MINUTES OF PRE BID MEETING

Supply, Delivery, Installation and Commissioning of Laboratory Equipment for the Department of Engineering Technology, Faculty of Technological Studies Uva Wellassa University of Sri Lanka

Bid No : UWU/G/NCB/20/02

Date & Time : 21st September 2020 & 1.00 p.m.

Venue : Bursar's Office

The Following decisions were made at the Pre Bid Meeting

At the Pre Bids Meeting following clarification were made against the bidders' questions.

- Specifications for Eddy Current Testing Machine were changed in the smartmux eca channels and probes. (Attached annexure 01)

Vice Chancellor
Uva Wellassa University

1. Technical Specifications Annexure 1

Detail		Yes(Y)/ No(N)	Bidders' Response
01.NDT Unit			
01.1 Eddy Current Testing Machine			
Application	Detection of surface breaking and near surface planar defects by sing eddy current		
Frequency	10 Hz–10 MHz		
Gain/noise	0~99dB continuously adjustable, stepping: 0.1dB		
Evaluation mode	The evaluation mode uses both phase analysis and amplitude analysis of vector traced to the complex plane display. Evaluation may be by comparison of this display with reference data previously stored.		
Signal display	As a minimum, the signal display shall be a complex plane display with the facility to freeze data on the screen until reset by the operator. The trace shall be clearly visible under all lighting conditions during the testing.		
Phase control	The phase control shall be able to give complete rotation in steps of no more than 10° each.		
Detection thickness (45# steel)	10 - 30mm		
Maximum lift off	10 mm		
data acquisition	Up to 50 000 samples/s		
Smartmuxeca channels	64, 128		
	State the additional cost if the machine is to be upgrade into Smartmuxeca channels to 256		
ect probe inputs	8		
iris turbine speed	Up to 100 RPS		
typical battery autonomy	5-8 Hours		
Probes	SUPPORTED INSPECTION TECHNOLOGIES have to be ECT, ECA, TECA, RFT, NFT, NFA, MFL, IRIS / state the additional probes and cost involved in upgrade in to eca channel 256		
Accessories (Calibration block)	Metal Block A calibration block have EDM (Electric Discharge Machined) notches of 0.5, 1.0 and 2.0 mm depth. Tolerance of notch depth shall be ± 0.1 mm. width of notch shall be ≤0.2 mm. Non-metallic sheets Non-metallic flexible strips of a known thickness to simulate the coating or actual coatings on the calibration block shall be used. non-metallic flexible strips be multiples of 0.5 mm thickness.		
Operating Temperature	(5℃) - (+45℃)		

Computer Data Acquisition System	Required		
Manufacturer	ISO9001 certified		
Warranty	2 year or more / State the additional cost up to 5 years		
01.2 Magnetic ParticleTesting Machine			
Application	Detection of surface imperfections in ferromagnetic forgings, castings and welds including the heat affecting zones using the continuous wet or dry method.		
Magnetizing current	AC+AC、AC+DC（single phase half-wave rectification）、DC（single phase half-wave rectification）＋DC（single phase half-wave rectification）		
Max. magnetizing current	AC2500A、DC1500A（single phase half-wave rectification）		
Magnetizing time	0.1 ～ 3.0sec（set by timer）		
Magnetizing method	Axial current method ＋ Coil method		
Power supply	AC 3phase、200/220V、50/60Hz、Approx.150A		
Black-Light	Super-Light		
Cycle Output:	5000 Amp FWDC		
	24,000 Ampere Turn Coil FWDC		
	4000 Amp AC		
	7500 Ampere Turn Coil AC		
Three selectable mode	Up to 4000 amp AC		
	2500 amp HWDC		
	5000 amp FWDC		
Distance between electrodes	< 600mm		
Floor Space required	36″ X 86″ - 36″ X 60″		
Weight:	500-700 kg		
Tank Capacity:	75-100 Lts		
Detecting media	Dry powder or liquid form and the magnetic particles shall be either fluorescent. The detecting media shall be traceable to a batch certificate or data sheet documenting compliance with a national or international standard.		
Others	Auto-Demag cycle		
	Pneumatic head and tail stock		
	Coil Diameters 16″ or 20″		
	Hood and Fan included		
Operating Temperature	(5ºC) - (+45ºC)		
Accessories	Calibration blocks are needed		
Manufacturer	ISO9001 certified		
Warranty	02 years or more State the additional cost up to 5 years		

01.4 Ultrasonic Testing Machine			
Application	Detection of inside crack/ defect of object by using ultra sound waves		
Channels	Four Channels		
Master Mode	ARM A8 1GHz		
Operating System	Windows compatible OS – interface with user trendy		
Sampling Mode	Synchronous Sampling		
Display Mode	10.4 inch industrial bright LCD screen 1024*768		
Operating Mode	Imports of industrial resistive touch screen		
Storage Mode	(16GB)Electrical Hard Disk		
Depth Measurement Mode	Two-way Counting and Real-Time Repetition Measurement		
Intervals of Sampling	0.03μs ~1024μs		
Phonatory Time Measurement Accuracy	0.03μs		
Phonatory Time Measurement Range	2×106μs		
Record Length	0.5~4k		
Transmit Voltage(V)	50/250/500/1000 Adjustable		
Dynamic Range of Gain	85-95 dB		
Control Accuracy of Gain	0.4±0.01 dB		
Test Profile	Six sections		
Transmit Pulse Width	20μs		
Broadband	2~500kHz		
Receiver Sensitivity	≤10μV		
Inter-channel Cross-talk	≤-60dB		
Data-Transmission Mode	USB2.0 High-speed interfaces and USB Transmission		
Power-Supply Mode	Built-in Lithium Battery(Working Hours≥8 Hours)		
Operating Temperature	(-10℃) - (+45℃)		
Main Machine Dimensions	325×243×56mm		
Main Machine Weight	3.5kg-5.0 kg		
Others	Intelligent Search, Real-time Control of Sampling in all Channels, Parameters of Dynamic sound , Automatic Interpretation, Cryptographic Measurement, Repetition Measurement.		
Counting Device	4 Slots		
Direction	Two-way Counting		
Resolution Ratio	0.3±0.05 cm		
Space between Measuring Point	5cm~100cm, Optional		
Max Hoisting Speed	Six sections, up to 60 Meters per minute		
Accessories	Calibration blocks are needed		
Warranty	2 year or more / State the additional cost up to 5 years		

Computer Data Acquisition System	Required		
Manufacturer	ISO9001 certified		
Warranty	2 year or more / State the additional cost up to 5 years		
01.5 Thermal/Infrared Testing Machine			
Application	Analyze and display a thermal field(temperature) distribution on the object surface by using Infrared waves		
Working temperature	-20ºC~50ºC		
Storage temperature	-40ºC~60ºC		
Working wavelength	Long wave 8~14μm		
Image schema	Manual/automatic		
Focusing type	Manual		
Pseudo color	Hot black/white/red/red iron oxide/rainbow/feathers red		
Temperature measurement accuracy	±2º or showing data ±2%		
Temperature measurement range	-20ºC~250ºC		
Temperature display	Yes		
USB mode	Micro SD card/real-time transmission mode		
Reflective temperature correction	Manually enter		
Alarm temperature	Highest temperature/lowest temperature		
Temperature capture	Highest temperature/temperature/lowest average temperature		
Radiation rate input	Can be adjusted by the 0.01 ~ 1.0		
Working power supply	Built-in lithium battery		
Video output interface	HDMI interface		
Accessories	Calibration blocks are needed		
Computer Data Acquisition System	Required		
Manufacturer	ISO9001 certified		
Warranty	2 year or more / State the additional cost up to 5 years		
01.7 X ray Testing Machine			
Application	Determination of inside and surface crack and dimension of the object(machine part) by using X-ray		
Tube voltage	70 kV ~ 200 kV in steps of 2 kV		
Tube current	STD mode 5 mA (at 90 kV or more)		
	LOW mode ~ 4 mA (at 90 kV or more)		
Duty cycle	Intermittent continuous (1:1 Max. 6 min at 25°C)		
X-ray tube	Ceramic X-ray tube Focal spot size (nominal) 2.0 mm x 2.0 mm		

Inherent filter	Aluminum 2 mm + Beryllium 1 mm		
Power supply	Single phase AC 190 V - 240 V 50/60Hz		
Power consumption	STD mode: 3.1 kVA		
	LOW mode: 2.4 kVA		
Generator insulation	SF6 insulation gas		
Generator cooling	Anode earth, forced air cooling by radiator		
Accessories	Calibration blocks are needed		
Computer Data Acquisition System	Required		
Operating temperature range	$+15^0$C to 40^0C		
Manufacturer	ISO9001 certified		
Warranty	2 year or more / State the additional cost up to 5 years		
User Guide	Required		