

## Storage Mediums

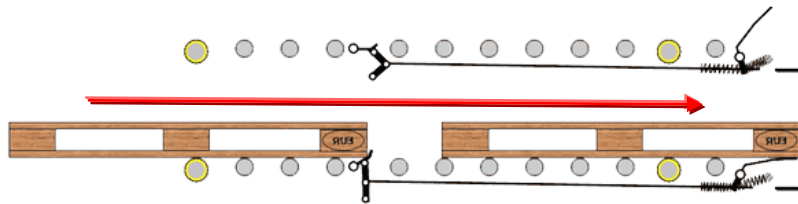
### Making AS/RS Gravity Pallet Flow Safe and Reliable

**Problem:** Interfacing an automated Storage/Retrieval Machine with a gravity conveyor flow lane is not possible to do reliably – or is it?

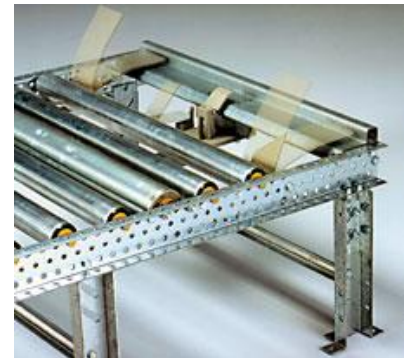
Gravity flow lanes offer an inexpensive way to pass pallets of material to operator workstations, lift truck pick up stations or even an automated Storage Retrieval Machine (SRM). However, controlling the flow of pallets has always been a safety and ease of handling problem for all of those applications, especially SRM's. Palletized loads typically weigh in excess of thousands of pounds and exert great pressure on pallets at the low end of a gravity flow lane. That back pressure makes it difficult to remove the end pallet and control descent of the other pallets down the lanes. Automated Storage/Retrieval Systems (AS/RS) applications have tried a variety of techniques to use gravity flow lanes to feed operator workstations or SRM Pickup/Deposit stations but still seek to improve the safety and reliability of such operations.

**Solution:** Interroll has introduced a tried and tested safety separator for pallet flow lane applications- a breakthrough for AS/RS gravity infeed/outfeed applications.

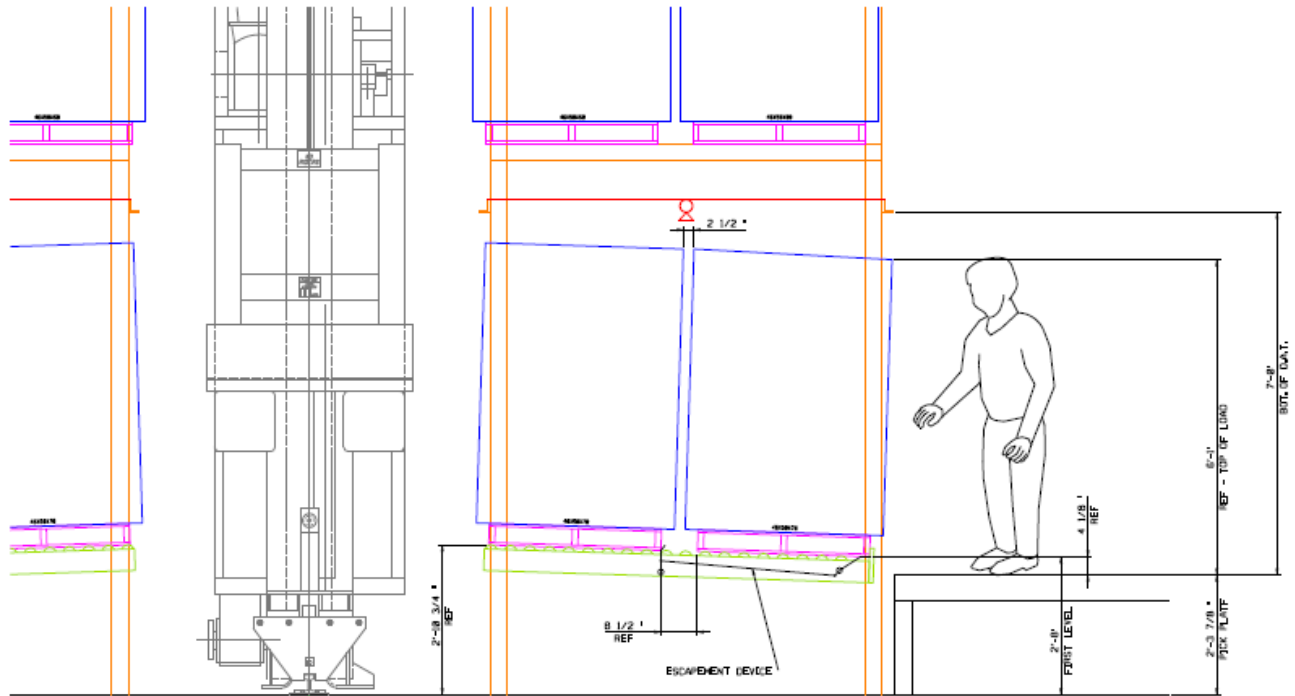
Interroll has introduced a purely mechanical safety separator device that gaps upstream pallets from the pickup station pallet – the biggest source of problems for AS/RS applications. The assembly also includes an "intelligent" component that optimises the decollating mechanism at the lane end. When the pickup pallet is removed the safety separator can be set for a delay of 10 to 60 seconds before upstream pallets are allowed to flow forward. Total mechanical control is provided for less than \$1000 - breakthrough!



**Safety Separator Mechanism**



The drawing on the following page illustrates how HK Systems dynamically slots pick faces in a traditional triple-deep AS/RS pick tunnel but with the extra benefit of safe, multi-pallet gravity conveyor flow lanes. The basis of the concept is to use the Interroll safety separator to hold the pallets apart on the flow rail that feed the operator pick station. Similarly, on an infeed lane to the SRM pickup position the pallet safety separator will hold the pallets apart on the flow lane to allow the SRM to cleanly retrieve an inbound pallet at the SRM pickup position before the next one is released to take its place. This device is truly a breakthrough for reliable, non-powered AS/RS pallet flow lane applications – the applications are enormous!



**AS/RS Dynamic Pick System; the SRM Automatically Replenishes Operator Pick Faces**

### Helpful Links:

- [Interroll Pallet Flow Solutions](#)
- [HK Systems AS/RS Technologies](#)
- [HK Systems AS/RS Whitepaper](#)
- [HK Systems Customer Profile – Stop and Shop AS/RS Pick System](#)
- [HK Systems Customer Profile – Tim Hortons AS/RS Pick System](#)
- [HK Systems Customer Profile – Wegmans AS/RS Pick Pick](#)