

## **SERVO HYDRAULIC INTERNAL PRESSURE TESTING FOR DISC/ SUSPENSION INSULATORS.**

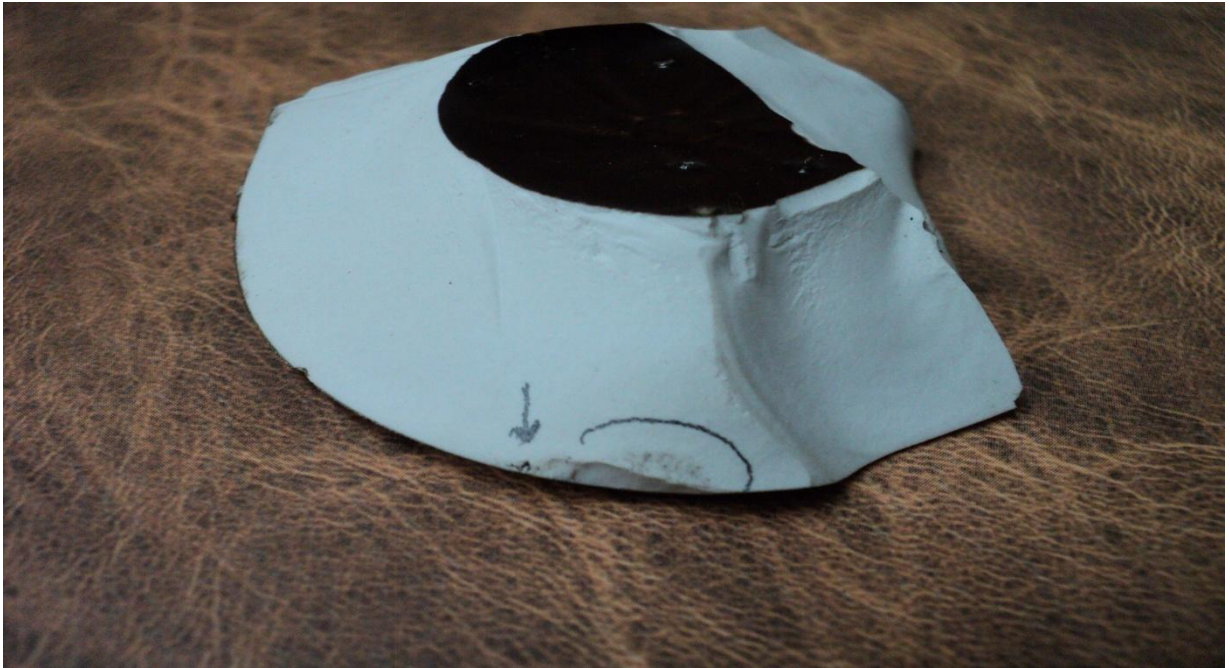
The importance of this test lies not only in its ability to find defects in the insulator shell but this test can also provide accurate reasons for the defect which may have arisen due to several reasons ranging from factors such as raw materials or manufacturing. Some of the defects which can be identified clearly by studying the failed insulators of this test are:

- Weak Head Design (and ways to improve mechanical strength)
- Micro cracks either in manufacturing, drying, firing.
- Grog penetration
- Mould (while die forming / jiggering ) trying to twist the clay.
- Non-uniform firing
- Non-uniform mixing
- Difference in wall thickness at head

And many more other reasons which cannot be otherwise identified but cause failure of insulators over a period of time.



**DISC INSULATOR FAILING THE TEST DUE TO MULTIPLE DEFECTS**



**DISC INSULATOR FAILING UNDER THE TEST DUE TO MICRO CRACKS**



**DISC INSULATOR FAILING UNDER THE TEST DUE TO GROG PENETRATION**

Further when trying to develop a new higher end product or to identify improves the existing head strength problems this machine can (and has helped) correlate your existing material strength with head design/dimensions.

Over the past 30 years SERVO Hydraulic Inner Pressure Testing Machines is being used across 5 continents (North America, South America, Europe, Asia and Africa) by more than 15 major disc/transmission insulator manufacturers. More than 50 such machines are currently under operation around the world.

Almost all of these insulator manufacturers ensure that their each and every product undergoes this test so as to ensure reliability of their product.

This test conducts a routine test, equivalent to tensile test on Porcelain Shells, but before metal assembly. It also detects inherent manufacturing defects generally not traceable otherwise and rejects low strength shells prior to metal assembly. Hence saving on expensive cement, labour for assembly and metal fitting recovery from rejected assembled insulators.