**III PRO**MACH



BOOKS | CORRUGATED PAPER | GREETING CARDS | PAPER PLATES SIGNATURES | WET WIPES AND MORE

# PROVEN PRODUCT HANDLING SOLUTIONS

### The Shuttleworth Advantage

As a leader in the product handling industry, Shuttleworth offers product handling solutions to keep industries moving. We've developed hundreds of paper and printing applications for paper plates, wet wipes, greeting cards, signatures, corrugated paper, books, magazines, stitching 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.



Since 1962, Shuttleworth has led the product handling industry with its 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.

Shuttleworth's line of conveyors and specialty devices withstand rigorous testing and offer durability and reliability for peak performance and increased line efficiency.



BOOKS



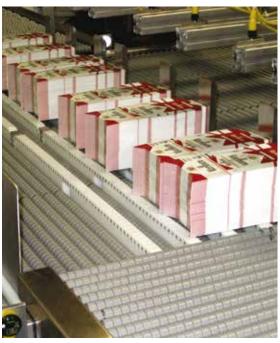
PAPER PLATES



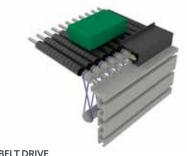
WET WIPES



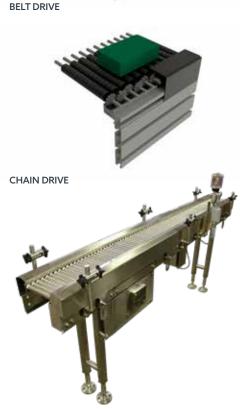
SIGNATURES



CARTON BLANKS







ALUMINUM DESIGN WITH SLIP-TORQUE ROLLER TECHNOLOGY

EASY CLEAN 1000 WITH STAINLESS TUBE ROLLERS

### Conveyor Designs Built To Last

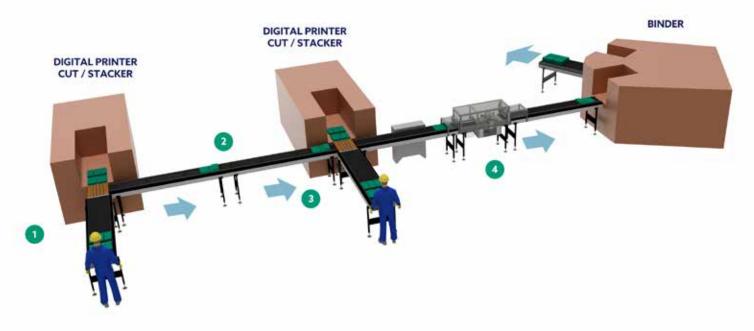
Shuttleworth's durable and reliable conveyor equipment is designed to operate in some of the most challenging environments. Our robust conveyor system designs feature Slip-Torque™ roller technology, equipped with slip-fit rollers to minimize product damage and close roller shaft centers to provide the maximum product stability. We build our custom conveyor systems to keep your production lines running at optimal performance with minimal interruptions. Our conveyors offer durability and reliability to ensure your production line is operating at peak performance with minimal downtime and changeovers.

Distinct frame designs are the foundation of every conveyor system at Shuttleworth. Available in standard aluminum or sanitary stainless steel design, each conveyor is tailored specifically to the unique application requirements. Shuttleworth standard conveyors feature a bolted, aluminum 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. Chain and belt drive systems are available and based on application environment.

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## PAPER/PRINTING SOLUTIONS

## Digital Print





1 - HIGH-SPEED LIFT AND TRANSFER
Accurate product transfer at 90-degree angle



**2 - STAR ROLLER**Eliminates creeping or shingling of loose-leaf paper stacks

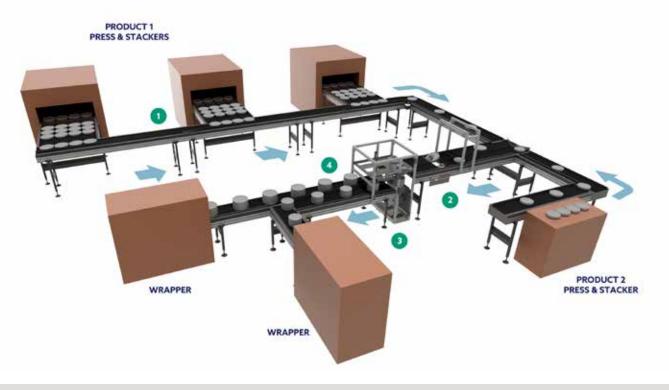


3 - TRAFFIC CONTROL
Allows efficient traffic flow from multiple directions



**4 - FLIPPER**Orients product based on process needs

## Paper Plate Handling





1 - MULTI-LANE ACCUMULATION

Accumulates multiple lanes of product on single conveyor



**2 - REJECT DEVICE**Ensures quality control for maintaining product integrity



3 - SINGLE PLATE STACKING

Lift grid gradually lowers as stack increases to allow for various stack heights



**4 - PLATE BUNDLE STACKING**Upstacking of product after wrapping for case packing

# PAPER CONVERSION PRINTING/BINDING APPLICATIONS

# Changing the Way the Paper Industry moves Cut Sheet Paper between Processes

Handling paper products is our expertise at Shuttleworth. From masking tape rolls to paper plates or board games, our knowledgeable design team can flip, stack, sort and rotate your products to best fit your manufacturing or packaging processes.

### Star Roller™ - The Superstar in Paper Handling Applications

Shuttleworth's patented Star Roller eliminates "shingling" or "creeping" of the bottom most layers of paper when stacks are transported or accumulated on Slip-Torque® conveyors. Designed specifically for handling loose sheets of paper and paper products, the Star Rollers interlock together to solve shingling problems and eliminate product damage - preserving the integrity of the paper.

When combined with Slip-Torque roller technology, the Star Roller profile accomplishes non-damaging accumulation (buffering) between machines in the cut sheet paper handling process.

Accumulation reduces total line delays by allowing operable machines to continue production for a cost-effective period of time when other in-line machinery is down. The amount of accumulation time is determined by frequency and length of downtime of in-line machinery. Through the use of Star Roller technology, the paper industry can benefit from flawless accumulation that increases throughput, gives greater productivity, reduces product damage, and saves hours of operating time.



FFEDING CORRUGATED TRIMMER



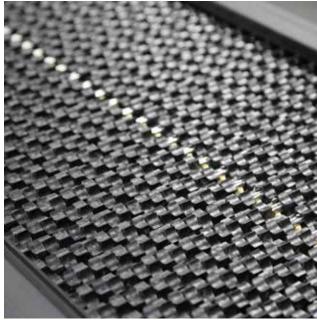
WRAPPER FEEDING BOOKS



STACK CORRECTING BANK CHECKS



ORIENTING GAMING TICKETS



STAR ROLLER SURFACE



INDIVIDUAL STAR ROLLER SHAFT

#### Paper Applications Expertise

Shuttleworth's 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 challenges. Positioning converted paper products through an automated product handling system to a wrapper, case packer or palletizer requires consistent product control throughout to help streamline both the production and packaging processes.

Our paper and printing applications experience includes accumulating, combining, dividing, stacking, indexing, pattern forming, 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 accumulating and stacking to orienting, Shuttleworth has a solution for you.



TRAFFIC CONTROLLING BOOK



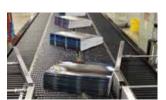
LANE COMBINING PACKAGED WIPES



PATTERN FORMING TAPE FOR ROBOTIC CASE PACKING



HANDLING STACKS OF GREETING CARDS



ORIENTING BOOK STACKS

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

We're Shuttleworth.



## 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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