

Training program for thermography (IRT)

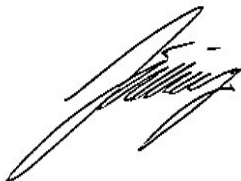
In the NDT training course the following knowledge will be educated:

Subject	Level 1	Level 2	Level 3
<i>Preface</i>	+	+	+
<i>Introduction</i>	+	+	+
<i>Basic principles</i>	+	+	+
- Physical units	+	+	+
- Heat transfer	+	+	+
- Principles of radiation	+	+	+
- Laws of radiation	+	+	+
- Waves	+	+	+
<i>Application of thermography inspection</i>	+	+	+
- Civil engineering	+	+	+
- Industry	+	+	+
- Medicine	+	+	+
- Defense	+	+	+
- Non-destructive testing	+	+	+
<i>Types of thermography</i>	+	+	+
- Passive thermography	+	+	+
- Active thermography	+	+	+
- Quantitative thermography	+	+	+
- Qualitative thermography	+	+	+
<i>Basic principles of thermography</i>	+	+	+
<i>Thermography cameras</i>	+	+	+
- Structure	+	+	+
- Optical components	+	+	+
- Detector types and cooling	+	+	+
- Functionality	+	+	+
- Criteria for application	+	+	+
- Objective lenses	+	+	+
<i>Setting up and operation of inspection systems</i>	+	+	+
- Pulsed thermography	+	+	+
- Induction thermography	+	+	+
<i>Excitation and evaluation techniques</i>	+	+	+
- Principles of pulsed thermography	+	+	+
- Principles of lock-in thermography	+	+	+
- FFT for lock-in and pulsed excitation	---	+	+
- Defect detection limits	+	+	+
- Induction thermography	+	+	+
- Ultrasonic thermography	+	+	+
- Laser thermography	+	+	+

continued

Subject	Level 1	Level 2	Level 3
<i>Material science</i>	+	+	+
- Density	+	+	+
- Reference parts	+	+	+
- Recording and evaluation of reference images	+	+	+
- Digital image presentation	+	+	+
- Image evaluation techniques	---	+	+
- Image sequence	---	+	+
- Influencing factors, sources of errors and interferences	+	+	+
<i>Other NDT methods</i>	+	+	+
- Adjustment	+	+	+
- Inspection in practice – occupational safety and health	+	+	+
- Documentation, inspection report, inspection instruction	---	+	+
- Applications and limitations of the method	+	+	+
- Standards, specifications and safety instructions	+	+	+

+ subitem of the level
 --- no item of the level



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Prüfungsbeauftragter / Examiner / Level 3