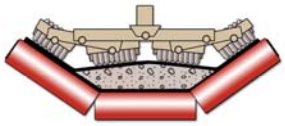
High Angle Conveyor

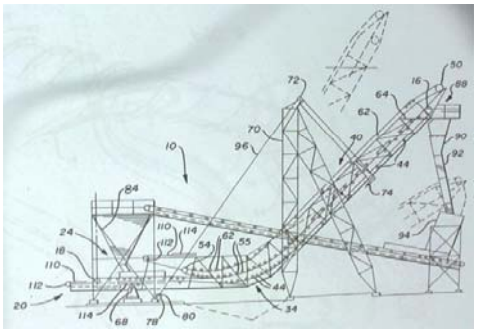
- High angle Belt conveyor (Sandwich conveyor)
- Bucket conveyor

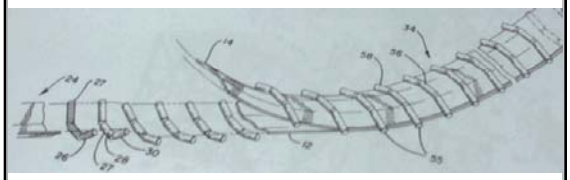


- Costs of truck haulage from mine pits are high and spiralling with inflation, increasing haul distances and depths. A high angle conveying system is an economic and energy saving alternative, with the capability of achieving very high, steep angle lifts and capacities up to 10000 t.p.h.
- The conventional conveyor can be used around 15 to 22 Degree.

- Limited Space Constraints
- In static or dynamic conditions the cohesionless material on a rubber conveyor belt will begin to slide back.

- A sandwich belt conveyor uses two conveyor belts, face-to-face, to gently but firmly contain the product being carried, hence making steep incline and even vertical-lift runs easily achievable.
- The geometry and design features of the HAC provide sufficient friction at material/belt and material/material interfaces to prevent the material sliding back.
- The bottom belt is carried on troughing idlers and the top, or cover belt, is softly pressed onto the conveyed material by fully equalised pressing rolls.





- Material is loaded onto the tail end of the bottom belt in the conventional manner and sandwiching commences at the start of the concave radius leading into the inclined position. In this radius the top belt is supported on inverted troughing idlers and the bottom belt supports the material by virtue of its radial tension component.

Use of high angle conveyor

- Coal
- Aggregate
- Ore products
- Grain
- Wood chips
- Refuse
- Municipal sludge

Advantages

- Simple instalation
- High Capacity
- Energy efficient
- Noise and dust free
- Suitable for deep mining
- Less haulage and maintenance cost
- High Lifts and High Conveying Angles
- Flexibility in Planning and in Operation
- Belts are Easily Cleaned and Quickly Repaired

Disadvantages / Limitations

- More mechanical components required
- Very fine, Dry bulk material can not be elevated effectively