

## Line Power/Federal Pacific Custom Products Capabilities

Line Power/Federal Pacific designs, manufactures and installs an extremely broad range of simple-to-complex power distribution systems for electric power producers and consumers. Equipment capabilities include substations – fixed, skid-mounted and portable; explosion proof – MSHA approved Class 1 enclosures; switching centers – UL® Listed, and pad-mounted (manual, supervisory controlled and automatic source transfer) for voltage applications through 138kV.

Fabrication and welding capability the facility can handle include the heaviest gauge materials – in mild steel, galvanized, stainless steel and aluminum. These materials are assembled into the most rugged and durable enclosures on skids, trailers and railroad wheels and even for pad-mounted

applications. Grinding, cleaning and coating systems produce units with an extremely durable finish – both liquid and powder coatings in standard and custom colors.

Assembly operations requiring simple to complex wiring and control systems are meticulously produced into effective power distribution centers. Computer-controlled components insure effective operation of all connected loads with reporting systems including alarms, enunciators, telephone or radio actuated, emergency shutdown or transfer, ground-fault sensing, resistance-limited (incorporating neutral grounding resistors), power quality relays and controls, all reliability engineered and fully tested with superior quality assurance techniques in an ISO 9001/2000 facility.



Figure 1. Welding operations utilize certified personnel and superior materials.



Figure 2. Fabrication, layout and welding of the heaviest gauge materials into sophisticated configurations are readily handled.



Figure 3. Large superstructures are cleaned to remove all oils and dirt prior to painting.



Figure 4. After painting, work surfaces are protected during installation and connection of ancillary components.



*Figure 5. Sophisticated, highly automated totally self-contained power-delivery systems, incorporating the widest range of electric power components, are developed, designed, fabricated, finished, assembled, tested, transported, off-loaded and provided with start-up service engineered and systems checkout.*



*Figure 6. Assembly operations pay particular details to all aspects of the design, all developed using AutoCAD and solid-edge for three-dimensional modeling.*



*Figure 7. Engineered layouts place components in logical, accessible locations while retaining compact construction necessary to minimize equipment size.*



*Figure 8. Area management keeps workspaces neat and clean during assembly with adequate facility workstations to handle a large variety of equipment simultaneously.*



Figure 9. A skid-mounted switching station with circuit breakers and controls with easy access to the interior is pictured above.



Figure 10. An enclosed dry-type transformer with controls housed in an explosion proof permissible housing are applied for operation of heavy mining equipment.



Figure 11. A 1500-kva portable power center nears completion with wheel fittings for railroad wheels or tread tires is shown in the photo above.



Figure 12. Completed units are thoroughly tested prior to shipment and expertly loaded for transportation to the work site.



Figure 13. Totally enclosed heavily insulated substation is destined to provide alternate power source while servicing installed substation on Alaskan oil pipeline systems.



Figure 14 Portable skid-mounted substations provide immediate support for fast developing customer loads while permanent substation sighting is being negotiated and constructed.



Figure 15 Towable portable substation includes all control and hydraulic articulated boom with cross-arm — shown with boom extended in Figure 16.

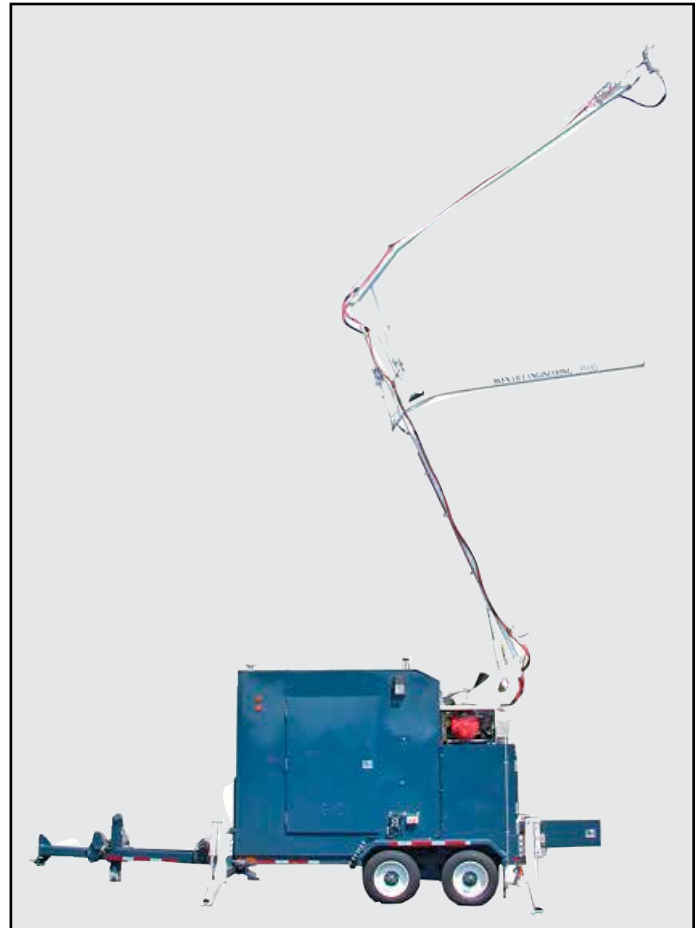


Figure 16. Substation of Figure 15 is shown above with hydraulic cross-arm for servicing installed overhead circuits during planned outages as well as in emergencies.



Figure 17. Portable-trailer mounted substation shown completed in Figure 18 is shown above during assembly at the factory.



Figure 18. Trailer-mounted, totally enclosed distribution substation matched to emulate an installed base of vaults allows vaults to be by-passed for repairs or replacing components without loss of power to the customer during a planned intervention or in an emergency break.

