

## **Cable Accessories Catalogue**



## **OUR BEGINNING**

Patton & Cooke was established in 1961 in Vancouver, BC Canada by an electrical engineer and an electrical designer with over 40 years combined experience in the design and manufacture of products for the electric utility industry. Patton & Cooke's focus has remained the same throughout the growth of the company - to develop and manufacture high voltage equipment with a commitment to quality products at competitive prices

### **OUR PLANT**

Patton & Cooke has a modern 30,000 sq/ft plant in Surrey, a rapidly growing suburb of Vancouver, BC. Our location is ideal - we're situated in the heart of Canada's gateway to the Pacific Rim, and only minutes from the United States border.

Our plant has complete Computer Aided Design (CAD/Solidworks), product testing, fabricating and assembly facilities. Quality assurance is paramount and our plant meets the highest applicable industry standards.



## **OUR SUPPORT**

Patton & Cooke's team of field technicians is continually working with customers to co-develop, customize and improve products. This has resulted in many design improvement and innovations.

We also help our customers install, operate and maintain our products and provide valuable in-field training. Such support is an important part of the world-wide reputation we enjoy for rugged and dependable products, backed by skilled and responsive in-field service.

## **OUR PROMISE**

Patton & Cooke designs and manufactures medium voltage electrical equipment with a commitment to delivering quality products at competitive prices.

We will measure our success by:

- Delivering manufactured products that will meet or exceed the standard of quality expected by our customers.
- Working closely with industry partners to develop new, innovative medium voltage products that address the needs of the industries we serve.
- Seeking and promoting strategic industry alliances to ensure the availability of Patton & Cooke products globally, while maintaining the highest levels of customer service.
- Continuing to set the standard for the timely delivery of medium voltage electrical equipment.

As we look to the future, we envision many new and different products, each designed and manufactured to our customers exacting standards, and all sharing in the Patton & Cooke principle: listen to the customer and provide them with quality products that address their needs.

So, if you have a challenge, an obstacle, or an issue making an electrical connection, let us put our knowledge to work for you.

## J-HOOK CABLE HANDLING TOOL

Introducing the new Patton and Cooke cable handling tool. The tool has an electrostatically applied powder coating and fiberglass shaft with PVC impact protection sleeve, which is all covered with a yellow heat shrink jacket. This tool is a handsome addition to any cable handlers arsenal. Highly resilient polyester powder coating ensures long lasting in extreme mining environments. Other design benefits include: high strength, light weight construction, and good electrical isolation with proper care and maintenance.

#### **FEATURES:**

- Heat shrink cover over shaft
- Solid fiberglass core.
- · Standard length 28 inch tool
- · Custom lengths also available upon request.
- Powder coated steel twist fork.
- Available with standard or ergonomic (double) handle.
- Type tested to 75 kV per foot
- Use only on de-energized cable and/or in conjunction with suitable PPE\*.
- \* Consult local electrical and/or safety authorities for guidelines on handling power cables.



## **COUPLER TOOL KITS**

Patton & Cooke offers a complete installation tool kit for each of the cable coupler models we manufacture.

Tool kits include all of the standard tools required, as well as the specialized contact installation tool for each coupler. Tools provided in each kit are of the highest quality and include a durable wrap to keep the tools organized and in good condition.

In addition to kits, each tool can be purchased individually.

Use of the proper tools will help ensure the maximum life and performance of the coupler.



## CABLE SUPPORT

## **ROPE BRAKE**

A safe innovative approach to your cable hoisting needs that is faster and safer than anything else on the market today.

#### **FEATURES:**

- Exclusive self-braking design for personnel safety.
- Heavy duty design meets rigid industry requirements.
- Maintenance free
- Designed for 1/2" to 1" diameter synthetic rope.
- Field proven in the world's toughest open pit mine environments.
- Pivots 180° to give a directional pull when hoisting.
- Weight: 35 lbs (16 kg)





## **CABLE BUN**

Lightweight, easy handling, highly visible, cable buns are proving to be the preferred choice in high voltage power cable suspension.

#### **FEATURES:**

- Controlled radius helps prevent high voltage power cable damage and breakage.
- Carbide friction strip embedded into the inner radius of the body eliminates cable slip.
- Specially designed sling used in a 'choker hold' position clinches the power cable and holds it in place.
- Constructed from a hard wearing polyurethane, therefore impervious to harsh weather conditions.

## **CAM CLAMPS**

Our cast bronze alloy cam clamps are ideal for high voltage junction box applications. The cam clamp system includes the cam bushing which is soldered to the power cable conductor and the cam clamp which is bolted to a bus bar or terminal pad. The cam bushing is then inserted and clamped. Patton & Cooke cam clamps are universally compatible with other manufacturer's products.

#### **FEATURES:**

- Hot stick operated cam lock.
- Stainless steel alloy lever eye.
- Bronze alloy castings for strength and electrical compatibility.

Available with standard two-hole NEMA terminal pad drilling or custom-drilled to customer specifications.



## **SPLIT STRAIN RELIEF ENTRANCE FITTING**

The split strain relief entrance fitting is ideally suited for installations where trailing cable couplers are not being used, but where cables may be installed and removed frequently.

The split design means that the strain entrance fitting can be installed or removed without disturbing the stress cones, sleeves or taping which makes up the cable termination. Cables can be installed and removed quickly. The strain relief entrance fitting is tightened to provide a positive clamp on the cable.

No tools are required. Available in sizes which cover cable outside diameters from 2.76" to 3.50" (70 to 89 mm).





## **V-CLAMP**

Used in shaft sinking or other vertical cable suspension applications, the V-Clamp will secure the cable to the shaft wall. As more weight is added, clamping force and compression is applied on the cable jacket.

#### **FEATURES:**

- Urethane clamps won't damage cable cores or jacket.
- Urethane clamp blocks with flame retardant additive.
- Keyhole mounting eases installation.
- Latch aids in cable installation while maintaining frame integrity.
- Urethane blocks available in 1/4" increments to ensure a correct fit to your cable.
- · Stainless steel frame.
- Available in sizes to accommodate 2 1/4" through 3 1/2"
  O.D. cables
- Standard proof loading to 800 lbs, test performed using SHD-GC cable with CPE jacket material.

# CABLE PROTECTION

## **CABLE RISER BRACKETS**

Patton & Cooke cable riser brackets attach insulated cable, conduit or piping to walls, roofs and poles. The brackets keep the cable rigidly held in place.

Available in a variety of combinations and sizes; low and high profile mounting brackets for one or three cables.

Cable riser brackets are intended for cable support but have been load tested to 400 lbs.





## **UNIVERSAL SKID**

Use of heavy duty skids elevate and protects cables and couplers from moisture, contaminants, and excessive wear. Skids help to meet regulatory requirements for elevation of cables and couplers (CSA-M421).

#### **FEATURES:**

- Frame constructed from heavy duty tubular steel.
- Hot dipped galvanization applied to both internal and external surface for long lasting protection.
- · Heavy duty welded construction.
- High visibility reflective markers for easy spotting in darkness or adverse weather conditions.

Dimensions: 50"(L) x 29"(H) x 47"(W) Weight: 105 lbs fully assembled

Other styles of skids also available, contact factory.

## **CABLE CROSSOVER**

Designed to protect your cables from service vehicles and prolong the life of your cables. Ideal for use in temporary locations or where cables are moved frequently.

#### **FEATURES:**

- 1/2" steel chain handles molded into full length of mat for ease of handling
- Manufactured with your choice of hard (90 Duro) of soft (73 Duro) polyurethane rubber
- Customized to any length you require
- Accommodates 3.5" and 4.5" cables
- Supplied with or without a protective rubber cap
- Safety orange for better visibility





## CABLE PROTECTION

## STRAIN RELIEF CLAMP SYSTEM

The strain relief clamp is designed to prevent cable jacket damage and to withstand the tough use typical in mining, construction and utility applications.

- Eliminates strain on the cable connections at the coupler/enclosure interface on electric shovels. drills, LHD's, jumbos, junction boxes or cable supports.
- Supports a cable in vertical shaft and pole suspension applications.
- Corrosion resistant with galvanized hardware and wire rope.
- The strain relief clamp covers a cable diameter range of 0.625"-3.625" (16-92 mm). Larger sizes are available on request.





## **DEVICE OFF GROUND/CABLE BOSS**

The Device Off Ground and Cable Boss were designed to protect and prolong the life of all your electrical cables around a mine site. They can also be used to identify road boundaries, closures, and many other applications. The Device Off Ground also has the added benefit of supporting junction boxes and mated couplers.

#### **DEVICE OFF GROUND FEATURES:**

- Highly visible orange.
- Stackable for easy shipping and storage.
- Highly visible reflectors for added night time visibility.
- Hand grips on each side for easier handling.
- Supports cables, hose, pipe, junction boxes, and mated couplers.
- Base width: 30" (76.2 cm)
- Height: 25" (63.5 cm)
- Weight: 32 lbs (14.5 kg)

#### **CABLE BOSS FEATURES:**

- Optional solar powered locating lights provides additional night time visibility.
- Octagonal wide base for greater stability.
- Hand grips on each side for easier handling.
- Accommodates 4.25" diameter cables.
- Light, yet durable.
- Meets CSA M421\*
- Dimensions: Base Width 63.5 cm (25") x Height 83.8 cm
- Weight: 12.5 lbs (5.7 kg)

\*Cables shall be routed to avoid damage and be maintained visible by being mounted on suitable markers at regular intervals throughout the cable route. Cable couplers shall be suitably supported off the ground.

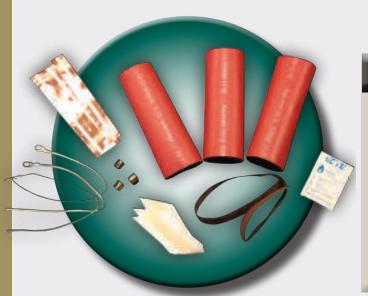
## INSTALLATION MATERIALS

## STRAIN RELIEF ENTRANCE FITTING

The strain relief entrance fitting combines a watertight seal with a positive clamping action around the cable. It is ideal for permanent entry of a cable into a mine power center, switchgear, disconnect switch or standard terminating box. These fittings are available in sizes from 0.82" to 3.5" (21-89 mm) outside diameter.

Note: Clamp and seal kit specific to the cable outside diameter may be ordered separately.





## **TERMINATION KITS**

Patton & Cooke offers a full line of heat shrink termination kits for use in cable couplers, as well as for indoor and outdoor power distribution applications.

Copper and aluminum terminal connectors and butt splices are also available.

Cold shrink terminations are available upon request.

## **CLOSING TOOL**

Many Patton & Cooke couplers 5-15 kV are factory fitted with bracket assemblies to accommodate a closing tool.

#### **BENEFITS:**

- Ease one person operation
- Reduce contact damage
- Reduce insulator tube damage
- Extend the life of contacts



## INSTALLATION MATERIALS

## **GASKET REPLACEMENT KITS**

Maintaining a dust and water tight seal is essential for the safe operation and long term performance of couplers. Patton & Cooke's gasket kit provides exceptional value as genuine replacement parts.

Using these kits will maximize coupler life by helping to achieve optimal performance.





## **POTTING COMPOUND**

Potting compound provides the maximum protection for cable terminations from environmental effects.

#### **RECOMMENDED FOR:**

Applications above 8kV, where couplers will have a long service life, or where couplers will be exposed to extreme changes in temperature and humidity.

It is available as an option and can be purchased separately.

## **COUPLER INSTALLATION**

We offer a comprehensive cable coupler installation service which includes appropriate stress cone terminating, high pot testing and compound filling (if required).

Installation is quick and professional, so your cable arrives on time at your job site and ready for immediate use.





# **ELECTRICAL COMPONENTS**

## **SPLITTER BOXES**

Over 50 years of experience in electrical product design ensures that Patton & Cooke enclosures will meet the application requirements while our state of the art fabrication capabilities provided best in class lead times with unsurpassed quality.

#### **FEATURES:**

- Splitter boxes are enclosures containing insulators, bus and terminating facilities to provide a convenient method of interconnecting three or more cables.
- Available in free standing, wall, skid or trailer mounted styles. They are available in voltages from 600 V through 25 kV with current ratings to 500 Amps.
- We can custom design splitter boxes to meet customer's specific needs.





## **WIRE MONITORING**

The Patton & Cooke ground check monitor relay is a special relay for checking ground wire continuity in trailing cables. The relay can detect an open circuit in the ground wire or pilot wire or a short circuit between the pilot wire and ground will trip

#### **FEATURES:**

- Indicating light shows relay has tripped.
- One output relay with 2 N.O. -2 N.C. Form "C" contacts.
- Rated 10 Amp, 120 Volt 50 or 60 Hz units available.
- Fused protection of internal circuitry.
- Terminal blocks for remote reset.
- Factory installed jumper gives auto reset after fault is created.

# ELECTRICAL COMPONENTS

## **JUNCTIONS**

Designed to meet your electrical requirements, Patton & Cooke's junctions will extend the life of your connection and help prevent cable laying errors during installation.

#### **FEATURES:**

- Increased visibility of coupler to men and equipment.
- Couplers are not dragged along the ground.
- Couplers are better protected from dirt and moisture.
- Cable mount couplers can be of the same gender, eliminating cable laying errors.





## **LIVE END COVERS**

Live end covers are designed for use with splitter boxes equipped with ground wire monitor protection devices.

Live end covers provide insulated phase tubes, and end of line devices which enable safe energization of a splitter box even if one or more circuits have been disconnected.

Live end covers are available for 5, 8, and 15 kV product applications.

## **SHORTING CAPS**

Shorting caps are used to safely discharge capacitive currents which may be present in disconnected portable power cables, allowing for safe handling and maintenance of the cable and coupler.



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At www.pattonandcooke.com, you can easily find an authorized Patton & Cooke agent in your area.