



Innoline



Conveying Systems
for Reusable and
Disposable Packs

Modular, Versatile, Highly Productive –
Solve Your Pack Conveying Tasks with KHS. Made to Order!





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Innoline Pack Conveyors –

Enabling You to Convey Your Products Packed in a Widest Range of Packaging Types Exactly to the Point



Whatever the style of pack you have to convey throughout your line – KHS offers you the perfect solution.

Tailored to your performance and space requirements.

A modular, functional, technically fully developed, and proven system. Modern. Future proof.



Tell us the type of packaging – disposable or reusable – the quantities, and when they are to arrive at which points and we will plan the project and implement the appropriate line design for you.

Take full advantage of our experience and competence in intelligently designing, controlling, regulating, and monitoring conveying systems using high-tech systems.

KHS InnoLine – the basis for exploiting the maximum efficiency of your entire line.



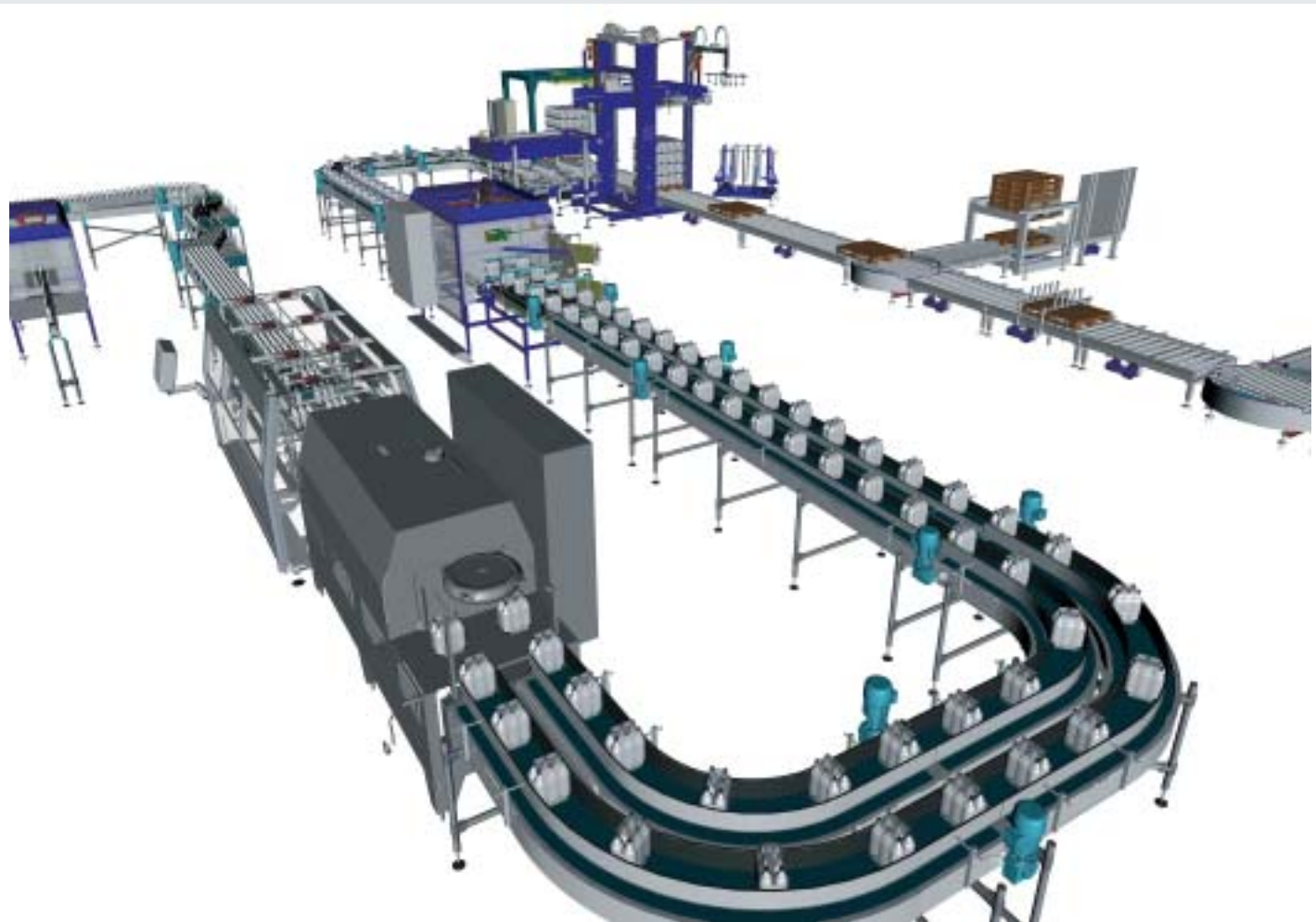
InnoLine

Innoline Disposable Pack Conveyors – The Style of Pack Determines the Design



Plastic packs, trays, shrink packs, wrap-around/multi-packs, cartons – nothing moves your disposable packs better than KHS Innoline conveying systems.

Innoline offers the perfect solution for all your tasks. Virtually unlimited flexibility through modular design. With various conveying systems such as chains, chain mats, and roller conveyors, with line distributors, turners, combiners, buffer and accumulation areas, and grouping stations.



Gentle handling of your packs is just as much a given as the long service life of each individual module and minimum servicing effort.

High-tech control and electronic item tracking systems ensure a reliable flow of packs.

The basis for high efficiency and the availability of every KHS InnoLine conveying system.



InnoLine

Innoline Disposable Pack Conveyors – Segments for Straight Sections and Curves



- All segments are made of stainless steel or corrosion-resistant materials.
They are hygienic, durable, and need very little care.
- Optionally single or multiple lane conveyors.
Ideal adaptation to all your required conveying capabilities and capacities.
- Modular design segments.
Great use and application flexibility.
Optimum adaptation to your space requirements.



- Drive motors equipped with frequency controls
Excellent coordinating capabilities for the specified flow of goods.
- No dead spaces or inaccessible areas.
Very hygienic type construction.
Easy to clean.
Disinfectable.
KHS Easy Clean design possible.



Innoline Disposable Pack Conveyors – The Conveyors



- Accumulation roller chain mats made of durable plastic. Damage-free accumulation of the items being conveyed.



- Smooth chain mats made of durable plastic. Ideal for conveying a widest range of different pack types.



- Rubberized chain mats made of durable plastic. The right means of conveyance for upgrade conveying and distribution ahead of manipulation elements and palletizer infeeds.

■ Curved-travel chain mats made of durable plastic. Optimum means of conveyance for curved conveyors.



■ Conveyor belts made of durable plastic or rubber for conveying on upgrades and downgrades. Capabilities for adapting to various packaging sizes. Low-noise, gentle materials conveying.



Innoline Disposable Pack Conveyors – Pack Turners



- Turning of film-wrapped packs, trays, and cartons from crosswise to lengthwise travel and vice versa. Perfect for arranging your packs in prespecified formations.

- Packs are turned by the differential speed of two different conveyors. Smooth plastic chain mats are used here.

The packs are turned to the desired direction of travel without contact.

Gentle to materials and low-noise.

- Turning through positive engagement with the help of a pneumatically controlled rubber cushioned turning stop.

Simplified design at a more reasonable price.



Innoline Disposable Pack Conveyors – Line Distributors and Combiners



- Line distribution optionally from one to two pack conveyors or vice versa as line distribution for creating formations from one to several tracks.
Providing great flexibility to reliably solve your required conveying tasks.
- Gentle, infinitely variable sideways movement of carrier plates.
For gentle conveying of all products.
- Program-controlled product detection distributes various products to different tracks or redistributes products to other lanes.
Optimum prerequisite for high throughput of various types of product and pack.
- Combining of products from several simultaneously incoming tracks to discharging belts.
Enabling you to combine packs from the production flow or from preparation tracks.



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Innoline Disposable Pack Conveyors – Infeed to Pack Turners and Grouping Stations



Line distributor

- New type of line distributor for distributing disposable packs from one track to two or an infinite number of lanes. Great flexibility in creating your layer formations.
- A newly developed, motor-driven knife-edge belt provides optimum pack transition points from the distributor to the turning mechanism. Even the smallest disposable pack remains stable at the transition points.

- Powered by high-performance cog belt technology. Prerequisite for close carrier plate pitch. High layer stability of the packs, low-wear and low-noise operation. Reduced servicing effort.

- No mechanical handling of disposable packs. Gentle pack handling.

- Other advantages: Bus technology and frequency-controlled drives.

- Processable product range: Disposable packs, film-wrapped packs, cartons, trays, wrap-around cartons.

- Performance data: The output always depends on the size of the packs. The maximum pack-to-pack feed speed ahead of the line distributor is approximately 0.6 meters/sec., single-lane lengthwise.

Infeed to the turning facilities



Innoline Disposable Pack Conveyors – Conveyors for Cartons and Trays



- Conveyor rollers made of stainless or galvanized steel for gravity or motor-driven conveying. Well suited for hygienic areas.
- Conveyor rollers made of durable plastic. The less-expensive alternative.
- Accumulation control by means of conveyor rollers – disengaging/standstill at prespecified weigh loads (friction principle).
Flexible placement of accumulation facilities throughout the conveying system.
- Mat chain conveyors are used for small cartons and trays (see pages 10 and 11).
Mat chains made of durable plastic for wide-surface discharge and conveying.
Optimum adaptation to every type of packaging, low fallover risk, gentle handling of your packs.



Innoline Reusable Pack Conveyors – Perfect Conveying Systems for Reusable Packs



As you would for disposable packaging, just give us all of your requirements for your reusable pack conveying needs.

Innoline offers the perfect solution for every task here as well.

Practically unlimited flexibility through modular design.



With various conveying systems such as chain, chain mat, and roller conveyors, with line distributors, turners, combiners, buffer and accumulation areas, vertical and steep conveyors, crate layers, and grouping stations.

Rugged, low-maintenance design and long service life are the special quality features of the InnoLine conveying systems.

High-tech product flow and tracking systems ensure a reliable flow of packs.

The basis for high efficiency and the availability of every KHS InnoLine conveying system.



InnoLine

Innoline Reusable Pack Conveyors – Segments for Straight and Curved Sections



Innoline pack conveying segments for straight sections and curves

- All segments are made of stainless steel or corrosion-resistant materials. They are hygienic, durable, and need very little care.
- Optionally single or multiple lane conveyors. Ideal adaptation to all conveying capabilities and conveying capacities you require.
- Modular design segments. Great use and application flexibility. Optimum adaptation to your space requirements.



- No dead spaces or inaccessible areas.
Very hygienic type construction.
Easy to clean.
Disinfectable.
KHS Easy Clean design possible.
- Drive motors equipped with frequency controls.
Excellent coordinating capabilities
for the specified flow of goods.



Innoline Reusable Pack Conveyors – The Conveyors



- Stainless steel slat belt chains.
Hygienic solution. Long service life.



- Rubberized stainless steel slat belt chains.
For conveying your packs on slight upgrade
and downgrade segments.



- Stainless or galvanized steel conveyor rollers.
Gravity or electrically driven conveyors.
Recommended for processing reusable and disposable packs.



- Rubberized mat chains made of durable plastic.
To overcome upgrades and downgrades of up to 24°.
Low-noise, gentle pack conveying.
Materials to match your types of pack.



- Possible use as a stop belt.
To decrease the accumulation pressure.
Low-noise, gentle-to-materials solution.

- Mat chains made of durable plastic for conveying complete pack layers.
Very high conveying throughput.
Additionally well suited for small packs and for machine-to-machine connections.

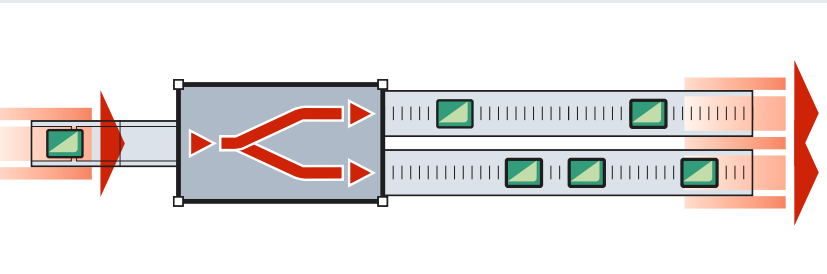


Innoline Reusable Pack Conveyors – The Distribution Switch



Innoline manipulation elements – important modules for smooth pack flows

- Optional line distribution from one to two pack conveyors or vice versa.
Great flexibility to reliably solve your required conveying tasks.
- As line allocator for creating formations from one to several tracks.
Variability in setting up formations.
- Gentle, infinitely variable sideways movement of carrier plates.
For gentle conveying of all products.
- Program-controlled product detection for distribution of various products to different tracks or redistribution of products to other lanes.
Optimum prerequisite for high throughput of various types of product and pack.



Innoline Reusable Pack Conveyors – The Combiner

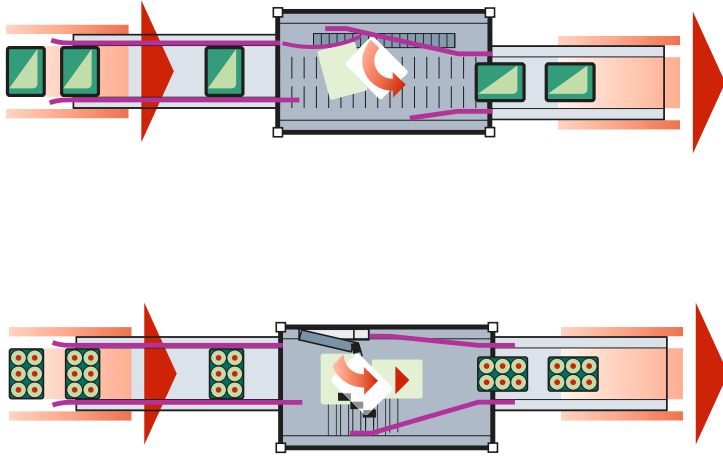


- Combining of products from several simultaneously incoming tracks to a discharging belt. Enabling you to combine packs from the production flow or from preparation tracks.



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Innoline Reusable Pack Conveyors – Turners and Inverters



Innoline manipulation elements – important modules for smooth pack flows

- Plastic crates or reusable cartons are turned from crosswise to lengthwise travel and vice versa. An important module for arranging your packs in desired formations.



■ Packs are turned by the differential speed of two conveyors with different frictional coefficients. The packs are turned into the required direction of flow without contact. Gentle and low-noise mode of operation.

■ Turning through positive engagement with the help of a pneumatically controlled rubber cushioned turning stop. The less-expensive alternative thanks to simplified design. Reliable mode of operation also for empty crates.

■ Plastic crates are turned upside down by inverting them by means of gravity in a chute. This reliable removes all residue, containers, and foreign objects that cannot be decaled automatically.



Innoline Reusable Pack Conveyors – Crate Magazine – A Perfect Buffer Between Craters/Casers and Decraters/Decasers



A selection of empty crate magazines or buffer tables to choose from.

The advantages in detail:

- Available as a one- or two-lane system.
Flexible adaptation to your system configuration.
- Ideal for storing empty plastic crates to compensate for brief fluctuations in output.
Increased line efficiency by maintaining a continuous flow of products.
- Automatic stacking and destacking row by row.
Exact adaptation to the changing requirements within your line.
- Storage capacity for 280 to 1488 crosswise module crates for example.
High storage capacity with a small footprint.
An exceptionally space-saving solution.

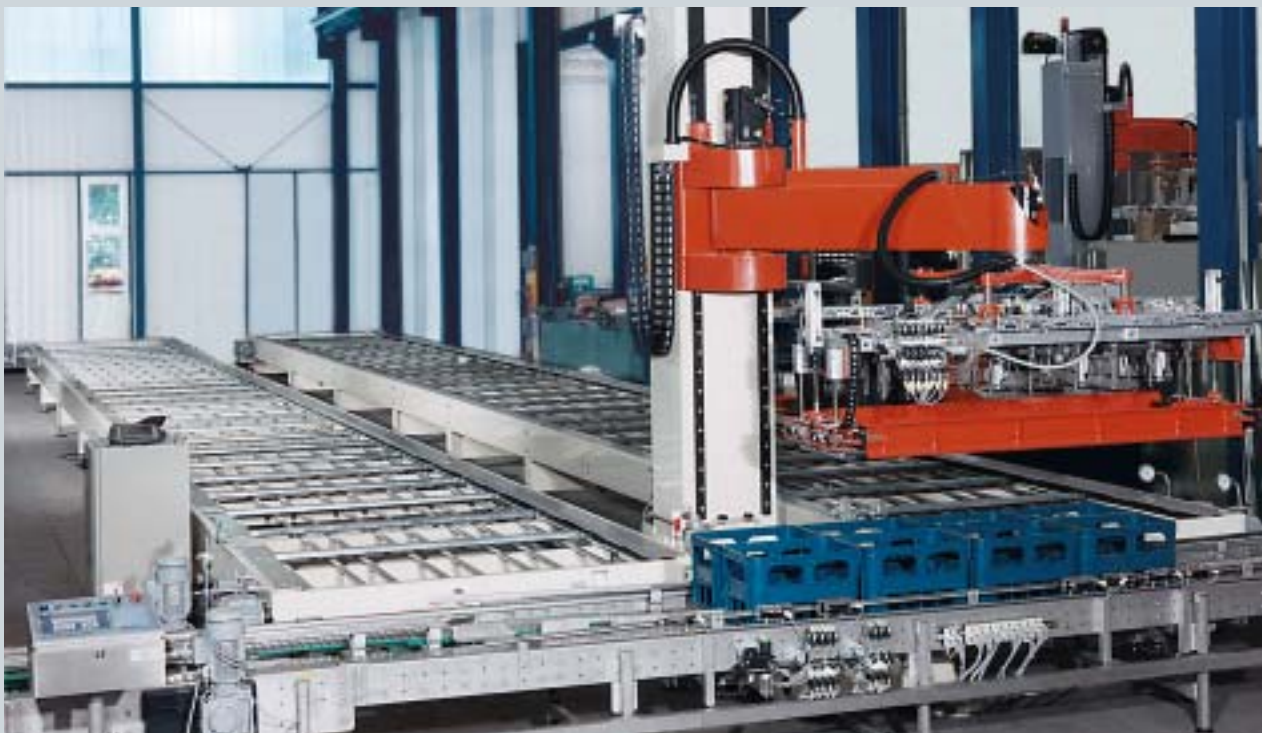


Innoline Reusable Pack Conveyors – Buffer Table Magazines



A choice of RS and RK basic model machines is available.

- The RS and RK buffer table magazines places incoming empty crates from one- or multiple-track conveyor belts row by row on two buffer tables.
Stacking height: Up to 1.90 meters
Storage capacity: Up to 4000 crates
Work radius 180°
Gives you double the storage capacity.
- Various buffer table sizes depending on the project.
Up to a maximum of 2000 crates.
Flexibility in adapting to the requirements of your line.



Innoline

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