ADJUSTABLE CONNECTOR

SBI CONNECTORS
by SICAME GROUP

CURRENT SOLUTION

Disadvantages of the current solution

- Angled busbar connections in most of the substations are obtained either by bending the tube or by welding an aluminum sphere to join the tubes.
- Welding operation must be made on site, difficult to perform due to the precision required, the weather conditions and construction site constraints.
- Bending busbar operation must be done at the manufacturing plant using a special aluminum alloy and heat treatment. This special manufacturing process increase the product cost. Special transport for bending busbars is also an additional expense.

NEW SBI SOLUTION

Elbow connector for busbar from 60º to 180º

- Adjustable on site.
- Easy and fast installation
- Cost effective.

Design type for busbars
from Ø 200 to 400mm

Design type for busbars
from Ø 80 to 180mm

MOST USUAL ANGLE CONFIGURATIONS

60º connection

90º connection

120º connection

In case of order fill the form in page 210-211

SBI CONNECTORS has developed an adjustable connector that allows angular connections between aluminum busbars from 60º to 180º.

Adjustable connector solution avoids bending or welding busbars in the substation and makes installation work faster, easier and more cost effective.

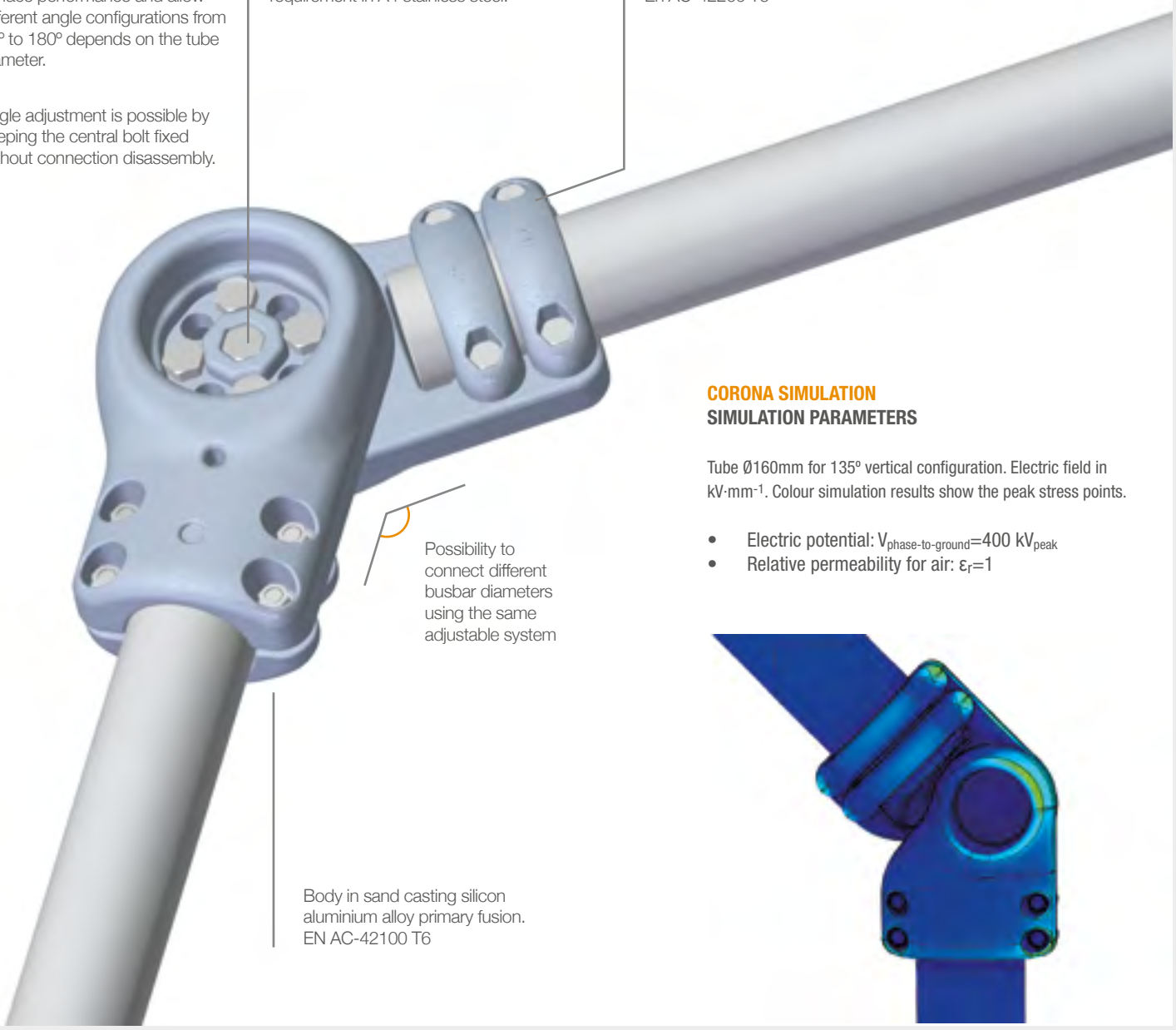
Easy installation
Adjustable on site
Cost effective

Special adjustable system with 5 bolts that assure a right contact surface performance and allow different angle configurations from 60º to 180º depends on the tube diameter.

Angle adjustment is possible by keeping the central bolt fixed without connection disassembly.

Screw, washer and hexagonal nut A2 stainless steel. Available under requirement in A4 stainless steel.

Caps in gravity casting silicon aluminium alloy primary fusion. En AC-42200 T6



Possibility to connect different busbar diameters using the same adjustable system

Body in sand casting silicon aluminium alloy primary fusion. EN AC-42100 T6

CORONA SIMULATION
SIMULATION PARAMETERS

Tube Ø160mm for 135º vertical configuration. Electric field in $kV \cdot mm^{-1}$. Colour simulation results show the peak stress points.

- Electric potential: $V_{phase\text{-}to\text{-}ground}$=400 kV_{peak}
- Relative permeability for air: ε_r=1