

## DETAILED DESCRIPTION OF THE DEVICE

### NOTE

The offered devices have to meet all requirements.

General requirements	
1. Manufacturer and the device type: Meyer Burger, Model LP50	
2. The devices and their components have to be brand new	
3. The devices and their components cannot be the demonstration equipment or the equipment used in any other way	
4. All components have to be completely compatible with each other	
5. The Contractor has to submit the full specification of the devices along with operational manuals and pictures (digital form on CD is acceptable) – in the Polish or English language	
6. The devices have to be equipped with all necessary components that are indispensable to start the work immediately	
7. The devices have to be equipped with all necessary tools and materials that are indispensable for their proper usage and maintenance.	
8. The costs of delivery and packaging of the equipment have to be included in the offer	
Detailed requirements	
Name of parameter	Requirements
9. Development software	realization of control process according to own patterns; pattern designing and modification
	possibility of programming/configuration of the system process sequences according to own requirements
	print simulator
	possibility of printing in the X and Y axes - enabling vector printing
	direct access to printing and jetting parameters
	compatible with formats: Gerber, bmp, tiff, gif, ps, jpg, CAD, emf, svg
10. Motion in the x-axis	stroke: 500 mm
	resolution: 0,1 $\mu$ m
	accuracy: $<\pm 15 \mu$ m
	max. velocity: 175 mm/s
11. Motion in the y-axis	stroke: 340 mm
	resolution: 0,1 $\mu$ m
	accuracy: $<\pm 15 \mu$ m
	max. velocity: min. 450 mm/s
12. Motion in the z-axis	stroke: 50 mm
	resolution: 5 $\mu$ m
	accuracy: $<\pm 25 \mu$ m
	max. velocity of motion: 4s full stroke
	allowable thickness of substrate: 25 mm
13. Rotation of print head on the z-axis	stroke: 90°
	resolution: 90 $\mu$ rad
	max. velocity: 4s for 90°



14. Substrate holder	rotate substrate table on z axis
	printing area: 227 mm x 327 mm
	load capacity: 1 kg
	clamping: vacuum
15. Heating of substrate	temperature: ambient – 90°C
	accuracy: $\pm 1^{\circ}\text{C}$
	uniformity: $\pm 1^{\circ}\text{C}$
16. Ink supply	volume: min. 12 ml
	pressure: 0 – -30mbar
	accuracy: $\pm 0,3\text{mbar}$
	the user has to have a possibility of refilling of the reservoir
17. Possibility of printhead using	Konica Minolta 512 (KM512 LH 42PL, KM512 MH 14PL)
18. Print head heating	temperature: min. ambient – 50°C
	accuracy: $\pm 1^{\circ}\text{C}$
19. Chemical resistant	1 – 13 Ph adapted the ink based on various solvents: water, alcohol, acid, glycol, hydrocarbon, ester, ketone
20. Maintenance / cleaning system of heads	configurable automated system, with vacuum capping, wiping station
21. Drop view system	camera CCD + optics + light strobe LED + software
22. Print view and alignment system	camera CCD + optics + light LED + software
23. Control hardware	PC + monitor + Windows system
24. Power	230V/50Hz – compatible with European standard
25. Work conditions	room conditions
26. Start-up of the device at the awarding entity site with using materials supplied by the contractor	installation and activation
	acceptance test and confirmation fulfilment of requirements
	training for two persons – in the Polish or English language
27. Warranty	period of warranty: 12 month; print head can be excluded from warranty
	availability of post warranty service within 10 years after installation date
	availability of spare parts within 10 years after installation date
	availability of technical support within 10 years after installation date – in the Polish or English language