



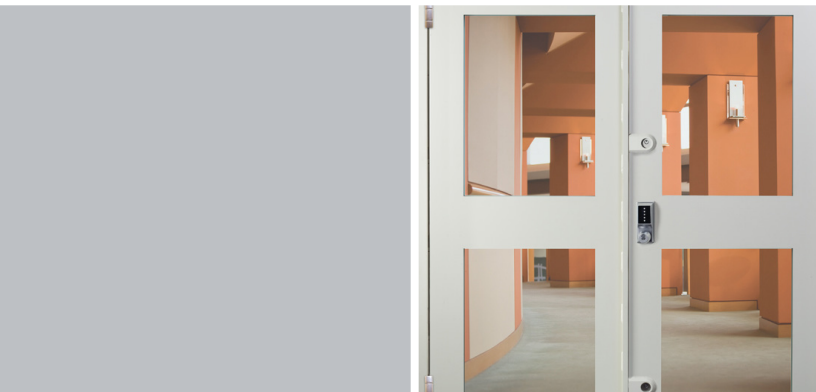
HARDEN
ARCHITECTURAL
SECURITY PRODUCTS

Doors

Maximum security access for
high threat locations



Harden High Security Doors are certified to offer up to the highest level of U.S. Department of State-certified protection against mob-level forced-entry attacks and rifle-level ballistic threats. The appeal of Harden doors goes far beyond their architectural claddings, premium finishes and stylish hardware packages. Structural steel door leaves and formed frames supply exceptional strength for the utmost in security and durability.



HARDEN ARCHITECTURAL SECURITY

Doors



High Security Doors – DOS 5/15 Minute FE/BR pg.3

DOS certified steel systems tested to withstand 5 or 15 minutes of simulated “mob” attack. 15-minute models are also certified for rifle-level ballistic rounds. Hardware includes automatic multi-point or two manually thrown locks for exceptional strength and durability. Options consist of various single or double leaf configurations and vision or opaque panels.



Maximum Security Doors – DOS 60 Minute FE/BR & Fire pg.7

DOS certified steel systems are tested to withstand 60 minutes of simulated “mob” attack and rifle-level ballistic rounds. Door leaves are opaque and include three manually thrown locks for exceptional strength and durability. Options consist of various single or double leaf configurations and a 180 minute UL fire rating.

Industries

- Government
- Military
- Oil & Gas
- Critical Infrastructure
- Commercial



Applications

Harden Steel Security FEBR Doors offer DOS certified protection against mob-level forced-entry attacks and rifle-level ballistic threats in a structural steel, pre-hung assembly engineered for long term durability. With numerous configurations, materials and hardware options available, these doors are highly adaptable to a wide spectrum of uses and architectural designs. Maximum and High Security Doors safeguard mission critical buildings, guard houses, control rooms, executive offices and anywhere the highest level of protection, aesthetics, and durability are important considerations. An optional 3-hour fire rating on certain products allows the doors to be used in rated fire walls and fire barriers without sacrificing any forced entry or ballistic protection.

HIGH SECURITY DOORS – DOS 5/15 MINUTE FE/BR

Design Overview

Tested to Department of State Standard SD-STD-01.01 Rev. G (Amended), Harden High Security Steel Doors combine DOS certified ballistic and forced-entry resistance with advanced materials and finishes to provide elevated threat protection and striking contemporary appeal. The “05” models are tested to withstand simulated “mob” attack for 5 minutes. The “15R” models are tested to withstand 15 minutes of simulated “mob” attack and are also resistant to 5.56 M193, 5.56 M855 and 7.62 M80 ballistic rounds.

Fabricated as a complete system, typical construction includes a structural steel door leaf and frame, laminated/insulated glazing, glazing stops, ballistic protection bars, interior/exterior trim, door hardware (locks, hinges, closers, sensors) and a plate or tube-type sub-frame. Doors are available in single or double leaf swing models and can be configured with opaque panels or half-vision, full-vision or double-vision glazing. Optional transom and side lites are also available. The standard 2-1/4" thick door leaf allows for the integration of virtually any type or style of hardware. Harden High Security Doors offer architects and end users:

- **Anti-Terrorism Level Security** – where conformance to U.S. Department of State forced-entry / ballistic resistant threat levels is required
- **Architectural Appeal** – the formed, reinforced steel frame provides the look of a commercial hollow metal door and complements modern architectural design
- **Design Flexibility** – numerous cladding and trim options offer the ability to complement other building materials
- **Ease of Operation** – the use of high quality hinges results in very low pull forces
- **Durability** – structural steel materials and high-quality hardware provide extreme durability and low maintenance throughout the life cycle



In addition to engineering the full door and sub-frame system, Harden has the unique ability to customize styles and finishes, providing architects and engineers with a wide range of flexibility in creating or preserving the aesthetics of new and existing structures.

Standard Features

- Full door system, with all hardware, framing and glazing that is factory installed and tested
- Formed steel frame with welded corners
- Pre-drilled and tapped sub-frame in one of three styles 1) embed plate with studs for newly poured concrete walls 2) tubing with chemical or mechanical anchors for existing masonry walls 3) tubing for welding to steel walls
- Laminated glazing to meet applicable threats
- Removable glazing stop
- Ballistic stop bars to protect construction shim gap (on ballistic-rated units)
- Forced-entry-resistant, low friction stainless steel hinges
- Forced-entry locks – manually thrown or automatically actuated
- Provisions for electric and pneumatic connections
- Accessible terminal block to facilitate field connections

Standard Finish

- Hot-dip galvanized per ASTM A123

Model Comparison Guide

Harden Model Series	DSSO-05	DSDO-05	DSSV-05	DSDV-05	DSSO-15R	DSDO-15R	DSSV-15R	DSDV-15R	DSSO-15R-AL
Door Style	Single, opaque	Double, opaque	Single, vision panel	Double, vision panel	Single, opaque	Double, opaque	Single, vision panel	Double, vision panel	Single, opaque
Door Leaf Construction	Welded steel	Welded steel	Welded steel	Welded steel	Welded steel	Welded steel	Welded steel	Welded steel	Welded steel
Leaf Thickness	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)	2-1/4" (57 mm)
Door Frame Construction	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel	Formed, reinforced and welded steel
Frame Depth	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)	5.63" (143 mm)
Maximum Certified Size	Contact Harden for details								
Mounting Technique	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center
Ballistic Resistance	N/A	N/A	N/A	N/A	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)
Forced Entry Resistance	5 minutes Per DOS SD-STD-01.01 Rev G (Amended)	5 minutes Per DOS SD-STD-01.01 Rev G (Amended)	5 minutes Per DOS SD-STD-01.01 Rev G (Amended)	5 minutes Per DOS SD-STD-01.01 Rev G (Amended)	15 minutes Per DOS SD-STD-01.01 Rev G (Amended)	15 minutes Per DOS SD-STD-01.01 Rev G (Amended)	15 minutes Per DOS SD-STD-01.01 Rev G (Amended)	15 minutes Per DOS SD-STD-01.01 Rev G (Amended)	15 minutes Per DOS SD-STD-01.01 Rev G (Amended)
DOS Code	2141	2141	1141	1141	2123	2123	1123	1123	2123
Blast Resistance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fire Rating	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hinge Cycle Testing	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1
Forced Entry Lock System	Two, manually actuated	Two, manually actuated	Two, manually actuated	Two, manually actuated	Two, manually actuated	Two, manually actuated	Two, manually actuated	Two, manually actuated	Multi-point lock, automatically actuated when door closes
Hinges	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel	Two, stainless steel
Additional Notes		One active, one inactive leaf		One active, one inactive leaf. Vision panels in one or both doors		One active, one inactive leaf		One active, one inactive leaf. Vision panels in one or both doors	Entry and exit hardware, solenoid release, combination locks, motorized retraction systems are available; exclusive to lock manufacturer

HIGH SECURITY DOORS – DOS

5/15 MINUTE FE/BR

Optional Features

- Door Leaf and Frame:
 - o Door leaf cladding
 - o Frame cladding
 - o Peephole / door viewer
 - o Transom lites and side lites
- Hardware:
 - o Wide variety of complimentary access hardware
 - o Combination and deadbolt locks
 - o Position sensors
 - o Pneumatic closers
 - o Electrical closers
 - o Thumbturn protector
- Door Glazing:
 - o Full vision, double vision or half vision lites
 - o Custom shapes
 - o Low-e hardcoats
 - o Films for RF / IR attenuation
 - o Tints
 - o Frits
 - o High-definition printing
 - o Switchable privacy glass

Optional Finishes

- Epoxy primer
- Manufacturer's standard powder coat (Contact Harden for color chart)
- Aluminum cladding; painted, clear or color anodized or mill finish
- Stainless steel cladding
- Bronze cladding
- Wood veneer cladding



Technical Data

Applicable Standards, Testing and Certifications

- Department of State, SD-STD-01.01 Rev. G (Amended): Certification Standard – Forced Entry and Ballistic Resistance of Structural Systems
- UL 752: Standard for Bullet-Resisting Equipment
- ANSI/BHMA A156.1: Butts and Hinges

Installation Considerations

- Doors are fully assembled at the factory, and require only minimal preparation prior to installation
- Sub-frames can be shipped in advance of factory glazed, pre-hung door assembly
- Harden performs Factory Acceptance Testing to ensure the selected hardware functions perfectly and that the door fits correctly in the frame
- Three different methods of installation are available depending on the stage and type of wall construction:
 - o Pre-drilled and tapped plate-type embeds cast into concrete
 - o Pre-drilled and tapped steel tube-type sub-frames bolted into the wall
 - o Pre-drilled and tapped steel tube-type sub-frames welded to the wall structure

Maintenance

Regular inspection of door and hardware is required. Hardware not manufactured by Harden may have specific maintenance requirements; refer to manufacturer's literature for information.

Availability & Cost

Door systems are typically manufactured to order and subject to production lead times at the time of purchase.

Warranty

Harden warrants that its Architectural Security products shall remain free of defects in material and workmanship under normal use for a period determined by the individual project specification.



MAXIMUM SECURITY DOORS – DOS 60 MINUTE FE/BR & FIRE

Design Overview

Tested to Department of State Standard SD-STD-01.01 Rev. G (Amended), Harden Maximum Security Steel Doors combine the utmost in DOS certified ballistic and forced-entry resistance with advanced materials and finishes to provide extreme threat protection and striking contemporary appeal. The optional fire rating offers 180 minutes of UL 10B tested protection. All models are tested to withstand simulated “mob” attack for 60 minutes plus ballistic resistance of 5.56 M193 & M855 and 7.62 M80 ballistic rounds.

Fabricated as a complete system, typical construction includes a structural steel door leaf and frame, ballistic protection bars, interior/exterior trim, door hardware (locks, hinges, closers, sensors) and a plate or tube-type sub-frame. Maximum Security Doors utilize a flush-style opaque leaf and are available in single or double leaf configurations. The standard 2-1/2" thick door leaf allows for the integration of virtually any type or style of hardware. Harden High Security Doors offer architects and end users:

- **Anti-Terrorism Level Security** – where conformance to U.S. Department of State forced-entry / ballistic resistant threat levels is required
- **Architectural Appeal** – the reinforced steel frame provides the look of a commercial hollow metal door and complements modern architectural design
- **Design Flexibility** – numerous cladding and trim options offer the ability to complement other building materials
- **Ease of Operation** – the use of high quality hinges results in very low pull forces
- **Durability** – structural steel materials and high-quality hardware provide extreme durability and low maintenance throughout the life cycle



In addition to engineering the full door and sub-frame system, Harden has the unique ability to customize styles and finishes, providing architects and engineers with a wide range of flexibility in creating or preserving the aesthetics of new and existing structures.

Standard Features

- Full door system, with all framing and hardware that is factory installed and tested
- Welded structural steel frame
- Pre-drilled and tapped sub-frame in one of three styles 1) embed plate with studs for newly poured concrete walls 2) tubing with chemical or mechanical anchors for existing masonry walls 3) tubing for welding to steel walls
- Ballistic stop bars to protect construction shim gap
- Forced-entry-resistant, low friction stainless steel hinges
- Manually thrown forced entry locks
- Provisions for electric and pneumatic connections
- Accessible terminal block to facilitate field connections

Standard Finish

- Hot-dip galvanized per ASTM A123

Model Comparison Guide				
Harden Model Series	HOP-2133	OPD-2133A	HOP-2133-FIRE	OPD-2133 FIRE
Door Style	Single, opaque	Double, opaque	Single, opaque	Double, opaque
Door Leaf Construction	Welded steel	Welded steel	Welded steel	Welded steel
Leaf Thickness	2-1/2" (64 mm)	2-1/2" (64 mm)	2-1/2" (64 mm)	2-1/2" (64 mm)
Door Frame Construction	Welded steel	Welded steel	Welded steel	Welded steel
Frame Depth	5.88" (149 mm)	5.88" (149 mm)	5.88" (149 mm)	5.88" (149 mm)
Maximum Certified Size	Contact Harden for details			
Mounting Technique	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center	M12 or larger bolts, maximum 12" on center
Ballistic Resistance	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)	5.56 M193, 5.56 M855, 7.62 M80 Per DOS SD-STD-01.01 Rev G (Amended)
Forced Entry Resistance	60 minutes Per DOS SD-STD-01.01 Rev G (Amended)	60 minutes Per DOS SD-STD-01.01 Rev G (Amended)	60 minutes Per DOS SD-STD-01.01 Rev G (Amended)	60 minutes Per DOS SD-STD-01.01 Rev G (Amended)
DOS Code	2133	2133	2333	2333
Blast Resistance	N/A	N/A	N/A	N/A
Fire Rating	N/A	N/A	180 minutes	180 minutes
Hinge Cycle Testing	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1	1.5 million cycles per ANSI/BHMA A156.1
Forced Entry Lock System	Three, manually actuated	Three, manually actuated	Three, manually actuated	Three, manually actuated
Hinges	Two, stainless steel	Two, stainless steel	Three, stainless steel	Three, stainless steel
Additional Notes		One active, one inactive leaf		One active, one inactive leaf

MAXIMUM SECURITY DOORS – DOS 60 MINUTE FE/BR & FIRE

Optional Features

- Door Leaf and Frame:
 - o Door leaf cladding (non-fire-rated doors)
 - o Frame cladding (non-fire-rated doors)
 - o Peephole / door viewer (non-fire-rated doors)
 - Hardware:
 - o Wide variety of complimentary access hardware
 - o Combination and deadbolt locks
 - o Position sensors
 - o Pneumatic closers
 - o Electrical closers
 - o Thumbturn protector
-

Optional Finishes

- Epoxy primer
- Manufacturer's standard powder coat
(Contact Harden for color chart)
- Aluminum cladding; painted, clear or color anodized
or mill finish (non-fire-rated doors)
- Stainless steel cladding (non-fire-rated doors)
- Bronze cladding (non-fire-rated doors)
- Wood veneer cladding (non-fire-rated doors)



Technical Data

Applicable Standards, Testing and Certifications

- Department of State, SD-STD-01.01 Rev. G (Amended): Certification Standard – Forced Entry and Ballistic Resistance of Structural Systems
- ANSI/BHMA A156.1: Butts and Hinges
- ANSI/UL 10B: Fire Tests of Door Assemblies, Tenth Edition

Installation Considerations

- Doors are fully assembled at the factory, and require only minimal preparation prior to installation
- Sub-frames can be shipped in advance of pre-hung door assembly
- Harden performs Factory Acceptance Testing to ensure the selected hardware functions perfectly and that the door fits correctly in the frame
- Three different methods of installation are available depending on the stage and type of wall construction:
 - o Pre-drilled and tapped plate-type embeds cast into concrete
 - o Pre-drilled and tapped steel tube-type sub-frames bolted into the wall
 - o Pre-drilled and tapped steel tube-type sub-frames welded to the wall structure

Maintenance

Regular inspection of door and hardware is required. Hardware not manufactured by Harden may have specific maintenance requirements; refer to manufacturer's literature for information.



Availability & Cost

Door systems are typically manufactured to order and subject to production lead times at the time of purchase. Contact Harden for details.

Warranty

Harden warrants that its Architectural Security products shall remain free of defects in material and workmanship under normal use for a period determined by the individual project specification.



**Harden offers a complete
line of Architectural Security
Products**

- Windows & Deal Trays
- Doors
- Louvers
- Roof/Escape Hatches



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