



High Speed VRC for Disney Gift Shop

Features and Benefits

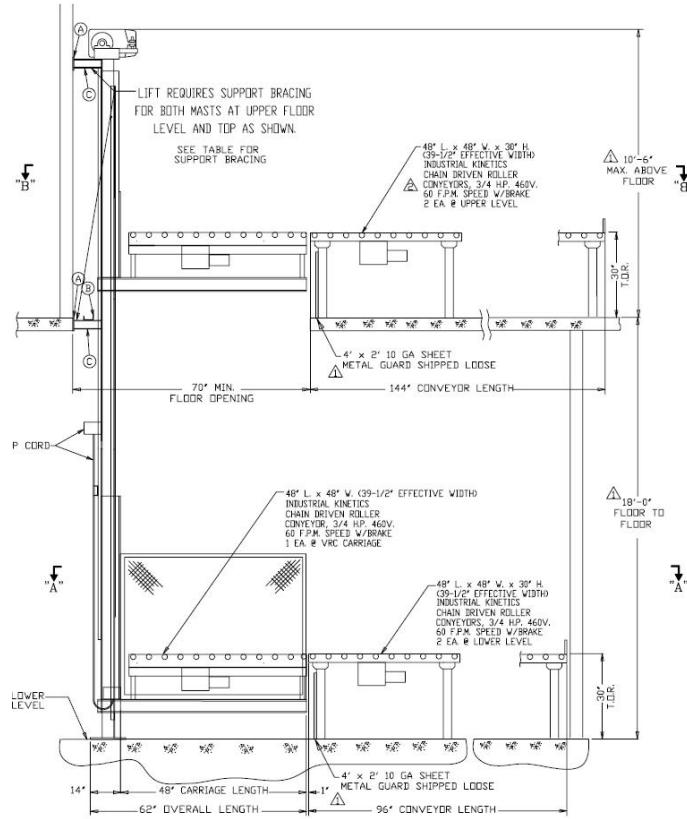
Fast, programmable conveyor

Increases inventory movement/accuracy

Reliable with minimum down time

Photo-sensing switches

Industry Group: Conveyor & Sortation Systems (CSS)



The Customer Requirement

Disney installs a high speed vertical reciprocating conveyor (VRC) as part of an automated inventory storage and retrieval system.

The Challenge

Disney was in the process of updating its inventory storage and retrieval system behind the scenes of its gift shop to better automate the movement of inventory from below-ground storage to store level almost 18 feet above. They were seeking a lift solution that could be controlled by a programmable controller (PLC) to become a component within their overall automated conveyor system. Based on the high volume of sales in the gift shop, the lift would need to be able to operate at the same speed as the rest of the conveyor system – 60 feet

per minute. The lift would have to accommodate rather small unit loads in the smallest amount of square footage as possible. Finally, because the critical nature of this inventory system, the lift would need to operate with an extremely high level of reliability and a minimum of down time.

The Autoquip Solution

The technical sales team at Autoquip met with the engineers at Disney to clarify all equipment specifications, installation constraints, and applicable code requirements. A low-capacity vertical reciprocating conveyor (VRC from our Freightlift family of mechanically-actuated VRCs) was identified as the best solution for this application because: 1) lift is extremely robust and reliable, 2) lift is easily customized to accommodate higher operating speeds, and 3) lift is most readily able to be programmed with the use of a PLC

Each lift was equipped with a chain-driven live roller (CDLR) conveyor section and photo-sensing switches that automatically tracked the location of pallets as they entered and left the lift, activating lift and conveyor motor controls accordingly. And finally, the lift was designed with special 2-piece spliced guide beams that would be able to be handled and installed in the limited/small space allotted for this lift, then attached end-to-end in the field and field-welded to provide a smooth and seamless guide path throughout the 18-foot travel. Disney has been completely satisfied with this reliable and programmable material lift solution, and regulatory agencies in the state of California have certified the lift as being adequate for use in a seismic zone.

Lift Specifications for this Food Processing Application:
• Model: FLMC-1 • Lift Capacity: 100 lbs
• Vertical Travel: 216" • Carriage Size: 48" x 48"
with CDLR conveyor • Lift Speed: 60 feet per minute
• Lift Actuation: Mechanical Gear Motor

Solution Benefits

Autoquip provided a customized VRC design for use within an automated conveyor system that satisfied all performance requirements and installation concerns. The customer has a fast, programmable vertical conveyor which has allowed

them to achieve an increase in overall inventory movement and accuracy.



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