



Fast Respiration Meter

A vital tool for measuring respiration rates of fresh produce.

Measures respiration rates in just 4 hours!

Measure the respiration rate of fresh fruits, vegetables, and flowers **in just four hours!** The innovative, patented PerfoTec FRM 4.0 is designed to measure the respiration rate of fresh produce quickly, helping you adapt to seasonal variations and determine the best packaging and storage conditions. It measures oxygen consumption, carbon dioxide production, and ethylene levels, with an optional ethylene sensor to predict ripening speed.

The system calculates respiration rates in batches of raw material, providing critical data (ml per kg per 24 hours) that can be uploaded to a website using AMAP software. This data integrates with packaging and film specifications, converting into laser perforation numbers and sizes to extend shelf life effectively.

Optimize Freshness

The PerfoTec Fast Respiration Meter 4.0 is a game-changer in extending the shelf life of fresh produce. This innovative system optimizes quality, boosts productivity, and cuts waste and costs. Paired with PerfoTec freshness extension tools like the PerfoTec O₂ Control and Laser Perforation System, FRM 4.0 delivers a chain-wide solution to tackle food waste head-on.



Freshness in Four Hours

Our system tracks O₂ consumption and CO₂ production (ml air/kg/24h), while factoring in temperature and pack weight. With this data, it tailors the packaging perforation to match the exact needs of your specific produce—helping fruits, vegetables, and flowers stay fresher for longer.

Technology for All

The new generation Respiratory Control System takes freshness to the next level by measuring respiration rates and ethylene production. This helps predict the ripening speed of fresh produce, empowering growers, packers, and retailers with cutting-edge technology.

Tailored Solutions for Every Fresh Product

Vessels sized for your produce:

Low basket	Perfect for small fruits and soft fruits
Mid-size basket	Ideal for potatoes, vegetables, and tropical fruits
Large vessel	Designed for flowers and larger produce
Tailor-made	Vessels available to fit your unique needs!

**Remote
Support
Worldwide**

From Data to Perfect Perforation

All data is securely stored and uploaded to the PerfoTec Platform, where respiration rates are converted into precise transmission requirements. The system then calculates the ideal number and size of laser perforations, building a database of your produce's behavior over time. This ensures you always get the right film at the right moment—for optimal freshness and efficiency.

FRM 4.0 Tech Specs

Equipment Height: 2090 mm
Equipment Width: 740 mm
Equipment Length: 850 mm
Nett Equipment Weight: 190 kg
Environment Temperature: 5 – 25°C
Measure Temperature: 1 – 24°C
Volume Product Vessel: 5 – 50 liters
Max Gas Flush Pressure: 0.2 bar
Electrical Connection: 230V, 1ph+N+E, 50/60 Hz
Amperage: 5 A
Internet Connection: 10Mbps, Ethernet connection
Remote Support: Router-initiated, secure connection via specialized servers

Ready to optimize your fresh produce packaging?
Contact us today!

We'd Love to Hear from You!

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