

ABSTRACT

A device and method for detecting a blending effect of an eccentric rotor extruder on line, comprising a computer, an ultrasonic detector (11), an air coupling type ultrasonic transmitting device (I), and an air coupling type ultrasonic receiving device (II). The computer is connected to the ultrasonic detector (11); the ultrasonic detector (11) is respectively connected to the air coupling type ultrasonic transmitting device (I) and the air coupling type ultrasonic receiving device (II); the air coupling type ultrasonic transmitting device (I) and the air coupling type ultrasonic receiving device (II) are provided on a stator (10) of the eccentric rotor extruder. The air coupling type ultrasonic transmitting device and receiving device are applicable to a unique structure of the eccentric rotor extruder, and a cooling water channel arranged inside ensures that an ultrasonic transducer is at a proper working temperature; a blending state of any section of the eccentric rotor extruder can be detected by means of a magnetic type structure and air coupling type ultrasonic without damage to the stator (10) of the eccentric rotor extruder.

Figure to be published with Abstract: **Fig. 1**