

VisionNav
Robotics

FULL SPECTRUM
LOGISTICS AUTOMATION

VNP15

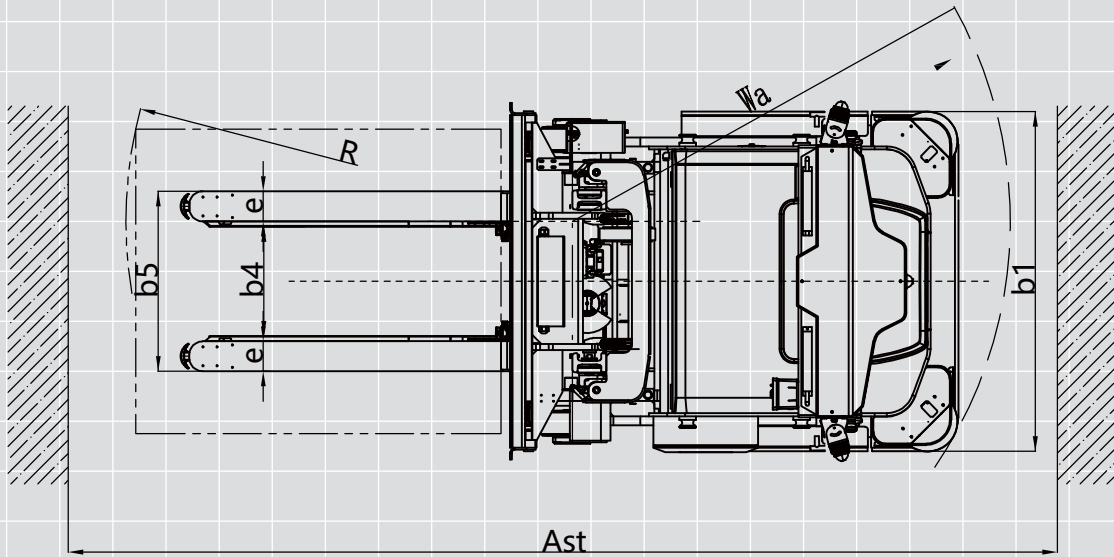
COUNTERBALANCE STACKER AGV



B56.5



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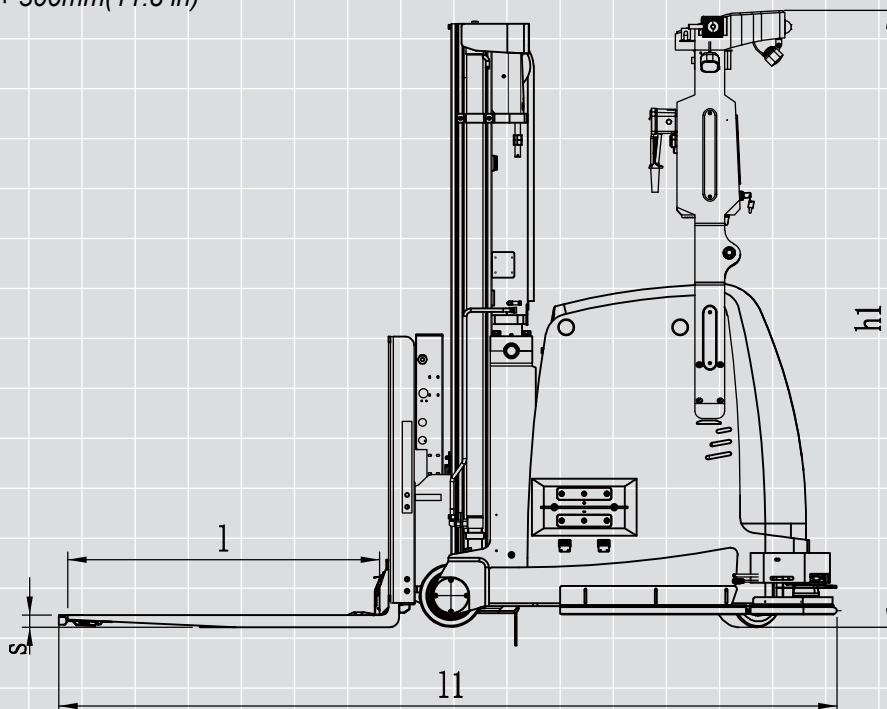


**Recommended Calculation Method of
Min. Stacking Aisle Width:**

$$Ast = \max(Ast1, Ast2)$$

$$Ast1 = \text{Vehicle Length Overall} + 600\text{mm}(23.6 \text{ in})$$

$$Ast2 = Wa + R + 300\text{mm}(11.8 \text{ in})$$



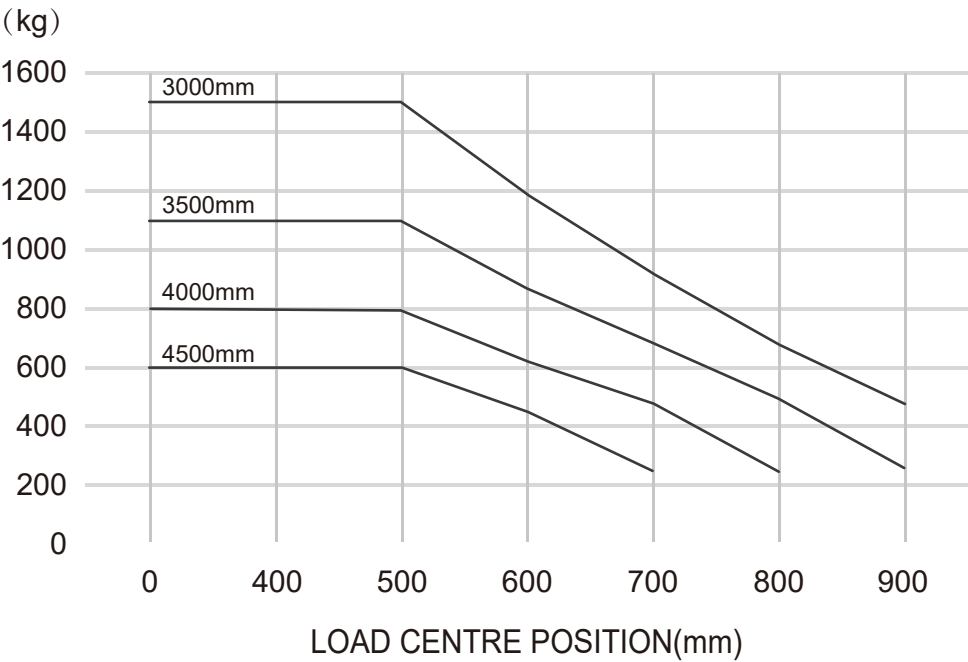
			Metric	Imperial
POSITIONING AND PERCEPTION	1	Positioning Method	3D SLAM	
	2	Perception Method	3D LiDAR	
	3	Localization Precision	±10mm/±0.5°	±0.39in/±0.5°
	4	Loading Adaptability	±100mm/±10°	±3.94in/±10°
GENERAL SPECIFICATIONS	5	Operation Mode	Auto/Manual	
	6	Overall Dimensions	2745x1200x2060mm	108.07x47.24x81.10in
	7	Max. Fork Lifting Height	3000mm, see Mast Chart for more options	118in, see Mast Chart for more options
	8	Weight	2800kg	6172.94lb
	9	Rated Load Capacity	1500kg	3306.93lb
	10	Load Center	500mm	19.69in
	11	Fork Dimensions (l/e/s, excl. slots)	1190x100x40mm	46.85x3.94x1.57in
	12	Optional Fork Length	890/1040/1340/1490/1640/1790mm	35.04/40.95/52.76/58.66/64.57/70.47in
	13	Width Across Forks (incl. wire slots)	560/680mm	22.05/26.77in
	14	Width Inside Straddle (incl. wire slots)	336/456mm	13.23/17.95in
	15	Min. Turning Radius	1460mm	57.48in
BATTERY	16	Battery Type	Lithium Iron Phosphate (LiFePO ₄)	
	17	Battery Voltage/Capacity	24V270Ah	
	18	Charging Mode	Manual/ Automatic Charging	
PERFORMANCE	19	Max Forward Speed (Loaded/Empty)	1.3m/s, 1.5m/s	2.91mph , 3.36mph
	20	Max Reverse Speed (Loaded/Empty)	0.6m/s, 0.6m/s	1.34mph , 1.34mph
	21	Max Turning Forward Speed (Loaded/Empty)	0.3m/s, 0.6m/s	0.67mph , 1.34mph
	22	Max Turning Reverse Speed (Loaded/Empty)	0.3m/s, 0.6m/s	0.67mph , 1.34mph
	23	Max. Fork Lifting Speed (Loaded/Empty)	100mm/s, 1500mm/s	0.22mph , 0.34mph
	24	Max. Fork Lowering Speed (Loaded/Empty)	180mm/s, 100mm/s	0.40mph , 0.22mph
DEPLOYMENT ENVIRONMENT	25	Min. Stacking Aisle Width	3345mm	131.69in
	26	Min. Turning Aisle Width	2180mm	85.83in
	27	Ambient Temperature	-5°C~ 40°C	23°F~ 104°F
	28	Ambient Humidity	20%~90%	
	29	Ground Flatness	±5mm/m ²	±0.07in/ft ²
	30	Max. Climbing Capability	5%(3°), 5%(3°)	
	31	Max. Gap Width	30mm	1.18in
	32	Max. Obstacle Height	5mm	0.20in
SAFETY PROTECTION	33	Laser Scanning Height	130mm	5.12in
	34	Forward Safety	3D +Safety Laser Scanner+ Anti-Collision Bumper	
	35	Reverse Safety	3D LiDAR+Safety Laser Scanner+ Contact Sensor	
	36	Top Safety	3D LiDAR	
	37	Side Safety	3D LiDAR+Safety Laser Scanner+ Anti-Collision Bumper	
	38	Others	Emergency Stop Button + Acousto-Optic Alarm	

* Performance Specifications: Specifications are based on the model equipped with a 118 in (3000 mm) duplex mast, a 1219x1016mm load size, and with across forks on width.

Appendix I: Mast Chart

DIMENSIONS	Options	Option 1		Option 2		Option 3		Option 4		Option 5	
	1 Mast stages	Duplex mast		Duplex mast		Duplex mast		Duplex mast		Triple mast	
	2 Lifting height	3000mm	118in	3500mm	138in	4000mm	157in	4500mm	177in	4500mm	177in
	3 Mast deployment height	3930mm	155in	4430mm	174in	4930mm	194in	5430mm	214in	5720mm	225in
	4 Gantry retracted dimensions	2020mm	79in	2270mm	89in	2570mm	101in	2820mm	111in	2100mm	83in

Appendix II: Load Chart



Additional Inforamtion

- 1.Fork Accessories: Optional side shifter and Fork Positioner; Customizable fork length, fork width.
- 2.Optional Accessories: Battery Trolley, Cargo Overheight Detection, UWB Kit, Bar Code Scanner, RFID Reader, Dashcam, among others.
- 3.Load Capacity variation: Optional masts, attachments, longer load dimensions or higher lifting heights may result in a derating of capacity.