BUILT AND DESIGN BROILER PELLETS RAW MIXER MACHINE WITH CAPACITY 240Kg/Hour

Name : 1. GISTA PRAMUDITYA P.  
: 2. SINGGIH DWI CAHYONO

NRP : 1. 2109 039 022  
: 2. 2109 039 024

Department : D-3 Teknik Mesin Disnakertransduk FTI – ITS

Advisor : Ir. Mahirul Mursid, M. Sc

Supervisor : Much. Jazuli, S. Pd, MM

Abstract

Small industries which produce pellets for broilers still use a mixer machine which is T-shaped or screw-shaped, so it takes a long time in stirring up. Then to overcome it, the modification between T-shaped and screw-shaped is made.

Constructing a pellets mixer machine starts from designing mechanisms of stirrer, finding the amount of force and power of stirring the raw material pellets, looking for the amount of machine elements that are used (shafts, pins, belts, pulleys and bearings), and the amount of capacity of mixing pellets that are produced.

The results of planning and calculation of the "Broiler Pellets Raw Mixer Machine “ are: The force on mixer machine is 54.9N, The power on the mixer machine is 1 Hp. It uses a belt which is V-Belt type A with a length of 1250 mm and 1600 mm. It uses an axis made of AISI 1020CD (crom steel) with a diameter of 34 mm. 60 kg mass can be stirred in 15 minutes.

Key word : mixer, pelet