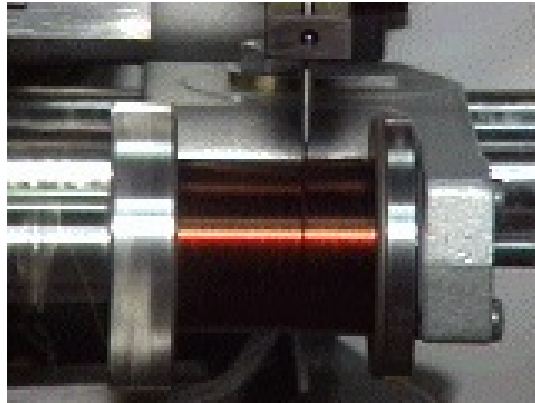




***Machine Control Specialists Inc.***

## Electro Guide



**P**recision wound perfect layer coils can be successfully manufactured using the innovative 'Electro Guide' option. This option uses a special wire guide unit with a position sensor that provides closed loop feedback to the MCS1 control. During winding, the wire guide position is constantly monitored and sent to a Digital Signal Processing algorithm. The wire guide position is then dynamically adjusted to properly layer the wire in close to perfect parallel alignment. By adjusting traverse position, bobbins which are less than suited for precision winding are able to be wound with reasonable success.

**T**he programming of the 'Electro Guide' assist is optional at any point in the wind. This allows the coil program to wind a foundation layer or layers using the normal pitch method. Once the first layer or any number of additional layers are 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.

**T**he 'Electro Guide' is the modern way of winding like the old hydraulic type winders. It eliminates the noisy and bulky hydraulic pump, reservoir and hoses.

**S**ince the 'Electro Guide' is an option for servo traverse system, 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.

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