

Laser Ultrasonic Visualizing Inspector



Easy to inspect, Highly efficient, Widely applicable

LUVI-LC1

Visualization area : View angle $45^{\circ} \pm 5^{\circ}$
Laser power : 0.8 mJ (MAX.)
Distance to objects : 0.1 ~ 3m
Laser scanning speed : 5kHz (MAX.)
Ultrasonic transmission plate thickness :
0 ~ 50mm (For metal)
Defect detection size :
0.3mm (MIN.) (metal plate thickness 5 mm)

LUVI-LC2

Visualization area : View angle $45^{\circ} \pm 5^{\circ}$
Laser power : 2 mJ (MAX.)
Distance to objects : 0.1 ~ 5m
Laser scanning speed : 5kHz (MAX.)
Ultrasonic transmission plate thickness :
0 ~ 100mm (For metal)
Defect detection size :
0.2mm (MIN.) (metal plate thickness 5 mm)

TSUKUBA TECHNOLOGY CO., LTD.

Laser Ultrasonic Visualizing Inspector



LC1 / LC2

Configuration

Laser scan Unit

W380×H130×D102(mm) , 6.4kg

Measuring Unit

W257×H190×D217(mm) , 6.6kg

Power Unit

LC1: W240×H147×D340(mm) , 6.1kg

Power consumption: AC100V~240V/450W

LC2: W240×H147×D340(mm) , 6.1kg

Power consumption: AC100V~240V/600W

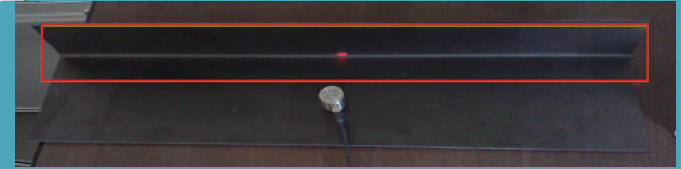
Main Applications

Materials : Metal / Ceramics / Plastics / Composites

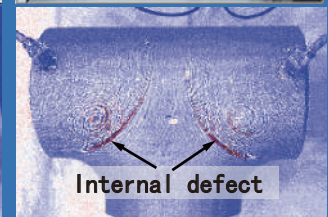
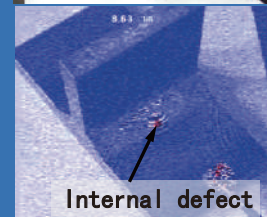
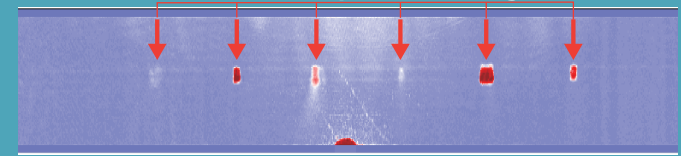
Defects : Crack / Corrosion / Voids / Delamination, etc

Inspection for complex and curved-shape object

L-type CFRP internal defect inspection



Maximum amplitude image



Internal defect

Internal defect

T-welded joint (internal defect)

Software

Measurement parameter setting : Semi-automatic settings of laser scanning area and ultrasonic reception conditions

Dynamic image : Propagation image of ultrasonic waves

Other images : Maximum amplitude (2D, 3D) , B-scope (velocity graph) , A-scope, Test sample picture (with laser scanning area frame)

Guide light function : Indicating the defect point and laser scanning area with guide light

Data output : Excel report (Image and wave data)

Option(Combined with LC series)

Laser Receiver :

Possible to realize fully non-contact LUVI system



LUVI operation screen