

RINGKASAN

PT Kulon Progo Bumi Sejahtera (PT KPBS) adalah perusahaan yang bergerak di bidang pertambangan dengan komoditas andesit dengan Wilayah Izin Usaha Pertambangan (WIUP) Operasi Produksi. PT Kulon Progo Bumi Sejahtera (PT KPBS) terletak di Kecamatan Bagelen, Kabupaten Purworejo, Provinsi Jawa Tengah. PT Kulon Progo Bumi Sejahtera (PT KPBS) belum memiliki pabrik peremuk untuk mengolah hasil materialnya, maka dari itu PT Kulon Progo Bumi Sejahtera (PT KPBS) berencana akan membangun pabrik peremuk agar dapat langsung menjual hasil pengolahannya dalam bentuk produk yang sudah ditentukan kepada konsumen. Dalam pembangunan pabrik peremuk, diperlukan rancangan pabrik peremuk agar dapat memilih peralatan pabrik peremuk sesuai dengan target produksi dan distribusi ukuran umpan dan merancang diagram alir pabrik peremuk serta menghitung *material balance*. Target produksi pengolahan PT Kulon Progo Bumi Sejahtera sebesar 185.000 LCM/tahun. Terdapat target lima ukuran produk dengan target distribusi yang berbeda, yaitu produk -50+30 mm sebesar 30 %, produk -30+20 mm sebesar 15 %, produk -20+10 mm sebesar 20 %, produk -10+5 mm sebesar 15 %, dan produk -5 mm sebesar 20%

Peralatan pabrik peremuk yang digunakan antara lain *Hopper*, *apron feeder* merk Meka MAF 1245, *Single deck vibrating screen* merk Metso Premier Inclined Screen CVB101TM, *Jaw crusher* merk Meka MJ 130, *Cone crusher* merk TC 1300 Standard, *4 deck vibrating screen* merk Metso Premier Inclined Screen CVB404TM, *Belt conveyor* merk Fenner Dunlop. Distribusi produk yang diinginkan -50 + 30mm sebanyak 96,134 ton/jam, -30 + 20mm sebanyak 56,428 ton/jam, -20 + 10mm sebanyak 74,947 ton/jam, -10 + 5 mm sebanyak 35,019 ton/jam, dan ukuran -5mm sebanyak 57,472 ton/jam

SUMMARY

PT Kulon Progo Bumi Sejahtera (PT KPBS) is a company engaged in mining with andesite commodity with Mining Business License Area (WIUP) Production Operation. PT Kulon Progo Bumi Sejahtera (PT KPBS) is located in Bagelen District, Purworejo Regency, Central Java Province. PT Kulon Progo Bumi Sejahtera (PT KPBS) does not yet have a crushing plant to process the material, therefore PT Kulon Progo Bumi Sejahtera (PT KPBS) plans to build a crushing plant so that it can directly sell the processing results in the form of predetermined products to consumers. In the construction of a crushing plant, it is necessary to design a crushing plant in order to select crushing plant equipment according to the production target and feed size distribution and design a flow chart of the crushing plant and calculate the material balance. The processing production target of PT Kulon Progo Bumi Sejahtera is 185,000 LCM/year. There are five product size targets with different distribution targets, namely -50+30 mm products by 30%, -30+20 mm products by 15%, -20+10 mm products by 20%, -10+5 mm products by 15%, and -5 mm products by 20%.

The crushing plant equipment used include Hopper, apron feeder brand Meka MAF 1245, Single deck vibrating screen brand Metso Premier Inclined Screen CVB101TM, Jaw crusher brand Meka MJ 130, Cone crusher brand TC 1300 Standard, 4 deck vibrating screen brand Metso Premier Inclined Screen CVB404TM, Belt conveyor brand Fenner Dunlop. Desired product distribution -50 + 30mm as much as 96.134 tons / hour, -30 + 20mm as much as 56.428 tons / hour, -20 + 10mm as much as 74.947 tons / hour, -10 + 5 mm as much as 35.019 tons / hour, and size -5mm as much as 57.472 tons / hour.