



## INDUSTRY FOCUS

# Assembly Conveyors

Whether manual or automated, assembly applications require the movement of parts and assemblies between and through processes, making conveyors a vital component of any system. QC Conveyors offers solutions for every step of the process from handling small parts to packaging completed assemblies.

QC Conveyors offers conveyor solutions for:

- Handling full or partial assemblies
- Precision assembly
- Small part handling
- Inspection and rejection
- Packaging
- Carton handling

### ROBOT/COBOT-READY CONVEYORS

QC Conveyors' brushless DC motors are easy to integrate with robots and PLCs. A free URcap is available that allows conveyors to be controlled directly by a UR robot, including start/stop, forward/reverse and multiple speed operation.

### NOSEBAR TAILS

AS40 Conveyors are available with nosebar tails for even better transfer of small parts between conveyors or other integrated machines. The thin, 11mm outer diameter reduces the gap created by the pulley radius at the end of the conveyor.

### BACKLIGHTING AVAILABLE

To aid in part inspection and robot orientation applications, AS40 Conveyors are available with backlights to provide contrast for vision systems to inspect parts. QC Conveyors offers backlights from industry leader Spectrum Illumination. Other backlights can be installed based on customer specifications if required.

### MODULAR PLASTIC CHAIN CONVEYORS

Flextrac Series Conveyors feature a space-saving design capable of moving assemblies and cartons through any facility. Their modular design allows infinite configurations, including curves and elevation changes to make the maximum use of space in your facility. They can be quickly reconfigured as requirements change.

### PRECISION INDEXING

IS300 Timing Belt Conveyors are capable of delivering parts to precisely where they need to be. A timing belt helps them make starts and stops that are accurate to within  $\pm 0.15$ ".

Accuracy and flexibility are important aspects of the assembly industry. QC Conveyors understands these unique needs and stands ready to offer conveyor solutions — both standard and custom — to meet them.



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### CUSTOMER SPOTLIGHT



Byrne Electrical Specialists uses 28 AS40 conveyors to help reduce part handling in a set of three robotic assembly cells that assemble electrical outlets.

Nine of the conveyors (three per cell) have backlights installed in their frames, which provide contrast so the vision system can detect properly shaped/spaced parts and orient the robot for pickup. The conveyors stop when the vision system detects parts ready to be picked.

Each of those conveyors is fed from another set of conveyors that run parallel and slightly above the backlight conveyors. They run slower than the backlight conveyors to create separation between the parts. Parts that are stacked or improperly shaped drop onto a third set of conveyors that takes them back to a hopper so they can be run through the system again.

The robot assembles the parts into the front shell and then adds a back plate. Once an outlet passes inspection, it's placed on a takeaway conveyor that runs through all three cells. Since each cell can be making a different product (color, options, etc.), the conveyor is divided into three lanes so the packaging cell robots know which order a particular outlet goes with.