



# DISTRIBUTION CENTER MANAGEMENT

STRATEGIES & TACTICS FOR DISTRIBUTION CENTER & WAREHOUSE EXCELLENCE

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## Is it time for you to raise ... the warehouse roof?

Although Space Technology Inc. has been "raising the roof" for existing warehouse/storage facilities since 1972, it's only been within the last 10 years that this space-expanding technique has come into the spotlight, says STI's President Jeffrey Allen (see *DCM* 3/97). "Many of the buildings occupied today were primarily built as manufacturing facilities," he explains. "But with the national focus turning from manufacturing to distribution and inventory, companies are scrambling to find more warehouse space."

Besides being fairly costly, sometimes a space-expanding alternative (e.g., increasing the existing square footage, moving to a larger building or leasing additional space) can have drawbacks. For instance, notes Allen, "very often, local regulations prevent additional construction on the original site due to zoning, parking or space restrictions." Even if permitted, this activity can cause a lot of disruption and create havoc. "A relocation," he explains, "involves finding and purchasing appropriate real estate; making alterations; hiring new employees; as well as additional expenses."

For these reasons, several companies have used an approach called "E-Z Riser," developed by STI. "The process envelops the support columns of the existing structure with

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steel sleeves. This also provides protection against bad weather and security throughout the project. The original roof is disconnected at its perimeter while the columns are disconnected at their bases. "Telescopic" columns are hydraulically lifted to almost double their original height. The newly created space is then enclosed (there are several choices available)."

### Numerous purposes

According to Allen, there are several reasons for increasing building height:

- To allow high-bay storage of inventory.
- To accommodate a mezzanine or second floor for offices, storage or production.
- To convert a building-for-sale with less square footage than required into a saleable building with more usable space.

For example, several years ago, a division of a national U.S. publishing company decided to lift the roof of a 330,520-sq.-ft. vacant building (a former manufacturing facility), from 18 feet to 32 feet. The division bought the facility at an attractive price and transformed it into a modern, high-cube warehouse. This change enabled the warehouse manager to use more productive, high-reach equipment within the facility.

A work-uniform manufacturer in New Jersey was unable to in-

crease the number of items it had in distribution because of a shortage of picking area space. Since the land the facility was situated on did not allow outside expansion, the company decided to enclose the 10,000 sq. ft. warehouse and lift the roof. The company was able to install a second mezzanine level that included shelving for primary storage and order picking.

Finally, a company in Nassau County, NY needed to expand its palletized storage capacity in a 25,000-sq.-ft. auxiliary warehouse. In this case, the original height of 14 feet was increased all the way up to 35 feet. This increase gave the company over a half-million cubic feet and allowed it to install a high-storage rack and retrieval system.

### No work disruption

Another plus to this method is the minimal work disruption. "Take electrical wiring," says Allen. "Extension lengths can be spliced into the original line during the initial disconnection so that power can be immediately restored. It can then be left intact during the lift, with the 'slack' wire absorbed as the lift progresses." This also permits overhead lighting fixtures and air conditioning/heating to continue working. When the job is done, the newly added wiring can then be fastened permanently.

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