

STAINLESS STEEL CABLE CLEATS

For use on LV, MV and HV Cable Installations

IPD Industrial Products provided the fault current rated stainless steel cable cleats to CLM Infrastructure who is contracted to lay and secure the 132kV cable in the EnergyAustralia City West Cable Tunnel Project.

These stainless steel cleats are from the "Emperor" cleat range, which is manufactured by Ellis Patents of the UK and distributed by IPD Industrial Products. The "Emperor" cleat is the culmination of a ten year research and development programme. As a result, it has the following unique patented construction:

- Type 316 stainless steel frame offers ultimate protection against the harshest corrosive conditions
- The frame base offers a dual fixing option of 2 x 10mm or 1 x 12mm fixing
- Integral liner and base pad in a flame retardant, zero halogen polymeric material which, in the event of fire, emits low smoke and fumes
- The liner also provides protection for the cable and cushions the cables during short-circuit conditions, helping to avoid cable damage
- Range-taking suitable for where cable tolerances affect the given cable diameter and can accommodate an extensive range of cable diameters from 23mm to 128mm in trefoil cable formation and from 32mm to 150mm in single cable formation.

- Compact design means that it takes up a minimum amount of space on cable ladder rung or any suitable cable management system.
- Quick and easy to install, which can lead to significant savings on installation costs.

Why use cable cleats for securing cables?

Cable cleats are designed to fix, retain and support cables. In addition, where short-circuit faults are anticipated, correct cleating will result in the containment of the cables during a fault and enable the circuit to be restored once the fault has been repaired.

When adjacent cables carrying three phase current suffer a short circuit fault, the induced magnetic fields result in the cables experiencing significant opposing forces. A safe installation requires well designed and thoroughly tested cable cleats.

Short circuits and short circuit testing

The forces experienced by a cleat during a short circuit are a function of short circuit current, cleat spacing and the distance between the cable centres (in the case of trefoil arrangements this is the cable diameter). When comparing short circuit test results for different products, all three factors must be taken into consideration to compare the relative aggressiveness of the tests.

The Emperor cable cleat has undergone extensive, rigorous short-circuit testing and has been approved and certified to withstand 'Short-Time and Peak Withstand Test Current' of up to 178kA peak, 83kA RMS at 300mm spacing; 226kA peak, 104kA RMS, at 225mm spacing. Such results make the Emperor one of the strongest cleats on the market. Furthermore, Ellis Patents also undertake voltage tests on the cable after short-circuit tests to prove the cable integrity was not damaged during the short-circuit.

A Copy of the video footage of the "Short Circuit Test" on CD is available on request by sending your details including company, contact telephone and delivery address to: customerservice@ipdgroup.com.au

These cable cleats are suitable for use in power generation, transmission and distribution, offshore oil and gas, shipping/marine, water and sewerage treatment work, petrochemical plants, airports, ports, tunnels, etc. for cable installations on cable ladder, tray and other cable management system, or buried direct into the ground.

Other products available are the "Vulcan+" range of stainless steel cable cleat, one & two hole plastic cable clamps, "Elite" range-taking plastic cable cleat, "Apache" range of Pipe clamps, etc.

For enquiry, please contact your local IPD sales office or the Customer Support Centre on 1300 556 601.

All tests are carried out in accordance with European Standard Cable Cleats for Electrical Installations EN 50368:2003 and International Standard IEC 61914.



IPD Industrial Products is proud to be associated with **EnergyAustralia** on the successful completion of the **City West Cable Tunnel Project**.

IPD provided 2,800 fault current rated Stainless Steel Cleats for fixing and protecting the 132kV cables throughout the 1.6km tunnel.

These cable cleats are from the "Emperor" cleats range manufactured by Ellis Patents of the UK.



Technical Support: 1300 556 601
www.ipdgroup.com.au



AS/NZS 9001:2000
QEC 0228