

Top-class facility for world leading boat builder Quintrex



CLIENT

Established in 1945, Quintrex is Australia's largest aluminium boat manufacturer producing over seventy models, ranging in size between 2.45m and 6.7m.

OBJECTIVES

Wiley was approached to design and construct a 9,600m² purpose-built aluminium boat manufacturing headquarters on a 6.4 hectare site at Coomera near the Gold Coast.

The facility was to reflect the company's corporate image, integrate small and large boat building functions, and offer process efficiency to increase production rates to 25 large boats and 45 small boats a day.

Other core requirements were a comfortable work environment, energy efficiency, flexibility and controlled project costs.

CHALLENGES

- Designing an efficient process flow to boost daily production rates
- Designing for reduced running costs
- Devising options for energy efficiency and worker comfort
- Reflecting the company's position as a world leading boat builder in the facility design
- Controlling project costs.

SOLUTIONS

Advice

- Options for restricting and consolidating the separate small and large boat manufacturing processes into two factories on one site
- Lifecycle costing and cost planning to reduce running costs
- Proactive cost control to achieve the project budget
- Careful project planning for fastest possible completion time.

Design

- Energy efficient design solutions to reduce running costs
- Use of computerised flow dynamics analysis to select options for maximising natural flow-through ventilation and limiting costly mechanical ventilation systems
- Design of a central breezeway down the centre of each factory for deliveries, security, weather protection and ventilation, which also minimised effects of radiant heat and optimised worker comfort
- Investigation of best control measures to reduce noise emissions, which resulted in selection of composite materials to insulate the roof and walls and absorb noise to acceptable levels
- Detailed services coordination to determine the exact locations for all pipes, cable trays and conduits and achieve greatest flexibility to accommodate future changes
- Design of building features that reflected a marine theme and supported the company's profile as a world-leading boat builder.

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Engineering

- Logical and efficient sequencing of the production process to help achieve the required increases in daily production of small and large boats.

RESULTS

A purpose-built headquarters for Quintrex Australia, recognised as the most advanced aluminium boat building facility in the world.

The new facility aids the company's requirements to boost production and reduce running costs, enhances its corporate image, provides a comfortable work environment for employees and allows it to produce its range of boats from one location.

The project was awarded a Master Builders Association State Award for Industrial Buildings from \$1M-\$10M.