Brooks

PathFinder™ 350D Decapper Sorter

Your answer to pre-analytical decapping and sorting of specimen tubes

PathFinder™ 350D Decapper Sorter

The PathFinder™ 350D is a compact benchtop robotic workstation which consists of a Sorter Module and a Decapper Module for automating the decapping and sorting of incoming specimen tubes directly into various analyzer or sample racks.

Incoming sample tubes are loaded onto the PathFinder™ 350D in one or more PathFinder™ automation racks. The tubes are moved sequentially from the input rack to a processing carousel in the Decapper Module, where the tube barcode information is read and relayed to a Laboratory Information System (LIS).

Based on the requested tests, each presented tube is selectively decapped and sorted to one or more destination racks. The decapping head can decap a wide range of tube closures including screw caps and push on caps.

When the destination rack is an analyzer rack, the barcode label on the tube can be automatically aligned with the viewing window (if applicable).

The PathFinder™ 350D can also alert operators to samples for which data has not been correctly entered, saving time and improving Turnaround Time (TAT).

Without a LIS connection, all presented tubes are decapped and loaded into analyser racks. The in-built database records what tubes have been processed and when, allowing for easier tracking. On the PathFinder™ 350D, presented samples are processed at a throughput of 350 tubes per hour. Racks can be loaded or unloaded at any time without pausing the instrument's operation and impacting throughput.

The PathFinder™ 350D is designed specifically to make automation accessible to small and medium laboratories. It provides a simple, space efficient and affordable solution for automating the receipt, decapping and loading of incoming sample tubes into analyzer racks, ready for analysis.

Applications

- Front end registration of incoming sample tubes
- Decapping and sorting serum tubes into one or more analyzer racks
- Decapping and sorting of urine tubes into one or more analyzer racks
- Distribution and selective decapping of incoming tubes to different departments/analyzers
- Automating the decapping, placement and barcode alignment of tubes into linear analyzer racks

Easy-to-Use Software

All the operator needs for routine operation is displayed through the Graphical User Interface which provides the current instrument status via colored graphical displays, intuitive icons and message windows.

More detailed information can be easily obtained as required by clicking on a module graphic or in the case of diagnostics, through help menus.

Search for the location of a specific tube, check to see if racks have been filled/emptied or access a productivity report either through the touchscreen or on any computer connected to your network using your browser.

Statistical reports and graphs on the number of tubes processed or how they have been distributed over a period of time can be generated on demand.

Flexible

- Places decapped and/or capped tubes directly into a wide range of analyzer racks
- Mixed diameter and height tubes in the same input rack
- Decaps a range of cap types including screw and plug caps
- Tube barcode alignment
- Scalable to increase both rack capacity and throughput by upgrading to the PathFinder™ 350D Plus
- Quick layout changes for different applications
- Choice of different languages
- Onboard tube tracking database
- Operates with or without a LIS

Lab Automation Made Easy

Step 1

Incoming sample tubes are presented in an input rack.

Step 2

Tubes are transferred sequentially to a carousel in the Decapper Module where each tube barcode is read and relayed to the LIS.

Step 3

The LIS responds with processing commands. The sample tube is decapped and the tube barcode is orientated if required.
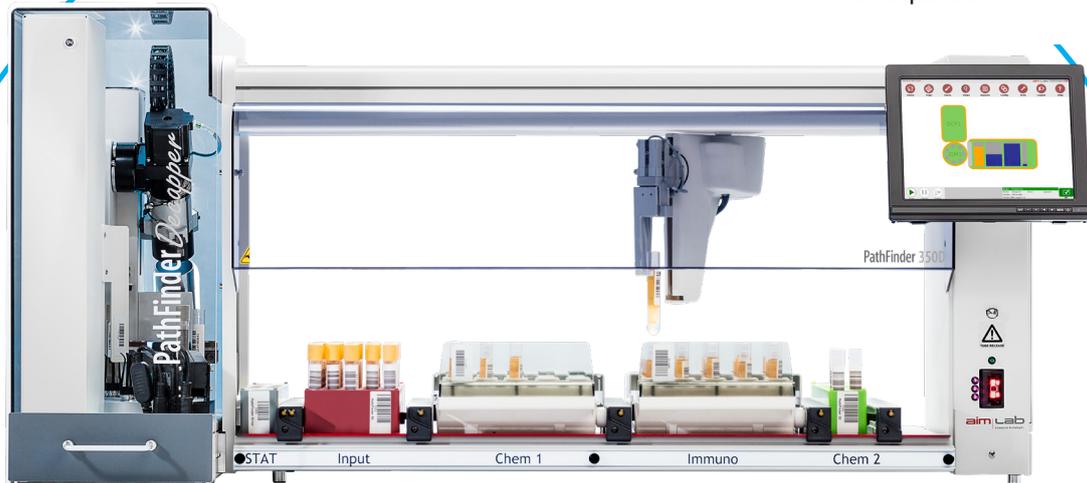
Standard version of the PathFinder™ 350D Decapper Sorter

Step 5

The process is repeated for each sample tube until the input rack is empty.

Step 4

The decapped tube is sent to the relevant destination rack. With analyzer racks, the tube barcode is aligned with the viewing window in the analyzer rack.

Key Benefits

- Automates repetitive manual processing
- Takes away tube processing decision making
- Eliminates RSI injuries from manually decapping tubes
- Reduces manual handling errors
- Reduces biohazard exposure to lab staff
- Automatically records and distributes incoming tubes

PathFinder™ 350D Plus

The PathFinder™ 350D Plus is an extended version of the PathFinder™ 350D with an additional Sorter Module. This has the advantage of doubling the deck space as well as increasing the sample throughput up to 600 tubes per hour.

In this configuration, sample tubes are loaded on the right hand Sorter Module in one or more input racks and are then selectively decapped and sorted to destination racks on either Sorter Module. For multiple input racks, racks are processed sequentially and empty input racks can be replaced when convenient.

The PathFinder™ Family

Brooks offer a complete range of laboratory automation solutions. From the PathFinder™ 900 Plus, a multi-functional Tube Management "island" automation workstation for pre and post analytical processing, to the smaller, more dedicated benchtop family. In addition to the PathFinder™ 350D and 350D Plus the benchtop family also includes the PathFinder™ 350A Archiver for foil sealing tubes from analyzer racks into low cost storage racks, and the PathFinder™ 450S for dedicated sorting applications.

One or more PathFinder™ systems (either 350D, 450S or 350A) can integrate with the PathFinder™ 900 Plus to provide a network of systems enabling error-free sample prioritizing and tracking within the same site or between laboratories.

PathFinder™ 350A Archiver

PathFinder™ 350D and 350D Plus Specifications

	PathFinder™ 350D	PathFinder™ 350D Plus
Sample Throughput	~ 350 tubes per hour	~ 600 tubes per hour
Dimensions	126cm L x 52cm D x 56cm H 49.5" L x 20.5" D x 22" H	224cm L x 52cm D x 56cm H 88" L x 20.5"D x 22" H
Weight	57 kg (127 lbs)	86kg (191 lbs)

Tube Dimensions
- Tube OD: 12 - 16mm
- Tube Height: 80 - 120mm (capped)

Tube Types
- Screw and Plug type tubes

Rack Types
- 50 well PathFinder™ (PF50) sample racks
- 20 well PathFinder™ (PF20) sample racks
- Choice of rack adapters for different analyzer racks

Deck Capacity
- Depends on analyzer destination racks and deck layout, example:

PathFinder™ 350D:	Specimen tubes ~ 265 (based on 5 x PF50 sample racks + 1 x PF15 Error/Stat rack)
PathFinder™ 350D Plus:	Double the deck capacity of the PathFinder™ 350D

Start Loading Position
- Yes

Tube Barcode Alignment
- Yes

LIS Interface
- CLSI/NCCLS LIS1-A (ASTM1381-95) and LIS2-A (ASTM1394-97), bi-directional (TCP/IP or File Transfer)

Power Supply
- 100 - 240 VAC, 47-63 Hz, 280 W

Operating Temp. Range
- 10° - 35° C, 8 - 80% RH

Utilities Required
- Power
- Network Point
- Compressed Air