Angiography Fluid Delivery System

Industry: Medical

Angiography is a procedure used to find abnormalities in blood vessels. A radiographic contrast substance is injected into the patient so the veins or arteries in question will show up on an x-ray. The company's goal was to provide a superior machine to the existing designs on the market. They accomplished this by giving the doctor total control of the volume and flow rate of the fluid using a simple hand control.

The design uses a small hand control, which controls a motor driven syringe. The machine controls pressure by regulating velocity and protects from overpressure by monitoring motor current. Reliability is extremely important since living patients are involved.



The new machine now dominates over older machines that are bulky and difficult to operate. This was a major achievement considering there are more than four million angiographies performed worldwide every year.

Brushless motors were preferred due to the reduced maintenance and cleaner environment. The customer chose the BE25A20 for the servo drive and they designed their own operator interface/position/pressure controller to command the drive.

A high voltage was necessary for the high-speed motor, but AMC was still able to get FDA and CE clearance. We addressed all of the company's concerns in a timely manner. We are proud of the success this company has achieved in their industry.

