



The Tube Decapper module (TDM) is Aim Lab's 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 customised 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.

# Product Specifications

## Dimensions

-29cm W x 23cm D x 52cm H (37cm above track surface)

## Power Supply

24 VDC

## Power Consumption

55W

## Compressed Air

Not required

## Tube Dimensions

12 - 17mm diameter,  
Typically 80 - 120mm in height (depends on tube carrier and track design)

## Throughput

Typically 600 tubes/hour (depends on installation conditions)

## Tube types

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

## PM Interval

Recommended inspection and clean annually

Features	Benefits
Fully electric operation. No pneumatics.	Lower maintenance costs
Can decap tubes with screw caps and push on caps including rubber stopped tubes	Can decap a wide range of sample tubes in a continuous operation without any manual adjustment
Incorporated tube gripper	Tube gripper doesn't have to be aligned/calibrated with decapper module during installation
Preventative Maintenance once per year and takes only 15 minutes	Reduced maintenance requirements, no parts require replacement during a PM
Auto recovery from some error conditions	Reduce operator interventions
Manual override	Easy and safe user access to clear caps by user if ever required
Removable waste chute	Easy to clean

## Ordering Information

Part No.: PS-TDM-A007

(excludes power supply and covers)



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