

ABSTRACT

The present invention relates to a transmission method and device for coaxially outputting rotation and revolution, wherein the axis of the power output shaft coincides with the crank-shaft axis of the power input shaft, and the power output shaft revolves around the spindle axis of the power input shaft, with the revolutionary speed equal to the rotational speed of the power input shaft; the main power of the power input shaft, through superposition of the transition gear train on the K-H-V planetary gear train with small teeth difference, makes the power output shaft rotate reversely at the same speed to the power input shaft, and meanwhile the thrust bearing that makes rotation and revolution and is coaxial with the power output shaft and the thrust bearing coaxial with the spindle of the power input shaft are connected in series to bear the axial load. The transmission device for coaxially outputting rotation and revolution is mainly composed of a power input shaft, a transition gear train, a K-H-V planetary gear train with small teeth difference, a series thrust bearing set, a power output shaft and other components. This device can be combined with an eccentric rotor volume pulsation deformation plasticization transport device to constitute an extruder.