



PrepEngine

High-Throughput Sample Preparation System



Sample prep without the bottleneck

Pion's PrepEngine is a high-throughput benchtop sample preparation system designed to streamline pharmaceutical content uniformity, assay, impurity, and analytical sample preparation workflows.

Featuring independently activated stirring stations and configurable PrepTubes, PrepEngine enables fast, reproducible processing while reducing manual handling, minimizing variability, and improving laboratory throughput.

Originally developed through collaborations with pharmaceutical and biotech industry leaders, PrepEngine combines simple operation with parallel processing to help laboratories prepare more samples in less time with greater consistency.



High Throughput



Reproducible, Reliable Results



Simple, Streamlined Operation



Scalable Solutions

The Pion Advantage

High Throughput



Up to 10 independently activated stirring stations enable continuous, parallel sample processing, increasing throughput and reducing preparation bottlenecks. Semi-automated, high-throughput preparation ensures consistent results.

Up to 90% faster processing than conventional methods.



Simple, Streamlined Operation



Intuitive touchpad controls and automatic processing make sample preparation fast and easy. Simply load the sample, lock the tube into position, and processing begins automatically, reducing operator involvement and integrating seamlessly into existing workflows.

Load. Lock. Go.



Scalable Solutions



Available in 2- and 10-station benchtop configurations, PrepEngine integrates seamlessly into existing laboratory workflows. Multiple PrepTube sizes and blade options to support a wide range of volumes and applications.

Reproducible, Reliable Results



Controlled, repeatable processing conditions ensure consistent sample preparation across every station. Defined mixing speeds from 500 to 6000 RPM and adjustable processing times up to 4 hours help reduce variability, improve confidence in analytical results, and deliver reproducible workflows.

Consistency You Can Count On.

PrepTube Options for Flexible Sample Preparation



PrepTubes are available for single- or limited multi-use applications and are constructed from clear polypropylene with a stainless steel or polypropylene blade. Available sizes include 50 mL, 250 mL, and 500 mL for a range of volume requirements.

Applications

Flexible sample preparation across multiple industries

Pharmaceutical & Biotech

- Content Uniformity Testing
- Assay Preparation
- Impurity Analysis
- Blend Uniformity Testing
- Analytical Sample Preparation

Materials & Industrial

- Ink Dispersion
- Pigment Homogenization
- Material Blending
- Dispersion & Suspension Preparation



Product Specifications

- Adjustable Speed:** 500 to 6000 RPM
- Free Running Speed:** 500 RPM ±100 RPM / 3000 RPM ±150 RPM / 5000 RPM ±200 RPM
- Stirring Direction:** Clockwise
- Adjustable Time:** 5 Seconds to 4 Hours
- Available PrepTubes:**
 - Tube Size (mL):** 50, 250 and 500
 - Tube Material:** Polypropylene
 - Blade Material:** Stainless Steel (Standard) or Polypropylene
 - Seal Material:** Viton (Standard) or EPDM
 - Cap Options:** Vented or Non-Vented
- Available Documentation:** IQ/OQ Validation & Method Development SOP



Product Configurations

2-Station



10-Station



Stirring Stations	2 Individually Powered High-Output Stirring Stations with LED Status Indicator	10 Individually Powered High-Output Stirring Stations with LED Status Indicator
Dimensions	10" (W) × 5" (H) × 12" (D) (25 cm × 13 cm × 30 cm)	27" (W) × 5" (H) × 12" (D) (69 cm × 13 cm × 30 cm)
Weight	12 lbs. / (5 kg)	35 lbs. / (16 kg)
Electrical Power	100-240 VAC / 47-63 Hz / 110 W	100-240 VAC / 47-63 Hz / 560 W

Why Use Pion

Pion products accelerate formulation development, helping you save time, reduce costs, and improve outcomes. We developed the PrepEngine to streamline pharmaceutical content uniformity, assay, impurity, and analytical sample preparation workflows. We know that accurate determination is essential to select the right candidates in order to define the optimal path for drug development.

Pion empowers the pharmaceutical R&D community helping to make important decisions on candidate selection based on trusted data for drug optimization, which will impact people's lives. In other words, we help scientists to find the right answers faster to select the best strategy for a successful drug.