***Permanent suspension magnets for coal conveyors.***

*Nowadays neodymium magnets are readily available in market which can replace electromagnets used for separation of tramp magnetic materials from the coal conveyors in CHP.*

*These Neodymium permanent magnets have several advantages over traditional electromagnets. Such as:*

* *Energy source is not required.*
* *Stronger magnetic field than electromagnets.*
* *Substantially less volume and weight.*
* *Cooling solution is not required.*
* *More reliable operation.*
* *Cheaper in cost.*
* *Easy handling and maintenance.*

***Technical Specification:***

*Permanent type suspension magnets for separation of tramp ferrous materials form coal conveyors in coal handling plant. The suspension magnets will be suspended above the conveyors with suitable suspension mechanism in a way that the face of the magnet will be parallel to the conveyor. The conveyors are of concave profile which may be flat of inclined.*

***Physical dimensions of the magnet:*** *cubical shaped, length (along the belt): (1200+/- 20) mm, width (across the belt): (1200 +/- 20) mm, Height: 500mm or less.*

***Suspension mechanism****: will consist of not less than four numbers of heavy duty corrosion resistant alloy slings having provision for length adjustment.*

***Material of construction:*** *Body will be constructed primarily of steel painted with corrosion resistant paint.*

***Lifting force:*** *50kgf at distance of 600mm.*

***Audio-visual Alarm & tripping:*** *The system shall have detection for when a magnetic material is pulled by it. It shall fire an audio visual alarm as well as provide 220V AC tripping coils.*

***Power Supply:*** *The system should operate on single phase 220V AC power supply. The system shall not consume any power other than in detection and alarm circuit.*

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