



FOR FUSION









ESRF Quadrupole Magnets

In December 1988 the Company was awarded a contract for the manufacture of 326 Quadrupoles to be installed in the European Synchrotron Radiation Facility 6 GeV Storage Ring in Grenoble, France.

	Short		Long	
Energy		6		GeV
Gradient	9.05		14.3	T/m
Magnet Bore Diameter		36		mm
Good Field Region		±32		mm
Field Quality		<2 10-3		
Magnetic Length	400		900	mm
Ampere-Turns per Pole	7485		9500	
Current	499		475	Α
Conductor Size		13.2 x 9		mm^2
Coolant Hole Diam.		5		mm
Magnet Resistance		0.06		Ohm
Power		12.9		kW
Water Circuits per Magnet		4		
Pressure Drop per Circuit		7		atm
Water Temp. Rise		10		°C

Type: Laminated Yoke Quadrupole
Yoke: Low carbon steel Magnetil B-C
Conductor: OFHC copper



Insertion of the coil moulds in autoclave for curing



View of the workshop final assembly