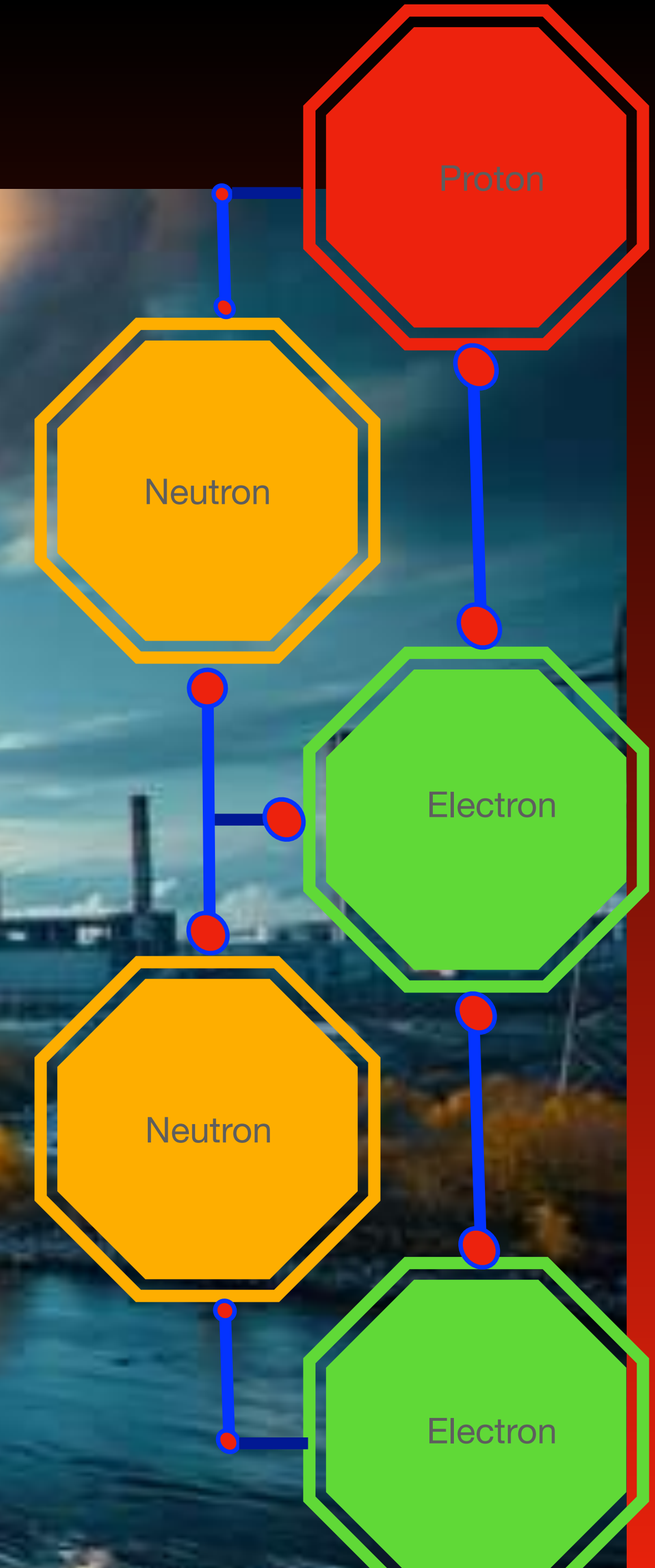
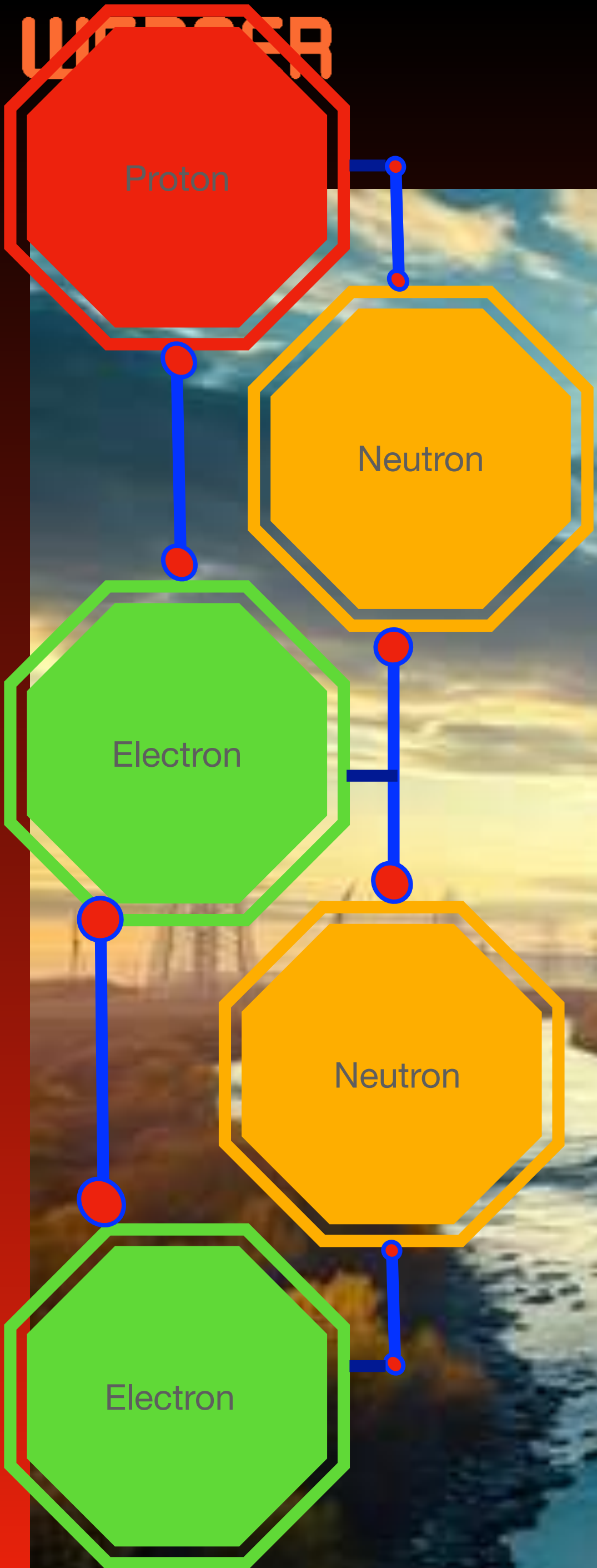


Werner Nuclear Division Bu - Grp Company Profile



**Our Products & Mosaic Panels are :-
Seismically Qualified. Globally Compliant. Locally Trusted.**

WERNER

Inventing innovations



Welcome to Werner Electric Pvt Ltd, a leading manufacturer of electrical Low voltage Switchgear & Control Room solutions for a different Verticals of industries. Our commitment to excellence, innovation, and customer satisfaction has driven our growth as an emerging global leader.





OUR NEW BUILDING CONSTRUCTED IN 85,000SQFT WITH STATE-OF-THE-ART MACHINERIES, LAB, INVENTION CENTRE, EXPERIENCE CENTRE, ASSEMBLY, INTEGRATION, ONE STOP SOLUTION AT SINGLE ROOF.

Company Highlights

1

Global Reach

Our products are manufactured in India and distributed across the globe, serving a diverse customer base.

2

Quality Focus

We are committed to delivering high-quality products that meet the strictest industry standards.

3

Innovation Driven

Werner Electric is constantly exploring new technologies and solutions to enhance its product offerings.

4

Customer-Centric Approach

We prioritize customer needs and strive to provide exceptional service and support.

5

Manufacturing Excellence

Our state-of-the-art manufacturing facilities in India are equipped with advanced machinery driven with best technicians to ensure consistent product quality.



Subsidiary-1

Werner Elektrik Türkiye

Ayazağa Mah. Mimar Sinan Sok. Seba Office Boulevard.
D Blok. No.: 21D/45 Sarıyer / İstanbul, Türkiye.
Telefon: +90 539 829 25 07 , E-posta: info@wernerelektrik.com

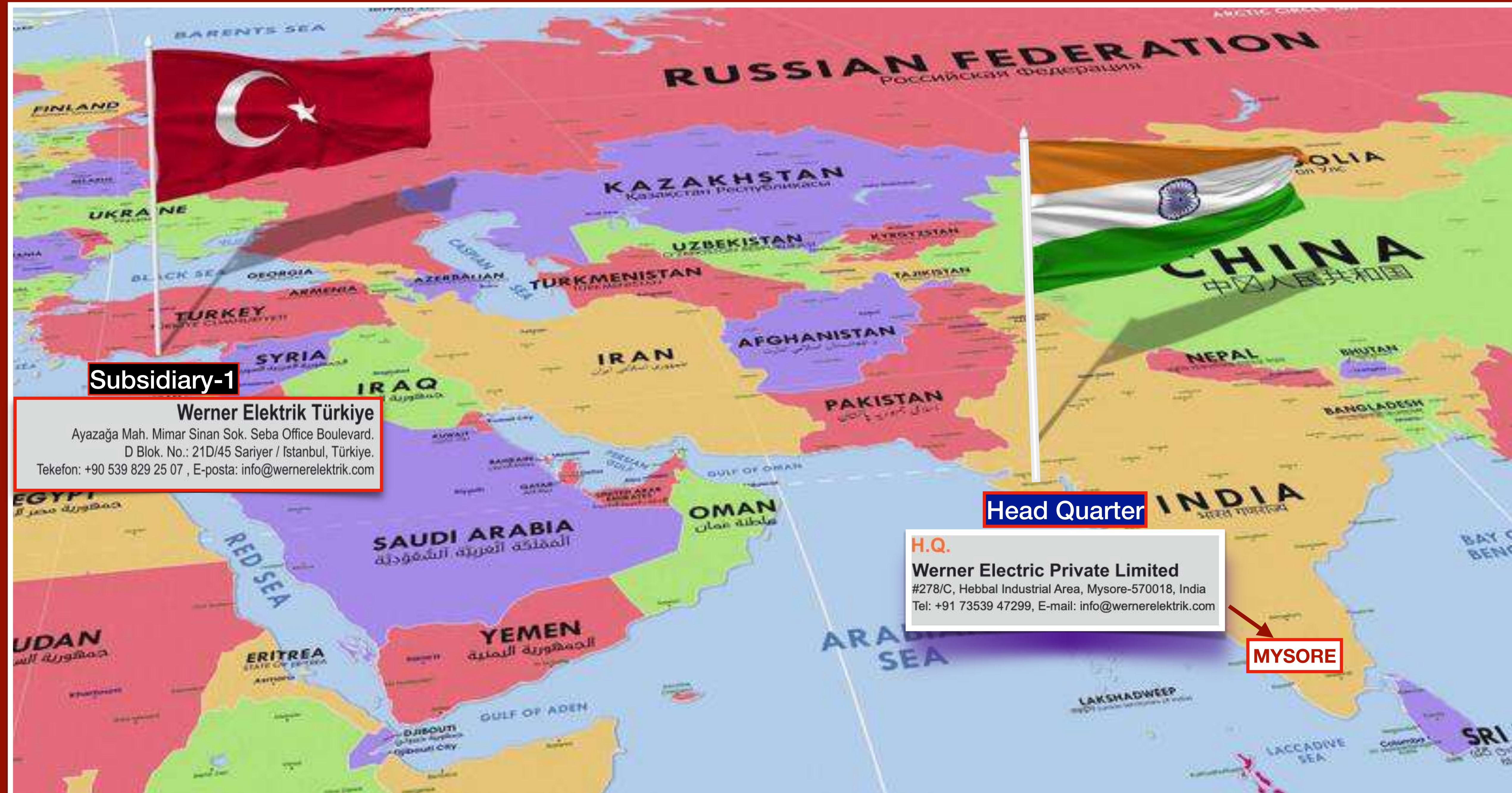
Head Quarter

H.Q.

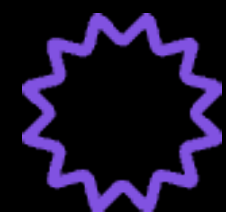
Werner Electric Private Limited

#278/C, Hebbal Industrial Area, Mysore-570018, India
Tel: +91 73539 47299, E-mail: info@wernerelektrik.com

MYSORE



Certifications



ISO 9001-2015

Quality Management System certification.



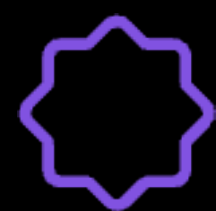
BIFMA & FSC

Business and Institutional Furniture Manufacturers Association certification.



OHSAS 18001

Occupational Health and Safety Assessment Series certification.



CE & RoHS

European Conformity and Restriction of Hazardous Substances compliance.



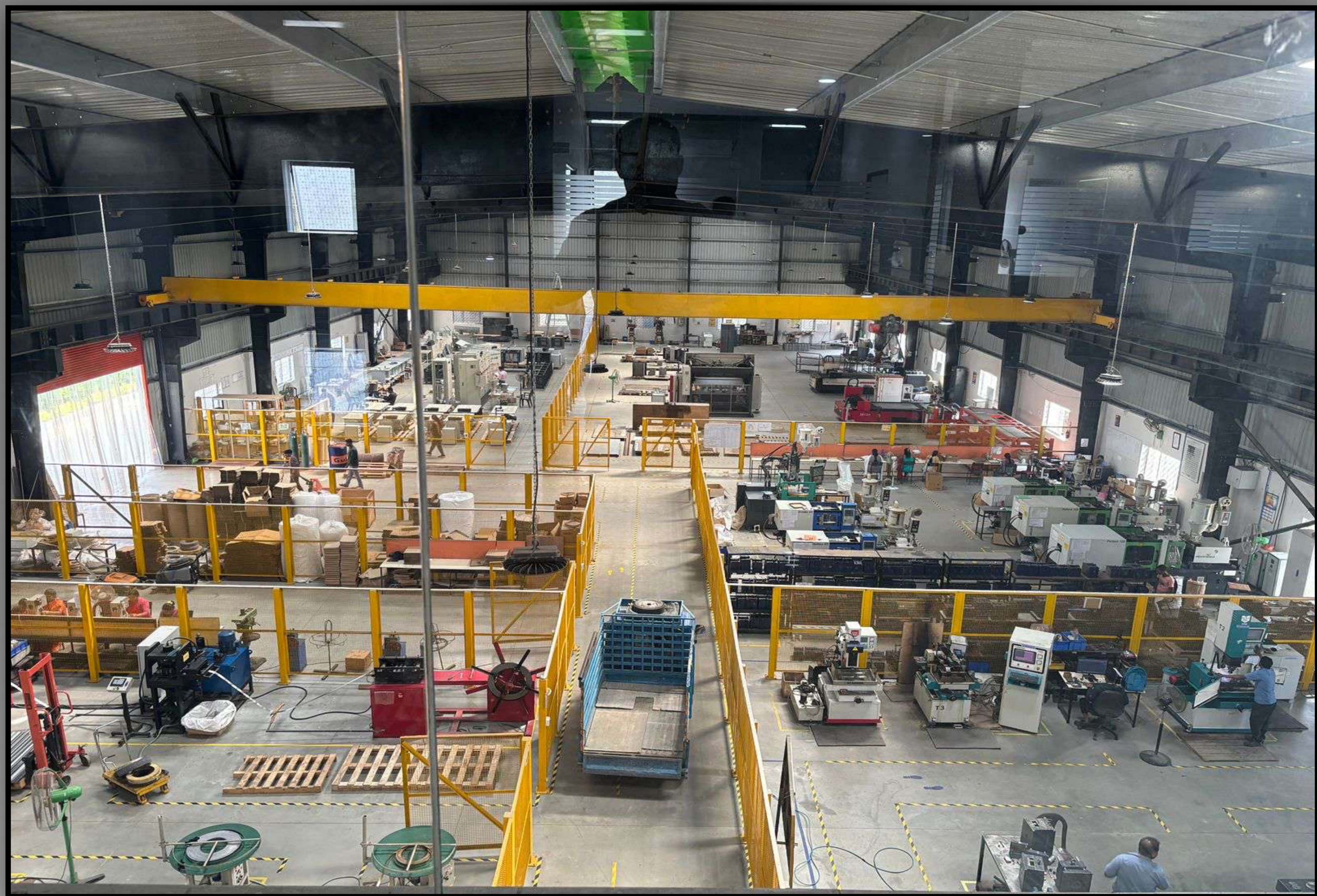


WERNER INSIGHT

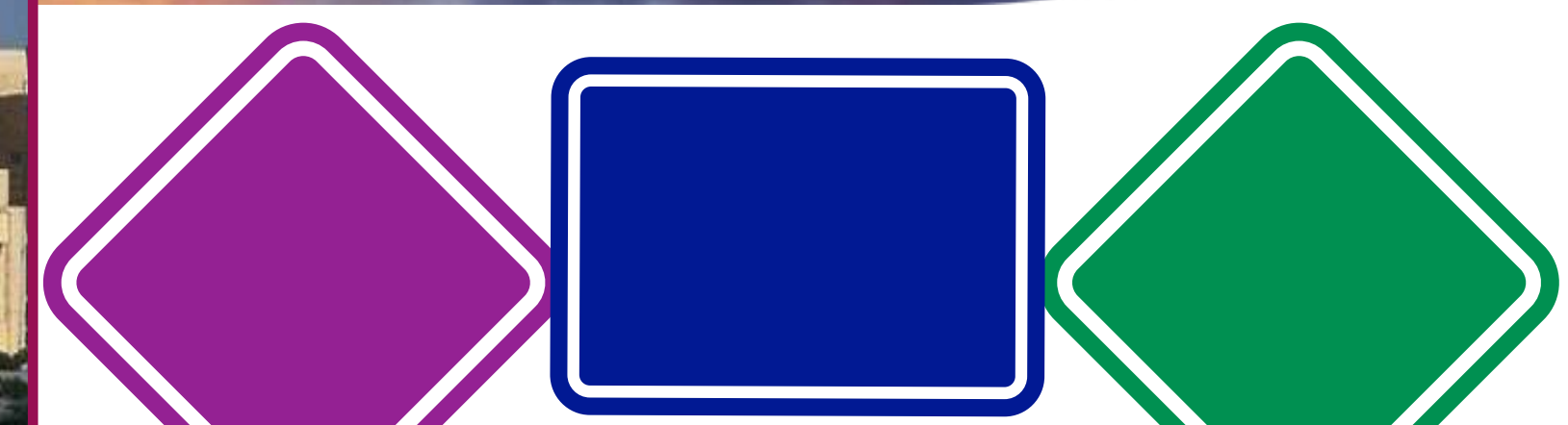
Customer Support

We have a dedicated customer support team that provides technical assistance and ensures customer satisfaction.

- Global Head Quartered in Mysore India..
- 130 + Employees..
- Cost Competitiveness..
- Fast in deliverables..
- In house Manufacturing..
- Less Dependency..
- R&D Activities..
- 74 + Direct Distributors./ Domestic & International
- Sophisticated Infrastructure..
- High End Machines for all spectrum of products..
- Driven through ERP as per the Industrial standards and Process...
- Centralized control room for all inter vertical monitoring.. which is going to come up in HQ



• *One Stop Solutions, Concept to Commissioning –Components & Projects*



MOSAIC PANELS BY WERNER ELECTRIC

For Plant Control Rooms

WERNER

wernerelektrik.com

Mosaic & Mimic Panels by Werner Electric - 9000 Series

WERNER

Werner Mosaic Panels – Proven, Reliable, and Built to Perform

Werner delivers **high-quality mosaic panels** designed for **24/7 control room applications**. Our systems offer a **cost-effective, durable, and low-maintenance** solution for process control and visualization. Trusted by operators, Werner mosaic panels ensure **total reliability and long-term value**.

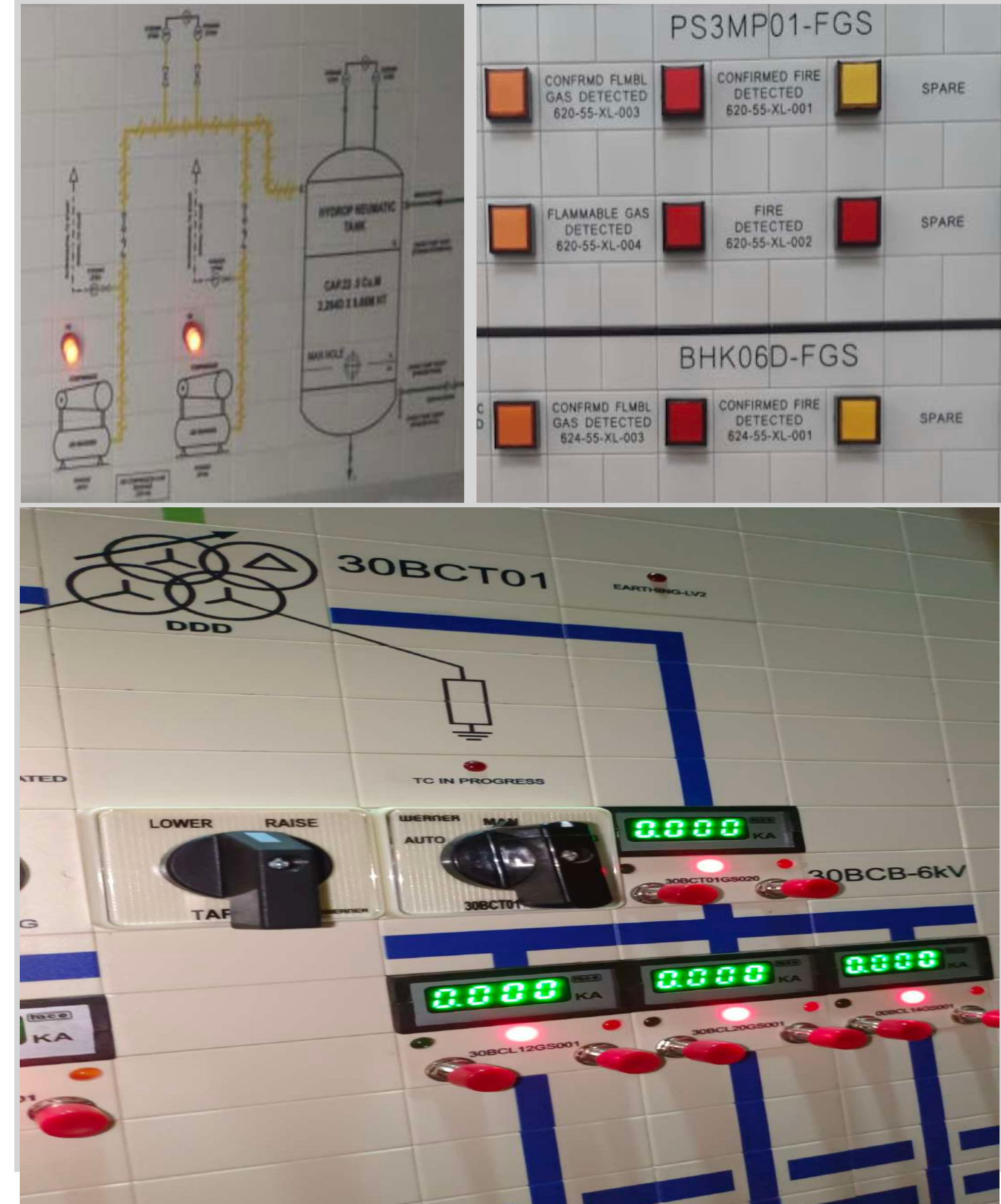
"We Know What You Want — We Deliver What You Need."

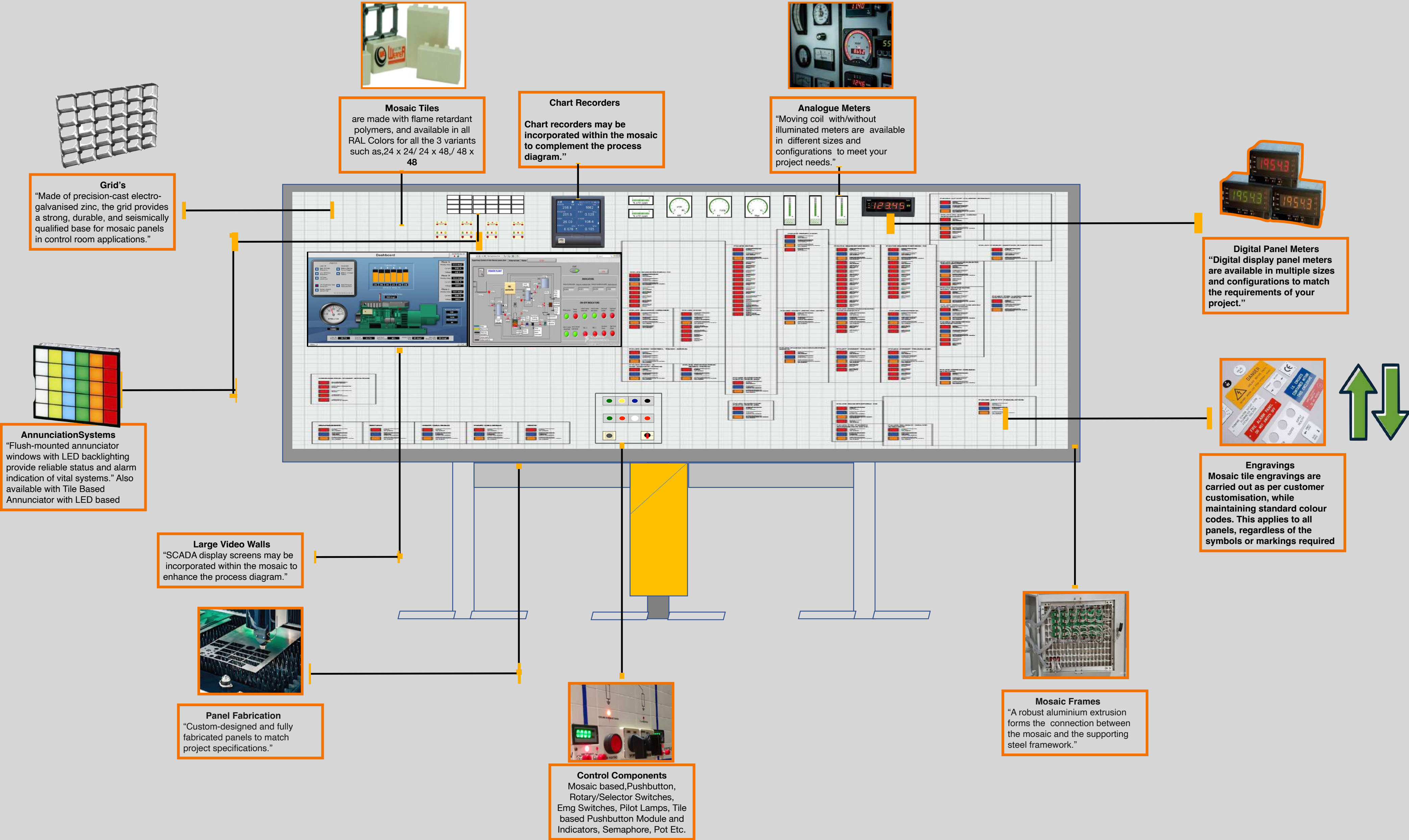
At **Werner**, we are your **one-stop solution** for everything related to **mosaic panels and their components**. From **design to execution and final installation**, we handle it all with precision and expertise.

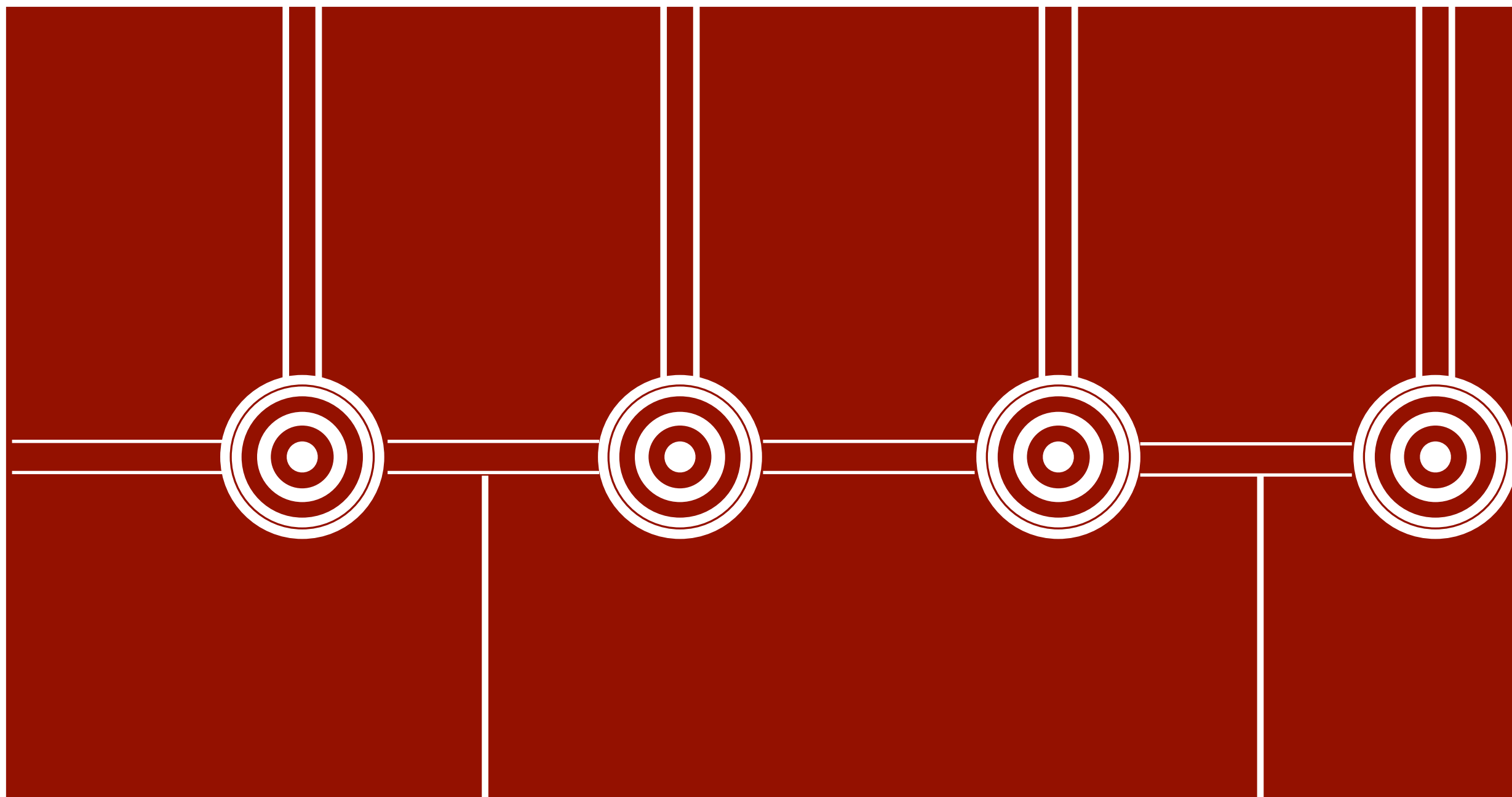
We are not just a supplier — **we're a complete package**, trusted and preferred by mosaic panel users across the industry. Our promise is simple yet powerful:

"From Concept to Commissioning — Werner Delivers Solutions."

Our offerings go beyond mosaic products. We also specialize in **complete system integration**, including **customized sizes, operator consoles, and control panels**, tailored to your exact operational needs.







GRID

The WERNER grid system is the simple assist structure of the mosaic picture display. It is made of grid modules assembled together to provide the required panel length. every module consists of a twelve through twelve matrix of 24 x 24 mm squares. It measures 288 x 288 mm (approximately 1 foot x 1 foot) with a intensity of thirteen mm.the fringe of the grid module is easy without a rough edges. It's miles fabricated from precision die-solid zinc alloy. The fabric is corrosion-proof, lightweight and durable. The grid device can accommodate the standard WERNER tiles: 24 x 24mm, 24 x 48mm and 48 x 48mm tiles; or any tile whose height and length is a more than one of 24mm.

TILES

Standard tiles come in the following sizes: 24 x 24 mm, 24 x 48 mm and 48 x 48 mm. The tile has a minimum tile body length of 15 mm (not including the length of its legs). It's tolerance is +0.0 mm and 0.06 mm. The gap between adjacent tiles on the grid is 0.1 mm and discontinuity between the corners of adjacent tiles is less than 0.2 mm.

FRAME

"Tailored to Fit — Engineered to Last."

We offer a **diverse range of aluminium profiles** designed to suit **every fitting application** with precision. Whether it's a standard or custom requirement, the **most suitable bezel** is carefully selected to ensure a **perfect integration** of the mosaic system into your supporting panel metalwork.

With Werner, every detail is engineered for **seamless compatibility, durability, and aesthetics**.



Hardwired Consoles Desk

Hardwired Mosaic Panels for Control Rooms

Hardwired mosaic panels are **robust and reliable operator interfaces** used in **nuclear, oil & gas, and process industries**. Built with **precision-cast electro-galvanised zinc grids** and **modular mosaic tiles**, they provide a **sturdy, seismically qualified framework** for critical control applications.

These panels integrate **annunciators, meters, chart recorders, SCADA display screens, push buttons, mimic diagrams, and emergency controls**, giving operators a **clear real-time view** of plant processes.

Electrical wiring is done using **FRLS/halogen-free cables**, with **terminal blocks, fuses, relays, and isolation modules** as per customer requirements. All wiring is **numbered, harnessed, and tested** for continuity and functionality.

They are fully **custom-engineered**, compliant with **IEC/IS/IEEE standards**, and designed for **IP42–IP54 protection**. Their **hardwired architecture ensures reliability**, making them ideal for **safety-critical environments** where downtime is not acceptable.

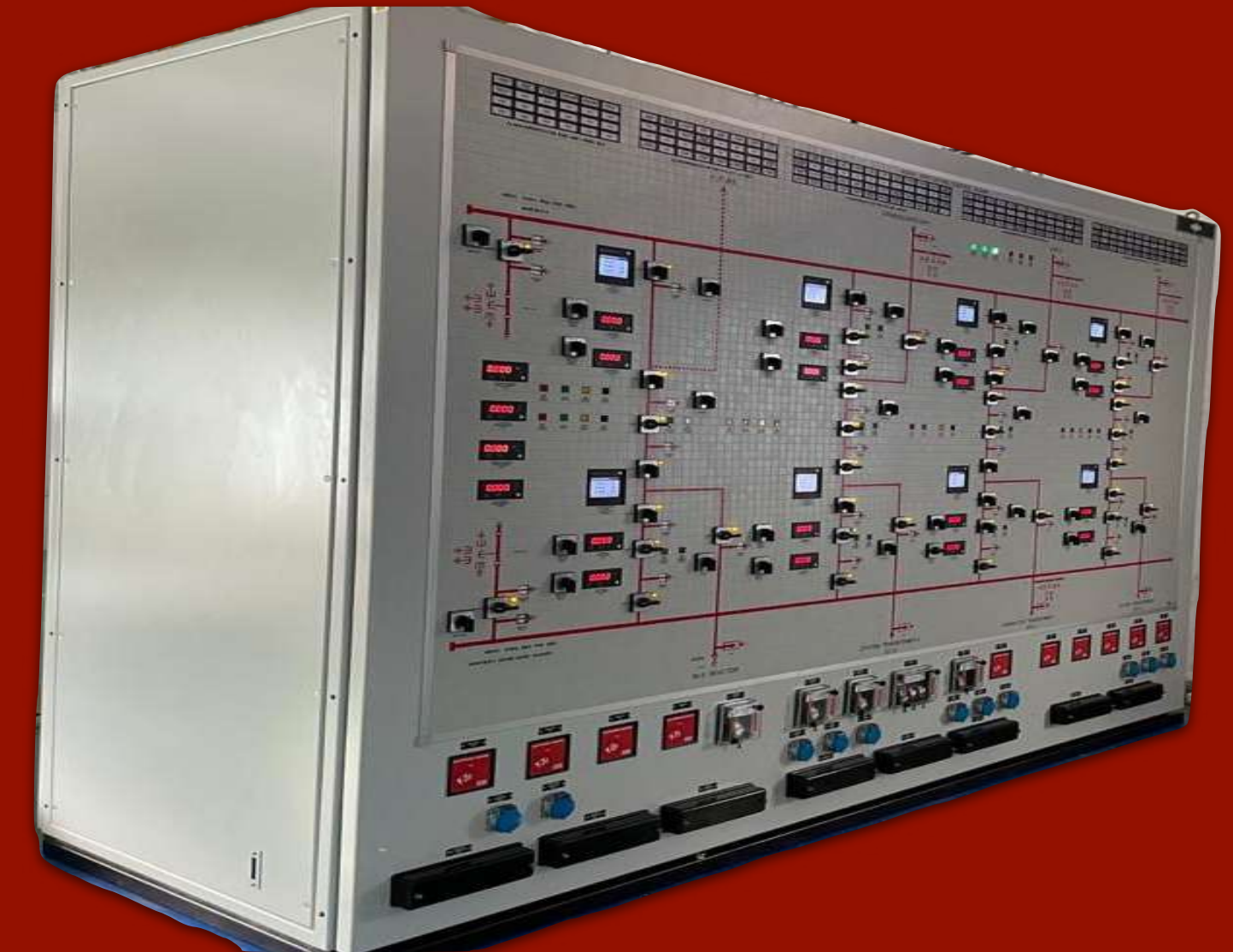


Aux Consoles

Auxiliary Consoles for Control Rooms

Auxiliary consoles are integrated into the **operator control desk** in control rooms to accommodate **additional controls and monitoring devices**. Designed with the same **robust construction and modular approach** as mosaic panels, they house **meters, annunciators, switches, push buttons, display screens, and emergency controls** as per project needs.

Wiring is executed with **FRLS/halogen-free cables**, neatly terminated on **fuse-protected terminal blocks and relays**, ensuring safety, reliability, and ease of maintenance. These consoles are **custom-engineered**, compliant with international standards, and can be expanded or modified to meet evolving process requirements.



Control Panel

Main Control Room Panels / (CAPP)

Similar to hardwired consoles, the **main control room panels / (CAPP)** are **designed and developed as per customer requirements**, particularly for **nuclear/thermo/o&g power plant switchyard control rooms**. These panels handle schemes for **220kV / 440V and 110V systems**, integrating **mosaic components, meters, annunciators, switches, and control devices** into a single operator interface.

They are **fully customizable in size and layout**, built with robust grid structures and modular components to match project specifications. Panels are **engineered, fabricated, wired, and tested** in line with **IEC/IS/IEEE standards**, ensuring long-term reliability in safety-critical applications.

From **concept to commissioning**, the process covers **design, detailed engineering, fabrication, Powder Coating, integration of controls, hardwiring, factory testing, site installation, and final commissioning**, providing customers with a **complete turnkey solution**.

Types of Operator Desk/Consoles Manufactured at Werner Electric India



Werner Electric – Control Room Consoles & Integrated Solutions

Werner Electric designs and manufactures a wide range of **control room consoles**, including **single-tier, two-tier, and quadra-tier models**, with options in **CRCA or aluminium structures**. Consoles are available in **MDF or ASS tops/ full MDF consoles**, with both **motorised sit-stand models** and **fixed designs**, offering flexibility for diverse operator environments.

These consoles are widely deployed in **critical control rooms** and are integrated with **auxiliary consoles, hardwired consoles, and main control room panels**, forming a **complete operator package**. They incorporate **switching components, mosaic systems, annunciators, meters, and SCADA displays**, ensuring seamless operations.

A key advantage is Werner's philosophy of **using in-house manufactured components wherever possible**, which:

- **Reduces dependency on outside purchases**
- **Minimises downtime and delays**
- **Ensures faster decision-making and ownership in-house**
- **Provides customers with both commercial and technical flexibility**

This approach guarantees **timely delivery, reliable performance, and cost-effective solutions**, while giving customers confidence in **planning and execution of their control room projects**.

Werner Electric In House Components & Other Items Required for Consoles of all Variants



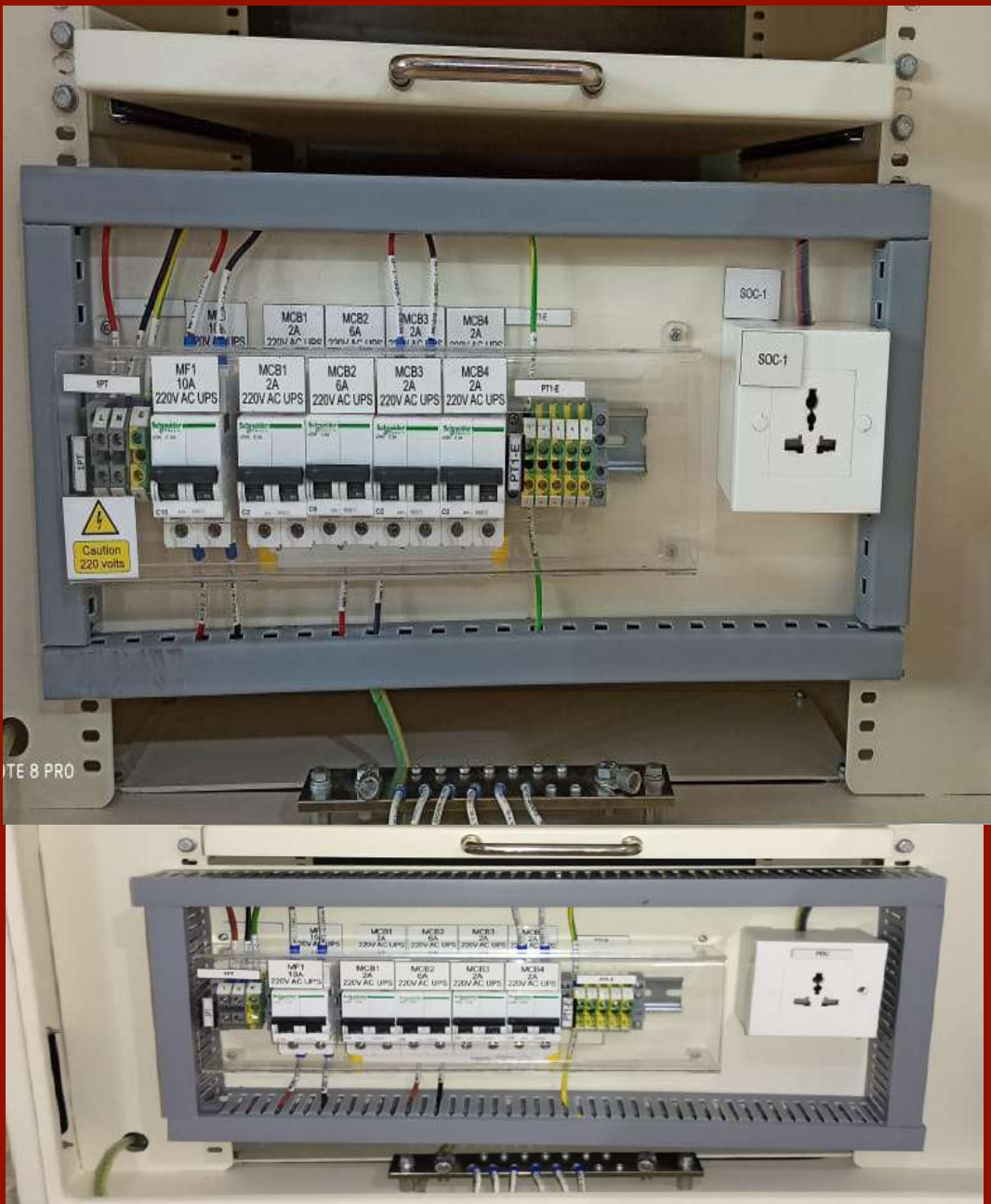
Switching Components - from 8mm to 22.5mm



Annunciator Windows & Logic Controller



With and Without Intrinsically Safe Windows



Inside Panels / Operator Consoles items Required Such as PDU, Relays, Power Supplies, Diode O Ring, all are with Werner Make

Enclosures SS & CRCA

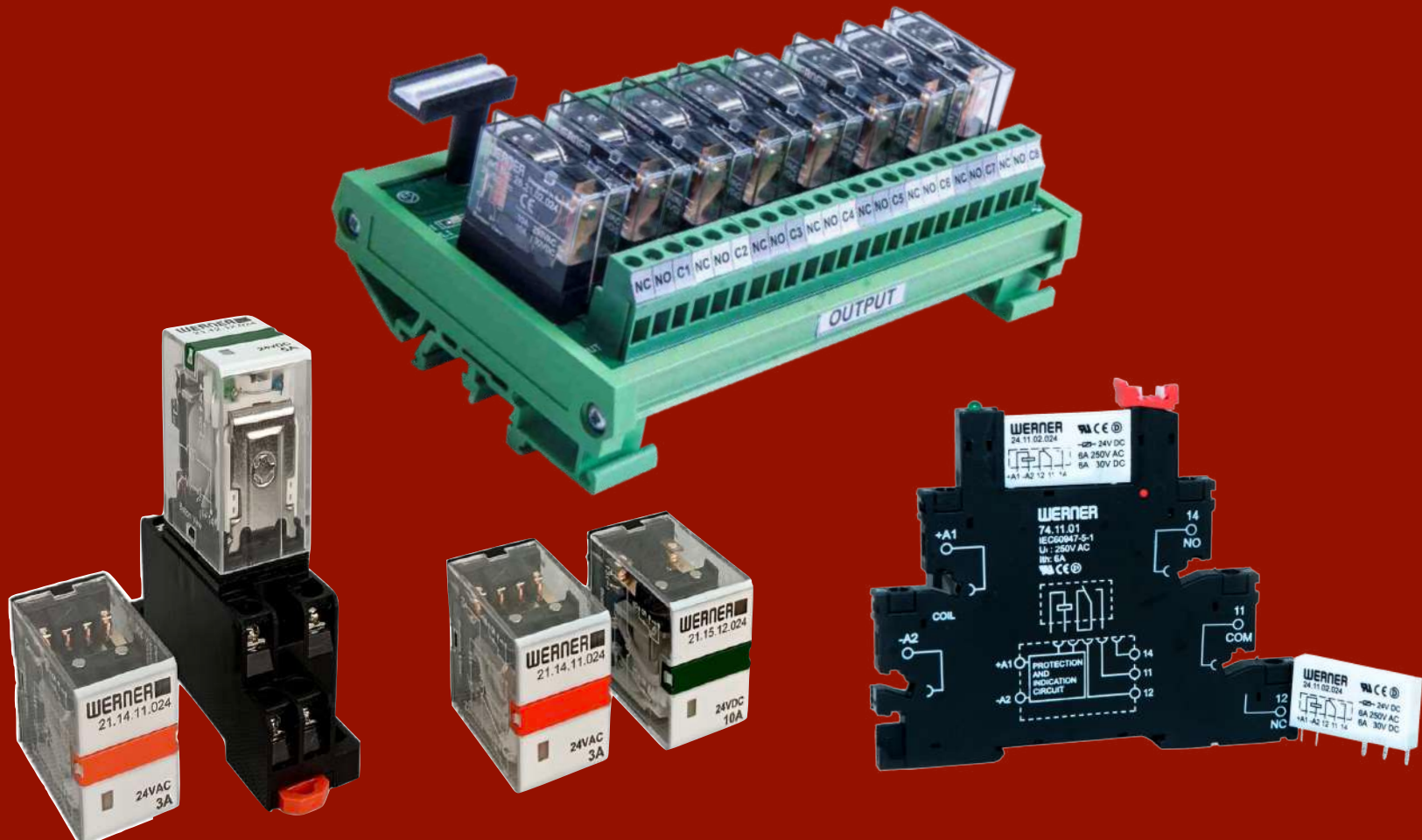


Led Light Bar & EOL Sensors



WERNER ELEKTRIK'S LED Panel Lights

Electro Mechanical Relays

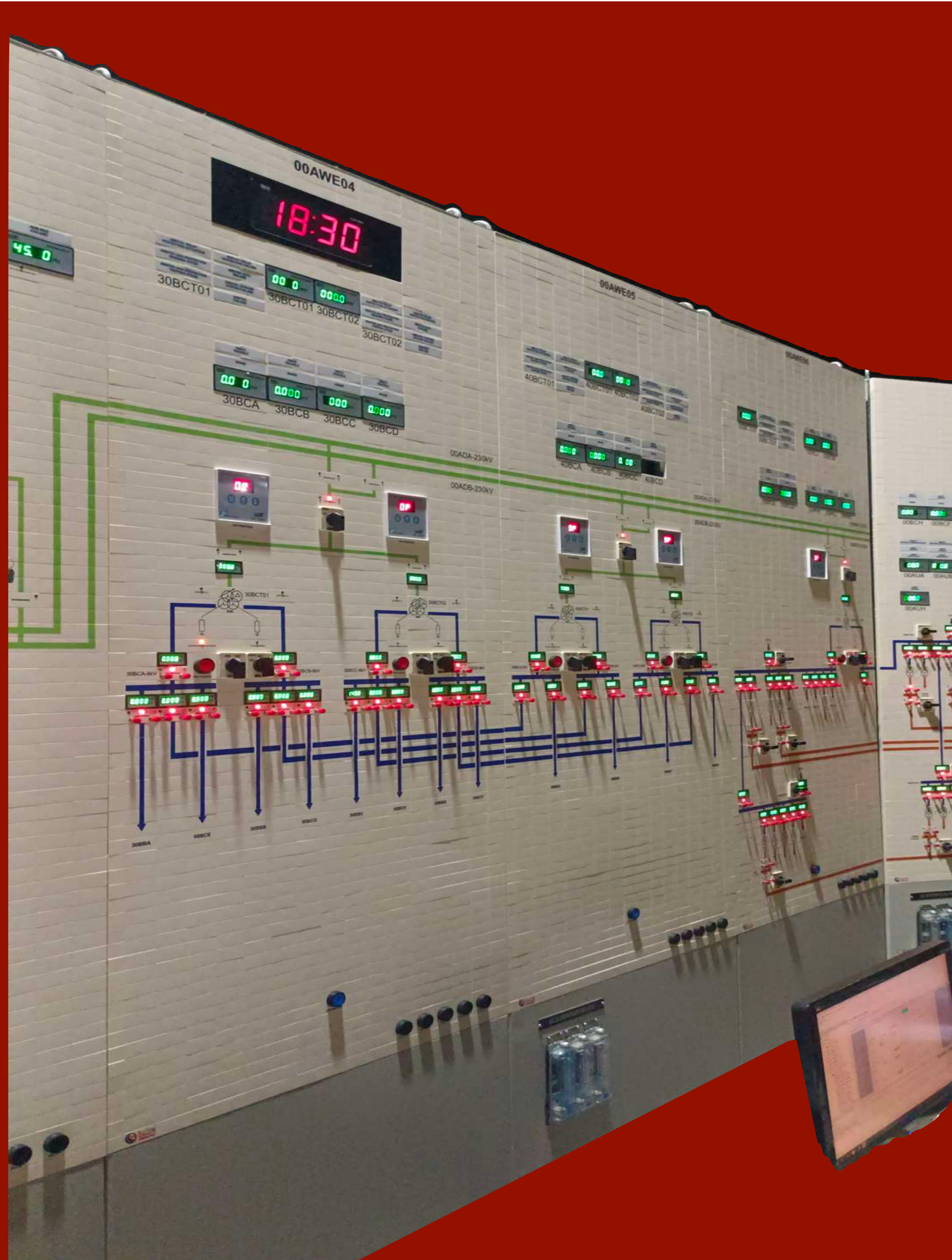


Nuclear Projects Executed by Werner Electric- KAPP & RAPP

WERNER

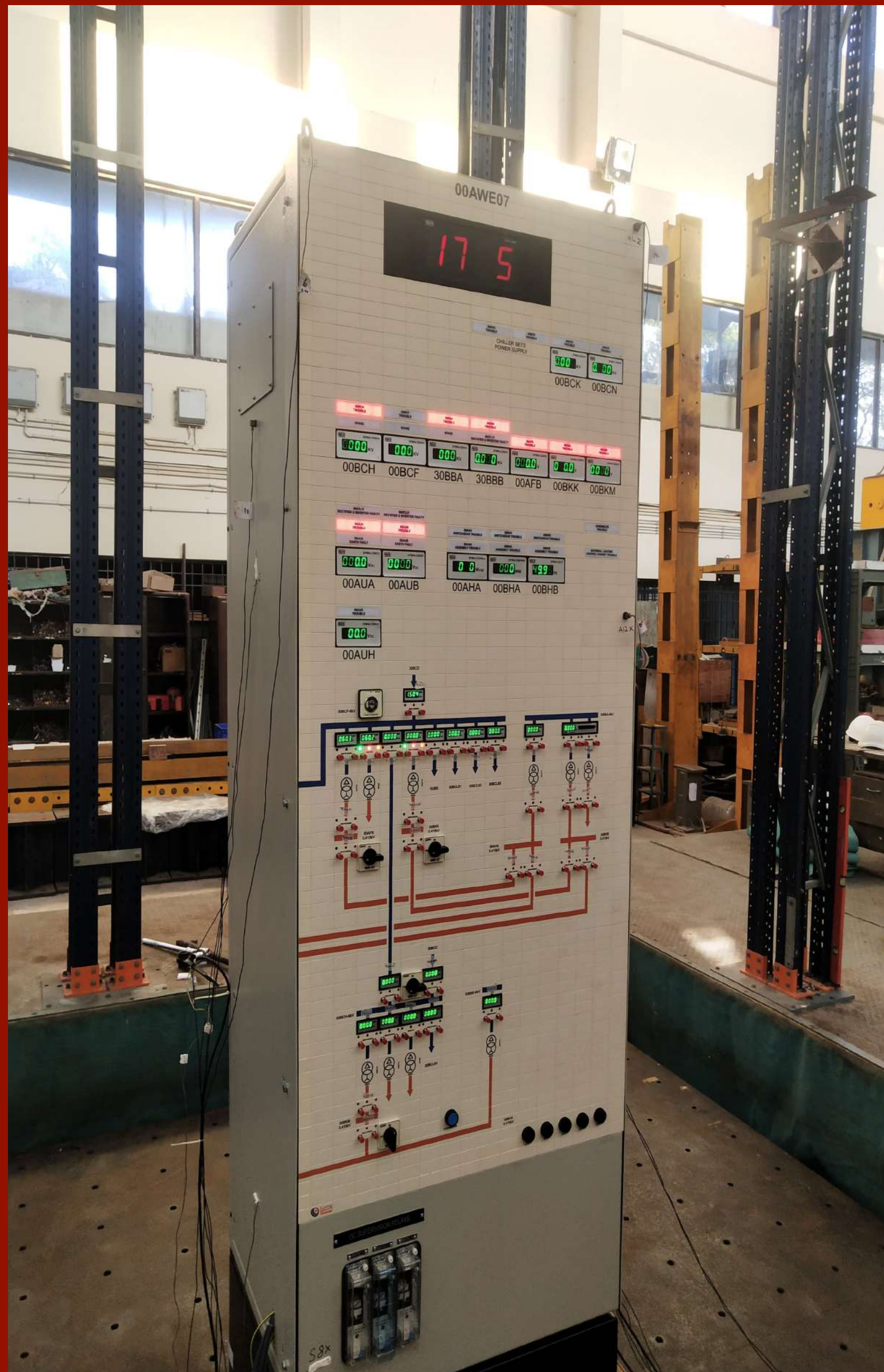


Switchyard Panel at Kudankulam Nuclear Plant- 1000MW Unit 3 & 4

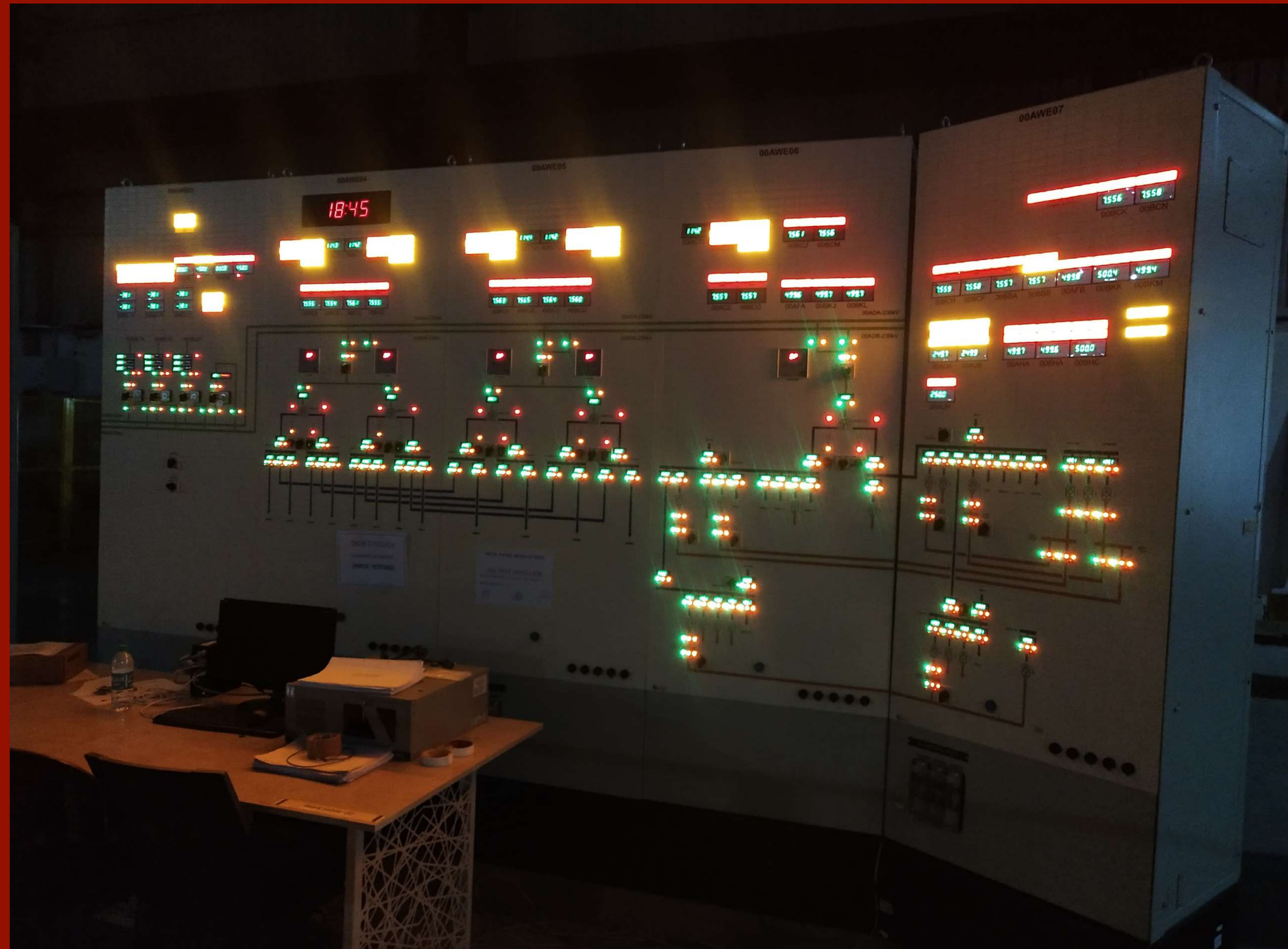


Seismic & Burn Testing of Mosaic Panel @ Reputed Lab In India

WERNER



Seismic Test @ CSIR Lab - India



Burn Test @ Werner Lab - India

SEISMIC TESTING OF MOSAIC CONTROLLER
BOARD USING SHAKE TABLE

for

M/s. Werner Electric Pvt. Ltd.,
Hebbal Industrial Area, Mysore, Karnataka

CSIR-Structural Engineering Research Centre
(Council of Scientific & Industrial Research)
CSIR Campus, Taramani, CHENNAI-600 113

1.0 INTRODUCTION

M/s. Werner Electric Pvt. Ltd., Mysore, requested CSIR-Structural Engineering Research Centre (CSIR-SERC) to perform shake table tests on their Mosaic Panel Board which they propose to supply to M/s. Nuclear Power Corporation of India Ltd. Accepting the request of M/s. Werner Electric Pvt. Ltd, shake table tests were performed on the Mosaic Panel Board specimen using the 4m x 4m tri-axial shake table facility, available at Advanced Seismic Testing and Research (ASTaR) Laboratory of CSIR-SERC, due to ongoing maintenance activity of the 2m x 2m shake table. This report presents the details of the shake table tests performed on the above specimen, test results and the inferences drawn from the study.

2.0 SCOPE OF THE PROJECT

To evaluate seismic characteristics of Mosaic Panel Board using 5T 2 m × 2 m tri-axial shake table with the following objectives:

- To perform sweep sine tests (resonance identification tests, upswEEP and down sweep) with the sweep rate of 1oct/min (log) on the test specimen in three orthogonal directions, done separately in X, Y & Z directions (frequency range of 1Hz to 50Hz with a constant peak base acceleration of 0.2g)
- To perform OBE tests (seismic tests) on the test specimen in three orthogonal directions, done simultaneously in X, Y and Z directions using the RRS supplied by the client (frequency range: 1 to 50Hz; ZPA limit (spectral acceleration at 50Hz): 1.0g (X & Y), 0.75g (Z) & displacement limits: ±150mm (X & Y), ±100mm (Z))
- Post-processing of the results and submission of evaluation report

12-mm thick fixing plate one each on front and rear side of the panel that in turn has been bolted to the shake table as shown in Fig. 2.

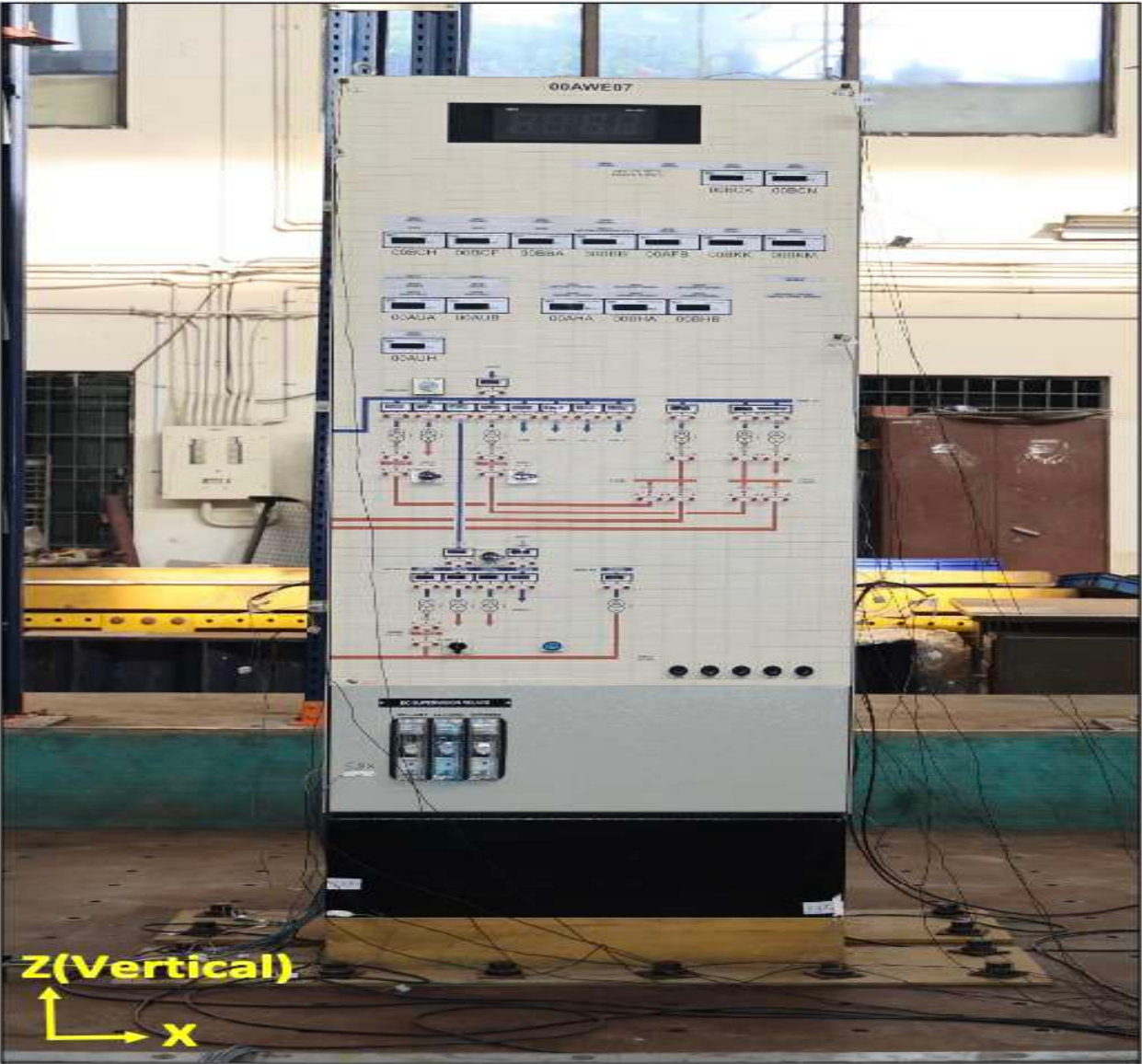


Fig. 1 Front view of the Mosaic Panel Board mounted on shake table



Type Test Completed Such As:-



Di Electric Test

Damp Heat Test

Climatic Test

Environmental Test

IP-40/IP65 Test

Temperature Test

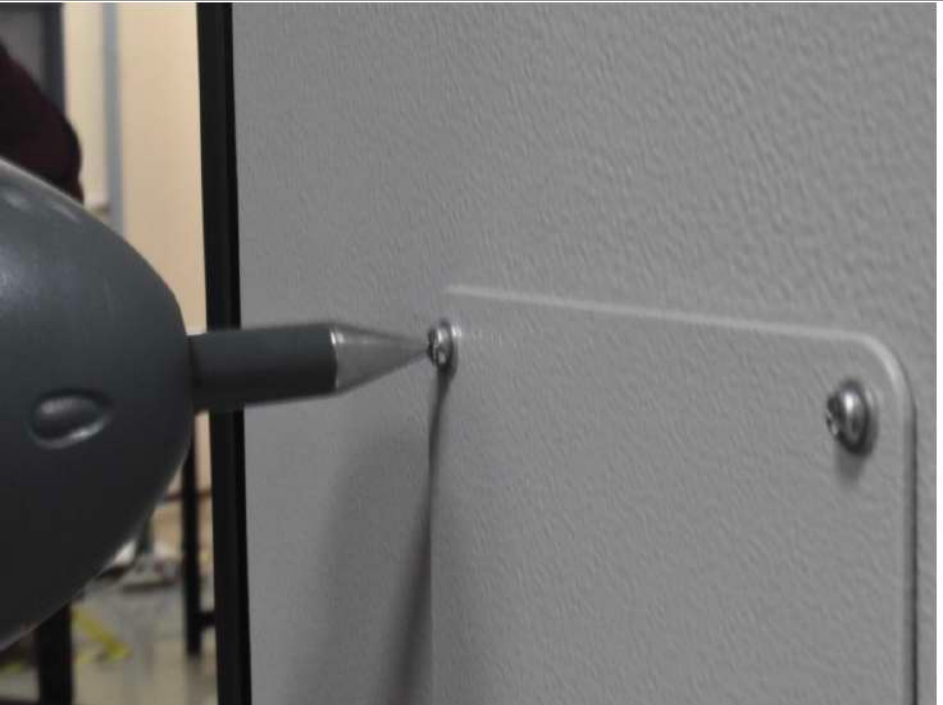
Pull Test

Mechanical / Electrical Test

Electrical Endurance Test



Voltage Dips & Short Interruptions Test Setup



ESD Contact Discharge



PFMF-Immersion method



Test setup Of Shock & Vibration Test



Conducted Susceptibility Test Setup



EFT Test Setup



ESD Air Discharge



Harmonics and Interharmonics Test Setup



Operating limits Test Setup

Werner Electric Works with Fortune 500 Companies Globally

WERNER

Power Applications



Oil & Gas



DCS Customer



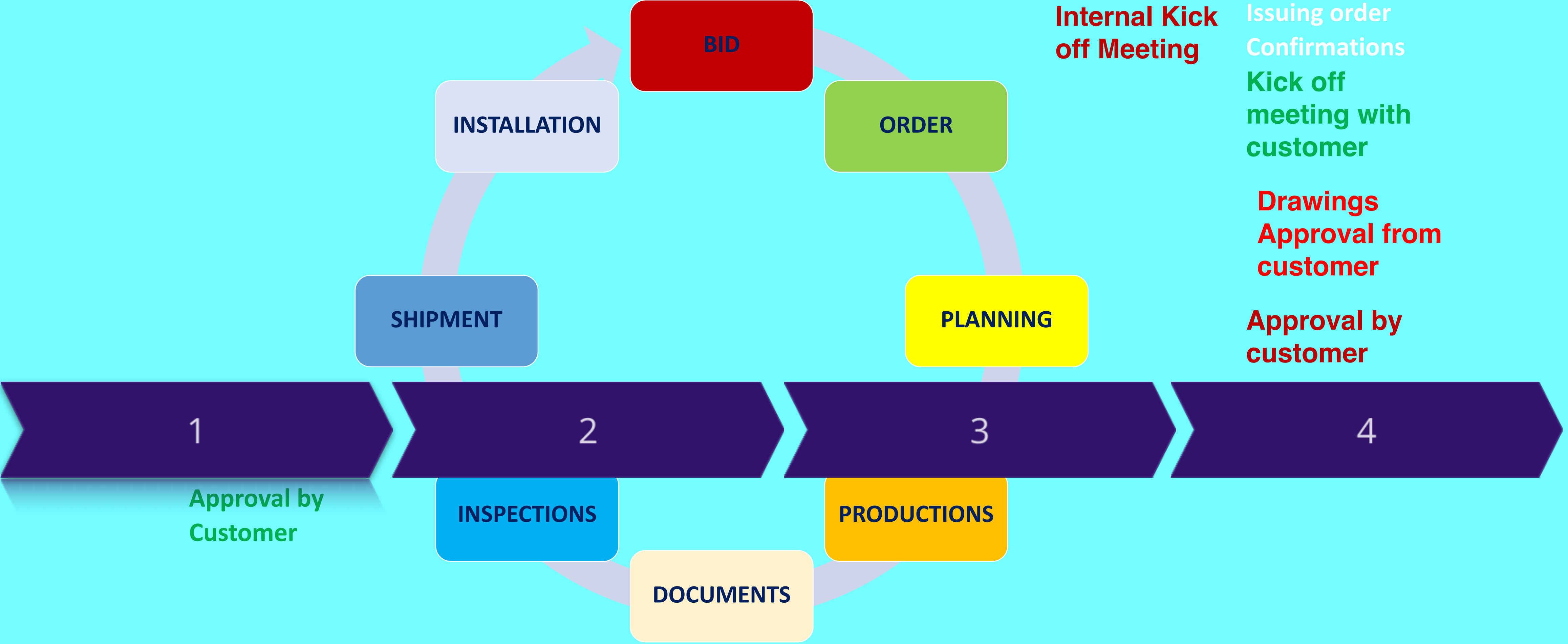
Consultants Globaly



Automotive / Railways



Project Sequence



Project Planning

The Project Business Group specializes in electrical project planning, from initial design to final execution.

Engineering & Design

Our team of experienced engineers designs electrical systems that meet the specific requirements of each project.

Installation & Commissioning

We install and commission electrical systems with precision and care, ensuring proper functionality and safety.

Maintenance & Support

Werner Electric provides ongoing maintenance and support to ensure the long-term reliability of electrical systems.

Common Questions

1. Use of Mosaic and Why it is Required?

A key strength of mosaic panels is the simplicity of future modifications—equipment can be incorporated or withdrawn based on operational needs, while the mosaic consistently maintains its superior finish.

2. Is it necessary for me to be familiar with every component?

No, it isn't necessary. Since there are many devices available, our engineers will help identify the most suitable ones for your operational needs. With this guidance, you can be confident that the solution will deliver the functionality required.

3. Do you offer a fully integrated system?

Certainly. Our engineers collaborate with you to configure and deliver a complete mosaic solution, whether it requires a custom control panel, a desk-mounted arrangement, or an off-the-shelf cabinet. Flexibility is at the core of our service, so your requirements are always our priority."

4. What materials are used in the Mimic System?

At the heart of the system is a **robust grid assembly**, made of **die-cast alloy grids and aluminium extruded bezels**, offering exceptional strength and easy panel integration. The **tiles, manufactured from Reputed polycarbonate**, are moulded and fully dyed, giving them superior performance:

- ✓ Non-reflective finish
- ✓ Fire-safe and self-extinguishing
- ✓ Anti-static protection / to be asked for,
- ✓ Non-toxic material
- ✓ Free from halogens

5. How is the graphic designed and produced?

Our graphics are produced with advanced **print and engraving techniques**, giving every panel a **bright, detailed, and professional finish**.

6. Are multilingual graphics available?

With our **latest direct digital print application**, we can create graphics, logos, and text in **all languages**. Since printing is handled **in-house**, customers benefit from fast turnaround, full flexibility, and localisation into regional languages—something that sets us apart in the industry.

7. What colour codes are available for mosaic panels or tiles?

We provide mosaic panel/tile colours as per RAL standard colour codes, ensuring consistency and international compliance.

Some widely used options for control room applications include:

- RAL 7035 – Light Grey (most common for control panels)
- RAL 7032 – Pebble Grey / RAL 7037 – Dusty Grey / RAL 7038 – Agate Grey / RAL 9001 – Cream White
- RAL 9005 – Jet Black / RAL 5012 – Light Blue (often used for process/system distinction)
- RAL 3020 – Traffic Red (for emergency/critical markings) / RAL 6001 – Emerald Green (status indication, safe operation areas)
- RAL 1003 – Signal Yellow (warning or caution zones)

8. What components are required for mosaic panels, and are you flexible in using different makes?

For **instrumentation products** such as **analog and digital meters and their variants**, we offer full flexibility to incorporate **customer-specified makes**, provided they meet our **mosaic panel technical specifications** and conform to **IEC standard cut-outs**.

This approach balances **in-house reliability** with **customer choice**, ensuring both performance and compliance.

9. Do the mosaic panels and their components comply with type testing as per nuclear industry requirements?

Yes, all our mosaic panels and components comply with the standard type test procedures of the Nuclear Power Corporation of India. In addition, our mosaics are seismically qualified as per IEEE 344 standards. All required type tests have been successfully carried out at Lahari Labs, Mysuru, which is fully equipped to perform testing in line with IEC 60947-5-2024 standards. Furthermore, EMI/EMC tests have also been conducted and successfully passed on the products used in our mosaic panels and components.