

# GDI

## POWERING YOUR PROFITS

GDI manufactures electric door and gate operators. These operators utilize advanced technology which significantly increases energy efficiency and reduce motor size compared to induction electric motors used in industrial systems. GDI operators can reduce battery size and weight in battery-powered products.

GDI's ALGORYTHM™ DRIVE technology provides significantly higher power density, dramatically better performance and increased energy utilization efficiencies in start/stop applications when compared with competitive induction motor systems. The ALGORYTHM™ DRIVE consists of the following elements:

- Electric motor
- Motor controller
- Embedded software which controls the energy flow into and out of the motor

Applications using GDI operators provide considerably higher torque response in smaller packages and may significantly lower your costs. Applications using GDI operators require less assembly and installation time, are easier to set up using self calibrating features, require less cooling due to their more energy efficient operation and provide a variety of programmable functions, all of which add market value to your products.

NetworkPower™ - GDI operators can be networked in a multi-operator configuration via GDI's NetworkPower™ technology. NetworkPower™ enables up to 128 operators to be synchronized, controlled and monitored through any one of the networked operators.

The built in controllers of the Jackshaft operators are internet ready for remote analysis, monitoring, control as well as for review of new installation operation from a remote location.

### SYSTEMS FOR A BROAD RANGE OF INDUSTRIAL & COMMERCIAL APPLICATIONS



**Gates and Doors Inc.**

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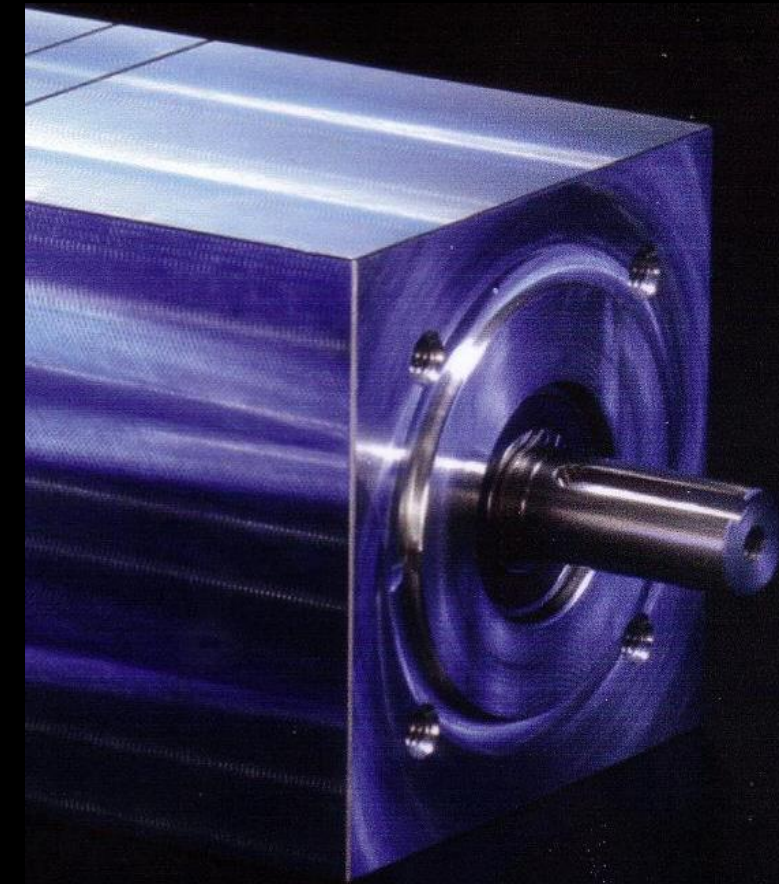
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# GDI

Gates and Doors Inc.



GLWD – Barrier Lift Gates

## Adaptive Motor and Controller Systems

A New Spin on Motor Technology



# GLWD FAMILY OF BARRIER LIFT GATES

**UL 325 Compliant**

**GMC-9334 - GLWD series Adaptive Controllers**

## Mechanical



### FEATURES

- High quality advanced DC brushless servo motor technology
- Gate lift times as fast as 1.2 seconds to lift
- Economical models and high duty cycle, high speed model; up to 12,000 cycles per day
- Controlled by GDI's Adaptive controller system
- Double shielded, precision stainless steel ball bearings
- Compact gear motor drive
- Electronic overload protection (no mechanical clutch required)

### BENEFITS

- Simple mechanical installation
- Electronic overload protection (no mechanical clutch required)
- Polarized connectors for easy maintenance
- Simple automatic gate calibration without mechanical devices
- Continuous operation (24/7)
- 115 VAC light and socket

### SPEED, POWER and TORQUE

- Family of models to choose from for various gate operator styles and weights
- Gate lift speeds to 1.2 seconds (up to 12,000 cycles per day)
- Arm length to 25 ft, wood or aluminum tube (3")
- Battery backup capable with GDI's Adaptive Controller System for up to hundreds of gate cycles

### MECHANICAL

- Arms: Rectangular aluminum tube, circular aluminum tube or wooden
- DIN rail based wiring terminals for simplified installation and configuration
- Case mounted with up to 6 bolts on bottom
- Ergonomically engineered component layout in cabinet
- High reliability, precision components
- No springs for load balancing
- Configurable for two (2) modes of operation;
  1. Locks closed and open positions
  2. TorqueLock™ open and close positions; Enables gate to be pushed down or up. The gate recovers position on next cycle.

### OPTIONS

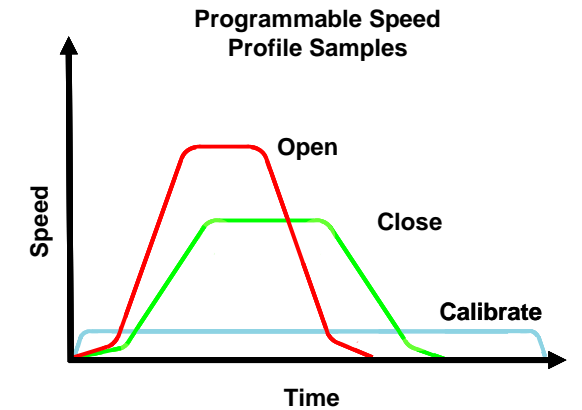
- Continuous system operation on battery power during loss of AC power (Includes intelligent battery charging with GDI's Adaptive Controller System)
- A variety of interlocking capabilities
- Heater

### RELIABILITY

- High quality brushless servo motor
- Double shielded, precision stainless steel ball bearings
- Cabinet designed for weather resistant operation
- Environment:; -20 deg. C to +50 deg. C; operates at lower temperatures with heating strips

### FEATURES

- Adjustable motion profile; with 'S' curve soft start and soft stop gate movement
- Advanced AlgorithmDrive™ 4-quad, closed loop technology maintains a set motion profile over a wide variety of arm lengths
- Controlled smooth, immediate or delayed reversing due to obstruction
- Electronic feedback of gate position ensures long term, accurate horizontal positioning
- Simple horizontal and vertical gate position calibration
- Field settable change of gate direction from left or right side operator position
- Adjustable time delay for automatic lowering of gate
- Intelligent Diagnostic™, clear text information display on LCD
- Simple menu operation with keypad and LCD (password access)
- 7 programmable inputs for loop sensors, Ultrasonic sensors, Radio control, other sensors etc.
- Two programmable outputs to control enunciator buzzer, light or interlock
- Programmable electronic open/closed position holding capability
- Electronic overload protection; no mechanical clutch
- Key/switch electronic operator disable
- Network up to 128 gates
- Cycle counter
- Computer interface
- 24VAC and 24VDC capability to power accessories



### BENEFITS

- Self calibrating or manual calibration for arms up to 25 ft
- Closed loop system position and speed feedback ensures consistent motion profile with changing gate arm length, weight and even mechanical wear over time
- System status LCD display on GMC-9334 for simplified on-site intelligent diagnostics
- PLUG-and-PLAY with polarized connectors to simplify service
- Wide range of AC voltages; 115, 208, 230, 460, 575VAC single/three phase, 60Hz for every controller

### ENERGY EFFICIENCY

- GDI's advanced AlgorithmDrive™ 4-quad, closed loop speed and position control technology
- Control algorithms maintain efficient operation under high torque demands in start/stop applications
- Soft start/stop peak current limiting minimizes electric energy usage costs
- HR-Drive™ Hybrid energy technology system stores regenerative energy; can provide significant energy savings

### OPTIONS

- HR-Drive™ Hybrid energy technology system stores regenerative energy; can provide significant energy savings
- Computer based monitoring/control/communication via RS-232/CAN interface
- Internet Ready! NetworkPower™ enables system access via a PC or over the Internet; For remote service analysis, monitoring, control and review of new installation operation
- Continuous system operation on battery power during loss of AC power (Includes intelligent battery charging)
- Power factor correction capability
- CAN/DEVICE NET and SDS communications capability

### RELIABILITY

- Solid state, Digital signal Processor control
- All-Electronic clutch; Factory preset
- Automatic switch-over to battery backup (optional) to continue normal operation under AC FAILURE or BROWN OUT
- Cycle counter enables scheduled maintenance

