

Full body Eddy Current testing of tubular product is commonly an off-line (off the tube mill) process. It is most useful in cold draw operations to test the finished product before the ends are cropped. However, from time to time, the full body test is used as an on-line tool, mainly when small diameter (<25mm) tube is to be tested. InspectTech manufactures full body test equipment for both on-line and off-line use.

Versions available for magnetic and non-magnetic materials.

Suitable for very high speed testing.

Differential and absolute channels as standard.

Full impedance plane analysis as standard.

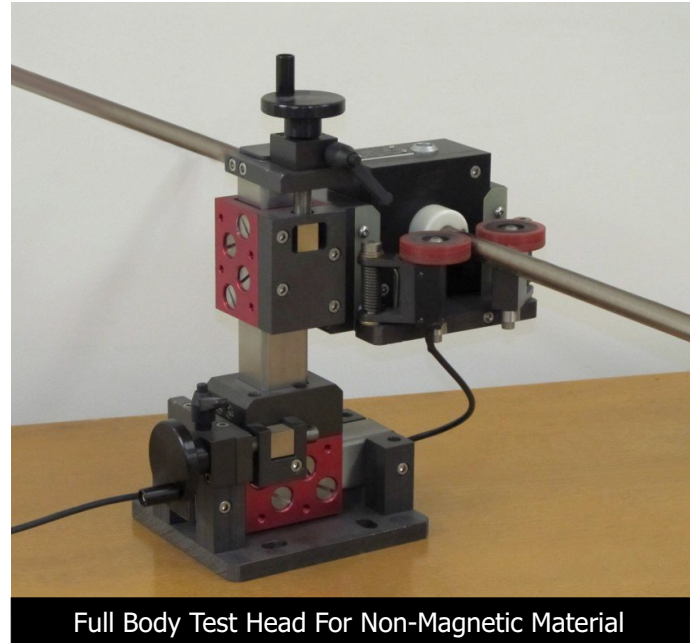
Easy storage and retrieval of set-ups.

Full data logging as standard.

Defect marking system included as standard

A basic full body eddy current test requires the tube to pass through an encircling coil with minimum clearance. Therefore interchangeable test coils are needed if several tube diameters are to be tested. If the test material is ferromagnetic a magnetic saturator is built into the test head with quick change pole pieces for the different product diameters.

The **off-line** (off the tube mill), version of the full body eddy current unit is normally supplied as a complete test stand including pinch rolls and drive mechanism. This complete unit can be supplied by InspecTech to the correct run height for insertion into a conveyor line. (See photo overleaf)



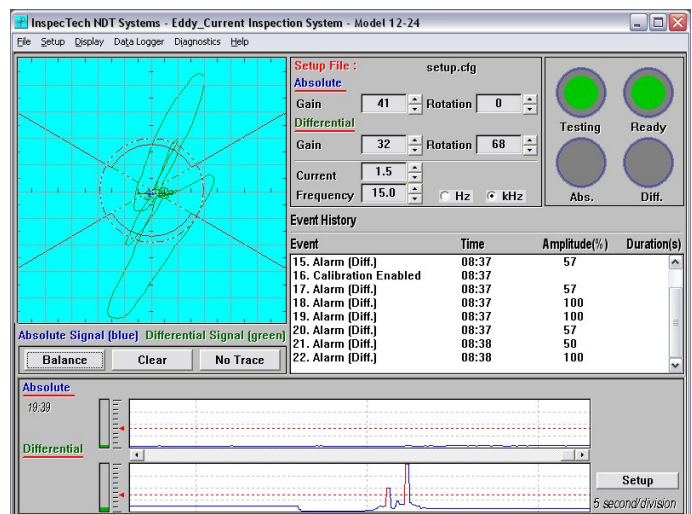
The **on-line** (on the tube mill), version uses just the test head mounted on the mill bed, with the mill providing the required steady throughput of the tube.

In the on-line arrangements, rotators or sliders can be provided to move the test head out of the run line for easier set-up and calibration. Care must be taken when re-threading the mill to ensure proper alignment. Once the mill is operational, there is very limited opportunity to re-check the equipment calibration.

Because saturators are not needed, full body test heads for non-ferromagnetic materials are much less complex than the ferromagnetic version. However, in both cases precise adjusters are provided to set up different diameter products to run on true centre through the test system.

The operator's screen includes a full impedance plane display plus a strip chart record of both differential and absolute channel activity.

All InspecTech eddy current test units include permanent storage and instant recall of previously used set-ups plus a complete data logger of all test results.



When ferromagnetic material is saturated for eddy current testing, strong residual magnetic fields can exist in the product after testing. Consult InspecTech for demagnetizing options.