

Limitations for inclined chain belting

Our flat belting will carry most items up or down inclines at angles that are less than 15°. (This is approximately a 30" rise for every 10' of conveyor section.) If you are considering using our conveyor for inclines, we recommend testing your product at our factory to determine the maximum safe incline angle.)

If we cannot meet your incline angle, we recommend that you purchase a "**floor-floor**" or "**rubber belted**" conveyor from a company that specializes in those belt technologies.

We do not recommend using flights for supporting boxes on inclines for the following reasons:

1. Our molded flights are used to (1) carry small parts, (2) to create our high temperature full rib belting or (3) to provide separation in assembly systems. Although they will push product, they are not designed for inclined systems. Boxes or pallets will tip backward over flights as they try to transition the top of the conveyor. (See drawing below.) (Note: Adding taller flights is not a recommended solution as it will cause other problems listed below.)
2. Boxes will have trouble getting off the conveyor when flights rotate at the end of the conveyor. As the box reaches the end drive, the flights will rotate faster than the box is moving forward. This rapid rotation will result in the flight crashing into the rear of the box causing it to be "flung" off the end of the conveyor or to cause damage the belting.
3. SmartMove[®] conveyor belts are not under tension. (As is the case for rubber belted conveyors.) As a result, add-on flights will tend to "tip" backward under load and allow the boxes to fall backward.
4. Incline conveyors should use anti-reversing "brake" motors. (Not available from SmartMove[®]) If you loose power on a box lifting system, you do not want the conveyor to slip into reverse which could cause damage to the product and personal injuries.

