

APPLICATION BRIEFING

Automated Storage Solutions Protect Goods In Controlled Environments

Applications:

Specialty industries often require storage and handling of goods in controlled environments. Protecting goods from dust particles and pollutants (such as microorganisms, spores and germs) can be quite a challenge. High dollar goods (for semiconductor manufacturing), finished goods (for medical device manufacturing), and specialty instruments (for hospital supply), along with other specialty goods must be stored and handled in controlled environments. When these goods are exposed to the natural elements or unauthorized personnel they can become contaminated or infected and often must be discarded or cleaned – a costly and time consuming task.

Automated storage and picking solutions from Kardex Remstar can be used in climate controlled, dry and clean environments to protect stored goods and reduce operating costs. These controlled environment solutions increase productivity by reducing the walk and search time commonly associated with manual pick systems. In addition, units can also be equipped with Pick-to-Light technology, bar code scanning and batch pick and replenishment stations increasing inventory control and security.

Benefits:

- Reduce Floor Space By Up To 85%
- More Storage Capacity
- Improve Inventory Control
- Increase Security
- Provide Traceability
- Increase Productivity
- Improve Worker Safety and Ergonomics



Climate Solutions for a Temperature Controlled Environment

Many stored goods are vulnerable to temperature changes. This applies to a very vast range of products, from frozen food articles to hospital supplies to pharmaceutical products, all of which require storage at constant temperatures. For these applications, the Shuttle XP Vertical Lift Module (VLM) and the Megamat RS Vertical Carousel both come equipped with an integrated air conditioning system to protect stored goods. The available temperature range is from -25 to +65 degrees Celsius (-13 to +149 degrees Fahrenheit). A model of the Megamat RS vertical carousel was also designed in particular for the storage of blood reserves at -30 degrees Celsius (-22 degrees Fahrenheit).



Two sealed off, airlock doors, one in front and a second door behind the access opening reduce the exchange of air during storage and retrieval processes. This temperature controlled unit requires minimal floor space and provides maximum storage density minimizing operating costs.



Dry Solutions for a Low Humidity Environment

Automated storage and picking solutions can also be used in dry room applications, providing a relative humidity at or below 5 percent. In addition to a sealing system and an airlock in the access opening, a dehumidification device is designed for use with the VLM and vertical carousel to ensure humidity levels are maintained within the unit.



Clean Room Solutions for a Particle-Free Environment

Kardex Remstar units can provide particle free environments, meeting the conditions in compliance with clean room classes ISO 5 to 8 (or classes 100 to 100,000).

To keep the particles in the air as low as possible, the Shuttle VLM is equipped with roller-based trays which do not produce dust. In addition, the Shuttle VLM Air Conditioning Solution (ACS) is equipped with dual access doors to reduce the exposure to dust, dirt, particles, germs and other harmful pollutants. Controlled air streams can also ensure clean room conditions are maintained inside the unit.



		Temperature Controlled		Dry Environment	Clean Environment
Shuttle VLM	XP500	-4F to +140 F	-20 to +60C	<5%	ISO 5 to 8
	XP700	-4F to +140 F	-20 to +60C	<5%	ISO 5 to 8
Megamat RS	180	-4F to +140 F	-25 to +65C	<5%	ISO 5 to 8
	350	-4F to +140 F	-25 to +65C	<5%	ISO 5 to 8
	650	-4F to +140 F	-25 to +65C	<5%	ISO 5 to 8