

All Angel Abrasive Cutting Machine

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Abstract: *A high speed abrasive cutting machine was designed and developed. The abrasive wheel of 4mm thickness was used and the speed was 2500 rpm. It is driven by an electric motor having a power of about 3.67 kW. Tests results on the machine showed that it can cut 25mm and 60mm mild steel rods in 7.5s and 21.3s respectively; 25mm and 60mm stainless steel rods in 15.3s and 136.7s respectively. It was discovered from the tests that depending on the length of cut and material being cut, the high speed abrasive cutting machine was more efficient, in terms of cutting time, than the power hacksaw. The grinding/wear ratio was also dependent on the material being cut and the length of cut.*

Keywords: Abrasive Wheel, Discontinuous Chip Cutting, Development, Machine, High Speed.

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