

Gravity Controlled

# PALLETFLO®



# The Advantages of **PALLETFLO**

Introduced by Kornylak over 35 years ago as the answer to high-density, first-in first-out storage, Palletflo continues to be the leader in gravity live storage.

Palletflo combines the advantages of gravity flow live storage with the “magic” of elastomeric hysteresis wheels. The “magic” of Palletflo continues to impress users from space-conscious warehouse managers and performance concerned engineers to cost conscious presidents and CEO’s with its reliability, safety, versatility and cost savings.

Palletflo works because of the specially formulated urethane wheels. These wheels, with resilient tires, control the speed and adjust precisely to the load of each pallet assuring safe, smooth, controlled product movement.

Palletflo wheels work with all standard commercial grade slatted wooden pallets eliminating the need for either slave or special pallets.

Palletflo ensures maximum space usage of the cube by requiring only two aisles, the entrance and the exit.



Additional advantages gained with Palletflo are automatic pallet indexing within the warehouse, reduced stock damage and simplified warehouse management. Palletflo is easily adaptable for use with AGV's, stacker cranes

or normal fork lift operations. Within the system, products and pallets move safely from entry to exit without damage. Truck loading is expedited as all bays are readily accessible and pallets are self positioning for easy pick up.

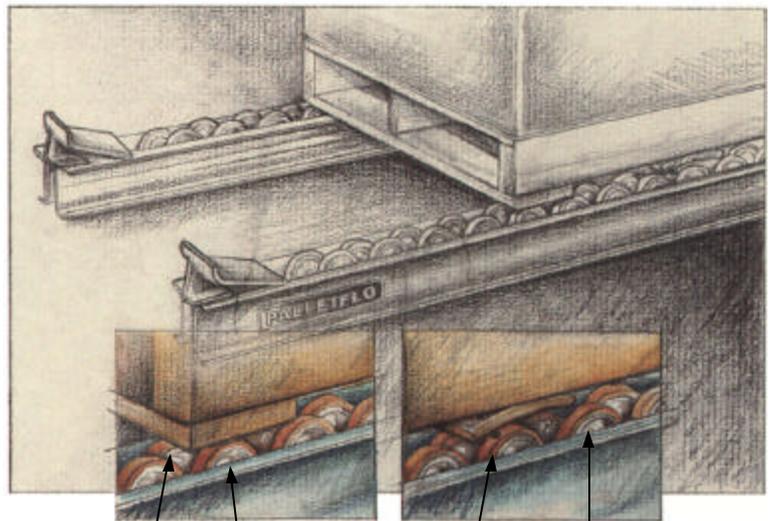
Palletflo installations range from large multilevel, multi-bay systems to small systems of one or two bays. In warehouses, on plant floors and in both refrigerated and cool room areas, Palletflo moves a wide range of products.

Products and materials such as beverages, food products, chemicals, cosmetics, small electronic equipment, large pianos, heavy motors and almost anything you can name are smoothly, effectively and economically handled on Palletflo. Unit-load applications, such as the flowing of paper rolls, steel coils and totes demonstrate Palletflo's versatility.

# The “Magic” of **PALLETFLO** Wheels



Palletflo’s design, coupling gravity with hysteresis control, results in immediate and long term cost-savings. Because gravity is the power source, there are no belts, chains or mechanical devices to maintain; and because the “Magic” of elastomer hysteresis controls the flow, there are no brakes, electronics, pneumatics or controls to require attention or maintenance. Palletflo installation is fast and easy and, with advanced planning, can be done while other operations continue. Once installed, Palletflo requires no maintenance. The “Magic” Palletflo wheel is an elastomeric hysteresis tire bonded to a heavy duty, corrosion-resistant steel ball bearing wheel. Perfected after years of polymer development, the tire is composed of a high grade urethane polymer which is resilient, energy absorbent and durable with high hysteresis properties. The high hysteresis properties of the Palletflo tire transform each wheel into a speed-controlling device. As the Palletflo tire is deformed by the weight of the pallet, kinetic energy is given up as heat. The transfer of kinetic energy into thermal energy, the “hysteresis effect,” causes each



*Board Penetrating Wheel*

*Accommodation of Warped Board And Projecting Nail*

*Palletflo Wheel Fully Deformed*

*Hysteretic Recovery Of Wheel*

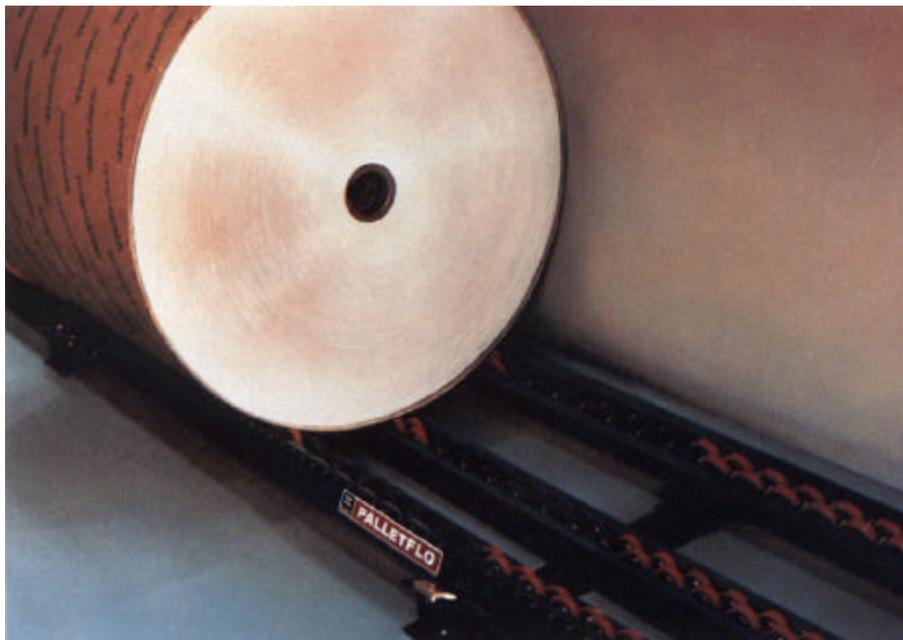
wheel to act as an retarder and stabilizes the forward speed of the load. The pallet moves through the system at a safe, controlled speed, as if by “magic.”

The Palletflo tire is also weight responsive. Heavier loads cause greater tire deformation, and greater retarding action, resulting in heavier loads moving more slowly than lighter loads. This property of the Palletflo wheels allows pallet loads of varying weights to travel smoothly and safely in the same lane. The resilient Palletflo wheel “adjusts” and permits irregularities to “roll through,” so the pallet continues to roll smoothly. Another example of the “Magic” of Palletflo wheels.

# Planning your **PALLETFLO** Installations

Many Palletflo customers, when planning large or unusual systems, have found it helpful and reassuring to first see their pallet load tested on Palletflo. These test duplicate the special conditions involved and provide data for the system designers. Test run at Kornylak's facilities are useful not only to demonstrate performance, but also to determine the lowest cost wheel combination capable of meeting all conditions. The customer is invited to observe these test in person, or if this should be inconvenient, reports, photos, charts or video tapes can be mailed for review.

*Test rigs include a 30' long test chamber which has a -30 to 105° F temperature control and a chart recorder for full scale testing of your pallets and loads.*



*A special application of Palletflo for flowing paper rolls is being test and video recorded for a customer.*

### Safe And Reliable

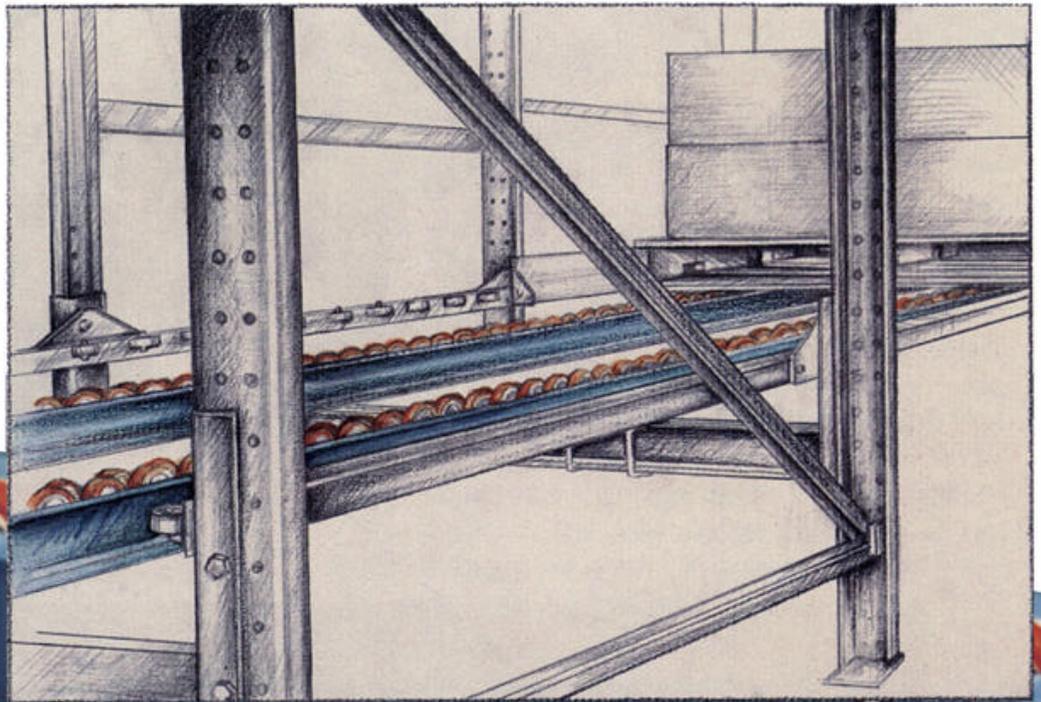
- Controls Speed Smoothly and Safely
- Protects Products From Damage
- Flows Light and Heavy Loads in a Single Lane
- Handles All Standard Wooden Pallets
- Compensates for Pallet Imperfections

### Versatile

- Custom Designed for Your Application
- Available for Systems of All Types and Sizes
- Flows All Types of Products
- Serves Cool Rooms and Warehouses
- Adaptable to Unit-Load Applications

### Economical

- Maintenance Free
- Eliminates Excessive Handling/Slave Boards
- Quickly and Easily Installed
- Assures Stock Rotation
- Reduces Product Handling
- Expedites Loading / Unloading
- Eliminates Mechanical or Electrical Devices



A test demonstration illustrates the effectiveness of Palletflo Hysteresis wheels.



The Palletflo rails are set at the same degree of slope and equipped with the same diameter wheels on same spacing. The rails on the right have Palletflo urethane wheels, those on the left do not.



The uncontrolled load on the left accelerates and falls off the pallet at the moment of impact. The controlled load on the Palletflo wheels on the right flows smoothly and comes to a safe, gentle stop.



During its 50 year history, the Kornylak Corporation has been a consistent innovator and pace setter in the fields of material handling, cellular plastics, special vehicles and military equipment. In each field, equipment and processes developed by Kornylak are recognized internationally for their superior design and performance.



Vertiflo



Foamboarder



Logitrack



Armorbelt



Transwheel

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**PALLETFLO**



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