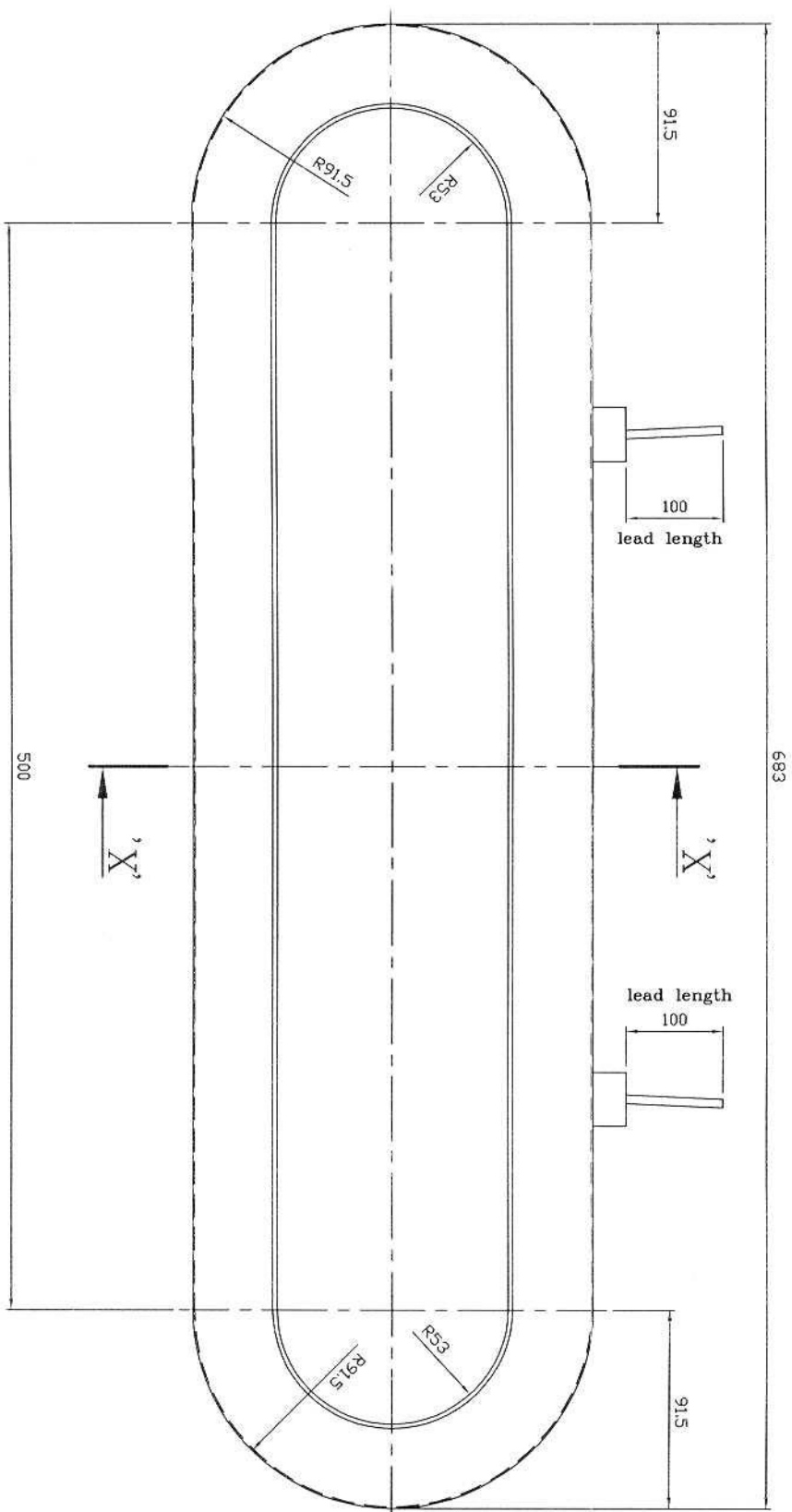
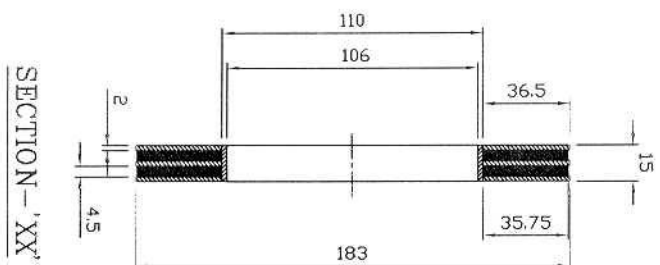


SPECIFICATIONS FOR FORMED COIL OF HTSC MATERIAL

The formed coil should be made from High Temperature Super Conducting (HTSC) wire of the following specifications and the size of coil should be as per the attached drawing:

1. The formed coil should be guaranteed for carrying 150 A DC with a voltage drop of 1 micro-volt per centimeter when the coil is cooled to a temperature of 20 degree Kelvin, in presence of a DC magnetic field of 2.5 tesla.
2. The base material for the superconducting wire should be copper. HTSC wire section 4.5 x 2.2 mm.
3. The HTSC wire should be insulated with polyimide tape of thickness 12.5 micrometer.
4. The type of formed coil should be “Double Pancake” with both ends of the coil should be brought out at the positions shown in the drawing. An extra lead length of about 10 cm should be kept. The coil should be formed on a copper base former of a thickness 2 mm.
5. The coil dimensions should be as per the drawing. There should be 143 turns in each pancake and the double pancake should have a total of 286 turns.
6. It should be possible to connect several such double pancake coils placed on top of each other to make a winding for a superconducting machine.
7. The conductors should be held securely as it is meant for mounting in the rotor of machine.
8. The coil should be tested for 40 A DC at 77 K and self field at the manufacturers works.

No. of layers: 2
Overall size of conductor: 4.5x0.25



DOUBLE PANCAKE HTSC COIL