



# Motion Systems

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment

### Products Categories



New Products



Best Seller

1

Micro-Stepping Motor Controller

1

Micro-Stepping Motor Controller (Multi-Home)

NEW

E.03

1

Micro-Stepping Motor Controller

BEST

E.05

2

1-Axis Motorized Stages

2

Manual Linear Stages

E.07

2

Quick Moving Linear Stages

E.08 -09

2

Enhanced Linear Motorized Stages

BEST

E.10

2

1-Axis Motorized Stages

2

Standard Linear Motorized Stages

BEST

E.16

2

Standard Linear Motorized Stages

BEST

E.17

2

Standard Linear Motorized Stages

BEST

E.18

3

1/2 -Axis Motorized Stages

3

X / Z Motorized Stages

BEST

E.24

3

Standard Linear Motorized Stages

BEST

E.25

3

Standard Linear Motorized Stages

BEST

E.26

4

Rotary Motorized Stages

4

Rotary Motorized Stages

E.35 - 36

2



Miniature Linear Motorized Stages

E.11


2



Aluminum Cover With Dust-Proof

E.12

2



Precision Linear Motorized Stages

E.13

2



Standard Linear Motorized Stages

E.15

2



Standard Linear Motorized Stages

E.19

2



Standard Linear Motorized Stages

E.20

2



Standard Linear Motorized Stages

E.21

2



Standard Linear Motorized Stages

E.22 - 23

3



Standard Linear Motorized Stages

E.27

3



Standard Linear Motorized Stages

033

3



Microscope Motorized Linear Stages

E.29

3



Microscope Motorized Linear Stages

E.30

3



Microscope Motorized Linear Stages

E.31

3



Microscope Motorized Linear Stages

E.32

3



Microscope Motorized Linear Stages

E.33

3



Microscope Motorized Linear Stages

E.34

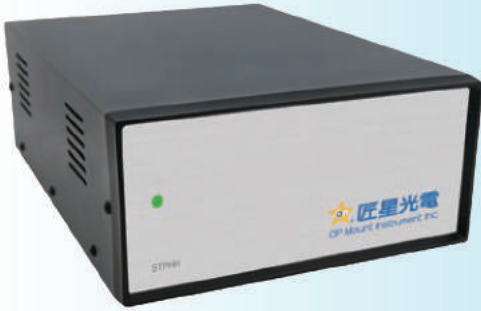


STP  
HH1

STP  
HH2

# The Real Time & Position Micro-Stepping Motor Controller (Multi-Home)

NEW



## Specifications

- Input Power : AC110V/60Hz, AC220V/50Hz
- Output voltage : 24DCV
- Max output current per axis : 3A /PHASE
- Max. micro-stepping pulse per revolution : 3200 STEPS / REV
- Up to three axes micro-stepping controller
- Stepper motor jogging control

## Introductions

- A first innovation about high accuracy translation device, the real time & position micro-stepping motor controller \ motorized stages
- The real time & position micro-stepping controller is working in coordination with real time & position motorized stages with wafer fabrication translation device level
- The real time & position motorized stages can be customized up to no upper limit with travel distance, except for the motor power and the length of the ball screw
- With multi optical Home position function (Multi-Home)
- With multi optical Limit switch function (Multi-Limit)
- UP to three axes motion control
- Standard UART( RS-232) interface

## Functions

- Real Time & Position function
- Multiple Home (Multi-Home) function
- Multiple Limit (Multi-Limit) function
- Three axes independent point to point movement
- Three axes linear interpolation movement
- Standard UART( RS-232) interface, with complete command instruction set
- Emergency stop function

## Computer Interface Specifications

- RS-232 (standard UART) interface
- USB (with additional RS-232 to USB cable) interface

Item Number	Dimensions (mm) LxWxH	Voltage	Weight (kg)
STPHH1-1	305x215x110	110 V	3.84
STPHH1-2	305x215x110	110 V	3.97
STPHH1-3	305x215x110	110 V	3.99
STPHH2-1	305x215x110	220 V	3.84
STPHH2-2	305x215x110	220 V	3.97
STPHH2-3	305x215x110	220 V	3.99

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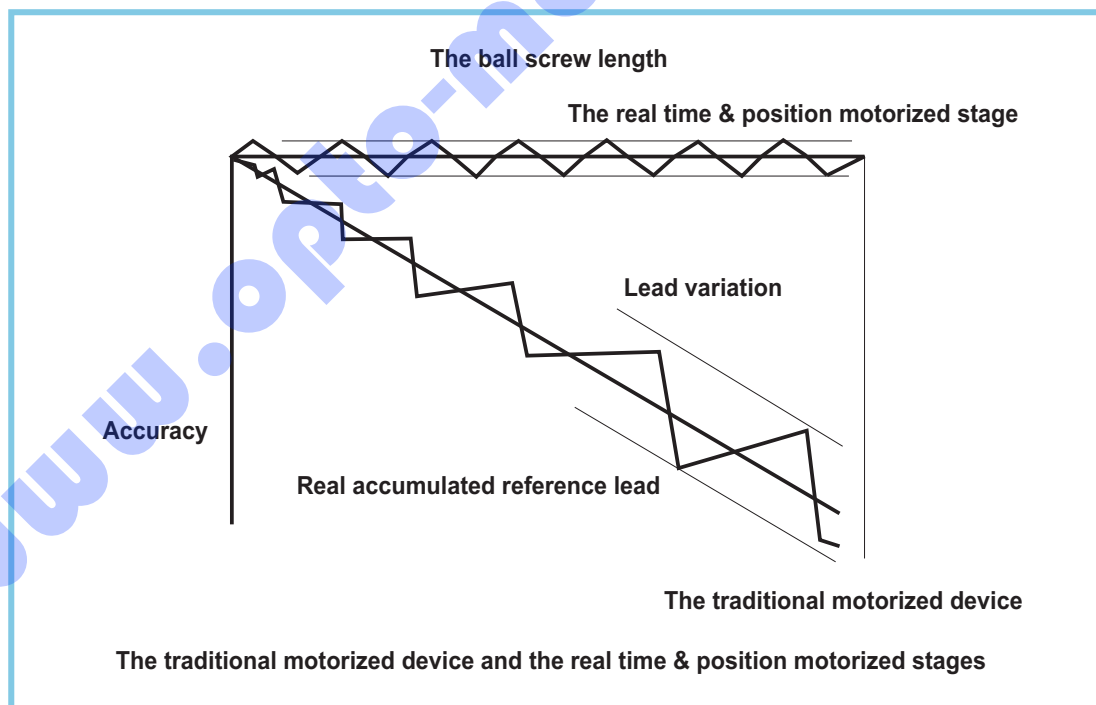
# The Real Time & Position Motorized Stages

## Specifications

- The real position accuracy : 5um / 1000mm
- Stage Repeatability(Ballscrew Lead Accuracy) : 2mm / ± 1.0 um, 1mm / ± 0.6 um
- Travel Range : 50 to 1000mm
- Customized : no upper limit with travel distance, except for the motor power and the length of the screw

## Characteristic Descriptions:

- Disclosed are a movable device allowing instantaneous correction of error in a moving state and an error correction method thereof. The movable device includes a drive unit that is previously set up with an allowable error and has a moving path along which detection units are installed in a line. Precise measurements are taken in advance to obtain position data of each of the detection units. Comparison is then made by the controller between instantaneous data and corresponding comparison data. When the controller determines the instantaneous data exceed the comparison data, an instantaneous correction operation is made to make the instantaneous data not exceeding the comparison data. Acceleration or deceleration may be made by the drive unit to effect such a control that when the movable piece reaches the next detection unit, the instantaneous data do not exceed the comparison data.





STP  
H1

STP  
H2

# Micro-Stepping Motor Controller

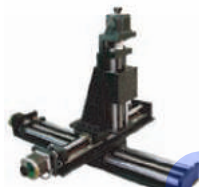
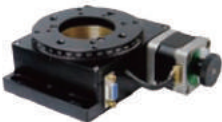
**BEST**



## Specifications

- Input Voltage : 110 ACV / 60Hz
- Output Voltage : 24DCV
- Single axis max. output current : 1.5A / Phase
- Pulse rate : 1 PPS to 9999 PPS(pulse per second)
- Clock Drivers : 2 phase,1-2phase,W 1-2 phase,2W1-2 phase
- Driven current : bipolar constant current

## APPLICATIONS



## Introductions

- Full functional front panel key pad control
- Full functional PC via RS-232 interface control
- Total 128 EEPROM system operation parameter saving blocks
- Limit switch protection and system grounded protection
- Original point reset function
- One-touch emergency stop protection
- All kind of combinations of the motion control
- Stages satisfy multi-axes position control
- 3 axes micro-steeping driving circuit
- Counter / Clockwise stepper motor control
- Stepper motor MANU control

## The Computer RS-232 Inerface

- Baud rate : 9600 bps
- Data bit :8 bits
- Parity : 1N
- Start bit : 1 bit
- Stop bit : 1bit

## Standard Package

- Operation manual / Operation software / Motor
- Cables / RS-232 cable
- Customized specifications upon request

Item Number	Dimensions (mm) LxWxH	Voltage	Weight (kg)
STPH1-1	305x215x110	110 V	3.84
STPH1-2	305x215x110	110 V	3.97
STPH1-3	305x215x110	110 V	3.99
STPH2-1	305x215x110	220 V	3.84
STPH2-2	305x215x110	220 V	3.97
STPH2-3	305x215x110	220 V	3.99



## All Stages allow assembly of multi-axis motorized stages

- **Micro-controlled Stepping Motor Controller**

1. One-axis controller
2. Two-axis controller
3. Three-axis controller

- **Rotary Motorized Stage**

OP Mount offers five different dimensions and diameters rotary stages for light and heavy duty applications.

- **Linear Motorized Stage**

Standard design or precision Enhanced design in extensive travel range. Driven by Two phase stepping motor applied to the Micro-Controlled Controller (STPH-series) Utilizing High speed coupling to combine stepping motor and main screw rod increase accuracy.

OP Mount provides various designs for your applications:

1. **Precision Screw M6x 0.25tpi driven on Linear precision stainless Rail**

----- MMT-A series

2. **C7 Ball-screw driven on Crossed-roller bearing with V-grooved hardened linear stainless steel.**

-----MTW series

3. **C7 Ball-screw driven on Linear precision stainless Rail**

-----PMT series

4. **C7 Ball-screw driven on Stainless Rods.**

-----MT-series

**(Higher class ball-screw available: accuracy figure reference in 300mm travel)**

**C1: ±2.5um C3: ±4um C5: ±9um C7: ±50um C10: ±210um**

- **Linear Manual Stage ( HMT-series)**

While motorized systems is not necessary, the extensive travel range is required, OP Mount's Linear Manual stage can be the best choice.

PS.1. Translation stage ball-bearing screw rod accuracy reference range : within 300mm

C10→±0.21 mm (Request for Higher Resolution & Customized Production also accepted)



HMT

# Manual Linear Stages

Optical Tables

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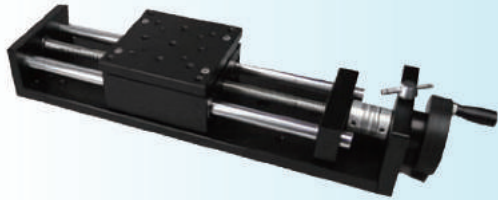
Education Systems

Lasers

Optics & Crystals

Other Equipment

HMT90-series

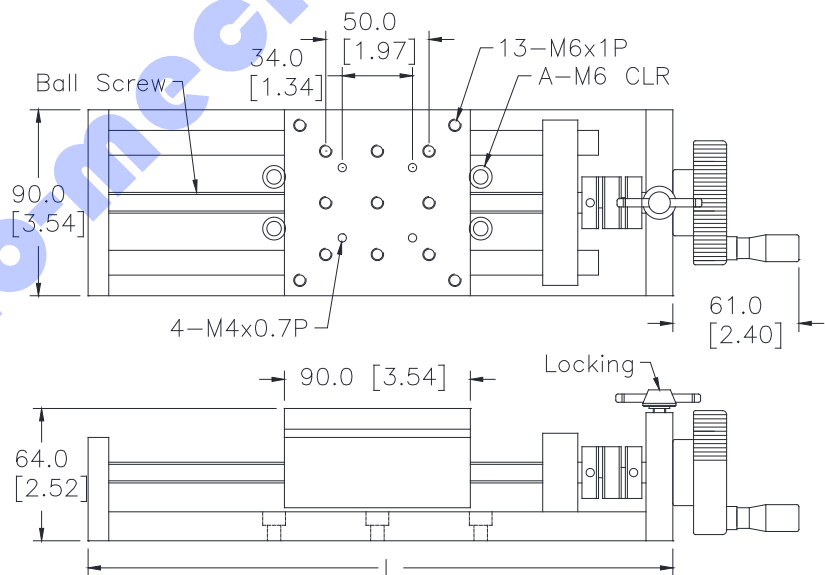


## Overview

- Easy manual design
- 3 models for selection
- Adjustable Axis: Single Axis
- Deviation : Ra0.2um ~ 0.4um
- Low deviation
- Manual Type with handler for easy rotation
- Locking screw to fix the specific position
- Higher class ball-screws available upon request
- Metric / Imperial Version available
- Customized specifications upon request
- To order Imperial model please add \*I-\* to item

## Specification & Item Numbers

HMT- series



Item#	L	A
HMT90-50	233	6
HMT90-100	283	8
HMT90-150	333	10

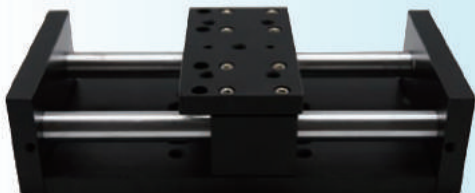
## Item Numbers

Item Number	Travel (mm)	Load (kg)	Position Accuracy (mm)	Weight (kg)
HMT90-50	50	15	± 0.008 / 100	2.1
HMT90-100	100	15	± 0.008 / 100	2.8
HMT90-150	150	10	± 0.017 / 200	3.6



## Quick Moving Linear Stages

QMT85-series

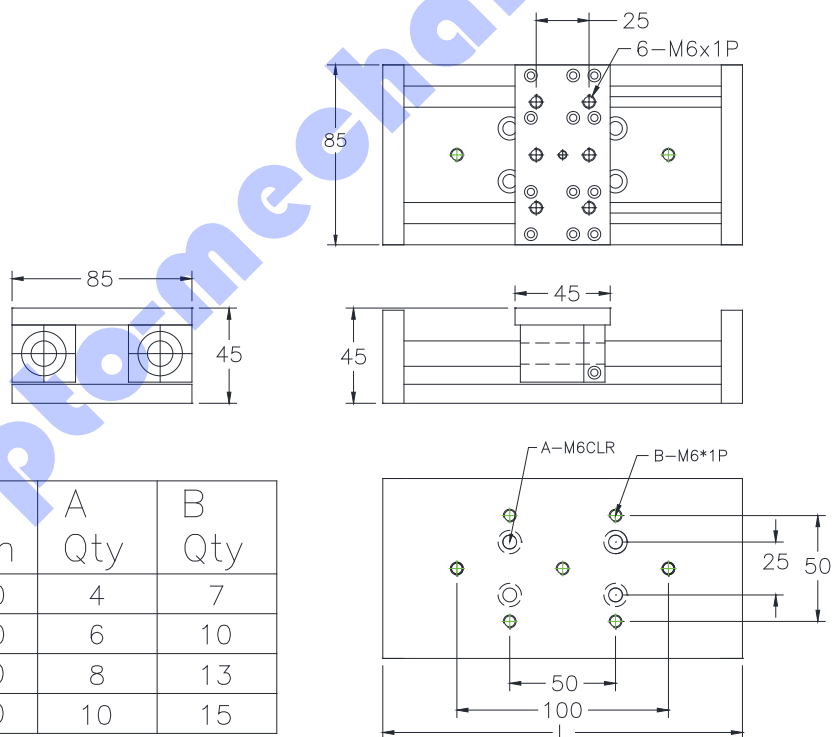


### Overview

- 4 Models for selection
- Stage Dimension: 85 x 85 mm
- Straightness:  $\pm 0.015$ ,  $\pm 0.02$  mm
- Manual Type with easy rotation
- Locking screw to fix the specific position
- Linear Steel Rods reaching smooth movement
- Metric / Imperial Version available
- Customized specifications upon request
- To order Imperial model please add \*-I-\* to item

### Specification & Item Numbers

QMT85- series



Item#	L mm	A Qty	B Qty
QMT85-100	170	4	7
QMT85-150	220	6	10
QMT85-200	270	8	13
QMT85-250	320	10	15

### Item Numbers

Item Number	Travel (mm)	Load (kg)	Position Accuracy (mm)	Straightness (mm)	Weight (kg)
<b>QMT85-100</b>	100	20	$\pm 0.007 / 200$	$\pm 0.007 / 200$	4.35
<b>QMT85-150</b>	150	20	$\pm 0.025 / 300$	$\pm 0.025 / 300$	5.75
<b>QMT85-200</b>	200	20	$\pm 0.025 / 300$	$\pm 0.025 / 300$	8.8
<b>QMT85-250</b>	250	15	$\pm 0.025 / 300$	$\pm 0.025 / 300$	9.8





QMT

# Quick Moving Linear Stages

Optical Tables

Stages

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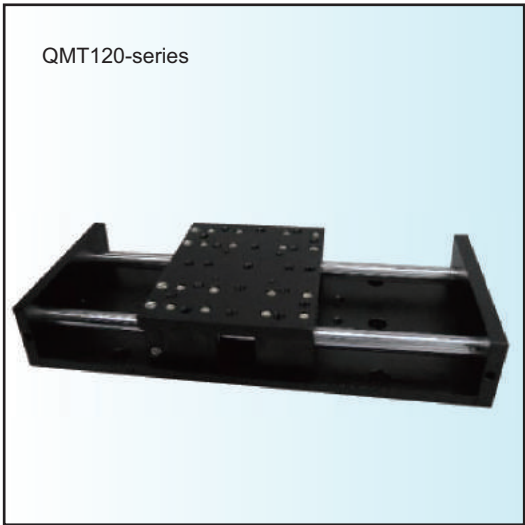
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



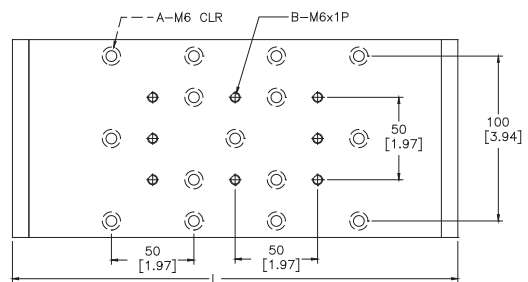
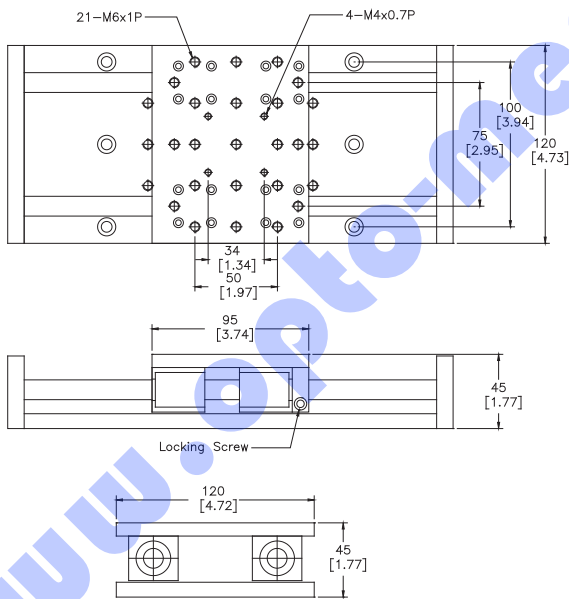
QMT120-series

## Overview

- 4 Models for selection
- Stage Dimension: 120 x 120 mm
- Straightness:  $\pm 0.015$ ,  $\pm 0.02$  mm
- Manual Type with easy rotation
- Locking screw to fix the specific position
- Linear Steel Rods reaching smooth movement
- Metric / Imperial Version available
- Customized specifications upon request
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

QMT120- series



Item#	L mm	A Qty	B Qty
QMT120-100	220[8.66]	15	8
QMT120-150	270[10.6]	15	8
QMT120-200	320[12.6]	17	12
QMT120-250	370[14.5]	21	16

## Item Numbers

Item Number	Travel (mm)	Load (kg)	Position Accuracy (mm)	Straightness (mm)	Weight (kg)
<b>QMT120-200</b>	200	20	$\pm 0.007 / 200$	$\pm 0.007 / 200$	4.35
<b>QMT120-300</b>	300	20	$\pm 0.025 / 300$	$\pm 0.025 / 300$	5.75
<b>QMT120-400</b>	400	20	$\pm 0.025 / 300$	$\pm 0.025 / 300$	8.8
<b>QMT120-500</b>	500	15	$\pm 0.025 / 300$	$\pm 0.025 / 300$	9.8



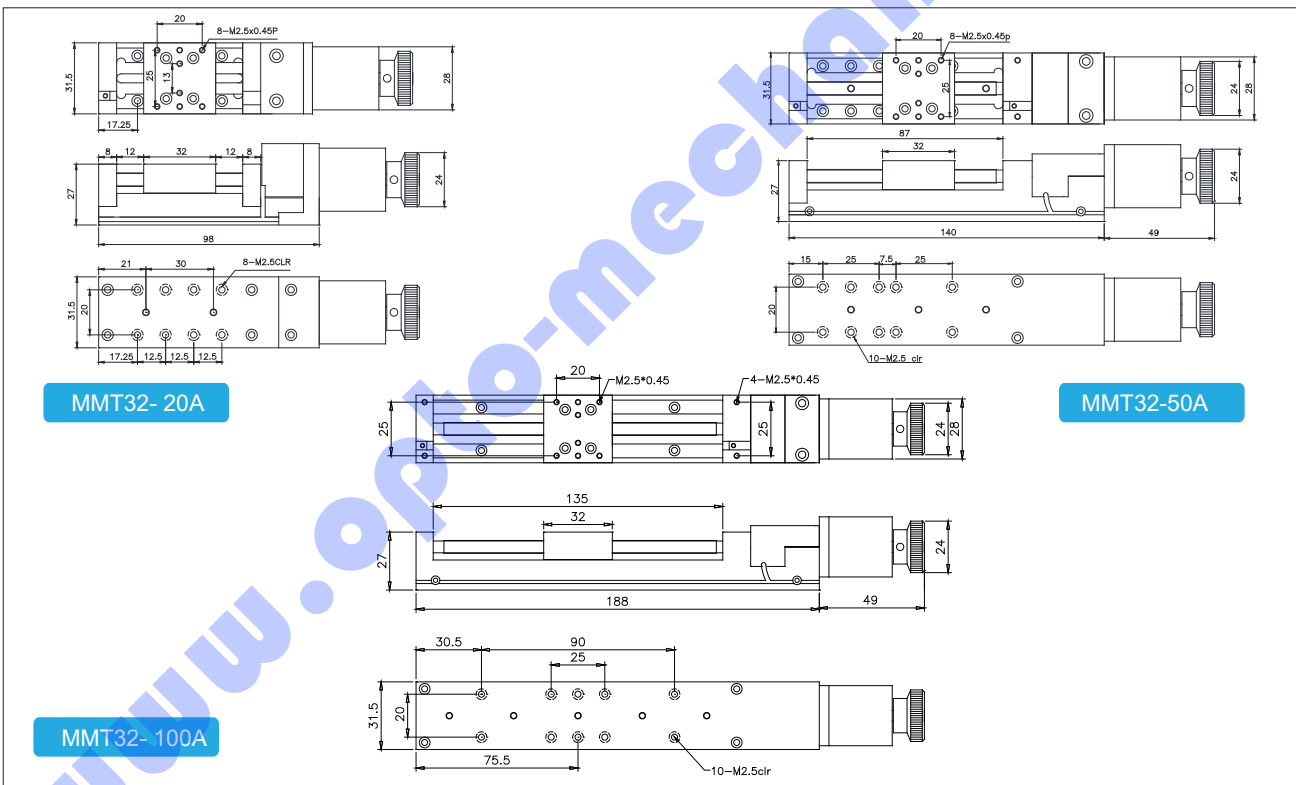
# Enhanced Linear Motorized Stages



## Overview

- 3 models for selection
- Motorized systems
- High accuracy and loading
- Use precision screw to drive motorized stage
- Metric / Imperial Version available
- Customized specifications upon request
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MMT32-20A	20	32x32	2	0.156	0.156	0.017	0.01	0.3
MMT32-50A	50	32x32	2	0.156	0.156	0.017	0.01	0.5
MMT32-100A	100	32x32	2	0.156	0.156	0.017	0.01	0.6

- Optical Tables
- Stages
- Optical Mounts
- Components
- Motion Systems
- Education Systems
- Lasers
- Optics & Crystals
- Other Equipment



MMT

# Miniature Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

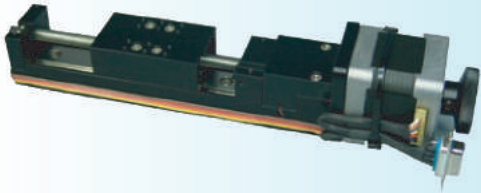
Education Systems

Lasers

Optics & Crystals

Other Equipment

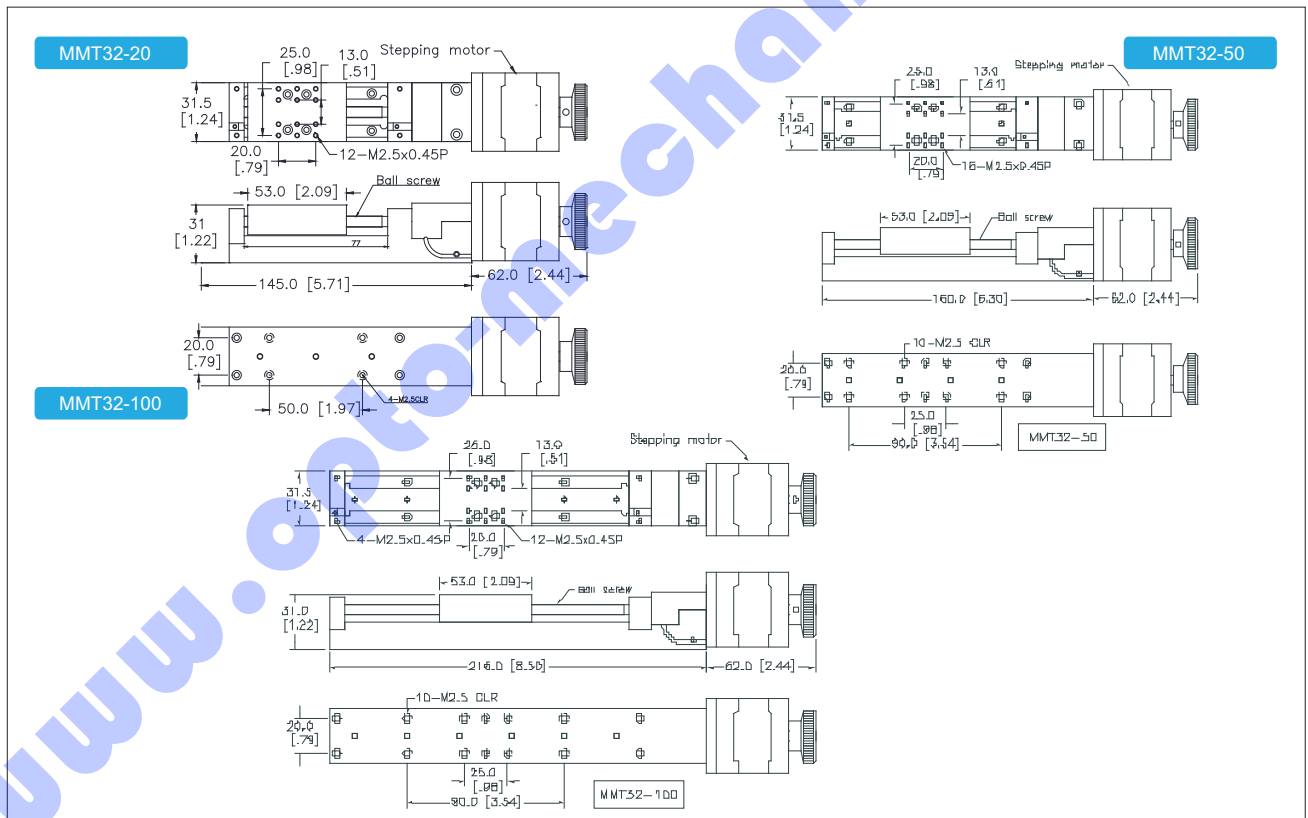
MMT32-series



## Overview

- 3 models for selection
- Motorized systems
- High accuracy and loading
- Higher class ball-screw available upon request
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MMT32-20	20	32x50	5	0.625	0.625	0.017	0.015	0.4
MMT32-50	50	32x50	5	0.625	0.625	0.017	0.015	0.73
MMT32-100	100	32x50	5	0.625	0.625	0.017	0.015	0.82



# Aluminum Cover With Dust-Proof Of Precision Motorized Stage

MTD145-series



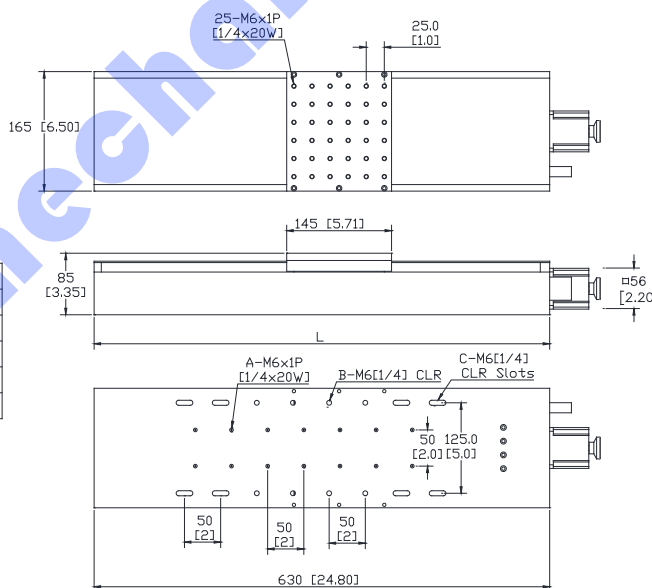
## Overview

- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers

MTD145-series

Item #	L=mm(°)	A(Q'ty)	B(Q'ty)	C(Q'ty)
MTD145-200	430[16.93]	10	8	4
MTD145-300	530[20.87]	12	10	6
MTD145-400	630[24.8]	14	12	8
MTD145-500	730[28.75]	16	14	10
MTD145-600	830[32.68]	18	16	12



• The **H** after the platform dimension = multi-home design

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTD145-200	200	165x145	20	2.5	2.5	0.05 / 300	0.03	9
MTD145-300	300	165x145	20	2.5	2.5	0.05 / 300	0.03	11
MTD145-400	400	165x145	20	2.5	2.5	0.05 / 300	0.04	13
MTD145-500	500	165x145	20	2.5	2.5	0.05 / 300	0.04	15
MTD145-600	600	165x145	20	2.5	2.5	0.05 / 300	0.04	17
MTD145H-200	200	165x145	20	2.5	2.5	0.05 / 300	0.03	9
MTD145H-300	300	165x145	20	2.5	2.5	0.05 / 300	0.03	11
MTD145H-400	400	165x145	20	2.5	2.5	0.05 / 300	0.04	13
MTD145H-500	500	165x145	20	2.5	2.5	0.05 / 300	0.04	15
MTD145H-600	600	165x145	20	2.5	2.5	0.05 / 300	0.04	17



MTW

# Precision Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment

MTW80-series



**BEST**



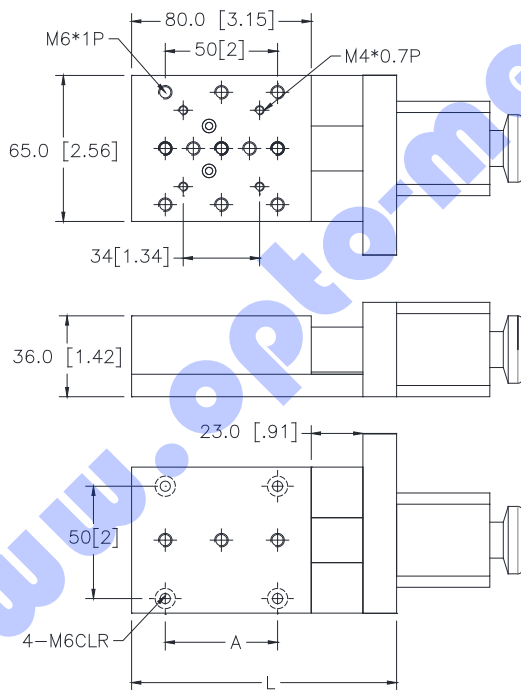
MTW100-series

## Overview

- Motorized systems
- Linear steel rod with bearing rails
- High accuracy and great smoothness
- Higher class ball-screw available upon request
- Zero-backlash design
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

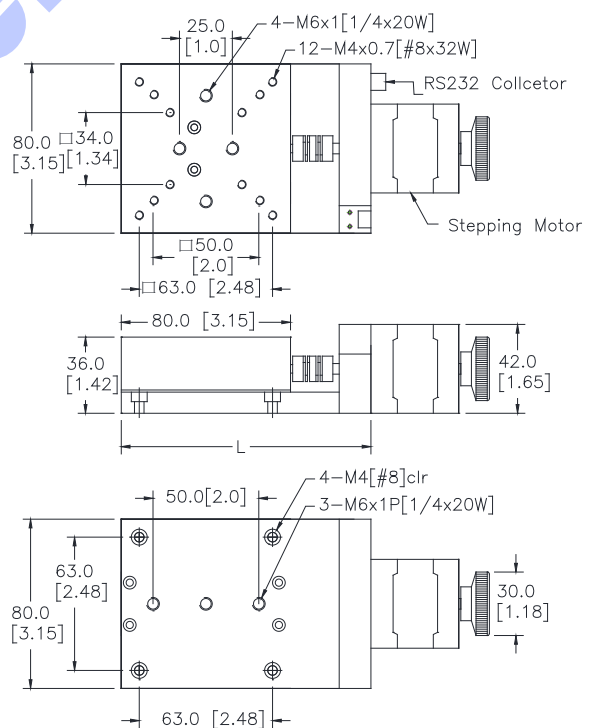
## Specification & Item Numbers

MTW65-series



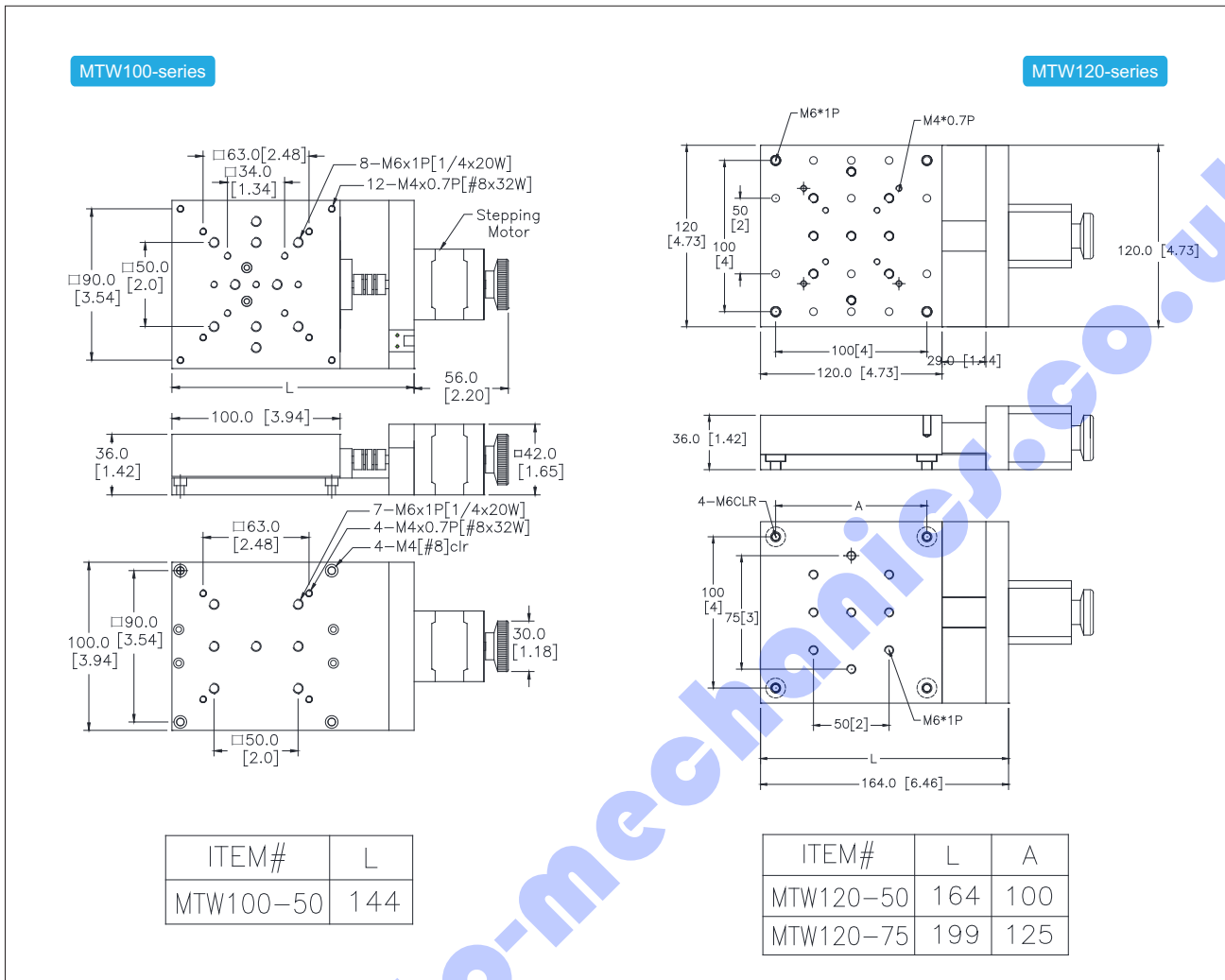
ITEM#	L	A
MTW65-25	118	50
MTW65-40	143	50

MTW80-series



ITEM#	L
MTW80-30	118
MTW80-50	143





Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTW65-25-C7	25	80x65	8	0.625	0.625	0.017 / 100	0.01	1
MTW65-25-C3	25	80x65	8	0.625	0.625	0.007 / 100	0.01	1
MTW65-40-C7	40	80x65	8	0.625	0.625	0.017 / 100	0.01	1.1
MTW65-40-C3	40	80x65	8	0.625	0.625	0.007 / 100	0.01	1.1
MTW80-30-C7	30	80x80	10	0.625	0.625	0.017 / 100	0.01	1.12
MTW80-30-C3	30	80x80	10	0.625	0.625	0.007 / 100	0.01	1.12
MTW80-50-C7	50	80x80	10	0.625	0.625	0.017 / 100	0.01	1.3
MTW80-50-C3	50	80x80	10	0.625	0.625	0.007 / 100	0.01	1.3
MTW100-50-C7	50	100x100	13	0.625	0.625	0.017 / 100	0.01	1.5
MTW100-50-C3	50	100x100	13	0.625	0.625	0.007 / 100	0.01	1.5
MTW120-50-C7	50	120x120	15	0.625	0.625	0.017 / 100	0.01	1.55
MTW120-50-C3	50	120x120	15	0.625	0.625	0.007 / 100	0.01	1.55
MTW120-75-C7	75	120x120	15	0.625	0.625	0.017 / 100	0.01	1.7
MTW120-75-C3	75	120x120	15	0.625	0.625	0.007 / 100	0.01	1.7



MT

# Standard Linear Motorized Stages

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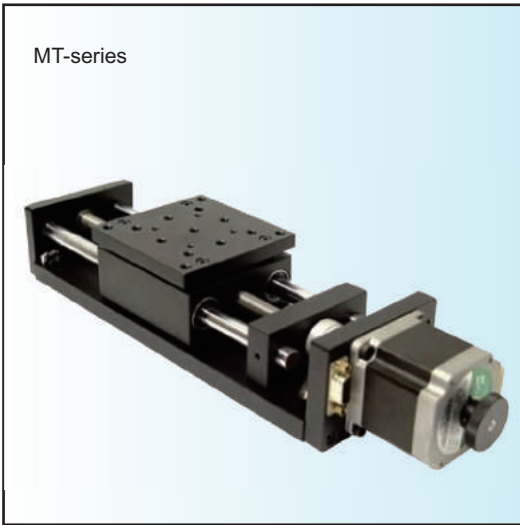
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



MT-series

## Overview

- Easy manual design
- 7 models for selection
- Adjustable Axis: Single Axis
- Low deviation
- Manual Type with handler for easy rotation
- Locking screw to fix the specific position
- Higher class ball-screws available upon request
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

**MT90-50 / 100 / 150 / 200**

ITEM#	L	A
MT90-50	233	6
MT90-100	283	8
MT90-150	333	8

**MT120-200 / 300 / 450 / 500**

#item	L=mm["]	A	B
MT120-200	400[15.75]	10	12
MT120-300	500[19.7]	12	14
MT120-400	600[23.62]	14	16
MT120-500	700[27.6]	16	18

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MT90-50-C7	50	90x90	15	1.25	1.25	0.017 / 100	0.015	2.5
MT90-100-C7	100	90x90	10	1.25	1.25	0.017 / 100	0.015	3.3
MT90-150-C7	150	90x90	10	1.25	1.25	0.017 / 200	0.015	4.1
MT90-200-C7	200	90x90	15	2.5	2.5	0.05 / 300	0.015	4.8
MT120-200-C7	200	120x120	20	2.5	2.5	0.05 / 200	0.025	4.8
MT120-300-C7	300	120x120	15	2.5	2.5	0.05 / 300	0.025	6.2

# Standard Linear Motorized Stages

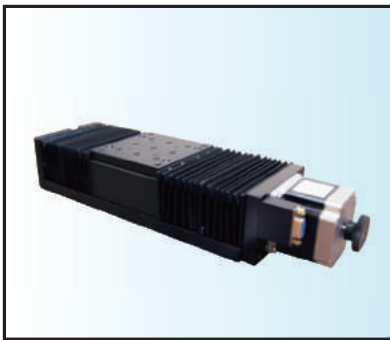


## Overview

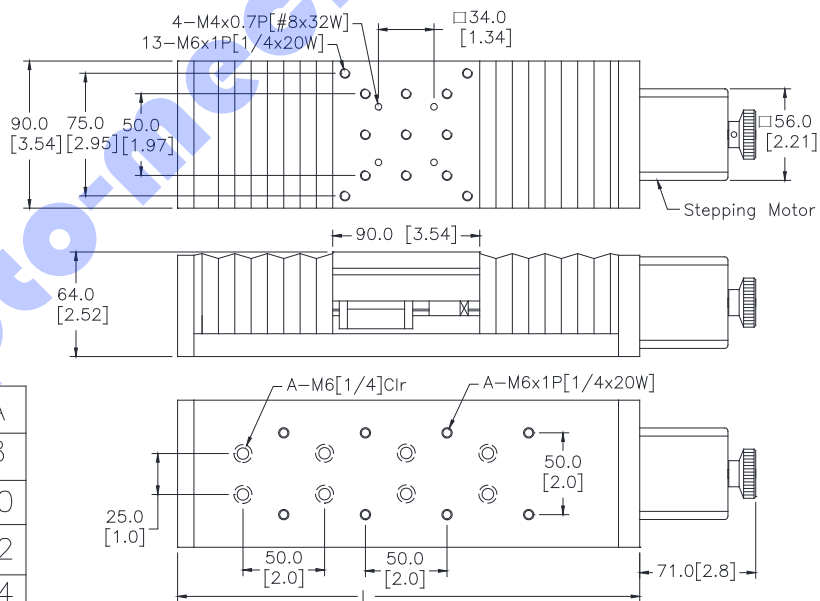
- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers

MTP90-50 / 100 / 150 / 200



MTP90-50 / 100 / 150 / 200



ITEM#	L=mm(“)	A
MTP90-50	283(11.14”)	8
MTP90-100	333(13.11”)	10
MTP90-150	403(15.87”)	12
MTP90-200	533(20.98”)	14

## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP90-50-C7	50	90x90	30	1.25	1.25	0.05 / 300	0.01	2.8
MTP90-100-C7	100	90x90	30	1.25	1.25	0.05 / 300	0.01	3.5
MTP90-150-C7	150	90x90	30	1.25	1.25	0.05 / 300	0.01	4.3
MTP90-200-C7	200	90x90	30	1.25	1.25	0.05 / 300	0.01	5.3





MTP 120

# Standard Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

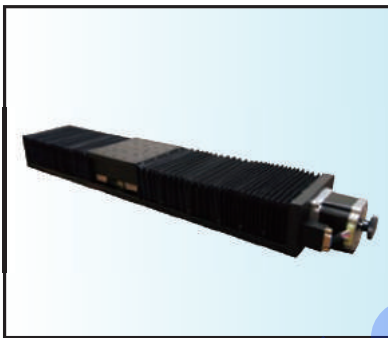
Other Equipment



## Overview

- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers

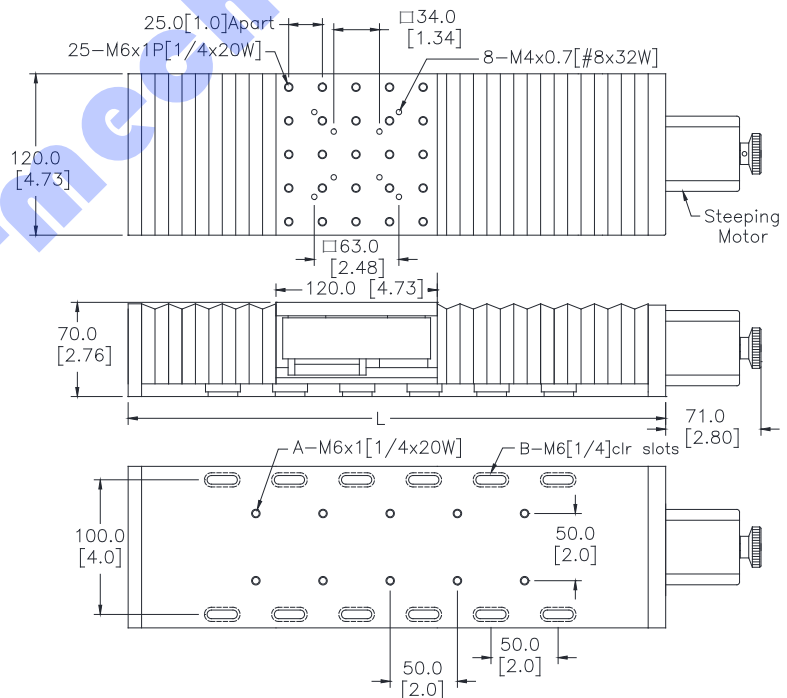


MTP120-200 / 300

MTP120-400 / 500

#Item	L=mm[""]	A	B
MTP120-200	480[18.89]	10	12
MTP120-300	595[23.43]	12	14
MTP120-400	750[29.52]	14	16
MTP120-500	880[34.64]	16	18

MTP120-200 / 300



Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP120-200-C7	200	120x120	30	2.5	2.5	0.05 / 300	0.015	4.9
MTP120-300-C7	300	120x120	30	2.5	2.5	0.05 / 300	0.015	5.8
MTP120-400-C7	400	120x120	30	2.5	2.5	0.05 / 300	0.015	8.25
MTP120-500-C7	500	120x120	30	2.5	2.5	0.05 / 300	0.02	9.55

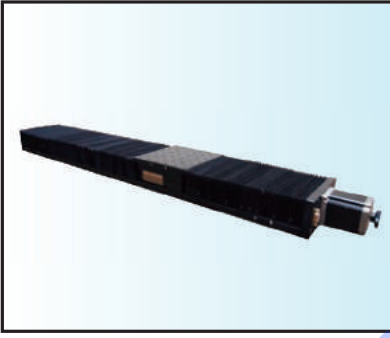
# Standard Linear Motorized Stages



## Overview

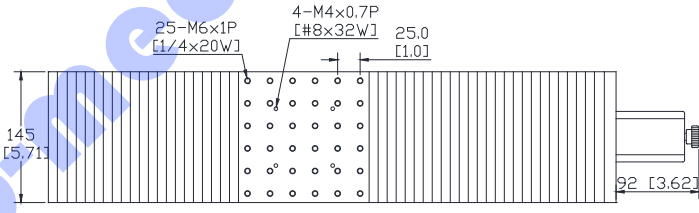
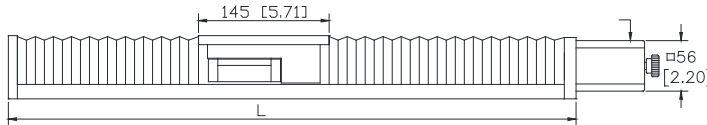
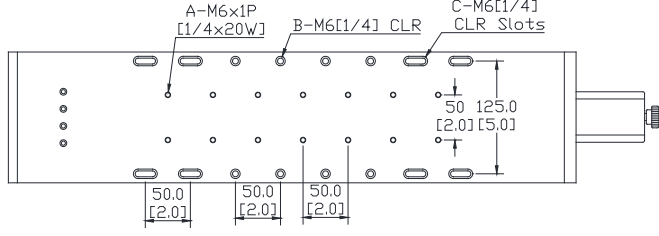
- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers



MTP145-200 / 300 / 400

MTP145-500 / 600

Item #	L=mm(*)	A(Q'ty)	B(Q'ty)	C(Q'ty)
MTP145-200	510[20.08]	10	0	8
MTP145-300	630[24.8]	12	10	4
MTP145-400	770[30.3]	14	10	8
MTP145-500	900[35.43]	14	10	8
MTP145-600	1040[40.94]	14	10	8

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP-145-200-C7	200	145x145	40	2.5	2.5	0.05 / 300	0.015	9.9
MTP-145-300-C7	300	145x145	40	2.5	2.5	0.05 / 300	0.015	10.9
MTP-145-400-C7	400	145x145	40	2.5	2.5	0.05 / 300	0.015	12
MTP-145-500-C7	500	145x145	40	2.5	2.5	0.05 / 300	0.02	13.3
MTP-145-600-C7	600	145x145	40	2.5	2.5	0.05 / 300	0.02	14.6



MTP  
170

# Standard Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment

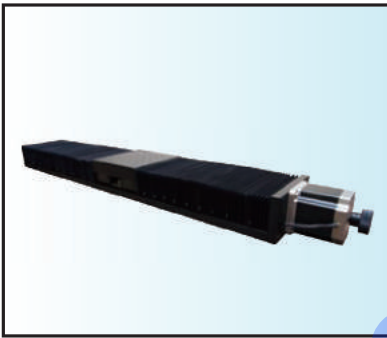


MTP170-series

## Overview

- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

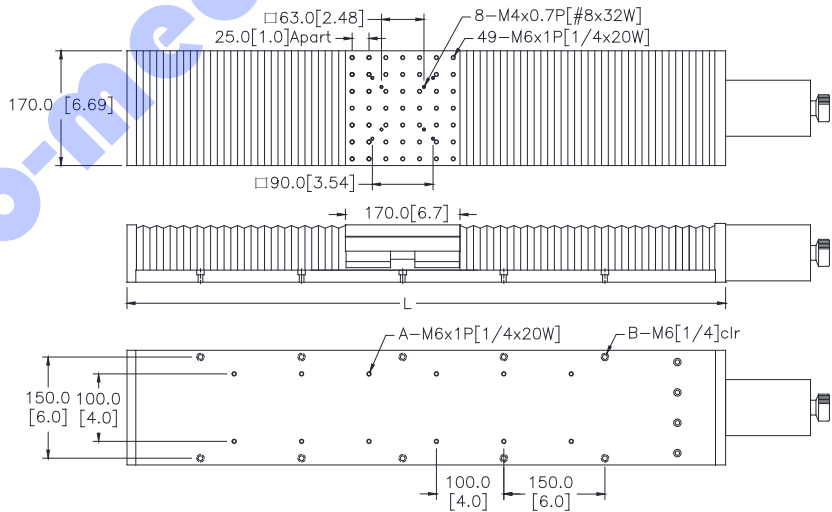
## Specification & Item Numbers



MTP170-600 / 700 / 800

#ITEM	L=mm[""]	A	B
MTP170-500	958[43.23]	10	8
MTP170-600	1098[43.23]	12	10
MTP170-700	1228[48.35]	14	12
MTP170-800	1358[53.46]	16	14
MTP170-900	1488[58.58]	16	14
MTP170-1000	1618[63.7]	18	16

PMT170-600 / 700 / 800



Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP-170-500-C7	500	170x170	50	2.5	2.5	0.05 / 300	0.02	15.0
MTP-170-600-C7	600	170x170	50	2.5	2.5	0.05 / 300	0.02	16.2
MTP-170-700-C7	700	170x170	50	2.5	2.5	0.05 / 300	0.02	18.5
MTP-170-800-C7	800	170x170	50	6.25	6.25	0.05 / 300	0.025	25.5
MTP-170-900-C7	900	170x170	50	6.25	6.25	0.05 / 300	0.025	27.1
MTP-170-1000-C7	1000	170x170	50	6.25	6.25	0.05 / 300	0.025	30.0

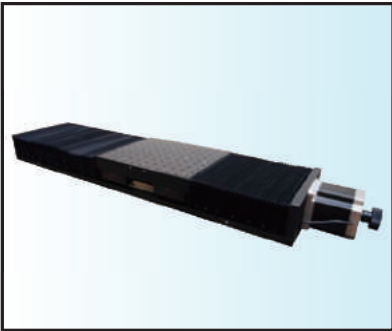
# Standard Linear Motorized Stages



## Overview

- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

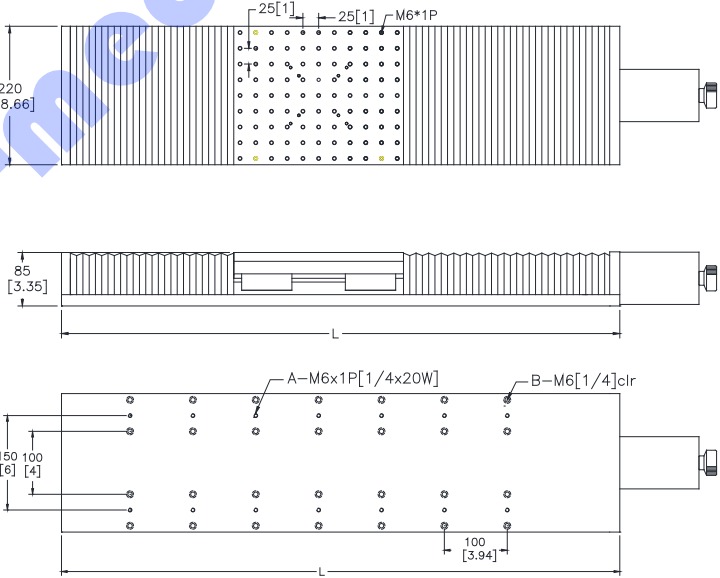
## Specification & Item Numbers



MTP220-500 / 600 / 700

MTP220-800 / 900 / 1000

#ITEM	L=mm["]	A	B	W=mm["]
MTP220-500	1058[41.65]	12	10	220[8.66]
MTP220-600	1198[47.16]	14	12	220[8.66]
MTP220-700	1328[52.28]	16	14	220[8.66]
MTP220-800	1458[57.4]	16	14	220[8.66]
MTP220-900	1588[62.52]	18	16	220[8.66]
MTP220-1000	1718[67.63]	18	16	220[8.66]



MTP220-500 / 600 / 700

MTP220-800 / 900 / 1000

Dimensions: 220 [8.66] (width), 85 [3.35] (height), 100 [3.94] (height), 150 [6] [4] (height), 25 [1] (width), 25 [1] (width), 100 [3.94] (width), 100 [3.94] (width).

Features: M6\*1P, A-M6x1P[1/4x20W], B-M6[1/4]clr.

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP-220-500-C7	500	220x220	40	6.25	6.25	0.05 / 300	0.25	30.2
MTP-220-600-C7	600	220x220	40	6.25	6.25	0.05 / 300	0.25	33.0
MTP-220-700-C7	700	220x220	45	6.25	6.25	0.05 / 300	0.25	36.0
MTP-220-800-C7	800	220x220	45	6.25	6.25	0.05 / 300	0.25	39.0
MTP-220-900-C7	900	220x220	50	6.25	6.25	0.05 / 300	0.25	42.0
MTP-220-1000-C7	1000	220x220	50	6.25	6.25	0.05 / 300	0.25	45.0



MTP  
470

# Standard Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

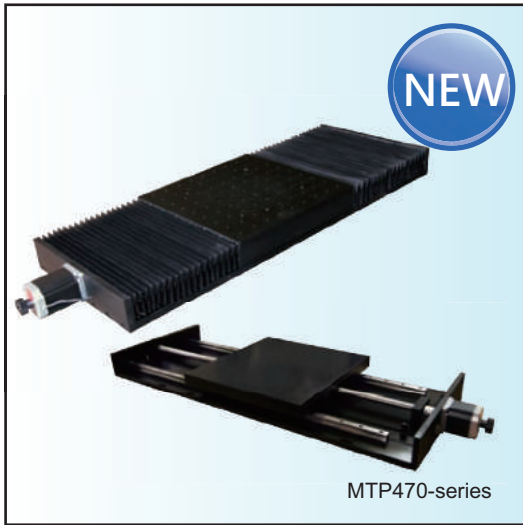
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



## Overview

- High accuracy T1 preformed rigid rail makes the movement more smoothly and also increasing heavy load capacity
- With Class C7 ball-bearing screw rod (higher class rod is also available)
- Tackle limit switch makes the signals independent of oil, temp and noise
- High speed coupling couples the stepper and main axis screw rod
- Driven by two phase stepper motors and micro-stepping controller
- Can add linear encoder
- Detailed specifications could satisfy all kind of applications
- Customized specifications upon request

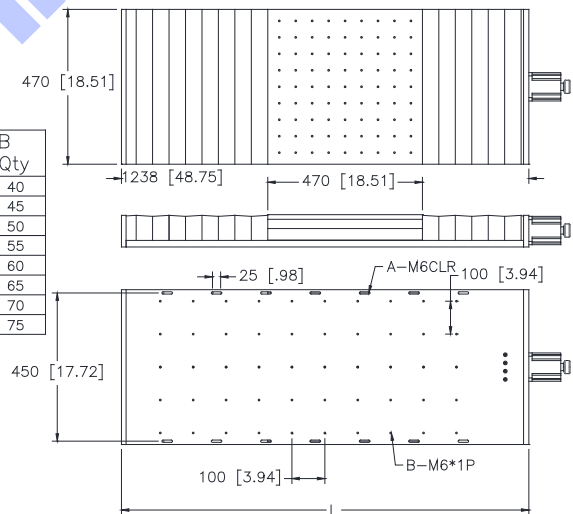
## Specification & Item Numbers



MTP470-500

Item#	L mm	A Qty	B Qty
MTP470-300	1038	15	40
MTP470-400	1138	15	45
MTP470-500	1238	14	50
MTP470-600	1378	16	55
MTP470-700	1518	18	60
MTP470-800	1658	20	65
MTP470-900	1798	22	70
MTP470-1000	1938	24	75

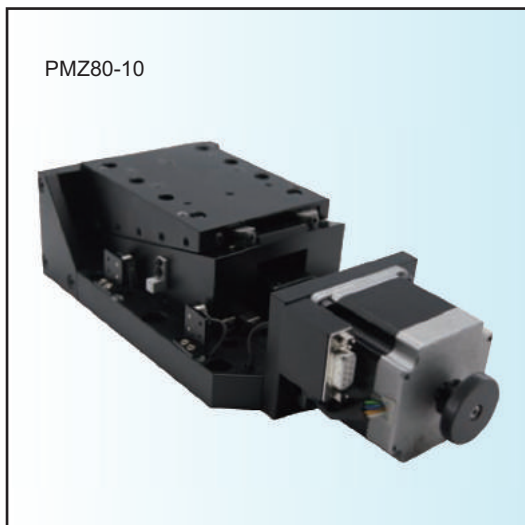
MTP470-500



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MTP-470-300-C7	300	470 x 470	50	6.25	±6.25	±0.1	±0.1	60
MTP-470-400-C7	400	470 x 470	50	6.25	±6.25	±0.1	±0.1	65
MTP-470-500-C7	500	470 x 470	50	6.25	±6.25	±0.1	±0.1	70
MTP-470-600-C7	600	470 x 470	50	6.25	±6.25	±0.1	±0.2	75
MTP-470-700-C7	700	470 x 470	50	6.25	±6.25	±0.15	±0.2	80
MTP-470-800-C7	800	470 x 470	50	6.25	±6.25	±0.15	±0.2	85
MTP-470-900-C7	900	470 x 470	50	6.25	±6.25	±0.15	±0.2	90
MTP-470-1000-C7	1000	470 x 470	50	6.25	±6.25	±0.15	±0.2	95

# Standard Linear Motorized Stage

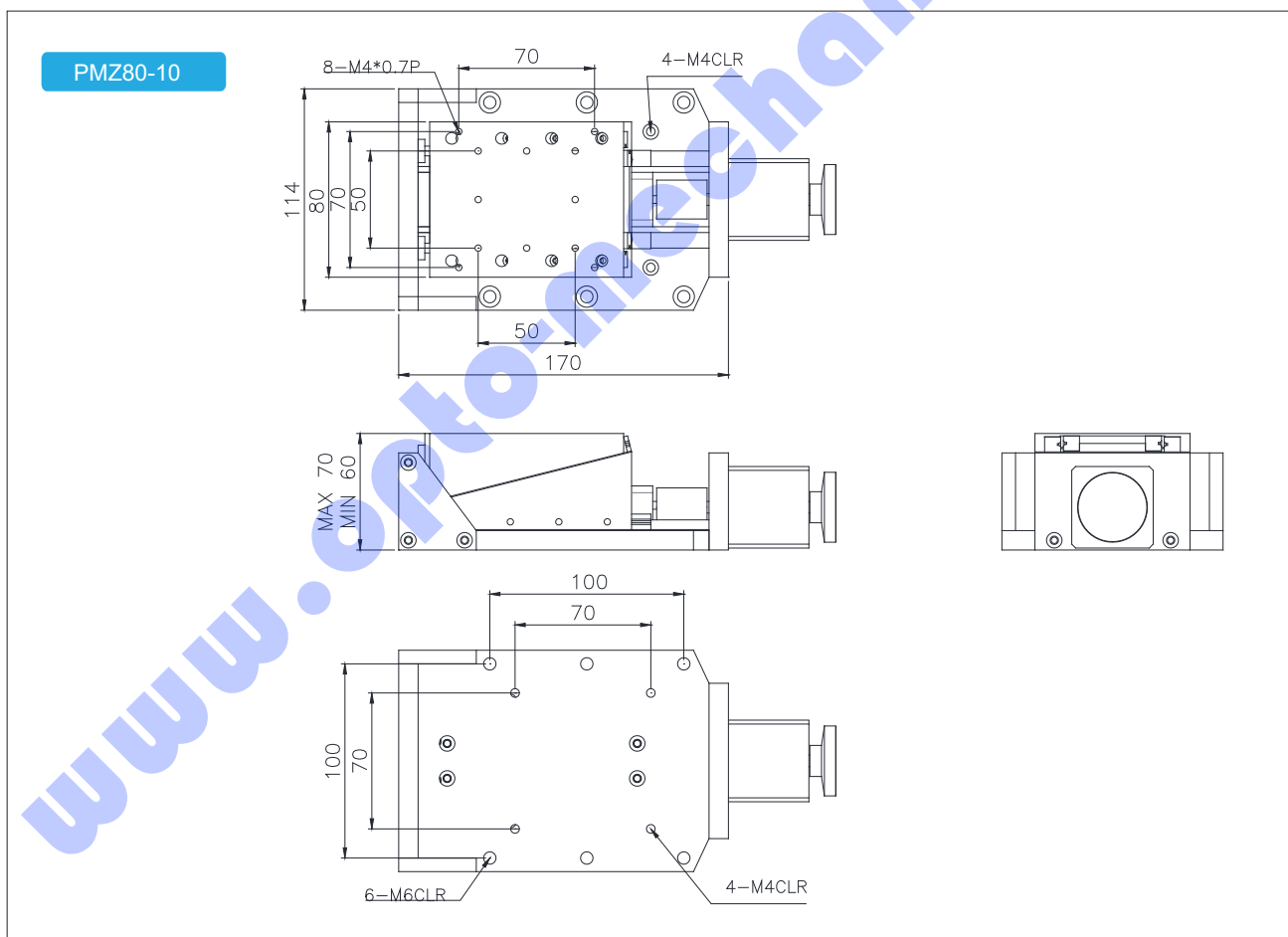


PMZ80-10

## Overview

- Motorized systems
- High accuracy and great smoothness
- Higher class ball-screw available upon request
- Zero-backlash design
- Metric / Imperial Version available
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(mm)	Straightness ±(mm)	Weight (kg)
PMZ80-10	10	100x80	10	0.3	±2	±0.01 / 10-C7	±0.05	3.2

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



PMZ

# Standard Linear Motorized Stage

Optical Tables

Stages

Optical Mounts

Components

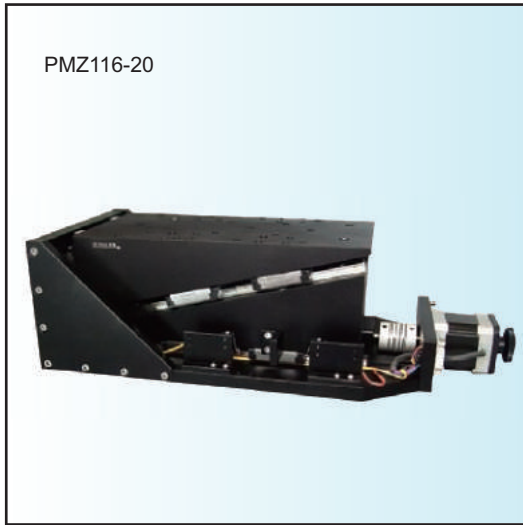
Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment

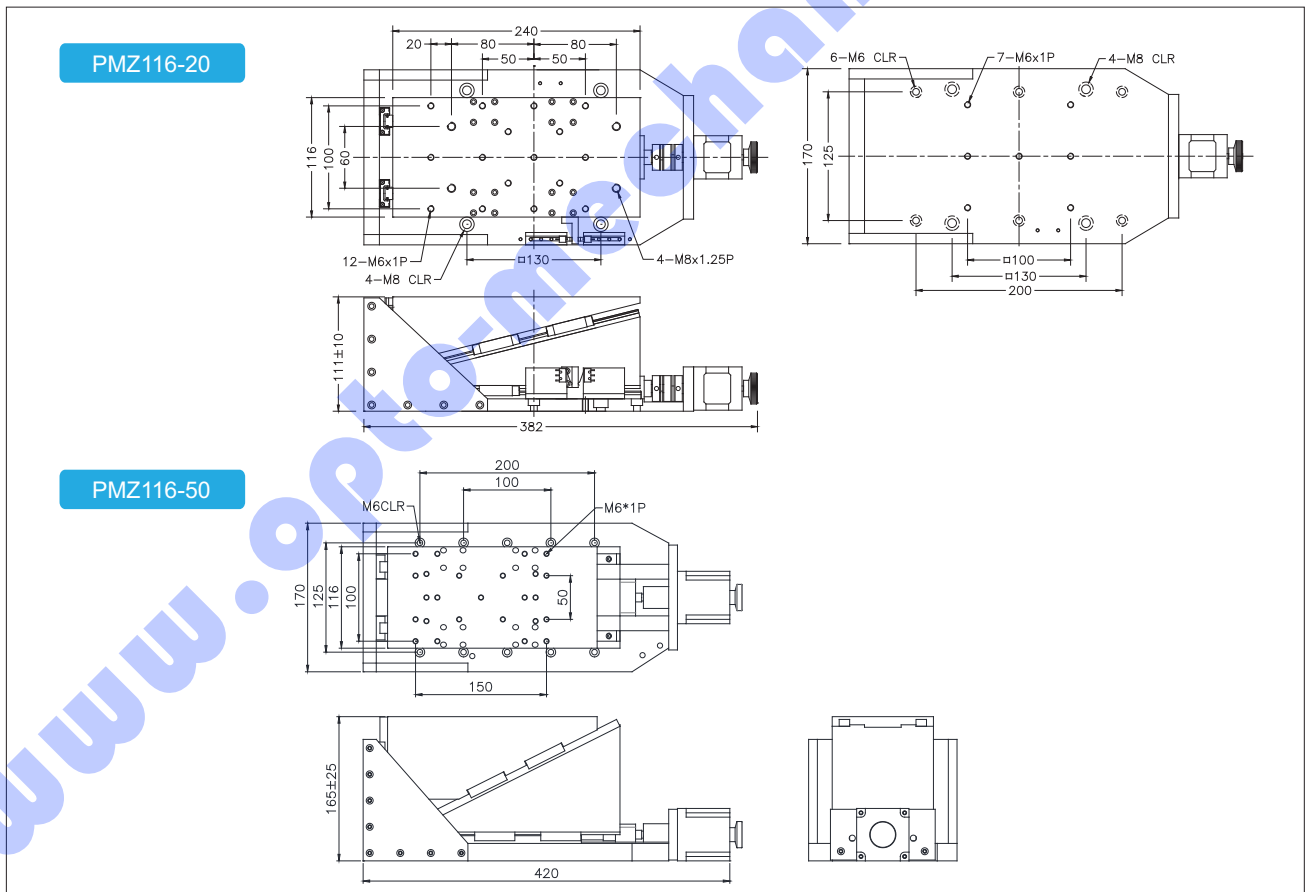


PMZ116-20

## Overview

- Motorized systems
- High accuracy and great smoothness
- Higher class ball-screw available upon request
- Zero-backlash design
- Metric / Imperial Version available
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(mm)	Straightness ±(mm)	Weight (kg)
PMZ116-20	(Z) 16	240x116	30	1.25	±1.25	±0.002 / 20-C7	±0.01	12
PMZ116-50	(Z) 50	240x116	30	1.25	±1.25	±0.01/ 10-C7	±0.05	16

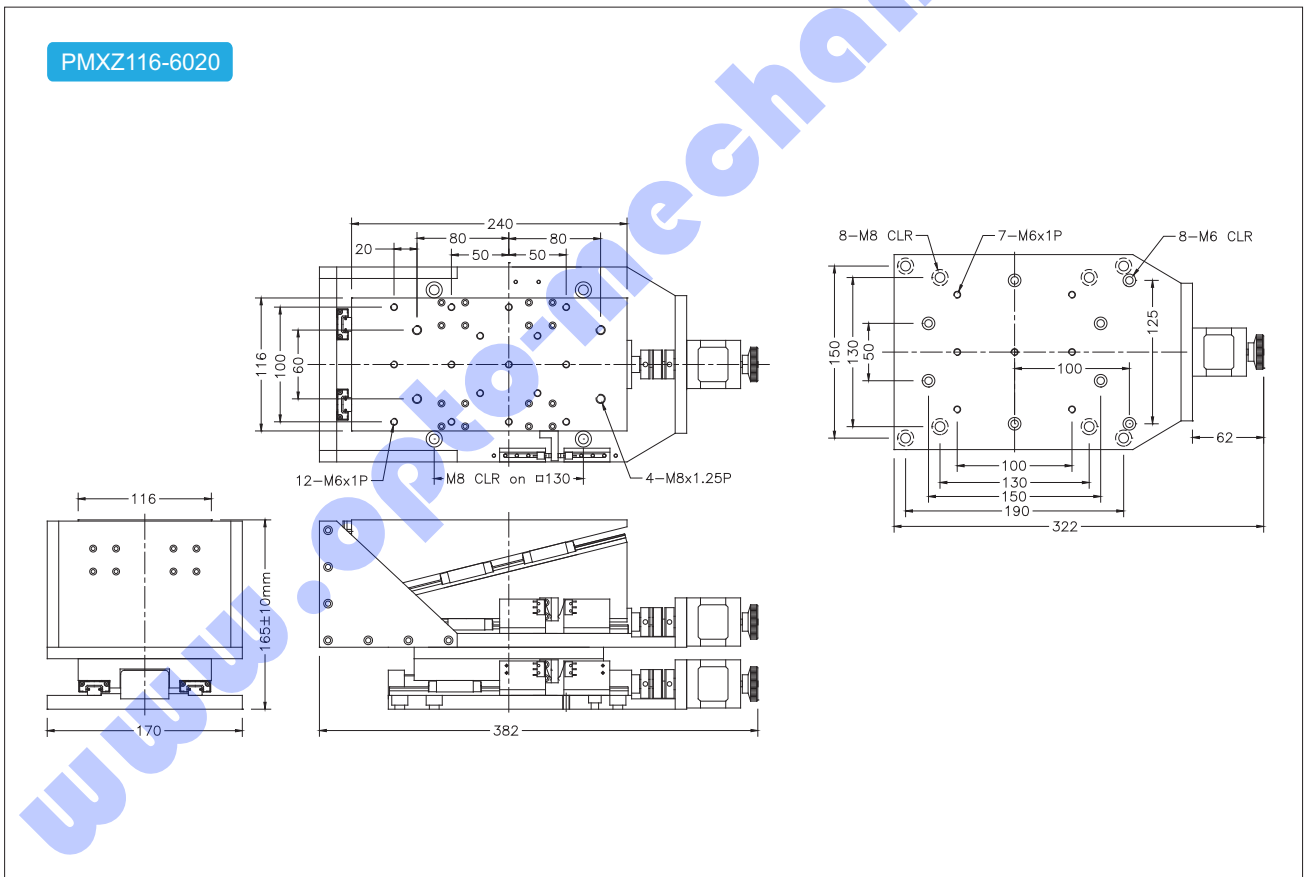
# X / Z Motorized Stages



## Overview

- Drive Type: Stepping Motor
- Position Accuracy :  $\pm 0.005\text{mm}$  / 60mm-C7
- High accuracy and great smoothness
- Metric / Imperial Version available
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Range (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
PMXZ116-6020 (X)60 / (Y)20		240x116	30	1.25	1.25	0.05 / 60-C7	0.01	14.5

- Optical Tables
- Stages
- Optical Mounts
- Components
- Motion Systems
- Education Systems
- Lasers
- Optics & Crystals
- Other Equipment





ML  
JB

# Standard Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

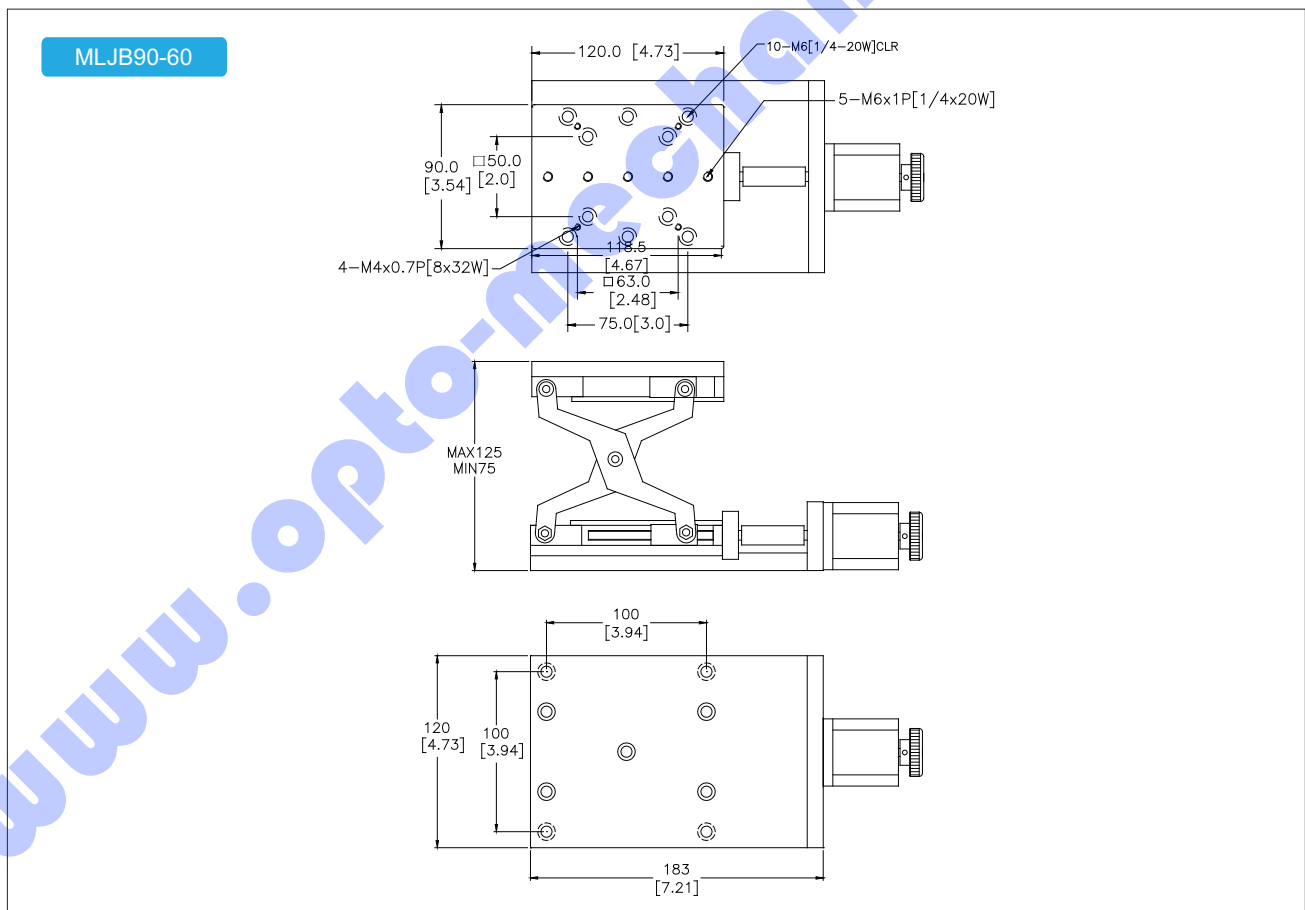
Other Equipment



## Overview

- Motorized systems
- Zero-backlash design
- Metric / Imperial Version available
- To order Imperial model please add \*I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Dimensions (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(mm)	Straightness ±(mm)	Weight (kg)
MLJB90-60	(Z) 50	120x90	20	1.25	±1.25	±0.05	±0.01	2.5

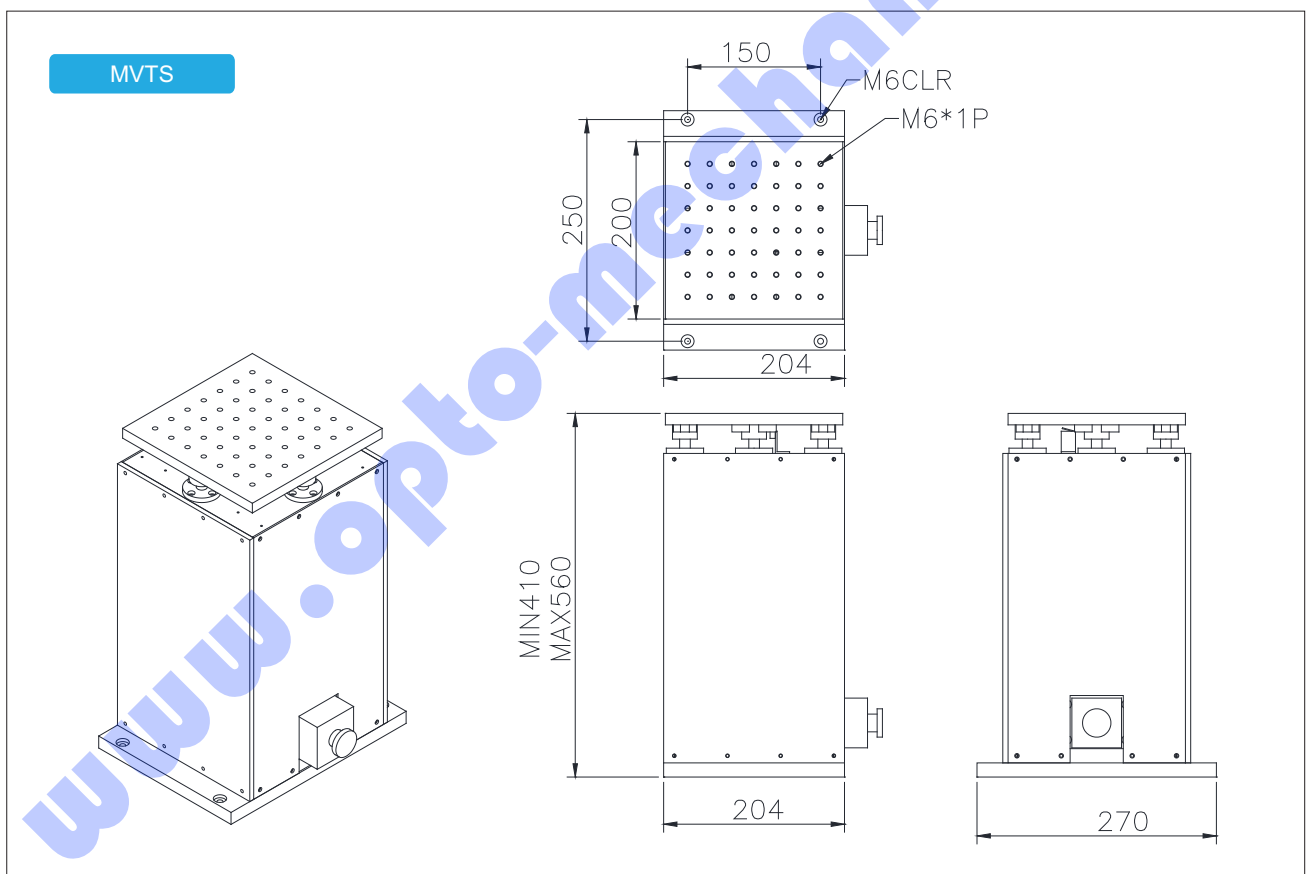
# Standard Linear Motorized Stages



## Overview

- Features of horizontal platform and central driver, is able to move up and down smoothly
- High quality ball bearing screw and repeatable positioning accuracy
- High precision and high loading
- Two sides with limit switch can protect the product from the damage
- Base plate has standard thread hole and through hole, can easily mount on the board
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Range (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
MVTS200-60	60	200 x 200	20	0.625	±0.625	±0.03	±0.05	10
MVTS200-160	160	200 x 200	20	0.625	±0.625	±0.03	±0.05	16.5

- Optical Tables
- Stages
- Optical Mounts
- Components
- Motion Systems
- Education Systems
- Lasers
- Optics & Crystals
- Other Equipment



HM VTS MV TS

# Standard Linear Motorized Stages

Optical Tables

Stages

Optical Mounts

Components

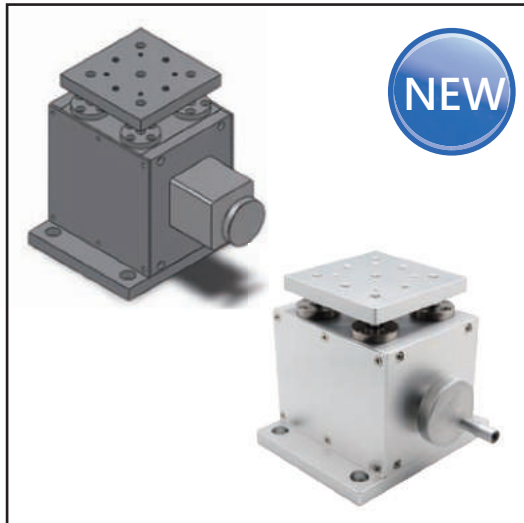
Motion Systems

Education Systems

Lasers

Optics & Crystals

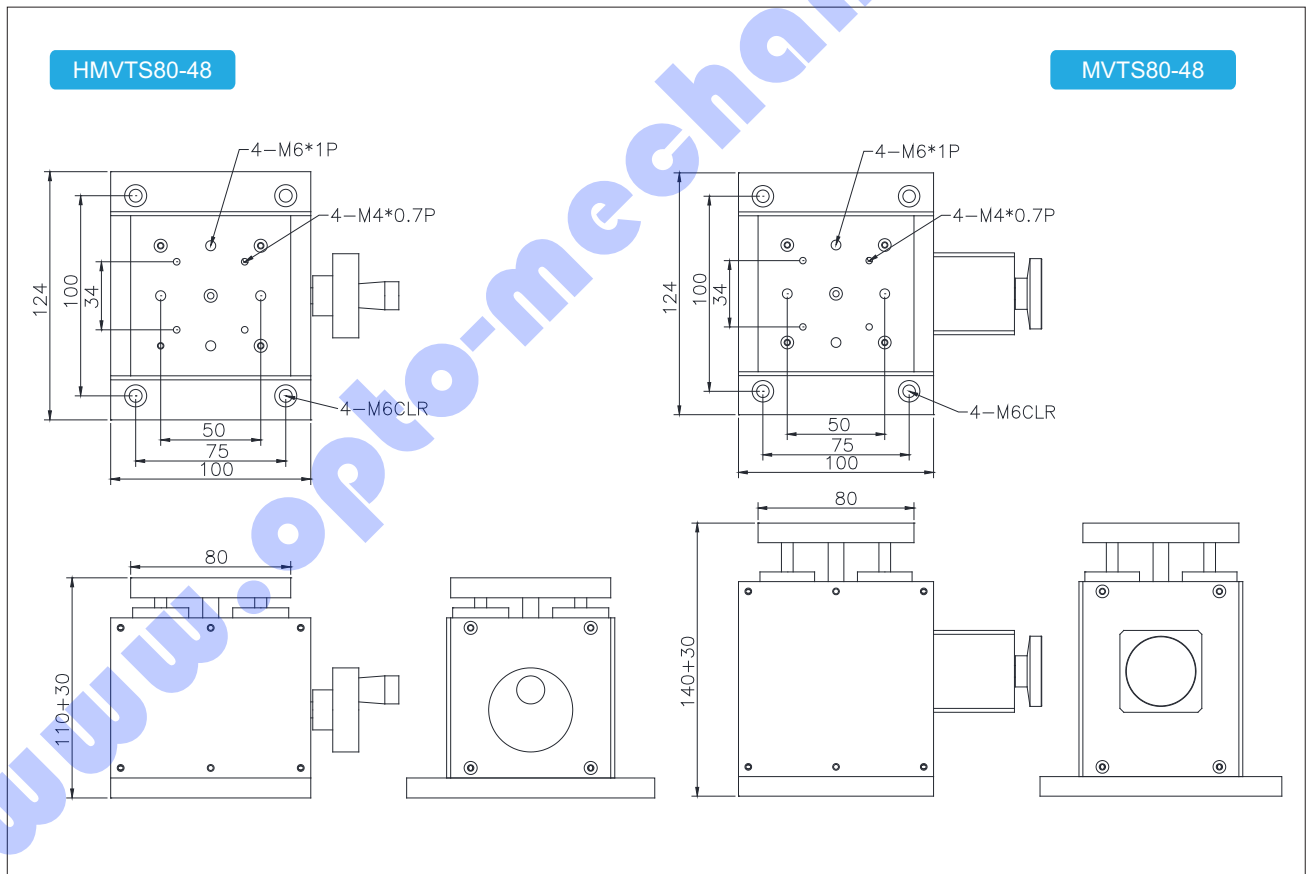
Other Equipment



## Overview

- Features of horizontal platform and central driver, is able to move up and down smoothly
- High quality ball bearing screw and repeatable positioning accuracy
- High precision and high loading
- Two sides with limit switch can protect the product from the damage
- Base plate has standard thread hole and through hole, can easily mount on the board
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

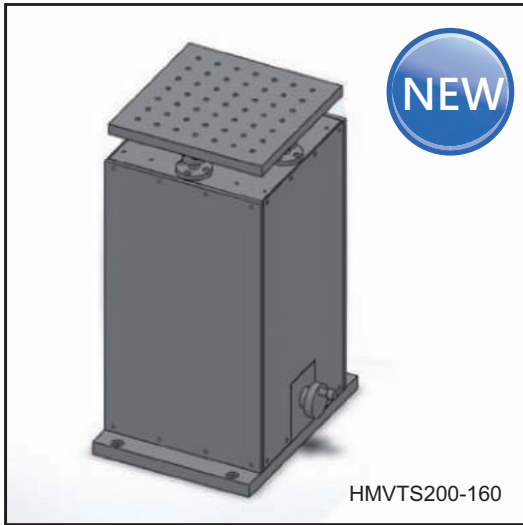
## Specification & Item Numbers



## Item Numbers

Item Number	Travel Range (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
HMVTS80-48	30	80 x 80	5	0.625	±0.625	±0.03	±0.05	2
MVTS80-48	30	80 x 80	5	0.625	±0.625	±0.03	±0.05	2

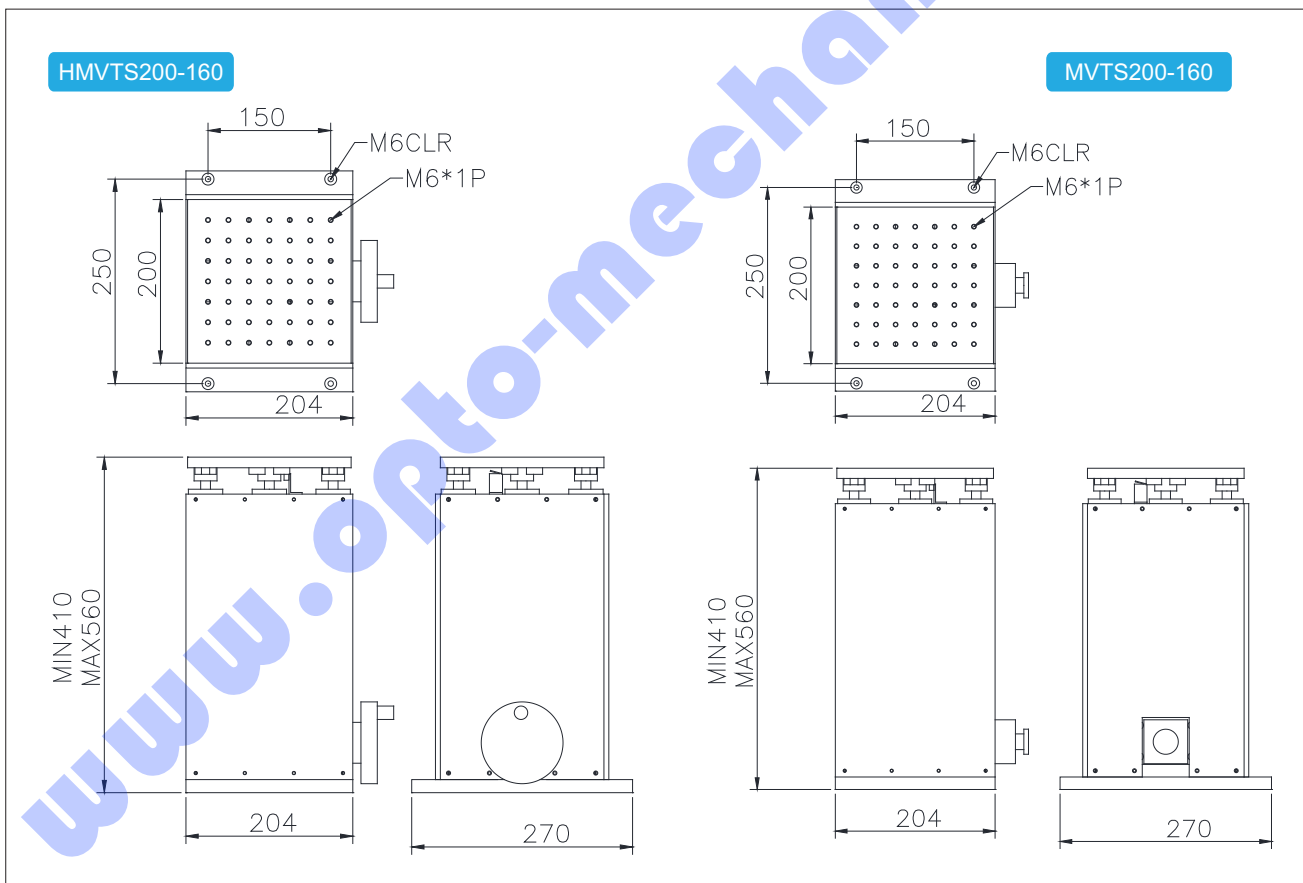
# Standard Linear Motorized Stages



## Overview

- Features of horizontal platform and central driver, is able to move up and down smoothly
- High quality ball bearing screw and repeatable positioning accuracy
- High precision and high loading
- Two sides with limit switch can protect the product from the damage
- Base plate has standard thread hole and through hole, can easily mount on the board
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06

## Specification & Item Numbers



## Item Numbers

Item Number	Travel Range (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
HMVTS200-160	160	200 x 200	20	0.625	±0.625	±0.03	±0.05	16.5
MVTS200-160	160	200 x 200	20	0.625	±0.625	±0.03	±0.05	16.5

- Optical Tables
- Stages
- Optical Mounts
- Components
- Motion Systems
- Education Systems
- Lasers
- Optics & Crystals
- Other Equipment



HJ TH HJT

# Microscope Motorized Linear Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

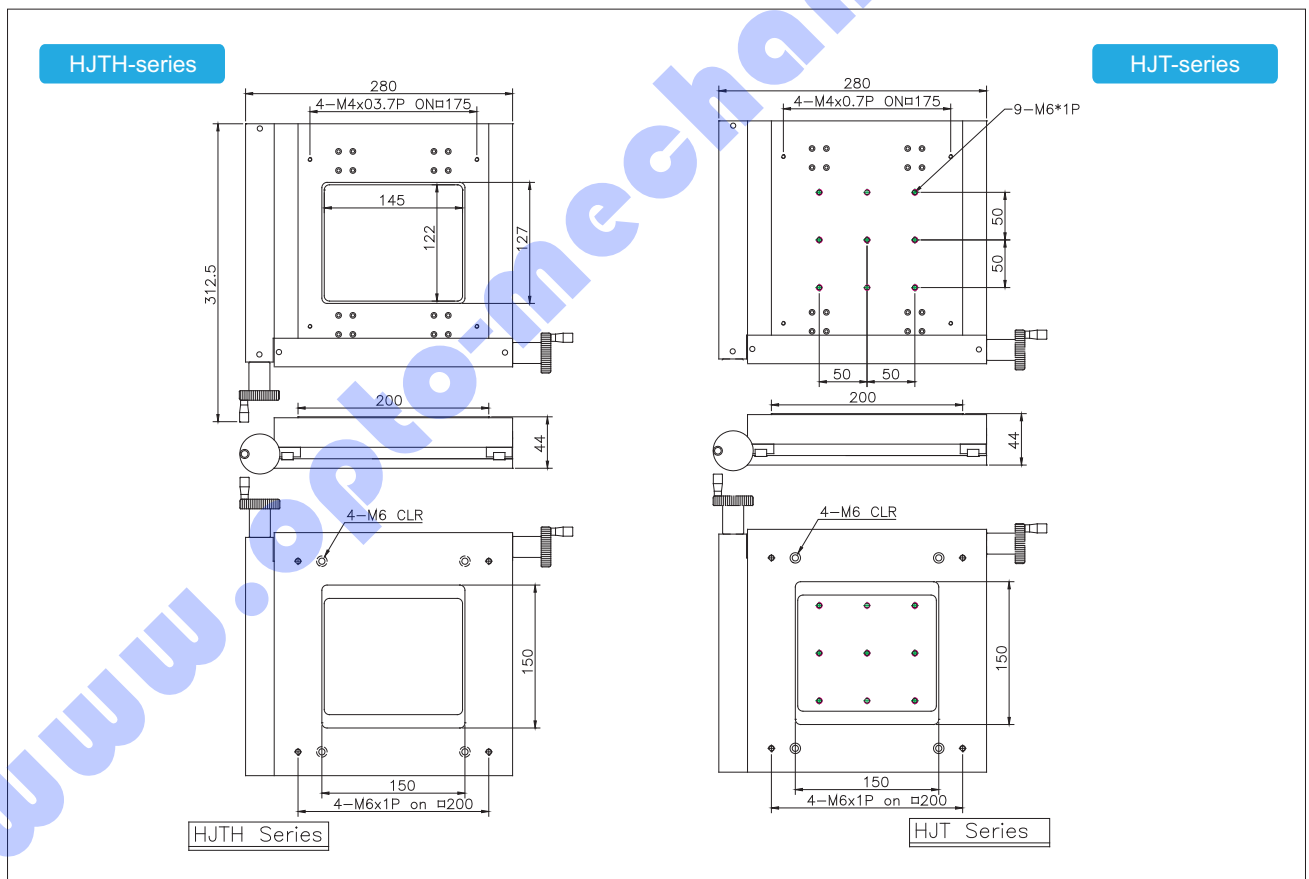
Other Equipment



## Overview

- Stage Dimension: 200 x 200 mm
- Center Glass Dimension: 122 x 145 mm
- Travel Range: XY=100
- Loading : 30 kg
- Resolution : 0.625 um
- Repeatability : ±0.008 mm (within 100 mm travel)
- Straightness: ±0.005 mm
- High accuracy and great smoothness
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers



## Item Numbers

Item Number	Driven Type	Weight (kg)	Travel range (mm)
HJTH200-100	Motorized w / Manual	8.5	100x100
HJT200-100	Motorized w / Manua	9.4	100x100

# Microscope Motorized Linear Stages



## Overview

- Stage Dimension: 200 x 200 mm
- Center Glass Dimension: 122 x 145 mm
- Drive Type:  
JT200-100: Stepping Motor  
JTH200-100: Stepping Motor
- Travel Range: XY=100
- Loading : 30 kg
- Resolution : 1.25 um
- Repeatability: : ±1.25 um with 100 mm travel
- Straightness: ±0.008 mm
- High accuracy and great smoothness
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

**JTH200-100**

**JTH Series**

**JT Series**

**JT200-100**

**JT200-100 Solid Platform**

Technical drawings show dimensions for both series. The JTH Series has a center aperture of 122x145 mm and a total stage size of 200x200 mm. The JT Series has a solid platform. Both series feature 4-M6x0.7P holes on a 175mm square and 4-M6x1P holes on a 200mm square. The JTH Series has a height of 150 mm, while the JT Series has a height of 150 mm. The overall height of the stage is 295 mm.

## Item Numbers

- The **H** after the platform dimension = multi-home design

Item Number	Design	Travel Range (mm)	Position Accuracy (mm)	Weight (kg)
JTH200-100	Center Aperture	100x100	±0.02 / 250 (C7)	8.5
JT200-100	Solid Platform	100x100	±0.02 / 250 (C7)	9.4
JTH200H-100	Center Aperture	100x100	±0.02 / 250 (C7)	8.5
JT200H-100	Solid Platform	100x100	±0.02 / 250 (C7)	9.4



JTH

JT

# Microscope Motorized Linear Stages

Optical Tables

Stages

Optical Mounts

Components

Motion Systems

Education Systems

Lasers

Optics & Crystals

Other Equipment



JTH250-130  
Center Aperture : Squared Glass

## Overview

- Stage Dimension: 250 x 250 mm
- Center Glass Dimension: 178 x 200 mm
- Drive Type:  
JT250-130: Stepping Motor  
JTH250-130: Stepping Motor
- Travel Range: XY=130
- Loading : 40 kg
- Resolution : 1.25  $\mu$ m
- Repeatability: :  $\pm 1.25$   $\mu$ m with 100 mm travel
- Straightness:  $\pm 0.008$  mm
- High accuracy and great smoothness
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

**JTH250-130**

JTH250XY-130 Series

**JT250-130**

JT250XY-130 Series

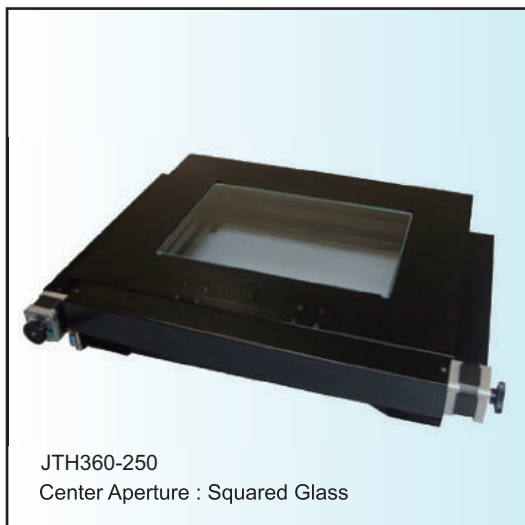
JT250-130  
Solid Platform

## Item Numbers

- The **H** after the platform dimension = multi-home design

Item Number	Design	Travel Range (mm)	Position Accuracy (mm)	Weight (kg)
<b>JTH250-130</b>	Center Aperture	130x130	$\pm 0.02$ / 250 (C7)	8.5
<b>JT250-130</b>	Solid Platform	130x130	$\pm 0.02$ / 250 (C7)	9.4
<b>JTH250H-130</b>	Center Aperture	130x130	$\pm 0.02$ / 250 (C7)	8.5
<b>JT250H-130</b>	Solid Platform	130x130	$\pm 0.02$ / 250 (C7)	9.4

# Microscope Motorized Linear Stages



## Overview

- JT360-250 (Solid Platform)
- JTH360-250 (Center Aperture: Squared Glass)
- Stage Dimension: 360 x 360 mm
- Center Glass Dimension: 300 x 200 mm
- Loading : 40 kg
- Resolution : 1.25 um
- Repeatability : ±1.25 um with 100 mm travel
- Straightness: ±0.008 mm
- High accuracy and great smoothness
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

**JTH360-250**

JTH360-250

**JH360-250**

JT360XY-250

JT360-250  
Solid Platform

## Item Numbers

- The **H** after the platform dimension = multi-home design

Item Number	Design	Travel Range (mm)	Position Accuracy (mm)	Weight (kg)
JTH360-250	Center Aperture	250x150	±0.02 / 250 (C7)	28
JT360-250	Solid Platform	250x150	±0.02 / 300 (C7)	29
JTH360H-250	Center Aperture	250x150	±0.02 / 250 (C7)	28
JT360H-250	Solid Platform	250x150	±0.02 / 300 (C7)	29

- Optical Tables
- Stages
- Optical Mounts
- Components
- Motion Systems
- Education Systems
- Lasers
- Optics & Crystals
- Other Equipment

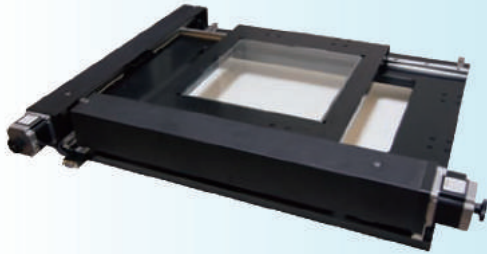




JTH

# Microscope Motorized Linear Stages

NEW



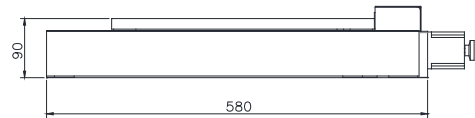
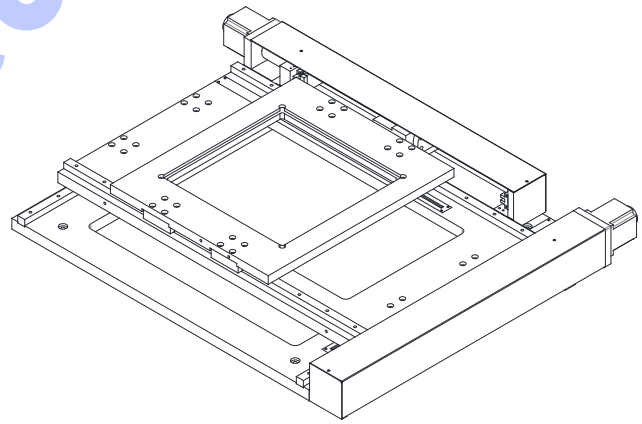
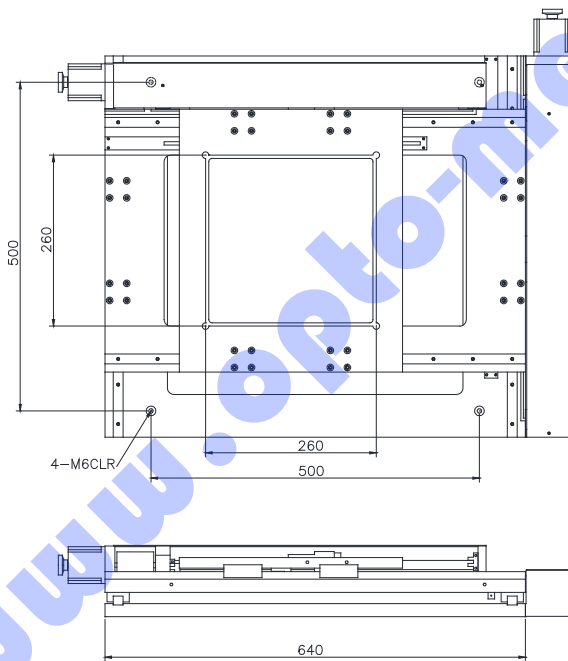
JTH640-350  
Center Aperture : Squared Glass

## Overview

- JT640-350 (Solid Platform)
- JTH640-350 (Center Aperture: Squared Glass)
- Center Glass Dimension: 260 x 260 mm
- High accuracy and great smoothness
- Can add linear encoder
- Metric / Imperial Version available
- Customized specifications upon request
- Can choose higher precision ballscrew (C1~C10), refer to page E. 06
- To order Imperial model please add \*-I-\* to item

## Specification & Item Numbers

JTH640-350



## Item Numbers

- The **H** after the platform dimension = multi-home design

Item Number	Travel Range (mm)	Platform Dimensions (mm)	Load Capacity (kg)	Resolution (um)	Repeatability ±(um)	Position Accuracy ±(um)	Straightness ±(mm)	Weight (kg)
JTH640-350	350	400 x 340	20	2.5	±2.5	±0.05	±0.03	30
JTH640H-350	350	400 x 340	20	2.5	±2.5	±0.05	±0.03	30







MR MRH

# Motion Control Rotary Stages

Optical Tables

Stages

Optical Mounts

Components

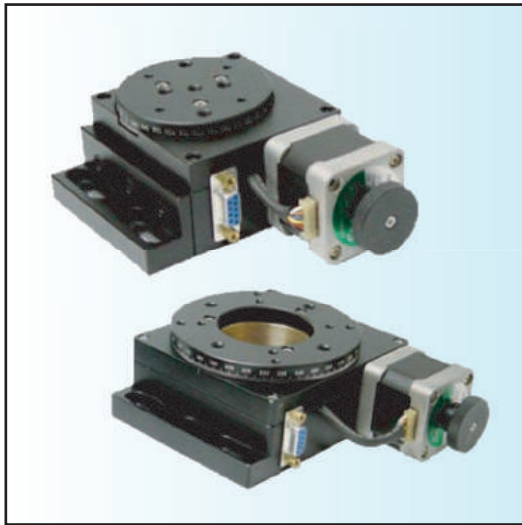
Motion Systems

Education Systems

Lasers

Optics & Crystals

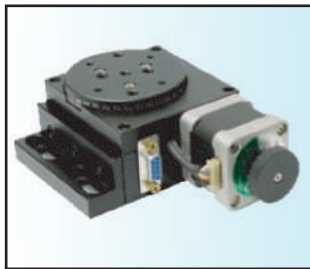
Other Equipment



## Specifications

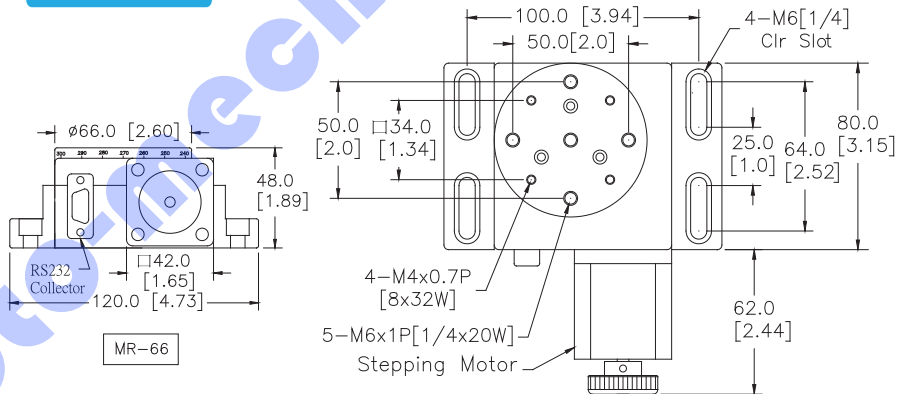
- Drive Type: Stepping Motor
- Weight : 1.1 ~ 3.2 kg
- Loading : 10 ~ 50 kg
- Resolution : 0.0025° / 0.00125°
- Repeatability : ±0.0025° / ±0.00125°
- Surface Parallelism: ±0.0025° / ±0.00125°
- High accuracy and loading
- Customized specifications upon request
- Metric / Imperial Version available
- To order Imperial model please add \*I-\* to item

## Specification & Item Numbers



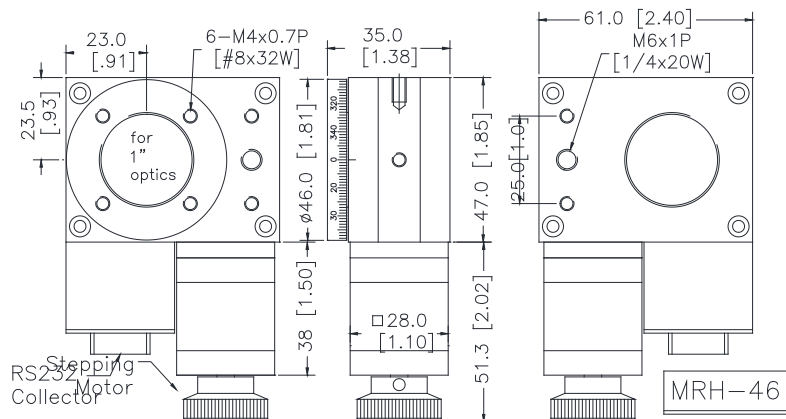
MR-66

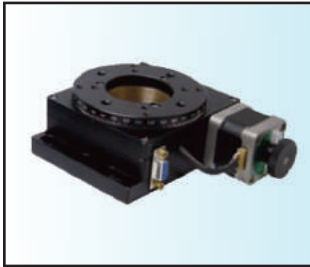
MR- 66



MRH-46

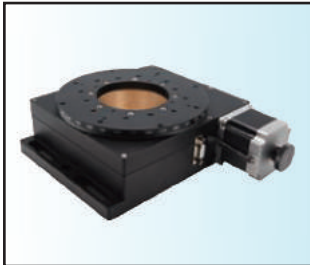
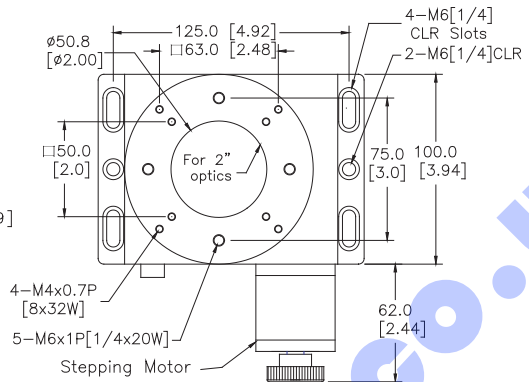
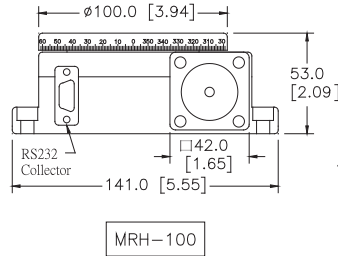
MRH- 46





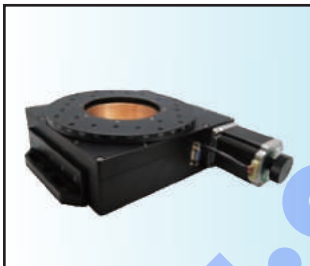
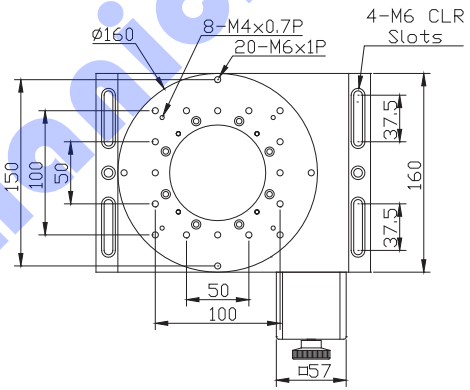
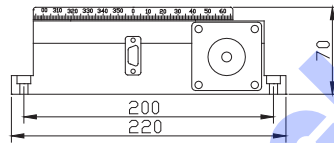
MRH-100

MRH-100



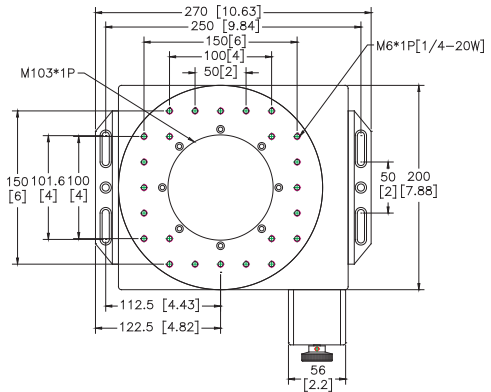
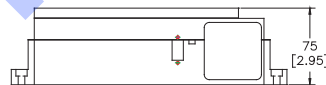
MRH-160

MRH-160



MRH-200

MRH-200



Item Number	Platform $\phi$ (mm)	Load Capacity (kg)	Resolution ( $^{\circ}$ )	Repeatability $\pm$ ( $^{\circ}$ )	Straightness Parallelism $\pm$ (mm)	Weight (kg)
MR-66	66 (2.6")	10	0.0025	0.0025	0.02	1.2
MRH-46	46 (1.81")	5	0.0025	0.0025	0.02	0.43
MRH-100	100 (3.94")	15	0.00125	0.00125	0.02	2.5
MRH-160	160 (6.3")	20	0.00125	0.00125	0.25	7
MRH-200	200 (7.9")	30	0.00125	0.00125	0.25	11.2