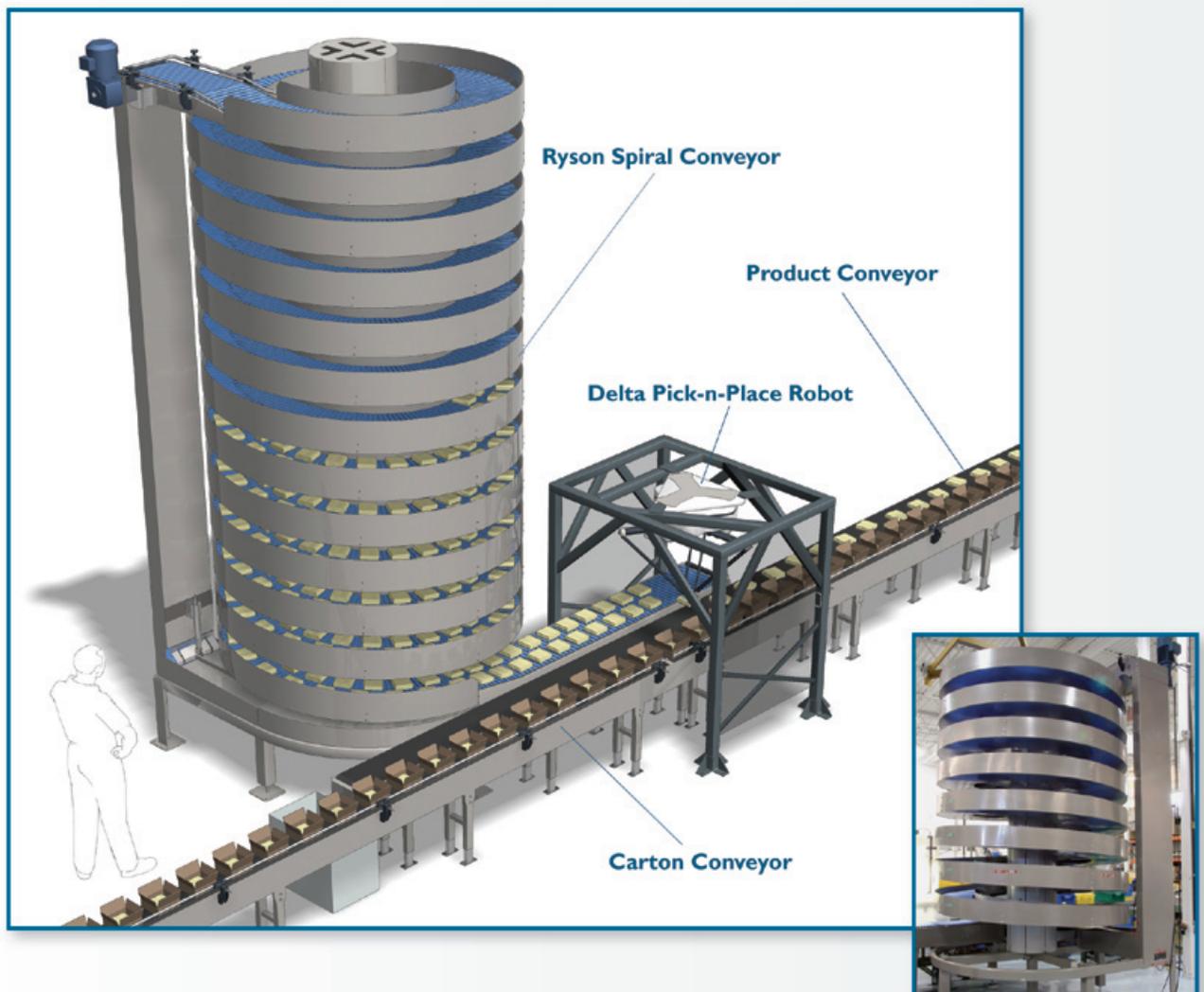


Robotic Buffer System

“A Fresh approach to vertical Accumulation”

The customer needed to dynamically buffer their product flow. Very little floor space was available, but there was plenty of clear height. A Ryson Spiral Buffer proved to be the best solution. Ryson Spirals have a small footprint and use overhead space very efficiently.



SYSTEM DESCRIPTION

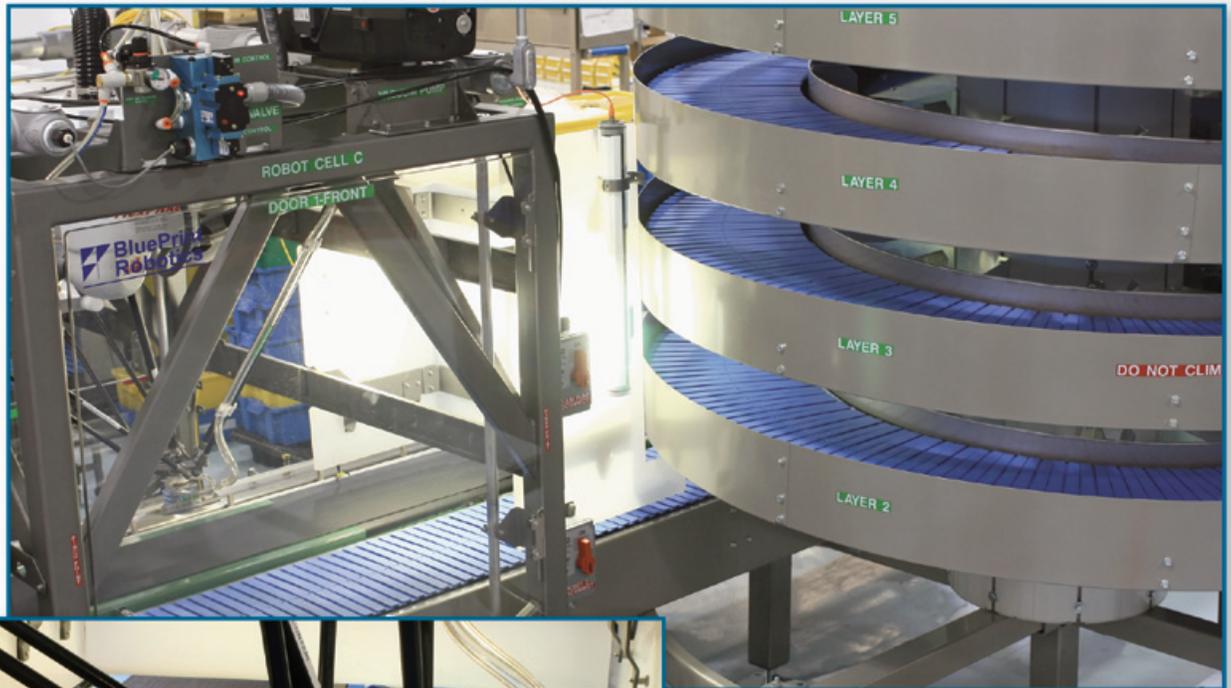
Two conveyors run side by side and parallel to the spiral in/outfeed conveyor. One conveyor handles products from the filler and the other convey empty cases. A Delta pick-n-place robot located in front of the spiral loads products into the empty cartons or feeds the Spiral when needed. The Spiral conveyor provides vertical accumulation and buffers any imbalances in the flow of products or supply of cartons. The Spiral is reversible and accumulates products during over supply and purges during times of under supplying, where the Robot will load the cartons directly from the Spiral. This dynamic Buffering system compensates for intermittent operating interruptions and thereby significantly improves overall production efficiency.

SYSTEM DATA

Two separate lines were provided. One has an 8 turn spiral and the other 12 turns.

The tallest spiral is 20 feet high, has 220 feet of 16" wide conveying surface and provides 8 minutes of accumulation. The spirals are bi-directional and can start and stop 20 times per minute. The overall spiral footprint is 8 feet in diameter. Only one drive is required and all Ryson Spirals are designed for low maintenance and long life.

The Delta pick-n-place robot has a vision system which assures correct product spacing and orientation. The robot operates very fast and can cycle 100 times per minute.



SYSTEM INTEGRATION

Ryson provided the two Accumulation Spirals to Blueprint Robotics of Longmont, Colorado. Blueprint Robotics was responsible for the overall system design and implementation. The end user is a large US food manufacturer.

VERTICAL CONVEYING SOLUTIONS

Ryson is the number one Spiral Conveyor manufacturer in the USA.

For application assistance or more information, give us a call or visit www.ryson.com.

