ABSTRACT

MAKING AND TESTING ASH DISPOSAL SYSTEM ON STOVE GASIFICATION WITH PRINCIPLES PNEUMATIC CONVEYING

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Type of downdraft gasification stove ever made by Adiansyah (2013) there are problems one of which is at the disposal of ash from combustion. In the ashes are still frequently occur due to a blockage in his disposal of ash from the burning diruang oxidation is still not evenly distributed due to the presence of flammable materials are hampered by the air pipeline. The advantages of pneumatic conveying of material moved in the pipeline, the ability to move the dusty material, saving space and transfer capability in a variety of angles and directions, few moving parts, and the ease of the automatic removal process. Based on the advantages of pneumatic conveying can overcome one of the drawbacks of such tools.

Making process is done in the production workshop which covers the process of cutting, welding, drilling, lathing, smoothing, and painting. With a pipe diameter of 2.5 in and throat diameter of 0.75 in. Based on the results of tests performed and the voltage obtained the best air speed is 5.4 m/s with a separation of 94% effective.

Keywords: ash disposal, pneumatic conveying, gasification