

# Custom-Engineered Products

## 5 to 121 kV

Federal Pacific has more than 40 years of experience designing and manufacturing custom engineered products for the electric power industry. Utilizing an experienced staff of engineers, portable designs for sled, tractor-trailer or rail mounting and for fixed mounting have been built. The variety of products that have been designed is nearly endless.

Outdoor substations for overhead systems through 121 kV and outdoor, aisled substations have been fabricated. Switchgear unique to the mining, tunneling and dredging industry has been engineered. Capacitor banks in padmounted enclosures and in control houses for power factor correction and for voltage control have been developed. Taming resistors and inductive reactors for circuit control and balance are readily developed.

Trailer-mounted, mobile switch houses completely self-contained and incorporating three-phase connectors for quick connect and disconnect have been produced. Unique modular, portable substations in padmounted and armored enclosures have been constructed to meet special installation environments and exposures.

The continuous environmental exposure and the potential rigorous mechanical and electrical durability expected of Federal Pacific switchgear products is assured by using custom-engineered products. During the assembly of all components as well as of the complete units, a broad range of tests and inspections are performed to make certain that the final product will perform exceptionally well. Federal Pacific switchgear provides control and protection of medium-voltage circuits in industrial, commercial and utility installations throughout the world.

During fabrication and assembly, each engineered product is completely and thoroughly inspected and checked. The checks and inspections cover all specific operational functions that must be performed and verified, demonstrating compliance with high quality assurance standards in FP's ISO 9002 registered facility. After final assembly and inspection, every custom-engineered product receives circuit continuity testing and full functionality testing of all control wiring. Finally, every switchgear assembly under goes high-pot production testing which verifies the integrity of the entire insulation system. Carefully packed and palletized, the FP custom-engineered switchgear arrives ready for installation at the job site.

Technical assistance for installation, start-up and training can be optionally provided.



**6-Bay Custom Engineered Switchgear**



**Control and Control Power Compartments**



**Padmounted Switchgear Substation**



**Portable 500 kVA Modular Substation**