



# i-SOLIDs x AM-Flow

With one of the largest and most diverse fleets of 3D printing and industrial additive manufacturing technologies in Texas, i-SOLIDs leveraged AM-Flow's solutions to revolutionize their 3D printing factory, achieving unprecedented levels of efficiency and competitiveness in the industry

## At a glance

The main challenge for 3D factories is balancing control with managing complex operations efficiently. This demands a nuanced approach, blending robust control mechanisms with streamlined processes to navigate 3D printing intricacies effectively.

## Key metrics

Half a year after install, i-SOLIDs reported an outstanding improvement of 70% in their production output and a significant improvement in nonconformity that dropped from 1,6% to 0,7%.



**70%**

Increase in production output



**1,6% → 0,7%**

Non-conformance rate



## CHALLENGES

One of the biggest challenges involved with operating a high volume 3D printing/additive manufacturing facility is managing the sheer volume of unique parts and materials. The difficulty is in finding the best way to adhere to standard operating procedures while keeping optimal quality control.

## SOLUTIONS

i-SOLIDs are able to process parts more efficiently, identify the step of the process that each part is at, focus on better quality while bringing their costs and pricing down further.



**Workflow Optimization**



**Control of Operations**



**Cost Efficiency**

## BENEFITS

### 1 Faster lead time

Skipping batch processing and waiting for more parts before advancing to the next step streamlines production, resulting in faster turnaround times.

### 2 Digital traceability

Ensuring comprehensive traceability for every part at each stage of the process, thereby enhancing documentation quality without necessitating additional overtime.

### 3 Reducing cost

Optimizing builds and enhancing operational control, which enables the organization to streamline processes and allocate resources more efficiently.



## THE GOAL

Mitigating labor and failure costs associated with sorting and packaging processes, enhancing internal tracking and tracing capabilities, supporting process certification standards, and enabling substantial further scaling of operations with limited team expansion.



## THE STRATEGY

The AM-Logic, Vision and Sort allow automatic part identification, sorting, traceability and documentation. With the help of these modules, the company is able to increase production output and scale operations while keeping low nonconformity rates.



## THE OUTCOME

The decision resulted in better optimized, more efficient and controlled operations for i-SOLIDs. Implementing the AM-Flow modules resulted of both direct and indirect cost savings and is proving to increase the value that the company brings to their customers.

## MORE ABOUT AM-Flow



AM-Flow aids companies in expanding their Additive Manufacturing capabilities through advanced digital identification solutions designed to streamline post-processing workflows. Leveraging expertise in 3D-shape recognition, industrial machine vision, AI software, and integration with Additive Manufacturing production-line hardware and MES software, AM-Flow enables comprehensive automation of the 3D printing process from start to finish. Their solutions empower additive manufacturers worldwide to achieve higher efficiency, superior quality, and streamlined operations. The AM-Flow product portfolio consists of various modules for workflow optimization seamlessly integrating with existing systems in high-mix high-volume 3D factories.



## MORE ABOUT i-SOLIDs



i-SOLIDs provides 3D printing, rapid prototyping, and production-level additive manufacturing services tailored for consumers, startups, and industrial customers. With a specialized group of engineers, designers, and programmers they provide technical consulting and turnkey prototyping solutions. Their services encompass mechanical and industrial design, engineering tasks such as FEA, performance modeling, and materials analysis, as well as hardware and software programming. They offer project management and intellectual property development expertise to ensure seamless project execution.

