

DESIGN, CONSTRUCTION AND PERFORMANCE ANALYSIS OF BREWERY WASTE DRYER

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ABSTRACT

This paper focused on the design and construction of Rotary dryer. The dryer can dry successfully brewery spent grain (BSG). It hinged on the high cost of wheat offal and maize grain in animal feeds to provide least cost and nutritious brewery waste feeds for animal. Rotary dryer that can dry brewery waste continuously was designed, constructed and tested to evaluate its performance. The dryer with its components was evaluated with three trials and its efficiency was 78% with temperature of 160°C and output capacity of 377kg/hr. This paper recommended that for efficient performance of the dryer; It should be used industrially, air blower should be introduced and with one single phase gear reduction motor.

Keywords: Design, construction, performance, Brewery Waste Dryer.