



COMPANY PROFILE



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Welcome To Our Company

National Panel & Fire Cabinets Company

is a fast growing Switchgear Manufacturer & Automation Protection Engineering Company in the field of manufacturing, installation, testing & commissioning of standard & custom build Electrical Sub Station equipment.

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Our Speciality in Fire Relevant Equipments:

- ✓ Hydrant Cabinet
- ✓ Hose Reel Single / Double Door Cabinet
- ✓ 2 Way / 4 Way Breeching inlet Cabinet
- ✓ Hose Rack Cabinet
- ✓ Sprinkle Cabinet
- ✓ Steelness Steel, Mild Steel Also Available in Mirror Finish & Many More.....



Our Speciality In Mechanical Field

- Cable Tray
- SS Cabinets For Pharmaceuitucals
- 500 GPM 7 Bar Pump With DOL Controller or Star Delta Controller
- 500 GPM 8 Bar Pump With DOL Controller or Star Delta Controller
- 500 GPM 9 Bar Pump With DOL Controller or Star Delta Controller



MV Panels

LV Panels

PLC Based Panels

Drive Based Panels

Control Desk / Operating Desk

Distributing Box

Junction Box

Our Speciality in E&I Field

Safety Communication System:

- Nurse Call
- Hotel Bedhead Control
- Energy Saving Keytag
- Call Bell
- Sequencing



Technical Specification of L.T. Switchgear

The Panels shall be suitable for operation at 415 + 6% volt, 50 Hz, 3 Phase, 4 wire + E system.

The Panels offered shall be fabricated out of 2mm/1.6mm M.S Sheet and shall have modular construction.

Panels will be free standing, floor mounting type having provision for cable entry from bottom or top as per your requirement.

The Panels will be extensible type in design with dust and vermin proofing.

The Panels will be in Fixed Type or Draw Out Type execution as per requirement.

Steel Metal Work

The Switchgear frame shall be fabricated using mild steel structural sections of pressed and shaped cold rolled steel of thickness not less than 14 SWG and 16 SWG.

Frame shall be enclosed by sheet steel of thickness not less than 14 SWG cold rolled smoothly finished levelled and free from flaws.

Doors & covers shall be made of sheet steel of thickness not less than 1.6mm cold rolled sheet. Stiffeners shall be provided wherever necessary.

Cut-outs shall be true in shape and devoid of sharp edges.

The complete structure shall be rigid, self supporting and free from twists and bends.

Painting

Entire sheet metal work will undergo pre-treatment covering degreasing, water rinsing, derusting / phosphating using various tanks installed in Paint Shop.

After pre-treatment as described above, the sheet metal is sprayed with high corrosion resistant Etch Primer. The finishing treatment shall be application of air drying paint after necessary putty work.

We also have Electrostatic Powder Coating plant, Pune and as such are in a position to supply you POWDER COATED Panels in desired shade.

Bus Bars

Bus Bars shall be of uniform cross-section throughout the length of the switchgear. Bus Bars shall be of high conductivity copper alloy as per IEC & BS requirement. In case of copper, current density will be equal to or less than 1.5 Amps per sq. mm All Bus Bars will be air insulated and Tin coated

Bus Bars shall be adequately supported and braced to withstand the stresses due to a fault level.

Internal Wiring

Wiring inside the switchgear shall be carried out with 1100/650 volt grade, PVC insulated, stranded conductor wire of adequate sizes. Minimum size of conductor for power circuits will be 2.5 Sq. mm copper. Control circuits will be wired with copper conductor of at least 2.5 sq. mm for CT circuits and 1.5 Sq. mm for other circuits.

Low Tension Panels

Ajwa Switchgear has established a state-of-the-art facility in manufacturing LT Panel Boards. We are specialized in meeting the technical requirements through design, manufacture, test and supply of 415 V L.T. switch boards with all accessories for efficient and trouble free operations.

The panels are metal-enclosed, free-standing compartmentalized, Modular type suitable for indoor and outdoor installations. The Panels are dust and vermin proof and the enclosure shall provide a degree of protection IP-40, IP- 44, IP-50, IP-52,IP-54, IP-64 The Panel boards are fabricated out of adequate thickness mild steel Structural sections. The frames shall be enclosed with cold rolled steel. Each cable chamber has cable entry from Top or Bottom with suitable removable gland plates. The cable chamber is provided with suitable supporting arrangement between the gland plate and terminals. All covers, doors and Joints are gasketed using neoprene gaskets.



Boiler Control Panel

The boiler control panel provides output stages for control of system water temperature. These panels have various motor outputs for general control of boiler. The system has a fault alarm with system reset. These panels can be manufactured as per client requirements.

MCC & PFI Plants

EPCS Switchgear has established a state-of-the-art facility in manufacturing LT Switchgear, Panel Boards. We are specialized in meeting the technical requirements through design, manufacture, test and supply of 415 V MCC Panel Boards with all accessories for efficient and trouble-free operations. Motor Control Centers are the panel assemblies such that all the motors of wide variety installed at different places for different applications in a workstation can be operated from one place with all the protection devices provided in the panels. These are available in a wide variety from Single DOL panel for individual machines to as many DOL's as required by you in a single panel. We have the facility to manufacture MCC panels from M.S sheet duly powder coated. These are manufactured in Indoor Type, Outdoor type, Flush type and Desk according to its application.

Our Involve Following Feature

- Remote control operation facility
- MCCB for protection
- Bus Bars of proper rating duly covered with acrylic sheet for safety.
- Copper strip for earthing
- Panel light and fan for ventilation.
- Custom Design
- Fixed type, free standing, floor mounting
- Extendable to both sides
- Cubical type compartmentalized construction
- Designed to meet climatic conditions
- Powder-coating with imported electrostatic powder
- Gun and fully conveyors powder-coating plant

Automatic Power Factor Improvement Plant

We are manufacturing PFI panels that offers a power factor from 0.95 to 0.99. The panel comprises of mains bus bars, mains MCCB, and MCB, tactor, Relay HRC Fuse and Capacitor of proper rating for every bank. The stages depend upon the power load on that bank. Along with capacitors, Reactors are provided if there exists harmonics caused by non-linear power supply in the system.

Power Factor Concept

The power transmitted from the power plant to the power stations, from the power stations to the industries and from the industries to the machines results in large power losses due to the inductive loads. The pure inductive loads results in lagging power factor while the pure capacitive loads results in leading power factor and the pure resistive load do not have any effect on power factor.

AMF Panel & Distribution Boards

Today, every machine is electronically controlled. All the electronic circuits run on SMPS that convert utility AC voltage to regulated low voltage DC for internal electronics. These non-linear power supplies draw current in high amplitude short pulses. These current pulses create significant distortion in the electrical current and voltage wave shape. This is referred to as harmonic distortion and is measured in total harmonic distortion (THD). Other equipments connected to the same supply are also affected by these harmonics. To remove these harmonics, reactors are introduced in the system.

Auto Mains Failure Panel

Customers can avail from us a range of AMF Panels that is available in a wide range of 10KVA to 1500KVA. AMF stands for Automatic Start on Main Failure, as these are used for automatically changing over from the main electricity supply to the standby generator in the event of failure of the mains supply. On resumption of the mains supply, the system automatically changes over from generator to mains thereby eliminating the unnecessary load on the generator and turning it off. The range of AMF panels also features interlocked MCCBS, ACBs, and Contactors.

Power Distribution Boards

We provide custom built Distribution Boards to our customers. These Power distribution boards are available in the all range. The products are extremely easy to install owing to their modular design. This design provides them high flexibility thus saving a lot of time during installation. Manufactured using premium quality raw material, these products are widely acknowledged as a complete solution for power distribution.

Lighting Distribution Boards

We manufacture custom designed Distribution boards used in final distribution to lighting and other loads. These are wall mounting type and manufactured suitable for indoor as well as outdoor installations.

Types of Distribution Board

- Concealed type Distribution Boards
- Wall mounted type Distribution Boards

Bus Tie Duct

Bus ducts serve the channel for high power transmission (More than 2500 Amperes) from the transformer to the main electrical distribution panel.

Our Bus Ducts Involve Following Special Features

The phase bus bars are highly insulated from each other using heat shrinkable sleeves that offer high insulation.

M. S. Angle supports are provided for perfect fitting of the bus ducts.

Electrolytic Copper metals are used as conduction metals for the bus bars.

Up to 3-meter long bus duct can be manufactured in one piece.

M.S sheet is used to manufacture the sheet metal box for bus ducts.

Proper ventilation slots are provided on top and sides of the bus ducts. Proper spacing is provided between the phase bus bars.

We are having special labour for the installation of bus ducts. We have installed bus ducts at far away sites as well

Cable Ladders

We offer ladder type cable trays that possess strength and high capacity. These ladder cable trays are well suited to heavy duty power distribution in industrial facilities. Our range is made of mild steel, stainless steel, aluminum etc. These ladder cable trays are in compliance to various international standards and specifications.

Cable Trays

We offer perforated type cables tray national & international standards in GI & MS sheets.
These cables tray are use for power & data cables

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Project Completed

Project Name	Client / Consultant / Main Contractors
1.Soneri Bank Data Centre (I.I.Chundrigar Karachi)	Tariq Khan
2.Atlas Bank Data Centre (Qaiumabad Karachi)	Uzair Sami
3.PICT (Karachi)	Temoor Malik
4.CADBURI (Hub Balochistan)	Sajid Khan
5.Amreli Steels (Site Area Karachi)	M. Mehmood
6.Mobilink NTO (Karachi)	Faizan
7.Bahria Complex II, III, IV (MT Khan Road Karachi)	M. Shafqat
8.British Petroleum (MT Khan Road Karachi)	Salim Jamil
9.International Steels limited (Landhi Karachi)	Waqas Zubair
10.International Industries Ltd. (Landhi Karachi)	Zafer Majeed Khalid Ahmed
11.Younus Textile Mills IV (Landhi Karachi)	Khalid Ahmed
12.Standard Chartered Bank (DHA Karachi)	Umar Farooq
13.Hub-Co Power (Hub Balochistan)	Owais Aslam
14.Sana Saifinaz Garments (Karachi)	Javaid Din
15.IFFCO Pakistan (Port Qasim Karachi)	Siraj Ahmed
16.NEK Pumping Station (Gharo)	Khurum Khan
17.United Marine Agencies (Karachi)	Noman Qadri



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THANK YOU

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