

VERTIFLO®

high speed, compact, vertical conveyor



Extremely Compact Construction

Only a few inches of space is occupied by mechanisms at the sides and rear, making Vertiflo® the most compact vertical conveyor available.

High Speed

Continuous flow permits handling of up to twenty loads per minute with manual loading / unloading and at higher rates with the Vertiflo Automatic Loader / Unloader.

Dependability

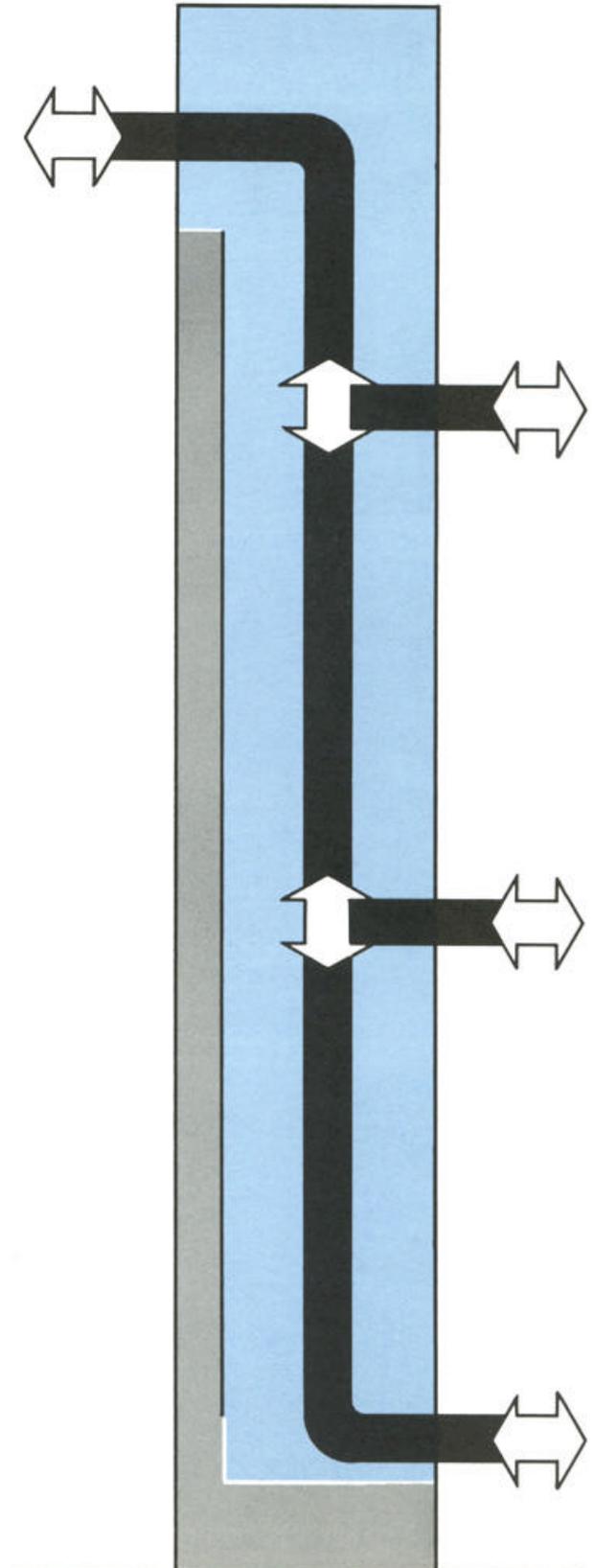
Nearly 700 installations since 1952 have proven successful operation. Smooth inner liner provides safe handling for difficult items, such as bags of potatoes. Overload devices, limit switches and guards protect loads, machinery and operators. Trays are rigidly mounted and under complete control at all times.

Economy

Low initial cost. Unitized easy-to-install design. High speed and automatic features reduce operating cost.

Versatility

Loading and unloading can be performed simultaneously at all floor levels with the conveyor moving in either up or down direction.



KORNYLAK

VERTIFLO®

Over 650 Vertiflos, some in service since 1952, have proven this compact vertical conveyor to be the finest and most versatile unit available. Six standard models handle loads from small individual packages to 3,000 lb pallet loads in a high speed continuous stream with a choice of manual or automatic loading and unloading in both directions.

In both new construction and modernization of old facilities, conventional platform elevators have been removed to make way for the more efficient Vertiflo®. Vertiflo® triples handling speed, costs as little as 1/10 of an installed elevator, occupies less than 1/4 the space, eliminates floor congestion and can be more advantageously located due to its small size. The conversion from batch handling to continuous flow greatly improves the efficiency of material movement.

Construction

The secret of Vertiflo's dependability lies in its patented guide system, which orients the load carrying tray through its entire travel. Trays are suspended between two chains by means of pivotblocks and are equipped with bell cranks at each end. Lifetime lubricated rollers mounted on these bell cranks run in a double track system to hold the tray in a horizontal position during its working cycle and rotate it into a vertical position as it enters the compact return slot at the rear of the conveyor. Never is the tray free to swing or endanger the load. Other features include the smooth inner

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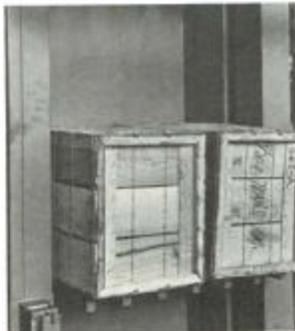
Flush deck installation



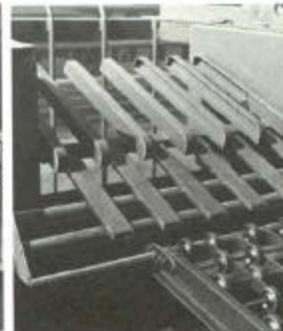
Manual loading of 24C85 unit



Top station 36A175 unit & deck house



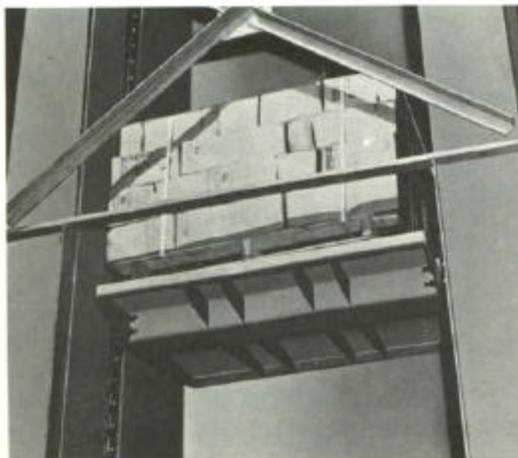
Smooth inner wall



Auto top discharge



Auto down unload



2500 Lb. Pallet on a 52A4000 unit

Manual

Vertiflo® can be loaded or unloaded manually or by the use of simple stationary devices. It will automatically load in the up direction and unload in the down direction. It will also unload in the up direction in the "over the top" position. A wide range of automatic loaders have been furnished in the past, but the most efficient is the universal automatic loader/unloader, which operates while the Vertiflo® is in full speed motion. This feature permits the highest possible rate of handling. Constant speed operation of the Vertiflo® prolongs its maintenance free life and promotes gentler handling of the load. Automatic loading and unloading of pallet loads is accomplished by other means and the use of a hydraulically operated fork unloader is illustrated. The use of Palletflo® for manually loading palletized ammunition into a shipboard Vertiflo® is illustrated in another bulletin.

shield, rugged self-standing frame in 10' long bolted sections, sealed anti-friction terminal bearings, forged head and tail shafts, adjustable overload protection, self locking drive, versatile loader/unloaders and ease of tie in with floor conveyor systems for rapid flow of material to and from Vertiflo®.

Marine Application

Some of the most spectacular applications of Vertiflo® have been on combat and supply vessels where they handle cargo, supplies, and ammunition at high rates of speed. Here dependability is of prime importance, and it is to meet this service requirement that many of the refinements built into Vertiflo® were first developed.

The Kornylak Corporation recently shipped four integral trunk type vertical package conveyors Vertiflo® for installation on board the \$1.4 billion U.S. Navy Ship LHD-8 now under construction.

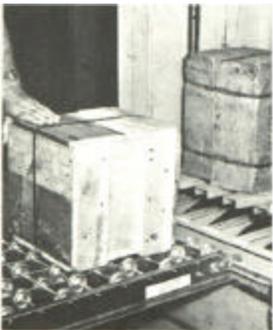
The 844-foot, 40,500-ton LHD-8 scheduled to be christened the U.S.S. Makin Island in 2007, is the latest ship of the U.S. Navy's multipurpose amphibious assault program built by Northrup Grumman. The Navy-Marine Corps team's newest amphibious warship has as its primary mission the support of a Marine Landing Force specifically designed to accommodate

new Landing Craft and Harrier II (AV-8B), which provide close-in air support for the assault force.

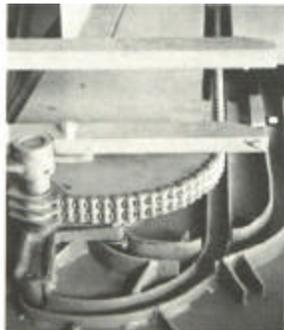
In support of the program's eight massive aircraft carrier-type ships, Kornylak to date has built and delivered a total of 32 vertical package conveyors designed under the latest stringent military specifications and rigid reliability testing requirements. The conveyors range in length from 40 to 66 feet and are capable of handling shipboard loads ranging in weight from 100 to 200 lbs. at a rate of 12 loads per minute.

Industrial

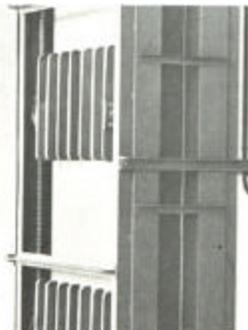
Vertiflo® is a free standing space saving unit capable of high speed handling of practically any package used in industry. The choice of simultaneous manual or automatic loading and unloading at as many levels as desired permits the flexibility required in modern manufacturing lines. Horizontal conveyors at each level can be tied in with the Vertiflo® to form a complete system. Accessories such as intercoms, enclosures, special trays, safety devices, etc. are available to match Vertiflo® to any requirement.



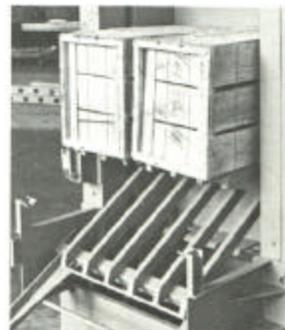
Manual up load



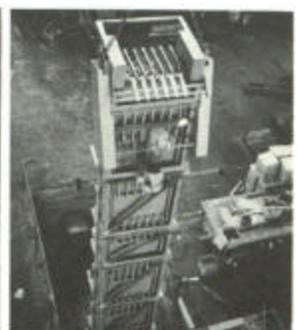
Positive tray control



Compact tray return

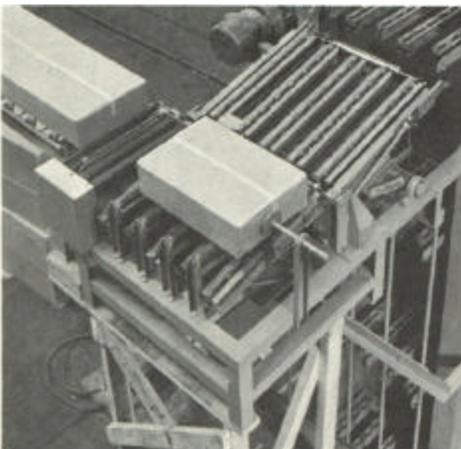


3 position loader, unloader, guard

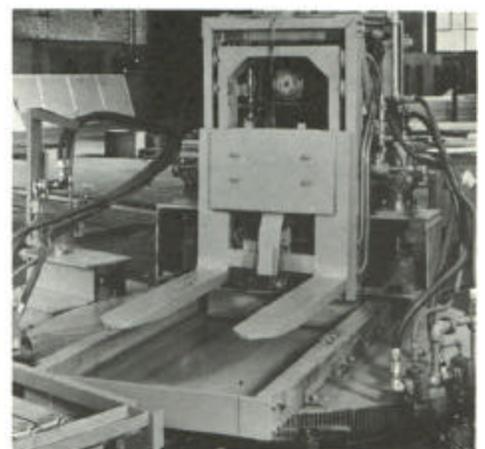
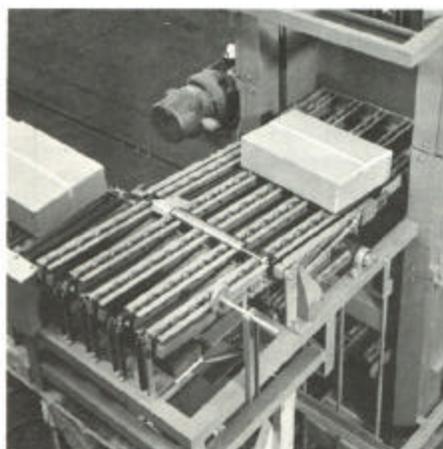


Testing 40' unit before shipment

And Automatic Operation



Automatic load/unload. Cartons are loaded or unloaded rapidly while the Vertiflo continues to move full speed in either up or down direction. Model 24D85



Pallet Loader. 4,000 lb. Pallets can be loaded into a 52A4000 at 2/minute.

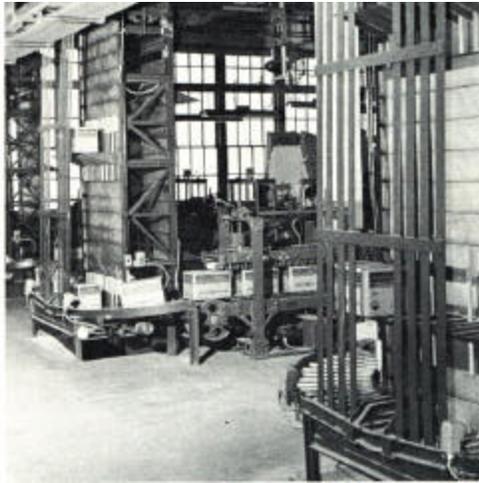
Quality And Service



Vertiflo® is a mass produced conveyor. Parts are built in jigs for interchangeability and are readily available when spares are needed. The photo is of a production lot of model 24C85 units on the assembly floor. Kornylak Corporation's building in Hamilton is one of the largest conveyor plants in the U.S. High ceilings and heavy cranes permit testing of completed units in a vertical position. This allows Kornylak to build fully assembled units for one piece installation, an important advantage if the unit is to be installed in a ship. Ample storage space allows holding a finished unit for completion of a new building project, assuring delivery as required. Experienced factory personnel with background gained from the production of hundreds of Vertiflos are available for installation and servicing.



Rigid arm vertical Armorbelt® converts 5 floor old school building into an efficient warehouse.



Armorbelt type vertical conveyors discharge 6 radio production lines to overhead conveyors.



Prefab enclosure, automatic doors, safety devices meet rigid state safety code for lamp manufacturer.

Special Units

When the compactness or high speed of Vertiflo® is not an important requirement, Kornylak Corporation is prepared to furnish vertical conveyors of several lower cost designs such as the units shown above. Types furnished in the past include slat face (Armorbelt®), rigid arm, pendant tray, single strand chain, magnetic belt (Magnebelt), bucket, squeeze belt and reciprocating lift. All have definite advantages and your inquiry will be given an impartial analysis for selection of the proper type. Safety devices, fire protection, enclosures, automatic controls, and other features are furnished when requested.

6 Standard Models

Model No.	15A50	19A75	24C85	36A175	60A1200	52A4000
Load Width	15	19	24	36	60	52
Load Depth	13	19	24	36	42	44
Load Height	19	30	30	48	84	56
Load Weight lb	50	75	85	175	1200	4000
Loads/Minute	20	16	16	12	10	2