



# GM2800-12



## 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, 110 volt, 60 hz. single phase
- Electrical circuit breakers
- Optional Crab Crawl for side-to-side motion of machine with load.

### 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

- 2.8 HP, DC drive 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 cartridges 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

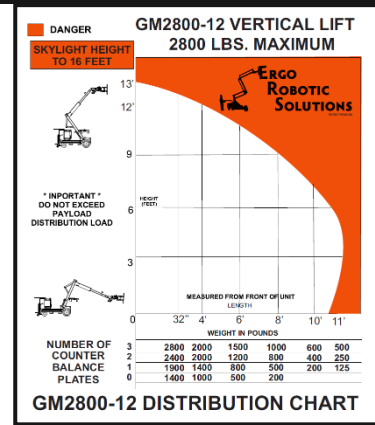
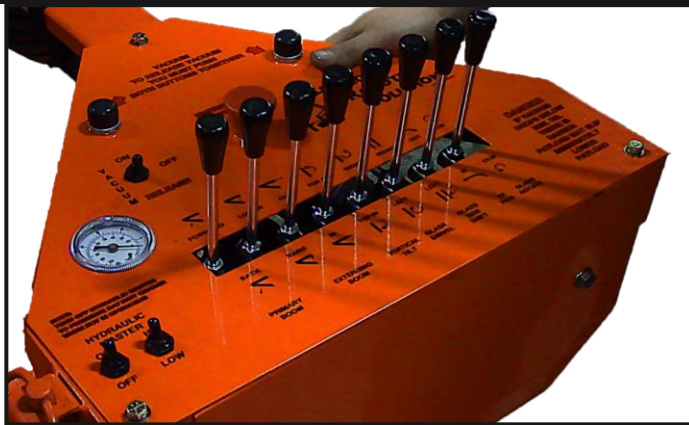
- Control panel mounted on a two-link pendant arm to enable machine operation from the side or front of unit
- Console items include:
  - Hydraulic power On/Off switch
  - Operating mode selector: normal vs. micro-motion
  - Multi-function controls for all manipulator end effector functions
  - Vacuum 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 valve valves
- Two button safety vacuum release valves
- Anti-tipping mechanism automatically prevents forward extension of load prior to unbalanced situation; forward tipping is prevented.

# GM 2800-12 Dimensions

Characteristic	Specification
Lift Capacity	2,800 lbs.
Closed Chassis Length	116"
Width	34"
Height: Retracted Clearance	79"
Height: Center of Lift Hub	192"
Turning Radius	0"
Unladen Weight (without Counterbalance)	3,250 lbs.
Counter Balance	1,740 lbs.



## Powered Manipulator Functions

Control	Assembly	Direction	Viewed from
*	Crab Crawl	Raise-Lower	Front Elevation
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	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.