Your benefits from Dr. Schenk's artificial intelligence (AI) solutions

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The Inspection Expert

1. Intelligent software tools facilitate material change

Set up your Dr. Schenk system once and detect defects for different materials, different lighting and different channel settings.

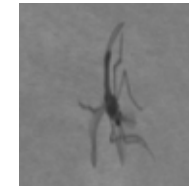Save time and money with intelligent Dr. Schenk software tools:

- Automatic light intensity adaptation
- Automatic adaptation of inspection sensitivity
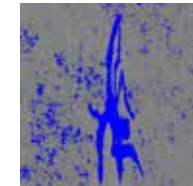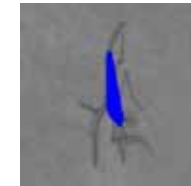- Automatic adaptation to material width

Your advantage from Dr. Schenk detection: easy product change

2. MIDA X - more than just multiple detection thresholds

Most conventional inspection systems have multiple thresholds for detection, but even that does not always suffice for good defect segmentation.
For Dr. Schenk, multiple thresholds are only the start of an intelligent segmentation process that improves, analyzes and completely traces the full defect contour and area.

Challenge: how to classify this defect as an insect?

Multiple thresholds yield multiple results, but not always the one you need

Solution: use MIDA X to transcend thresholds; fully analyze the defect contour and characteristics
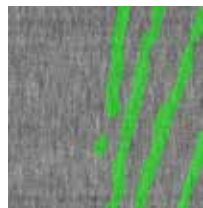
Your advantage from Dr. Schenk segmentation: identify defects more precisely

3. Let MIDA X do the work for you

Dr. Schenk's MIDA X will find the correct defect contour and characteristics with just a little information from you – no scripting or programming knowledge necessary!

This material has scratches that are clearly visible to the human eye, but not to a conventional inspection system

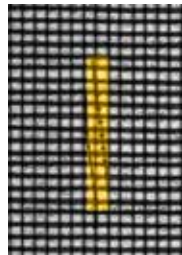*Use your vision to mark up the desired defect parts, then submit the image to the data processing center...*

...and get back the solution for the best segmented result.

Your advantage from Dr. Schenk's MIDA X: best basis for perfect classification

4. AIMI: Use advanced AI solutions for your inspection

Dr. Schenk has developed AIMI (Artificial Intelligence Material Inspection) to take material inspection to the next level, allowing for reliable, high-quality AI inspection of even the most difficult materials and most challenging production setups.
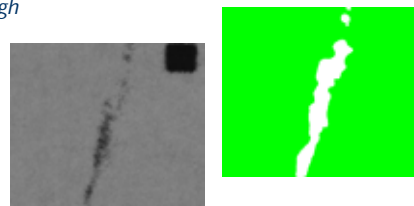
The comprehensive Dr. Schenk solution includes multiple modules, which can be combined for the optimal result.

Hard-to-detect irregularities in structured material can be caught even at high material speeds

AIMI excels at finding defects that conventional inspection solutions cannot catch
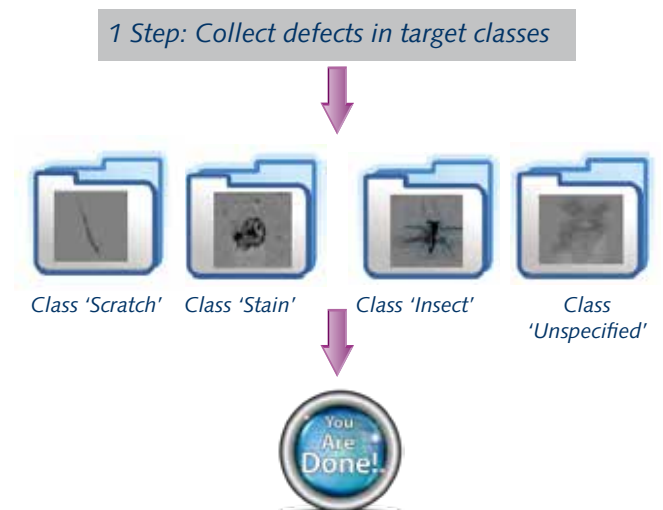

AIMI analyzes gray images and determines which parts are regular material and which are defects. The black square is part of the material pattern and therefore marked as "Good". The dirt streak however is a defect and marked as such.

Your advantage from Dr. Schenk's AIMI: excellent AI solutions for best inspection

5. Dr. Schenk AI takes care of your classification improvement

After MIDA X or AIMI segmentation, all you have to do for powerful and accurate classification of your defects is to sort them into the desired classes. With intelligent segmentation, neural networks and self-improving algorithms this is an easy task.

- AI-assisted creation of defect library
- AI analysis of defect features and gray images
- AI-based classification improvement
- Machine-learning system that improves with each new defect input and each classification pass

1 Step: Collect defects in target classes

Class 'Scratch'   Class 'Stain'   Class 'Insect'   Class 'Unspecified'

Your advantage from Dr. Schenk classification: no further programming or manual scripting necessary