



CGM CIGIEMME S.p.A.



Controlli Non Distruttivi - Non Destructive Testing

BERTHOLD TEST



DESCRIPTION

The Berthold Test is used to determine magnetization efficiency. It consists of a circular central part made of ferromagnetic material in the shape of a cone, within which there are two perpendicular notches. This conical part is inserted onto a metal base, from which it can be unscrewed or screwed to move it closer or further away.

USER INSTRUCTIONS

STEP-BY-STEP DESCRIPTION

1. **Cleaning the part:** thoroughly clean the surface of the part under inspection to remove any traces of oil or grease, which could interfere with the test.
2. **Magnetization:** magnetize the piece using the standard magnetization method.
3. **Probe application:** position the Berthold Test on the magnetized piece.
4. **Apply the magnetic particles:** sprinkle the magnetic particles (dry or wet) over the area.



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Via Adda, 21 - 20073 Opera (MI) Italy - Tel.: +39 02 57.600.400 - Fax: +39 02 57.603.618

Web: www.cgm-cigiemme.com - Mail: cgm@cgm-cigiemme.it

N. Registro Imprese, C.F. e P.I.: 05732470967 - N. REA: Mi -1843908 - Capitale Sociale: EURO 500.000.00 I.V.

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5. **Evaluation of the indication:** observe the pattern formed by the magnetic particles on the probe.
 - **Field direction:** the probe will display a pattern with visible magnetic flux lines. Rotate the indicator or the piece to find the orientation in which the pattern is most distinguishable; this reveals the direction of the magnetic field.
 - **Magnetization efficiency:** if using a Berthold Test that allows adjustment, such as one with a rotating outer ring, it can be adjusted to vary the distance between its parts. This can be used to evaluate the magnetization efficiency and the quality of the particle suspension by observing the clarity of the indication.
6. **Adjust and repeat:** if the indication is weak or unclear, adjust the magnetization current and try again until a clear indication is obtained.
7. **Cleaning after use:** clean the probe and the inspected part at the end of the test. We recommend using our Velnet/Solnet.

AVAILABLE MODELS

PART NUMBER	DESCRIPTION	REF.
04099862	Berthold test	88.3



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