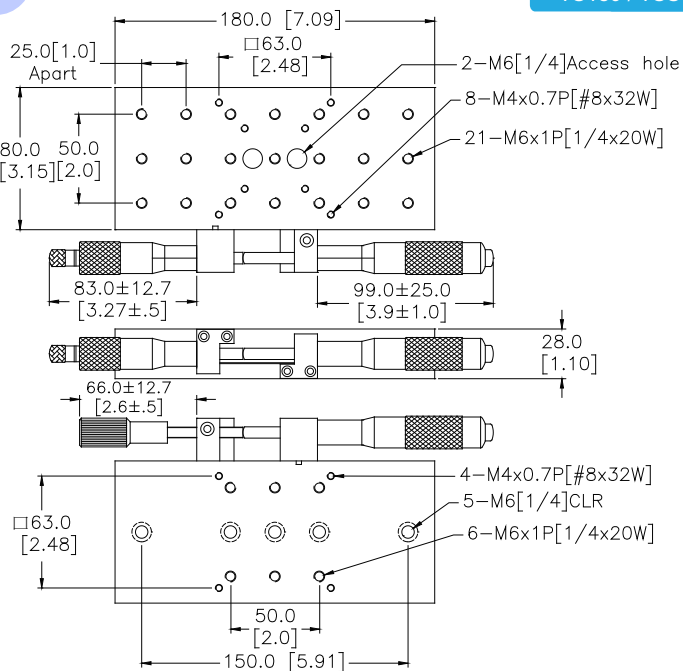
Crossed-roller bearing preloaded provides smooth, stable and negligible backlash adjustment



TS180 / TSS180 - 3



TS180 / TSS180 - 3A



Please see the following page for more product information of TS / TSS 180 - series ▶



### Item Numbers

- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw
- **AC** = Crossed Roller Bearing / **VC** = Carbon Steel V-Grooved Crossed Roller Bearing
- **I** = To order Imperial model please add \* I - \* to Item number

TS - series

| Item Number         | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|---------------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| <b>TS180-3</b>      | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS180-3A</b>     | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |
| <b>TS180-XY-3</b>   | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS180-XY-3A</b>  | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |
| <b>TS180-XYZ-3</b>  | M          | AC           | 0.005              | ± 0.01                  | 0.01                | ± 25.4            | 1.12 / 20          |
| <b>TS180-XYZ-3A</b> | 100        | AC           | 0.005              | ± 0.01                  | ---                 | ± 25.4            | 1.10 / 20          |

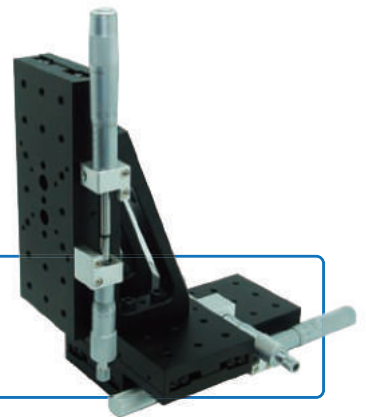
- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw
- **AC** = Crossed Roller Bearing / **VC** = Carbon Steel V-Grooved Crossed Roller Bearing
- **I** = To order Imperial model please add \* I - \* to Item number

TSS - series

| Item Number          | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|----------------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| <b>TSS180-3</b>      | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS180-3A</b>     | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |
| <b>TSS180-XY-3</b>   | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS180-XY-3A</b>  | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |
| <b>TSS180-XYZ-3</b>  | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 25.4            | 1.12 / 40          |
| <b>TSS180-XYZ-3A</b> | 100        | VC           | 0.003              | ± 0.005                 | ---                 | ± 25.4            | 1.10 / 40          |

## Constructing XYZ translation stages

The TS / TSS 180-series 3" Travel Range Linear Stage can be integrated with VAB-150 vertical brackets for constructing 3-axis XYZ translation stages.



## Related

PRODUCTS

Related products for stages assemblies

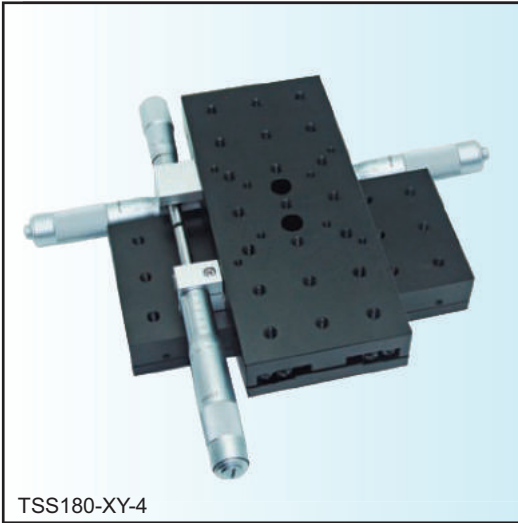


D. 48

VAB - 150

◀ Please see the previous page for more product information of TS / TSS 155 - series

# 4" Travel Range Linear Stages (180 x 80 mm)

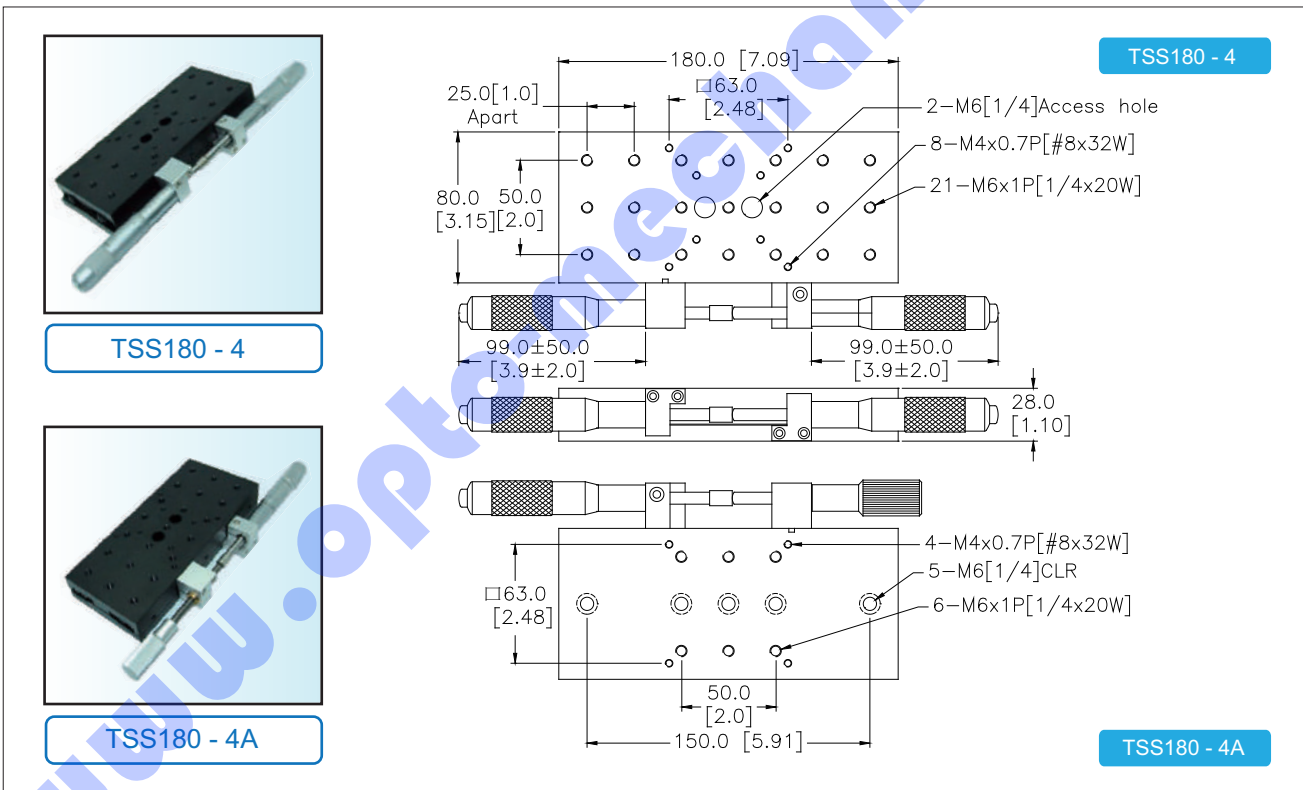


TSS180-XY-4

### Overview

- Stage Dimension : 180 x 80 mm
- Travel Range : 4" ( ± 50.0 mm )
- Load Capacity: 40 kg
- Stage Material : Aluminum (black anodized)
- Micrometer or adjustment screws driven at side position
- Rail : Stainless steel V-Grooved crossed roller bearing
- Metric / Imperial Versions available
- Additional lock knob can be added with extra charges
- To order Imperial model please add \* I- \* to Item number

### Specification & Item Numbers



- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw / **I** = To order Imperial model please add \* I- \* to Item number
- **VC** = Carbon Steel V-Grooved Crossed Roller Bearing

| Item Number  | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|--------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| TSS180-4     | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 50.0            | 1.31 / 40          |
| TSS180-4A    | 100 / M    | VC           | 0.003              | ± 0.005                 | ---                 | ± 50.0            | 1.31 / 40          |
| TSS180-XY-4  | M          | VC           | 0.003              | ± 0.005                 | 0.01                | ± 50.0            | ---                |
| TSS180-XY-4A | 100 / M    | VC           | 0.003              | ± 0.005                 | ---                 | ± 50.0            | ---                |





STC  
25

# 0.3" Stainless Steel Linear Stages (Central 25 x 25 mm)

Optical Tables

Stages

Optical Mounts

Components

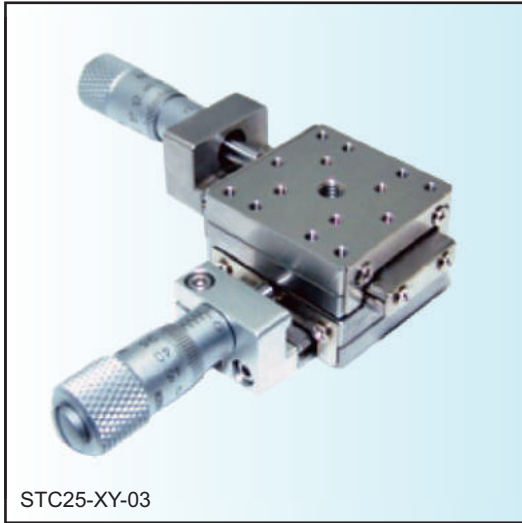
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment

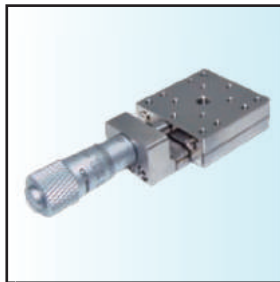


STC25-XY-03

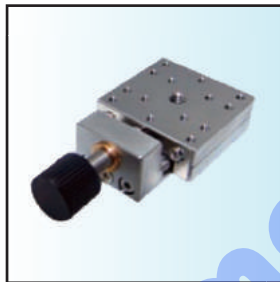
### Overview

- Stage Dimension : 25 x 25 mm
- Travel Range : 0.3" ( ± 3.5 mm )
- Weight: 0.1~0.12 kg
- Load Capacity: 2 kg
- Micrometer / Lead Screw at central driven
- Stage Material : Stainless steel
- Rail : Stainless steel V-grooved crossed roller bearing
- Metric / Imperial versions available
- 100 pitch / 130 pitch screws or micrometer available
- To order Imperial model please add \* I - \* to Item numbers
- To order 130 pitch screws please add \* F \* to item numbers
- Allows assembly of XYZ axial with STL-25 angle bracket

### Specification & Item Numbers



STC25 - 03



STC25 - 03A

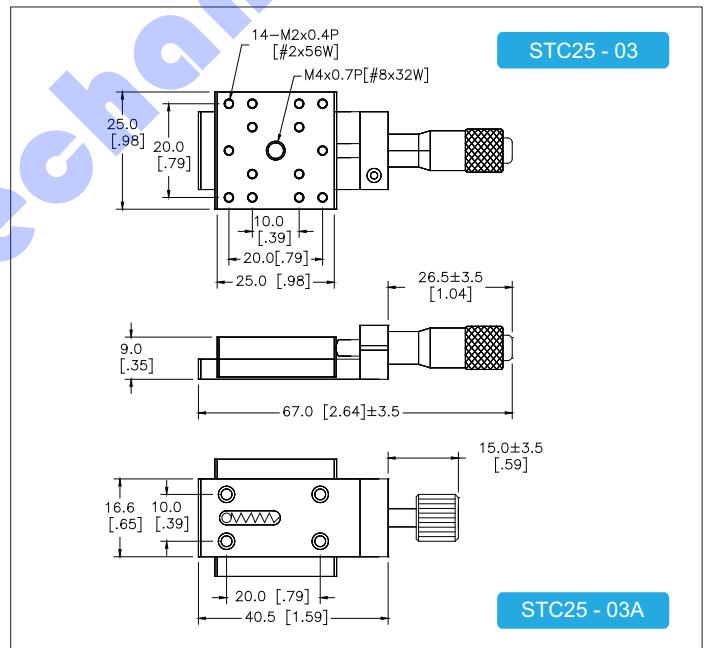
**Related PRODUCTS**

Related products for stages assemblies



D. 58

STL - 25

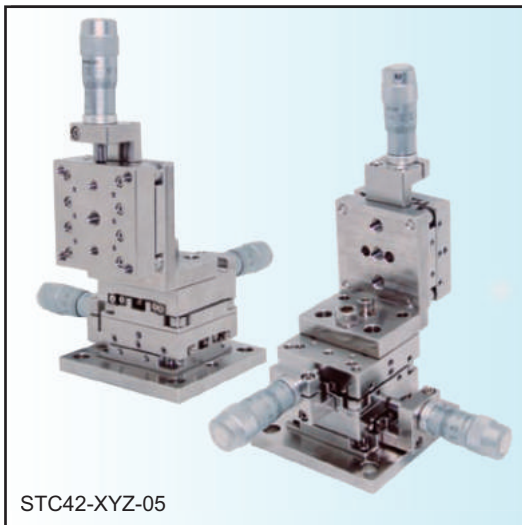


| Item Number   | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|---------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| STC25-03      | M          | SC           | 0.005              | ± 0.005                 | 0.01                | ± 3.5             | 0.12 / 2           |
| STC25-03A     | 100        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | 0.10 / 2           |
| STC25-03F     | 130        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | 0.10 / 2           |
| STC25-XY-03   | M          | SC           | 0.005              | ± 0.005                 | 0.01                | ± 3.5             | --- / 2            |
| STC25-XY-03A  | 100        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | --- / 2            |
| STC25-XY-03F  | 130        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | --- / 2            |
| STC25-XYZ-03  | M          | SC           | 0.005              | ± 0.005                 | 0.01                | ± 3.5             | --- / 2            |
| STC25-XYZ-03A | 100        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | --- / 2            |
| STC25-XYZ-03F | 130        | SC           | 0.005              | ± 0.005                 | ---                 | ± 3.5             | --- / 2            |

• **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw / **SC** = Stainless Steel V-Grooved Crossed Roller Bearing

• To order Imperial model please add \* I - \* to Item number

# 0.5" Stainless Steel Linear Stages (Central 42 x 42 mm)

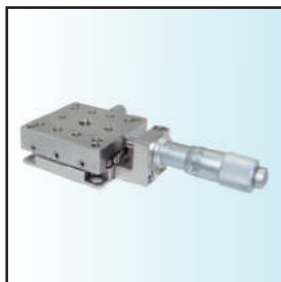


STC42-XYZ-05

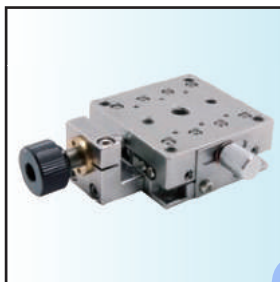
## Overview

- Stage Dimension : 42 x 42 mm
- Travel Range : 0.5" ( ± 6.5 mm )
- Weight: 0.2kg (05) / 0.22 kg (05F/05A)
- Load Capacity: 5 kg
- Micrometer / Lead Screw at central driven
- Stage Material : Stainless steel
- Rail : Stainless steel V-grooved crossed roller bearing
- Metric / Imperial versions available
- 100 pitch / 130 pitch screws or micrometer available
- To order Imperial model please add \* I - \* to Item numbers
- To order 130 pitch screws please add \* F \* to item numbers
- Allows assembly of XYZ axial with STL-42 angle bracket

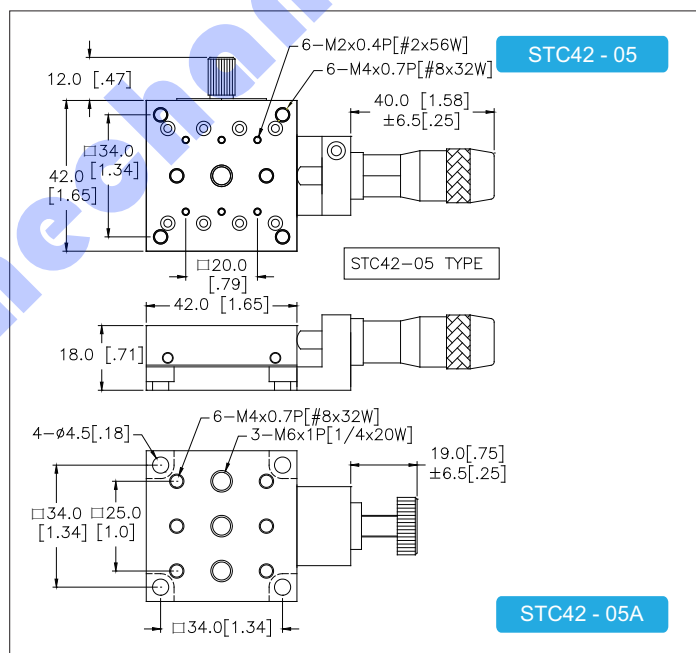
## Specification & Item Numbers



STC42 - 05



STC42 - 05A



## Related PRODUCTS

Related products for stages assemblies



STL - 42

| Item Number   | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|---------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| STC42-05      | M          | SC           | 0.003              | ± 0.003                 | 0.01                | ± 6.5             | 0.20 / 5           |
| STC42-05A     | 100        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | 0.22 / 5           |
| STC42-05F     | 130        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | 0.22 / 5           |
| STC42-XY-05   | M          | SC           | 0.003              | ± 0.003                 | 0.01                | ± 6.5             | --- / 5            |
| STC42-XY-05A  | 100        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | --- / 5            |
| STC42-XY-05F  | 130        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | --- / 5            |
| STC42-XYZ-05  | M          | SC           | 0.003              | ± 0.003                 | 0.01                | ± 6.5             | --- / 5            |
| STC42-XYZ-05A | 100        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | --- / 5            |
| STC42-XYZ-05F | 130        | SC           | 0.003              | ± 0.003                 | ---                 | ± 6.5             | --- / 5            |

• **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw / **SC** = Stainless Steel V-Grooved Crossed Roller Bearing

• To order Imperial model please add \* I - \* to Item number



STC 60

# 0.6" Stainless Steel Linear Stages (Central 60 x 60 mm)

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

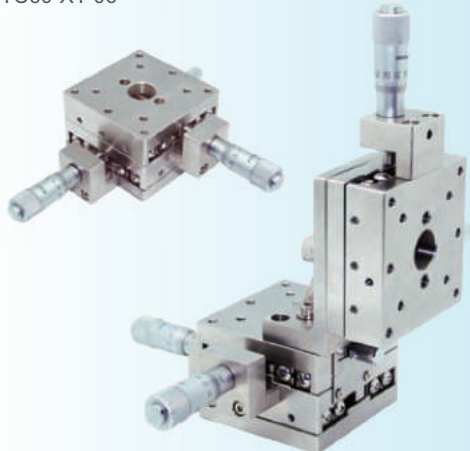
Education Systems

Lasers

Optics & Crystals

Other Equipment

STC60-XY-06

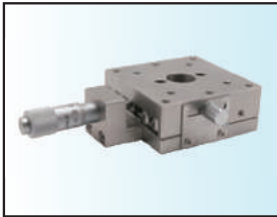


STC60-XYZ-06

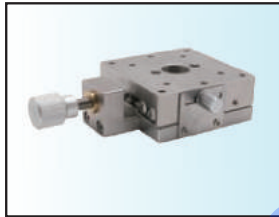
## Overview

- Stage Dimension : 60 x 60 mm
- Travel Range : 0.6" ( ± 7.5 mm )
- Load Capacity: 10 kg
- Micrometer / Lead Screw at central driven
- Stage Material : Stainless steel
- Rail : Stainless steel V-grooved crossed roller bearing
- Metric / Imperial versions available
- 100 pitch / 130 pitch screws or micrometer available
- To order Imperial model please add \* I - \* to Item numbers
- To order 130 pitch screws please add \* F \* to item numbers
- Allows assembly of XYZ axial with STL-60 angle bracket

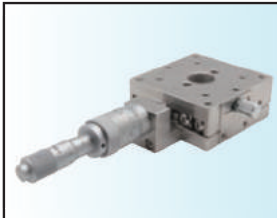
## Specification & Item Numbers



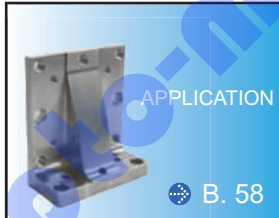
STC60 - 06



STC60 - 06A



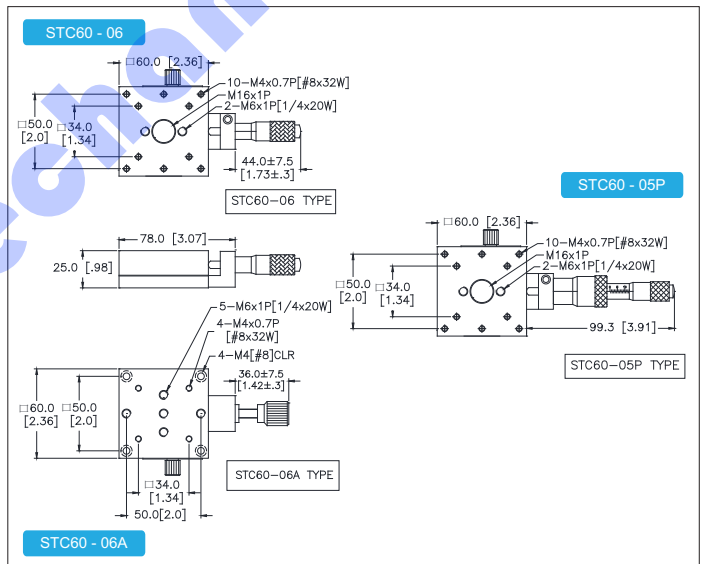
STC60 - 05P



STL - 60

APPLICATION

B. 58



| Item Number   | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|---------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| STC60-06      | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | 0.33 / 10          |
| STC60-06A     | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | 0.32 / 10          |
| STC60-06F     | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | 0.32 / 10          |
| STC60-05P     | M          | SC           | 0.001              | ± 0.006                 | 0.0005              | ± 6.5             | ---                |
| STC60-XY-06   | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | ---                |
| STC60-XY-06A  | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | ---                |
| STC60-XY-06F  | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | ---                |
| STC60-XY-05P  | M          | SC           | 0.001              | ± 0.006                 | 0.0005              | ± 6.5             | ---                |
| STC60-XYZ-06  | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | ---                |
| STC60-XYZ-06A | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | ---                |
| STC60-XYZ-06F | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | ---                |
| STC60-XYZ-06A | M          | SC           | 0.001              | ± 0.006                 | 0.0005              | ± 6.5             | ---                |

- **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw / **SC** = Stainless Steel V-Grooved Crossed Roller Bearing
- To order Imperial model please add \* I - \* to Item number

# 0.6" Stainless Steel Linear Stages (Side 60 x 60 mm)

Optical Tables

Stages

Optical Mounts

Components

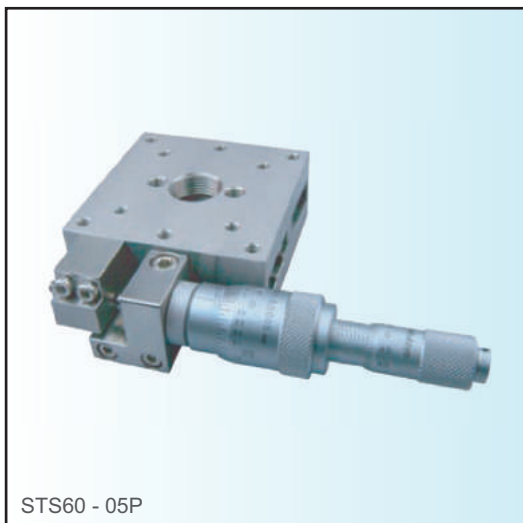
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



STS60 - 05P

### Overview

- Stage Dimension : 60 x 60 mm
- Travel Range : 0.6" ( ± 7.5 mm )
- Load Capacity : 10 kg
- Micrometer / Lead Screw at side driven
- Stage Material : Stainless steel
- Rail : Stainless steel V-grooved crossed roller bearing
- Metric / Imperial versions available
- 100 pitch / 130 pitch screws or micrometer available
- To order Imperial model please add \* I - \* to Item numbers
- To order 130 pitch screws please add \* F \* to item numbers
- Allows assembly of XYZ axial with STL-60 angle bracket
- **STS60-05P** : Utilizing Mitutoyo micrometer #110-502 to reach 0.0005 mm reading figure

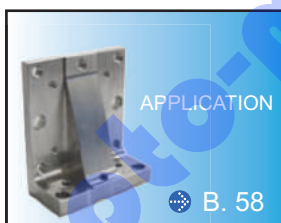
### Specification & Item Numbers



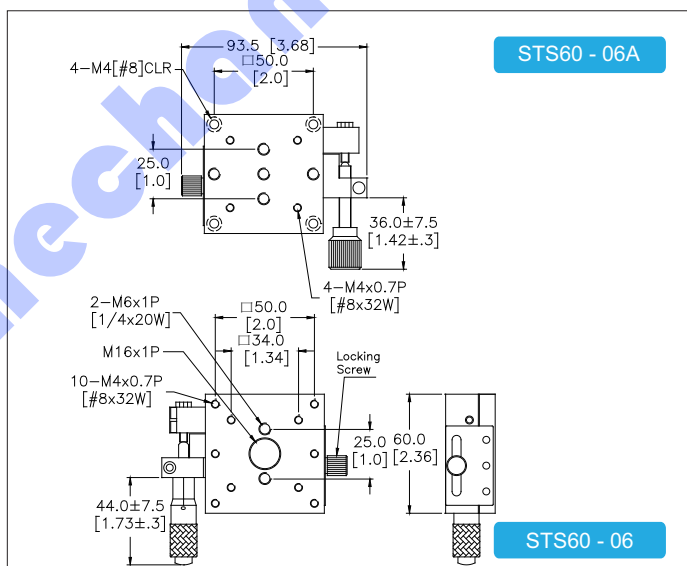
STS60 - 06

**Related PRODUCTS**

Related products for stages assemblies



STL - 60



| Item Number          | Drive Type | Travel Guide | Repeatability (mm) | Moving Parallelism (mm) | Reading Figure (mm) | Travel Range (mm) | Weight / Load (kg) |
|----------------------|------------|--------------|--------------------|-------------------------|---------------------|-------------------|--------------------|
| <b>STS60-06</b>      | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | 0.31 / 10          |
| <b>STS60-06A</b>     | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | 0.30 / 10          |
| <b>STS60-06F</b>     | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | 0.30 / 10          |
| <b>STS60-05P</b>     | M          | SC           | 0.002              | ± 0.006                 | 0.0005              | ± 6.5             | 0.30 / 10          |
| <b>STS60-XY-06</b>   | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | --- / 10           |
| <b>STS60-XY-06A</b>  | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | --- / 10           |
| <b>STS60-XY-06F</b>  | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | --- / 10           |
| <b>STS60-XY-05P</b>  | M          | SC           | 0.002              | ± 0.006                 | 0.0005              | ± 6.5             | --- / 10           |
| <b>STS60-XYZ-06</b>  | M          | SC           | 0.003              | ± 0.006                 | 0.01                | ± 7.5             | --- / 10           |
| <b>STS60-XYZ-06A</b> | 100        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | --- / 10           |
| <b>STS60-XYZ-06F</b> | 130        | SC           | 0.003              | ± 0.006                 | ---                 | ± 7.5             | --- / 10           |
| <b>STS60-XYZ-05P</b> | M          | SC           | 0.002              | ± 0.006                 | 0.0005              | ± 6.5             | --- / 10           |

• **M** = Micrometer / **100** = 100 pitch screw / **130** = 130 pitch screw / **SC** = Stainless Steel V-Grooved Crossed Roller Bearing  
 • To order Imperial model please add \* I - \* to Item number

**STC  
80****STS  
80**

# 1" Stainless Steel Linear Stages (80 x 80 mm)

Optical Tables

Stages

Optical Mounts

Components

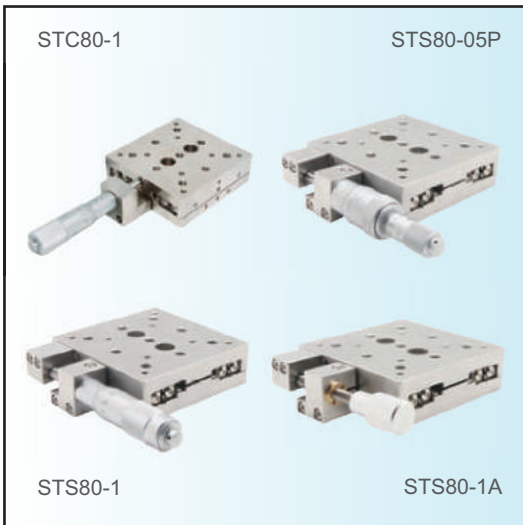
Motion Systems

Education Systems

Lasers

Optics &amp; Crystals

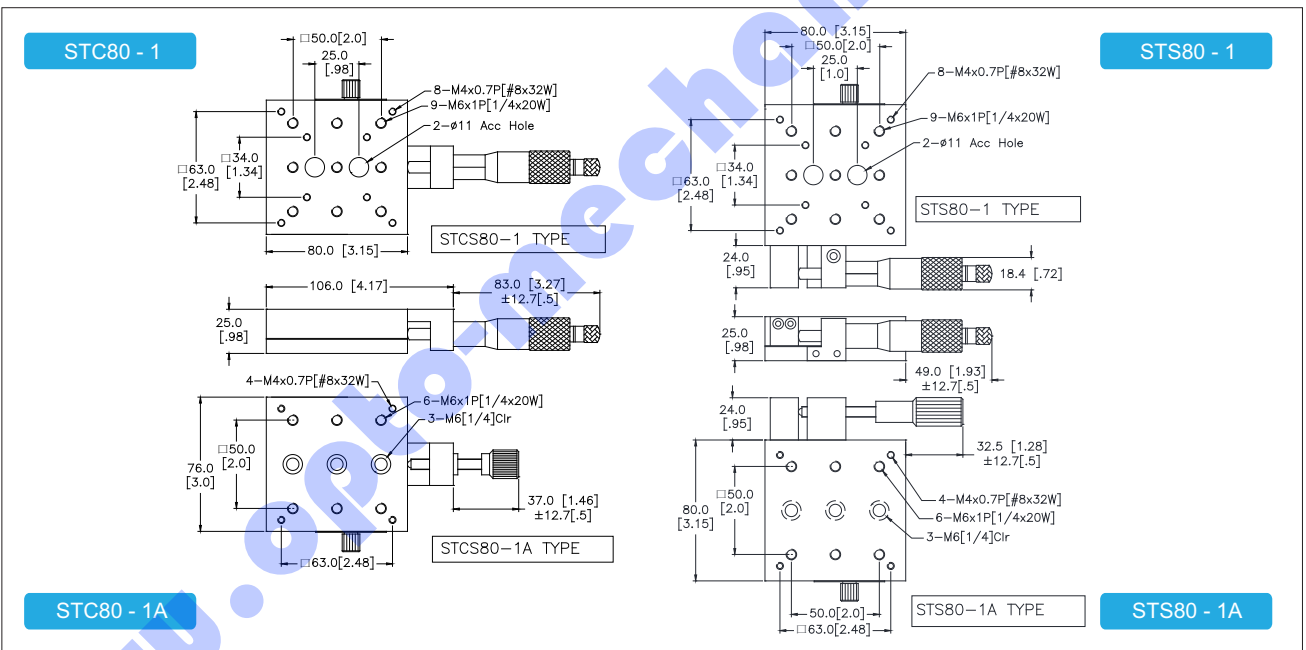
Other Equipment



## Overview

- Stage Dimension : 80 x 80 mm
- Travel Range : 1" ( ± 12.7 mm )
- Load Capacity: 40 kg
- Micrometer / Adjustable screw at side driven
- Stage Material : Stainless steel
- Rail : Stainless steel V-grooved crossed roller bearing
- Metric / Imperial versions available
- 100 pitch adjustment screws or micrometer available
- To order Imperial model please add \* I-\* to Item numbers
- Allows assembly of XYZ axial with STL-1N angle bracket (B. 58)

## Specification & Item Numbers



| Item Numbers<br>(STC80-series) | Item Numbers<br>(STS80-series) | Drive Type | Travel Guide | Repeatability<br>(mm) | Moving Parallelism<br>(mm) | Reading Figure<br>(mm) | Travel Range<br>(mm) | Weight / Load<br>(kg) |
|--------------------------------|--------------------------------|------------|--------------|-----------------------|----------------------------|------------------------|----------------------|-----------------------|
| <b>STC80-1</b>                 | <b>STS80-1</b>                 | M          | SC           | 0.003                 | ± 0.003                    | 0.01                   | ± 12.7               | 1.09 / 40             |
| <b>STC80-1A</b>                | <b>STS80-1A</b>                | 100        | SC           | 0.003                 | ± 0.003                    | ---                    | ± 12.7               | 1.10 / 40             |
| <b>STC80-1V</b>                | <b>STS80-1V</b>                | M          | VC           | 0.02                  | ± 0.002                    | 0.01                   | ± 12.7               | 1.09 / 40             |
| <b>STC80-1D</b>                | <b>STS80-1D</b>                | M          | VC           | 0.02                  | ± 0.002                    | 0.01                   | ± 12.7               | 1.10 / 40             |
| <b>STC80-05P</b>               | <b>STS80-05P</b>               | M          | VC           | 0.01                  | ± 0.002                    | 0.05                   | ± 6.5                | 1.10 / 40             |
| <b>STC80-XY-1</b>              | <b>STS80-XY-1</b>              | M          | SC           | 0.003                 | ± 0.003                    | 0.01                   | ± 12.7               | 2.20 / 40             |
| <b>STC80-XY-1A</b>             | <b>STS80-XY-1A</b>             | 100        | SC           | 0.003                 | ± 0.003                    | ---                    | ± 12.7               | 2.10 / 40             |
| <b>STC80-XYZ-1</b>             | <b>STS80-XYZ-1</b>             | M          | SC           | 0.003                 | ± 0.003                    | 0.01                   | ± 12.7               | 2.40 / 40             |
| <b>STC80-XYZ-1A</b>            | <b>STS80-XYZ-1A</b>            | 100        | SC           | 0.003                 | ± 0.003                    | ---                    | ± 12.7               | 2.30 / 40             |



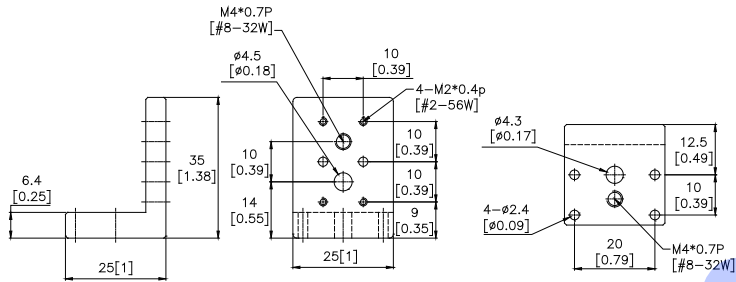
# Stainless Steel Angle Brackets



STL - 25

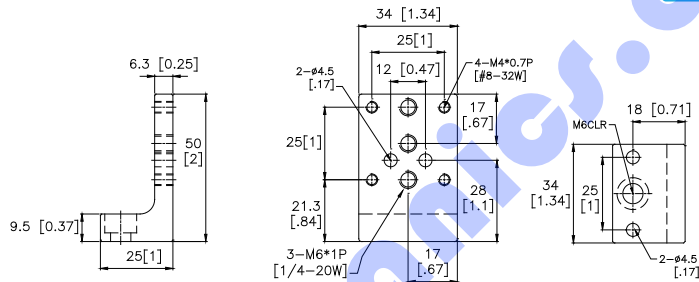
- Vertically assembled with STC25-03 as Z-axis

STL - 25



STL - 34

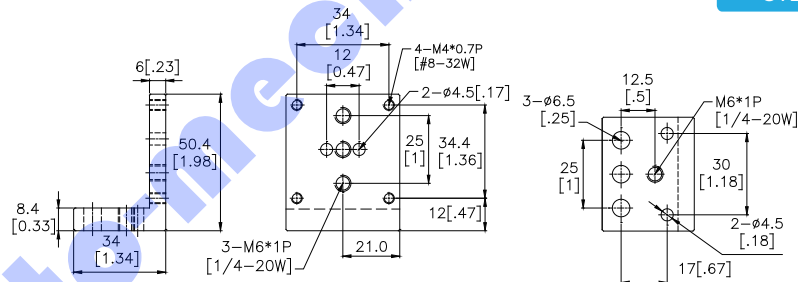
STL - 34



STL - 42

- Vertically assembled with STC42-05 as Z-axis

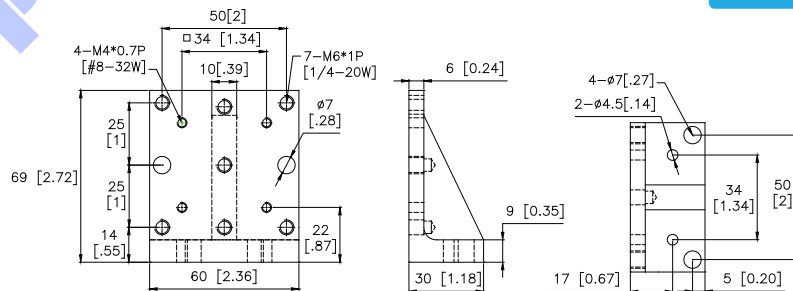
STL - 42



STL - 60

- Vertically assembled with STC60-06 or STS60-06 as Z-axis

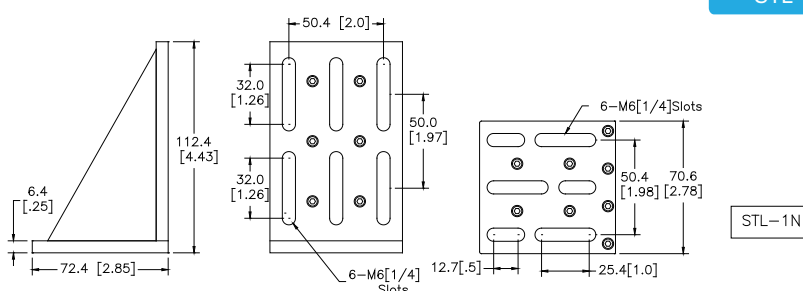
STL - 60



STL - 1N

- Vertically assembled with STC80-1 or STS80-1 as Z-axis

STL - 1N





LJB

# Laboratory Jack

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment




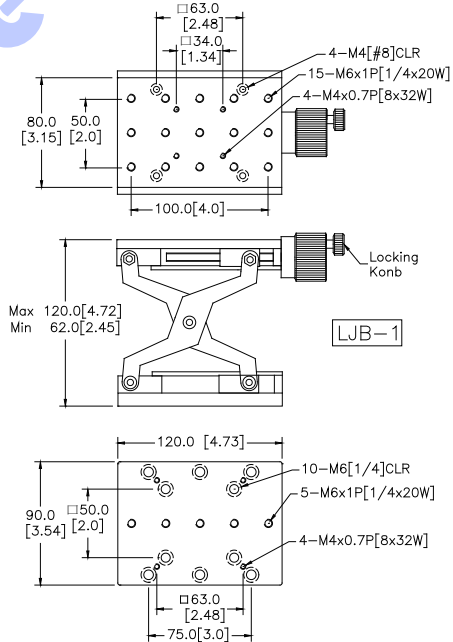
## Overview

- Stage Dimension : 80 x 120 mm
- Travel range : 60 mm (2.36")
- Stage Material : Aluminum
- Weight: 1.02 kg
- Additional locking plate for greater stability
- Vertical Loads of up to 20 kg
- Heavy duty design
- Metric / Imperial Versions available
- To order Imperial model please add \* I-\* to Item number

The LJB-1 laboratory jack utilizes lead screw for adjustment control which provides smooth vertical motion while supporting mechanics. Top and bottom plates each offer a generous supply of tapped holes and counter-bores, adding to mounting flexibility. Broadened bottom plate makes fixing easier for M6 hex lock screw to fix adjustment.

## Specification & Item Numbers



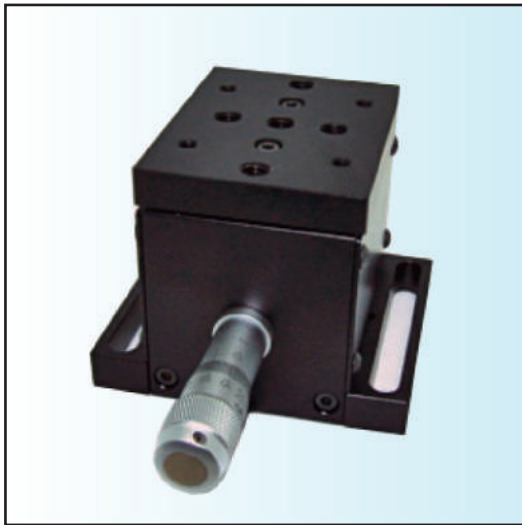


LJB - 1

| Item Number  | Drive Type       | Platform Dimension (mm / inch) | Screw Motion (mm)                  | Repeatability (mm) | Weight (kg) | Load Capacity (kg) |
|--------------|------------------|--------------------------------|------------------------------------|--------------------|-------------|--------------------|
| <b>LJB-1</b> | Adjustable Screw | 80 x 120 (3.15 x 4.72")        | One 360° revolution = 2mm vertical | 62 ~ 120           | 1.02        | 20                 |

• To order Imperial model please add \* I-\* to Item number

# Precision Vertical Translation Stages

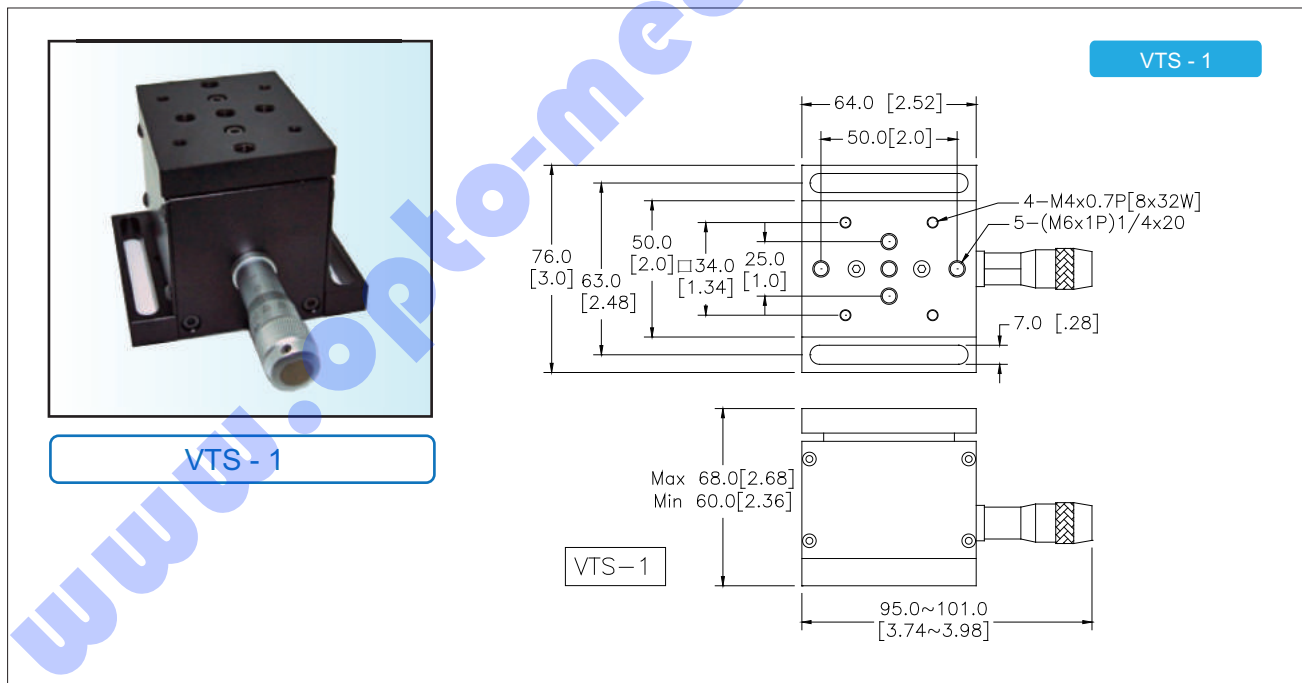


## Overview

- Stage Dimension : 50 x 64 mm
- Travel Range : 0.3" ( ± 3.5 mm )
- Read Resolution: 0.005 mm
- Stage material : aluminum
- Rail : V-grooved crossed-roller bearing
- Drive Type : Micrometer
- Weight: 0.49 kg
- Load capacity : 5 kg
- Metric / Imperial version available
- To order Imperial model please add \* I - \* to Item

The VTS-1 Precision Vertical Translation Stage features V-grooved crossed-roller bearing for reaching greater stability and smoothness. This series is compatible to be used with actuators and micrometers from other well-known brands.

## Specification & Item Numbers



| Item Number | Drive Type | Platform Dimension (mm / inch) | Travel Range (mm) | Read Resolution (mm) | Adjustment Screw Position | Weight / Load (kg) |
|-------------|------------|--------------------------------|-------------------|----------------------|---------------------------|--------------------|
| VTS-1       | Micrometer | 50 x 64 (1.97 x 2.52")         | 0~7               | 0.005                | Center                    | 0.49 / 5           |

• To order Imperial model please add \* I - \* to Item number





VTS-2

# Adjustable Vertical Translation Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



### Overview

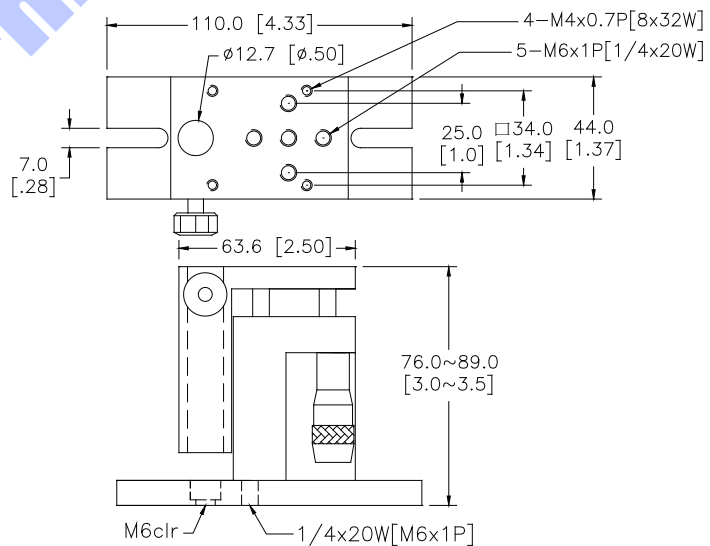
- Stage Dimension : 44 x 62 mm
- Precision Travel Range : 0.3" ( ± 3.5 mm )
- Read Resolution : 0.01 mm
- Precision Travel : 0.3" ( ± 3.5 mm )
- Coarse Travel : 2" (52mm)
- Stage Material : Aluminum
- Drive Type : Micrometer available
- Hardened stainless steel with linear bearing
- Weight: 0.58 kg
- Load Capacity : 5 kg
- Metric / Imperial Versions available
- To order Imperial model please add \* I- \* to Item number

The VTS-2 translation stage features hardened stainless steel with linear bearing for reaching greater stability with both precision and coarse vertical movement.

### Specification & Item Numbers



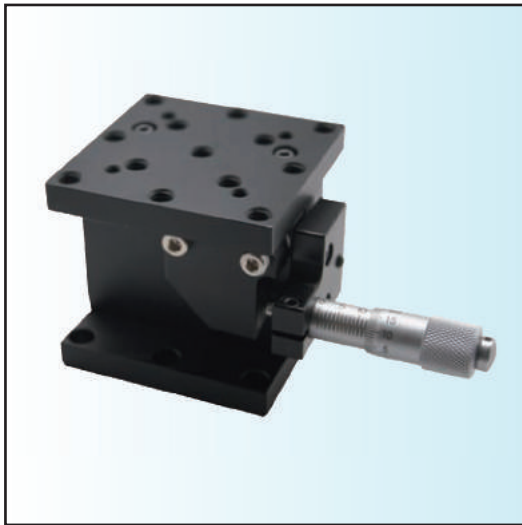
VTS - 2



| Item Number | Drive Type | Travel Guide | Platform Dimension (mm / inch) | Travel Range (Coarse) | Travel Range (Fine) | Weight / Load (kg) |
|-------------|------------|--------------|--------------------------------|-----------------------|---------------------|--------------------|
| VTS-2       | Micrometer | Slide Bush   | 44 x 62 (1.73 x 2.44")         | 52 mm (2")            | 13 mm (0.5")        | 0.58 / 5           |

• To order Imperial model please add \* I- \* to Item number

# Adjustable Vertical Translation Stages

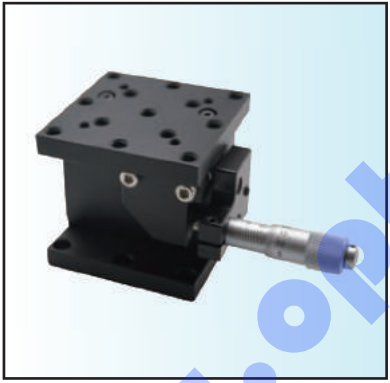


## Overview

- Stage Dimension : 60 x 60 mm
- Precision Travel Range : 0.4" ( ± 5 mm )
- Reading Figure: 0.01 mm
- Stage Material : Aluminum
- Weight: 0.32 kg
- Load Capacity : 5 kg
- Drive Type : Micrometer
- Metric / Imperial versions available
- Material : Aluminum with black anodized
- To order Imperial model please add \* I- \* to Item number

The VTS-3 translation stage features unique leverage design which allows the stage surface to reach vertical linear movement while maintaining the platform surface level. V-Grooved crossed roller bearing for greater smoothness and stability. Lock knob design for locking the movement in place and reaching higher stability.

## Specification & Item Numbers



VTS - 3

- **AC** = Crossed Roller Bearing / **VC** = Carbon Steel V-Grooved Crossed Roller Bearing
- To order Imperial model please add \* I- \* to Item number

| Item Number | Drive Type | Travel Guide | Platform Dimension (mm) | Adjustment Range (mm) | Travel Range (Fine) | Weight / Load (kg) |
|-------------|------------|--------------|-------------------------|-----------------------|---------------------|--------------------|
| VTS-3       | Micrometer | AC           | 60 x 60                 | 0~7                   | 13 mm (0.5")        | 0.32 / 5           |
| VTSS-3      | Micrometer | VC           | 60 x 60                 | 0~7                   | 13 mm (0.5")        | 0.32 / 5           |



VTS -4 VTS S-4

# Miniature Precision Vertical Stages

Optical Tables

Stages

Optical Mounts

Components

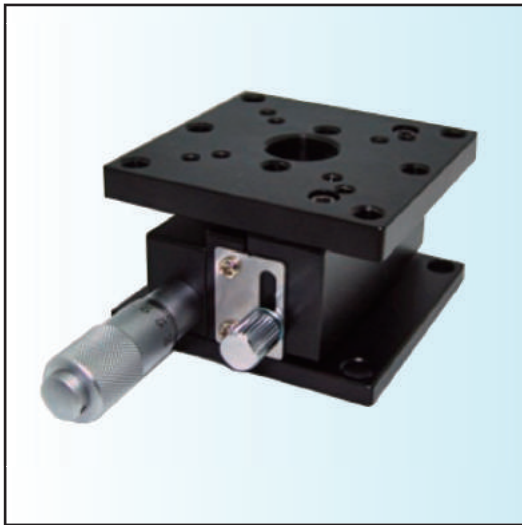
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment




### Overview

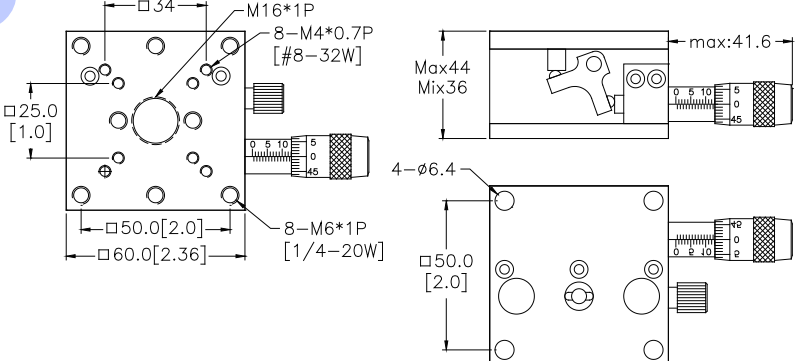
- Stage Dimension : 60 x 60 mm
- Precision Travel :  $\pm 4$  mm
- Reading Figure: 0.01 mm
- Stage Material : Aluminum
- Rail : V-grooved crossed-roller bearing
- Drive Type : Micrometer
- Compact / light weight design
- Weight: 0.2 kg
- Load Capacity : 5 kg
- Material : aluminum with black anodized
- Metric / Imperial version available
- To order Imperial model please add \* I- \* to Item number

The VTS-4 / VTSS-4 miniature precision vertical stage is compact in size but able to withstand weight up to 5 kg. The leverage design allows parallel and vertical movement with lockable adjusters for higher stability. This type of stages can be used in combination with actuators and micrometers from other well-known brands.

### Specification & Item Numbers



**VTS - 4**

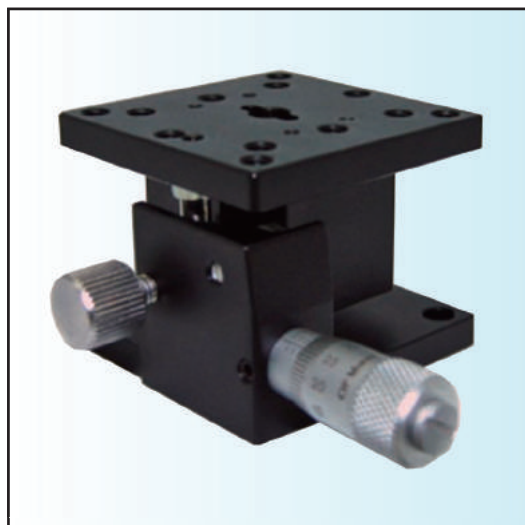


**VTS - 4**

| Item Number   | Drive Type | Travel Guide | Platform Dimension (mm) | Precision Travel (mm) | Travel Range (mm / inch) | Weight / Load (kg) |
|---------------|------------|--------------|-------------------------|-----------------------|--------------------------|--------------------|
| <b>VTS-4</b>  | Micrometer | AC           | 60 x 60                 | 0-8                   | 8 (0.31")                | 0.2 / 5            |
| <b>VTSS-4</b> | Micrometer | VC           | 60 x 60                 | 0-8                   | 8 (0.31")                | 0.4 / 7            |

• I = To order Imperial model please add \* I- \* to Item number / AC = Crossed Roller Bearing / VC = V-grooved crossed roller bearing

## Miniature Precision Vertical Stages




### Overview

- Stage Dimension : 42 x 42 mm
- Precision Travel :  $\pm 2$  mm
- Reading Figure: 0.01 mm
- Stage Material : Aluminum
- Finish : Black anodized
- Compact / Light weight design
- Weight: 0. 2 kg
- Load Capacity : 3 kg
- Metric / Imperial version available
- To order Imperial model please add \* I- \* to Item number

The VTS-5 miniature precision vertical stage is compact in size but able to withstand weight up to 3 kg. The leverage design allows parallel and vertical movement with lockable adjusters for higher stability. This type of stages can be used in combination with actuators and micrometers from other well-known brands.

### Specification & Item Numbers



VTS - 5

| Item Number | Drive Type | Travel Guide | Platform Dimension (mm) | Precision Travel Range (mm) | Reading Figure (mm) | Weight / Load (kg) |
|-------------|------------|--------------|-------------------------|-----------------------------|---------------------|--------------------|
| VTS-5       | Micrometer | AC           | 42 x 42                 | 0~4                         | 0.01                | 0.2 / 3            |

• I = To order Imperial model please add \* I- \* to Item number / AC = Crossed Roller Bearing



PRS

# Precision Rotary Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



\*Please see specification for more information

## Overview

- Stage Diameter : Ø66mm / Ø80mm
- Coarse Adjustment : 360° coarse rotation
- Fine Adjustment: ±5° precision adjustment driven by 100 pitch leadscrew
- Rail : V-grooved ball bearing
- Weight: 0.42 kg (PRS-66A) / 0.55 kg (PRS-80A)
- Load: 5 kg
- Accuracy: 1arc-sec
- Read Resolution : 1arc-min
- Metric / Imperial version available
- Material : Aluminum
- To order Imperial model please add \* I - \* to Item number

## Specification & Item Numbers

1

### Top Platform Plate

The top platform plate can be rotated manually for a fast, easy and rough rotation.

2

### Adjustment Screw

Provides high precision movement and rotation control.

3

### Gaps

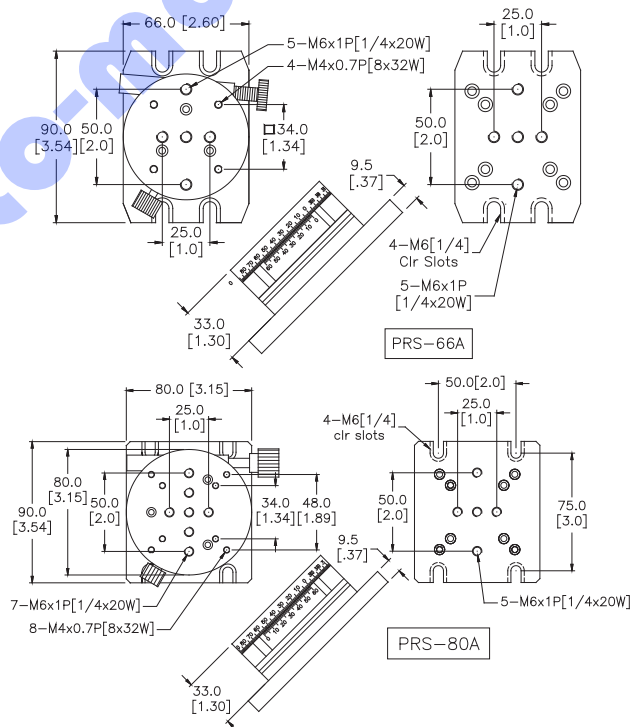
Indicates the available space left for rotation.



PRS-66A



PRS-80A



PRS-66A

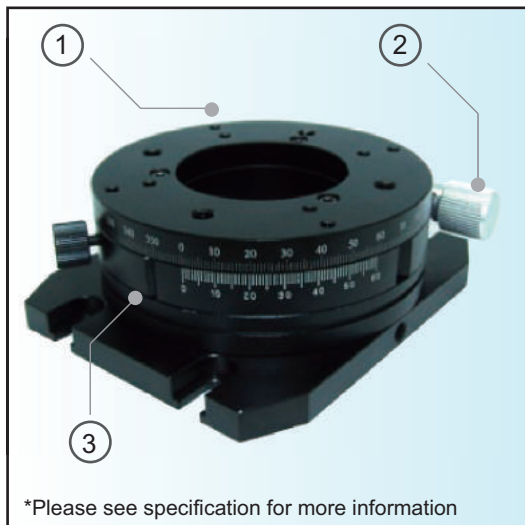
PRS-80A

| Item Number | Travel Guide | Rotation Range | Drive Type | Read Resolution (mm-min) | Read Resolution (arc-min) | Precision Adjustment (degree) | Weight / Load (kg) |
|-------------|--------------|----------------|------------|--------------------------|---------------------------|-------------------------------|--------------------|
| PRS - 66A   | BB           | 360° cont      | 100        | Ø 66 (2.60")             | 1                         | ± 5°                          | 0.42 / 5           |
| PRS - 80A   | BB           | 360° cont      | 100        | Ø 80 (3.15")             | 1                         | ± 5°                          | 0.55 / 5           |

• I = To order Imperial model please add \* I - \* to Item number / BB = Ball Bearing / 100 = 100 pitch adjustment screw



# Precision Rotary Stages



\*Please see specification for more information

## Overview

- Stage Diameter : Ø80mm (3.15") / Ø100mm (3.94")
- Coarse Adjustment : 360° coarse rotation
- Fine Adjustment : ±5° precision adjustment
- Weight : 0.51 kg (80A) / 0.76 kg (100A)
- Load : 5 kg (80A) / 8 kg (100A)
- 360° scale graduated in 1° increments
- Screw Type : 100 pitch leadscrew
- Read Resolution : 1arc-min
- Aperture : Ø40 mm (1.58")(80A) / Ø50.8 mm (2")(100A)
- Travel Guide : V-grooved ball bearing
- Metric / Imperial version available
- Material: Aluminum
- To order Imperial model please add \*-I-\* to Item number

## Specification & Item Numbers

1

### Top Platform Plate

The top platform plate can be rotated manually for a fast, easy and rough rotation.

2

### Adjustment Screw

Provides high precision movement and rotation control.

3

### Gaps

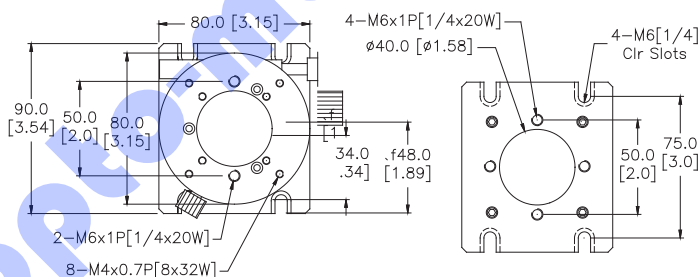
Indicates the available space left for rotation.



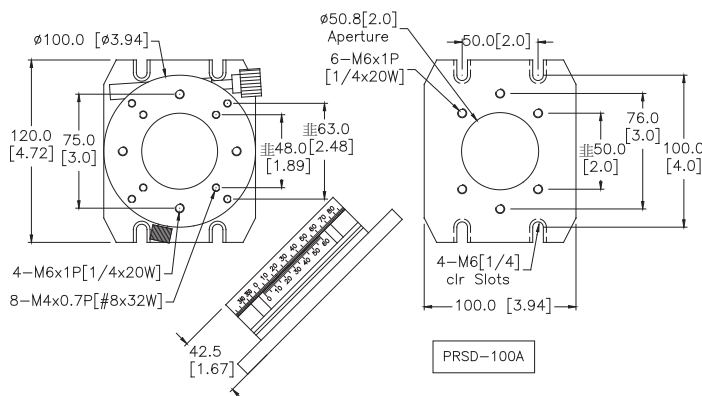
PRSD-80A



PRSD-100A



PRS-80A



PRS-100A

| Item Number        | Travel Guide | Rotation Range | Drive Type | Read Resolution (mm-min) | Center Hole Aperture (mm / inch) | Read Resolution (arc-min) | Weight / Load (kg) |
|--------------------|--------------|----------------|------------|--------------------------|----------------------------------|---------------------------|--------------------|
| <b>PRSD - 80A</b>  | BB           | 360° cont      | 100        | Ø 80 (3.15")             | Ø 40 (1.58")                     | 1                         | 0.51 / 5           |
| <b>PRSD - 100A</b> | BB           | 360° cont      | 100        | Ø 100 (3.94")            | Ø 50.8 (2")                      | 1                         | 0.76 / 8           |

• I = To order Imperial model please add \*-I-\* to item number / BB = Ball Bearing / 100 = 100 pitch adjustment screw