

The Most Rugged in the Industry

Its Versatility and Durability Have Made the MC450 the Standard for Baggage Sortation

The **BAE MC450™** is an industry-standard 45-degree merge conveyor subsystem designed to accurately insert baggage from one line into a bag space opening on another line, ensuring proper baggage presentation for sorting.

The **MC450** is a cycling conveyor that is typically preceded by a queue conveyor, a power turn, or a straight run conveyor. Its rapid start/stop capabilities provide for accurate indexing, improved sorting and higher throughput rates.

Versatility

The versatility of the **MC450** allows it to be integrated into any BAE baggage handling system, whether conventional conveyor or destination-coded vehicle (DCV) system.

When used with conventional conveyors, the merge is timed to integrate with the main conveyor, ensuring that bags are oriented parallel to the main conveyor as they are being merged.

When used with DCV systems, such as the BAE Telecar®, the merge integrates at high speed with the DCV, loading bags on the fly. Optional spring-loaded sideguards provide increased loading accuracy for DCV systems.



The **MC450** features a unique dual-drive system and spring-loaded take-up to minimize excess belt tension and reduce friction. A stainless steel nose bar helps resist wear. These features cut the current load on the motor, eliminate belt squeal at startup, and make it the quietest merge subsystem in the industry.

Durability

The durability of the **MC450** extends to its high-grip belting of PVC-covered polyester. A flame-retardant coating is an available option for ISO 340 requirements.

Beds are fabricated using 10-gauge hot-rolled steel, the heaviest in the industry, then powder-coated to resist rust, corrosion, and other environmental influences for a longer life, yet look good, too.

Large diameter pulley shafts add increased durability and help extend bearing life for lower maintenance costs.

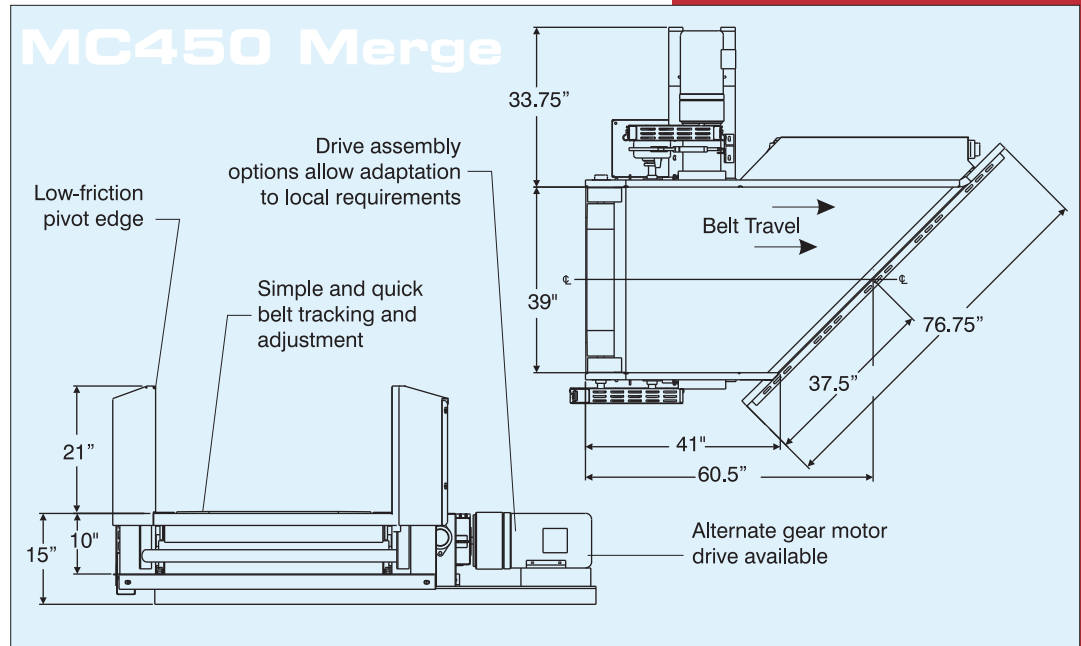
These are just a few of the reasons the **BAE MC450** Merge has become an industry standard the world over.

MC450 Technical Summary

The **MC450** is the most reliable merge conveyor subsystem on the market today, proving its durability year after year in baggage systems around the world.

Benefits

- Rugged flange bearings with advanced seal design provide improved performance in harsh environments. Bearings seal both on and off the shaft, retaining lubricant and excluding dust and dirt.
- Standard powder-coated finish offers greater durability than ordinary enamel, with stronger resistance to rust, corrosion, marring, and environmental influences.
- High-grip belting of PVC-covered polyester helps prevent bag slippage and assures accurate spacing. Optional flame retardant coating meets ISO 340 requirements.
- Noise reduction measures give it the lowest Db rating in the industry.
- Belt replacement is straightforward, and tracking is simple and quick.
- Optional gear-motor drive provides compact drive mounting and fewer parts.
- Heavy-duty 10 ga. steel bed and 12 ga. sideguards make it rigid to minimize flexing.
- Larger pulley shaft diameter permits bigger bearing with longer L₁₀ life.
- Fully guarded for safety.



- Low-friction pivot edge increases ease of transition.
- Spring-loaded take-up prevents excess buildup of belt tension.
- Dual-drive system maintains belt traction, eliminates belt squeal at startup, and helps cut current load on drive motor.
- Rapid start/stop capabilities ensure accurate indexing for improved sorting and higher throughput rates.
- Parametric design is easily adapted to local requirements and standards, with alternate motors, bed widths, bed lengths, belts, coatings, side guard heights, and mounting methods.
- Components easily accessible for routine maintenance and adjustment.

MC450 Merge Features

Width	80 in. (including drive motor)
Length	60.5 in. at centerline (80 in. overall)
Height	36 in. (with 21 in. sideguards)
Bed Width	39 in. between sideguards (42 in. overall)
Bed Height	12 in.
Bed	Hot-rolled 10 ga. powder-coated steel
Sideguards	21 in. standard, 9 in. optional; hot-rolled 12 ga. powder-coated steel
Belt Width	36 in.
Belt Length	230 in.
Belt Type	Black, longitudinal groove, PVC-coated multifilament polyester
Drive Unit Motor	3 hp, 460 v., 60 hz, 3 ph., TEFC
Clutch/Brake	Warner UM210
Reducer	Shaft mounted
Drive	Double V-belt
Drive Pulley	6 in. dia., neoprene lagged, uncrowned
Tail Pulley	6 in. dia., unlagged, trapezoidal crown
Take-up Pulley	4 in. dia., unlagged, trapezoidal crown
Return Pulley	4 in. dia., unlagged, uncrowned
Snub Pulley	3.5 in. dia., unlagged, uncrowned
Pulley Shafts	1.4375 in. 1018 cold-rolled steel (.6875 in. shaft on snub pulley)
Belt Speed	400 ft./min. max.
Throughput	30 bags/min.
Merge Direction	Left or right
Transition Height	2 in. drop to takeaway belt
Weight	1082 lbs.

Other sizes and configurations are available on special request. Metric versions also available. Specifications for international installation may differ, and are adapted to local requirements. Contact your BAE representative for availability.



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