

**Product Name :**  
Astra Scientific Cam Analysis Apparatus

**Product Code :**  
DynamicsLab0001



**Description :**

Astra Scientific Cam Analysis Apparatus

**Technical Specification :**

The comprehensive machine that allows students to study cams and followers. It shows how they convert rotary to linear motion, and helps students understand their limits of use before the onset of bounce. It also introduces students to key topics of cam terminology such as nose flank and dwell.

The main part of the product has a precision-machined heavy steel base, which holds a high-torque direct-drive variable-speed motor. The motor shaft connects through a coupling to the main shaft, which then passes into the cam test area. Self-aligning heavy-duty bearings support the shaft, which has a substantial flywheel. The flywheel reduces speed variations as the torque demand changes during the cam rotation cycle. The cam under test fits to the end of the main shaft, accurately mounted both axially and radially to ensure repeatability.

The follower fits to the bottom of a vertical shaft running in low-friction linear bearings. Include a tool for easy changeover of a choice of two followers. Students may also fit one of a choice of two

compression springs and adjust their preload. These add to the mass of the follower and vertical shaft pushing the follower onto the cam face. Students may also add different masses (included) to alter the mass of the follower and thus the force applied to the cam. The selection of springs, followers and cams allow for a wide range of investigations.

Sensors on the main and vertical shafts measure angular position of the cam and vertical position of the follower (displacement or 'cam lift').

#### **FEATURES:**

- Operated: Manually (Through a Crank Handle)
- Equipment Layout: On Base
- Fine finish
- Simple operations
- Functional accuracy

#### **SPECIFICATIONS:**

- Displacement 210 cc
- Power 4 hp Direct Injection
- Camshaft in the Crankcase
- Overhead Camshafts
- RPM Regulator
- Toroidal Oil Pump
- Injection Pump
- Injector
- Silencer



## **Astra Scientific**

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