

METROSTAGE

X-Y Compound Table

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METROSTAGE XY compound table Series are high precision stages designed as an integral X/Y compound table for precise positioning. METROSTAGE is available with either solid top or in an open frame configuration.

Features and Benefits

This stage structure is a three-piece construction, which has been designed for minimum distortion and highest precision stage geometry. Stiffness and stability have been maximized to achieve the highest support and integrity. The backlash-free preloaded guide system achieves smooth, low-friction, precision motion for highly accurate positioning and trouble free long-term performance.

Applications

The METROSTAGE XY Compound Table Series has a very wide range of application, because of adaptable and configurations and execution, offering many different motion platforms with different characteristics. Many applications are found in the metrology and fabrication fields, where a precise, compact X/Y motion platform is desirable. Other typical applications are found in semiconductor assembly, testing, and fabrication areas,

- Precision XY compound Table, with low-profile 3 tier construction.
- Linear Servo or Ball Screw Drive System.
- Integrated non-contacting positioning encoders.
- Integrally pre-loaded roller guide system
- Available integrated servo control

video inspection, micro-machining, laser machining, high-speed fabrication, laser and inspection work. Many customers utilize the stage with manual turn knobs, because of the insufficient precision performance of conventional microscope stages.

Configurations

- Open Frame or Solid Top
- Clean Room Compatible
- Vacuum Compatible
- Non-Magnetic

Guide Systems

- Cross Roller
- Quad-Vee Lock Needle
- Hybrid Guide Bearings

Drive System

- Precision Ground Ball Screw
- Linear Motor (Ironcore or ironless)
- Ceramic Servo Motor

Position Feedback System

- Rotary Encoders
- Linear Encoders
- Laser Scale Encoders

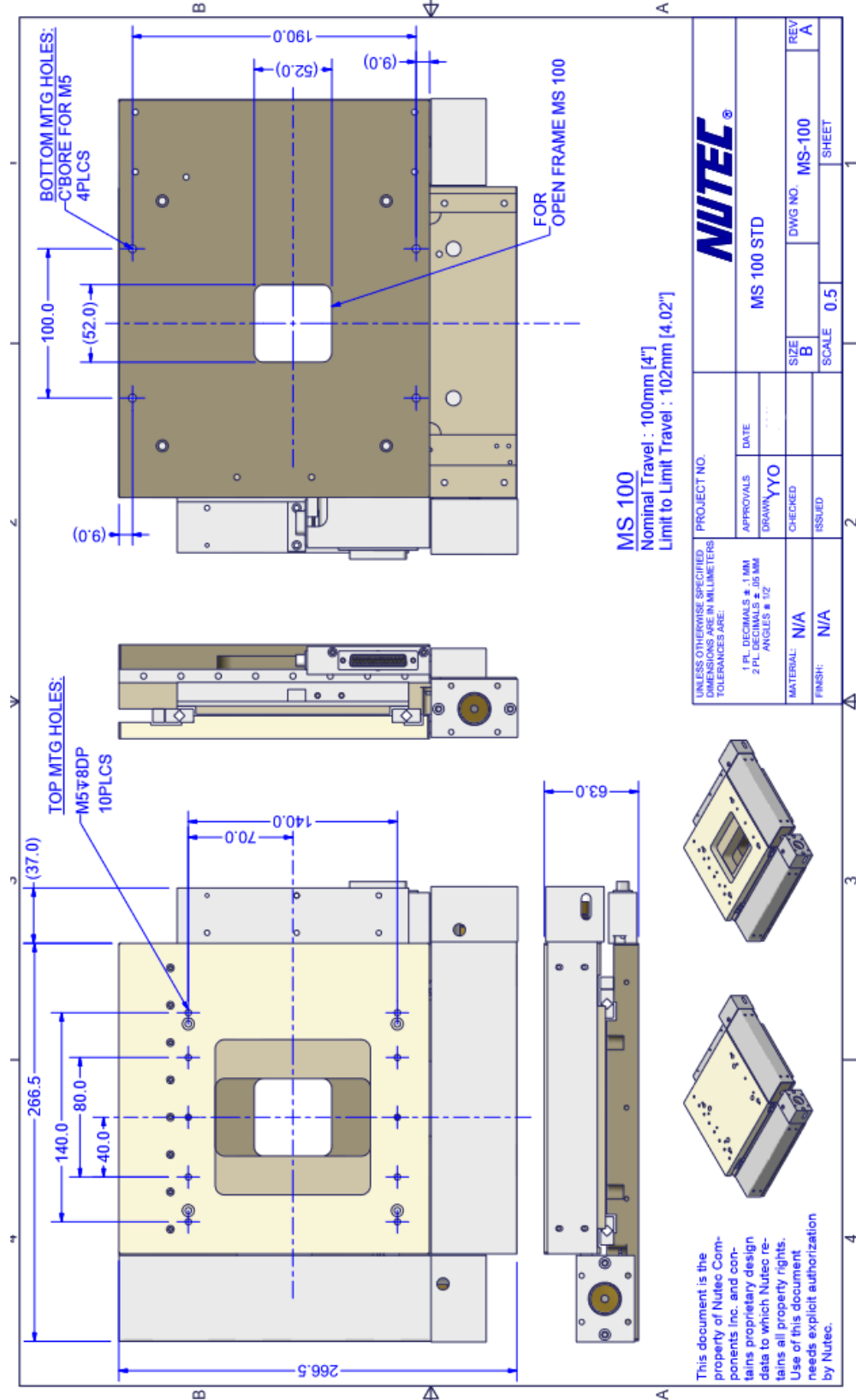
METROSTAGE Specifications

	MS-100 ST	MS150-ST	MS200-ST	MS300-ST	MS-OFT
Travel Length	100x 100 mm	150x 150 mm	200x200 mm	300x300 mm	100x150 mm
Trajectory Control					
Accuracy					
Standard Precision SP	± 7.5 µm	± 10 µm	± 15 µm	± 20 µm	± 15 µm
High Precision HP	± 5 µm	± 7.5 µm	± 10 µm	± 10 µm	n/a
Extra High Precision XHP	± 3 µm	± 4 µm	± 6 µm	± 6 µm	n/a
Straightness/Flatness					
Standard SP	± 8 µm	± 10 µm	± 12 µm	± 20 µm	± 20 µm
High Precision HP	± 3 µm	± 4 µm	± 6 µm	± 10 µm	n/a
Extra High Precision XHP	± 3 µm	± 4 µm	± 5 µm	± 7 µm	n/a
Yaw/Pitch/Roll					
Standard SP	20 arc-sec	20 arc-sec	20 arc-sec	20 arc-sec	30 arc-sec
High Precision HP	10 arc-sec	10 arc-sec	10 arc-sec	10u arc-sec	n/a
Orthogonality					
Standard SP	10 arc-sec	10 arc-sec	10 arc-sec	10 arc-sec	20 arc-sec
High Precision HP	5 arc-sec	5 arc-sec	5 arc-sec	5 arc-sec	10 arc-sec
Extra High Precision XHP	3 arc-sec	3 arc-sec	3 arc-sec	3 arc-sec	na

NOTES:

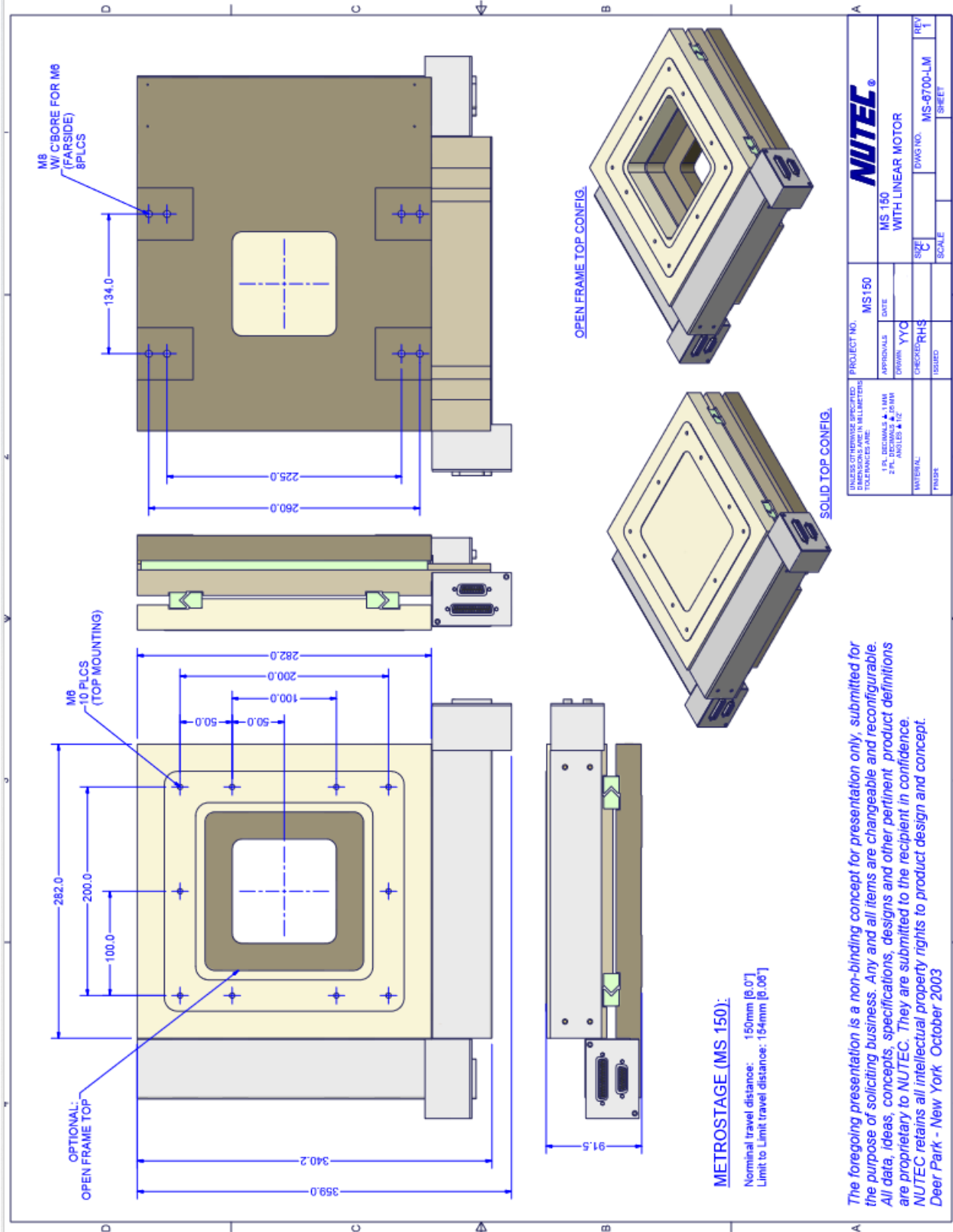
- All trajectory data based on axis uniformly supported over full length on precision mounting surface with vibration isolation.
- Payload capacities are recommended values to achieve maximum lifetime in the worst-case scenario featuring maximum dynamic operation and off-center loading.
- Force, acceleration and speed performance are based on operations with NUTEC ELECTRONIC controls.

METROSTAGE 100 Ball Screw Drive Dimensions

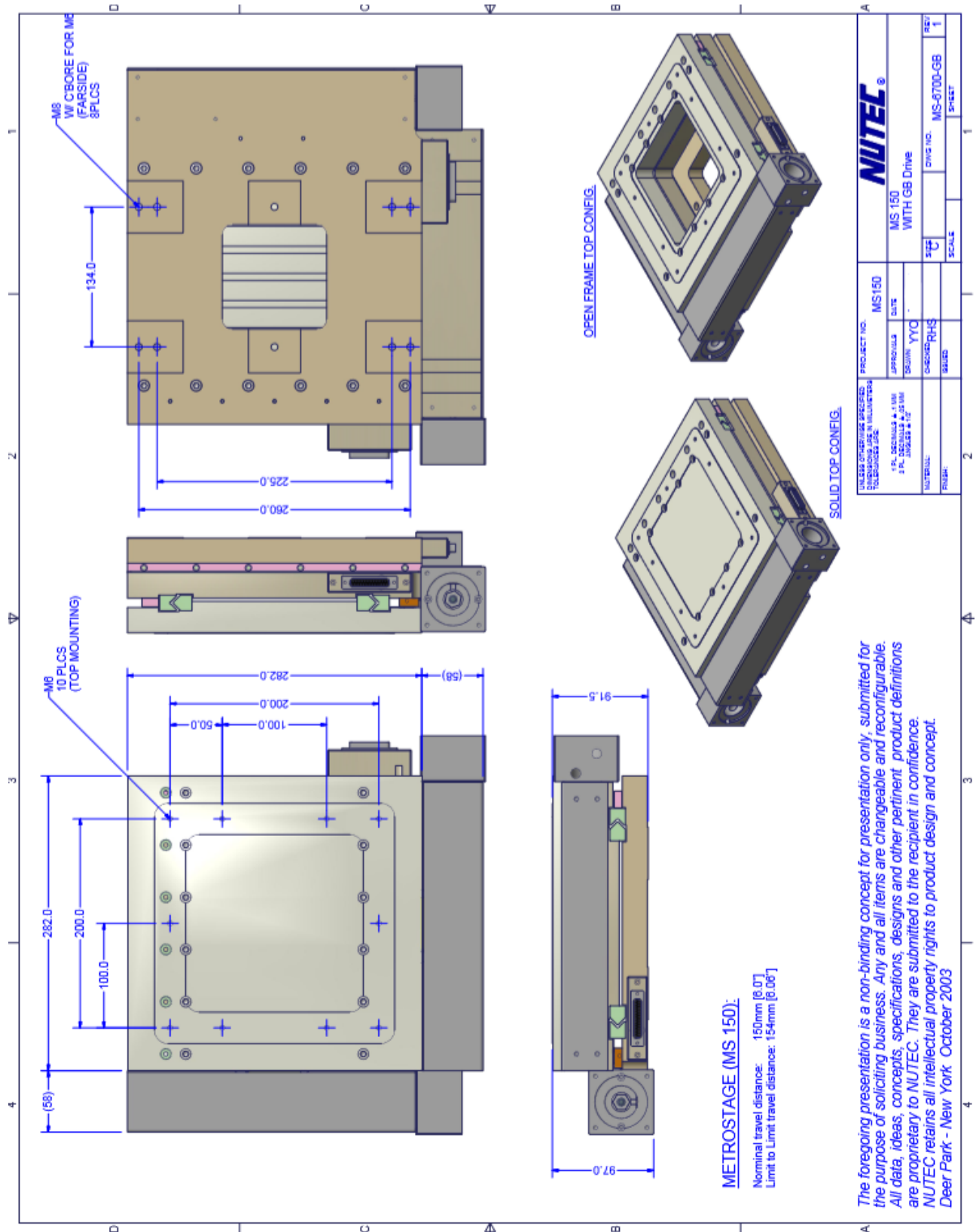


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METROSTAGE 150 Linear Motor Drive Dimensions

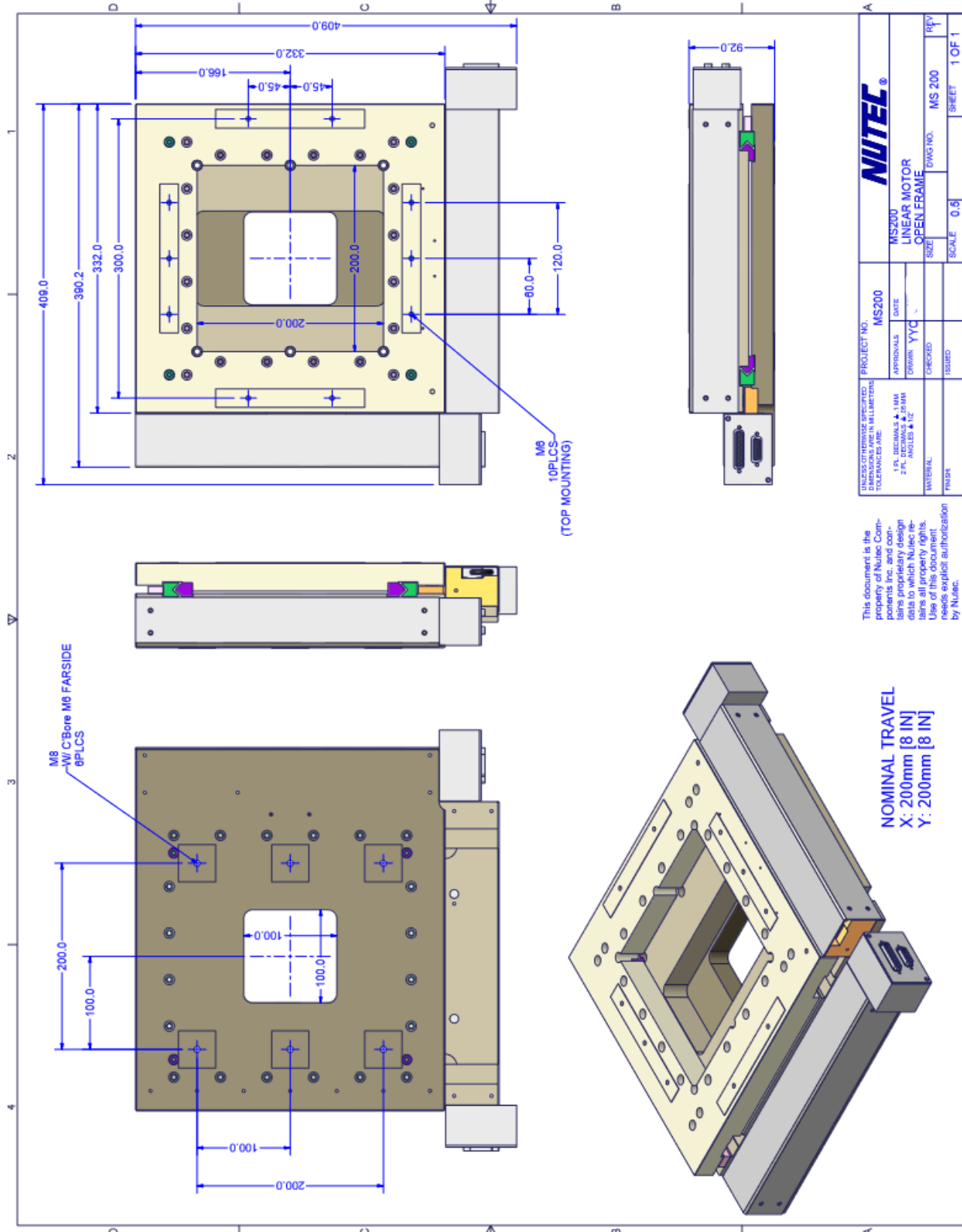


METROSTAGE 150 Ball Screw Drive Dimensions



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Deer Park - New York October 2003

METROSTAGE 200 Linear Motor Drive Dimensions



METROSTAGE 300 Linear Motor Drive Dimensions

