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Engineering Solutions
Since 1981

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Designing *Manufacturing Execution Systems* For Factories Of The Future













Helping clients meet their goals since 1981 Our **Manufacturing Execution Systems Team** has a firm foundation in delivering value-driven solutions for our client's deeply rooted in manufacturing & quality experience. We excel at highly specialized, challenging projects utilizing first-hand knowledge of best practices within the life science industry.

Our continued success comes from actively listening to our clients' requirements & developing solutions to achieve their goals on the journey to digital transformation.

Our manufacturing execution systems solutions

Comprehensive Consulting

- Implementation Roadmap Develop detailed plan & timeline for MES solution, outlining the various phases, milestones, and resources required.
- Needs Assessment Gather insights into pain points that could benefit from MES.
 - User Requirements
 - IT/OT Infrastructure Requirements
 - Regulatory Compliance Requirements
 - Operational Requirements
- RFP Development

Customized Design Solutions

- Software Implementation MES Installation, Configuration & Integration with existing systems (ERP, DCS, Historian, LIMS, shop floor equipment).
- Data Collection & Integration Implement data collection mechanisms to gather real-time production data from the shop floor.
- Production Monitoring & Control Enable real-time monitoring of production processes, identify bottlenecks, & facilitate timely decision-making.
- Electronic Batch Record Manufacturing & Quality focused design enabling lean manufacturing, operational efficiency & improved compliance.
- Inventory & Material Management Track raw materials, work-in-progress, & finished goods inventory levels to optimize material usage & reduce waste.

- Cost/Benefit Analysis Cost to implement & maintain/ROI & potential savings.
- GAP Analysis Compare current vs desired state & identify gaps and opportunities for improvement through MES solution.
- Risk Assessment & Mitigation Identify potential risks/challenges associated with MES implementation & develop strategies to effectively mitigate.
- Vendor Evaluation Evaluate different MES vendor suitability for non-existing.
- Equipment Management Track equipment status & improve operational efficiency.
- Continuous Improvement & Optimization Assist with continuous improvement initiatives & applying datadriven approaches to optimize production processes.
- Data Integrity Maintenance & assurance of data accuracy & consistency throughout lifecycle.
- Quality & Compliance Management Achieve Review/ Release By Exception with strict adherence to industry standards & regulations.
- Scalability & Upgrades Ensure MES solution accommodates future growth & expansion while providing updates & upgrades to keep the system current.

Turn-Key Delivery

- Full System Installation, Validation & Qualification Ensure MES solution adheres to industry standards & regulations.
- Shop Floor Visualization Provide visual displays & dashboards to give a clear view of the shop floor status & performance metrics.
- Performance Reporting & Analytics Generate reports & data analytics to provide insights into production performance, efficiency, & potential areas for improving KPIs
- Mobility & Remote Access Provide apps or remote access solutions to allow managers & supervisors to monitor production remotely.

- Stakeholder Communication/Transparency Inform on progress, decisions, & potential impacts on the organization.
- Develop, Train, & Support Digital Operations
 Teams Offer training programs to educate users
 & management on how to use the MES effectively.
 Provide ongoing technical support &
 maintenance services to ensure smooth
 operations.
 - Manufacturing, Quality, & IT