

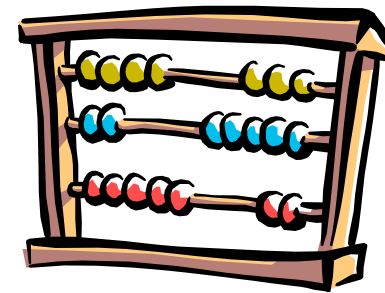
2005 Productivity Convention



Best Practices in Racking &
Warehouse Slotting Logic

IFDA 2006 Slotting Presentation

- Product Slotting Consideration
 - Labor expense
 - Receiving
 - Shipping.
 - Service level impact.
 - Damage.



Inbound Direct Labor Expense

Standard Expectation	<u>Receiving Clerk</u>	<u>Put Away Operator</u>	<u>Replenishment Operator</u>	
Pallet Per Hour	60	25	15	
Pallet Per Day (8 Hr)	480	200	120	Direct Labor
Pallet Per Week	2400	1000	600	Total Exp
Labor Rate Per Hour				Per Pallet
\$ 20.00				
Cost Per Pallet	\$ 0.33	\$ 0.80	\$ 1.33	\$ 2.47



Labor Cost Per Case

Receiving Opportunity

Cost Per Pallet	\$ 2.47	\$ 2.47	\$ 2.47	\$ 2.47
Case Per Pallet	10	20	40	55
Cost Per cast to Pick Slot	\$ 0.247	\$ 0.123	\$ 0.062	\$ 0.045

Additional Costs

Indirect labor 15%

Support Labor 15%

Cost of pallet.



Day Labor Key Slotting Considerations



- Cube Movement Key Measurement
- Require multiple size slot locations.
- Consistent slot size by aisle.
- Target a week velocity in pick locations.
- Two days capacity minimum high volume.
- Travel time verse congestion.
- Maximize cases per pallet, super slots.

Outbound Labor Cost

- Selection Labor Cost
 - Case - 22% = Handling
 - Item - 25%
 - Travel - 25% = 8 Aisles
 - Constant - 8%



Night Labor Key Consideration

- Stacking/Selection
 - Case weight & dimension – 6/10 or 4/1Gallon
 - Limit handling of selection cases.
- Cube Movement Velocity
 - Weeks targeted inventory.
 - Limit replenishment during selection shift.
- Congestion.
 - Spread out volume items.
- Travel Time
 - Major account minimize aisles traveled.
- Narrow Aisle Racking Slow Volume Pick
 - Minimize volume, two or less per week.



Slotting Coordinator Activities

Selection Errors & Product Damage

- Chart errors/damage on a warehouse layout by pick location.
- Plastic coat a warehouse layout with slots numbers identified.
- Apply color coded indicators to slot locations to identify patterns.
- Investigate product to look for like items and venerable locations.
- Down arrows on the rack labels. Not mandated.



Racking Considerations

- Structural steel racking
- Push back racking high volume.
- 93" load beams for selective rack.
- 42" upright for selective rack.
- 108" load beams in narrow pick areas.
- 36" uprights in the narrow aisle areas.

