



# GM3000-16



## Standard Features and Equipment

### DRIVE

- Solid rubber tires
- Electric chassis drive includes transmission and automatic brakes
- Steering in a tricycle configuration
- 24 VDC battery electric
- Solid state digital speed and directional control
- Steering tiller includes directional and speed controls, E-Stop, and a belly button switch

### CHASSIS

- Counterbalanced fixed boom assembly
- Extendable frame to provide additional counterbalancing
- Removable modular counterweight with power lift installation system
- Manual screw jack load compensator outriggers
- Built in 15 Amp battery charger with linear rate control, 110 volt, 60 hz. single phase
- Electrical circuit breakers
- Optional Crab Crawl for manual side-to-side motion of machine with load.

### CONTROL

- Multi-direction manipulator motions, standard
- Forward reach to 7" frame/mullion depth
- Electronic proportional dual mode control all function for micro motion (Hi/Low Mode) operation

### HYDRAULICS

- DC motor direct coupled to hydraulic pump
- All hydraulic functions are proportionally controlled, with valves for each boom or manipulator function

### VACUUM

- Redundant vacuum pumps, non-lubricated positive displacement, automatic start-stop control
- Vacuum frame accepts variety of cup sizes, fully adjustable
- Vacuum Cup Assemblies include bi-directional coil spring loaded mounts
- Includes 6 standard 20" x 12" rectangular suction cups, 550 lbs. lift per cup in shear at 100% safety factor

### CONSOLE

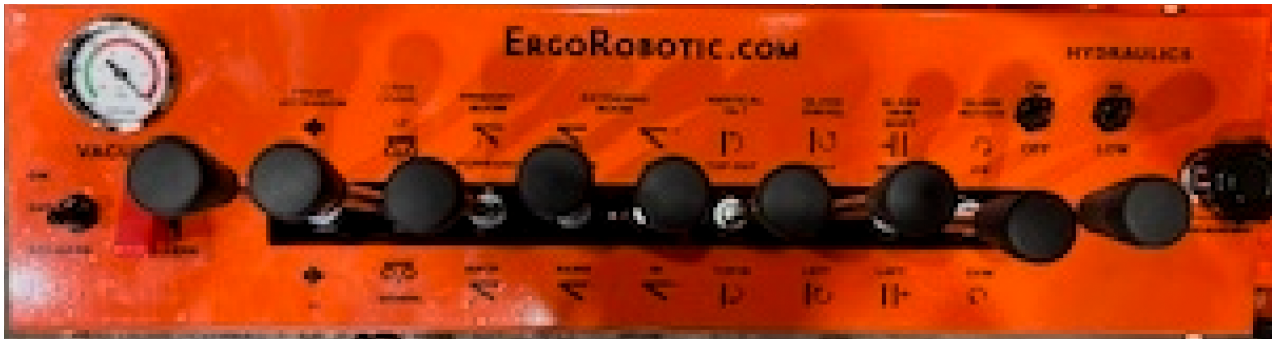
- Control panel mounted on frame
- Console items include:
  - Hydraulic power On/Off switch
  - Operating mode selector: normal vs. micro-motion
  - Multi-function controls for all manipulator end effector functions
  - Vacuum release switches
  - Emergency stop
  - Vacuum gauge

### 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
- Safety vacuum check valves
- Two button safety vacuum release valves
- Anti-tipping mechanism automatically prevents forward extension of load prior to unbalanced situation; forward tipping is prevented.

# GM3000-16 Dimensions

Characteristic	Specification
Lift Capacity	3,000 lbs.
Closed Chassis Length	100"
Extended Chassis Length	136"
Width	34" (44" with optional removable crab crawl)
Height: Retracted Clearance	79"
Height: Center of Lift Hub	192"
Turning Radius	0"
Unladen Weight (without Counterbalance)	4,450 lbs.
Counterbalance	450 lbs. each (Max 4)



## Powered Manipulator Functions

Control	Assembly	Direction	Viewed from
1	Frame Extension	In-Out	Front Elevation
2	Crab Crawl *	Manual left & right movement*	Front Elevation
3	Boom Camber	Pivots forward and backward	Side Elevation
4	Boom	Raise-Lower movement	Side Elevation
5	Boom	Telescoping Extend – Retract	Side Elevation
6	Manipulator – vacuum cup frame	Horizontal angular tilt	Side Elevation
7	Manipulator – vacuum cup frame	Vertical angular swivel	Top Plan
8	Manipulator – vacuum cup frame	Lateral side shift, 2" left & 2" right	Front Elevation
9	Manipulator – vacuum cup frame	Rotates 90 degrees	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.

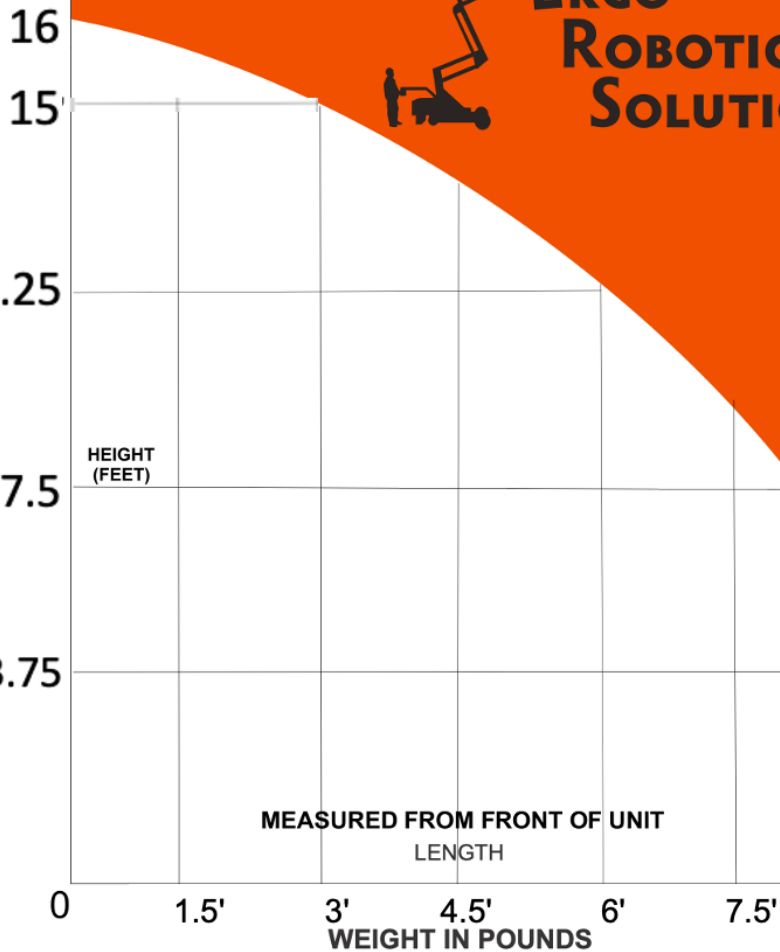
# GM3000-16 Load Chart

**DANGER**  
**SKYLIGHT HEIGHT**  
**TO 18 FEET**

## GM3000-16 VERTICAL LIFT 3000 LBS. MAXIMUM



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



Distance from front of machine ->		42"	48"	60"	72"	84"	96"	108"	
Counter Balance Plates	3	EXTENDED	3000	3000	3000	2500	2050	1450	1210
		RETRACTED	3000	2200	1650	1300	1025	850	775
	2	EXTENDED	3000	2625	1920	1500	1270	990	975
		RETRACTED	2480	1700	1330	1055	755	650	545
	1	EXTENDED	2600	1900	1500	1200	950	740	680
		RETRACTED	1800	1400	1000	775	575	380	250