

MANUFACTURING PROCESS

CRGO Lamination For Transformers

We manufacture CRGO Lamination For Transformers with following functionality:

- Slitting :- The CRGO steel is received in the form of coil and can be slitted in the minimum width of 10 mm and multiples of 5 mm. The cutters are frequently grinded to control the burr level.
- Shearing :- The slitted coil are sheared in the treadle shearing machine at an angle of 45 degree & in case of mitered core and 90 degree in case of rectangular core. Utmost care is taken in grinding of the blades at specific interval of time in order to minimize the burr level not exceeding more than 10 micron.
- V-Notching :- The process of V-notching in the yoke plates of the stacked lamination are carried out in semi automatic power presses using dies made of tungsten carbide for achieving almost zero burr level.
- Stress Relieving Annealing :- During the course of process the stresses developed in the stacked lamination tend to increase the losses and magnetizing current of the core. This is relieved by subjecting the lamination in roller hearth stress relieving annealing furnace.
- Testing :- Random tests are conducted on sample of the CRGO/CRNGO Raw Material. The CRGO / CRNGO Lamination are packed on the wooden pallets and covered by the water proof cloth duly strapped in order to avoid damage to the core edges. Lamination for measurement of losses, insulation resistance, bend test, burr level.



"Core Solutions"

RASQUINHA
TRANSCORE ELECTRICALS
PVT. LTD.



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COMPANY PROFILE

Our Inception

Transformers are essential to generate electricity which is the basis for Industrial Development. CRGO is the heart of the Transformer. RASQUINHA Group came into existence in 1987 for manufacturing quality Transformer Laminations. In C.R.G.O and C.R.N.O grades such as E&I, Strips, Transformer accessories such as Bobbins, Clamps, Side Brackets etc. It steadily grew up and in 1995 entered in making Toroidal Cores in Round and Rectangular Shapes to cater to the Electrical Power Industry.

We are committed to provide customer satisfaction as regards to price, delivery and service expectations. We have achieved our goal in manufacturing Power and Distribution Transformer Miter Core Lamination from 5KVA to 5000KVA in CRGO Material M3, M4, M5 and M6 Grades.

We are committed to and stick to the policy to produce genuine quality Core and Lamination with perfection and precision both mechanically and Electrically to meet the requirements of valued reputed customers.



MITER LAMINATION

Our in-depth process knowledge as well as modern production facilities allow us to successfully meet the demands of mitred transformer lamination. The technical expertise of our team allows us to manufacture these for a wide range of transformers ranging from 5 KVA to 5000KVA 'V' nothing and multi-holing as per customer requirements. We manufacture transformer core laminations for power and distribution transformers from CRGO electrical steel in Grades M3 (0.23), M4 (0.27), M5 (0.30), M6 (0.35), MOH, ZDKH, ZDMH, TCH-0, TCH-1 as per the Customer's Specifications, Grades and Drawings. Transformer lamination can be availed in various designs. Some of them are as follows: V-Notches, 45° Mitred design Rectangular design, Single or Multiple holes, Step lap design with vertical or horizontal step lap and Built up transformer core assembly.



TOROIDAL RING (ROUND) CORES

Toroidal round cores offered by us find usage in low tension and high tension transformers and are wound from cold rolled grain oriented (CRGO) silicon steel strips ranging from 10mm to 100mm single slit and we offer core sizes from 15mm ID to 1000mm OD. To provide optimum performance these toroidal cores are wound by automatic core winding machine and are annealed in high vacuum furnace under protection of nitrogen atmosphere or in continuous tunnel furnace, which results in features like compact volume, light, low magnetic leakage and hum & high efficiency. In CRGO grades required by customer, duly wound and annealed in inert atmosphere. Guaranteed No load current (AT /Cm) as per B-H Curve of particular grade In house testing facilities and 100% testing done on all Toroidal Cores at flux densities specified by customers. Annealing in controlled Nitrogen atmosphere for 18 to 24 hours (at 800° C) Testing for electrical values and issue of test certificates Painting or impregnation (if required). Material used in these cores are prime CRGO electrical steel in grades. M3, M4, M5, MOH, TCH-0, TCH-1, ZDKH as per customers requirement. While ordering specify the inside & outside diameter & strip width in mm.



TOROIDAL RECTANGULAR CORES

The advantages of these Cores:

Small magnetic hysteresis at higher induction, smaller apparent power, high permeability, low weight and small space volume and quick assembly-decreased labour cost. While ordering specify windows, stack and width of the strip in mm. Material used in these cores are prime CRGO electrical steel in grades. M3, M4, M5, MOH, TCH-0, TCH-1, ZDKH as per customers requirement. While ordering specify the inside & outside diameter & strip width in mm.



E & I laminations

We manufacture all kinds of E&I laminations as per customers specifications as well as Standard Types which are used widely in CRGO grades M4, M5 and M6 and CRNGO Grades M45, M47 or as per customers specified grade. These type CRGO and CRNGO Transformer E&I Lamination are used in control transformer, Instrument Transformers and Iron core chokes. Ballast and variety of electromagnetic application.



BUILDUP STRIP LAMINATION CORES

We offer clients rectangular strips in CRGO/ CRNO that are offered in both loose conditions or can also be assembled as per client's specifications. Our modern production facilities also help us to deliver these rectangular strips in different specifications of width, lengths and raw material used. The raw materials used for CRGO grades are M4, M5 and M6 with guaranteed watt loss from 0.85 to 1.02 watts/kg and for CRNO grades used are M45, M47 in thickness 0.30mm, 0.35mm and 0.50mm respectively. with guaranteed watt loss 2 to 5 watts/kg. Strip Laminations finds applications in transformers, voltage stabilizers, UPS and others. Some of its unique features are reliability, durability, corrosion resistance and dimensionally accurate.