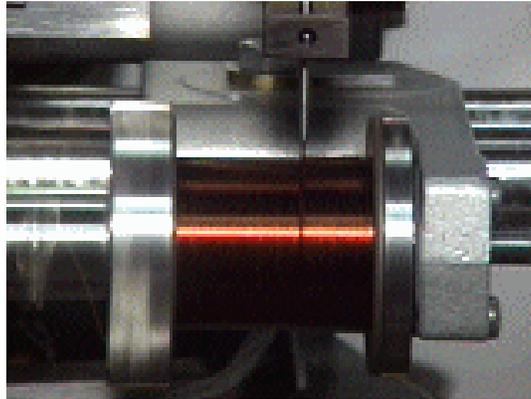




Machine Control Specialists Inc.

Electro Guide



Precision layer wound coils can be successfully manufactured using the innovative 'Electro Guide' device from MCS. It is only available on servomotor driven traverse machines, built by MCS. This optional device uses a special wire guide unit with a position sensor that provides closed loop feedback to the MCS control. During winding, the wire guide position is constantly monitored and sent to a Digital Signal Processing algorithm. The wire guide position is dynamically adjusted to be perpendicular to the coil as the wire is laid in perfect parallel alignment.

The programming of the 'Electro Guide' assist is optional at any point in the wind. This allows the coil program to wind a foundation layer using the normal pitch method. Once the first layer or any number of additional layers is complete, the 'Electro Guide' assist can be enabled. This can be accomplished on the fly using a 'Wind Modification' instruction. The exact turn count can be specified as well as the magnitude of correction. If at this point the wire is either leading or lagging the normal pitch, the assist would correct the guide position and keep it aligned to the foundation layer grooves. At the end of the coil, the 'Electro Guide' can be disabled and revert back to normal pitch control. This allows a pitch to be selected to spiral wind the final turns back to the proper flange for termination.

The 'Electro Guide' is the modern way of winding coils that only the hydraulic traverse winders could do. It eliminates the leaking, messy, noisy and bulky hydraulic pump, reservoir and hoses.

Since the 'Electro Guide' is an option for servomotor driven traverse machines, the base machine may be used with or without it. It provides the flexibility of using your machine for precision layer winding on one job, then simply disabling the guide unit and use the machine without it. The unit can be moved and shared with other machines.

Coils that would benefit from 'Electro Guide' include precision wound coils like alternator rotor coils, automotive solenoids and sensors, voice coils etc. It is a solution for coils where the maximum build is critical when over molding is used.