HydraWedge™ (SM50)



Two Day Install
HySecurity Reliability

HySecurity®
a Nice group company

Reliable. High Cycle.

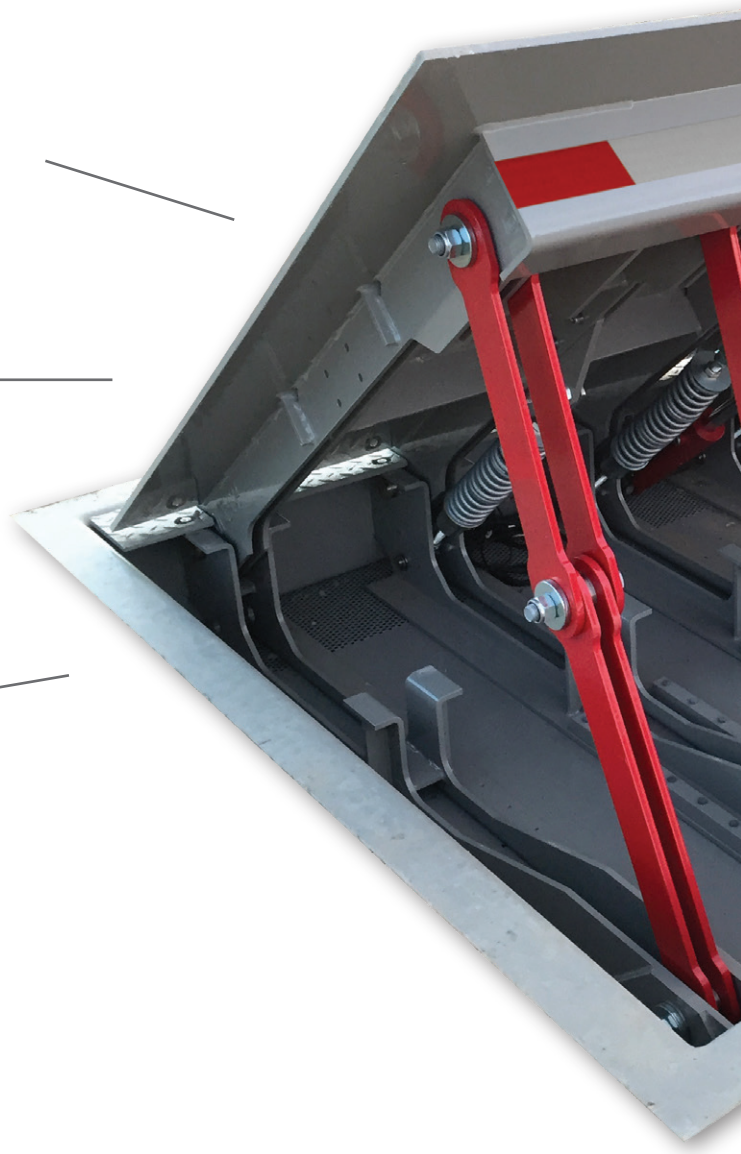
HydraWedge™ SM50 is a next generation, highly engineered, hydraulic vehicle barrier wedge that meets or exceeds every hardened Access Control Point security requirement.

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 high quality.

Superior wedge specifications

- 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

UPS battery backed-up HydraWedge SM50 UPS

HySecurity's DC Power Supply with HyCharger DC™ supplies hundreds of cycles after AC power loss



Security Event Reporting.



HydraSupply XL™

High cycle - fast throughput

Manage traffic AND maintain high security.

Employ it for traffic control AND final denial, or cycle barrier arm alone during peak traffic - and maintain EFO for security.

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.

5-year warranty

on hydraulics and electronics. Industry-exceeding warranty is your HySecurity assurance.

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.





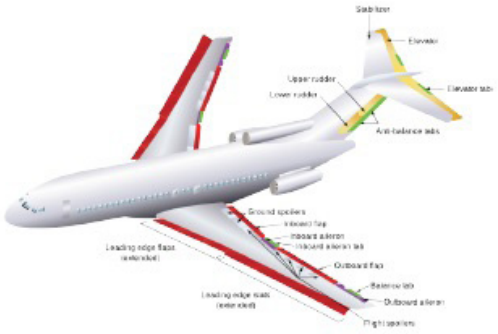
Ultra-Reliable Hydraulics

Over 100,000 Industrial and Crash Hydraulic Installations

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 Saylors, 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.



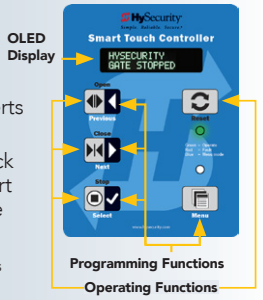


HyNet™ Gateway
via Ethernet/fiber

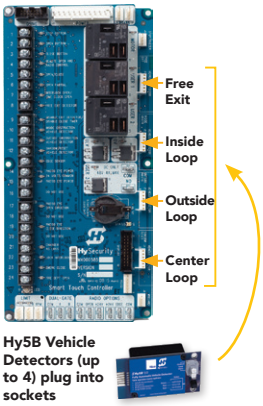
PROGRAM AND TROUBLESHOOT

- 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



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.

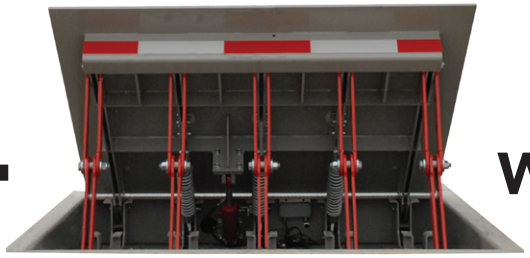


StrongArmPark DC
1.5 - 2.5 sec open
Up to 14 ft (4.2 m) arms



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

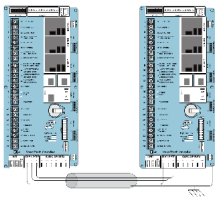
+



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

WITH

Smart Touch Controller



Easy, quick connection with common controls

Easy, Quick, Inexpensive Install

Over 100,000 Industrial and Crash High Security Sites Worldwide

Install HydraWedge SM50 in 2 days! At less than a foot of structural concrete and with minimal rebar*, a crew of two can complete installation in two days. Then program operation and gate sequencing on site with HySecurity's Smart Touch Controller.

DAY 1

- Excavate foundation / drainage
- Attach rebar: ties or tack weld
- Attach sheetmetal drains
- Level excavation
- Lower into excavation
- Level with transit
- Connect conduits
- Mount HydraSupply XL















DAY 2

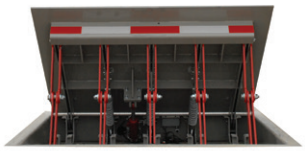
- Connect hydraulic lines
- Connect limit switches
- Pour and finish concrete
  (time to cure concrete not included)
- Connect power and controls
- Program site options
- Cycle HydraWedge SM50







High Security Anti-Ram



HydraWedge™ SM50 models

Model	HydraWedge SM50	HydraWedge SM50 UPS	HydraWedge SM50 Twin	HydraWedge SM50 Twin UPS
Crash Certified	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 ††			
Duty Cycle	300 cycles/hr		400 cycles/hr divided between 2 wedges	
Horsepower	2 hp	2 hp	5 hp	4 hp
Drive	Hydraulic			
Open/Close Time	3 seconds			
Emergency Fast Operate	1 second			
Manual Operation	Hand pump (standard)			
Wedge Design	**Plate width:** 2,2.5, 3, 3.5, 4 m* (6.5, 8, 10, 11.5, 13 ft) **Plate height (raised):** 1000 mm (3.3 ft) **Excavation width:** Plate width + 700 mm (27.5 inch) **Excavation length:** 3.7 m (12 ft) **Excavation depth:**** 300 mm (1 ft)			
Wheel Load	44,000 lb axle load rating; 22,000 lb wheel load (19,958 Kg. / 9,979 Kg)			
UPS Battery Backup Cycles***	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™ ***
Accumulator Backup Cycles: Either normal or EFO	4 cycles 2.5 gallon accumulator	4 accumulator cycles in addition to hundreds of UPS cycles. 2.5 gallon accumulator	4 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
1 Phase Power	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 60/50Hz 23A † or 208-230V 60/50Hz 11.5A Choose voltage with care as chargers are not field convertible
3 Phase Power	208/230/460V; 220/380/440V 50Hz	n/a	208/230/460V; 220/380/440V 50Hz	n/a
Batteries	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
Temperature Rating	-40° to 158° F (-40° to 70° C) or -10° to 158° F (-23° to 70° C) HySecurity specified biodegradable fluid			
Communication	RS-232, RS-485, Ethernet/fiber using optional HyNet™ Gateway accessory			
User Controls	Smart Touch Controller with 70+ configurable options. Smart Touch keypad and display or a PC using S.T.A.R.T. software.			
Relays	Three configurable user relays: one 30VDC, 3A solid state and two 250VAC, 10A electromechanical; Optional Hy8Relay™ for 8 additional relay outputs			
Enclosure	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 x12d 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 x12d inch)
Finish	Powder coated, 2,000 hr salt spray tested			
Foundation	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)			
Electrical Certification	Control panel certified to UL 508A by ETL			
Warranty	5 year warranty on electronics and hydraulics w/product registration. 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 frequency of gate cycles during power outage.

† 115V input requires 30A branch circuit

†† Contact HySecurity to receive a copy of the ASTM F2656-15 M50-P1 Test Certification

OPTIONAL ACCESSORIES: Wedge fitted with safety skirt, LED light bar, Hy5B intelligent vehicle detectors, Hy8Relay™, HyNet™ Gateway, heater, custom color

SYSTEM DESIGN SUPPORT: Contact HySecurity for help with custom site requirements, CAD drawings, tech manuals or other specifications support.

VISIT HYSECURITY.COM for installation manuals, parts diagrams, wiring diagrams, specifications, image gallery, videos, training and much more.

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Contact HySecurity for an operator/parts distributor near you.
phone 253-867-3700 | 800-321-9947
www.hysecurity.com | sales@hysecurity.com