

**ABM
ENERGO**

ABM Energo Engineers

An ISO 9001:2008 Company

A photograph of a long, perspective view of a row of green electrical control panels in a factory or industrial setting. The panels are lined up on a tiled floor, receding into the distance. Each panel has various components like gauges, switches, and control buttons. The lighting is bright, and the overall color scheme is dominated by the green of the panels and the blue of the ceiling lights.

**MANUFACTURERS OF POWER,
CONTROL AND AUTOMATION PANELS**

ABM ENERGO Engineers – established by a team of experienced & dedicated professionals with a clear goal to provide high quality engineering and manufacturing of power, control and automation panels to the power and other industrial sectors in India & abroad.

Geared to provide end to end solutions, ABM ENERGO Engineers has successfully delivered the custom solutions since inception by virtue of its committed work ethic and focused customer support. We have ISO 9001– 2008 certification.

OUR VISION

“ To be a supplier and partner of choice for Power, Control and Automation Panels. ”

OUR MISSION

“ To exceed our customer’s expectations in quality, delivery and value for money through continuous improvement. ”



WHAT WE DO?

ABM ENERGO Engineers group has created a niche for itself in the field of Power Solutions. We have the track record of client's confidence for our professional approach and timely completion of the quality product.

We have a complete quality control system in place and strictly adhere to internal quality control standards. Our dedicated & experienced staff members as well as engineers monitor the entire production process & ensure that all final products meet the expectations of clients.

We have fully equipped testing facilities like high voltage tests and other electric tests. We use state of the art EPLAN & AutoCAD platform for entire stage of design & development.

ABM ENERGO Engineers brings to its clients an in-depth knowledge of the available products and techniques together with cost effective solutions to today's energy conservation problems.

ABM ENERGO Engineers provides a comprehensive range of industrial services including designing, manufacturing of control panels and many more technological solutions to the industrial house all over India and abroad.

These dedicated services are designed to meet the demanding requirements of number of industries and sectors, including power generation and general process engineering applications through long experience working within these sectors. Our products are manufactured to suit the regulatory norms of the local regulatory authority as per the customer specific requirement.

ABM ENERGO Engineers specializes in the designing and execution of large industrial electrical power supply panels as well as Hydro / Thermal / Co-Generation / Gas / Biomass / Solar Power / Wind Power / Sugar / Steel / Cement / Water Supply & Lift Irrigation Projects etc. We provide complete turnkey solutions to all our clients.



Value Additions

The industrial development and prosperity of every Nation depends on the amount of energy consumed and the availability of energy for further development. The increased demand will cause concern on the limited energy sources available. It is therefore necessary to make efficient utilization of whatever energy available and avoid wastage.

Team ABM is committed to deliver the best design and the right option for the selection of Electrical instrumentation and installations taking into consideration the choice of Cables, Bus Bars, Connections, Isolators, Circuit Breakers, SFU's and all major Switchgears that directly or indirectly contribute to the safe and secure operation of any industry thus keeping the work place accident free from the hazards and help in time and energy conservation.



PRODUCTS

Our manufacturing range covers following Electrical Panels:

- LT Power Panels
- PCC (Power & Control Centre) Panel
- MCC (Motor Control Centre) Panel
- Neutral Grounding & Resistor Panel
- H.T Panel
- Circuit Breaker Panel
- Bus Ducts
- Control Metering & Protection Panel
- Synchronising Panel
- PLC (Programmable Logic Controller) Panel
- SCADA (Supervisory Control & Data Acquisition) System.
- Capacitor Bank Panel
- Transformer Breaker Panel
- Lighting distribution Panel
- DG AMF Panel
- RTCC Panels etc.

L.T Power Panel

We offer LT panels that are engineered using high grade material. LT panel is a perfect example of excellence and performance. We keep an uncompromising endeavor towards perfection, quality and customer satisfaction in manufacturing LT panel.

Our range of panels is suitable for high operational voltage and distribution system and finds application in power and motor control centers and other electronic devices.



PCC (Power Control Centre) Panel

Main LT Panel, PCC With single, multiple incomers, bus couplers with proper interlocking, required protection, fault indications, interlocking is provided. Various designs are offered in PCC like top, Middle, Bottom horizontal bus chamber, panel with aluminum



copper bus bars, top/bottom/ front/rear cable termination, combinations of APFC Part with PCC. Required facilities like DG incomer with AMF Functions, cut-off of non-essential feeders at the event of failure of main power.

PRODUCTS

MCC (Motor Control Centre) Panel

Duly wired with ACB/MCCB/SFU/DOL/STAR-DELTA/ATS starters. Various designs provided like single/double front, fixed type, with marshaling terminations.

All starters are provided with type 2 co-ordination where required. Separate bus bar chamber for vertical droppers, can be operating by remote on/off.



Neutral Grounding & Resistor Panel

We are one of the most well known manufacturers and suppliers for Neutral Grounding Panel. Utilizing our rich technical expertise, we manufacture an extensive range of quality panels is widely used in various applications like

1. General Neutral earthing
2. Transformer Neutral earthing



H.T Panel

Electrical HT Panels are used for control and protection of power transformers, generator, capacitor banks and power distribution. Moreover customers are eased with the availability of the customised HT Panel Boards as per the specifications and drawings provided.

ABM Energo Engineers - has a state of the art technology in manufacturing the HV switchgear panels and we have an expertise in HV panels for Power Generation and distribution sector, our products are type tested with Indian premium testing laboratory CPRI, and deployed in various places in INDIA and overseas.

Our HV products are manufactured as per the National and International standards (IEC) as per the customer specific requirement.



Circuit Breaker Panel

HV Circuit Breaker Panels are manufactured to meet the customer specific requirement and our panels are type tested with Central Power Research Institute and meets the IS/IEC standard.



Bus Duct

We offer an LV and HV custom built bus duct for various applications like power generation, distribution, mining etc; our bus ducts are designed to meet the fault level of the system. Bus ducts above 3000 Amps current rating are made out of Aluminum enclosure, with option of copper or aluminum bus bars.



Control Metering & Protection Panel

An integrated control and protection panels for generation, Transmission and distribution sector, like generator control, metering and protection panel, transformer control and protection panel, Feeder protection panel, capacitor bank protection panel, automatic power factor control panel, Synchronizing panel.

Control, metering and protection panels are manufactured with latest technology by using equipments like numerical protection relays, Programmable controllers, equipment with communications, to meet the critical monitoring requirement from the remote place.

The products are custom built and manufacture to suit the regulatory norms of the local regulatory authority.



Synchronising Panel

Fully automatic synchronizing panels operated by microprocessor based relays, Auto synchronizing, manual synchronizing, auto load sharing, active and reactive power management with protection etc., we specialize in offering all-inclusive range of synchronizing panels. Our user friendly and easy to keep up panels can be expanded as per requirements due to their flexibility.



PRODUCTS

PLC (Programmable Logic Controller) Panel

PLC (Programmable Logic Controller) panels are widely used in industrial process automation. We make use of high quality raw materials are tested on various parameters before sending it clients end. It is used for all kinds of industries like automobile, engineering, lift irrigation projects, water supply projects, water treatment plant, effluent treatment plants, paper & printing industries, Chemical and process plants.

Some of the area of application of our products includes:

- Processing units
- Hydro Power Plant
- Factory automation
- Steam Power Plant
- Pumping application

It also communicates with various instruments like temperature indicating controllers, pressure indicating controllers, sensors etc.

We offer clients superior quality PLC Panels. Their precision designing and a construction standard makes them used in various industries for meeting diverse applications like synchronization of power source, pumping control station and others.



SCADA(Supervisory Control & Data Acquisition) System

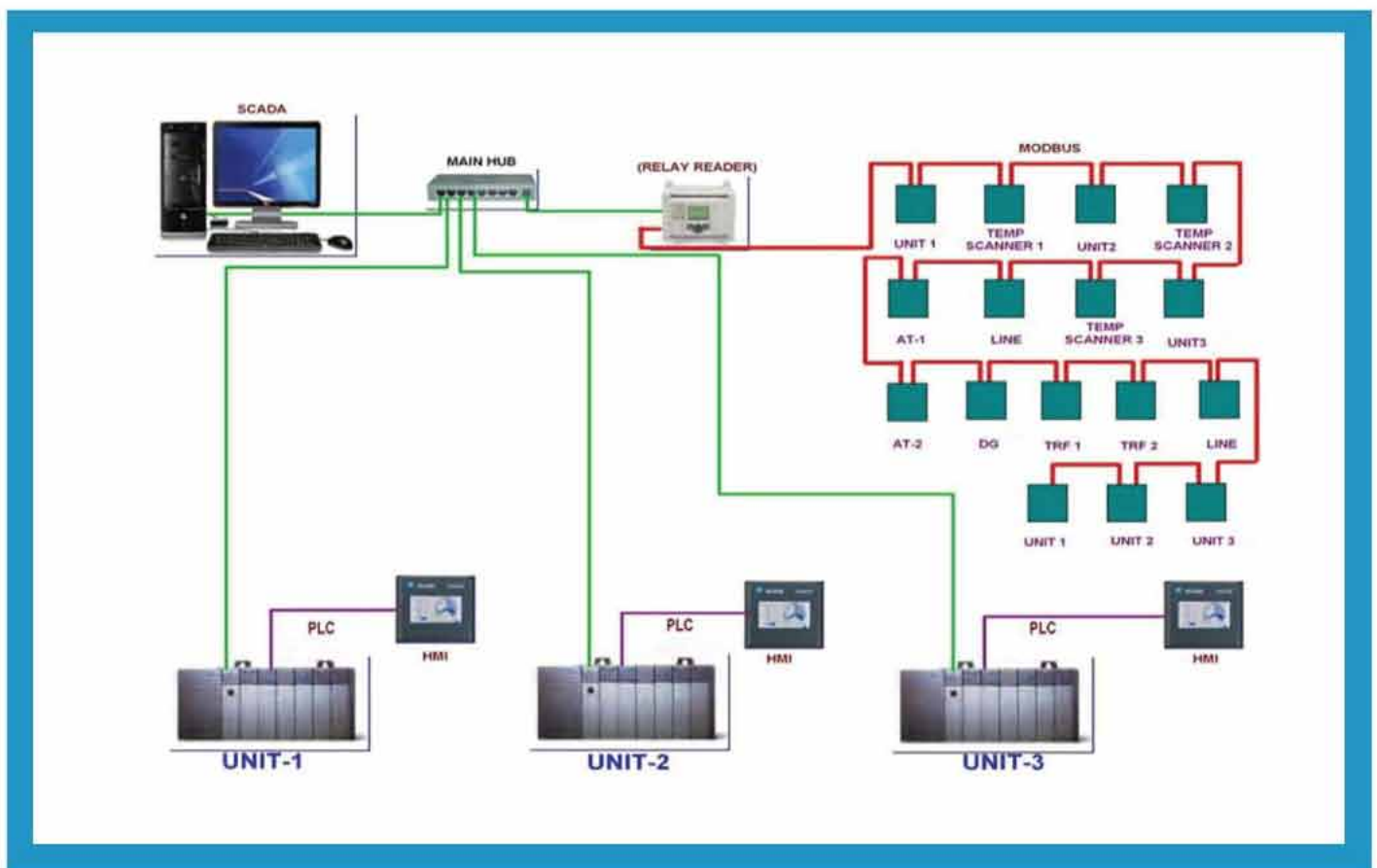
We are one of the preferable SCADA developing companies, our SCADA solutions are provided to power generation sector, process industries, with a remote monitoring / control function built in as per customer specific requirement.

SCADA is the acronym for Supervisory Control and Data Acquisition. The supervisory control system is a system that is placed on top of a real-time control system. The term SCADA usually refers to centralized systems which monitor and

control entire sites, or complexes of systems spread out over large areas.

Data acquisition begins at the RTU or PLC level and includes meter readings and equipment status reports that are communicated to SCADA as required. Data is then compiled and formatted in such a way that a control room operator using the HMI can make supervisory decisions to adjust or override normal RTU (PLC) controls.

PLANT NETWORK

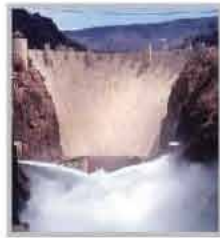


Industries: Areas of Business Focus

ABM Energo Engineers is a reliable, trusted industrial Power, Control and Automation panel integration partner in providing a Critical and High end integration solutions to following sector.



TEXTILE INDUSTRY



HYDEL POWER PLANT



STEEL PLANT



POWER DISTRIBUTION



PAPER INDUSTRY



PHARMACEUTICALS



CEMENT INDUSTRY



INFRASTRUCTURE
DEVELOPMENT



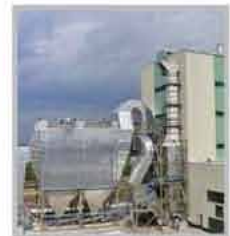
WIND TURBINE



CO-GENERATION PLANT



THERMAL POWER PLANT



BIO MASS

Manufacturing Facilities

- Panels assembly shop & office- Located in silicon valley of India-Bangalore with a space of 7000 Sq ft.
- Fabrication shop- Total area of 6000 Sq ft.
- Painting Shop- The state of art 7 tank process powder coating facility of 4000 Sq ft of area.
- Long term vendor relation and supply chain management linked with principal manufacturers.



BUS BAR Bending, Cutting & Punching Machine

Bending, Cutting and Punching Bus bar 3 persons at the same time with useful and valuable units.

1. Innovatively improved punching system.
2. Bending, cutting, and punching work by 3 persons at the same time.
3. Improvement of efficiency of work faster than 10 times compared to the conventional machine by adopting newly improved system

Max. Capacity	Punching	Bending	Cutting
Copper	T15 W150mm	T15 W150mm	T15 W150mm
Aluminium	T15 W150mm	T15 W150mm	T15W150mm

Hole 23mm the whole dimension is available 20mm by 23mm according to customer's requirement.

TESTING PROCESS

ABM ENERGO Engineers equipped with all types of testing devices to furnish the work qualitatively.

Before conducting the tests we take all precautionary conditions to avoid the damages and harm. Testing certificates are maintaining properly well functioning of the testing equipments.



PANEL FABRICATION PROCESS



SHEET METAL WORK

ABM ENERGO Engineers having very good Fabrication shop, the raw material for sheet metal manufacturing processes is the output of the rolling process. Typically, sheets of metal are sold as flat, rectangular sheets of standard size.

Sheet metal processes can be broken down into two major classifications and one minor classification.

- Shearing processes -- processes which apply shearing forces to cut, fracture, or separate the material.
- Forming processes -- processes which cause the metal to undergo desired shape changes without failure, excessive thinning, or cracking. This includes bending and stretching.
- Finishing processes -- processes which are used to improve the final surface characteristics.

WELDING PROCESS

Welding is the process of permanently joining two or more metal parts, by melting both materials. The molten materials quickly cool, and the two metals are permanently bonded. Spot welding and seam welding are two very popular methods used for sheet metal parts.

Spot welding is primarily used for joining parts that normally upto 3 mm (0.125 in) thickness.

Spot-weld diameters range from 3 mm to 12.5 mm (0.125 to 0.5 in) in diameter.





SEVEN TANK PROCESS

We use lot of sheet metal components in an industrial product with a powder coated finish. The basic pretreatment used before powder coating is 7 / 8 tank hot process for cleaning & applying a thin phosphate coat.

The 7 steps traditionally meant soak clean, double rinse, zinc phosphate, double rinse, and chrome or chrome-free passivating dip.

POWDER COATING

Powder coating has today established itself as the most effective means of metal surface finishing. It has replaced liquid painting and various methods of electroplating due to the many advantages this process offers

- Substantial improvement to chemical corrosion.
- Cleaner process for improved environment.
- Is cost-effective
- Faster process for better productivity through the paint-shop.
- Requires less skill for high quality coatings.
- Requires lesser care in storing and packing due to the toughness of the coat.
- Substantially improved resistance to mechanical abuse better scratch resistance, abrasion resistance and mechanical wear and tear.



Powder coating is a simple process requiring minimal skills and training. The articles to be coated are first cleaned of all foreign matter from the surface. Mild steel components need to go through a phosphate conversion coating. Aluminum components go through a chromate conversion coating.

This, known as pretreatment, is employed for improved bonding of the powder coat to the material being coated to provide a longer life to the coat.



OUR PARTNERS

SIEMENS

ABB



OMRON

Rockwell
Automation



Schneider
Electric



TEKNIC
SWITCH & CONTROLGEAR

RR-KÄBEL
wires without worries

PEPPERL+FUCHS
PROTECTING YOUR PROCESS



SHORT CIRCUIT LABORATORY
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CPRI

TEST REPORT

Dated: 4th September, 2008

Sheet 1 of 4

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CPRI


TEST REPORT

Dated: 4th September, 2008

Sheet 1 of 4

सी पी आर आई
 भारत
CPRI
 INDIA

परीक्षण रिपोर्ट
TEST REPORT



Test Report Number

Name & Address of the Client

Name & Address of the Supplier

Particulars of sample
 Condition of the sample

Type
 Investigation
 Serial Number
 Number of samples
 Date of test (CPRI sample code)

Particulars of test
 Test in accordance
 Standard / Special

Sampling place
 Customer's req
 Deviations / etc

Name of the
 Customer's
 Other than
 CPRI

CPRI will submit
 address of

Customer
 Number
 Number
 Number
 Number

VOLTAGE DIVISION
CPRI RESEARCH INSTITUTE
 KODAGURHALLUR BUS P.C.
 5412, BANGALORE - 560 085, INDIA
 23717 Fax: +91 (0) 80-23601977

CPRI STL

TEST REPORT

Dated: 4th September, 2008

Sheet 1 of 2

CERTIFICATE **TUV NORD**

Management system as per
DIN EN ISO 9001 : 2008

in accordance with TUV NORD CERT procedure TUV NORD CERTIFIKAT FÜR

ABM ENERGO ENGINEERS
 #25 & 36, Survey No.74/2A, 18th Cross,
 Sripanthya Industrial Estate,
 Bangalore - 560 091, India

validity & implementation domain of the cert. for other standards for the following scope:

Design, Manufacture, Testing and Supply of Power & Control Panels

Certificate Issued on: 24.08.2008
 Valid until: 23.08.2010

STK
 Certification Body
 TUV NORD CERT (India)

The certificate is valid only in accordance with the TUV NORD CERT auditing and
 published procedures and is subject to regular surveillance audits.
 TUV NORD CERT (India)
 Langenfeldstrasse 21
 57474 Essen
 49 201 630-3000

Number: 01/08/009

Member: 01/08/009

CPRI STL

CPRI

ABM ENERGO Engineers

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