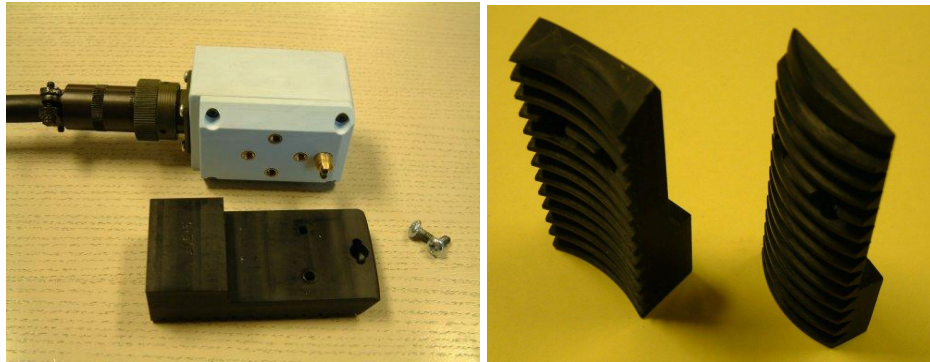


THREAD INSPECTION USING ACFM

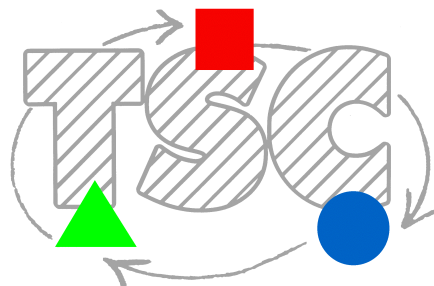
ACFM was originally developed for inspecting welded steel structures, but the uniform geometry of threaded connections make thread inspection an ideal application for ACFM. The technique is used extensively in the Oil and Gas Industry for the inspection of drillstrings, mud motors, studs, bolts and casings in both ferritic and non-ferritic metals. It can replace MPI and dye penetrant inspection, but in addition reports defect severity. For thread inspection, a universal probe is used in conjunction with a changeable “shoe” to fit whatever thread size is to be inspected. A trained ACFM operator is then required to interpret the data.

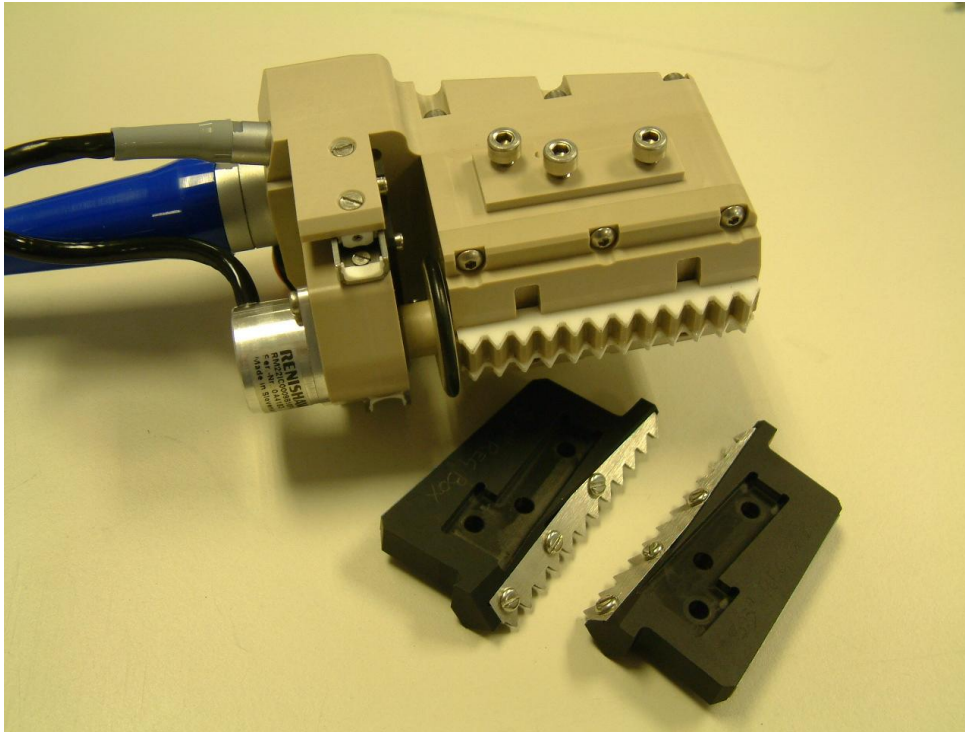
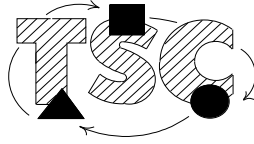


Universal thread probe with plastic shoe (left) and shoes for male and female threads (right)

In some situations, however, it is desirable to reduce the reliance on skilled operators to reduce costs and increase reliability. For drillstring thread inspection, where the geometry gives very clean data, it is possible to automate the data interpretation. TSC’s Automated Thread Inspection (ATI) system provides automated defect detection and sizing, removing the requirement for a skilled operator to make the initial interpretation of the data. The ATI system uses array probes to inspect a complete thread in one revolution. Interchangeable scrapers are used to match the thread type being inspected.

Separate data sheets providing more details of the universal thread probe and the ATI system are available.





4 tpi ATI array probe with adaptors for 3.5" pin connector

ACFM thread inspection systems have been used on Carbon Steel, Titanium, Inconel, Monel and Stainless Steel components ranging in size from 10mm to 350mm diameter. These applications have covered a wide range of industries including aerospace, power generation, offshore and drilling industries.

For further details on any aspects of ACFM contact:

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Please Note: As part of its continuing programme of product improvement, TSC reserve the right to alter specifications with prior notice.