



YEAR: 3 ISSUE: 9

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# **CHAIRMAN'S ADDRESS**



#### Dear Team Mates,

It is my pleasure to address my team on the occasion of completion of 75 years of Independence , of our beloved nation.

We as group of companies have walked our way in almost half the journey of Independent India contributing our best to the growth of the nation.

The group has recently entered into the specialized refurbishment of Infrastructure solutions for the power sector. We are now offering refurbishment of aging assets to make them as reliable as new. We also take care of arresting of SF6 gas leaks and Oil leaks.

This is a move forward step by us. We used to help power sector in "Finding the fault" as a service earlier, now we have added "Fixing the Fault" also as part of our service.

We as a group have been performing very well and our team has been excelling in their efforts to deliver their best to the industry and nation.

Azadi Ka Amrit Mahotsav is an initiative of Govt of India to celebrate 75 years of Independence. I wish my team , my friends my Partners and our esteemed customers best wishes of this celebrations.

Thanks and Regards **M N Ravinarayan** Chairman

## NON-CONTACT HIGH VOLTAGE DETECTOR - VOLTCHEK

Power system is equipped with lots of components and all of these are under the mechanical as well as electrical stresses. Huge amount of maintenance works is being conducted on the power networks. Adequate maintenance works has been carried out by maintenance team ever to support the undisrupted power delivery to end users from the source of power generation. Most of the maintenance works have been carried out online as well as offline. Since there are different levels of voltage ranges are available across the world depending upon the distance as well as power requirements, proper precautions need to be taken up by the personals.



For the very first safety of personal working with the power handling components such as conductors, insulators and other electricity handling devices a conformity to work with them need to be ascertained. Whether the specimen they are going to work with is free from electricity need to be confirmed. To do this we can adopt tow methods contact and non contact voltage detection method. Contact method is very common for lower level of voltages usually dominating in the domestic usage. But when it goes to higher voltages such as Kilovolts, a contact type voltage detection method can be fatal. There are zones identified as arching zone in which any object gets closer to the electricity carrying specimen close to ground, an arc will be formed to discharge the electricity to ground. In such case a non contact method to

identify the presence of electricity need to be adapted. For line person working on high voltage carrying equipment need to be assured that the object they are going to grab is free from electricity. For this purpose, non contact type voltage detectors have been evolved.

Taurus has developed voltchek as the lineman safety tool which can

confirm the lineman that the object, they are going to work is free from line voltage as well as induction voltage from ground itself. It incorporates sophisticated circuitry that empowers the equipment to function effectively & trace any Voltage presence Low or High in Overhead Lines. This comes with a wide range of Voltage Selections from 230V to 765kV in a Single Unit. The Voltchek is a Non-Contact Voltage Detector that detects the presence of an alternating electric field. Its unique switching



action allows for the identification of alternating currents from safer distance away from a voltage source. The equipment is used for live or dead voltage determination of outdoor overhead test points. The unit works indoors tracing voltage sources in power boards. Induced voltage on isolated conductors can be checked by increasing the sensitivity.

Taurus Voltchek is more promising with it's salient features from it's competitors. As a safety concern, during operating time the equipment will continuously gives indication that it is active with beep sound and light indication during every 2 seconds. In the event of electricity detection, the equipment will be giving continuous alarm with high intensity light. Since voltchek has been powered by 9V cell, when the cell voltage drop down below 5 volts, a low battery indication will given by built in LED indicator to ensure the voltchek needs a battery replacement for safe trusted operation. Wide selection of voltage range allows the user to set the sensitivity which can help to identify the presence of induced voltage. Selection range and distance of detection given along with the manual so that the user can have the clear idea to set their voltage selection depending on their usage.

Taurus voltchek comes with the self test functionality, helps to verify the performance conformity prior to taken to the site. Voltchek is always supplied with suitable hotstiks even though its sunrise universal connector can be attached with any hotsticks having universal connector.

By NIJIN PAUL, Manager

# **LEAKY INSULATOR DETECTOR – DISTRIBUTION LINES**



The Leaky Insulator Detector (LID) is a handheld non-destructive inspection system which utilises unique sound technology for predictive maintenance of the overhead distribution. The Leaky Insulator Detector (LID) has an ultrasound receiver with a specially designed sensor to identify the internal arcing, tracking & partial discharge of overhead power lines insulators to identify the leak/weak insulators from the ground.

### INTRODUCTION

The weak/leak insulator emits the ultrasound signals at a highfrequency range which is not audible to normal human ears. Practically insulation failure occurs in the event of switching strikes, air crack in the disc/pin insulators, contamination, and arcing & tracking. These critical problems can not be identified by conventional methods.

Leaky Insulator Detector (LID) portable partial discharge detection system made available to identify the leak/weak insulators from the ground level to help TLM team to take right decision in replacing of the defective insulators.

The weak insulator produces arcing sound internally, which can be picked up by the ultrasound partial discharge detection method to pinpoint the leaky insulator. This in turn helps discom's to reduce the AT&C losses.

How deterioration of the insulators leads to failure of insulation &

Ultrasound Partial Discharge:

- The puncture insulator high frequency PD due to loss of insulation.
- This puncture is associated with arcing noise internally. Detection of arcing can be done with ultrasound partial discharge detection method as discussed below.



- Gradually over a period of time arcing will deteriorate the insulators & will fail tripping the line.

#### **ADVANTAGES OF USING LID**

- Analyzing leak/weak insulators of the distribution poles by measurement of ultra-partial discharge from the ground level in online condition to help the O&M team for taking the right decision towards pin pointing active flash over/shorted insulators.
- Ultrasound measurement methodology uses to pin point the particular string of the tower by taking leakage currents results.
- From ground level leaky Insulators can be identified. No need to climb on tower/Pole, no shut down required.
- No skill manpower required, easy  $\&\ simple\ operating\ procedure.$
- Single Instrument for all type of distribution line insulators (glass, porcelain & polymer).
- Single instrument to locate leaky insulators, corona discharge.

### By Alex Gerald, Chief Manager

### LEAKAGE ARRESTER MECHANIC REPAIR KIT FOR GAS AND LIQUID

A Package consisting of Dura Alloy, Speed Alloy which dries within 5 minutes and Speed Alloy QS which vulcanises within 30 seconds to a Minute.

High-Performance Polymer Composite for resurfacing and protecting all types of fluid flow components from aggressive erosion and corrosion damage.

• Apply by Brush, Roller or Flexible Applicator

- Requires No Heat
- Unlimited Shelf Life
- 100% Solids
- Safe & Simple to use
- Repair Kit for Gas and Liquid leakage
- Can be used in SF6 gas leakage arresting
- It is also very good when it comes to arresting oil leakages.







By Shridhar U G, Sr. General Manager

## **USES OF TRADITIONAL MEDICINES**

Traditional Medicines derived from medicinal plants are used by about 60-70% of the world's population. This review focuses on Indian Herbal drugs and plants used in the treatment of many illness, especially in India.

In the last few years there has been an exponential growth in the field of herbal medicine and these drugs are gaining popularity both in developing and developed countries because of their natural origin and less side effects. Many traditional medicines in use are derived from medicinal plants. A number of medicinal plants, traditionally used for over 1000 years named rasayana are present in herbal preparations of Indian traditional health care systems. Among traditional used medicinal herb, "**Patre**" which is scientifically known as "**PLECTRANTHUS AMBONICUS**" is used for

the treatment of cold, asthma, constipation, headache, cough, fever, skin allergy, insect bite, wounds.

India is the largest producer of medicinal herbs and is called as botanical garden of the world.

Medicinal plants are being looked up once again for the treatment of above mentioned illness

Major hindrance in amalgamation of herbal medicine in modern medical practices is lack of scientific and clinical data proving their efficacy and safety.





There is a need for conducting clinical research in herbal drugs, developing simple bioassays for biological standardization. It is also important to establish the active component/s from these plant extracts

### Usage of the plant:

1. Used in cooking-

This can be used to make chutney by frying with red chilli, jaggery, turmeric and coconut and can be consumed with rice, dosa or with chapatti.

- Can be used to make tasty snack bajji by mixing it with onion, channa dal.

2. Medicinal, pharmaceutical

3. Ornamental – potted plant which can be grown inside house and can be used as environmental purifier

4. For ritual uses -





By Shridhar U G, Sr. General Manager

### **PUNCTUATION MARKS**

Comma - This is me, taking a pause when there's a lot going on, all at one go

Period - Me knowing when to end what is not supposed to last, armed with conviction

Hyphen - Me building bridges supported by silences and connecting spectrums not meant to meet

Inverted Commas - This is me, understanding what matters and believing that truth shall prevail

Exclamation Point - It is my being able to express any feeling and coming alive each time doing so

Question Mark - Me accepting that it is okay to not know everything and to seek help once in a while

Brackets - Letting the world know there's a lot about me that is 'in between the lines'

And my favourite,

Three Dots (technically called an ellipsis) - They never fail to remind me that all is not over till I decide it is.

#### By Turjoy Dasgupta, Asst Manager

## **BIRTHDAY WISHES THIS QUARTER**

Syed Ehtesham Abbas	5 Aug	Nimitha K K	4 Nov
Thippeswamy CT	8 Aug	Vijayan KA	5 Nov
Akash Anand	13 Aug	Sharath Raju B	23 Nov
Rajesh Acharjee	18 Aug	Srivatsa Kulkarni	24 Nov
S Ajay Kumar	22 Aug	Turjoy	17 Dec
Karre Vishwanadh	16 Sep	Anbu A	23 Dec
Ranjith Gowda R	19 Sep		

# WELCOME NEW TAURUS COLLEAGUES



**P G Aiyar** Business Head – GRID-M South

## **HIDDEN TALENT**



By Sanchit Srivastava, Manager-Tech, Product, AUMSRI & Sales

#### By Anuskha Kamal Daughter of Prajitha

# FROM EDITOR'S DESK



#### Dear Readers,

To all the readers out there, I welcome you all to our 9th edition of the Watts Up magazine. It's a digital initiative in the form of a quarterly magazine released by Taurus Powertronics Private Limited, to educate, inform and update on the latest and greatest innovations, inventions and research happening in the field of power.

India will celebrate its 75th year of independence on August 15, 2022. This year, we are all here to recognize our privilege of being born in a free India and to commemorate our country's 75th anniversary of independence. This day evokes a wide range of emotions; it reminds us of the agony of slavery; it defines sacrifice; it demonstrates that some wars can be won through non-violence; and, above all, it makes us appreciate and cherish the freedom we have today.

As proud citizens of this country, it is our responsibility to do our duty and work together for the growth and development of our country. Similarly, it has always been Taurus's motto to serve society and this industry through various initiatives for a very long time, and we as Taurians are proud enough to say that we have been astonishingly resilient, committed, and present for all of our partners, clients, and the community through thick and thin, and we will always remain resilient.

I am sure that, irrespective of any resistance or impedance, the frequency of the Watts generated currently will be increasing constantly day by day at Taurus.

See you guys at the next edition. Till that time let's embrace Azaadi ka Amrut Mahotsav...!!

By Atish Kumar Biswal, Sr. General Manager

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