

Kardex Shuttle VLM Model	: 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	: 8004 kg. (17646 lbs.)	(Per Unit)	Unit Capacity minus Dead Weight of configured Trays: 61996 kg. (136676 lbs.)
Unit Weight with Configured Trays (empty)	: 10940 kg. (24119 lbs.)	(Per Unit)	Payload: Max. Tray Capacity x Qty. of trays configured/unit: 69000 kg. (152117 lbs.)
Total unit weight (w/configured Trays loaded)	: 79940 kg. (176236 lbs.)	(Maximum per Unit)	Gross Load (Payload + dead weight of trays)/unit as configured: 77004 kg. (169763 lbs.)
Unit Load Exceeded @ max. tray capacity. Either reduce weight in each tray or Select Raised Load option to increase 'Total Unit Load'			
Average Qty. Trays / Unit	Tray Type	Clear Width x Depth	Maximum Load/Tray kg. lbs. Capacity/Sq.Ft. Access Height / Lower Edge of tray bottom TH1 mm + mm = (in.) Retrieval position /Upper edge of tray bottom TH1 mm + mm = (in.)
0	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.)
138	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	: 75 mm / 2.95 in.	on 25 mm / 0.98 in. increments	Depends on unit drive and Tray Type selection
Maximum Product Height	: 726.5 mm / 28.6 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	: 15.01	Approx. Cubic Meter	530 Approx. Cubic Feet
Useable Cube @ 80% Tray Utilization / Unit	: 12	Approx. Cubic Meter	424 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)	
		Complete Cycle (Storage + Retrieval)	Single Cycle (Tray Retrieval only)
Average Access Time	: 38	Seconds	20 Seconds
Maximum Access Time	: 45	Seconds	23 Seconds
<p>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.</p>			
<p>4) If "Speed and Control" Functions, including weight management, will not be used the 'Complete Cycle' times outlined can be reduced by 5 seconds ▼</p>			
<p>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.</p>			
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)		
Confirmed : Customer has no lateral access to the unit			
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		