#### **TESTING FACILITY**

Our products are fully type tested as per IS/IEC

We have fully fledged testing department equipped with well experienced manpower and modern testing equipments like PANEL TESTING TROLLEY (CHAIR TYPE) ,high voltage tester(5KV,30KV & 80KV), Megger (2.5KV & 5KV), Tong tester, Phase sequence indicator, PRIMARY INJECTION TESTING SET ,Loading Transformer(3 Phase, 1000Amp), Relay testing panel (Secondary injection kit), Mili volt drop test set, CT & PT TESTING SETUP AS PER ELECTRICITY BOARD REQUIREMENT. VCB TIMING MEASUREMENT KIT (SCOPE)

#### Authorized System House For ABB MV Switchgears.

- 3.3KV TO 33KV INDOOR & OUTDOOR VCB/SF6 SWITCHGEAR PANELS.
- 3.3KV TO 33KV INDOOR OFF LOAD & ON LOAD ISOLATORS.
- FIXED TYPE & DRAW OUT TYPE LV PANELS.
- CONTROL DESK.
- RELAY & CONTROL PANLES FOR FEDERS, TRANSFORMS, CAPICITORS, MOTORS, GENERATORS ETC.
- NGR/NGT PANELS.
- LAVT PANELS.
- HT/LT AUTO TRANSFORMER PANELS.
- HT/LT BUS DUCT
- APFC PANEL

### CPRI CERTIFICATION

- 1] FOR S.T.C
- 2] Temperature Rise Test
- 3] Lightning Impulse
- 4] H.V.TEST
- 5] IP-4X/IP-55/IP-65

FOR MORE DETAILS KINDLY ASK FOR PRESENTATION



### M/s. H.T. Switchgears

Survey No. 77/5, Dangat Estate, N. D. A. Road, At Post - Shivane, Tal – Haveli, Pune - 411 023, Maharashtra, India. E-mail : info@htswitchgears.com

ISO 9001 - 2008 COMPANY

\*Due to continuous improvement, some information in this catalogue may become obsolete.



- Versatile Protection
- Compact & Flexible
- Customized Solutions
- Safe & Reliable Operation
- Excellent Performance

#### HTS OFFERS FOLLOWING TYPE OF PANELS

PANELS REQUIRED FOR HYDRO / CO-GENERATION PROJECTS.

# **Generator Relay & Metering Panel**

These Panels are widely used in power plants & are completely tailor made as per customer requirement & technical specification.





# Synchronizing Panel.

Synchronization panels are mainly designed and used to meet power system requirements. These panels provide manual as well as automatic synchronizing function for one or more generator breakers.

They are widely used in synchronizing generators and offering multiplexing solutions.

# **NGT / NGR Panels**

NEUTRAL GROUNDING RESISTOR (NGR) is used for the resistance grounding of Power Systems. Earthing through Resistor is the most common, economical and effective solution for impedance earthing. It is used, when the Neutral of the supply transformer is available and its own impedance is not enough to limit the fault current.

Inserting a Resistor between the Neutral of the Generator / Transformer and Ground serves to limit the maximum Fault Current to a predetermined value. This value is low enough to prevent damaging Fault Currents to the generating, distribution and other associated equipments; yet high enough to operate fault clearing relays.

Our NGT/NGR panels are with our own make single pole manual/motorized isolator & single pole vacuume contactor also provided as per customer's request.





# **LAVT Panels**

LAVT Panels are provided for voltage metering and generator protection. An LAVT (LASCPT) Panel houses, Potential Transformers and Lightening Arrestors & Surge Capacitors to safeguard the generator from current and voltage surges. Associated Bus Bars are provided with HT supports. Suitable arrangement with desired HV clearance is provided for termination of cable with undrilled removable gland plate or cut outs to suit Bus Duct connections for Top or Bottom terminal connections, as desired.

As per customer requirement & specifications. These panels are widely used and demanded in power plants.

#### PANELS FOR PUMP CONTROL

# H.T. / L. T. DOL / Star – Delta / Auto Transformer / Starter Control Panels

Electrical Starters are the delicate equipments but quite necessary for each industry and factory. As the name suggests, they are used to start the motors required for working. Any fault in the electrical starters can result into direct loss.

Engineers @ HT SWITCHGEARS reserves their expertise to manufacture all kinds of electrical motor starters like

• DOL Starter • SDS Starter • ATS Starter • SRS Starter



## C & R Panel as per State Electricity Board specifications



Control & Relay Panels is combination of protection relays, metering devices & some other electrical items used for controlling the system. The Control & Relay Panels, offered by us, are designed to meet the needs of control, instrumentation and protection. Moreover, our High Tension Control & Relay Panels are manufactured using hi-grade raw materials.

It is used for line protection, line feeder protection & transformer protection.

## H.T. / L. T. Bus Duct up to 33 KV

OUR designs bus duct systems in a way that it allows you to have multiple outputs from it without any power loss. Our manufactured Bus Bar Chambers needs very less maintenance. We are one of the reputed bus duct suppliers in India to deliver quality systems of any type including

- Segregated bus duct
- LT Bus duct (Low Tension)
- MV Bus duct (Medium Voltage)



#### **Automatic Power Factor correction Panels**



In view of constantly rising power tariff & penalties imposed by the State Electricity Boards / Utility companies, it is imperative for any HT & LT Industry / Consumer to install an automatic power factor controller system for curtailment of Power Factor penalty and also to Save Energy by consistently maintaining higher power factor. Low Power Factor leads to poor power efficiency, thereby increasing the apparent power drawn from the distribution network. These results in overloading of Transformer, Bus bars, Switch gears, Cables and other distribution devices within the Industry or consumer area.

HT Switchgears power factor correction system ensures optimum power for the running loads thereby:

- Avoidance of Power Factor penalty
- Reduction in Maximum Demand (KVA)
- Reduction in Energy (KWH) consumption
- Claim higher Power Factor incentives
- Longer life of the existing electrical distribution components like transformer, switch gears, cables, etc.

#### **D.G.SYNCRONIZING PANEL**

DG sync panel controls the functionality of a number of diesel generator sets. In few industries, more than one DG sets have to be used in parallel to share the total load on the system. To synchronize two or more diesel generator sets it is required to match all the parameters viz. voltage, frequency, speed, phase sequence and phase angle.

It could be hazardous if not all these parameters are matched properly. The DG sync panel takes care of it and gives the maximum performance.

Today DG Synchronization Panels are used in various industries e.g. Petrochemical Industry, Heavy Metal Industry, Food Processing Industry, Water Treatment, Oil Mills, Textile Industry, Pump Houses, Pharmaceuticals Industry. We provide solutions to all of these industries, so whatever your need be we are here for you.



At HTS, we provide a full range of high quality DG Synchronization Panels for all your requirements. It performs a variety of functions like starting, sharing, transfer and stopping load variations. Use of DG sync panels gives a great control and better fuel efficiency.

We use high quality raw material for manufacturing of our products that gives high strength and durability. We have many in-built safety features for the security of various equipments like alternator, engine etc. Our DG sync panels come with complete controlling and protection relays, which are capable of synchronizing a number of DG sets simultaneously.

### DRAW OUT/ non-DRAW OUT TYPE L.T. PCC / MCC / Distribution Board



We have an impressive range of LT panels with diverse specification options for a highly customized end product. We can offer the panels up to 6500 Amps having fixed and Draw-out types, including Single / Double Front type. The LT panels conform to IS 8623-part 1:1993 & IEC 439-1:1985 and have been type tested by CPRI for 50kA for 1 sec. The ability to withstand high humidity, temperature, ambient service conditions and short circuit levels make these panels an ideal choice.

#### **FACTORY SETUP**

Our infrastructure is facilitated with a widespread and well-equipped infrastructure base, which plays a crucial role in the expansion of our entire business operations. Streamlined operations at our unit have enabled us in providing best-in-class product range to the client on-time. Furthermore, for uninterrupted production process, our infrastructure is segregated into manufacturing, research, administration, testing and other operational departments.

Our manufacturing unit is provided with latest machines and sophisticated technologies to ensure cost-effective production of each product. The entire production process is monitored by our technicians & engineers, who maintain each installed machine so as to ensure its seamless and optimum operation. Spacious assembly & wiring shop can cater simultaneous requirement of many panels. All required tools & tackles for the job are available in sufficient numbers. We have most sophisticated and latest machineries like hydraulic busbar bending & punching machine, various portable machines etc. with which we can achieve better finish and avoid cracks for the busbar which in turn ensures quality work. We have requisite skilled manpower to carryout required jobs.