

# PathFinder™ Tube Decapper Module

Designed to automate the pre-analytical function of decapping



## Key Benefits

- Can decap a wide range of sample tubes in a continuous operation without any manual adjustment
- Tube gripper doesn't have to be aligned/calibrated with decapper module during installation
- Lower maintenance costs
- Reduced maintenance requirements, no parts require replacement during a PM
- Reduce operator interventions
- Easy and safe user access to clear caps by user if ever required
- Easy to clean
- Easier to integrate into an analyzer or track based system
- Self-test routines and performance metrics allow for proactive servicing

## Key Features

- Fully electric operation
- No pneumatics
- Can decap tubes with screw caps and push on caps including rubber stopped tubes
- Incorporated tube gripper
- Preventative Maintenance once per year and takes only 15 minutes
- Auto recovery from some error conditions
- Manual override
- Removable waste chute
- Diagnostic messaging and reports

The PathFinder™ Tube Decapper module (TDM)\* is Brooks' third generation decapper module but the first that has been developed as a separate module specifically for integration into an analyzer or track based system.

The TDM is a compact module that has been specifically designed to decap a wide range of sample collection tubes including screw caps, push on caps and conventional (rubber bungs) which are not normally able to be decapped by most commercially available decappers.

Presented tubes can range in outside diameter from 12mm to 17mm and in capped height typically from 80mm to 120mm. The module includes an electric decapping head, a set of integrated electric tube grippers to both locate and secure the presented tube to be decapped and a waste chute where the cap is ejected after removal which is directed into a waste bin.

## Scope & Application

Once the presented tube is held in position by the tube grippers, a Decapping Head descends over the top of the tube and removes the cap with a fully programmable twisting and pulling action. The Decapping Head then raises and swings away from the tube and ejects the cap into a chute to drop into a waste receptacle underneath.

The TDM will decap the tube without removing the tube from the tube carrier on a track. To improve access to the sample tube in the event of a jam, the TDM has manual overrides to facilitate the clearing of tube or cap jams.

The Decapping Head can remove screw caps with a cap removal rotation of up to 450 deg.

A tube lift sensor ensures the cap is separated from the tube before ejecting to waste.

The TDM can be fully customized to your application including:

- The industrial design, waste chute and any covers to meet the aesthetic and mounting requirements of the host instrument.
- Power, communication interface and auxiliary outputs.
- Packaging of the TDM.

\* Patent Pending

# PathFinder™ Tube Decapper Module

## Technical Specifications

### Specifications

<b>Dimensions</b>	29cm W x 23cm D x 52cm H (37cm above track surface)
<b>Power supply</b>	24V DC
<b>Power consumption</b>	55W (average)
<b>Compressed air</b>	Not required
<b>Tube dimensions</b>	12 - 16mm diameter, typically 80 - 120mm in height (depends on tube carrier and track design)
<b>Throughput</b>	Typically 600 tubes/hour (depends on installation conditions)
<b>Tube types</b>	Various cap enclosure types including push on, screw cap and rubber bungs.  Decaps tubes from different manufacturers including BD, Greiner, Sarstedt.  Not suitable for glass tubes
<b>PM intervals</b>	Recommended every 250,000 cycles

