



Director General of Police,  
Maharashtra Police Headquarter,  
Shahid Bhagat Singh Marg, Colaba, Mumbai - 400001

### **TENDER CORRIGENDUM NOTICE.**

All interested Bidders are hereby informed that this office issued e- tender No. 1628 for Maharashtra State Police Headquarter security system (Total 10 equipments) on 31/01/2018. Pre bid meeting for the same was held on 08/02/2018 at this office.

2. Accordingly, some of the interested Bidder have requested to clarify regarding Fixed X- Ray Baggage Scanner.
3. This office has decided to issue a corrigendum for specification of Fixed X- Ray Baggage Scanner for above mentioned e-tender as mentioned below :-

<b>Specifications of Fixed X-Ray Baggage Scanner</b>	
Sr. No.	Specifications
1.	Tunnel Size – 60 cm W (width) X 45 cm H (Height) $\pm$ 10%.
2.	Conveyor belt speed should be between 0.18 and 0.3 meter per second. Conveyor movement bidirectional.
3.	All machines should operate on 230 VAC, 50 Hz power supply and should be able to withstand voltage fluctuations in the range of 170 V to 260 V. Single Phase 3 to 5 Amp.
4.	Conveyor Capacity – 120 Kg or more.
5.	Through put should be 200 bags per hour or more.
6.	a) Sensor > 1125 diodes, L-shaped detector (Folded array type), In case of defective diode arrays, scanning should be disabled and error message should be displayed on the screen, anode voltage 90 KV – 160 KV dual energy and Orientation should be Diagonal. b) Detector Configuration – Vertically upward. c) X-Ray Generator – Oil Cooled.
7.	X-Ray Voltage – 140 KV or more. Higher Voltage should be preferred.
8.	X-Ray Source / Generator – It should be capable to operate smoothly for a period of at least six years.
9.	Duty Cycle – 100 %.
10.	The X-Ray beam divergence should be such that the complete image at maximum size of bag is displayed without corner cuts.
11.	The radiation level should not exceed accepted health standard (0.1 m R/Hr. At a distance of 5 CM from external housing). Relevant certificate from AERB.
12.	The operating temperature normally should be 0° C to 50° C.
13.	Storage temperature -20° C to 50° C.
14.	Humidity : 90% non-condensing.
15.	Resolution : The machine should be able to display single un insulated tinned copper wire of 42 SWG or 38 AWG, All penetration and resolution condition should be met without pressing any functional key and should be online.
16.	Penetration should be 34 mm thickness of steel (Guaranteed) or more.
17.	Continuous Electronic Zoom facility should be available to magnify the chosen area of an image thirty two times (32X) or more, Image features shall be keyboard controllable.

18.	Video display – 21” or better LED Monitor SVGA High Resolution, low radiation, flicker free, resolution at least 1280 x 1024, 24 bit colour real time processing.
19.	The machine should have features of Multi-energy X-ray imaging facility where materials of different atomic number will be displayed in different colours to distinguish between organic and inorganic materials. With this method to distinguish high density organic materials including explosives. Machine should have variable colour or materials stripping to facilitate the operator to monitor images of organic materials for closer scrutiny. All suspicious items (Explosives, High density, material narcotics) should be displayed in one mode and that should be online.
20.	Radiation Safety – The machine must comply with requirement of health and safety regulations with regards to mechanical electrical and radiation hazards. Before installation of the machine, supplier / manufacturer should furnish relevant certificate from Atomic Energy Regulatory Board of India regarding radiation safety. The company manufacturing the equipment should have ISO certification for manufacturing and servicing of X-ray Screening machines.
21.	Film Safety – Guaranteed safety for high speed films up to ISO1600. The machines should be film safe. In other words photographic films must not be damaged due to x-ray examination.
22.	Machine should be properly sealed from all the sides for pest proof. Dust proof cover is to be provided for covering when system is not in use.
<b>Specifications of Fixed X-Ray Baggage Scanner</b>	
Sr. No.	Specifications
23.	Facility for variable contrast must be incorporated to allow enhancement of Lighter and darker portion of the image.
24.	The machine should be so designed that software enhancement can be easily implemented to take care of new technique in image processing and pattern recognition.
25.	Full diagnostic built-in test facility. All models should have software controlled diagnosis report facility and system should give printout if printer is connected.
26.	All software features of machine should be online and password protected.
27.	Machine should be capable for recalling 15 or more previous images.
28.	It should have the capability of archiving 2000 or more images with date and time stamp.
29.	Control desk with security housing and locking provision should be available. The operated personal identification number can be entered with the keyboard along with generation of log.
30.	Facility of image enhancement should be available.
31.	All models should have online recording facility and images can be recorded in CD/DVD/R/W or / and USB should be able to view images so recorded on stand-alone PC.
32.	Lead impregnated safety screens should be available at either ends of the tunnel. This should be covered by relevant AERB certificate. Idle rollers to be provided at either ends of the tunnel to facilitate placing of baggage at input and output.
33.	All software features should be controlled from keyboard and mouse of the machine. Keyboard function should be user friendly. To enable/disable the software features system need not be rebooted.
34.	If the machine fails to penetrate a particular item then an alarm video and audio both should be generated to notify the operator.
35.	The threat image projection (TIP) system software to be incorporated in all X-Ray BIS operation as per details given in Annexure – I.
36.	Copy of all software including X-Ray Software with recovery CD must be provided.
37.	Operational Training – Operating staff has to be provided free training.
38.	Operating & service manual (Hard and Soft copy) shall be provided in Marathi as well as in English language for each machine.
39.	Other Features – a) Edge & variable edge enhancement. b) Inverse Video. c) Set up time not more than 10 minutes. d) Pscudo colour. e) Date & Time display.

