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Product Name :	**Product Code :**
Cam Analysis Apparatus	SCHOOL-DYM860001

Description :

Cam Analysis Apparatus

Technical Specification :

A 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: How spring rate, preload and follower mass affect cam bounce speed. Comparing actual results with theory for profile les of follower displacement, acceleration and velocity. Cam bounce speeds for different cam and follower combinations, and comparison of speeds to those predicted by simplified theory. SPECIFICATION: Masses and springs : Five x 400 g masses and 2 compression springs Cams : 2 convex (of different shape), 1 concave, 1 tangent Followers : 1 roller, 1 flat face Required for Operation : 230V, 50/60Hz, 1

phase, 120V, 60Hz/CSA, 1 phase