Why... Power & Free?

Ideal for handling capacities from 25 lb (11kg) up to 3,000 lb (1361 kg) *using a four trolley load bar configuration.*

Power & free conveyors provide direct, positive control of each load in the system making them ideally suited to industrial applications that demand maximum versatility, productivity, and efficiency.

This high level of control is due to the dual track configuration of power & free systems. The main (or “power”) track is a chain-driven conveyor that moves carriers through the system. The second (or “free”) track allows individual carriers to be disengaged from the main track and rerouted onto an adjacent spur line.

The Power & Free design permits an extensive range of operations, including...

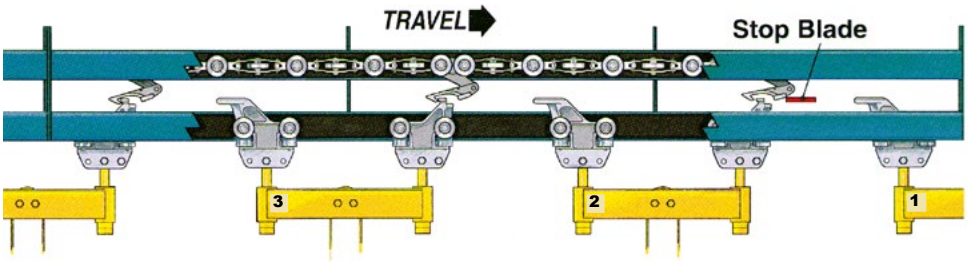
On-Line Accumulation

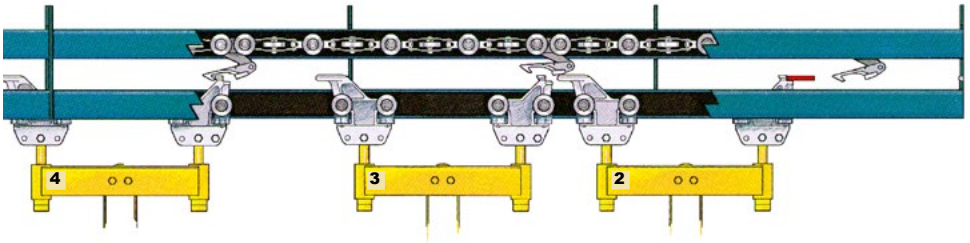
On-line accumulation allows both main and spur lines to be used for in-process (live) storage. This is particularly important in applications where the rate of production varies between workstations. Accumulated carriers can be returned to the production line for completion.
The accumulation process consists of three basic steps:

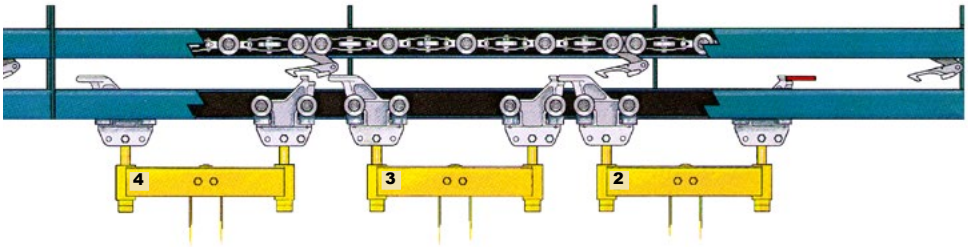
1. Stop blade moves into position between carriers (**1**) and (**2**). Pusher dog moving carrier (**2**) encounters stop blade and pivots up, releasing carrier from power chain.

2. Pusher dog moving carrier (**3**) encounters rear trolley of carrier (**2**), releasing carrier from power chain.

3. The sequence is repeated for all trailing carriers (**4**, **5**, etc.) until the stop is released, allowing the front trolley of the lead carrier to be picked up by a pusher dog and moved along the free track.





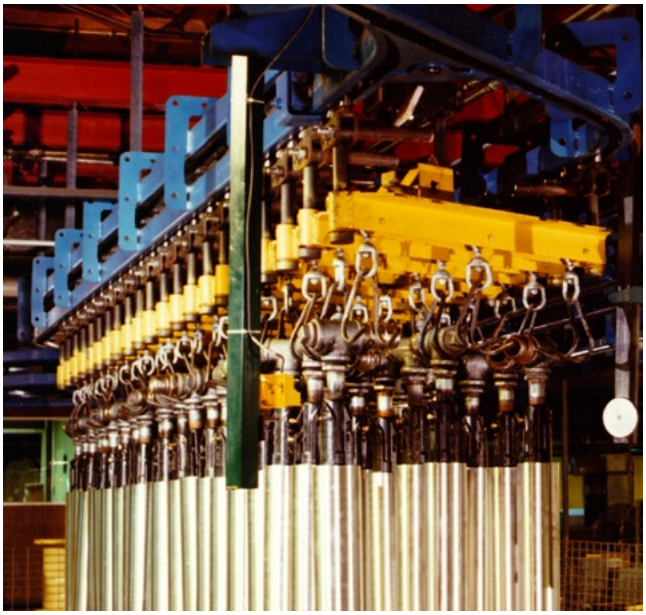


Noise Reduction Components

In addition to the standard “all-steel” parts, special noise reduction components are also available in non-metallic material that significantly reduce operating noise. These products, including trolley wheels, chain wheels, pusher dogs, and anti-backups - reinforce the system’s already clean, quiet performance by incorporating non-metallic parts at key points of contact (i.e., wheels, pusher dogs, anti-backup blades, etc.).

Diagonal Banking

This feature provides the benefits of live storage in a space-saving format. Diagonal banking uses two or more parallel lines — one, the complete set of power and free tracks; the others, the free track only. A mechanically actuated switch alternately opens and closes, directing the lead trolley onto the power line and the rear trolley onto the free lines. Banked carriers are positioned on an angle, providing additional storage capabilities in less space. This allows ovens, cooling lines, and staging areas to be compressed into compact areas, significantly reducing the total amount of floor space required for overall system operations.



Switching

Unibilt switches allow the smooth transfer of carriers between the main line and various spur lines (i.e., finishing/drying lines, workstations, storage loops, or adjacent conveyor lines).

Variable Chain Speed

The wide variety of power & free operations (i.e., assembly, finishing, transportation from storage) requires different rates of travel to ensure safe and efficient handling. For example, carriers that move parts from storage to the assembly line can be transported at a greater speed than those involved in the finishing process. Variations in speed are accomplished by using separate drive units to power specific sections of the system.
An added benefit of this approach is that limited amounts of chain are exposed to heat, chemicals, and other contaminants.

Computer Interfacing

Webb’s computerized controls increase efficiency and productivity even further by integrating diverse operations into a single, unified system.

Among the many features available are a full range of optional carrier identification systems that utilize coded carriers to allow precise tracking and management of individual loads.

Additional Benefits...

Close tolerance forgings increase component life span, providing extended performance.

Unibilt’s modular designs enhance flexibility even further. The easily installed components let your system grow along with your needs – allowing convenient, controlled expansion while optimizing your initial investment. And with virtually unlimited possibilities for system configuration, you get the best possible use of available floor space.

Changes in elevation are accomplished smoothly and efficiently. Standardized inclines and declines help keep aisles clear; allow floor-to-floor transfer; improve utilization of overhead space; and enable the ergonomic design of workstations.

Unibilt power & free conveyors are available in both overhead and inverted configurations which can be used individually or combined to meet your specific requirements.

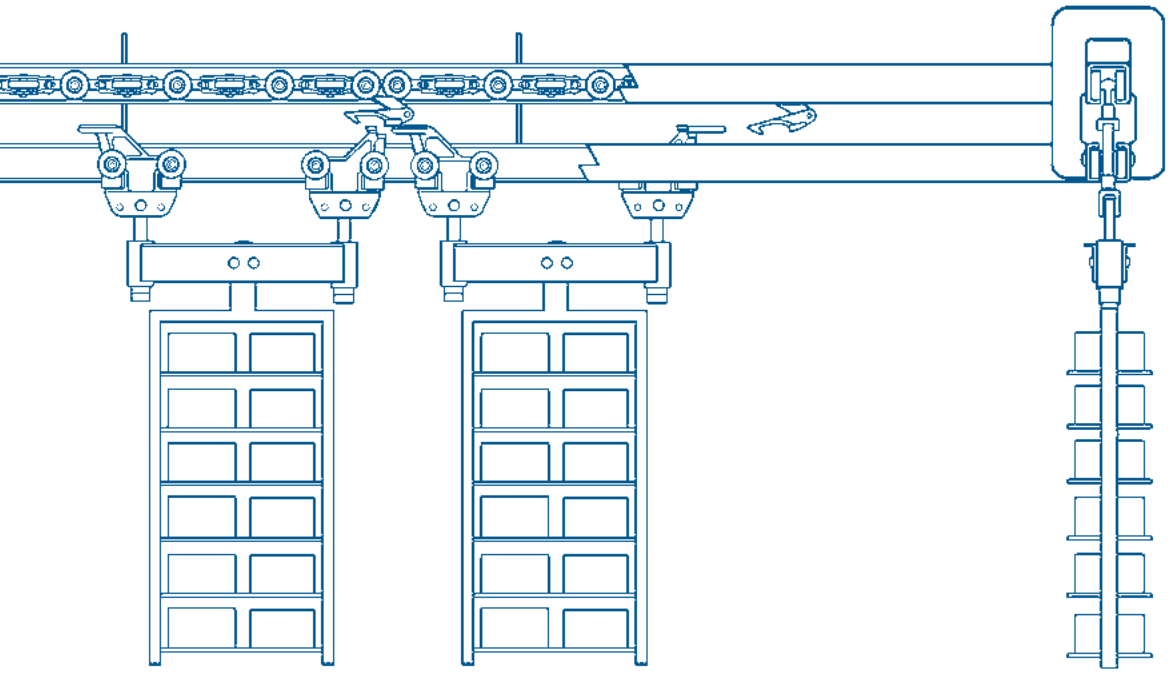
From Simple to Complex...

Overhead Power & Free

Overhead power & free configurations are the right choice for use in both simple and complex production, assembly, and finishing operations that demand a continuous supply of materials at each workstation.

Our unique, enclosed track design helps keep dirt and grease off of the product. High chain speeds provide continuous, rapid movement of materials between operations. The resulting increase in work flow heightens the efficiency and cost-effectiveness of the system.

Because the conveyor system design is flexible, it can negotiate inclines, declines, turns, and interface with virtually any type of automation or process equipment. And, since product movement takes place overhead, floor space can be used to its best possible advantage.



Innovative Ideas...

Unibilt provides solutions in a variety of material handling applications.

Above left, stripped airline carts travel through a sanitizing washer before routing to the repacking area.

Above right, electronic component manufacturer uses Unibilt power & free to transport parts to assembly stations.

Left, door assemblies in a banking mode waiting for further instructions in an automotive manufacturing facility.

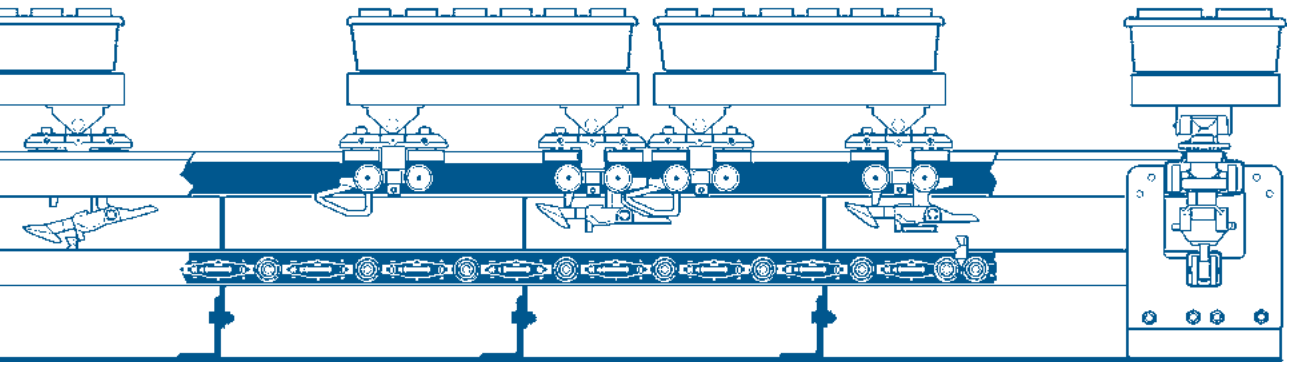
Versatility...

Inverted Power & Free

Unibilt's inverted power & free configurations provide tremendous versatility, incorporating the benefits of both power & free *and* standard floor conveyors. In fact, our standardized components are specifically designed to meet the requirements of above floor, in-floor, and elevated (overhead inverted) systems.

The inverted approach greatly enhances the already clean operation of our enclosed track design, virtually eliminating contamination by falling debris. Plus, by locating all support and conveyance hardware beneath the product, inverted systems offer virtually 360° product accessibility, providing the opportunity for a multitude of in-process operations to be performed.

An additional benefit is the savings generated by the elimination of expensive transfer equipment used with standard floor conveyors.



Custom Engineering...

Unibilt provides a variety of inverted system solutions.

Top right, caskets advance through the wash process prior to painting.

Bottom right, an inverted power & free conveyor accumulates range tops at a manual workstation.

Top left, motorcycle fenders move to storage after inspection.

Bottom left, automotive part manufacturer uses an inverted power and free conveyor to carry facia panels through finishing operations.