



Dematec Automation

DEFENCE

CAPABILITIES

## APPLICATIONS & CAPABILITIES

- Manufacturing automation systems including Industry 4.0 & robotics
- Support infrastructure control & low voltage electrical systems
- Obsolescence management for automated electrical equipment
- Future upgrade path assessment & implementation for infrastructure and manufacturing equipment
- Asset monitoring & control using IIoT technology

## REFERENCE PROJECTS

### Osborne Naval Shipyard site-wide control system

- Develop and augment a consolidated communications and control network for existing PLCs, site SCADA and consumable services billing system to provide site visibility & efficient operation
- Monitoring and control of critical sub-systems including 9,300 tonne ship-lift, bulk gas storage & delivery, cathodic protection and seawater delivery pumps
- Regular evaluation and upgrade of control and monitoring equipment to prevent obsolescence and risk to infrastructure availability
- Maintenance and 24/7 support services (ongoing - contract held for over 9 years)

### Bespoke solutions for Defence supporting equipment delivery

- Design, construction and through life support of bespoke automated solutions for defence research and infrastructure support applications
- Solutions designed in close engagement with defence users to ensure key operational requirements are met while using commercial off the shelf components to facilitate ease of maintenance and ongoing support
- Provision of system upgrades for platform obsolescence or capability enhancement – in one case, this has entailed three major system upgrades over a period of 22 years

### Automated plating line safety & control system upgrade

- Design and implement a programmable safety system for an automated plating line used for coating high end materials including Joint Strike Fighter components
- Enhance functionality and efficiency via upgrade of control system
- Maintenance and support services for systems including reverse osmosis and on-site waste water treatment facilities

### Jindalee Operational Radar Network electrical control infrastructure upgrade

- Upgrade electrical control infrastructure for the over-the-horizon radar systems
- Assess obsolete electrical control infrastructure upgrade path
- Design new electrical control switchboard with commercial off the shelf components to enable rapid changeout and availability of spares
- Construct and test a prototype replacement switchboard
- Construct and test subsequent replacement switchboards

## 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 SMEs and MEs to deal with the rigour and agile requirements of Defence.**

**We also work with large Defence Primes and Government organisations, which gives us the perspective of what the big players need and how the smaller suppliers can contribute with innovation.**

## **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

**DematecAutomation**

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