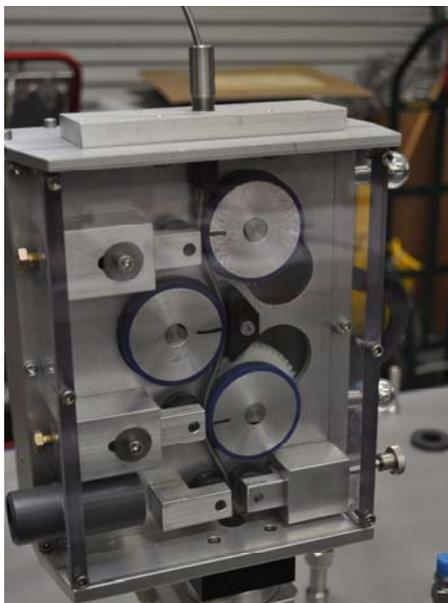
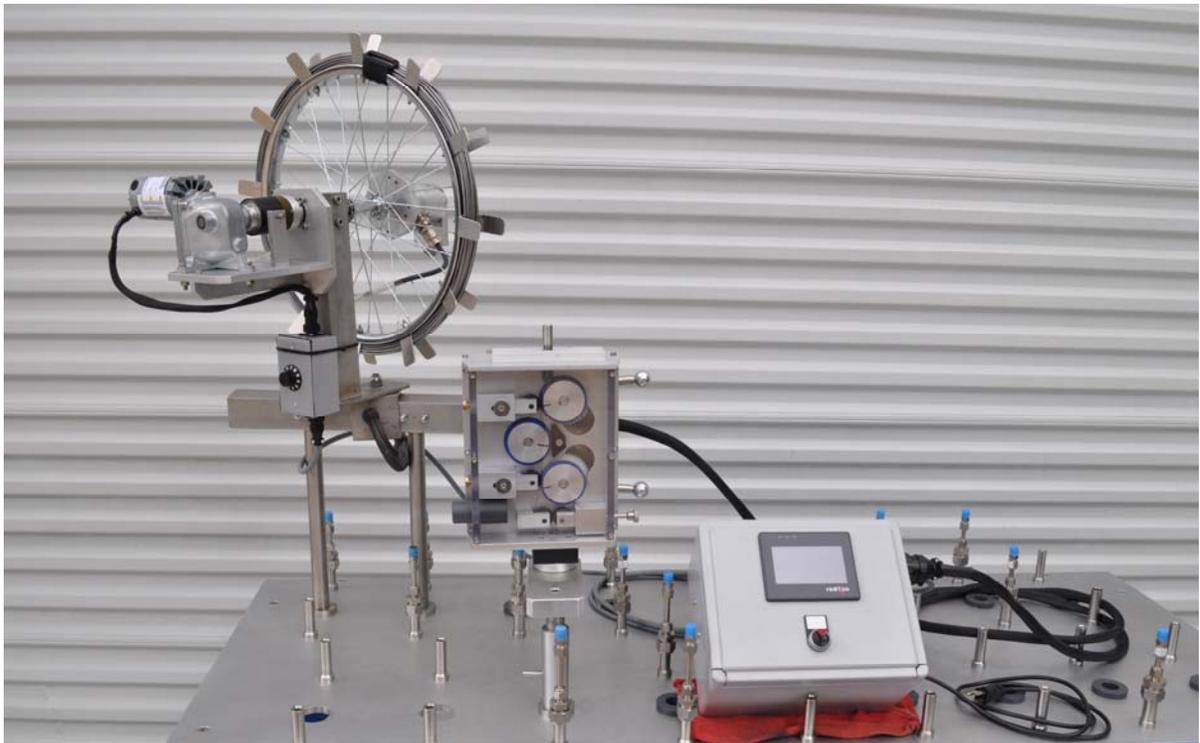


BCP Powered ECT Reel Systems



BCP Eddy Current Cable Reels

In 2009, BCP, in association with ANATEC International, designed and built the first Motorized Eddy Current Take-Up Reel (MECT).

The MECT is capable of retracting the ECT Probe from the Thimble at the previously unheard of speed of **40+ inches per second!** Without the MECT, retractions are manually accomplished at a nominal speed of 1"- 2" per second.

The acquisition of Eddy Current data has been fortified with state of the art computer programs, resulting in data capture rates at phenomenal speeds. However this reduction in data capture time, resulting in less cost and less dose incurred during the process, necessitated a mechanical device to assist the manual technicians efforts to keep pace with the computer acquisition of data.

The resulting design by BCP is a reel that operates in two (2) modes, *manual* and *motorized*. The former is for insertion, while the latter is for withdrawal. The phenomenal speed of withdrawal added a new parameter to the design since airborne contamination now became a larger issue. As such, a polycarbonate contamination control hood was incorporated. This enclosure is connected to a HEPA vacuum system for airborne remediation. Improved smoothness and steady take-up speed controls were also introduced.

In Fall 2009, ANATEC successfully utilized the MECT at two Midwest nuclear plants.

Based on the feedback from those projects, the 2010 MECT, has a redesigned hood access to the reel, eliminating the need to remove the hood for probe changes or adjustments.

A further advancement in the model is a motorized driver that would not only retract the probe at desired speeds, **but also insert it at specified speeds.**

Both improvements further reduce the personnel dosage and save valuable out-age time.



MOTORIZED EDDY CURRENT TAKE UP REEL (MECT)

This is the system originally supplied in Fall 2009 with our Rev 2 improvements. It is based on manual insertion of the cable to the thimble end and motorized take up of the cable as it is retracted out of the thimble.



The redesigned hood arrangement allows for the front to completely open up via a top hinge, enabling open access to the reel and the eddy current cable and probe.

Additionally, we have reduced the number of vacuum ports, realizing we only need to keep a slightly negative pressure inside the hood. We will now be able to supply a small vacuum device mated to our system that uses its own HEPA filtration system.

The reel has a variable speed take up (reverse only, not insert). It utilizes a belt drive system from the motor to the reel. The belt is disengaged to allow free rotation for manual feeding the ECT probe into the thimble. The belt is then re-engaged (via a lever) and the system is ready for retraction. This system has been utilized in the field and is readily available. Options can include spare parts, the HEPA portable vacuum system and equipment packing cases.



....and one more thing....

ELECTRONIC CABLE DRIVER (ECD) AND REEL SYSTEM

This device will drive the detector cable into the thimble with controlled accuracy, stop at the scheduled insertion length, and be retracted at a set speed to stop at an appointed "home" location. The driver is then lifted off the thimble, repositioned to the next thimble and the actions repeated.

The proprietary control panel enclosure allows for a complete schedule of thimbles and their insertion lengths to be inputted prior to the start of the job. The specific thimble is then called up on the screen, and the data acquisition cycle is repeated. This system also utilizes our Contamination Control Hood and vacuum system (not shown). This system is in its second prototype phase with fine tuning continuing. It is expected to be available by the end of September 2010.



Contact:

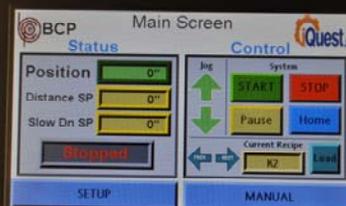
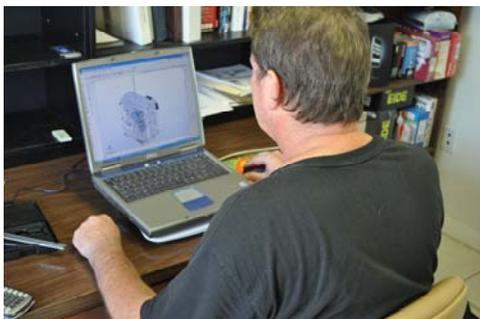
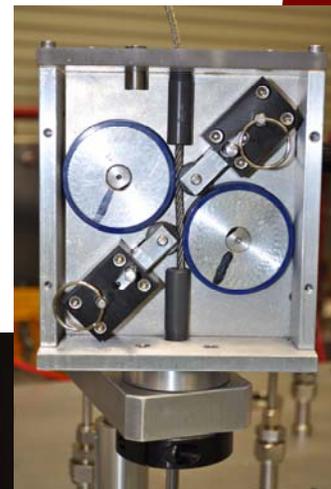
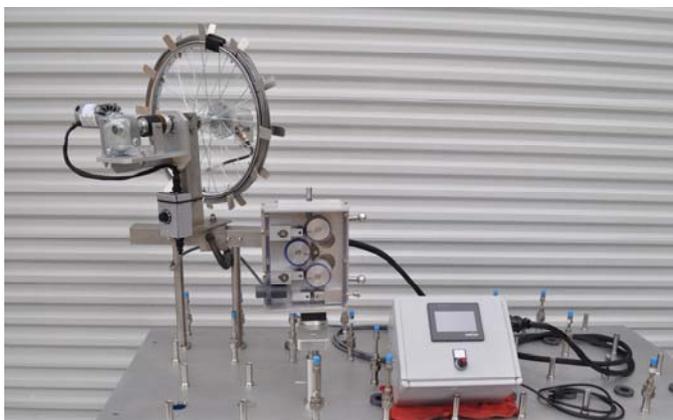
Mr. Tony Stough

BCP Plant Services Division

1715 S. Missouri Avenue, Ste 2

Clearwater, Florida 33756

727 581-9594



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