# **RF Ablation Device**

The Device: Vapor Ablation System

**Project Scope:** Redesign a clinical system, providing design inputs and therapy qualification to commercial use product, support FDA submission and set up manufacturing for commercial launch.

# **CHALLENGES**

Integration of multiple subsystems

**Device calibration + system verification** 

**Management of Risk controls** 

# **ENGINEERING SOLUTIONS**

Integration of RF power supply, 8' conduit, fiber optics, multi-channel pneumatic pump with pressure sensors and syringe pump

> Developed automated calibration routine that allowed an operator to press go and test test system would proceed with calibration

Integrated hardware and software safety mitigations in the Vapor Ablation System

## **Results:**



Developed single-board computer system (SBC) which controlled touch screen graphical user interface (GUI).

# **Project Wins:**



## Miniaturization

Replacement of large boiler style vapor generator Miniaturization of components to make size smaller for client.



### Cost Reduction

Cost reduction through driving strategic manufacturing of subassemblies while utilizing a global network of supply.



#### Ingress Protection

Water Ingress Protection while maintaining serviceability.

Production and supply rand management from 5 units/month to 30/month by month 6 of production launch. FDA approval accelerated 2 months ahead of plan, with no findings from FDA audit post-launch.

## End point:

We now manufacture their commercially available product.