



## Compliant Like Clockwork

### *Lean Manufacturing Assembly Station for*

### *Diabetes Lancing Device*

New manufacturing tooling for a complex diabetes lancing device prompted a global market leader to request lean manufacturing design expertise from Egret Technologies.

**Situation:** The diabetes care division of a top-performing global life sciences and healthcare company had developed a lancing device which was being introduced into manufacturing assembly. Internal studies showed that their production process required a 5-second continuous flow (takt time) for the lancet device assembly to meet their production output target and efficiency requirements. Using the existing approach, they were challenged to break down the production process to meet this standard at every step during assembly. They found that production results were too slow at the point requiring placement of the spring-and-pull mechanisms, the most complex stage in assembly. Without a solution, the company would be forced to either offshore the manufacturing of the diabetes lancet device entirely, or invest in a second domestic production line to meet demand. Neither of these decisions fit the company's business goals for the product.

**Solution:** Egret Technologies was asked by the VP of Operations to provide lean manufacturing design expertise for new tooling so that the high-precision spring- and-pull mechanisms

could be assembled reliably while meeting the 5-second takt time goal. The project included the design of highly-sophisticated three-step turntable tooling with magnetic positioning to:



- position and feed the spring-and- pull mechanisms
- adjust the mechanisms for the correct compression, tension and response
- ensure the 5-second continuous flow of the assembly process

**“Turning Innovation into Profit” Results:** Over a three-month period, Egret worked directly with the Manufacturing Engineering Manager

responsible for the assembly line on several modifications and process enhancements. Upon receiving the innovative new tooling prototype he remarked, “Egret Technologies has proven their creative talents and responsiveness on this quick-turnaround

project. Their engineers were very well tuned into our precise needs from day one and surpassed every objective we set. We will definitely look to Egret Technologies again for creative solutions and lean manufacturing engineering expertise.”

Egret Technologies is a superior electronic design partner to global vendors of technology products. We are an innovative, solution-driven, US-based engineering design firm specializing in optical, electronic, and mechanical hardware, as well as embedded software systems. We provide concept development, product design and project engineering. Contact Egret Technologies at (866) 96-EGRET or [Innovate@EgretTechnologies.com](mailto:Innovate@EgretTechnologies.com)