

LEP Dipole Bars

For the LEP project, in 1988 the Company completed the manufacture of 8000 bars.

These bars were needed to feed and excite the dipoles for deflection of the particles moving inside the LEP ring. The aluminium conductor bars have a boring for water cooling and are finally insulated with prepreg tape. The bars have a length of 12 m. The process, starting from the extruded aluminium bar, was articulated in two different phases: one for facing, machining, moulding, welding and sandblasting and the other for insulation and accessory autoclave treatment.



MAGNETS FOR FUSION



MAGNETS FOR HIGH ENERGY PHYSICS



MAGNETS FOR MEDICAL APPLICATIONS



SYSTEMS FOR ENERGY



SERVICES & REPAIRS



Dimensional control of LEP Bar



Type of winding	water-cooled aluminium bars 13 m long, glass epoxy insulated
Conductor	aluminium 99.5% 90x44 mm ² hole ϕ 11.5 mm 60x60 mm ² hole ϕ 15 mm
Current	5,700 Amp
Type of cooling	demin. water forced flow system
Bar weight	130 Kg

LEP Bars after insulation polymerisation