

Cartridge Filter Bubble Point Tester

The cartridge bubble point tester is designed for cartridges of various sizes. Cartridges can be loaded and unloaded quickly and easily.



Overview

Advanced Cartridge Integrity Testing

The Cartridge Bubble Point Tester is a specialized instrument designed for high-volume quality control and performance validation of filter cartridges. It features dual testing stations and a rotating cartridge holder to ensure precise pore measurement on all sides of the media. This fully automated system streamlines the testing process with quick-loading levers and integrated wetting liquid conservation, making it an essential tool for filtration manufacturers.

Key Performance Metrics

Core Capabilities

2 qty

Sample Chambers

1 Full

Automation Level

Technical Principles

Bubble Point Physics

The system operates on the principle that a wetting liquid fills the pores of a porous material. By increasing differential pressure of a non-reacting gas, the liquid is displaced from the largest pores. The pressure required (p) is calculated using the equation $p = \frac{4\sigma \cos \theta}{D}$, where σ is surface tension, θ is the contact angle, and D is the pore diameter.

Operational Features

Loading Mechanism

- Dual-lever system for quick loading and unloading
- Horizontal lever for cartridge length adjustment
- Rotating lever for secure cartridge locking
- Movable clamping heads for versatile sizing

Automation

Yes

Testing Capabilities

Testing Features

- Rotating cartridge holder for 360-degree pore measurement
- Adjustable rotation speed for customized testing
- Deep sample chambers for large cartridge accommodation
- High-volume throughput via dual-chamber design

Fluid & Safety Management

Fluid & Safety Systems

- Automatic wetting liquid injection via internal inlets
- Closed-loop liquid conservation with storage tank circulation
- Integrated ventilation fan for vapor removal
- Automated drainage and pumping system

Physical Construction

Model Series

ABPT-2002-A

Construction

Robust industrial frame with controlled environment chamber