



## Product Bulletin No. A-24

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### Servo Merge System



This particular Wrabacon servo merge conveyor will accept incoming product in four rows. This system does not require any form of gate and release system. Product is not stopped prior to entering the servo merge. The system will also accept product in a random manner.

The servo merge system consists of a gap, correction, and merge conveyor sections. The system functions in the following manner:

The four gap belts receive product from the existing conveyors and create a gap on the incoming products. A special conveyor controller accepts pulses from an encoder driven by the belt on to which products are merged. This allows the servo drive to monitor the position and velocity of the merge conveyor. The correction conveyor meters products onto the merge conveyor at a velocity and distance interval specified by the user. Products are stopped and accelerated as necessary to maintain the desired spacing.

To control the flow of the product on to the merge conveyor from the four correction conveyors, a merge controller acts as a traffic cop. It determines the sequence in which the correction conveyors release product on to the merge. Also, this controller allows one or more of the input conveyors to be taken off-line while not affecting the throughput of the system. The system will accept incoming product at random speeds and spacing on all of the gap conveyors.