

**tyco**

*Electronics*

*Energy Division*

**High Voltage Connectors  
63 to 800 kV**



**SIMEL**

**enia**  
energy networks & industrial applications

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# **tyco**

*Electronics*

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**SIMEL**

## **Foreword**

For more than 50 years, the Tyco Electronics SIMEL has been continuously expanding and manufacturing connectors for Grid Stations in France and throughout the world.

The various ranges of products we are in position to offer will solve all your connection needs, each range leading to a full explanatory leaflet we would be happy to send you on request.

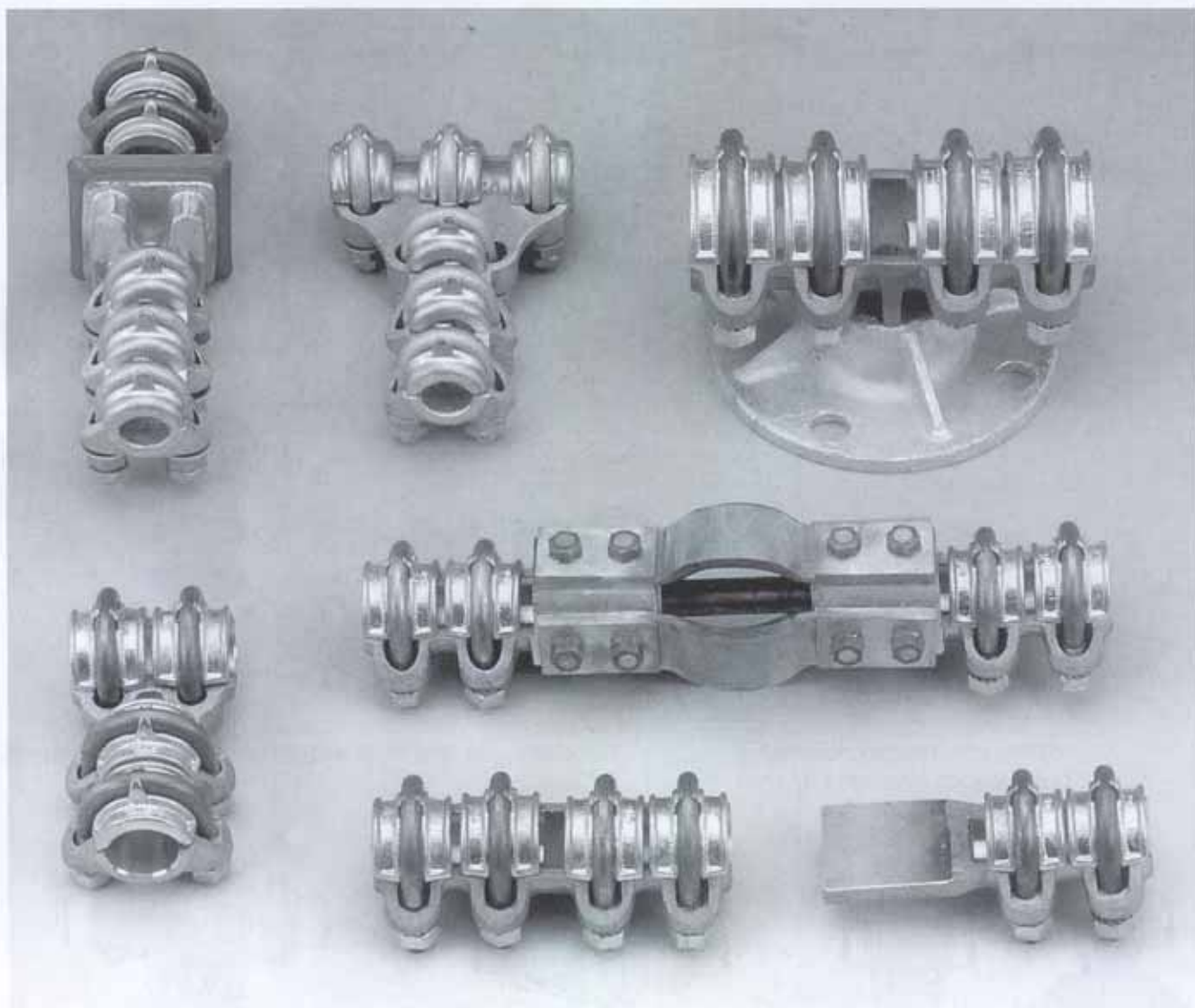
This leaflet has been published to introduce our various ranges of products by giving their application field together with their main characteristics.

All connectors are subjected to strict controls, during their whole manufacturing, and comply with criteria of standards such as U.T.E. - V.D.E. - NEMA - B.S. etc ; as well as our quality manual according to ISO 9001 (supplied on request).





## BRONZE AND BIMETAL. RANGE



Bronze connectors for copper conductors (cables or tubes) and bimetal. connectors for copper studs and aluminium or aluminium-alloy cables (bimetal. function is carried out in our plants: a bimetal sheet is put between aluminium and bronze parts). This range is for use up to 220 kV.

### Standard capacities:

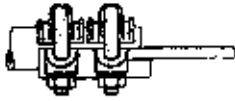
Copper tube : 20 to 120 mm (1/2 to 4") dia.

Copper cable : 50 to 600 sq mm (100 to 1200 MCM).

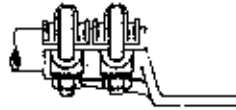
Copper stud : M12 to 60 mm dia.

Alu. cable : 75 to 1144 sq mm (2/0 to 2250 MCM).

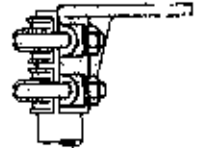
# BRONZE CONNECTORS



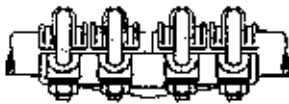
Straight terminal.



Stepped palm terminal.



Right angle terminal.



Fixed straight connector.



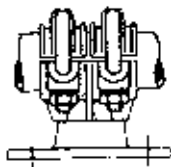
Flexible straight connector.



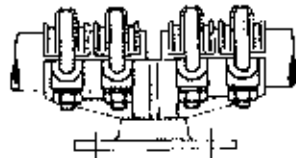
Tee connector



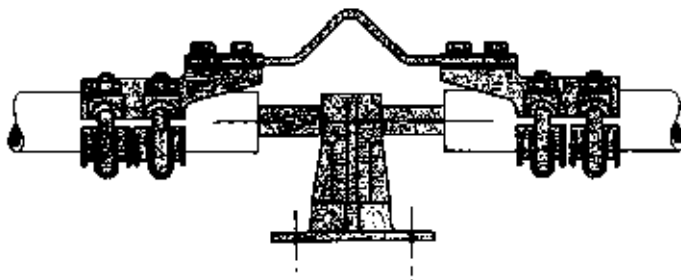
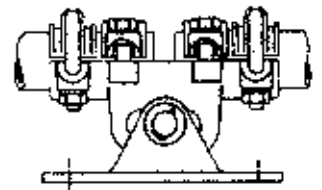
Tube support on insulator.



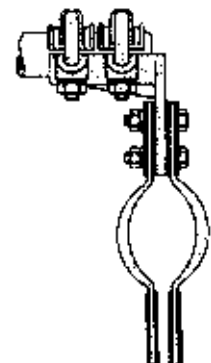
Junction support on insulator.



Sliding connector on insulator.

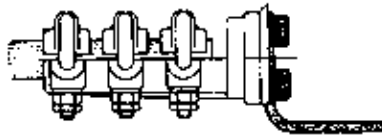


Expansion support.



Flexible terminal.

## BIMETAL. CONNECTORS



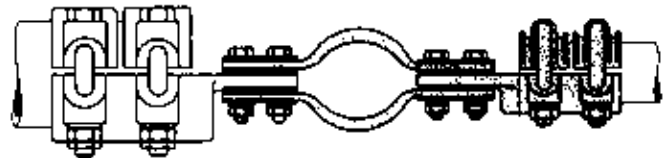
Bimetal. connector with copper palm.



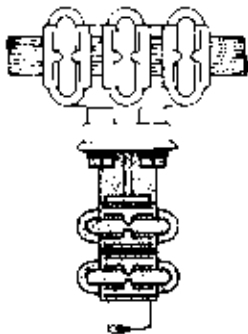
Bimetal. connector with alu. palm.



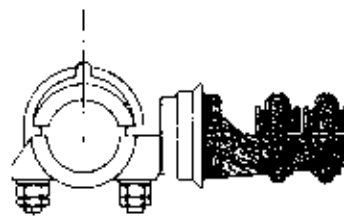
Bimetal. connector for copper stud and alu. cable.



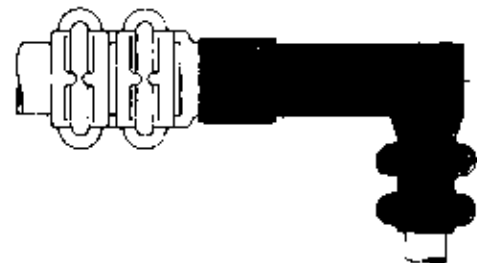
Expansion bimetal. connector for alu. tube and copper stud.



Tee for alu. cable and copper stud.

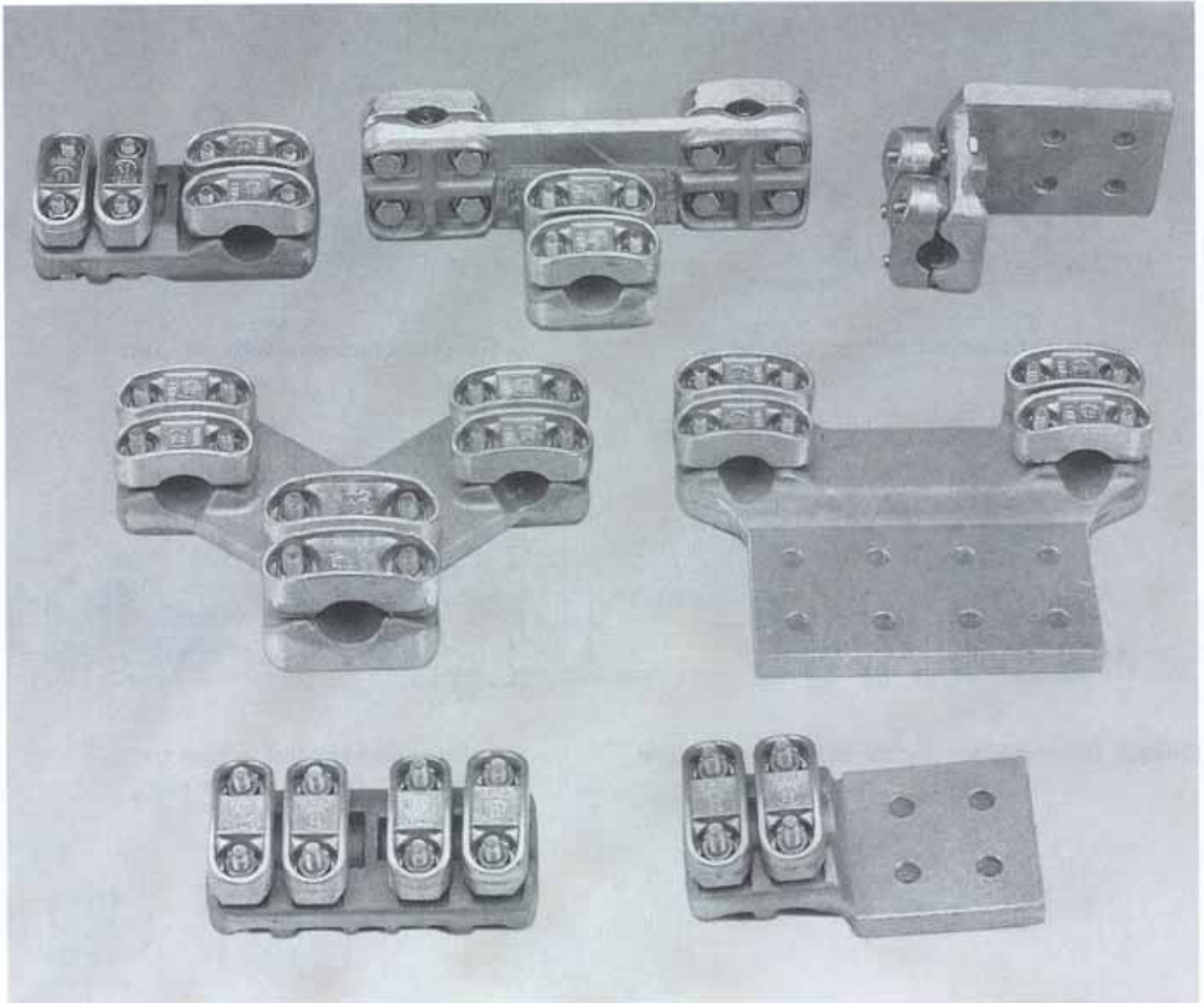


Tee for alu. tube and copper stud.



Flexible right angle for alu. tube and copper stud.

## SINEMEX RANGE



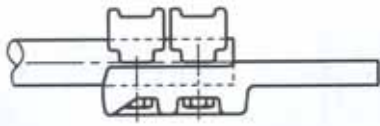
This range meets requirements of NEMA-CC1 1984 and-107 standards for use at lower than 400 kV and allows the connection of alu. or alu. alloy cables, alu. or copper studs and alu. or copper palms.

### Standard capacities:

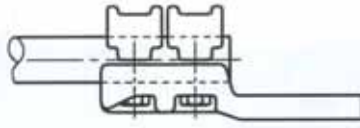
Alu. or alu. alloy cable : 75 to 1144 sq mm (2/O AWG to 2250 MCM).  
Alu. tube : See our ANTI-CORONA RANGE.  
Alu. or copper stud : 20 to 60 mm dia.

Alu. or copper palm 80 x 80 - 100 x 100 and 125 x 125 mm or others.

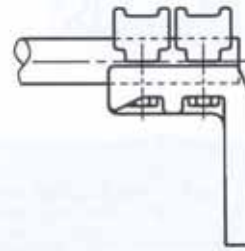
Distance between axes conductors in bundles 200 mm or less.



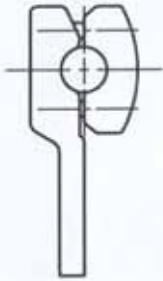
Straight terminal.



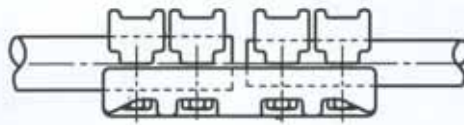
Stepped palm terminal.



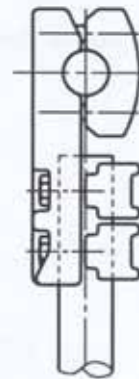
Right angle terminal.



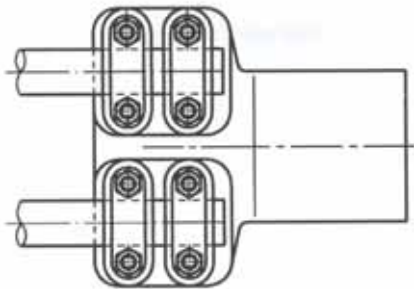
Terminal with tee palm.



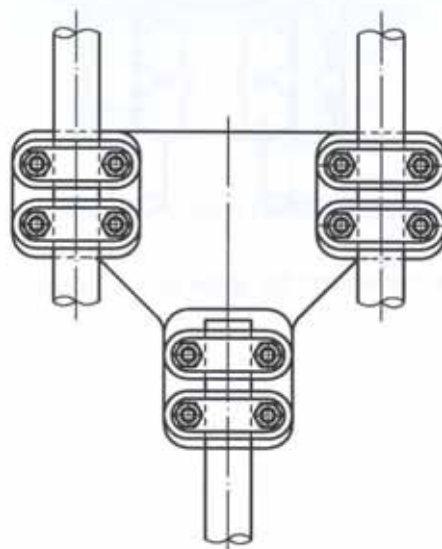
Straight connector.



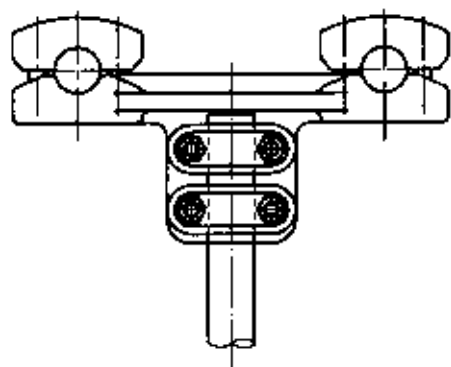
Tee connector.



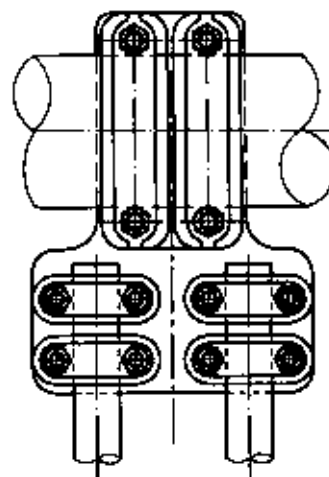
Straight terminal for 2 conductors.



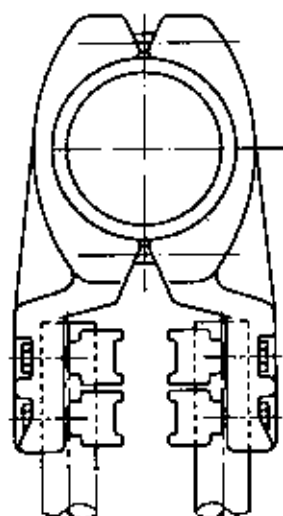
Straight connector for 2 conductors and stud.



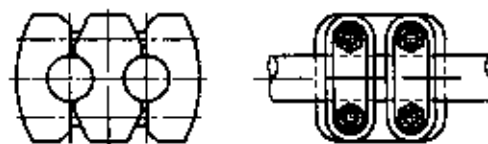
Tee connector for 2 conductors and stud.



Tee connector for tube and 2 conductors.



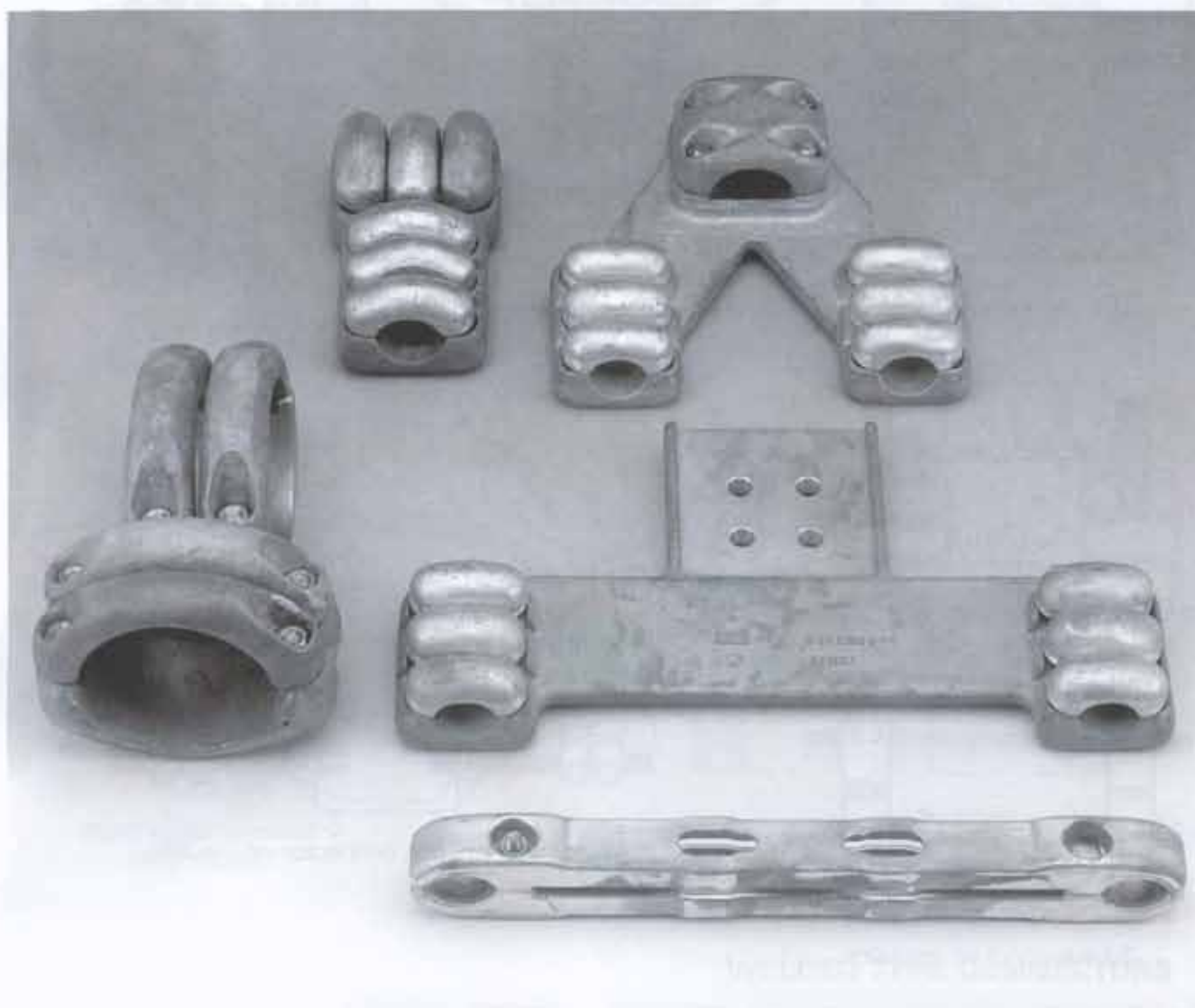
Tee connector for tube and 2 conductors.



Parallel connector.



## ANTI-CORONA RANGE



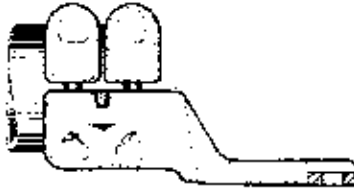
This range of connectors can be used up to 525 kV on alu alloy tubes, aluminium (AAC), alu alloy (AAAC) or ACSR cables.

### Standard capacities:

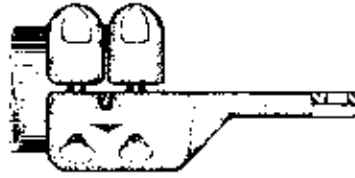
Alu. and alu. alloy cable : 75 to 2000 sq mm (2/0 AWG to 4000 MCM).  
Alu. tube : 60 to 250 mm or (1" to 6" IPS) dia.  
Copper or alu stud : 20 to 70 mm dia.

Equipment palms 80 x 80 - 100 x 100 - 125 x 125 - 160 and 185 mm dia. or others.

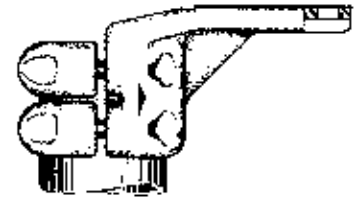
Distance between axes conductors in bundles 50 - 65 - 200 - 400 mm.



Stepped palm straight terminal.



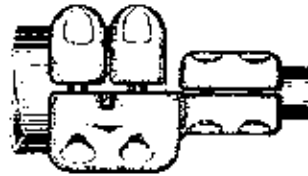
Straight terminal.



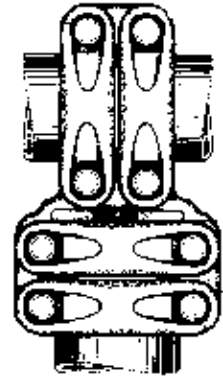
Right angle terminal.



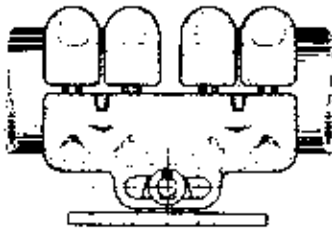
Straight connector on tube.



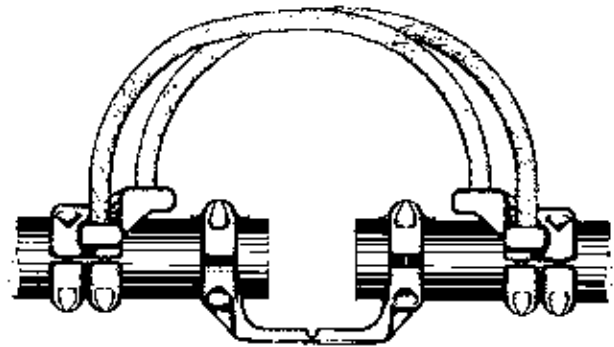
Straight connector tube-stud.



Tee connector tube-tube.



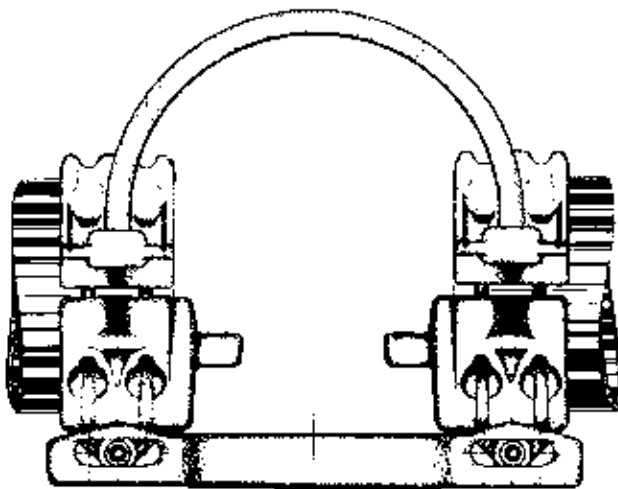
Sliding junction connector on insulator.



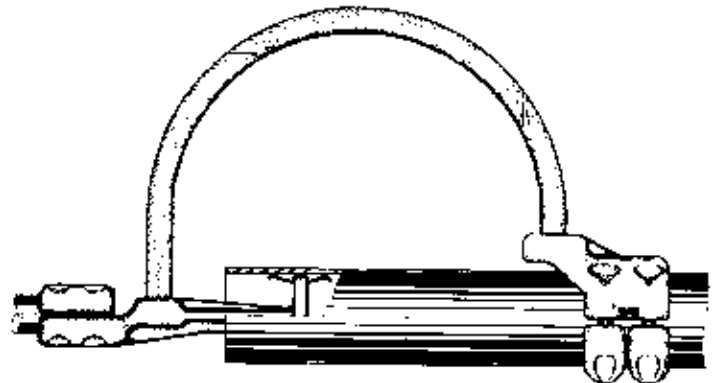
Expansion junction connector on insulator.



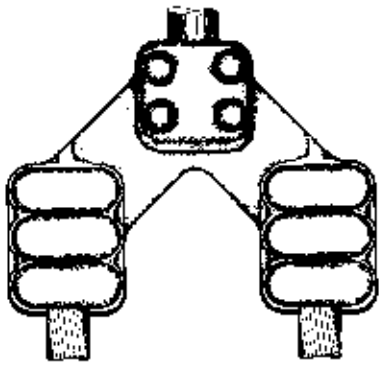
Tube support on insulator.



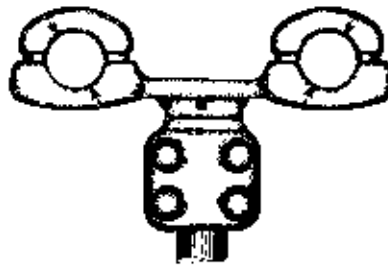
Expansion junction connector on insulator.



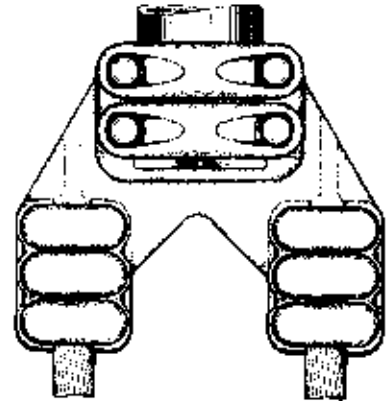
Expansion connector tube-stud.



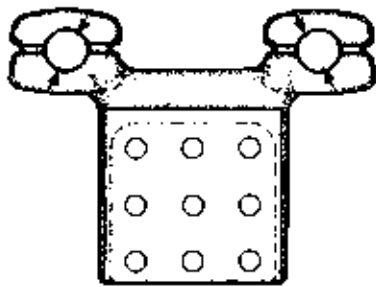
Straight connector for 2 cables and stud.



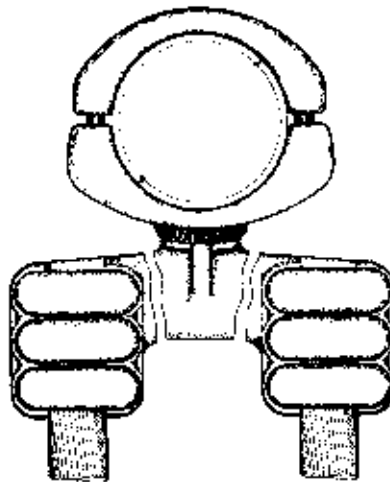
Tee connector for 2 cables and stud.



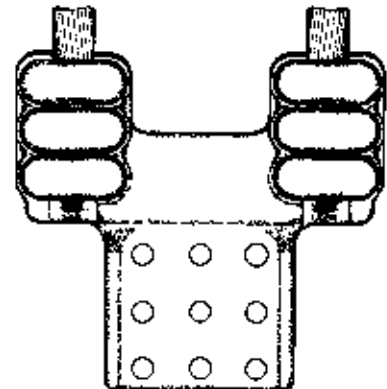
Straight connector for 2 cables and tube.



Right angle terminal for 2 cables.

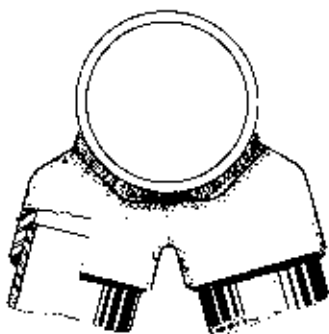


Tee connector for 1 tube and 2 cables.

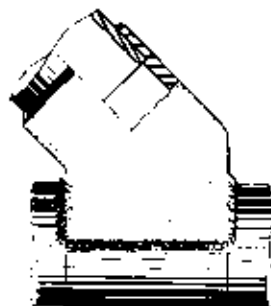


Straight connector for 2 cables.

## WELDED TYPE CONNECTORS



Connector tube/tube.



Connector tube/tube.



Straight terminal.



Stepped palm terminal.

SOME CRIMPING CONNECTORS ARE ALSO AVAILABLE.

## 800 KV CONNECTORS



Special range developed for large 800 KV networks 4000 MCM and aluminium tube 4" and 6" IPS.

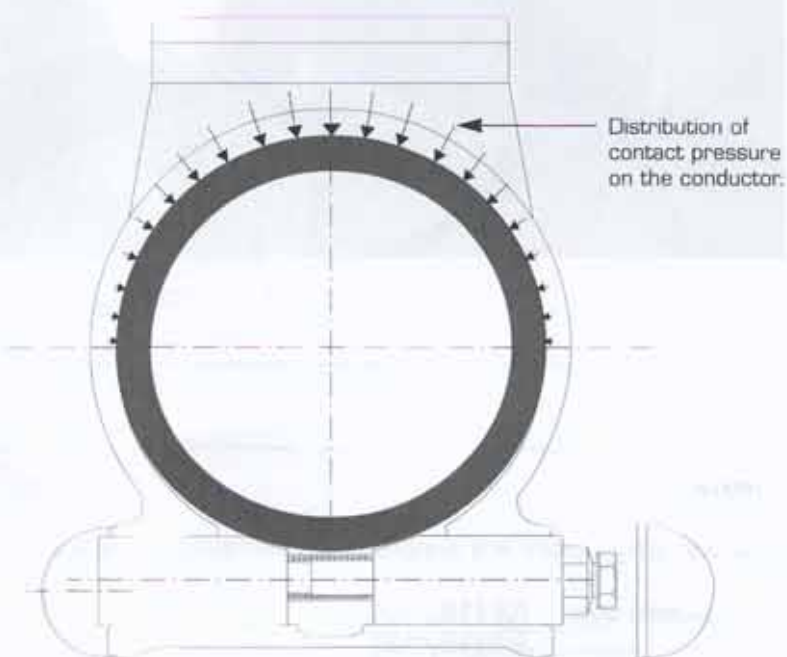


# MULTI ANGULAR CONNECTORS AND TANGENTIAL PAD CONNECTORS



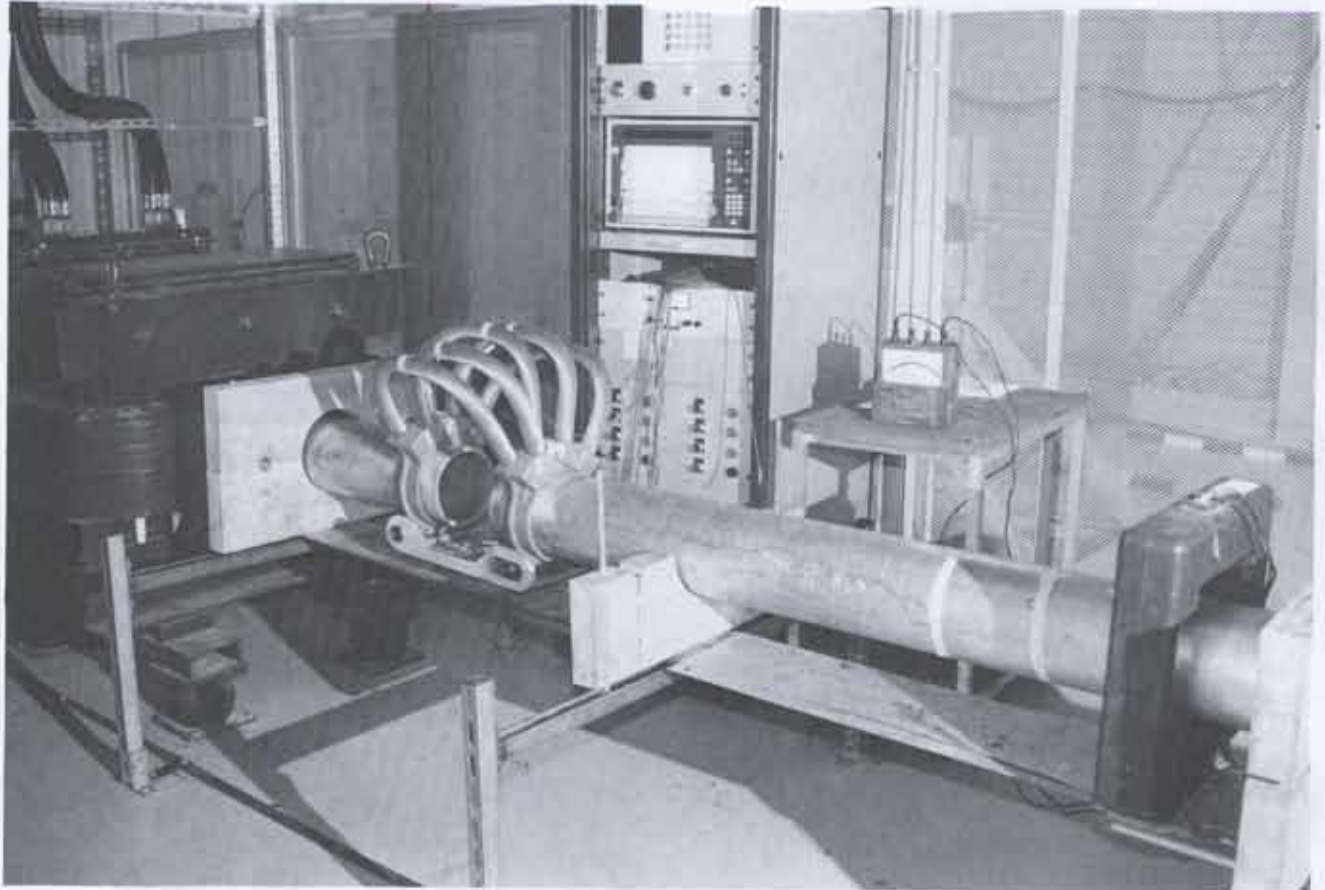
## ADVANTAGES

- Adjustable on site.
- Easy to set up.
- Controlled tightening.
- Very efficient electrical contact.
- Stability of contact improved.
- Compatible with life work (study's proceeding).



Further information on request.

## HEATING TEST IN OUR LABORATORY



### NOTA

All our connectors are supplied with clamping hardware on request:

- Stainless steel : A2 (18/10),  
A4 (18/12).
- Alu. alloy : AZ5GU T 73 (7075 T 73).
- Alu. bronze : UA9.

**Instructions for use (giving the principle of mounting of each connector type and tightening torques according to bolt diameters and their material) are supplied with each consignment.**

# Tyco Electronics SIMEL and its experience at your service

Specialized in the field of electrical connection, Tyco Electronics SIMEL contributes to the equipment of electrical power plants, transmission networks and medium and low voltage distribution networks.

Created in 1947, Tyco Electronics SIMEL has acquired a great experience and is mastering the technology which insures her an international reputation.

## A major strength for the future



## The ISO 9001 Certification

For several years, Tyco Electronics SIMEL has developed and applies a quality system leading the company to be certified ISO 9001 for its connection activity.

On the groundwork of this certification, Tyco Electronics SIMEL continues its quest for ongoing quality improvement.

## Accreditation of the test laboratory

The electrical and mechanical test laboratory of Tyco Electronics SIMEL has been accredited since October 1994, by a third party certifying authority (COFRAC).

This accreditation means that the competence and the quality organization of the laboratory has been assessed and found to be satisfactory and in compliance with the European specific QA standard for test activities (EN45001).

LABORATORY ACCREDITED UNDER NUMBER 1 -0294







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All of the above information, including drawings, illustrations and graphic designs, reflects our present understanding and is to the best of our knowledge and belief correct and reliable. Users, however, should independently evaluate the suitability of each product for the desired application. Under no circumstances does this constitute an assurance of any particular quality or performance. Such an assurance is only provided in the context of our product specifications or explicit contractual arrangements. Our liability for these products is set forth in our standard terms and conditions of sale. ALR, AMP, AXICOM, B&H, Bowthorpe EMP, Critchley, Dorman Smith, Dulmison, Hellstern, La Prairie, Morlynn, Raychem, and SIMEL are trademarks of Tyco International Ltd.



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