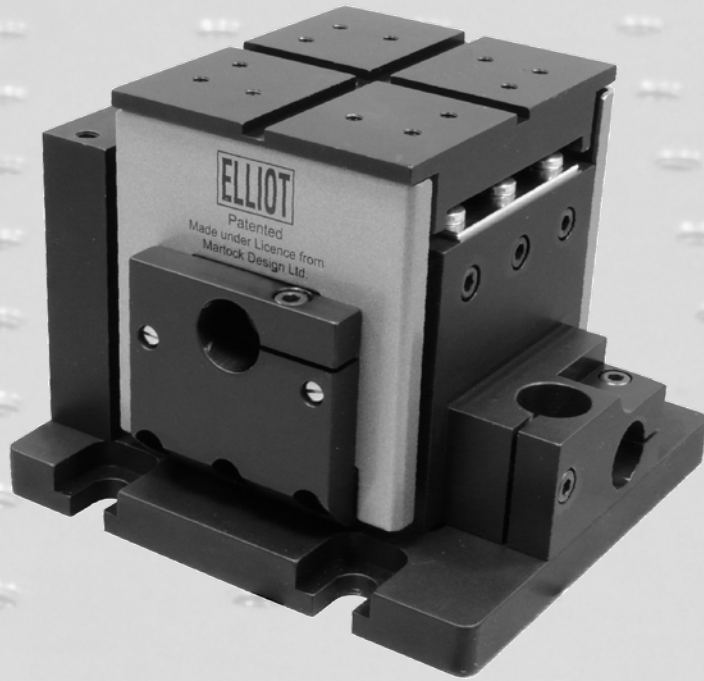


# Flexure Stages



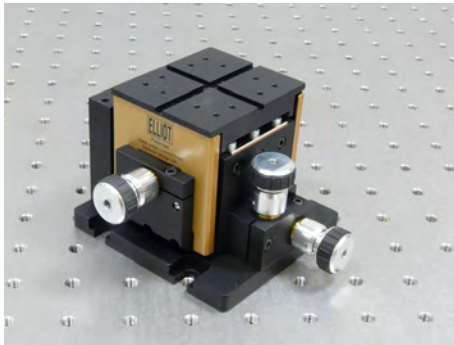
**ELLIOT | MARTOCK**

2019



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

### **MDE120 Standard XYZ Flexure Stage**



**ELLIOT MARTOCK**

- 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.

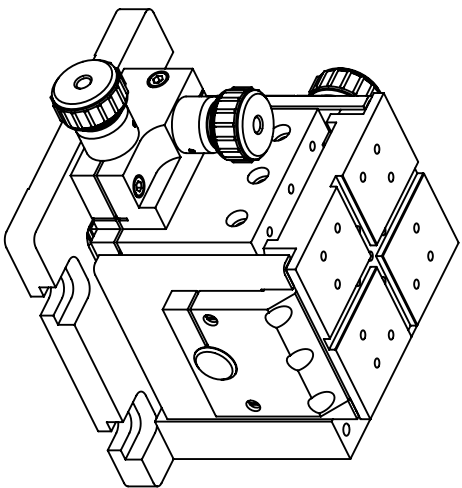
Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times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

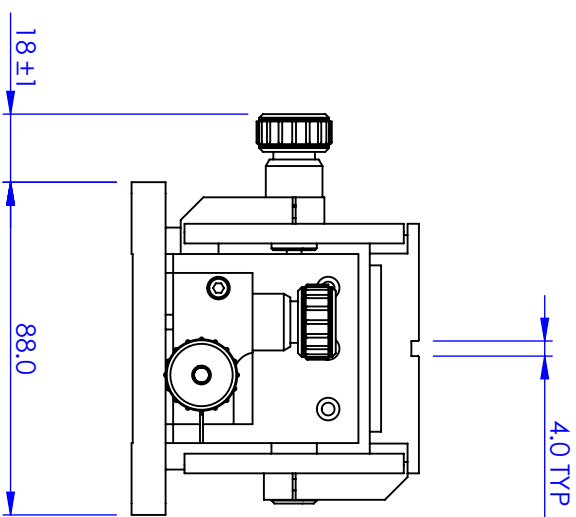
#### **Specifications**

Configuration	Right handed version
Adjuster Type	Three simple, manual adjusters, 0.25 pitch (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	MDE154 clamp set
Variants	Left-handed version available

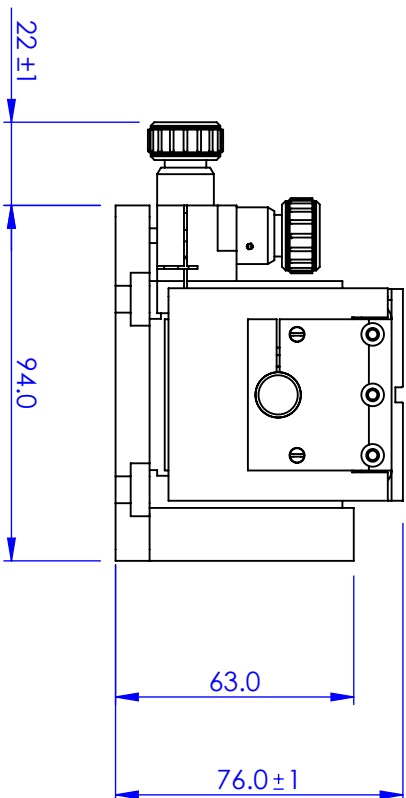
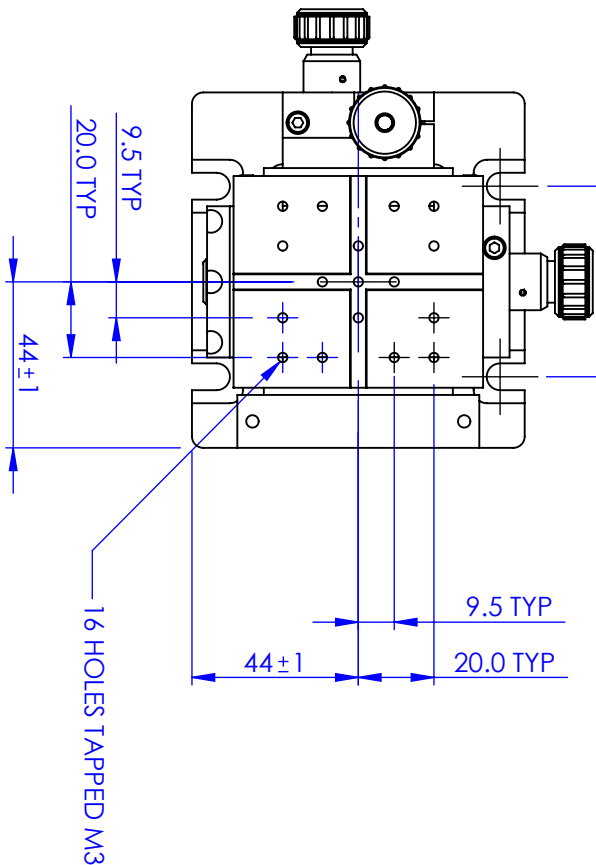
† Patent Nos. GB 2129955B & USA 4635887



GENERAL VIEW  
SCALE: 1:2




50.4mm FOR METRIC  
AND IMPERIAL MOUNTING



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MATERIAL					
FINISH					
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TITLE		
FLEXURE STAGE		
SIZE	DWG. NO.	
A4	MDI120	
SCALE: 1:2	THIRD ANGLE PROJECTION	SHEET 1 OF 1

**Eliot Scientific**

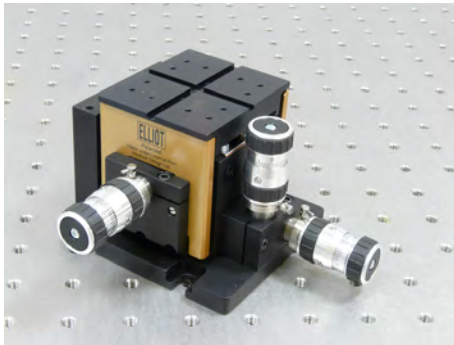
TITLE  
**FLEXURE STAGE**

SIZE  
**A4**

DWG. NO.  
**MDE120**

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

### **MDE122 High-Precision XYZ Flexure Stage**



**ELLIOT MARTOCK**

- 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.

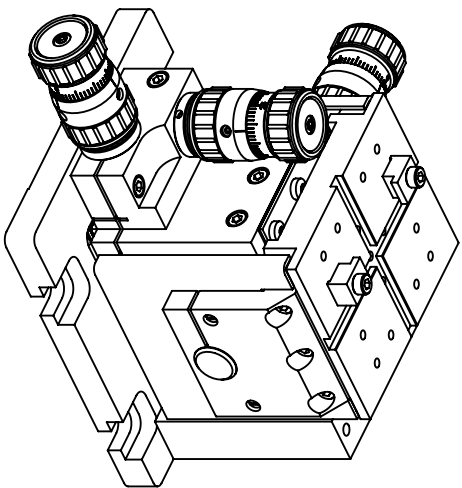
The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### **Specifications**

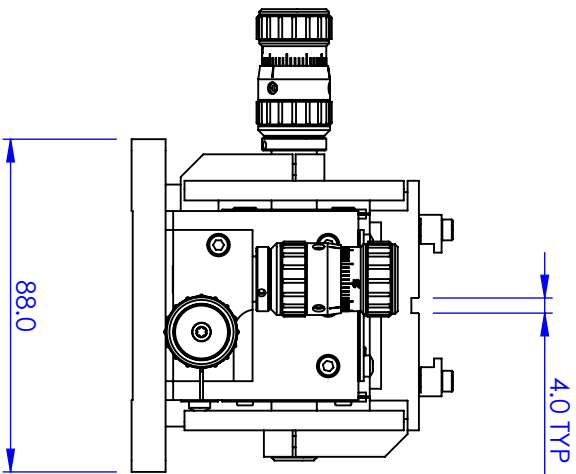
Configuration	Right handed version
Adjuster Type	Three high-precision adjusters (MDE216) with rotary fine and coarse control
Stage travel	2 mm in X, Y and Z axes
Resolution	20 nm
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes 14 µm (at maximum range of travel)
Optical axis	94 mm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

† Patent Nos. GB 2152616B & USA 4617833

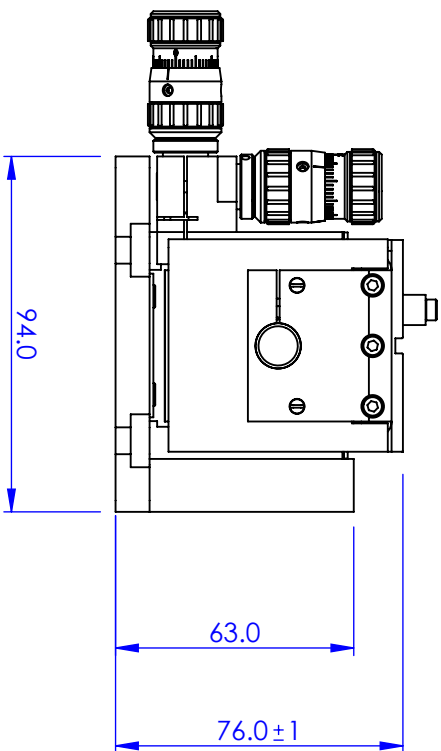
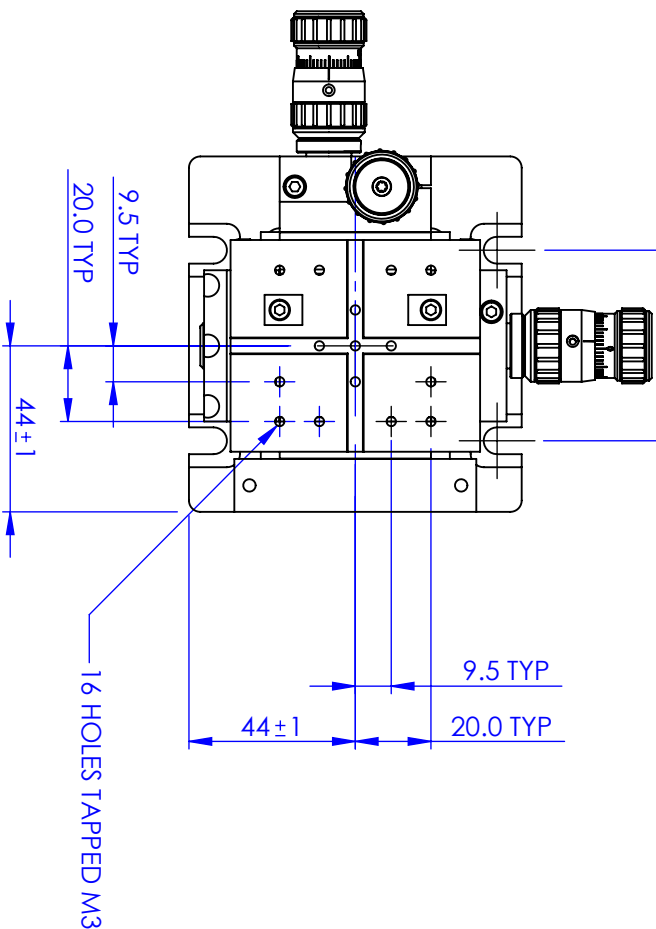
†† Patent Nos. GB 2129955B & USA 4635887



GENERAL VIEW  
SCALE: 1:2



50.4mm FOR METRIC  
AND IMPERIAL MOUNTING



REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		

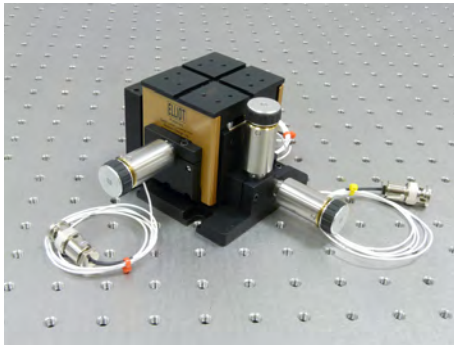
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TITLE		Eliot Scientific	
FLEXURE STAGE		SIZE A4	
DWG. NO.		MDE122	
SCALE: 1:2		THIRD ANGLE PROJECTION	
SHEET 1 OF 1			

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

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



**ELLIOT MARTOCK**

- 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 (DALi 3).

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.

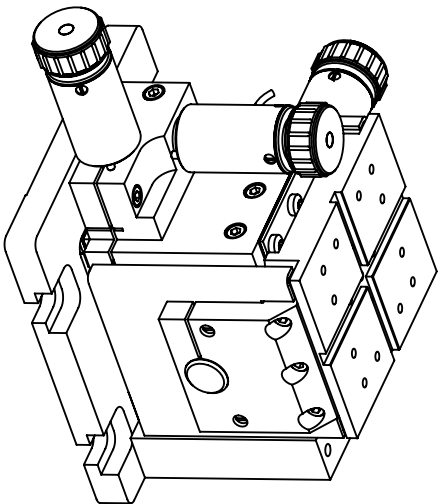
Applications range from fibre launch systems for single-mode, multimode and polarisation maintaining fibres as well as waveguide alignment, through to the manipulation of microstructures in bioscience. The arcuate displacement (vertical displacement due to longitudinal flexure motion) is up to 4 times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

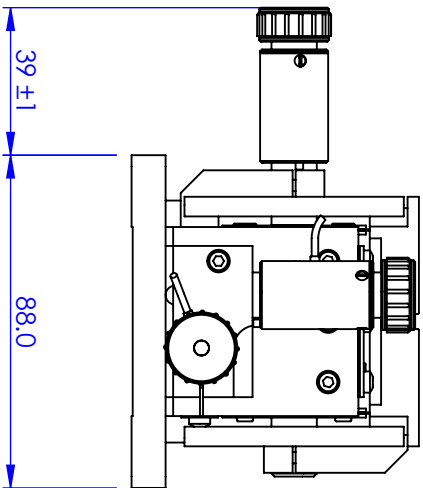
#### **Specifications**

Configuration	Right handed version
Adjuster Type	Three 0-150 V piezo with manual control (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	MDE154 clamp set
Variants	Left-handed version available

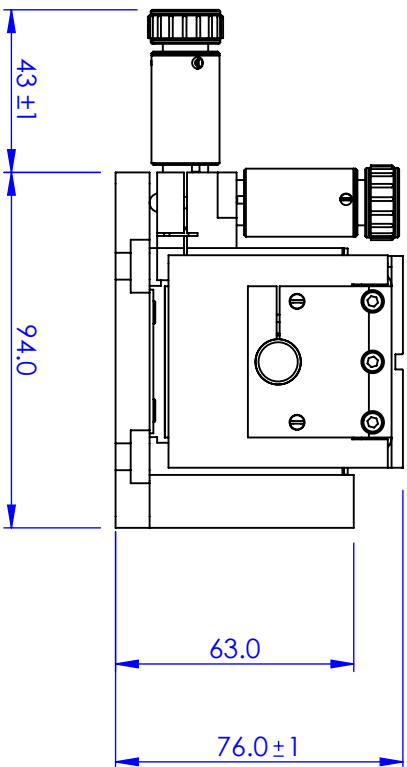
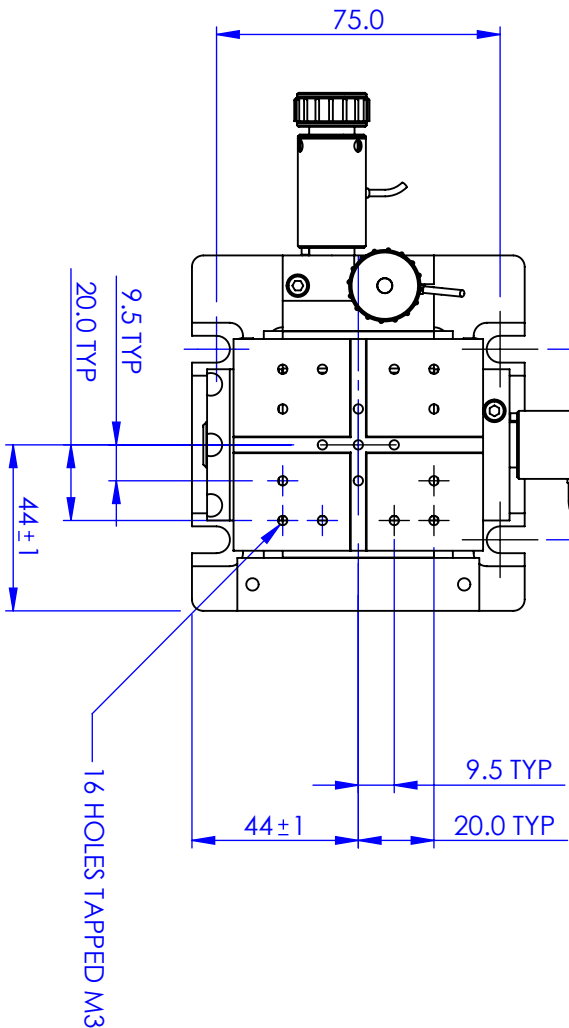
† Patent Nos. GB 2129955B & USA 4635887



GENERAL VIEW  
SCALE:1:2



50.4mm FOR METRIC  
AND IMPERIAL MOUNTING



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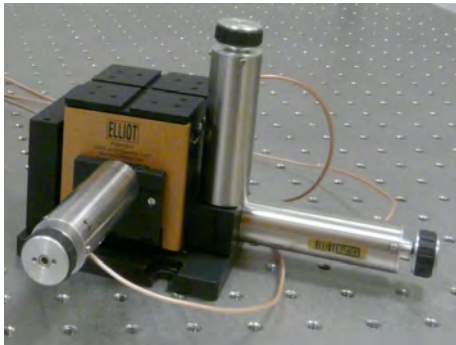
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FINISH			
DO NOT SCALE DRAWING			
TITLE			
FLEXURE STAGE			
SIZE			
A4			
DWG. NO.			
MDE123			
SCALE:1:2		THIRD ANGLE PROJECTION	
SHEET 1 OF 1			



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

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



**ELLIOT MARTOCK**

- 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 (DALi 3).

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.

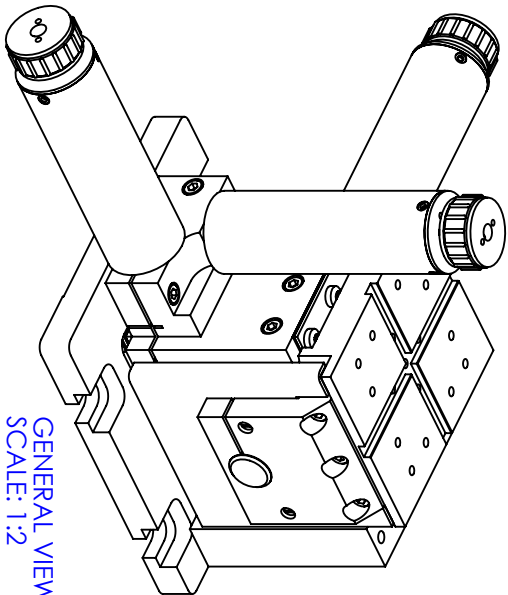
The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### **Specifications**

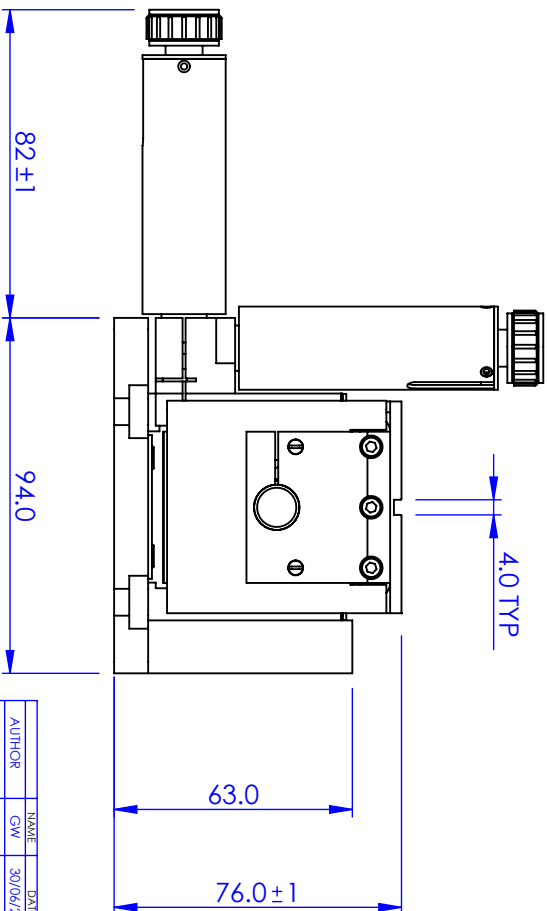
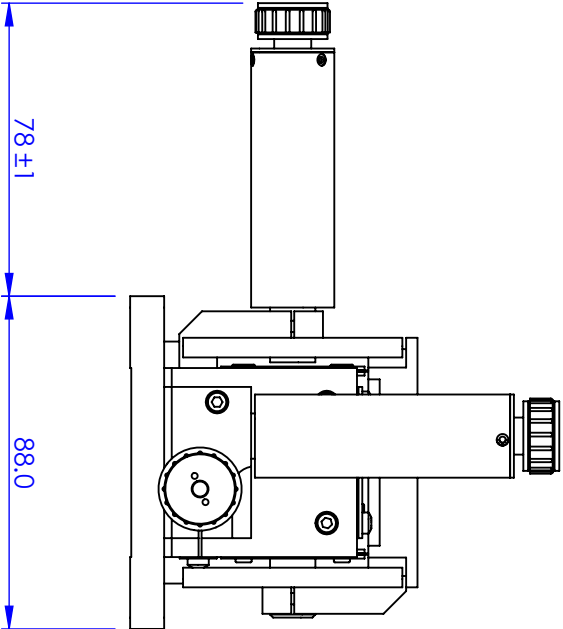
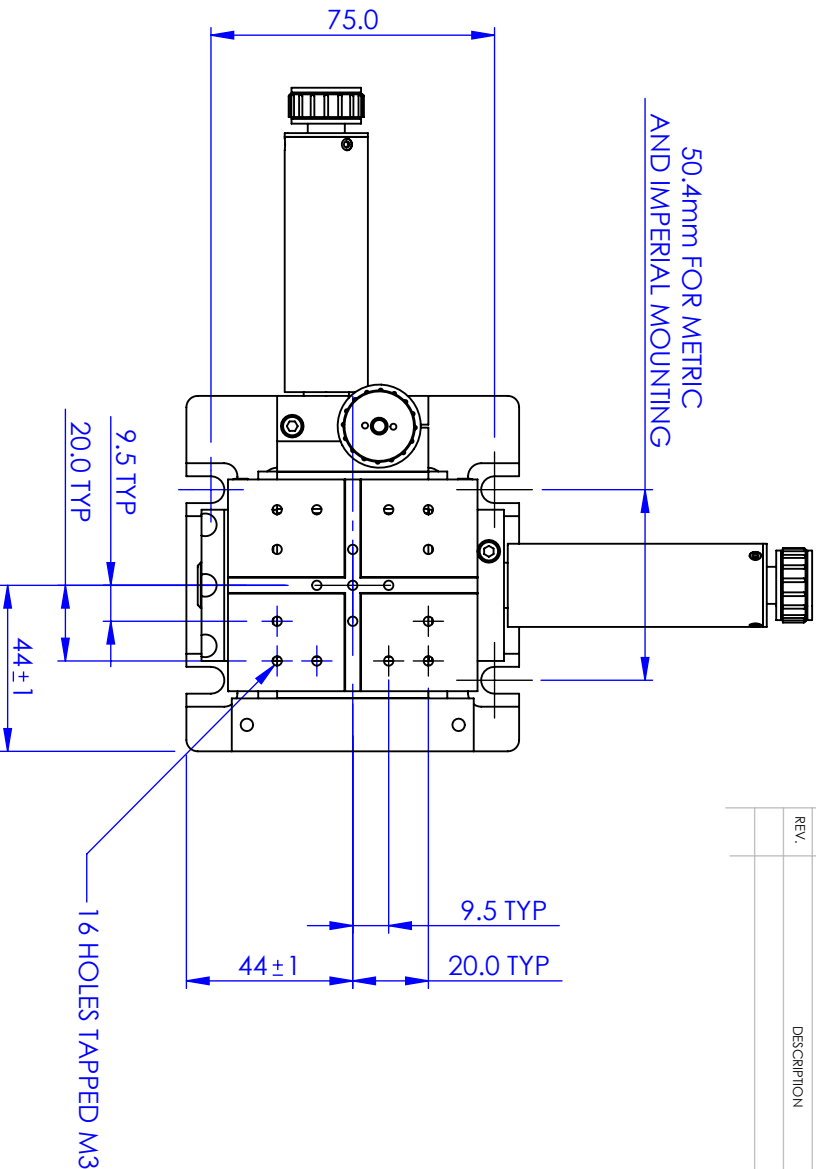
Configuration	Right handed version
Adjuster Type	Three 0-150 V piezo with manual control (MDE227), piezo travel 100 µm
Stage travel	2 mm coarse manual travel (on 0.25 pitch thread) in X, Y and Z axes
Resolution	50 nm with piezo control (over 100 µm range)
Load capacity	4.5 kg
Arcuate Displacement	X axis: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

† Patent Nos. GB 2129955B & USA 4635887

GENERAL VIEW  
SCALE: 1:2



50.4mm FOR METRIC  
AND IMPERIAL MOUNTING



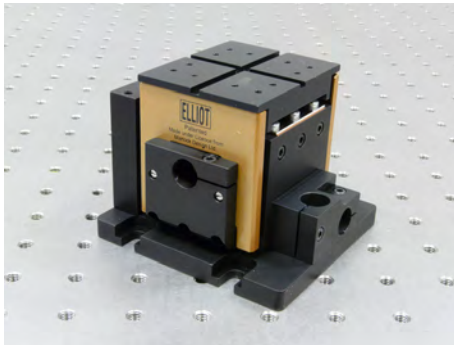
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TITLE			
FLEXURE STAGE			
SIZE			
A4			
DWG. NO.			
MDE125			
SCALE: 1:2		THIRD ANGLE PROJECTION	
SHEET 1 OF 1			

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

### **MDE330 XYZ Flexure Stage without Adjusters**



**ELLIOT MARTOCK**

- 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.

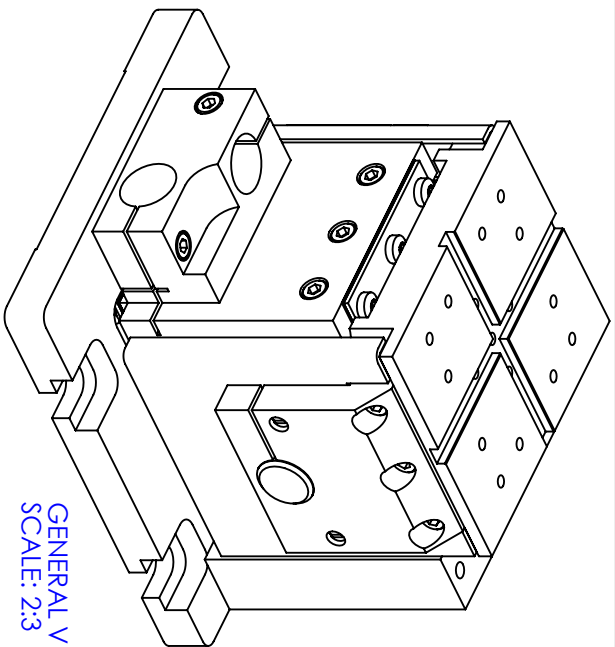
The optical axis height of all accessories is 18 mm above the top plate, placing the optical axis 94 mm above the bottom of the stage.

#### **Specifications**

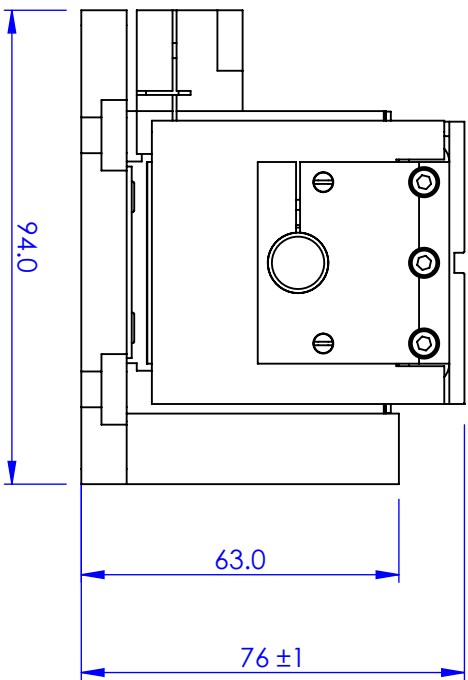
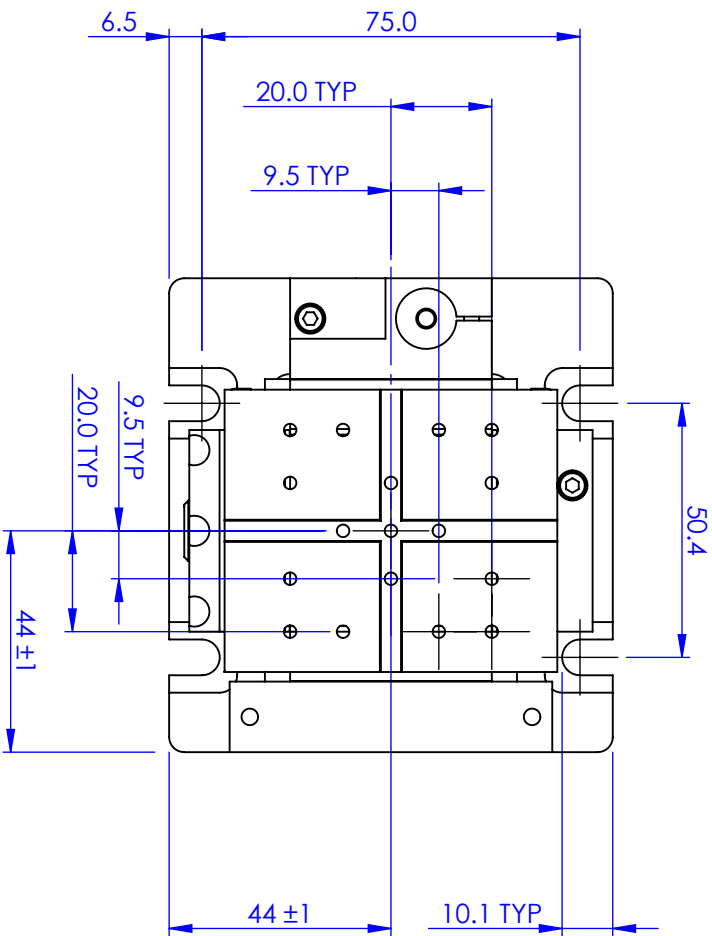
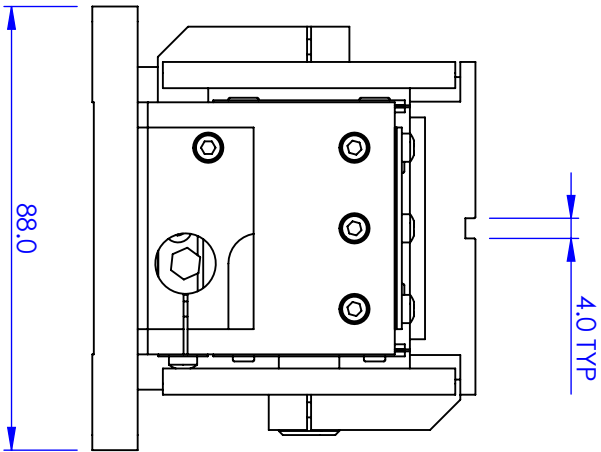
Configuration	Right handed version
Adjusters	None fitted
Stage travel	2 mm in X, Y and Z axes
Resolution	Adjuster dependent
Load capacity	4.5 kg
Arcuate Displacement	X axis: 20 µm, Y & Z axes: 14 µm (at maximum range of travel)
Optical axis	94 mm above the bottom of the stage
Includes	MDE154 clamp set

#### **Options and Accessories**

Flexure stage accessories - objective mounts, plates, clamps	Fibre launch systems
Alternative adjusters - simple, high precision, piezo or motorised	Fixed brackets
Left-handed version (To special order)	Fibre holders
Pitch and yaw add-on modules	Fibre rotators
† Patent Nos. GB 2129955B & USA 4635887	



GENERAL VIEW  
SCALE: 2:3



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**Eliot Scientific**

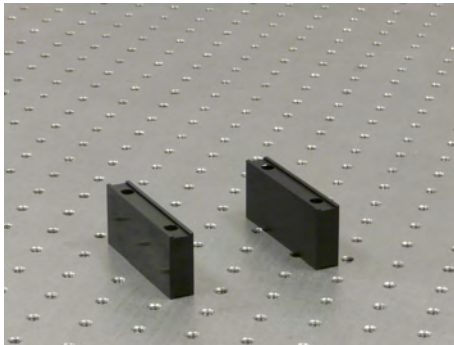
**FLEXURE STAGE (No Adjusters)**

SIZE **A4** DWG. NO. **MDE330**

SCALE: 2:3 THIRD ANGLE PROJECTION SHEET 1 OF 1

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

#### **MDE141 Riser Block Set**



This riser block set is used in conjunction with XYZ Flexure Stages to raise their optical axis height from 94 mm to 125 mm. This is required when using standard stages opposite the MDE183/MDE185 Pitch and Yaw Stages, or XYZ Flexure Stages mounted on an MDE889-60 Rack & Pinion Slide.

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 and Accessories**

MDE12x series XYZ Flexure Stages

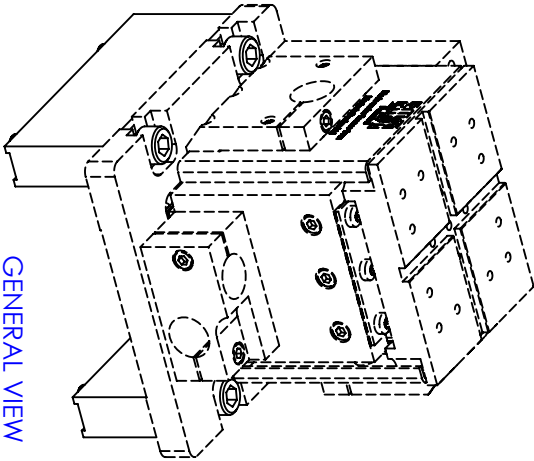
MDE330 XYZ Flexure Stage

MDE183 Pitch & Yaw Stage

MDE185 Pitch & Yaw Stage

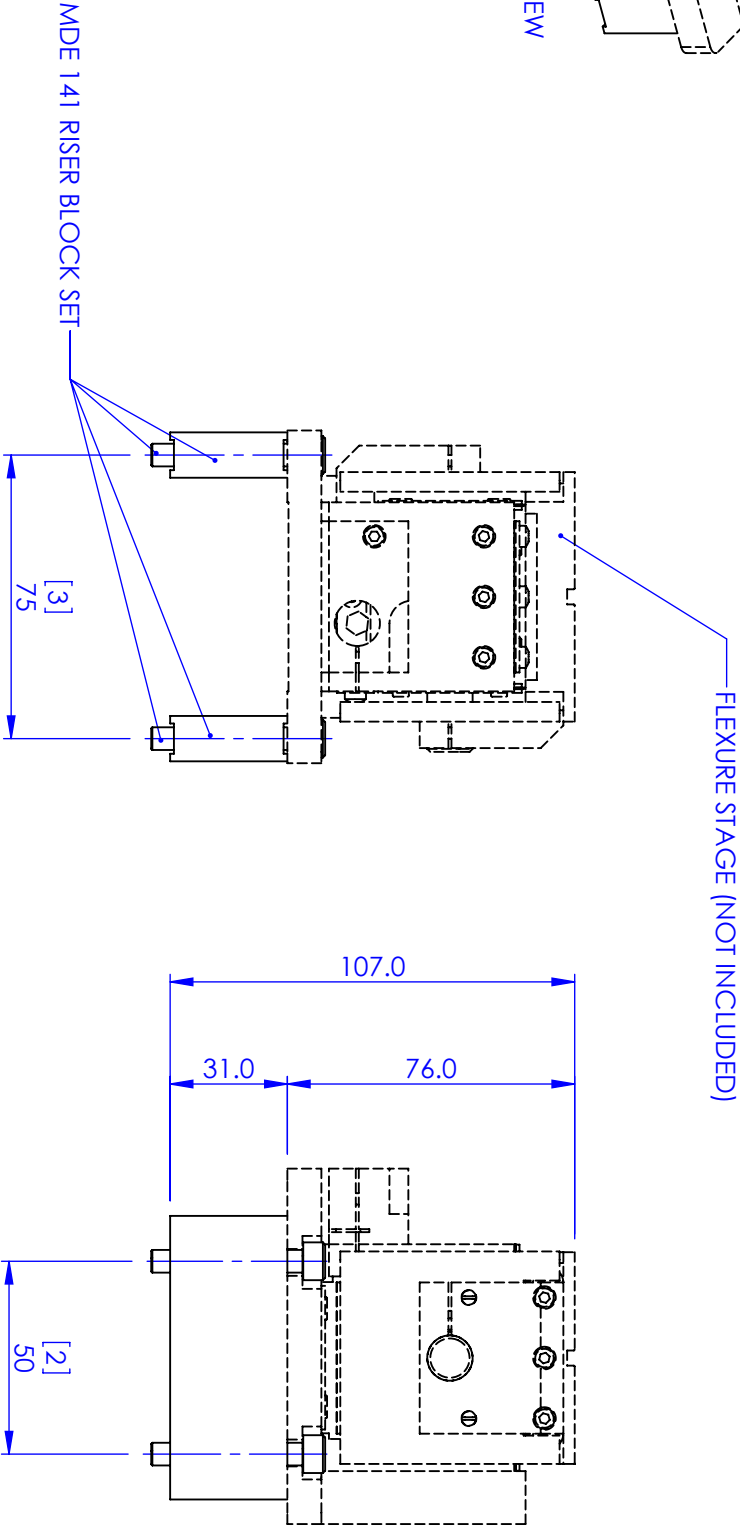
MDE889-60 Rack & Pinion Slide

REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		



GENERAL VIEW  
SCALE: 1:2

RISER BLOCKS ELEVATE FLEXURE STAGE  
TOP PLATE FROM A STANDARD OPTICAL  
AXIS HEIGHT OF 94mm TO 125mm (107 + 18)



FLEXURE STAGE (NOT INCLUDED)

MDE 141 RISER BLOCK SET

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MATERIAL				TITLE			
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DO NOT SCALE DRAWING				SIZE	DWG. NO.	THIRD ANGLE PROJECTION	
				A4	MDE141		
				SCALE: 1:2			
						SHEET 1 OF 1	

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

**MDE147 Large Fixed Bracket with 60 mm Slot**

- For X-axis use



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 an 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.

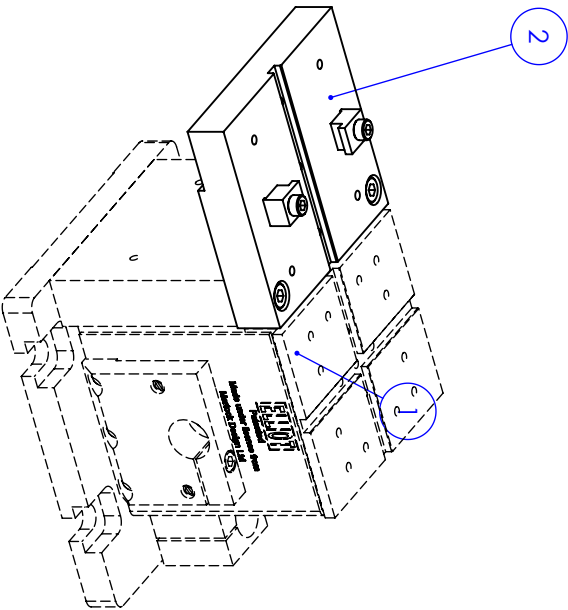
**Options**

MDE189 Fixed bracket

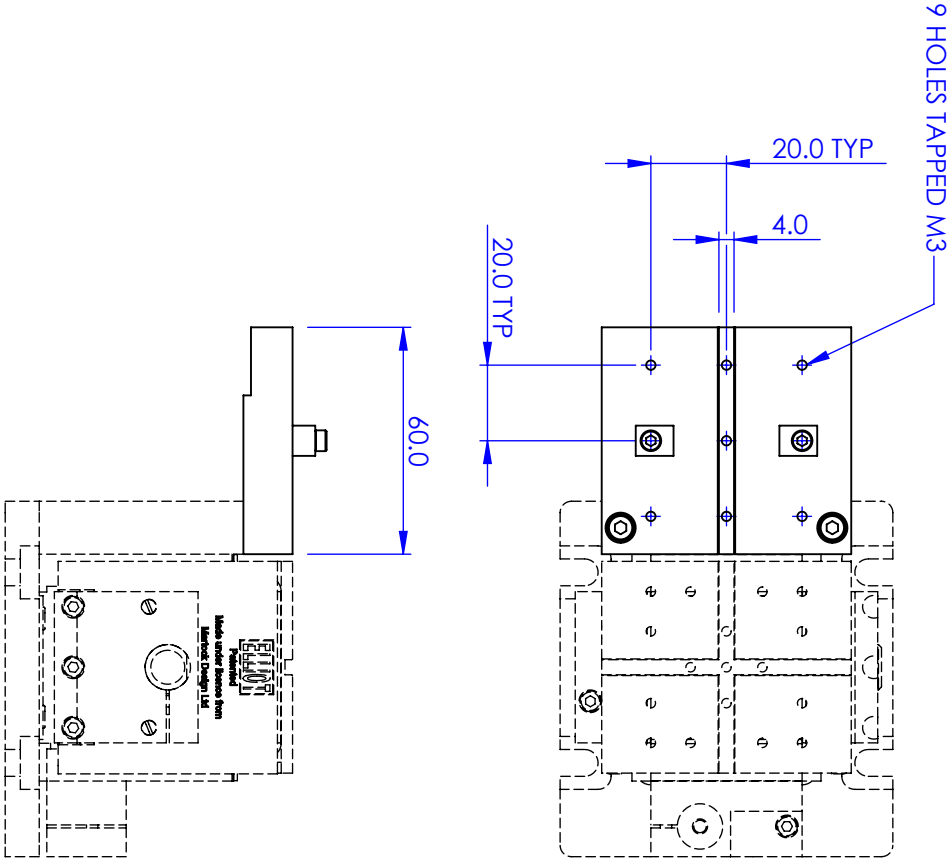
MDE190 Riser block

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



REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		

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ANGULAR TOLERANCES:  $\pm$   
SURFACE FINISH:  
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AND CORNERS TO BE  
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NAME	DATE
AUTHOR GW	18/10/2005
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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 an 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.

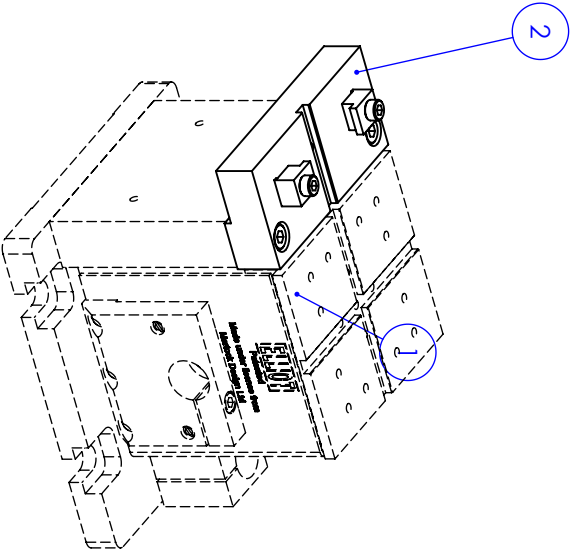
**Options**

MDE189 Fixed bracket

MDE190 Riser block

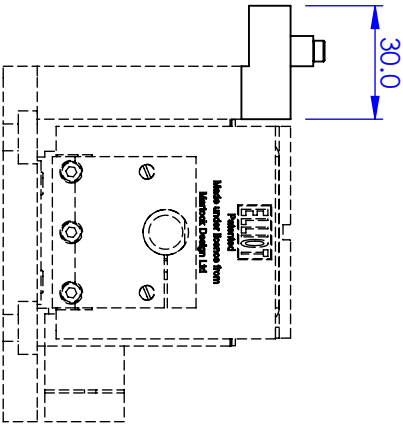
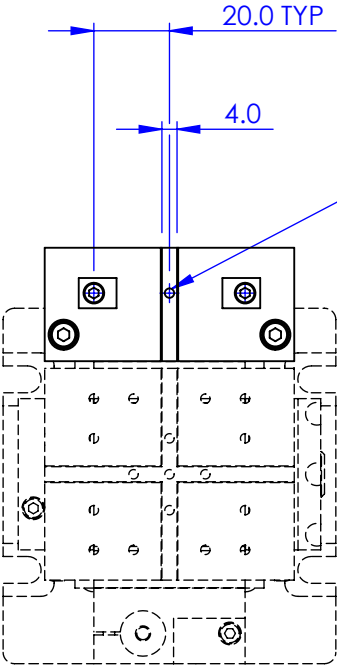
PART NO.	ITEM NO.	QTY	DESCRIPTION
MDE330	1	1	XYZ FLEXURE STAGE
MDE148	2	1	SMALL PLATFORM ASSEMBLY

NB FLEXURE STAGE NOT INCLUDED



GENERAL VIEW  
SCALE: 1:2

3 HOLES TAPPED M3



REVISIONS		DATE	APPROVED
REV.	DESCRIPTION		

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

AUTHOR	NAME	DATE
CHECKED	GW	18/10/2005
MATERIAL		
FINISH		
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**Elliot Scientific**

**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



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 an 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.

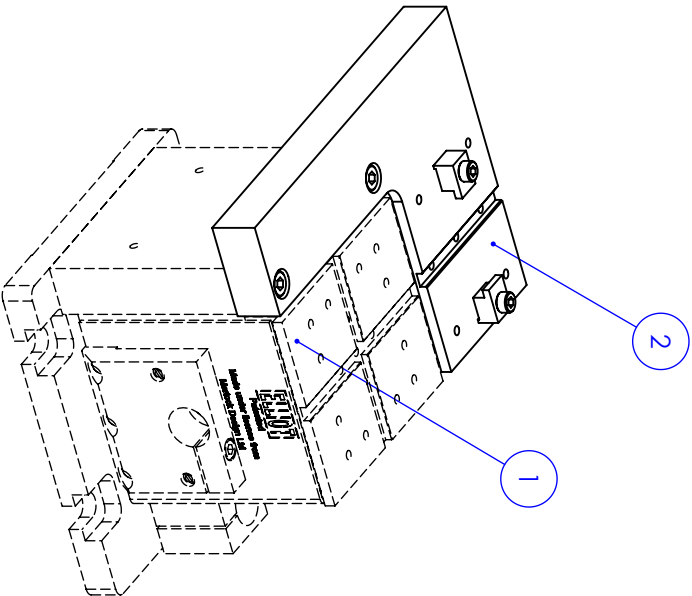
**Options**

MDE189 Fixed bracket

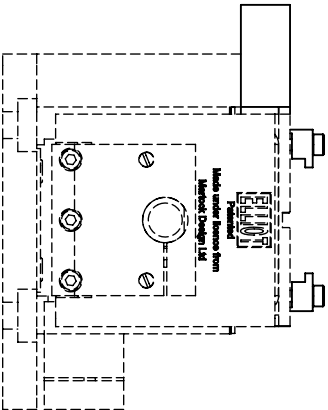
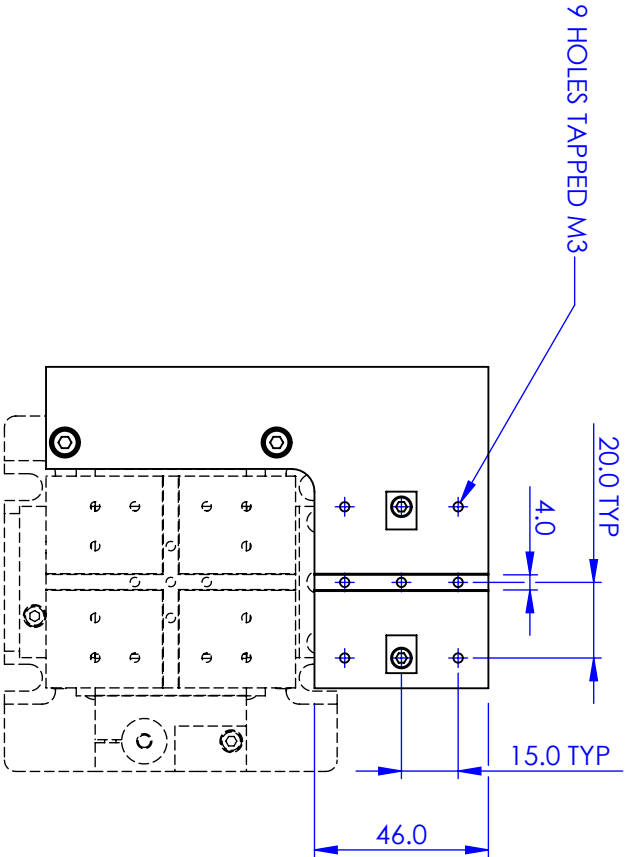
MDE190 Riser block

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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AND CORNERS TO BE  
REMOVED

AUTHOR		NAME	DATE
CHECKED		GW	18/10/2005
MATERIAL			
FINISH			
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DO NOT SCALE DRAWING			
TITLE		SIZE	
SIDE PLATFORM		A4	
		DWG. NO. MDE149	
SCALE: 1:2		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 an 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".

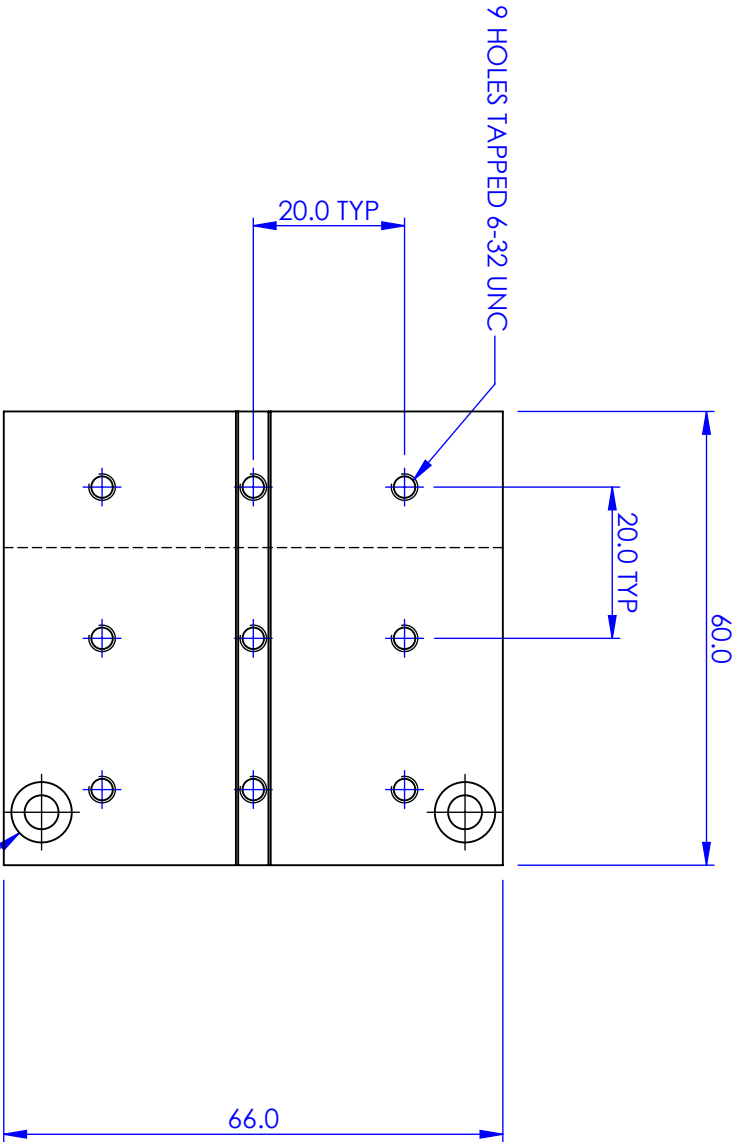
When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

**Options**

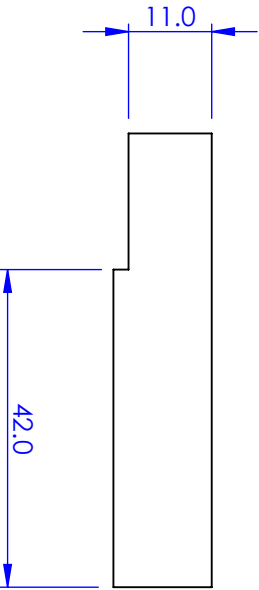
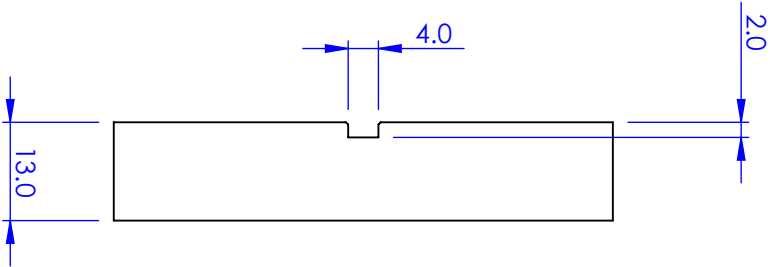
MDE189 Fixed bracket

MDE190 Riser block

REVISIONS			DATE	APPROVED
REV.	DESCRIPTION			



2 HOLES FOR MOUNTING  
TO FLEXURE STAGE



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

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

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

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

- For X-axis use



**ELLIOT MARTOCK**

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 an 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".

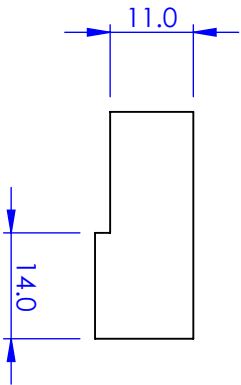
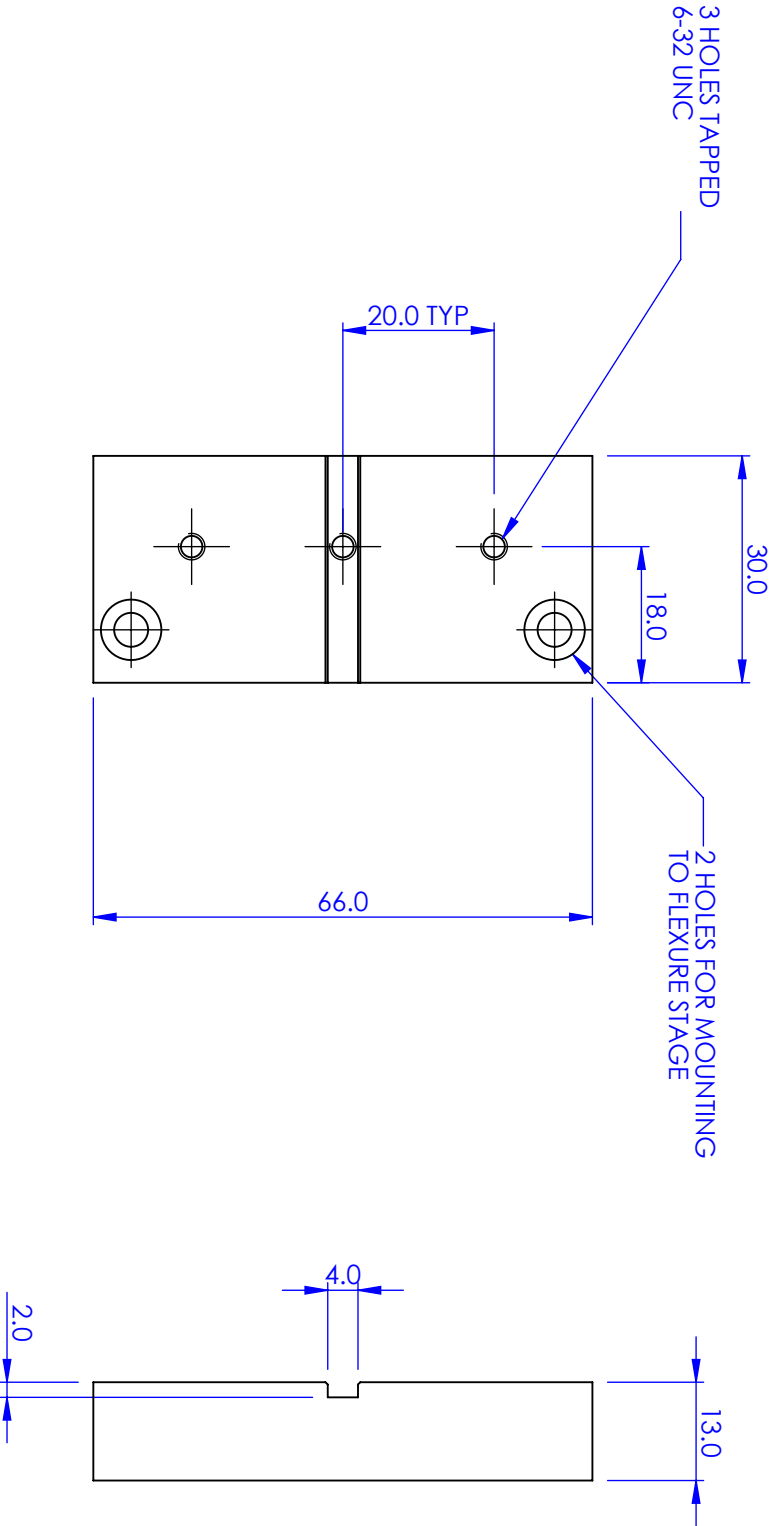
When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

**Options**

MDE189 Fixed bracket

MDE190 Riser block

REVISIONS			DATE	APPROVED
REV.	DESCRIPTION			



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

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

NAME		DATE	
AUTHOR	GW	12/07/2010	
CHECKED	-	-	
MATERIAL ALUM ALLOY			
FINISH BLACK ANODISED			
DO NOT SCALE DRAWING			
TITLE FIXED PLATFORM, SMALL		SIZE A4	DWG. NO. MDE148E
SCALE: 1:1		THIRD ANGLE PROJECTION	
SHEET 1 OF 1			



**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 an 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".

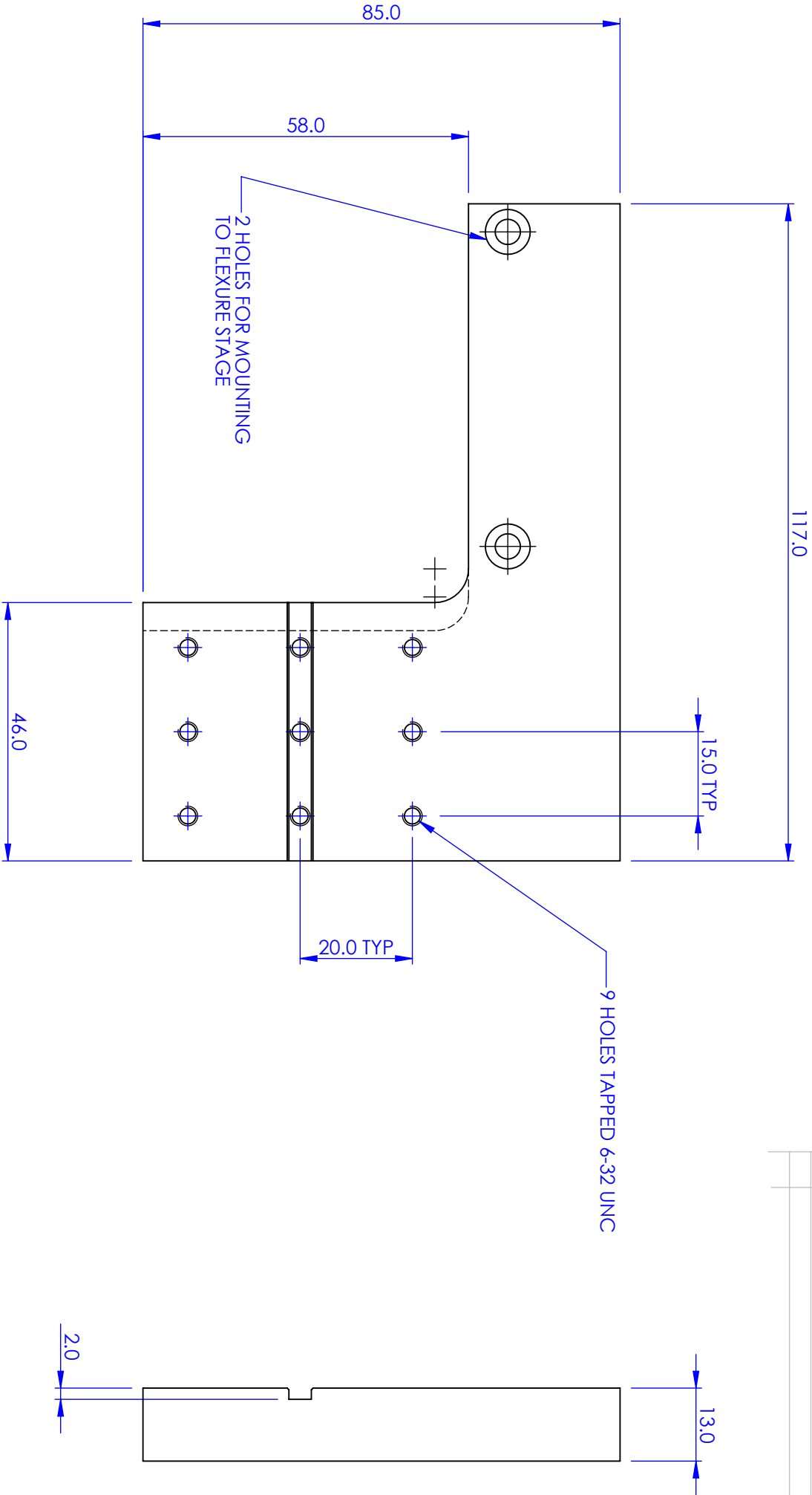
When mounting these brackets, a steel rule is a useful aid to ensure that they are in-line with the optical axis defined by the XYZ stage.

**Options**

MDE189 Fixed bracket

MDE190 Riser block

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

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AUTHOR	NAME	DATE	
CHECKED	GW	12/07/2010	
MATERIAL ALUMINIUM ALLOY		TITLE SIDE PLATFORM	
FINISH ANODISED BLACK		SIZE A4	DWG. NO. MDE149E
DO NOT SCALE DRAWING		SCALE: 1:1	THIRD ANGLE PROJECTION
		SHEET 1 OF 1	

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

**MDE189 Fixed Bracket**



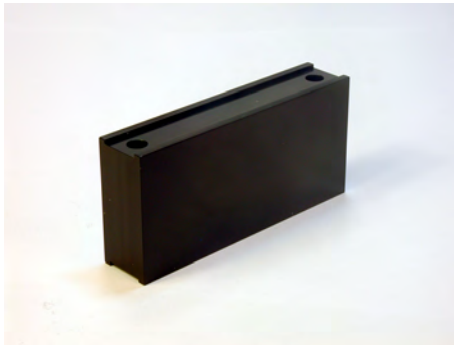
The MDE189 fixed bracket can be used with the MDE147, MDE148 and MDE149 fixed brackets to provide a simple fixed platform for mounting standard devices and fibre holders.

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



***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**

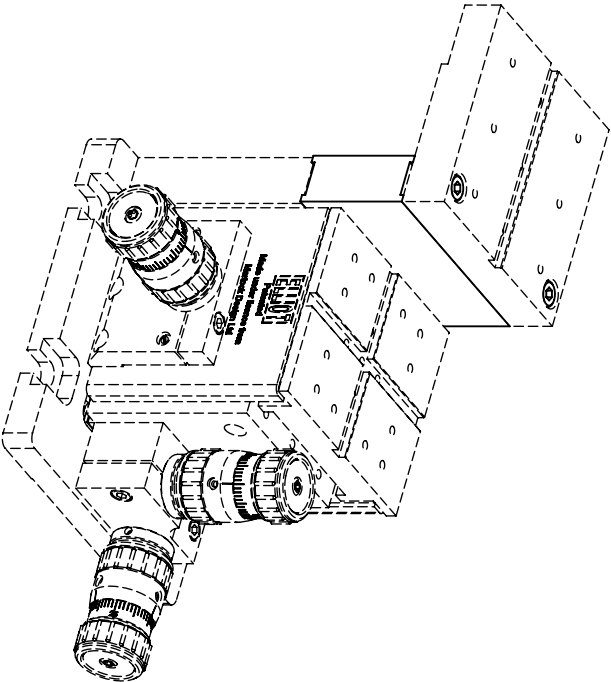
MDE147 Large fixed bracket

MDE148 Small fixed bracket

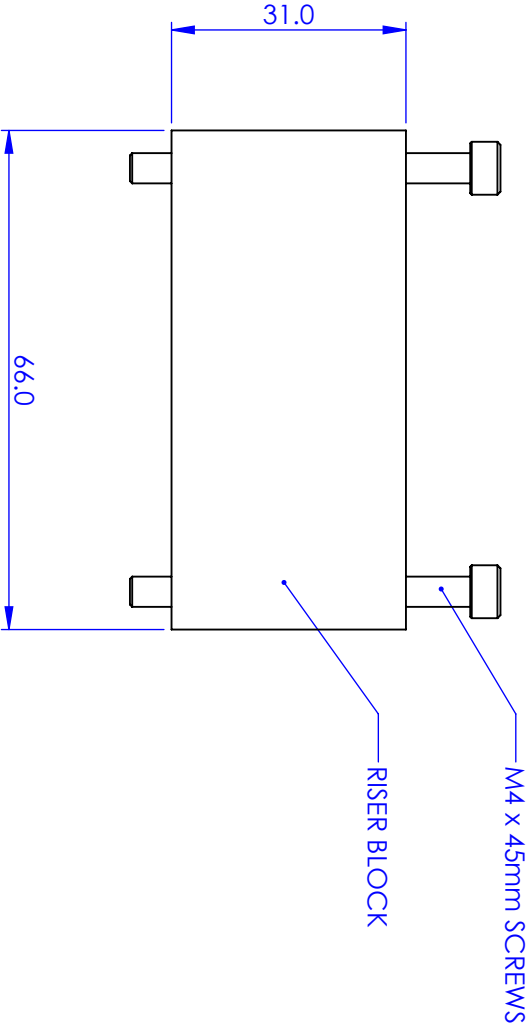
MDE149 L-shaped bracket

MDE189 Fixed bracket

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APPLICATION EXAMPLE



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MATERIAL		FINISH	
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DO NOT SCALE DRAWING		TITLE	
SCALE: 1:1		THIRD ANGLE PROJECTION	
SHEET 1 OF 1		RISER BLOCK ASSEMBLY	
SIZE		DWG. NO.	
A4		MDE190	

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

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



- USB interface
- Channels: 3 independent
- Output voltage: 0-150 V
- Output current: 50 mA/channel
- Output noise: < 50  $\mu$ VRMS
- Digital readout on each channel
- Internal/external voltage control
- Ext. input voltage control 0 to 10 V
- Output stability: <0.01% over 5 hours
- Power requirements: 110-220 Vac 50/60 Hz



Complete system comprising the E1100 3-channel controller together with the MDE123 Elliot Gold™ series XYZ flexure stage fitted with piezo actuators providing 25  $\mu$ m 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	E1100
Includes MDE154 clamp set	

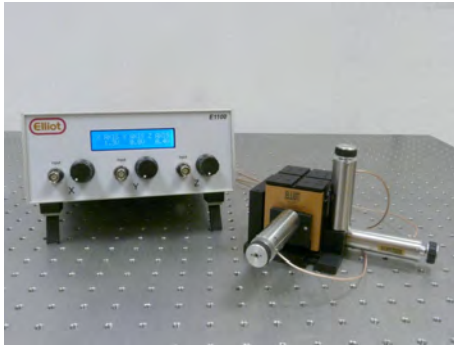
† Patent Nos. GB 2129955B & USA 4635887





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

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



- USB interface
- Channels: 3 independent
- Output voltage: 0-150 V
- Output current: 50 mA/channel
- Output noise: < 50  $\mu$ VRMS
- Digital readout on each channel
- Internal/external voltage control
- Ext. input voltage control 0 to 10 V
- Output stability: <0.01% over 5 hours
- Power requirements: 110-220 Vac 50/60 Hz



Complete system comprising the E1100 3-channel controller together with the MDE125 Elliot Gold™ series XYZ flexure stage fitted with piezo actuators providing 100  $\mu$ m of piezo travel with 50 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	E1100
Includes MDE154 clamp set	

† Patent Nos. GB 2129955B & USA 4635887

