

Application Handbook

Semi-Conductor

Harmonic Drive LLC Coating Machine Rotary Table Drive

- Hollow-shaft actuator

Due to the smooth running characteristics and compact design, FHA hollow-shaft actuators are used in a wide variety of machines applied in the manufacturing of semi-conductors. This design example shows how the FHA actuator is used to drive a rotary table in a coating machine that applies a thin coating to the surface of silicon wafers. An interesting feature of this design is the way in which the pressure hoses are passed through the central hollow-shaft of the actuator by means of a rotary feed-through.

At the output side of the actuator, ferro-fluidic couplings are used to separate the vacuum chamber, in which the coating process takes place, from the normal environment.

