

Quark SPIRO

Spirometry Lab



“Effective, simple lung screening in any environment”



- Full Spirometry testing (FVC, SVC, MVV, Pre/Post BD)
- Choice of different flowmeter configurations (PNT or turbine)
- User friendly software and advanced features with new generation OMNIA Suite
- Integrated dosimeter for accurate and easy bronchial challenge tests (optional)
- Airway resistance by Interrupter Technique (optional)
- Meet latest ATS/ERS standards

Modular Spirometry Laboratory with additional bronchial challenge and airways resistance tests

Quark SPIRO is a modern modular laboratory for complete spirometry testing, with easy-to-add advanced test features like integrated dosimeter and airway resistance.

Low maintenance costs, no need for technical expertise and user-friendly software, make Quark Spiro the perfect tool for accurate, frequent and reliable spirometry tests in any hospital department or physician's office.

Latest technology in flowmeters (available choice between turbine or pneumotach) and other hardware components guarantee accurate measurements and fast test procedures.

Quark Spiro is powered by OMNIA, the new software generation from COSMED. OMNIA is a powerful software, easy and intuitive thanks to its innovative user interface which has a native touch-screen design. OMNIA features enhance networking capabilities as well as full integration with any additional COSMED products (spirometers, cardiopulmonary exercise testing etc.).

OMNIA encompasses all the latest industry standards for spirometry tests, including the 2005 ATS/ERS Consensus Statement on the "Standardization of the measurement of spirometry" and the 2012 Global Lung Initiative (GLI) predicted sets.

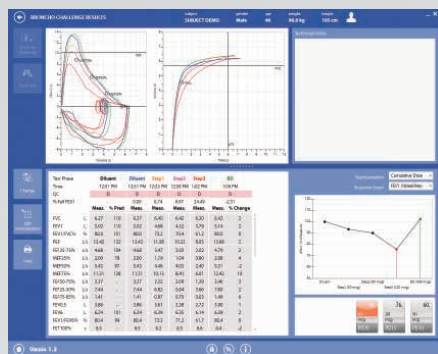


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The Metabolic Company

Validation articles

- Hans Rudolph Inc. 2012 "Third Party Validation: Quark PFT with X9 PNT for Spirometry and DLCO Measurements"
- Crapo R. O. (LDS Hospital) 2004 "Validation of COSMED turbine vs ATS 24 standard volume-time waveforms"
- More scientific studies on www.cosmed.com/bibliography



Technical Specifications

| Product | Description | REF |
|---|--|---|
| Quark Spiro | Stationary Spirometry Laboratory | C09071-01-99 |
| Standard packaging | Unit, PC software, user manual, USB cable, power cable. | |
| Standard Tests (Spirometry) | | |
| Tests | Forced Vital Capacity (FVC) Pre/Post, Slow Vital Capacity (SVC) Pre/Post, Maximum Voluntary Ventilation (MVV), Bronchochallenge - Bronchial Dilator/Constrictor test | |
| Measured Parameters (partial listing) | FVC • IVC • VC • MVV • VT • FEV1 • FEV6 • FEV1/FEV6 • FEV6/FVC • PEF • PIF • FEV1/FVC • FEF 25-75 • FEV1/VC% • %FEV1 • MEF25% • MEF50% • MEF75% • FET 100% • Lung Age • ERV • IRV • VE • Rf • ti • te • ti/t.tot • VT/ti • Best FVC • Best FEV1 • IC | |
| Predicted Values (partial listing) | 2012 Global Lung initiative (GLI), ERS 1993 (ECCS 1983), NHANES III, Knudson 83, ECCS 1971, ITS, Zapletal, LAM, Pneumobil, Gutierrez (Chile), Multicéntrico Barcelona, Thai 2000, Austria (Forche), Crapo 1981 user defined predicted calculations. | |
| Automatic Interpretation | ATS/ERS 2005 (Spirometry), GOLD COPD, ATS/ERS 2005 (Obstruction Reversibility based on FVC Post BD), ATS/ERS 2007 (Obstruction Reversibility based on Rocc) | |
| Flowmeter | X9 PNT | Turbine Ø-28mm |
| Part Number | C03246-01-11 | C03248-02-11 |
| Type | Lilly multiuse pneumotach | Bidirectional Digital Turbine |
| Flow Range | 0-14 l/s | 0-16 l/s |
| Accuracy | ±2% or 20 ml/s (flow) | ± 2% or 20 ml/s (flow) ± 2% or 200 ml/min (ventil.) |
| Resistance | <1cmH ₂ O/l/s @ 14 l/s | <0.6 cmH ₂ O /l/s @ 14l/s |
| Ventilation range | NA | 0-300 l/min |
| Hardware | | |
| Dimensions & Weight | 33 x 41 x 16 cm / 6 Kg | |
| Interface ports | USB, RS-232 | |
| Electrical requirements | 100-240V ± 10% 50/60 Hz | |
| Environmental conditions | Temperature 0-50 °C (32 - 122 °F); Barometer 400-800 mmHg; Humidity 0-100% | |
| Software | | |
| Available languages | Italian, English, Spanish, French, German, Portuguese, Greek, Dutch, Turkish, Russian, Chinese (Traditional), Chinese (Simplified), Korean, Romanian, Czech, Norwegian | |
| PC Configuration | I3 or higher processor speed. Compatible with Windows 7, 8, 8.1, 10 (32 or 64 bit). RAM 4GB (8GB recommended). HD with 4GB of free space (plus tools) | |
| Optional Modules | Description | REF |
| Rocc | Enables the measurement of respiratory resistance with interrupter technique (Rocc, RoccEX, RocclN, Gav, etc.) | C02700-01-11 |
| Integrated Dosimeter | The module provides a DeVilbiss 646 nebulizer, powered by dry compressed air (required medical air/gas for drug inhalation) and connected to the flowmeter with dedicated tubing | C03250-01-11 |
| Accessories | Description | REF |
| Large Medical Cart | 3 cylinder holder (230 or 120 VAC) | C02900-01-04 (230) C02900-02-04 (120) |
| Table arm support | flexible arm for holding Smart Valve | C02870-01-05 |
| Safety & Quality Standards | | |
| MDD (93/42 EEC); FDA 510(k); EN 60601-1 (safety) / EN 60601-1-2 (EMC) Complies with ATS/ERS 2005 guidelines | | |



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To know more:

