



BHARAT HEAVY ELECTRICAL LIMITED

Specification No.
TEXRF16

RAMACHANDRAPURAM :: HYDERABAD-32

SPECIFICATION FOR X-RAY FLUORESCENCE ANALYZER (XRF ANALYZER)

Ref: HY/QC/CGC,07,210/16-17

Date: 05.05.2016

SCOPE: SUPPLY AND COMMISSIONING OF X-RAY FLUORESCENCE ANALYZER				
SNO	DESCRIPTION FOR BHEL REQUIREMENT	SPECIFIED / TO BE CONFIRMED BY	OFFERED	DEVIATIONS
1.0	PURPOSE OF THE INSTRUMENT			
1.1	Positive material identification of Tool Steels, Alloy Steels, Stainless Steels, Ni based alloys, Co based alloys, Cu based alloys, Ti based alloys, etc in different	vendor to confirm		
2.0	SCOPE			
2.1	Supply and commissioning of the XRF analyzer at BHEL, Hyderabad works including training.	vendor to confirm		
3.0	SPECIFICATION:			
3.1	Non destructive energy dispersive X-Ray fluorescence analysis.	vendor to confirm		
3.2	Instrument shall be capable of analyzing standard alloying elements from Ti to U (Alloying elements: Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, W, Hf, Ta, Re, Pb,	vendor to confirm		

W. J. Sarathy
5/5/16

3.3	Instrument shall have extensive built in grade library for wide range of alloys including stainless steel, low alloy steel, tool steel, Nickel Alloy, Cobalt Alloy, Cu	vendor to confirm			
3.4	User Selectable libraries shall include AISI or DIN or BS or IS.	vendor to confirm			
3.5	Operating temperature 0°C to 50 °C	vendor to confirm			
3.6	Weight of instrument shall be less than 2 Kg with battery	vendor to confirm			
3.7	Analysis modes: 1) Elemental Composition 2) Grade Identification/Match mode.	vendor to confirm			
3.8	Accurate analysis of alloying elements in SS, Low alloy steel, Tool Steel, Co base alloy, Ni base alloy etc in 5 to 10 secs	vendor to confirm			
3.9	Analysis of hot surfaces upto 100 °C	vendor to confirm			
3.10	Analysis of sample of dia greater than and equal to 5 mm.	vendor to confirm			
3.11	Empirical Calibration (traceable to certified reference materials) for superior precision and accuracy.	vendor to confirm			
3.12	Rating of X-Ray tube (Voltage, Ampere and watt)	vendor to inform			
3.13	NEMA3 or equivalent compliant for superior protection against water and dust.	vendor to confirm			
3.14	Typical Duty Cycle shall be min 8 hours per battery after full charging.	vendor to confirm			

M. J. O'Brien 5/5/16

3.15	Display: Antiglare touch screen				vendor to confirm			
3.16	Locking Provision shall be provided for display /pocket pc if display/pocket pc is separate to prevent it's slippage from the slot.				vendor to confirm			
3.17	Storage Capacity: Shall store minimum 20,000 reports or Internal memory shall be greater than or equal to (>=) 1 GB.				vendor to confirm			
3.18	Data Transfer via USB, Bluetooth etc - Facility for downloading results directly to a USB Memory stick, to a PC or a network share using Wifi or Bluetooth.				vendor to confirm			
3.19	Report Generator by using which customized, professional looking reports can be created including company logo, result and additional sample				vendor to confirm			
3.20	For radiation safety Password protection, IR Proximity sensor or equivalent radiation protection system shall be provided.				vendor to confirm			
3.21	External memory >= 16GB (optional)				Vendor to inform			
4.0	ACCESSORIES							
4.1	Two rechargeable Li-ion battery				vendor to confirm			
4.2	Battery charger including Plug				vendor to confirm			
4.3	USB and Mini USB Cable				vendor to confirm			
4.4	Holster for hands-free transportation				vendor to confirm			

9.1	Only those vendors who have supplied and commissioned at least one quoted model of the instrument and it has been working satisfactorily for	Vendor to confirm			
9.2	Name of the customer/ company where referred instrument is installed.	Vendor to Furnish.			
9.3	Complete postal address of the customer.	Vendor to Furnish.			
9.4	Month and year of commissioning.	Vendor to Furnish.			
9.5	Model of instrument supplied and application for which the equipment is supplied..	Vendor to Furnish.			
9.6	Name and designation of the contact person of the customer.	Vendor to Furnish.			
9.7	Phone, FAX no. and email address of the contact person of the customer.	Vendor to Furnish.			
9.8	Performance certificate from the customers for the quoted model regarding satisfactory performance of instrument for min one year from the date of	Vendor to submit.			
9.9	BHEL reserves the right to verify the information provided by vendor. In case the information provided by vendor is found to be false/incorrect, the offer shall be rejected.	Vendor to accept & confirm.			


 एम. ज्योती बास्कर
 M. JYOTI BASKAR
 बरिष्ठ प्रबंधक / क्यू सी, सीजीसी, 07, 210
 Sr. Manager / QC, CGC, 07, 210
 सी.एच.ई.एल. हैदराबाद BHEL, HYD-02