



ERGO ROBOTIC SOLUTIONS

GM2000-16



Standard Features and Equipment

DRIVE

- Solid rubber tires
- Rear wheel drive steering in a tricycle configuration
- 36 VDC battery electric drive
- Pulse width modulation (PWM) solid state digital speed and directional control
- Electric chassis drive includes transmission and automatic brakes
- Steering tiller includes directional and speed controls, E-Stop, and a belly button switch

CHASSIS

- Counterbalanced fixed boom assembly
- Removable modular counterweight chassis mounted with power lift installation system
- Manual screw jack load compensator outriggers
- Built in 25 Amp battery charger with linear rate control, 110volt, 60 hz. single phase
- Electrical circuit breakers

CONTROL

- 14 direction manipulator motions, standard
- Forward reach to 7" frame/mullion depth
- Electronic proportional dual mode control all function for micro motion operation

HYDRAULICS

- .8 HP, DC drive motor coupled to hydraulic pump
- All hydraulic functions are proportionally controlled, with valves for each boom or manipulator function
- Anti-tipping mechanism automatically prevents forward extension of load prior to unbalanced situation; forward tipping is prevented.

VACUUM

- Redundant vacuum pumps, non-lubricated positive displacement, automatic start-stop control
- Vacuum frame accepts variety of cup sizes, fully adjustable
- Vacuum cartridges include bi-directional coil spring loaded mounts
- Includes 4 standard 20" x 12" rectangular suction cups, 550 lbs. lift per cup in shear at 100% safety factor

CONSOLE

- Control panel mounted on a two-link pendant arm to enable machine operation from the side or front of unit
- Console items include:
 - Hydraulic power On/Off switch
 - Operating mode selector: normal vs. control, micro-motion
 - Multi-function controls for all manipulator end effector functions
 - Vacuum release switches
 - Emergency stop
 - Vacuum gauge

SAFETY

- Speed and directional controls handlebar mounted separate from boom/manipulator controls
- Strobe light operates with master battery switch
- Low vacuum level alarm, audible horn
- Console-mounted two button safety vacuum release valve



GM 2000-16 Dimensions

GM2000-16 Characteristic	Specification
Lift Capacity	2000 lbs.
Closed Chassis Length	116"
Width	34"
Height: Retracted Clearance	79"
Height: Center of Lift Hub	192"
Turning Radius	0"
Unladen Weight (without Counterbalance)	3000 lbs.
Counter Balance Weight (Maximum 3)	440 lbs.
Cup and Bar Weights	2 Cup Assemblies = 60 lbs. 4 Cup Assemblies with 6' Extension Bars = 230 lbs. 6 Cup Assemblies with 6' Extension Bars = 290 lbs. 8 Cup Assemblies with 6' Extension Bars = 350 lbs.

GM2000-16 Powered Manipulator Functions

Control	Assembly	Direction	Viewed from
1	Boom	Raise-Lower	Side Elevation
2	Boom	Telescoping Extend - Retract	Side Elevation
3	Boom Camber	Pivots forward and backward	Side Elevation
4	Manipulator - vacuum cup frame	First and second stage vertical angular tilt	Side Elevation
5	Manipulator - vacuum cup frame	Horizontal angular tilt	Top Plan
6	Manipulator - vacuum cup frame	Lateral side shift, 2" left & 2" right; 4" total	Front Elevation
7*	Manipulator - vacuum cup frame	EZ Pick: 11" reach, out & down / up & in	Front Elevation
8	Manipulator - vacuum cup frame	Rotate - CW and CCW 180°	Front Elevation

*** Optional add-on feature**

- All hydraulic controls use fine metering valves.
- The hydraulic circuits are equipped with counterbalance valves to prevent leak down and droop under load.
- Dual mode provides console mounted switch selection for micro motion control.

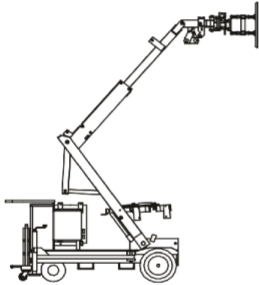


Model GM2000-16 VERTICAL LIFT

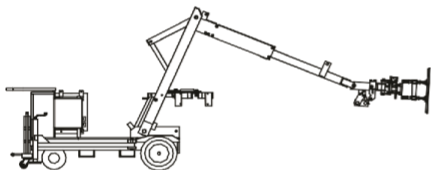
2000 lb. / 544 kg MAXIMUM WEIGHT

DANGER

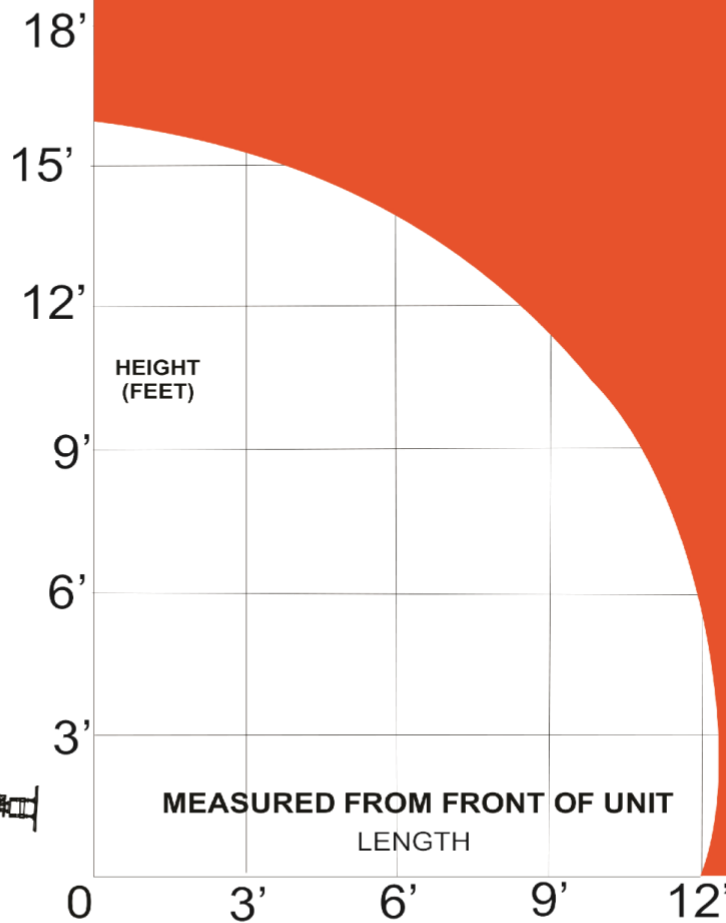
**SKYLIGHT HEIGHT
TO 18 FEET**



*** IMPORTANT *
DO NOT EXCEED
PAYLOAD
DISTRIBUTION LOAD**



**ERGO
ROBOTIC
SOLUTIONS**
PATENT PENDING



**NUMBER OF
COUNTER
BALANCE
PLATES**

WEIGHT IN POUNDS

3	2000	1500	900	500
2	2000	1500	700	300
1	2000	1100	500	100
0	2000	700	300	0



ErgoRobotic.com

(518) 409-8810

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