

# DC MACHINES

Large Range



IEC Frames 315 to 500  
365 to 1300 kw



**INTEGRATED ELECTRIC COMPANY PVT. LTD.**  
Bangalore, India

Established in 1982, Integrated Electric Company Pvt. Ltd. (IE), manufactures high quality rotating machines and drives for various industrial applications.

IE has six manufacturing units in Bangalore where it produces DC Machines, AC Generators, AC Motors and AC Variable Speed Drives.

IE's DC Machine range extends from 0.37kW at 1500RPM to 2500kW at 250RPM in IEC frame sizes 80 to 900.

IE also produces a full range of AISE, IPSS and  $D\pi$  series motors used for auxillary drives in Steel Mills.

IE also supplies complete electrical systems including generators, motors (DC and HT AC), transformers, control panels (HT and Mag-Amp) and operators chair for 5m<sup>3</sup> electric excavators.

IE is also a supplier of traction motors, compressor motors, resistance braking systems, etc. to the Indian Railways.

*IE's Large Range of motors consists of frame sizes 315, 355, 400, 450 and 500 and extends from 365kW to 1270kW.*

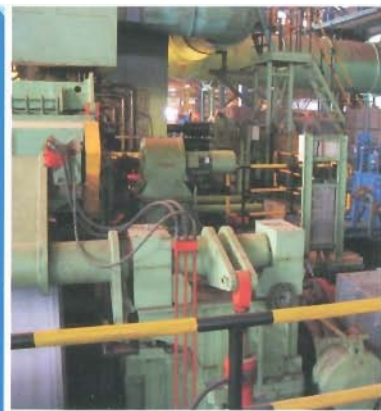
*IE's Extra Large Range of Motors consists of frame sizes 560, 630, 710, 800 and 900 and extends from 950kW to 2500kW.*



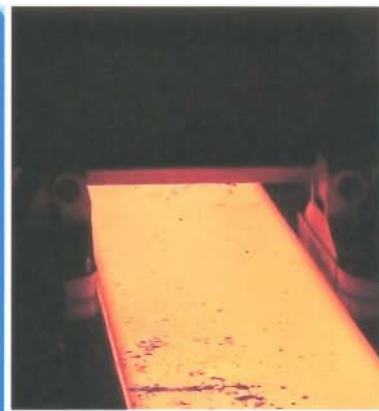
Sugar Centrifuge



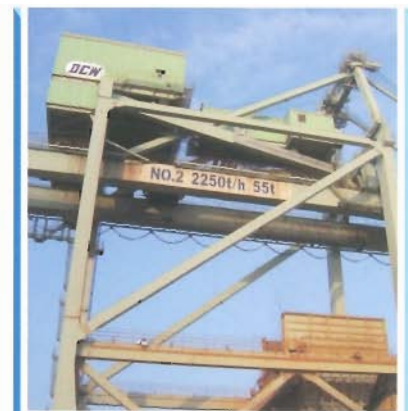
CR Tension Reels



CR Main Mills



Steckel Mill



Material Handling



Hot Rolling Mill



Feed Pump



Block



Brake Generator

## Electrical Features

- ◆ All motors are of laminated yoke construction to ensure good dynamic response and suitability for converter operation.
- ◆ All machines have compensation windings.
- ◆ Machines are suitable for a  $di/dt$  of 200 times full load amps.
- ◆ A Class H Insulation scheme is used but the temperature rise is restricted to Class F limits to provide an inherent reliability factor for all machines.
- ◆ Black commutation is ensured for the operating range of the machines.
- ◆ IEC has supplied a large number of motors for cold rolling mills, tension reels, rod and rebar mills, high speed block mills, steckel mills, sugar mills, sugar centrifuges, pipe plants, cranes, hoists, ski lifts, rubber mixers, brake generators, etc.. It understands the specific requirements for various equipment and ensures that the motors it selects are suited for the rigours of the application.
- ◆ Please contact the marketing department for special application related requirements.



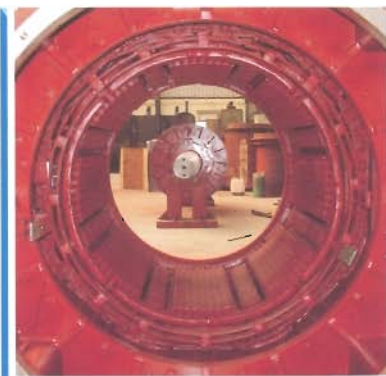
VPI Plant



Rotor Winding



Dynamic Balancing



Final Assembly



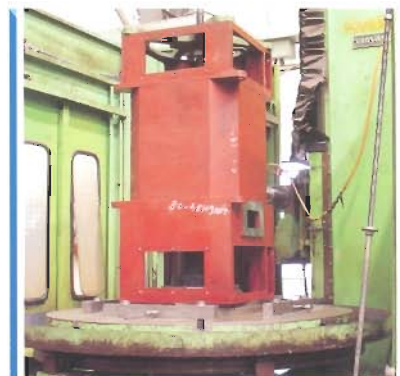
VTL



Large Boring Machine

## Mechanical Features

- ◆ Conformity to BS5000, IS4722 and NEMA specifications
- ◆ Mounting B3
- ◆ Cooling IC06, IC0041, IC0666, IC17, IC37, ICW37A86
- ◆ Enclosures IP23, IP23R/44S, IP44, IP54 and IP55
- ◆ The magnet frame, endshells and rotors have been designed to provide critical speeds well above the operating speed.
- ◆ Rotors are dynamically balanced to minimize vibration.
- ◆ Commutators are mainly of mechanical construction or in special cases, with a special moulded construction.
- ◆ Shaft are designed for 8 times torque.
- ◆ Terminal boxes are generously sized.
- ◆ Brush Gear Assemblies are rugged.
- ◆ Tacho and Encoder Mountings, Blower Protection Switches, Differential Pressure Switches, Water Flow Switches, Water Leakage Detectors, RTDs in Winding and Bearings etc.. are some optional accessories that can be provided for protection and operation of the motor.
- ◆ Please contact the marketing department for special mechanical related requirements.



CNC Pole Hole Drilling