

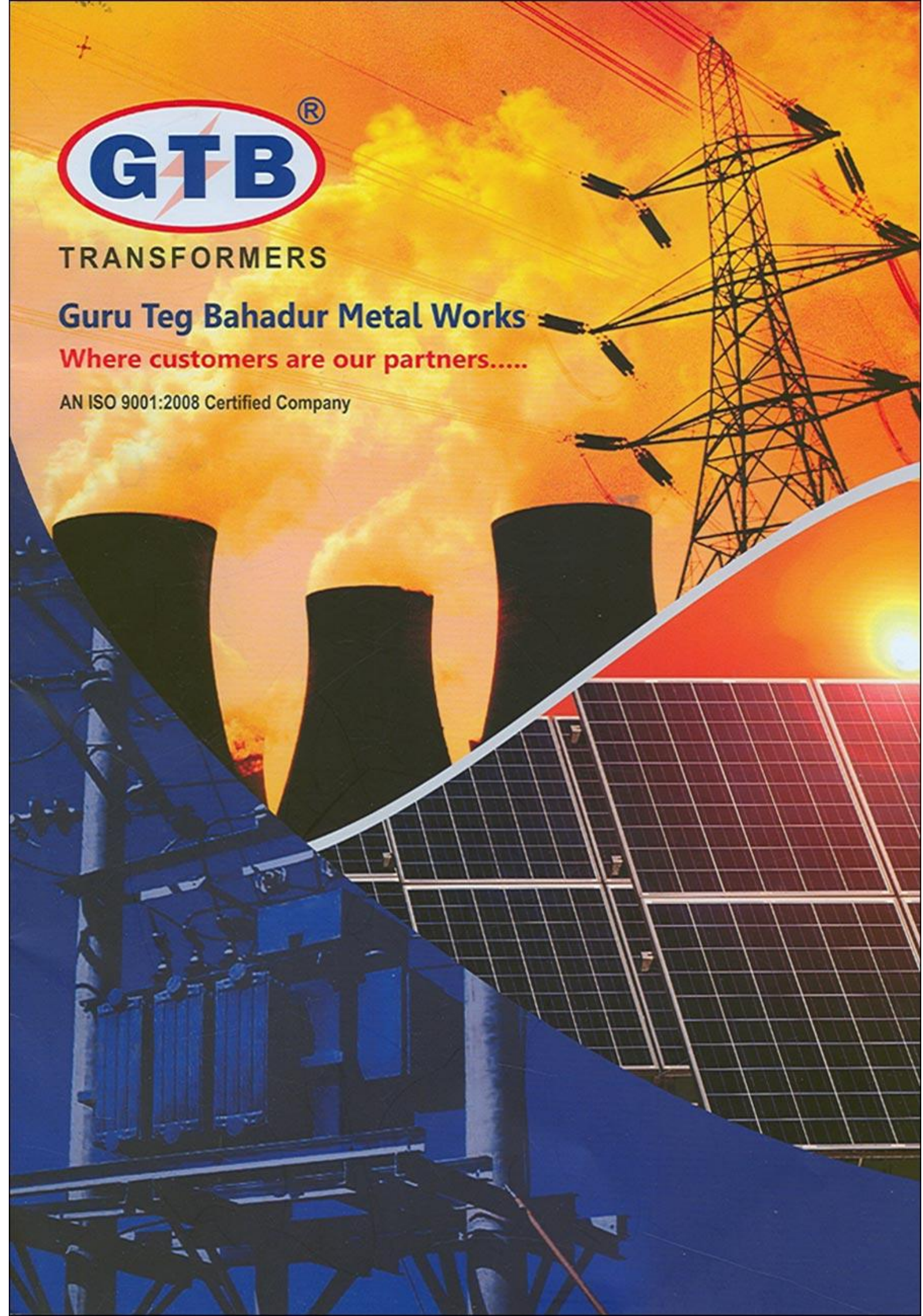


TRANSFORMERS

Guru Teg Bahadur Metal Works

Where customers are our partners.....

AN ISO 9001:2008 Certified Company





TRANSFORMERS

About Us

GTB Group has been providing solutions for energy management for the last 25 years & professionally managed by professionals and technocrats with more than 30 years of experience. We are an ISO 9001:2008 certified company & are based at Ludhiana (Punjab) under brand name of "GTB".

GTB Group was founded in the year 1992 by Mr. Harjot Singh as Guru Teg Bahadur Metal Works which focused primarily on manufacturing high quality copper and aluminium conductors used in Electric Distribution/Power Transformers, Welding Machines, Servo Voltage Stabilizers. By keeping very high standards of quality GTB got the attention and recognition of the state electricity boards. Soon it was the time for diversifying the establishment and that lead to the association of Mr. Harjot Singh with Mr. Pradeep Sharma and Mr. Munish Gupta. The year 1998 was the one when the relatively young establishment became a partnership

firm concerned with manufacturing of High Quality Distribution transformers. Opening up new markets and growing at a fair pace in the process. But the growth was by no means linear. Time and again, GTB had to get through difficult periods and adapt its strategies to new market realities. In GTB All the major components and raw materials are procured as per IS standard and from standard reputed sources like copper from Hindalco, Core (CRGO) imported from Japan, Transformer oil from Apar/Savita from Silvasa, Steel from SAIL/TATA. All the in house arrangements are available, right from Copper, Aluminum wire & strip drawing, annealing & insulation, core cutting, tank fabrication etc. A separate quality control department is always having a check on these parameters to ensure proper quality of the products manufactured by us. The Design and testing facilities available, are at par with best available in the industry to perform all routine test, strictly as per IS:2026 /IS:1180 and with

Our Vision

"We work to become a collaborative partner to our customers in their journey of growth through our values of integrity and continuous innovation."

calibrated meters before dispatch. We have complete testing lab for transformer oil also. Today GTB is one of the leading manufacturers of Distribution transformers from 10 KVA to 5000 KVA up to 33 KV Class, having different voltage ratios. The transformers are type tested for impulse test and short circuit test from Govt. approved testing houses like NTH Ghaziabad, CPRI Bhopal & ERDA Vadodara. GTB is approved vendor of Department of Atomic Energy (DAE) & TATA Projects Ltd. for supply of Transformers. We are also registered under the quality making scheme of Punjab Government. We are regular supplier to PSPCL (Punjab State Power Corporation Ltd).

Being an engineering company that to driven by its customers- where customers are not only the responsibility of a single sales department but company - wide undertaking that drives the company's vision, mission and strategic planning. Success depends when we work towards the customer goal, when finance furnishes right amount of funding, purchasing buys the right materials, production makes the right product in the right time horizon, and a constant R&D is done to make the product better and better. Such interdepartmental harmony can only build not customers but partners.

**In GTB we build relations -
Where customers are our
partners.....**



About Partners



Harjot Singh
Managing Partner

Mr. Harjot Singh started the establishment in 1992. He graduated from college of agriculture PAU where he did his engineering in the year 1985. Being a visionary he started an establishment from scratch which has now become leading transformer manufacturing industry in India. With Great Ideas and innovative management concept he build the company which has achieved great heights and is one of the most recognised brands in electrical engineering industry in India. Mr. Harjot Singh emphasised on core values of business such as credibility and good relationship with customers be it vendors / suppliers. Started out as Guru Teg Bahadur Metal Works organisation which was initially involved in manufacturing of DPC/TPC AL/CU wires and strips. Mr. Singh build the firm having an initial sale turnover of Rs 15 lakh to a Group now having Sale turnover of Rs 30 crore and above.

Mr. Singh always laid stress on creating and becoming a customer focussed and customer oriented company. Having a well and clearly defined Quality Policy and Quality Objective.

Harjot Singh



Pradeep Sharma
Partner Technical

Mr. Pradeep Sharma is working as a prestigious asset with Guru Teg Bahadur Metal Works. He grabbed his education from Polytechnical, Chandigarh. At a very young age of just 19, he started out with his carrier. Later on, in 2001, order to direct his experience and passion into the right direction, he joined hands with GTB metal works with an optimistic vision and mindset to take the company to the next level. With confidence in his potential and vision streak. Take a look at the company's previous records and you will come to know that he has always laid stress on the quality, efficiency and effectiveness, yet not compromising with the environment. His commitment to work with passion drives him to innovate in terms of new technology.

At the moment, with the commendable experience of 31 years, he is someone the customers and company can rely upon. His first priority has always been and always will be the customer satisfaction.

Pradeep Sharma



Munish Gupta
Partner Marketing

Mr Munish Gupta heads the Marketing division of GTB Transformer. A graduate engineer in Electrical & Electronics stream from Bangalore university has an experience of more than 17 years in electrical industry. A visionary with aggressive marketing skills has enabled the company to have a strong dealership network and installation in almost all the parts of the country. His strenuous efforts and dynamic leadership has resulted in having more than thousand satisfied customers today in GTB's kitty. With an aim to provide quality products and power conservation solutions to customers, he firmly believes in strong customer care support and a very important aspect of our product which is after sales service.

"To make GTB as one of the most trusted brand in terms of quality and value for money at the same time to see our organization as most ethically and professionally managed company which will be powered by technology and driven by values".

Munish Gupta



Future Plans

At present we are supplying our equipments to Public & Private Sectors to entire country especially in Northern & Eastern India and Maharashtra region and we are also having strong hold on Many State Electricity Board across the country.

Our Future plans are to be a major manufacturer of Solar Energy Equipments, We have already started manufacturing solar equipments , it will help to bring sustainable, clean and climate friendly electricity to the country.

Management Team





ISO 9001:2008 CERTIFICATION



CRISIL RATING CERTIFICATION

ERDA TYPE TEST REPORTS





AGVE FORMULATION PVT. LTD.



ALLIED LEATHER FINISHERS PVT. LTD.



BRIJAX ENGINEERING PVT. LTD.



DATT MEDIPRODUCTS LTD.



ANURAG MATRA SADAN AND INFERTILITY CLINIC



ZOETIS ENGINEERING



SCHNIEDER ELECTRIC INDIA PVT. LTD.



CHOURAY & CHOURAY PVT. LTD.



SUNRISE THEROWARE PVT. LTD.



PUNJAB STATE POWER CORPORATION LTD.



SRIYASH KNITTERS



MAHINDRA HOLIDAYS & RESORTS INDIA LIMITED



ESSEL MINING & INDUSTRIES LTD.



RUNGTA MINES LTD.



INDIAN OIL TANKING



PUNJAB STATE POWER CORPORATION LTD.



SWASTIK CITY PLANNER PVT. LTD.



JAI PRAKASH VIKING LAL INNOVATIVE ENGINEERING & TECHNOLOGY INSTITUTE



PUNJAB DAIRY UDYOG



JANTA LAND PROMOTERS PVT. LTD.



JAYCO RUBBER PVT. LTD.



NHPC LIMITED



MAHINDRA HOLIDAYS & RESORTS INDIA LIMITED



PARABOLIC DRUGS LIMITED



SACRED HEART SCHOOL MOGA, PUNJAB



V GUARD INDUSTRIES LTD.



NHPC LIMITED



MECHTECH GASES PVT. LTD.



MAYA INSTITUTE OF TECHNOLOGY & MANAGEMENT

and
many
more





Core Slitting



Core Assembling



Winding



Coil Assembling



Baking



Assembling



Final Assembling



Tank up

The transformer are manufactured in accordance with IS 2026/1977, IS 1180/1969, IEC 60076 or as per customer's custom requirement. Unless or otherwise specified the transformers will be connected as per Vector Group reference DYn 11 in accordance with International practice. The core used is best quality cold rolled grain oriented and laser processed silicon steel sheet. They provide low iron loss, low noise, compact size and have the best performance for high efficiency transformers. We use high quality conductor of copper/aluminium in our products. Round or rectangular copper/aluminium wires/strips ribbed with thermally upgraded insulating paper are applied in oil immersed transformers. The winding have a compact size, excellent heat transmission, low load loss, high lighting impulse resistivity and outstanding anti-short-circuit strength.

RANGE OF TRANSFORMER

5 KVA – 5000 KVA (6.6 KV , 11 KV , 22 KV, 33 KV)

VECTOR GROUP

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CORE

The core used is best quality cold rolled grain oriented and laser processed silicon steel sheet. They provide low iron loss, low noise, and compact size and have the best performance for high efficiency transformers.

WINDINGS

We use high quality conductor of copper aluminium in our products. Round or rectangular copper/aluminium wires ribbed with thermally upgraded insulating paper are applied in oil immersed transformers. The winding have a compact size, excellent heat transmission, low load loss, high lighting impulse resistivity and outstanding anti-short- circuit strength.

INSULATION

Our oil-immersed transformers are insulated by electrical grade insulated press board and thermally upgrade insulating Kraft paper.

TAPPINGS

Tapings + 5% to -15% in steps of 1.25% or as per customer's requirement.

OIL

Dehydrated EHV-Grade transformers oil as per IS 355 (1993) with latest amendments is used for proper insulation and cooling after testing for all the parameters viz a viz resistivity, tan delta, BDV, neutralization, flash point etc.



500 KVA Distribution Transformer
11/0.433 KV Class



Inner View of Distribution Transformer



2500 KVA Distribution Transformer
33/0.433 KV Class

BUSHINGS

HV/LV Bushings: The quality porcelain bushings are used on the high voltage terminals/low voltage terminals. Optional bushing wells, inserts and elbows are available upon request. High voltage cables are inserted directly and show no live parts outside.

ACCESSORIES

The accessories include an oil filling hole, oil drain valve, safety valve, standard thermometer, oil level gauge, skid wheel, jacking pad, breather, earthing terminal.

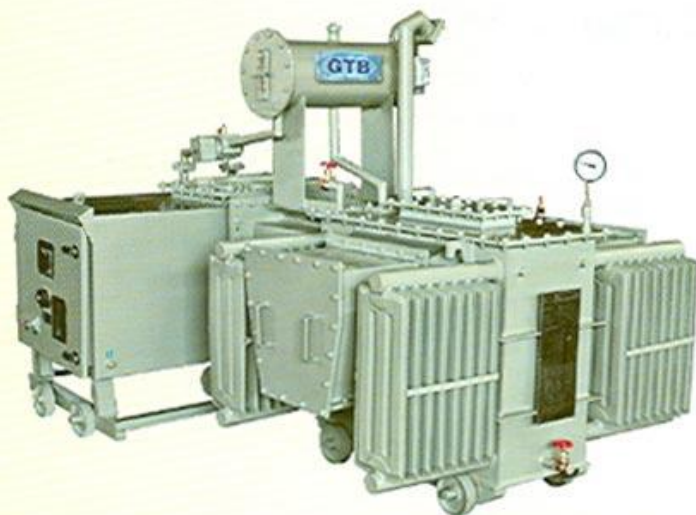
OPTIONAL ACCESSORIES

Buchholz relay, cooling fan, HV & LV cable box, cable duct, bus bar duct, dial-type thermometer, oil level gauge, on-load type tap changer, protective fuse and lightening arresters are available upon customer's request at extra cost.

On load tap changer (OLTC) is used with higher capacity transformers where HT side voltage variation is frequent and a nearly constant LT voltage is required. OLTC is coupled with the transformer itself. Multiple tapings from HV windings are brought to the OLTC chamber and connected to fixed contacts. Moving contacts rotates with the help of rotating mechanism usually a Geneva mechanism having a spindle. The spindle can be rotated manually as well as electrically with a motor. Motor is connected in such a way that it can rotate in both the directions such as to rotate the OLTC moving contacts clockwise and anti clockwise. Two push buttons are fitted on the LCP (low control panel) to rotate the motor and hence the OLTC contacts. This movement of contacts thus controls the output LV voltage of the transformer. So rotating of the OLTC contacts with spindle or push button in this way is manual process. In case this process of rotating the OLTC contacts and hence controlling the LV side voltage is to be done automatically then a RTCC (remote tap changer controller) is installed with the transformer ht panel. The RTCC panel which has sensors which sense the output voltage and accordingly sends signal to LCP and LCP in turns rotates the motor as per signal received from the RTCC.



2000 KVA Distribution Transformer with OLTC



250 KVA Distribution Transformer with OLTC



3200 KVA Distribution Transformer with OLTC

Applications

OLTC Transformers are used in :-
 1.) Chemical plant, Bottling plant.
 2.) Paper mills, Sugar mills, Rolling mills, Steel mills.
 3.) Industries which rely heavily on automation, where electronic cards, PLC and VFDs are used in operations and actuation.

An intrinsic byproduct of the transformation process is heat, specifically, the "I²R" (I=Current, R=Resistance) heating that occurs when current runs through a conductive wire. Heat breaks down transformer composition materials and insulation, resulting in less efficiency and shorter service life. Transformer heat is best controlled by the oil filled transformers, which conducts the heat away from the heat-producing parts while protecting other internal transformer workings.

But with proper sizing and placement, as well as fans when appropriate, dry type transformers which cool by air ventilation, provide excellent, low-heat service in tight enclosures and indoor situations where oil leakage could cause a fire or significant environment hazard. Clearly, a system without these threats offers enhanced safety for indoor applications. A dry type transformer will typically incorporate a design with greater internal clearances to allow for better heat dissipation. No fireproofing, oil catch basins or venting of toxic gasses are required and the transformer can be close to the load, minimizing secondary line losses. But a dry type transformer also reduces maintenance with no need to replace transformer oil while avoiding the contaminant and composition checks necessary for proper oil insulation and cooling.

Application

Dry type transformers are widely used in indoor situations where oil leakage could cause a fire or significant environment hazard. For example in places such as schools, institutions, hotels, malls and commercial buildings where reliability and safety are mandatory. Relative ease in maintenance of the transformers explains why GTB dry type transformer is often the choice of the customer.



Dry Type Transformer with forced cooling

Compact Substation

GTB's Compact Substation is used for feeding power from high voltage to low voltage in open cast mines, construction sites, metro cities etc. The substation is compact in size, suitable for frequent shifting and for use in indoor / outdoor locations. The substation is installed and mounted on skid frame or wheels or channels and is provided with lifting hooks



Compact Substation

Salient Feature

- Easy to operate, safe.
- Compact portable & ready to install
- Designed for better cooling
- Transformer dry type or oil cooled
- Low maintenance
- Customer made design
- Superior aesthetics
- Suitable for all weathers
- Design Combinations

HT COMPARTMENT

- Ring Main Unit
- Vacuum Circuit Breaker
- Load Break Switches

TRANSFORMER COMPARTMENT

- Oil Cooled Transformer or Cast
- VPI dry Type
- Low Losses Design
- Tap Changer

LT COMPARTMENT

- Air circuit breaker
- Molded case circuit breaker
- Fuse units
- Fuses

Ultra Isolation Transformers

We are the leading manufacturers and suppliers of isolation transformers like ultra isolation transformers, power isolation transformers, super isolation transformers, which protect the Isolating sensitive equipment from Line Voltage transients, spikes & D.C Leakage etc. These ultra isolation transformers are specially designed for sensitive critical equipment like industrial, computers & peripherals, medical instrumentation, digital communication telemetry systems, CNC Machines etc. and stopping such disturbances generated by the noisy equipment load from being injected into the power line.

Multiple shielding techniques employed reduce the inter winding capacitance to below 0.005 Pico farad and increase D.C Isolation to over 1000 Megohms. We are leading exporters of medical isolation transformers, electrical isolation transformers, high voltage isolation transformers, three phase isolation transformer and power isolation transformer.

Technically, any transformer that have no direct current path between their primary & secondary windings provide Isolation. Other commonly used power isolation transformers, even if they have separate primary & secondary winding are intended to convert the input voltage to a more useful level & do very little to attenuate the passage of noise or transients from primary to secondary. Even though both are separately wound transformers, they are substantially different w.r.t construction, specification & performance characteristics.



Inner view

Furnace Transformer

We are providing arc/induction furnace transformers that have the capability to withstand short-circuits. Further, its superior features like low noise, economical operation, compact design etc, have made the range highly popular in the market.

We also have ability to customize the range as per the specific requirements of the customers.

We offer a qualitative range of furnace transformers that are designed and manufactured using cutting edge technology. These furnace transformers are widely used in steel plants, aluminum industries, gas factories, calcium carbide and various other industries.

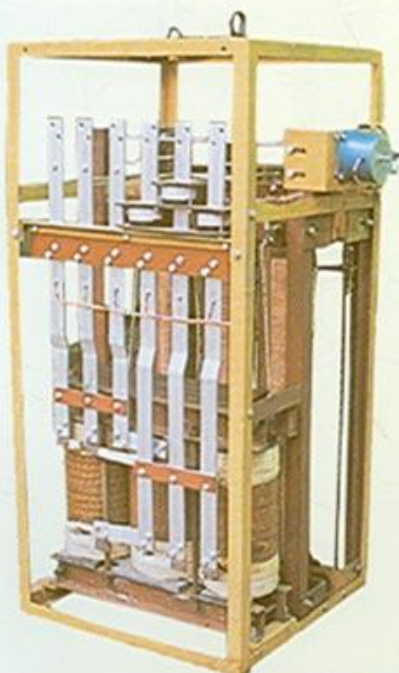


1000 KVA Furnace Transformer



Applications :

Cement Plants, Flour Mills, Engineering Units, Pharmaceutical Units, Cold Storages, Multiplexes, Rolling Mills, Textile Mills, Paper Mills, Tube Mills, Rice Shellers Call Centers, Rubber Industries, Tea Estates, Food Processing Units, Oil & Vanaspati Plants, Footwear & Leather Units, Research Stations, Distilleries, Food & Beverages Plants, Hospitals, Nursing Homes, Clubs, Hotels, High Rise Buildings.



GTB since its inception has been serving with dedication the power sector by focussing on the various aspects of power problems and its possible solutions. In accordance to the same, today GTB is a renowned name in the field of rolling contact type automatic voltage controllers, distribution transformers, ultra isolation transformers & special purpose transformers. The equipment manufactured incorporate most modern engineering concepts under expert supervision and rigid quality control.

In spite of the best efforts by all the state electricity boards across the country, the voltage received at the user end is never constant. This erratic power supply is the main cause of breakdown of electrical equipment. Voltage varies in a fashion that generally it is low during day time and high during night hours. Moreover on holidays, peak hours, rainy days and when agricultural load is switched off, the voltage rises sharply which is more dangerous. In India all the electrical equipment are rated at 400 / 415 Volts three phase and 220 / 230 Volts single phase. If the system voltage is higher / lower than the rated voltage.

Though stabilizers are useful for any kind of application, these are most suitable for 24 hour continuous process plants where breakdowns due to fluctuation results in heavy financial losses.

Advantages :

- ◆ REDUCTION IN BREAKDOWN OF ELECTRICAL EQUIPMENT
- ◆ CONSIDERABLE POWER SAVING POSSIBLE
- ◆ BETTER UTILIZATION OF EXISTING TRANSFORMER, CABLES ETC
- ◆ MAINTENANCE OF POWER FACTOR AND MDI IF THE VOLTAGE IS NORMALLY HIGH
- ◆ UNIFORM QUALITY OF END PRODUCTS
- ◆ INCREASE IN PRODUCTIVITY AND BETTER EFFICIENCY IN PLANT DUE TO LESS PRODUCTION LOSSES
- ◆ 80% DEPRECIATION AS PER INCOME TAX ACT

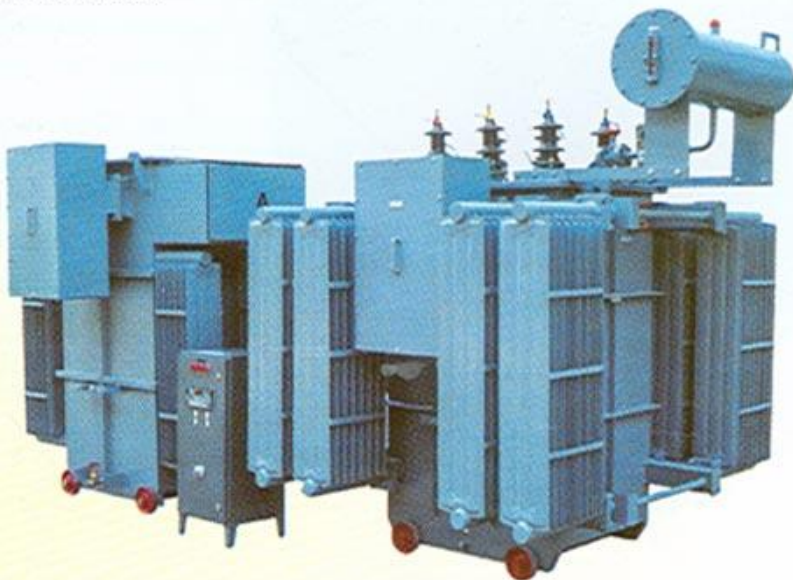


H.T. Transformer Voltage Stabilizer

RANGE: Upto 5 MVA 11 & 33 kV Class

GTB Make Copper wound, HT AVR suitable for indoor / outdoor installation, copper wound HT AVR system is a revolutionary landmark in the industry when it comes to voltage regulation and stabilization. The standard offcircuit tapping of transformers can correct limited voltage variation and cannot regulate the voltage while in 'on Load' conditions.

We have developed state of the art technology HT Automatic voltage regulator that operates on load, sleeplessly & gives stabilized voltage on the HT side. The fluctuating voltage from Grid is initially controlled by the HT AVR and then fed to the transformer resulting in the constant H.T. Output within $\pm 1\%$ accuracy and the biggest advantage being its robust design ; Lesser losses & more efficiency make the distribution transformer to utilize up to 100% capacity.



Online UPS

Range - 3 KVA - 100 KVA

Available in single in-single out, three in-single out, three in-three out



50 KVA Three Phase



21 KVA Three Phase



10 KVA Single Phase



5 KVA Single Phase

GTB's Online UPS incorporates double conversion technology, which eliminates the power disturbances in the main line hence provides clean and continuous (uninterrupted) source of Energy. GTB's online ups not only is responsible for providing uninterrupted power but also protects equipment down the line from various faults such as power surges, short circuits etc.

Features :

- ◆ Easy to Install
- ◆ In-Built Protection Systems
- ◆ Optimises Battery Performance
- ◆ DSP Technology, IGBT Based
- ◆ Output Power Factor 0.8
- ◆ LCD Display
- ◆ Wide Input Range



20 KW/P Solar Roof Top, Ludhiana

"Solarize Your Business"

GTB extends its EPC Services by providing smart solar rooftop solutions. GTB designs solar plants in a way that not only maximises the return on investment but also ensure its clients a hassle free power experience for a large lifespan of 25+ years.

GTB has a dedicated team of engineers and technicians, we tightly monitor Quality of our service right from procurement of material up til execution of the Project.

GTB is always striving to become energy partner to its customer and hence become a preferred choice of brand in the field of energy and power solutions.



40 KW/P Solar Roof Top, Yamuna Nagar



TRANSFORMERS

Where customers are our partners.....

Manufacturer & Exporter :

Guru Teg Bahadur Metal Works

Regd. Office : 1621, Street No. : 4, Kwaliti Road, Ludhiana - 141003

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Village: Tibba, Sahnewal Dehlon Road, Distt Ludhiana(Punjab)

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Email : office@gtbtransformers.com

Website : www.gtbtransformers.com

Branch Offices :

Agra, Aurangabad, Delhi, Faridabad, Hazipur, Indore, Kanpur, Kolkata, Ranchi, Varanasi, Yamunagar