



Material Handling Systems

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MACMET is the first company to indigenously design and supply Long Distance Conveyors and Pipe Conveyors in the country. One of the longest Pipe Conveyors in the world - 7.0 km has been commissioned by Macmet. MACMET provides the lowest 'cost of ownership' solutions for transportation of bulk materials through installation of Long Overland Conveyors, Pipe Conveyors and Belt Conveyors.

Reliability and long life with minimum down time are prime considerations that govern the design work, material specification, selection of components and manufacturing methods at MACMET. This differentiates MACMET from others in the business. Many high performance cement and power units in India are equipped with MACMET conveyor systems. The confidence of the customers is reflected in their continuing association with MACMET.

Belt Conveyors

MACMET supplies belt conveyors up to 2000 mm wide, of varying speeds and capacities for handling bulk materials. Belt conveyors are individually selected and designed based on parameters such as capacity, material size, flow characteristics, angle of repose, surcharge angle and troughing angle.

Belt conveyors are troughed or flat, horizontal or inclined with or without curves. Flat belts are used for low capacity, low speed conveying and horizontal conveyors for materials having higher angle of repose. Troughed belts are adopted for high capacity, high speed conveyors with or without incline. With the availability of high strength belting with more flexibility, MACMET offers belt conveyor troughing angle upto 45 degrees for different applications.

Overland Conveyors

Overland conveyors are commonly used to transport bulk material over long distances. This is the safest and cheapest mode of long distance high capacity transportation when compared to any other mode of material transportation. Long distance overland conveyors have become a reality because of the development of higher rated steel cord belting and special drive arrangements.

The belt conveyors are designed with horizontal and vertical curves for cross country conveying over long distances following the natural contour of the land.

One of India's longest cross country conveyor system has been commissioned by Macmet for ACC Limited.

Pipe Conveyors

The pipe conveyor is a modern bulk material handling system solving a number of serious problems in training, scattering and spillage of material and the limited angle of inclination of conventional belt conveyor systems. In addition, suitable high resilient flexible belting have been simultaneously developed which has acted as a catalyst for the growth and popularity of pipe conveyors.

The material receiving area and discharge area of the pipe conveyor is similar to that of a conventional belt conveyor. At the end of the loading zone, the process of pipe formation is gradually achieved sequentially in steps.

Macmet is India's leading supplier of pipe conveyors. Several pipe conveyors carrying Coal, limestone, sinter, BF dust, varying from 70 m to 7,000 m have been commissioned by Macmet in the past 3 years.

MACMET supplies pipe conveyors to meet specific customer requirements where conveying requires horizontal and vertical curves in a totally enclosed environment friendly system. Enclosed conveying and non-exposure of the material

to the atmosphere result in retention of material properties while conveying. Pipe conveyors offer a possibility of transporting a second material through return side pipe of the system. This will reduce capital and operating costs.

Shuttle Conveyors and Belt Trippers

MACMET supplies shuttle conveyors for building up longitudinal storage stockpiles and for loading silos through top floor opening. Shuttle conveyors are reversible belt conveyors mounted on a movable carriage.

MACMET manufactures belt trippers, either fixed or travelling type with one/two/three way chutes, used for intermittent side discharge of material from the belt conveyor.

Idlers

MACMET offers a wide range of 'sealed for life' type idlers, with either seize resistant or deep groove ball bearings. Fixed bracket type (both in-line & staggered) and garland type idlers with roll diameters from 76.1 mm to 219.1 mm are manufactured by MACMET.

Idlers are made from black tubes conforming to IS:9295. The bearing housings are made out of deep drawn quality steel sheets. The pressed steel bearing housings are simultaneously welded on both sides of the tube to form a mono block construction. The idler spindles are made from EN-8/C-40 materials and are precision machined.

Pulleys

MACMET pulleys are time tested drive components for belt conveyor systems. They are safe, robust and reliable with long service life. The pulleys, unless otherwise agreed with the customer, are rolled and fabricated from low carbon steel plates with end/centre disc welded to the shell. For specific requirements and applications, turbo diaphragm type cast steel end discs are also used. All pulley shafts are made from C-40/EN-8 grade steel. The pulley shaft is generally keyed with the hub. Pulleys with tapered locking assembly arrangement are also made for special applications.