



ABSTRACT

BACKPRESSURE CONTROL FOR AN INJECTION MOLDING MACHINE

In a back pressure control apparatus for controlling back pressure in an injection molding machine comprising an injection device which comprises a heating cylinder, a screw, and an injection actuator and which is provided with a back pressure detector for producing a pressure detected signal and with a screw position detector for producing a screw position detected signal, the back pressure control apparatus comprises a level setting section for setting a back pressure control level with respect to back pressure. A sharpness selecting section selects, as a selected sharpness, one of a plurality of sharpnesses in transition up to a maximum back pressure command value.

On the basis of the back pressure control level, a determining section determines a back pressure pattern having a variable back pressure command value which continuously changes with respect to a retreat position of the screw. The back pressure pattern has a mountain-shaped portion defined by the selected sharpness. Responsive to the pressure detected signal and the screw position detected signal, a controller controls the back pressure in accordance with the back pressure pattern by means of the injection actuator.