Case Study

Design & Development - Development of subcutaneous port

Overview

A German medical device company approached Caragh Precision to develop a subcutaneous titanium port with unique flow characteristics for launch onto the international market. Current products utilize basic sub optimal flow characteristics which can result in dead spots for drug or blood to agglomerate and coagulate. High profile is also a significant issue in that it can protrude underneath the skin causing discomfort to the patient.

Approach

After defining the user needs with the client, Caragh Precision developed design concepts in 3D particularly focusing on the flow characteristics and the profile of the device. A novel assembly design was developed to reduce the overall profile of the device. Additionally the internal chamber was designed utilizing a single uniform curved surface eliminating the potential for dead spots..

Once the design was signed off prototypes were developed to conduct animal trials, functional testing and market acceptance trials.

Outcome

The port met all test requirements and was successfully launched onto the international market becoming the port of choice for a significant number of users replacing their current port of choice. Due to the success of this development partnership a suite of ports have been developed and launched internationally with similar success.

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