



 SHUTTLEWORTH®

HEALTHCARE & MEDICAL SOLUTIONS

PrH

PRODUCT
HANDLING

PHARMACEUTICAL | NUTRACEUTICAL | INJECTABLE AND OTC MEDICATIONS
MEDICAL SUPPLIES | SURGICAL KITS | SANITARY WIPE PRODUCTS | VISION
DENTAL CARE AND MORE

THE SHUTTLEWORTH ADVANTAGE

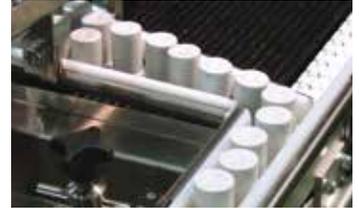
As a leader in the product handling industry, Shuttleworth offers proven solutions for a variety of healthcare packaging challenges for the pharmaceutical, biopharmaceutical, medical device, nutraceutical industries and more. Our custom solutions are designed specifically to the product, application and its environment.

We partner in collaboration with our customers to develop the best proven product handling solutions to meet their specific industry challenges and needs – delivering value through integrated automation.

INNOVATIVE. COMPLIANT. EFFICIENT.

Shuttleworth has led the product handling industry since 1962 with our custom product application designs. Our innovative Slip-Torque® roller technology is the foundation of our conveyor systems, providing low back pressure accumulation for gentle product handling of the most delicate and fragile products. And, our polished stainless-steel frame construction meets the strictest compliance requirements and features a robust design for both wipe down and hygienic washdown environments.

Shuttleworth's line of sanitary conveyors and specialty devices designed specifically for healthcare industries go through rigorous testing and offer durability and reliability for peak performance and increased line efficiency.



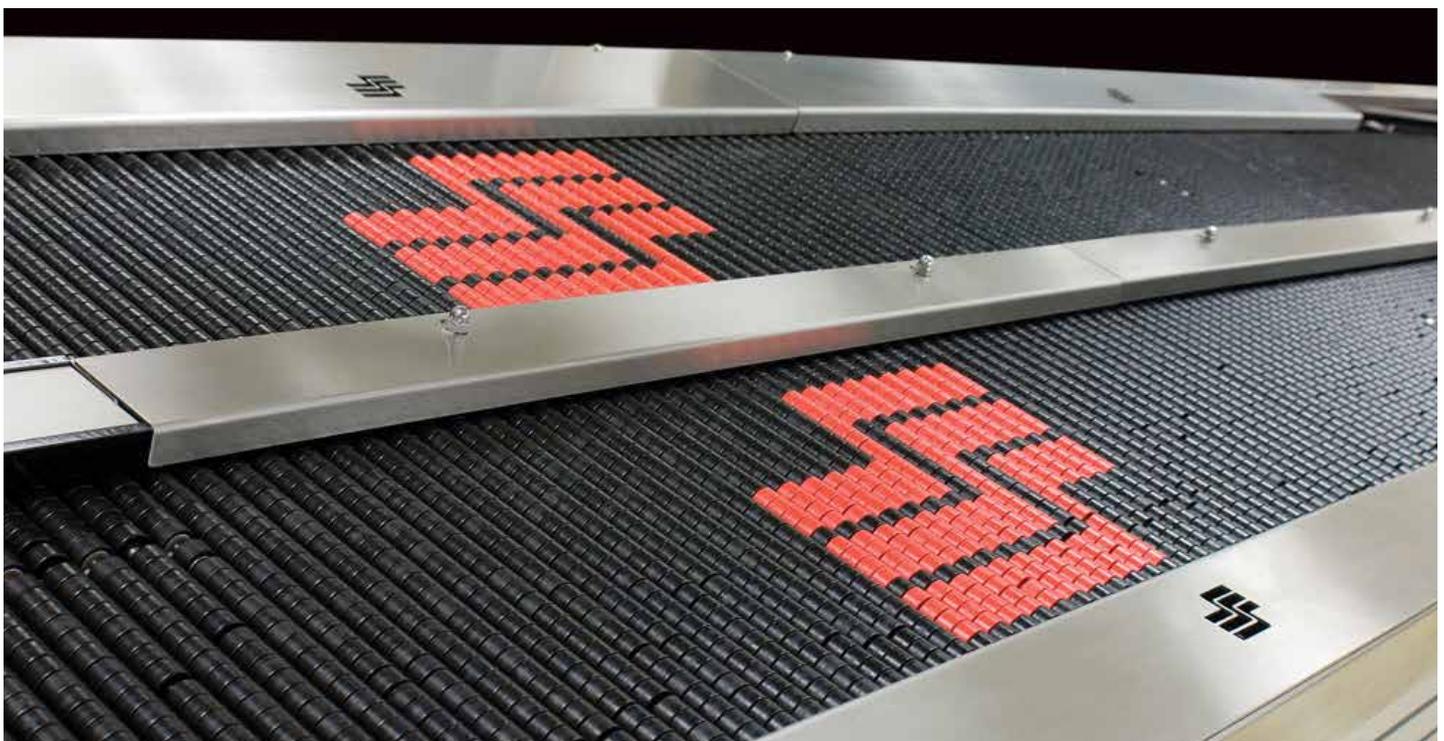
BOTTLES - SINGLE ROWING



INHALERS - MANUAL TRAY LOADING



SYRINGE TRAYS



SLIP-TORQUE®

At Shuttleworth, we understand the opportunities and challenges facing healthcare manufacturers today. As this segment encounters increased consumer demand plus federal regulatory and compliance challenges, manufacturers are forced to work harder as accountability and accuracy are key to their success. Through our integrated product handling solutions, manufacturers can be confident in their delivery of high-speed, accuracy and top-quality products without the complexity.

OUR HEALTHCARE PRODUCT HANDLING EXPERTISE INCLUDES A BROAD PORTFOLIO OF PRODUCTS

- Catheters
- Contact Lens Solution
- Contact Lenses
- Dental Floss
- Diagnostic Kits
- Eyeglass Lens Disks
- First Aid Kits
- Gauze Rolls
- Injectables
- IV Drip Bags & Bottles
- Joint Implants
- Medical Tape
- Medicated Patches
- Nutraceutical Bottles
- Over-The-Counter (OTC) Bottle Medications
- Pharmaceutical Blister Packs & Bottles
- Pre-Surgery Wipes
- Sanitary Diapers & Pads
- Sanitary Wipes
- Surgical Gown Kits
- Surgical Instrument Kits
- Syringes, Ampoules, Test Tubes & Vials
- Toothpaste
- X-ray Film

Sanitary Designs with Safety In Mind

Our robust sanitary designs are suitable for Class 100 (ISO Class 5) cleanroom environments and feature Slip-Torque roller technology, equipped with anti-microbial plastics to minimize opportunities for bacterial growth and meet OSHA standards. Our modular designs allow for future reconfiguration, as needed.

We offer two types of sanitary design platforms – wipedown and washdown. Our wipedown conveyor features a bolted, stainless steel construction to accommodate a variety of packaged or dry good applications. The washdown design includes welded, #4 polished stainless steel construction to prevent cross contamination between the handling of different products and sanitary grade bearings to withstand high pressure, corrosive sanitation procedures. We also offer a superior corrosion-resistant 316-grade stainless steel washdown design suitable for chemical or irradiation applications. Chain and belt drive systems are available and based on application environment.



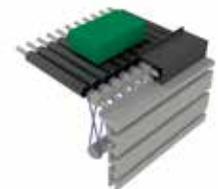
CLEAN PASS THROUGH



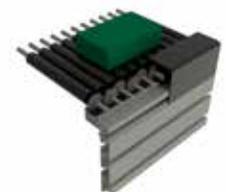
CLEANROOM PASSTHROUGH



CLEANROOM PASSTHROUGH



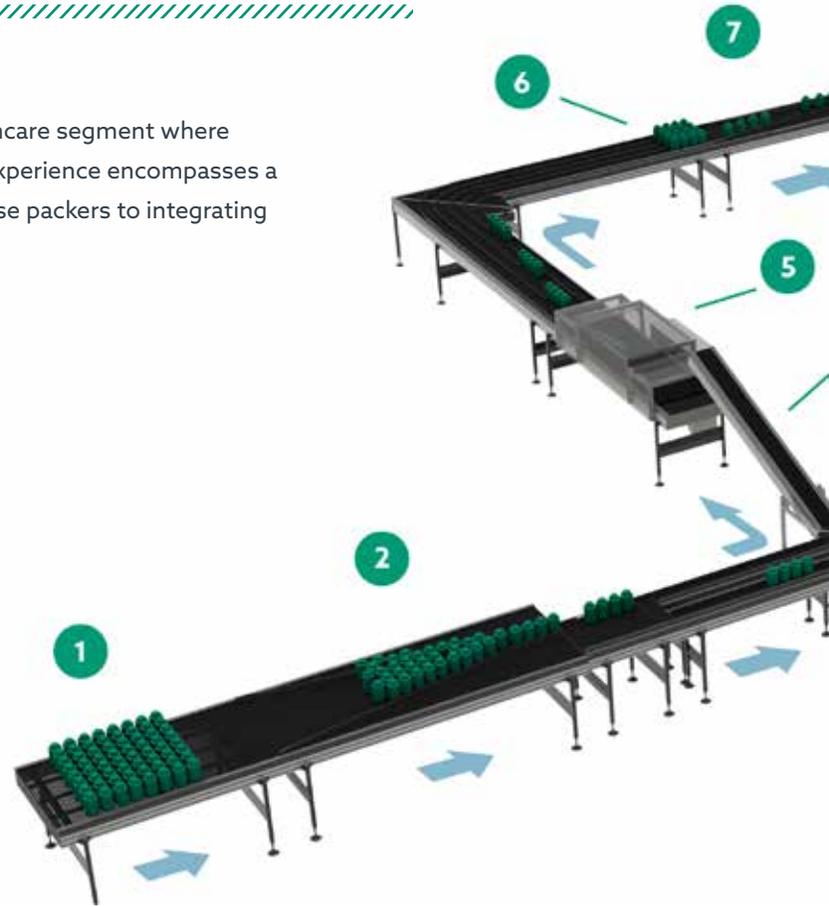
BELT DRIVE



CHAIN DRIVE

HEALTHCARE PRODUCT HANDLING SOLUTIONS

Shuttleworth's product handling solutions are vital to the healthcare segment where accuracy is key and errors are costly. Our diverse applications experience encompasses a variety of packaging processes from infeeding wrappers and case packers to integrating manual pack stations for human interface.



1. MASS ACCUMULATION



2. SINGLE ROWING



3. TIGHT-TURN RADIUS



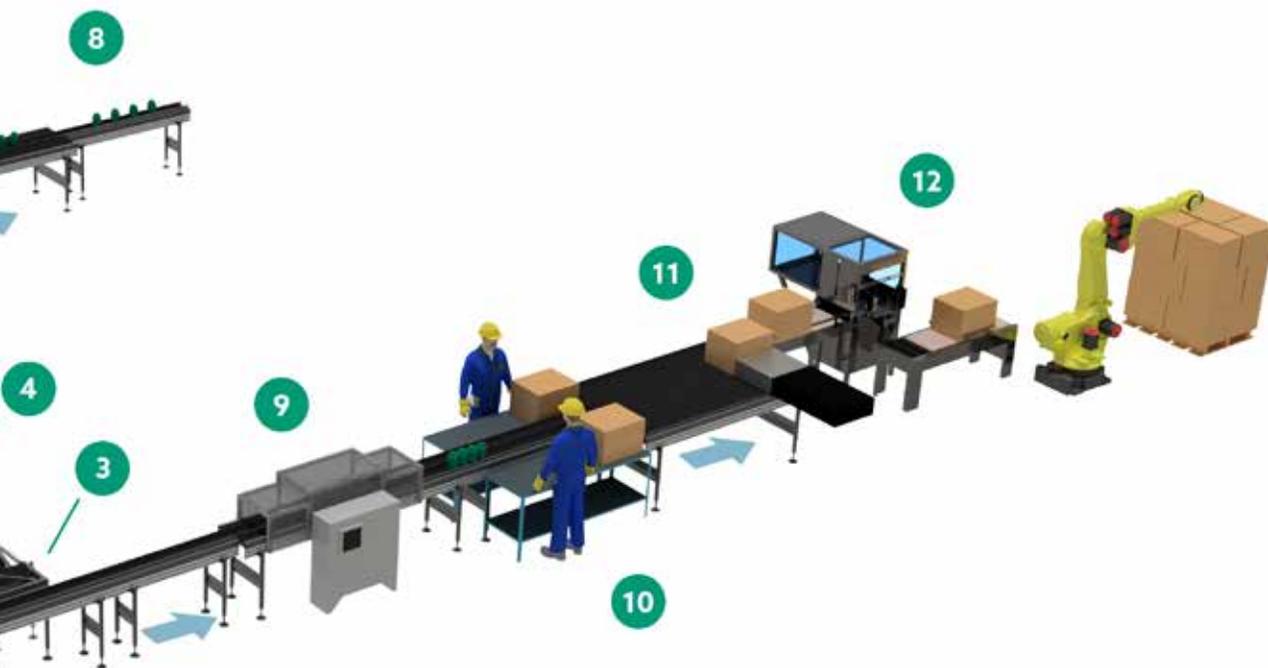
4. LIFT GATE



5. MULTI-LANE DIVERTING



6. MULTI-LANE ACCUMULATION



7. GATE COMBINING



8. WRAPPER INFEED



9. LANE DIVERTING



10. MANUAL PACK STATION



11. PUSHER



12. CASE PACKER INFEED

DASH

Dynamic Accumulation by Shuttleworth

Dynamic Accumulation Buffer System to Optimize Packaging Efficiency

Maintaining packaging efficiency is essential to meeting the cost and productivity challenges in today's pharmaceutical manufacturing. Packaging lines must run at optimum levels and experience as little downtime, as possible.

Shuttleworth's DASH offers the ideal solution through dynamic, continuous motion accumulation with minimized product damage – providing increased efficiency and consistent gentle product handling.

Featuring Shuttleworth's innovative Slip-Torque roller technology, the versatile DASH delivers high-speed, low back pressure buffering to control received product from upstream and absorb any interruptions in the flow to make the downstream run more smoothly. Its automated servo-controlled guides provide smooth lane changing without the stopping of product to keep your products moving and minimize line downtime.

FEATURES

- Dynamic, on-demand accumulation
- FiFo – First in, First out accumulation
- Functionality to enhance product flow
- Low pressure accumulation for gentle product handling
- Allows for denser product accumulation, allowing products to touch without damage due to low back pressure

BENEFITS

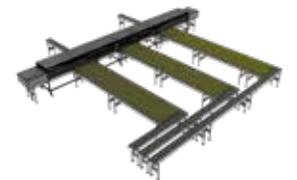
- Gentle product handling with care
- Smoother line efficiency by minimizing downtime
- Ensures consistent quality integrity
- Reliable solution requiring low maintenance
- Can accommodate round, square or rectangular products

DASH offers flexible integration with scalable design based on product size and accumulation duration desired. Its easy operation and low maintenance make it the ideal solution for today's pharmaceutical manufacturers.

DASH DESIGN OPTIONS



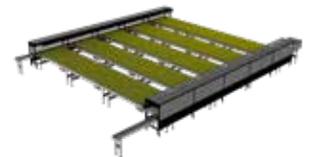
2-3 INLINE



2-3 RIGHT ANGLE



LONG



SQUARE



WIDE



DASH DISCHARGE



DASH INFEED



DASH TROMBONE BUFFER

Healthcare Applications Expertise

Our applications expertise goes beyond traditional conveyor manufacturers. Our team of knowledgeable applications engineers and industry experts is committed to helping customers discover the ideal solution for their specific product application needs. Our healthcare applications experience includes accumulating, combining, dividing, indexing, kitting, pushing, rejecting, rotating, single rowing, vision inspection and much more. In addition, ergonomic operator requirements can be taken into consideration and incorporated into the overall design. From transporting bottled or trayed products to accumulating products for filling, weigh stations or case packing, Shuttleworth has a solution for you.

We recognize the importance of traceability in the healthcare sector and the ability to quickly recall products and track production efficiently. Through our integrated systems, manufacturers have peace of mind with our custom devices offering bar code scanning and label inspection for accountability, safety and security.



IV BAG APPLICATIONS



KIT ASSEMBLY



TRAY LOADING

We develop innovations that will maximize production and help improve how your products are packaged for distribution across the globe. We're more than simply a conveyor manufacturer - We're Shuttleworth.



From automotive and electronics, to paper conversion and pharmaceuticals, to food and consumer good markets and beyond, manufacturers across the globe rely on Shuttleworth's proven product handling solutions to increase line efficiency, maximize profitability, and minimize risk. As part of the ProMach Product Handling business line, Shuttleworth helps our packaging customers protect and grow the reputation and trust of their consumers. ProMach is performance, and the proof is in every package.

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