

TAKRAF



PIPE CONVEYORS

Optimal solutions for specialised handling

Innovation out of tradition – It pays to talk to a specialist!

TAKRAF Group, through its established and well-known brands, TAKRAF and DELKOR, provides innovative technological solutions to the mining and associated industries. We leverage our experience, acquired over more than a century, to provide equipment, systems and services that best satisfy our clients' mining, comminution, material handling, liquid/solid separation and beneficiation requirements. Owners and operators around the world trust our engineered solutions to lower the total cost of ownership and reduce environmental impact by improving efficiency with safe and reliable equipment. For sustainable solutions backed by expert service you can rely on TAKRAF Group. Visit us at www.takraf.com.

We at TAKRAF Group are committed to environmental and social sustainability in all our business interactions and have adopted a Zero Harm approach under our global safety promise.

Owners and operators around the world are confident that TAKRAF Group provides the most suitable solution to their unique project requirements. We assist our clients in overcoming the most complicated challenges in transforming the resource industry towards a sustainable future. We focus on specific areas that are critical for reliable and sustainable operations, as it is here where we best support our clients with innovative solutions that save energy, lower environmental impact and meet or exceed operational requirements.

We are recognized as the world's leading technology provider when it comes to run-of-mine and bulk material handling. Our TAKRAF brand portfolio ranges from overburden removal, to raw material extraction, comminution, conveying, loading/unloading, processing, homogenizing, blending, storage and final loading for onward shipment.

We leverage our global organization and aggregate our extensive expertise by offering a unique combination of both application experience and product based knowledge. Clients therefore benefit from direct technical discussions with our local specialists, who are able to draw upon this expertise and provide the most suitable local solution and service that enhances safety, improves sustainability, decreases costs and increases efficiency.

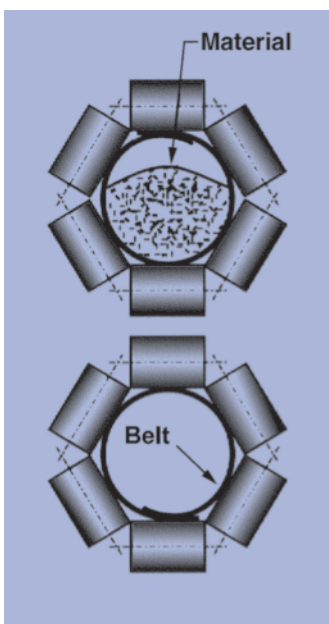
Our commitment is summarized by:

Safety | Reliability | Innovation | Sustainability



PIPE CONVEYORS

The pipe conveyor overcomes several of the problems commonly associated with conventional conveyors, e.g. spillage of material, belt training, limited angle of incline, horizontal curves and multiple flights.



THE PIPE CONVEYOR

The conveyor resembles a conventional troughed conveyor at its tail end where the material is loaded. The open belt then passes through a series of transition idlers to form a pipe shape, which is maintained for the length of the conveyor.

Just before the discharge pulley, the belt opens up again and allows the material to be discharged in the normal fashion. On the return side, the belt is again formed into a pipe shape.



SERVICES AND TECHNICAL BACK-UP

Pipe conveyors are offered as turnkey installations, with the design done in-house by TAKRAF engineers, backed up by dedicated spares and after sales service teams.

TRACK RECORD.

About 60 Pipe Conveyor systems have been installed.



PIPE CONVEYOR CHARACTERISTICS

Totally Enclosed Conveying

Material being transported by a pipe conveyor is completely enclosed by the conveyor belt for the major portion of its travel. This has several benefits, including

- environmental pollution is minimised as dust generation and en route spillage are eliminated,
- the product is protected from outside contamination, and
- valuable product is protected from theft along the conveyor's path.

Steep Inclined Conveying

Increased friction between the material and the pipe shape of pipe conveyors makes steep inclines possible, generally 50 % steeper than a conventional belt conveyor. This means that

- the overall length of the conveyor system may be reduced, and
- plant footprints can be smaller with further cost savings.

Minimal Space Requirements

The pipe conveyor is narrower than a conventional conveyor of the same capacity and uses less floor space.

Return Belt Conveying

The return belt is also formed into a pipe shape and can, in special circumstances, transport material. This offers cost advantages.

Curved Transport

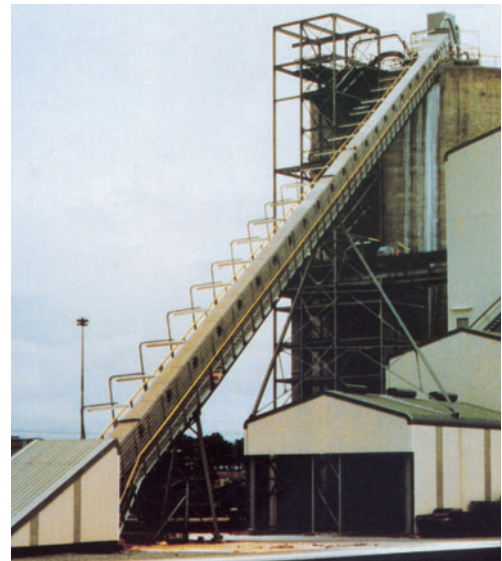
The pipe shape of the belt permits the conveyor to curve horizontally as well as vertically. A single pipe conveyor can thus replace several conventional belt conveyors, reducing

- the need for multiple transfer points and drives that require more space and cost,
- power required to lift the product at repeated transfer points,
- degradation of the product and dust generation at transfer points, and
- costly chute liner replacements.

STANDARD SPECIFICATIONS

The table below shows indicative capacities of the pipe conveyor. Belt speeds indicated are nominal, based on selected idler sizes. Belt speeds and transport volumes can, however, be increased within accepted design limitations to cater for the customer's specific needs.

| Pipe Diameter (mm) | Belt Speed (m/min) | Transport Volume up to (m ³ /min) | Lump Size up to (mm) |
|--------------------|--------------------|--|----------------------|
| 150 | 156 | 121 | 30 - 50 |
| 200 | 169 | 233 | 50 - 70 |
| 250 | 182 | 487 | 70 - 90 |
| 300 | 195 | 573 | 90 - 100 |
| 350 | 195 | 772 | 100 - 120 |
| 400 | 225 | 1,458 | 120 - 150 |
| 500 | 225 | 2,093 | 150 - 200 |
| 600 | 275 | 3,564 | 200 - 250 |
| 700 | 275 | 4,620 | 250 - 300 |



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