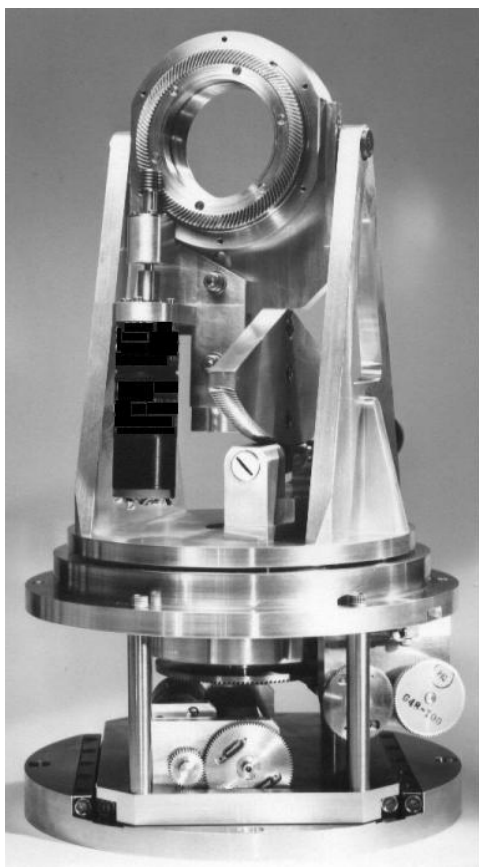




Automatic 3-Axis Goniometer System



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THIS is a precision remote control 3-axis goniometer, typically used for ion beam channelling experiments. The goniometer allows for crystal orientation in three planes inside a vacuum chamber at pressures of the order of 10^{-6} torr. Also available is a translation table attachment (shown in the picture) which gives the operator an additional fourth linear movement of ± 30 mm. The movements on the goniometer are driven by 200-step Phytron stepping motors.

Specification

- each movement is independently driven by 200-step Phytron stepping motors
- rotation in the x and y axes has a full 360° movement, the resolution being 3 steps of motor = 0.01°
- the tilt z -axis is $\pm 30^\circ$ about the vertical, the resolution being 3 steps of motor = 0.01°
- intersection of all three axes is to be within a 0.05 mm diameter sphere
- specimen mount is threaded, 50 mm diameter by 1 mm pitch
- translation capability is ± 30 mm

Outline dimensions

Height	336 mm
Base or table diameter	191 mm
Maximum protrusion from vertical axis	140 mm