

|   |  |  |  |  |   |   |                        |
|---|--|--|--|--|---|---|------------------------|
| <b>Kardex Shuttle VLM Model</b>   | : SHUTTLE-01-500-2450x864x6750   |  |  |  |   |   |                        |
| Quantity of Units   | : 1  |  |  |  |   |   |                        |
| Overall Unit Height   | : 6750 mm  | 22 feet, 1.75 in.  |  |  |   |   |                        |
| Required Room Height  | : 6770 mm  | 22 feet, 2.52 in.  |  |  |   |   |                        |
| The required room height ( unit height + 20mm /0.79") is the absolute minimum measure. Possible floor / ceiling unevenness and slope must be considered therein.  |  |  |  |  |   |   |                        |
| Overall Unit Width  | : 2780 mm  | 109.45 in.   |  |  |   |   |                        |
| Unit Depth  | : 3073 mm  | 120.98 in.   |  |  |   |   |                        |
| Add Extraction Table Depth  | : n/a mm   |  |  |  |   |   |                        |
| Overall Unit Depth  | : 3073 mm  |  |  |  |   |   |                        |
| 1st Front MASTER access - table height (TH1)  | : Floor @ 0 mm = table height 833 mm   | Floor @ 0 in. = table height 32.8 in.                    |  |  |   |   |                        |
| 2nd Front Access - table height (TH2)   | : N/A  |  |  |  |   |   |                        |
| Add Rear Access - table height (TH3)  | : N/A  |  |  |  |   |   |                        |
| Unit Weight without Trays   | : 2936 kg. (6473 lbs.)   | (Per unit)   | TOTAL UNIT LOAD (Unit Capacity): 70000 kg. (154322 lbs.)                                 |  |   |   |                        |
| Dead Weight of configured Trays   | : 4830 kg. (10648 lbs.)  | (Per Unit)   | Unit Capacity minus Dead Weight of configured Trays: 65170 kg. (143674 lbs.)             |  |   |   |                        |
| Unit Weight with Configured Trays (empty)   | : 7766 kg. (17121 lbs.)  | (Per Unit)   | Payload: Max. Tray Capacity x Qty. of trays configured/unit: 31740 kg. (69974 lbs.)      |  |   |   |                        |
| Total unit weight (w/configured Trays loaded)   | : 39506 kg. (87095 lbs.)   | (Maximum per Unit)                                       | Gross Load ( Payload + dead weight of trays )/unit as configured: 36570 kg. (80622 lbs.) |  |   |   |                        |
| <b>Average Qty. Trays / Unit</b>  | <b>Tray Type</b>   | <b>Clear Width x Depth</b>                               | <b>Maximum Load/Tray</b><br>kg. lbs.   | <b>Capacity/Sq.Ft.</b><br>lbs.   | <b>Access Height / Lower Edge of tray bottom</b><br>TH1 mm + mm = (in.) | <b>Retrieval position /Upper edge of tray bottom</b><br>TH1 mm + mm = (in.) |                        |
| 138   | Light  | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | 230 507  | 22.3  | 833 + 21 (33.62 in.)  | 833 + 22.5 (33.68 in.) |
| 0   | Medium   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | 360 794  | 34.9  | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | Strong   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | 500 1102   | 48.4  | 833 + 21 (33.62 in.)  | 833 + 23.5 (33.72 in.) |
| 0   | 66-1-Medium-100  | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | 525 1157   | 50.8  | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 75-2-Medium-100  | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 75-3-Medium-100  | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 100-3-Medium-100   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 100-3-Medium-110   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 100-2-Medium-100   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 100-2-Medium-110   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 100-2-Medium-130   | 2450 mm x 863.6 mm                                       | 96.46 in. x 34 in.   | - -  | -   | 833 + 21 (33.62 in.)  | 833 + 23 (33.7 in.)    |
| 0   | 121-4-Medium-100   | 2410 mm x 863.6 mm                                       | 94.88 in. x 34 in.   | - -  | -   | 833 + 66 (35.39 in.)  | 833 + 68 (35.47 in.)   |
| 0   | 121-4-Medium-110   | 2410 mm x 863.6 mm                                       | 94.88 in. x 34 in.   | - -  | -   | 833 + 66 (35.39 in.)  | 833 + 68 (35.47 in.)   |
| 0   | 121-4-Medium-120   | 2410 mm x 863.6 mm                                       | 94.88 in. x 34 in.   | - -  | -   | 833 + 66 (35.39 in.)  | 833 + 68 (35.47 in.)   |
| 0   | 121-4-Medium-130   | 2410 mm x 863.6 mm                                       | 94.88 in. x 34 in.   | - -  | -   | 833 + 66 (35.39 in.)  | 833 + 68 (35.47 in.)   |
| Minimum Tray Spacing  | : 2.95 mm / 0.12 in.   | on 25 mm / 0.98 in. increments                           |  | Depends on unit drive and Tray Type selection  |   |   |                        |
| Maximum Product Height  | : 727.5 mm / 28.64 in.   |  |  |  | Depends on Tray Type selection  |   |                        |
| Clearance Required Above Product  | : 20 mm / 0.78 in.   |  |  |  |   |   |                        |
| Storage Surface Area Net Offered /Unit  | : 292.06   | Avg. Sq. Meters of Surface Area                          | 3.144  | Avg. Sq. Ft. of Surface Area   |   |   |                        |
| Max. Useable Cube w/Trays installed Net / Unit  | : 15.32  | Approx. Cubic Meter                                      | 541  | Approx. Cubic Feet   |   |   |                        |
| Useable Cube @ 80% Tray Utilization /Unit   | : 12.25  | Approx. Cubic Meter                                      | 433  | Approx. Cubic Feet   |   |   |                        |
| Vertical Lifting Speed (@ 100% load)  | : 57.61  | meters/min.  | 189.00   | ft./min.   |   |   |                        |
| Vertical Lifting Speed if Extractor is w/o a Tray   | : 90.01  | meters/min.  | 295.30   | ft./min.   |   |   |                        |
| Horizontal Extractor (Storage/Removal) Speed  | : 0.60   | meters/sec.  | 23.62  | in./sec.   |   |   |                        |
| Pick Performance (Average Qty.)   | : 94   | Trays/hour (does not consider operator picking time)     |  |  |   |   |                        |
|   |  | <b>Complete Cycle (Storage + Retrieval)</b>              |  | <b>Single Cycle (Tray Retrieval only)</b>  |   |   |                        |
| Average Access Time   | : 38   | Seconds  |  | 20 Seconds   |   |   |                        |
| Maximum Access Time   | : 45   | Seconds  |  | 23 Seconds   |   |   |                        |
| Calculation of access times is based on: 1) Speed adjustment lift (vertical) at 100%; extractor (horizontal) at 100%. Note: 100% extractor speed is not recommended for some storage goods. All delivered units have a pre-defined setting of 70%. 2) Shutter door is set to "only closed during lift travel," i.e. tray positioned in access opening is in "fingerhold." Note: This setting is only possible with units equipped with 1 access opening. With the setting "always closed," the access times will increase by ~6 seconds. 3) Options chosen on POF: automatic extraction or pneumatic tray locking will affect times outlined above. |  |  |  | 4) If "Speed and Control" Functions, including weight management, will not be used the 'Complete Cycle' times outlined can be reduced by 5 seconds ▼ |   |   |                        |
| <b>For very tall units which contain a large number of trays, the average and maximum access times can increase as a result of the required internal computing time of the controller during the return of stock. With time-critical units (e.g. high performance order picking units or robot handling with cycle times) a prior consultation with the factory is recommended.</b>   |  |  |  |  |   |   |                        |
| Power   | : 480 / 3 / 60 (Volts / Phase / Hz)  |  |  |  |   |   |                        |
| Maximum Power Consumption   | : 15 kVA   |  |  |  |   |   |                        |
| Connection Voltage - Recommended mains fuse   | : 30 Amp Per Machine   |  |  |  |   |   |                        |
| Connection Voltage - Mains current (FLA)  | : 20.9 Amp Per Machine   |  |  |  |   |   |                        |
| Typical Energy Consumption / STORAGE (5 cycles/hr)  | : 0.74 KWh   |  |  |  |   |   |                        |
| Typical Energy Consumption / ORDER PICKING (20 cycles/hr)   | : 1.16 KWh   |  |  |  |   |   |                        |
| Included with this configured Shuttle   |  |  |  |  |   |   |                        |
| Color Panels and Load Profiles  | : RAL 7035 Light Grey  |  |  |  |   |   |                        |
| Color Shutter Door, Cover Under Access Opening  | : RAL 230/60/15 Silver Fir Blue  |  |  |  |   |   |                        |
| Color Access Opening Inside: cover and floor  | : RAL 7035 Light Grey  |  |  |  |   |   |                        |
| Color Shelf Rail Panels   | : RAL 7035 Light Grey  |  |  |  |   |   |                        |
| Side Service Panels   | : 1 of 1 units include: One side Swing / one side Fixed (Standard Maintenance and Side Panels) |  |  |  |   |   |                        |
| <b>Confirmed : Customer has no lateral access to the unit</b>   |  |  |  |  |   |   |                        |
| External Unit Support   | : Self-supported   |  |  |  |   |   |                        |
| External supports are Only for stand-alone units (not for units positioned side by side)!   |  |  |  |  |   |   |                        |
| Tooth Belt Drive  | : Yes  |  |  |  |   |   |                        |
| Safety Shutter Door System  | : Yes, required  |  |  |  |   |   |                        |
| Overhead Lighting In Access   | : LED Lighting 60 Hz   |  |  |  |   |   |                        |
| Control Type  | : TIC Unit Controls  |  |  |  |   |   |                        |
| Storage Management System   | : OPTIC  |  |  |  |   |   |                        |
| Operator Panel / Mounting Location  | : OPTIC /  | Outside (Right)/access                                   |  |  |   |   |                        |
| Data interface / USB Port   | : Yes  |  |  |  |   |   |                        |
| Universal 15 A UL power socket (NEMA 5/15 socket)   | : No   |  |  |  |   |   |                        |
| Secure Site Control   | : Yes, Virtual Site Control - without license  | software license required, and not selected at this time |  |  |   |   |                        |
| Hardware Handshake:   | : No   |  |  |  |   |   |                        |
| Access Ready Lights   | : N/A  |  |  |  |   |   |                        |
| Confirmation Bar  | : Yes  |  |  |  |   |   |                        |
| Display LED Navigator   | : Yes (without Legacy Interface)   | 1st Front Access Opening                                 |  |  |   |   |                        |
| Light Pointer   | : Yes LED SPOT, 40 mm dia.   | 1st Front Access Opening                                 |  |  |   |   |                        |
| Position Indicator Light Bar  | : No   |  |  |  |   |   |                        |
| Transport Cart  | : No   |  |  |  |   |   |                        |
| Crane and Support Frame   | : No   |  |  |  |   |   |                        |
| Extraction Table  | : No   |  |  |  |   |   |                        |
| Vertical Photocells to Monitor Extractor Column   | : Yes  |  |  |  |   |   |                        |
| ESD Equipped Trays  | : No   |  |  |  |   |   |                        |
| Height Measurement system MLG2  | : Yes  |  |  |  |   |   |                        |
| Not included:   | : Communication Cable - Cat5 or Cat6 cable   |  |  |  |   |   |                        |