Product Description

The Valvulotome is a catheter-based surgical device for cutting and disabling venous valves. It is used by vascular surgeons to perform an in-situ bypass of the lower extremity arteries with existing veins.

Goals & Challenges

The client wanted to evolve an early stage prototype of the device into a more controllable and manufacturable product. The cutter head design had to meet strict user requirements for operating the controller and to address safety issues.

StarFish Solution

• Design of cutter head, including miniature stainless steel assemblies for self-sized guide fins and cutter blades with mechanical cross-linkage
• Mechanical design of cutter head adjustable to changing vein diameter along full length of a patient's leg
• Safe cutter head housing without exposed blades

Summary Results

• Conceptual development and prototyping
• Detail design under ISO 13485
• Manufacturing transfer to external partner
• Substantial improvement and change of direction from initial prototype creating new IP for client

Build Success with the Right Device™

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