

QUALITY ASSURANCE MANUAL

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Instruction for	7.4e Positiv Material Identification (PMI)		

1. Purpose

The purpose for this instruction is to describe the guidelines for carrying out PMI on Norske Ventilør products.

2. Responsibility

It is the expeditor and the test operator who is responsible for carrying out the PMI on the products. In this instruction called inspector.

The inspector is responsible that the tasks are carried out according to this instruction and that he and she has the relevant instructions available for the present test.

The tests must be approved according to Production 4.2.2.

3. Definition

PMI:

Positive Material Identification. Metallurgy analysis of welding and ground material, where you can identify the specific material quality. Is used on stainless material.

4. Equipment

The following equipment is used:

X-MET 3000TX

The user manuals shall always follow the instrument.

5. Description

5.1 Preparations before the test.

Before the test is carried out, the inspector shall collect the following information:

- Material quality of the product or the welding.
- Check for vibrations or very high temperature in the area.
(Will effect the analysis and may destroy the equipment)
- Check for x-ray or other radiation in the area.
(Will effect the analysis and may destroy the equipment)

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5.2 Preparations on the inspection object

To carry out a PMI analysis the inspection object needs to be cleaned.

The surface must be free for dust, oil or cooling liquid. If necessary, polish the surface with an emery paper or sandpaper, clean so the surface with methylated spirit and a rag.

NB! Use of a metal file or a steel brush shall not be used on the surface due to that they can leave pollution on the inspection object.

The inspector shall ensure as good connection between the probe and the inspection object. The inspector shall ensure that no human is in connection with the radiation.

5.3 Performance

The inspector shall carry out the PMI analysis according to the drawing for the actual order. It is the technical manager how is responsible to document on the drawing witch items how need PMI analysis.

There shall always be taken 100% PMI analysis on the parts that have the requirement.

There shall be taken at least one measurement of each item.

For PMI analysis of welding the raw material shall also be controlled.

The PMI analysis shall normally be carried out on finished products.

If the PMI analysis is required on items that cannot be measured after assembly, the following measurements are acceptable:

- The analysis is carried out on the finished item, before assembly.
- The analysis is carried out on the raw material.

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5.4 Accept criteria

The instrument indicates the same material quality as documented information.

Test: Acceptable.

The instrument indicates a different material quality as documented information.

Test: Unacceptable.

New PMI analysis must be carried out. The object shall be reclined.

If the analysis still indicates a deviation, the object shall be taken out of the production. The inspector is responsible to write a non-conformance report.

5.5 Documentation

The inspector writes on the drawing: OK on the items that have been tested.

The expiditer is responsible for the documentation to the customer. The PMI analysis is documented on the test certificate.

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