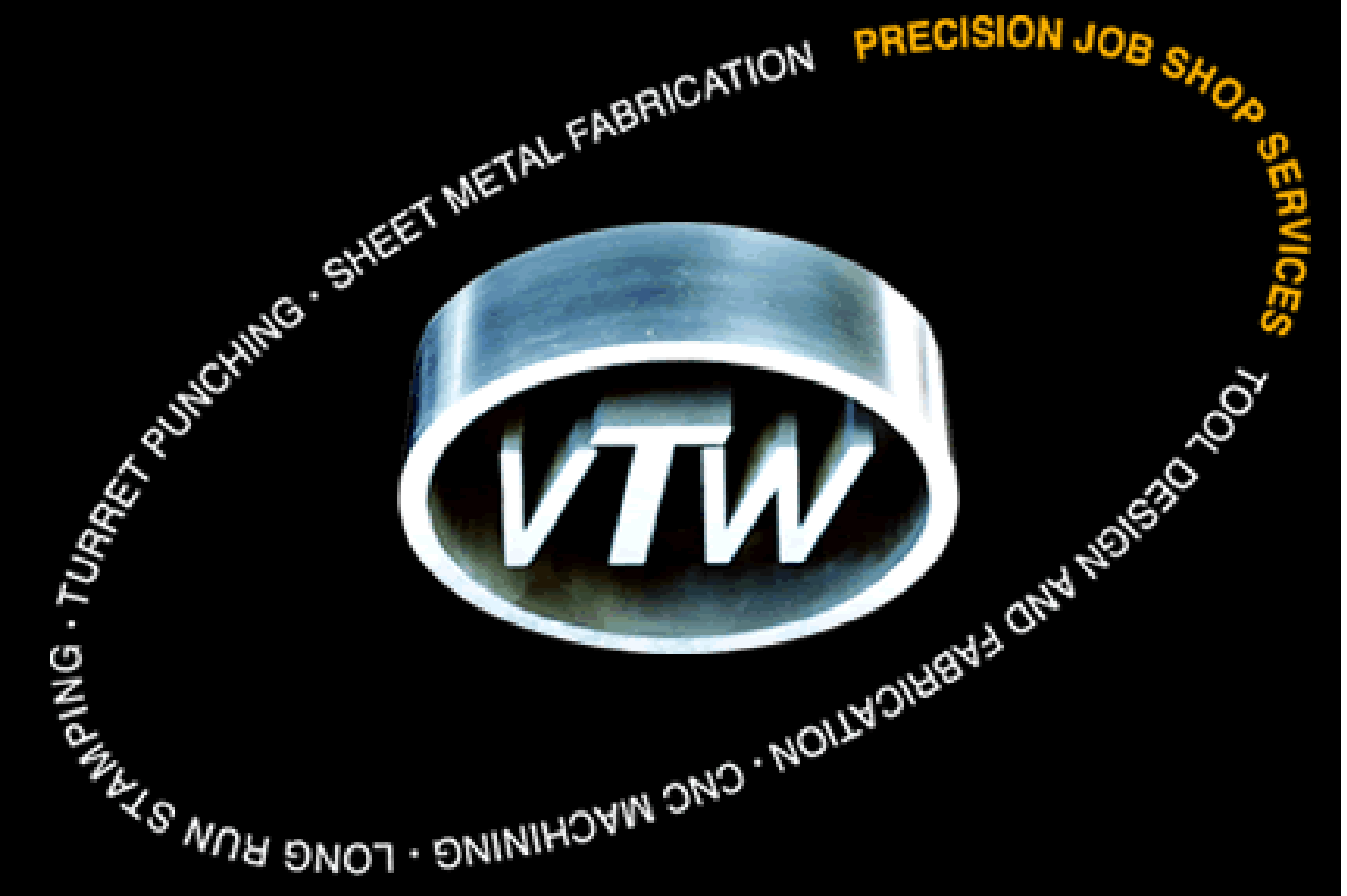


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New Product Evaluation and Improvement

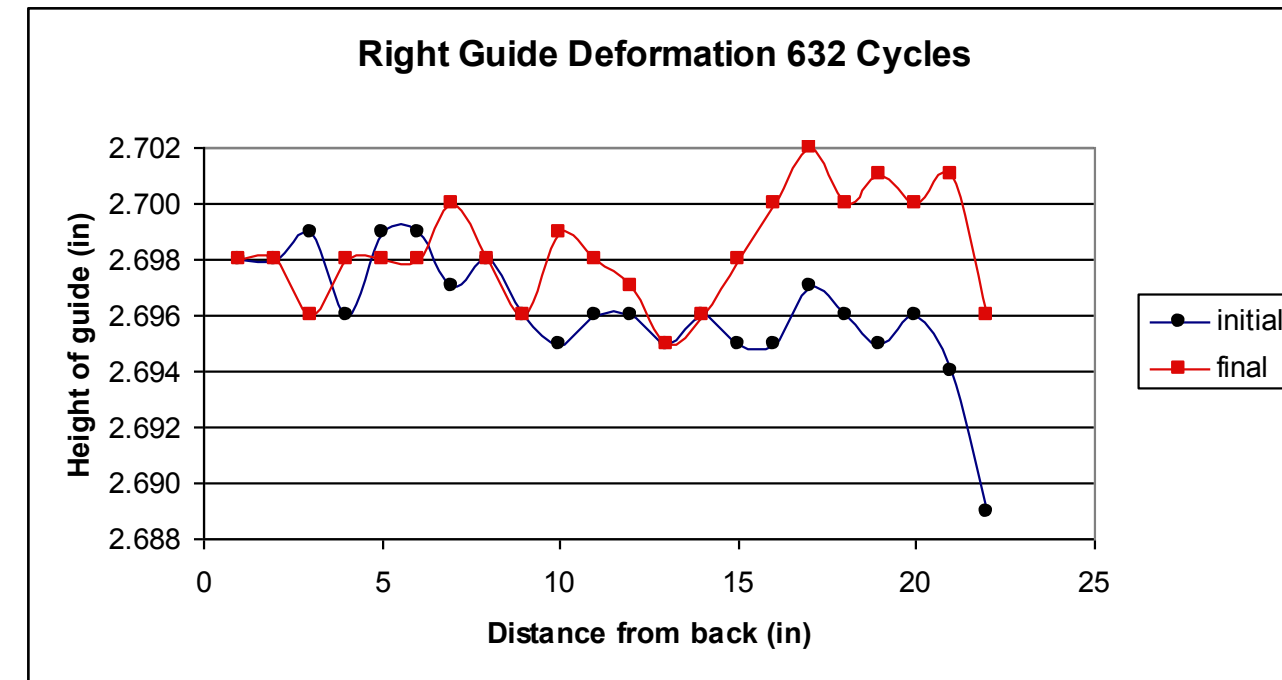
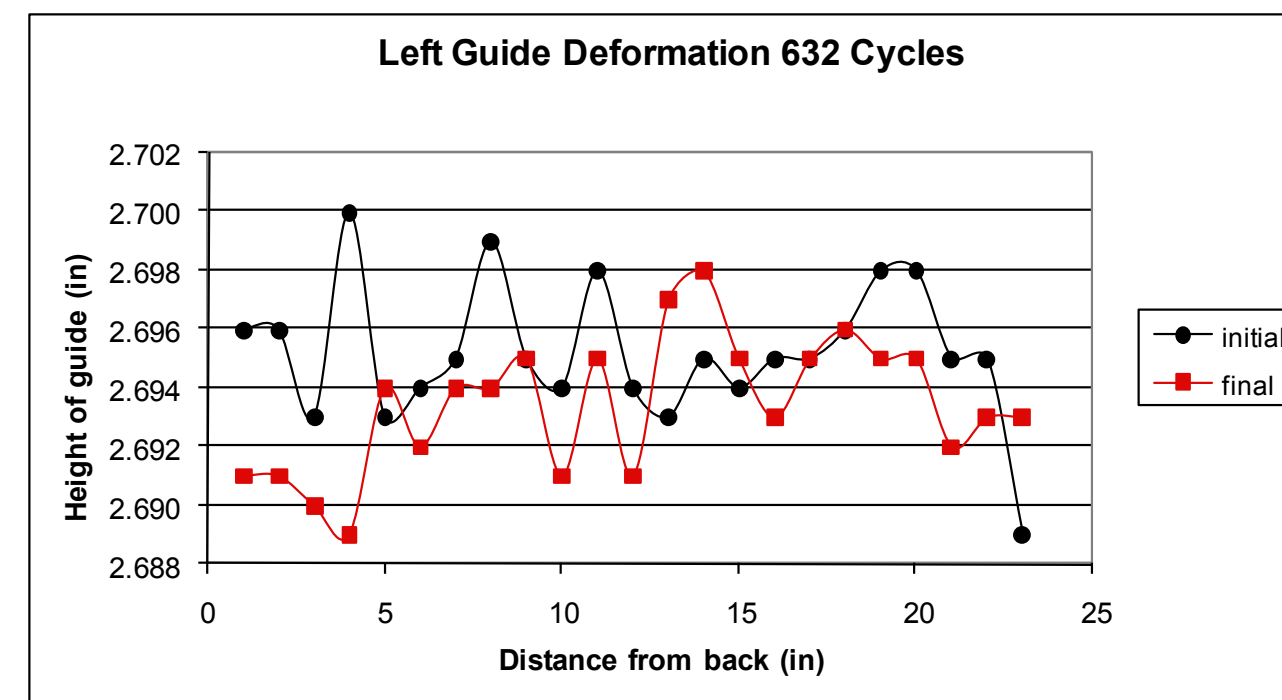
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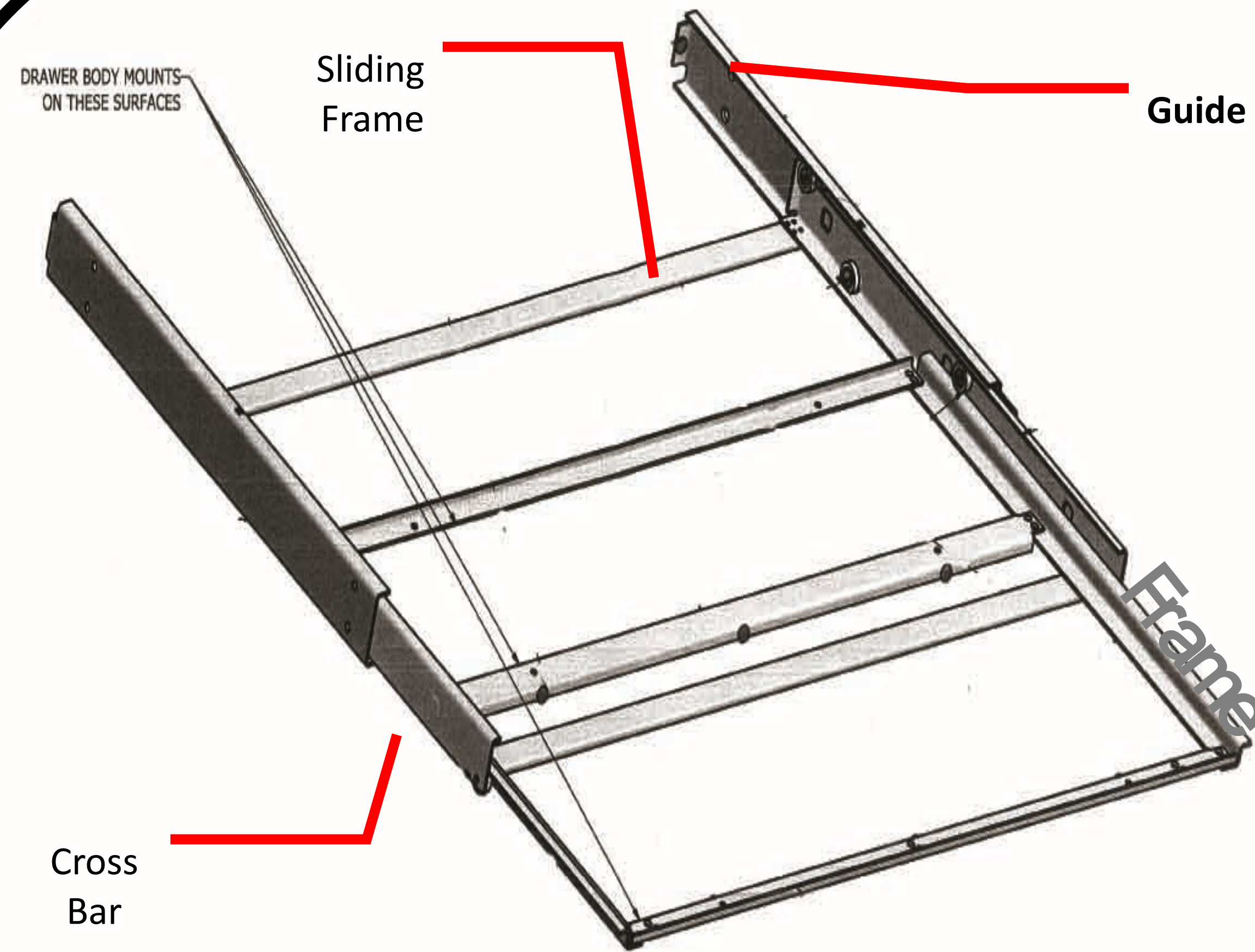
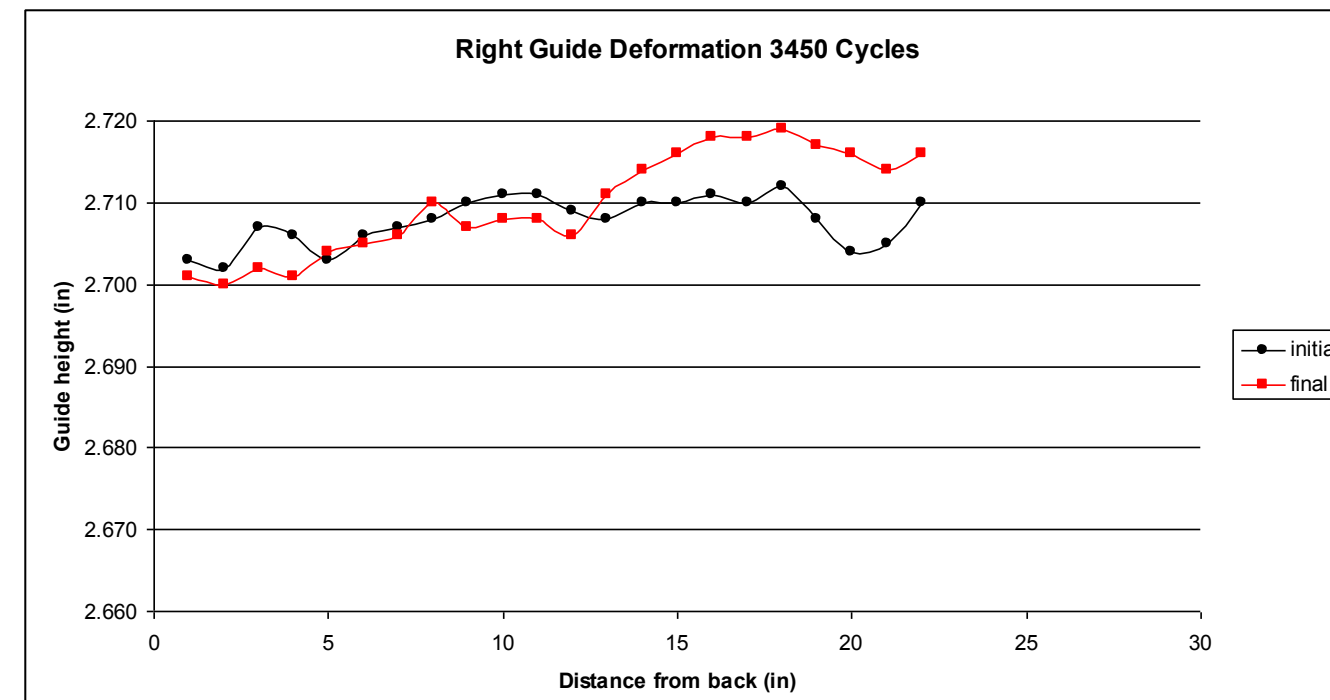
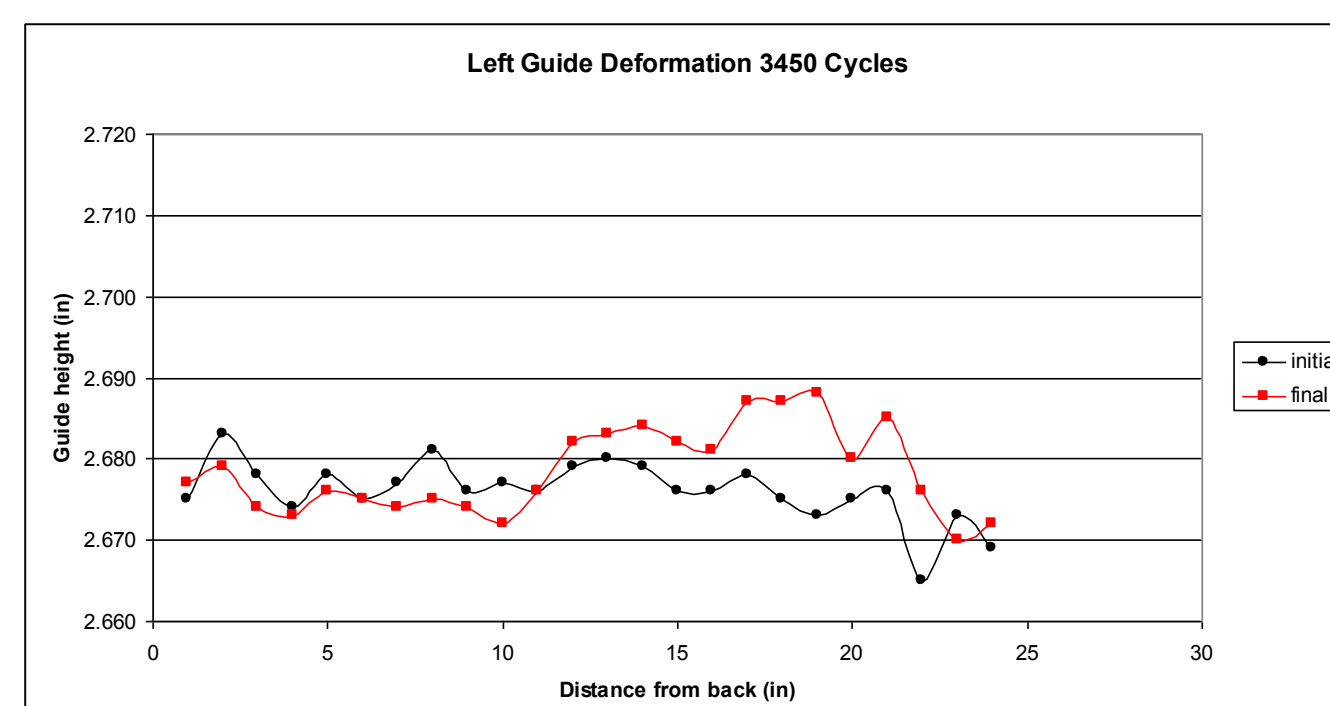
## Test 1

- \* **Modifications**
  - Thickened Guides
  - Cor-10 Steel
- \* **Failure**
  - Deformation of Left Drawer Slide (Locking Mechanism)
  - Wear

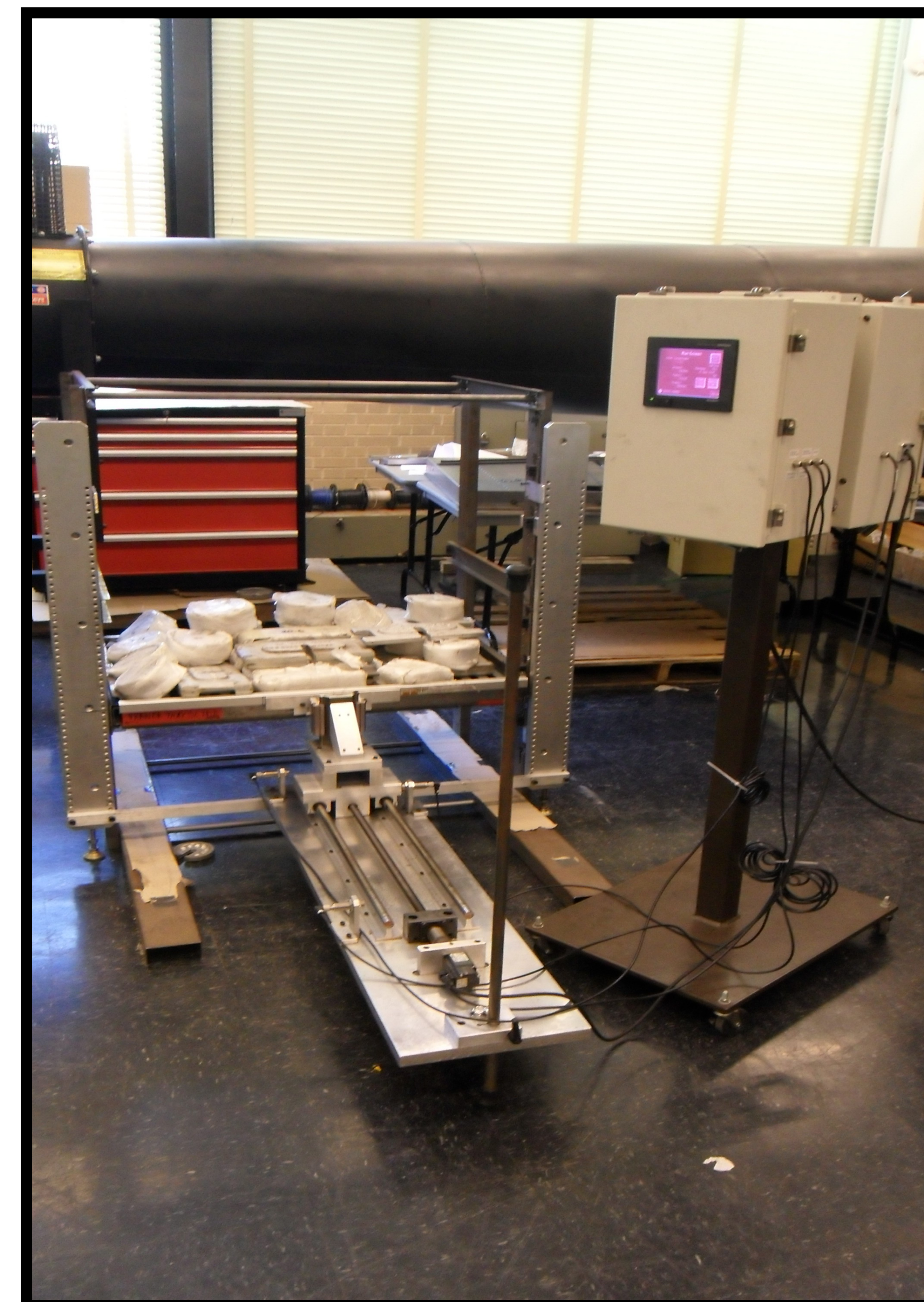
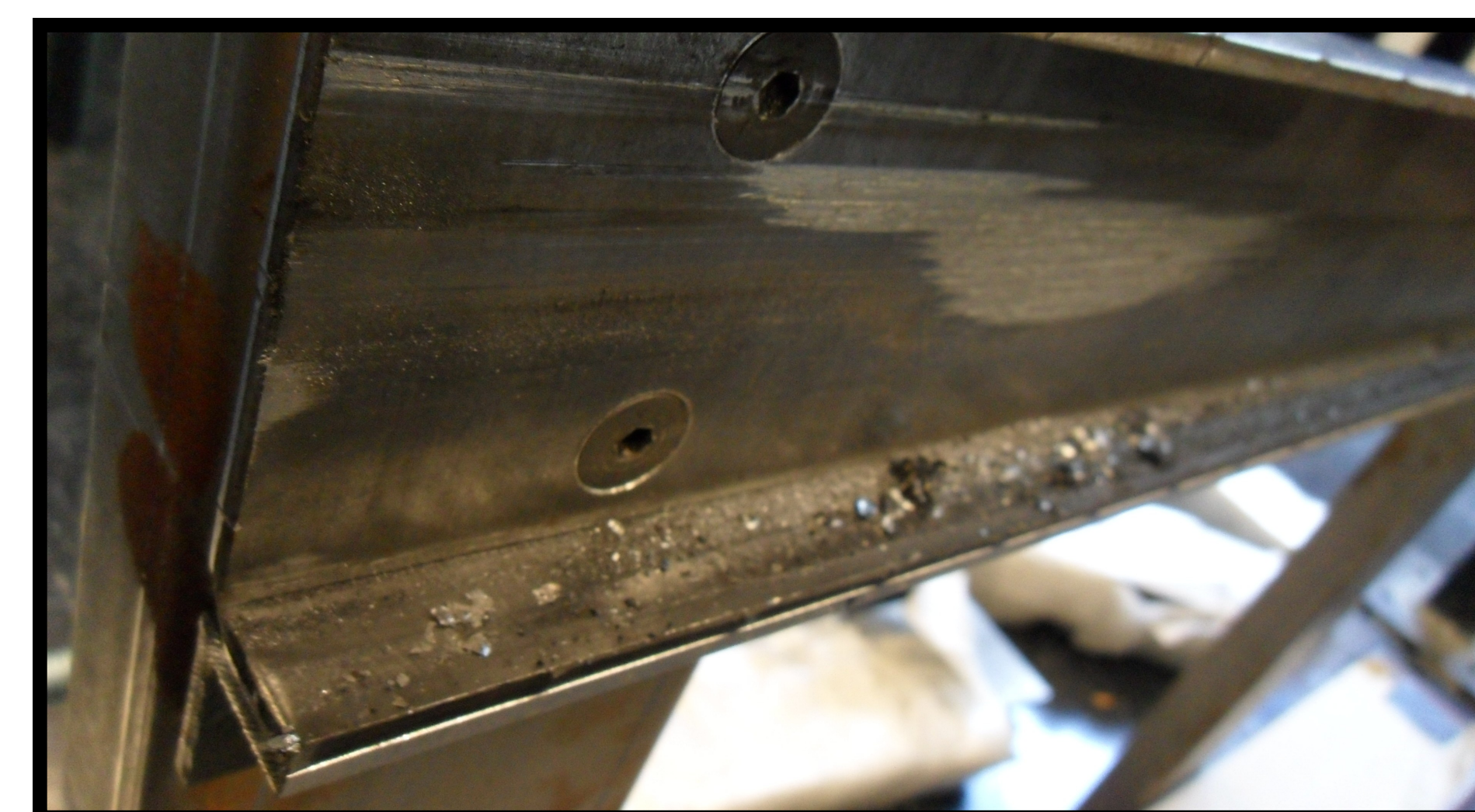
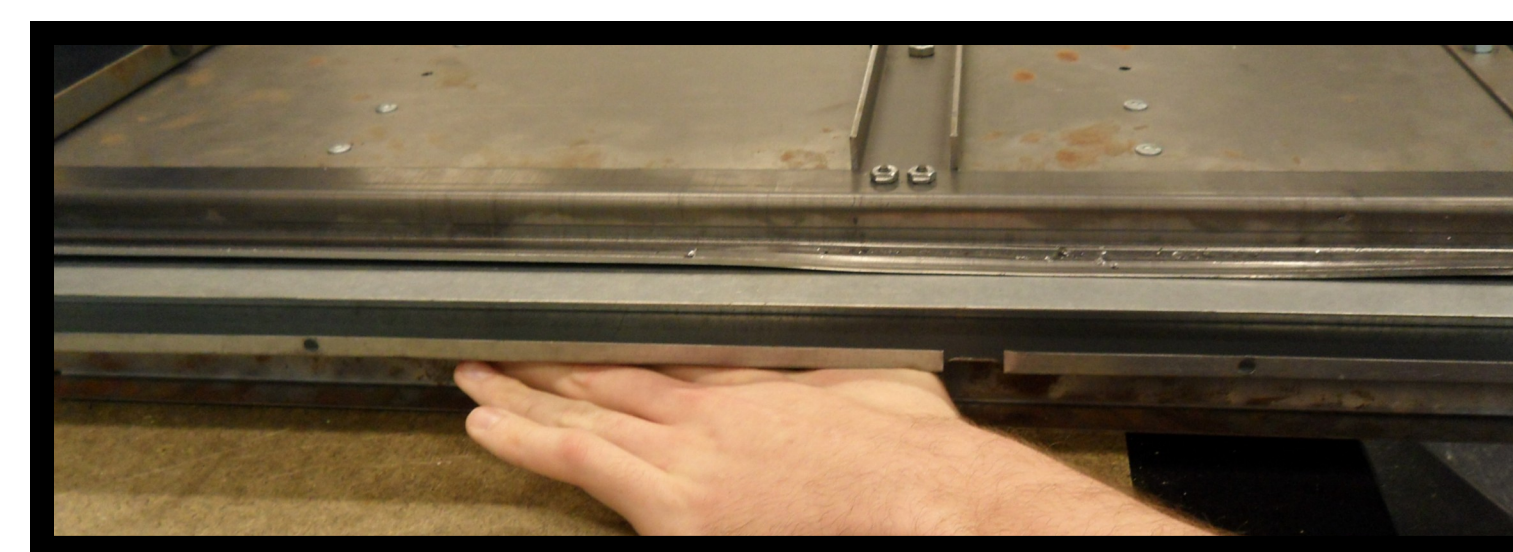
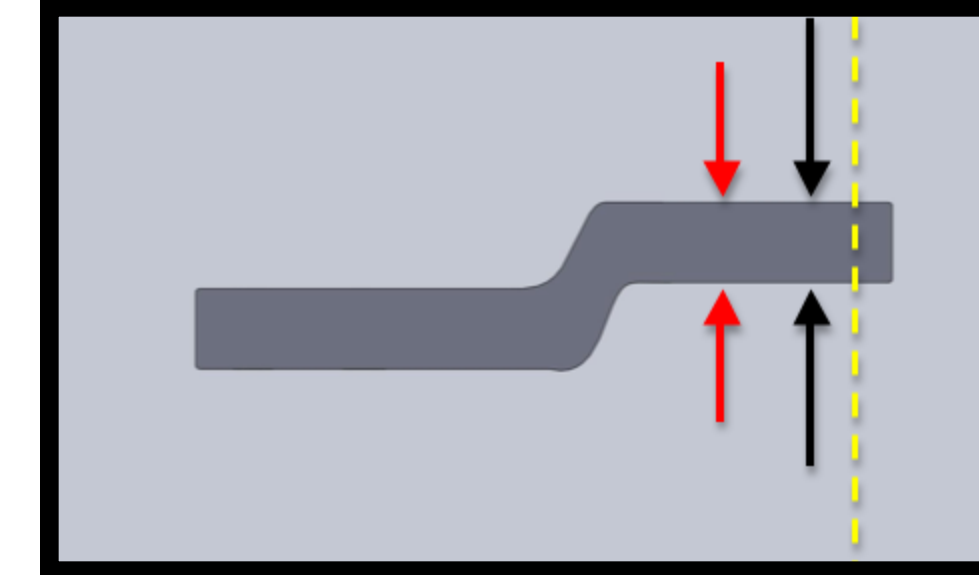


## Test 2

- \* **Modifications**
  - Removal of Locking Mechanism
- \* **Failure**
  - Testing Error
  - Improper Setup
  - Wear
  - Rig Supporting 120 of 550lbs

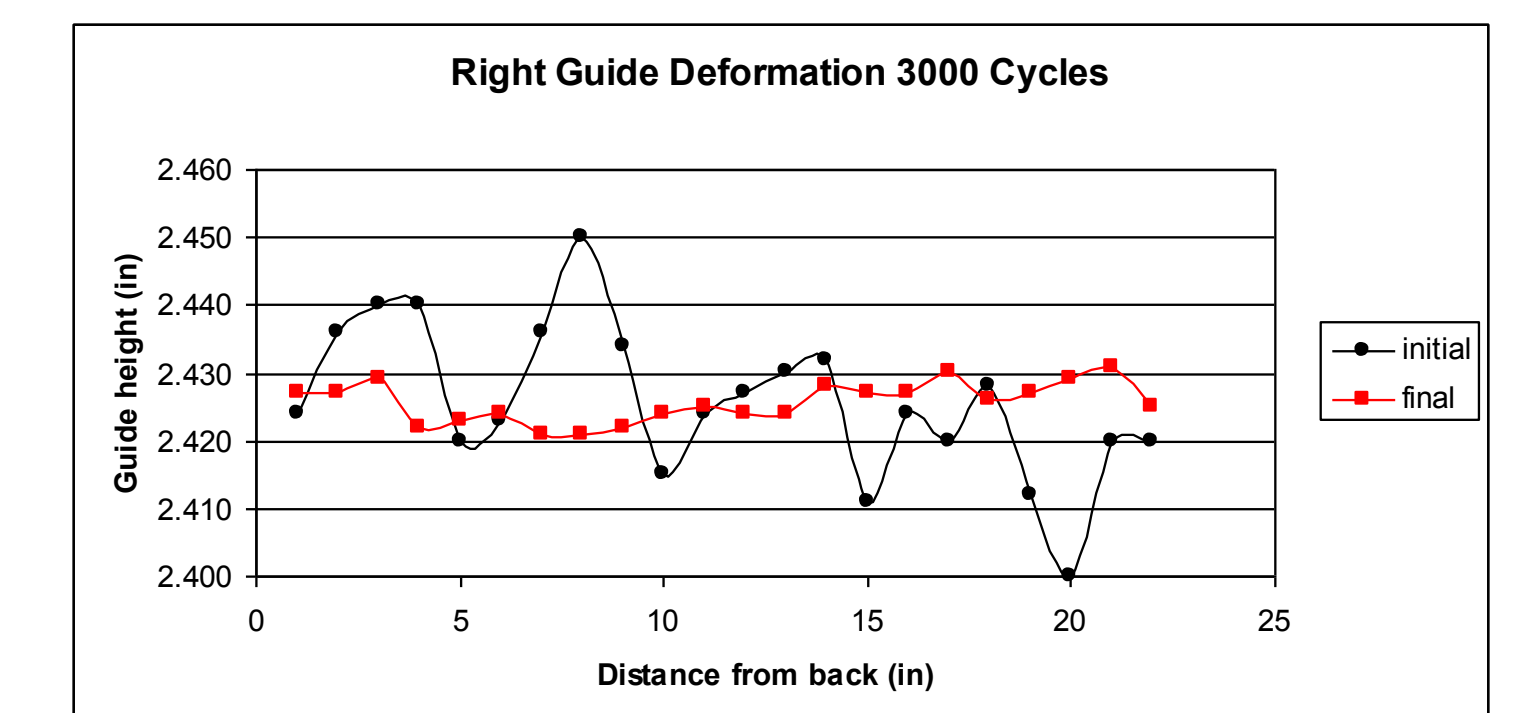
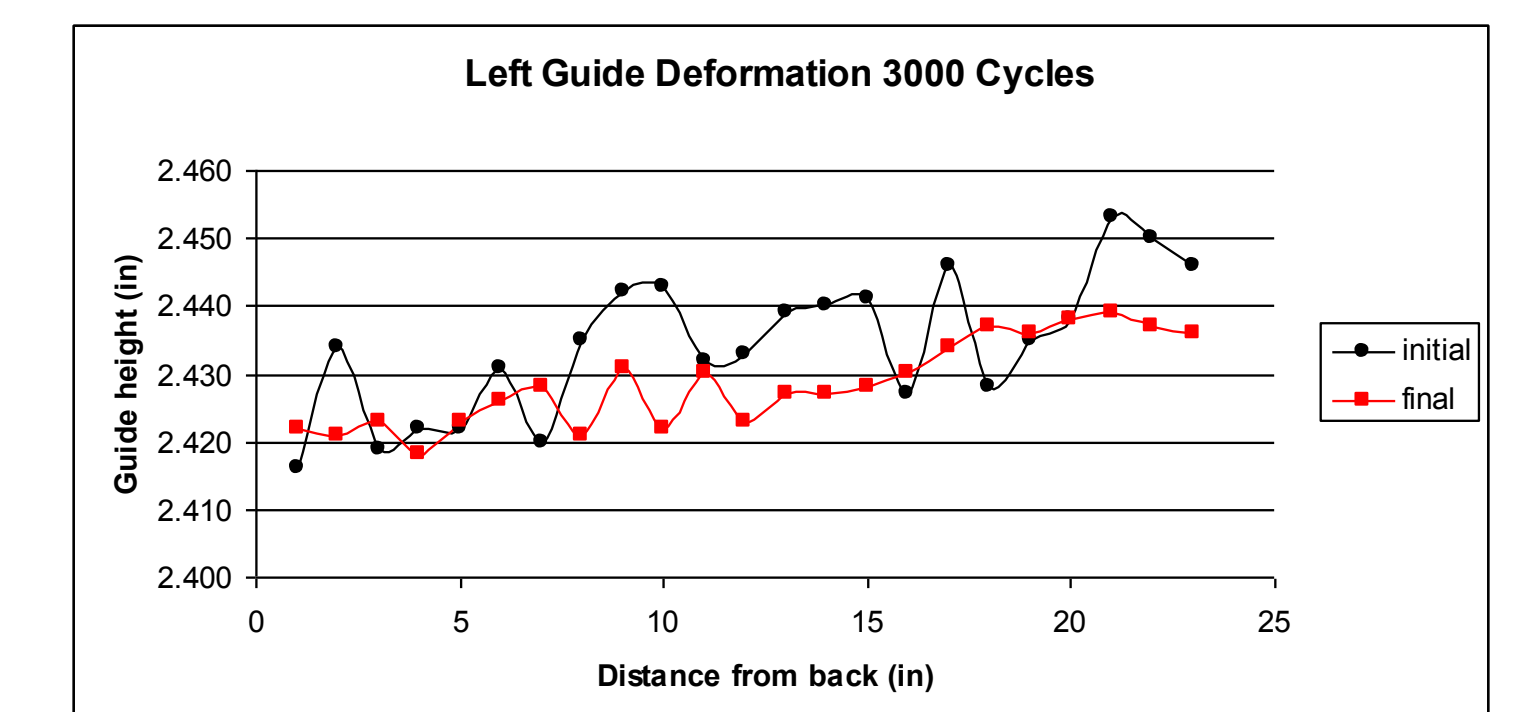


Drawer Slide Shortened (Yellow Line) To Change Point of Contact From Black To Red Arrows, Reducing Moment



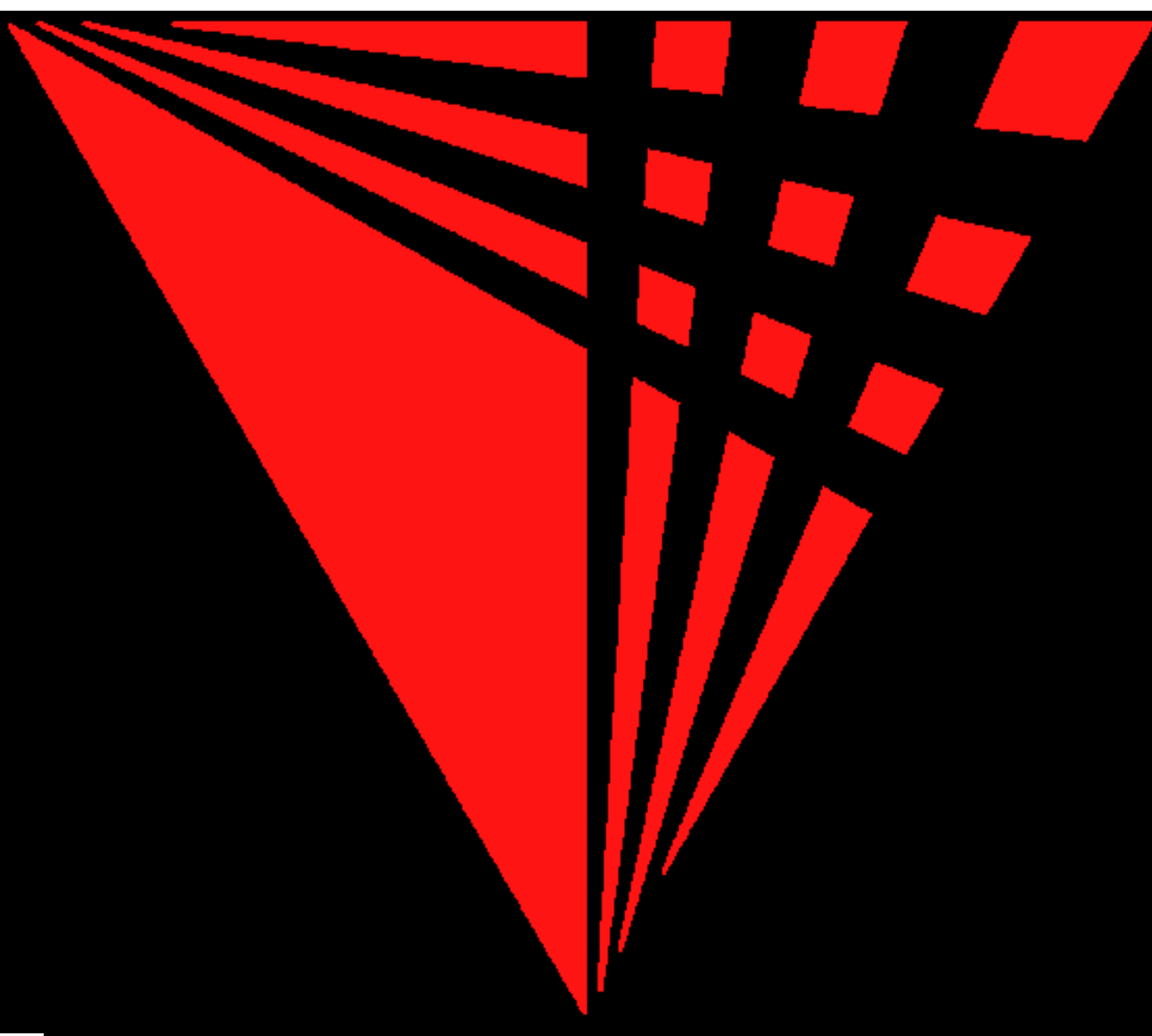
## Test 3

- \* **Modifications**
  - Reduction of Load to 450 lbs
  - Testing Rig Adjusted
  - Locking Mechanism Engaged
  - Angle Brackets Below Rail
  - Decrease Moment on Drawer Slides
- \* **Failure**
  - Deformation of Left Drawer Slide



## Recommendations

- \* Stronger / Harder Guide and Rail Material
- \* Replace Polymer Locking Mechanism Blocks with Roller Bearings
- \* New Drawer and Slide Components for Future Testing

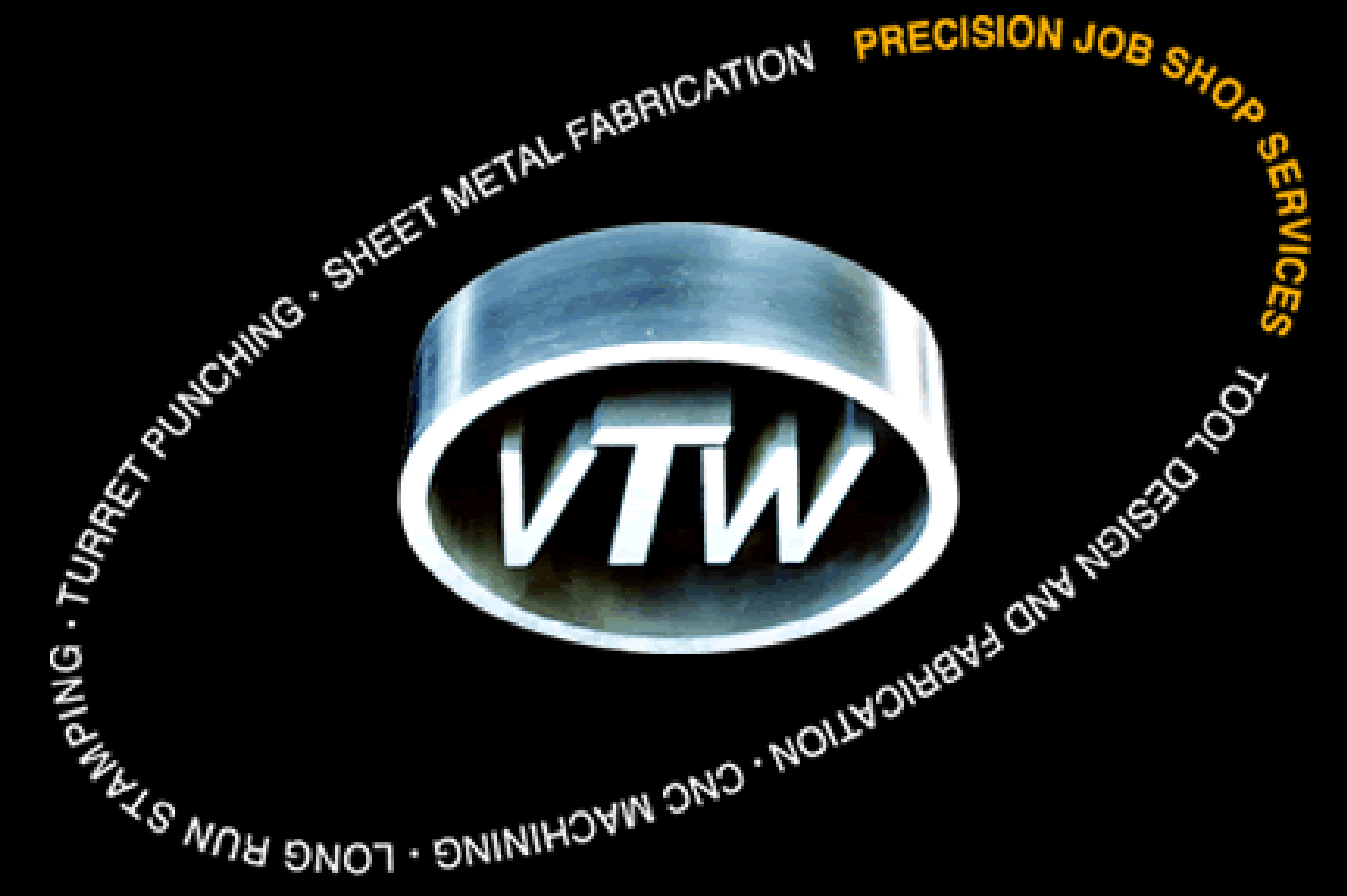


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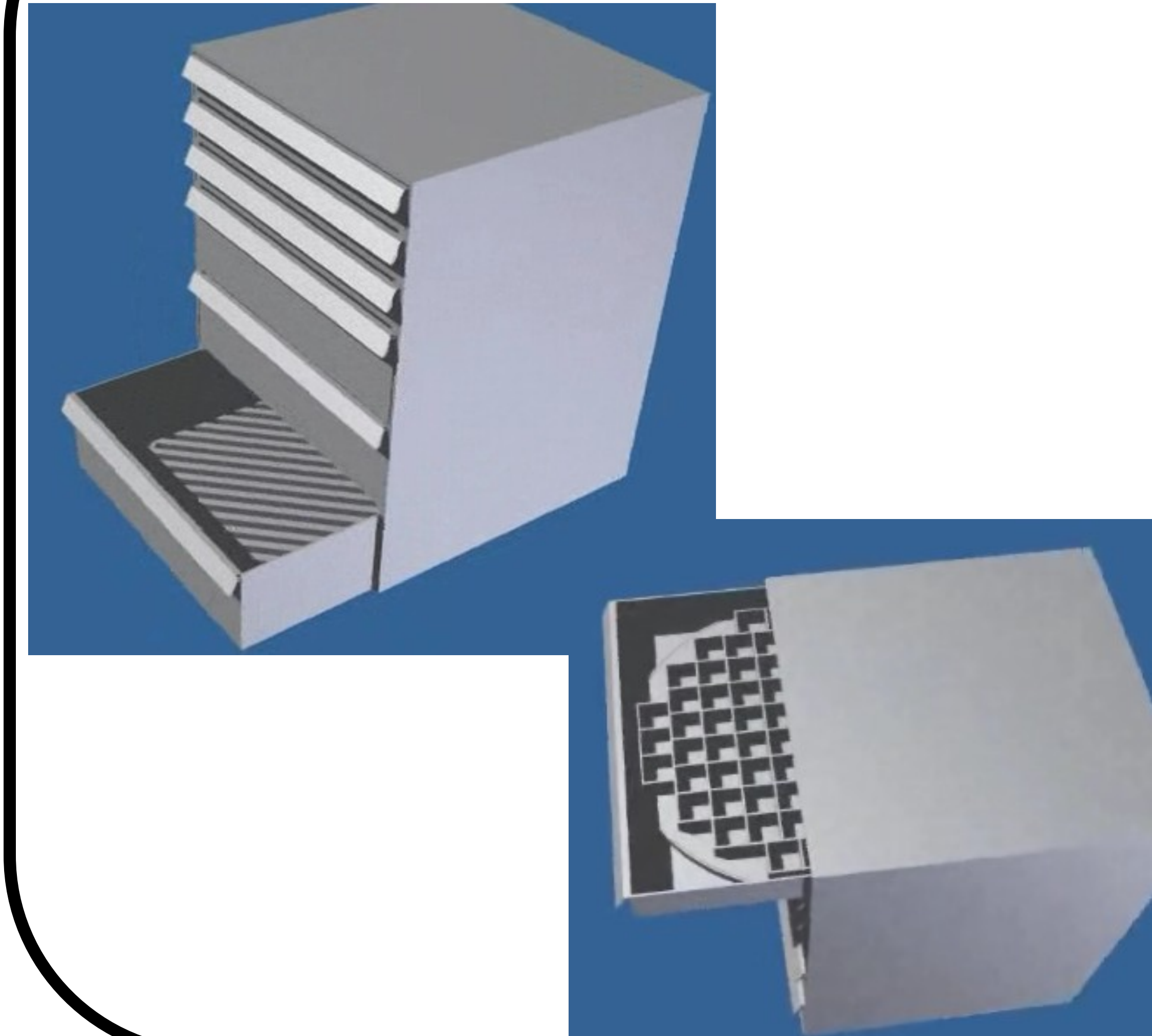


## Tracking System

- Aluminum barcodes used to track components contained in tool cabinet
- The barcodes are scratch resistant and thin
- Records availability of component
- Requires scanning of component
- Optional handheld or stationary scanners



## Detachable/Rotating Cabinet



- Unique
- Not seen in any competitors' tool cabinets
- Turntable function
- Does not extend to the full length of the drawer; therefore, there's less stress on the drawer.
- Space saver

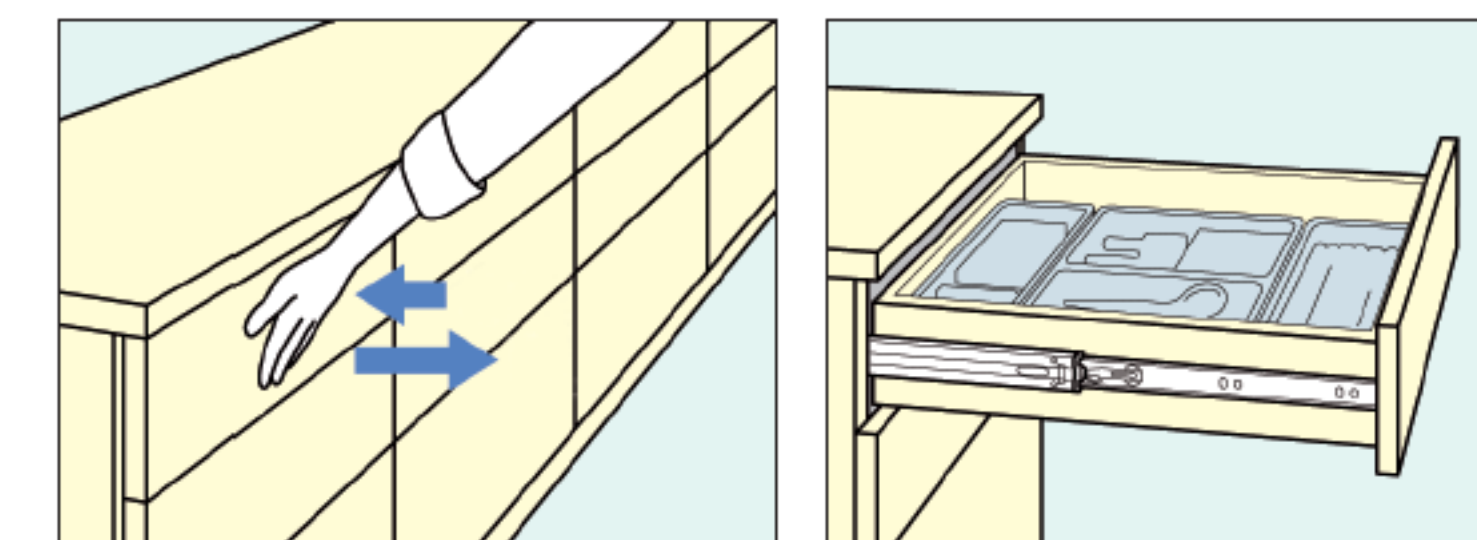
## Lighting System in Drawers

- Long lasting LEDs
- Poor lighting conditions in working environments, creates a need for lights in drawers
- Magnetic Reed switches activate light when the drawer is opened.
- LEDs contained in protective housing



## Extras

- Push-to-Open Drawers
  - stylish and innovative



- Scratch Resistant Coating
  - extends the lifetime of tool cabinet; texturing
- Detachable Tool Box
  - portability

## Recommendations

- Elaborate the implementation of the tracking system
- Continue ideas and search for new innovations that will push this tool cabinet to the next level