



PRUTHVI POWER TECH CORPORATION

Expertization in Power Equipments Testing - Laboratory

HUBLI.



An ISO : 9001 - 2008 Certified Organisation

Chief Electrical Inspectorate Govt. Karnataka Certified Organisation

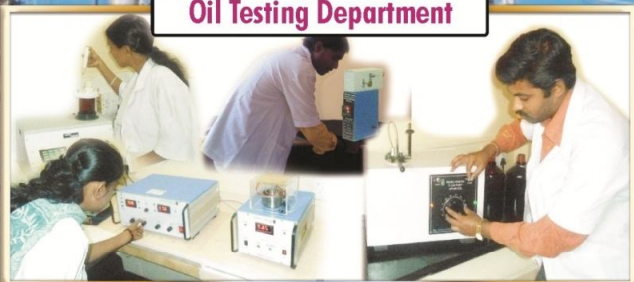
E'SCOMS & KPTCL Aproved Organisation

Level - I & II Mechanical Certified Organisation

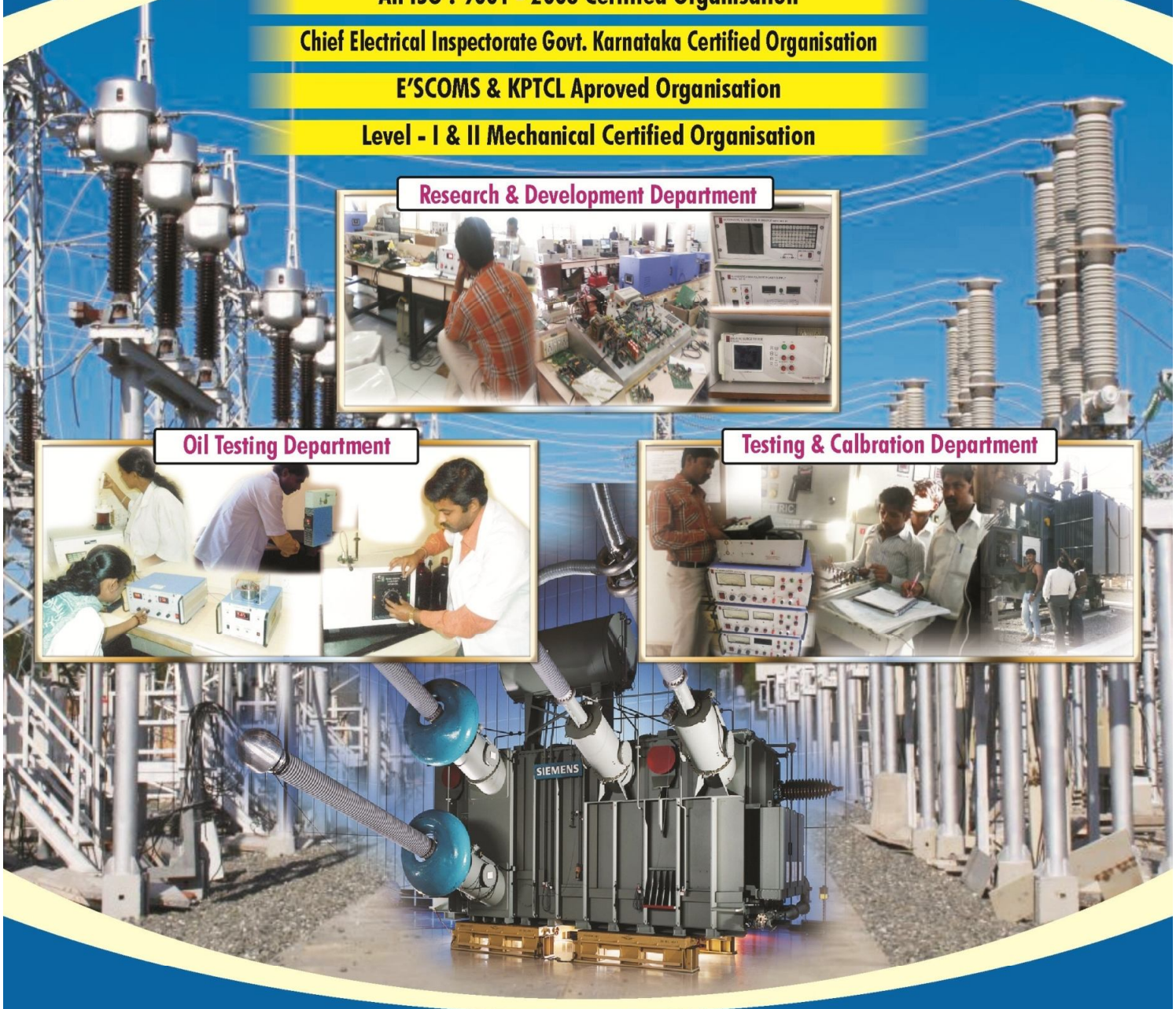
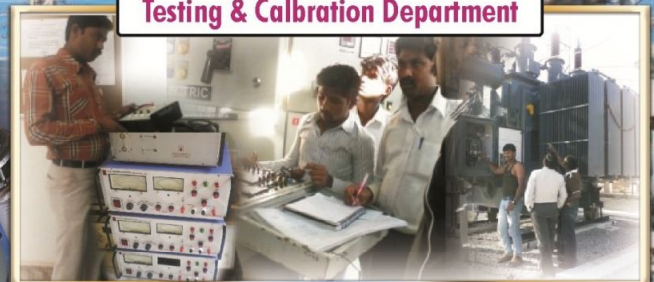
Research & Development Department



Oil Testing Department



Testing & Calibration Department



Registered Office : "PRUTHVI", No. 03, 10th Cross, 6th Main, Priyadarshni Colony, Near Balaji Temple, Gokul Road, HUBLI-580030. (Karnataka) INDIA.
Ph. : 0836-2233011. Cell : +919448071807, +919481123902, +919916861807, Fax : 0836-2233011.
www.pruthvipower.com

Branch Office : "PRUTHVI", NGR Layout, Rupen Agrahar, Bommanhalli, Madiwala Post, Land Mark : Near Ayyappa Swami Temple, BANGALURU - 68.
(Karnataka), INDIA. Ph. : 080-25732704. Cell : +919481123902, +919916861807, +919164452006, +919035757565. Fax : 080-25732704.
www.pruthvipower.com

e-mail : testing@pruthvipower.com / pruthvipowertest@gmail.com



ABOUT US :

PRUTHVI POWER TECH CORPORATION is an India's leading independent power equipment testing laboratory that specializations in diagnostic testing of power equipments like Transformer, Motor, Generator and all types of Relays & measuring instruments commissioning of all types of switchyard & panel equipment, it was established in 2009 as the first commercial laboratory for even Gas- in- oil, furan analysis & many more oil parameters.



Pruthvi Power Tech Corporation, Hubli has providing electrical industries worldwide, with reliable analytical services for the quality assessment. Di-electrical fluids & the early detection of incipient faults in oil, field electrical equipments, all analysis is performed to **Indian or International Standards & Procedure** with the results major production losses & unnecessary oil purification replacement of all old parts of power equipment by new one costs are avoided.

Mr. Ashok Mysore is the young & energetic technical driving force behind the **Pruthvi Power Tech Corporation, Hubli** with having much testing knowledge related to in the field of Electrical Testing, Third party inspection of Mechanical & Civil field by continues endless efforts he got Tested & Diagnosed the so many Power Equipments in entire India & abroad. In the first steps he has set up filtration plant by constructing partnership firm since last 3 years later Mr. Ashok Mysore strongly constituted Independent & Commercial Power Equipment Testing Laboratory & consultancy organization situated in HUBLI.

Pruthvi Power Tech Corporation, Hubli has in effective periodical maintenance program for Condition Monitoring Test on Power Equipment & Transformer oil analysis to contributing to electrical power sector...

OUR TEAM :

Our company as wide range of experience within power engineering & have continued to build on these skills by recruiting new Technical staff & believing in the importance of testing, inspection, consultancy & training in the field of Electrical, Mechanical, Civil & Chemical.

OUR VISSION :

To be the most admired & responsible integrated testing, inspection, consultancy Service Company with international foot print, delivering, cutting edge service to all customers.

OUR MISSION :

We measure our success by customer satisfaction. We satisfy customer with extraordinary team work. We approach our work with fashion & creativity.

OUR GOAL :

- We want to be global leader, delivering, enterprise for testing, inspection, consultancy & project management & solution.
- We want to make global testing technology affordable our client through continues innovation total quality & technical management.

OUR STRENGTH :

We strive to maintain continues important of our management system to ensure technical quality service, we developed & trained all our staff member to meet exceed industry standard to provide service level that maintains a distinction advantages over our competitors review staff annually to ensure that we delivery technical competency & quality staff that progress to that best of their abilities that delivers continues professional level of service, testing, calibration, inspection service by our expert consultant.

PRUTHVI POWER TECH CORPORATION have taken wide range for testing, analysis, Reporting & Recommendation for a Electrical Power Equipments like, Power Transformer, Generator, Motor, Cables, CT'S-PT'S, Circuit Breakers, HV Cables, Grading / Shunt Capacitors, Lightning Arrestors & Calibration of all types of Protective Relays & Measuring Panel Meters & Instruments and also PPTC employs full time dedicated team inspector specializing in Analysis & Reporting of Transformer operates an in a moisture free environment sampling & testing schedule to monitor the condition of the oil & detect a problems before it causes extensive damage.

All power equipment Testing, Calibration, Inspection, Analysis & Recommendation are carried out in accordance with Indian Standard & International Standard at our equipped Laboratory are as follows.



TEST ON TRANSFORMER OIL (TOP, BOTTOM, OLTG) AS PER IS 1866-2000 AT OUR SOPHISTICATED LABORATORY

1) INTERFACIAL TENSION (IFT) :

The interfacial tension measure the tension at the interface between two liquids (Oil & Water) which do not mix, the test is sensitive to the presence of oil decay products & soluble polar contaminants from solid insulating materials, interfacial tension measurement on electrical insulating oil provide a sensitive means of detecting small amount of soluble polar contaminants and product of oxidation, A high value for new mineral insulating oil indicates the absence of undesirable polar contaminants. The test is frequently applied to service aged oils as an indication of the degree of deterioration.



2) TAN DELTA & RESISTIVITY :

This is a measure of dielectric losses in an electrical insulating liquid when used in an alternating electric field & of the energy dissipated as heat. A low dissipation factor or power factor indicates low AC dielectric losses. Dissipation factor or power factor may be useful as a means of quality control, And as an indication of changes in quality resulting from contamination and deterioration in service or as a result of handling Resistivity of a liquid is a measure of its electric insulating properties under conditions comparable to those of the test, High resistivity reflects low content of free ion forming particles, & normally indicates a low concentration of conductive contaminants.



3) ACIDITY :

Insulating oil may acidic constituents that are present as additives or as degradation products formed during service, such as oxidation products. Acidic products of oxidation within the oil will increase rapidly once present. These contaminants have a very aggressive effect on the materials of the transformer. The acidity value of the oil sample will indicate the oil life remaining before it contributes to the deterioration within the transformers. If acidity increases above a certain level the oil requires replacement / regeneration to prevent deterioration of both current carrying and insulating components within the transformer. The life of a transformer can be no greater than the life of the insulating paper and pressboard within the transformer. Although limits are set for the acidity value, it is good practice to process oils well before these limits are reached if the transformer is to give long and reliable service.



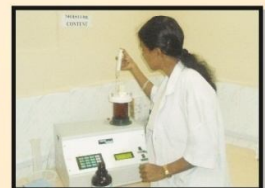
4) DIELECTRIC STRENGTH (BDV) :

The dielectric strength is the measure of the insulating oils ability to withstand electrical stress without failure. The test involves applying an AC voltage at a controlled rate to two electrodes immersed in the insulating fluid. The gap is a specified distance. When the current arcs across this gap the voltage recorded at that instant is the dielectric strength break down strength of the insulating liquid. Contaminants such as water, sediment and conducting particles reduce the dielectric strength of insulating oil. Combination of these tends to reduce the dielectric strength to a greater degree.....



5) WATER CONTENT TEST :

Water content in minute quantities is harm full in power in power equipment because it is attracted to the places of greatest electric trust & this is where it is most dangers. Water accelerate the deterioration of both insulating oil & paper insulating, liberating more water in process heat catalyzes this is never ending circle & once a insulating as be degraded it can never be return to its original condition where therefore to know the growing trend of water content of an oil sample is measured by using a Karl fisher titration method & given in parts per million (PPM)





6) FLASH POINT :

Flash is the temperature at which oil gives enough, vapors to produce a flammable mixture with a air this mixture gives a momentary flash on application of flame understand condition flash point is important because it specifies the changes of fire hazard in the Transformer. So it is desirable to have very high flash point of Transformer oil in general it is more than 140°.



7) DGA :

Insulating oil under the abnormal electrical or thermal stress breakdown to liberates small quantity of Gases. The qualitative compasive breakdown gas is dependent upon the types of fault by means of dissolved gas analysis [DGA], it is possible to distinguish faults such as a partial [corona], over heating [paralysis] & arcing in a great variety of oil filled equipment. The information from analyses of Gases dissolved in insulating oil is valuable in preventative maintenance program. It means which shows that advance working of developing force, a means for conveniently schedule repair monitor the rate of fault development.



The separation, identification requires the use of sophisticated laboratory equipment & technical skill & therefore can only be conducted suitably equipped and competent technical skilled person is available in our laboratory.

8) FURFURALDEHYDE ANALYSIS :

Of paper insulation for its D.P value requires removal of strips of paper from site this procedure can conveniently carried out during the transformer repairs. The result of these tests will be deciding factor in rebuilding on scraping transformer. However it has be shown that amount of 2 – furfuraldehyde in oil directly related to the D.P of the paper inside the transformer. Paper in a transformer does not age informally and variations are expected with temperature, moisture, oxygen level and other operative conditions. Therefore furfuraldehyde can only be conducted suitable equipment and competent technical skilled person is available in our laboratory.



OTHER OIL TESTING PARAMETERS ARE :

- 09) PCB
- 10) Sludge & Sediment
- 11) Kinematic Viscosity
- 12) Pour Point
- 13) Colour & Visual Inspection
- 14) Density

are also included in the transformer oil...

WE OFFER A FULL CONDITION MONITORING TESTS ON POWER EQUIPMENTS

To ensure trouble free performance & maximize their life span, within power equipment & all types of relays & panel meters are need a regular health check up to their optimum performance there for continuous health assessment can also provide an early warning, precaution to issues that cause measure & costly problems down the track, our Residual life assessment test & condition monitoring testing services or made available throughout the India or Neighbouring Countries of the India. For any customers operating at High voltage & Low voltage equipments. Our services covered by well experienced Engineers & High Qualified personal to offer complete field testing services in the both **offline and online**.

This facility is complemented by the range of other testing available which including following power equipments.



1) TESTING PARAMETER ON CONDITION & MONITORING TEST OF A TRANSFORMER.

- a) Capacitance & Tan delta test
- b) DC Absorption Test
- c) Polarization Index
- d) Ratio & Polarity Test
- e) Magnetic Balance Test.
- f) Neutral Floating Point Test
- g) DC Winding Resistance Test
- h) Frequency Response Analysis Test
- i) Leakage Current Test



2) THE TESTING PARAMETER ON CONDITION & MONITORING TEST OF MOTOR / GENERATOR

- a) DC Absorption Test
- b) Polarization Index
- c) Insulation Resistance.
- d) Capacitance & Tan delta.
- e) Leakage Current Test.
- f) DC Resistance.



3) THE TESTING PARAMETER ON CONDITION & MONITORING TEST OF A HIGH VOLTAGE CABLE

- g) DC Absorption Test
- h) Polarization Index Test
- i) Insulation Resistance Test
- j) Capacitance & Tan Delta Test
- k) Leakage Current Test.
- l) DC Resistance.



4) THE TESTING PARAMETER ON CONDITION & MONITORING TEST OF PT'S

- a) DC Absorption Test
- b) Polarization Index Test
- c) Insulation Resistance Test
- d) Capacitance & Tan delta Test
- e) Leakage Current Test.
- f) DC Resistance.
- g) Ratio & Polarity Test



5) THE TESTING PARAMETER ON CONDITION & MONITORING TEST OF A CT'S

- a) Capacitance & Tan Delta
- b) Ratio & Polarity Test
- c) DC Resistance Test
- d) DC Absorption Test
- e) Polarization Index Test
- f) Insulation Resistance Test



6) ELECTRICAL TEST ON OTHER ELECTRICAL EQUIPMENTS ARE :

- Circuit Breaker
- Lightning Arrestors,
- Grading / Shunt Capacitors,
- Earth Installation Testing,
- AC & DC High Pot Test.





7) ONLINE THERMAL IMAGING ON:-

- a) Power Equipments
- b) Plants
- c) Panel Board
- d) Substation



8) CALIBRATION OF ALL TYPES OF RELAYS, ENERGY METERS & PANEL METERS:-

All Relays, Energy meter & Panel Meter have a need to be Testing & calibration to ensure their operation manner in a expected way if the Relays & Measuring instrument not calibrated correctly the instrument will not operate at the expected time mean value or may operates slower / faster due to the time dial calibration being different un expected.



**FOR ANY TECHNICAL SUPPORT AND DISCUSSION PLEASE
FEEL FREE TO CONTACT US AT ANY TIME (24X7)**

Mr. ASHOK MYSORE

Chief Executive Director
(Technical & Quality)
Cell : +91 94480 71807
+91 9916 861807

Mr. SANJEEV MYSORE

Marketing Manager
Cell : +91 94811 23902
+91 98860 41807

Miss. SALMA. B.

DGM (Commercial)
Cell : +91 97437 18541
+91 9742 091807

Mr. CHETAN SARVADE

Quality Manager
Cell : +91 99168 61807
+91 97420 61807

EXPECTATION ON OUR VALUED CUSTOMER

Pruthvi Power Tech Corporation, Hubli. have developed as the biggest organisation in similar field to serve best the customer. Even though we need your support and blessing for keeping our foot print on the globe.

Please, treat Pruthvi Power Tech Corporation, Hubli. is your kid. We are expecting valuable orders from your end.