



PECT instrument, showing data acquisition tablet computer that is permanently attached to a data acquisition and pulse generating unit. Instrument operation is from a touch screen.



Four standard probes: small, medium, large and extra-large, each optimized for a specific liftoff range. The software assists the operator to select the best probe for each application.



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The PECT instrument connected to a probe with a 8m long signal cable



Transport cases for PECT instrument, chargers and batteries (left) and cables and sensors (right)



Specifications of MAXWELL Pulsed Eddy Current equipment

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Hardware		
Standard set	1. One PECT instrument: data acquisition unit permanently	
	connected to a TA10 Durabook data acquisition computer	
	2. Four standard probes	
	5. Two Signal Cable, each on four 0.01	
	5 Three batteries for data acquisition computer	
	6. Two battery changers and adapters	
Optional items:	7. 40m extension leads	
	8. Splash zone probes, 3m water depth, with 50m umbilical	
	(can be extended to 150m)	
	9. Underwater probes, 30m depth rating	
Deterministic	10. Underwater probe, depth rating to 1000m.	
Data acquisition computer	DARABOOK TATO 10.4" TOUCH SCREEN WITH LED BACKlight	
	protector, Navigation keypad and quick keys	
	8GB memory 250 GB SSD	
Standard probes	Four standard probes. Nominal lift-off ranges: 0-25mm: 25mm-	
r i i i i i i i i i i i i i i i i i i i	75mm; 40mm-125mm and 75mm-250mm.	
	Probe selection is automated at inspection set-up.	
Batteries	Operation requires a first set of two batteries for data	
	acquisition computer and one heavy-duty battery for pulse	
	generation.	
	Typical battery life: 8 hours	
	A stanuard set includes a second set of Datteries which can be recharged indeors with two external charges	
	Batteries are hot-swappable	
Data storage	All PECT signals a fully stored in data files for verification	
	purposes	
Software	Data capture software enables quick generation of field reports	
	PC-based software for offline data verification and reporting	
Communication	Wi-Fi, Bluetooth®, USB 3.0 (×2)	
Environment	IP 65, Salt and Fog resistant	
	Operating Temperature 0°C to +40 °C,	
	Relative number 93%	
Compliance	CF ECC Part 15R	
Transport of standard set	Two Fyplorer cases 5823 each LyWyH = 67 cm x 51 cm x 26cm	
Transport of standard set	Weight 23 kg each.	
Transport of 25m extension	One Explorer cases 5823, 67cm x 51 cm x 26cm.	
lead	Weight 15 kg. Cable is configured in a figure of eight.	
Transportation splash zone	One Explorer case, 7630, each LxWxH = 86cm x 56 cm x 36cm	
probes	Weight at 50m umbilical length: 31 kg	
Dimensions PECT instrument	30cmx 15cm x 22cm	
Weight instrument	7.8 kg including batteries and data acquisition computer	
	I ne instrument is provided with 2 hoisting lugs	



Instrument operation	
Selection of measurement	Probe selection and measurement parameters are automatically
parameters	set at start of an inspection using test measurements
Data storage	All PECT signals a fully stored in data files for verification
	purposes
Software	Data capture software enables quick generation of field reports
	PC-based software for offline data verification and reporting
Data collection speed	Typical recording speed (second per reading):
	3mm< WT ≤12mm 0.5s
	12mm< WT ≤25mm 1s
	25mm< WT ≤50mm 2s
	Note: the measurement time depends on a number of
	parameters that are hard to quantify, such as pipe vibration.
Scan mode	Data can be recorded point-by-point or in scan mode.
	The scan mode operation is designed not to deteriorate the
	reliability of the PECT data.

Typical performance parameters	
Wall thickness range	0-50mm steel
Maximum lift-off range	$0-250$ mm for WT ≤ 15 mm
	0-150mm for 15mm < WT ≤: 30mm
	0- 60mm 30mm < WT ≤: 50mm
Minimum pipe diameter	0mm insulation: 2" (50mm)
	50mm insulation: 3" (75mm)
Insulation sheeting	Aluminum and stainless
	Performance on galvanized (magnetic) sheeting depends on its
	properties
Footprint diameter	Typically 1.5 times the thickness of the insulation, with a
	minimum of 25mm
Typical accuracy of the	±10%
average wall thickness in the	
footprint	





Set of underwater probes for different depth rating and lift-off range.