NDTherm®

NON-DESTRUCTIVE TESTING TECHNOLOGY

OPGAL
Beyond the Visible

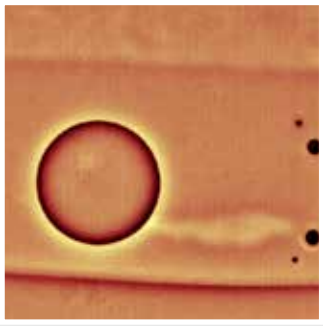
Active Thermography

NON-CONTACT, SAFE & FAST IDENTIFICATION OF DEFECTS

Opgal's® NDTherm®, an active thermography technology, is an innovative, non-destructive solution for various applications. Combined with state of the art proprietary image processing algorithms, Opgal® offers the NDT marketplace a breakthrough in flaw detection capabilities. Opgal's® NDTherm® detects defects in various materials and shapes such as CFRP, GFRP, sandwich and hybrid structures, porous materials, and metal structures. It is capable of inspecting materials at various stages of the manufacturing process. NDTherm® thermography is a fast, safe, and easy to use technology, suitable for large surfaces and complex shapes inspection, including applications where access is only available from one side of the structure. Opgal's® NDTherm® can be utilized in manufacturing processes, and service and maintenance for damage assessment and repair.

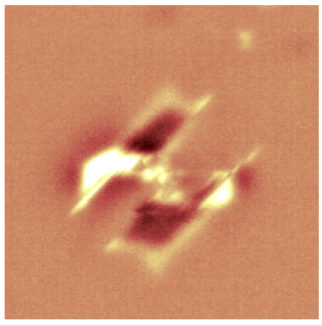
NDTherm® can detect:

DELAMINATIONS

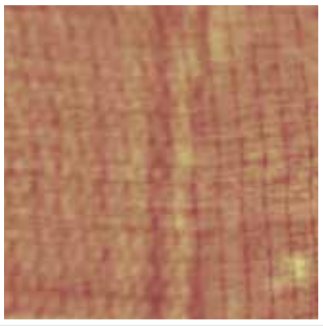


VOIDS

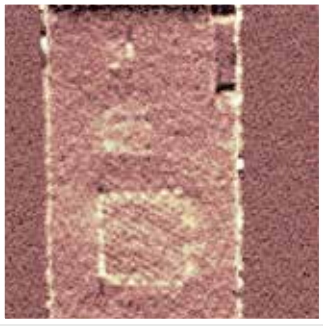
IMPACT DAMAGE



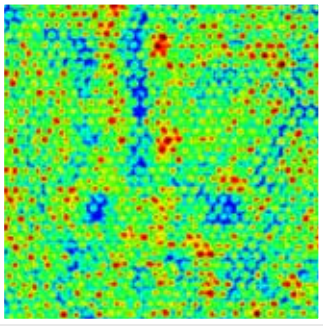
FIBER ORIENTATION



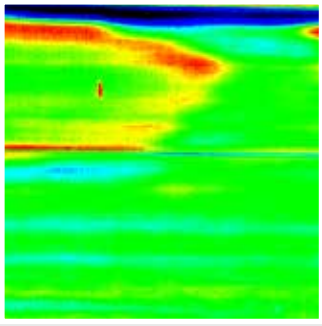
SKIN DISBONDING



EXCESSIVE GLUE

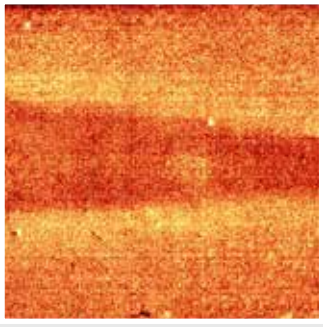


WATER INGRESS

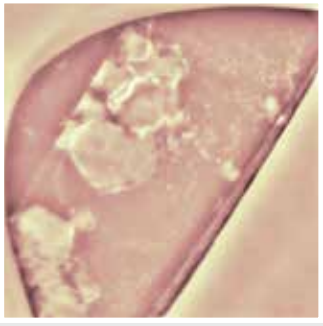


SPOT WELDS

METAL DEBONDING

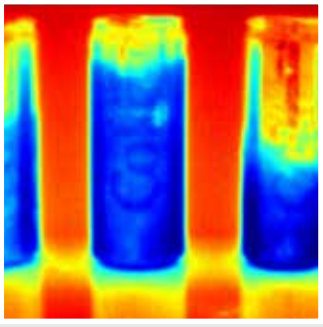


CORROSION



CONTAMINATION

FLUID LEVEL



NDTherm® can also detect: Paint Adhesion and Thickness, Thermal Diffusivity, Porosity, Wall Thickness and Thinning, and more...

NDTherm® AU

Fully automated large scale complex shape and parts inspection system. Integrates seamlessly into production lines.

Sub-system	Description	Value
Measuring unit	Inspection area	400mm x 500mm max
	Operating distance	500mm max
	Min flaw size	> 2mm
	Thermal camera	640 x 480 17µm
	Frame rate	8.3 / 30Hz
	Thermal sensitivity	< 30mK
Manipulator	Maximum reach	1,610mm
	Number of axes	6
	Position repeatability	0.1mm
General	Test mode	Reflection
	Size	2.5m x 2.5m x 3.5m
	Operating SW	Windows 7

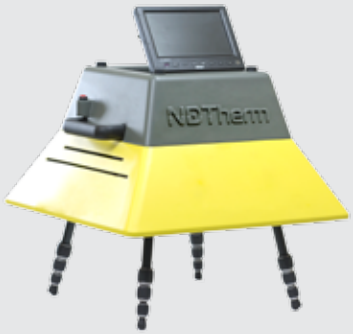
*General parameters for reference only, visit www.ndtherm.com for full specifications.

NDTherm® FX

Fixed configuration for production line or laboratory applications. Various detection algorithms, enhanced reporting tools. Offers reflection and transmission configurations.

Sub-system	Description	Value
Measuring unit	Inspection area	400mm x 500mm max
	Operating distance	500mm max
	Min flaw size	> 2mm
	Thermal camera	640 x 480 17µm
	Frame rate	8.3 / 30Hz
	Thermal sensitivity	< 30mK
General	Test modes	Reflection & Transmission
	Size	0.7m x 1.2m x 2.0m
	Operating voltage	220VAC / 16A
	Operating SW	Windows 7
	Computer	Desktop

*General parameters for reference only, visit www.ndtherm.com for full specifications.



NDTherm® NT/LF

Portable system for fast and easy inspection. Simple setup and usage. “Single button” operation. Enhanced reporting tools.

Sub-system	Description	Value
Measuring unit	Inspection area	400mm x 500mm max
	Operating distance	500mm max
	Min flaw size	> 2mm
	Thermal camera	640 x 480 17µm
	Frame rate	8.3 / 30Hz
	Thermal sensitivity	< 30mK
General	Test mode	Reflection
	Size	450m x 450m x 250m
	Weight	9kg
	Operating SW	Windows 7
	Computer	Laptop
	Operating voltage	220VAC / 16A

*General parameters for reference only, visit www.ndtherm.com for full specifications.

Applications

AVIATION & AEROSPACE

AUTOMOTIVE

MARITIME

ASSEMBLY LINES

INDUSTRIAL

WIND TURBINES

ABOUT OPGAL

Opgal® is a leading global provider of innovative infrared thermal imaging systems and advanced vision and surveillance solutions. Using state-of-the-art thermal and active-imaging technologies, Opgal® leverages advanced electro-optics and image processing expertise to create high performance, versatile visualization hardware and software products for a variety of markets. Founded more than 30 years ago, Opgal® is a major supplier to leading industry players, as well as corporate and professional customers in over 60 countries.

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