

All Wave Innovations, Inc.

Leader in Remanufacturing and Design

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## **Dual Element Probe**

The Dual Element Probe (DEP) is a remanufactured probe that is capable of acoustical scanning for material defects using no couplant. The sensitivity to detect defects is 100 to 1000 times more sensitive than comparable



probes currently available on the market that uses no couplant. Even with the remarkable increased sensitivity, a remanufacturing breakthrough has reduced the scrubbing noise to nearly undetectable levels. An interface cable is provided to allow the DEP to function with any instrument of the user's pre-selected choice. The two probe elements, otherwise known as the Tuned Resonant Inserts (TRI), are spaced appropriately to ensure complete acoustical

wave coverage and maximize the probability of material anomaly detection. When the DEP sends a signal that exceeds a preset limit in the attached instrument, the attached instrument goes into alarm indicating an anomalous condition.

Each TRI assembly is installed spring loaded into a socket in the DEP housing with a retainer to capture the TRI

assembly in the housing. This allows each TRI assembly to move in the socket a fraction of an inch to follow the contour of the material. This together with the DEP teflon feet allow the two TRI tips to remain in constant contact with the material being examined at a uniform pressure relative to each other.

The DEP housing has teflon feet sized in length to provide the appropriate TRI tip



pressure on the material being examined when hand pressure is applied to depress the spring loaded TRI assembly. The teflon feet allow the DEP to glide over the surface of the material being examined without marring.