

PFT Unit

Category	Requirement	Comments
General	Fully integrated PFT system for adult and pediatric patients	Should be suitable for hospital use
	No external flow sensor required	Prefer integrated/ultrasonic or equivalent technology
Spirometry	Full spirometry testing (pre- and post-bronchodilator)	Include FVC, FEV1, FEV1/FVC, PEF, FEF25-75%
Lung Volumes	Body plethysmography for measurement of lung volumes	Gold standard method; includes TLC, RV, FRC
Diffusing Capacity	DLCO measurement	Single-breath method; adjustable inspired O ₂ and CO concentrations
Oscillometry	Impulse Oscillometry (IOS)	Assessment of small airway function
Provocation / Challenge Testing	Setup for methacholine challenge testing	System should be upgradeable or capable of methacholine challenge
Exercise Testing	Capability for integration with exercise testing	Optional module or interface with CPET systems
Software	Data analysis and reporting software	Should generate ATS/ERS compliant reports with automatic interpretation
	Availability of GLI (Global Lung Initiative) reference values	GLI-2012 (and updates); include Z-score measurements
	Automatic interpretation capability	Based on international guidelines
Calibration	Automated and manual calibration options	Include calibration syringes and reference gases
Connectivity	USB/Ethernet interface for EMR/HIS integration	HL7 compatible if possible
User Interface	User-friendly interface with adjustable/movable screen	Touchscreen preferred
Pediatric Features	Pediatric-friendly interface	Animations or interactive visuals to improve cooperation
Calibration	Automated and manual calibration options	Include calibration syringes and reference gases
Connectivity	Integration with hospital systems (EMR/HIS)	
Consumables	Standard consumables included	Mouthpieces, filters, nose clips
Accessories	Optional accessories for pediatric testing	Pediatric mouthpieces, head boxes if needed
Warranty		
FDA approved		
CE Marked		
Install base in Lebanon		
System Release date		
Delivery time		