



ELECTRICAL MACHINERY OR EQUIPMENT

Electrical room and control cabin

Electrical rooms and control cabins have traditionally been made of carbon steel. This type of structure is often used in dusty, humid and harsh environments. In these conditions, carbon steel often suffers from severe external corrosion.

Because of its well-known corrosion resistance, stainless steel offers a solution for this type of structure. The cabins are used to control two pieces of equipment that transport iron ore at CVRD's facility at Tubarão Harbour.

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LOCATION/ENVIRONMENT VITÓRIA BRAZIL/OUTDOOR

PRODUCT STAINLESS STEEL TUBE

FABRICATION PROCESS CONFORMATION AND BOLTED ASSEMBLING

GRADE AISI 304 (1 TO 3 MM WALL THICKNESS)

SURFACE BRUSHED

COMPETING MATERIAL GALVANISED STRUCTURAL CARBON STEEL

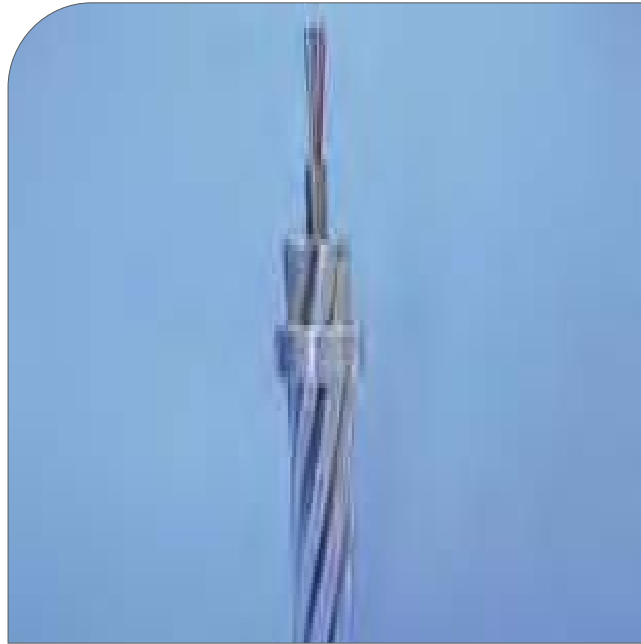
DATE OF COMPLETION NOVEMBER 2006

MANUFACTURING COMPANY THYSSENKRUPP AND COMISA

MATERIAL SUPPLIER ACESITA

SOURCE OF INFORMATION NÚCLEO INOX

REMARKS STRUCTURAL COLUMNS AND BEAMS MADE OF 80 MM SQUARE TUBES (AISI 304, WALL THICKNESS OF 3 MM). TOTAL CONSUMPTION OF STAINLESS STEEL WAS 17 TONNES.



ELECTRICAL MACHINERY OR EQUIPMENT

Tube-type optical fibre unit

In conventional optic overhead ground wire units, aluminium tubes were used to house optical fibres. Switching the tube material to stainless steel has enhanced the reliability of the unit.

Because stainless steel tubes have higher crush resistance than their aluminium counterparts, the wall thickness can be lower. This allows the density of optical fibres to be increased. The diameter of the stainless steel unit remains the same as its aluminium counterpart.

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LOCATION/ENVIRONMENT JAPAN/OUTDOOR AND INDOOR

PRODUCT STAINLESS TUBE-TYPE COMPOSITE FIBRE OPGW

FABRICATION PROCESS COLD ROLL FORMING, WELDING, TUBE DRAWING

GRADE 304

SURFACE

COMPETING MATERIAL ALUMINIUM

DATE OF COMPLETION

MANUFACTURING COMPANY VARIOUS ELECTRIC WIRE MANUFACTURERS

MATERIAL SUPPLIER NISSHIN STEEL/NIPPON KINZOKU

SOURCE OF INFORMATION JSSA

REMARKS