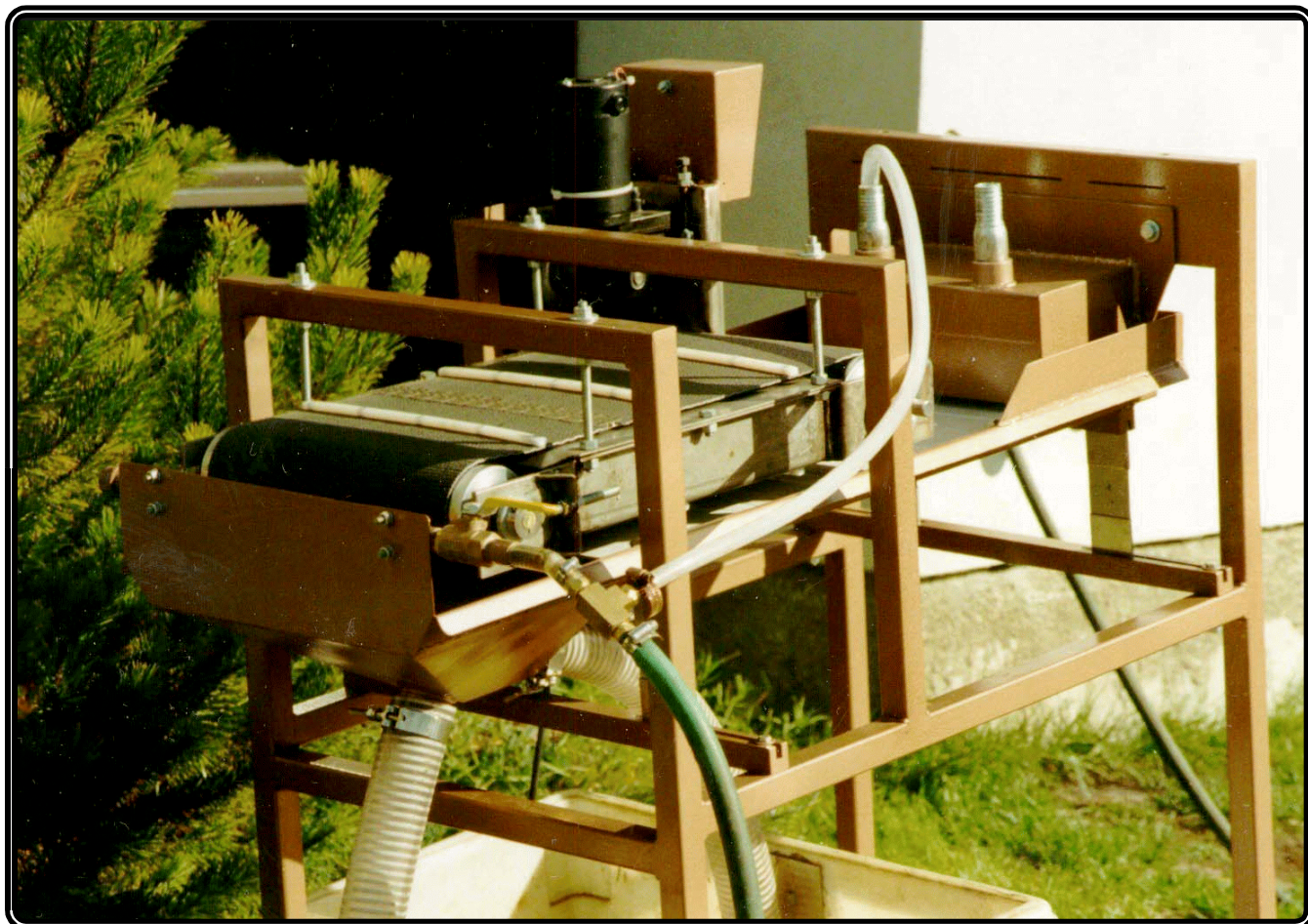


# GOLDFIELD MAGNETIC SEPARATOR



The Goldfield wet magnetic separator is designed to be incorporated into a jig recovery system to remove magnetite and other magnetic material from a heavy slurry. The system uses a vibrating bed to stratify the slurry and force the heavy gold to the bottom. A permanent magnetic draws the magnetics up to a conveyor belt which carries the magnetics to collection. The non-magnetics are plumbed to the final jig stage or collection.

## SPECIFICATIONS

	STANDARD	METRIC
CAPACITY	500 Lbs/Hr	226 Kg/Hr
WEIGHT	240 Lbs	109 Kg
SHIPPING DIMENSIONS		
LENGTH:	42 In	1067 mm
WIDTH:	22 In	559 mm
HEIGHT:	42 In	1067 mm
MAGNETIC SURFACE AREA	12 x 12 In <sup>2</sup>	305 x 305 mm <sup>2</sup>
ELECTRICAL SYSTEM		
CONVEYOR GEARMOTOR	1/6 Hp	1/6 Hp
VIBRATOR	3600 vps	2880 vps
CURRENT	110/220v-60Hz	220v-50 Hz

## HOW THE MAGNETIC SEPARATOR WORKS

The slurry is introduced to the magnetic separator via a stationary inlet hopper which spreads it out evenly over the vibrating pan. Additional water can be introduced at this time if necessary to move the slurry along the bed.

The amount of magnet material removed from the feed material is dependent upon the distance of the magnetic bed from the vibrating pan. The pan is vibrated to allow the heavy material to settle to the bottom, with the lighter material toward the top. This prevents the lighter black sand from physically entrapping the fine gold, and removing it from the feed material. The closer the bed is to the pan, the stronger the magnetic attraction, and the higher percentage of (and finer) magnetic material removed. If the bed is too close to the pan, then the strength of the magnetic material could be such to remove the magnetic material before the segregation has taken place. This could result in removal of the fine gold. An 80 - 90% magnet removal rate is recommended to minimize this effect.

In addition to raising the pan vertically, it is possible to adjust the magnetic pan at an angle. This could aid in removal of difficult materials, and can be determined by changing the angle and determining the results.

It is recommended that the magnet material separated be run back through the separator until the final operating parameters are set.

**Magnetic Separator in Peru**



**GOLDFIELD**

*The Leading Placer Specialist*

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