PROCESS DESCRIPTION MAGNETIC PARTICLE TESTING

PFINDER

1. Precleaning
Contaminants such as scale, rust, oil, grease, paint and water shall be removed if necessary using mechanical or chemical methods (e.g., with PFINDER 890), or a combination of these. It is important to ensure that the test surface is dry after precleaning.

2. Application of the white contrast paint (only for MT visible at daylight / white light)
The white contrast color increases the contrast. It is applied evenly to the test surface. The coating layer should be as thin as possible (max. 50 µm/dry). If the coating layer is too thick, the test result may be negatively affected. Allow the white contrast paint (only for MT visible at daylight / white light) to dry.

3. Magnetization and application of the magnetic particle suspension
Magnetization can be performed by hand magnets (e.g. PFINDER 15-0). Usually a tangential field strength of about 2 kA/m² is required. The magnetic particle suspension must be applied shortly before and during magnetization. The spraying / rinsing must be completed before the magnetization is switched off. The test surface must be sprayed / rinsed with so little pressure that indication is formed undisturbed. After the application, the magnetic particle suspension should be run off in a way that the visibility of indications is improved, e.g. by tilting the test surface.

4. Inspection
After the formation of the indications, they can be evaluated and documented in daylight / white light (> 500 lx) when using visible magnetic particle and under UV light (≥ 1000 µW/cm² und < 20 lx) when using fluorescent magnetic particles. Documentation may be done by any adequate method.

5. Post-cleaning and further treatment
In order to use the specimen for its intended purpose, it may be required to remove the suspension and the white contrast paint from the test surface (e.g., with PFINDER 890). It may be necessary to demagnetize the specimen and/or apply a suitable corrosion protection.

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