

Innovative Panel Designs

To ensure accuracy and compliance with standards, control panel manufacturing has traditionally been a manual process, involving the wiring of individual components and configuring specific parts. While this remains unchanged with advances seen in specific processes, panel designs have undergone innovative changes to focus on resource-efficient designs, with the aim of accommodating processes now and in the future.

The clearest change to panel manufacturing has been the reduced size of components to better use space. Components are made smaller, lighter, slimmer, and short-bodied to use within tighter areas, to share space with other equipment, and to accommodate the emergence of the shrinking factory. Consequently, it lowers costs associated with floor space outlays and transportation.

The minimalistic design approach to panel manufacturing sees that only relevant components and space are used. This decreases the number of unusable areas, maximising space and aiding with overall equipment reduction. An example of this is seen with the optimisation of the widths between wire ducts which is helped by new component and part designs.

Using new compact designed components creates a smart design for future operations, promoting flexible designs which allow for more components to be added later. Also, as older cabinets are larger to accommodate the older style of components, keeping them and retrofitting or updating components creates more layout options. The use of this smart design for both new and existing panel manufacturing projects means future expansion and upgrades are easier.

Improvements in panel design have also focused on the effect of heat and the level of heat dissipation across the whole panel. The placement of components and the size of the cabinet can influence how quickly heat builds up and leaves the unit. Better control of temperatures improves panel and part lifespan and reduces the need for replacement. Maintenance-friendly and effective design panels ensure the excessive costs of downtime are minimised.

Tried and tested methods have led the way for efficient and effective panel fabrication methods. Combined with the evolution of the smart factory and industry 4.0 technologies, processes are becoming more automated, resulting in better control and improved panel manufacturing processes. Automated processes create easier and faster production and make a significant improvement to fabrication quality control.

Our Engineering and Technology team designs innovative turnkey panels for all your control, automation, and process needs. To learn more or to talk about a specific panel design project contact our Engineering & Technology team.

For more information on our panel manufacturing and testing services, contact our Electrical Construction team. Visit our website www.triplei.com.au or call us today at 1300 422 444.

About Triple i

Triple i deliver outcomes for all your control, data, electrical, instrument, and mechanical needs with over thirty-five years of experience. We supply a range of technology-based projects, consultancy, maintenance, and support services in the industrial sector. With over eighty skilled employees, Triple i provides the best product and services, with integrated solutions designed for clients' needs.

