

# Total Process Control & Traceability

In the relentless arena of manufacturing, navigating without full visibility is a risk no enterprise can afford. Total Process Control & Traceability System serves as your strategic ally, empowering you with a comprehensive view through systems like MES (Manufacturing Execution Systems). It enables meticulous monitoring of every critical stage in the production process—from the source of raw materials to the intricate interactions with suppliers, the operational dynamics of machines, the meticulous efforts of operators, the precise timing of processes, the identification of batch numbers, and the stringent quality checks.

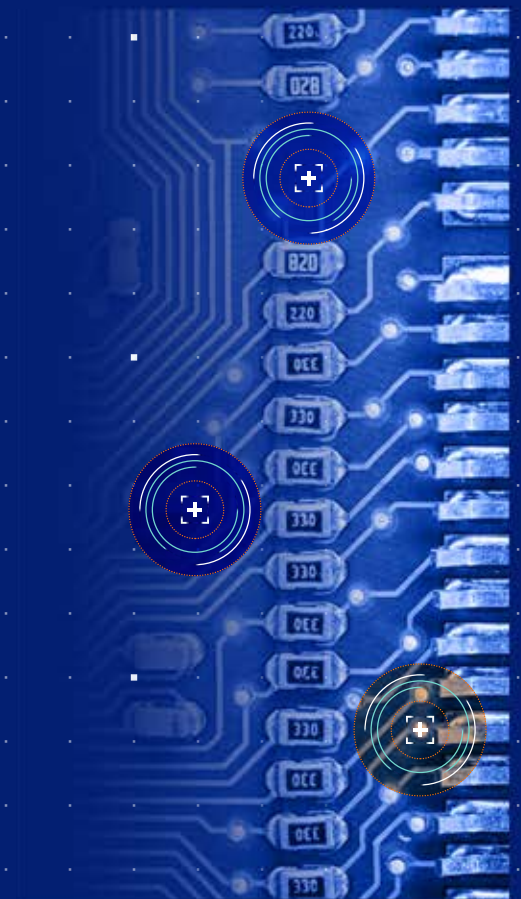
Lacking this essential visibility, manufacturing ventures into risky territory, akin to a blindfolded walk across a tightrope where unforeseen setbacks are poised to strike. Total Process Control & Traceability System transcends being a mere feature; it is an indispensable tool—a guiding light that ensures each step in your production chain is executed with utmost precision and excellence, safeguarding your operations against potential pitfalls.

**60-70%** reduction in investigation time thanks to the choreographed data from traceable processes

**90%** faster identification of affected components during recalls, a backstage efficiency that keeps the show going smoothly

upto **75%** reduction in time to resolve quality issues with companies employing MES systems

The OrbiIQ suite delivers advanced WMS, Process Control, Traceability, and Asset Lifecycle Management solutions enhanced by AI to optimize manufacturing and warehousing operations. Each module works independently or as part of an integrated plug-and-play system, offering flexible deployment to suit diverse business needs.



A Total Process Control & Traceability System suite is not just about keeping track of products; it's about enhancing operational efficiency, ensuring compliance, and safeguarding both business interests and customer trust. This is the future of safeguarding customer interest—intelligent, responsive, and secure.

## Problems & Consequences



### Quality Control

Poor defect tracking and delayed root cause analysis



### Compliance

Regulatory penalties, audit failures



### High setup time / model changeover time

New product setup and model Change over time adversely impacts timelines



### Customer Trust

Loss of brand credibility and sales



### Operational Efficiency

Longer downtime, poor batch-level visibility



### Cost

High recall costs, waste of raw materials

In this digital age, Vyturr's Total Process Control & Traceability System suite is the thread that binds OEMs and customers to manufacturers, crafting a fabric of trust that is both resilient and responsive to the demands of modern commerce.

## A Clear Edge

with AI-Integrated features within Vyturr's Total Process Control & Traceability System

### Digital Twin Differential Analysis

Engages in the detection of variances from an optimal process flow while comparing with its virtual replica.

### Automated Regulatory Compliance

Ensures real-time monitoring and validation that regulatory procedures are adhered to, enhancing compliance management.

### Causal Analysis in Artificial Intelligence

Utilizes process data to ascertain the origins of issues, enhancing diagnostic precision.

### Real-Time Anomaly Monitoring

Implements systems for immediate notification of behaviors that deviate from established specifications.

### Predictive Maintenance

Employs analytical models to interpret usage patterns, facilitating the prediction and prevention of equipment failures.

### Advanced Pattern Recognition

Capable of identifying consistent quality issues and establishing correlations, optimizing quality control measures.

### Simulation of Recall Impact

Utilizes historical trace data modeling to confine the extent of recalls, thereby mitigating potential impacts efficiently.

# Total Process Control & Traceability

Achieve precision and compliance across every stage of your manufacturing with **Total Process Control & Traceability System.**

Every part, process, and machine is digitally connected, monitored, and verified ensuring zero deviation from standards.

## Key Highlights



### Machine / Operation Level Process Parameters:

Configure and validate process settings directly within machine interfaces or operator to maintain consistent quality.



### Real-Time Alerts & Auto Stop:

Instantly detect anomalies, trigger alerts, and halt machines to prevent defects.



### End-to-End Traceability:

Track every component, process, and operator across production lines.



### Data-Driven Quality:

Capture inspection and process data at each stage for live verification.



### Compliance Ready:

Built for ISO, IATF, and other quality standards.

## ROI Impact



Eliminate rework and defects through automatic validation, scrap reduction



Reduce downtime with proactive deviation alerts



Improve audit readiness and compliance



Enhance operational transparency and accountability

Ensure precision in every step with digital traceability powered by Total Process Control.

# Traceability High Level Overview



## Traceability

### Administrative Settings



#### ADMINISTRATIVE SETTINGS

Organization

Account Policy

Designation

Department

User & Role Management

### ERP Interface Setup



#### ERP INTERFACE

ERP Interface Configuration

ERP Interface Status

SAP/Oracle etc

### Master Data Setup



#### MASTER DATA

Business Partner (Customer/ Supplier)

UOM: Unit of Measurement

Storage Area

Packing & Paletization

Material Master

Project Master

Operations Master

Resource Management

Smart Scan

Sequence Master

### Production



#### PRODUCTION MANAGEMENT

Production Management

BOM

Process Control (Manual/ Automated)

Machine Connectivity & Control

Production Routing

Work Order

Traceability

### Real time data Visualization



#### VISUAL IMPACT

Dashboard

Reports

#### Bidirectional Genealogy (FG → RM and RM → FG)

Enables full trace of finished goods back to raw materials, and vice versa.

Supports fast defect isolation, supplier accountability, and material audits.

#### Unit-Level Traceability

Tracks each serialized unit/component across stations, batches, and processes – not just at the lot or pallet level.

#### Integrated Barcode & QR-Based Tracking

Scans every movement of raw materials, WIP, and finished goods across work centers.

#### Real-Time Operator & Machine Data Logging

Captures operator actions, process parameters, and machine states live from the shop floor.

Ensures accountability and validation of critical process steps.

#### Time-Stamps & Cycle-Time Analytics

#### Mobile-Enabled Traceability Capture

#### Work Order & Batch Trace Association

Links every batch or WO to exact production events, tools used, shift schedules, and more.

#### AI-Assisted Root Cause Diagnosis: Reduces RCA time by 60–70%.

#### Digital Audit Trails

#### Resource Usage Traceability

#### Total Process Control and Digital Work Instructions

#### Fraud & Counterfeit Prevention



#### Seamless Automation

Say goodbye to manual logs and clipboard data. Our system directly pulls data from machines, displaying it instantly for real-time visibility.



#### User-Friendly Mobile Interface

Our mobile-first UI is so intuitive that your warehouse and production teams can use it immediately. No training necessary.



#### Rapid Deployment and Real Support

Get up and running within days, not weeks, with continuous support just a call away.



#### Built-in ERP Modules

Don't have an ERP? No worries, we've integrated essential ERP functionalities to streamline your operations without the need for external software.



#### Flexible Integrations

Our software adapts to your existing workflows; we ensure compatibility over constraints.



#### Competitive Pricing

We provide great value at a price that makes sense for your business, ensuring affordability without compromising on quality.

Choose us for a smarter, more efficient, and user-friendly approach to managing your operations.