

**Defects control**

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Itasonic 2010<sup>®</sup> can be used to find structural defects such us:

- variation of shape and weight (ex. parts with incomplete forms, casts or sintered)
- presence of cracks, stress cracks, fissures or discontinuity (ex. aluminium die casting parts, pressed steel parts, parts in cast brass)
- density differences and elasticity modules (ex. controls on % of nodularity in spheroidal cast iron parts)
- presence of oxidations and contaminations (ex. presence of iron waste in sintered aluminium parts)
- presence of inclusions
- stripping of the material
- heat treatments failed or not performed

It will be necessary to set up the system for the parts to be tested: it needs a significant sample (10-15 pieces) of "good" parts and a significant sample of "rejects", which have the defect searched. With a guided procedure of few minutes, the pieces of the calibration sample will be tested; Itasonic 2010<sup>®</sup> will show the frequencies (if present) and the tolerances able to discriminate the good parts and the rejects, all in a very short time.

Remarks: There are cases in which, due to the type of product to be controlled, there are no detected frequencies that can separate the good from the reject parts. If this situation should occur, then it means that the sonic system cannot be used for the purpose.