Automated High Density System

Remstar's new CubeStar automated high density system combines both hardware and controls to provide up to an additional 50% of storage capacity per unit by increasing the units storage efficiency. Remstar's design and technology when combined with the Shuttle Vertical Lift Module's (VLM) 1 adjustability, allows each tray to be stored in the least amount of vertical space needed to maximize vertical cube.

The CubeStar system can increase density due to its ability to always measure each tray's profile to the nearest inch and determine its exact storage requirement. The control system determines the best position in the unit based on least amount of space used and the fastest retrieval position. The Shuttle VLM can be designed to accommodate changing and variable height objects by staggering its rail or tray position locations.

An example of the CubeStar technology in action, begins with a 3.1 inch tall box being placed on a tray for storage. The Shuttle VLM measures the box as it passes onto the lift platform and determines a need for a 4 inch high space. It stores this tray in the nearest 4 inch opening or selects the next available opening of a larger size. Some other VLMs don't make this dynamic allocation for height and must store the box in a fixed space while others scan this box and are forced to store it in a fixed six inch space.

The wasted space (two inches per tray) when multiplied by the number of trays can translate into a significant loss cube and wasted capital by purchasing 50% more VLMs than required.

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