



magnet news

new directions in magnets...

Case Study-001



ENEFLUX ARMTEK MAGNETICS, INC.

A Major Manufacturer of Anesthesia Equipment Needed a Better Magnetic Valve

A manufacturer came to EAM with a challenge...

Technology that other vendors couldn't supply was developed by EAM. Here's what we did to provide the solution...

They had designed a magnetically controlled valve for a line of machines that regulate the flow of anesthetic gas delivered to each patient. Obviously, the performance of these valves is extremely critical. They are subject to stringent quality control inspection before being approved for installation in the machines. The manufacturer was installing an Alnico magnet into these valves during the final phase of the assembly process. These magnets



...EAM went back to them with the solution.

would have to be absolutely uniform in strength in order for each valve to operate properly. Unfortunately, the strength of the magnets was inconsistent, and it was causing over 30% of the valves tested to be rejected.

EAM personnel visited the manufacturing facility in order to develop a more accurate and cost effective magnetic solution.

The EAM design team determined that the assembly should be built first, and then magnetized using in process controls — guaranteeing that a working valve would be produced every time.

It was also decided that assembly and testing should take place at the EAM facility so that the performance of the valves could be monitored on site using our state of the art statistical process control equipment.

By implementing this new technique, EAM managed to lower the rejection rate of the valves to less than one tenth of one percent!

In addition, EAM physically redesigned the valve itself, developing an insert molded piece that not only improves the effectiveness of the equipment, but also results in significant cost savings to the customer.

Product Spotlight

EA Magnetics has a strong grounding in the precision that critical medical equipment components require. Our application experts **routinely re-examine and re-design** parts that can make all the difference, in production, after-sale reliability and your bottom line. Contact us with your requirements.

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