

ANNEX A – TECHNICAL DESCRIPTION AND GENERAL TERMS

1	Bidders must precise in their offers Brand and Model of the equipment					
2	Duty cycle: 100% Duty cycle (24 hours)					
3	Mechanical characteristics	Tunnel Opening Size	Minimum: 750mm (W) x 500 mm (H) & Maximum: 800mm (W) x 600 mm(H)			
4		Conveyor Height	Min 700mm, Max 800 mm			
5		Overall dimensions of equipment	Maximum length 2700mm & maximum width 1100mm			
6		Conveyor Speed	Min 0.20 m/sec			
7		Conveyor Load	Minimum 150 Kgs (evenly distributed)			
8		Conveyor at the entrance	The conveyor system shall consist of two (2) individual 1000mm long stainless steel roller conveyors. Each conveyor shall be designed to transport items through the X-ray machine. The conveyors shall be constructed with a stainless steel frame and rollers, and each shall be capable of supporting a distributed load of 150kg. The width and height of each conveyor shall be carefully designed to ensure seamless integration with the dimensions of the X-ray machine.			
9		Conveyor at the exit	The conveyor system shall consist of two (2) individual 1500mm long stainless steel roller conveyors. Each conveyor shall be designed to transport items through the X-ray machine. The conveyors shall be constructed with a stainless steel frame and rollers, and each shall be capable of supporting a distributed load of 150kg. The width and height of each conveyor shall be carefully designed to ensure seamless integration with the dimensions of the X-ray machine.			
10		Wheels	Specifications to be proposed by the candidate			
11	Electrical	System Power	Electric			
12		Power consumption	230 VAC ± 10%,50Hz			
13		UPS	Each device will be equipped with a full UPS which in the event of a power failure, will ensure its full operation for Min thirty (30) minutes in order to be able to safely deactivate			
14	X-Ray	Steel Penetration (according ASTM luggage and/or EWSTP standard)	Min 34 mm			
15		Wire Resolution (according ASTM luggage)	Min 36AWG			
16		X-ray Generator Anode Voltage	Min 140KV			

17		Spatial resolution	Less than 2mm		
18		X-Ray Generator Tube Current	Min 1.0 mA		
19		Zoom	Min x32		
20		Radiation Leakage out side	Must be Less than 1 μ Sv/hr		
21		Display	Detection, separation of objects into organic, inorganic mixed and the detection of suspicious objects will be completed automatically, without intervention of the operator with a single passage of the object through the device.		
22			The separation of objects into organics, inorganics and mixed will be based on the atomic number of the constituents of each object.		
23			The display of the objects on the screen, after separation, will be done with separate for each color material category and in particular: orange for organic, blue for metals and green for mixed. Common areas of overlapped objects (eg organic on metal and inverse) should be displayed as mixed (green).		
24			When changing the image by passing a new object, there should not be deformation on the screen due to the position of the generator. The image of the new object displayed on the screen should appear smoothly.		
25			The brightness of the colors for each category of material will indicate its thickness. The brightness of the colors will be independent of the atomic number of the object (for example, thin metal parts - with little absorption in the radiation - will continue to be displayed in blue).		
26			The image quality on screen for all categories of materials will be excellent and both the brightness and the clarity of the different colors can be adapted to the sensitivity of the human eye for comfortable and relaxing viewing of the image by the operator.		
27	Alarm		Each device provided must have an automatic suspect detection system for objects, organic and inorganic substances, which will be real time and online (with the presentation of the image of a new object will already exist flagged suspicious objects), without any interference from the operator and without stopping the conveyor belt. The system should have, in addition to a visual and audible alarm, a count system of the total number of objects.		
28	Software		Each offered device will have appropriate support software to help the operator, with a number library of images (to be indicated by the supplier) with dangerous objects (explosive devices, weapons of various types, etc in different views) in accordance with current European and International standards (in which a clear reference will be made to each offer).		

29		Each offered device will have a digital recording and archiving system (with the possibility for revocation) of at least 100,000 x-ray images (either all automatically or only suspected by the operator) on its internal computer. Saved images can also be transferred to USB commercials to use of the Service.
30		Every offered device will have an electronic counter with the possibility for a zero reset / reset.
31	Additional Security Systems	Multiple interlocking systems which will be described in detail in the offer.
32		Each offered device will be provided with interlock system so that it can be shut down in the following cases: a) when parts are removed from the internal lead coating, b) when for any reason the operator wants, from his keyboard to shut down the system.
33		There will be distinct visual and / or acoustic indications that will indicate the activation of the generator at the time of its irradiation.
34		The dose of radiation in the object to be detected will be such that it does not affect: i. Medical films for at least 25 passes. ii. Color and black and white 1600 ASA and 3200 ASA photographic films respectively for 25 passes through the device. iii. Food and medicines.
35	Control Desk	The control station (CONTROL DESK) on which the controller and display will be placed - if it is not incorporate - it will be visible, of excellent quality, with a skeleton of suitable durable material for mounting the controller. More specifically, the screens to be installed at the control station will have as minimum requirements the following characteristics: • Size 27" • LCD & IPS technology • Screen resolution $\geq 1280 \times 1024$ pixels • Adjustment buttons for brightness, contrast and deviations
36	Computer	The computer that will be installed inside the machine will be of the latest information technology. Please note that each offer submitted will include a detailed description of the technical characteristics of the computer (with at least the following: processor, memory, motherboard, disk, ports, graphics subsystem, network card, operating system, safety specifications, power supply, uninterruptible power supply).
37	Documentation, certification, manuals and spare parts	1) To bear the CE marking, accompanied by the EC declaration of conformity, upon equipment delivery. 2) Manufacturer to provide ISO 9001 and 14001 certificates. 3) Candidate to provide ISO 9001 and 14001 certificates.
38		Maintenance and operating manuals to be provided in English upon equipment delivery.

39	Spare parts	Spare parts to be ready -available in Greece via manufacturer representative.
	Contract	Winner bidder will have to sign a contract with PPA S.A and upon contract signature will have to submit a Good Performance Letter of Guarantee (LoG amount equal to 10% of the contractual amount)
40	Delivery time	Three (3) months, successful installation of the whole two (2) systems (x-rays machines in combination with conveyor belts) and the two (2) systems to be commissioned as ready to operate at P.P.A. S.A. premises.
	Delivery terms	DDP terms at PPA SA Cruise Terminals
41	Warranty time	Two (2) years from date of delivery. Warranty will cover all repairs and or maintenance works (not the spare parts) by the winning bidder free of charge in accordance with the instructions of the manufacturer (On-site call time will be max. 3 hours from time of informal - Candidate to submit within offer, proof of representation in Attika region).
42	Payment Terms: Two (2) months upon invoicing (deposit to supplier's bank account) and following the final acceptance of the equipment by PPA S.A. competent body.	
43	Offer Validity: Two (2) months and may be extended following PPA S.A. request	