

MECHANICAL DESIGN CRITERIA

CASE STYLES:

The case style, terminations, winding methods, dielectric tissue, and the impregnant of the capacitor are selected for each specific application. Type EDC and Type LDC units are encased in an arc-welded, electro-tinned, mild-steel case.

TERMINALS:

Sangamo has developed low inductive terminals for a wide range of voltages. These cast epoxy bushings are mechanically rugged and are designed to withstand the environmental conditions of shipping and storage.

In laser discharge applications, where higher values of inductance are permissible, units are supplied with upright porcelain bushings.

Special terminals have been designed for a direct connection to a specifically designed spark gap, ignitron switch, or parallel plate transmission line.

CAPACITOR SECTIONS:

Inserted tab construction is recommended for relatively high inductive loads where moderate values of current are required.

Exposed foil construction is recommended for relatively low inductive loads, where high values of discharge current are required. Internal connections are designed to adequately conduct the discharge currents and to withstand the phyiscal forces created by the magnetic fields.

Applications requiring very high voltages dictate the use of internal series-parallel sections. Where the application requires a cylindrical case configuration, it is advantageous to wind the section on a permanent "sleeve" mandrel. This type construction allows for the inclusion of an internal temperature compensating arrangement maintaining maximum impregnation fill over a wide temperature range.

DIELECTRIC:

Sangamo has evaluated many dielectric tissues and impregnants in order to supply the optimum dielectric combination for each specific application.

A: KRAFT TISSUE:

Kraft tissues are now being produced with densities ranging from 0.6 to 1.2. In general, papers with higher densities have higher values of dielectric strength and dissipation factor. High or normal density tissues are customarily used for discharge and d-c applications requiring high dielectric strength. Low density tissues with a lower value of dissipation factor are customarily used for a-c applications where it is essential that losses be a minimum.

SANGAMO ELECTRIC COMPANY