

## MANIPULATOR FOR COATING APPLICATION

### ABSTRACT

A coating system includes a coating source and a planetary manipulator assembly that includes a first driveshaft capable of receiving rotational input, a sun gear rotationally fixed to the first driveshaft, a planetary gear engaged with the sun gear, a second driveshaft rotationally fixed to the planetary gear such that torque is transmitted from the sun gear to the planetary gear, a support shaft operatively engaged with the second driveshaft, a carrier body supporting the planetary gear relative to the sun gear, a third driveshaft capable of receiving rotational input, and a drive gear rotationally fixed to the third driveshaft. The support shaft is arranged substantially perpendicular to the second driveshaft. The carrier body is rotatable by the drive gear about a common axis with the sun gear, and rotation of the carrier body rotates the planetary gear and the second driveshaft about the sun gear.

Figure 1