

USER'S GUIDE

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## **Translation Stages**

***Precision Stainless-Steel Translation Stages  
Models 9066 and 9067***

**[V] New Focus™**

A Newport Corporation Brand  
3635 Peterson Way • Santa Clara, CA 95054 • USA  
phone: (408) 980-4300  
[www.newfocus.com](http://www.newfocus.com)

## **Warranty**

New Focus guarantees its products to be free of defects for one year from the date of shipment. This is in lieu of all other guarantees, expressed or implied, and does not cover incidental or consequential loss.

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## Contents

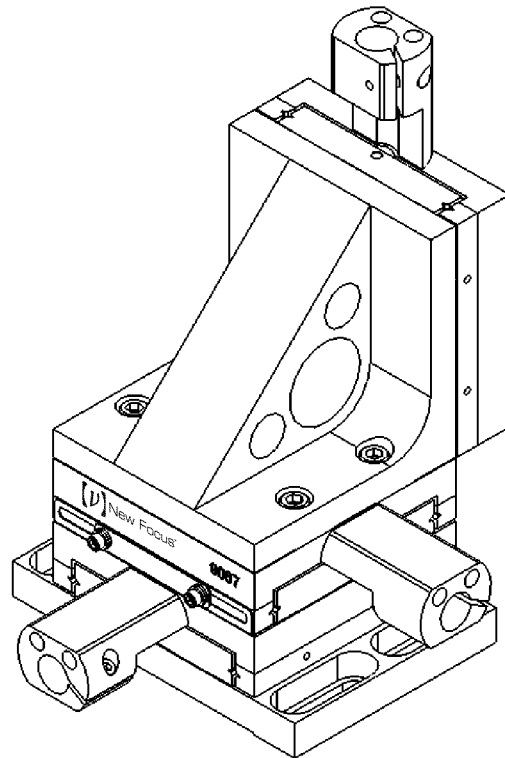
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|--|-----------|
| <b>Warranty</b> .....                                | <b>2</b>  |
| <b>Introduction</b> .....                            | <b>4</b>  |
| <b>Two Sizes – Same Features</b> .....               | <b>5</b>  |
| <b>Adding and Reconfiguring Stages</b> .....         | <b>6</b>  |
| Installing or Moving Locks.....                      | 6         |
| Adding or Reconfiguring an Axis.....                 | 7         |
| <b>Configurations</b> .....                          | <b>8</b>  |
| <b>Accessories For Model 9066</b> .....              | <b>9</b>  |
| <b>Accessories For Model 9067</b> .....              | <b>9</b>  |
| <b>Attaching the Stage to an Optical Table</b> ..... | <b>10</b> |
| <b>Adding a 90° Angle Plate</b> .....                | <b>10</b> |
| <b>Adding Actuators</b> .....                        | <b>11</b> |
| <b>Specifications</b> .....                          | <b>12</b> |
| <b>Customer Service</b> .....                        | <b>13</b> |
| Technical Support .....                              | 13        |
| Service.....   | 13        |
| <b>Product Drawings</b> .....                        | <b>14</b> |

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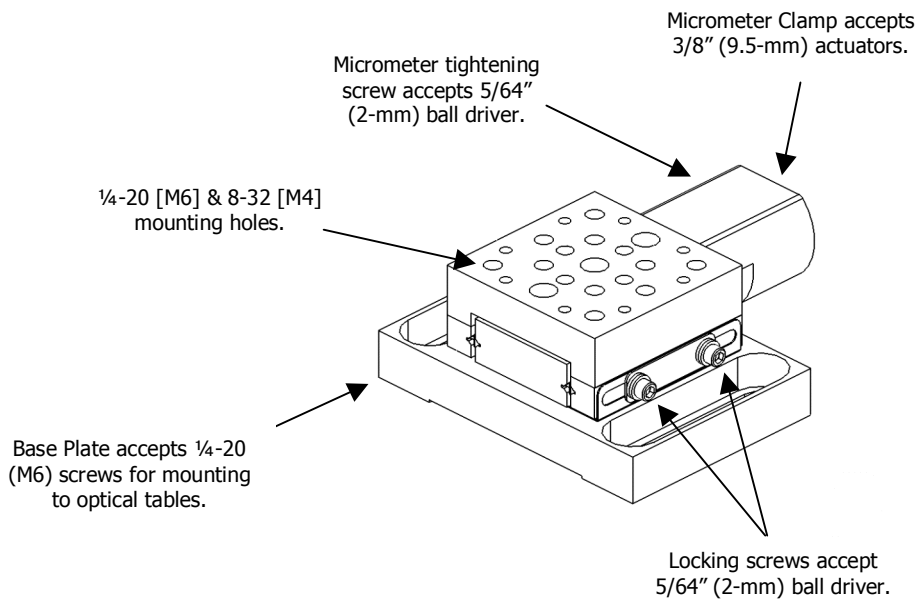
## Introduction

The ½" Model 9066 and 1" Model 9067 Precision Stainless-Steel Translation Stages reflect New Focus' dedication to Simply Better™ photonics tools.

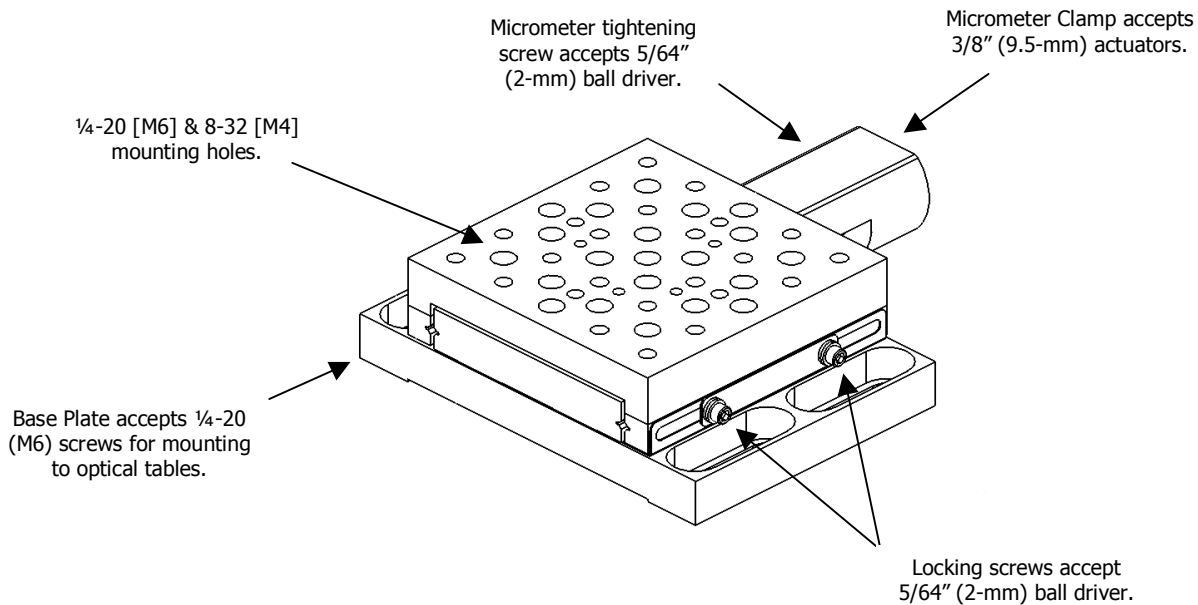
The crossed-roller bearing design with hardened and polished stainless-steel races provides smooth and precise positioning. We hope that you will find these stages to be a valuable and dependable tool in your laboratory.



## Two Sizes – Same Features



**Model 9066-X**

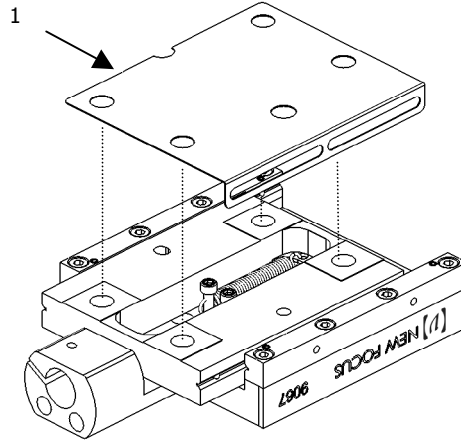


**Model 9067-X**

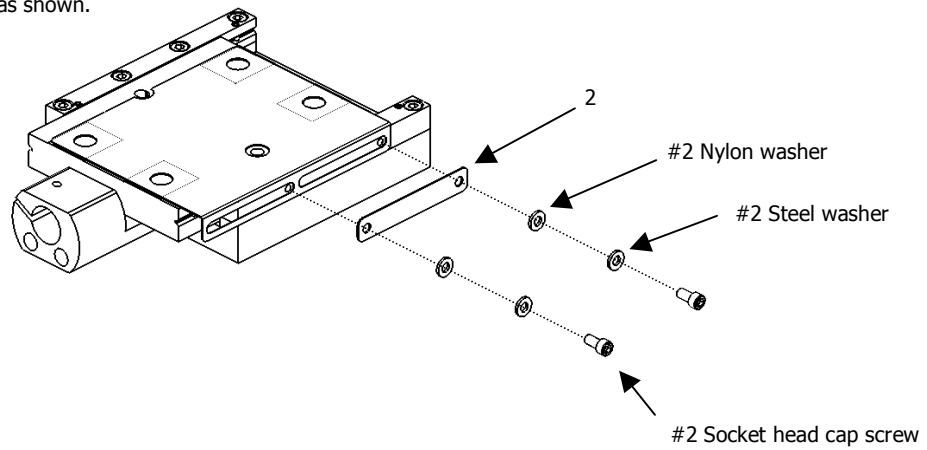
# Adding and Reconfiguring Stages

## Installing or Moving Locks

1. Align the Locking Plate with the four screw holes on the bottom of the stage.



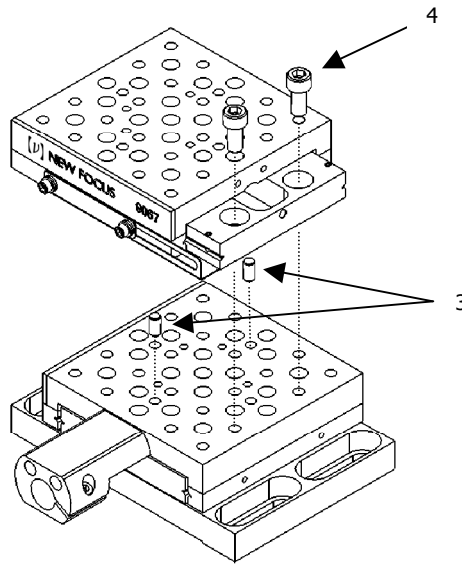
2. Add the Locking Plate Cover followed by hardware (included) as shown.



## Adding or Reconfiguring an Axis

3. Insert two 0.125" dia. x 0.25" long dowel pins (included).

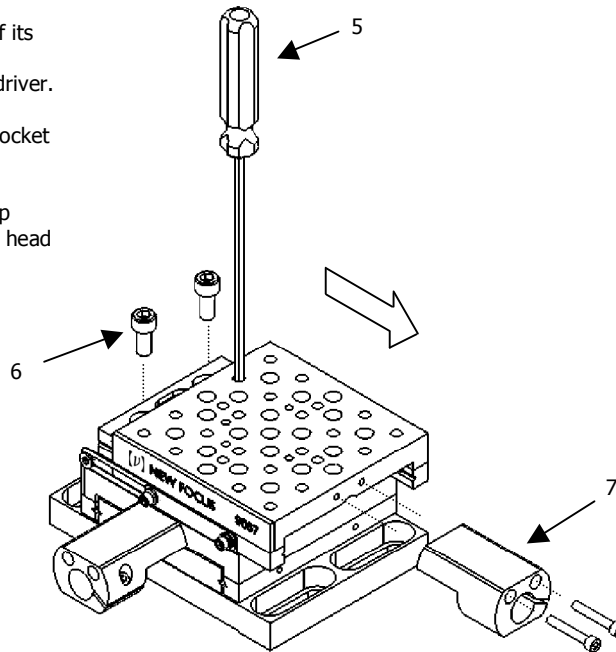
4. Align the top stage to the dowel pins and install two socket head cap screws (included - see table below for screw size).



5. Slide the stage to the end of its travel and stop the stage by inserting a 5/64" (2-mm) ball driver.

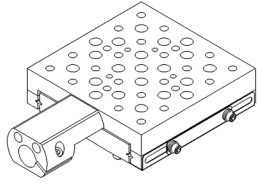
6. Secure the stage with two socket head cap screws.

7. Attach the micrometer clamp using two #3-48 x 5/8" socket head cap screws (included).

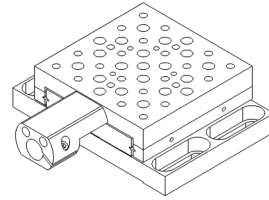


| Socket Head Cap Screw Size |             |              |           |
|----------------------------|-------------|--------------|-----------|
| 9066                       | 9066-M      | 9067         | 9067-M    |
| #4-40 x 3/8"               | M2.5 x 8 mm | #8-32 x 3/8" | M4 x 8 mm |

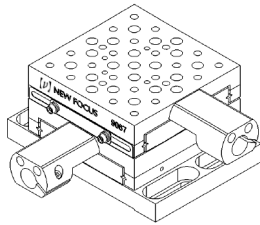
# Configurations



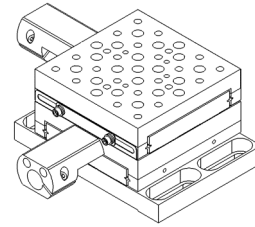
Model 9066-COM and 9067-COM



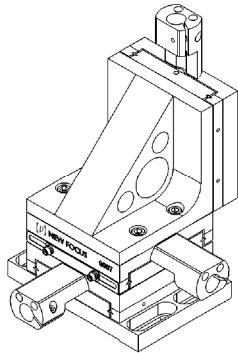
Model 9066-X and 9067-X



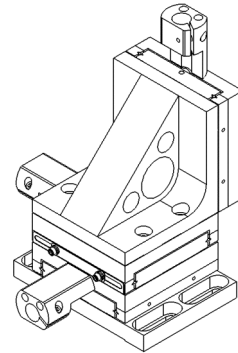
Model 9066-XY-L and 9067-XY-L



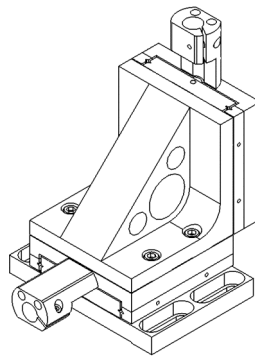
Model 9066-XY-R and 9067-XY-R



Model 9066-XYZ-L and 9067-XYZ-L



Model 9066-XYZ-R and 9067-XYZ-R

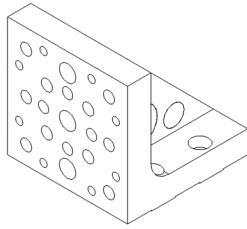


Model 9066-XZ and 9067-XZ

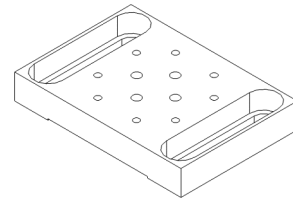


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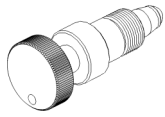
## Accessories For Model 9066



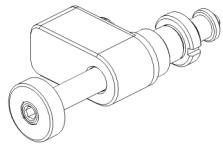
90° Angle Plate Model 9041



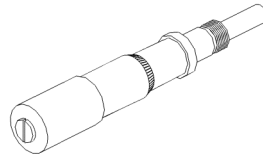
Base Plate Model 9042



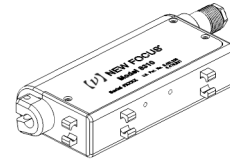
1/2" Screw Set  
Model 9301



1/2" Picomotor™ actuators  
Model 8301



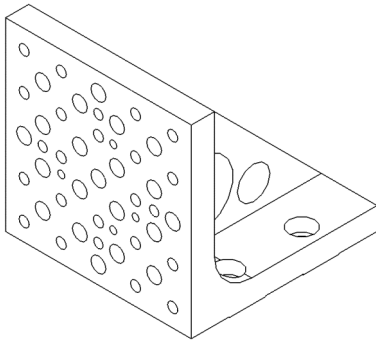
13-mm Micrometer  
Model 9352



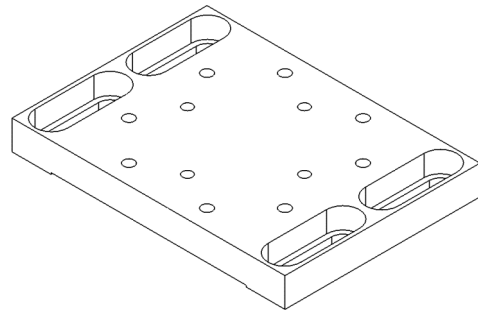
1/2" Closed-Loop Picomotor™  
actuators Model 8310

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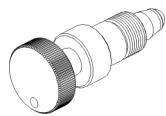
## Accessories For Model 9067



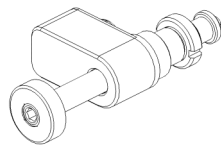
90° Angle Plate Model 9161



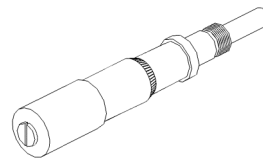
Base Plate Model 9160



1" Screw Set  
Model 9302



1" Picomotor™ actuators  
Model 8302

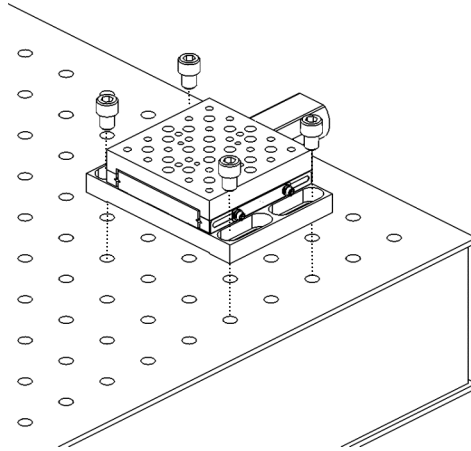


25-mm Micrometer  
Model 9353

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## Attaching the Stage to an Optical Table

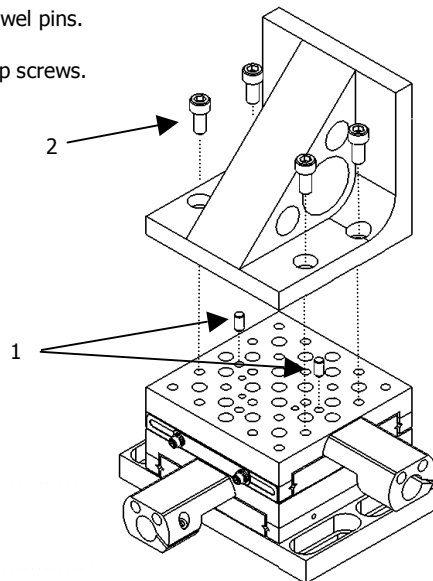
Attach the stage to an optical table using four 1/4-20 (M6) screws.



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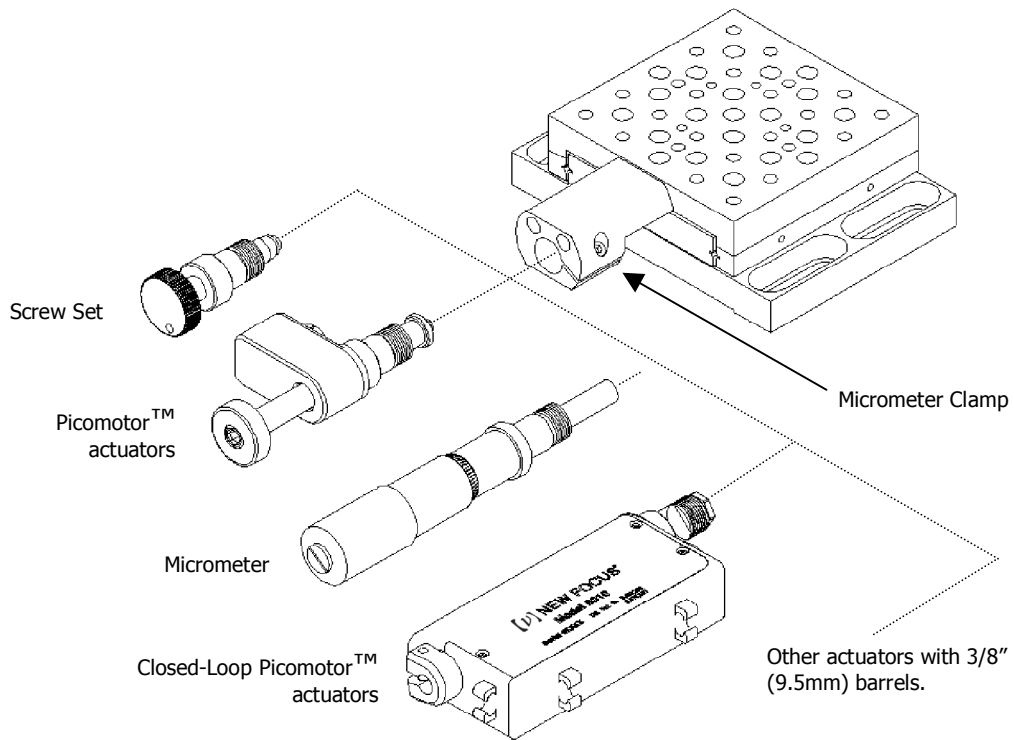
## Adding a 90° Angle Plate

1. Insert two 0.125" dia x 0.25" dowel pins.
2. Secure with four socket head cap screws.



## Adding Actuators

The micrometer clamps provided with the stages accept all actuators with standard 3/8" (9.5mm) barrel sizes, including micrometers, fine-pitched screw sets, and Picomotor™ actuators from New Focus.



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## Specifications

|                            | <b>9066 Series</b>                  | <b>9067 Series</b>                  |
|----------------------------|-------------------------------------|-------------------------------------|
| Maximum travel             | 0.53" (13mm)                        | 1.03" (25mm)                        |
| Angular Deviation, maximum | 100 $\mu$ rad                       | 150 $\mu$ rad                       |
| Straightness               | 3 $\mu$ m                           | 3 $\mu$ m                           |
| Flatness                   | 3 $\mu$ m                           | 3 $\mu$ m                           |
| Load Capacity, centered    | 25 lbs (111 N)                      | 50 lbs (222 N)                      |
| Load Capacity, vertical    | 10 lbs (44.5 N)                     | 18 lbs (80 N)                       |
| Bearing Type               | Thermally-matched<br>crossed-roller | Thermally-matched<br>crossed-roller |

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## Customer Service

### Technical Support

Information and advice about the operation of any New Focus product is available from our technical support engineers.

Engineers are on duty from 8:00–5:00 PST, Monday through Friday (excluding holidays). For quickest response, ask for “Technical Support” and know the model number of your translation stage.

Phone: (408) 919-1500

Fax: (408) 987-3178

Support is also available by email:

[techsupport@newfocus.com](mailto:techsupport@newfocus.com)

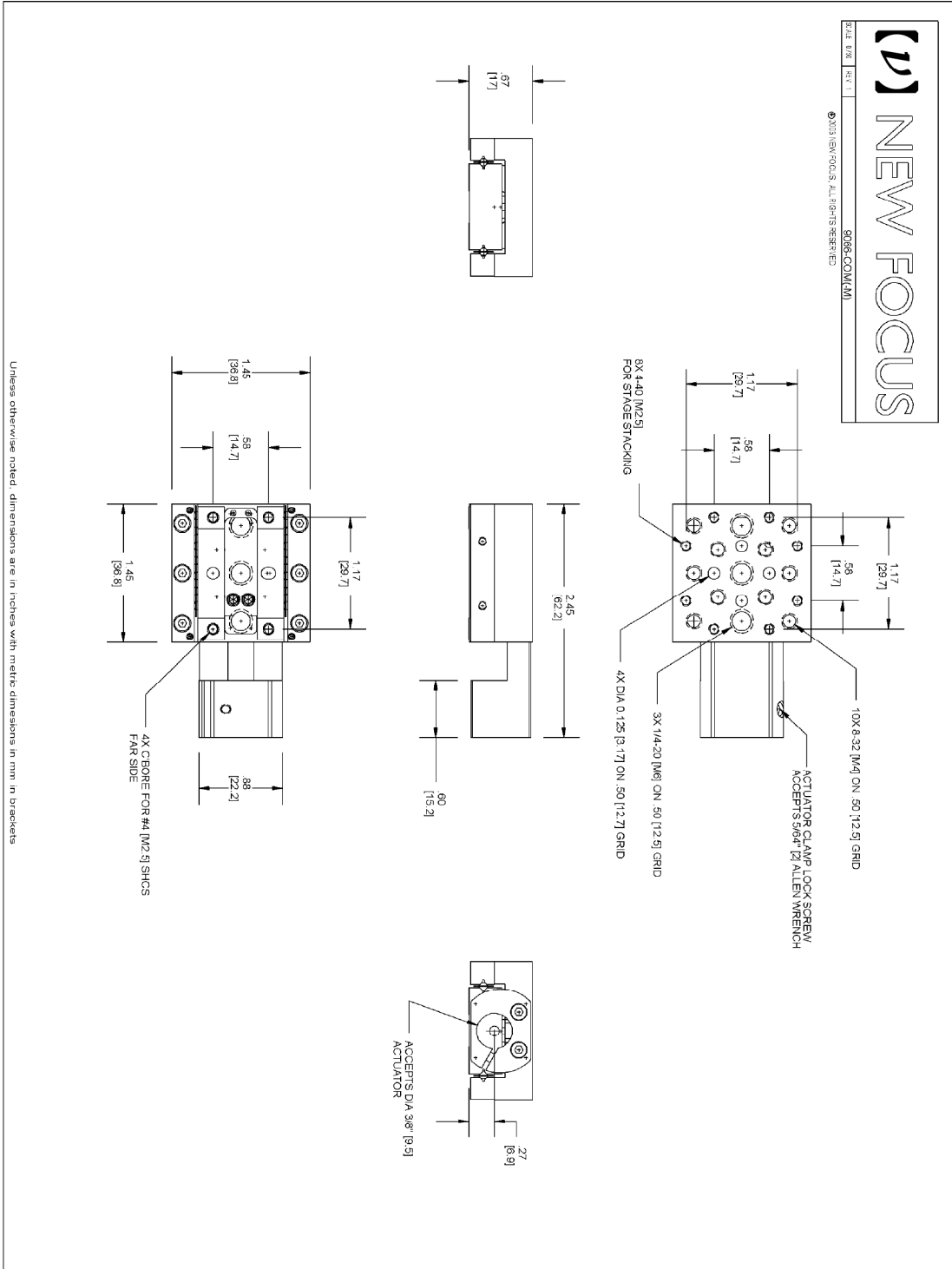
We typically respond to email within one business day.

### Service

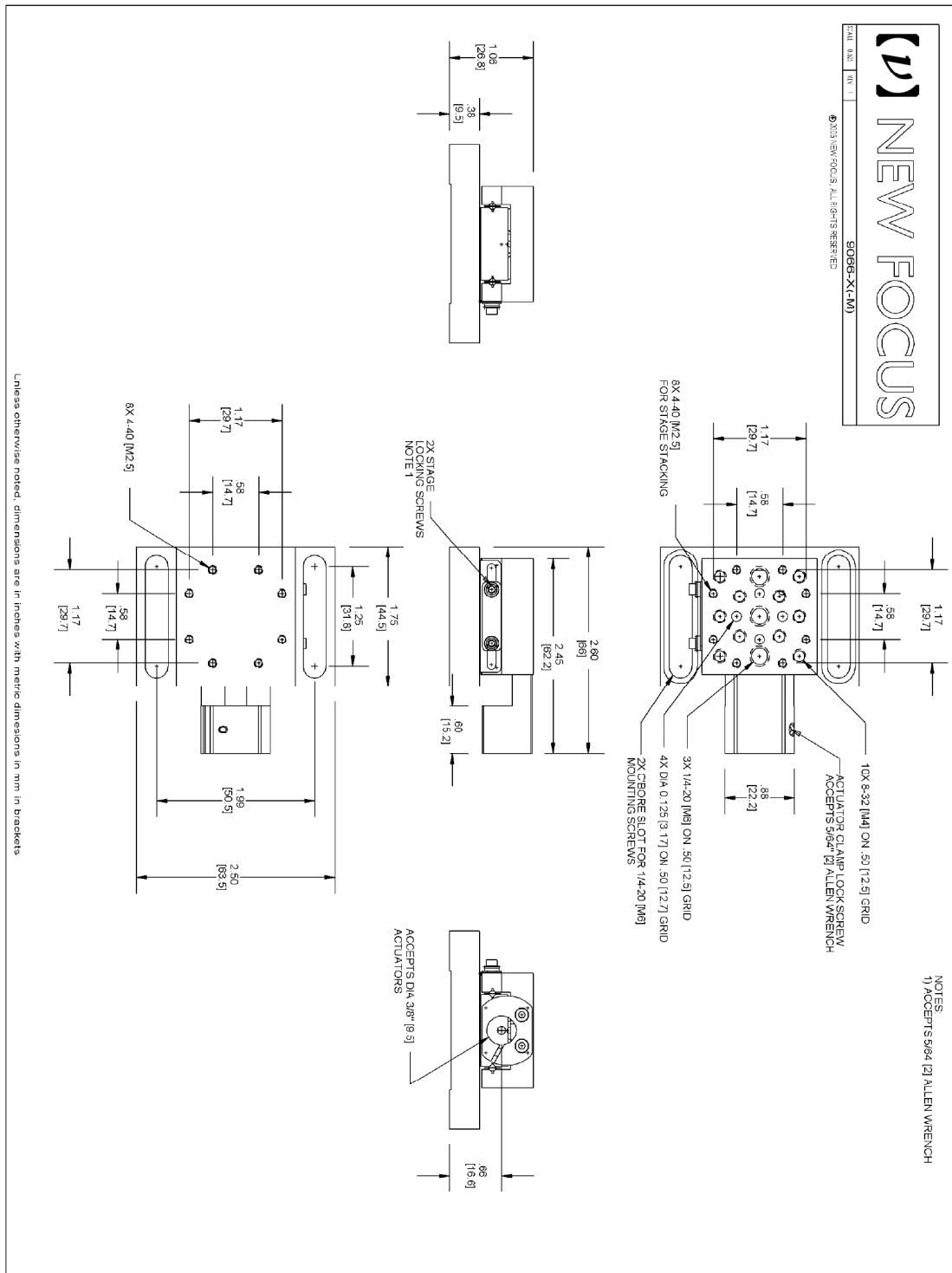
In the event that your translation stage malfunctions or becomes damaged, please contact New Focus for a return authorization number and instructions on shipping the unit back for evaluation and repair.

# Product Drawings

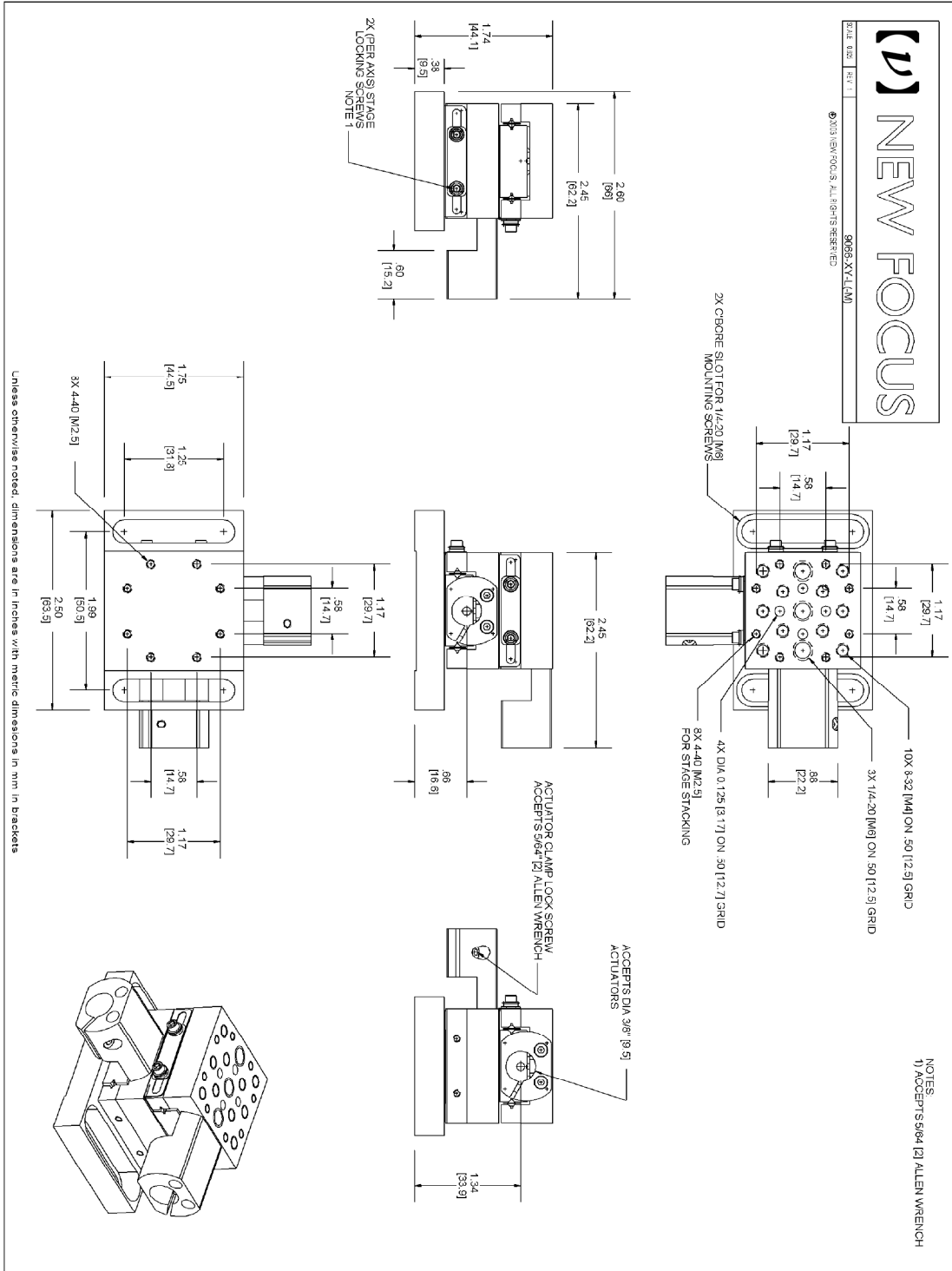
## Model 9066-COM(-M)



# Model 9066-X(-M)

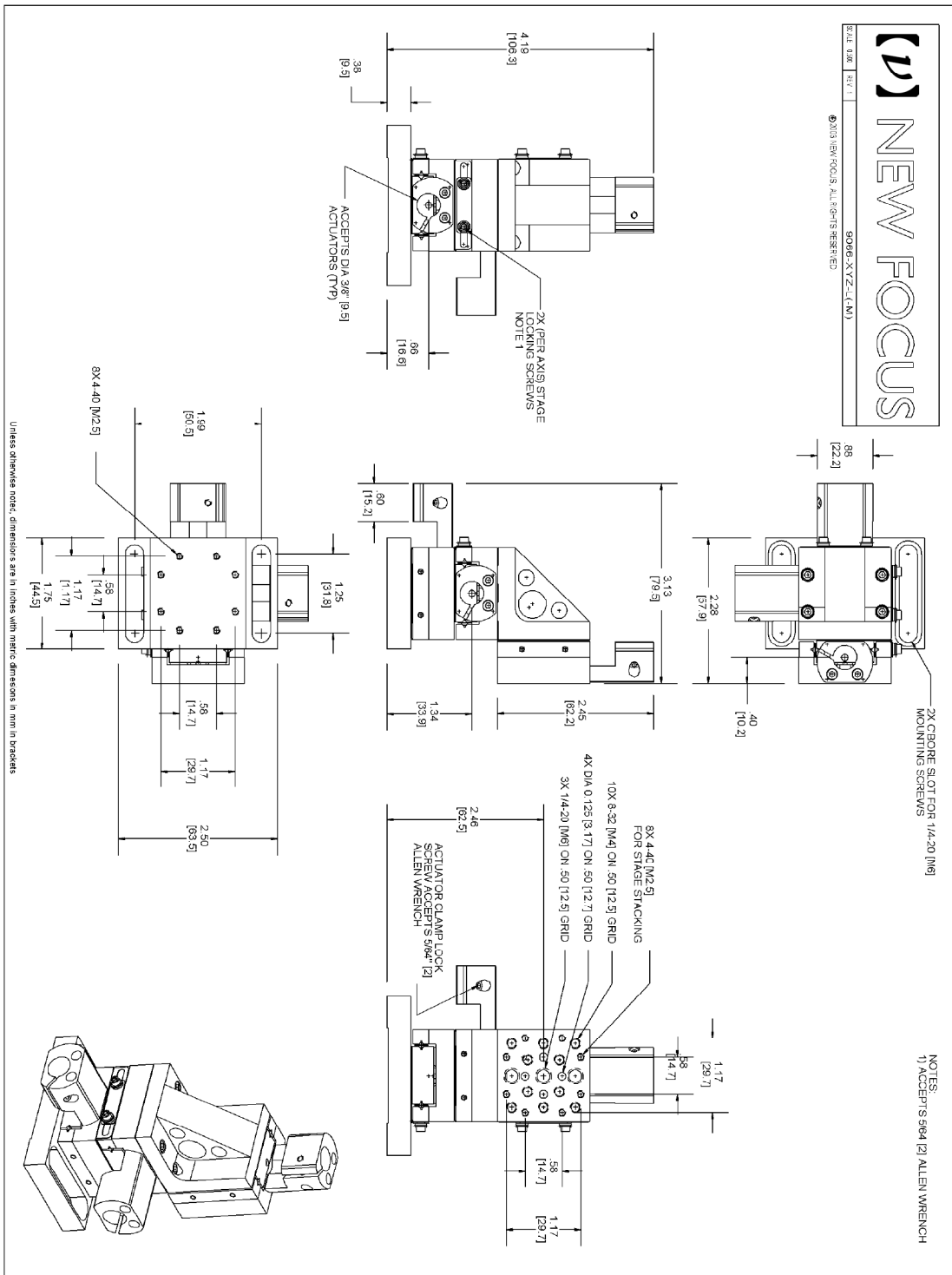


**Model 9066-XY-L(-M)**

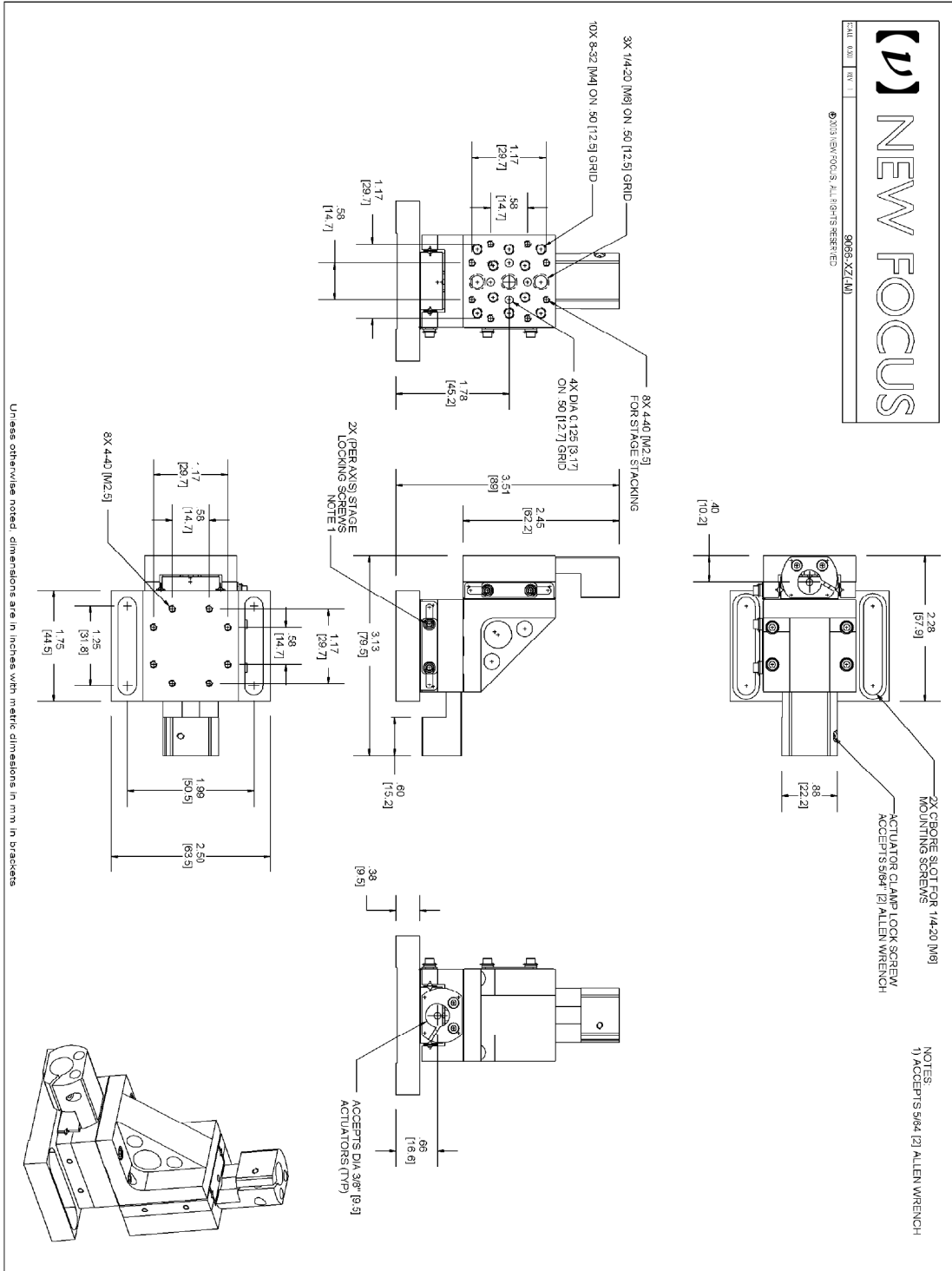


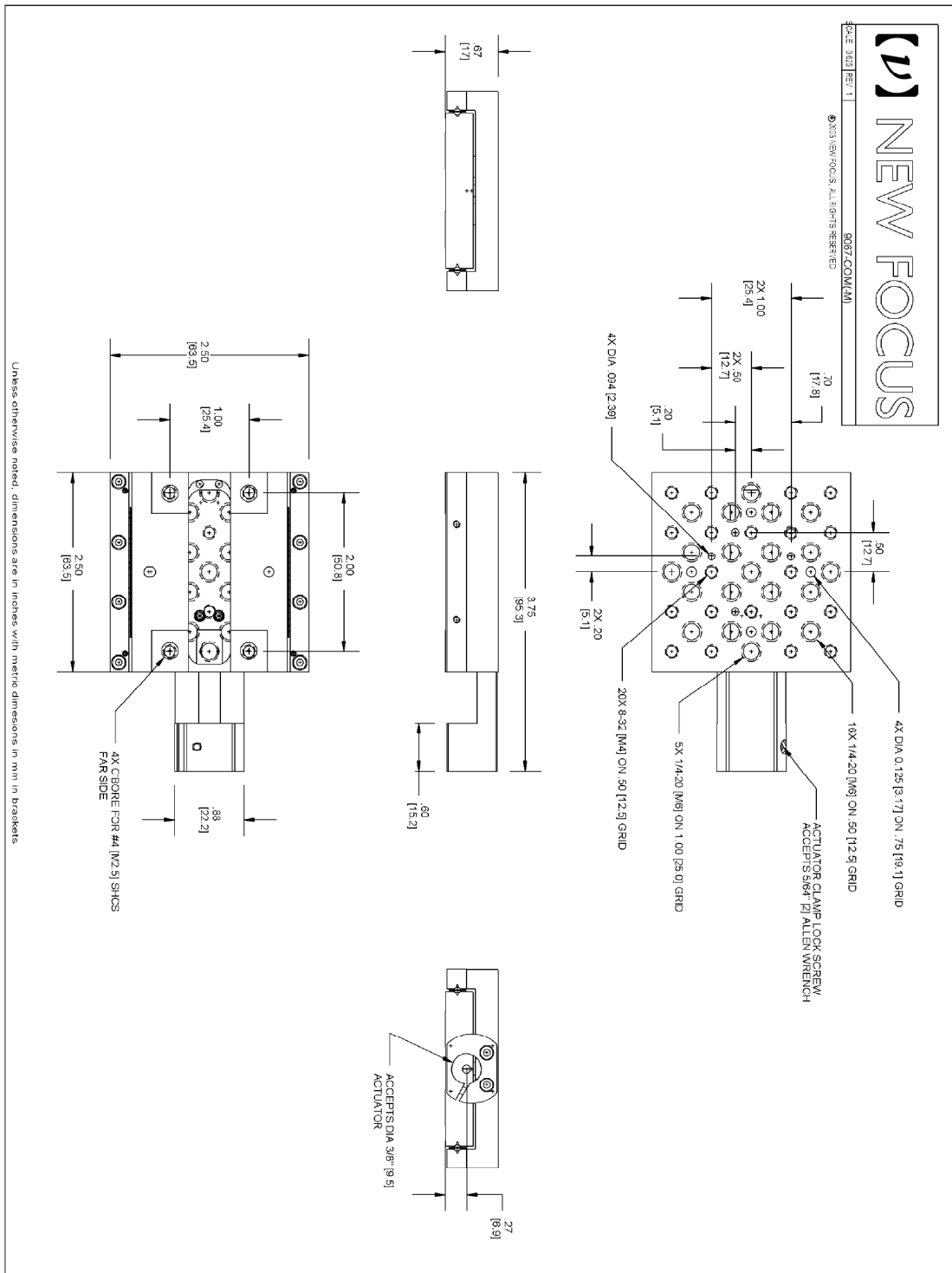


# Model 9066-XYZ-L(-M)

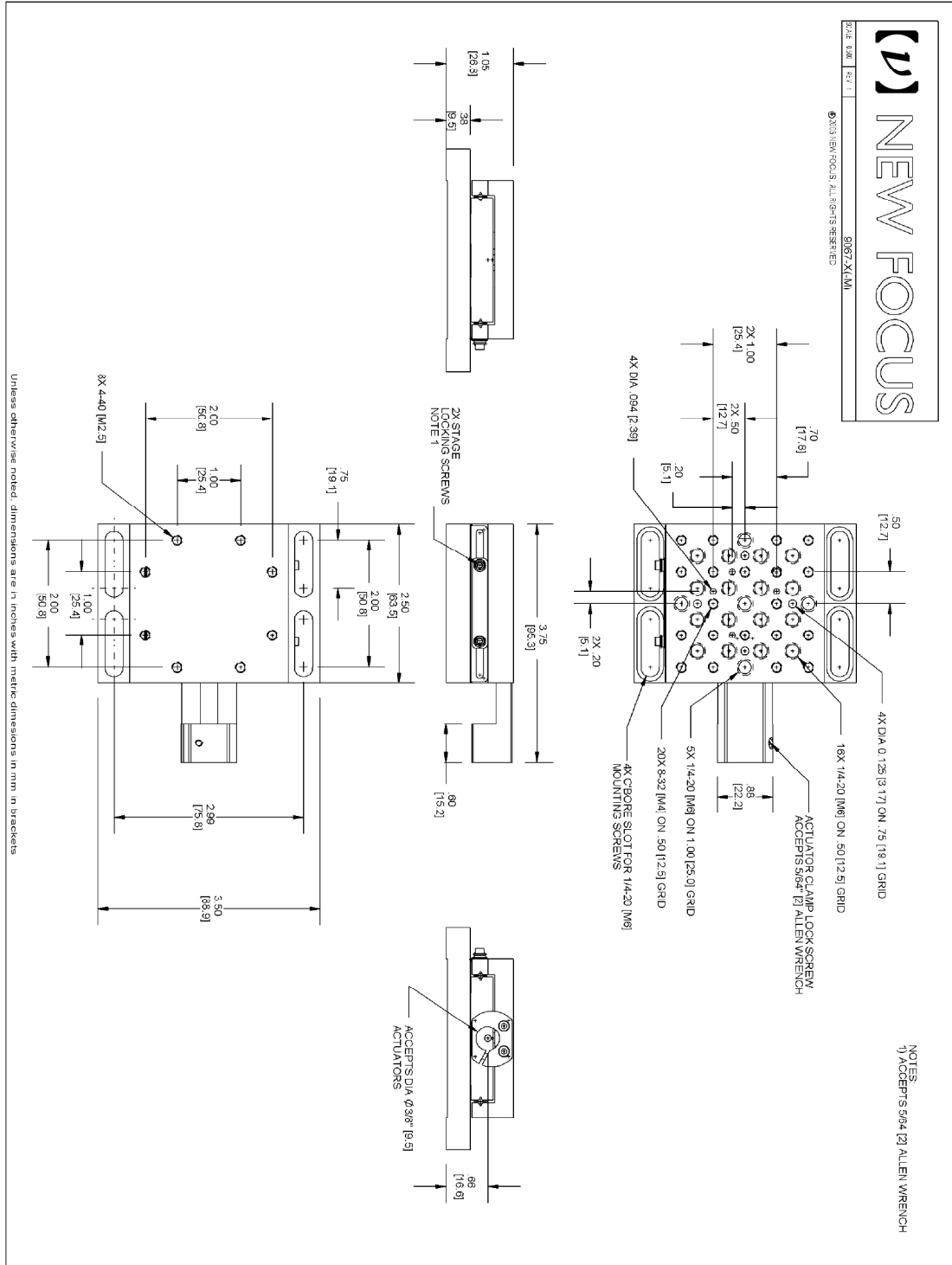


# Model 9066-XZ(-M)

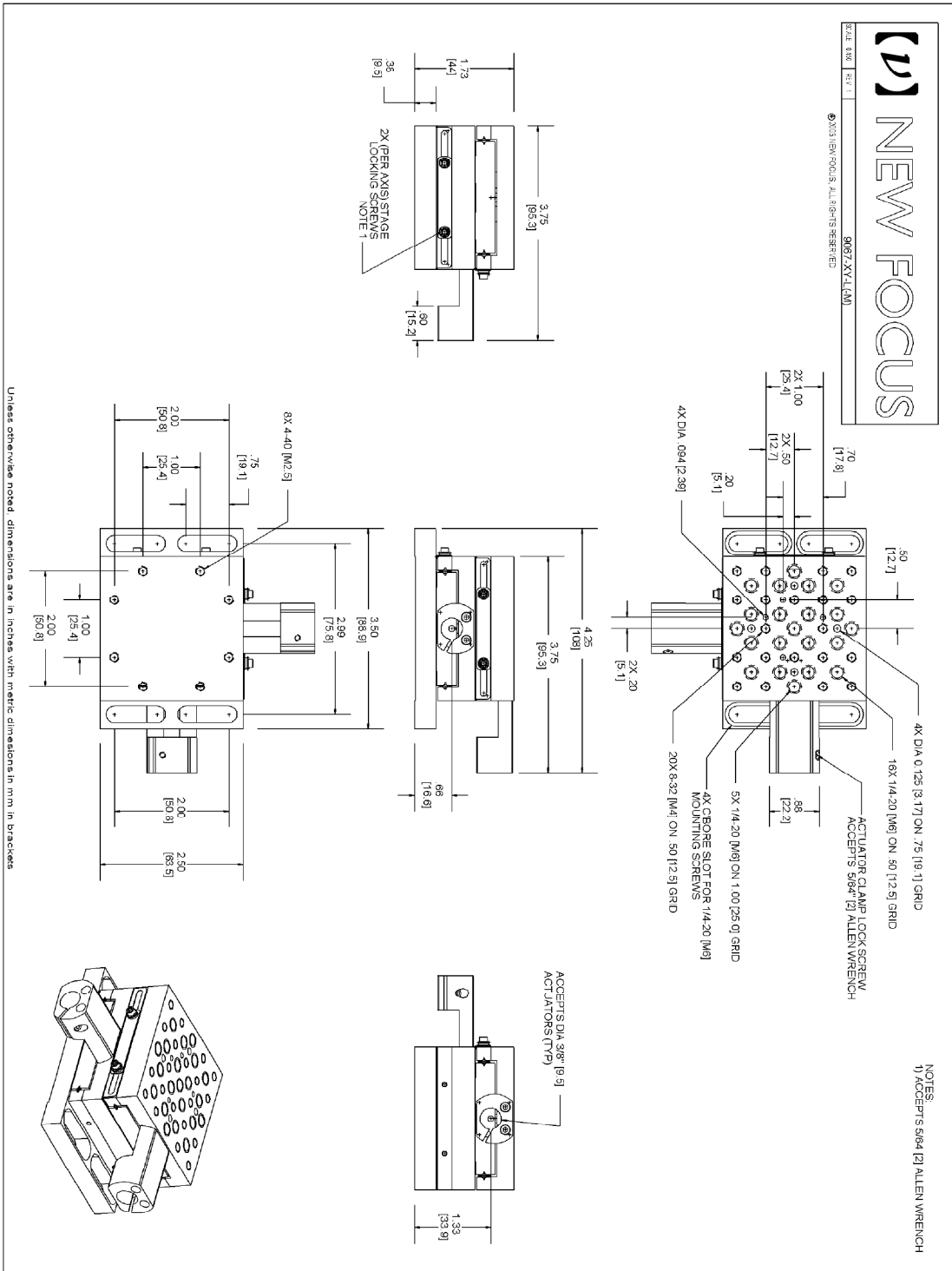




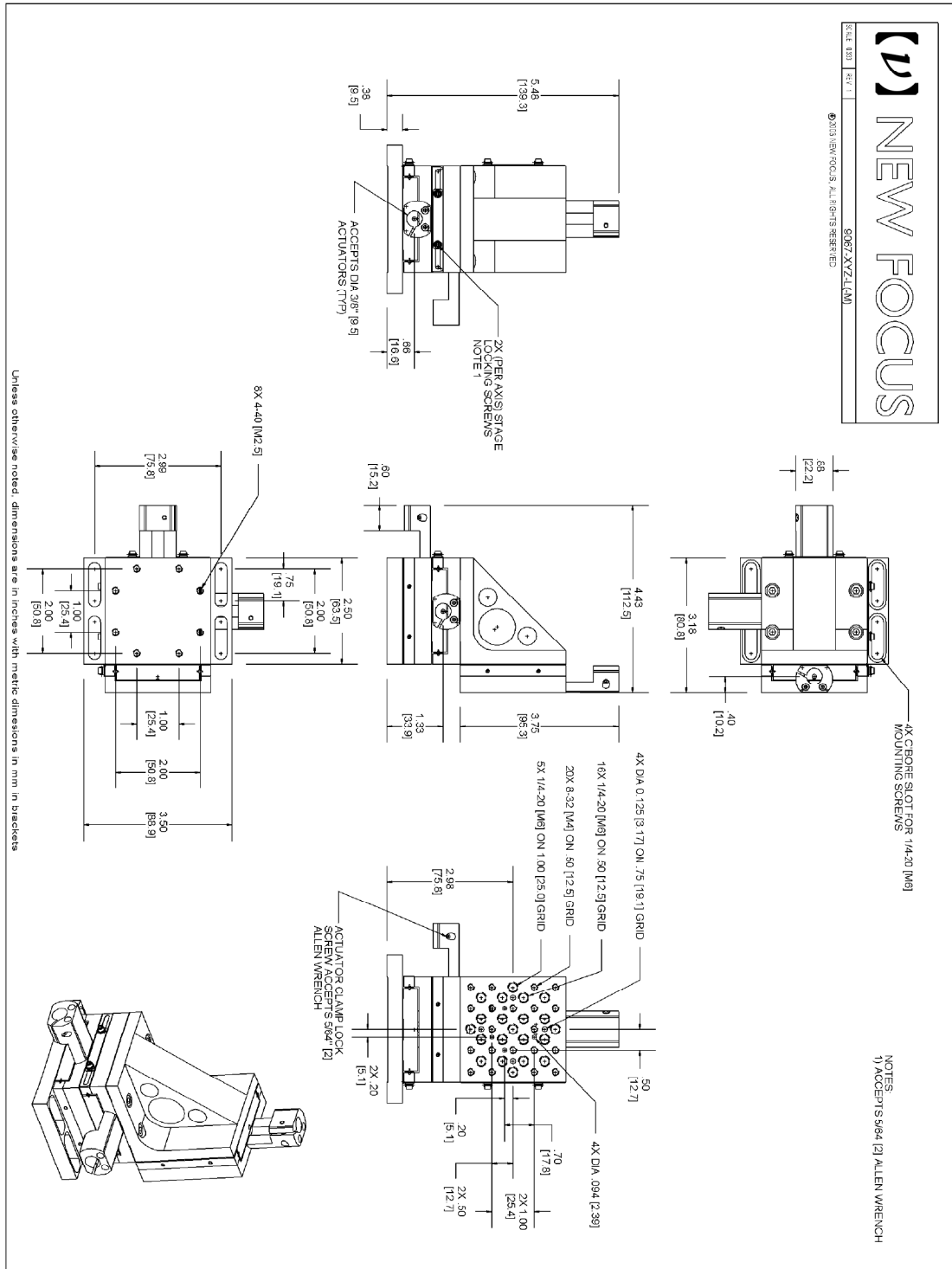
# Model 9067-X(-M)



**Model 9067-XY-L(-M)**



# Model 9067-XYZ-L(-M)



**Model 9067-XZ(M)**

