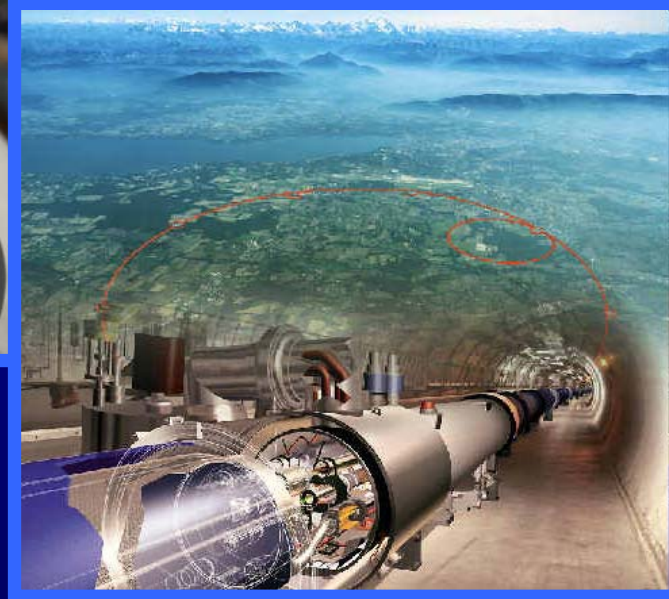


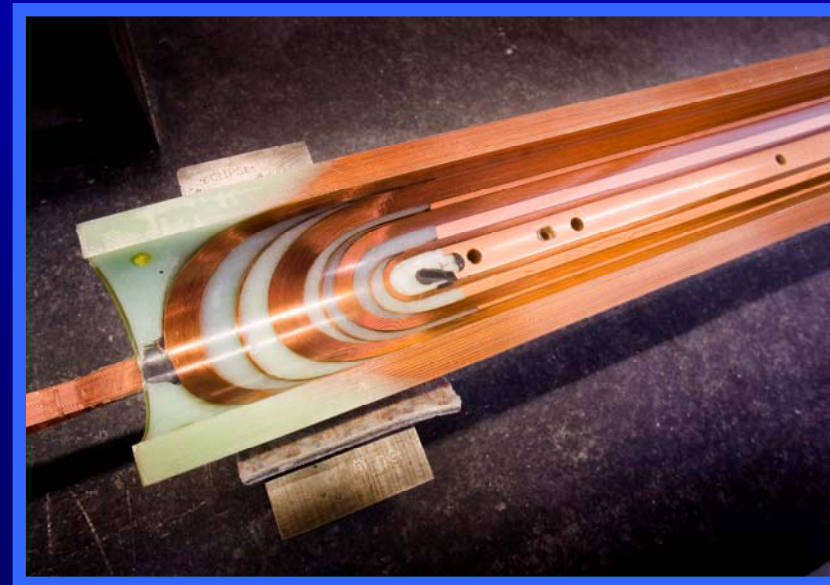
**Tesla Engineering Limited**

# **Superconducting Magnet Design & Manufacture**

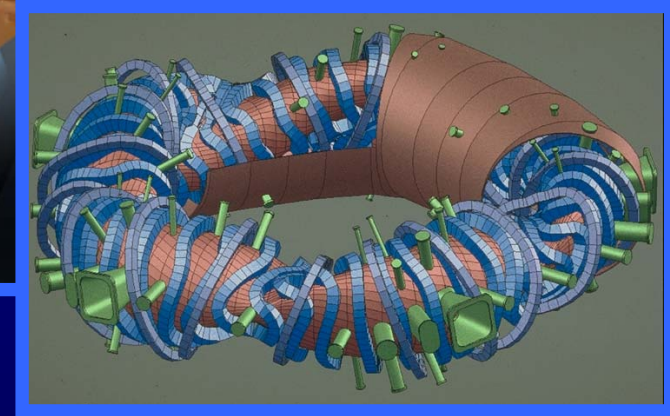
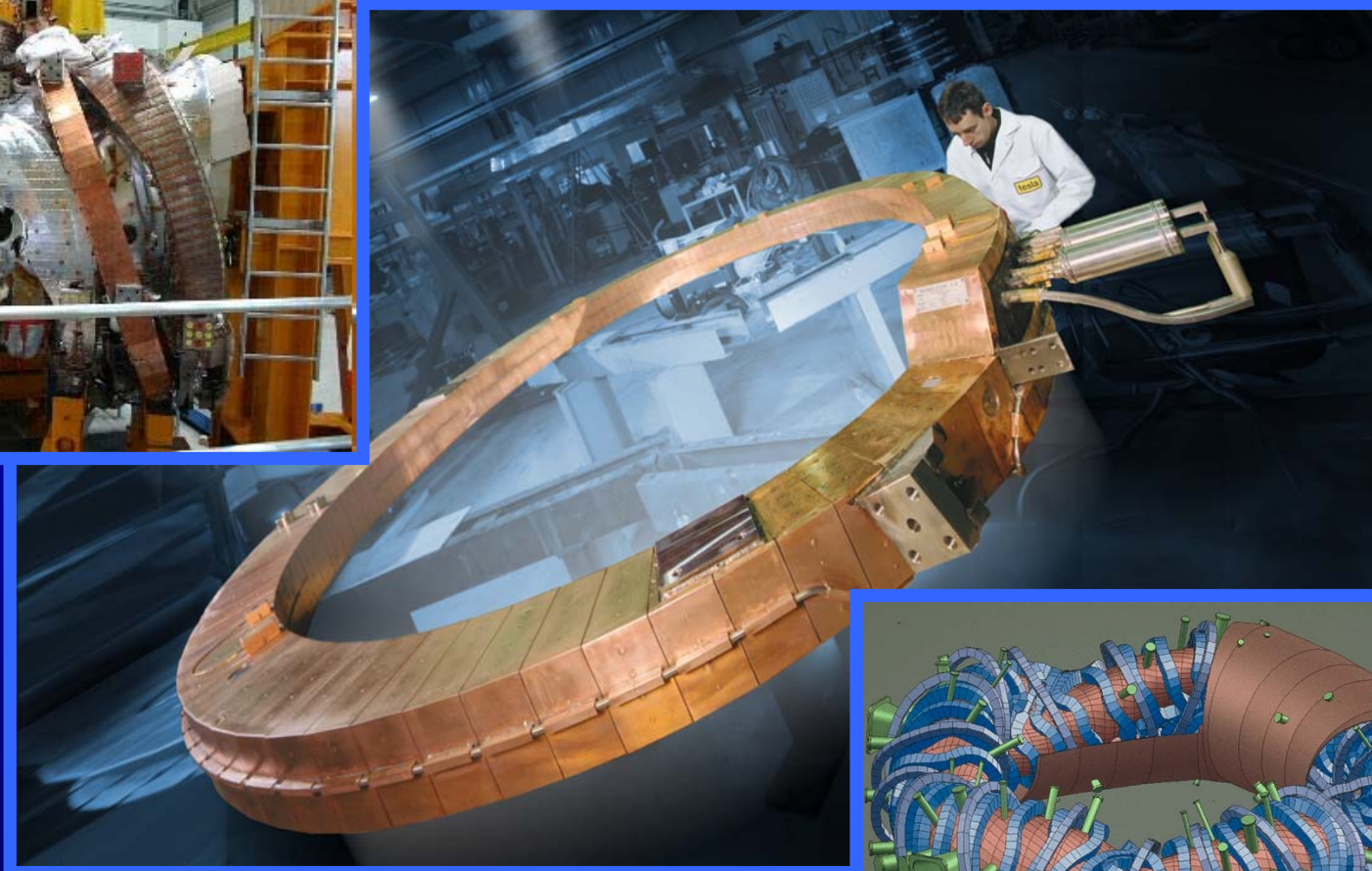
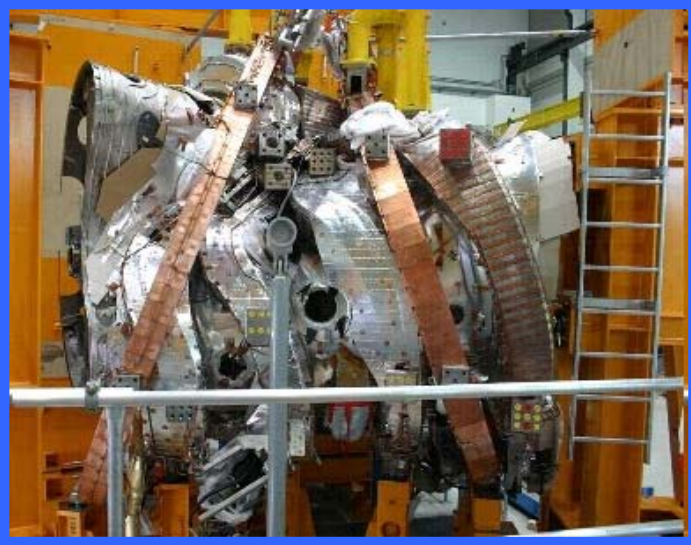
# LHC Magnets (1500 supplied)



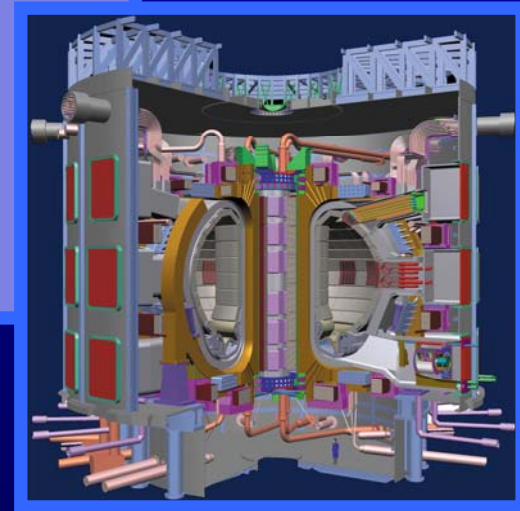
# LHC Magnet Coils



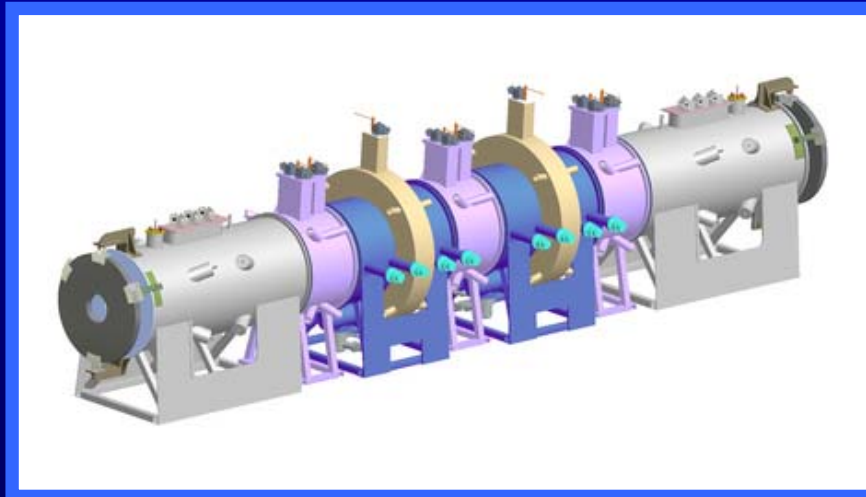
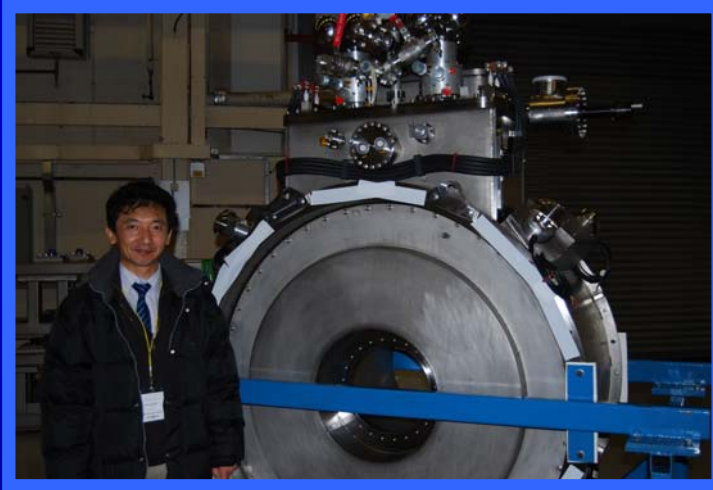
# W7X Planar Coils



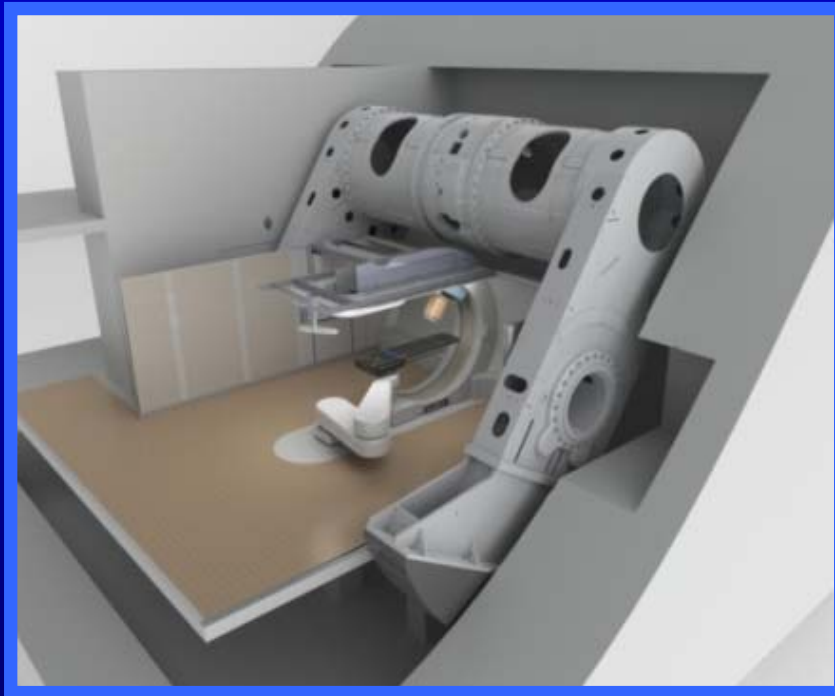
# ITER PFCI



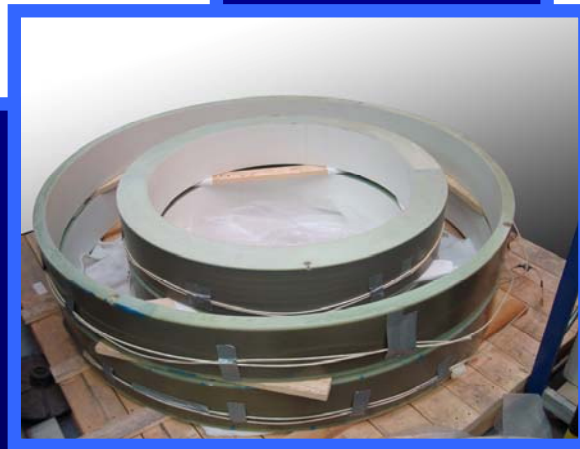
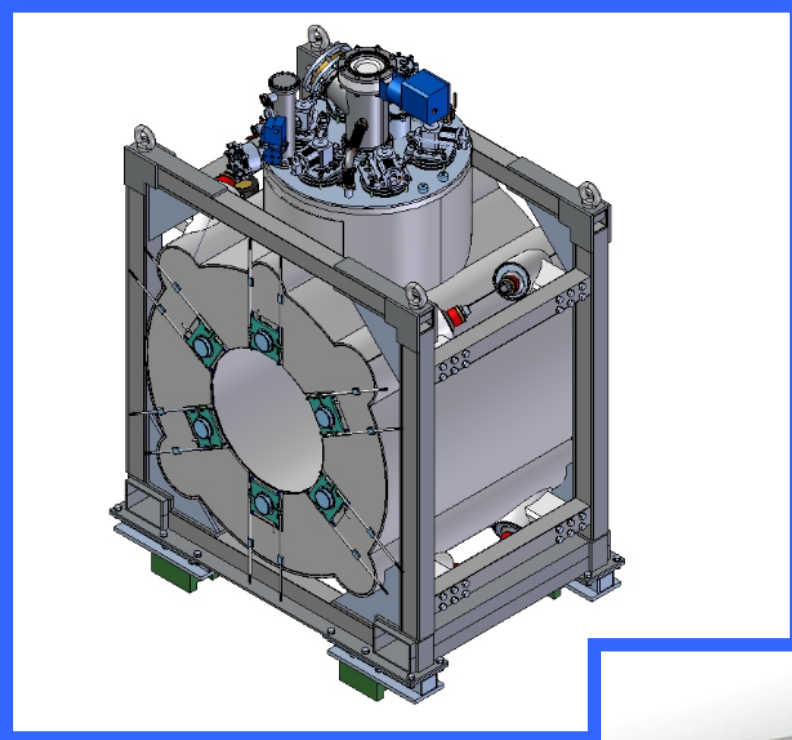
# MICE Focus Absorber Solenoid



# Proton Therapy Magnet (Nb<sub>3</sub>Sn) 10T



# 5T Actively Shielded Solenoid





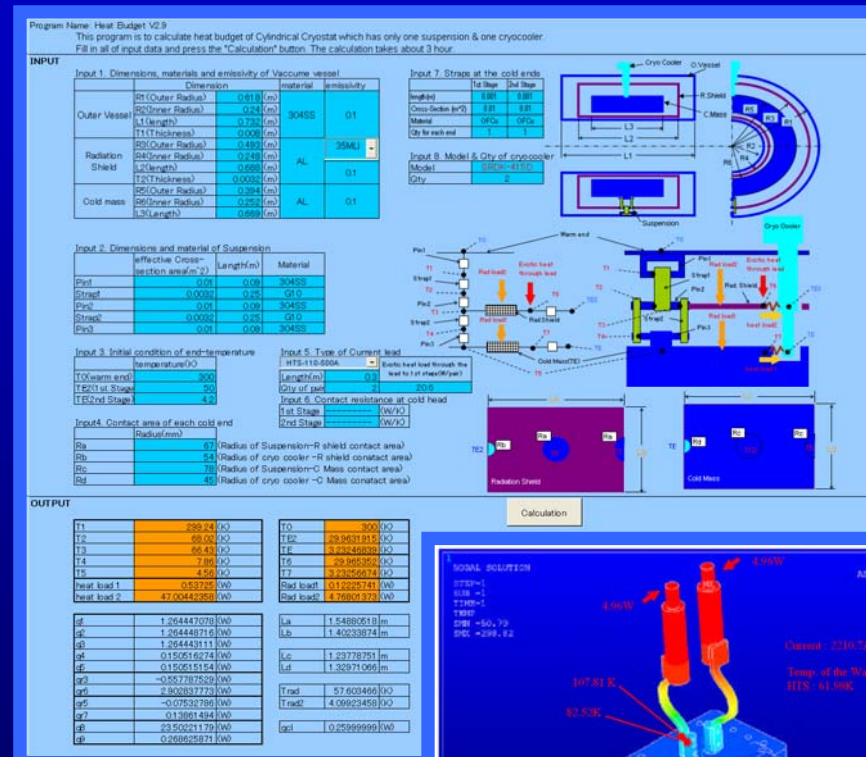
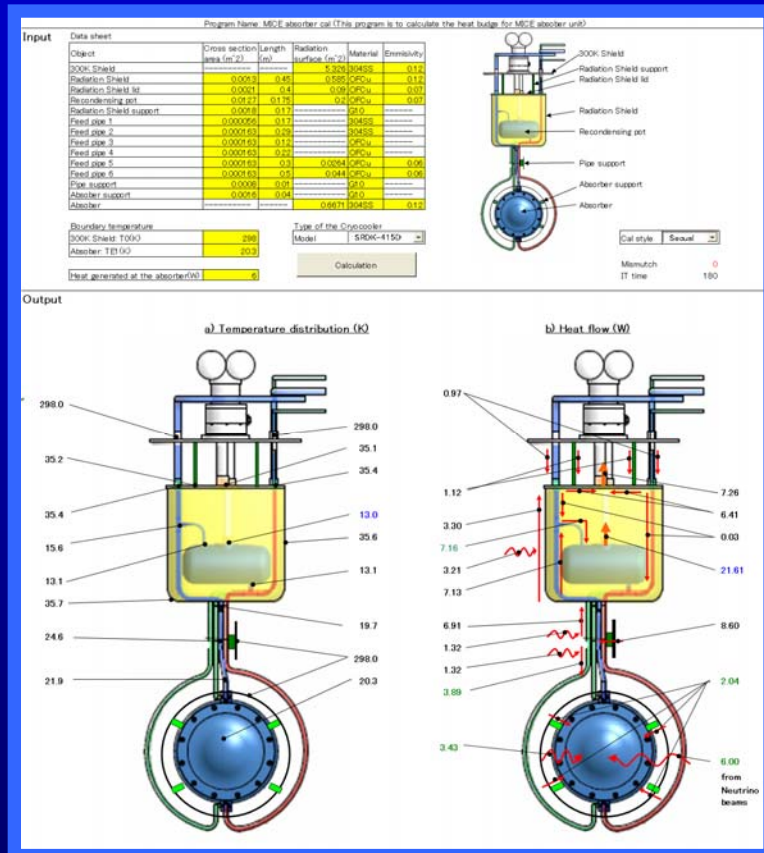
# CERN LEP200 Low Beta Insertion Quad

**tesla**





# Cryogenic Analysis and Design



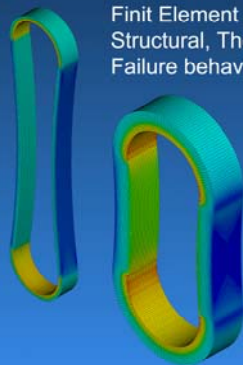
# Suspension Straps

## S2 Glass and Carbon fiber Suspension Straps



Obtained stresses of 1000 MPa\*  
and Strains of only 0.3%\*

\*Straight Section Mechanical Properties - Carbon Fiber : Strain : 0.3% , Stress : 1000 MPa, S2 Glass Fiber : Strain : 1.1 % , Stress : 750 MPa.



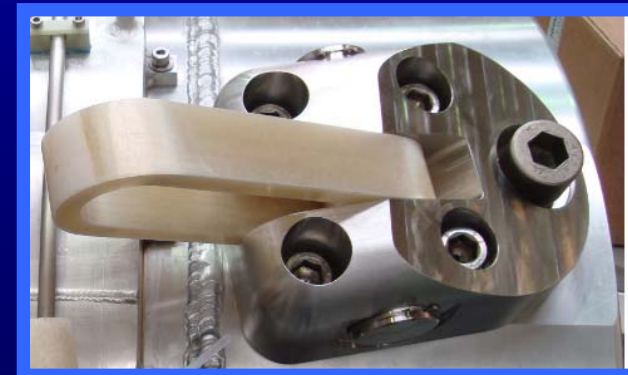
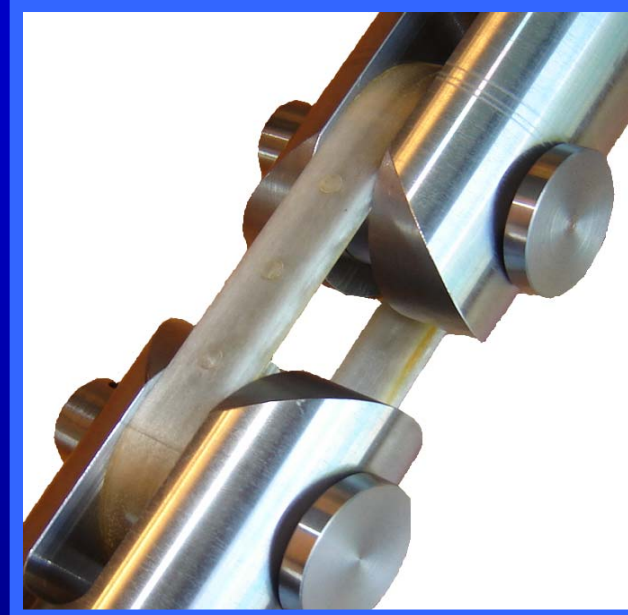
Finite Element Analysis  
Structural, Thermal and  
Failure behaviour.



Strap testing  
Stress, Strain, Fatigue  
and Thermal behaviour

FuturaComposites b.v.  
Adres : Marconistraat 40, 1704RG Heerhugowaard, The Netherlands.  
Tel : +31 (0)725715888 Fax : +31 (0)72 5715711  
Website : [www.futuracomposites.nl](http://www.futuracomposites.nl) Email : [info@futuracomposites.nl](mailto:info@futuracomposites.nl)

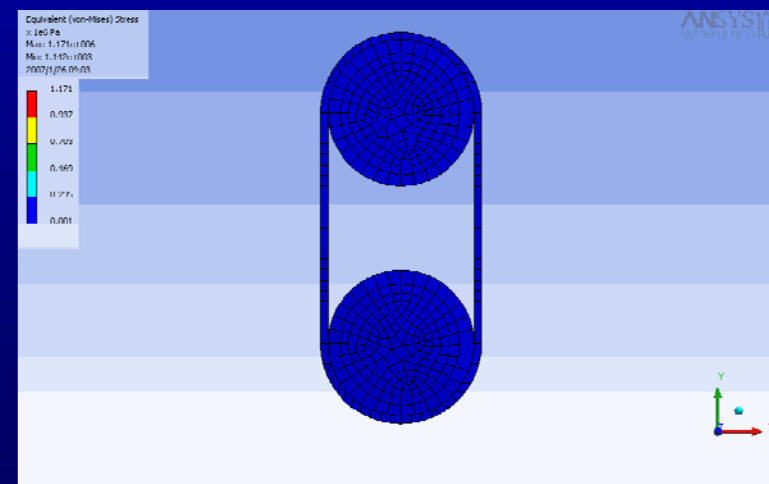
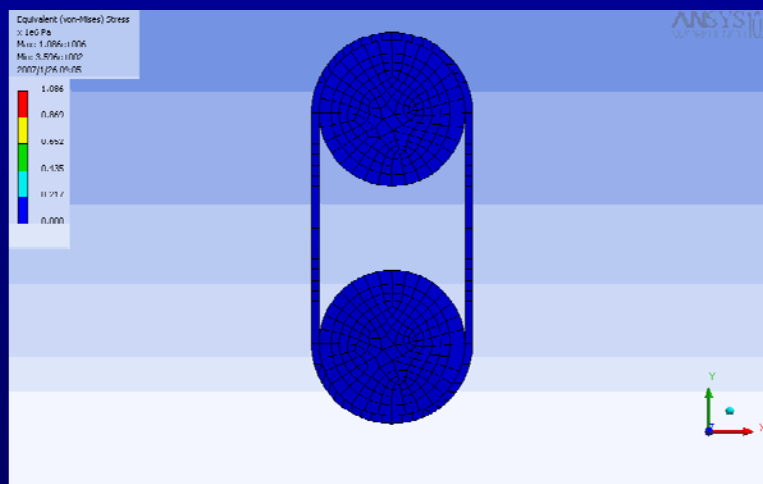
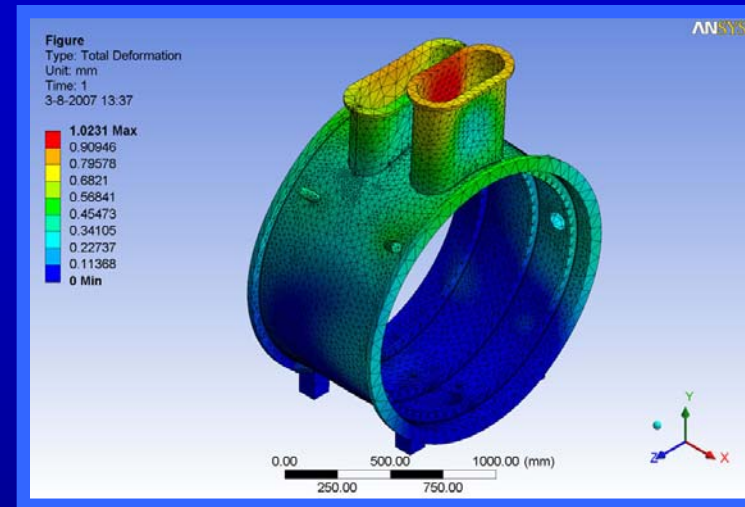
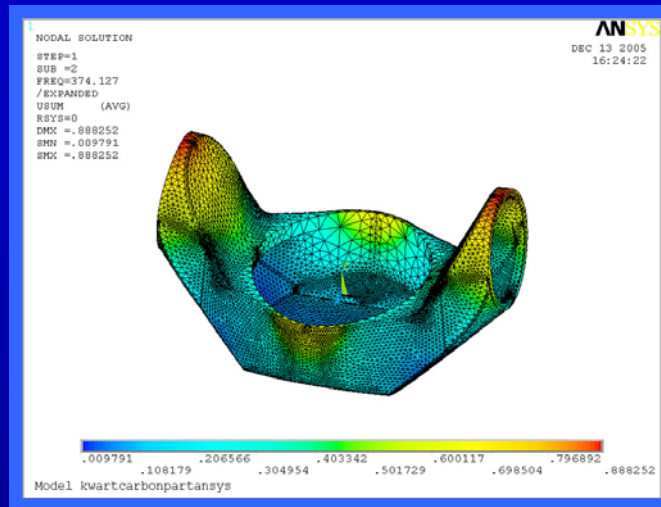
**Futura**  
Specialists in fibre reinforced composites



# Turrets / Unisocks



# FEA - Ansys



**THANK YOU**