



# DPEC-17

## Pulse eddy current testing instrument

Tube plate shape: Plate, straight pipe, elbow, tank.

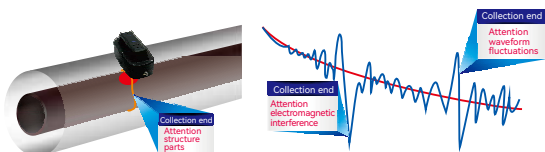


### Brief introduction

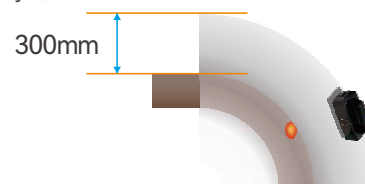
The equipment can be used for in-service inspection of metal pipe wall thickness outside the cladding layer, it instead of traditional sinusoidal current incentives to pulse current, pulse magnetic field outside the conductor, the conductor in the pulsed eddy current sensor, by measuring the attenuation process of pulsed eddy current electromagnetic field, to assess the degree of corrosion of pipe wall thickness compared with the traditional NDT methods of corrosion, without removing pipe outsourcing cladding on the inspection equipment without stopping, can significantly improve the detection efficiency, and reduce the test cost.

### Functional features

- 1 The probe adopts electronic focusing technology, which has higher spatial resolution, greater recognition, and stronger anti-interference ability for local corrosion defects.



- 2 Not sensitive to the shape of defects, it can detect the wall thickness corrosion or other thickness reduction defects of metal members "with cover layer (insulation layer, cooling layer, protective layer, etc.)".



- 3 Inspections can be done when the equipment is running (High temperature, low temperature, materials in the equipment etc.).

- 5 It can also detect the remaining wall thicknesses of stainless steel, aluminum alloy and other non-ferromagnetic metal materials.

- 7 Fully sealed IP64 anti-dust and anti-splash design, silicone sheath anti-drop and anti-vibration design, more suitable for harsh working conditions.

- 4 Materials that was detected: Detection of remaining wall thicknesses ferromagnetic metal material such as carbon steel, low alloy steel.

- 6 Cladding materials: Non-conductive, non-magnetic materials( asbestos, foam etc.), metal mesh, iron, aluminum and other protective layer.

- 8 AC/DC hybrid power supply, built-in rechargeable lithium battery continually working more than 8 hours.

### Applications sites



## Technical parameters

The max thickness of cladding layer	With stainless steel or aluminum protective layer ≤300mm, with iron protective layer ≤150mm	
The max detection of wall thickness	2~100mm	
Diameter of the pipe	≥21mm	
The thickness of metal protective layer	≤1mm	
Repeated detection accuracy	2%	
The thickness of metal protective layer	≤1mm	
Corrosion defect detection sensitivity	5% (volume ratio)	
Measuring speed	15~0.5 time/s (reducing with the increasing measured wall thickness)	
The length of probe cable	5m, 30m (optional)	
Built-in rechargeable Lithium battery	Continually working more than 8 hours	
Size and Weight	Host: L346×W278×H136mm 7kg	Type P1/small probe: L106×W61×H52mm 0.5kg
	Type P2/medium probe: L148×W73×H192mm 1kg	Type P3/large probe: L186×W95×H97mm 1.5kg
Temperature of the tested medium	-200~800°C	
Working Temperature	-10~50°C	
Humidity	≤85%R.H	
Adapter power supply	Single phase AC100~240V、50Hz±1%	
Power Dissipation	≤100VA	

## Extended function

### Multi channel pulse eddy current C-scan continuous corrosion measurement

The "probe ring" integrates multiple probes uniformly distributed along the circumference, which are buckled on the outside of the pipeline cover layer and continuously scanned manually (or electrically) along the longitudinal axis, improving the density and coverage of detection points.

C-scan imaging, automatically analyzing the remaining wall thickness and presenting warning areas.

When selecting the suspected defect area, the remaining wall thickness value will be automatically displayed for further analysis.



## Parameters of probe

The max thickness of cladding layer	With stainless steel or aluminum protective layer ≤100mm, with iron protective layer ≤80mm	
The max detection of wall thickness	3~35mm	
Diameter of the pipe	≥140mm	
The thickness of metal protective layer	≤1mm	
Repeated detection accuracy	1%	
The thickness of metal protective layer	≤1mm	
Corrosion defect detection sensitivity	5% (volume ratio)	
Measuring speed	15~0.5 time/s (reducing with the increasing measured wall thickness)	
The length of probe cable	5m, 30m (optional)	
Size and Weight	Six-channel array probe: L687.5×W230×H65mm, 8.15kg	

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