

Innovative Material Handling Solutions

From Concept to Completion



Hohl Machine & Conveyor

Serving North American Industry since 1945

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Design, Engineering and Controls for Material Handling Systems

Hohl Machine & Conveyor has been designing and manufacturing Materials Handling Systems and Components since 1945. Whether it's a simple gravity conveyor or a complete turnkey system, we will provide you the most cost effective and reliable equipment for your materials handling needs.

This brochure will show you some of our products, capabilities and innovative approaches to specific materials handling problems, using custom and pre-engineered conveyors.



Complete in-house system set-up and testing prior to shipment.



Crane capacity of 32,000 lbs allows for easy assembly and shipping.



Up to 1/4" thick material can be punched efficiently and accurately with our computer controlled turret multi-punch press.



Engineering

Our experienced staff can provide you with complete engineering services, including: concept design, equipment interfacing, complete mechanical and control drawings, programming, installation and start-up supervision.

Fabrication

Our fabrication facilities offer quality, efficiency and flexibility. Hohl Machine & Conveyor has developed production equipment and fabrication techniques that ensure the quality of our products. The flexibility of our manufacturing ensures you will get the type and size of conveyor that best suits your application. Our services include certified welding and quality assurance programs.



Controls ▲

Hohl Machine designs and builds all types of controls, including electrical, electronic, hydraulic, pneumatic and process. We are experienced with a wide range of microprocessor-based control systems and can interface with your plants existing controls and computers.

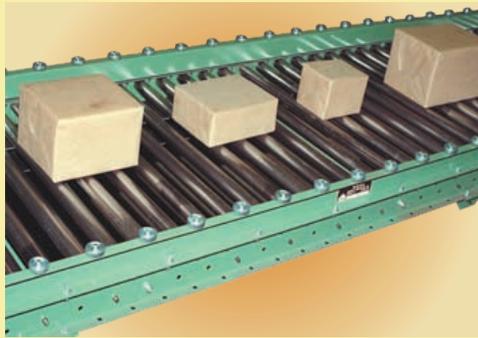
◀ System Testing

Hohl Machine assembles systems in the plant for thorough performance testing and debugging before shipments to customer sites. This saves time and expense during installation and commissioning and enables early start-up of projects. With design, engineering, fabrication, controls and complete performance testing in our plant, we can coordinate your materials handling system from start to finish.

Pre-Engineered Conveyors

Hohl Machine's pre-engineered conveyor designs include:

- | | |
|------------------------------------|----------------------------------|
| Accumulating Conveyors | Pallet Conveyors |
| Apron Conveyors | Portable Conveyors |
| Ball Tables | Power & Free |
| Belt Driven Live Roller | Power Curves |
| Belt Conveyors | Pusher Chain |
| Belt Transfers | Reciprocating Beam |
| Chain Conveyors | Roller Conveyors |
| Chain Driven Live Roller Conveyors | Roller Flight |
| Chain Transfers | Roller Slat |
| Cleated Belt | Roller Chain |
| Diverter | Shuttle Conveyors |
| Downenders | Slat Conveyors |
| Fixture Conveyors | Transfer Cars |
| Gate Sections | Turnover Devices |
| Gravity Conveyors | Turntables |
| Hydraulic Conveyors | Upenders |
| Live Roller Conveyors | Vertical Reciprocating Conveyors |
| Live Storage | Walking Beam |
| | Wire Mesh |



Powered zoned accumulating conveyors.

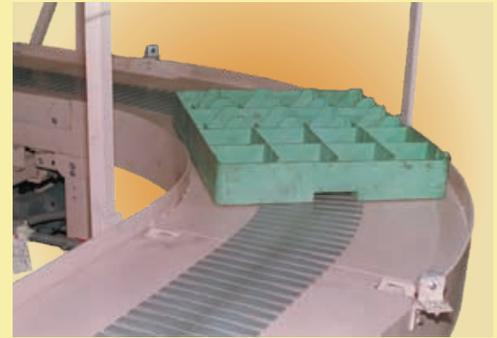


Table top conveyor for light loads.



Light duty roller conveyors.



Belt conveyor with patented belt tracker.

Conveyors for Special Applications



Stainless steel wire mesh conveyor for specialized applications in food processing and pharmaceutical industries.



Cleated belt conveyor



Vertical conveyor for transfers to multiple levels.

Pallet Handling Conveyors



Hohl's standard, chain driven, live roller conveyors are available with rollers from 1.9" diameter, 500# capacity to 3-1/2" diameter, 2,500# capacity.



Pallet dispenser feeding chain conveyors.



Transfer from roller conveyor to chain conveyor (work Station).

Hohl Machine Quarry Conveyors



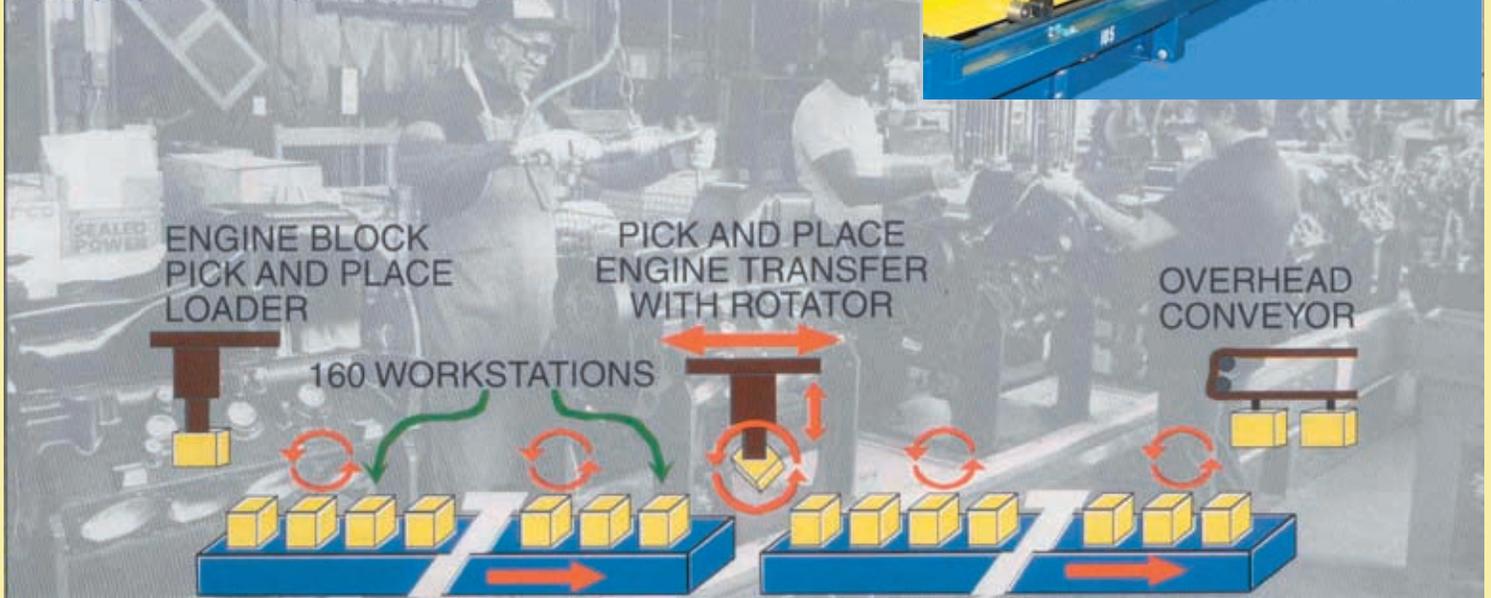
Overland Conveyors

Hohl Machine & Conveyor's Long-Haul Overland Conveyor systems are eco-friendly making haul trucks a thing of the past, thereby eliminating the volatile costs of fuel, maintenance and repair.

Mass flow by conveying is by far the dominating method when transporting material in a minerals processing operation. Hohl Machine offers the optimum solution whether your requirement is for dry, wet or sticky material, and to both horizontal and vertical applications.

Engine Assembly Line at General Motors Power Train, Buffalo, NY

Hohl Machine designed and manufactured a complete engine assembly line including 600 ft. of engine fixture conveyor, and automation equipment such as part rotators, stops, and turnovers. The system was designed to interface with and precisely position the engine for synchronous assembly machines and ergonomically orient the parts for operators. Total project value approx. \$ 1.5 million



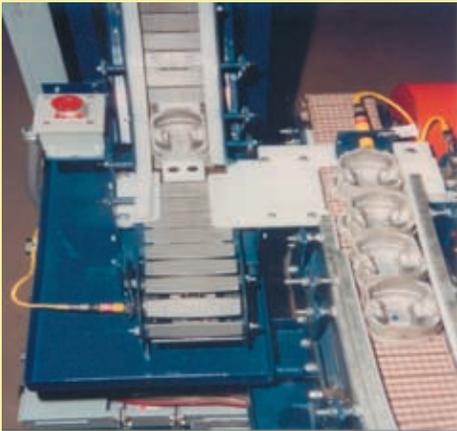
Moving Mountains of Aggregate



Superior Design and Quality

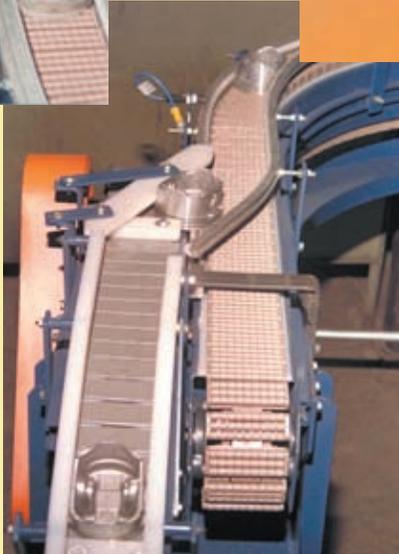
By incorporating the best designs and features available to us, we are able to offer a complete line of equipment with superior overall design and quality for long life, minimum maintenance and unmatched value. In addition, we offer custom designs for special applications and for duplication of existing equipment.

Handling of Engine Pistons at General Motors Power Train



◀ These delicately coated parts are transferred and accumulated between assembly operations without contacting each other by a high speed lift and carry transfer with a palletizer

A conveyor system for handling engine pistons at a high rate of speed. This system includes hundreds of feet of conveyors, equipment, stops and transfers. The system receives parts from production machinery and transfers them to several assembly operations. Total project value \$650,000.



▶ This automation system involves automatic loading and unloading of overhead trolley conveyor carriers used for handling engine parts. These systems involved the use of electro-mechanical actuators for the horizontal and vertical movement of parts. This loading and unloading of trolley conveyor carriers is done without stopping the overhead trolley conveyor.



System Integration at DuPont, Puerto Rico

This automatic silver filling and palletizing system stores empty containers and retrieves them to automatic filling stations. Silver powder is sifted and filled to a net weight accuracy of one gram.

Bar code labels are automatically generated and robotically applied to the container. The containers are then automatically sealed and palletized for shipping to the customers.



Automatic weighing of container



Automatic application of labels to container



Low volume scissor lift type palletizing of containers

Handling of Hazardous Materials

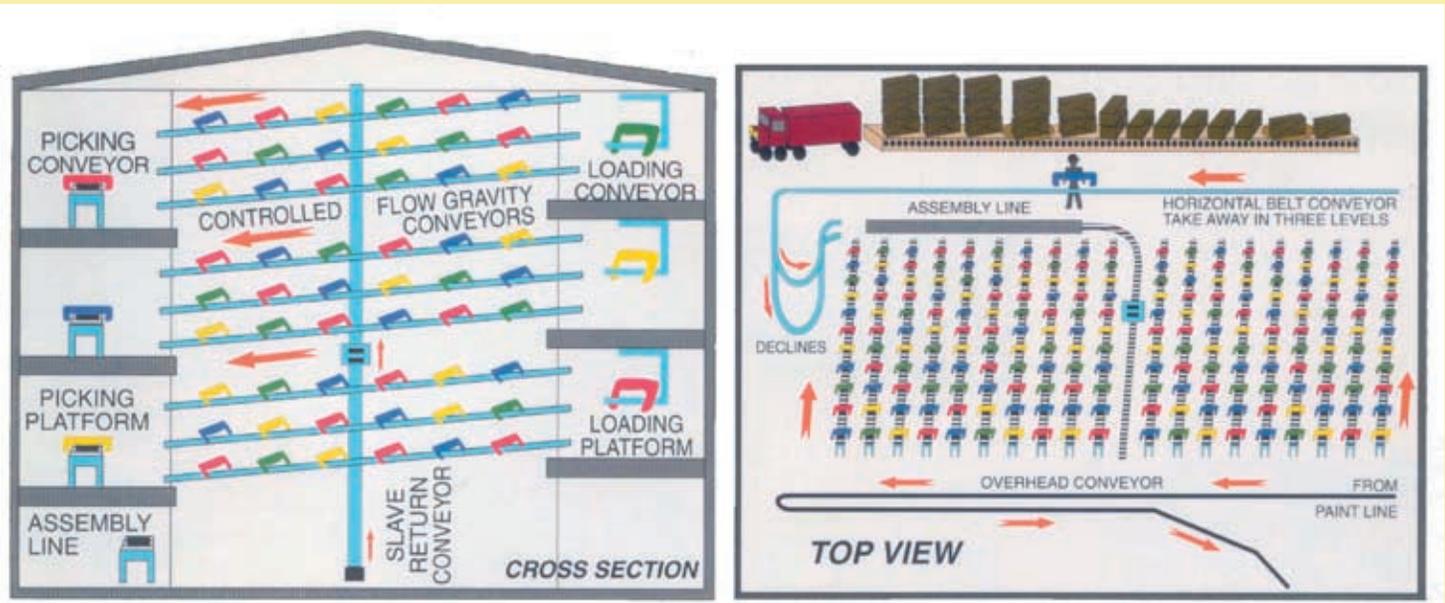


Union Carbide: This turnkey system automatically retrieves, processes and stores drums of PCB-contaminated transformer oil. Drums are loaded onto Hohl controlled-flow-gravity storage by fork truck. They are then automatically transferred to a zoned, accumulating conveyor, weighed and delivered to decontamination stations. The drums are then refilled with clean oil, weighed and delivered to outgoing, flow-storage conveyors by an automatic cart. The entire system was set up and tested at Hohl Machine before being shipped to the customer.



West Valley Nuclear Facility: Drums of waste are handled on this stainless steel, chain driven, live roller conveyor system. A truck with driven roller bed unloads eight drums onto a staging conveyor. The drum is then moved by shuttle car to an upender and transferred to a tilting unit which presents it to a computer-controller crane for permanent storage. Special features include redundant drives and dual programmable controllers ensuring fail-safe operation. All design, fabrication and installation was done under strict quality assurance requirements of the Dept. of Energy.

JIT Implementation at Polycon, Guelph, Ontario



Polycon Industries, an automobile bumper manufacturer, chose Hohl Machine for design, manufacture and installation of the complete conveyor system to implement Just-in-Time (JIT) Sequence Picking to feed the Ford Canada Windstar Minivan assembly line, with a throughput of over 5 sets every 3 minutes. The design uses proven technology to offer a reliable system with low maintenance requirements. Total project value is over \$2.5 million.



Bumpers from paint line are loaded onto the carriers of the overhead conveyor system, about 1400 feet long. The overhead conveyor feeds the bumpers to the Controlled Flow Gravity Storage Lanes (3 levels). The overhead conveyor is a continuous loop designed to avoid contact between bumpers while negotiating the curves.

Hohl's Controlled Flow Gravity conveyors provide dynamic storage for bumpers to feed the sequence pick requirements. The system includes 171 lanes, each about 60 feet long. Total capacity is 6,840 bumpers. The lane activation and material flow (rate of descent) are controlled by a PLC. The design and control system ensure free flow with no damage to parts and minimal compressed air consumption.



Hohl's table top conveyors uniquely adapt the segmented belt technology to bring the bumpers down to the assembly line from the 3 levels of order picking. The conveyors descend continuously at about 15 degrees with no transition points thereby ensuring a smooth flow and no damage to bumpers. Molded rubber cleats at 6 inch centers avoid any slippage of bumpers. The table top conveyors discharge the bumpers to zoned gravity accumulation conveyors.



Gravity Flow Conveyors



Zoned Accumulation Conveyors



Controlled flow gravity conveyors with PLC controls

Hohl knows how to control gravity

Hohl Machine offers the full range of Gravity conveyor. Hohl has developed and patented Gravity Flow conveyors for applications in dynamic storage such as flow racks and buffer storage such as accumulation conveyors



Flow racks with full width rollers and brake rollers

HIGH CAPACITY CONVEYOR ROLLERS



FOR END USER REPLACEMENT OR OEM APPLICATIONS
SEMI-PRECISION BEARINGS PROVIDE
LONG BEARING LIFE AND QUIET OPERATION
LOW COST, HIGH QUALITY ROLLERS MADE QUICKLY TO ANY LENGTH

MODEL #935H - 1100 LBS. CAPACITY
3-1/5" DIA. X 9 GA. STEEL TUBING, 7/16" SPRING RETAINED HEX SHAFT

MODEL #726H - 1100 LBS. CAPACITY*
2-5/8" DIA. X 7 GA. STEEL TUBING, 11/16" SPRING RETAINED HEX SHAFT

MODEL #1125H - 1100 LBS. CAPACITY*
2-1/2" DIA. X 11 GA. STEEL TUBING, 11/16" SPRING RETAINED HEX SHAFT

MODEL #1119H - 500 LBS. CAPACITY*
1.9" DIA. X 11 GA. STEEL TUBING, 7/16" SPRING RETAINED HEX SHAFT

DUST TIGHT-GREASE PACKED OR REGREASABLE BEARINGS AVAILABLE.
ROLLERS AVAILABLE WITH SPROCKETS OR GALVANIZED TUBING.

ADDITIONAL STANDARD HOHL ROLLER MODELS:
#2535-1200 LBS CAPACITY, 3-1/2" DIA X .3", 1-1/16" HEX SHAFT
#1425P-300 LBS CAPACITY*, 2-1/2" DIA X 14 GA., 7-1/16" HEX SHAFT
#1619P-220 LBS CAPACITY*, 1.9" DIA X 16 GA., 7/16" HEX SHAFT
#1613P-94 LBS CAPACITY*, 1 3/8" DIA X 18 GA., 7/16" HEX SHAFT
#1813P-94 LBS CAPACITY*, 1 3/8" DIA X 18 GA., 5/16" HEX SHAFT

* LENGTH AND SPEED OF ROLLERS MAY AFFECT LOAD RATING



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