

13 ways to reduce costs & labor with 3D load building

There are 13 points in your supply chain where you can reduce your costs and labor to save money. Effective Load Building – how your goods and products are packed, stacked, and loaded – impacts the entire supply chain, from your procurement department and suppliers all the way through to your end-customers.

1 Product design

See the impact of design decisions on carton size or pallet load. A slight changing in dimensions might allow 10 cartons to be stored on a pallet instead of 8, reducing shipping space by 25%.

2 Packaging design

Use live data simulations to determine costs for different packaging designs. Example: a smaller box or a heavier cardboard for cartons to support 4 layers versus 3 on a pallet saves 33% on total volume shipped.

3 PO sizing vs. capacity

Optimize order size to lower logistics costs. Full cartons, layers, pallets, or loads allow for more efficient picking, packing, palletizing, stacking, and loading, avoiding empty space or extra deliveries.

4 Perfect shipments

Automate the “Perfect Shipment” from order creation to fulfillment for simplified handling. Using full cartons, stock pallets, and full truck loads versus partial or custom packing reduces labor and time per shipment.

5 Transportation planning

Predict the space required in advance, so you know how many trucks you’ll need and when. Book the right amount of space earlier, avoiding higher last-minute booking costs or paying for empty air.

6 Carton selection

Start at the carton level to correctly estimate the carton size needed to pack your sales order. Lower costs, reduce empty air and filler material, and avoid repacking or multiple boxes.

7 Pallet building

Support fully-stacked pallets to optimize the total number of pallets and space required. Knowing your needs in advance lets you properly book truck space and visualized plans result in faster loading.

8 Loading team staffing

Move workload off team members with smart load planning. This opens the job to people who might not have planning skills, but can execute the detailed loading plans and be satisfied on the job.

9 Load building

Provide clear loading plans that eliminate on-the-fly decisions and increase compliance. Rules can be complex and dictated by a range of considerations, including legal and safety guidelines – all of which must be followed within the warehouse.

10 Cost estimates

Accurately predict transportation space, timing, and cost – giving you an advantage in your sales and order taking processes.

11 Order split/smart orders

Split or size orders at the point of entry for more efficient processing. Managing it early in the process prevents complications from making a change downstream and then propagating it back up the chain.

12 Trailer weight distribution

Ensure trailers are properly loaded to distribute weight evenly from side to side and over axles for more stability and less product displacement during transit. Proper distribution improves safety and helps you avoid fines.

13 Trailer loading efficiency

Improve efficiency and optimize trailer loading with clear guides for how to load pallets over multiple trailers. No truck runs out of space, no pallet gets left behind, and fewer trucks are needed by eliminating extra empty space.

Better load building is about more than fitting more product onto a trailer. It’s about making planning decisions that improve utilization, reduce transportation costs, and support more efficient operations from warehouse to delivery.

Learn more: <https://ortec.com/13-ways-to-save>

Contact Us to Get Started.

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