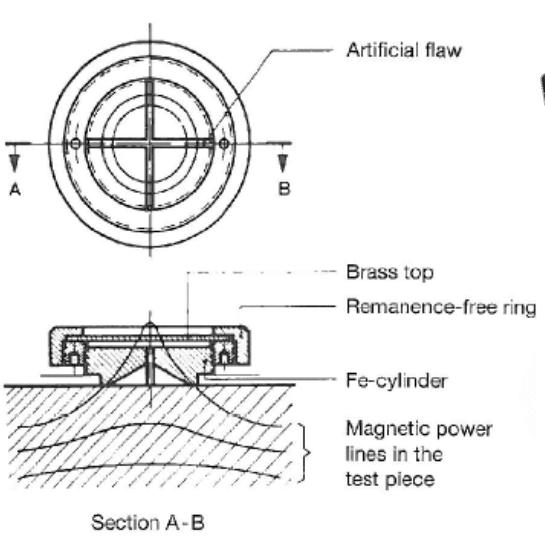
Test body acc. to Prof. Berthold

For the efficient control of Magnetization, penetration depth, Quality fluorescent suspension and magnetic field direction in magnetic particle testing.



Dimensions and Weight:

Diameter of Magnetotest-Penetrameter:	¾″	
Height of Magnetotest-Penetrameter:	¼″	
Overall length:	4″	
Weight:		24 grams

Construction

The Magnetotest-Penetrameter consists of a remanence-free shielding ring into which an iron cylinder, sectioned into four quarters, is placed. The cuts in the iron cylinder simulate artificial flaws in the form of a cross. The iron cylinder is covered by a thin brass plate, which can be varied in distance to and form the test piece.

Function

When the Magetotost-Penetrameter is placed on a magnetized test piece, magnetic lines pass through the sectioned iron cylinder. If magnetic powder or fluorescent magnetic solution is sprayed over the Magnetotest-Penetrameter, the cuts in the iron cylinder become visible. By turning the Magnetotest-Penetrameter around its axis, the maximum indication on the cut indicates precisely the magnetic field direction. The magnetic field direction is perpendicular to the artificial flaw at maximum indication.

For the determination of magnetizing efficiency, penetration and quality of the fluorescent oil suspension, the outside ring of the Magnetotest-Penetrameter is turned slowly, increasing the distance of the thin brass plate from the test piece. The amount of lift-off at the point where the indication just disappears is a measure of magnetic particle test efficiency. The lift-off is read to plus or minus ¼ mm on the shielding ring.

Art.-Nr: G20 L

Technical changes reserved!

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