

Opto-Mechanics 2011

# XYZ Flexure Stages



## Company Profile

Elliot Scientific is a major supplier of Opto-Mechanic components and systems under the Elliot|Martock and Elliot Scientific brands to the Scientific, Research and Industrial communities. In addition, we supply world-class Laser, Cryogenic, Magnetic, Telecom and Datacom systems sourced from many British, North American, European and Far Eastern companies.

Elliot Scientific is uniquely positioned to assist customers by being able to:

- Supply competitive components and systems
- Source, integrate and manufacture complex systems
- Design and manufacture for Custom or OEM requirements

### Elliot|Martock

Martock Design became a wholly owned subsidiary of Elliot Scientific in 2003 following thirty years at the forefront of design, development and manufacture of high quality precision instruments and equipment. That tradition continues today as we continually strive to improve and expand the ranges of Elliot|Martock and Elliot Scientific own brand products.

These include our award winning optical tweezer systems, the lab essentials mirror mount range, fibre positioning components, waveguide manipulators, automated alignment systems, micropositioners and other class-leading products.

All of our customers - from academic institutions and government agencies through to commercial researchers and industry - are provided with the highest levels of service backed up by solid technical support from our team of experienced engineers.

### Solution Science for Research and Industry

We pride ourselves in offering Solution Science for Research and Industry. We employ the best-qualified staff and scientists to help you sift through the multitude of options available to get the equipment and systems that match your needs. That's **Solution Science**.

### Staff

We employ PhD level physicists, scientists and mechanical design engineers to assist you with your product search or application, and to ensure that our advice is correct and balanced. Many of the team have been with us for over ten years, bringing with them a huge amount of experience for you to tap into.

### Quality

We have been BS EN ISO 9002 registered since 1993 and BS EN ISO 9001 registered since 2003. We understand the need for continual improvement in services and traceability, both in distribution and manufacture. Our commitment to this ensures our standards are the highest in our industry.

### Catalogue & Custom Manufacturing

This catalogue only gives an overview of our extensive range. If you cannot find what you are looking for here, why not phone, fax or e-mail us. Many products have been supplied that started as ideas and concepts requested by customers requiring tailored manipulation systems. With our innovative design experience, we can offer unique solutions in opto-mechanical positioning and control systems. We are here to help you find the right products to meet your requirements.

### Elliot Scientific Limited

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Registered in England No. 2460146

VAT Registration No. GB 540 1277 78

WEEE Registration No. WEE/DF0052TQ

**Elliot Gold™ Series: XYZ Flexure Stages**

**MDE120 Standard XYZ Flexure Stage**



- 200 nm resolution
- 2 mm travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Ultra-stable patented† design XYZ flexure stage



The MDE120 flexure stage is fitted with simple manual adjusters and provides 200 nm of adjustment resolution with 2 mm of travel in each of the three axes.

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

**Specifications**

Configuration	Right handed version
Adjuster Type	Three simple, manual adjusters, 0.25 pitch (Model MDE217)
Stage travel	2 mm in X, Y and Z axes
Resolution	200 nm
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes: 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes	Model MDE154 clamp set
Variants	Left-handed version available

† Patent Nos. GB 2129955B & USA 4635887

**For the latest price, contact us today.**

## Elliot Gold™ Series: XYZ Flexure Stages

### MDE122 High-Precision XYZ Flexure Stage



- 20 nm resolution
- 2 mm travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Patented† high resolution adjusters
- Ultra-stable patented†† design XYZ flexure stage



The MDE122 flexure stage is fitted with simple manual adjusters and provides 20 nm of adjustment resolution with 2 mm of travel in each of the three axes.

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### Specifications

Configuration	Right handed version
Adjuster Type	Three high-precision adjusters (Model MDE216) utilising a patented† lever system with rotary fine and coarse control
Stage travel	2 mm in X, Y and Z axes
Resolution	20 nm
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes	Model MDE154 clamp set
Variants	Left-handed version available

† Patent Nos. GB 2152616B & USA 4617833

†† Patent Nos. GB 2129955B & USA 4635887

**For the latest price, contact us today.**

## Elliot Gold™ Series: XYZ Flexure Stages

### MDE123 XYZ Flexure Stage with 25 µm Piezo Actuators



- 10 nm resolution
- 25 µm Piezo adjustment travel
- 2 mm coarse travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Ultra-stable patented† design XYZ flexure stage

The MDE123 flexure stage is fitted with piezo actuators providing 25 µm of piezo and 2 mm of manual adjustment in each of the three axes. This system can be controlled either via a simple piezo controller or an Elliot Scientific Device Automated Alignment System (DALi2).

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### Specifications

Configuration	Right handed version
Adjuster Type	Three 0 ~ 150 V piezo with manual control (model MDE218), piezo travel 25 µm
Stage travel	2 mm coarse manual travel (on 0.25 pitch thread) in X, Y and Z axes
Resolution	10 nm with piezo control (over 25 µm range)
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes: 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes Model MDE154 clamp set	
Variants	Left-handed version available

† Patent Nos. GB 2129955B & USA 4635887

**For the latest price, contact us today.**

## Elliot Gold™ Series: XYZ Flexure Stages

### MDE125 XYZ Flexure Stage with 100 µm Piezo Actuators



- 50 nm resolution
- 100 µm Piezo adjustment travel
- 2 mm coarse travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Ultra-stable patented† design XYZ flexure stage

The MDE125 flexure stage is fitted with piezo actuators providing 100 µm of piezo and 2 mm of manual adjustment in each of the three axes. This system can be controlled either via a simple piezo controller or an Elliot Scientific Device Automated Alignment System (DALi2).

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### Specifications

Configuration	Right handed version
Adjuster Type	Three 0 ~ 150 V piezo with manual control (model MDE227), piezo travel 100 µm
Stage travel	2 mm coarse manual travel (on 0.25 pitch thread) in X, Y and Z axes
Resolution	50 nm with piezo control (over 100 µm range)
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes: 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes Model MDE154 clamp set	
Variants	Left-handed version available

† Patent Nos. GB 2129955B & USA 4635887

**For the latest price, contact us today.**

## Elliot Gold™ Series: XYZ Flexure Stages

### MDE330 XYZ Flexure Stage without Adjusters



- 2 mm coarse travel per axis
- 4.5 kg load capacity
- Minimal arcuate displacement
- Orthogonal alignment grooves
- Use any combination of Elliot Scientific adjuster types
- Ultra-stable patented† design XYZ flexure stage



The MDE330 flexure stage is supplied without adjusters, thereby permitting the user to choose and fit a different type of adjuster on each axis to match individual performance and cost requirements. For example, 1 manual and 2 piezo adjusters or 2 high-precision and 1 piezo. The MDE330 is compatible with all Elliot Scientific adjusters.

The Elliot Gold™ series XYZ flexure stage is a development of the immensely popular original stage invented and patented† by Martock Design, now a subsidiary of Elliot Scientific. Flexure stages are ideal for high precision device manipulation.

Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times better than competing products.

The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

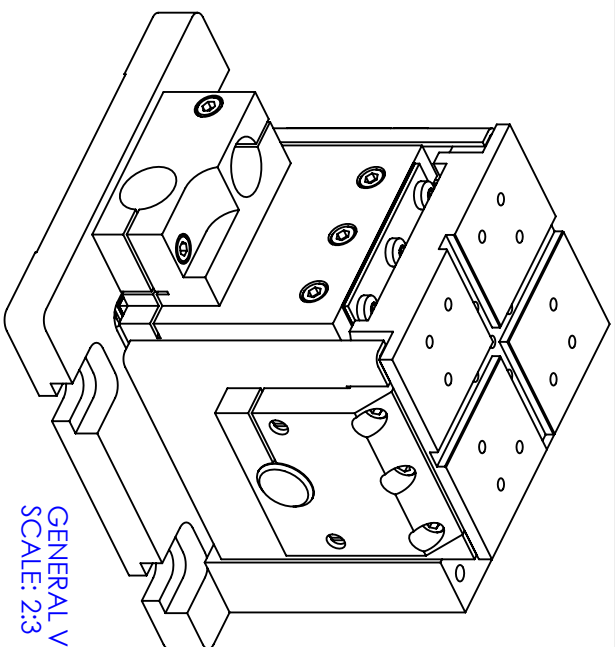
#### Specifications

Configuration	Right handed version
Adjusters	None fitted
Stage travel	2 mm in X, Y and Z axes
Resolution	Adjuster dependent
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes: 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes Model MDE154 clamp set	

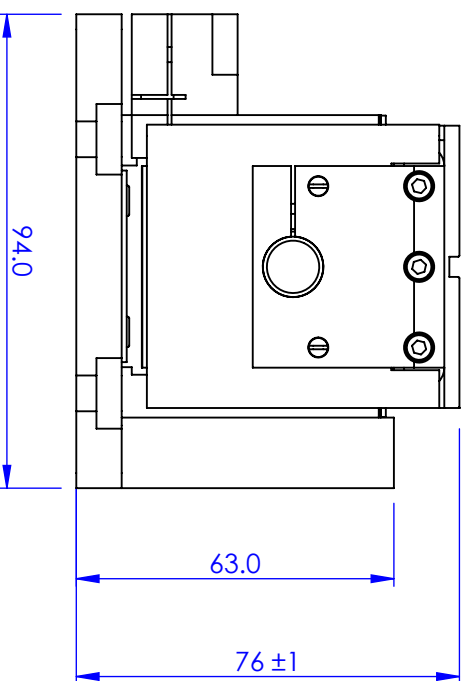
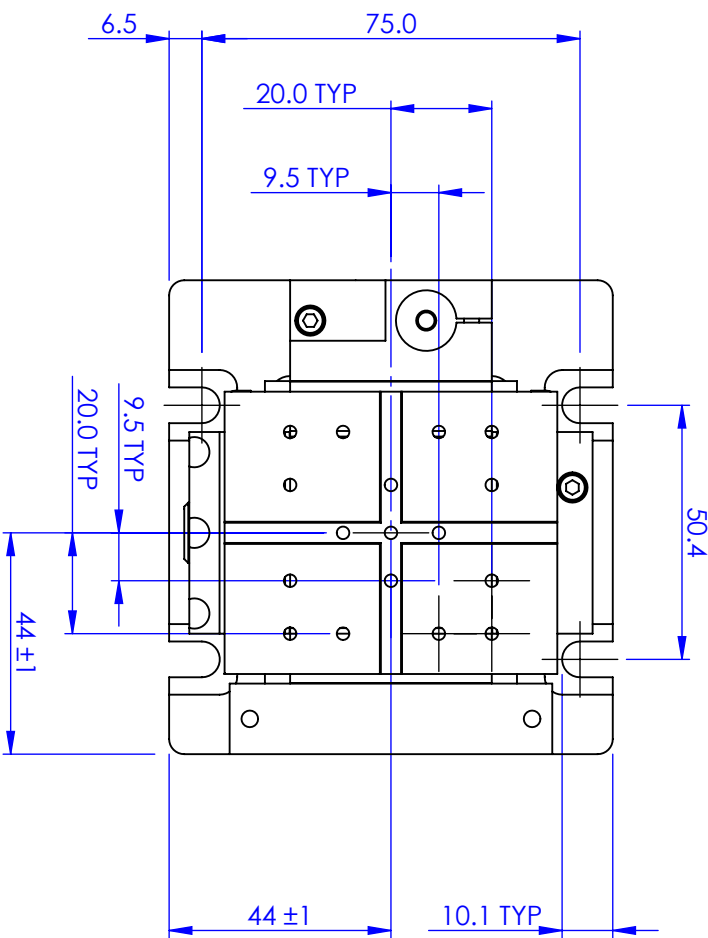
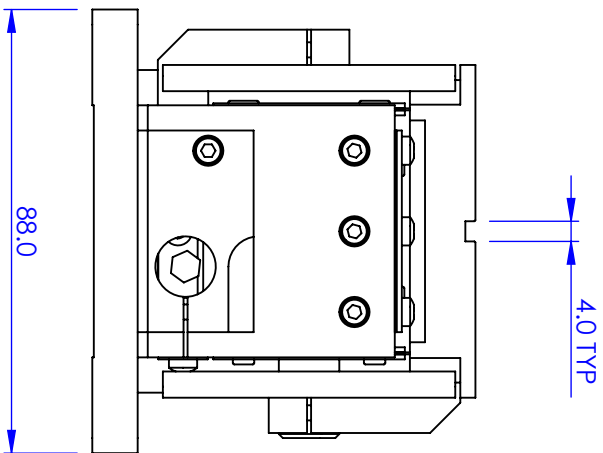
#### Options and Accessories

Flexure stage accessories - objective mounts, plates, clamps  
 Alternative adjusters - simple, high precision, piezo or motorised  
 Left-handed version (To special order)  
 Pitch and yaw add-on modules  
 Fibre launch systems  
 Fixed brackets

**For the latest price, contact us today.**



GENERAL VIEW  
SCALE: 2:3



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 SURFACE FINISH:  
 ALL BURRS, SHARP EDGES AND CORNERS TO BE REMOVED

NAME	DATE
AUTHOR GW	15/06/2010
CHECKED	

<b>Eliot Scientific</b>	
TITLE <b>FLEXURE STAGE (No Adjusters)</b>	
SIZE <b>A4</b>	DWG. NO. <b>MDE330</b>
SCALE: 2:3	THIRD ANGLE PROJECTION
DO NOT SCALE DRAWING	SHEET 1 OF 1

## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE147 Large Fixed Bracket with 60 mm Slot

- For X-axis use



**ELLIOT MARTOCK**

The MDE147 is for mounting accessories along the X-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 60 mm milled along it, a locating groove and threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

#### Options

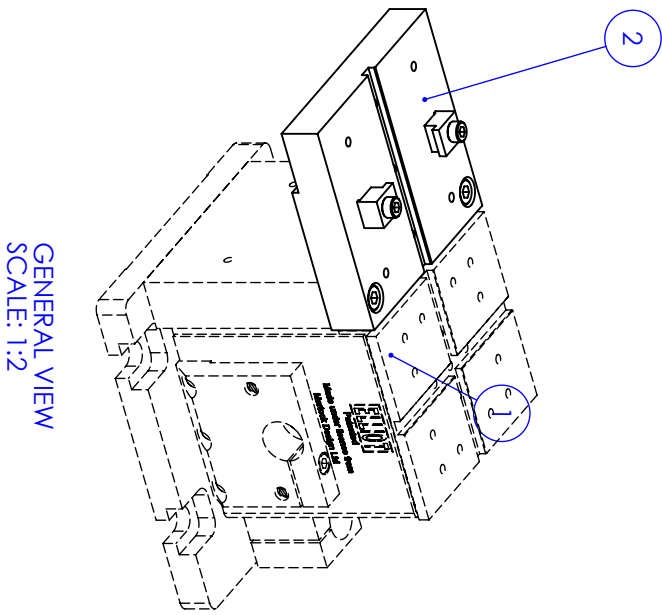
MDE189 Fixed bracket

MDE190 Riser block

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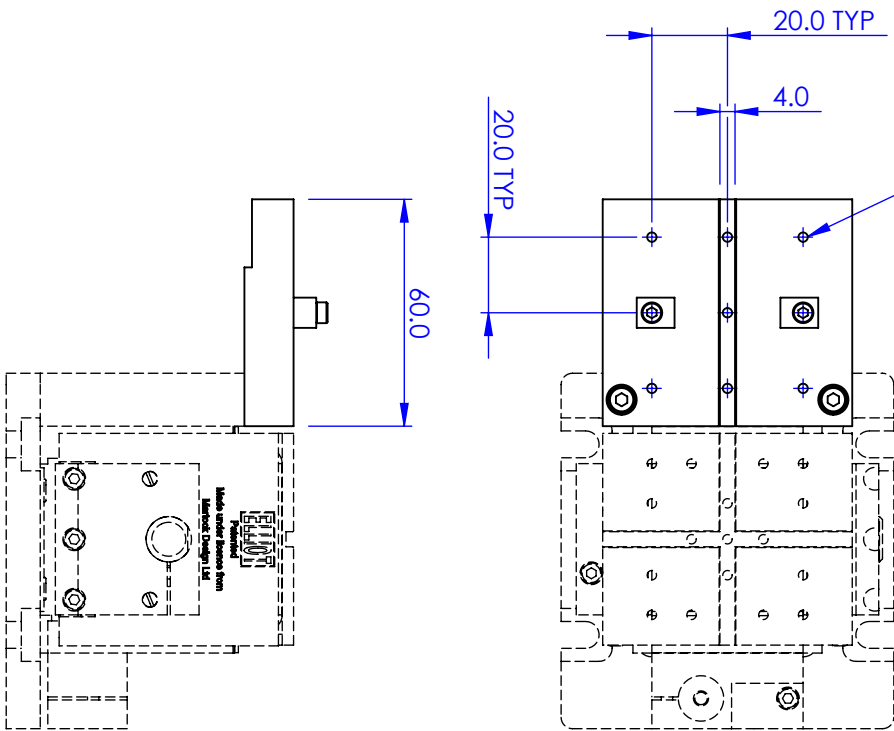
PART NO.	ITEM NO.	QTY	DESCRIPTION
MDE330	1	1	XYZ FLEXURE STAGE
MDE147	2	1	LARGE PLATFORM ASSEMBLY

NB FLEXURE STAGE NOT INCLUDED



GENERAL VIEW  
SCALE: 1:2

9 HOLES TAPPED M3



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AUTHOR	NAME	DATE
CHECKED	GW	18/10/2005

**Elliot Scientific**

TITLE: **LARGE FIXED PLATFORM**

SIZE: **A4** DWG. NO.: **MDE147**

SCALE: 1:2 THIRD ANGLE PROJECTION SHEET 1 OF 1

## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE148 Small Fixed Bracket with 20 mm Slot

- For X-axis use



The MDE148 is for mounting accessories along the X-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 20 mm milled along it, a locating groove and threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

#### Options

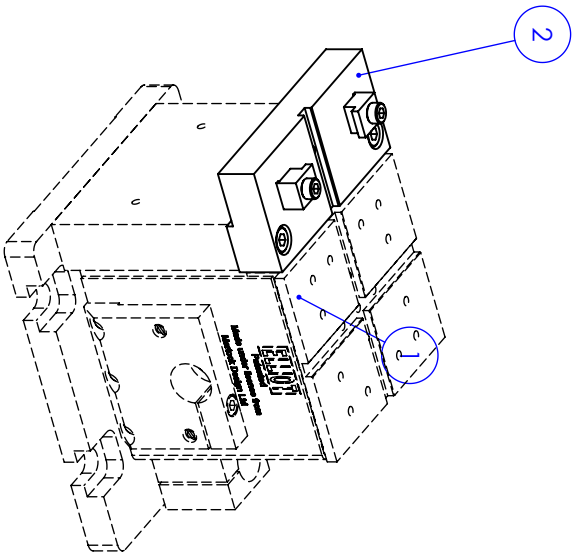
MDE189 Fixed bracket

MDE190 Riser block

**For the latest price, contact us today.**

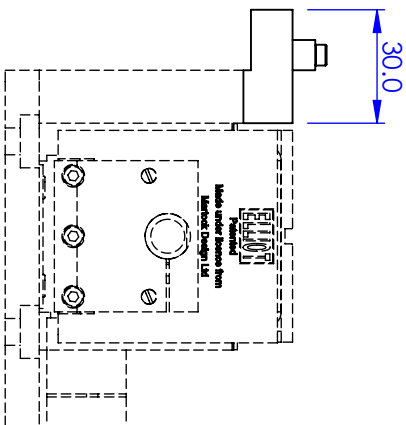
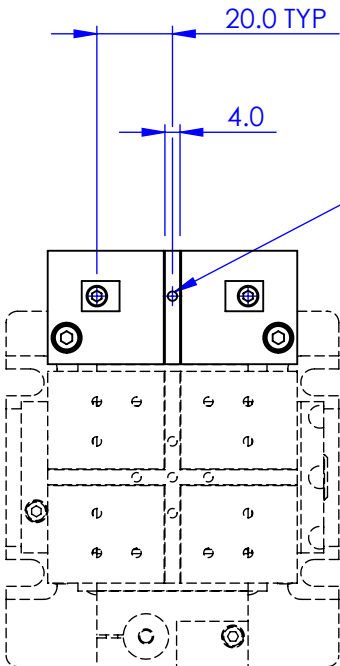
PART NO.	ITEM NO.	QTY	DESCRIPTION
MDE330	1	1	XYZ FLEXURE STAGE
MDE148	2	1	SMALL PLATFORM ASSEMBLY

NB FLEXURE STAGE NOT INCLUDED



GENERAL VIEW  
SCALE: 1:2

3 HOLES TAPPED M3



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**Elliot Scientific**

TITLE  
**SMALL FIXED PLATFORM**

SIZE  
**A4**

DWG. NO.  
**MDE148**

SCALE: 1:2

THIRD ANGLE PROJECTION

SHEET 1 OF 1

## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE149 L-Shaped Bracket with 46 mm Slot

- For Y-axis use



**ELLIOT MARTOCK**

The MDE149 is for mounting accessories along the Y-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 60 mm milled along it, a locating groove and threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

#### Options

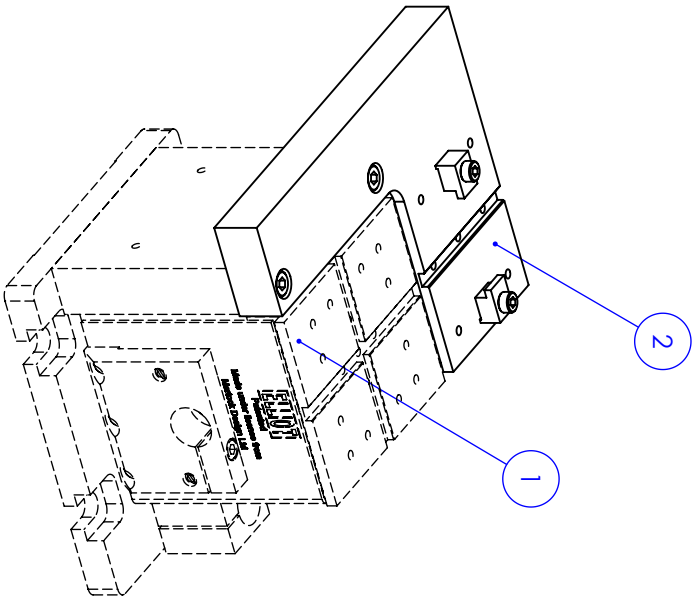
MDE189 Fixed bracket

MDE190 Riser block

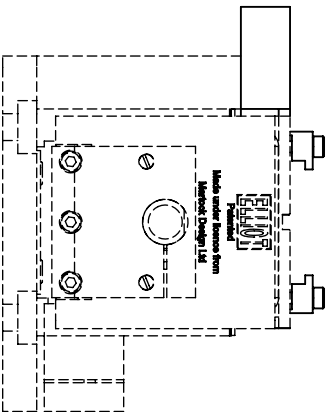
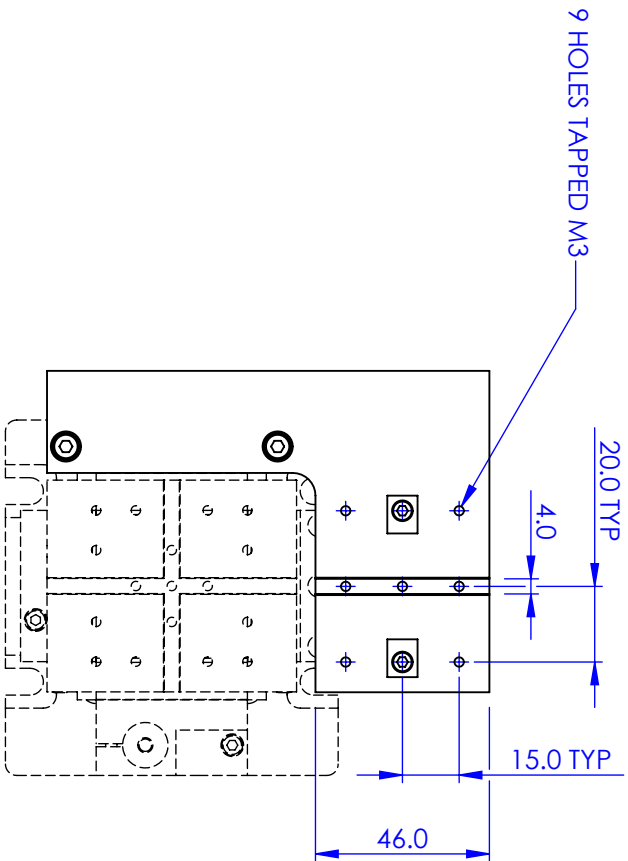
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PART NO.	ITEM NO.	QTY	DESCRIPTION
MDE330	1	1	XYZ FLEXURE STAGE
MDE149	2	1	SIDE PLATFORM ASSEMBLY

NB FLEXURE STAGE NOT INCLUDED



GENERAL VIEW  
SCALE: 1:2



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AUTHOR	NAME	DATE
CHECKED	GW	18/10/2005

**Elliot Scientific**

TITLE: **SIDE PLATFORM**  
 DWG. NO.: **MDE149**

SIZE: **A4**  
 SCALE: 1:2

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

SHEET 1 OF 1

## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE147E Large Fixed Bracket with Imperial Tapped Holes & 60 mm Slot

- For X-axis use



The MDE147E is for mounting accessories along the X-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 60 mm milled along it, a locating groove and 6-32 threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

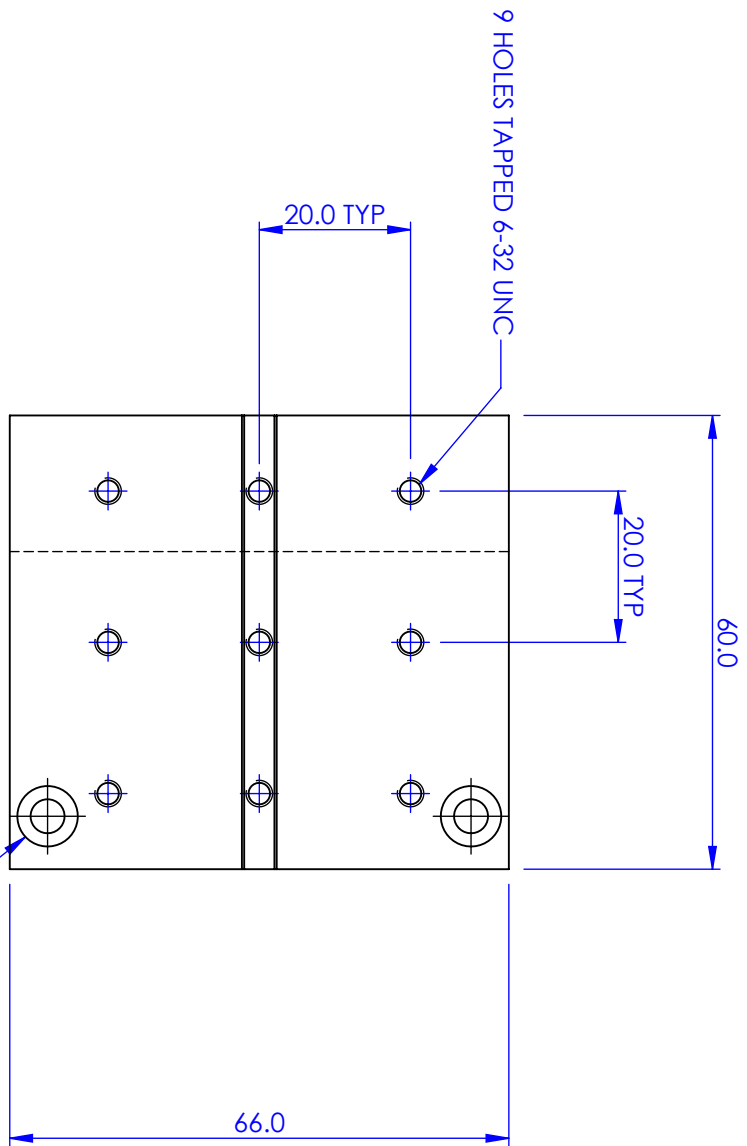
#### Options

MDE189 Fixed bracket

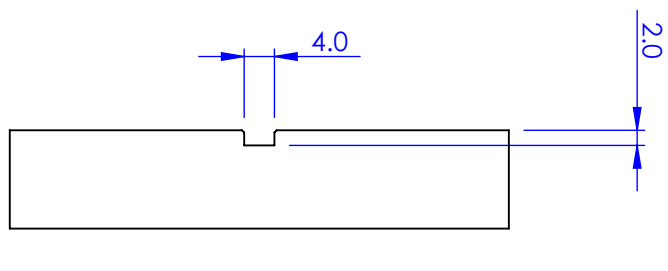
MDE190 Riser block

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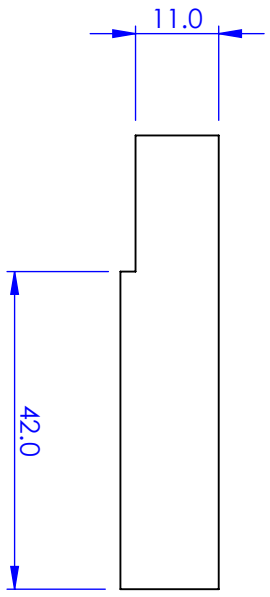
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2 HOLES FOR MOUNTING TO FLEXURE STAGE



PLATFORM SUPPLIED WITH 2 MOUNTING SCREWS, CLAMP SET AND HEX KEY



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AUTHOR	12/07/2010
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MATERIAL		ALUMINIUM ALLOY	
FINISH		ANODISED BLACK	
TITLE		FIXED PLATFORM, LARGE	
SIZE	DWG. NO.	MDE147E	
A4			
SCALE: 1:1	THIRD ANGLE PROJECTION		
DO NOT SCALE DRAWING			



## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE148E Small Fixed Bracket with Imperial Tapped Holes & 20 mm Slot

- For X-axis use



The MDE148E is for mounting accessories along the X-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 20 mm milled along it, a locating groove and 6-32 threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

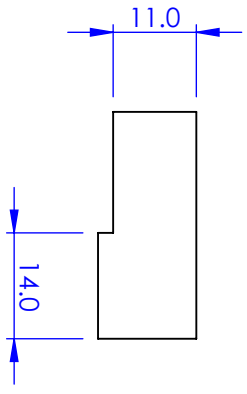
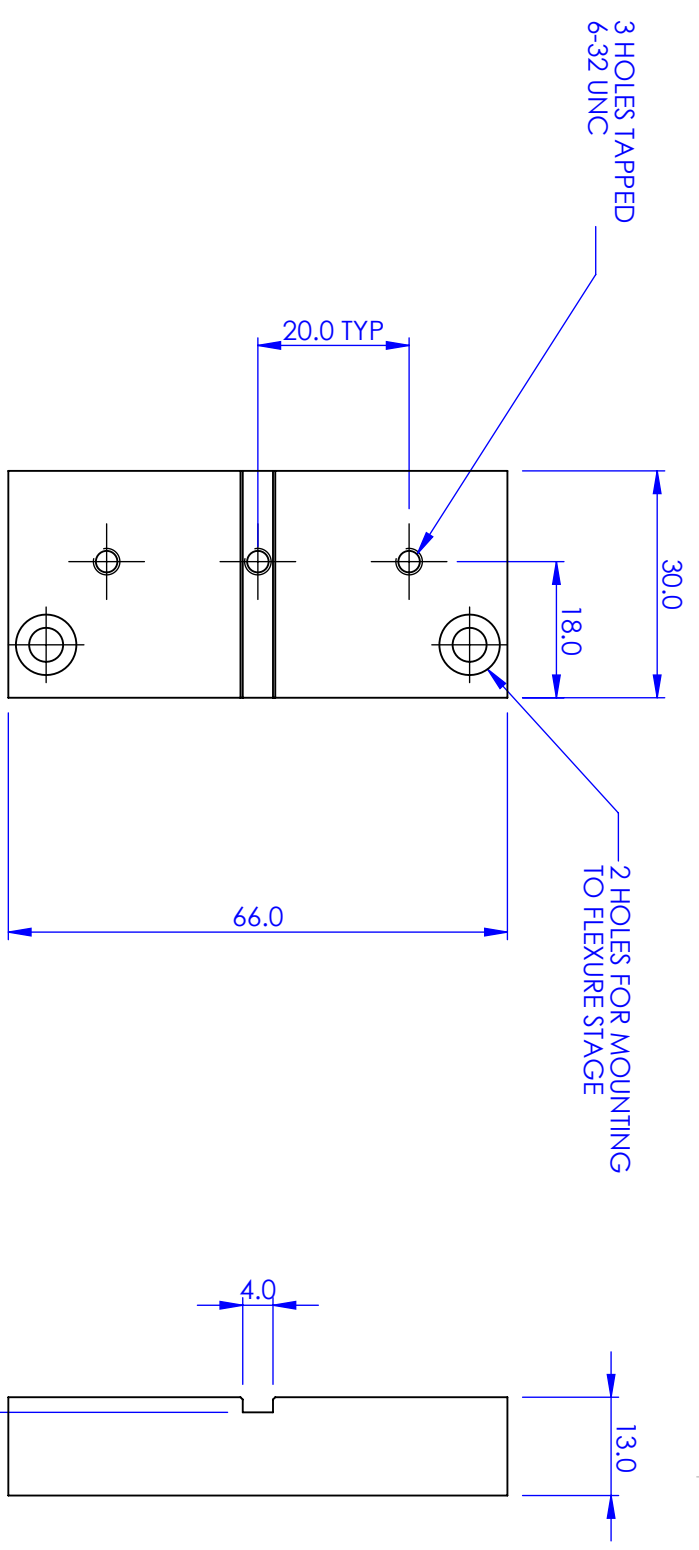
#### Options

MDE189 Fixed bracket

MDE190 Riser block

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PLATFORM SUPPLIED WITH 2 MOUNTING SCREWS, CLAMP SET AND HEX KEY

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 SURFACE FINISH:  
 ALL BURRS, SHARP EDGES AND CORNERS TO BE REMOVED

NAME	DATE
AUTHOR GW	12/07/2010
CHECKED -	-

MATERIAL ALUM ALLOY		TITLE FIXED PLATFORM, SMALL	
FINISH BLACK ANODISED		SIZE A4	DWG. NO. MDE148E
DO NOT SCALE DRAWING		SCALE: 1:1	THIRD ANGLE PROJECTION



## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE149E L-Shaped Bracket with Imperial Tapped Holes & 46 mm Slot

- For Y-axis use



The MDE149E is for mounting accessories along the Y-axis of flexure stages. It attaches to front vertical pillar on the stage and provides a rigid mounting surface for other accessories. It has a slot of length 60 mm milled along it, a locating groove and 6-32 threaded mounting holes. The package includes a model MDE154 clamp set.

Fixed brackets are attached to the vertical pillar on flexure stages by using two M4 screws. They provide a convenient rigid surface for mounting standard Elliot or Martock accessories for alignment with items on the moving top plate of the flexure stage.

The fixed platform is often referred to as the "Fixed World", while the flexure stage top plate can be regarded as the "Moving World".

When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

#### Options

MDE189 Fixed bracket

MDE190 Riser block

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## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE189 Fixed Bracket



The MDE189 fixed bracket can be used with the MDE147, MDE148 and MDE149 fixed brackets to provide a simple fixed platform for mounting standard devices and fibre holders.

Bolted directly to an optical breadboard, the MDE189 provides an optical height of 94 mm (compatible with the Elliot Gold™ series flexure stages). Add Riser Block MDE190 to raise the axis to 125 mm for use with combinations of stages at 125 mm.

#### Options

MDE190 Riser block

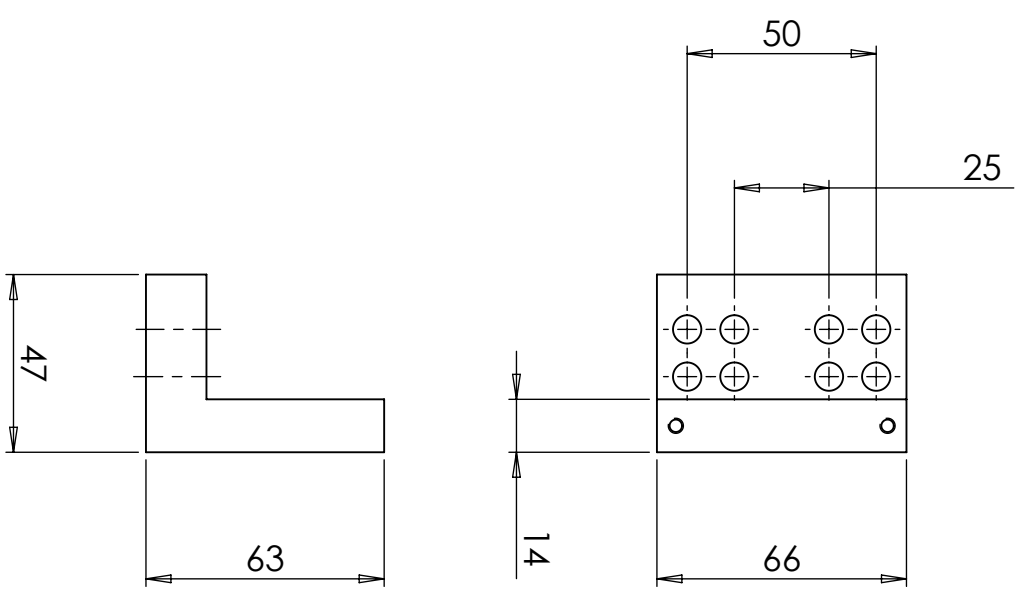
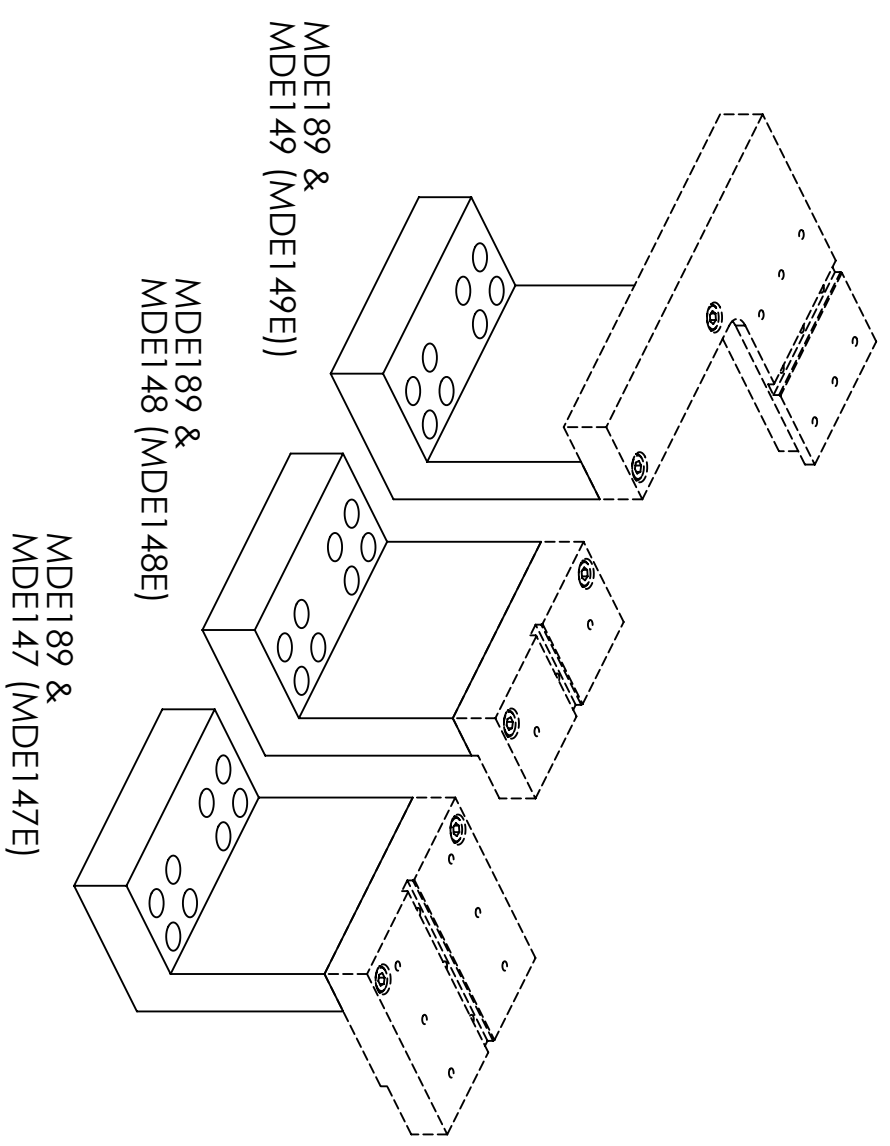
MDE147 Large fixed bracket

MDE148 Small fixed bracket

MDE149 L-shaped bracket

**For the latest price, contact us today.**

REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		



# MDE189

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DIMENSIONS ARE IN mm  
 GENERAL TOLERANCES: ±0.1  
 ANGULAR TOLERANCES: ±  
 SURFACE FINISH:  
 ALL BURRS, SHARP EDGES AND CORNERS TO BE REMOVED

NAME	DATE
AUTHOR	12/07/2010
CHECKED	

TITLE	
FIXED MOUNTING BRACKET	
SIZE	DWG. NO.
A4	MDE189
SCALE: 1:2	
THIRD ANGLE PROJECTION	
SHEET 1 OF 1	



## Elliot Gold™ Series: XYZ Flexure Stages: Accessories

### MDE190 Riser Block



A riser block is used in conjunction with the MDE189 to raise the optical axis to 125 mm. This is needed when configuring a 5 or 6 axis fibre launch with an MDE183 or MDE185 mounted on the "Moving World".

All accessories are compatible with the Elliot Gold™ series flexure stages. The optical axis height is 18 mm above the platform surface and on the centre line of the location slot. Where necessary a locating tongue forms part of the accessory. A standard clamp system is used and is supplied with the flexure stages and accessory platforms. The clamp set (MDE154) is available separately if required.

#### Options

MDE147 Large fixed bracket

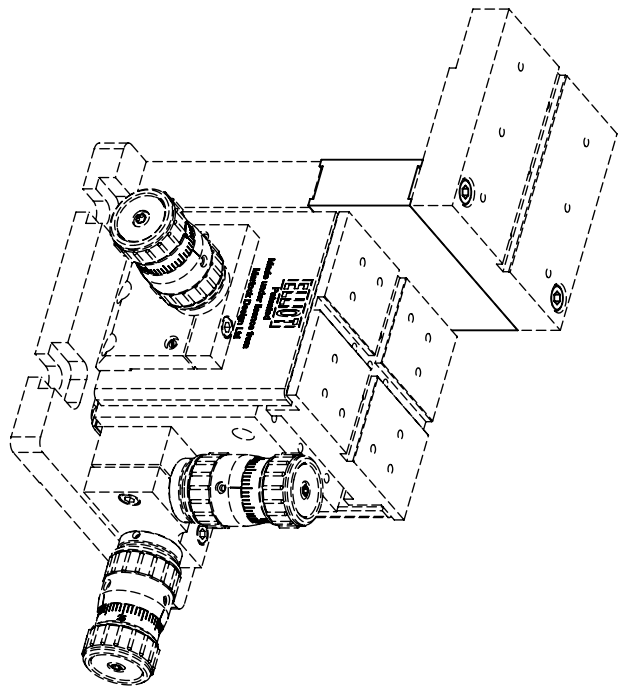
MDE148 Small fixed bracket

MDE149 L-shaped bracket

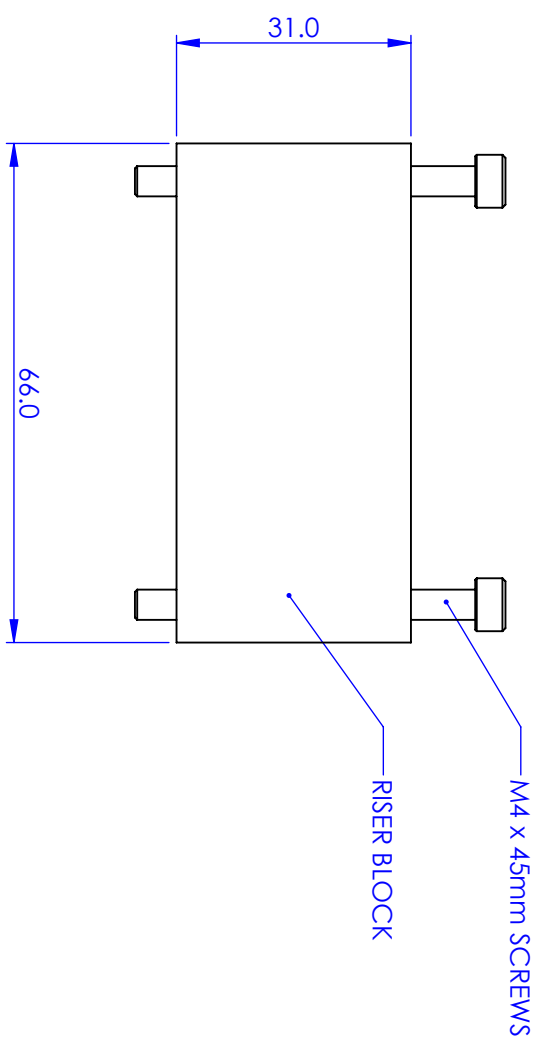
MDE189 Fixed bracket

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APPLICATION EXAMPLE



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AUTHOR	NAME	DATE
CHECKED	GW	12/02/2010
MATERIAL		
FINISH		

**Eliot Scientific**

TITLE  
**RISER BLOCK ASSEMBLY**

SIZE  
**A4**

DWG. NO.  
**MDE190**

DO NOT SCALE DRAWING

SCALE: 1:1

THIRD ANGLE PROJECTION

SHEET 1 OF 1

**Elliot Gold™ Series: XYZ Flexure Stages: Piezo Systems**

**MDE623 3-Channel Piezo Controller with MDE123 XYZ Flexure Stage**



- RS-232 interface
  - Channels: 3 independent
  - Output voltage: 0 ~ 150 V
  - Output current: 60 mA/channel
  - Output noise: 1.5 mVRMS
  - LED digital readout on each channel
  - Internal/external voltage control
  - Ext. input voltage control 0 ~ 10 V Output stability: <0.01% over 5 hours
- Power requirements: 115/230 Vac 50 ~ 60 Hz



Complete system comprising the MDT693 3-channel controller together with the MDE123 Elliot Gold™ series XYZ flexure stage fitted with piezo actuators providing 25 µm of piezo travel with 10 nm resolution in each of the three axes.

**Specifications**

Please refer to the individual data sheets for full specifications:

Flexure Stage	MDE123
Piezo Adjusters	MDE218
Piezo Controller	MDT693
Includes Model MDE154 clamp set	

† Patent Nos. GB 2129955B & USA 4635887

**For the latest price, contact us today.**

**Elliot Gold™ Series: XYZ Flexure Stages: Piezo Systems**

**MDE625 3-Channel Piezo Controller with MDE125 XYZ Flexure Stage**



- RS-232 interface
  - Channels: 3 independent
  - Output voltage: 0 ~ 150 V
  - Output current: 60 mA/channel
  - Output noise: 1.5 mVRMS
  - LED digital readout on each channel
  - Internal/external voltage control
  - Ext. input voltage control 0 ~ 10 V Output stability: <0.01% over 5 hours
- Power requirements: 115/230 Vac 50 ~ 60 Hz



Complete system comprising the MDT693 3-channel controller together with the MDE125 Elliot Gold™ series XYZ flexure stage fitted with piezo actuators providing 25 µm of piezo travel with 10 nm resolution in each of the three axes.

**Specifications**

Please refer to the individual data sheets for full specifications:

Flexure Stage	MDE125
Piezo Adjusters	MDE218
Piezo Controller	MDT693
Includes Model MDE154 clamp set	

† Patent Nos. GB 2129955B & USA 4635887

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