

NORSHIELD
ARCHITECTURAL SECURITY PRODUCTS



**CHANGING
THE FACE OF
SECURITY**



**WE BUILD OUR
PRODUCTS
LIKE OUR LIVES
DEPEND ON IT.**

LEADING THE INDUSTRY FOR MORE THAN 40 YEARS.

Norshield Architectural Security Products is the world's leading manufacturer of certified ballistic, attack and blast resistant doors, windows, wall systems and accessories. Since our beginning in 1981, Norshield continues to be a leader in security product innovation to meet the world's growing anti-terrorism and security needs.



TOUGH TALK ISN'T ENOUGH.

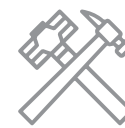
We build security products for worst-case scenarios, but you're building for much more than that. Even if a building might someday encounter threats of violence or natural disasters, it serves a purpose as a place of commerce, diplomacy or even residence. Norshield designs products that provide the highest levels of protection without compromising aesthetics, functionality or performance.

BALLISTIC RESISTANCE



A ballistic or bullet resistant material is designed to resist penetration from specific types, calibers, and velocities of ballistic threats at various levels. Test procedures and methods vary, but generally involve a specific sample size, number of impacts, temperature, spacing or pattern of impacts, and measurement of any penetration or spalling.

ATTACK & FORCED ENTRY THREAT REDUCTION



There is no one-size-fits-all approach to threat reduction from physical attack. Physical threats are usually defined by combinations of time, selected test tools and apparatus, quantity of test sequences, and number of attackers. Test procedures are based on a series of attack sequences conducted by human participants; some involve the use of a mechanical test apparatus.

BLAST MITIGATION



Blast mitigation is one of the most difficult threats facing security professionals today. We consult with blast engineers to ensure our systems work with the building structure for maximum protection without collapse. We have successfully provided blast mitigation systems for U.S. embassies, GSA facilities, FAA buildings, military compounds, and other structures worldwide.

WIND & IMPACT



Not every threat is man-made. In 2019 alone, the U.S. was impacted by 14 separate billion-dollar disasters, including 8 severe storms and 2 tropical cyclones. Norshield can design windows that meet or exceed IBC, ASTM E1886/E1996, AMMA 506 and Florida TAS 201 hurricane impact standards as well as ICC500 and FEMA 361 for impact and debris containment.



**DOORS
WINDOWS
LOUVERS
HATCHES
BOOTH
STOREFRONT**

**DESIGNED TO STAND UP TO
BULLETS, BLASTS, ATTACKS
AND ARCHITECTURAL SCRUTINY.**

**YOUR SECURITY IS ONLY AS GOOD AS YOUR
MOST VULNERABLE OPENING...
THAT'S WHY WE ADDRESS ALL OF THEM.**



CUSTOM GLASS OPTIONS From bullets, blasts, attack and the constant exposure to the elements, Norshield provides insulated and laminated glazing options that stand up to the worst and continue to look their best. We'll work with you to engineer, test and certify the level of performance that best meets your needs. From small arms to bomb threats, Norshield has you covered.



THERMAL BREAK Norshield's proprietary thermal break profiles stop thermal conductivity in its tracks, making your next project more sustainable and a more comfortable place for people. Our long history of involvement in LEED-certified projects is a testament to our commitment to performance.



COUNTLESS TRIM OPTIONS Debunking the bunker aesthetic requires sophistication, nuance and flexibility. Norshield ushered in the idea of complex design in a security window more than 40 years ago, and we're still leading the way; custom profiles and finishes are just part of the game.



FRAMES BUILT TO SUIT Norshield offers frames constructed of steel, stainless steel and aluminum. Due to its inherent strength, steel has been the default choice in security fenestration for decades. Nearly 20 years ago, Norshield challenged steel's dominance with the introduction of aluminum frames. Aluminum's ease of finish, superior thermal performance and design flexibility make it a formidable option. The choice is yours.

GOING DUTCH

U.S. Embassy — The Hague, Netherlands

On the international map of diplomacy, The Hague is a prominent figure.

It's no wonder then that The Bureau of Overseas Buildings Operations (OBO) would put its best foot forward with modern well-appointed compound located outside The Hague near Wassenaar. It was important to respect both the physical and cultural aspects of the new site; the stately embassy sits in a rural section of South Holland surrounded by canal systems and country estates. (Interestingly enough, John Adams established the very first American embassy not far from here in 1782.)

Although The Hague is home to the Dutch parliament, Noordeinde Palace (the king's office) as well as the U.N.'s International Court of Justice, an ostentatious structure would have been out of place. A sense of restraint was exercised throughout the project's design, including the materials used. "Both integrated green design and sensitivity to the neighbors were key goals that influenced just about every design decision," remarked Carissa Oyedele of Moore Ruble Yudell. While the buildings are distinctly American in character, they also pay homage to Dutch architectural traditions—most notably the prominent use of red brick.

Commissioned in 2010 and opened in 2018, the nearly seven acre compound features a New Office Building, Marine Security Guard Residence, SPX and compound access points. Norshield was selected to provide more than 320 high security windows, doors, louvers and roof hatches for the project. All of the products were required to meet stringent forced entry and ballistic resistant (FE/BR) and blast resistant performance requirements, meeting or exceeding U.S. Department of State physical security standards. They also needed to integrate seamlessly into the design of the buildings.

Norshield's thermally-broken aluminum windows and high-performance Low E coatings contributed to the project's achievement of LEED Silver certification for sustainability. The embassy is projected to reduce energy costs by 30% compared to a conventional building. A number of factors, including the windows, contribute to its overall sustainability, such as the use of geothermal heating and cooling.

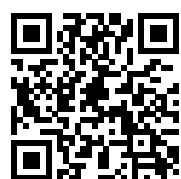
As is the case just about everywhere in the Netherlands, the site has a high water table as well as an abundance of rainfall. Leveraging the unavoidable, the project engineers instead took advantage of this by harvesting and reusing rainwater for irrigation. A network of canals controls groundwater on the site. The canal walls and freestanding canopy structures are supported on spread footings. While each building is designed to resist gravity and wind loads, the Chancery, Marine Guard quarters, and a portion of the support annex will also resist progressive collapse and blast loads on their structural framing.

The Netherlands is generally a peaceful place, and as such, this American embassy is the perfect diplomatic station for its surroundings. Norshield's ability to provide unequivocal protection without compromising energy efficiency or aesthetics contributes to a tasteful, dignified yet formidable compound.

ARCHITECT
Moore Ruble Yudell Architects & Planners

CONTRACTOR
Caddell Construction

OWNER
U.S. Department of State,
Bureau of Overseas Buildings Operations



Looking for more Norshield stories? Quick scan and go.

A FORTRESS OF PUBLIC SAFETY IN THE BRONX

Public Safety Answering Center II — Bronx, New York



ARCHITECT
Skidmore, Owings & Merrill

CONTRACTOR
Tishman Technologies Corp

GLAZING CONTRACTOR
W & W Glass

OWNER
City of New York



Looking for more Norshield stories? Quick scan and go.

This architectural gem conceals next-level security measures.

New York City has two very large buildings dedicated to answering the 911 calls of its five boroughs. With more than 11 million emergency calls annually, it makes perfect sense. The second of these buildings, the Public Safety Answering Center II, or PSAC II, is located on a nine-acre parcel of land in the Bronx. It's an imposing 450,000 square-foot structure—a 240 foot wide by 240 foot tall cube.

The gleaming aluminum cube rises up the equivalent of 24 stories from behind a grassy berm, projecting the unlikely impression that it might actually be floating. Like most visually striking structures, the building has drawn as much scorn as it has admiration. A darling of the architectural community, it earned wide recognition and won multiple awards. But behind all the accolades and its glimmering exterior, this building has a secret—it's a mighty fortress engineered to withstand acts of violence and continue operating even in the direst of situations.

The Wall Street Journal described it as the most technologically advanced structure in New York City. Chances are pretty good they don't know the half of it. Norshield



provided over 250 windows and high-security doors for the project. From the outside, you'd be hard pressed to find many windows; they are intentionally few and far between. What makes the project so unique is that as domestic public buildings go, this one has an extraordinary level of security incorporated on the interior. Being essentially open to the public, the primary concern was mitigating any catastrophic event that might take place on the inside. The lobbies and common areas are fortified with anti-blast and anti-ballistic products to a level that would exceed most FBI field offices.

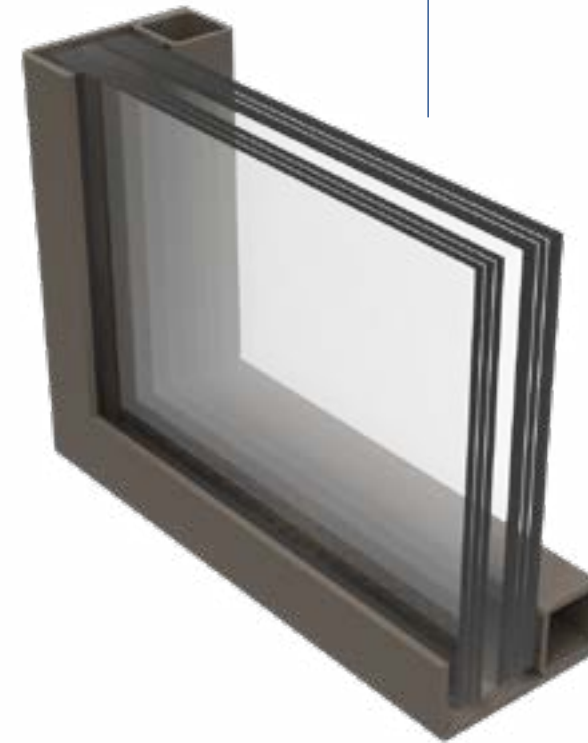
When necessary, PSAC II can handle the work of both centers. It is intended to be virtually impregnable and, if needed, completely self-sufficient for three days at a time. No food deliveries. Nothing. The fuel supply for its generators can last even longer. "For being a public building...a public utility building, the PSAC II has an amazing level of fortification on the inside. It's engineered with comprehensive redundancies, so this building is essentially an arc. It's designed to stay online, period," said John Wood, Norshield's Director of Engineering.

Norshield's windows and doors were constructed to stringent FEBR and blast resistant performance requirements—meeting or exceeding U.S. Department of State and ASTM physical security standards—and provide protection from a wide range of physical threats. Both the interior and exterior doors are highly engineered and extremely custom. "The doors leading to the building's actual infrastructure and circuitry create what is essentially an impenetrable vault," added Wood. Additionally, the building achieved LEED Gold certification, and Norshield's high performance Low-E coatings and thermal attributes contributed on that front as well.

The events of September 11, 2001 left an indelible mark on this nation, and the repercussions of the day are evident in the way the PSAC II is built. It's reassuring to know that even in the worst of times, someone will always be there to answer the call...and Norshield has a part in that.

A WINDOW TO THE WORLD

From the company that redefined what a security window can be.

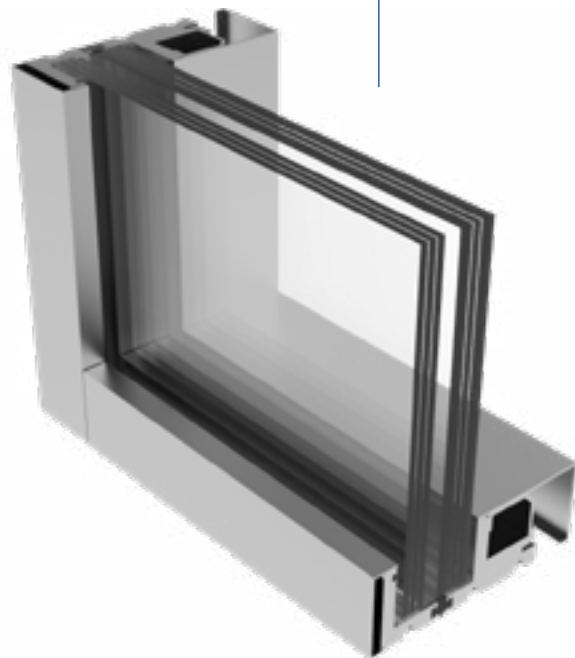


SFW I 500 SERIES – STEEL

Meets or exceeds national and international standards.

- Ballistic Levels 1-8; NIJ I, II, IIA, III, IIIA, IV; DIN C1-C5; SD-STD-01.01 DOS Ballistic, Forced Entry, and Blast.
- Constructed of ballistic resistant steel appropriate for the specified threat level.
- Use individually or assembled for guard booths, security enclosures, window walls, etc.
- Available variety of frame profiles meet specific security glazing, threat levels or sight lines.
- Standard framing has 2" or 2 ½" face; 4 ½", 5 ½", or 6 ¾" depth. Custom profiles available.
- Factory glazed and available finish painted.
- Complete with all gaskets, shims, and installation accessories.
- Available in fixed, casement, or sliding sashes.
- Stainless steel, bronze, or aluminum clad finishes.
- Options include transparent architectural, or spandrel glazing.
- High performance insulated and Low-E glazing options are available.

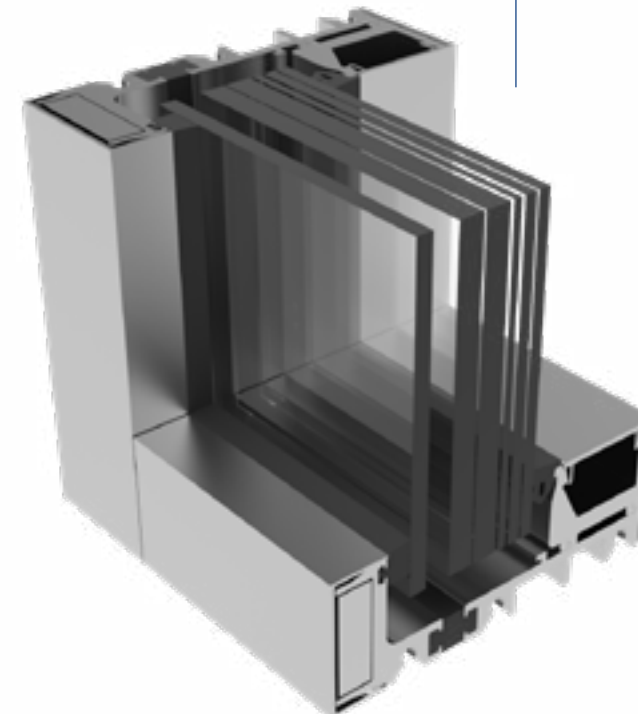
AFW I 500 SERIES – ALUMINUM



- SD-STD-01.01 DOS Ballistic, Forced Entry, and Blast; Ballistic Levels 1-9; NIJ I, II, IIA, III, IIIA, IV; DIN C1-C5.
- Constructed of high-performance aluminum alloy for unparalleled protection, aesthetics, and design flexibility.
- May be used individually or assembled for guard booths, window walls, storefronts, etc.
- Multiple trim options to meet most every architectural look.
- Poured and debridged thermal break design for superior exterior performance.
- 2³/₄" x 6¹/₂", 2³/₄" x 7¹/₂" and custom profiles available.
- High performance insulated and Low-E glazing options are available.
- Factory glazed with all gaskets, seals, etc.
- Independently certified for blast resistant applications up to 42 psi.
- ASTM and AAMA tested for air, water, and thermal structural performance.

NS7000 SERIES – ALUMINUM

Use alone, mull with additional NS7000 windows and/or with NS7000 Series door for a complete barrier.



- Ballistic Levels 1-9; NIJ I, II, IIA, III, IIIA, IV; DIN C1-C5, 5.56mm; SD-STD-01.01 DOS 5 min. Forced Entry
- Blast-resistant up to 14 psi
- Forced entry rated to ASTM F1233 Class 3
- FEMA 361 tornadic impact
- Standard framing has 2" face x 5 ½" depth
Custom profiles available
- Accommodates glazing thickness from 1 ¾" to 2 ½"
- All units arrive pre-glazed with all gaskets, seals, etc.
- Appropriate for retrofit or new construction
- Poured and debridged thermal break design for superior exterior performance.
- Applied exterior or interior grids available
- ASTM and AAMA tested for air, water, and thermal structural performance.
- NFRC 0500 thermal simulation.

NOTE: All Norshield windows supplied factory glazed and pre-finished (unless otherwise specified).

NORSHIELD MAKES AN ENTRANCE.

Doors that protect at the highest level.



ADR & NS7000 SERIES - ALUMINUM DOORS

High Security multiple threat performance. With a wide range of configuration and hardware options, the ADR and NS7000 doors are available in single and double leaf configurations, and are suitable for projects requiring ballistic, forced-entry and/or blast performance.

Rail and stile construction hides the robust performance of these doors in a very conventional aluminum entrance look.

Finish options include Class I clear and dark bronze anodize, custom anodized colors, high performance fluoropolymer paints and stainless steel cladding.

Blast resistant design meets requirements for both positive and negative pressure (rebound) protection during a blast event. (GSA, UFC & DOS)

Heavy duty 1,000,000 cycle hinges. Stainless steel ball bearing hinges have been tested to over 1,000,000 cycles on a 600# door leaf.

Tested to multiple protection standards including DOS SD-STD.01-01, UL752 (Levels 3, 4, 5, 7, 8 & 9), ASTM F1233 (R1, R2, R3 & R4) and NIJ (Level III and Level IV).



SDR & SDDR SERIES - STEEL DOORS

High security multiple threat performance. With a wide range of configuration and hardware options, the SDR single and SDDR double doors are suitable for projects requiring ballistic, forced-entry and/or blast performance.

Available with all functions across multiple hardware brands. Mortise lock, cylindrical locks, panic devices, maglocks and other locking functions with manual and electric actuation options.

Virtually unlimited finish options from factory standard finish paints, high performance fluoropolymer, stainless steel, aluminum or wood cladding.

Blast resistant design meets requirements for both positive pressure protection during a blast event. (GSA, UFC & DOS)

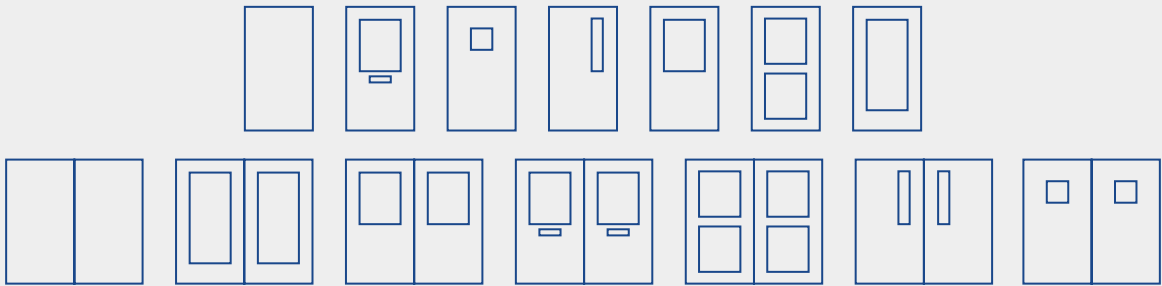
Available with all typical hardware functions. Panic bar, exterior cylinder, lever actuation (interior and/or exterior), combination lock, ADA compliant, local and remote electric release options.

Heavy duty 1,000,000 cycle hinges. Stainless steel ball bearing hinges have been tested to over 1,000,000 cycles on a 600# door leaf.

Tested to SD-STD-01.01, Rev G high power rifle, 15 minute, and 60-minute forced entry. Rev H testing pending.

Multiple threat ballistic protection including DOS Rifle & AP, UL752 Rifle (Levels 4, 5, 7, 8 & 9), ASTM F1233 (R1, R2, R3 & R4) and NIJ (Level III and Level IV).

SINGLE & DOUBLE DOOR CONFIGURATION OPTIONS



UNDERSTATED HIGH SECURITY.

The all-new SDR Max is a revolutionary security door.



- Smooth, dependable, high-security protection.** Door is locked and deadlocked upon closing, ready to protect from forced entry, ballistic or blast threats.
- Multipoint auto-lock.** Secures automatically when closed (no manually operated forced entry locks).
- Fully mortised multipoint lock** which provides a clean, sleek door design with no exposed locks or locking mechanisms.
- Available with all typical hardware functions.** Panic bar, exterior cylinder, lever actuation (interior and/or exterior), combination lock, ADA compliant, local and remote electric actuation options.
- Single point lock retraction & deadlock from threat side** (eliminates multiple cylinders and thumbturns).
- Available as out-swing and in-swing** configurations; singles or pairs.
- Blast resistant design** meets requirements for both positive and negative pressure (rebound) protection during a blast event. (GSA, DOD & DOS)
- Tested to SD-STD-01.01;** Rev G high power rifle, (15 & 60 minute) forced entry. Rev H rifle ballistics, (5, 15 & 60-minute) forced entry.
- Tested to ASTM F3038-14** (5, 15, 30 & 60 minute)
- Tested to multiple ballistic standards** including; DOS Rifle & AP, UL752 Rifle (Levels 4, 5, 7, 8 & 9), ASTM F1233 (R1, R2, R3 & R4), NIJ (Level III and Level IV) and BS EN 1522/1523 (BR6).

SERIES SDR MAX & SDDR MAX

Unique hardware and protection options make these doors suitable for all security needs.

Available in painted finish over galvanized steel/stainless steel/aluminum/bronze/wood cladding or custom finish options. DOS SD-STD-01.01 Rev. G & Rev. H ballistic, 15 min. and 60- min. forced entry; or to commercial ballistic standard UL752, ASTM F1233, NIJ 08001 including armor piercing; combined threat ballistic, forced entry, and blast resistant units available. Available as fire rated (opaque only) up to 180 minutes.

Adjustable Mechanical Trigger
at top of door leaf

1" throw with available mechanical interlock to prevent single motion retraction of latches

Armored exterior key cylinder for manual entry

Robust cast and machined components with rack and pinion mechanism ensures long-term reliability and consistent function.

SDR MAX-OP
with power operator

Patent Pending

MADE FOR THE FRONT LINES.

But you'd never know it.



STOREFRONT

NS7000 STOREFRONT & ENTRANCE

Norshield offers a full line of architectural aluminum framing systems designed and tested to meet a wide range of ballistic, blast, forced-entry and windstorm protection.

From punched windows, simple entrances or a multi-span storefront, Norshield offers a framing system that will work for your project when paired with the proper bullet or impact resistant glazing.

All of Norshield's entrance and storefront systems have been independently tested by nationally accredited laboratories to meet UL752, ATSM, and windstorm standards. Selected systems have also been analyzed for blast resistant to GSA/ISC and DoD protection levels.

Norshield entrance and storefront framing and doors are designed to provide protection for areas subject to threats from bullet, blast, wind or debris impact. The conventional sightlines and aluminum construction conceal the robust impact and threat containment capabilities of the system.

NS7000 features a 2" face × 5 ½" depth

FEATURES

- Accepts ¾" to 2 ¾" security glazing units
- Class I anodized or fluoropolymer painted finishes
- Completely fabricated, assembled and pre-glazed for ease of installation
- Ballistic tested UL752 Level 3-9 and NIJ III & IV
- Blast resistant to GSA/ISC Levels C & D & UFC 4-010-01 DoD Minimum Antiterrorism Standards for Buildings
- Windstorm testing in progress to ASTM E1886/E1996, FEMA 361 and ICC-500 for tornadic and hurricane impact and winds
- Air, water, thermal and structural tests per ASTM and AAMA standards
- Poured and debridged thermal break design for superior exterior performance

NOT AFRAID TO STAND GUARD.

Ballistic, attack, and blast resistant booths for any location.



DURABLE. FLEXIBLE. PRE-ASSEMBLED.

Standing alone or incorporated into existing structures, Norshield guard booths are used at secure facilities throughout the world in applications such as border stations, toll booths and security checkpoints. Additionally, Norshield can incorporate added functionality with deal trays and package passes when secure transactions are a critical need.

SERIES NS5000 & NS7000

Norshield offers a wide variety of preassembled guard booths to meet a variety of needs. Some of our features include:

- Full factory assembled and placed by crane on your prebuilt concrete pad.
- Steel (factory finish painted over hot dip galvanize), stainless steel, or aluminum construction.
- Color selection from RAL charts for both steel and aluminum, as well as a wide array of anodized aluminum colors.
- Ballistic Levels 1-9, NIJ I, II, IIA, III, IIIA, IV; DIN C1-5; DOS SD-STD-01.01
- Forced entry & blast resistance.
- Full factory installed and tested electrical (receptacles, LED Lighting, service panel/breakers, etc.), HVAC, plumbing, and conduits / junction boxes for vehicle barriers, CCTV, telecommunications, and other controls.
- Custom built and installed counters, benches, cabinetry, intercoms, pass throughs, deal trays, and gun ports.
- Full range of glass options (incl. tints, Low-E, RFI shielding, insulated units).
- Swinging and sliding doors with a variety of hardware options.
- Oversize or container shippable.
- Various roof options.

NS7000
Aluminum

NS5000
Stainless Steel

WHEN ABSOLUTE SECURITY IS A TOP CONCERN.

Our customers prefer our hatches and louvers when safety and function are top-of-mind.

SERIES RH ROOF HATCH

Provides an alternate exit route from the building while providing the maximum amount of protection. All steel, hot dip galvanized, with factory finish paint. An optional aluminum insulated cover is available. DOS certified to high power rifle and 60-minute forced entry; blast resistant. The simple design provides assisted opening, triple locking mechanism, weather/ water resistant, and is adjustable for various lid weights.

Opening sizes at 2' x 3', 3' x 3', 3' x 4' and 4' x 4'; custom sizes available upon request.

Options include:

- Access ladder
- Guard rail and safety gate (for roof opening)



SERIES LVR6000 STEEL LOUVER

Provides the maximum amount of protection while allowing the greatest free area of high security louvers on the market. All steel construction, hot dip galvanized, with optional factory finish paint. DOS certified to high power rifle and 60-minute forced entry; can meet other test requirements upon request; blast resistant. Designed to drain water to the exterior of the building with no puddling in the louver.

Options include:

- Stainless steel bird screen
- Stainless steel construction

PERFORMANCE AT-A-GLANCE:

			NS7000 ALUMINUM ENTRANCE SYSTEM			ALUMINUM FRAMED SYSTEM			STEEL FRAMED SYSTEM				ACCESSORIES		
			NS700 FIXED WINDOW	NS7000 TELLER WINDOWS	NS7000 DOORS	AFW 1500 WINDOWS	ATW TELLER WINDOWS	ADR DOORS	SFW WINDOWS	STW TELLER WINDOWS	SDR DOORS	SDR MAX DOORS	LOUVERS	HATCHES	DRAWERS
BALLISTIC	UL752	RATINGS	THREAT												
		LEVEL 3	.44 MAGNUM 3 SHOTS	○	○	○	○	○	○	○	○	○	○	○	○
		LEVEL 4	.30-06 1 SHOT	○	○	○	○	○	○	○	○	○	○	○	○
		LEVEL 5	7.62 MM 1 SHOT	○	○	○	○	○	○	○	○	○	○	○	○
		LEVEL 7	5.56 MM 5 SHOTS	○	○	○	○		○	○	○	○	○	○	○
		LEVEL 8	7.62 MM 5 SHOTS	○	○	○	○	○	○	○	○	○	○	○	○
	NIJ 0108.1	LEVEL 9	.30 CALIBER AP 1 SHOT	○	○	○	○	○	○	○	○	○	○	○	○
		IIIA	.44 MAGNUM 5 SHOTS	○	○	○	○	○	○	○	○	○	○	○	○
		III	7.62 MM 5 SHOTS	○	○	○	○	○	○	○	○	○	○	○	○
		IV	.30 CALIBER AP 1 SHOT	○	○	○	○	○	○	○	○	○	○	○	○
	DOS SD-STD-01.01	DOS RIFLE REV G	7.62 MM/5.56MM 3 SHOTS				○	○	○	○	○	○	○	○	○
		DOS RIFLE REV H	7.62 MM/5.56MM 3-8 SHOTS				○	○	○	○	○	○	○	○	○
		DOS AP REV G	.30 CALIBER AP 1 SHOT				○	○	○	○	○	○	○	○	○
FORCED ENTRY	DOS SD-STD-01.01	DOS 05 REV G	5 MINUTE 2 MAN ATTACK	○		○	○	○	○	○	○	○	○	○	○
		DOS 05 REV GH	5 MINUTE 6 MAN ATTACK									○			
		DOS 15 REV G	15 MINUTE 6 MAN ATTACK				○	○	○	○	○	○	○	○	○
		DOS 15 REV H	15 MINUTE 6 MAN ATTACK									○			
		DOS 60 REV G	60 MINUTE 6 MAN ATTACK									○			
		DOS 60 REV H	60 MINUTE 6 MAN ATTACK								○	○	○	○	
	ASTM	ASTM F1233	CLASS I - III	○											
BLAST-MULTIPLE		BLAST	GSA, DOD, DOS	14 PSI	14 PSI	10 PSI	42 PSI	42 PSI	20 PSI	42 PSI	42 PSI	20 PSI	42 PSI	42 PSI	42 PSI
IMPACT-FEMA		FEMA 361	TORNADIC IMPACT	○											
FIRE-UL		UL 10B/10C UL LISTED	45 - 180 MINUTE								○	○			

WHAT WE DO IS COMPLEX. WHAT WE CAN DO TOGETHER IS AMAZING.



NORSHIELD
ARCHITECTURAL SECURITY PRODUCTS



YEARS OF OPERATION

Norshield was established in 1981 to address the rising threat of global terrorism.



DEDICATED EMPLOYEES

Our organization is made up of engineers, CAD operators, business professionals, project managers, welders and fabricators.



NORSHIELD ARCHITECTURAL SECURITY PRODUCTS

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