

# MANUFACTURING

## COIL MANUFACTURING

We manufacture coils for all DC, traction, low voltage and high voltage rotating electrical machines, and coils for transformers of all types to IEC specifications.

Transformer coils are wound on horizontal and vertical winding machines using manila or specially developed oil absorbent arimid paper, which is a Class 155 material. Rotating machine coils are looped, machine taped and formed in both resin-lean and resin-rich processes. Comprehensive tests include inter-turn, main wall insulation and surge-pulse withstand-tests to IEC specifications.

## WIRE DRAWING AND COVERING

Our wire drawing and covering facility uses pure, high-conductivity copper to give us very short lead times for conductor manufacturing. Conductors for medium voltage applications are covered with mica folium tapes. Transformer conductors are covered with either conventional manila paper, or with oil absorbent arimid tape developed by LH Marthinusen and Du Pont specifically for higher operating temperatures.

## INSULATION MANUFACTURE

This facility uses synthetic resin-bonded paper, resi-glass and silca to manufacture insulating tubes, boards and profiles in any form required by customers and our own Transformer Repair and Motor Repair divisions.

Tubes from 3mm to 1.3m inside diameter are mainly used as machine insulation and for transformer core coil-support cylinders. Boards are used as machine wedges and coil supports.

## COMMUTATORS

LMH is an approved supplier to Transnet for a wide range of commutators for traction and auxilliary motor applications. Services include the manufacture of complete new commutators, rebuilds with new segment packs and existing steelwork, partial repairs including segment and/or riser replacement and replacement of mica cones and/or inter-segment mica. Work is carried out in accordance with stringent Transnet specifications. Other commutators and sliprings for mining and industrial applications are also manufactured.

