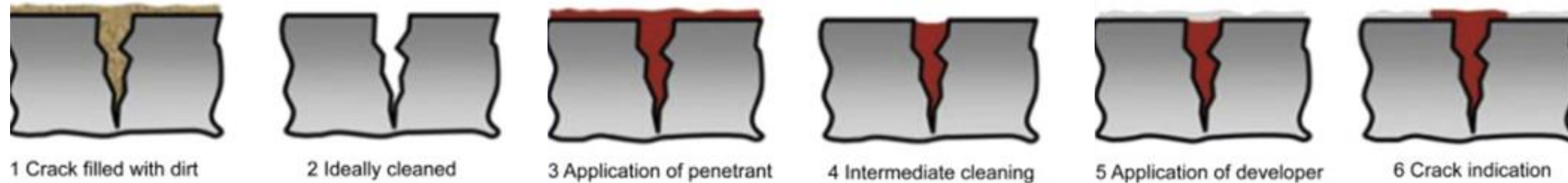




Inspection par Ressuage

Fluorescent Penetrant Inspection





Principle : Method for highlighting defects emerging on the surface. This consists in applying the penetrating product (electrostatic or immersion penetrant) and then cleaning the part without eliminating the product that penetrates into the defects. A whitish developer is used to bring out the penetrant which forms the indication of the defect and becomes visible under special fluorescent light.



Defect Types

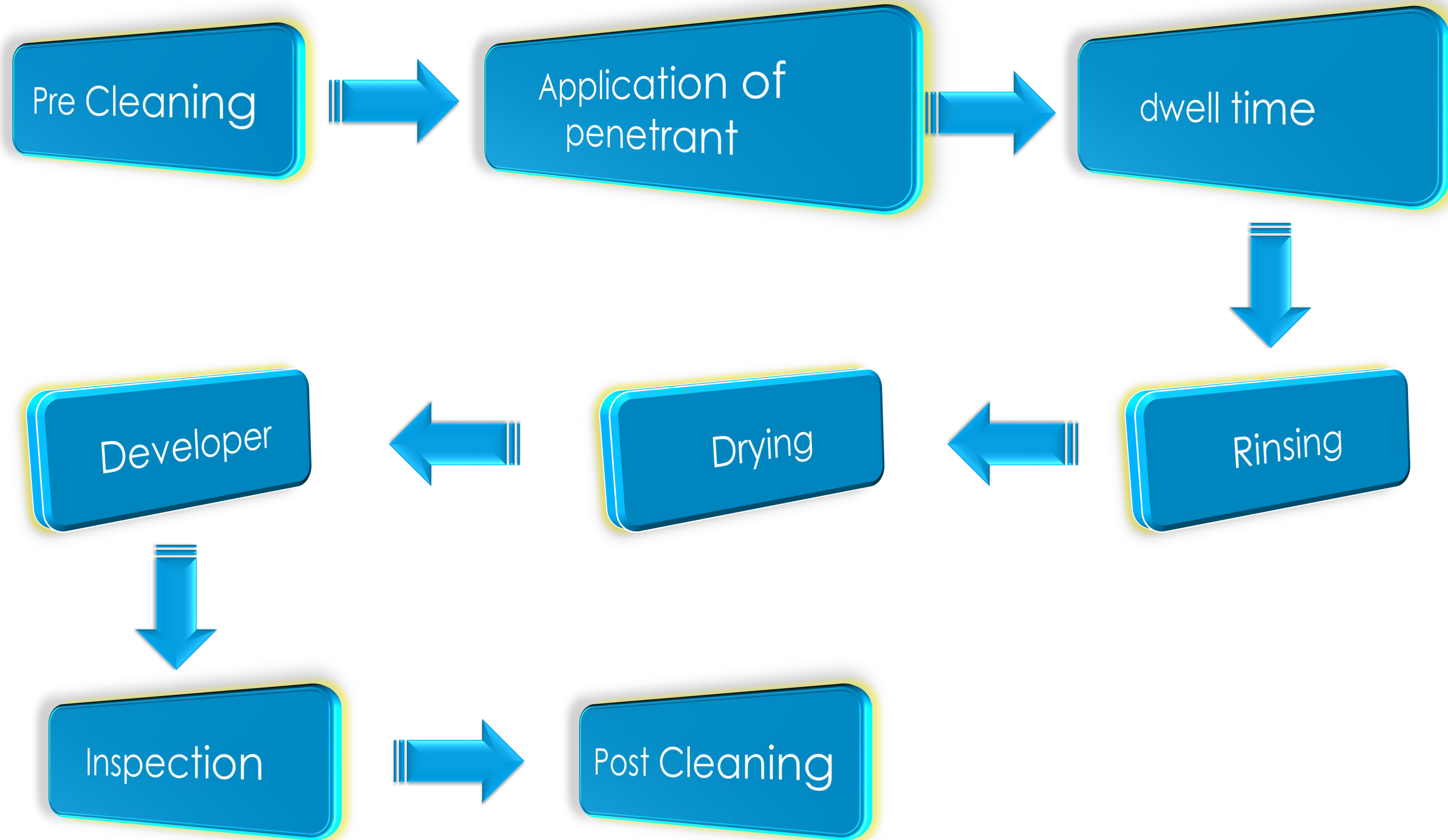


Different types of materials can be tested in PT

Metallic materials: aluminum, steel, Titanium, ...

Plastics, glasses, ceramics, and certain composite applications with specific penetrant product.

Steps



Penetrant testing - portable technology outside MPP (outside inspection)

Aerosol solvent degreaser
Penetrating Sensitivity 3
spray Developer



U.V / A LED lamp
3000 $\mu\text{W} / \text{cm}^2$



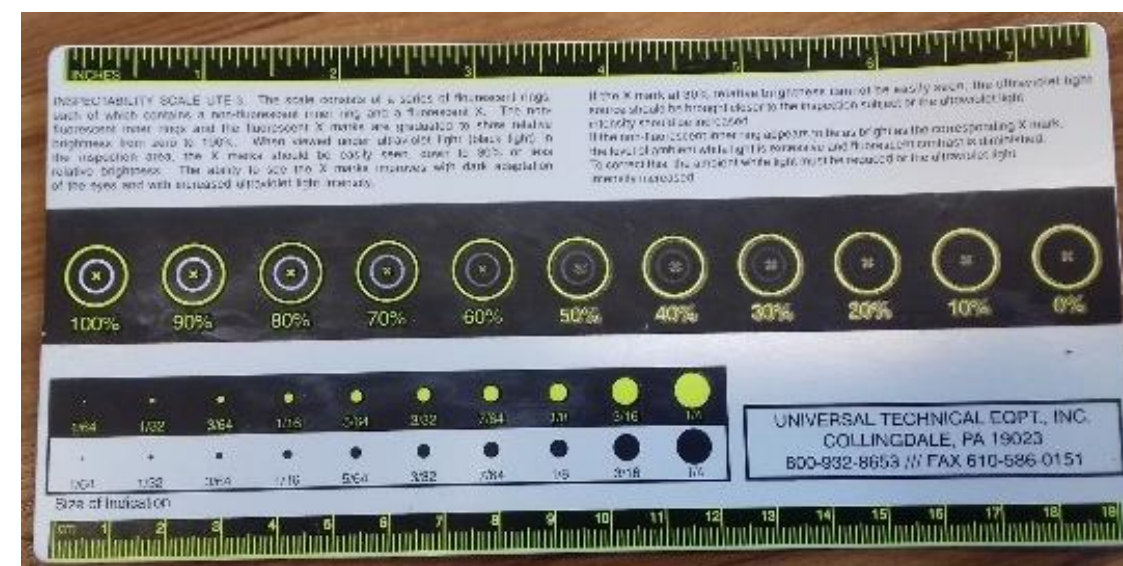
Fluorescent crack
comparator



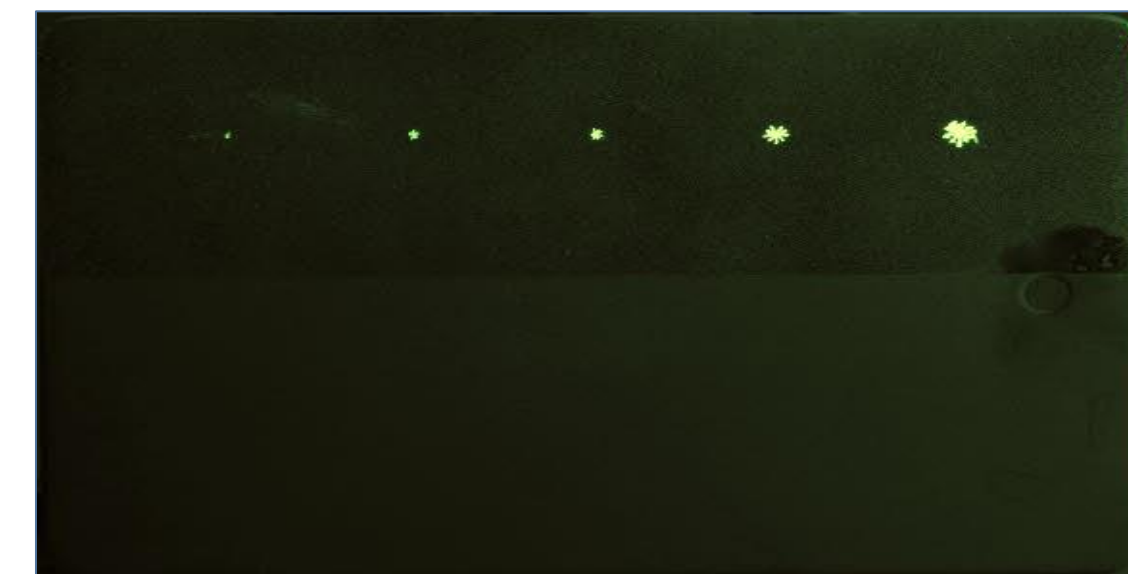
Digital radiophotometer



Fluorescent meter



TAM PANEL - 5 stars
(periodic performance test)



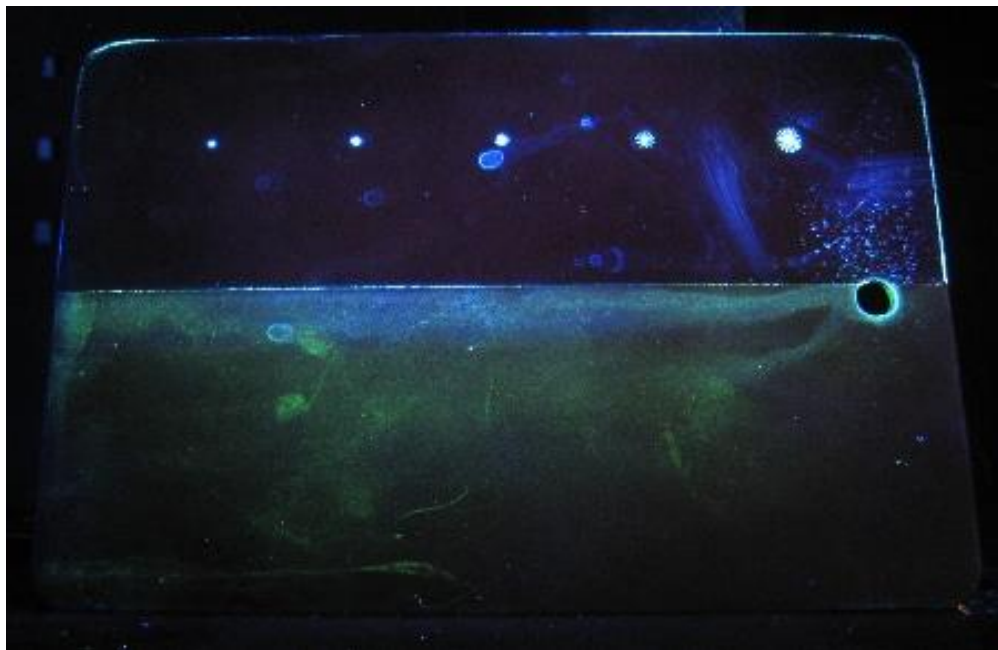
Penetrant testing - S2 / S3 / S4 technique at MPP (workshop inspection)



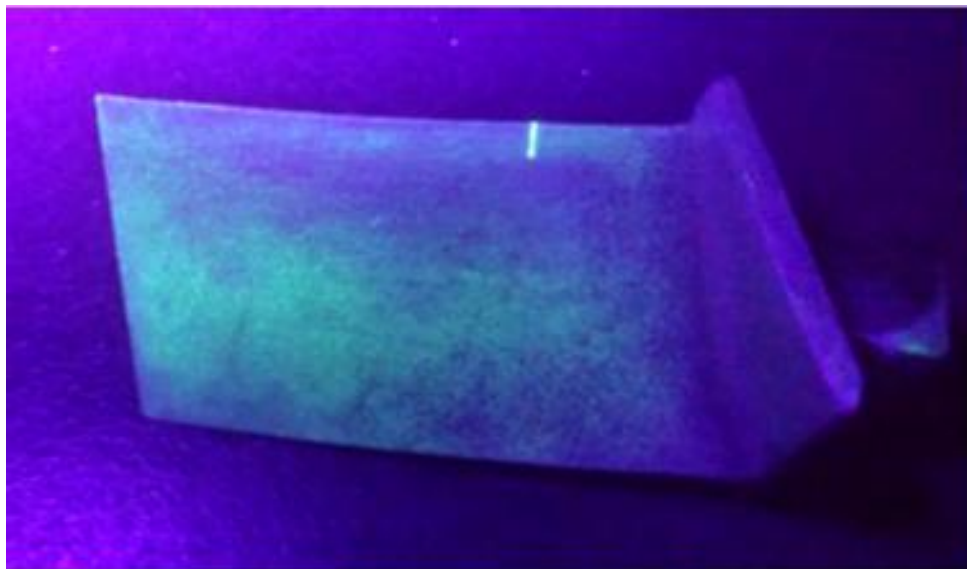
Electrostatic spraying



Rinsing the product



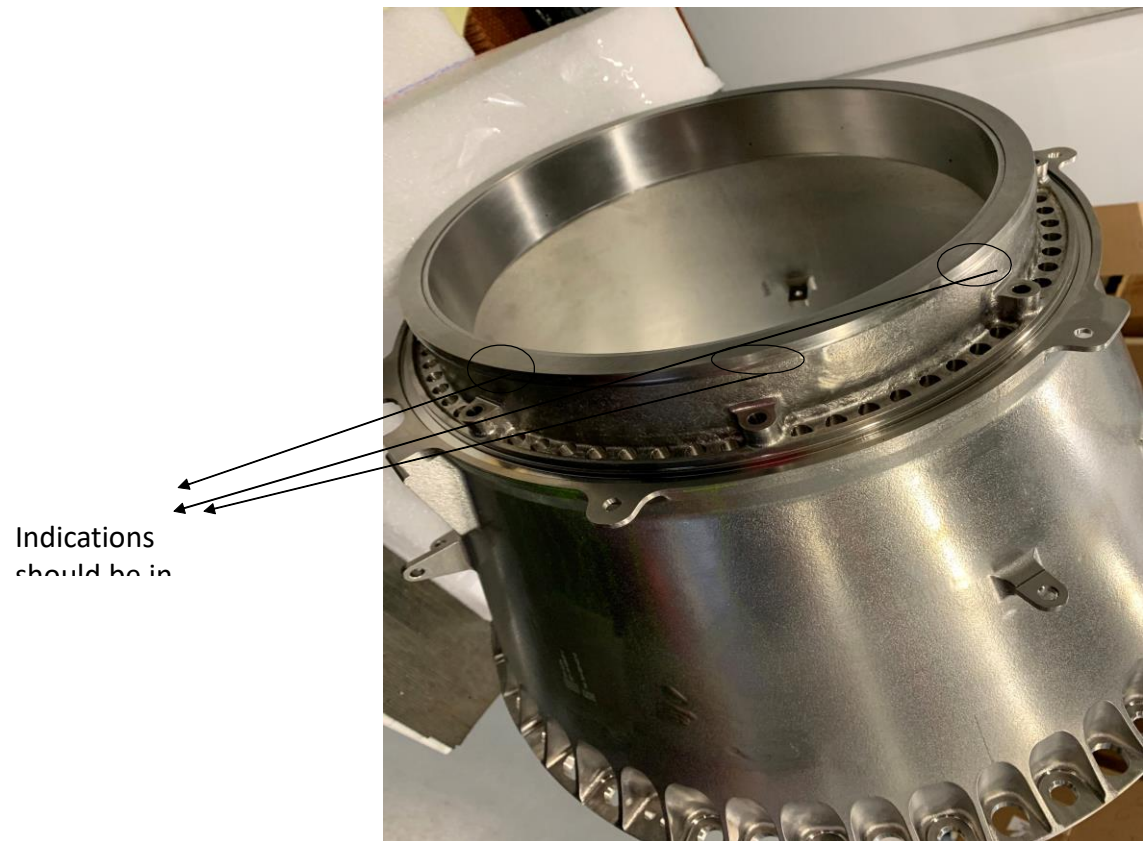
Verification
overall
Process with
reference
indications



Inspection in
dark room



Evaluation and marking
under UV compared
to the client's criteria



Location & sizing
on the part


Method	Equipment / Techniques	STAFF
RT Radiographic Testing	<ul style="list-style-type: none"> Digital radiography (from 50KV – 320KV) Resolution from 50 µm – 200 µm 	2 RT Level 1 2 RT level 2 and 1 RT3
UT Ultrasonic Testing	<ul style="list-style-type: none"> Immersion Testing Thickness measurement Phased Array Pulse Echo 	1 UT level 1 2 UT level 2 1 UT level 3
PT Penetrant Testing	<ul style="list-style-type: none"> Red Dye or Fluorescent penetrant Alkaline or Solvent Degreasing 	4 PT level 2 1 PT level 3
MT Magnetic Particle Inspection	<ul style="list-style-type: none"> Hand yokes Stationary MT bench 	3 MT level 2 1 MT level 3
IRT Infrared Thermography Testing	<ul style="list-style-type: none"> Hot air heater or 4 x 1000 W Halogen heaters IR Camera Flir T450sc 	2 IRT level 2 1 IRT level 3
ST Shearographic Testing	<ul style="list-style-type: none"> Hot air heater or 4 x 1000 W Halogen heaters Optrion Digital Shearographic Camera 	1 ST level 1 1 ST level 3
ET Eddy Current Testing	<ul style="list-style-type: none"> High and low Frequency Eddy Current Testing Rotating Probe ET 	2 ET level 2 1 ET level 3
VT Visual Testing	<ul style="list-style-type: none"> Direct VT of welds, castings and composite parts Indirect VT (endoscopy and digital microscope 220x) 	1 VT level 2 1 VT level 3

Contact



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