



**Simple.  
Reliable.  
Secure.®**



**HydraWedge™ (SM50)**





## Reliable. High Cycle.

**HydraWedge™ SM50** is a next generation, highly engineered, hydraulic vehicle barrier wedge that meets or exceeds every hardened Access Control Point security requirement.

### Count on highest quality and reliability

Reliability is HySecurity's culture, reputation and brand. HySecurity relies on refined and consistent attention to detail and commitment to unwavering high quality.

### HySecurity operators thrive for decades with minimal maintenance.

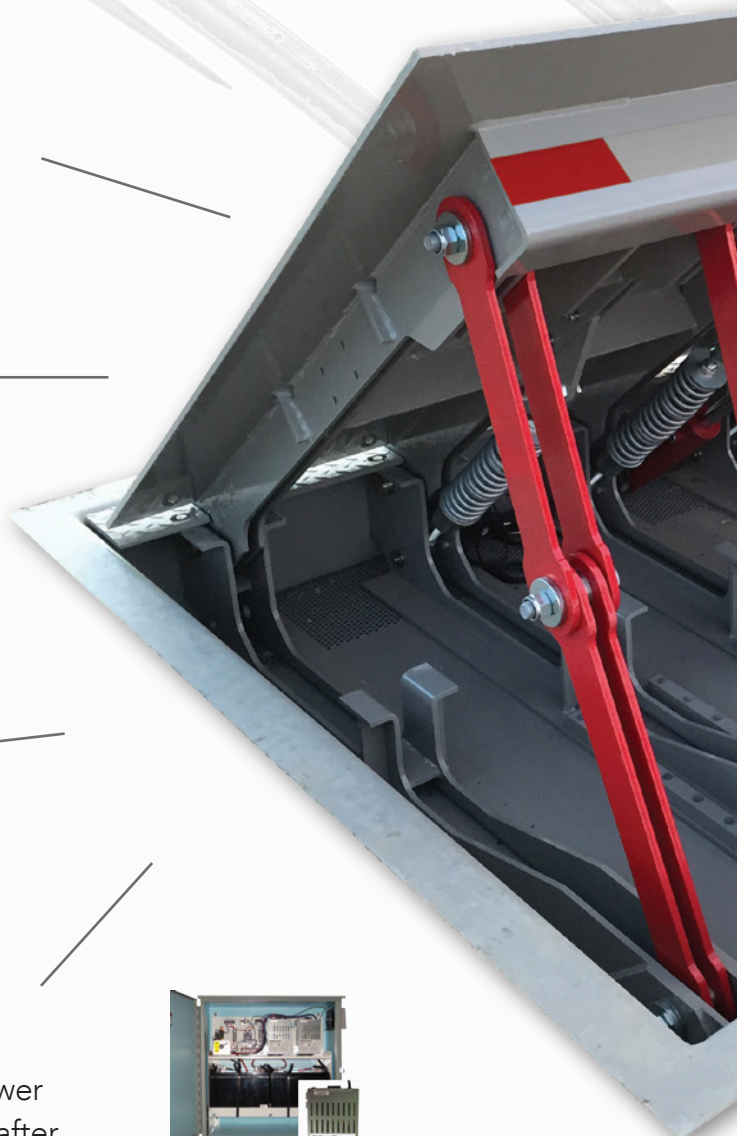
We've manufactured hydraulic industrial and crash gate operators since 1980, many of which secure high security ACPs.

### Superior wedge specifications

Fits everywhere. Small footprint and shallow foundation allows match of roadway surface. Access hydraulics easily via top access panels. Spring counterbalance increases speed and reduces motor HP requirement and maintenance. Available in 2 to 4 meter widths.

### Hundreds of cycles after AC power loss with UPS battery backed-up HydraWedge SM50 UPS

Maintain security after AC power loss. HySecurity's DC Power Supply with HyCharger DC™ supplies hundreds of cycles after AC power loss due to extreme weather or other causes.



DC Power Supply with HyCharger DC™

# HydraWedge™ (SM50)

## Security Event Reporting.

**5-year warranty on hydraulics and electronics.** Industry-exceeding warranty is your assurance of HySecurity's high reliability, low maintenance, and long life.



### High cycle - fast throughput

Manage traffic AND maintain high security. HydraWedge cycles thousands of times per day, 3-sec open or close; 1 sec EFO. Employ it for traffic control AND final denial, or cycle barrier arm alone during peak traffic - and maintain EFO for security.

### Site-sensitive configuration

Highly programmable, solid-state electronics put site-sensitive configuration into the hands of security integrators.

### Fast, two day installation

12 inch shallow mount, small footprint concrete foundation and minimal rebar reduces installation time and minimizes conflict with underground utilities.

### Record (or monitor) security events

Security breach, gate system and accessory status, system malfunction and maintenance alerts recorded in non-volatile memory and/or reported in real time via Ethernet/fiber using optional web based HyNet™ Gateway.



HydraSupply XL™ Twin  
One HydraSupply, two Controllers



# 3 CRASH CERTIFICATIONS

## Domestic and International

**ASTM F2656-15 M50-P1 & IWA14-1: 2013 & PAS 68: 2013**

**Trust HydraWedge SM50 to stop threats in their tracks.** It passed the toughest U.S. and International crash tests, ASTM F2656-15 M50-P1, IWA14-1 and PAS 68, with zero penetration. It is crash certified at its smallest and widest blocking width, 2 and 4 meters. HydraWedge SM50 secures any domestic and international high security site from terrorist or other access control point threat.





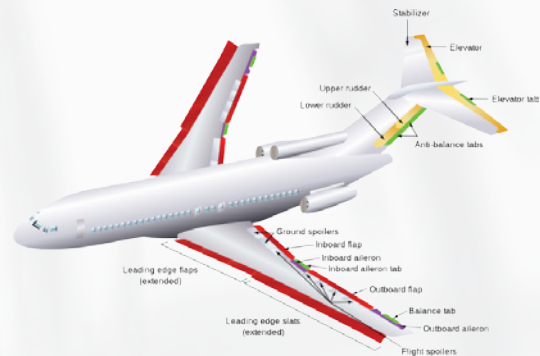
# ULTRA-RELIABLE HYDRAULICS

## Over 100,000 Industrial and Crash Hydraulic Installations 5-Year Warranty

**HySecurity crash and industrial hydraulics** benefit from proximity to Seattle and aviation grade hydraulic design and manufacturing resources. We outperform and outlast all competitor products, with minimal maintenance and downtime. Proven history since 1980.

### Typical High Reliability Hydraulic Applications

- Aviation - wing control surfaces, rudder, controls
- Heavy equipment - construction, farm, manufacturing
- Hydraulic elevators
- The car you drive - brakes and power steering
- HySecurity industrial and crash gate operators



### Installers Speak Out

*"When installing active vehicle barrier systems at critical infrastructure sectors, the reliability of a product is critical. HySecurity's, consistent, robust and reliable hydraulic control system gives PSG the confidence to install them for our highest security customers."* **Troy Blood, Perimeter Security Group, WA**

*"They last forever and require almost no maintenance. HySecurity hydraulics give me peace of mind."* **Jim Turner, Gatekeeper Security Integrators, LA**

*"Mid-Atlantic Entry Systems has been installing HySecurity hydraulic operators for over 25 years. HySecurity is the only hydraulic operator we install. Our customers expect Mid-Atlantic to provide high quality, reliable operators and HySecurity allows us to do that."* **Tim Morgan, Mid Atlantic Entry, VA**

*"I have installed and serviced HySecurity hydraulic operators for over twenty years; their simple hydraulic system has always been the most reliable on the market."* **Randy Saylor, Foster Fence, TX**

### Proven HPU Reliability / 5 year warranty

- Compact power and control design reduces system footprint
- Light enough to install with loader or forklift. No crane required
- Heavy duty: thousands of cycles per day
- 3 sec Open/Close cycles - 1 sec EFO
- 6 b/u cycles on accumulator after power outage\*
- 6 b/u cycles divided between twin wedges\*
- Hand pump for manual operation
- Wide temperature range  
-40° to 158° F (-40° to 70° C)
- Integrated manifold w/state of art cartridge valves yields high performance in a compact package

\* Hundreds of no-power backup cycles with HydraWedge SM50 UPS

### UPS: DC Power Supply w/HyCharger DC™



- Maintain security and full functionality after AC power loss
- Hundreds of DC cycles
- Powerful 50A 3-stage, double redundant charger
- Sealed, maintenance-free AGM batteries
- Long battery life
- Insulated and fan ventilated enclosure

### HPU: HydraSupply XL™ (Pictured: Two controllers for twin model)



- Ultra-reliable
- High cycle
- Fast - 3 sec half cycle
- - 1 sec EFO
- 6 accumulator B/U cycles
- Hand pump for manual operation
- Minimal maintenance

# POWERFUL INTEGRATION

## In the Palm of Your Hands

**Take control of your Access Control Point.** Program exacting site-specific operation without the need for expensive, custom PLC design or custom software development. Eliminate your dependence on proprietary systems that are difficult to support. Trust optional HySecurity HyNet™ Gateway for real-time remote monitoring and control via fiber over IP network.

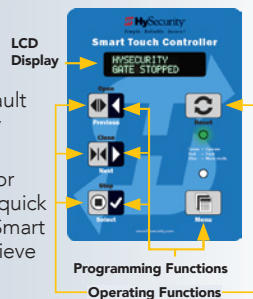


HyNet™ Gateway  
via Ethernet/fiber

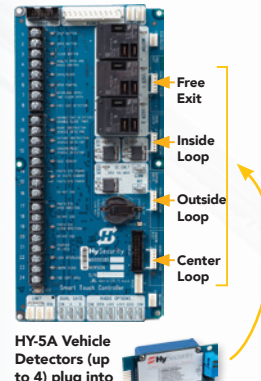
### PROGRAM AND TROUBLESHOOT USING SMART TOUCH CONTROLLER AND S.T.A.R.T.

- Microprocessor-based (Non-PLC)
- 21 field configurable inputs
- 3 field configurable user relay outputs\*
- 4 plug-in HY-5A vehicle detector sockets
- RS-485 and RS-232
- Date & time stamped fault logs, errors and security alerts
- PC interface provided for easy configuration and quick troubleshooting using Smart Touch Analyze and Retrieve Tool (S.T.A.R.T.)

\*Hy8Relay option available. Provides eight additional programmable user relay outputs



Smart Touch Controller Keypad



HY-5A Vehicle Detectors (up to 4) plug into sockets

Smart Touch Controller Board

### FAST barrier arm and fast wedge for high vehicle throughput

Program operation for wedge and barrier arm or barrier arm only for peak traffic periods

### Sequencing two operators: Seamless, out-of-box integration

Easily sequence your barrier arm, slide, or swing gate with HydraWedge SM50. Connect three wires and program the wedge to operate in sequence with a second HySecurity gate. The benefit of one common control platform.



StrongArmPark DC  
1.5 - 2.5 sec open  
Up to 14 ft (4.2 m) arms



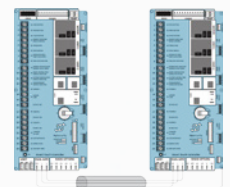
StrongArm  
2 to 8 sec open  
Up to 36 ft (11 m) arms



WITH

- 2 to 4 meter width
- Single or twin. Standard or UPS.

#### Smart Touch Controller



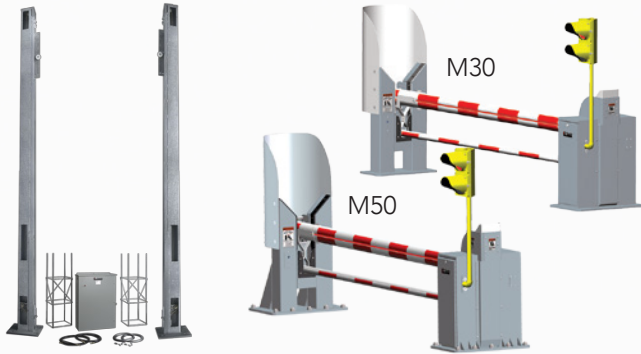
Easy, quick connection  
with common controls





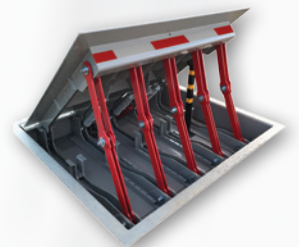
## Our Brand - Your Assurance

Over 100,000 Industrial and Crash High Security Sites Worldwide



*"Reliability. Reliability. Reliability. That's HySecurity. Especially their hydraulics. You install them and forget them. I've installed hundreds of their hydraulic industrial and crash operators. I know!"*

**Paul Mastin, Phoenix Fence, AZ**



### VERTICALS

Government, Nuclear Power, Electrical Grid, Water, International Aviation, Data Centers, Petrochemical, Military, Ports, Embassies, Borders, Law Enforcement, Transportation, DOT, Hydropower, VIP Residential

### LOCATIONS

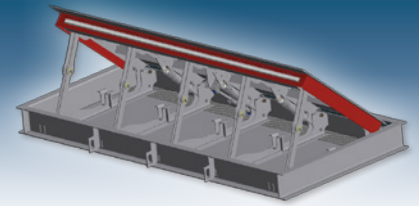
The Pentagon - DC  
United Nations - NY  
Baghdad Intl. Airport - Iraq  
Reagan International - DC  
Dallas Ft. Worth Intl. Airport  
LAX Intl. Airport - CA  
Sky Harbor Intl. Airport - AZ  
FAA - every state

Natl. Institute of Health - DC  
Immigration & Naturalization  
Shell Oil - TX  
Exxon Mobile - TX  
Dow Chemical - TX  
Postal Service - Most States  
Lakawanna Co. Court - PA  
Singapore Utilities

Port of Long Beach - CA  
Fort Knox, KY  
Forensics Lab - Canada  
Pepsi Headquarters- NY  
Chittenden Locks - WA  
Sumail Prison - Oman  
SeaTac Airport - WA  
Federal Reserve, MN

Fairfax Co. Courthouse - VA  
Kings County Jail - CA  
Utah Corrections, UT  
Tesoro - UT  
San Luis POE, AZ  
American Water - PA  
Grand Coulee Dam - WA  
United Technology - AZ

# Ultra Reliable High Security



## 4 HydraWedge™ SM50 Models

Model	HydraWedge™ SM50	HydraWedge™ SM50 UPS	HydraWedge™ SM50 Twin	HydraWedge™ SM50 Twin UPS
<b>Crash Certified</b>	Domestic ASTM F2656 M50-P1 and international IWA 14-1 V/7200[N3C]/80/90:0.0 and PAS68 V/7500[N3]/80/90:0.0/20.7 with no penetration			
<b>Duty Cycle</b>	300 cycles/hr		400 cycles/hr divided between 2 wedges	
<b>Horsepower</b>	2 hp	2 hp	5 hp	4 hp
<b>Drive</b>	Hydraulic			
<b>Open/Close Time</b>	3 seconds			
<b>Emergency Fast Operate</b>	1 second			
<b>Manual Operation</b>	Hand pump (standard)			
<b>Wedge Design</b>	<b>Plate width:</b> 2.25, 3, 3.5, 4 m* (6.5, 8, 10, 11.5, 13 ft) <b>Plate height (raised):</b> 1050 mm (3.5 ft) <b>Excavation width:</b> Plate width + 700 mm (27.5 inch) <b>Excavation length:</b> 3.7 m (12 ft) <b>Excavation depth:**</b> 300 mm (1 ft)			
<b>Wheel Load</b>	44,000 lb axle load rating; 22,000 lb wheel load (19,958 Kg. / 9,979 Kg)			
<b>Uninterruptible Power Supply</b>	Standard model generates multiple cycles from fully charged accumulator.	Hundreds of cycles after AC power loss with DC Power Supply w/ HyCharger DC™ ***	Standard model generates multiple cycles from fully charged accumulator.	Hundreds of cycles after AC power loss with DC Power Supply w/ HyCharger DC™ ***
<b>Accumulator Backup Cycles: Either normal or EFO</b>	6 cycles 2.5 gallon accumulator	4 accumulator cycles in addition to hundreds of UPS cycles. 2.5 gallon accumulator	6 cycles divided between two wedges 2.5 gallon accumulator	4 additional accumulator cycles divided between two wedges in addition to hundreds of UPS cycles. 2.5 gallon accumulator
<b>1 Phase Power</b>	208/230V 60Hz 220V 50Hz	115V 60/50Hz 23A † or 208-230V 60/50Hz 11.5A. Choose voltage with care as chargers are not field convertible.	230V 60Hz 220V 50Hz	115V 50/60Hz 23A † or 208-230V 50/60Hz 11.5A. Choose voltage with care as chargers are not field convertible.
<b>3 Phase Power</b>	208/230/460V or 575V 60Hz; 220/380/440V 50Hz	n/a	208/230/460V or 575V 60Hz; 220/380/440V 50Hz	n/a
<b>Batteries</b>	Two 8Ah batteries maintain low voltage to the controls for 24 hours after AC power loss	Two 110 Ah batteries located in separate DC UPS enclosure	Two 8Ah batteries maintain low voltage to the controls for 24 hours after AC power loss	Two 110 Ah batteries located in separate DC UPS enclosure
<b>Temperature Rating</b>	-40° to 158° F (-40° to 70° C) or -10° to 158° F (-23° to 70° C) HySecurity specified biodegradable fluid			
<b>Communication</b>	RS-232, RS-485, Ethernet/fiber using optional HyNet™ Gateway accessory			
<b>User Controls</b>	Smart Touch Controller with 70+ configurable options. Smart Touch keypad and display or a PC using S.T.A.R.T. software.			
<b>Relays</b>	Three configurable user relays: one 30VDC, 3A solid state and two 250VAC, 10A electromechanical; Optional Hy8Relay™ for 8 additional relay outputs			
<b>Enclosure</b>	HydraSupply XL: Type 3R, 91w x 122h x 41d cm (36w x 48h x 16d inch), optional NEMA 4X	HydraSupply XL: Type 3R, 91w x 122h x 41d cm (36w x 48h x 16d inch), optional NEMA 4X DC Power Supply: Type 3R, 76w x 76h x 30d cm (30w x 30h x 12d inch)	HydraSupply XL: Type 3R, 91w x 122h x 41d cm (36w x 48h x 16d inch), optional NEMA 4X	HydraSupply XL: Type 3R, 91w x 122h x 41d cm (36w x 48h x 16d inch), optional NEMA 4X DC Power Supply: Type 3R, 76w x 76h x 30d cm (30w x 30h x 12d inch)
<b>Finish</b>	Powder coated, 2,000 hr salt spray tested			
<b>Foundation</b>	Less than 300 mm** (1 ft) concrete depth all widths up to 4.15 m (13.5 ft); less than 218 kg (480 lb) rebar; less than 3.1 m3 (4 cu yds) concrete (per wedge)			
<b>Electrical Certification</b>	Control panel certified to UL 508A by ETL			
<b>Warranty</b>	5 year warranty on electronics and hydraulics. 2 year warranty on mechanical wedge.			

\* Wedge manufactured in metric scale. Use for precision measurements. All imperial measurements rounded to nearest ½ ft

\*\* 300 mm excavation: 200 mm reinforcing concrete + 100 mm roadway surface of any material

\*\*\* The operator's normal duty cycle and the actual number of combined cycles available from batteries depends upon wedge plate weight, number of batteries, state of charge and health, ambient temperature, accessory power draw and length of power outage.

† 115V input requires 30A branch circuit.

**OPTIONAL ACCESSORIES:** Wedge fitted with safety skirt, LED light bar, HY-5A intelligent vehicle detectors, Hy8Relay™, heater and HyNet™ Gateway. Compatible with most access control devices, safety, vehicle detection, and other accessories.

**SYSTEM DESIGN SUPPORT:** Contact HySecurity for CAD drawings, technical manuals, help with custom site requirements or other specifications support. Download operator specifications online at [www.hysecurity.com](http://www.hysecurity.com) or call to speak with a HySecurity representative today.