

**TECHNICAL STUDY ABILITY FACTORY PRODUCTION
CRUSHING STONE ANDESITE TO THE FULFILLMENT OF TARGETS
900 TONS/HOUR AT PT DESIRA GUNA UTAMA
KECAMATAN CIGUDEG
KABUPATEN BOGOR
JAWA BARAT**

Fani Gunawan

Abstrack

Activities crushing the andesit stones in PT. Desira Guna Utama to main consisting of 3 stage peremukan by using jaw crusher i as crumbled first, jaw crusher ii as crumbled second, and cone crusher as crumbled third. The raw materials to plant crumbled the andesit stones this originated from mount siwaluh in transported to PT. Desira Guna Utama main to use truck brands hino. A product produced form of broken rocks size :

- 1. -30+20 mm, with a production of 27,176 tons/hour or 43 %*
- 2. -20+10 mm, with a production of 15,8 tons/hour or 25 %*
- 3. -10+5 mm, with a production of 9,26 tons/hour or 14,65 %*
- 4. -5 mm, with a prosukction of 10,96 ton/hour or 17,34 %*

Production targets set by PT. Desira Guna Utama to 900 tons/day or 66,91 tons/hour with percent products size -30+20 mm and -20+10 mm \geq 82,66% and percent products size -5 mm \leq 17,34 %. Stone crusher plant capacity to produce andesite stone size -30+20 mm, -20+10 mm, and -5 mm are 63,196 tons/hour or 850 tons/day so there is still a shortfall of 50 tons/days.

To achieve the production targets set by PT. Desira Guna Utama of 900 tons/day is necessary to assess the readiness tool on the crusher unit, an assessment of the reduction ratio, an assessment of the effectiveness of crusher equipment, and the effectiveness of working hours. Efforts are made to reach the production target of 900 tons/day could do with some improvement alternatives are:

1. Alternative I

Adding the amount of feeds, changes setting of the crusher.

2. Alternative II

Adding the amount of feeds, changes compotion and setting of the crusher.

The results obtained after efforts to repair the alternative alternatives 1 produced the final product 66,91 tons/hour with percent products size -30+20 mm and -5 mm are 84,80 % and alternatives 2 produced the final product 70 tons/hour with percent products size -20+10 mm and -10+5 mm are 85,65 %, with 13,45 hours working time/day of the production, targets that are set by the company amounted to 900 tons/day can be reach.

Keywords: Andesit, Crushing, Crumbled, Production, Targets, Product.