

Leading manufacturers of Power & Special application Capacitors



Company Profile

An ISO 9001 : 2008 Certified Company





Environment Friendly Capacitors

Directors Message

Electricity has now been considered as the life line in the rapid growth of any developing country and India is no exception to it considering its march towards becoming a super power in years to come.

In current scenario the bridge between generation and demand is widening every day, even though all attempts are made to minimize it. Under the given situation it becomes imperative to use the available power at its highest efficiency and use of capacitors takes the first & foremost step in energy conservation.

"Magnewin" is committed to develop highly reliable capacitors, be it required for elect utility / for industry / for defense or for R&D institutions.

"Magnewin" is committed & proud to develop environmental friendly world class technologies / materials and products that save valuable Foreign exchange and make our country self-reliant in its path of progress to become super power.

We at "Magnewin" are proud to be shareholders in the National Energy Conservation programme of India.

Magnewin will be known globally as one of the most respected capacitor manufacturing company by 2020.

Vinod Bolaj
Managing Director

Vijay Chippalkatti
Executive Director

About Us

Magnewin Energy Pvt. Ltd , established in 1994 an ISO certified, professionally managed company is one of the leading manufacturer of all film foil, NPCB impregnated LV, MV & HV Power Capacitors for a variety of applications which include Power factor improvement, harmonic filtration and Special Capacitors for Govt. of India Defense and Research institutes.

Our establishment is outcome of 30+ years of industry experience followed by state of art manufacturing and testing infrastructure, which has made us proud to claim of manufacturing world class capacitors for major applications.

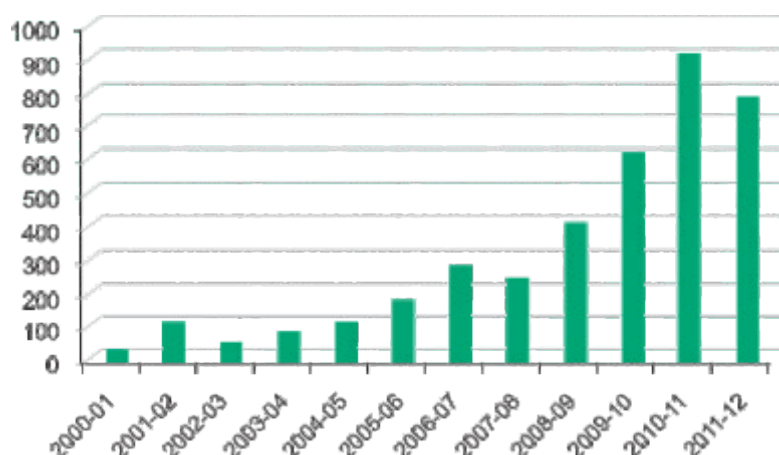
Our experienced team of engineers can work out and design solutions to all complex problems related power quality and energy conservation.

Our technical expertise has enabled us to take up development of capacitors to meet stringent requirements.

We have our presence in the domestic & international markets and it is our constant endeavor to meet the stringent quality requirements of our customers worldwide.



Company Growth



Product Range

- 1) Low Voltage Shunt capacitors (All Film Foil, NPCB impregnated) up to 50 Kvar in units and Banks in higher ratings including APFCR(Thyristor & Contactor switching type) for voltages up to 1000 volts in accordance to IEC 60931. (For Power factor improvement and Harmonic filters.)
- 2) Medium Voltage Shunt capacitors in Internal/External fuse. Single unit up to 800 Kvar, 20 KV Single phase and Banks up to 145 Kv System voltage in accordance to IEC 60871.(For Power factor improvement and Harmonic filters.)
- 3) Medium & High Voltage Surge Capacitors up to 50 KV in accordance to BIS 11548. These are also called as C-R Suppressors when used along with resistors.(Used in Vacuum Circuit breakers for switching of M V & H V Motors, in sub stations for protection of electrical equipment against lightning and switching surges).
- 4) Medium Frequency Water Cooled Capacitors for Induction heating and melting applications in accordance to IEC 60110. Max rating up to 7000 Kvar, voltage up to 5000 volts.(For Induction heating & Steel melting Industry).
- 5) Energy Storage& Pulse Discharge Capacitors. Max Voltage 150 Kv & Energy up to 20 K joules. (For Defense and Atomic research depts.)
- 6) Low Inductance Capacitors ... Inductance as low as 40 nH. (For defense and Atomic research depts.)
- 7) Voltage Dividers up to 1200 KV.
- 8) Any Special capacitor in accordance to client specs.

Power Compensation engineering as well as Power quality related assignments upto 145 kv Voltage network.

automation, leaving very little chance for human errors in operation.

Technical software's have been developed by our engineers, which is all custom built. Every attempt is made to be self-reliant as much as possible.

Engineering Services

- A) Harmonics Measurement, Analysis and mitigation in accordance to IEEE 519 and in compliance to G5/4-1 standards.
- B) We also do undertake turnkey projects/ consultancy in Reactive

Technology

Magnewin has developed its own technology which is the outcome of the vast capacitor industry and field experience that the directors have gained in more than last three decades. Few critical processing machines have been designed and developed in house which have latest features blended with -

Infrastructure

Magnewin has two plants the first one spread over 7000 sqft shop floor where exclusively Low Voltage capacitors are manufactured and the second one which has shop floor area of 15000 sqft where all the other ranges (which need to comply stringent standards) are manufactured.

Separate store, (clean air-conditioned) for Class "A" raw materials like Film, foil, insulation material and impregnant and separate store Class "B" for rest of the materials is maintained. Modern material handling equipment's are being used.

Plant, machineries and testing instruments required for manufacturing are the latest one to complete all routine and type tests

(except Impulse test) as per relevant IEC and BIS standards.

Few custom built test equipment's / power source have been developed to simulate test conditions for overload testing of MFWC capacitors of a wide range which is one of its kind in India.

A full fledge in house fabrication shop has been established which incorporates latest hydraulic power press brakes, power shear, die tools, punches and semi-automatic welding machines. These in house facilities ensure to get the fabricated containers and cubicles on time with quality workmanship.

Manufacturing

Capacitor manufacturing starts with clean rooms. The complete manufacturing and operations starting from winding till insertion of dry packs into the container and top lid welding are carried out in a class 10000 and element winding is carried in class 100zone on four semi-automatic precision winding machines. Aluminum foil, which acts as electrode has its end and edges folded during winding of the element.

Element winding is done as per the data from the design software, wound elements are tested and healthy elements are stacked to achieve the desired capacitance and voltage to form a dry pack.

This dry pack is inserted into pre-treated, degreased sheet metal containers and top lid welded with TIG welding. Porcelain bushings of adequate BIL are TIG welded on the top lid.

The welded dry capacitors are placed in an PLC controlled Heating cum vacuum drying autoclave and heated at 85C under a vacuum of 0.001 torr until all the capacitors are declared perfectly dried by on line precision instruments. After drying the capacitors, they are impregnated with purified, degassed and tested impregnant Jarylec 101 D under specific vacuum and temperature.

The impregnated capacitors are subjected to routine tests as per IEC 60871-1 and then subjected to 20% A C overvoltage test for a pre-determined period. All the passed capacitors are sand blasted, followed by air drying epoxy paint.

Pre dispatch inspection for each capacitor is carried out before dispatch.



Research & Development

Research & Development is a continuous on going activity being carried out to enhance the reliability & life of capacitors and adopting cost reduction techniques by improving and adopting new manufacturing techniques, automation, installing precision on line instruments to monitor the behavior of capacitors during process etc.

Formulating new rigorous in-house test standards to assess' life expectancy and behavior of capacitors under extreme operating & environmental conditions. Developing capacitors with new dielectrics is also one of key area of R & D.

Our engineers have also been working on developing dielectric materials and impregnants for use in special application capacitors for making high energy density capacitors in compact Size.

Today Magnewin is proud to be the only company in India to manufacture such a

wide range of capacitors, which has been possible on account of its innovative strong technical base, R & D and the passion of the management to keep research and development as an ongoing process.

Esteemed Clients

BARC, ARDE, DRDO, HERML, ABB, CROMPTON, SIEMENS, EMCO, RAILWAYS, Electricity Distribution Companies etc

and Induction Furnace mfgs (OEM's) and bulk power end users.

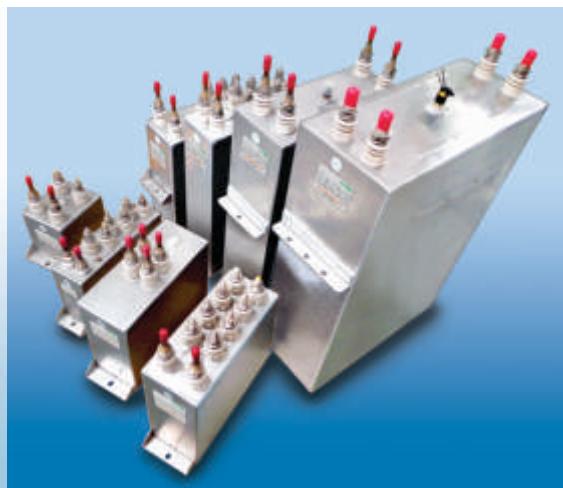
Global Presence

Australia, Bulgaria, Bangladesh, Bolivia, Columbia, France, Iran, Italy, Malaysia, New Zealand, Romania, South Africa, Turkey, USA

Training

Training is considered as the most important tool to develop the skills of our both commercial as well as technical staff. Regular Training is imparted by

seniors from the company as well as invited guests who are experts in Power capacitor manufacturing.





Product Range

- Low Voltage Shunt capacitors
- Medium Voltage Shunt capacitors
in Internal / External fuse
- Medium & High Voltage Surge
Capacitors
- Medium / High Frequency Water
Cooled Capacitors
- Energy storage Capacitors
- Pulse Discharge capacitors
- Low Inductance Capacitors
- Voltage Dividers up to 1200 KV.
- Any Special capacitor in
accordance to client specs

Engineering Services

- Harmonics Measurement, Analysis
and mitigation & Power Quality
- Turnkey projects / consultancy in
Reactive Power Compensation
engineering



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