Flexible Gravity Application and Design FAQs

Q: Which skate wheel do I need – steel, black polymer with steel bearings, or red polymer with nylon bushings?

A: The steel skate wheel provides the highest durability with medium flow speed. The black poly skate wheel provides medium durability with high flow speed; it is lighter than the steel skate wheel and with steel ball bearings, it provides more efficient gravity flow for light packages and with less pitch. The red poly skate wheel does not have ball bearings; it has a nylon bushing and provides medium durability with low flow speed.

Q: When do I need rollers instead of skate wheels on the NestaFlex gravity conveyors?

A: The dense skate wheel pattern on the NestaFlex gravity conveyors provides an efficient conveying surface for most packages. Skate wheels provide better gravity flow with less pitch in the conveyor height. The rollers are only required for items with a recessed bottom surface, such as pails or drums.

Q: How do I select the correct axle centers on NestaFlex gravity conveyors?

A: FMH Conveyors follows the industry standard of maintaining three (3) rows of skate wheels or rollers under the package at all times. The dimension of your package, in the direction that it will be running down the conveyor, is divided by 3. This is the maximum axle center required to properly convey a package. Example: 12” running length divided by 3 = 4”. The maximum axle center is 4” for a 12” long package.

Q: How do I determine the correct height difference required to provide efficient flow of packages on the NestaFlex gravity conveyors?

A: Generally, the steel and black poly skate wheels requires between 5/16” and 3/8” per foot height difference between the in-feed and the discharge ends of the conveyor for efficient gravity flow. Example: 24’ length of conveyor multiplied by 5/16” per foot = 7 ½” difference from in-feed to discharge height – or 36” down to 28” conveyor height. The red poly with the nylon bushing and the gravity roller will require 1/2” or more per foot to provide unassisted gravity flow. Height difference may vary depending on the weight, bottom surface, and condition of the package being conveyed.

Q: The NestaFlex 376 comes in several different models. What do AL, FL, and PL stand for?

A: The 376AL stands for Adjustable Legs. The height of the conveyor can be adjusted by using the hand knobs that hold the inner legs. The 376FL stands for Fixed Legs. The height of the conveyor is fixed at

the factory for the specific application. The inner legs are held in position by set screws. The 376PL stands for Perpendicular Legs. With fixed height legs, the conveyor maintains the required pitch to provide gravity flow. The special PL leg brackets are engineered to keep the legs perpendicular to the floor when it is fully extended and contracted for maximum performance of the swivel casters.

Q: How do the legs adjust on the NestaFlex gravity conveyor?

A: The NestaFlex 226 and 376AL conveyors have adjustable legs that use a hand knob on each leg located near the caster. To adjust the height of the conveyor, loosen the hand knobs and raise the conveyor to the desired height. Tighten the hand knobs securely. For best results in adjusting conveyor height, set highest end first and work down to low end. To lower conveyor height, loosen hand knobs. Avoid placing hands on inner legs when lowering the conveyor.

Q: When are 6" or 8" casters recommended on the NestaFlex gravity conveyors?

A: The 6" x 2" and 8" x 2" casters are recommended when using the NestaFlex 376AL, FL and PL gravity conveyors for loading and unloading trucks. Whenever the flexible gravity conveyor is used in dock areas to go over dock boards or dock levelers, the larger caster will withstand the environment and assist in moving the conveyors into and out of the truck with less effort. 6" or 8" casters are also recommended on extended length conveyors for ease of movement.

Q: How many brake casters are on the NestaFlex gravity conveyor?

A: The standard NestaFlex 226, 376AL and 376FL includes brakes on the casters on each end of the conveyor. Additional brakes can be added.

Q: Do I need additional brake casters on a NestaFlex gravity conveyor?

A: Additional brakes casters will assist to secure the conveyor while configured in a curve.

Q: How far into the bed of the truck should I take the FMH conveyor for loading or unloading?

A: We recommend that the length of conveyor reach to within 5' of the nose of the trailer. This allows the room required for the operator to work.

Q: How are packages stopped at the end of the NestaFlex gravity conveyor?

A: A retractable package stop is standard on all NestaFlex 226, 376AL/FL, and Roller gravity conveyors. The package stop can be lowered out of position in order to join multiple conveyors. The NestaFlex 376PL includes a fixed, roller package stop that helps the operator easily remove packages from the conveyor when line pressure exists. This package stop also includes an ergonomic handle that assists the operator when pulling and pushing the conveyor in and out of the trailer.

Q: How can I connect multiple NestaFlex gravity conveyors together?

A: Couplers are standard on all NestaFlex 226, 376AL/FL, and Roller gravity conveyors. There is one set of hook couplers at the end opposite the package stop. These couplers hook onto the axle of an additional conveyor.

Q: How are the NestaFlex gravity conveyors packaged for shipping and is assembly required?

A: Most of the NestaFlex gravity conveyors are packaged on a skid with a cardboard carton. NestaFlex gravity conveyors that are less than 6’9” in contracted length are shipped fully assembled in one carton and no assembly is required. Conveyors that are over 6’8” in contract length are shipped in multiple cartons and do require assembly. Instructions are included with the conveyors for assembly. Special packaging may be required for shipping points outside the U.S. NestaFlex 376PL truck loader conveyors are fully assembled and shipped "roll-on” – directly loaded onto closed vans, blocked into position, and shipped door to door.

Q: What is available to provide a stronger load end on the NestaFlex gravity conveyor for unloading trucks?

A: The impact cart is an accessory item that can be added onto any of the NestaFlex gravity conveyors. It is a high volume receiving section that attaches to the in-feed end of the conveyor. It has a rigid, solid frame that allows it to take the daily abuse of impact loading which helps protect the life of your flexible conveyor and reduce maintenance costs.

Q: Can the NestaFlex gravity conveyor reach to the height of a truck bed if I do not have a dock for unloading?

A: The swing stick is an accessory item that can be permanently attached to the in-feed end of a NestaFlex gravity conveyor or be attached with couplers. The swing stick extension bridges the gap between the height of the flexible conveyor and the bed of the trailer. Packages are gently pushed down the swing stick out of the trailer, onto the flexible conveyor and into the building. Optional higher legs can be purchased on the NestaFlex gravity conveyors to assist in making this a smooth transition from the swing stick to the flexible portion of the conveyor.

Q: Do I need curve guards on a NestaFlex gravity conveyor?

A: NestaFlex gravity conveyors are self-tracking around curves. Most applications do not require curve guards or side rails. They may be required to guide packages under accumulation circumstances when packages of varying sizes and shapes begin to build up causing a potential risk of packages being pushed off the conveyor around the curve. The NestaFlex curve guards are integral to the construction of the conveyor and open, close, and flex with the conveyor. This makes them “uni-directional” and the direction of travel must be specified. They are not removable.

Q: What is the inside radius of the tightest curve you can put into a NestaFlex gravity conveyor?

A: The NestaFlex gravity skate wheel conveyor is most flexible when it is fully contracted. When fully contracted, you can achieve a 1' inside radius on a 90 or 180 degree curve. Please refer to the Radius Chart (hyperlink) in this section for additional information on the conveyor length required to configure 90 and 180 degree curves.

Q: How can I change directions 90 degrees without a curve?

A: The T-Junction Accessory is equipped with bi-directional skate wheels. This section can be placed between three or four conveyors to allow an operator to change the direction of the box to continue onto an adjacent conveyor section.

Q: What is a Power Assist?

A: The Power Assist is an accessory that can be added to the end of the NestaFlex 376PL gravity conveyor. It provides an operator handle to control the motorized drive wheels that safely maneuver heavy conveyors into the nose and back out of trailers. It is ergonomically engineered to help operators move conveyors with minimal effort. The power assist is designed with a transaxle that allows the operator to steer the attached conveyors in curves and move them from dock to dock. It is equipped with a safety feature that automatically shuts down the power assist when the red button is pushed. The handle can be pushed down and stored out of the way when not in use. For receiving applications, the handle lies below the conveying surface to allow unobstructed loading onto the conveyor.