



# Case Study: Transforming Operations & Leadership at a Microfluidics Manufacturer

## Client Overview:

A small microfluidics manufacturing company experiencing high scrap rates, disorganized production flow, and limited supervisory structure. The company lacked clear visibility into its operations and had potential gaps in OSHA compliance.

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## The Challenge

SmartOpsUSA was brought in to conduct an operational and leadership assessment. Key issues identified included:

- Excessive scrap due to improper material handling
- Inefficient layout and poor material flow
- Inadequate production tracking and time management
- Underdeveloped frontline leadership
- Gaps in OSHA safety compliance

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## Our Approach

### 1. Production Flow Redesign + 5S Implementation

We restructured the production floor to streamline the flow of materials from receiving to shipping. Implementing a strict 5S program helped reduce waste and improve efficiency by:

- Ensuring all materials were clearly labeled and stored properly
- Eliminating clutter and minimizing movement waste
- Reducing mix-ups caused by visually similar materials
- Enhancing traceability throughout the production cycle

### 2. Data-Driven Visibility

With the new flow in place, we implemented basic data tracking tools to monitor:

- Material usage and waste by production stage

#### Disclaimer

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- Production cycle times and process delays
- Opportunities for continuous improvement

This created immediate visibility into bottlenecks and empowered data-informed decision-making.

### 3. Leadership Development & Team Training

We delivered hands-on leadership training to new supervisors and team leads, while coaching employees on:

- Maintaining the 5S system
- Understanding daily goals and metrics
- Embracing teamwork and accountability
- Driving process improvements on the floor

### 4. OSHA Compliance Assessment

A full review of OSHA requirements was conducted, and corrective actions were implemented to meet safety standards—improving workplace safety culture and compliance readiness.

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## The Results

- ✓ Significant reduction in scrap and material waste
- ✓ Improved efficiency through optimized production flow
- ✓ Stronger leadership and team alignment
- ✓ Enhanced tracking and operational visibility
- ✓ Improved OSHA compliance across the board

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## SmartOpsUSA Impact

This engagement reflects SmartOpsUSA mission: **empowering small and mid-sized manufacturers to build smarter, leaner, and more competitive operations.** By combining hands-on consulting with workforce development and lean tools, we delivered real results—and set the stage for future Smart Manufacturing integration.

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Want to see how we can help optimize your operations?

✉ **Contact us today, at [info@smartopsusa.com](mailto:info@smartopsusa.com), to schedule a consultation.**

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