



## *E-SUCCESS STORY*

Dixon Engineering & Sales Co. represents a variety of automation and machine component manufacturers. SFK (Russell T. Gilman Division) specializes in precision slides and spindles. Sugino Corp. manufactures a complete line of drilling and tapping units. Inter-Lakes Bases builds custom and standard bases and weldments. Many times, we are asked to assist on applications that require multiple product lines. This success story for Medeco Corp., in Salem, VA, is one such example.

In mid 2006, Steve Poff, manufacturing engineer for Medeco Corp., invited me in to review a new project. Medeco manufactures a complete line of high security locks and accessories. A main component on many of their locks is a small, brass side bar. You can see from the photo that these small parts have many machined areas. At that time, Medeco was buying them as a complete assembly. Steve knew he could design a cost-effective machine for manufacturing them in house. Steve's concept was to start with a coil of brass extrusion. It was to be fed out, straightened and cut. There were three different parts (3, 4 and 5 pin sidebars) that would need to be handled on this machine. The posts had to be machined using hollow mills to a radius of 0.068". The sidebars also needed to have blind holes with a 0.069" dia. and 0.060" depth drilled into them.



We reviewed this project with Russell T. Gilman and Sugino Corp., and recommended the following:

1. Two Sugino model ES2 drill units, running at 6,000 RPM with carbide tooling, would be used to drill the blind holes in the side bars. These drill units would be mounted on two Gilman model H6 dovetail slide assemblies for set-up adjustment.
2. One Gilman model 1875 precision spindle assembly, mounted on a model HWS5 hardened way slide assembly, would be used for cutting the sidebar from the coiled extrusion.
3. One Gilman model 2750 motorized vertical travel spindle assembly, mounted on a model H8 hardened way slide assembly would be used for milling the tops of the posts.
4. One Gilman model 2750 motorized spindle assembly, mounted on one compound X-Y model HWS7 hardened way slide assemblies would be used for hollow milling the post.



SUGINO MODEL ES2 DRILL UNIT



COILED EXTRUSION BEING FED INTO MACHINE



GILMAN VERTICAL TRAVEL SPINDLE ASSEMBLY

After Steve reviewed the quote and concept, a few changes were made. He then received approval for the machine. He purchased all of the components described above. Here is a photo of the complete machine. Please note that everything is mounted on an Inter-Lakes machine base.



The machine has been producing parts at Medeco for more than two years now. It produces four parts per minute during two shifts a day. It is saving Medeco 24 cents for each part they make in house and do not have to purchase from a vendor. Steve said it has easily paid for itself several times over. He was very pleased with all of our products and would use each of them again.

To learn more about these products, please visit the following web sites:

Russell T. Gilman (SKF) – [www.skfpt.com](http://www.skfpt.com)

Sugino Corp. – [www.suginocorp.com](http://www.suginocorp.com)

Inter-Lakes Bases - [www.interlakesbases.com](http://www.interlakesbases.com)

Feel free to contact us if you would like additional information or assistance with an application. You can learn more about us and all of the lines we handle by visiting our web site at: [www.dixoneng.com](http://www.dixoneng.com). We look forward to working with you on a future project.