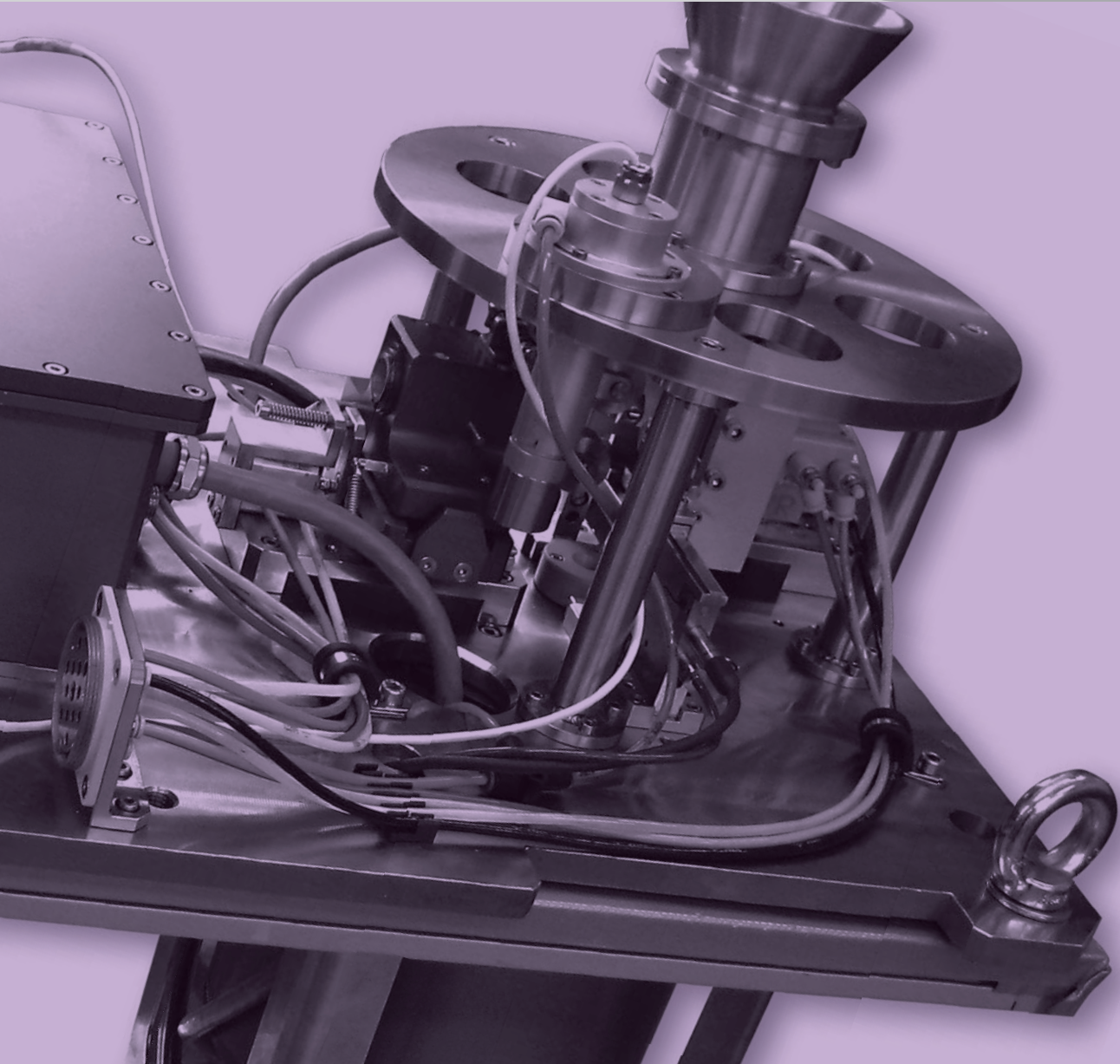


Ready for the future,
caring for the customer



SICOM ROD[®]

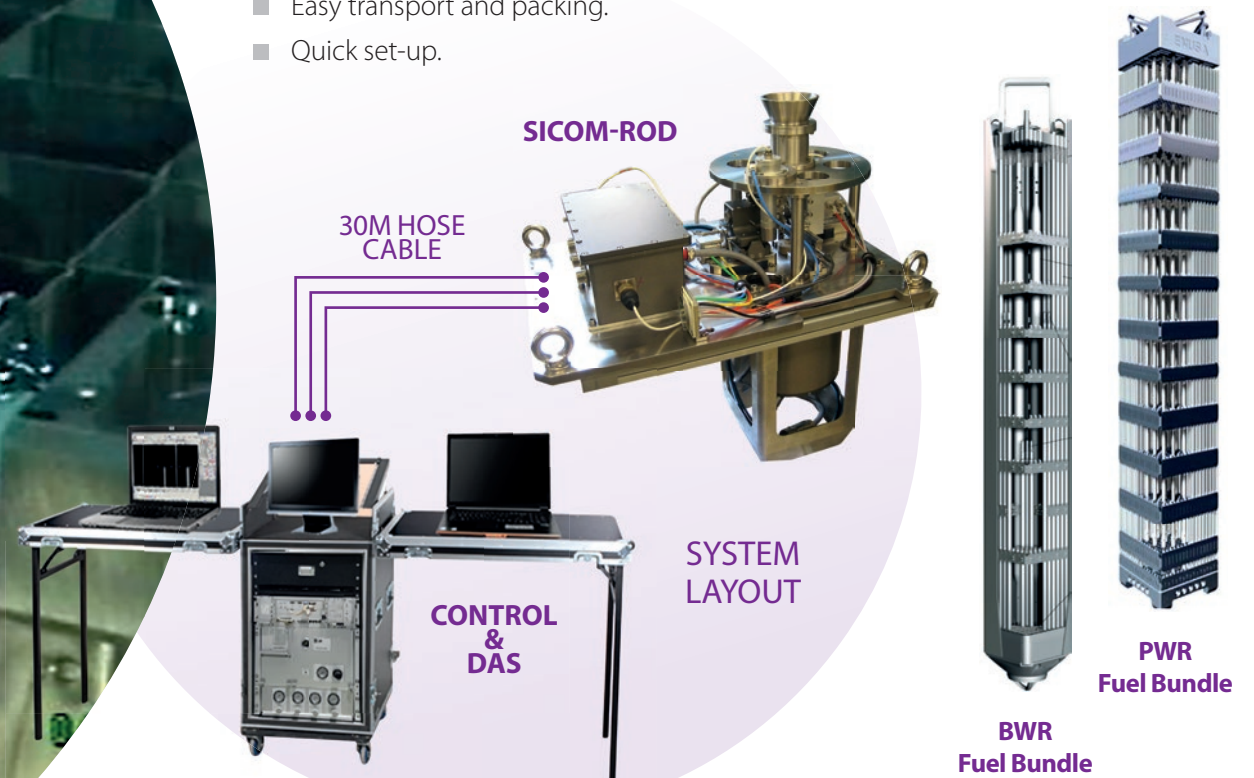
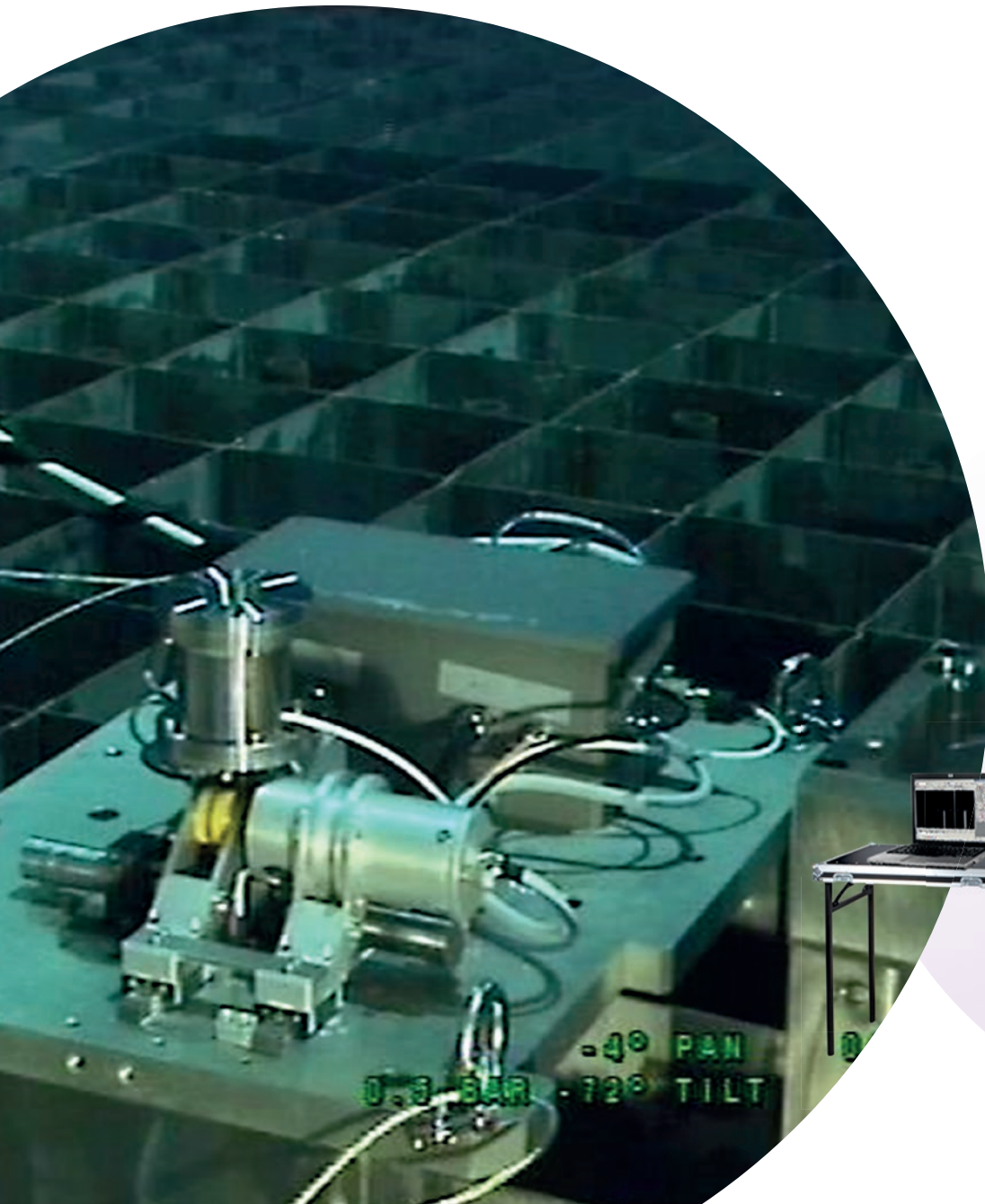
Inspection
and Characterization
of Fuel Rod

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CE

MAIN FEATURES

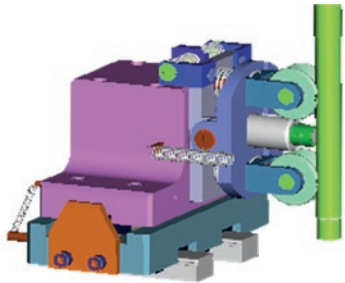
- Inspection system based on ET and LVDT technique.
- Designed for oxide layer and characterization of fuel rod of BWR and PWR fuel assemblies.
- Light inspection System. Installation on racks of spent fuel pool (SFP).
- Remote control system allows the accurate control of all the actuators and motor.
- High radiation camera to support ET&LVDT inspections.
- Specific design to work underwater in a radioactive environment.
- Easy transport and packing.
- Quick set-up.



SYSTEM DESCRIPTION

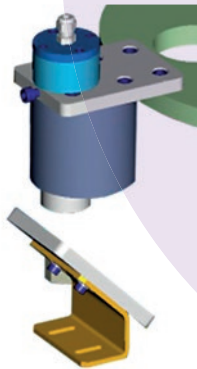
ET MODULE

- Module keeps the ET probe at right angle to the surface of the rod at all times.
- Precision ± 5 microns.



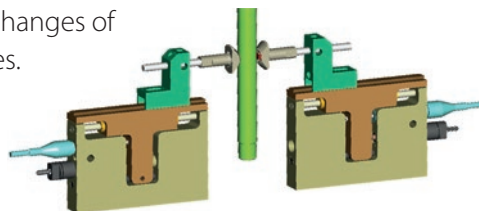
VIDEO MODULE

- Low cost camera shielding with an indirect vision mirror.
- Support to ET and LVT inspections.



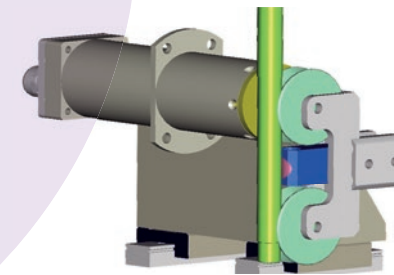
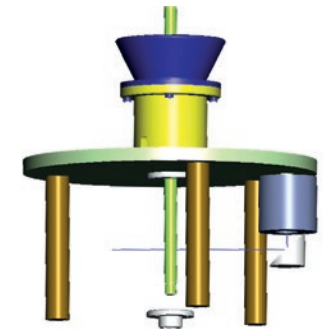
PROFILE MODULE

- 2 LVDT arranged at 180° are able to detect slight changes of rod diameter converting them into voltage changes.
- An adequate calibration provides the profilometry measurement along the axial scanning.
- Precision 10 microns.



MECHANICAL DESIGN

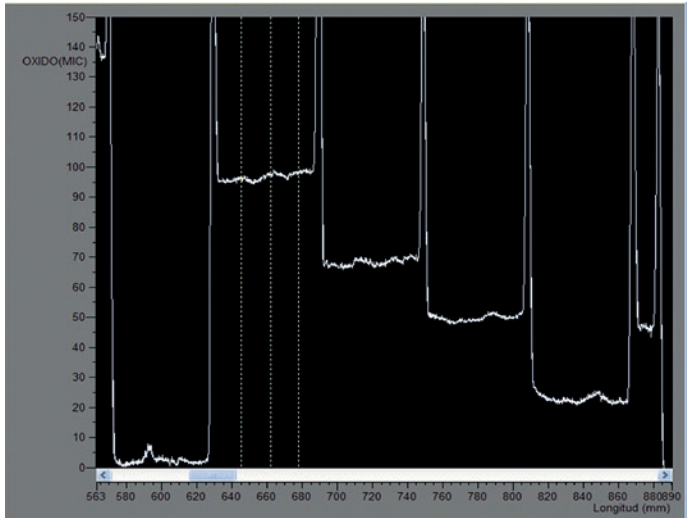
- Systems that guarantee the rods safety
- Centering and guide devices.



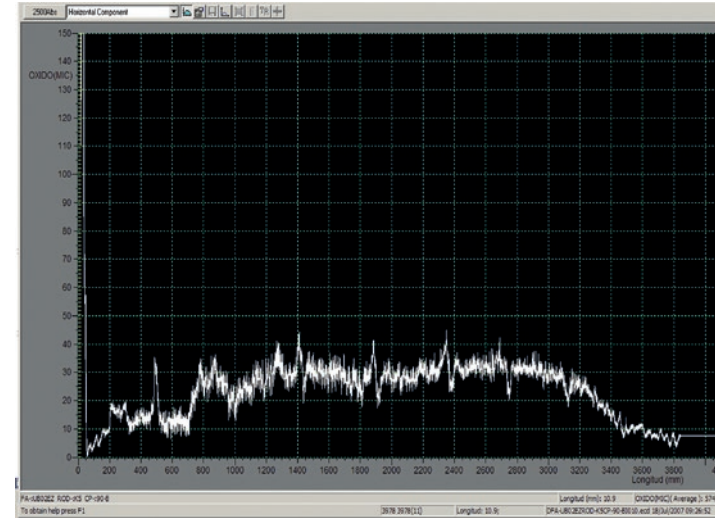
CODIFICATION AND REFERENCE MODULE

- A spring and pneumatic actuator to guarantee the rods safety. When rod is inserted moves forward all the modules to come into contact to the rod.
- Resolver roller: provides accurate displacement measurement under high radiation environment.

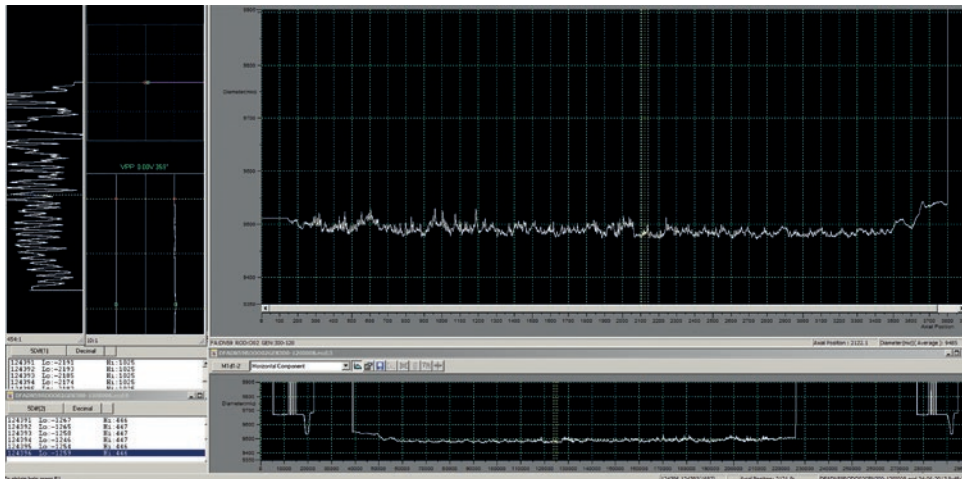
EDDY CURRENT SOFTWARE



Inspection of oxide layer measurement. Calibration standard process.



Inspection of oxide layer measurement. Acquisition real fuel rod scan. Accuracy 5 microns.



Inspection of outer diameter measurement. Acquisition real fuel rod scan.



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