

ABSTRACT

Title: ELECTRIC INJECTION MOLDING MACHINE

Abstract: An object of the invention is to provide an electric injection molding machine that can decrease mechanical vibration in an injection stage, that can meet a predetermined injection speed rapidly, and that has the high reliability of electric wires to supply electricity to the metering motor. An electric injection molding machine has a mechanical frame comprising a front plate and a rear plate, a heating cylinder fixed to the front plate, a screw disposed inside the heating cylinder so that the screw can be rotated about and can be advanced and retracted along an axis, a ball screw shaft which is disposed along the axis and which advances and retracts a screw shaft, a metering motor fixed to the front plate, and a rotation transmission mechanism which transmits rotation of the metering motor to the screw shaft. The rotation transmission mechanism is supported by the front plate and slidably engaged with the ball screw shaft along the axis. Consequently, since the metering motor fixed to the front plate is not moved by the advancing and retracting motion of the ball screw shaft, the mass of the moved portion is small so that mechanical vibration is decreased in the injection stage. A predetermined injection speed is also met rapidly. Moreover, the reliability of electric wires to supply electricity to the metering motor is improved.

Figure for Publication: FIG. 2