

SP&E

International LLC

SCM Functional Consultancy Service

Warehouse Assessment – 3 Steps Approach

1. Functional Audit
2. Performance Review
3. Recommendation

Scope of Work

Processes	Function	Number of Process Group	Number of Attributes
1	Receiving & Inspection	9	14
2	Material Handling & Putaway	7	17
3	Slotting	6	9
4	Storage & Inventory Control	6	16
5	Picking and Packing	5	17
6	Load Consolidation & Shipping	6	18
7	Shipment Documentation	5	10
8	Warehouse Management System (WMS)	6	18
		50	119

Warehouse Assessment

1. Functional Audit

- As we consider the attributes, we ***carefully*** review each attribute’s level of maturity to determine and recommend specific area of process improvement.
- Support gradual process improvement program under the guideline of the WERC Warehouse Assessment & Certification Program.
- Prepare our clients facilities to meet industry standard

Picking & Packing – Process Benchmarks						
Process Group	Attributes	Poor Practice	Inadequate Practice	Common Practice	Good Practice	Best Practice
		Major Opportunity	Disadvantage	Average	Advantage	Best-in-Class
Strategy & Methods	1 – Visibility	• Warehouse personnel have little or no knowledge regarding future shipment volumes	• Warehouse is advised of exceptional order events only	• Warehouse personnel can get information on outbound shipments on demand only • Operations planning is based on historical data only	• Warehouse personnel receive data-timely forecasts of anticipated or scheduled shipment order volumes and use data for planning operations	• Warehouse personnel and systems use outbound shipment status for planning operations in hourly segments
	2 – Strategy	• No picking strategy • Outbound operations are generally ad hoc for each outbound order	• Picking strategy is defined but not adequate to support current customer requirements	• Picking strategy supports current customer requirements and may include more than one pick/pack process	• Picking strategy supports current customer requirements and may include a number of pick/pack processes (Zone, Wave, Batch/consolidation, pick and pass, single order pick, kit picks)	• Picking strategy supports current and planned customer requirements and will include multiple optimized pick/pack processes • Optimized wave picking and task interleaving
	3 – Methods	• No process to review pick methods	• Process to review pick methods not well defined	• Review pick processes and strategy by product group typically once per year. Simulations and modeling may be used on a project basis	• Review pick processes and strategy for each product at least once per year. Modeling and simulations may be performed as part of review process	• Review pick processes and strategy for each product at least once per quarter • Modeling and simulations are run frequently

1 - Receiving & Inspection Assessment						
Process Group	Attributes	Poor Practice	Inadequate Practice	Common Practice	Good Practice	Best Practice
		Major Opportunity	Disadvantage	Average	Advantage	Best-in-Class
Dock / Yard Management	1 - Visibility	0	0	1	0	0
	2 - Appoitments	0	1	0	0	0
	3 - Unloading	0	0	1	0	0
	4 - Yard Management	0	0	1	0	0
Transactions	5 - Processing	0	0	1	0	0
Product Labeling	6 - Source	1	0	0	0	0
Advanced Ship Notice & Supplier Communication	7 - Format	1	0	0	0	0
Process documentation	8 - Ownership	0	0	0	1	0
Inspection	9 - Process	0	1	0	0	0
Crossdocking	10 - Process	0	0	1	0	0
Performance Measures and Metrics	11 - Supplier	0	1	0	0	0
	12 - Collection	0	1	0	0	0
	13- Reporting	0	1	0	0	0
Automatic Identification / RFID	14 - Usage	0	1	0	0	0
Overall Assessment		Poor Practice 2	Inadequate Practice 6	Common Practice 5	Good Practice 1	Best Practice 0

Warehouse Assessment

2. Performance Review

Material Handling & Putaway		
KPI	Definition	Calculation
Equipment / Forklift capacity used	The amount of up time logged for equipment / forklifts.	Amount of time equipment is used / total amount of time available for use.
Material handling damage	Measures the value of material damaged from handling/storage as a percentage of COGS.	The value of material damaged from handling/storage / COGS.
Lines received & putaway per hour	Measures the productivity of receiving operations in lines processed and put away per person hour.	Total lines received and put away / Total person hours worked in the receiving operation.
Dock-to-stock cycle time, in Hours	The dock-to-stock cycle time is the time (typically measured in hours) required to put away goods. The cycle time begins when goods arrive from the supplier and ends when those goods are put away in the warehouse and recorded into the inventory management system.	For a given time period: sum of the cycle time in hours for all supplier receipts / Total number of supplier receipts.
Lines Picked and Shipped per Person Hour	Measures the productivity of picking and shipping operations in lines per person hour. Can be used as a measure of pick area replenishment strategy. <i>NOTE: included in this section due to the impact that replenishment processes can have on picking</i>	Total order lines picked and shipped / Total hours worked in the picking and shipping operation.

Warehouse Assessment Recommendation

Warehouse Assessment – Recommendation

# - Process	Process Group	Attributes
Receiving & Inspection Assessment	Performance Measures and Metrics	Supplier
		Reporting
Material Handling & Putaway	Automatic Identification / RFID	Usage
	Material Handling	Methods
	Housekeeping & Safety	Housekeeping
	Housekeeping & Safety	Safety Program
	Putaway	System Driven
	Metric	Usage
Warehouse Mapping*	Locations and Product Velocity	Determination
	System	Space / Pallet Foot Print Utilization
Storage & Inventory Control	Inventory Control System	Verification
		Systems
	Transaction Processing	Data Entry
		Timing
Picking & Packing	Inventory Strategy	JiT/Lean
	Strategy & Methods	Efficiency
	Work Documents	Sequencing
	Transactions	Data Entry
		Integration
	Transactions	Targets
Load Consolidation & Shipping	Shipping Transactions	Data Entry
		Carriers
		Report
Warehouse Management System (WMS)	Core Warehouse Capabilities	Functionality
		Locations Management
	Output	Docs
		Labels & Tags
	Expanded Capabilities & Interfaces	Carrier Links
	Reporting	KPIs
		Costing
	System Management	Versioning

