Wire Drawing Machine Application with Carotron DC Drives

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As the wire drawing industry continues to recover from several years of economic challenge, companies are moving cautiously to upgrade their aging wire drawing equipment. Many wire drawing machines have DC motors that are difficult to replace with AC motors due to frame size and gearing. Therefore, the least expensive upgrade of old machines involves refurbishing the DC motors and modernizing the DC Drives. The picture above shows an eight-drive retrofit assembly featuring Elite Pro Digital DC Drives by Carotron, which replaced an old system whose controls were not supported technically by the manufacturer. Carotron still services and fully supports the first products we built back in 1984.

The Elite Pro Series can drive DC motors for a number of wire drawing applications. The built-in field regulator also makes it easy to do extended speed ranges above motor base speed for high speed processing.

Here are just a few examples:

- >> Bull Block machinery for large wire sizes, production for small batch quantities. These can control a variety of capacities for any application, all grades, ferrous as well as non-ferrous wire capacities. Variable speed DC drives can be used in these applications to ensure the most smooth running wire drawing process.
- >> Multi-Block machinery that can be used for a range of applications and various materials such as low carbon stainless steel, and copper (including steel-shrouded). *Ferrous wires: High speed drawing. Ideal for bead wires (springs and tyre), fencing, welding wires, nails, etc. These offer a number of benefits, including a high level of efficiency, full control of wire accumulation, and excellent wire cooling between speed reductions. DC, variable speed drives can be used with this machinery.
- >> Wire drawing machinery that uses spoolers with traverse control and dancer control is used for winding various types of wire. The traverse control function allows for frequent adjustments in the speed of the winder/motor so the wire will not be wound unevenly on the spool. Spooler DC motors are

controlled by DC drives and may require extended speed above base speed for core speed requirements. Spooler drives may also feature a dancer arm that senses the material as it winds to keep the winding speed coordinated as the spool diameter changes.

Whether your company specializes in steel wire drawing, or you need DC drives for copper wire drawing machines, the drives in the <u>Elite Pro Series</u> can be fitted to suit your needs. High quality drives can help the wire drawing process to go much smoother while also increasing the levels of efficiency overall. Save time and money by allowing Carotron to help with your application. Even very old motor-drive systems can often be transformed into a well-working, efficient system. Our engineers are specifically trained to help with these needs, whether simple or complex.



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