

A photograph of an industrial factory floor, dimly lit with blue and yellow accents. The scene is filled with complex machinery, including robotic arms and conveyor systems. The floor is concrete, and the ceiling has exposed pipes and lighting fixtures. The overall atmosphere is one of a modern, automated manufacturing environment.

DematecAutomation

INDUSTRIAL  
CAPABILITIES

## APPLICATIONS & CAPABILITIES

Design, installation and support of automation systems including Industry 4.0 & robotics

Centralised communications and control systems for production facilities

Integration between production systems (e.g. SCADA) and business systems (e.g. ERP)

Obsolescence management & upgrades for automated electrical equipment

Asset monitoring & control using IIoT technology

## REFERENCE PROJECTS

Philmac adaptable  
robotic irrigation fitting  
assembly cells

- Design and implement automated pilot cell including robots, vision systems and electrical control systems
- Supervisory PLC with colour touchscreen for operator control, feedback and storage and selection of product 'recipes'
- Rapid changeover of tooling between products, reducing downtime to just minutes
- Implement 3 additional robotic assembly cells, all working 24/7

Manufacturing operations  
management system  
upgrade for plastic injection  
moulded parts producer

- Plan and execute software and network upgrade without interrupting the operation of the 24/7 'lights out' production facility and Automated Guided Vehicle (AGV) systems
- Implement new Ethernet network hardware separating SCADA and ERP networks
- Enhance integration between SCADA and ERP systems via a central data repository
- Addition of comprehensive back-up and recovery facility to enable rapid resumption of production in the event of a catastrophic hardware failure

Robotic production line for  
preparation, measurement  
and processing of samples  
for composition testing

- Turnkey delivery from concept to installation
- Interface with laboratory database for tracking and traceability
- Production line includes product sample decapping, decanting and measurement, catalyst dosing, relabelling and quality checking
- Production and maintenance support services (ongoing)

Integration of heavy steel  
components processing line

- Develop a cohesive automated materials processing line made up of a number of internationally sourced OEM machines and locally fabricated elements
- Evaluate specifications and recommend OEM equipment compliant with Australian Standards
- Design, construct, configure and install overarching control and monitoring system for the processing line
- Production and maintenance support services (ongoing)

## SERVICES



## Electrical Design &amp; Construction

- Design and selection for electrical distribution and reticulation (LV)
- Electrical switchboard construction & installation (LV)
- Power factor correction and load shedding
- Power metering and billing systems
- Hazardous area electrical design & installation

Networking, Communications  
& Telemetry

- Automated alarm annunciation and escalation systems over local or cellular networks
- Telemetry based control and monitoring for remote processes
- Remote connectivity and access to networks and controls for external support services



## PLC &amp; SCADA

- PLC based control systems on wide range of platforms
- Plant-wide SCADA systems for total process automation and data collection
- Ongoing PLC & SCADA engineering support for installations, sites and networks



## Project Management &amp; System Delivery

- Management of turnkey projects, either as a principal supplier or as a consultant
- Plant layout for production flow and optimisation
- Site audits and analysis of industrial machinery & equipment

Remote Asset Management  
Systems & Support

- Use of Industrial Internet of Things technology to provide cost effective and secure monitoring and control of remote assets
- Access to real-time asset data via smart phone or tablets
- 24/7 engineering support services for operators of critical assets

**Dematec provides automation and industrial grade digital systems, helping industrial SMEs and MEs to reduce operational costs and scale for the future. Our customers count on us to provide valuable technology recommendations on where to invest and how to integrate systems in order to compete globally.**

**We see automation and smarter thinking as imperatives for companies in high cost economies to remain local and profitable.**

## **SERVICES OVERVIEW**

- Scoping and problem solving
- Matching technology to challenges
- Industrial automation & process control
- Industry 4.0 solutions for production & asset management
- Electrical design & construction (inc. hazardous areas)
- Networking, communications & telemetry
- Project management & system delivery
- PLC & SCADA programming
- Robotic systems
- Electrical maintenance & 24/7 support programs

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