

# Enabling Digital Inventory at Azoth with XYZprinting's MfgPro230 xS SLS Machine

XYZPRINTING CASE STUDY





## Enabling Digital Inventory at Azoth with XYZprinting's MfgPro230 xS SLS Machine

*“ The TAKE ONE MAKE ONE process is reliant on equipment that has high output capability and excellent material flexibility with a low total cost of maintenance. The MfgPro230 xS SLS machine exemplifies this approach for us.”*

*Key Account Manager of Azoth, Cody Cohran*

### Company

Azoth

### Industry

Additive Manufacturing Company

### Printer Model

MfgPro230 xS

### Printing Technology

SLS (Selective Laser Sintering)

### Material

sPro12w

## BACKGROUND

### **Azoth is Focused on Generating Solutions with Their Customers**

Azoth can aid in your design, prototype your ideas, engineer products, 3D scan your part, and manufacture your product. While centered on additive manufacturing technologies, Azoth also has extensive relationships in traditional manufacturing. This helps ensure that the best method of production is selected regardless of the application.

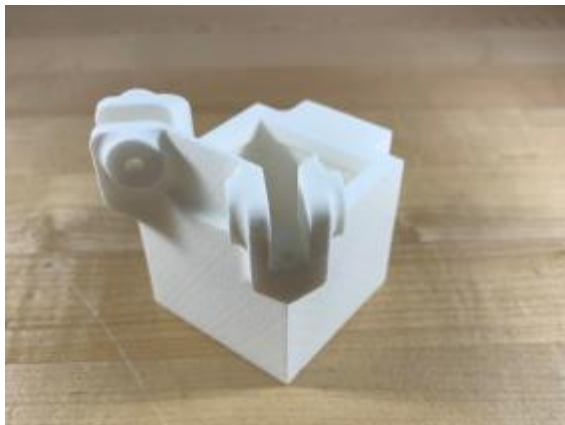
## CHALLENGE

### TOMO™

Azoth has developed a new way of manufacturing indirect materials through our TAKE ONE MAKE ONE system. Building on lean manufacturing principles, TOMO™ aims to fully optimize the inventory management process by eliminating waste and reducing the cost to carry inventory.

With TOMO™, a digital copy of the physical inventory is created which Azoth uses to manufacture custom parts on-demand via 3D printing. In other words, when a user takes one product out of inventory Azoth manufactures one to replace it.

Depending on your inventory needs, Azoth will enable printing inventory on-demand in your facility or will utilize Azoth's competency center. Complex parts or low use material parts will be manufactured at Azoth and shipped the next day. This system drastically decreases inventory levels and allows engineers to iterate their designs with little to no obsolescence.



## SOLUTION

### SLS Provides a Uniquely Flexible Solution

The MfgPro230 xS from XYZprinting has the build size to match industrial components. The 230 mm cubed build volume delivers the space for large and small parts. This coupled with a fast print speed and a removable part cake allows for fast machine turn around. The output yields production ready parts that support infinite geometries though support-less building.

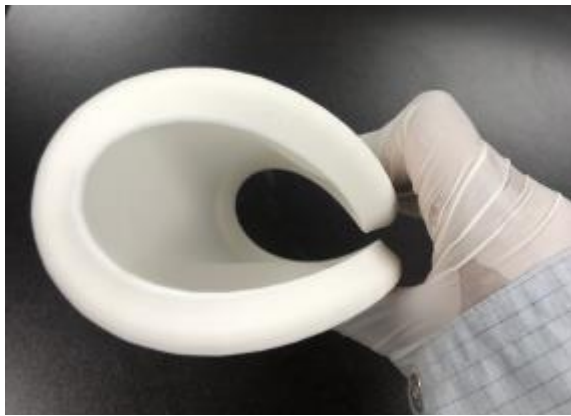


## RESULTS

### Complete Design and Material Freedom

The design and print freedom of the SLS system coupled with an open material platform has given Azoth the ability to print complex parts like custom nozzles for machine centers and assembly stations. These nozzles will blow air, oil, and coolant to parts in complex paths.

“Because the MfgPro230 xS is open-source, Azoth can run any powder that is currently offered on the market. We are able to print with different nylons and TPU materials all on one machine. Since the XYZware slicer is only giving a layer outside pattern and then infill, you do not have to re-slice a job when switching between nylons. Adjust machine parameters on the printer’s UI and you are ready to print.”



Application Engineer of Azoth,  
Ronnie Sherrer

The MfgPro230 xS has simple powder cleaning and loading made easy via door access and movable platforms, and a lever activated recycled powder chute to aid in the powder recovery process after each print. Coupled with a convenient hose hookup for reclamation straight into cyclone and sieve, this makes powder changes a 30-minute task.

## LOOKING AHEAD

### MfgPro230 xS is Integral to the TOMO™ Process

The TAKE ONE MAKE ONE process is a high reward process that utilizes a high-tech approach to an old problem of inventory. The flexibility of the MfgPro230 xS certainly matches well with the TOMO philosophy. Azoth will continue to drive this innovative approach through partnering with companies like XYZprinting who have developed high quality and low-cost machines like the MfgPro230 xS SLS.





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