



PATTON & COOKE CO.

## 25 kV, 400 Amp CABLE COUPLERS

# 25 kV CABLE COUPLER & COUPLING SYSTEM



In designing a new cable coupler for 25 kV operation, Patton & Cooke determined that the coupler had to operate efficiently at this high voltage while still being maneuverable in the field. First a new idea then a new product evolved - the **25 kV Cable Coupler & Coupling System**. The system incorporates cable couplers, support skids with hoisting mechanisms, accessories, termination kits and tools- all the equipment necessary for a complete and manageable 25 kV cable connection.

### Features

All couplers have the same contact structure

Couplers mate with the aid of individual main phase, ground and pilot connecting pins.

Couplers equipped with strain relief entrance fittings

All parts, including live parts, are individually replaceable

Continuous ground shield surrounds all phase tubes

Visible external ground ties

'O' ring seals between all mating surfaces

Unique hexagonal shape

Entire coupler housing is sand cast and heat treated

Molded phase & ground insulator  
Insulators are vacuum cast of silica sand filled thermal setting resin

Standard couplers are powder coated red. Other colours are available upon request.

Two types of coupler skids are available

Skid is equipped with hoisting mechanism

Aluminum cover and live end cover are available as options.

### Benefits

- coupler gender is always known, eliminating cable laying errors in the field.
- reduces inventory.
- minimizes installation time.
- allows couplers to be connected easily and safely.
- protects termination from damage resulting from cable strain.
- seals against entry of dirt and moisture.
- convenience of front end replaceable live parts.
- reduces downtime.
- significantly lowers replacement costs.
- limits any cable insulation breakdown to ground faults.
- provides positive connection of ground through all metallic components.
- ensures personnel safety.
- Ensures coupler integrity against ingress of dirt and moisture.
- Aids in indexing couplers for mating.
- Helps "lock" coupler in closing mechanism.
- highly resistant to corrosion and physical damage.
- provides high dielectric strength.
- Solid casting provides high dielectric and physical strength.
- coupler connection is highly visible in the field.
- protective coating extends the life of the coupler.
- couplers are elevated off the ground and protected from the abrasive mine environment.
- coupler connection is more visible to heavy equipment.
- reduces possibility of moisture ingress.
- reduces manual lifting, increasing personnel safety.
- allows couplers to be moved easily.
- prevents the entry of dirt and moisture when couplers are unplugged.
- protects contacts from damage.
- provides personnel safety.



Tunnel Boring



Longwall Miner



Loading Shovel



Dragline

*Meeting your high voltage electrical equipment needs*

# SUPERIOR



First coupler, catalog number C250F2001x, being loaded onto skid, catalog number STA-027, using the hoist mechanism. The coupler is secure once it is placed in the "hex shaped" saddle.



The second, epoxy coated red, coupler being hoisted onto the skid using the specially designed cable harness. The cable harness allows easy alignment of couplers.



Coupler pair mated together using the phase, ground and pilot connecting pins.



Complete coupler system featuring:

- Unique, "rack and pinion" driven closing tool. Use of the closing tool permits easy cable coupling.
- Secondary strain relief clamps which offer additional grip on cable jacket. The cable is secure on the skid and cable strain is virtually eliminated.
- An onboard lockable tool box provides convenient and safe storage for tools and spare parts.